



Meter Reader Special

Beginning of Year Analysis of Oil and Gas Stocks
January 2, 2018

New Look at Beginning of Year 2018

Summary and Recommendation

Opening the books on 2018, we see attractive value in oil and gas stocks at a median McDep Ratio of 0.86. We sharpen the focus of our coverage to 22 stocks in four groups, reduced from 25 stocks in 5 groups. We abandon, at least temporarily, differentiating Net Present Value (NPV) by adjusted reserve life. Median NPV per share is unchanged, but NPV has been reduced for some and increased for others. The new standard for approximating NPV is 12 times unlevered cash flow for North American natural gas production, 10 times for oil production and Rest of World natural gas, 8 times for downstream operations and a 50% uplift in multiples for Top Line royalties as opposed to Bottom Line net profits interests. Rankings by McDep Ratio have not changed much. We have dropped coverage on **Total (TOT)**, **Imperial Oil (IMO)**, **Encana (ECA)** and **Cenovus (CVE)** to free time to concentrate on a smaller number of stocks. We add **Hess Corporation (HES)** on preliminary estimates that point to a McDep Ratio of 0.92 in the Large Independent group. With three stocks dropped we no longer have a Canadian group. **Suncor (SU)** can now be found in the Integrated group and **Birchcliff (BIREF)** in the Small Independent group (see [Table 1](#) on page 2). More detail on the factors contributing to cash flow and ultimately to dividends or distributions are grouped in a new presentation (see [Table 2](#) on page 3). More detail on the factors contributing to the present value of future cash flow are grouped in another presentation (see [Table 3](#) on page 4). The format for tracking Total Return for the year-to-date remains the same (see [Table 4](#) on page 5). Finally, we own most of the stocks as we expect positive contributions to the performance of a diversified portfolio. Though we do not designate specific buy ratings, we believe it remains generally true that low McDep Ratio stocks outperform high McDep Ratio stocks. With the McDep Ratio as a starting point and careful consideration of broader appeal, we hope to provide useful input to successful investment decisions in 2018.

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Table 1
McDep Energy Stocks
Ranked by McDep Ratio

		Price (US\$/sh)	Market Cap (US\$mm)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	PV/ Ebitda NTM	Oil Prod'n/ PV (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)	
	Symbol/Rating	2-Jan 2018									
Integrated											
	Chevron Corporation	CVX	127.58	242,000	306,000	1.27	8.3	9.4	65	3.4	0.88
	Exxon Mobil Corporation	XOM	85.03	363,000	455,000	1.25	8.6	9.8	53	3.6	0.88
	Suncor Energy	SU	37.44	62,000	80,000	1.29	7.2	9.1	83	2.7	0.79
	Royal Dutch Shell	RDS-B	69.44	289,000	414,000	1.43	6.9	9.1	53	5.4	0.76
	<i>Total or Median</i>			956,000	1,255,000	1.28	7.7	9.2	59	3.5	0.83
Large Independent											
	EOG Resources, Inc.	EOG	109.30	63,300	70,500	1.11	10.3	10.4	91	0.6	0.99
	Occidental Petroleum Corp.	OXY	73.98	56,700	70,200	1.24	9.7	9.8	82	4.2	0.99
	Hess Corporation	HES	47.85	15,100	24,200	1.61	8.9	9.7	89	2.1	0.92
	Pioneer Natural Resources	PXD	172.92	29,400	31,400	1.07	8.8	10.1	92	0.0	0.87
	ConocoPhillips	COP	55.32	67,000	91,000	1.35	8.0	9.4	76	1.9	0.85
	Marathon Oil Corporation	MRO	17.38	14,770	21,800	1.48	7.2	9.4	84	1.2	0.77
	Devon Energy Corporation	DVN	42.23	22,300	30,000	1.35	7.0	9.2	77	0.6	0.76
	<i>Total or Median</i>			268,600	339,000	1.35	8.8	9.7	84	1.2	0.87
Small Independent											
	Continental Resources (32%)	CLR	54.26	6,500	8,600	1.33	8.8	9.5	79	-	0.93
	Cimarex Energy Company	XEC	125.51	11,700	13,200	1.13	9.1	10.0	74	0.3	0.91
	California Resources	CRC	19.99	900	7,000	8.2	7.8	9.2	90	-	0.84
	Range Resources	RRC	17.92	4,400	9,000	2.04	7.2	11.6	39	0.4	0.62
	Whiting Petroleum Corporation	WLL	27.37	2,500	5,700	2.31	5.3	9.1	95	-	0.59
	Birchcliff Energy Ltd.	BIREF	3.64	1,000	1,600	1.62	5.6	11.6	39	2.2	0.48
	<i>Total or Median</i>			27,000	45,000	1.83	7.5	9.7	77	0.1	0.73
Income											
	San Juan Basin Royalty Trust	SJT	8.50	400	400	1.00	13.9	13.1	-	7.2	1.06
	Sabine Royalty Trust	SBR	45.35	660	660	1.00	16.8	18.6	63	5.9	0.91
	Permian Basin RT	PBT	8.86	410	410	1.00	12.0	13.5	81	7.9	0.89
	Dorchester Minerals, L.P.	DMLP	15.25	490	490	1.00	9.5	15.0	79	10.0	0.63
	Cross Timbers Royalty Trust	CRT	14.85	90	90	1.00	9.5	15.9	32	8.3	0.59
	<i>Total or Median</i>			2,100	2,100	1.00	12.0	15.0	63	7.9	0.89

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 12/31/18.
 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./	Distrib.
		(US\$/sh)	Volume	Price	Margin	Ebitda	stream	Ebitda		
		2-Jan					Ebitda			
		2018	(mmboe)	(\$/boe)	(%)	(\$/boe)	(\$/boe)	(\$mm)	(%)	(\$/sh)
Integrated										
Royal Dutch Shell	RDS-B	69.44	1371	41.85	72	30.00	13.43	41,116	26	3.76
Exxon Mobil Corporation	XOM	85.03	1485	43.68	55	23.90	11.85	35,503	25	3.08
Chevron Corporation	CVX	127.58	1025	45.49	62	28.40	7.81	29,098	22	4.32
Suncor Energy	SU	37.44	277	56.24	57	32.19	8.03	8,929	15	1.02
<i>Total or Median</i>			<i>4158</i>	<i>44.59</i>	<i>60</i>	<i>29.20</i>	<i>9.94</i>	<i>114,647</i>	<i>23</i>	
Large Independent										
ConocoPhillips	COP	55.32	420	42.71	63	26.90	0.00	11,294	11	1.06
EOG Resources, Inc.	EOG	109.30	237	41.29	70	28.80	0.00	6,835	6	0.67
Occidental Petroleum Corp.	OXY	73.98	232	41.97	62	26.00	5.17	6,031	33	3.08
Devon Energy Corporation	DVN	42.23	192	31.69	64	20.30	2.17	3,897	3	0.24
Pioneer Natural Resources	PXD	172.92	124	41.05	70	28.70	0.00	3,567	0	0.08
Marathon Oil Corporation	MRO	17.38	148	33.39	61	20.40	0.00	3,026	6	0.20
Hess Corporation	HES	47.85	127	41.40	52	21.40	0.00	2,728	12	1.00
<i>Total or Median</i>									<i>6</i>	
Small Independent										
Cimarex Energy Company	XEC	125.51	74	29.85	66	19.60	0.00	1,454	2	0.32
Range Resources	RRC	17.92	132	18.43	51	9.40	0.00	1,244	2	0.08
Whiting Petroleum Corporation	WLL	27.37	45	39.01	62	24.10	0.00	1,074	-	-
Continental Resources (32%)	CLR	54.26	33	37.53	79	29.70	0.00	982	-	-
California Resources	CRC	19.99	47	45.89	42	19.10	0.00	893	-	-
Birchcliff Energy Ltd.	BIREF	3.64	23	17.82	4	12.30	0.00	284	7	0.08
<i>Total or Median</i>									<i>1</i>	
Income										
Dorchester Minerals, L.P.	DMLP	15.25	2.14	33.73	71	24.08	0.00	52	96	1.53
Sabine Royalty Trust	SBR	45.35	1.45	32.36	84	27.13	0.00	39	100	2.69
Permian Basin RT	PBT	8.86	1.32	39.98	65	26.06	0.00	34	95	0.70
San Juan Basin Royalty Trust	SJT	8.50	3.05	15.00	62	9.33	0.00	28	100	0.61
Cross Timbers Royalty Trust	CRT	14.85	0.42	37.97	59	22.57	0.00	9	79	1.24
<i>Total or Median</i>									<i>96</i>	
For historical research see www.mcdep.com										



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Table 3
McDep Energy Stocks
Net Present Value Per Share

		Price (US\$/sh)					Devel. Resrvs/ Prod	Undev/ Devel. Resrvs (%)	Nat Gas/ Ebitda (%)	Top Line/ Ebitda (%)	Net Present Value (US\$/sh)
	Symbol/Rating	2-Jan 2018	Shares (mm)	Debt (\$mm)	P/E NTM		NTM				
Integrated											
	Chevron Corporation	CVX	127.58	1,896	64,410	23	7.0	48	21		150.00
	Exxon Mobil Corporation	XOM	85.03	4,271	91,771	17	8.9	45	26		100.00
	Royal Dutch Shell	RDS-B	69.44	4,163	124,534	16	6.9	34	29		100.00
	Suncor Energy	SU	37.44	1,663	17,833	13	9.1	80			50.00
	<i>Median</i>						7.9				
Large Independent											
	Pioneer Natural Resources	PXD	172.92	170	2,000	31	5.4	8	7		200.00
	EOG Resources, Inc.	EOG	109.30	579	7,214		5.4	43	9		110.00
	Occidental Petroleum Corp.	OXY	73.98	766	13,500	31	7.8	30	2		75.00
	ConocoPhillips	COP	55.32	1,215	23,479		9.5	25	22		68.00
	Devon Energy Corporation	DVN	42.23	529	7,746	66	7.6	25	14		60.00
	Hess Corporation	HES	47.85	315	9,178		6.1	39	3		55.00
	Marathon Oil Corporation	MRO	17.38	850	7,044		5.4	65	14		25.00
	<i>Median</i>						6.1				
Small Independent											
	Cimarex Energy Company	XEC	125.51	94	1,483	20	5.1	26	23		140.00
	Whiting Petroleum Corporation	WLL	27.37	91	3,242		7.1	111	4		72.00
	Continental Resources (32%)	CLR	54.26	119	2,134		5.7	146	18		60.00
	California Resources	CRC	19.99	43	6,100		8.4	40	8		50.00
	Range Resources	RRC	17.92	245	4,575	16	7.8	78	56		40.00
	Birchcliff Energy Ltd.	BIREF	3.64	268	604	15	4.9	218	57		10.00
	<i>Median</i>						6.4				
Income											
	Sabine Royalty Trust	SBR	45.35	15	-	17	11.3	4	33	100	50.00
	Cross Timbers Royalty Trust	CRT	14.85	6	-	12	9.1	-	60	79	25.00
	Dorchester Minerals, L.P.	DMLP	15.25	32	-	13	6.5	-	19	87	24.00
	Permian Basin RT	PBT	8.86	47	-	13	8.8	14	20	40	10.00
	San Juan Basin Royalty Trust	SJT	8.50	47	-	14	10.2	-	98	-	8.00
	<i>Median</i>						9.1				

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	Price			Equity	Unlevered			
		(\$/sh)	(\$/sh)	Price	Cash	Total	Debt	Return	McDep	
	Symbol/Rati	2-Jan	29-Dec	Change	Distrib.	Return	(\$/sh)	(%)	Ratio	
		2018	2017	(%)	(%)	(%)				
Integrated										
	Suncor Energy	SU	37.44	36.72	2	-	2	11	2	0.79
	Chevron Corporation	CVX	127.58	125.19	2	-	2	34	2	0.88
	Exxon Mobil Corporation	XOM	85.03	83.64	2	-	2	21	1	0.88
	Royal Dutch Shell	RDS-B	69.44	68.29	2	-	2	30	1	0.76
	<i>Median</i>				2		2		1	0.83
Large Independent										
	Marathon Oil Corporation	MRO	17.38	16.93	3	-	3	8	2	0.77
	Devon Energy Corporation	DVN	42.23	41.40	2	-	2	15	1	0.76
	EOG Resources, Inc.	EOG	109.30	107.91	1	-	1	12	1	0.99
	ConocoPhillips	COP	55.32	54.89	1	-	1	19	1	0.85
	Hess Corporation	HES	47.85	47.47	1	-	1	29	0	0.92
	Occidental Petroleum Corp.	OXY	73.98	73.66	0	-	0	18	0	0.99
	Pioneer Natural Resources	PXD	172.92	172.85	0	-	0	12	0	0.87
	<i>Median</i>				1		1		1	0.87
Small Independent										
	Cimarex Energy Company	XEC	125.51	122.01	3	-	3	16	3	0.91
	Birchcliff Energy Ltd.	BIREF	3.64	3.50	4	-	4	2	2	0.48
	Range Resources	RRC	17.92	17.06	5	-	5	19	2	0.62
	Continental Resources (32%)	CLR	54.26	52.97	2	-	2	18	2	0.93
	Whiting Petroleum Corporation	WLL	27.37	26.48	3	-	3	36	1	0.59
	California Resources	CRC	19.99	19.44	3	-	3	143	0	0.84
	<i>Median</i>				3		3		2	0.73
Income										
	San Juan Basin Royalty Trust	SJT	8.50	8.24	3	-	3	-	3	1.06
	Sabine Royalty Trust	SBR	45.35	44.60	2	-	2	-	2	0.91
	Cross Timbers Royalty Trust	CRT	14.85	14.69	1	-	1	-	1	0.59
	Dorchester Minerals, L.P.	DMLP	15.25	15.20	0	-	0	-	0	0.63
	Permian Basin RT	PBT	8.86	8.87	(0)	-	(0)	-	(0)	0.89
	<i>Median</i>				1		1		1	0.89
	<i>Grand Median</i>				2		2		1	0.86
	Natural Gas (\$/mmbtu)		3.04	2.95	3					
	Oil -West Texas Intermediate (\$/bbl)		60.38	60.09	0					
	Total Stock Market - U.S.	VTI	138.22	137.25	1					
	Developed Markets - ex US	VEA	45.25	44.86	1					
	Emerging Markets	VWO	46.72	45.91	2					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

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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.