



Meter Reader Special

End of Year Analysis of Oil and Gas Stocks
December 31, 2018

2018 Final

Summary and Recommendation

At the end of 2018, oil and gas stocks look attractively priced for future appreciation in 2019 and beyond. We think an overreaction to surprise oil inventory build can soon be reversed to lift a cloud over oil price and stock prices. Producers built inventories in anticipation of a politically imposed reduction of production from Iran that did not materialize. Closing the books on 2018, we saw oil and gas stocks trade down a median 14% in total return with most of the decline in the fourth quarter (see [Table 4](#) on page 5).

Despite a dollar-denominated decline in equity assets, the value of a diversified portfolio might have been near flat in global currency terms in 2018. The total world stock market declined 9% in total return in 2018. Gold declined 2%. Low duration U.S. Treasuries were up about 1% with higher interest offsetting modest decline in principal value. The U.S. dollar appreciated about 4% as measured by the DXY index.

Investors who are not forced to sell can take advantage of lower prices to boost long-term performance. We favor a rebalancing technique which automatically results in selling high and buying low. There were moderate opportunities to trim equity positions during the year and now there are larger opportunities to rebuild equity positions in both oil and gas and global stocks other than oil and gas.

Kurt H. Wulff, CFA

P.S. This is the last edition of our regularly-timed oil and gas investment research. We thank all our friends and readers for their good wishes since we announced a few weeks ago that we would retire in 2019.



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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	31-Dec 2018								
Integrated										
	XOM	68.19	291,000	381,000	1.31	7.8	9.7	44	4.8	0.80
	CVX	108.79	209,000	265,000	1.27	6.6	8.6	57	4.1	0.77
	RDS-B	59.94	250,000	356,000	1.42	6.8	10.0	46	6.3	0.68
	SU	27.97	46,000	64,000	1.40	6.5	10.1	69	3.9	0.64
	<i>Total or Median</i>		<i>796,000</i>	<i>1,066,000</i>	<i>1.36</i>	<i>6.7</i>	<i>9.9</i>	<i>51</i>	<i>4.5</i>	<i>0.73</i>
Large Independent										
	OXY	61.38	46,800	59,800	1.28	7.4	8.7	59	5.1	0.85
	COP	62.35	73,000	93,000	1.28	6.9	8.4	74	2.0	0.82
	EOG	87.21	50,800	57,500	1.13	6.3	9.0	89	1.0	0.70
	PXD	131.51	22,500	25,300	1.12	7.6	11.1	93	0.2	0.68
	<i>Total or Median</i>		<i>193,100</i>	<i>235,600</i>	<i>1.21</i>	<i>7.1</i>	<i>8.9</i>	<i>81</i>	<i>1.5</i>	<i>0.76</i>
Mid-Size Independent										
	HES	40.50	12,000	21,200	1.76	8.4	10.1	89	2.5	0.83
	CLR	40.19	15,100	21,200	1.41	5.6	8.5	79	-	0.66
	XEC	61.65	5,900	7,200	1.23	4.8	9.7	81	1.2	0.49
	DVN	22.53	11,100	17,700	1.60	5.6	11.5	85	1.4	0.49
	MRO	14.34	12,170	18,900	1.55	5.0	10.7	87	1.4	0.46
	<i>Total or Median</i>		<i>56,300</i>	<i>86,200</i>	<i>1.55</i>	<i>5.6</i>	<i>10.1</i>	<i>85</i>	<i>1.4</i>	<i>0.49</i>
Small Independent										
	CRC	17.04	700	7,500	10.3	7.0	10.3	90	-	0.68
	RRC	9.57	2,400	7,000	2.97	5.7	11.9	42	0.8	0.48
	WLL	22.70	2,100	5,300	2.53	4.0	9.5	97	-	0.43
	BIREF	2.25	600	1,200	2.02	4.3	10.7	44	3.4	0.40
	<i>Total or Median</i>		<i>5,800</i>	<i>21,000</i>	<i>2.75</i>	<i>5.0</i>	<i>10.5</i>	<i>67</i>	<i>0.4</i>	<i>0.45</i>
Income										
	SBR	37.28	540	540	1.00	11.7	15.6	67	8.6	0.75
	PBT	5.90	280	280	1.00	10.3	15.7	80	9.8	0.66
	DMLP	14.64	470	470	1.00	7.3	12.0	86	10.6	0.61
	SJT	4.80	220	220	1.00	7.1	11.8	-	12.1	0.60
	CRT	10.95	70	70	1.00	6.5	14.7	39	12.5	0.44
	<i>Total or Median</i>		<i>1,580</i>	<i>1,580</i>	<i>1.00</i>	<i>7.3</i>	<i>14.7</i>	<i>67</i>	<i>10.6</i>	<i>0.61</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation, amort.
 Estimated Ebitda (cash flow) tied to one-year prices of US\$60 a barrel and \$3 a million btu. NTM = Next Twelve Months ending 12/31/19.
 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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	Symbol/Rating	Price	Upstream NTM			Down-	Total	Distrib./ Ebitda (%)	Distrib. NTM (\$/sh)	
		(US\$/sh) 31-Dec 2018	Volume (mboe)	Equiv. Price (\$/boe)	Ebitda Margin (%)	Ebitda (\$/boe)	stream Uplift (\$/boe)			Ebitda NTM (\$mm)
Integrated										
Royal Dutch Shell	RDS-B	59.94	1390	44.14	59	26.10	11.51	52,274	30	3.76
Exxon Mobil Corporation	XOM	68.19	1446	48.48	44	21.50	12.17	48,687	29	3.28
Chevron Corporation	CVX	108.79	1114	48.87	59	28.90	7.18	40,189	21	4.48
Suncor Energy	SU	27.97	307	52.73	42	22.31	9.93	9,884	18	1.10
	<i>Total or Median</i>		<i>4256</i>	<i>48.68</i>	<i>52</i>	<i>24.20</i>	<i>10.72</i>	<i>44,438</i>	<i>25</i>	
Large Independent										
ConocoPhillips	COP	62.35	496	48.44	57	27.40	0.00	13,595	11	1.22
EOG Resources, Inc.	EOG	87.21	305	42.42	71	29.92	0.00	9,136	6	0.88
Occidental Petroleum Corp.	OXY	61.38	263	40.04	50	20.00	10.71	8,086	29	3.12
Pioneer Natural Resources	PXD	131.51	125	38.78	69	26.60	0.00	3,329	2	0.32
	<i>Total or Median</i>		<i>1190</i>	<i>41.23</i>	<i>63</i>	<i>27.00</i>	<i>0.00</i>	<i>8,611</i>	<i>8</i>	
Mid-Size Independent										
Continental Resources	CLR	40.19	119	40.39	79	32.00	0.00	3,810	-	-
Marathon Oil Corporation	MRO	14.34	162	36.50	64	23.50	0.00	3,800	4	0.20
Devon Energy Corporation	DVN	22.53	203	30.07	52	15.50	0.00	3,143	5	0.32
Hess Corporation	HES	40.50	113	42.54	53	22.50	0.00	2,535	12	1.00
Cimarex Energy Company	XEC	61.65	94	25.86	62	16.10	0.00	1,519	5	0.72
	<i>Total or Median</i>		<i>691</i>	<i>36.50</i>	<i>62</i>	<i>22.50</i>	<i>0.00</i>	<i>3,143</i>	<i>5</i>	
Small Independent										
Whiting Petroleum Corporation	WLL	22.70	49	40.77	66	26.80	0.00	1,308	-	-
Range Resources	RRC	9.57	142	20.25	42	8.60	0.00	1,223	2	0.08
California Resources	CRC	17.04	49	49.40	44	21.80	0.00	1,078	-	-
Birchcliff Energy Ltd.	BIREF	2.25	23	17.72	71	12.50	0.00	284	7	0.08
	<i>Total or Median</i>		<i>263</i>	<i>30.51</i>	<i>55</i>	<i>17.15</i>	<i>0.00</i>	<i>1,151</i>	<i>1</i>	
Income										
Dorchester Minerals, L.P.	DMLP	14.64	2.50	37.11	69	25.73	0.00	64	78	1.56
Sabine Royalty Trust	SBR	37.28	1.98	28.12	84	23.59	0.00	47	100	3.20
San Juan Basin Royalty Trust	SJT	4.80	3.73	15.83	53	8.46	0.00	32	86	0.58
Permian Basin RT	PBT	5.90	1.14	40.47	58	23.48	0.00	27	101	0.58
Cross Timbers Royalty Trust	CRT	10.95	0.41	40.52	61	24.73	0.00	10	80	1.36
	<i>Total or Median</i>		<i>10</i>	<i>37.11</i>	<i>61</i>	<i>23.59</i>	<i>0.00</i>	<i>32</i>	<i>86</i>	

For historical research see www.mcdep.com



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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>31-Dec</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	108.79	1,917	56,349	15	6.8	57	29	150.00	
	Royal Dutch Shell	RDS-B	59.94	4,177	106,120	12	7.1	22	34	100.00	
	Exxon Mobil Corporation	XOM	68.19	4,271	89,839	14	9.6	52	31	90.00	
	Suncor Energy	SU	27.97	1,628	18,374	13	8.3	87		50.00	
	<i>Median</i>					7.7	55				
Large Independent											
	Pioneer Natural Resources	PXD	131.51	171	2,800	34	7.2	9	7	200.00	
	EOG Resources, Inc.	EOG	87.21	582	6,742	17	4.5	43	11	130.00	
	ConocoPhillips	COP	62.35	1,173	20,375	15	7.1	31	26	80.00	
	Occidental Petroleum Corp.	OXY	61.38	763	13,000	17	7.3	35	8	75.00	
	<i>Median</i>					7.1	33				
Mid-Size Independent											
	Cimarex Energy Company	XEC	61.65	96	1,349	10	4.4	35	19	140.00	
	Continental Resources	CLR	40.19	375	6,174	15	5.1	121	21	70.00	
	Devon Energy Corporation	DVN	22.53	494	6,627	12	8.6	24	15	60.00	
	Hess Corporation	HES	40.50	297	9,177		6.4	59	11	55.00	
	Marathon Oil Corporation	MRO	14.34	849	6,744	17	5.6	60	13	40.00	
	<i>Median</i>					5.6	59				
Small Independent											
	Whiting Petroleum Corporation	WLL	22.70	92	3,198	(40)	6.9	84	3	100.00	
	California Resources	CRC	17.04	43	6,800		8.9	41	10	100.00	
	Range Resources	RRC	9.57	247	4,657	14	9.8	83	58	40.00	
	Birchcliff Energy Ltd.	BIREF	2.25	268	614	18	7.2	228	56	9.00	
	<i>Median</i>					8.0	83				
Income											
	Sabine Royalty Trust	SBR	37.28	15	-	12	9.0	3	33	100	50.00
	Cross Timbers Royalty Trust	CRT	10.95	6	-	8	12.8	-	69	80	25.00
	Dorchester Minerals, L.P.	DMLP	14.64	32	-	12	6.4	-	16	71	24.00
	Permian Basin RT	PBT	5.90	47	-	10	6.8	-	24	50	9.00
	San Juan Basin Royalty Trust	SJT	4.80	47	-	8	11.3	-	100	-	8.00
	<i>Median</i>					9.0					

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	31-Dec 2018	29-Dec 2017							
Integrated										
	Royal Dutch Shell	RDS-B	59.94	68.29	(12)	6	(7)	25	(5)	0.68
	Chevron Corporation	CVX	108.79	125.19	(13)	4	(10)	29	(8)	0.77
	Exxon Mobil Corporation	XOM	68.19	83.64	(18)	4	(15)	21	(12)	0.80
	Suncor Energy	SU	27.97	36.72	(24)	3	(21)	11	(16)	0.64
	<i>Median</i>				(16)		(12)		(10)	0.73
Large Independent										
	ConocoPhillips	COP	62.35	54.89	14	2	16	17	12	0.82
	Occidental Petroleum Corp.	OXY	61.38	73.66	(17)	4	(12)	17	(10)	0.85
	EOG Resources, Inc.	EOG	87.21	107.91	(19)	1	(18)	12	(17)	0.70
	Pioneer Natural Resources	PXD	131.51	172.85	(24)	0	(24)	16	(22)	0.68
	<i>Median</i>				(18)		(15)		(13)	0.76
Mid-Size Independent										
	Hess Corporation	HES	40.50	47.47	(15)	2	(13)	31	(8)	0.83
	Marathon Oil Corporation	MRO	14.34	16.93	(15)	1	(14)	8	(10)	0.46
	Continental Resources	CLR	40.19	52.97	(24)	-	(24)	16	(18)	0.66
	Devon Energy Corporation	DVN	22.53	41.40	(46)	1	(45)	13	(34)	0.49
	Cimarex Energy Company	XEC	61.65	122.01	(49)	0	(49)	14	(44)	0.49
	<i>Median</i>				(24)		(24)		(18)	0.49
Small Independent										
	California Resources	CRC	17.04	19.44	(12)	-	(12)	159	(1)	0.68
	Whiting Petroleum Corporation	WLL	22.70	26.48	(14)	-	(14)	35	(6)	0.43
	Birchcliff Energy Ltd.	BIREF	2.25	3.50	(36)	2	(33)	2	(20)	0.40
	Range Resources	RRC	9.57	17.06	(44)	0	(43)	19	(21)	0.48
	<i>Median</i>				(25)		(24)		(13)	0.45
Income										
	Dorchester Minerals, L.P.	DMLP	14.64	15.20	(4)	11	8	-	8	0.61
	Sabine Royalty Trust	SBR	37.28	44.60	(16)	7	(9)	-	(9)	0.75
	Cross Timbers Royalty Trust	CRT	10.95	14.69	(25)	10	(16)	-	(16)	0.44
	Permian Basin RT	PBT	5.90	8.87	(33)	7	(26)	-	(26)	0.66
	San Juan Basin Royalty Trust	SJT	4.80	8.24	(42)	5	(36)	-	(36)	0.60
	<i>Median</i>				(25)		(16)		(16)	0.61
	<i>Grand Median</i>				(19)		(14)		(14)	0.66
	Natural Gas (\$/mmbtu)		2.98	2.95	1					
	Oil -West Texas Intermediate (\$/bbl)		45.86	60.09	(24)					
	Energy ETF	VDE	77.09	99.31	(22)	3	(19)			
	Total Stock Market - U.S.	VTI	127.63	137.25	(7)	2	(5)			
	Developed Markets - ex US	VEA	37.10	44.86	(17)	3	(14)			
	Emerging Markets	VWO	38.17	45.91	(17)	3	(14)			
	Total Stock Market - World	VT	65.45	74.26	(12)	3	(9)			

Source: McDep LLC, Yahoo, CME Group, Bloomberg

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Index of Recent Research				
<i>Date</i>	<i>Series</i>	<i>Symbol</i>	<i>Subject</i>	<i>Theme</i>
31-Dec	Meter Reader Special			2018 Final
11-Dec	Meter Reader			Energy of Last Resort
27-Nov			McDep Announces Kurt Wulff's Retirement	
21-Nov	II	CRT, DMLP, PBT, SBR, SJT		Store of Value
12-Nov	Meter Reader	XOM, CVX, RDS, DMLP, SBR, CRT, EOG, CLR, CRC		A Dip to Buy
8-Nov	II	CLR, XEC, HES, DVN, MRO		Shale Players
5-Nov	II	CVX, RDS, SU, XOM		Healthy Business
29-Oct	ISI	COP	ConocoPhillips	Timely Value
23-Oct	II	CRT, DMLP, PBT, SBR, SJT		Rising Distributions
15-Oct	Meter Reader	SU, PXD, MRO, BIREF, RRC, SJT		October Opportunity
9-Oct	ISI	XOM	ExxonMobil	Efficient Energy Producer
3-Oct	ISI	BIREF	Birchcliff Energy	Canada Energy Game Changer
19-Sep	ISI	SJT, CRT	San Juan Basin Royalty Trust	McDep Opportunity
18-Sep	Meter Reader	XOM, CVX, RDS, PXD, RRC, DMLP		Low McDep Ratio for Energy Profit
4-Sep	ISI	SU	Suncor	Oil Value Upside
28-Aug	II	CRT, DMLP, PBT, SBR, SJT		Roll Forward and Simplify
20-Aug	II	BIREF, CRC, RRC, WLL		Strategic Value, Uncertain Price
13-Aug	Meter Reader	COP, EOG, OXY, PXD		Large Cap Producers Advancing
9-Aug	II	CLR, XEC, HES, DVN, MRO		
7-Aug	ISI	DMLP	Dorchester Minerals, L.P.	Q2 on Trend
30-Jul	II	CVX, RDS, SU, XOM		Durable Cash Generators
23-Jul	II	CRT, DMLP, PBT, SBR, SJT		Energy Price Participation
18-Jul	ISI	COP	ConocoPhillips	Large Cap Cash Producer
10-Jul	Meter Reader			Terms of Trade
6-Jul	ISI	CVX	Chevron	Oil Value Upside
2-Jul	Meter Reader Special		Outperformance in First Half 2018	Attractive Value, Auspicious Momentum
21-Jun	II	CRT, DMLP, PBT, SBR, SJT		8% Cash in Uncertain Times
12-Jun	Meter Reader			Positive Charts
6-Jun	ISI	RDS	Royal Dutch Shell	Bright Future in Integrated Gas
30-May	ISI	BIREF	Birchcliff Energy	A Play on Narrowing the Gap
24-May	ISI	DMLP	Dorchester Minerals, L.P.	Riding the Shale Trend
15-May	Meter Reader			\$70 Oil Here
9-May	ISI	XEC	Cimarex Energy	Quality Company, Lagging Stock
4-May	ISI	MRO	Marathon Oil	Raise NPV to \$40 a Share from \$30
30-Apr	ISI	XOM	ExxonMobil	Reduce NPV to \$90 from \$100 a Share
24-Apr	II	CRT, DMLP, PBT, SBR, SJT		8% Median Distribution Yield
19-Apr	ISI	DMLP	Dorchester Minerals, L.P.	11% Distribution Reinforced
17-Apr	II	COP, EOG, OXY, PXD		Positive Trends for Large Cap Independent Producers
10-Apr	Meter Reader			Transition to Moderate Growth and Inflation
3-Apr	II	SJT, CRT	San Juan Basin	Regional Natural Gas Price Softness
21-Mar	II	BIREF, CRC, RRC, WLL		Small Cap High Reward, High Risk
15-Mar	Meter Reader		ExxonMobil	Out-of-Favor Industry Leader
12-Mar	ISI	DMLP	Dorchester Minerals, L.P.	Raise Distribution Yield to 11%
1-Mar	ISI	EOG	EOG Resources	Raise NPV to \$130 on Production
	MR = Meter Reader (published monthly on or about second or third Tuesday)			
	ISI = Independent Stock Idea			
	II = Industry Idea			
	For historical research by stock, go to mcdep.com , click on Stock Ideas , click on stock by name.			



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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.

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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.