



# Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

November 30, 2012

## San Juan Basin Royalty Trust (SJT – Buy) Unlocking the Mancos Shale

**“with the Mancos Shale, the San Juan is about to enjoy a 20-year renaissance”**

Steven Natali of WPX Energy, *AAPG Explorer*, August 2012

<i>Symbol</i>	SJT	<i>Ebitda Next Twelve Months ending 12/31/13 (US\$mm)</i>	79
<i>Rating</i>	Contrarian Buy	<i>North American Natural Gas/Ebitda (%)</i>	97
<i>Price (US\$/sh)</i>	13.12	<i>Natural Gas and Oil Production/Ebitda (%)</i>	100
<i>Pricing Date</i>	11/29/12	<i>Adjusted Reserves/Production NTM</i>	9.1
<i>Shares (mm)</i>	47	<i>EV/Ebitda</i>	7.8
<i>Market Capitalization (US\$mm)</i>	610	<i>PV/Ebitda</i>	12.4
<i>Debt (US\$mm)</i>	0	<i>Undeveloped Reserves (%)</i>	4
<i>Enterprise Value (EV) (US\$mm)</i>	610	<i>Natural Gas and Oil Ebitda (US\$/mcf)</i>	3.28
<i>Present Value (PV) (US\$mm)</i>	980	<i>Present Value Proven Reserves(US\$/boe)</i>	26.46
<i>Net Present Value (US\$/unit)</i>	21	<i>Oil and Gas Ebitda Margin (%)</i>	69
<i>Debt/Present Value</i>	0.00	<i>Earnings Next Twelve Months (US\$/un)</i>	1.33
<i>McDep Ratio - EV/PV</i>	0.62	<i>Price/Earnings Next Twelve Months</i>	10
<i>Distribution Yield (%/year)</i>	10.1	<i>Distribution Next Twelve Months (US\$/sh)</i>	1.33
Note: Estimated cash flow and earnings tied to one-year futures prices for natural gas.			
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 analysis of SJT since 2000 see <a href="http://www.mcdep.com/4sjt.htm">www.mcdep.com/4sjt.htm</a>			

### Summary and Recommendation

We recommend current purchase of units of **San Juan Basin Royalty Trust (SJT)** for unique upside in shale oil and shale gas on top of 60% appreciation potential to a McDep Ratio of 1.0 and estimated income distribution of 10.1% in 2013. After fracking two horizontal wells in the Mancos shale in the San Juan Basin (SJB), WPX Energy (WPX) sees resource potential exceeding 3 trillion cubic feet on WPX land, implying, perhaps, 5 times reserves upside for SJT. After fracking four horizontal wells in the Gallup formation within the Mancos shale, **Encana (ECA)** is working toward commercial development of a half billion barrels of recoverable oil on a land position comparable in size to SJT's. **ConocoPhillips (COP)**, the largest producer in SJB and operator of SJT's properties, announced plans for a horizontal well in the Mancos shale on SJT rights in the current quarter with results expected in early 2013. Mancos may add the shale dimension that renews excitement in SJB, which had been the largest producing natural gas field in the U. S. until 2007, when it was surpassed by the first shale gas giant, Fort Worth Barnett. SJT's unique appeal as the only publicly traded pure play of size that we know on shale oil and shale gas in SJB makes investment in SJT's undervalued cash flow stream more striking.

### Tapping the Shale Source

The fundamentals of geology, as we understand them without having been trained in the field, hold that shale rocks typically can be the source of stored hydrocarbons that have migrated to more permeable rocks like sandstone. If there is a trap in the form of impermeable rock in a layer



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or structure above, the hydrocarbons remain in the permeable rock until tapped by a well. From about 1950 to 1990, the sandstones of the Mesa Verde and Dakota formations contributed most of the commercial volumes of natural gas from the SJB. From about 1990, the Fruitland coal became the third major source of commercial natural gas.

It looks to us like the Mancos shale may have been a major source for the hydrocarbons produced, particularly for the Mesa Verde, which lies directly above the Mancos, and the Dakota, which lies directly below the Mancos (see graphics [Lithology](#) and untitled cross-section from New Mexico Bureau of Geology and Mineral Resources on page 4). Meanwhile, the amount of hydrocarbons remaining in the source rock apparently is several times or more of the amount that has migrated to more producible rock. Advances in horizontal drilling and fracking are the breakthrough that sparks the shale gas and shale oil revolution. While SJB would theoretically be an especially promising target, there is no unleased land available as the mineral rights are held by the producers as long as the production lasts, essentially indefinitely. As a result, there has been no land rush. The low natural gas price in 2012 further reduced the urgency.

## **Natural Gas and Oil Window**

SJT's interests are spread throughout the basin (see trustee's map on page 5). While SJB has been largely a natural gas province, it also has oil fields that have produced modest quantities. The northern and deeper portion of the basin is natural gas prone. The southern and shallower portion is oil prone. With the sharp price disparities that have developed between natural gas and oil, shale explorers have increasingly paid attention to those distinctions, called "windows" of dry gas, liquids-rich gas and oil. The liquids-rich window can be optimum because the effectiveness of fracking decreases from natural gas to oil while the commodity value increases. SJT has dry gas, liquids-rich gas and oil.

## **WPX Pioneers Mancos Shale Gas**

The first company, to our knowledge, to apply horizontal fracking in the natural gas window of the Mancos shale is WPX Energy (see WPX slide on page 6). The innovative independent is the December 2011 spinoff from Williams Companies, which acquired legacy San Juan producing properties along with its purchase of Northwest Pipeline thirty years ago. Discussing the Mancos Shale, Steven Natali, senior vice president of exploration for WPX, tells *AAPG Explorer*, "Gas pricing will determine the pace of production. We need to get gas prices up to \$5 per mcf and get costs down to \$6 million [per well]."

## **Encana Pioneers Mancos Shale Oil**

The first company, to our knowledge, to apply horizontal fracking in the oil window of the Mancos shale is our large cap buy recommendation ECA (see slide [San Juan Basin - Asset Overview](#) on page 7). Encouraged by early results, ECA is in the midst of a 12-well program to justify a new RPH (Resource Play Hub). Shale explorers are on a steep learning curve that has been demonstrated in other plays.



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As a Canadian company without a legacy SJB position, ECA partners with one or more local producers. Traditionally, Gallup oil in SJB has not attracted larger company attention. That can change as any production from a shale source rock by old technology might be a sign of greater promise for new technology. Moreover, only larger companies can efficiently diversify the risk of the high cost of horizontal fracking.

## **ConocoPhillips Climbs aboard the SJB Shale Express**

SJT's trustee discloses in the third quarter 10-Q filing that ConocoPhillips has 12 vertical wells "to be completed in all three of the Mesa Verde, Mancos Shale and Dakota formations. [ConocoPhillips] indicates that evaluation of the Mancos Shale formation is in the very early stages. There are plans for a horizontal Mancos well beginning in the fourth quarter of 2012."

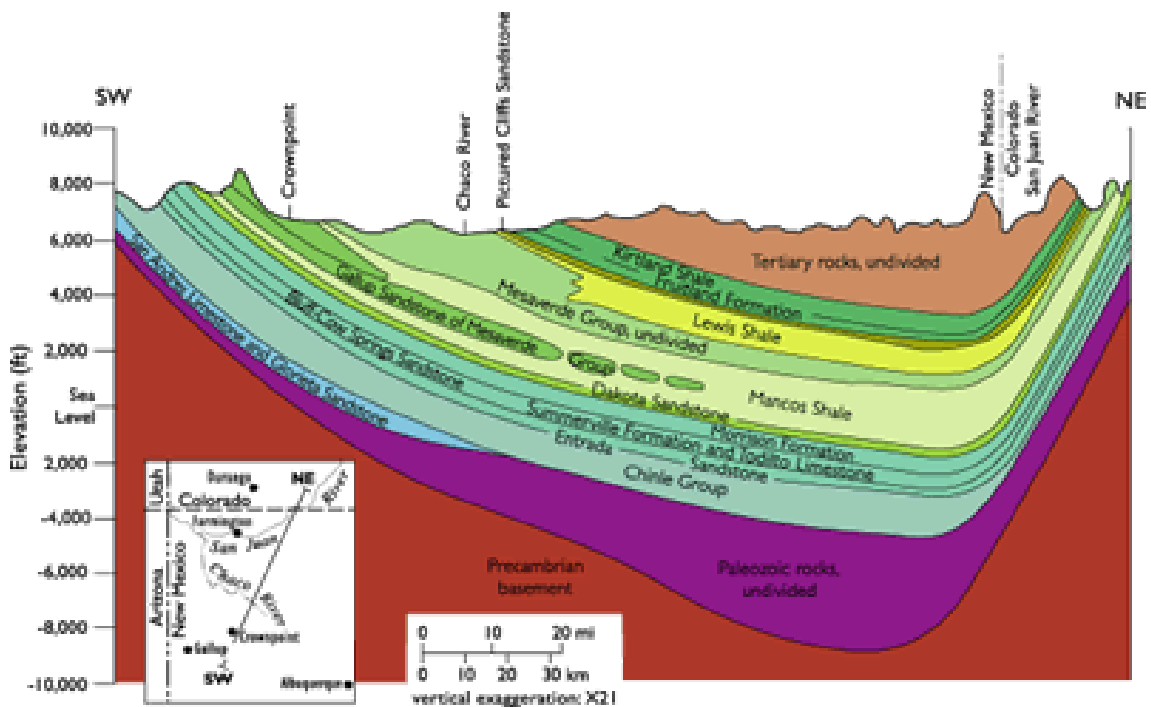
In its investor presentations, our large cap buy recommendation COP refers to the Mancos in the San Juan as an example of significant exploratory activity in unconventional plays. As the largest producer, COP has acreage all over SJB (see COP graphic [San Juan](#) on page 7).

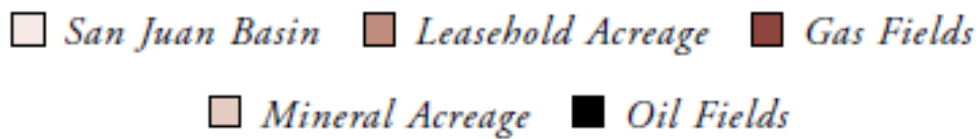
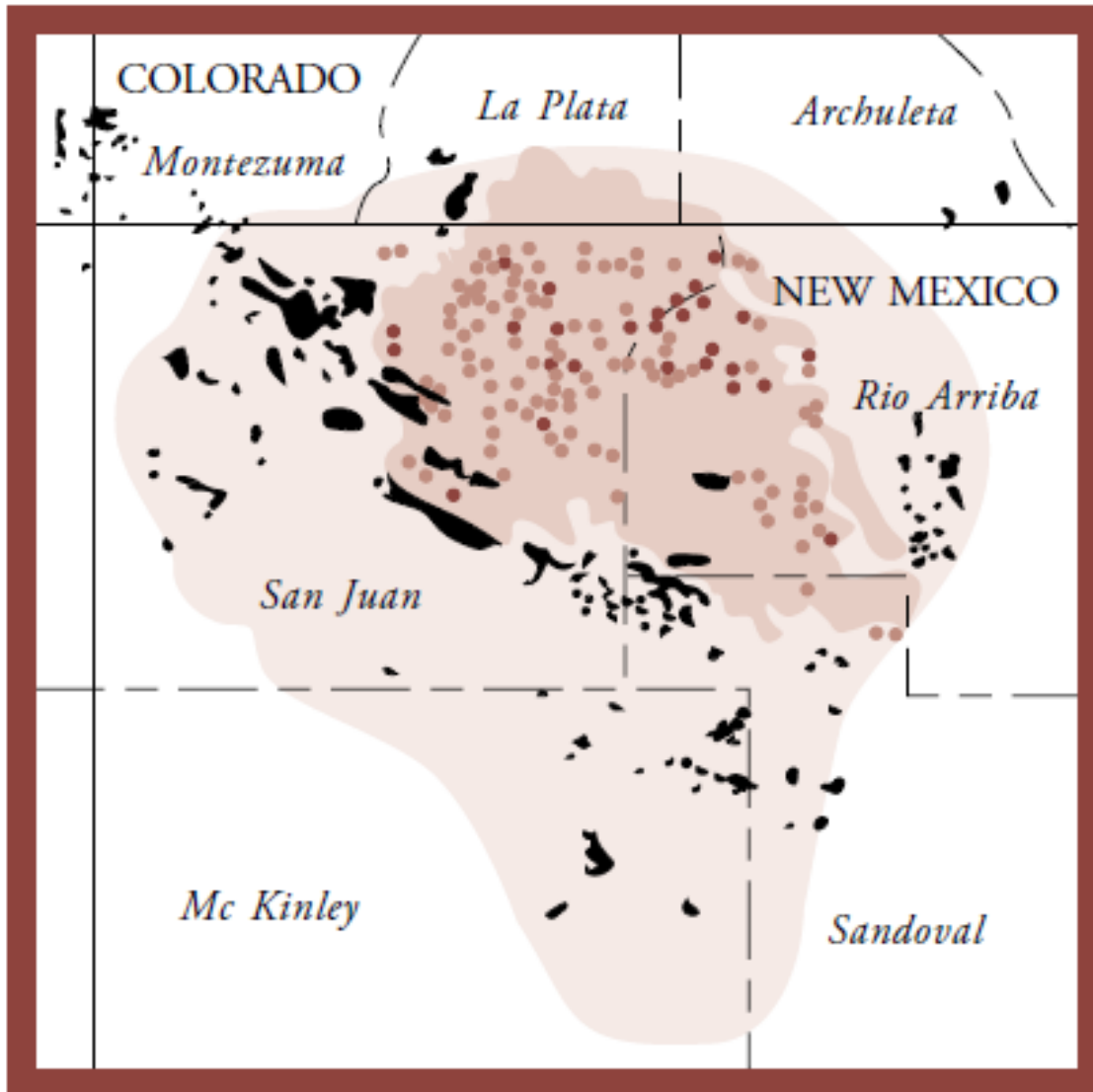
## **Natural Gas Price and Distributions Reversing Trend**

The record warm winter that became especially evident by January 2012 was a small disaster for natural gas price, SJT distributions and SJT stock price. After that surprise, it seems an easy bet that January 2013 will not be as bad. Indeed natural gas futures price for December 2013 is back to the December 2011 level. Higher price in the coming months translates to likely higher distributions (see table [Next Twelve Months Operating and Financial Estimates](#) on page 8). Yet, variations from month to month can be exaggerated by cash accounting mismatches as was particularly the case in 2012 (see table [Monthly Declarations](#) on page 9). Those seemingly negative short-term factors acted to depress SJT stock price to a level that gives us increased confidence of undervaluation without consideration of the potentially exciting upside from the Mancos Shale.

Kurt H. Wulff, CFA

AGE ERA (M.Y.)	PERIOD	SYMBOL	LITHOLOGY	FORMATION	ENERGY RESOURCES
Cenozoic	Quaternary	Q	Alluvium, basalt flows		Gas, Oil, Coal, Uranium
		Tv	Volcanic rocks		
	Tertiary	Tu	Lower Santa Fe Group		
		Tc	Bidahochi Formation (southwest) Chuska Sandstone		
		Tsj	San Jose Formation		Gas, Coal
		Tn	Nacimiento Formation and Animas Formation		Gas
		Toa	Ojo Alamo Sandstone		Gas, Coal
		Kkf	Kirkland Shale and Fruitland Formation		Gas, Coal
		Kpc	Pictured Cliffs Sandstone		Gas, Coal
		Kls	Lewis Shale		Gas
Mesozoic	Cretaceous	Kmv	Mesaverde Group		Gas, Oil, Coal
		Kcc	Mancos Shale		Gas, Oil
		Km	Crevasse Canyon Formation		
		Kg	Gallup Sandstone (southwest)		Gas, Coal
		Kd	Dakota Sandstone		Gas, Oil, Coal



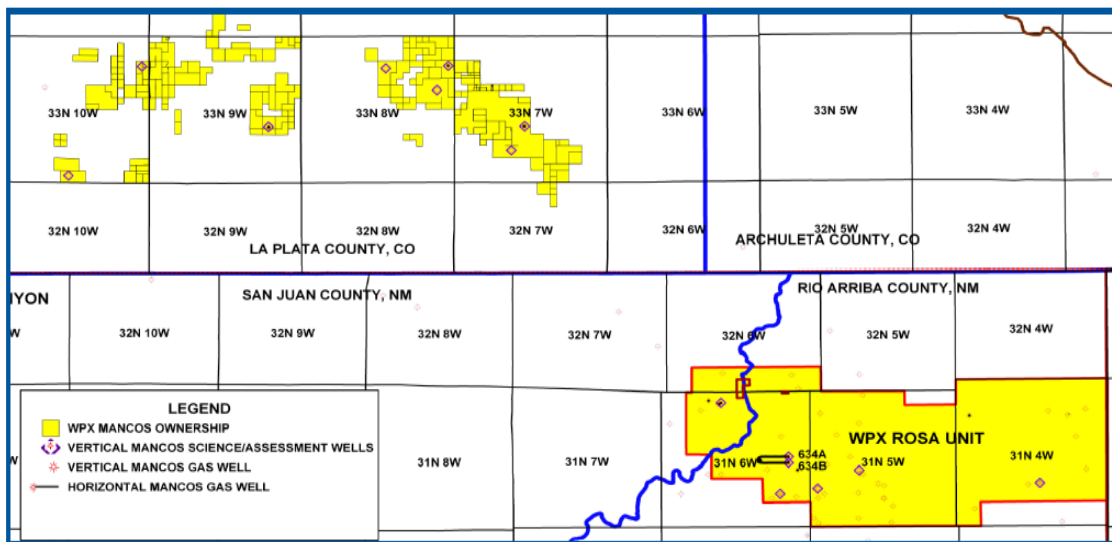




## San Juan Basin

### Mancos Shale Potential

- Completed, monitored and evaluated more than 60 vertical Mancos completions from 2008 to present
- Extensive reservoir and geologic assessments done in 16 vertical wells
- Successfully drilled the first two grassroots horizontal Mancos wells in the San Juan Basin
  - Rosa Unit 634A IP Rate: 8.3 MMcfd, Lateral length: 5198', Date 1st del: 11/16/10, Cum to date: 1.42 Bcfe, EUR: 4.5 - 5.5 Bcfe
  - Rosa Unit 634B IP Rate: 11.0 MMcfd, Lateral length 5232', Date 1st del: 11/11/10, Cum to date: 1.70 Bcfe, EUR: 5.0 - 6.0 Bcfe
- More than 61,000 net acres of Mancos rights held HBP
- More than 700 gross 3P locations remaining with gross resource potential exceeding 3 Tcf



Barclays CEO Conference - September 5, 2012



## San Juan Basin

### Asset Overview

#### Resource

- 174,000 net acres in oil window
- P1IP: 7.5 billion BOE
- Primarily light oil with associated NGLs
- 80% RI
- ~905 net locations

#### Strategy

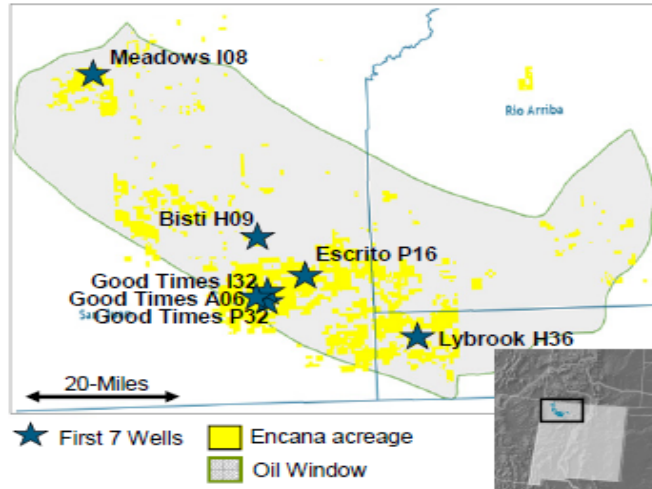
- Appraise oil window of the Gallup formation
- Establish RPH efficiencies
- Ramp-up to commercial development pace

#### Current Activity/Future Plans

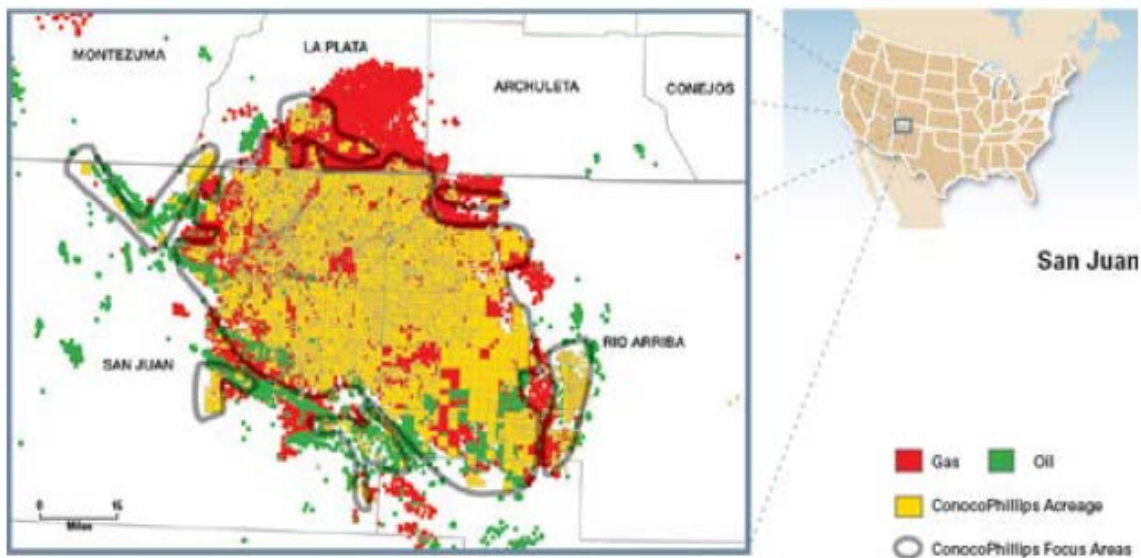
- Drilled 4 wells as of Q3 2012, 5<sup>th</sup> well currently drilling
  - 1 rig program in 2012
- 8 net wells planned for 2012

#### RPH Target Well Parameters

- Well cost: \$4.3 million
- EUR per well: 550 MBOE
- Lateral length: 5,000 feet
- TVD: 5,500 feet



Well Name	Lateral Length (ft)	# of Stages	30 day IP (BOE/d)
Lybrook H36	4,087	16	445
Good Times P32	4,189	17	210
Escrito P16	3,977	17	287
Meadows I08	3,886	16	-
Bisti I32 H09	3,917	17	-
Good Times I32	3,817	17	-
Good Times A06	-	-	-





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San Juan Basin Royalty Trust										
Next Twelve Months Operating and Financial Estimates										
	Q4		Q3		Q4E		Year		Next Twelve Months	
	12/31/11	9/30/12	12/31/12	2012E	3/31/13	6/30/13	9/30/13	12/31/13	12/31/13	
<b>Highlights</b>										
Revenue (\$mm) (75%)	32.2	16.4	20.9	<b>85.8</b>	27.3	27.5	29.0	29.6	<b>113.5</b>	
Cash flow (\$mm) (75%)	23.0	8.0	10.9	<b>51.7</b>	18.7	19.1	20.2	20.8	<b>78.8</b>	
Per unit	0.49	0.17	0.23	<b>1.11</b>	0.40	0.41	0.43	0.45	<b>1.69</b>	
Distributable Income (\$mm)	18.9	4.6	5.4	<b>35.0</b>	14.2	14.9	16.1	16.6	<b>61.9</b>	
Per unit	0.41	0.10	0.12	<b>0.75</b>	0.31	0.32	0.35	0.36	<b>1.33</b>	
<b>Units (millions)</b>	46.6	46.6	46.6	<b>46.6</b>	46.6	46.6	46.6	46.6	<b>46.6</b>	
<b>Volume</b>										
Natural gas (mmbtu)	9.4	9.3	8.4	<b>35.4</b>	8.7	8.5	8.7	8.7	<b>34.7</b>	
Heat Content(btu/cf)	1,096	1,090	1,104	<b>1,093</b>	1,093	1,093	1,093	1,093	<b>1,093</b>	
Natural gas (bcf)	8.6	8.5	7.6	<b>32.4</b>	8.0	7.7	8.0	8.0	<b>31.8</b>	
Natural Gas (mmcf)	93.2	92.4	82.3	<b>88.6</b>	87.0	87.0	87.0	87.0	<b>87.0</b>	
Days	92	92	92	<b>366</b>	92	89	92	92	<b>365</b>	
Oil (mb)	0.0	0.0	0.0	<b>0.1</b>	0.0	0.0	0.0	0.0	<b>0.1</b>	
Oil (mbd)	0.2	0.2	0.2	<b>0.1</b>	0.2	0.1	0.2	0.2	<b>0.1</b>	
Days	92	92	92	<b>366</b>	92	89	92	92	<b>365</b>	
Total gas & oil (bcf)	8.7	8.6	7.7	<b>32.7</b>	8.1	7.8	8.1	8.1	<b>32.1</b>	
<b>Price</b>										
Natural gas (\$/mmbtu) (Henry Hub lagged two months)										
Henry Hub (\$/mmbtu)	3.99	2.41	2.89	<b>2.76</b>	3.68	3.86	3.91	3.98	<b>3.86</b>	
Differential (%)	(11)	7	(10)	<b>(12)</b>	(10)	(10)	(10)	(10)	<b>(10)</b>	
Net to SJT (\$/mmbtu)	4.44	2.24	3.19	<b>3.10</b>	4.05	4.25	4.30	4.38	<b>4.24</b>	
Natural gas (\$/mcf)	4.87	2.44	3.52	<b>3.39</b>	4.42	4.64	4.70	4.79	<b>4.64</b>	
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	86.13	88.19	93.04	<b>95.96</b>	87.39	88.96	90.27	90.78	<b>89.35</b>	
SJT	75.34	76.52	80.73	<b>82.75</b>	75.36	76.71	77.84	78.28	<b>77.09</b>	
Total gas & oil (\$/mcf)	4.95	2.54	3.63	<b>3.49</b>	4.51	4.70	4.78	4.88	<b>4.72</b>	
<b>Revenue (\$mm)</b>										
Natural Gas	41.7	20.7	26.6	<b>109.9</b>	35.4	35.9	37.6	38.3	<b>147.2</b>	
Oil	1.2	1.1	1.2	<b>4.4</b>	1.1	0.7	1.1	1.2	<b>4.1</b>	
Total	42.9	21.8	27.9	<b>114.4</b>	36.5	36.7	38.7	39.5	<b>151.3</b>	
<b>Cost (\$mm)</b>										
Severance tax	4.1	2.2	2.8	<b>10.7</b>	3.4	3.4	3.6	3.7	<b>14.2</b>	
Operating	8.1	9.0	10.5	<b>34.7</b>	8.1	7.8	8.1	8.1	<b>32.1</b>	
Total	12.2	11.2	13.3	<b>45.4</b>	11.5	11.2	11.7	11.8	<b>46.3</b>	
<b>Cash flow (\$mm)</b>										
Development	5.3	4.1	6.5	<b>20.3</b>	5.0	5.0	5.0	5.0	<b>20.0</b>	
<b>Net proceeds (\$mm)</b>										
Royalty/Net proceeds	25.5	6.6	8.1	<b>48.6</b>	20.0	20.4	22.0	22.7	<b>85.0</b>	
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	19.1	4.9	6.1	<b>36.5</b>	15.0	15.3	16.5	17.0	<b>63.8</b>	
Administration	0.2	0.3	0.7	<b>1.3</b>	0.7	0.4	0.4	0.4	<b>1.9</b>	
One-time				<b>0.2</b>					<b>-</b>	
<b>Distributable income (\$mm)</b>	18.9	4.6	5.4	<b>35.0</b>	14.2	14.9	16.1	16.6	<b>61.9</b>	





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<b>San Juan Basin Royalty Trust</b>									
<b>Monthly Declarations</b>									
	<i>Oct-11</i>	<i>Nov-11</i>	<i>Dec-11</i>	<i>Jul-12</i>	<i>Aug-12</i>	<i>Sep-12</i>	<i>Oct-12</i>	<i>Nov-12</i>	<i>Dec-12</i>
<b>Distribution (\$/unit)</b>									
Declared	0.12	0.14	0.15	0.05	0.04	0.01	0.05	0.00	
<i>Projected</i>									0.06
<b>Volume</b>									
Natural gas (mmbtu)	2.97	2.99	3.44	3.01	2.80	3.45	2.48	2.93	2.95
Heat Content(btu/cf)	1,104	1,093	1,092	1,095	1,099	1,077	1,127	1,097	1,092
Natural gas (bcf)	2.69	2.74	3.15	2.75	2.55	3.20	2.20	2.67	2.70
Natural Gas (mmcf)	87	91	102	89	85	103	71	89	87
Days	31	30	31	31	30	31	31	30	31
<b>Price</b>									
Natural gas industry quotes lagged two months (\$/mmbtu)									
Henry Hub Index/Futures	4.37	3.85	3.76	2.03	2.42	2.77	3.01	2.63	3.03
San Juan Monthly Index	4.11	3.74	3.52	1.85	2.38	2.52	2.79	2.48	2.79
San Juan Index/Henry Hub	0.94	0.97	0.94	0.91	0.98	0.91	0.93	0.94	0.92
SJT/San Juan Index	1.14	1.18	1.20	1.22	1.03	0.81	1.32	1.07	1.18
SJT (\$/mmbtu)	4.69	4.43	4.24	2.25	2.46	2.05	3.67	2.66	3.29
SJT (\$/mcf)	5.17	4.84	4.63	2.46	2.70	2.21	4.14	2.92	3.60
<b>Revenue (\$mm)</b>									
Natural Gas	13.9	13.2	14.6	6.8	6.9	7.1	9.1	7.8	9.7
Other	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.2	(0.2)
<b>Cost (\$mm)</b>									
Severance tax	1.4	1.3	1.4	0.7	0.7	0.7	1.0	0.9	0.9
Operating	2.9	2.6	2.6	2.1	3.2	3.7	3.5	4.0	3.0
Total	4.3	3.8	4.0	2.9	3.9	4.4	4.4	4.9	3.9
<b>Cash flow (\$mm)</b>	9.9	9.7	10.8	4.2	3.3	2.7	5.0	3.1	5.5
Development	2.4	1.3	1.6	1.0	1.0	2.0	1.6	3.1	1.8
<b>Net proceeds (\$mm)</b>	7.6	8.4	9.3	3.2	2.2	0.7	3.4	0.1	3.7
<b>Royalty income (\$mm)</b>	5.7	6.3	6.9	2.4	1.7	0.5	2.5	0.0	2.8
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%	75%
One time									
<b>Distributable income (\$mm)</b>	5.7	6.3	6.9	2.4	1.7	0.5	2.5	0.0	2.8
<b>Units (millions)</b>	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Distribution (\$/unit)</b>	0.12	0.14	0.15	0.05	0.04	0.01	0.05	0.00	0.06



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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	29-Nov	Market	Value	Nat	Ebitda	NTM	Yield	McDep			
CB (see below)	2012	Cap	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio		
<b>Small Cap Independent Producers</b>											
PDC Energy	PDCE		34.82	1.75	1,840	52	48	13.6	-	-	1.09
Range Resources	RRC	B	65.67	1.33	13,940	75	25	16.2	0.16	0.2	0.95
Peyto Exploration and Developmen	PEYUF		25.17	1.20	4,340	76	24	10.6	0.73	2.9	0.94
Birchcliff Energy Ltd.	BIREF	B	7.88	1.44	1,690	63	37	9.5	-	-	0.73
Continental Resources (32%)	CLR	CB	68.83	1.24	4,990	24	76	6.7	-	-	0.73
Halcón Resources	HK		6.21	1.50	4,080	13	87	6.1	-	-	0.71
Denbury Resources Inc.	DNR		15.34	1.54	9,220	6	94	5.9	-	-	0.65
Berry Petroleum Company	BRY		31.14	2.03	3,480	12	88	5.0	-	-	0.62
Cimarex Energy Company	XEC	CB	60.63	1.26	6,660	41	59	5.1	0.48	0.8	0.61
Whiting Petroleum Corporation	WLL	CB	40.94	1.44	7,000	9	91	4.5	-	-	0.56
<i>Total or Median</i>					57,200			6.4			0.72
<b>Top Line Cash Payers</b>											
Freehold Royalties Ltd.	FRHLF		21.17	1.05	1,460	16	84	10.4	1.69	8.0	1.01
Dorchester Minerals, L.P.	DMLP	CB	21.00	1.00	640	57	43	10.0	1.89	9.0	0.78
Sabine Royalty Trust	SBR		47.93	1.00	700	51	49	11.7	4.09	8.5	0.74
Permian Basin RT	PBT		13.65	1.00	640	37	63	8.5	1.15	8.4	0.68
Cross Timbers Royalty Trust	CRT		26.27	1.00	160	70	30	9.2	2.77	10.5	0.60
<i>Total or Median</i>					3,600			10.0		8.5	0.74
<b>Bottom Line Cash Payers</b>											
Linn Energy, LLC	LINE		39.73	1.63	15,050	43	57	13.0	2.90	7.3	1.18
Vanguard Natural Resources, LLC	VNR		27.78	1.62	2,390	33	67	11.7	2.40	8.6	1.07
Legacy Reserves L.P.	LGCY		24.33	1.50	1,740	25	75	9.0	2.26	9.3	0.87
Enduro Royalty Trust (40%)	NDRO		17.21	1.00	230	43	57	9.2	1.75	10.2	0.82
Enerplus Corporation	ERF	CB	13.19	1.69	4,400	31	69	6.2	1.09	8.3	0.74
San Juan Basin Royalty Trust	SJT	CB	13.12	1.00	610	100	-	7.8	1.33	10.1	0.63
Hugoton RoyaltyTrust	HGT		7.88	1.00	320	88	13	6.2	0.69	8.7	0.56
Mesa RoyaltyTrust	MTR		21.85	1.00	41	75	25	8.3	2.12	9.7	0.55
<i>Total or Median</i>					24,800			8.7		9.0	0.78
<b>Composite</b>											
<i>Enterprise Value Weighting</i>					85,600	39	61				0.79
<i>Equal Weighting</i>						45	55				0.77
<i>Equal Weighted Buys</i>						49	51				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 December 31, 2013. Enterprise Value = Market Cap and Debt.



# Income and Small Cap Weekly

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Table ISC-2								
McDep Income and Small Cap Energy Portfolio								
Net Present Value and McDep Ratio								
			Price (\$/sh)	Shares	Market Cap (\$mm)	Net Present Value (\$/un)	Debt/ Present Value	McDep Ratio
	Symbol/ Rating	29-Nov 2012		(mm)				
<b>Small Cap Independent Producers</b>								
PDC Energy	PDCE		34.82	30.2	1,050	30.00	0.46	1.09
Range Resources	RRC	B	65.67	160.0	10,510	70.00	0.23	0.95
Peyto Exploration and Development Cor	PEYUF		25.17	143.2	3,600	27.00	0.16	0.94
Birchcliff Energy Ltd.	BIREF	B	7.88	149.0	1,170	12.00	0.23	0.73
Continental Resources (32%)	CLR	CB	68.83	58.6	4,030	100.00	0.14	0.73
Halcón Resources	HK		6.21	436.0	2,710	10.00	0.24	0.71
Denbury Resources Inc.	DNR		15.34	391.0	6,000	28.00	0.23	0.65
Berry Petroleum Company	BRY		31.14	55.3	1,720	70.00	0.31	0.62
Cimarex Energy Company	XEC	CB	60.63	86.9	5,270	110.00	0.13	0.61
Whiting Petroleum Corporation	WLL	CB	40.94	119.0	4,870	88.00	0.17	0.56
<i>Total or Median</i>					40,930		0.23	0.72
<b>Top Line Cash Payers</b>								
Freehold Royalties Ltd.	FRHLF		21.17	65.7	1,390	21.00	0.05	1.01
Dorchester Minerals, L.P.	DMLP	CB	21.00	30.7	640	27.00	-	0.78
Sabine Royalty Trust	SBR		47.93	14.6	700	65.00	-	0.74
Permian Basin RT	PBT		13.65	46.6	640	20.00	-	0.68
Cross Timbers Royalty Trust	CRT		26.27	6.0	160	44.00	-	0.60
<i>Total or Median</i>					3,530			0.74
<b>Bottom Line Cash Payers</b>								
Linn Energy, LLC	LINE		39.73	233.0	9,260	30.00	0.45	1.18
Vanguard Natural Resources, LLC	VNR		27.78	53.1	1,480	25.00	0.41	1.07
Legacy Reserves L.P.	LGCY		24.33	47.5	1,160	30.00	0.29	0.87
Enduro Royalty Trust (40%)	NDRO		17.21	13.2	230	21.00	-	0.82
Enerplus Corporation	ERF	CB	13.19	196.0	2,590	21.00	0.30	0.74
San Juan Basin Royalty Trust	SJT	CB	13.12	46.6	610	21.00	-	0.63
Hugoton RoyaltyTrust	HGT		7.88	40.0	320	14.00	-	0.56
Mesa RoyaltyTrust	MTR		21.85	1.9	41	40.00	-	0.55
<i>Total or Median</i>					15,690			0.78
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.								
* PEYUF NPV rased to \$27 from \$24 on November 15 to take account of strong performance in third quarter 2012 disclosed on November 8.								



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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		29-Nov 2012	Royalty (%)	Ebitda	NTM	NTM	NTM
<b>Small Cap Independent Producers</b>								
Range Resources	RRC	B	65.67		-	13.5	17.0	16.2
PDC Energy	PDCE		34.82		-	9.9	12.6	13.6
Peyto Exploration and Development Corp	PEYUF		25.17		0.30	9.2	11.3	10.6
Birchcliff Energy Ltd.	BIREF	B	7.88		-	19.4	13.0	9.5
Continental Resources (32%)	CLR	CB	68.83		-	9.0	9.1	6.7
Halcón Resources	HK		6.21		-	5.5	8.6	6.1
Denbury Resources Inc.	DNR		15.34		-	13.0	9.1	5.9
Cimarex Energy Company	XEC	CB	60.63		-	7.3	8.5	5.1
Berry Petroleum Company	BRY		31.14		-	11.3	8.1	5.0
Whiting Petroleum Corporation	WLL	CB	40.94		-	9.1	8.0	4.5
	<i>Median</i>					9.5	9.1	6.4
<b>Top Line Cash Payers</b>								
Sabine Royalty Trust	SBR		47.93	100	1.00	7.6	15.9	11.7
Freehold Royalties Ltd.	FRHLF		21.17	76	0.83	5.1	10.3	10.4
Dorchester Minerals, L.P.	DMLP	CB	21.00	77	0.90	6.8	12.9	10.0
Cross Timbers Royalty Trust	CRT		26.27	78	0.97	16.5	15.3	9.2
Permian Basin RT	PBT		13.65	52	0.72	9.4	12.5	8.5
	<i>Median</i>					7.6	12.9	10.0
<b>Bottom Line Cash Payers</b>								
Linn Energy, LLC	LINE		39.73		1.06	14.0	11.0	13.0
Vanguard Natural Resources, LLC	VNR		27.78		1.05	13.2	11.0	11.7
Enduro Royalty Trust (40%)	NDRO		17.21		0.94	7.2	11.3	9.2
Legacy Reserves L.P.	LGCY		24.33		0.78	11.0	10.4	9.0
Mesa RoyaltyTrust	MTR		21.85		0.80	7.7	15.2	8.3
San Juan Basin Royalty Trust	SJT	CB	13.12		0.79	9.1	12.4	7.8
Hugoton RoyaltyTrust	HGT		7.88		0.54	13.6	11.1	6.2
Enerplus Corporation	ERF	CB	13.19		0.43	6.3	8.3	6.2
	<i>Median</i>					10.0	11.0	8.7
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 December 31, 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).								



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Table ISC-4								
McDep Income and Small Cap Energy Portfolio								
Rank by Enterprise Value to 200 Day Average								
			Price (\$/sh)	Enterprise Value/				
	Symbol/ Rating		29-Nov 2012	52Wk High	52Wk Low	50 Day Avg.	200 Day Avg.	McDep Ratio
<b>Small Cap Independent Producers</b>								
Peyto Exploration and Development C	PEYUF		25.17	0.96	1.54	1.02	1.20	0.94
PDC Energy	PDCE		34.82	0.92	1.34	1.07	1.09	1.09
Range Resources	RRC	B	65.67	0.91	1.18	0.97	1.02	0.95
Birchcliff Energy Ltd.	BIREF	B	7.88	0.64	1.35	1.02	1.02	0.73
Cimarex Energy Company	XEC	CB	60.63	0.74	1.23	1.00	0.97	0.61
Denbury Resources Inc.	DNR		15.34	0.80	1.10	0.98	0.95	0.65
Continental Resources (32%)	CLR	CB	68.83	0.75	1.10	0.94	0.92	0.73
Whiting Petroleum Corporation	WLL	CB	40.94	0.72	1.10	0.93	0.90	0.56
Berry Petroleum Company	BRY		31.14	0.71	1.01	0.91	0.86	0.62
Halcón Resources	HK		6.21	0.57		0.95	0.79	0.71
	<i>Median</i>			<i>0.74</i>	<i>1.18</i>	<i>0.97</i>	<i>0.96</i>	<i>0.72</i>
<b>Top Line Cash Payers</b>								
Freehold Royalties Ltd.	FRHLF		21.17	0.99	1.25	1.03	1.08	1.01
Dorchester Minerals, L.P.	DMLP	CB	21.00	0.79	1.06	0.95	0.92	0.78
Sabine Royalty Trust	SBR		47.93	0.72	1.11	0.97	0.89	0.74
Permian Basin RT	PBT		13.65	0.59	1.14	0.95	0.75	0.68
Cross Timbers Royalty Trust	CRT		26.27	0.52	1.08	0.91	0.72	0.60
	<i>Median</i>			<i>0.72</i>	<i>1.11</i>	<i>0.95</i>	<i>0.89</i>	<i>0.74</i>
<b>Bottom Line Cash Payers</b>								
Linn Energy, LLC	LINE		39.73	0.96	1.09	0.99	1.01	1.18
Vanguard Natural Resources, LLC	VNR		27.78	0.95	1.12	0.98	1.00	1.07
Legacy Reserves L.P.	LGCY		24.33	0.86	1.03	0.92	0.92	0.87
Enerplus Corporation	ERF	CB	13.19	0.63	1.09	0.91	0.87	0.74
San Juan Basin Royalty Trust	SJT	CB	13.12	0.53	1.09	0.95	0.83	0.63
Hugoton RoyaltyTrust	HGT		7.88	0.36	1.38	1.12	0.83	0.56
Mesa RoyaltyTrust	MTR		21.85	0.49	1.08	0.89	0.71	0.55
	<i>Median</i>			<i>0.63</i>	<i>1.09</i>	<i>0.95</i>	<i>0.87</i>	<i>0.74</i>

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

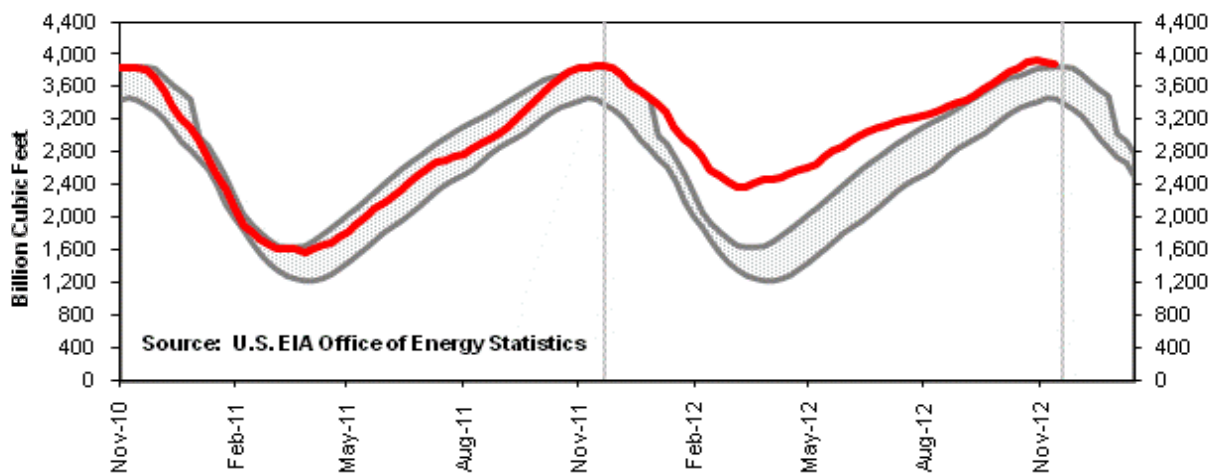


# Income and Small Cap Weekly

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Working Gas in Underground Storage Compared with 5-Year Range



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