

Energy Price Participation CRT, DMLP, PBT, SBR, SJT

		Price (US\$/sh)	Market Cap (US\$mm)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	PV/ Ebitda NTM	Oil Prod'n/ Ebitda (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
Permian Basin RT	PBT	9.24	430	430	1.00	11.9	12.8	80	8.3	0.92
Sabine Royalty Trust	SBR	45.80	670	670	1.00	12.8	14.0	71	7.8	0.92
Dorchester Minerals, L.P.	DMLP	19.45	630	630	1.00	9.4	11.5	84	9.2	0.81
San Juan Basin Royalty Trust	SJT	5.98	280	280	1.00	12.9	17.3	-	7.6	0.75
Cross Timbers Royalty Trust	CRT	14.85	90	90	1.00	8.0	13.5	38	10.2	0.59
<i>Total or Median</i>			2,100	2,100	1.00	11.9	13.5	71	8.3	0.81

Summary and Recommendation

Oil and Gas Income stocks offering an estimated median 8.3% cash distribution yield and trading at a median McDep Ratio of 0.81 look like attractive investments for participation in oil and gas price trends.

- **Dorchester Minerals, L.P. (DMLP)** declared an extra strong quarterly distribution on July 19 that included a one-time gain from a lease transaction. The declaration of \$0.54 a unit matched our estimate. DMLP's four quarter distribution trend looks most promising until at least a year from now when we'll see if the non-recurring contribution to the second quarter 2018 is offset by strengthened operating performance in second quarter 2019 (see chart [Latest Four Quarters Distribution](#) on page 2).
- **Sabine Royalty Trust (SBR)** delivers a solid twelve-month distribution trend including the latest monthly declaration on July 6 (see chart [Latest Twelve Months Distribution](#) on page 2).
- **Cross Timbers Royalty Trust (CRT)** scores the highest cash return at 10.2% and lowest McDep Ratio of 0.59. Declared on July 20, the latest monthly distribution of \$0.12 a unit supports our estimate of \$1.51 for the next twelve months.

Distribution estimates for all five income stocks are updated weekly for oil and gas futures prices. Operating trends are updated monthly or quarterly (see tables [Operating and Financial Estimates](#) on pages 3 to 7).

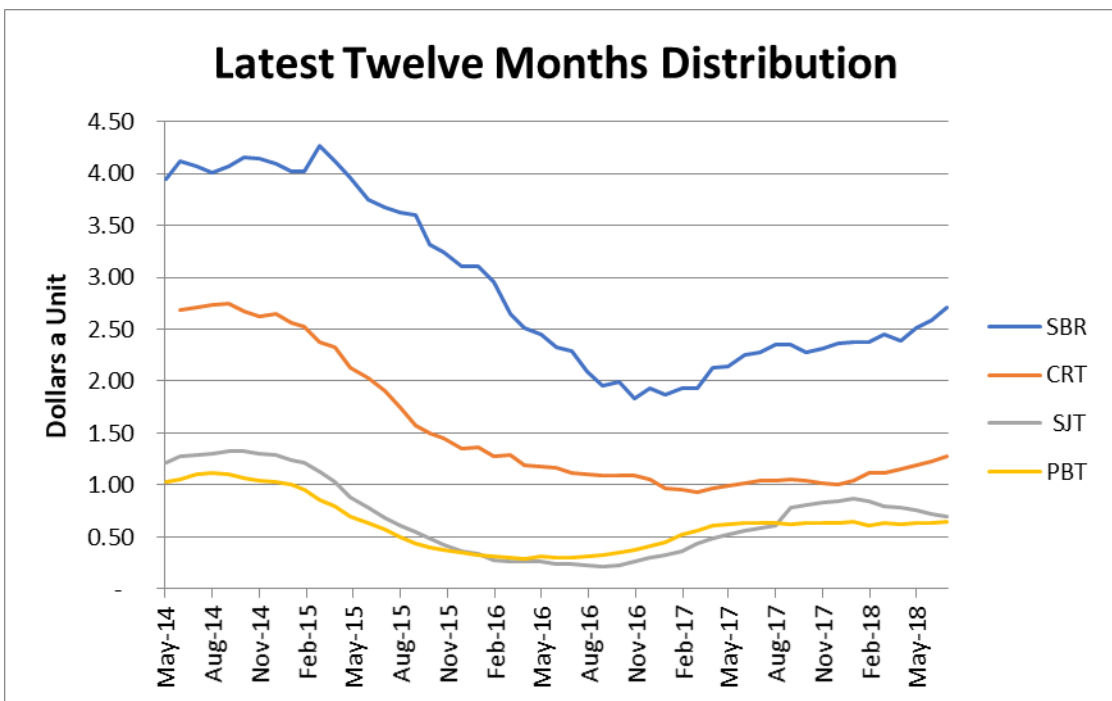
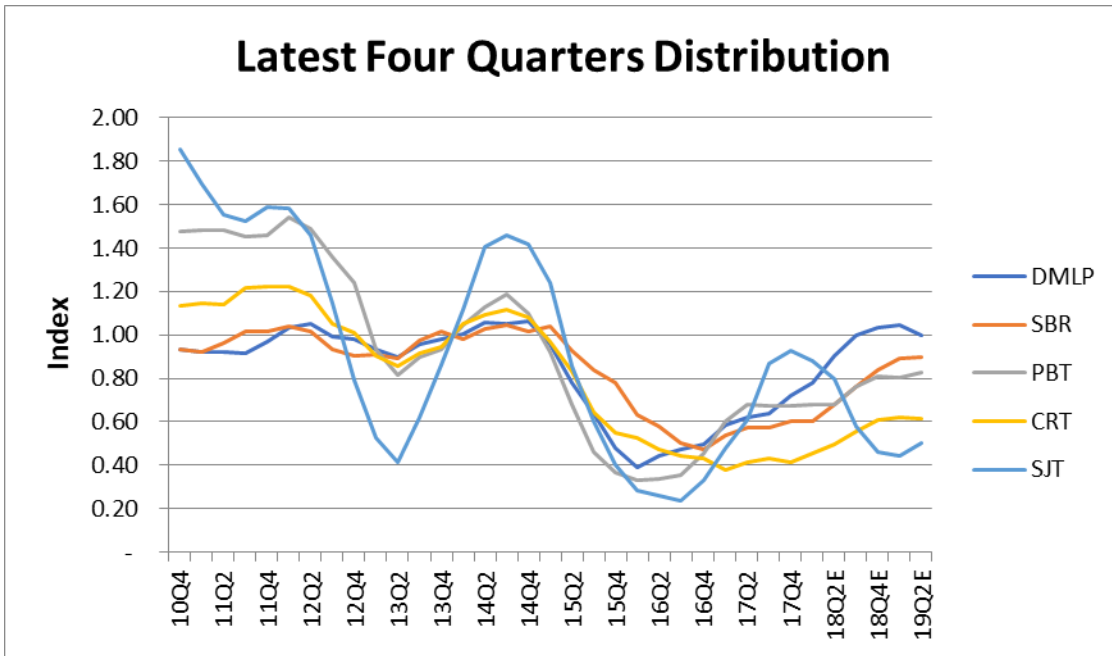
Small cap Income stocks offer lower McDep Ratios than Integrated or Large producer stocks (see [Table 1-3](#) on pages 8-10). The cash distribution feature may contribute to Income stocks having higher McDep Ratios than Small or Mid-Size producers. We believe there are promising investments in each of the five groups. After lagging in 2014-2015, McDep stocks are outperforming in 2018 as evidenced by a median total return this year of 9% compared to about 2% for the global stock market (see [Table 4](#) on page 11).

Kurt H. Wulff, CFA



Industry Idea

Analysis of Oil and Gas Stocks
July 23, 2018





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Cross Timbers Royalty Trust										
Next Twelve Months Operating and Financial Performance										
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Next Twelve Months
	6/30/17	2017	3/31/18	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	6/30/19
Volume										
Natural Gas (bcf)	0.38	1.54	0.44	0.37	0.37	0.37	1.55	0.37	0.37	1.48
Natural Gas (mmcf/d)	4.2	4.2	4.8	4.1	4.1	4.1	4.2	4.1	4.1	4.1
Days	90	365	92	90	91	92	365	92	90	365
Oil (mb)	51	211	52	55	55	55	217	55	53	219
Oil (mbd)	0.57	0.58	0.57	0.62	0.60	0.60	0.60	0.60	0.60	0.60
Days	89	365	92	89	92	92	365	92	89	365
Total (bcf)	0.69	2.80	0.76	0.70	0.70	0.70	2.86	0.70	0.69	2.80
Price										
Natural Gas (HH lagged three months)										
Henry Hub (\$/mmbtu)	3.32	3.12	2.93	3.01	2.80	2.81	2.89	2.81	2.94	2.84
Differential (%)	(30)	(33)	(57)	(44)	(33)	(33)	(43)	(33)	(20)	(30)
CRT (\$/mcf)	4.33	4.14	4.59	4.33	3.72	3.74	4.12	3.74	3.53	3.68
Oil (\$/bbl) (WTI lagged two months)										
WTI Cushing	51.41	49.54	59.42	63.77	69.43	68.45	65.27	65.87	64.80	67.14
CRT	47.81	45.16	54.13	58.96	64.20	63.29	60.24	60.91	59.92	62.10
Total (\$/mcf)	5.95	5.67	6.42	6.94	7.02	6.94	6.82	6.76	6.53	6.81
Revenue (\$mm)										
Natural Gas	1.65	6.36	2.04	1.58	1.37	1.39	6.39	1.40	1.30	5.46
Oil	2.44	9.53	2.81	3.24	3.54	3.49	13.10	3.36	3.20	13.60
Total	4.09	15.89	4.85	4.82	4.92	4.89	19.48	4.76	4.50	19.06
Cost (\$mm)										
Tax, transport & other	0.62	2.35	0.76	0.72	0.74	0.73	2.95	0.71	0.68	2.86
Production	1.04	4.58	1.13	1.04	1.05	1.05	4.28	1.05	1.03	4.19
Total	1.66	6.93	1.89	1.76	1.79	1.79	7.23	1.77	1.71	7.05
Cash flow (\$mm)										
Development	0.44	1.20	0.27	0.27	0.27	0.27	1.07	0.27	0.27	1.07
Excess or other	0.19	0.39	0.11				0.11			-
Recovery of excess										
Net proceeds (\$mm)	1.80	7.37	2.59	2.79	2.86	2.83	11.08	2.72	2.53	10.95
Royalty income (\$mm)										
Royalty/Net proceeds	91%	90%	88%	87%	87%	87%	87%	87%	87%	87%
Administration & reserve	0.11	0.58	0.25	0.25	0.10	0.10	0.70	0.10	0.10	0.40
Distributable income (\$mm)	1.52	6.06	2.03	2.17	2.38	2.35	8.93	2.26	2.09	9.08
Units (millions)										
	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Royalty income (\$/unit)										
Natural Gas										
TL TX	0.02	0.10	0.03				0.03			
TL OK	0.03	0.10	0.02				0.02			
TL NM	0.13	0.48	0.17				0.17			
BL TX	-	-	-				-			
BL OK	-	(0.00)	0.00				0.00			
Oil										
TL TX	0.06	0.25	0.07				0.07			
TL OK	0.03	0.11	0.04				0.04			
TL NM	0.01	0.03	0.01				0.01			
BL TX	-	-	-				-			
BL OK	-	0.03	0.05				0.05			
Administration	0.02	0.09	0.04				0.04			
Reserve and other	(0.00)	(0.00)	(0.00)				(0.00)			
Distribution (\$/unit)	0.25	1.01	0.34	0.36	0.40	0.39	1.49	0.38	0.35	1.51



Industry Idea

Analysis of Oil and Gas Stocks
July 23, 2018

Dorchester Minerals, L.P.										
Operating and Financial Performance										
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Next Twelve Months
	6/30/17	2017	3/31/18	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	6/30/19
TOP LINE										
Volume										
Natural Gas (mmcf)	9.5	10.3	10.2	9.8	9.7	9.6	9.8	9.5	9.4	9.6
Oil (mbd)	2.05	2.15	2.11	2.20	2.26	2.31	2.22	2.37	2.43	2.34
Price										
Henry Hub (\$/mmbtu)	3.18	3.11	3.01	2.80	2.81	2.81	2.86	2.94	2.58	2.78
WTI Cushing (\$/bbl)	48.26	50.94	62.88	67.86	69.92	66.23	66.72	65.18	64.12	66.36
Natural Gas (\$/mcf)	2.91	2.83	2.75	2.56	2.57	2.57	2.61	2.69	2.36	2.55
Oil (\$/bbl)	42.70	45.27	56.55	61.03	62.88	59.56	59.91	58.66	57.71	59.70
Revenue (\$mm)										
Natural Gas	2.5	10.6	2.5	2.3	2.3	2.3	9.4	2.3	2.0	8.9
Oil	8.0	35.5	10.7	12.2	13.0	12.7	48.7	12.5	12.8	51.0
Total Revenue	10.5	46.1	13.3	14.5	15.3	14.9	58.1	14.8	14.8	59.9
Expense (allocated)	2.1	8.5	2.1	2.2	2.2	2.2	8.7	2.2	2.3	9.0
Ebitda	8.4	37.6	11.2	12.3	13.1	12.7	49.4	12.6	12.5	50.9
BOTTOM LINE										
Volume										
Natural Gas (mmcf)	6.5	7.5	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Oil (mbd)	0.80	0.96	1.01	1.20	1.24	1.27	1.18	1.31	1.35	1.29
Price										
Natural Gas (\$/mcf)	2.81	2.60	2.61	2.43	2.44	2.44	2.47	2.55	2.24	2.42
Oil (\$/bbl)	39.06	44.71	55.36	59.74	61.55	58.31	58.77	52.14	51.30	55.83
Revenue (\$mm)										
Natural Gas	1.7	7.2	1.7	1.6	1.6	1.6	6.4	1.6	1.4	6.2
Oil	2.9	15.6	5.0	6.5	7.0	6.8	25.4	6.2	6.3	26.3
Total Revenue	4.5	22.8	6.7	8.1	8.6	8.4	31.8	7.8	7.7	32.5
Expense (allocated)										
Partnership	0.5	2.4	1.0	1.1	1.1	1.1	4.2	1.1	1.1	4.4
Net Profits Interests	1.8	9.0	2.3	3.0	3.2	3.1	11.6	2.8	2.8	11.9
Total Expense	2.3	11.4	3.3	4.0	4.3	4.2	15.9	3.9	3.9	16.3
Ebitda	2.3	11.4	3.3	4.0	4.3	4.2	15.9	3.9	3.9	16.3
Development (estimated)	2.3	8.4	2.7	3.2	3.4	3.4	12.7	3.1	3.1	13.0
NET INCOME										
Top Line	8.4	37.6	11.2	12.3	13.1	12.7	49.4	12.6	12.5	50.9
Bottom Line	-	3.0	0.7	0.8	0.9	0.8	3.2	0.8	0.8	3.3
Lease Bonus and residual	(1.4)	(5.9)	(1.0)	3.5			2.5			-
Deprec., Deplet., & Amort.	1.9	9.3	2.2	2.3	2.3	2.3	9.1	2.3	2.4	9.4
Total Net Income	8.0	37.2	10.7	14.4	11.7	11.2	47.9	11.0	10.9	44.8
Units (mm)	30.7	31.6	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3
Net Income Per Unit (\$)	0.26	1.18	0.33	0.45	0.36	0.35	1.48	0.34	0.34	1.39
DISTRIBUTION										
Top Line Revenue	10.0	41.8	11.9	12.3	14.7	14.3	53.3	14.2	14.2	57.5
Bottom Line Net Revenue	0.8	5.0	3.8	2.8	1.9	1.9	10.5	1.9	1.9	7.6
Lease Bonus and Other	1.8	2.8	-	4.2	0.2	0.2	4.6	0.2	0.2	0.8
Cash Expense	(2.2)	(8.1)	(2.2)	(2.0)	(2.0)	(2.0)	(8.1)	(2.0)	(2.0)	(7.8)
Distribution	10.4	41.5	13.5	17.3	14.9	14.5	60.3	14.4	14.3	58.1
Distribution Per Unit (\$)	0.32	1.30	0.42	0.54	0.46	0.45	1.87	0.44	0.44	1.80

Permian Basin Royalty Trust										
Next Twelve Months Operating and Financial Estimates										
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Next Twelve Months
	6/30/17	2017	3/31/18	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	6/30/19
TOP LINE										
Volume										
Natural Gas (mmcf)	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Oil (mbd)	0.80	0.77	0.74	0.74	0.74	0.73	0.74	0.73	0.73	0.73
Price (cash lagged two months)										
Natural Gas (\$/mcf)	4.89	5.22	6.79	6.59	6.35	6.05	6.45	6.38	6.18	6.24
Oil (\$/bbl)	46.70	45.80	55.52	61.16	66.60	65.66	62.24	63.18	62.15	64.43
Revenue (\$mm)										
Natural Gas	0.4	1.6	0.5	0.4	0.4	0.4	1.7	0.4	0.4	1.6
Oil	3.3	12.9	3.8	4.0	4.5	4.4	16.7	4.3	4.0	17.2
Total Revenue	3.7	14.6	4.3	4.4	5.0	4.8	18.5	4.7	4.4	18.8
Expense										
Operating		-					-			
Production & Property taxes	0.5	1.2	0.0	0.5	0.4	0.4	1.4	0.4	0.4	1.6
Total Expense	0.5	1.2	0.0	0.5	0.4	0.4	1.4	0.4	0.4	1.6
Ebitda	3.2	13.4	4.2	3.9	4.6	4.4	17.1	4.3	4.0	17.2
Ebitda times 95%	3.1	12.7	4.0	3.7	4.3	4.2	16.2	4.1	3.8	16.4
BOTTOM LINE										
Volume										
Natural Gas (mmcf)	10.9	10.9	10.4	9.9	9.8	9.5	9.9	9.5	9.2	9.5
Oil (mbd)	1.88	1.89	1.83	1.77	1.73	1.73	1.77	1.73	1.73	1.73
Price (cash lagged two months)										
Natural Gas (\$/mcf)	3.03	3.04	3.62	2.91	2.80	2.67	3.01	2.81	2.73	2.75
Oil (\$/bbl)	47.32	45.92	56.75	60.85	66.25	65.32	62.21	62.86	61.83	64.08
Revenue (\$mm)										
Natural Gas	2.9	12.1	3.5	2.6	2.5	2.3	10.9	2.5	2.2	9.6
Oil	7.9	31.6	9.6	9.6	10.5	10.4	40.1	10.0	9.5	40.5
Total Revenue	10.8	43.7	13.0	12.2	13.1	12.7	51.0	12.5	11.8	50.0
Expense										
Operating	3.7	16.3	4.3	6.1	4.3	4.3	18.9	4.3	4.3	17.2
Production taxes	0.7	1.8	0.7	0.8	0.8	0.8	3.1	0.8	0.8	3.2
Total Expense	4.4	18.1	5.0	6.9	5.1	5.1	22.0	5.1	5.1	20.4
Ebitda	6.4	25.7	8.1	5.3	8.0	7.6	29.0	7.4	6.7	29.6
Development	0.5	1.8	0.4	0.2	0.2	0.2	0.9	0.2	0.2	0.7
(Ebitda-Dvlpmnt) times 75%	4.4	17.9	5.7	3.9	5.9	5.6	21.0	5.4	4.9	21.7
Excess Costs		-					-			-
CASH DISTRIBUTION										
Royalty Income (\$mm)										
Top Line	3.1	12.7	4.0	3.7	4.3	4.2	16.2	4.2	3.8	16.5
Bottom Line	4.4	17.9	5.7	3.9	5.9	5.6	21.1	5.4	4.9	21.7
Administration	0.5	1.3	0.4	0.6	0.6	0.6	2.2	0.6	0.6	2.3
Distributable Income (\$mm)	7.0	29.3	9.3	7.0	9.6	9.2	35.2	9.0	8.1	35.9
Units (millions)	47	47	47	47	47	47	47	47	47	47
Distribution (\$/unit)	0.15	0.63	0.20	0.15	0.21	0.20	0.75	0.19	0.17	0.77

Sabine Royalty Trust										
Next Twelve Months Operating and Financial Performance										
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Next Twelve Months
	6/30/17	2017	3/31/18	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	6/30/19
Volume										
Natural Gas (bcf)	1.36	5.68	1.59	1.59	1.60	1.62	6.39	1.62	1.59	6.43
Natural Gas (mmcf)	15.1	15.6	17.2	17.6	17.6	17.6	17.5	17.6	17.6	17.6
Days	90	365	92	90	91	92	365	92	90	365
Oil (mmb)	0.114	0.554	0.138	0.166	0.172	0.175	0.651	0.175	0.173	0.695
Oil (mbd)	1.28	1.52	1.50	1.87	1.88	1.90	1.78	1.90	1.92	1.90
Days	89	365	92	89	92	92	365	92	89	365
Total (bcfe)	2.04	9.00	2.41	2.58	2.63	2.67	10.30	2.67	2.62	10.60
Total (mmcf)	22.8	24.7	26.2	28.8	28.9	29.0	28.2	29.0	29.1	29.0
Price (Henry Hub natural gas lagged three months; WTI Cushing oil, two months)										
Henry Hub (\$/mmbtu)	3.32	3.12	2.93	3.01	2.80	2.81	2.89	2.81	2.94	2.84
Differential (%)	11	6	5	5	5	5	5	5	5	5
Trust (\$/mcf)	2.95	2.95	2.78	2.85	2.65	2.66	2.74	2.67	2.79	2.69
WTI Cushing (\$/bbl)	51.41	49.54	59.42	63.77	69.43	68.45	65.27	65.87	64.80	67.14
Differential	3.05	2.73	4.42	4.74	5.16	5.09	4.54	4.90	4.82	5.00
Trust (\$/bbl)	48.36	46.82	55.00	59.03	64.27	63.36	60.72	60.98	59.98	62.14
Total (\$/bcfe)	4.66	4.74	4.97	5.55	5.80	5.77	5.54	5.62	5.64	5.71
Revenue (\$mm)										
Natural Gas	4.0	16.7	4.4	4.5	4.3	4.3	17.5	4.3	4.4	17.3
Oil	5.5	25.9	7.6	9.8	11.0	11.1	39.5	10.7	10.4	43.2
Total	9.5	42.7	12.0	14.3	15.3	15.4	57.0	15.0	14.8	60.5
Expense										
Tax and other	0.9	5.5	1.2	1.3	1.4	2.0	5.9	1.4	1.3	6.1
General and administrative	0.7	2.5	0.8	0.6	0.6	0.6	2.6	0.6	0.6	2.4
Total	1.6	7.9	2.1	1.9	2.0	2.6	8.5	2.0	1.9	8.5
Ebitda	7.9	34.7	9.9	12.4	13.3	12.8	48.5	13.1	12.9	52.0
Ebit	7.9	34.7	9.9	12.4	13.3	12.8	48.5	13.1	12.9	52.0
Ebt	7.9	34.7	9.9	12.4	13.3	12.8	48.5	13.1	12.9	52.0
Distributable Income (\$mm)	7.9	34.7	9.9	12.4	13.3	12.8	48.5	13.1	12.9	52.0
Units (millions)	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
Distributable Income/Unit (\$)	0.54	2.38	0.68	0.85	0.91	0.88	3.33	0.90	0.88	3.57



Industry Idea

Analysis of Oil and Gas Stocks
July 23, 2018

San Juan Basin Royalty Trust										
Next Twelve Months Operating and Financial Estimates										
										<i>Next</i>
	<i>Q2</i>	<i>Year</i>	<i>Q1</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Months</i>
	<i>6/30/17</i>	<i>2017</i>	<i>3/31/18</i>	<i>6/30/18</i>	<i>9/30/18</i>	<i>12/31/18</i>	<i>2018</i>	<i>3/31/19</i>	<i>6/30/19</i>	<i>6/30/19</i>
Volume										
Natural gas (mmbtu)	7.0	28.8	8.5	9.7	8.7	8.7	35.6	8.7	8.4	34.5
Heat Content(btu/cf)	1,122	1,117	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
Natural gas (bcf)	6.2	25.8	7.7	8.7	7.8	7.8	32.0	7.8	7.6	31.0
Natural Gas (mmcf)	70.1	70.6	83.3	97.8	85.0	85.0	87.7	85.0	85.0	85.0
Days	89	365	92	89	92	92	365	92	89	365
Oil (mb)	0.02	0.06	0.01	0.01	0.01	0.01	0.06	0.01	0.01	0.06
Oil (mbd)	0.19	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Total gas & oil (bcf)	6.3	26.1	7.7	8.8	7.9	7.9	32.4	7.9	7.7	31.4
Price										
Natural gas (\$/mmbtu) (Henry Hub lagged two months)										
Henry Hub (\$/mmbtu)	3.06	3.12	2.85	2.99	2.88	2.74	2.87	2.89	2.80	2.83
Differential (%)	23	23	36	50	40	40	42	40	40	40
Net to SJT (\$/mmbtu)	2.34	2.40	1.83	1.49	1.73	1.65	1.67	1.74	1.68	1.70
Natural gas (\$/mcf)	2.63	2.68	2.03	1.65	1.92	1.83	1.85	1.93	1.87	1.89
Oil (\$/bbl) (WTI Cushing lagged two months)										
WTI Cushing	51.41	49.54	59.42	63.77	69.43	68.45	65.27	65.87	64.80	67.14
SJT	38.56	35.75	46.01	49.38	53.77	53.01	50.59	51.06	50.23	52.03
Total gas & oil (\$/mcf)	2.69	2.72	2.09	1.72	2.00	1.91	1.92	2.00	1.94	1.96
Revenue (\$mm)										
Natural Gas	16.4	69.0	15.5	14.4	15.0	14.3	59.3	15.1	14.1	58.5
Oil	0.6	2.0	0.7	0.7	0.8	0.8	3.0	0.8	0.7	3.1
Total	17.0	71.0	16.2	15.1	15.8	15.1	62.2	15.8	14.9	61.6
Cost (\$mm)										
Severance tax	1.9	7.6	1.8	2.0	1.7	1.6	7.0	1.7	1.6	6.4
Operating	6.5	22.8	6.2	7.1	6.2	6.2	25.7	6.2	6.2	24.8
Total	8.4	30.4	8.0	9.1	7.9	7.8	32.7	7.9	7.8	31.2
Cash flow (\$mm)										
Development	0.1	(0.4)	0.3	0.1	0.1	0.1	0.7	0.1	0.2	0.5
Net proceeds (\$mm)	8.6	40.9	7.9	5.9	7.8	7.2	28.8	7.9	6.9	29.8
Royalty income (\$mm)	6.4	30.7	5.9	4.4	5.9	5.4	21.6	5.9	5.2	22.4
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Administration	0.5	(0.7)	0.3	1.9	0.3	0.3	2.8	0.3	0.3	1.2
One-time		(7.7)	(0.6)				(0.6)			-
Distributable income (\$mm)	6.0	39.1	6.2	2.5	5.6	5.1	19.4	5.6	4.9	21.2
Units (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
Per unit	0.13	0.84	0.13	0.05	0.12	0.11	0.42	0.12	0.10	0.45



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Analysis of Oil and Gas Stocks
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Table 1
McDep Energy Stocks
Ranked by McDep Ratio

		Price (US\$/sh)	Market Cap (US\$m)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	PV/ Ebitda NTM	Oil Prod'n/ Ebitda (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
	Symbol/Rating	20-Jul 2018								
Integrated										
	XOM	81.40	348,000	439,000	1.26	8.4	9.1	48	4.0	0.92
	SUN	41.14	68,000	87,000	1.28	7.1	8.4	77	2.7	0.86
	CVX	122.27	234,000	297,000	1.27	7.3	8.6	61	3.7	0.85
	RDS-B	72.69	305,000	421,000	1.38	7.1	9.0	50	5.2	0.79
	<i>Total or Median</i>		<i>955,000</i>	<i>1,244,000</i>	<i>1.27</i>	<i>7.2</i>	<i>8.8</i>	<i>56</i>	<i>3.8</i>	<i>0.85</i>
Large Independent										
	OXY	83.08	63,700	77,400	1.22	8.7	8.0	79	3.8	1.09
	EOG	122.35	73,200	80,200	1.10	8.4	8.9	90	0.5	0.95
	PXD	180.95	30,900	33,500	1.08	7.8	8.6	94	0.0	0.91
	COP	70.01	83,000	106,000	1.28	7.6	8.5	76	1.6	0.90
	<i>Total or Median</i>		<i>250,800</i>	<i>297,100</i>	<i>1.16</i>	<i>8.1</i>	<i>8.5</i>	<i>84</i>	<i>1.0</i>	<i>0.93</i>
Mid-Size Independent										
	HES	64.04	19,800	28,200	1.42	11.5	10.4	89	1.6	1.11
	CLR	62.44	23,400	29,700	1.27	7.9	8.7	83	-	0.91
	DVN	44.14	23,300	28,300	1.21	8.1	10.5	86	0.7	0.77
	XEC	96.75	9,200	10,700	1.16	6.0	8.3	82	0.7	0.72
	MRO	20.48	17,450	24,200	1.39	5.2	8.8	90	1.0	0.59
	<i>Total or Median</i>		<i>93,200</i>	<i>121,100</i>	<i>1.27</i>	<i>7.9</i>	<i>8.8</i>	<i>86</i>	<i>0.7</i>	<i>0.77</i>
Small Independent										
	CRC	39.53	1,800	8,100	4.5	6.2	8.4	92	-	0.74
	WLL	49.65	4,500	7,900	1.74	4.9	7.8	97	-	0.63
	RRC	16.32	4,000	8,700	2.16	6.5	10.9	46	0.5	0.60
	BIREF	3.77	1,000	1,600	1.61	5.4	10.1	50	2.0	0.54
	<i>Total or Median</i>		<i>11,300</i>	<i>26,300</i>	<i>1.95</i>	<i>5.8</i>	<i>9.3</i>	<i>71</i>	<i>0.2</i>	<i>0.62</i>
Income										
	PBT	9.24	430	430	1.00	11.9	12.8	80	8.3	0.92
	SBR	45.80	670	670	1.00	12.8	14.0	71	7.8	0.92
	DMLP	19.45	630	630	1.00	9.4	11.5	84	9.2	0.81
	SJT	5.98	280	280	1.00	12.9	17.3	-	7.6	0.75
	CRT	14.85	90	90	1.00	8.0	13.5	38	10.2	0.59
	<i>Total or Median</i>		<i>2,100</i>	<i>2,100</i>	<i>1.00</i>	<i>11.9</i>	<i>13.5</i>	<i>71</i>	<i>8.3</i>	<i>0.81</i>

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

Estimated Ebitda (cash flow) tied to NTM futures prices for oil and natural gas. NTM = Next Twelve Months ending 6/30/19.

Estimated Present Value (PV) presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses. For historical research see www.mcdep.com



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Analysis of Oil and Gas Stocks
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	Symbol/Rating	Price	Upstream NTM				Down-	Total	Distrib./ Ebitda (%)	Distrib. NTM (\$/sh)
		(US\$/sh)	Volume (mmboe)	Equiv.	Ebitda	Ebitda	stream Uplift (\$/boe)	Ebitda NTM (\$mm)		
		20-Jul 2018		Price (\$/boe)	Margin (%)					
Integrated										
Royal Dutch Shell	RDS-B	72.69	1370	46.11	69	31.60	11.67	43,307	27	3.76
Exxon Mobil Corporation	XOM	81.40	1449	49.29	49	24.30	11.69	35,216	27	3.28
Chevron Corporation	CVX	122.27	1057	50.71	61	31.00	7.29	32,778	21	4.48
Suncor Energy	SU	41.14	300	57.21	55	31.34	9.14	9,388	15	1.10
	<i>Total or Median</i>		<i>4177</i>	<i>50.00</i>	<i>58</i>	<i>31.17</i>	<i>10.41</i>	<i>120,689</i>	<i>24</i>	
Large Independent										
ConocoPhillips	COP	70.01	457	48.38	63	30.40	0.00	13,904	10	1.14
EOG Resources, Inc.	EOG	122.35	280	46.56	73	34.06	0.00	9,541	3	0.56
Occidental Petroleum Corp.	OXY	83.08	262	47.99	58	28.00	6.11	7,336	27	3.12
Pioneer Natural Resources	PXD	180.95	124	47.20	73	34.50	0.00	4,283	0	0.08
	<i>Total or Median</i>		<i>1124</i>	<i>47.60</i>	<i>68</i>	<i>32.23</i>	<i>0.00</i>	<i>35,064</i>	<i>7</i>	
Mid-Size Independent										
Marathon Oil Corporation	MRO	20.48	167	40.92	68	27.90	0.00	4,659	4	0.20
Continental Resources	CLR	62.44	108	42.70	81	34.50	0.00	3,740	-	-
Devon Energy Corporation	DVN	44.14	210	29.76	56	16.70	0.00	3,500	5	0.32
Hess Corporation	HES	64.04	97	45.13	56	25.10	0.00	2,446	13	1.00
Cimarex Energy Company	XEC	96.75	86	30.80	68	20.80	0.00	1,799	3	0.64
	<i>Total or Median</i>		<i>669</i>	<i>40.92</i>	<i>68</i>	<i>25.10</i>	<i>0.00</i>	<i>16,144</i>	<i>4</i>	
Small Independent										
Whiting Petroleum Corporation	WLL	49.65	50	48.07	67	32.30	0.00	1,600	-	-
Range Resources	RRC	16.32	139	18.66	51	9.60	0.00	1,335	1	0.08
California Resources	CRC	39.53	49	52.83	50	26.30	0.00	1,300	-	-
Birchcliff Energy Ltd.	BIREF	3.77	23	18.48	72	13.30	0.00	299	7	0.08
	<i>Total or Median</i>		<i>260</i>	<i>33.36</i>	<i>59</i>	<i>19.80</i>	<i>0.00</i>	<i>4,534</i>	<i>1</i>	
Income										
Dorchester Minerals, L.P.	DMLP	19.45	2.34	39.43	73	28.66	0.00	67	86	1.80
Sabine Royalty Trust	SBR	45.80	1.77	34.25	86	29.46	0.00	52	100	3.57
Permian Basin RT	PBT	9.24	1.23	45.29	65	29.42	0.00	36	99	0.77
San Juan Basin Royalty Trust	SJT	5.98	3.72	11.78	49	5.81	0.00	22	98	0.45
Cross Timbers Royalty Trust	CRT	14.85	0.43	40.87	63	25.76	0.00	11	82	1.51
	<i>Total or Median</i>		<i>9</i>	<i>39.43</i>	<i>65</i>	<i>28.66</i>	<i>0.00</i>	<i>188</i>	<i>98</i>	
For historical research see www.mcdep.com										

Table 3
McDep Energy Stocks
Net Present Value Per Share

		<i>Price</i>				<i>Devel.</i>	<i>Undev/</i>	<i>Nat</i>	<i>Top</i>	<i>Net</i>	
		<i>(US\$/sh)</i>				<i>Resrvs/</i>	<i>Devel.</i>	<i>Gas/</i>	<i>Line/</i>	<i>Present</i>	
	<i>Symbol/Rating</i>	<i>20-Jul</i>	<i>Shares</i>	<i>Debt</i>	<i>P/E</i>	<i>Prod</i>	<i>Resrvs</i>	<i>Ebitda</i>	<i>Ebitda</i>	<i>Value</i>	
		<i>2018</i>	<i>(mm)</i>	<i>(\$mm)</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(US\$/sh)</i>	
Integrated											
	Chevron Corporation	CVX	122.27	1,913	62,659	16	7.1	57	24	150.00	
	Royal Dutch Shell	RDS-B	72.69	4,189	116,710	12	7.2	22	32	100.00	
	Exxon Mobil Corporation	XOM	81.40	4,270	90,941	14	9.6	52	29	90.00	
	Suncor Energy	SU	41.14	1,644	19,056	12	8.5	87		50.00	
	<i>Median</i>					7.9	55				
Large Independent											
	Pioneer Natural Resources	PXD	180.95	171	2,600	20	7.3	9	6	200.00	
	EOG Resources, Inc.	EOG	122.35	598	7,071	20	4.9	43	10	130.00	
	ConocoPhillips	COP	70.01	1,186	23,143	15	7.7	31	24	80.00	
	Occidental Petroleum Corp.	OXY	83.08	767	13,700	17	7.4	35	4	75.00	
	<i>Median</i>					7.3	33				
Mid-Size Independent											
	Cimarex Energy Company	XEC	96.75	96	1,498	11	4.8	35	18	140.00	
	Continental Resources	CLR	62.44	374	6,333	22	5.6	121	17	70.00	
	Devon Energy Corporation	DVN	44.14	528	5,000	19	8.3	24	14	60.00	
	Hess Corporation	HES	64.04	310	8,399		7.4	59	11	55.00	
	Marathon Oil Corporation	MRO	20.48	852	6,734	11	5.4	60	10	40.00	
	<i>Median</i>					5.6	59				
Small Independent											
	Whiting Petroleum Corporation	WLL	49.65	91	3,367	27	6.8	84	3	100.00	
	California Resources	CRC	39.53	46	6,300		8.9	41	8	100.00	
	Range Resources	RRC	16.32	247	4,657	18	10.0	83	54	40.00	
	Birchcliff Energy Ltd.	BIREF	3.77	268	620	17	7.2	228	50	9.00	
	<i>Median</i>					8.0	83				
Income											
	Sabine Royalty Trust	SBR	45.80	15	-	13	10.1	3	37	100	50.00
	Cross Timbers Royalty Trust	CRT	14.85	6	-	10	11.7	-	69	82	25.00
	Dorchester Minerals, L.P.	DMLP	19.45	32	-	14	6.9	-	21	76	24.00
	Permian Basin RT	PBT	9.24	47	-	12	6.7	-	21	43	10.00
	San Juan Basin Royalty Trust	SJT	5.98	47	-	13	11.2	-	100	-	8.00
	<i>Median</i>					10.1					
P/E = Stock Price to Earnings. For historical research see www.mcdep.com .											



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Table 4									
McDep Energy Stocks									
Total Return Year-to-Date 2018									
Ranked by Unlevered Total Return									
		Price (\$/sh)	Price (\$/sh)	Price Change (%)	Cash Distrib. (%)	Equity Total Return (%)	Debt Return (\$/sh)	Unlevered Total Return (%)	McDep Ratio
	Symbol/Rati	20-Jul 2018	29-Dec 2017						
Integrated									
Suncor Energy	SU	41.14	36.72	12	2	14	12	10	0.86
Royal Dutch Shell	RDS-B	72.69	68.29	6	3	9	28	7	0.79
Chevron Corporation	CVX	122.27	125.19	(2)	2	(1)	33	(0)	0.85
Exxon Mobil Corporation	XOM	81.40	83.64	(3)	2	(1)	21	(1)	0.92
	<i>Median</i>			2		4		3	0.85
Large Independent									
ConocoPhillips	COP	70.01	54.89	28	1	29	20	21	0.90
EOG Resources, Inc.	EOG	122.35	107.91	13	0	14	12	13	0.95
Occidental Petroleum Corp.	OXY	83.08	73.66	13	2	15	18	12	1.09
Pioneer Natural Resources	PXD	180.95	172.85	5	0	5	15	4	0.91
	<i>Median</i>			13		14		12	0.93
Mid-Size Independent									
Hess Corporation	HES	64.04	47.47	35	1	36	27	23	1.11
Marathon Oil Corporation	MRO	20.48	16.93	21	1	22	8	15	0.59
Continental Resources	CLR	62.44	52.97	18	-	18	17	14	0.91
Devon Energy Corporation	DVN	44.14	41.40	7	0	7	9	6	0.77
Cimarex Energy Company	XEC	96.75	122.01	(21)	0	(21)	16	(18)	0.72
	<i>Median</i>			18		18		14	0.77
Small Independent									
Whiting Petroleum Corporation	WLL	49.65	26.48	88	-	88	37	36	0.63
California Resources	CRC	39.53	19.44	103	-	103	137	13	0.74
Birchcliff Energy Ltd.	BIREF	3.77	3.50	8	1	9	2	5	0.54
Range Resources	RRC	16.32	17.06	(4)	0	(4)	19	(2)	0.60
	<i>Median</i>			48		48		9	0.62
Income									
Dorchester Minerals, L.P.	DMLP	19.45	15.20	28	5	33	-	33	0.81
Permian Basin RT	PBT	9.24	8.87	4	4	9	-	9	0.92
Sabine Royalty Trust	SBR	45.80	44.60	3	4	6	-	6	0.92
Cross Timbers Royalty Trust	CRT	14.85	14.69	1	5	6	-	6	0.59
San Juan Basin Royalty Trust	SJT	5.98	8.24	(27)	3	(24)	-	(24)	0.75
	<i>Median</i>			3		6		6	0.81
	<i>Grand Median</i>			7		9		8	0.83
Natural Gas (\$/mmbtu)									
		2.76	2.95	(6)					
Oil -West Texas Intermediate (\$/bbl)									
		70.46	60.09	17					
Total Stock Market - U.S.	VTI	144.84	137.25	6	1	6			
Developed Markets - ex US	VEA	43.40	44.86	(3)	2	(2)			
Emerging Markets	VWO	42.91	45.91	(7)	1	(6)			
Total Stock Market - World	VT	74.89	74.26	1	1	2			
Source: McDep LLC, Yahoo, CME Group, Bloomberg					For historical research see www.mcdep.com				



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