



Analysis of Oil and Gas Stocks  
November 22, 2016

## Income Payers Sparkle CRT, DMLP, PBT, SBR, SJT

Symbol/Rating		Price (US\$/sh)	EV/ Market	Enterprise Value (\$mm)	Present Value by Segment (%)				Dist. Yield
					North Amer.	Rest of World	Oil Prod'n	Down- stream	
					21-Nov	Cap	Natural Gas	Natural Gas	
San Juan Basin Royalty Trust	SJT	6.54	1.00	310	100	-	-	-	8.8 0.82
Dorchester Minerals, L.P.	DMLP	B	16.70	1.00	510	28	72	72	6.9 0.70
Permian Basin RT	PBT		7.30	1.00	340	23	77	77	8.0 0.66
Cross Timbers Royalty Trust	CRT		17.92	1.00	110	71	29	29	8.0 0.62
Sabine Royalty Trust	SBR	B	35.90	1.00	520	44	56	56	8.2 0.60
<i>Total or Median</i>				1,800	44		56		8.0 0.66

### Summary and Recommendation

Income Payers appear to have the most total return potential of our five groups of oil and gas producers judging by a low median McDep Ratio of 0.66 (see table above). A median 8.0% return would be distributed in cash in a rising pattern over the next twelve months of 2017 (see chart Distribution on page 2). Our estimates for the year ahead depend on futures prices for oil and gas that can be quite volatile (see chart Price on page 2). Volumes are variable, too, with oil perhaps trending up and natural gas trending down (see charts Oil Volume and Natural Gas Volume on page 3). Our buy recommendations **Dorchester Minerals, L.P. (DMLP)** and **Sabine Royalty Trust (SBR)** appear to have the strongest oil volume trends. Moreover, price can drive the volume trend incrementally on top of a stable, long-life base. Details behind our estimates take account of the readily apparent factors influencing distributions (see tables Operating and Financial Estimates for five stocks on pages 4-8). Valuation rankings allow comparison to all 24 stocks in our research (see Tables 1-4 on pages 9-12).

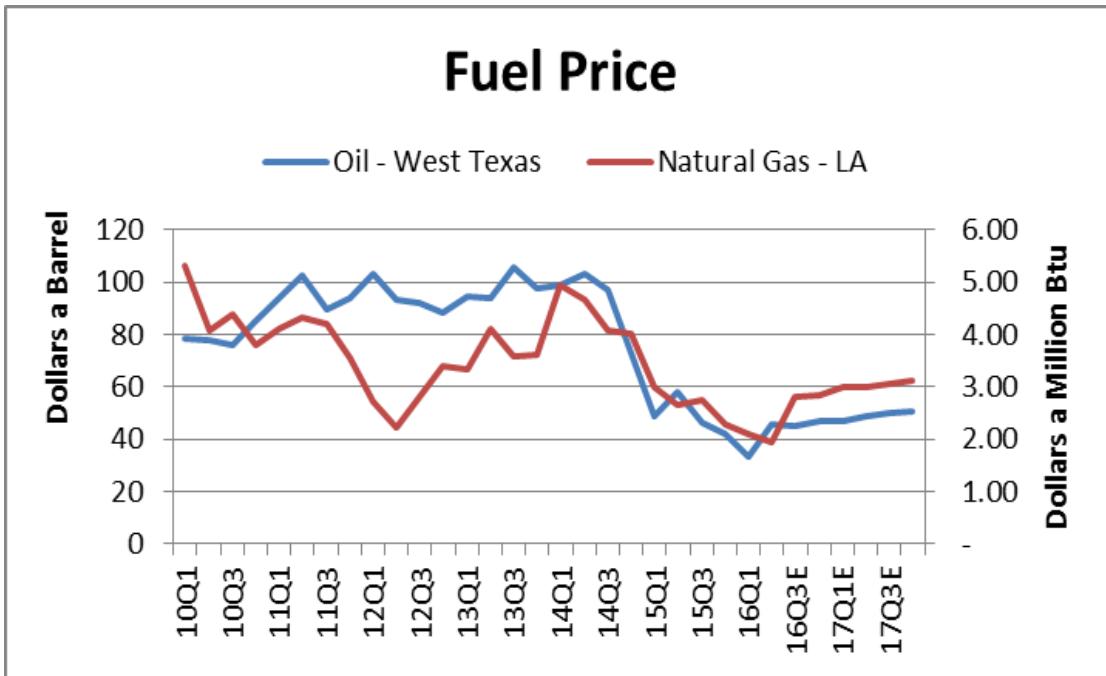
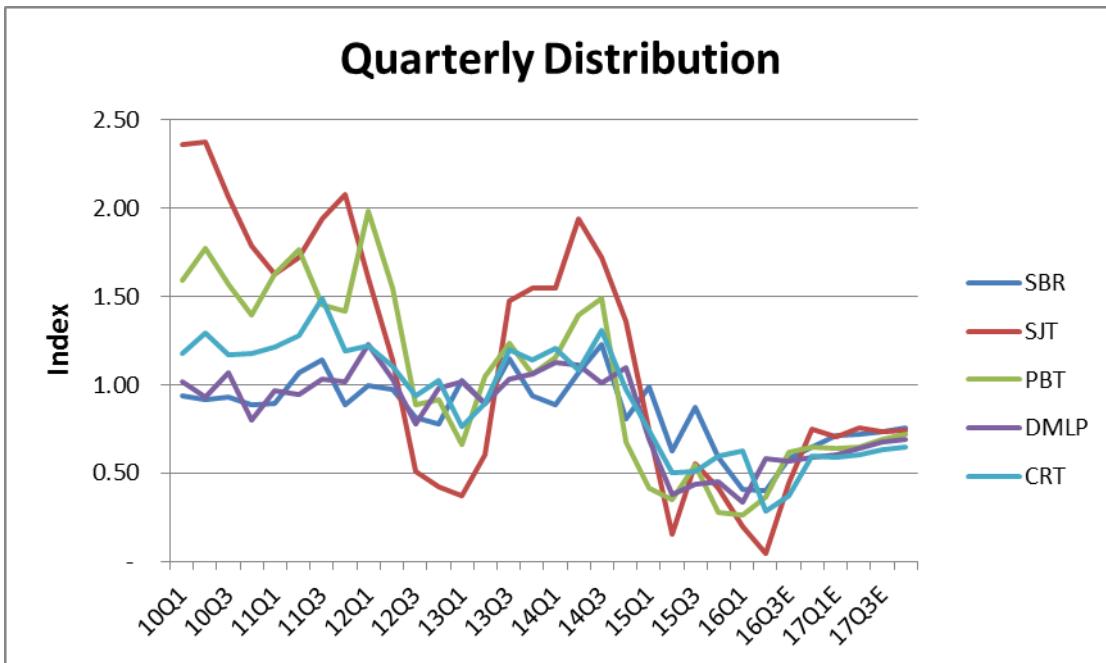
Kurt H. Wulff, CFA

Footnote: At a meeting on Monday, November 21 to vote on replacing the trustee at SJT, the preliminary count was 48% to replace and 58% of units voted. The 48% is short of the simple majority of units outstanding to effect the change. Of units voted, 83% were in favor of replacing the trustee. More time would probably have produced a different result. Accordingly, the issue may not yet be settled. We recommended replacement.



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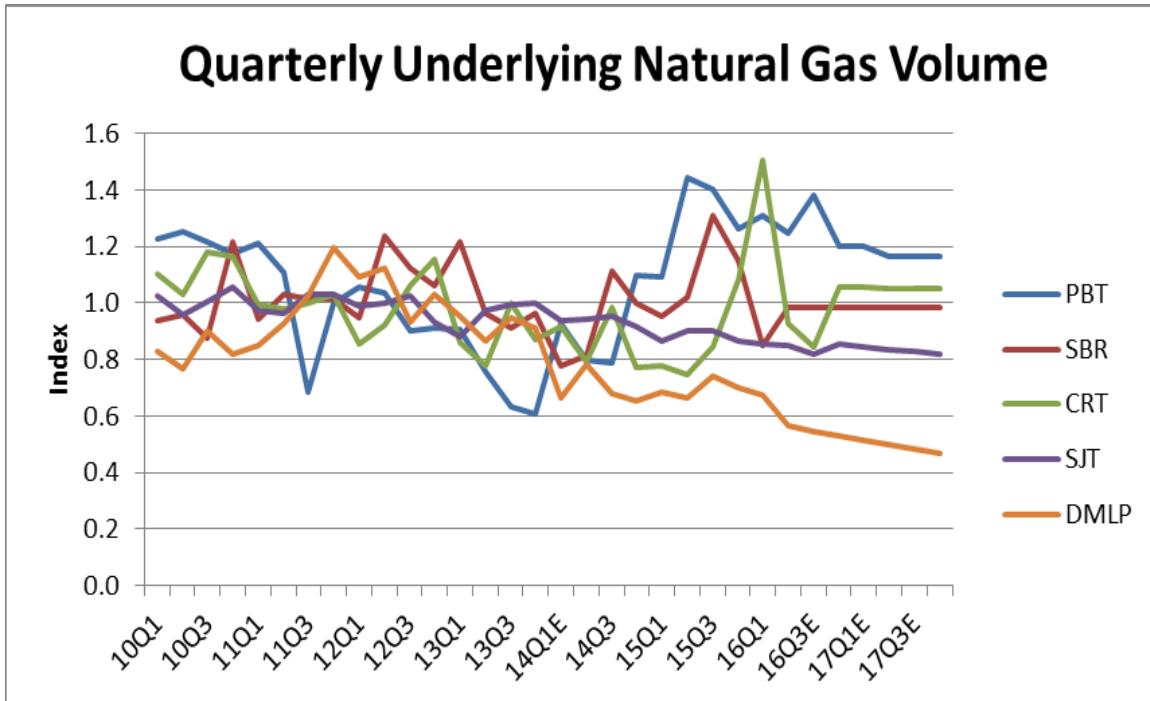
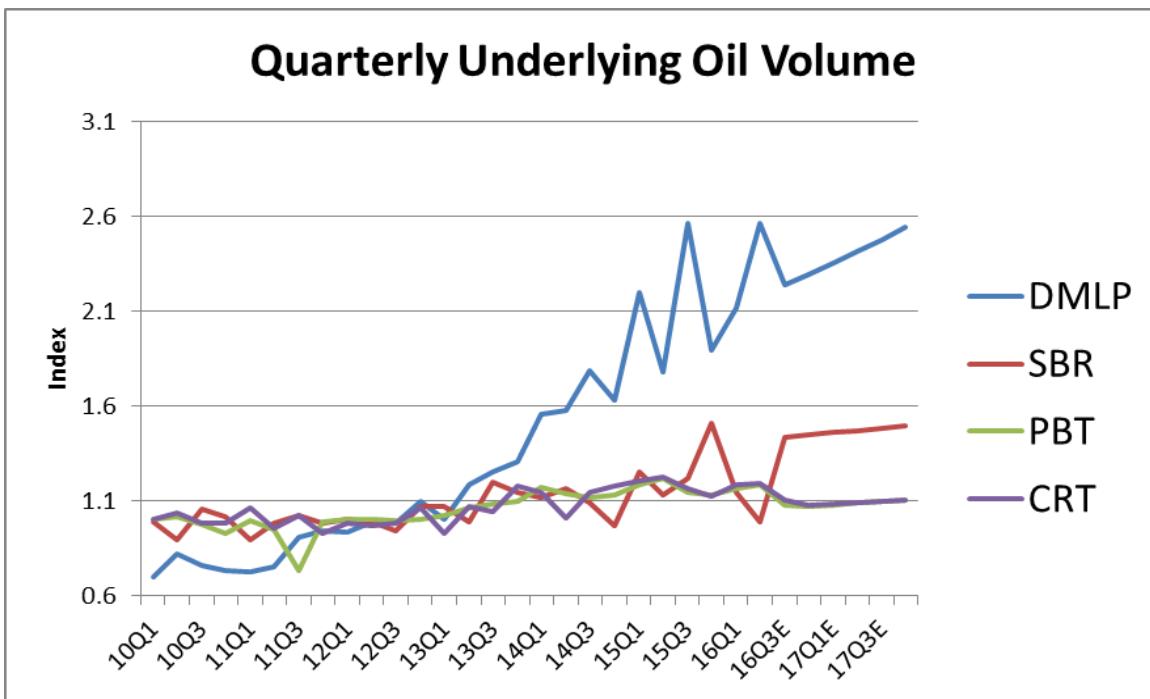




# Industry Idea

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Cross Timbers Royalty Trust Next Twelve Months Operating and Financial Performance											
	<i>Q4</i> <i>12/31/15</i>	<i>Year</i> <i>2015</i>	<i>Q3</i> <i>9/30/16</i>	<i>Q4E</i> <i>12/31/16</i>	<i>Year</i> <i>2016</i>	<i>Q1E</i> <i>3/31/17</i>	<i>Q2E</i> <i>6/30/17</i>	<i>Q3E</i> <i>9/30/17</i>	<i>Q4E</i> <i>12/31/17</i>	<i>Next</i> <i>Twelve</i> <i>Months</i>	
<b>Volume</b>											
Natural Gas (bcf)	0.51	<b>1.62</b>	0.40	0.50	<b>2.04</b>	0.50	0.49	0.49	0.49	<b>1.97</b>	
Natural Gas (mmcfd)	5.5	<b>4.4</b>	4.3	5.4	<b>5.6</b>	5.4	5.4	5.4	5.4	<b>5.4</b>	
Total (bcf)	0.85	<b>3.02</b>	0.73	0.82	<b>3.39</b>	0.82	0.80	0.82	0.82	<b>3.26</b>	
<b>Price</b>											
Natural Gas (HH lagged three months)											
Henry Hub (\$/mmbtu)	2.76	<b>3.11</b>	1.95	2.81	<b>2.28</b>	2.85	3.00	2.99	3.05	<b>2.97</b>	
Differential (%)	(69)	<b>(46)</b>	(72)	(37)	<b>(60)</b>	(40)	(40)	(40)	(40)	<b>(40)</b>	
CRT (\$/mcf)	4.67	<b>4.53</b>	3.37	3.87	<b>3.65</b>	4.00	4.21	4.18	4.27	<b>4.16</b>	
Oil (\$/bbl) (WTI lagged two months)											
WTI Cushing	44.87	<b>53.37</b>	46.80	46.60	<b>41.85</b>	45.91	47.82	49.45	50.17	<b>48.34</b>	
CRT	44.00	<b>52.96</b>	42.02	42.50	<b>38.20</b>	41.90	43.65	46.98	47.66	<b>45.07</b>	
Total (\$/mcf)	5.73	<b>6.52</b>	5.02	5.13	<b>4.73</b>	5.17	5.41	5.64	5.74	<b>5.49</b>	
<b>Revenue (\$mm)</b>											
Natural Gas	2.38	<b>7.33</b>	1.33	1.93	<b>7.43</b>	1.99	2.04	2.05	2.11	<b>8.20</b>	
Oil	2.46	<b>12.34</b>	2.31	2.28	<b>8.62</b>	2.26	2.29	2.56	2.61	<b>9.72</b>	
Total	4.85	<b>19.67</b>	3.64	4.21	<b>16.05</b>	4.25	4.33	4.61	4.72	<b>17.92</b>	
<b>Cost (\$mm)</b>											
Tax, transport & other	0.74	<b>2.71</b>	0.51	0.59	<b>2.36</b>	0.60	0.61	0.65	0.66	<b>2.51</b>	
Production	1.48	<b>6.19</b>	0.97	1.09	<b>4.45</b>	1.09	1.07	1.09	1.10	<b>4.35</b>	
Total	2.22	<b>8.90</b>	1.48	1.68	<b>6.80</b>	1.69	1.67	1.73	1.76	<b>6.86</b>	
<b>Cash flow (\$mm)</b>											
Development	0.37	<b>2.70</b>	0.20	0.20	<b>0.96</b>	0.10	0.10	0.10	0.10	<b>0.40</b>	
Excess or other	(0.37)	<b>(1.97)</b>	0.29	(0.14)	<b>(0.46)</b>	0.01	0.05	0.16	0.18	<b>0.41</b>	
<b>Net proceeds (\$mm)</b>											
2.63	<b>10.04</b>	1.68	2.47	<b>8.74</b>	2.45	2.52	2.61	2.68	<b>10.26</b>		
<b>Royalty income (\$mm)</b>											
2.31	<b>8.88</b>	1.52	2.17	<b>7.79</b>	2.15	2.21	2.30	2.36	<b>9.03</b>		
Royalty/Net proceeds	82%	<b>88%</b>	91%	88%	<b>89%</b>	88%	88%	88%	88%	<b>88%</b>	
Administration & reserve	0.25	<b>0.75</b>	0.13	0.11	<b>1.19</b>	0.11	0.11	0.11	0.11	<b>0.44</b>	
<b>Distributable income (\$mm)</b>											
2.06	<b>8.13</b>	1.30	2.06	<b>6.52</b>	2.04	2.10	2.19	2.25	<b>8.59</b>		
<b>Units (millions)</b>											
6.0	<b>6.0</b>	6.0	6.0	<b>6.0</b>	6.0	6.0	6.0	6.0	<b>6.0</b>		
<b>Royalty income (\$/unit)</b>											
Natural Gas			E								
TL TX	0.05	<b>0.16</b>	0.02	0.03	<b>0.09</b>	0.03	0.03	0.03	0.03	<b>0.12</b>	
TL OK	0.04	<b>0.19</b>	0.02	0.03	<b>0.10</b>	0.03	0.03	0.03	0.03	<b>0.12</b>	
TL NM	0.19	<b>0.48</b>	0.13	0.19	<b>0.70</b>	0.19	0.20	0.20	0.20	<b>0.79</b>	
BL TX	-	-									
BL OK	-	<b>0.00</b>									
Oil											
TL TX	0.07	<b>0.35</b>	0.07	0.07	<b>0.26</b>	0.06	0.07	0.07	0.07	<b>0.28</b>	
TL OK	0.03	<b>0.22</b>	0.04	0.04	<b>0.14</b>	0.04	0.04	0.04	0.04	<b>0.17</b>	
TL NM	0.01	<b>0.04</b>	0.01	0.01	<b>0.03</b>	0.01	0.01	0.01	0.01	<b>0.03</b>	
BL TX	-	-									
BL OK	-	<b>0.03</b>									
Administration	0.04	<b>0.14</b>	0.02	0.02	<b>0.08</b>	0.02	0.02	0.02	0.02	<b>0.08</b>	
Reserve and other	0.05										
<b>Distribution (\$/unit)</b>											
0.34	<b>1.35</b>	0.22	0.34	<b>1.09</b>	0.34	0.35	0.36	0.38	<b>1.43</b>		



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Dorchester Minerals, L.P. Operating and Financial Performance										
	<i>Q4</i>	<i>Year</i>	<i>Q3</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Next Twelve Months</i>
	12/31/15	2015	9/30/16	12/31/16	2016E	3/31/17	6/30/17	9/30/17	12/13/17	12/31/17
<b>TOP LINE</b>										
<b>Volume</b>										
Natural Gas (mmcfd)	10.9	<b>10.1</b>	8.4	8.1	<b>8.8</b>	7.8	7.5	7.2	6.9	<b>7.3</b>
Oil (mbd)	1.51	<b>1.44</b>	1.77	1.80	<b>1.68</b>	1.83	1.85	1.88	1.91	<b>1.87</b>
<b>Price</b>										
Henry Hub (\$/mmbtu)	2.28	<b>2.67</b>	2.81	2.85	<b>2.43</b>	3.00	2.99	3.05	3.13	<b>3.04</b>
WTI Cushing (\$/bbl)	42.21	<b>48.79</b>	44.91	47.08	<b>42.78</b>	47.11	49.02	49.99	50.46	<b>49.15</b>
Natural Gas (\$/mcf)	1.86	<b>2.30</b>	2.42	2.46	<b>2.06</b>	2.58	2.57	2.62	2.70	<b>2.62</b>
Oil (\$/bbl)	38.82	<b>42.23</b>	38.72	40.59	<b>36.82</b>	42.40	44.12	44.99	45.41	<b>44.23</b>
<b>Revenue (\$mm)</b>										
Natural Gas	1.9	<b>8.5</b>	1.9	1.8	<b>6.6</b>	1.8	1.7	1.7	1.7	<b>7.0</b>
Oil	5.4	<b>22.1</b>	6.3	6.7	<b>22.7</b>	7.0	7.4	7.8	8.0	<b>30.2</b>
Total Revenue	7.3	<b>30.6</b>	8.2	8.5	<b>29.3</b>	8.8	9.2	9.5	9.7	<b>37.2</b>
<b>Expense (allocated)</b>										
Expense (allocated)	1.9	<b>5.2</b>	1.4	1.4	<b>5.3</b>	1.3	1.3	1.3	1.3	<b>5.1</b>
<b>Ebitda</b>										
Ebitda	5.4	<b>25.4</b>	6.8	7.1	<b>24.0</b>	7.5	7.9	8.2	8.4	<b>32.1</b>
<b>BOTTOM LINE</b>										
<b>Volume</b>										
Natural Gas (mmcfd)	8.3	<b>8.9</b>	6.5	6.4	<b>7.1</b>	6.3	6.1	6.0	5.9	<b>6.1</b>
Oil (mbd)	0.76	<b>1.09</b>	0.91	0.95	<b>1.08</b>	1.00	1.04	1.09	1.14	<b>1.07</b>
<b>Price</b>										
Natural Gas (\$/mcf)	1.80	<b>2.49</b>	2.33	2.36	<b>2.14</b>	2.49	2.47	2.53	2.60	<b>2.52</b>
Oil (\$/bbl)	36.64	<b>49.46</b>	36.10	37.84	<b>34.58</b>	37.69	39.22	39.99	40.37	<b>39.32</b>
<b>Revenue (\$mm)</b>										
Natural Gas	1.4	<b>8.1</b>	1.4	1.4	<b>5.5</b>	1.4	1.4	1.4	1.4	<b>5.6</b>
Oil	2.6	<b>19.7</b>	3.0	3.3	<b>13.7</b>	3.4	3.7	4.0	4.2	<b>15.3</b>
Total Revenue	3.9	<b>27.8</b>	4.4	4.7	<b>19.2</b>	4.8	5.1	5.4	5.6	<b>20.9</b>
<b>Expense (allocated)</b>										
Partnership	1.0	<b>4.1</b>	0.8	0.8	<b>3.5</b>	0.8	0.8	0.8	0.8	<b>3.4</b>
Net Profits Interests	1.7	<b>6.9</b>	2.2	2.4	<b>9.5</b>	2.4	2.5	2.7	2.8	<b>10.5</b>
Total Expense	2.7	<b>11.0</b>	3.0	3.1	<b>13.0</b>	3.2	3.4	3.5	3.7	<b>13.8</b>
<b>Ebitda</b>										
Ebitda	1.2	<b>16.8</b>	1.4	1.6	<b>6.1</b>	1.6	1.7	1.9	2.0	<b>7.1</b>
Development (estimated)	1.2	<b>15.8</b>	0.6	0.7	<b>4.7</b>	0.7	0.8	0.8	0.8	<b>3.1</b>
<b>NET INCOME</b>										
Top Line	5.4	<b>25.4</b>	6.8	7.1	<b>24.0</b>	7.5	7.9	8.2	8.4	<b>32.1</b>
Bottom Line	0.0	<b>1.0</b>	0.8	0.9	<b>1.5</b>	0.8	1.0	1.0	1.1	<b>4.0</b>
Lease Bonus and residual	0.4	<b>3.5</b>	(0.9)		<b>(2.9)</b>					-
Deprec., Deplet., & Amort.	2.2	<b>10.1</b>	2.1	2.1	<b>8.6</b>	2.1	2.1	2.1	2.1	<b>8.3</b>
Total Net Income	2.8	<b>12.9</b>	6.4	5.9	<b>19.7</b>	6.3	6.8	7.2	7.4	<b>27.8</b>
Units (mm)	30.7	<b>30.7</b>	30.7	30.7	<b>30.7</b>	30.7	30.7	30.7	30.7	<b>30.7</b>
Net Income Per Unit (\$)	0.09	<b>0.42</b>	0.21	0.19	<b>0.64</b>	0.21	0.22	0.23	0.24	<b>0.91</b>
<b>DISTRIBUTION</b>										
Top Line Revenue	7.6	<b>30.6</b>	6.5	8.2	<b>26.3</b>	8.4	8.8	9.1	9.3	<b>35.7</b>
Bottom Line Net Revenue	0.7	<b>4.0</b>	1.9	1.6	<b>6.3</b>	1.7	1.8	1.9	2.0	<b>7.3</b>
Lease Bonus and Other	0.1	<b>0.2</b>	0.9	0.1	<b>2.7</b>	0.1	0.1	0.1	0.1	<b>0.4</b>
Cash Expense	(2.3)	<b>(8.2)</b>	(1.6)	(2.0)	<b>(7.2)</b>	(2.0)	(2.0)	(2.0)	(2.0)	<b>(8.0)</b>
Distribution	6.1	<b>26.6</b>	7.7	7.9	<b>28.1</b>	8.2	8.7	9.1	9.4	<b>35.4</b>
Distribution Per Unit (\$)	0.20	<b>0.87</b>	0.25	0.26	<b>0.92</b>	0.27	0.28	0.30	0.31	<b>1.15</b>



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Permian Basin Royalty Trust Next Twelve Months Operating and Financial Estimates										
	<i>Q4</i> <i>12/31/15</i>	<i>Year</i> <i>2015</i>	<i>Q3</i> <i>9/30/16</i>	<i>Q4E</i> <i>12/31/16</i>	<i>Year</i> <i>2016</i>	<i>Q1E</i> <i>3/31/17</i>	<i>Q2E</i> <i>6/30/17</i>	<i>Q3E</i> <i>9/30/17</i>	<i>Q4E</i> <i>12/31/17</i>	<i>Next Twelve Months</i> <i>12/31/17</i>
<b>TOP LINE</b>										
<b>Volume</b>										
Natural Gas (mmcfd)	1.1	<b>1.1</b>	0.9	0.9	<b>1.0</b>	0.9	0.9	0.9	0.9	<b>0.9</b>
Oil (mbd)	0.86	<b>0.90</b>	0.80	0.82	<b>0.82</b>	0.82	0.82	0.83	0.83	<b>0.82</b>
<b>Price</b> (cash lagged two months)										
Natural Gas (\$/mcf)	4.37	<b>5.07</b>	3.95	4.05	<b>3.61</b>	4.11	4.30	4.33	4.38	<b>4.26</b>
Oil (\$/bbl)	44.28	<b>51.34</b>	41.97	40.58	<b>37.65</b>	39.98	41.64	43.06	43.69	<b>42.47</b>
<b>Revenue</b> (\$mm)										
Natural Gas	0.4	<b>2.1</b>	0.3	0.3	<b>1.3</b>	0.3	0.3	0.3	0.4	<b>1.4</b>
Oil	3.5	<b>16.9</b>	3.1	3.0	<b>11.4</b>	3.0	3.1	3.3	3.3	<b>12.7</b>
Total Revenue	3.9	<b>19.0</b>	3.4	3.4	<b>12.7</b>	3.4	3.4	3.6	3.7	<b>14.1</b>
<b>Expense</b>										
Operating		<b>1.0</b>			-					
Production & Property taxes	0.6	<b>1.6</b>	0.6	0.6	<b>1.9</b>	0.6	0.6	0.4	0.4	<b>1.9</b>
Total Expense	0.6	<b>2.6</b>	0.6	0.6	<b>1.9</b>	0.6	0.6	0.4	0.4	<b>1.9</b>
<b>Ebitda</b>	3.3	<b>16.4</b>	2.8	2.8	<b>10.8</b>	2.8	2.8	3.2	3.3	<b>12.2</b>
Ebitda times 95%	3.2	<b>15.6</b>	2.7	2.7	<b>10.2</b>	2.7	2.7	3.1	3.1	<b>11.6</b>
<b>BOTTOM LINE</b>										
<b>Volume</b>										
Natural Gas (mmcfd)	13.8	<b>14.2</b>	15.3	13.2	<b>14.1</b>	13.2	12.8	12.8	12.8	<b>13.5</b>
Oil (mbd)	2.37	<b>2.43</b>	2.27	2.23	<b>2.38</b>	2.25	2.27	2.30	2.32	<b>2.28</b>
<b>Price</b> (cash lagged two months)										
Natural Gas (\$/mcf)	2.46	<b>2.85</b>	2.37	2.73	<b>2.19</b>	2.77	2.89	2.91	2.95	<b>2.74</b>
Oil (\$/bbl)	44.04	<b>50.46</b>	43.28	41.17	<b>37.61</b>	40.56	42.24	43.68	44.32	<b>42.85</b>
<b>Revenue</b> (\$mm)										
Natural Gas	3.1	<b>14.7</b>	3.3	3.3	<b>11.3</b>	3.4	3.3	3.4	3.5	<b>13.6</b>
Oil	9.6	<b>44.7</b>	9.0	8.4	<b>32.8</b>	8.4	8.6	9.2	9.5	<b>35.6</b>
Total Revenue	12.7	<b>59.5</b>	12.3	11.8	<b>44.1</b>	11.8	11.9	12.7	12.9	<b>49.2</b>
<b>Expense</b>										
Operating	5.9	<b>25.2</b>	4.6	4.3	<b>20.2</b>	4.3	4.3	5.0	5.0	<b>18.6</b>
Production taxes	1.1	<b>3.7</b>	1.1	1.1	<b>4.2</b>	1.1	1.1	1.1	1.1	<b>4.3</b>
Total Expense	7.0	<b>28.9</b>	5.7	5.4	<b>24.3</b>	5.4	5.4	6.1	6.1	<b>22.8</b>
<b>Ebitda</b>	5.7	<b>30.6</b>	6.7	6.4	<b>19.7</b>	6.4	6.5	6.6	6.9	<b>26.4</b>
Development	6.9	<b>23.7</b>	0.9	0.6	<b>3.9</b>	0.8	0.8	0.8	0.8	<b>3.2</b>
(Ebitda-Dvlpmnt) times 75%	(0.9)	<b>3.6</b>	4.4	4.3	<b>11.9</b>	4.2	4.3	4.3	4.5	<b>17.4</b>
Excess Costs	(0.9)	<b>1.6</b>	1.1		<b>2.0</b>					-
<b>CASH DISTRIBUTION</b>										
<b>Royalty Income</b> (\$mm)										
Top Line	3.2	<b>15.6</b>	2.7	2.7	<b>10.2</b>	2.7	2.7	3.1	3.1	<b>11.6</b>
Bottom Line	(0.0)	<b>2.2</b>	3.2	3.6	<b>9.1</b>	4.2	4.3	4.3	4.5	<b>17.4</b>
Administration	0.3	<b>1.8</b>	0.3	0.3	<b>1.8</b>	0.4	0.4	0.4	0.4	<b>1.6</b>
<b>Distributable Income</b> (\$mm)	2.8	<b>16.1</b>	6.2	6.6	<b>18.8</b>	6.5	6.6	7.0	7.3	<b>27.3</b>
Units (millions)	47	<b>47</b>	47	47	<b>47</b>	47	47	47	47	<b>47</b>
<b>Distribution</b> (\$/unit)	0.06	<b>0.34</b>	0.13	0.14	<b>0.41</b>	0.14	0.14	0.15	0.16	<b>0.59</b>



**McDEP** LLC Industry Idea

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Sabine Royalty Trust Next Twelve Months Operating and Financial Performance										
	<i>Q4</i>	<i>Year</i>	<i>Q3</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Next Twelve Months</i>
	<i>12/31/15</i>	<i>2015</i>	<i>9/30/16</i>	<i>12/31/16</i>	<i>2016E</i>	<i>3/31/17</i>	<i>6/30/17</i>	<i>9/30/17</i>	<i>12/31/17</i>	<i>12/31/17</i>
<b>Volume</b>										
Natural Gas (bcf)	2.00	<b>7.66</b>	1.70	1.72	<b>6.60</b>	1.72	1.68	1.70	1.72	<b>6.82</b>
Natural Gas (mmcfd)	21.8	<b>21.0</b>	18.7	18.7	<b>18.0</b>	18.7	18.7	18.7	18.7	<b>18.7</b>
Days	92	<b>365</b>	91	92	<b>366</b>	92	90	91	92	<b>365</b>
Oil (mmb)	0.164	<b>0.551</b>	0.156	0.157	<b>0.541</b>	0.159	0.156	0.159	0.162	<b>0.636</b>
Oil (mbd)	1.78	<b>1.51</b>	1.70	1.71	<b>1.48</b>	1.72	1.74	1.75	1.76	<b>1.74</b>
Days	92	<b>365</b>	92	92	<b>365</b>	92	89	92	92	<b>365</b>
Total (bcfe)	2.99	<b>10.97</b>	2.64	2.66	<b>9.85</b>	2.67	2.62	2.66	2.69	<b>10.64</b>
Total (mmcfd)	32.5	<b>30.0</b>	28.9	28.9	<b>26.9</b>	29.0	29.1	29.2	29.3	<b>29.1</b>
<b>Price (Henry Hub natural gas lagged three months; WTI Cushing oil, two months)</b>										
Henry Hub (\$/mmbtu)	2.76	<b>3.11</b>	1.95	2.81	<b>2.28</b>	2.85	3.00	2.99	3.05	<b>2.97</b>
Differential (%)	11	(3)	(5)	-	(3)	-	-	-	-	<b>0</b>
Trust (\$/mcf)	2.46	<b>3.21</b>	2.05	2.81	<b>2.36</b>	2.85	3.00	2.99	3.05	<b>2.97</b>
WTI Cushing (\$/bbl)	44.87	<b>53.37</b>	46.80	46.60	<b>41.85</b>	45.91	47.82	49.45	50.17	<b>48.34</b>
Differential	(0.01)	(0.64)	4.32	4.30	<b>2.62</b>	-	-	-	-	(0.01)
Trust (\$/bbl)	44.89	<b>54.01</b>	42.48	42.30	<b>39.24</b>	45.91	47.82	49.45	50.17	<b>48.35</b>
Total (\$/bcfe)	4.11	<b>4.96</b>	3.84	4.31	<b>3.74</b>	4.56	4.78	4.88	4.97	<b>4.80</b>
<b>Revenue (\$mm)</b>										
Natural Gas	4.9	<b>24.6</b>	3.5	4.8	<b>15.5</b>	4.9	5.1	5.1	5.2	<b>20.3</b>
Oil	7.4	<b>29.8</b>	6.6	6.7	<b>21.2</b>	7.3	7.5	7.9	8.1	<b>30.8</b>
Total	12.3	<b>54.3</b>	10.1	11.5	<b>36.8</b>	12.2	12.5	13.0	13.4	<b>51.0</b>
<b>Expense</b>										
Tax and other	3.1	<b>6.7</b>	1.1	1.4	<b>4.3</b>	1.1	1.5	1.6	1.6	<b>5.8</b>
General and administrative	0.5	<b>2.4</b>	0.5	0.6	<b>2.6</b>	0.6	0.5	0.6	0.6	<b>2.4</b>
Total	3.6	<b>9.1</b>	1.6	2.0	<b>7.0</b>	1.7	2.0	2.2	2.3	<b>8.2</b>
<b>Ebitda</b>	8.7	<b>45.2</b>	8.5	9.5	<b>29.8</b>	10.4	10.5	10.8	11.1	<b>42.9</b>
<b>Ebit</b>	8.7	<b>45.2</b>	8.5	9.5	<b>29.8</b>	10.4	10.5	10.8	11.1	<b>42.9</b>
<b>Ebt</b>	8.7	<b>45.2</b>	8.5	9.5	<b>29.8</b>	10.4	10.5	10.8	11.1	<b>42.9</b>
<b>Distributable Income (\$mm)</b>	8.7	<b>45.2</b>	8.5	9.5	<b>29.8</b>	10.4	10.5	10.8	11.1	<b>42.9</b>
Units (millions)	14.6	<b>14.6</b>	14.6	14.6	<b>14.6</b>	14.6	14.6	14.6	14.6	<b>14.6</b>
Per Unit (\$)	0.60	<b>3.10</b>	0.58	0.65	<b>2.05</b>	0.72	0.72	0.74	0.76	<b>2.94</b>



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San Juan Basin Royalty Trust Next Twelve Months Operating and Financial Estimates										
	Q4 12/31/15	Year 2015	Q3 9/30/16	Q4E 12/31/16	Year 2016E	Q1E 3/31/17	Q2E 6/30/17	Q3E 9/30/17	Q4E 12/31/17	Next Twelve Months 12/31/17
<b>Volume</b>										
Natural gas (mmbtu)	7.9	<b>32.0</b>	7.6	7.9	<b>30.9</b>	7.8	7.7	7.6	7.6	<b>30.7</b>
Heat Content(btu/cf)	1,098	<b>1,099</b>	1,114	1,112	<b>1,109</b>	1,112	1,112	1,112	1,112	<b>1,112</b>
Natural gas (bcf)	7.2	<b>29.1</b>	6.8	7.1	<b>27.9</b>	7.0	6.9	6.9	6.8	<b>27.6</b>
Natural Gas (mmcfd)	78.2	<b>79.8</b>	74.1	77.0	<b>76.2</b>	76.2	75.5	74.7	74.0	<b>75.1</b>
Days	92	<b>365</b>	92	92	<b>366</b>	92	92	92	92	<b>368</b>
Oil (mb)	0.01	<b>0.06</b>	0.02	0.02	<b>0.08</b>	0.02	0.02	0.02	0.02	<b>0.07</b>
Oil (mbd)	0.14	<b>0.17</b>	0.21	0.20	<b>0.21</b>	0.20	0.20	0.20	0.20	<b>0.20</b>
Total gas & oil (bcf)	7.3	<b>29.5</b>	6.9	7.2	<b>28.4</b>	7.1	7.1	7.0	6.9	<b>28.1</b>
<b>Price</b>										
Natural gas (\$/mmbtu) (Henry Hub lagged two months)										
Henry Hub (\$/mmbtu)	2.69	<b>2.98</b>	2.29	2.82	<b>2.32</b>	2.86	3.00	3.02	3.05	<b>2.98</b>
Differential (%)	26	<b>22</b>	26	24	<b>27</b>	24	24	25	25	<b>25</b>
Net to SJT (\$/mmbtu)	2.00	<b>2.32</b>	1.70	2.14	<b>1.69</b>	2.17	2.27	2.26	2.29	<b>2.25</b>
Natural gas (\$/mcf)	2.20	<b>2.54</b>	1.89	2.38	<b>1.88</b>	2.41	2.52	2.51	2.54	<b>2.50</b>
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	44.87	<b>53.37</b>	46.80	46.60	<b>41.85</b>	45.91	47.82	49.45	50.17	<b>48.34</b>
SJT	46.25	<b>47.00</b>	33.94	33.80	<b>29.88</b>	32.78	34.14	35.30	35.81	<b>34.49</b>
Total gas & oil (\$/mcf)	2.26	<b>2.61</b>	1.96	2.43	<b>1.93</b>	2.46	2.57	2.57	2.60	<b>2.55</b>
<b>Revenue (\$mm)</b>										
Natural Gas	15.8	<b>74.1</b>	12.9	16.8	<b>52.3</b>	16.9	17.5	17.3	17.3	<b>69.0</b>
Oil	0.6	<b>3.0</b>	0.7	0.6	<b>2.3</b>	0.6	0.6	0.6	0.6	<b>2.5</b>
Total	16.4	<b>77.1</b>	13.6	17.5	<b>54.6</b>	17.5	18.2	17.9	18.0	<b>71.6</b>
<b>Cost (\$mm)</b>										
Severance tax	1.8	<b>8.1</b>	1.5	1.9	<b>6.3</b>	1.9	2.0	2.0	2.0	<b>7.9</b>
Operating	7.1	<b>30.1</b>	6.1	6.1	<b>25.6</b>	6.1	6.1	6.1	6.1	<b>24.3</b>
Total	8.9	<b>38.2</b>	7.6	8.0	<b>31.9</b>	8.0	8.1	8.1	8.1	<b>32.2</b>
<b>Cash flow (\$mm)</b>										
Development	1.5	<b>12.8</b>	0.1	0.5	<b>1.5</b>	0.5	0.5	0.5	0.5	<b>2.0</b>
<b>Net proceeds (\$mm)</b>										
Net proceeds (\$mm)	6.1	<b>26.1</b>	5.9	8.9	<b>21.2</b>	9.0	9.6	9.4	9.4	<b>37.4</b>
<b>Royalty income (\$mm)</b>										
Royalty/Net proceeds	4.5	<b>19.6</b>	4.4	6.7	<b>15.9</b>	6.8	7.2	7.0	7.0	<b>28.0</b>
Administration	0.7	<b>2.6</b>	0.4	(0.1)	<b>2.8</b>	0.3	0.3	0.3	0.3	<b>1.2</b>
<b>Distributable income (\$mm)</b>										
Units (millions)	3.8	<b>17.0</b>	4.0	6.8	<b>13.1</b>	6.5	6.9	6.7	6.7	<b>26.8</b>
Per unit	0.08	<b>0.36</b>	0.09	0.15	<b>0.28</b>	0.14	0.15	0.14	0.14	<b>0.58</b>



Analysis of Oil and Gas Stocks  
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Table 1										
McDep Energy Stocks										
Enterprise Value, Segments, Yield and McDep Ratio										
					Present Value by Segment (%)					
		Price			North Amer.	Rest of World			Dist. Yield	
		(US\$/sh)	EV/	Enterprise						
Symbol/Rating		21-Nov	Market	Value	Natural Gas	Natural Gas	Oil Prod'n	Down-stream	NTM (%)	McDep Ratio
			2016	Cap (\$mm)						
<b>Global Integrated</b>										
Exxon Mobil Corporation	XOM	86.49	1.26	456,000	10	15	49	26	3.5	0.89
Chevron Corporation	CVX	110.18	1.33	276,000	3	14	64	20	3.9	0.86
Royal Dutch Shell	RDS-A	B	50.53	1.71	342,000	2	18	56	24	7.4
Total S.A.	TOT	B	46.85	1.55	175,000		19	57	24	5.5
<i>Total or Median</i>				1.44	1,249,000			56	24	4.7
<b>Large Independent</b>										
EOG Resources, Inc.	EOG	95.67	1.14	59,600	13	1	86		0.7	1.11
Devon Energy Corporation	DVN	44.90	1.46	34,600	30		60	10	0.5	1.00
Occidental Petroleum Corp.	OXY	69.23	1.20	63,400	5	2	84	9	4.4	0.93
Marathon Oil Corporation	MRO	B	16.48	1.58	22,100	10	2	88		1.2
ConocoPhillips	COP	B	46.36	1.68	97,000	13	13	74		2.2
<i>Total or Median</i>				1.46	277,000	13		84		1.2
<b>Small Independent</b>										
Cimarex Energy Company	XEC	129.16	1.11	13,300	38		62		0.2	1.07
Continental Resources (32%)	CLR	B	53.68	1.34	8,500	29		71		-
California Resources	CRC		15.83	10.39	6,900	13		87		0.83
Whiting Petroleum Corporation	WLL		10.23	2.48	7,200	10		90		-
Range Resources	RRRC	B	36.40	1.48	13,200	76		24		0.2
<i>Total or Median</i>				1.48	49,000	29		71		-
<b>Income</b>										
San Juan Basin Royalty Trust	SJT		6.54	1.00	310	100		-	8.8	0.82
Dorchester Minerals, L.P.	DMLP	B	16.70	1.00	510	28		72	6.9	0.70
Permian Basin RT	PBT		7.30	1.00	340	23		77	8.0	0.66
Cross Timbers Royalty Trust	CRT		17.92	1.00	110	71		29	8.0	0.62
Sabine Royalty Trust	SBR	B	35.90	1.00	520	44		56	8.2	0.60
<i>Total or Median</i>				1.00	1,800	44		56	8.0	0.66
<b>Canada</b>										
EnCana Corporation	ECA		12.19	1.55	18,500	41		59		0.5
Imperial Oil Limited (30%)	IMO		33.92	1.28	11,100	1		62	37	1.3
Cenovus Energy Inc.	CVE		15.32	1.32	16,800	10		81	9	1.0
Suncor Energy	SU	B	31.84	1.34	71,100	-		86	14	2.7
Birchcliff Energy Ltd.	BIREF	B	6.68	1.35	2,400	74		26		1.1
<i>Total or Median</i>				1.34	120,000			62		1.1
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.										
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)										
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses										
For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a>										



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**Table 2**  
**McDep Energy Stocks**  
**Net Present Value and McDep Ratio**

	Symbol/Rating	Price		Net			Debt/ Present Value	McDep Ratio		
		(US\$/sh)	21-Nov B = Buy	Market Shares (mm)	Present Cap (US\$mm)	Value (US\$/sh)				
		2016								
<b>Global Integrated</b>										
Exxon Mobil Corporation	XOM	86.49	4,178	361,000	100.00	0.19	0.89			
Chevron Corporation	CVX	110.18	1,883	208,000	135.00	0.21	0.86			
Royal Dutch Shell	RDS-A	B	50.53	3,965	200,000	80.00	0.31	0.75		
Total S.A.	TOT	B	46.85	2,404	113,000	90.00	0.22	0.63		
	<i>Total or Median</i>				882,000		0.22	0.80		
<b>Large Independent</b>										
EOG Resources, Inc.	EOG	95.67	548	52,400	85.00	0.13	1.11			
Devon Energy Corporation	DVN	44.90	527	23,700	45.00	0.31	1.00			
Occidental Petroleum Corp.	OXY	69.23	764	52,900	75.00	0.15	0.93			
Marathon Oil Corporation	MRO	B	16.48	847	13,960	20.00	0.33	0.88		
ConocoPhillips	COP	B	46.36	1,246	58,000	70.00	0.31	0.77		
	<i>Total or Median</i>				201,000		0.31	0.93		
<b>Small Independent</b>										
Cimarex Energy Company	XEC	129.16	93	12,000	120.00	0.10	1.07			
Continental Resources (32%)	CLR	B	53.68	118	6,400	56.00	0.25	0.97		
California Resources	CRC		15.83	42	700	50.00	0.75	0.83		
Whiting Petroleum Corporation	WLL		10.23	282	2,900	18.00	0.46	0.77		
Range Resources	RRC	B	36.40	244	8,900	56.00	0.24	0.73		
	<i>Total or Median</i>				31,000		0.25	0.83		
<b>Income</b>										
San Juan Basin Royalty Trust	SJT	6.54	47	310	8.00	-	0.82			
Dorchester Minerals, L.P.	DMLP	B	16.70	31	510	24.00	-	0.70		
Permian Basin RT	PBT		7.30	47	340	11.00	-	0.66		
Cross Timbers Royalty Trust	CRT		17.92	6	110	29.00	-	0.62		
Sabine Royalty Trust	SBR	B	35.90	15	520	60.00	-	0.60		
	<i>Total or Median</i>				1,800		-	0.66		
<b>Canada</b>										
EnCana Corporation	ECA	12.19	973	11,900	10.00	0.40	1.13			
Imperial Oil Limited (30%)	IMO	33.92	255	8,700	38.00	0.20	0.91			
Cenovus Energy Inc.	CVE		15.32	833	12,800	20.00	0.19	0.81		
Suncor Energy	SU	B	31.84	1,665	53,000	44.00	0.20	0.78		
Birchcliff Energy Ltd.	BIREF	B	6.68	263	1,800	10.00	0.19	0.73		
	<i>Total or Median</i>				88,000		0.20	0.81		
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.										
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)										
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses										
For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a>										



**McDep**  
LLC

# Industry Idea

Analysis of Oil and Gas Stocks

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**Table 3**  
**McDep Energy Stocks**  
**Value Multiples and Dividend**  
**Ranked by EV/Ebitda**

		Price (US\$/sh)	Adjustd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda		Dividend P/E NTM (\$/sh)
	Symbol/Rating B = Buy	21-Nov 2016	NTM	NTM	NTM	NTM	
<b>Global Integrated</b>							
Exxon Mobil Corporation	XOM	86.49	15.0	12.7	11.3	28	3.00
Chevron Corporation	CVX	110.18	9.8	12.1	10.4	43	4.32
Royal Dutch Shell	RDS-A	B	50.53	9.5	9.9	7.4	19
Total S.A.	TOT	B	46.85	9.9	10.7	6.7	14
	<i>Median</i>			9.8	11.4	8.9	24
<b>Large Independent</b>							
Devon Energy Corporation	DVN	44.90	8.4	16.6	16.6		0.24
EOG Resources, Inc.	EOG	95.67	7.5	13.2	14.6		0.67
Marathon Oil Corporation	MRO	B	16.48	12.6	15.1	13.3	
Occidental Petroleum Corp.	OXY		69.23	8.9	13.9	13.0	
ConocoPhillips	COP	B	46.36	11.0	14.4	11.1	
	<i>Median</i>			8.9	14.4	13.3	
<b>Small Independent</b>							
Continental Resources (32%)	CLR	B	53.68	11.4	16.5	16.0	-
Cimarex Energy Company	XEC		129.16	6.8	13.7	14.7	0.32
Range Resources	RRC	B	36.40	11.9	20.0	14.7	0.08
California Resources	CRC		15.83	12.0	12.2	10.1	-
Whiting Petroleum Corporation	WLL		10.23	9.3	12.3	9.5	-
	<i>Median</i>			11.4	13.7	14.7	
<b>Income</b>							
Dorchester Minerals, L.P.	DMLP	B	16.70	7.4	18.8	13.1	18
Sabine Royalty Trust	SBR	B	35.90	9.1	20.4	12.2	12
Cross Timbers Royalty Trust	CRT		17.92	7.2	18.9	11.8	13
San Juan Basin Royalty Trust	SJT		6.54	10.0	13.2	10.8	11
Permian Basin RT	PBT		7.30	8.6	17.4	11.5	13
	<i>Median</i>			8.6	18.8	11.8	13
<b>Canada</b>							
EnCana Corporation	ECA		12.19	6.1	13.0	14.7	0.06
Birchcliff Energy Ltd.	BIREF	B	6.68	12.1	14.6	10.7	0.07
Cenovus Energy Inc.	CVE		15.32	16.2	12.2	9.9	0.15
Imperial Oil Limited (30%)	IMO		33.92	33.0	10.4	9.5	0.44
Suncor Energy	SU	B	31.84	20.7	11.7	9.1	0.86
	<i>Median</i>			16.2	12.2	9.9	
	<i>Grand Median</i>			10	14	12	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation

and amortization; NTM = Next Twelve Months Ended December 31, 2017; P/E = Stock Price to

Earnings; PV = Present Value of oil and gas and other businesses

For historical research see [www.mcdep.com](http://www.mcdep.com)



**McDep** LLC Industry Idea

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**Table 4**  
**McDep Energy Stocks**  
**Total Return Year-to-Date 2016**  
**Ranked by Unlevered Total Return**

Symbol/Rati		Price	Price	Cash	Distrib.	Equity	Unlevered	McDep
		(\$/sh)	(\$/sh)			Total	Total	
		21-Nov	31-Dec			Change (%)	(%)	
<b>Global Integrated</b>								
Chevron Corporation	CVX	110.18	89.96	22	4	26	37	19 0.86
Exxon Mobil Corporation	XOM	86.49	77.95	11	3	14	23	11 0.89
Royal Dutch Shell	RDS-A	B	50.53	45.79	10	6	17	36 9 0.75
Total S.A.	TOT	B	46.85	44.95	4	5	9	26 6 0.63
	<i>Median</i>					11	15	10 0.80
<b>Large Independent</b>								
EOG Resources, Inc.	EOG	95.67	70.79	35	1	36	13	30 1.11
Devon Energy Corporation	DVN	44.90	32.00	40	1	41	21	25 1.00
Marathon Oil Corporation	MRO	B	16.48	12.58	31	1	32	10 18 0.88
Occidental Petroleum Corp.	OXY		69.23	67.61	2	3	6	14 5 0.93
ConocoPhillips	COP	B	46.36	46.69	(1)	2	1	32 1 0.77
	<i>Median</i>					31	32	18 0.93
<b>Small Independent</b>								
Continental Resources (32%)	CLR	B	53.68	22.98	134	-	134	18 74 0.97
Cimarex Energy Company	XEC		129.16	89.38	45	0	45	14 39 1.07
Range Resources	RRC	B	36.40	24.62	48	0	48	18 28 0.73
Whiting Petroleum Corporation	WLL		10.23	9.44	8	-	8	15 3 0.77
California Resources	CRC		15.83	23.30	(32)	-	(32)	148 (4) 0.83
	<i>Median</i>					45	45	28 0.83
<b>Income</b>								
Dorchester Minerals, L.P.	DMLP	B	16.70	9.89	69	6	75	- 75 0.70
San Juan Basin Royalty Trust	SJT		6.54	4.14	58	4	62	- 62 0.82
Permian Basin RT	PBT		7.30	5.06	44	6	50	- 50 0.66
Cross Timbers Royalty Trust	CRT		17.92	13.01	38	7	44	- 44 0.62
Sabine Royalty Trust	SBR	B	35.90	26.26	37	6	42	- 42 0.60
	<i>Median</i>					44	50	50 0.66
<b>Canada</b>								
Birchcliff Energy Ltd.	BIREF	B	6.68	2.93	128	-	128	2 71 0.73
EnCana Corporation	ECA		12.19	5.09	139	1	140	7 60 1.13
Suncor Energy	SU	B	31.84	25.80	23	3	26	11 18 0.78
Cenovus Energy Inc.	CVE		15.32	12.62	21	1	22	5 16 0.81
Imperial Oil Limited (30%)	IMO		33.92	32.52	4	1	5	9 4 0.91
	<i>Median</i>					23	26	18 0.81
<i>Grand Median</i>								
<b>Natural Gas (\$/mmbtu)</b>			2.96	2.33	27			
<b>Oil -West Texas Intermediate (\$/bbl)</b>			47.49	37.06	28			
<b>S&amp;P 500</b>			2,198	2,044	8			

Source: McDep LLC, Yahoo, CME Group, Bloomberg

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