

Currency, Interest and Oil

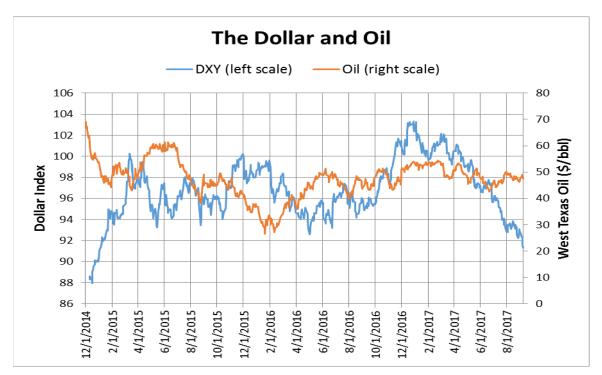
			Price						Oil	Dist.	
			(US\$/sh)	Market	Enterprise	EV/	EV/	<i>PV</i> /	Prod'n/	Yield	McDep
	Symbol/Ratin	ıg	12-Sep	Cap	Value	Market	Ebitda	Ebitda	PV	NTM	Ratio
			2017	(US\$mm)	(\$mm)	Cap	NTM	NTM	(%)	(%)	(EV/PV)
Royal Dutch Shell	RDS-A	В	56.99	236,000	363,000	1.54	7.3	9.2	51	6.6	0.79
Total S.A.	TOT	В	53.31	138,000	195,000	1.41	6.5	9.6	55	5.6	0.67
ConocoPhillips	COP	В	45.05	56,000	80,000	1.44	9.0	12.2	69	2.4	0.74
Marathon Oil Corporation	MRO	В	11.65	9,900	17,000	1.72	9.3	12.7	79	1.7	0.73
Continental Resources (32%)	CLR	В	35.11	4,200	6,300	1.51	8.4	11.8	74	-	0.72
Range Resources	RRC	В	18.17	4,500	8,800	1.99	8.6	17.5	31	0.4	0.49
Dorchester Minerals, L.P.	DMLP	В	14.35	460	460	1.00	10.9	18.3	72	8.8	0.60
Cross Timbers Royalty Trust	CRT	В	14.58	90	90	1.00	10.0	19.9	28	7.7	0.50
Suncor Energy	SU	В	33.23	55,300	74,300	1.34	9.2	11.4	84	3.2	0.81
Birchcliff Energy Ltd.	BIREF	В	4.71	1,300	1,900	1.49	7.1	12.5	30	1.7	0.57

Summary and Recommendation

A weaker dollar and short-term interest rates below inflation contribute an upward bias to oil and gas price, which supports investing in oil and gas stocks, we believe. The value of the dollar in other global currencies has declined to a low extreme as measured by the DXY index for nearly the past three years (see chart The Dollar and Oil on page 2). That implies the price of oil should move up into the \$50s presuming the same supply/demand balance of that period. Moreover, the foreign currencies are nearly all devaluing with the dollar as the nominal price of goods and services rises globally. In dollar terms, inflation expectations of 1.7% a year in the U.S. Treasury 10-Year Note were barely covered by the average interest rate of 2.1% (see chart U.S. Ten-Year Interest and Inflation on page 2). Recent inflation expectations have exceeded the nominal interest rate on the U.S. 5-Year Note. Actual inflation has exceeded the overnight interest rate for several years. Inflation rates above interest rates support higher nominal price for real assets such as oil, gold, commodities and real estate. Oil price also helps set the tone for natural gas. The ratio of oil price to natural gas price has been about 16 times for the past few years (see chart U.S. Crude Oil and Natural Gas Price on page 3). Contrary to the impact of currency and inflation, rapidly expanded supply from shale innovation has contributed to inventory build that puts downward pressure on price. As inventories decline, hurricane interruptions notwithstanding, downward price pressure will likely abate (see chart <u>U.S. Crude Oil Stocks</u> on page 3). Though somewhat delayed, our long-term expectations remain \$70 a barrel and \$4 a million btu. In the McDep diversified portfolio we like oil and gas stocks and global equities generally for positive return. We include some gold to keep real value. Despite their negative real return, we hold short to medium duration U.S. Treasuries to dampen portfolio volatility, to provide downside protection and a reserve for opportunistic investment. McDep oil and gas stocks include conservative global giants, large cap shale oil innovators, low McDep Ratio small caps, high income payers, and diverse Canadian producers (see Tables 1-4 on pages 4-7).

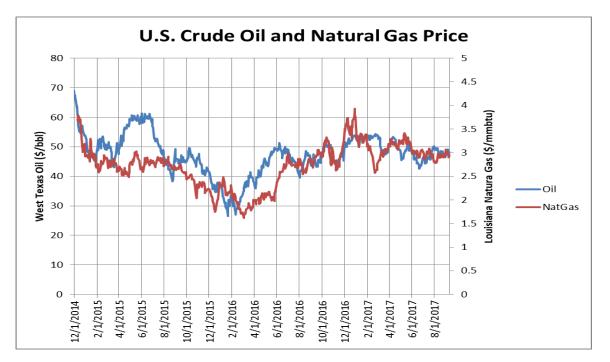
Kurt H. Wulff, CFA

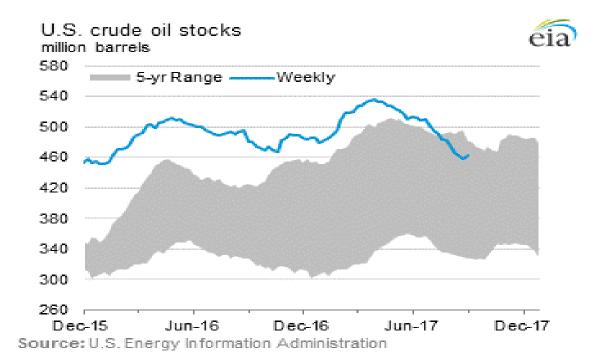














Symbol/Rating $12-Sep$ Cap Value Market Ebida $Ebida$ PV NTM (R) (EV/P) Global Integrated 2017 $(US$mm)$ (Smm) Cap NTM RM $(%)$ (PV) (PV) Global Integrated 112.23 $213,000$ $279,000$ 1.31 9.0 10.4 60 3.8 0.83 Rxon Mobil Corporation XCW 112.23 $213,000$ $431,000$ 1.27 9.9 12.0 49 3.9 0.8 0.7 Total or Median V $926,000$ $1.268,000$ 1.36 8.2 10.0 5.3 0.6 0.7 0.8 1.0 Pioneer Natural Resources, Inc. EOG 88.47 51.200 $58,500$ 1.18 11.0 11.0 0.6 0.9 0.6 0.9 0.6 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0				Mal	Table Don Enor							
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				Rank	ked by Mo	Dep Rati	0					
				Price								
Global Integrated 2017 (US\$mm) (\$mm) Cap NTM NTM (%) (#VPV Global Integrated - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -				(US\$/sh)	Market	Enterprise	EV/	EV/	PV/		Yield	McDe
		Symbol/Rati	ing	12-Sep	Cap	Value	Market	Ebitda	Ebitda	PV	NTM	Ratio
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				2017	(US\$mm)	(\$mm)	Cap	NTM	NTM	(%)	(%)	(EV/PV
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Global Integrated											
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Chevron Corporation	CVX		112.23	213,000	279,000	1.31	9.0	10.4	60		0.87
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Exxon Mobil Corporation	XOM		79.47	339,000	431,000	1.27	9.9	12.0	49	3.9	0.83
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Royal Dutch Shell	RDS-A		56.99	236,000	363,000		7.3			6.6	0.79
Large Independent EOG 88.47 $51,200$ $58,500$ 1.14 11.4 11.1 866 0.8 1.00 Pioneer Natural Resources PXD 130.47 $22,200$ $23,900$ 1.08 9.6 10.9 87 0.1 0.88 Devone Energy Corporation DVN 32.41 $17,100$ $25,100$ 1.47 8.4 10.6 62.6 80 7.7 0.77 ConcoPhillips COP 8 55.5 $56,000$ $80,00$ 1.44 9.0 12.2 69 2.4 0.77 Marathon Oil Corporation MRO B 11.65 9.900 1.700 1.7100 1.72 93 12.7 79 17.7 0.77 Guarace Energy Company XEC 101.57 9700 $11,100$ 1.15 10.3 11.9 63 0.3 0.84 California Resources CRC 8.05 300 $6,300$ 1.51 8	Total S.A.	TOT	В	53.31	138,000	195,000	1.41	6.5	9.6		5.6	0.67
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Total or Median				926,000	1,268,000	1.36	8.2	10.0	53	4.7	0.81
Pioneer Natural Resources PXD 130.47 22,200 23,900 1.08 9.6 10.9 87 0.1 0.83 Occidental Petroleum Corp. OXY 60.54 46,400 59,200 1.28 10.6 12.6 80 5.0 0.88 Devon Energy Corporation DVN 32.41 17,100 25,100 1.47 8.4 10.6 62.6 0.7 0.7 ConcocPhillips COP B 45.05 56,000 80,000 1.44 9.0 12.2 69 2.4 0.7 Marathon Oil Corporation MRO B 11.65 9,900 17,000 1.72 9.3 12.7 79 1.7 0.73 ConcoPhilips COP B 45.05 300 264,000 1.36 9.5 11.6 8.0 1.08 1.2 0.83 Cimarex Energy Company XEC 101.57 9.700 11,100 1.15 1.4.7 89 - 0.73 Continental Resources CRC B 35.11 4,200 6,300 1.51 8.4 <	Large Independent											
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	EOG Resources, Inc.	EOG		88.47	51,200	58,500	1.14	11.4	11.1	86	0.8	1.04
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Pioneer Natural Resources	PXD		130.47	22,200	23,900	1.08	9.6	10.9	87	0.1	0.88
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Occidental Petroleum Corp.	OXY		60.54	46,400	59,200	1.28	10.6	12.6	80	5.0	0.84
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Devon Energy Corporation	DVN		32.41	17,100	25,100	1.47	8.4	10.6	62	0.7	0.79
Total or Median Image: Solution of the	ConocoPhillips	COP	В	45.05	56,000	80,000	1.44	9.0	12.2	69	2.4	0.74
Small IndependentImage: select of the select o	Marathon Oil Corporation	MRO	В	11.65	9,900	17,000	1.72	9.3	12.7	79	1.7	0.73
Cimarex Energy Company XEC 101.57 9,700 11,100 1.15 10.3 11.9 63 0.3 0.86 California Resources CRC 8.05 300 $6,300$ 18.6 11.5 14.7 89 - 0.77 Continental Resources (32%) CLR B 35.11 $4,200$ $6,300$ 1.51 8.4 11.8 74 - 0.77 Whiting Petroleum Corporation WLL 4.34 1,600 $5,200$ 3.29 6.4 12.6 92 - 0.57 Range Resources RRC B 18.17 $4,500$ $8,800$ 1.99 8.6 17.5 31 0.4 0.49 Income Control Median PBT 7.22 340 340 1.00 14.3 15.8 -6.9 0.99 Permian Basin Royalty Trust SJT 7.22 340 340 1.00 14.4 19.2 78 6.4 0.77 Sabine Royalty Trust SBR 39.62 580 580 1.00 1	Total or Median				202,800	264,000	1.36	9.5	11.6	80	1.2	0.82
California Resources CRC 8.05 300 $6,300$ 18.6 11.5 14.7 89 $ 0.76$ Continental Resources (32%) CLR B 35.11 $4,200$ $6,300$ 1.51 8.4 11.8 74 $ 0.77$ Whiting Petroleum Corporation WLL 4.34 $1,600$ $5,200$ 3.29 6.4 12.6 92 $ 0.77$ Range Resources RRC B 18.17 $4,500$ $8,800$ 1.99 8.6 17.5 31 0.4 0.44 <i>Total or Median</i> $20,000$ $38,000$ 1.99 8.6 12.6 74 $ 0.77$ San Juan Basin Royalty Trust SJT 7.22 340 340 1.00 14.3 15.8 $ 6.9$ 0.90 San Juan Basin ROT PBT 8.28 390 390 1.00 14.4 19.2 78 6.4 0.77 Sabine Royalty Trust SBR 39.62 580 580 1.00 <	Small Independent											
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Cimarex Energy Company	XEC		101.57	9,700	11,100	1.15	10.3	11.9	63	0.3	0.86
Whiting Petroleum Corporation WLL 4.34 $1,600$ $5,200$ 3.29 6.4 12.6 92 $ 0.5$ Range Resources RRC B 18.17 $4,500$ $8,800$ 1.99 8.6 17.5 31 0.4 0.49 Total or Median $ 20,000$ $38,000$ 1.99 8.6 12.6 74 $ 0.77$ Income $ 6.9$ 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 <th< td=""><td>California Resources</td><td>CRC</td><td></td><td>8.05</td><td>300</td><td>6,300</td><td>18.6</td><td>11.5</td><td>14.7</td><td>89</td><td>-</td><td>0.78</td></th<>	California Resources	CRC		8.05	300	6,300	18.6	11.5	14.7	89	-	0.78
Range Resources RRC B 18.17 4,500 8,800 1.99 8.6 17.5 31 0.4 0.49 Total or Median 20,000 38,000 1.99 8.6 12.6 74 - 0.7 Income 7 7.22 340 340 1.00 14.3 15.8 - 6.9 0.99 Permian Basin Royalty Trust SJT 7.22 340 340 1.00 14.3 15.8 - 6.9 0.99 Permian Basin Royalty Trust SBT 8.28 390 390 1.00 14.4.3 15.8 - 6.9 0.99 Sabine Royalty Trust SBR 39.62 580 580 1.00 19.0 2.87 59 5.3 0.64 Dorchester Minerals, LP. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90<	Continental Resources (32%)	CLR	В	35.11	4,200	6,300	1.51	8.4	11.8	74	-	0.72
Total or Median Image: Constraint of Median <thimage: constraint="" median<="" of="" th=""> Image: Cons</thimage:>	Whiting Petroleum Corporation	WLL		4.34	1,600	5,200	3.29	6.4	12.6	92	-	0.51
Income Image: Subscription of the state of	Range Resources	RRC	В	18.17	4,500	8,800	1.99	8.6	17.5	31	0.4	0.49
San Juan Basin Royalty Trust SJT 7.22 340 340 1.00 14.3 15.8 $ 6.9$ 0.99 Permian Basin RT PBT 8.28 390 390 1.00 14.4 19.2 78 6.4 0.72 Sabine Royalty Trust SBR 39.62 580 580 1.00 19.0 28.7 59 5.3 0.66 Dorchester Minerals, LP. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 900 1.000 10.0 19.9 28 7.7 0.56 Canada ECA 9.64 9.4	Total or Median				20,000	38,000	1.99	8.6	12.6	74	-	0.72
Permian Basin RT PBT 8.28 390 390 1.00 14.4 19.2 78 6.4 0.73 Sabine Royalty Trust SBR 39.62 580 580 1.00 19.0 28.7 59 5.3 0.60 Dorchester Minerals, LP. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.60 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.60 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.60 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 14.3 19.2 59 6.9 0.60 Canada Imperial Oil Limited (30%) IMO 31.21 8,000 10,100 1.26 8.8 10.4 67 1.7 0.82	Income											
Sabine Royalty Trust SBR 39.62 580 580 1.00 19.0 28.7 59 5.3 0.66 Dorchester Minerals, L.P. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.9 18.3 72 8.8 0.66 Canada	San Juan Basin Royalty Trust	SJT		7.22	340	340	1.00	14.3	15.8	-	6.9	0.90
Dorchester Minerals, L.P. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.66 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.0 19.9 28 7.7 0.56 Total or Median Image: Comparison of the diam	Permian Basin RT	PBT		8.28	390	390	1.00	14.4	19.2	78	6.4	0.75
Dorchester Minerals, L.P. DMLP B 14.35 460 460 1.00 10.9 18.3 72 8.8 0.60 Cross Timbers Royalty Trust CRT B 14.58 90 90 1.00 10.0 19.9 28 7.7 0.50 Total or Median Image: Construct on Median Image: Construst on Median Image: Construct on Median	Sabine Royalty Trust			39.62	580	580	1.00					0.66
Cross Timbers Royalty Trust Total or Median CRT B 14.58 90 90 1.00 10.0 19.9 28 7.7 0.50 Canada Imperial Oil Limited (30%) ECA 9.64 9,000 1,900 1.00 14.3 19.2 59 6.9 0.66 Suncor Energy SU B 33.23 55,300 74,300 1.69 9.1 10.4 56 0.6 0.8' Birchcliff Energy Ltd. BIREF B 4.71 1,300 10,900 1.49 7.1 12.5 30 1.7 0.5' Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.5'	Dorchester Minerals, L.P.	DMLP	В	14.35	460	460	1.00	10.9	18.3	72	8.8	0.60
Total or Median 1,900 1,900 1,900 1,000 14.3 19.2 59 6.9 0.60 Canada EnCana Corporation ECA 9.64 9,400 15,900 1.69 9.1 10.4 56 0.6 0.87 Imperial Oil Limited (30%) IMO 31.21 8,000 10,100 1.26 8.8 10.4 67 1.7 0.83 Suncor Energy SU B 33.23 55,300 74,300 1.34 9.2 11.4 84 3.2 0.83 Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.57 Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.50												0.50
EnCana Corporation ECA 9.64 9,400 15,900 1.69 9.1 10.4 56 0.6 0.88 Imperial Oil Limited (30%) IMO 31.21 8,000 10,100 1.26 8.8 10.4 67 1.7 0.88 Suncor Energy SU B 33.23 55,300 74,300 1.34 9.2 11.4 84 3.2 0.88 Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.57 Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.56					1,900	1,900						0.66
EnCana Corporation ECA 9.64 9,400 15,900 1.69 9.1 10.4 56 0.6 0.88 Imperial Oil Limited (30%) IMO 31.21 8,000 10,100 1.26 8.8 10.4 67 1.7 0.88 Suncor Energy SU B 33.23 55,300 74,300 1.34 9.2 11.4 84 3.2 0.88 Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.57 Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.56	Canada											
Imperial Oil Limited (30%) IMO 31.21 8,000 10,100 1.26 8.8 10.4 67 1.7 0.83 Suncor Energy SU B 33.23 55,300 74,300 1.34 9.2 11.4 84 3.2 0.83 Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.57 Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.56		ECA		9.64	9,400	15,900	1.69	9.1	10.4	56	0.6	0.87
Suncor Energy SU B 33.23 55,300 74,300 1.34 9.2 11.4 84 3.2 0.8 Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.5' Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.5'					8,000	,						0.85
Birchcliff Energy Ltd. BIREF B 4.71 1,300 1,900 1.49 7.1 12.5 30 1.7 0.5' Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.5'			В		,	,						0.81
Cenovus Energy Inc. CVE 8.60 10,600 21,100 1.99 6.9 12.3 83 1.9 0.50					,	,						0.57
G					· · · · ·	,						0.56
												0.81
							>			- /		

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



				Table							
			McDe	p Energ	y Stoc	ks					
		Pro	oduction	1 Opera	ting Le	everag	e				
				d by Mc	0	0					
				0							
			Price		Oil	Operat	0				
~			(US\$/sh)		Equiv.	Expen		Ebitda	Ebitda	Oper Lev	
Sy	mbol/Ra		12-Sep	Volume	Price	Fixed		NTM	NTM	Ebitda chg/	McDe
	B =	Buy	2017	(mmboe)	(\$/boe)	(\$/boe)	(%)	(\$/boe)	(\$mm)	Price chg	Rati
Global Integrated (excl. Downstream)	CUN		112.02	000	27.02	11	14	20.00	10.525	1.52	0.07
Chevron Corporation	CVX XOM		112.23	886	37.02	11	14 43	20.90	18,525	1.53	0.87
Exxon Mobil Corporation		р	79.47	1,466	37.37			17.30	25,366	1.23	0.83
Royal Dutch Shell	RDS-A TOT	B	56.99	1,289 965	36.18	6		25.20	32,485	1.24	0.79
Total S.A. Total or Median		в	53.31	506	36.23	0	41	21.20	20,465	1.00	0.67
										1.23	0.81
Large Independent (excl. Downstream) EOG Resources, Inc.) EOG		88.47	230	34.01	11	2	22.20	5,108	1.50	1.04
Pioneer Natural Resources	PXD		88.47	230	34.01	11	2	22.20	2,492	1.50	0.88
Occidental Petroleum Corp.	OXY		60.54	230	33.19	11	11	19.00	4,379	1.52	0.88
Devon Energy Corporation	DVN		32.41	182	25.64			19.00	2,588	1.03	0.84
	COP	В	45.05	440	34.11	8		20.30	2,588	1.70	0.79
ConocoPhillips Marathon Oil Corporation	MRO	B	45.05	130	27.10		8	14.00	,		
Total or Median		Б	11.05	150	27.10	11	0	14.00	1,826	1.79 1.57	0.73
Small Independent										1.57	0.82
Cimarex Energy Company	XEC		101.57	72	25.05	6	16	15.10	1,080	1.40	0.86
California Resources	CRC		8.05	47	37.79	15		11.70	551	2.28	0.80
Continental Resources (32%)	CLR	В	35.11	33	30.19	3		22.80	746	1.13	0.78
Whiting Petroleum Corporation	WLL	Б	4.34	47	31.25	9		17.00	805	1.13	0.72
Range Resources	RRC	В	18.17	133	16.86	8		7.80	1.034	2.03	0.31
Total or Median		Б	10.17	155	10.00	0	0	7.00	1,034	1.53	0.49
Income										1.55	0.72
San Juan Basin Royalty Trust	SJT		7.22	3	15.85	5	19	7.90	24	1.63	0.90
Permian Basin RT	PBT		8.28	1	30.94	10		19.28	24	1.03	0.90
Sabine Royalty Trust	SBR		39.62	1	27.65	2	11	22.54	30	1.02	0.75
Dorchester Minerals, L.P.	DMLP	В	14.35	2	31.14		10	22.34	42	1.09	0.60
Cross Timbers Royalty Trust	CRT	B	14.55	0	33.53	8			42	1.35	0.00
Total or Median		Б	14.38	0	33.33	0	10	22.31	9	1.30	0.50
Canada (excl. Downstream)										1.50	0.00
EnCana Corporation	ECA		9.64	113	28.42	12	4	15.42	1.742	1.78	0.87
Imperial Oil Limited (30%)	IMO		9.64 31.21	72	28.42 35.62	12	4	15.42	1,742	2.07	0.87
Suncor Energy	SU	В	33.23	283	45.18	22	8 6	20.47	5,790	2.07	0.85
Birchcliff Energy Ltd.	BIREF	B	4.71	283	45.18	4	11	11.40	264	1.35	0.81
	CVE	D	4.71	23	25.28	4	4		2,791	1.35	0.57
Cenovus Energy Inc. Total or Median			8.00	212	23.28	11	4	15.17	2,791	1.84	0.56
Total of Median										1.04	0.01



A Monthly Analysis of Oil and Gas Stocks

Intraday September 12, 2017

					able 3						
			Mo	Dep E	nergy St	tocks					
			Net P	resent V	alue Pe	er Share					
	Rai	nked	l by Res	erve Li	fe (Adiust	td Resrvs/	Prod N	TM)			
					(j <i></i> -			/			
			Price					Down-	Proven	Adjustd	Net
			(US\$/sh)			Dividend		stream/	Undev.	Resrvs/	Presen
	Symbol/Ra	iting	12-Sep	Shares	Debt	NTM	P/E	PV	Resrvs	Prod	Value
	B =	Buy	2017	(mm)	(\$mm)	(\$/sh)	NTM	(%)	(%)	NTM	(US\$/sh
Global Integrated											
Exxon Mobil Corporation	XOM		79.47	4,271	91,152	3.08	24	27	31	11.5	100.00
Total S.A.	TOT	В	53.31	2,583	57,015	2.99	13	22	42	8.9	90.00
Chevron Corporation	CVX		112.23	1,893	66,793	4.32	30	20	32	8.9	135.00
Royal Dutch Shell	RDS-A	В	56.99	4,146	126,975	3.76	18	24	25	8.8	80.00
Median										8.9	
Large Independent											
ConocoPhillips	COP	В	45.05	1,237	24,405	1.06		-	20	10.3	68.00
Occidental Petroleum Corp.	OXY		60.54	766	12,800	3.04	61	14	23	9.2	75.00
Devon Energy Corporation	DVN		32.41	529	8,019	0.24	63	9	20	8.8	45.00
Marathon Oil Corporation	MRO	В	11.65	850	7,129	0.20		-	39	8.6	19.00
EOG Resources, Inc.	EOG		88.47	579	7,250	0.67		-	30	7.0	85.00
Pioneer Natural Resources	PXD		130.47	170	1,700	0.08	69	-	7	6.0	150.00
Median										8.7	
Small Independent											
Range Resources	RRC	В	18.17	245	4,392	0.08	48	-	44	11.8	56.00
Whiting Petroleum Corporation	WLL		4.34	363	3,589	-		-	53	11.7	18.00
Continental Resources (32%)	CLR	В	35.11	119	2,124	-		-	59	11.4	56.00
California Resources	CRC		8.05	42	6,000	-		-	29	10.3	50.00
Cimarex Energy Company	XEC		101.57	95	1,442	0.32	28	-	21	6.1	120.00
Median										11.4	
Income											
Sabine Royalty Trust	SBR		39.62	15	-	2.09	19	-	4	12.4	60.00
San Juan Basin Royalty Trust	SJT		7.22	47	-	0.50	14	-	-	10.3	8.00
Permian Basin RT	PBT		8.28	47	-	0.53	16	-	12	9.4	11.00
Cross Timbers Royalty Trust	CRT	В	14.58	6	-	1.12	13	-	-	8.7	29.00
Dorchester Minerals, L.P.	DMLP	В	14.35	32	-	1.26	15	-	-	6.9	24.00
Median				-						9.4	
Canada											
Suncor Energy	SU	В	33.23	1,665	18,930	1.05	24	16	44	13.6	44.00
Cenovus Energy Inc.	CVE		8.60	1,229	10,505	0.16		4	55	12.8	22.00
Birchcliff Energy Ltd.	BIREF	В	4.71	268	618	0.08	34	-	69	12.4	10.00
Imperial Oil Limited (30%)	IMO	-	31.21	255	2,098	0.53	14	32	23	9.2	38.00
EnCana Corporation	ECA		9.64	973	6,457	0.06		-	43	5.5	12.00
Median			2.01	2.5	0,.07	0.00			.5	12.4	12.00
meann											
P/E = Stock Price to Earnings.	For histo	rical	research see	www.mcd	ep.com.						



			Tabl	le 4						
		Mc	Dep Ene	ergy Sto	cks					
	Tote		eturn Ye			7				
	Ranke	ed b	y Unleve	ered Tot	al Retu	ırn				
			Price	Price			Fruiter	I.	.1	
			(\$/sh)	(\$/sh)	Price	Cash	Equity Total	U	nlevered Total	
	Symbol/	Pati	(\$/\$n) 12-Sep	(\$/sn) 30-Dec	Change	Distrib.	Return	Debt	Return	McDep
	Symbol/.	Kan	2017	2016	(%)	(%)	(%)	(\$/sh)	(%)	Ratic
Global Integrated			2017	2010	(70)	(70)	(70)	(φ/sn)	(70)	Кин
Royal Dutch Shell	RDS-A	В	56.99	54.38	5	5	10	31	6	0.79
Total S.A.	TOT	B	53.31	50.97	5	3	7	22	5	0.67
Chevron Corporation	CVX	D	112.23	117.70	(5)	3	(2)	35	(1)	0.87
Exxon Mobil Corporation	XOM		79.47	90.26	(12)	2	(2)	21	(1)	0.87
Median	AOM		/ 9.47	90.20	(12)	2	(3)	21	2	0.83
Large Independent					(0)		5		2	0.01
ConocoPhillips	COP	В	45.05	50.14	(10)	2	(9)	20	(6)	0.74
Occidental Petroleum Corp.	OXY	D	60.54	71.23	(10)	2	(13)	17	(10)	0.74
EOG Resources. Inc.	EOG		88.47	101.10	(13)	0	(13)	17	(10)	1.04
Marathon Oil Corporation	MRO	В	11.65	101.10	(12)	1	(12)	8	(11)	0.73
Devon Energy Corporation	DVN	D	32.41	45.67	(33)	0	(32)	15	(21)	0.73
Pioneer Natural Resources	PXD		130.47	180.00	(29)	0	(29)	10	(22)	0.79
Median	FAD		130.47	180.00	(28)	0	(27)	10	(20)	0.88
Small Independent					(21)		(20)		(10)	0.82
1	CRC		8.05	21.29	(62)	-	(62)	142	(0)	0.78
California Resources Cimarex Energy Company	XEC		101.57	135.90	(62) (25)	- 0	(62) (25)	142	(8) (23)	0.78
Continental Resources (32%)	CLR	В	35.11	51.54	(23)	-	(32)	13	(23)	0.80
Range Resources	RRC	B	18.17	34.36	(32)	- 0	(32)	18	(24)	0.72
Whiting Petroleum Corporation	WLL	Б	4.34	12.02	(64)	-	(64)	10	(31)	0.49
Median	WLL		4.34	12.02	(04)	-	(04)	10	(33)	0.31
Income					(47)		(47)		(24)	0.72
Sabine Royalty Trust	SBR		39.62	35.15	13	4	17	-	17	0.66
San Juan Basin Royalty Trust	SJT		7.22	6.62	9	6	17	-	17	0.00
Permian Basin RT	PBT		8.28	7.71	7	6	13	-	13	0.90
Dorchester Minerals, L.P.	DMLP	В	14.35	17.55	(18)	5	(13)	-	(13)	0.75
	CRT	B	14.55	17.33	(18)	4	(15)	-	(13)	0.00
Cross Timbers Royalty Trust Median	CKI	D	14.36	17.97	(19)	4	13	-	13	0.50
Canada					/		15		15	0.00
	SU	В	33.23	32.69	2	1	3	11	2	0.81
Suncor Energy Imperial Oil Limited (30%)	IMO	D	31.21	32.09	(10)	1	(10)	8	(8)	0.81
EnCana Corporation	ECA	+	9.64	11.74	(10)	0	(10)	7	(11)	0.85
Birchcliff Energy Ltd.	BIREF	В	4.71	7.01	(33)	1	(32)	2	(11)	0.87
Cenovus Energy Inc.	CVE	D	4.71	15.13	(33)	1	(32)	9	(24)	0.57
Median	CVE	++	0.00	15.15	(18)	1	(18)	7	(27) (11)	0.30
meatan		++			(10)		(10)		(11)	0.01
Grand Median		++			(18)		(13)		(11)	0.78
Natural Gas (\$/mmbtu)		+	3.04	3.74	(18)		(15)		(11)	0.70
Oil -West Texas Intermediate (\$/bbl)		+	48.22	53.72	(10)					
Total Stock Market - U.S.	VTI	+	128.14	115.32	11					
Developed Markets - ex US	VEA	+	43.36	36.54	19					
Emerging Markets	VWO	+	45.05	35.78	26					
LINE EIIIS WAINCIS	1110	+	-5.05	55.70	20					

Please see disclosures on the final page.



A Monthly Analysis of Oil and Gas Stocks

Intraday September 12, 2017

			Index of Recent R	lesearch				
Date_	<u>Series</u>	Symbol	<u>Subject</u>	Theme				
5-Sep	ISI	TOT	Total S.A.	Gaining Volume on Competitors				
30-Aug	ISI	SU	Suncor Energy Inc.	Returning Cash to Shareholders				
23-Aug	ISI	BIREF	Birchcliff Energy	Montney Growth				
15-Aug	Meter R		Direitenti Energy	Energy Outlook to 2026				
B-Aug	ISI	SJT	San Juan Basin Royalty Trust	BP Tests Best San Juan Well in 14 Years				
4-Aug	ISI	DMLP	Dorchester Minerals, L.P.	Raise Distribution Yield to 8.5%				
31-Jul	ISI	CVX	Chevron	Valuable Permian Lands				
25-Jul	II		PBT, SBR, SJT	Control Reinvestment with Income Payers				
19-Jul	П		EOG, MRO,PXD, OXY	Potential to Prosper				
			OG, MIRO, PAD, OA I	*				
l 1-Jul	Meter R		Danshastan Minanala, I. D	Liftoff for Energy Exports				
3-Jul	ISI	DMLP	Dorchester Minerals, L.P.	Core Midland Acquisition – Upgrade to Buy				
27-Jun	ISI	CLR	Continental Resources	Well-Managed Shale Pioneer				
20-Jun	ISI	XOM	Exxon Mobil	Profit from Low-Risk Energy Growth				
13-Jun	Meter R			Value Beckoning				
5-Jun	ISI	MRO	Marathon Oil	A Fourth Shale Focus				
30-May		RDS	Royal Dutch Shell	High Yield While Waiting				
26-May		CVE	Cenovus Energy	High Operating and Financial Leverage				
8-May	-	DMLP	Dorchester Minerals, L.P.	Midland Basin Spotlight				
9-May	Meter R			Positive Progress				
2-May	ISI	RRC	Range Resources	Growth Accelerating				
24-Apr	Π	CRT, DMLP,	PBT, SBR, SJT	Income Payer Distributions Beat				
21-Apr	ISI	PXD	Pioneer Natural Resources	Prominent Permian Producer				
l7-Apr	ISI	SJT	San Juan Basin Royalty Trust	New Operator to Enhance Value				
l 1-Apr	Meter R	eader		IPAA Ideas				
30-Mar	ISI	CVE	Cenovus Energy	Buying Out 50% Partner				
30-Mar	ISI	COP	ConocoPhillips	Selling Canada				
27-Mar	ISI	TOT	Total S.A.	Most Undervalued Global Integrated				
21-Mar	ISI	CRT	Cross Timbers Royalty Trust	Top Line Value with Bottom Line Option				
14-Mar	Meter R	eader		Extra Inventory				
3-Mar	ISI	DMLP	Dorchester Minerals, L.P.	Shale Oil Royalties Rising				
26-Feb	П	CLR, CRC, F	RC, WLL, XEC	Small Cap Producers Rising Again				
21-Feb	ISI	MRO	Marathon Oil	A Third, a Third, a Third				
14-Feb	Meter R	eader		Non-U.S. Buys at Low McDep Ratio				
6-Feb	ISI	COP	ConocoPhillips	Steady Volume				
3-Feb	ISI	RDS	Royal Dutch Shell	BG Paying Off				
1-Feb	ISI	XOM	Exxon Mobil	Looking to New Leader				
30-Jan	ISI	CVX	Chevron	LNG and Permian Positives				
17-Jan	Meter R			Buy Stocks with Low McDep Ratio				
31-Dec			Year-End Special with New Tables	Natural Gas Storage Trend Reverses				
13-Dec	Meter R		real-End Special with New Tables	Optimistic Outlook 2017				
5-Dec	II	XOM, RDS,	CVX TOT	Total Return Upside				
28-Nov			EOG, MRO, OXY					
	-			Permian Players				
22-Nov	-		PBT, SBR, SJT	Income Payers Sparkle				
15-Nov	Meter R	1		Growth, Inflation and Trump				
9-Nov	ISI	ECA	Encana Corporation	Raise NPV to US\$10 from US\$6				
			ublished monthly on or about second or	third Tuesday)				
		dependent Stoc	c Idea					
	$\Pi = Indi$	ıstry Idea						



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