



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

Berry Petroleum (BRY) Momentum Resuming

Symbol	BRY	Ebitda Next Twelve Months ending 6/30/13 (US\$m)	645
Rating		North American Natural Gas/Ebitda (%)	6
Price (\$/sh)	40.22	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	7/19/12	Adjusted Reserves/Production NTM	11.8
Shares (mm)	55	EV/Ebitda	5.8
Market Capitalization (\$mm)	2,200	PV/Ebitda	8.4
Debt (\$mm)	1,560	Undeveloped Reserves (%)	47
Enterprise Value (EV) (\$mm)	3,760	Natural Gas and Oil Ebitda (\$/boe)	45.00
Present Value (PV) (\$mm)	5,390	Present Value Proven Reserves(\$/boe)	19.60
Net Present Value (\$/share)	70	Oil and Gas Ebitda Margin (%)	65
Debt/Present Value	0.29	Earnings Next Twelve Months (US\$/sh)	4.06
McDep Ratio - EV/PV	0.70	Price/Earnings Next Twelve Months	10
Dividend Yield (%/year)	0.8	Indicated Annual Dividend (US\$/sh)	0.32
Note: Estimated cash flow and earnings tied to one-year futures prices for natural gas and oil.			
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.			
Estimated present value presumes a long-term price for oil of US\$100 a barrel and natural gas, \$6 a million btu.			
For historical research on Berry since 2004 see http://www.mcdep.com/4bry.htm			

Summary and Recommendation

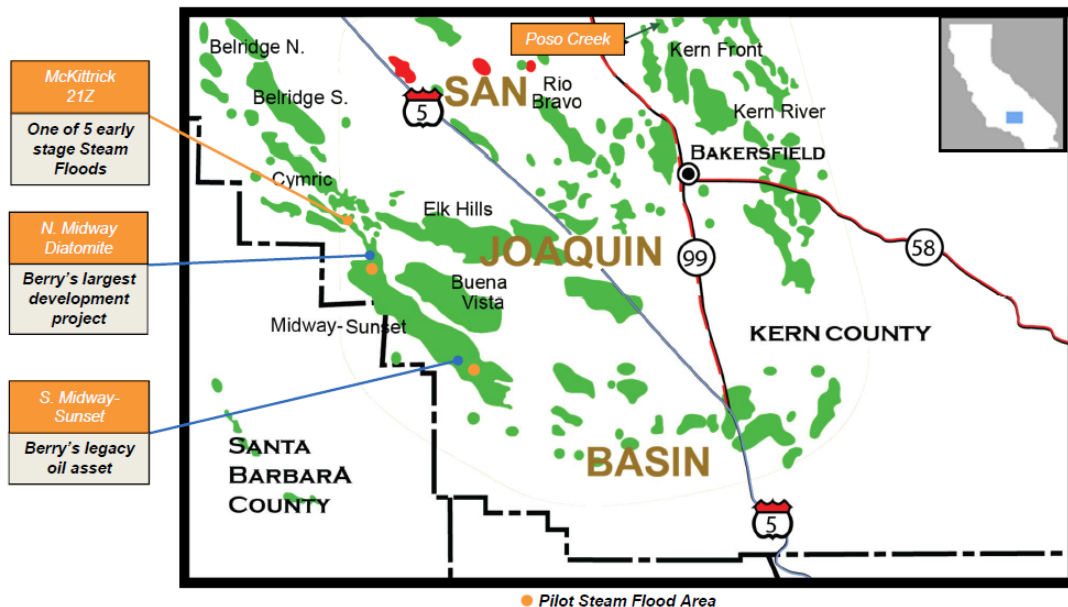
New commitments to U.S. independent oil producer **Berry Petroleum (BRY)** may be timely because upward stock price momentum may be resuming as 21 of 23 income and small cap stocks again trade above 50 day averages (see [Table ISC-4](#) on page 7). On a fundamental basis, BRY stock at a McDep Ratio of 0.70 has appreciation potential to estimated Net Present Value (NPV) of \$70 a share from current stock price of \$40 (see tables [Functional Cash Flow and Present Value](#) on page 2 and [Next Twelve Months Operating and Financial Estimates](#) on page 3). NPV presumes a long term oil price of \$100 a barrel compared to the current quote of \$93 a barrel for the U.S. benchmark and \$110 for the international benchmark, which is more relevant for Berry's California production. Relatively high financial leverage measured by Enterprise Value to Market Cap of 1.71 (see [Table ISC-1](#) on page 4) and Debt/Present Value of 0.29 (see [Table ISC-2](#) on page 5) has inhibited our willingness to make the stock an official Buy. We may be overly cautious considering that the company mitigated financial risk by hedging oil price for 70% of its production this year and 40% in 2013. Underpinning oil value, Berry is the fifth largest producer in California where it has operated for more than 100 years in Midway-Sunset, the fourth largest oil field in the U.S. (see map [California Assets](#) on page 2). Reinvesting all of cash flow, management plans to grow production some 11% a year to 2015 from 2011 with contributions from oil areas in Utah and the Permian Basin of West Texas in addition to California. Chief Executive Robert Heinemann is a capable leader, we believe.

Kurt H. Wulff, CFA

Berry Petroleum Company					
Functional Cash Flow and Present Value					
	NTM Ebitda (US\$mm)	Adjusted R/P	PV/ Ebitda	Present Value (US\$mm)	
North American Natural Gas	40	18.5	17.5	700	13%
Oil	605	10.3	7.7	4,690	87%
	645	11.8	8.4	5,390	100%
Debt (US\$mm)					1,560
Net Present Value (US\$mm)					3,830
Shares (mm)					55
Net Present Value - Standard Estimate (US\$/sh)					70
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					72

Berry's California Assets

~500 MM Barrels of Oil in Place Under Development





Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

Berry Petroleum Company										
Next Twelve Months Operating and Financial Estimates										
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Next
	6/30/11	2011	3/31/12	6/30/12	9/30/12	12/31/12	2012E	3/31/13	6/30/13	Twelve
										Months
										6/30/13
Volume										
Natural Gas (mmcf)	66	65	56	56	56	56	56	56	56	56
Days	91	365	91	91	92	92	366	90	91	365
Oil (mb)	2,239	9,038	2,284	2,421	2,595	2,750	10,050	2,691	2,884	10,919
Oil (mbd)	24.6	24.8	25.1	26.6	28.2	29.9	27.5	29.9	31.7	29.9
Total (mb)	3,238	13,022	3,135	3,272	3,455	3,611	13,473	3,532	3,735	14,332
Total (mbd)	35.6	35.7	34.5	36.0	37.6	39.2	36.8	39.2	41.0	39.3
Price										
Henry Hub (\$/mmbtu)	4.32	4.04	2.73	2.21	2.79	3.06	2.70	3.47	3.47	3.20
Differential (\$/mmbtu)	(0.04)	(0.05)	0.13	0.11	0.13	0.15	0.13	0.16	0.16	0.15
Company (\$/mcf)	4.36	4.09	2.60	2.11	2.66	2.91	2.57	3.31	3.31	3.04
WTI Cushing (\$/bbl)	102.55	95.12	102.93	93.32	87.94	89.47	93.41	90.73	91.36	89.87
Differential	4.89	2.76	5.62	5.10	4.80	4.88	5.43	5.28	5.32	5.03
Company	97.66	92.35	97.31	88.22	83.14	84.58	87.98	85.45	86.04	84.84
Total (\$/bbl)	75.60	71.61	75.13	68.57	66.40	68.59	69.55	69.82	70.96	68.98
Revenue (\$mm)										
Natural Gas	26	98	13	11	14	15	53	17	17	62
Oil	219	835	222	214	216	233	884	230	248	926
Total	245	933	236	224	229	248	937	247	265	989
Expense										
Lease operating	67	272	65	62	64	69	260	69	74	275
General and administrative	16	62	18	16	16	17	67	17	18	69
Total	83	334	83	78	80	86	327	86	92	343
Ebitda	162	599	153	146	150	162	610	161	173	645
Exploration	-	-	3	3	3	3	12	3	3	12
Deprec., Deplet., & Amort.	52	215	48	48	48	48	192	48	48	192
Other, incl hedge	30	84	5	5	5	5	20	5	5	20
Ebit	79	300	97	90	94	106	386	105	117	421
Interest	18	74	20	20	20	20	80	20	20	80
Ebt	61	226	77	70	74	86	306	85	97	341
Income Tax	22	79	27	25	26	30	107	30	34	119
Net Income (\$mm)	40	147	50	46	48	56	199	55	63	222
Per Share (\$)	0.73	2.69	0.91	0.84	0.88	1.02	3.64	1.01	1.15	4.06
Shares (millions)	55	55	55	55	55	55	55	55	55	55
Ebitda Margin	66%	64%	65%	65%	65%	65%	65%	65%	65%	65%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

Table ISC-1											
McDep Income and Small Cap Energy Portfolio											
Debt, Segments, Cash Flow, Income and McDep Ratio											
		Price									
Symbol/Rating		(US\$/sh)	EV/	Enterprise	PV(%)		EV/	Dist.	Dist.		
B = Buy		19-Jul	Market	Value	Nat	Oil	Ebitda	NTM	Yield	McDep	
CB (see below)		2012	Cap	(\$mm)	Gas		NTM	(\$/un)	(%)	Ratio	
Small Cap Independent Producers											
Continental Resources	CLR	76.26	1.17	16,060	27	73	9.0	-	-	1.08	
Range Resources	RRC CB	61.60	1.27	12,550	71	29	13.6	0.16	0.3	0.90	
Peyto Exploration and Developmen	PEYUF	21.12	1.17	3,420	77	23	10.8	0.71	3.4	0.90	
Halcón Resources	HK	8.22	1.08	1,500	20	80	7.3	-	-	0.83	
PDC Energy	PDCE	26.35	1.85	1,160	56	44	7.6	-	-	0.78	
Berry Petroleum Company	BRY	40.22	1.71	3,760	13	87	5.8	0.32	0.8	0.70	
Denbury Resources Inc.	DNR	15.51	1.45	8,780	6	94	5.7	-	-	0.64	
Birchcliff Energy Ltd.	BIREF CB	6.25	1.48	1,390	62	38	9.5	-	-	0.62	
Cimarex Energy Company	XEC CB	59.54	1.20	6,170	42	58	5.3	0.48	0.8	0.59	
Whiting Petroleum Corporation	WLL CB	43.39	1.36	7,030	8	92	4.6	-	-	0.57	
<i>Total or Median</i>							7.4			0.74	
Top Line Cash Payers											
Permian Basin RT	PBT	18.50	1.00	860	37	63		1.32	7.1	0.92	
Freehold Royalties Ltd.	FRHLF	18.97	1.04	1,280	16	84		1.66	8.7	0.91	
Cross Timbers Royalty Trust	CRT	37.35	1.00	220	70	30		2.26	6.1	0.85	
Dorchester Minerals, L.P.	DMLP CB	22.66	1.00	700	57	43		1.84	8.1	0.84	
Sabine Royalty Trust	SBR	54.31	1.00	790	55	45		3.46	6.4	0.84	
<i>Total or Median</i>					3,900				7.1	0.85	
Bottom Line Cash Payers											
Linn Energy, LLC	LINE	40.42	1.60	12,520	40	60	12.6	2.90	7.2	1.19	
Vanguard Natural Resources, LLC	VNR	28.13	1.47	2,170	27	74	10.8	2.37	8.4	1.08	
Legacy Reserves L.P.	LGCY	27.25	1.38	1,780	23	77	8.6	2.22	8.1	0.93	
Enduro Royalty Trust (40%)	NDRO	17.51	1.00	230	42	58	7.6	1.48	8.5	0.83	
San Juan Basin Royalty Trust	SJT CB	16.44	1.00	770	100	-	12.5	1.00	6.1	0.78	
Mesa RoyaltyTrust	MTR	30.48	1.00	57	75	25	13.0	1.89	6.2	0.76	
Enerplus Corporation	ERF CB	13.94	1.62	4,400	26	74	5.7	1.33	9.5	0.76	
Hugoton RoyaltyTrust	HGT	7.24	1.00	290	89	11	7.6	0.11	1.5	0.52	
<i>Total or Median</i>					22,200		9.7		7.7	0.81	
Composite											
<i>Enterprise Value Weighting</i>					87,900	36	64				0.82
<i>Equal Weighting</i>						45	55				0.82
<i>Equal Weighted Buys</i>						46	54				0.72

CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.

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

Present Value (PV) presumes long-term prices of \$100 a barrel for oil and \$6 a million btu for natural gas.

Dist. = Income distribution. NTM = Next Twelve Months Ended June 30, 2013. Enterprise Value = Market Cap and Debt.



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

McDep Income and Small Cap Energy Portfolio								
Net Present Value and McDep Ratio								
			<i>Price</i> (\$/sh)		<i>Market</i>	<i>Net</i>		
	<i>Symbol/</i>		<i>19-Jul</i>	<i>Shares</i>	<i>Cap</i>	<i>Value</i>	<i>Debt/</i>	
	<i>Rating</i>		<i>2012</i>	<i>(mm)</i>	<i>(\$mm)</i>	<i>(\$/un)</i>	<i>Present</i>	
							<i>Value</i>	
							<i>McDep</i>	
							<i>Ratio</i>	
Small Cap Independent Producers								
Continental Resources	CLR		76.26	180.0	13,730	70.00	0.16	1.08
Range Resources	RRC	CB	61.60	160.0	9,860	70.00	0.19	0.90
Peyto Exploration and Development Cor	PEYUF		21.12	138.3	2,920	24.00	0.13	0.90
Halcón Resources	HK		8.22	169.1	1,390	10.00	0.06	0.83
PDC Energy	PDCE		26.35	23.9	630	40.00	0.36	0.78
Berry Petroleum Company	BRY		40.22	54.7	2,200	70.00	0.29	0.70
Denbury Resources Inc.	DNR		15.51	391.0	6,060	28.00	0.20	0.64
Birchcliff Energy Ltd.	BIREF	CB	6.25	150.7	940	12.00	0.20	0.62
Cimarex Energy Company	XEC	CB	59.54	86.1	5,130	110.00	0.10	0.59
Whiting Petroleum Corporation	WLL	CB	43.39	119.0	5,160	88.00	0.15	0.57
<i>Total or Median</i>					48,020		0.17	0.74
Top Line Cash Payers								
Permian Basin RT	PBT		18.50	46.6	860	20.00	-	0.92
Freehold Royalties Ltd.	FRHLF		18.97	64.7	1,230	21.00	0.03	0.91
Cross Timbers Royalty Trust	CRT		37.35	6.0	220	44.00	-	0.85
Dorchester Minerals, L.P.	DMLP	CB	22.66	30.7	700	27.00	-	0.84
Sabine Royalty Trust	SBR		54.31	14.6	790	65.00	-	0.84
<i>Total or Median</i>					3,800			0.85
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		40.42	193.0	7,800	30.00	0.45	1.19
Vanguard Natural Resources, LLC	VNR		28.13	52.5	1,480	25.00	0.34	1.08
Legacy Reserves L.P.	LGCY		27.25	47.5	1,290	30.00	0.26	0.93
Enduro Royalty Trust (40%)	NDRO		17.51	13.2	230	21.00	-	0.83
San Juan Basin Royalty Trust	SJT	CB	16.44	46.6	770	21.00	-	0.78
Mesa RoyaltyTrust	MTR		30.48	1.9	57	40.00	-	0.76
Enerplus Corporation	ERF	CB	13.94	196.0	2,730	21.00	0.29	0.76
Hugoton RoyaltyTrust	HGT		7.24	40.0	290	14.00	-	0.52
<i>Total or Median</i>					14,650			0.81
B=Buy; CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.								
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses								
Present Value presumes long-term prices of \$100 a barrel for oil and \$6 a million btu for natural gas.								



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

Table ISC-3								
McDep Income and Small Cap Energy Portfolio								
Value Multiples - Rank by EV/Ebitda								
			Price (\$/sh)	Revenue	Dist/ Equity	Adjstd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda
	Symbol/ Rating		19-Jul 2012	Royalty (%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	CB	61.60		-	13.2	15.0	13.6
Peyto Exploration and Development Corp	PEYUF		21.12		0.36	10.0	12.0	10.8
Birchcliff Energy Ltd.	BIREF	CB	6.25		-	21.6	15.4	9.5
Continental Resources	CLR		76.26		-	9.6	8.3	9.0
PDC Energy	PDCE		26.35		-	8.1	9.7	7.6
Halcón Resources	HK		8.22		-	7.1	8.7	7.3
Berry Petroleum Company	BRY		40.22		-	11.8	8.4	5.8
Denbury Resources Inc.	DNR		15.51		-	13.1	8.8	5.7
Cimarex Energy Company	XEC	CB	59.54		-	8.1	9.0	5.3
Whiting Petroleum Corporation	WLL	CB	43.39		-	9.5	8.0	4.6
	<i>Median</i>					9.8	8.9	7.4
Top Line Cash Payers								
Cross Timbers Royalty Trust	CRT		37.35	78	0.96	17.7	18.6	15.8
Sabine Royalty Trust	SBR		54.31	100	1.00	8.7	18.8	15.7
Permian Basin RT	PBT		18.50	32	0.88	9.7	13.4	12.4
Dorchester Minerals, L.P.	DMLP	CB	22.66	77	1.00	6.6	14.7	12.3
Freehold Royalties Ltd.	FRHLF		18.97	71	0.87	5.4	11.0	10.0
	<i>Median</i>					8.7	14.7	12.4
Bottom Line Cash Payers								
Mesa RoyaltyTrust	MTR		30.48		0.81	8.0	17.0	13.0
Linn Energy, LLC	LINE		40.42		1.02	14.3	10.5	12.6
San Juan Basin Royalty Trust	SJT	CB	16.44		0.76	8.6	16.0	12.5
Vanguard Natural Resources, LLC	VNR		28.13		0.95	13.6	10.0	10.8
Legacy Reserves L.P.	LGCY		27.25		0.68	11.3	9.2	8.6
Enduro Royalty Trust (40%)	NDRO		17.51		0.64	5.5	9.1	7.6
Hugoton RoyaltyTrust	HGT		7.24		0.11	13.6	14.6	7.6
Enerplus Corporation	ERF	CB	13.94		0.47	6.3	7.5	5.7
	<i>Median</i>					10.0	10.3	9.7
B=Buy; CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.								
EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2013; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses								
Top Line Cash Payers defined as those having Revenue Royalty (see fifth column from right).								



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012

Table ISC-4								
Oil and Gas Income and Small Cap Stocks								
Rank by Enterprise Value to 200 Day Average								
			Price (\$/sh)	Enterprise Value/				
	Symbol/ Rating		19-Jul 2012	52Wk High	52Wk Low	50 Day Avg.	200 Day Avg.	McDep Ratio
Small Cap Independent Producers								
	Peyto Exploration and Development C	PEYUF	21.12	0.84	1.36	1.14	1.07	0.90
	Continental Resources	CLR	76.26	0.81	1.61	1.07	1.03	1.08
	Range Resources	RRC CB	61.60	0.83	1.15	1.02	0.99	0.90
	Berry Petroleum Company	BRY	40.22	0.77	1.16	1.03	0.96	0.70
	Denbury Resources Inc.	DNR	15.51	0.79	1.31	1.02	0.95	0.64
	Cimarex Energy Company	XEC CB	59.54	0.68	1.23	1.09	0.94	0.59
	Whiting Petroleum Corporation	WLL CB	43.39	0.74	1.33	1.02	0.92	0.57
	PDC Energy	PDCE	26.35	0.78	1.30	1.03	0.92	0.78
	Birchcliff Energy Ltd.	BIREF CB	6.25	0.50	1.16	1.03	0.70	0.62
	Halcón Resources	HK	8.22	0.63		0.87		0.83
	<i>Median</i>			<i>0.77</i>	<i>1.30</i>	<i>1.03</i>	<i>0.95</i>	<i>0.74</i>
Top Line Cash Payers								
	Freehold Royalties Ltd.	FRHLF	18.97	0.84	1.37	1.07	1.02	0.91
	Dorchester Minerals, L.P.	DMLP CB	22.66	0.81	1.14	1.03	0.97	0.84
	Permian Basin RT	PBT	18.50	0.79	1.12	1.02	0.92	0.92
	Sabine Royalty Trust	SBR	54.31	0.81	1.19	1.07	0.91	0.84
	Cross Timbers Royalty Trust	CRT	37.35	0.73	1.17	1.02	0.86	0.85
	<i>Median</i>			<i>0.81</i>	<i>1.17</i>	<i>1.03</i>	<i>0.92</i>	<i>0.85</i>
Bottom Line Cash Payers								
	Linn Energy, LLC	LINE	40.42	0.99	1.17	1.05	1.05	1.19
	Vanguard Natural Resources, LLC	VNR	28.13	0.92	1.18	1.06	1.03	1.08
	Legacy Reserves L.P.	LGCY	27.25	0.91	1.16	1.04	0.99	0.93
	San Juan Basin Royalty Trust	SJT CB	16.44	0.65	1.36	1.08	0.84	0.78
	Mesa RoyaltyTrust	MTR	30.48	0.62	1.22	1.02	0.80	0.76
	Enerplus Corporation	ERF CB	13.94	0.55	1.13	1.02	0.75	0.76
	Hugoton RoyaltyTrust	HGT	7.24	0.30	1.13	0.86	0.48	0.52
	<i>Median</i>			<i>0.65</i>	<i>1.17</i>	<i>1.04</i>	<i>0.84</i>	<i>0.78</i>

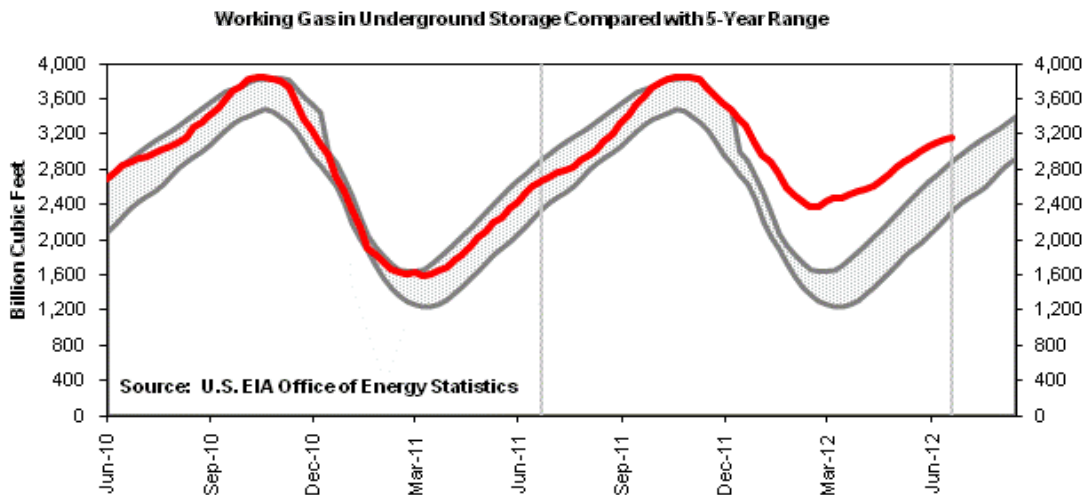
CB=Contrarian Buy, Stock Price apparently in downtrend compared to 200-day average.



Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

July 20, 2012



Disclaimer: This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

Certification: I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.