

Raise Present Value for Independent Producers

Summary and Recommendation

Recommended **Encana Corporation (ECA)**, **Burlington Resources (BR)** and **Anadarko (APC)** appear to be among the most attractive of large cap independent natural gas and oil producers particularly as we raise our estimate of present value for ECA and BR. While recommended **CNOOC Ltd (CEO)** (commonly pronounced sea knock) and **XTO Energy (XTO)** have been top performers in stock price compared to peers, their McDep Ratios remain reasonable particularly after we raise our estimate of present value for XTO. In addition, we raise present value for peer companies **Occidental Petroleum (OXY)**, **Devon Energy (DVN)**, **Apache Corporation (APA)** and **Pogo Producing (PPP)**. In the era ahead of higher energy prices that we expect, pure producers are likely to increase more in stock price than the integrated mega caps. The main risk may be unpredictable weather in the form of a warm winter that could dampen energy commodity price temporarily.

Present Value the Standard of Comparison for Enterprise Value

Present value is our proxy for what the energy resources of a company may be worth. When that is compared to Enterprise Value we get the McDep Ratio. We tend to pick our recommendations from stocks that have lower McDep Ratios, like 0.8 or less. We are unlikely to have official buy recommendations of stocks with McDep Ratios higher than 1.2. We believe that low McDep Ratio stocks outperform high McDep Ratio stocks on an unlevered basis. We have seen many examples of that being the case as well as many exceptions in the twenty years we have been applying it.

Net present value, the levered form, has the convenience of being expressed on a per share basis that can be compared directly with stock price. Net present value is simply gross present value minus debt and then divided by shares outstanding.

After recent analysis taking account of latest futures prices and financial and operating data through the quarter ended September 30, 2003, we have revised upward our estimate of net present value for seven stocks in the independent producer peer group of 12 large cap and mid cap issues (see Table).

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

November 13, 2003

Independent Natural Gas and Oil Producers Change in Net Present Value

			<i>Price</i>	<i>Net</i>	<i>Net</i>	
			<i>(\$/sh)</i>	<i>Present</i>	<i>Present</i>	
	<i>Symbol/</i>		<i>12-Nov</i>	<i>Value</i>	<i>Value</i>	<i>Change</i>
	<i>Rating</i>		<i>2003</i>	<i>12-Nov</i>	<i>5-Nov</i>	<i>(%)</i>
Apache Corporation	APA		70.95	75	70	7
Anadarko Petroleum Corp.	APC	B	43.35	60	60	-
Burlington Resources	BR	B	48.56	65	60	8
CNOOC Limited (19%)	CEO	B	38.10	40	40	-
Canadian Natural Resources Limited	CNQ		41.92	55	55	-
Devon Energy	DVN		49.73	70	65	8
Encana Corporation	ECA	B	34.94	45	40	13
Occidental Petroleum Corp.	OXY		36.02	40	35	14
Pogo Producing Company	PPP		43.40	42	38	11
Pioneer Natural Resources Company	PXD		26.94	35	35	-
Unocal Corporation	UCL		31.26	40	40	-
XTO Energy Inc.	XTO	B	24.29	26	24	8
Median						7

Our latest work pushes ECA and BR to the more undervalued end of the spectrum along with APC (see Table 1-1). The whole group may offer somewhat better value than mega caps.

Update the Market Cash Flow Multiple

Here is a brief description of a method for estimating present value that starts with information from the latest voluminous disclosures for a peer group of 12 large cap (including some mid cap) exploration and production companies. The discussion glosses over much of the detail and uses some language of statistical analysis that is not familiar to all.

Projecting cash flow, Ebitda, for the next twelve months we build in little volume increase or decrease from the latest quarterly rate adjusted for known deviations. That gives us the denominator of the market cash flow multiple. The numerator, EV for Enterprise Value is current stock market cap and debt.

The main consideration in evaluating the market cash flow multiple for a natural gas and oil producer is how long the cash flow, or production, will last. Currently, there is a remarkably high correlation, 71%, of market cash flow multiple with adjusted reserve life. The linear relationship is that EV/Ebitda equals 2.7 plus 0.27 times adjusted reserve

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life. The adjustment we use is to weight undeveloped reserves at half of developed reserves.

Use Reserve Life in Assessing Present Value Cash Flow Multiple

Believing that the market tends to be short-term oriented, we give adjusted reserve life slightly more weight in calculating what the cash flow multiple “should” be. The resulting estimates imply a higher correlation, 76%, of present value cash flow multiple with adjusted reserve life. That formula is PV/Ebitda equals 2.6 plus 0.36 times adjusted reserve life. Once we have the present value cash flow multiple we can estimate present value as the product of the multiple and cash flow.

There is room for the producers multiples to be assessed higher. The current estimates are slightly lower than for royalty trusts after considering reserve life. We calculate present value more rigorously for three royalty trusts.

The median present value multiple for independents could be more than a full multiple point higher to match mega caps. For the mega caps, the median reserve life is 10.3 years while the median present value multiple is 7.5 (Table 1-3). The independents have a median reserve life of 9.3 years that might imply a present value multiple of perhaps 7.1 rather than 6.1 as is the case now.

One can get a more practical, visual feel for the results by mentally comparing PV/Ebitda multiple in the fourth numerical column of Table 1-3 with Adjusted Reserves/Prod in the third numerical column of Table 1-3. The independent producers are ranked by reserve life. If the correlation were perfect the present value cash flow multiples would follow in the same order.

The stock that appears most out of line, OXY, also has a different mix of business. OXY has low concentration on North American natural gas as a percent of cash flow and it has chemical operations whose value would have no relationship to reserve life. Those characteristics are different enough that the stock does not fit the statistical model as closely.

Kurt H. Wulff, CFA

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A Weekly Analysis of Energy Stocks Using the McDep Ratio

November 13, 2003

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

	Symbol/ Rating	Price (\$/sh) 12-Nov 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap							
Exxon Mobil Corporation	XOM	36.02	6,652	240,000	35.00	0.10	1.03
Total S.A.	TOT	78.49	1,276	100,100	85.00	0.19	0.94
BP plc	BP	42.60	3,682	157,000	50.00	0.15	0.87
Royal Dutch/Shell	RD B	44.67	3,473	155,000	55.00	0.18	0.85
ChevronTexaco Corporation	CVX B	74.71	1,064	79,500	95.00	0.20	0.83
<i>Total or Median</i>				<i>732,000</i>		<i>0.18</i>	<i>0.87</i>
Producer/Refiners - Large Cap and Mid Cap							
Murphy Oil Corporation	MUR	58.69	92	5,420	41.00	0.26	1.32
Imperial Oil Limited (30%)	IMO	39.85	113	4,520	36.00	0.12	1.09
Norsk Hydro ASA (49%)	NHY	58.10	126	7,350	60.00	0.27	0.98
OAo Lukoil	LUKOY	85.90	210	18,000	90.00	0.11	0.96
Petro-Canada	PCZ	42.20	265	11,180	45.00	0.19	0.95
Valero Energy Corporation	VLO	43.25	114	4,930	50.00	0.50	0.93
ENI S.p.A.	E	80.70	750	60,500	90.00	0.14	0.91
ConocoPhillips	COP B	57.06	682	38,900	70.00	0.38	0.89
Suncor Energy	SU	21.48	474	10,180	25.00	0.14	0.88
Petroleo Brasileiro S. A.	PBR	24.25	1,096	26,600	30.00	0.25	0.86
Marathon Oil Corporation	MRO B	29.20	310	9,050	40.00	0.31	0.81
PetroChina Company Ltd (10%)	PTR B	35.90	176	6,310	50.00	0.11	0.75
<i>Total or Median</i>				<i>203,000</i>		<i>0.22</i>	<i>0.92</i>
Independent Natural Gas and Oil							
Pogo Producing Company	PPP	43.40	64	2,780	42.00	0.12	1.03
Apache Corporation	APA	70.95	162	11,500	75.00	0.23	0.96
CNOOC Limited (19%)	CEO B	38.10	78	2,970	40.00	-	0.95
XTO Energy Inc.	XTO B	24.29	186	4,530	26.00	0.24	0.95
Occidental Petroleum Corp.	OXY	36.02	391	14,100	40.00	0.31	0.93
Canadian Natural Resources Limited	CNQ	41.92	137	5,740	55.00	0.40	0.86
Unocal Corporation	UCL	31.26	273	8,500	40.00	0.33	0.85
Pioneer Natural Resources Company	PXD	26.94	119	3,210	35.00	0.31	0.84
Encana Corporation	ECA B	34.94	470	16,400	45.00	0.22	0.83
Devon Energy	DVN	49.73	241	12,000	70.00	0.36	0.81
Burlington Resources	BR B	48.56	201	9,800	65.00	0.25	0.81
Anadarko Petroleum Corp.	APC B	43.35	251	10,900	60.00	0.31	0.81
<i>Total or Median</i>				<i>102,000</i>		<i>0.28</i>	<i>0.85</i>
Service							
Baker Hughes Inc.	BHI	29.32	339	9,900	25.00	0.09	1.15
Halliburton Company	HAL	23.92	434	10,400	22.00	0.25	1.07
Schlumberger Ltd.	SLB	46.69	581	27,100	44.00	0.22	1.05

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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A Weekly Analysis of Energy Stocks Using the McDep Ratio

November 13, 2003

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

	Symbol/ Rating	Price (\$/sh) 12-Nov 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
Mega Cap							
Exxon Mobil Corporation	XOM	36.02	1.1	7.7	15	2.8	7.5
BP plc	BP	42.60	0.8	7.2	16	3.7	8.2
Total S.A.	TOT	78.49	1.1	6.9	13	4.5	7.3
Royal Dutch/Shell	RD B	44.67	1.0	6.7	16	4.6	7.9
ChevronTexaco Corporation	CVX B	74.71	0.9	5.9	11	3.9	7.1
	<i>Median</i>		<i>1.0</i>	<i>6.9</i>	<i>15</i>	<i>3.9</i>	<i>7.5</i>
Producer/Refiners - Large Cap and Mid Cap							
Murphy Oil Corporation	MUR	58.69	1.7	10.6	38	1.4	8.1
Suncor Energy	SU	21.48	3.0	8.2	17	0.7	9.3
Imperial Oil Limited (30%)	IMO	39.85	1.2	8.1	15	1.4	7.4
OAOLukoil	LUKOY	85.90	1.0	6.5	13	3.0	6.8
ConocoPhillips	COP B	57.06	0.6	6.1	9	3.0	6.9
Marathon Oil Corporation	MRO B	29.20	0.4	5.2	11	3.4	6.4
Valero Energy Corporation	VLO	43.25	0.3	5.1	6	0.9	5.5
Petro-Canada	PCZ	42.20	1.5	4.7	12	0.7	4.9
ENI S.p.A.	E	80.70	1.7	4.2	9	5.3	4.7
PetroChina Company Ltd (10%)	PTR B	35.90	2.3	4.1	8	5.7	5.4
Petroleo Brasileiro S. A.	PBR	24.25	1.5	4.0	6	3.5	4.6
Norsk Hydro ASA (49%)	NHY	58.10	0.9	3.9	11	2.6	4.0
	<i>Median</i>		<i>1.3</i>	<i>5.2</i>	<i>11</i>	<i>2.8</i>	<i>5.9</i>
Independent Natural Gas and Oil							
XTO Energy Inc.	XTO B	24.29	4.6	6.3	12	0.2	6.6
CNOOC Limited (19%)	CEO B	38.10	4.8	6.1	12	4.2	6.5
Burlington Resources	BR B	48.56	3.7	5.5	13	1.2	6.7
Encana Corporation	ECA B	34.94	2.4	5.3	15	0.9	6.4
Pioneer Natural Resources Company	PXD	26.94	3.9	5.2	15	-	6.2
Apache Corporation	APA	70.95	3.5	5.1	11	0.7	5.3
Unocal Corporation	UCL	31.26	2.3	5.1	12	2.6	6.0
Anadarko Petroleum Corp.	APC B	43.35	3.6	5.0	9	1.3	6.2
Occidental Petroleum Corp.	OXY	36.02	2.3	5.0	8	2.9	5.4
Canadian Natural Resources Limited	CNQ	41.92	3.2	4.6	11	1.1	5.3
Devon Energy	DVN	49.73	2.8	4.4	8	-	5.4
Pogo Producing Company	PPP	43.40	2.9	4.2	11	0.5	4.1
	<i>Median</i>		<i>3.4</i>	<i>5.1</i>	<i>11</i>	<i>1.0</i>	<i>6.1</i>
Service							
Baker Hughes Inc.	BHI	29.32	2.1	12.4	35	1.6	10.8
Halliburton Company	HAL	23.92	1.1	9.6	21	2.1	9.0
Schlumberger Ltd.	SLB	46.69	2.5	9.3	34	1.6	8.9

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

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Table 1-3
Energy Producers
Determinants of Present Value

	<i>Symbol/ Rating</i>	<i>NG & O Prod/ Ebitda (%)</i>	<i>N. Am. Gas/ Ebitda (%)</i>	<i>Adjusted Reserves/ Prod NTM</i>	<i>PV/ Ebitda NTM</i>	<i>EV/ Mcf</i>	<i>McDep Ratio 12-Nov 2003</i>
Mega Cap							
Total S.A.	TOT	74	1	9.3	7.3	1.28	0.94
Royal Dutch/Shell	RD B	73	5	9.7	7.9	1.06	0.85
BP plc	BP	81	12	10.3	8.2	1.35	0.87
ChevronTexaco Corporation	CVX B	76	11	10.5	7.1	0.85	0.83
Exxon Mobil Corporation	XOM	71	10	11.1	7.5	1.34	1.03
	<i>Median</i>	<i>74</i>	<i>10</i>	<i>10.3</i>	<i>7.5</i>	<i>1.28</i>	<i>0.87</i>
Producer/Refiners - Large Cap and Mid Cap							
Valero Energy Corporation	VLO	-	-		5.5		0.93
Petro-Canada	PCZ	78	22	7.0	4.9	0.95	0.95
Murphy Oil Corporation	MUR	91	32	7.7	8.1	3.86	1.32
Marathon Oil Corporation	MRO B	67	23	8.8	6.4	0.78	0.81
Norsk Hydro ASA (49%)	NHY	68	-	10.0	4.0	0.90	0.98
ENI S.p.A.	E	63	-	10.1	4.7	0.81	0.91
ConocoPhillips	COP B	75	16	11.2	6.9	0.85	0.89
Petroleo Brasileiro S. A.	PBR	88	-	11.3	4.6	0.53	0.86
Imperial Oil Limited (30%)	IMO	73	18	11.4	7.4	1.27	1.09
PetroChina Company Ltd (10%)	PTR B	78	-	16.0	5.4	0.51	0.75
Suncor Energy	SU	90	9	19.0	9.3	0.81	0.88
OAOLukoil	LUKOY	39	-	20.0	6.8	0.04	0.96
	<i>Median</i>	<i>74</i>	<i>5</i>	<i>11.2</i>	<i>5.9</i>	<i>0.81</i>	<i>0.92</i>
Independent Natural Gas and Oil							
Pogo Producing Company	PPP	100	32	5.8	4.1	2.26	1.03
Canadian Natural Resources Limited	CNQ	100	48	7.2	5.3	1.23	0.86
Devon Energy	DVN	100	65	7.5	5.4	1.56	0.81
Apache Corporation	APA	100	43	8.1	5.3	1.85	0.96
Unocal Corporation	UCL	100	32	8.4	6.0	1.48	0.85
Encana Corporation	ECA B	98	69	9.0	6.4	1.12	0.83
XTO Energy Inc.	XTO B	100	87	9.5	6.6	1.97	0.95
Anadarko Petroleum Corp.	APC B	100	58	10.1	6.2	1.23	0.81
Pioneer Natural Resources Company	PXD	100	63	10.3	6.2	1.15	0.84
Burlington Resources	BR B	100	70	10.4	6.7	1.16	0.81
CNOOC Limited (19%)	CEO B	100	-	10.7	6.5	1.79	0.95
Occidental Petroleum Corp.	OXY	89	17	10.9	5.4	1.26	0.93
	<i>Median</i>	<i>100</i>	<i>53</i>	<i>9.3</i>	<i>6.1</i>	<i>1.37</i>	<i>0.85</i>

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November 13, 2003

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

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 12-Nov 2003</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>
Large Cap Power							
Duke Energy Corporation	DUK	17.45	832	14,500	16.00	0.69	1.03
Southern Company	SO	29.25	696	20,400	28.00	0.43	1.03
Exelon Corporation	EXC	62.53	325	20,300	65.00	0.51	0.98
Enel S.p.a. (32%)	EN	31.85	388	12,400	37.00	0.40	0.92
American Electric Power Co. Inc.	AEP	27.50	348	9,600	35.00	0.60	0.91
Dominion Resources	D	60.96	294	17,900	76.00	0.44	0.89
	<i>Total or Median</i>			<i>95,100</i>		<i>0.47</i>	<i>0.95</i>
Mid Cap Pipeline and Power							
Kinder Morgan Energy Partners, L.P.	KMP S	43.60	140	6,110	14.00	0.46	2.14
Kinder Morgan Management, LLC	KMR S	38.50	48	1,840	14.00	0.46	1.94
Kinder Morgan, Inc.	KMI S	52.92	124	6,580	14.00	0.80	1.56
Williams Companies	WMB	9.18	518	4,760	1.00	0.97	1.26
Constellation Energy Group	CEG	36.50	164	5,990	25.00	0.61	1.18
AES Corporation	AES	9.06	558	5,060	1.00	0.98	1.16
Dynegy Inc.	DYN	3.97	418	1,660	1.00	0.97	1.09
Calpine Corporation	CPN	4.56	381	1,740	1.00	0.98	1.08
CMS Energy Corporation	CMS	7.90	139	1,100	5.00	0.93	1.04
Sempra Energy	SRE	27.90	206	5,750	30.00	0.59	0.97
El Paso Corporation	EP	7.04	589	4,100	10.00	0.79	0.94
	<i>Total or Median</i>			<i>44,690</i>		<i>0.80</i>	<i>1.16</i>
Small Cap Pipeline							
Enterprise Products Part (44%)	EPD	22.09	96	2,120	8.50	0.49	1.82
Enbridge Energy Partners, L.P.	EEP S	51.50	39	2,010	19.00	0.57	1.74
Gulfterra Energy Partners	GTM S	40.19	66	2,640	17.30	0.48	1.68
Enbridge Energy Management, L.L.C	EEQ S	47.28	10	470	19.00	0.57	1.64
Plains All Amer. Pipeline, L.P.	PAA	30.68	50	1,530	15.00	0.44	1.58
TEPPCO Partners, L.P.	TPP	38.85	58	2,250	18.00	0.52	1.56
Magellan Midstream Partners, L.P.	MMP	50.65	27	1,380	29.00	0.38	1.46
Northern Border Partners	NBP	41.10	47	1,910	20.00	0.62	1.40
AmeriGas Partners, L.P.	APU	26.95	52	1,410	20.00	0.46	1.19
Western Gas Resources	WGR	42.88	37	1,590	40.00	0.27	1.05
	<i>Total or Median</i>			<i>17,310</i>		<i>0.48</i>	<i>1.57</i>

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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A Weekly Analysis of Energy Stocks Using the McDep Ratio

November 13, 2003

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

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 12-Nov 2003</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>	
Short Life								
Dorchester Minerals, L.P.	DMLP	17.65	27.0	480	13.00	-	1.36	
Southwestern Energy Company	SWN	19.68	36.0	710	17.00	0.30	1.11	
Spinnaker Exploration Company	SKE	25.31	33.8	860	25.00	-	1.01	
Newfield Exploration Company	NFX	40.55	51.7	2,100	40.00	0.31	1.01	
Energy Partners Ltd.	EPL	B	11.95	38.2	456	12.00	0.22	1.00
Westport Resources Corporation	WRC	26.90	68.0	1,830	30.00	0.29	0.93	
Chesapeake Energy Corporation	CHK	11.93	220	2,620	14.00	0.38	0.91	
Denbury Resources Inc.	DNR	11.85	55.0	650	15.00	0.29	0.85	
Stone Energy Company	SGY	35.89	26.5	950	46.00	0.27	0.84	
Cimarex Energy Company	XEC	B	22.25	42.0	940	27.00	0.00	0.82
Forest Oil Corporation	FST	25.12	48.2	1,210	35.00	0.33	0.81	
The Houston Exploraton Company	THX	34.30	31.0	1,060	45.00	0.16	0.80	
St. Mary Land and Exploration Company	SM	26.03	29.0	760	35.00	0.14	0.78	
<i>Total or Median</i>				<i>14,600</i>		<i>0.27</i>	<i>0.91</i>	
Long Life								
Ultra Petroleum Corp.	UPL	19.94	78.0	1,560	7.00	0.15	2.58	
Unit Corporation	UNT	20.00	43.6	870	18.00	0.04	1.11	
Quicksilver Resources Inc.	KWK	28.66	20.4	590	25.00	0.35	1.10	
Penn Virginia Corporation	PVA	45.55	9.0	410	45.00	0.06	1.01	
Evergreen Resources, Inc.	EVG	27.93	44.0	1,230	30.00	0.10	0.94	
Swift Energy Company	SFY	14.20	27.2	390	16.00	0.43	0.94	
Encore Acquisition Corp. (40%)	EAC	B	21.60	11.2	242	24.00	0.18	0.92
Magnum Hunter Resources, Inc.	MHR	8.65	69.0	600	11.00	0.45	0.88	
Vintage Petroleum, Inc.	VPI	10.74	63.0	680	20.00	0.40	0.72	
<i>Total or Median</i>				<i>6,600</i>		<i>0.18</i>	<i>0.94</i>	
Canadian Royalty Trusts								
Enerplus Resources Fund	ERF	28.15	83.7	2,360	20.00	0.16	1.34	
Provident Energy Trust	PVX	8.26	68.8	570	6.00	0.25	1.28	
Pengrowth Energy Trust	PGH	13.96	112.0	1,560	11.00	0.20	1.22	
Canadian Oil Sands Trust (US\$)	COSWF	B	29.70	86.3	2,560	45.00	0.22	0.73
<i>Total or Median</i>				<i>7,100</i>		<i>0.21</i>	<i>1.25</i>	
Natural Gas Royalty Trusts								
Hugoton Royalty Trust (46%)	HGT	20.01	18.4	370	15.00	-	1.33	
Cross Timbers Royalty Trust	CRT	25.35	6.0	152	20.00	-	1.27	
Sabine Royalty Trust	SBR	27.30	14.6	400	22.00	-	1.24	
Permian Basin RT (41%)	PBT	8.15	19.1	160	7.00	-	1.17	
San Juan Basin Royalty Trust	SJT	B	18.45	46.6	860	17.30	-	1.07
<i>Total or Median</i>				<i>1,900</i>		<i>-</i>	<i>1.24</i>	
Micro Cap								
Abraxas Petroleum Corporation	ABP	1.00	30.0	30	1.00	0.85	1.00	
Purcell Energy, Ltd. (US\$)	PEL.TO	1.91	27.9	53	2.80	0.32	0.78	

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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Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

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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.

	Symbol/ Rating	Price (\$/sh) 12-Nov 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
Short Life								
Dorchester Minerals, L.P.	DMLP	17.65	11.5	13.3	48	7.5	9.8	
Southwestern Energy Company	SWN	19.68	3.2	6.6	14	-	6.0	
Chesapeake Energy Corporation	CHK	11.93	4.1	5.9	14	1.0	6.5	
Forest Oil Corporation	FST	25.12	3.6	5.8	19	-	7.2	
Westport Resources Corporation	WRC	26.90	3.9	5.5	17	-	6.0	
Energy Partners Ltd.	EPL	B	11.95	2.8	4.9	44	-	4.9
St. Mary Land and Exploration Company	SM	26.03	2.8	4.3	15	0.4	5.5	
Cimarex Energy Company	XEC	B	22.25	3.1	4.2	12	-	5.1
Denbury Resources Inc.	DNR	11.85	2.9	4.1	8	-	4.8	
Newfield Exploration Company	NFX	40.55	2.9	3.8	8	-	3.8	
Spinnaker Exploration Company	SKE	25.31	3.3	3.8	14	-	3.7	
Stone Energy Company	SGY	35.89	2.8	3.8	8	-	4.5	
The Houston Exploraton Company	THX	34.30	2.8	3.4	8	-	4.3	
	<i>Median</i>		<i>3.1</i>	<i>4.3</i>	<i>14</i>	<i>-</i>	<i>5.1</i>	
Long Life								
Ultra Petroleum Corp.	UPL	19.94	17.0	27.4	54	-	10.6	
Evergreen Resources, Inc.	EVG	27.93	7.1	10.1	18	-	10.8	
Unit Corporation	UNT	20.00	3.6	8.4	21	-	7.6	
Quicksilver Resources Inc.	KWK	28.66	5.1	7.7	15	-	7.0	
Swift Energy Company	SFY	14.20	4.2	6.4	22	-	6.9	
Magnum Hunter Resources, Inc.	MHR	8.65	3.4	5.8	15	-	6.6	
Penn Virginia Corporation	PVA	45.55	3.1	5.7	15	2.0	5.6	
Encore Acquisition Corp. (40%)	EAC	B	21.60	3.4	4.8	10	-	5.2
Vintage Petroleum, Inc.	VPI	10.74	2.3	4.3	26	1.5	5.9	
	<i>Median</i>		<i>3.6</i>	<i>6.4</i>	<i>18</i>	<i>-</i>	<i>6.9</i>	
Canadian Royalty Trusts								
Enerplus Resources Fund	ERF	28.15	7.3	9.8	15	11.4	7.3	
Canadian Oil Sands Trust (US\$)	COSWF	B	29.70	4.0	8.0	9	5.1	10.9
Pengrowth Energy Trust	PGH	13.96	4.9	7.2	14	12.8	5.9	
Provident Energy Trust	PVX	8.26	4.2	6.0	13	15.7	4.7	
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT	25.35	8.3	11.9	12	8.2	9.4	
Sabine Royalty Trust	SBR	27.30	9.7	10.2	10	9.8	8.3	
Hugoton RoyaltyTrust (46%)	HGT	20.01	7.4	10.1	12	8.5	7.6	
Permian Basin RT (41%)	PBT	8.15	6.0	9.4	13	9.2	8.0	
San Juan Basin Royalty Trust	SJT	B	18.45	6.9	8.5	11	9.4	8.0
Micro Cap								
Abraxas Petroleum Corporation	ABP	1.00	6.8	12.6		-	12.6	
Purcell Energy, Ltd. (US\$)	PEL.TO	1.91	3.5	5.2	17	-	6.7	

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

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A Weekly Analysis of Energy Stocks Using the McDep Ratio

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Table 3-3
Independent Natural Gas and Oil Producers - Small Cap
Determinants of Present Value

	Symbol/ Rating	NG & O Prod/ Ebitda (%)	N. Am. Gas/ Ebitda (%)	Adjusted Reserves/ Production NTM	PV/ Ebitda NTM	11/12/03 EV/ Mcfe	McDep Ratio	
Short Life								
Newfield Exploration Company	NFX	100	79	3.8	3.8	3.60	1.01	
Spinnaker Exploration Company	SKE	100	84	3.8	3.7	4.31	1.01	
The Houston Exploraton Company	THX	100	94	5.3	4.3	2.42	0.80	
Energy Partners Ltd.	EPL	B	100	64	5.3	4.9	2.43	1.00
Cimarex Energy Company	XEC	B	100	77	6.2	5.1	2.29	0.82
Stone Energy Company	SGY	100	66	6.4	4.5	2.11	0.84	
St. Mary Land and Exploration Company	SM	100	65	6.8	5.5	1.76	0.78	
Denbury Resources Inc.	DNR	100	46	8.3	4.8	1.52	0.85	
Westport Resources Corporation	WRC	100	69	8.3	6.0	2.02	0.93	
Southwestern Energy Company	SWN	86	69	9.1	6.0	2.29	1.11	
Chesapeake Energy Corporation	CHK	100	92	9.2	6.5	2.06	0.91	
Forest Oil Corporation	FST	100	75	9.6	7.2	1.52	0.81	
Dorchester Minerals, L.P.	DMLP	100	82	10.3	9.8	4.45	1.36	
	<i>Median</i>		75	6.8	5.1	2.29	0.91	
Long Life								
Penn Virginia Corporation	PVA	85	77	10.6	5.6	1.36	1.01	
Unit Corporation	UNT	68	60	10.7	7.6	2.69	1.11	
Magnum Hunter Resources, Inc.	MHR	100	69	11.0	6.6	1.50	0.88	
Swift Energy Company	SFY	100	36	12.0	6.9	1.19	0.94	
Encore Acquisition Corp. (40%)	EAC	B	100	20	12.0	5.2	1.27	0.92
Quicksilver Resources Inc.	KWK	100	85	14.7	7.0	1.47	1.10	
Ultra Petroleum Corp.	UPL	100	94	14.9	10.6	3.52	2.58	
Vintage Petroleum, Inc.	VPI	100	34	15.0	5.9	0.59	0.72	
Evergreen Resources, Inc.	EVG	100	100	20.0	10.8	1.53	0.94	
	<i>Median</i>		69	12.0	6.9	1.47	0.94	
Canadian Royalty Trusts								
Provident Energy Trust	PVX	100	53	5.1	4.7	3.38	1.28	
Pengrowth Energy Trust	PGH	100	39	10.2	5.9	1.70	1.22	
Enerplus Resources Fund	ERF	100	59	10.2	7.3	1.81	1.34	
Canadian Oil Sands Trust (US\$)	COSWF	B	100	(10)	20.0	10.9	0.93	0.73
Natural Gas Royalty Trusts								
Sabine Royalty Trust	SBR	100	67	6.3	8.3	6.00	1.24	
Permian Basin RT (41%)	PBT	100	46	9.0	8.0	3.09	1.17	
Cross Timbers Royalty Trust	CRT	100	74	11.3	9.4	3.36	1.27	
Hugoton RoyaltyTrust (46%)	HGT	100	93	11.9	7.6	2.50	1.33	
San Juan Basin Royalty Trust	SJT	B	100	99	12.1	8.0	2.10	1.07
Micro Cap								
Purcell Energy, Ltd. (US\$)	PEL.TO	100	79	6.6	6.7	1.30	0.78	
Abraxas Petroleum Corporation	ABP	100	74	11.7	12.6	2.36	1.00	

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