A Weekly Analysis of Energy Stocks Using the McDep Ratio September 25, 2003

## A New Currency Warning

#### **Summary and Recommendation**

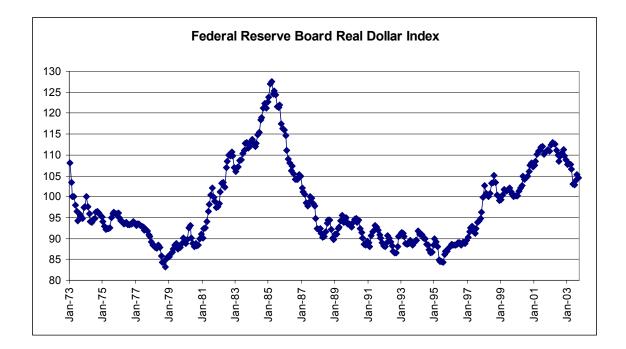
A renewed weakening of the dollar supports our case for energy investment though the fluctuating exchange value of the dollar is less of a concern to long-term investors than the persistently declining purchasing power of the dollar. Federal Reserve data show that after adjusting for consumer price inflation, the exchange value of dollar for the past thirty years has fluctuated from 15% below to 30% above the mean index value. In contrast Bureau of Labor Statistics data on the Consumer Price Index show that the dollar has lost 77% of its purchasing power over the same thirty-year period. Oil and gas stocks, particularly non- U.S. recommendations, diversify exchange value risk and provide inflation protection. At the same time a weakening dollar might also add further incentive for **Royal Dutch (RD)**, a non-U.S recommendation, to buy recommended **Anadarko (APC)** as suggested by press reports. We think that could be a good deal for both parties at an Anadarko stock price of \$60 per share.

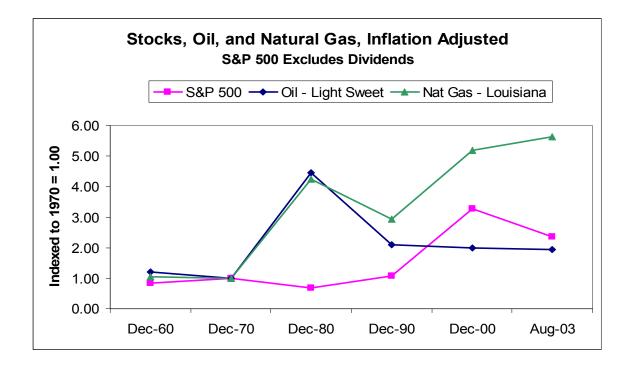
#### Setting Up for an Energy Price Surprise

Trade, fiscal and monetary conditions seem to be aligning for sharp energy price moves over the next few years. Volatile exchange rates may be symptomatic of unstable conditions. The dollar went down in the 1970s, a time when energy prices went up. The dollar recovered in the 1980s, a time when energy prices declined. Despite the fluctuations, the real exchange value of the dollar has not shown much of a trend up or down (see Chart).

Dollar inflation risk seems to be greater than dollar exchange rate risk. The dollar has held its exchange value in part because other currencies have also lost value through price inflation. As a result, inflation protection is even more important than exchange rate protection. Since 1970 oil has offered inflation protection comparable to the stock market without dividends with oil way ahead in the 1970s and stocks way ahead in the 1990s (see Chart). Looking to the future we think we are in a period where oil will deliver valuable inflation protection. Natural gas, our cleanest fuel, appears likely to continue to offer even better inflation protection than oil.

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### *Meter Reader* A Weekly Analysis of Energy Stocks Using the McDep Ratio September 25, 2003

#### **Currency May Make Anadarko More Tempting to Royal Dutch**

Euro-based companies might see dollar-based companies more attractive for acquisition at today's higher rate for the euro or lower rate for the dollar. The London Sunday Times reports that recommended Royal Dutch may be contemplating a bid of \$19.5 billion for recommended Anadarko.

Our price for the possible deal is our net present value of \$60 a share. That would be a McDep Ratio of 1.0. The price could be as low as \$55 and still be within a margin of error for our estimate. The total value of the supposed deal reported in the newspaper implies a price of about \$49 a share. As a result the newspaper story is plausible, but we would expect the final price to be higher.

In McDep analysis we estimate total present value of about \$22.2 billion. Thus, the hypothetical \$19.5 billion deal implies a McDep Ratio of about 0.88. If the buyer were to increase the total payment by 14%, the ultimate takeover would be priced at present value, or a McDep Ratio of 1.0.

Where can one find \$22.2 billion in our valuation tables? It takes some calculation. We print net present value of \$60.00 per share, shares of 252 million and a ratio of Debt/Present Value of 0.32 (see Table 1-1). \$60.00 times 252 million divided by (1.00-0.32) equals \$22.2 billion.

How do we get a price per share for \$19.5 billion quoted by the London newspaper? One approach estimates Debt at \$7.1 billion. (\$22.2 billion of present value times 0.32 equals \$7.1 billion.) Subtract Debt from \$19.5 billion to derive \$12.4 billion for equity. Divide that by 252 million shares and the newspaper quote works out to about \$49 a share.

#### Anadarko Makes Strategic Sense for Royal Dutch

If Royal Dutch were to acquire Anadarko, is that negative for our buy recommendation of RD? We believe that producing property acquisitions are strategically valuable for a company that can tap vastly unused debt capacity at a time that oil and gas assets appear to be in a multi-year upward revaluation.

As a current and prospective leader in the development of liquefied natural gas, Royal Dutch also has a strong reason to bolster its holdings of the conventional resource in North America. LNG, like nuclear power at one time, looks most promising as a future energy source. Yet, by the time all those billions are invested, costs may be much higher as a result of regulatory complications and inflation. Our experience tells us that the better that LNG appears to be, the better that the conventional resource really is.

### Kurt H. Wulff, CFA

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

	Price				Net				
			(\$/sh)		Market	Present Debt/			
	Symbol/		24-Sep	Shares	Cap	Value	Present	McDep	
	Ra	Rating		(mm)	(\$mm)	(\$/sh)	Value	Ratio	
Mega Cap									
Exxon Mobil Corporation	XOM		36.90	6,687	247,000	35.00	0.10	1.05	
Total S.A.	TOT		76.84	1,276	98,000	85.00	0.19	0.92	
BP plc	BP		42.65	3,694	158,000	50.00	0.15	0.87	
Royal Dutch/Shell	RD	В	45.00	3,473	156,000	55.00	0.18	0.85	
ChevronTexaco Corporation	CVX	В	72.33	1,064	77,000	95.00	0.22	0.82	
Total or Median					736,000		0.18	0.87	
Producer/Refiners - Large Cap and	l Mid Ca	р							
Murphy Oil Corporation	MUR		59.83	92	5,530	41.00	0.26	1.34	
Imperial Oil Limited (30%)	IMO		37.81	113	4,290	36.00	0.12	1.04	
Petro-Canada	PCZ		40.35	265	10,690	45.00	0.19	0.92	
Norsk Hydro ASA (49%)	NHY		52.74	126	6,670	60.00	0.27	0.91	
OAO Lukoil	LUKOY	7	77.60	206	16,000	90.00	0.12	0.88	
Valero Energy Corporation	VLO		37.70	114	4,300	50.00	0.50	0.88	
ENI S.p.A.	Е		77.15	750	57,900	90.00	0.14	0.88	
ConocoPhillips	COP	В	55.75	681	38,000	70.00	0.38	0.87	
Petroleo Brasileiro S. A.	PBR		22.44	1,096	24,600	30.00	0.25	0.81	
Marathon Oil Corporation	MRO	В	28.35	310	8,790	40.00	0.31	0.80	
Suncor Energy	SU		18.66	476	8,880	25.00	0.14	0.78	
PetroChina Company Ltd (10%)	PTR	В	32.85	176	5,780	50.00	0.11	0.70	
Total or Median					186,000		0.19	0.88	
Independent Natural Gas and Oil									
Pogo Producing Company	PPP		45.94	65	2,960	38.00	0.22	1.16	
Occidental Petroleum Corp.	OXY		35.11	383	13,500	35.00	0.38	1.00	
Apache Corporation	APA		69.09	159	11,000	70.00	0.20	0.99	
Encana Corporation	ECA	В	37.01	472	17,500	40.00	0.20	0.94	
XTO Energy Inc.	XTO	В	21.27	184	3,910	24.00	0.25	0.91	
Unocal Corporation	UCL		31.69	255	8,100	40.00	0.35	0.87	
Burlington Resources	BR	В	48.48	202	9,800	60.00	0.27	0.86	
Devon Energy	DVN		49.14	163	8,000	65.00	0.42	0.86	
CNOOC Limited (19%)	CEO	В	34.15	78	2,670	40.00	-	0.86	
Anadarko Petroleum Corp.	APC	В	44.16	252	11,100	60.00	0.32	0.82	
Pioneer Natural Resources Company			25.50	119	3,040	35.00	0.33	0.82	
Canadian Natural Resources Limited	CNQ		40.68	139	5,660	55.00	0.29	0.82	
Total or Median					97,000		0.28	0.86	
Service									
Baker Hughes Inc.	BHI		30.87	339	10,500	25.00	0.09	1.22	
Schlumberger Ltd.	SLB		50.93	581	29,600	44.00	0.22	1.12	
Halliburton Company	HAL		25.01	434	10,800	22.00	0.25	1.10	

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 September 25, 2003

#### Table 1-2 Energy Producers

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

	Price					Dividend or			
			(\$/sh)	EV/	EV/		tribution	PV/	
	Symbol/		24-Sep	Sales	Ebitda	P/E	NTM	Ebitda	
	R	ating	2003	NTM	NTM	NTM	(%)	NTM	
Mega Cap									
Exxon Mobil Corporation	XOM		36.90	1.2	7.6	15	2.7	7.3	
BP plc	BP		42.65	0.8	6.9	15	3.7	7.9	
Total S.A.	TOT		76.84	1.1	6.7	12	4.6	7.3	
ChevronTexaco Corporation	CVX	В	72.33	0.9	6.6	12	4.0	8.1	
Royal Dutch/Shell	RD	В	45.00	1.0	6.2	12	4.4	7.3	
Median				1.0	6.7	12	4.0	7.3	
Producer/Refiners - Large Cap and	l Mid Caj	р							
Murphy Oil Corporation	MUR		59.83	1.7	10.8	39	1.3	8.1	
Imperial Oil Limited (30%)	IMO		37.81	1.2	7.7	14	1.5	7.4	
Suncor Energy	SU		18.66	2.3	6.4	11	0.7	8.1	
ConocoPhillips	COP	В	55.75	0.7	6.0	9	2.9	6.8	
Marathon Oil Corporation	MRO	В	28.35	0.4	5.4	13	3.5	6.8	
Valero Energy Corporation	VLO		37.70	0.3	4.8	5	1.1	5.5	
Petro-Canada	PCZ		40.35	1.4	4.5	11	0.7	4.9	
ENI S.p.A.	Е		77.15	1.7	4.1	9	5.5	4.7	
PetroChina Company Ltd (10%)	PTR	В	32.85	2.2	3.9	8	6.2	5.5	
Petroleo Brasileiro S. A.	PBR		22.44	1.4	3.7	5	3.8	4.6	
OAO Lukoil	LUKOY	r	77.60	1.1	3.7	6	2.5	4.2	
Norsk Hydro ASA (49%)	NHY		52.74	0.8	3.6	10	2.8	4.0	
Median				1.3	4.6	9	2.7	5.5	
Independent Natural Gas and Oil									
XTO Energy Inc.	XTO	В	21.27	5.3	8.6	21	0.2	9.4	
Pioneer Natural Resources Company	PXD		25.50	5.2	7.0	23	-	8.6	
Occidental Petroleum Corp.	OXY		35.11	2.5	6.7	12	3.0	6.7	
Apache Corporation	APA		69.09	4.6	6.4	15	0.6	6.5	
Pogo Producing Company	PPP		45.94	3.9	6.1	18	0.3	5.2	
CNOOC Limited (19%)	CEO	В	34.15	4.5	5.9	12	4.7	6.9	
Burlington Resources	BR	В	48.48	3.8	5.7	13	1.2	6.6	
Anadarko Petroleum Corp.	APC	В	44.16	3.7	5.6	10	0.9	6.8	
Unocal Corporation	UCL		31.69	2.1	5.5	15	2.5	6.4	
Encana Corporation	ECA	В	37.01	2.4	5.0	13	0.8	5.3	
Devon Energy	DVN		49.14	3.0	4.6	7	-	5.3	
Canadian Natural Resources Limited	CNQ		40.68	2.3	3.7	7	1.0	4.5	
Median				3.8	5.8	13	0.8	6.6	
Service									
Baker Hughes Inc.	BHI		30.87	2.2	13.1	37	1.5	10.8	
Schlumberger Ltd.	SLB		50.93	2.7	10.0	37	1.5	8.9	
Halliburton Company	HAL		25.01	1.2	9.9	22	2.0	9.0	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciationand amortization; NTM = Next Twelve Months Ended September 30, 2004; 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 September 25, 2003

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

		Price			Net		
		(\$/sh)		Market	Present	Debt/	
	Symbol/	24-Sep	Shares	Cap	Value	Present	McDep
	Rating	g 2003	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Large Cap Power							
Duke Energy Corporation	DUK	17.91	832	14,900	16.00	0.69	1.04
Southern Company	SO	28.71	696	20,000	28.00	0.43	1.01
Exelon Corporation	EXC	61.63	325	20,000	65.00	0.51	0.97
American Electric Power Co. Inc.	AEP	28.65	348	10,000	35.00	0.60	0.93
Enel S.p.a. (32%)	EN	31.09	388	12,100	37.00	0.40	0.91
Dominion Resources	D	60.62	294	17,800	76.00	0.44	0.89
Total or Median				94,800		0.47	0.95
Mid Cap Pipeline and Power							
Kinder Morgan Energy Partners, L.P.	KMP S	42.09	138	5,790	14.00	0.47	2.07
Kinder Morgan Management, LLC	KMR S	37.20	46	1,710	14.00	0.47	1.88
Kinder Morgan, Inc.	KMI S	53.63	123	6,600	14.00	0.80	1.56
Williams Companies	WMB	9.25	518	4,790	1.00	0.97	1.26
Constellation Energy Group	CEG	35.84	164	5,880	25.00	0.61	1.17
AES Corporation	AES	7.06	558	3,940	1.00	0.98	1.12
Calpine Corporation	CPN	5.06	381	1,930	1.00	0.98	1.10
Dynegy Inc.	DYN	3.75	418	1,570	1.00	0.97	1.09
CMS Energy Corporation	CMS	7.69	139	1,070	5.00	0.93	1.04
Sempra Energy	SRE	29.49	206	6,070	30.00	0.59	0.99
El Paso Corporation	EP	7.80	589	4,600	10.00	0.79	0.95
Total or Median				43,950		0.80	1.12
Small Cap Pipeline							
Enterprise Products Part (44%)	EPD	22.85	96	2,190	8.50	0.49	1.87
Enbridge Energy Partners, L.P.	EEP S		39	1,910	19.00	0.57	1.68
Gulfterra Energy Partners	GTM S		55	2,220	15.70	0.56	1.68
Enbridge Energy Management, L.L.C	EEQ S	44.39	9	420	19.00	0.57	1.58
Plains All Amer. Pipeline, L.P.	PAA	30.48	50	1,520	15.00	0.44	1.57
TEPPCO Partners, L.P.	TPP	35.27	58	2,050	18.00	0.52	1.46
Northern Border Partners	NBP	43.05	47	2,000	20.00	0.62	1.44
Magellan Midstream Partners, L.P.	MMP	46.29	27	1,260	29.00	0.38	1.37
AmeriGas Partners, L.P.	APU	25.02	52	1,310	20.00	0.46	1.14
Western Gas Resources	WGR	38.49	37	1,420	40.00	0.27	0.97
Total or Median				64,850		0.54	1.45
Coal							
Arch Coal	ACI	22.34					
Peabody Energy	BTU	31.40		Update			
Massey Energy	MEE	13.72					
Penn Virginia Res. Part, L.P.	PVR	29.20			Pending		
Consol Energy Inc.	CNX	18.95					
Alliance Res. Part, L.P.	ARLP	28.96					
Total or Median							

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

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

	Symbol/ Rating		Price (\$/sh) 24-Sep 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Short Life	DIGD		1 - 0 -		1.00	12.00		
Dorchester Minerals, L.P.	DMLP		17.07	27.0	460	13.00	-	1.31
Southwestern Energy Company	SWN		17.28	36.0	620	17.00	0.30	1.01
Newfield Exploration Company	NFX	р	37.93	51.7	1,960	40.00	0.31	0.96
Energy Partners Ltd.	EPL	В	11.33	37.3	422	12.00	0.26	0.96
Spinnaker Exploration Company	SKE		23.91	33.8	810	25.00	-	0.96
Denbury Resources Inc.	DNR		12.50	55.0	690	15.00	0.29	0.88
Stone Energy Company	SGY		38.50	26.5	1,020	46.00	0.27	0.88
Chesapeake Energy Corporation	CHK		10.78	220	2,370	14.00	0.38	0.86
Wesport Resources Corporation	WRC		23.54	68.0	1,600	30.00	0.29	0.85
Cimarex Energy Company	XEC		20.20	41.0	830	24.00	0.03	0.85
The Houston Exploraton Company	THX		36.01	31.0	1,120	45.00	0.16	0.83
St. Mary Land and Exploration Compar	•		26.25	29.0	760	35.00	0.11	0.78
Forest Oil Corporation	FST		23.05	48.2	1,110	35.00	0.33	0.77
Total or Median	ı				13,800		0.27	0.88
Long Life	UDI		14.00	70.0	1 1 7 0	7.00	0.15	1.07
Ultra Petroleum Corp.	UPL		14.80	78.0	1,150	7.00	0.15	1.95
Unit Corporation	UNT		19.80	43.6	860	18.00	0.04	1.10
Quicksilver Resources Inc.	KWK		24.76	20.4	510	25.00	0.35	0.99
Penn Virginia Corporation	PVA		44.16	9.0	400	45.00	0.06	0.98
Swift Energy Company	SFY		14.57	27.2	400	16.00	0.43	0.95
Evergreen Resources, Inc.	EVG	р	27.50	44.0	1,210	30.00	0.10	0.92
Encore Acquisition Corp. (40%)	EAC	В	19.58	11.2	219	24.00	0.18	0.85
Magnum Hunter Resources, Inc.	MHR		7.95	69.0	550	11.00	0.45	0.85
Vintage Petroleum, Inc.	VPI		10.80	63.0	680	20.00	0.40	0.73
Total or Median	ı				6,000		0.18	0.95
Canadian Royalty Trusts	EDE		25 (1	027	2 1 4 0	20.00	0.16	1.24
Enerplus Resources Fund	ERF		25.61 7.81	83.7	2,140 540	20.00	0.16	1.24 1.23
Provident Energy Trust	PVX			68.8		6.00	0.25	
Pengrowth Energy Trust	PGH	р	12.80	112.0	1,430	11.00	0.20	1.13
Canadian Oil Sands Trust (US\$)	COSWF	В	28.95	86.3	2,500	45.00	0.19	0.71
Total or Median Natural Gas Royalty Trusts	ı				6,600		0.19	1.18
	UCT		19.13	18.4	250	14.60		1 2 1
Hugoton RoyaltyTrust (46%) Cross Timbers Royalty Trust	HGT CRT		20.70	18.4 6.0	350 124	14.60	-	1.31 1.12
	-	в	20.70	6.0 46.6	830	18.40	-	1.12
San Juan Basin Royalty Trust	SJT	Б	17.88	40.0	830	17.30	-	1.03
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.98	30.0	29	1.00	0.85	0.99
Purcell Energy, Ltd. (US\$)	PEL.TO		1.85	27.9	52	2.80	0.32	0.77
- area 20065, 200. (054)			1.00	27.2	52	2.00	0.52	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

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#### 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	stribution	PV/
	Symbol/		24-Sep	Sales	Ebitda	P/E	NTM	Ebitda
	Ra	ting	2003	NTM	NTM	NTM	(%)	NTM
		0					. ,	
Short Life								
Dorchester Minerals, L.P.	DMLP		17.07	8.1	10.2	13	8.9	7.7
Southwestern Energy Company	SWN		17.28	3.0	6.2	13	-	6.1
Forest Oil Corporation	FST		23.05	3.5	5.7	20	-	7.5
Chesapeake Energy Corporation	CHK		10.78	3.9	5.6	13	1.1	6.6
Energy Partners Ltd.	EPL	В	11.33	3.2	5.4	29	-	5.6
Wesport Resources Corporation	WRC		23.54	3.7	5.2	16	-	6.1
Cimarex Energy Company	XEC		20.20	3.2	4.6	13	-	5.4
St. Mary Land and Exploration Compan	y SM		26.25	3.0	4.6	13	0.4	5.9
Denbury Resources Inc.	DNR		12.50	3.1	4.3	9	-	4.9
Stone Energy Company	SGY		38.50	3.0	4.1	9	-	4.6
Newfield Exploration Company	NFX		37.93	2.9	3.7	8	-	3.9
Spinnaker Exploration Company	SKE		23.91	3.2	3.7	14	-	3.8
The Houston Exploraton Company	THX		36.01	3.0	3.6	9	-	4.4
Mediar	ı			3.2	4.6	13	-	5.6
Long Life								
Ultra Petroleum Corp.	UPL		14.80	13.1	21.2	42	-	10.9
Evergreen Resources, Inc.	EVG		27.50	7.2	10.3	18	-	11.2
Unit Corporation	UNT		19.80	3.6	8.5	22	-	7.7
Quicksilver Resources Inc.	KWK		24.76	4.8	7.2	14	-	7.3
Swift Energy Company	SFY		14.57	4.4	6.7	25	-	7.0
Magnum Hunter Resources, Inc.	MHR		7.95	3.3	5.8	16	-	6.8
Penn Virginia Corporation	PVA		44.16	3.0	5.6	15	2.0	5.7
Encore Acquisition Corp. (40%)	EAC	В	19.58	3.6	5.2	11	-	6.2
Vintage Petroleum, Inc.	VPI		10.80	2.4	4.4	38	1.5	6.1
Mediar	ı			3.6	6.7	18	-	7.0
Canadian Royalty Trusts								
Enerplus Resources Fund	ERF		25.61	6.8	9.1	14	12.5	7.4
Pengrowth Energy Trust	PGH		12.80	4.7	7.0	14	13.3	6.2
Canadian Oil Sands Trust (US\$)	COSWF	В	28.95	3.6	6.6	7	5.0	9.3
Provident Energy Trust	PVX		7.81	4.1	5.9	13	16.6	4.8
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		20.70	7.2	10.4	11	9.3	9.3
Hugoton RoyaltyTrust (46%)	HGT		19.13	6.8	9.4	11	9.2	7.1
San Juan Basin Royalty Trust	SJT	В	17.88	6.5	8.0	9	10.6	7.7
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.98	6.9	13.2		-	13.3
Purcell Energy, Ltd. (US\$)	PEL.TO		1.85	3.5	5.4	18	-	6.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciationand amortization; NTM = Next Twelve Months Ended September 30, 2004; P/E = Stock Price toEarnings; PV = Present Value of oil and gas and other businesses