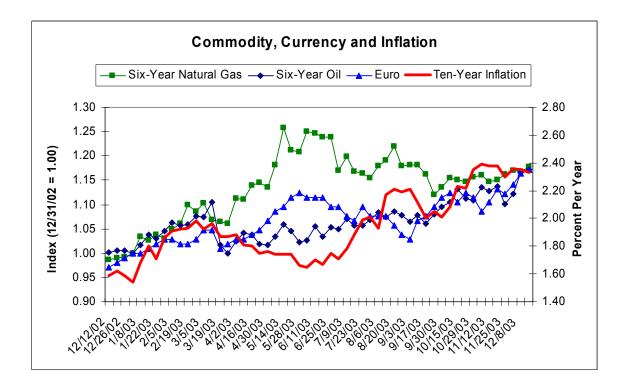
2004: Buy Energy Producers

Summary and Recommendation

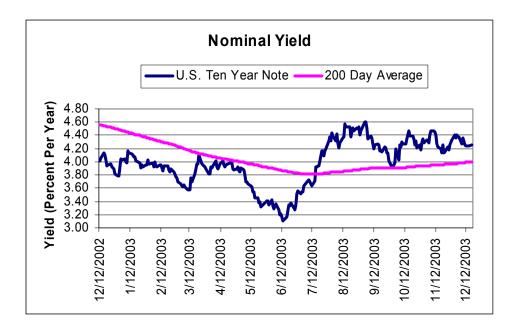
Will 2004 bring growth, inflation or deflation? Judging by bond yields as measured in U.S. Treasury securities of ten-year maturity, inflation expectation was the main winner in 2003 while real growth expectation slipped and deflation anticipation melted. Rising inflation expectation in Treasury securities was matched by rising exchange value of the euro, six-year oil futures and six-year natural gas futures (see chart). Our energy recommendations, offering growth with inflation protection and deflation resistance, seem well-positioned whether or not 2004 brings more of 2003. Having featured separately global producer/refiners, small cap stars and large cap luminaries in each of the past three weeks we call attention to the mega cap, micro risk features of recommended ChevronTexaco (CVX) and Royal Dutch (RD). Also a favorable chart pattern has emerged for 12-month refining crack futures that supports current interest in integrated oil companies.



A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003

Deflation Fear Melts

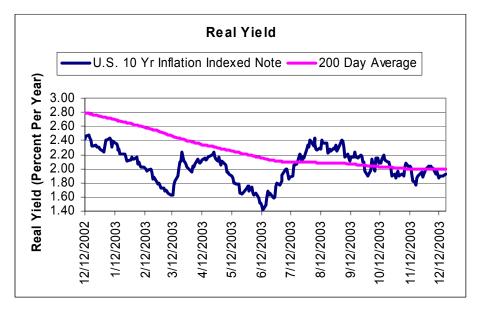
The past does not tell the future, but the recent past tells whether early anticipations materialized. For example, fears of deflation proved to be unrealized in 2003. We draw that conclusion from the upward trend of yield on the U.S. Treasury Ten-Year Note, the benchmark for the investment that offers the most protection from deflation (see chart). The main casualties of deflation would be highly leveraged entities such as the partnerships that we comment on below. The subsiding of deflation fear may have partly accounted for the favorable performance of debt-heavy stocks. Yet, to complicate the interpretation, if interest rates increase too much, it becomes a burden for debt-heavy entities.



Real Growth Prospects Languish

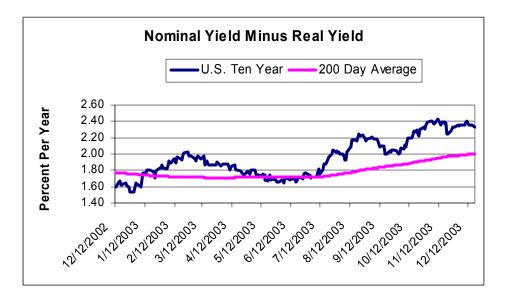
Though the economy has perked up there is little confidence among bond investors that real growth will be lasting. If real growth prospects were stronger, we would expect the real yield on the Ten-Year Inflation Protected Security to rise as bond investors demand a higher real return to compete with other investments. By that rationale, real growth prospects languished in 2003 (see chart).

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003



Economic Gains Expected to be Inflationary rather than Real

Bond investors appear to be betting that current conditions are more like the inflationary 1970s than the real growth 1980s and 1990s. Nominal yield and real yield have diverged with the widening difference attributed to inflation expectation (see chart). Thus, of the three major investment indicators of the future, growth, inflation and deflation, the one that had the strongest trend in 2003 was inflation.



A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003

Currency, Natural Gas and Oil Up with Inflation Expectation

We don't pretend to know any more about currency than we do about bonds, but neither can be ignored. As the chart on the first page indicates, the dollar value of the euro increased more than 15% in the past year as did futures price for the next six years for both natural gas and oil.

The dollar need not continue to decline for inflation to continue. There will likely be some inflation in most currencies, including the euro. Other countries may adopt more inflationary policies to match or partly offset those of the U.S. The three main policy levers we are pulling to stimulate inflation are free money, a trade deficit and a budget deficit.

Mega Cap, Micro Risk

Inflation protection is the strong suit of energy producers. In fact natural gas and oil prices are increasing faster than the consumer price index which includes some components that show no inflation as the government measures it.

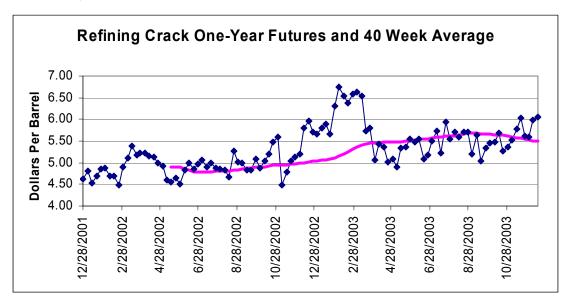
What if we are pleasantly surprised that more of the apparent growth in the economy is real and less due to price change? Economic growth may be greater in those parts of the world that are just beginning to use more energy in automobiles and air conditioning and where coal is being displaced by natural gas and oil. Surprising growth means stronger demand, lagging supply and stronger pricing until supply catches up. Mega cap energy companies are also heavily represented in the refining/marketing business where a price increase contributes a disproportionate increase in margin.

What if deflation fears return in 2004? Should the decline in the dollar accelerate uncontrollably, the Federal Reserve may find it necessary to increase interest rates to stabilize the currency. That would probably signal the end of the current economic expansion and threaten the reelection of President Bush. In that event investors can be reassured that mega cap energy companies with little debt are among the strongest entities in the global economy.

Refining Crack Improving

A change in the trend of 12-month refining crack futures may favor new commitments to the stocks of recommended mega caps or producer/refiners. Latest weekly quotes moved above the 40-week moving average as was the case a year ago. Traditional oil analysts like to talk about a seasonal cycle for refining stocks that starts about now and peaks in the spring. It looks like those sentiments are being captured in the time series (see Chart).

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003



Our data has also improved as the New York Mercantile Exchange is again trading a full 12 months of gasoline futures. Some months were not traded as New York and Connecticut instituted a ban on the oxygenate additive, methyl tertiary butyl ether (MTBE). The exchange decided that gasoline futures would relate to the current variety of fuel that will continue to be available on the New Jersey side of New York Harbor.

El Paso Announces Partial Sale of Gulfterra Energy Partners

In a complex transaction, unitholders of GTM will become unitholders of **Enterprise Products Partners (EPD)**. GTM will cease to exist as a public company although EP will continue to own half of the general partner (GP) in the GTM properties. As we understand it, unitholders of EPD will own the other half of the GP in GTM thereby eliminating the maximum 50% claim that the GP had on GTM distributions.

We have been outspoken in our distaste for the 50% arrangement that is not only too high on an economic basis, but also disguised in the accounting statements of the partnership. EPD has taken the moral high ground for pipeline partnerships by limiting its top compensation to 25%.

The new combination will still be highly leveraged and therefore weak on the deflation resistance we would like to see in buy recommended energy stocks. EP and GTM have been among the most creative in hiding debt.

Sell recommended GTM has gone up, rather than down, in stock price. We regret any opportunity loss any client experienced as a result.

Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003

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

			Price			Net		
	~		(\$/sh)	~*	Market	Present	Debt/	
	Symbol/		15-Dec	Shares	Cap	Value	Present	McDep
•	Ra	ting	2003	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap	7/01/		27.00	((50	251 000	25.00	0.10	1.07
Exxon Mobil Corporation	XOM		37.80	6,652	251,000	35.00	0.10	1.07
Total S.A.	TOT		86.17	1,261	108,700	85.00	0.19	1.01
BP plc	BP	-	45.60	3,682	168,000	50.00	0.15	0.93
Royal Dutch/Shell	RD	В	47.94	3,473	167,000	55.00	0.18	0.89
ChevronTexaco Corporation	CVX	В	78.95	1,064	84,000	95.00	0.20	0.86
Total or Median					779,000		0.18	0.93
Producer/Refiners - Large Cap and)	61.0 2	0.2		5 0.00	0.04	
Murphy Oil Corporation	MUR		61.92	93	5,750	50.00	0.24	1.18
Imperial Oil Limited (30%)	IMO		41.25	111	4,580	36.00	0.14	1.13
OAO Lukoil	LUKOY		91.25	210	19,000	90.00	0.11	1.01
ENI S.p.A.	E		90.41	755	68,300	90.00	0.18	1.00
Petro-Canada	PCZ		45.04	265	11,940	45.00	0.14	1.00
Valero Energy Corporation	VLO		44.49	120	5,330	50.00	0.45	0.94
Petroleo Brasileiro S. A.	PBR		26.86	1,096	29,400	30.00	0.35	0.93
Norsk Hydro ASA (49%)	NHY		58.76	126	7,400	65.00	0.24	0.93
Suncor Energy	SU		22.57	475	10,720	25.00	0.15	0.92
ConocoPhillips	COP	В	60.25	680	41,000	70.00	0.38	0.91
PetroChina Company Ltd (10%)	PTR	В	43.26	176	7,610	50.00	0.11	0.88
Marathon Oil Corporation	MRO	В	30.49	310	9,450	40.00	0.31	0.84
Total or Median					220,000		0.21	0.93
Independent Natural Gas and Oil								
Pogo Producing Company	PPP		47.00	64	3,010	42.00	0.12	1.11
CNOOC Limited (19%)	CEO	В	41.85	78	3,270	40.00	-	1.05
XTO Energy Inc.	XTO	В	27.20	186	5,070	26.00	0.24	1.04
Apache Corporation	APA		76.08	162	12,300	75.00	0.23	1.01
Occidental Petroleum Corp.	OXY		39.87	391	15,600	40.00	0.31	1.00
Unocal Corporation	UCL		34.54	273	9,400	40.00	0.33	0.91
Pioneer Natural Resources Company			29.98	119	3,570	35.00	0.31	0.90
Canadian Natural Resources Limited	_		45.34	137	6,210	55.00	0.40	0.89
Encana Corporation	ECA	В	37.64	470	17,700	45.00	0.22	0.87
Anadarko Petroleum Corp.	APC	В	48.03	251	12,100	60.00	0.31	0.86
Burlington Resources	BR	В	53.31	201	10,700	65.00	0.25	0.86
Devon Energy	DVN		54.51	241	13,100	70.00	0.36	0.86
Total or Median					112,000		0.28	0.90
Service								
Baker Hughes Inc.	BHI		30.50	336	10,200	25.00	0.08	1.20
Halliburton Company	HAL		24.66	435	10,700	22.00	0.33	1.08
Schlumberger Ltd.	SLB		50.19	585	29,400	50.00	0.19	1.00
Total or Median					50,000		0.19	1.08

Buy/Sell rating after symbol: B - Buy, S - 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 16, 2003

Table 1-2
Energy Producers
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price (\$/sh)	EV/	EV/		ridend or tribution	PV/
	Symbol/		15-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2003	NTM	NTM	NTM	(%)	NTM
Mega Cap								
Total S.A.	TOT		86.17	1.2	8.3	17	4.1	8.2
Exxon Mobil Corporation	XOM		37.80	1.1	8.0	16	2.6	7.5
BP plc	BP		45.60	0.8	7.6	17	3.4	8.2
Royal Dutch/Shell	RD	В	47.94	1.1	7.1	17	4.2	7.9
ChevronTexaco Corporation	CVX	В	78.95	0.9	6.2	12	3.7	7.1
Median				1.1	7.6	17	3.7	7.9
Producer/Refiners - Large Cap and								
Murphy Oil Corporation	MUR		61.92	1.7	8.8	26	1.3	7.5
Imperial Oil Limited (30%)	IMO		41.25	1.3	8.8	19	1.6	7.8
Suncor Energy	SU		22.57	2.7	7.9	16	0.7	8.6
Valero Energy Corporation	VLO		44.49	0.3	7.4	12	1.1	7.9
OAO Lukoil	LUKOY	_	91.25	1.1	6.7	14	2.8	6.6
ConocoPhillips	COP	В	60.25	0.7	6.5	10	2.9	7.1
ENI S.p.A.	Е	_	90.41	1.5	5.9	13	4.9	5.9
Marathon Oil Corporation	MRO	В	30.49	0.4	5.6	13	3.3	6.7
Petro-Canada	PCZ		45.04	1.6	5.1	17	0.7	5.1
Norsk Hydro ASA (49%)	NHY		58.76	0.9	4.9	15	2.4	5.3
PetroChina Company Ltd (10%)	PTR	В	43.26	2.6	4.7	10	4.7	5.3
Petroleo Brasileiro S. A.	PBR		26.86	1.6	4.4	5	3.8	4.7
Median				1.4	6.2	13	2.6	6.7
Independent Natural Gas and Oil	CEO	ъ	41.05	<i>5.</i> 4	6.0	1.4	2.0	
CNOOC Limited (19%)	CEO	В	41.85	5.4	6.9	14	3.8	6.6
XTO Energy Inc.	XTO	В	27.20	4.9	6.8	13	0.1	6.5
Burlington Resources	BR	В	53.31	4.0	5.8	15	1.1	6.8
Occidental Petroleum Corp.	OXY		39.87	2.5	5.6	10	2.6	5.6
Unocal Corporation	UCL		34.54	2.5	5.6	15	2.3	6.2
Pioneer Natural Resources Company		ъ	29.98	4.2	5.6	16	-	6.2
Encana Corporation	ECA	В	37.64	2.6	5.6	16	0.8	6.4
Apache Corporation	APA	ъ	76.08	3.7	5.5	12	0.6	5.4
Anadarko Petroleum Corp.	APC	В	48.03	3.8	5.4	10	1.2	6.3
Canadian Natural Resources Limited	_		45.34	3.4	4.9	13	1.0	5.5
Devon Energy	DVN		54.51	3.0	4.7	9	-	5.5
Pogo Producing Company	PPP		47.00	3.2	4.7	12	0.4	4.2
Median				3.6	5.6	13	0.9	6.2
Service	DIII		20.50	2.0	11.1	20	1.7	0.2
Baker Hughes Inc.	BHI		30.50	2.0	11.1	28	1.5	9.3
Halliburton Company	HAL		24.66	0.9	11.1	22	2.0	10.3
Schlumberger Ltd.	SLB		50.19	2.6	9.2	31	1.5	9.2
Median				2.0	11.1	28	1.5	9.3

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2004; P/E = Stock Price to

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 16, 2003

Table 2-1
Energy Pipeline and Power Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price		16.1.	Net	D 1./	
	G 1	1/	(\$/sh)	CI.	Market	Present	Debt/	14.0
	Symbo		15-Dec 2003	Shares	Cap	Value (\$/sh)	Present Value	McDep Ratio
	Rat	ing	2003	(mm)	(\$mm)	(\$/SN)	vaiue	Kano
Large Cap Power								
Duke Energy Corporation	DUK		19.06	832	15,900	16.00	0.69	1.06
Southern Company	SO		29.60	696	20,600	28.00	0.43	1.03
Exelon Corporation	EXC		62.90	325	20,400	65.00	0.51	0.98
Enel S.p.a. (32%)	EN		32.89	388	12,800	37.00	0.40	0.94
American Electric Power Co. Inc.	AEP		28.36	348	9,900	35.00	0.60	0.92
Dominion Resources	D		61.00	294	17,900	76.00	0.44	0.89
Total or Median					97,500		0.47	0.96
Mid Cap Pipeline and Power								
Kinder Morgan Energy Partners, L.P.	KMP	S	44.26	140	6,200	14.00	0.46	2.17
Kinder Morgan Management, LLC	KMR	S	38.90	48	1,860	14.00	0.46	1.96
Kinder Morgan, Inc.	KMI	S	54.88	124	6,830	14.00	0.80	1.59
Williams Companies	WMB		9.70	518	5,020	1.00	0.97	1.27
Constellation Energy Group	CEG		37.20	164	6,100	25.00	0.61	1.19
AES Corporation	AES		8.39	558	4,680	1.00	0.98	1.14
Dynegy Inc.	DYN		3.88	418	1,620	1.00	0.97	1.09
Calpine Corporation	CPN		4.19	381	1,600	1.00	0.98	1.08
CMS Energy Corporation	CMS		7.92	139	1,100	5.00	0.93	1.04
Sempra Energy	SRE		28.65	206	5,900	30.00	0.59	0.98
El Paso Corporation	EP		7.32	589	4,300	10.00	0.79	0.94
Total or Median					45,210		0.80	1.14
Small Cap Pipeline								
Enterprise Products Part (44%)	EPD		23.01	96	2,210	8.50	0.49	1.88
Enbridge Energy Partners, L.P.	EEP	S	49.62	39	1,940	19.00	0.57	1.70
Gulfterra Energy Partners	GTM	S	40.20	66	2,650	17.30	0.48	1.69
Plains All Amer. Pipeline, L.P.	PAA		32.10	50	1,610	15.00	0.44	1.64
Enbridge Energy Management, L.L.C	EEQ	S	46.92	10	460	19.00	0.57	1.62
TEPPCO Partners, L.P.	TPP		40.62	58	2,360	18.00	0.52	1.61
Magellan Midstream Partners, L.P.	MMP		50.61	27	1,380	29.00	0.38	1.46
Northern Border Partners	NBP		38.01	47	1,770	20.00	0.62	1.34
AmeriGas Partners, L.P.	APU		27.71	52	1,450	20.00	0.46	1.21
Western Gas Resources	WGR		45.25	37	1,670	40.00	0.20	1.10
Total or Median					17,500		0.48	1.61

Buy/Sell rating after symbol: B - Buy, S - 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 16, 2003

Table 3-1
Independent Natural Gas and Oil Producers - Small Cap
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price (\$/sh)		Market	Net Present	Debt/	
	Symbol/		15-Dec	Shares	Cap	Value	Present	McDep
		Rating		(mm)	(\$mm)	(\$/sh)	Value	Ratio
Short Life								
Southwestern Energy Company	SWN		22.00	36.0	790	17.00	0.33	1.20
Spinnaker Exploration Company	SKE		29.41	33.9	1,000	25.00	0.09	1.16
Newfield Exploration Company	NFX		43.25	51.7	2,240	40.00	0.31	1.06
Energy Partners Ltd.	EPL	В	12.72	38.6	491	12.00	0.22	1.05
Cimarex Energy Company	XEC	В	26.85	42.0	1,130	27.00	0.00	0.99
Westport Resources Corporation	WRC		28.84	68.0	1,960	30.00	0.28	0.97
Chesapeake Energy Corporation	CHK		12.80	220	2,820	14.00	0.41	0.95
Denbury Resources Inc.	DNR		13.31	55.7	740	15.00	0.31	0.92
Stone Energy Company	SGY		40.19	26.5	1,070	46.00	0.27	0.91
Forest Oil Corporation	FST		26.78	48.2	1,290	35.00	0.33	0.84
Range Resources Corporation	RRC		8.86	57.0	510	12.00	0.37	0.83
The Houston Exploraton Company	THX		35.95	31.0	1,110	45.00	0.16	0.83
St. Mary Land and Exploration Compa	nr SM		26.47	29.0	770	35.00	0.14	0.79
Total or Media	n .				15,900		0.28	0.95
Long Life								
Ultra Petroleum Corp.	UPL		21.50	78.0	1,680	13.00	0.10	1.59
Unit Corporation	UNT		22.35	43.7	980	18.00	0.02	1.24
Penn Virginia Corporation	PVA		54.40	9.1	500	45.00	0.21	1.17
Quicksilver Resources Inc.	KWK		31.25	20.4	640	25.00	0.35	1.16
Evergreen Resources, Inc.	EVG		31.03	44.0	1,370	30.00	0.16	1.03
Swift Energy Company	SFY		16.07	27.4	440	16.00	0.45	1.00
Berry Petroleum Company	BRY		19.92	22.1	440	20.00	0.13	1.00
Encore Acquisition Corp.	EAC	В	23.01	30.3	698	24.00	0.17	0.97
Magnum Hunter Resources, Inc.	MHR		9.21	69.0	640	11.00	0.45	0.91
Vintage Petroleum, Inc.	VPI		11.40	63.0	720	20.00	0.40	0.74
Total or Media	n				8,100		0.19	1.02
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.14	35.8	41	1.00	0.84	1.02
Purcell Energy, Ltd. (US\$)	PEL.TO		1.93	48.0	92	2.80	0.28	0.77

Buy/Sell rating after symbol: B - Buy, S - 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 16, 2003

Table 3-2
Independent Natural Gas and Oil Producers - Small Cap
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price			Dividend or		
			(\$/sh)	EV/	EV/	Dis	tribution	PV/
	Symbol/		15-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2003	NTM	NTM	NTM	(%)	NTM
Short Life								
Southwestern Energy Company	SWN		22.00	3.4	6.1	12	-	5.1
Forest Oil Corporation	FST		26.78	3.5	5.4	14	-	6.4
Spinnaker Exploration Company	SKE		29.41	4.5	5.0	15	-	4.4
Energy Partners Ltd.	EPL	В	12.72	2.8	4.6	22	-	4.4
Chesapeake Energy Corporation	CHK		12.80	3.5	4.5	9	0.9	4.7
Denbury Resources Inc.	DNR		13.31	3.0	4.5	8	-	4.9
Cimarex Energy Company	XEC	В	26.85	3.4	4.4	11	-	4.4
Westport Resources Corporation	WRC		28.84	3.2	4.2	11	-	4.3
Range Resources Corporation	RRC		8.86	3.1	4.0	7	0.5	4.7
St. Mary Land and Exploration Company	y SM		26.47	2.5	3.9	11	0.4	4.9
Stone Energy Company	SGY		40.19	2.9	3.8	8	-	4.2
Newfield Exploration Company	NFX		43.25	2.9	3.7	7	-	3.5
The Houston Exploraton Company	THX		35.95	2.8	3.3	8	-	4.0
Median				3.1	4.4	11	-	4.4
Long Life								
Ultra Petroleum Corp.	UPL		21.50	12.0	15.8	27	-	9.9
Berry Petroleum Company	BRY		19.92	3.8	8.7	19	2.2	8.7
Quicksilver Resources Inc.	KWK		31.25	5.1	7.5	14	-	6.4
Evergreen Resources, Inc.	EVG		31.03	5.3	7.2	12	-	7.0
Unit Corporation	UNT		22.35	3.1	7.1	17	-	5.7
Penn Virginia Corporation	PVA		54.40	3.5	6.3	14	1.7	5.4
Swift Energy Company	SFY		16.07	3.9	5.9	16	-	5.9
Magnum Hunter Resources, Inc.	MHR		9.21	3.3	5.6	13	-	6.1
Encore Acquisition Corp.	EAC	В	23.01	3.6	5.0	10	-	5.2
Vintage Petroleum, Inc.	VPI		11.40	2.2	4.0	16	1.4	5.4
Median				3.7	6.7	15	-	6.0
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.14	7.4	12.4		-	12.1
Purcell Energy, Ltd. (US\$)	PEL.TO		1.93	3.7	5.3	11	-	6.8

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