



Independent Stock Idea

Intraday November 2, 2017

Marathon Oil (MRO) Shale Oil Value

<i>Symbol</i>	MRO	<i>Ebitda Next Twelve Months ending 9/30/18 (US\$mm)</i>	2,570
<i>Rating</i>	Buy	<i>North American Natural Gas/Ebitda (%)</i>	8
<i>Price (US\$/sh)</i>	14.99	<i>Natural Gas and Oil Production/Ebitda (%)</i>	100
<i>Pricing Date</i>	11/2/17	<i>Adjusted Reserves/Production NTM</i>	7.7
<i>Shares (mm)</i>	850	<i>EV/Ebitda</i>	7.7
<i>Market Capitalization (US\$mm)</i>	12,700	<i>PV/Ebitda</i>	9.0
<i>Debt (US\$mm)</i>	7,000	<i>Undeveloped Reserves (%)</i>	39
<i>Enterprise Value (EV) (US\$mm)</i>	19,800	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	17.50
<i>Present Value (PV) (US\$mm)</i>	23,200	<i>Present Value Proven Reserves(US\$/boe)</i>	16.50
<i>Net Present Value (US\$/share)</i>	19	<i>Present Value Proven Reserves(US\$/mcfe)</i>	2.75
<i>Debt/Present Value</i>	0.30	<i>Earnings Next Twelve Months (US\$/sh)</i>	0.05
<i>McDep Ratio - EV/PV</i>	0.85	<i>Price/Earnings Next Twelve Months</i>	297
<i>Dividend Yield (%/year)</i>	1.3	<i>Indicated Annual Dividend (US\$/sh)</i>	0.20
Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.			
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.			
Estimated present value capped by unlevered cash flow multiple.			
For historical research on Marathon since 2001 see http://www.mcdep.com/3mro.htm			

Summary and Recommendation

We recommend current purchase of the common shares of **Marathon Oil (MRO)** for cash flow from shale oil production and other sources that doubled in the third quarter of 2017 compared to the previous year as reported after the market close on November 2. For MRO stock, we see unlevered appreciation of 18% to a McDep Ratio of 1.0 and levered appreciation of 27% to Net Present Value (NPV) of \$19 a share from current stock price of \$15. Absent oil sands production sold effective at the beginning of 2017, latest quarterly production of 410 thousand barrels oil equivalent daily (mboed), including 23 mboed from unpredictable Libya, may grow to an average 404 mboed for the next twelve months, excluding Libya (see table Operating and Financial Estimates on page 2). U.S. resource plays—Eagle Ford, Oklahoma, Bakken and Permian--- contributed 227 mboed in the latest quarter, up 18% from the previous year. In the latest quarter, price of \$29.80 a barrel oil equivalent (boe) minus expense of \$11.80 yielded cash flow (Ebitda) of \$18.00. For the next twelve months, price of \$30.50 a boe minus expense of \$13.00 would yield cash flow (Ebitda) of \$17.50. Just as recent results were better than expected, we are optimistic that future results will be better than expected as well. The company is also gaining in financial strength as it has reduced debt more rapidly than peers (see chart Debt on page 3). Shale oil resources, higher long-term oil price and continued tight cost control support the cash flow multiple built into NPV (see table Present Value on page 3). Cash flow paid to investors includes a dividend of 1.3% a year. Remaining cash would be applied to grow volumes 10% a year with oil price at \$50 a barrel. Share count is stable. Finally, valuation comparisons highlight the attractiveness of MRO along with other stocks among the 25 in our coverage (see Tables 1-4, McDep Energy Stocks on pages 4-7).

Kurt H. Wulff, CFA



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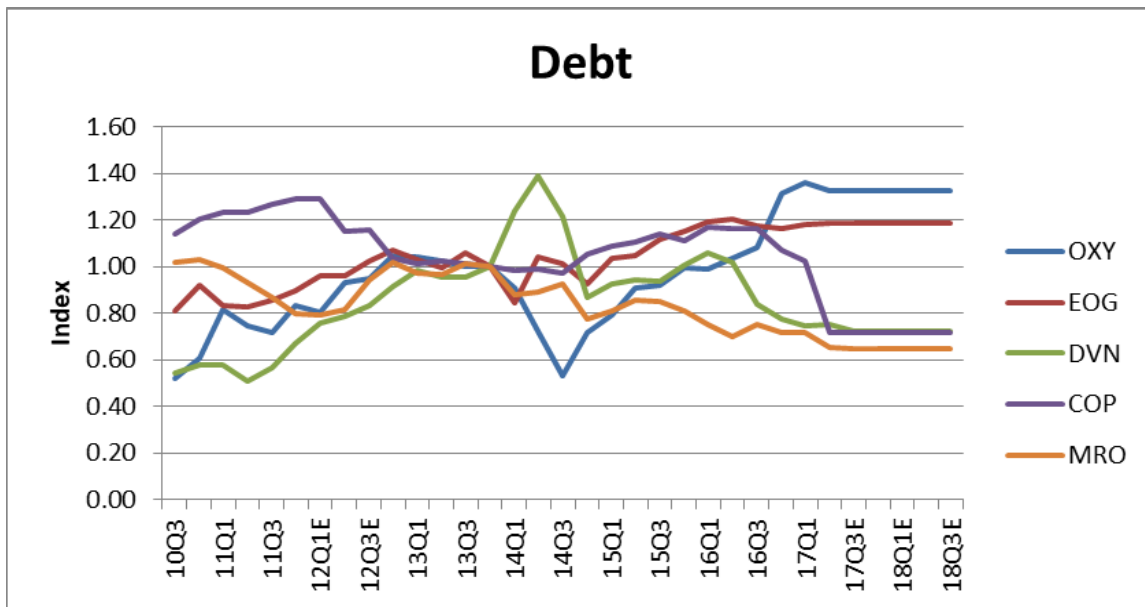
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Marathon Oil Corporation										
Next Twelve Months Operating and Financial Estimates										
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Next Twelve Months
	9/30/16	2016	6/30/17	9/30/17	12/31/17	2017	3/31/18	6/30/18	9/30/18	9/30/18
Volume										
Natural Gas (mmcf)										
U.S. (or North America)	315	314	341	369	378	348	378	387	396	385
Overseas (or Int'l)	489	453	478	507	519	491	519	532	544	529
Total	804	766	819	876	897	840	897	919	941	913
Days	92	366	91	92	92	365	90	91	92	365
Oil (mmb)	25	101	20	24	23	86	22	23	24	92
Oil (mbd)	273	276	220	264	247	235	247	253	259	252
Total gas & oil (bcf)	225	886	195	226	219	821	214	222	230	884
Total gas & oil (mbd)	407	404	357	410	397	375	397	406	416	404
Price										
Natural gas (\$/mcf)										
Henry Hub (\$/mmbtu)	2.81	2.46	3.18	2.99	2.90	3.10	3.09	2.90	2.95	2.96
U.S. (or North America)	2.67	2.38	3.05	2.71	2.62	2.84	2.80	2.63	2.67	2.68
Overseas (or Int'l)	0.46	0.53	0.57	0.51	0.51	0.53	0.51	0.51	0.51	0.51
Total	1.33	1.29	1.60	1.44	1.40	1.49	1.47	1.40	1.42	1.42
Oil (\$/bbl)										
WTI Cushing	44.91	43.31	48.26	48.20	53.13	50.38	54.16	54.11	53.64	53.76
Worldwide	34.75	33.65	38.53	41.46	43.13	41.02	44.10	44.06	43.67	43.74
Total gas & oil (\$/mcf)	4.32	4.24	4.58	4.96	5.01	4.84	5.13	5.10	5.07	5.08
Revenue (\$mm)										
Natural Gas										
U.S. (or North America)	77	274	95	92	91	360	95	93	97	376
Overseas (or Int'l)	21	87	25	24	24	96	24	25	26	98
Total	98	361	119	116	115	456	119	117	123	475
Oil	873	3,396	771	1,007	980	3,517	980	1,014	1,041	4,015
Other	258	893	168	129	129	634	129	129	129	516
Total	1,229	4,650	1,059	1,252	1,225	4,608	1,228	1,260	1,293	5,006
Expense	886	3,369	593	573	603	2,365	593	609	626	2,432
Ebitda (\$mm)	343	1,281	466	679	621	2,242	635	651	666	2,574
Exploration	83	330	30	44	44	146	40	40	40	164
Deprec., Deplet., & Amort.	594	2,395	592	641	641	2,430	641	641	641	2,564
Other non cash	(278)	(722)	(20)	64	(90)	(141)	(90)	(90)	(90)	(360)
Ebit	(56)	(722)	(136)	(70)	26	(193)	44	60	75	206
Interest	87	335	86	35	35	234	35	35	35	140
Ebt	(143)	(1,057)	(222)	(105)	(9)	(427)	9	25	40	66
Income Tax	(50)	(370)	(78)	(37)	(3)	(149)	3	9	14	23
Net Income (\$mm)	(93)	(687)	(145)	(68)	(6)	(278)	6	16	26	43
Shares (millions)	847	789	850	850	850	850	850	850	850	850
Per share (\$)	(0.11)	(0.87)	(0.17)	(0.08)	(0.01)	(0.33)	0.01	0.02	0.03	0.05
Ebitda Margin (E&P)	35%	34%	52%	60%	57%	56%	58%	58%	57%	57%
Tax Rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%



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Marathon Oil Corporation					
Functional Cash Flow and Present Value					
	<i>NTM</i>	<i>Adjusted</i>	<i>PV/</i>	<i>Present</i>	
	<u>Ebitda</u>	<u>R/P</u>	<u>Ebitda</u>	<u>Value</u>	
North American Natural Gas	220	6.9	11.8	2,600	11%
Rest of World Natural Gas	200	5.7	11.0	2,200	9%
Oil	2,150	8.5	8.6	18,400	79%
	2,570	7.7	9.0	23,200	100%
Debt					7,000
Net Present Value (\$mm)					16,200
Shares					850
Net Present Value - Standard Estimate (US\$/sh)					19
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					25



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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-Nov 2017								
Global Integrated										
Chevron Corporation	CVX	115.31	219,000	285,000	1.31	8.5	9.7	60	3.7	0.88
Exxon Mobil Corporation	XOM	83.41	356,000	447,000	1.26	9.6	11.1	49	3.7	0.86
Royal Dutch Shell	RDS-A	B 63.11	262,000	389,000	1.49	7.4	8.7	51	6.0	0.85
Total S.A.	TOT	B 56.16	145,000	202,000	1.39	5.9	8.4	55	5.1	0.70
	<i>Total or Median</i>		982,000	1,323,000	1.35	8.0	9.2	53	4.4	0.86
Large Independent										
EOG Resources, Inc.	EOG	101.98	59,100	66,300	1.12	11.5	9.8	86	0.7	1.17
Pioneer Natural Resources	PXD	151.60	25,800	27,500	1.07	9.3	9.2	87	0.1	1.01
Occidental Petroleum Corp.	OXY	66.30	50,800	63,600	1.25	10.1	11.2	80	4.6	0.91
Devon Energy Corporation	DVN	38.86	20,600	28,300	1.38	7.8	8.7	62	0.6	0.90
Marathon Oil Corporation	MRO	B 14.99	12,740	19,800	1.55	7.7	9.0	79	1.3	0.85
ConocoPhillips	COP	B 51.97	63,000	88,000	1.39	8.8	10.8	69	2.0	0.82
	<i>Total or Median</i>		232,000	294,000	1.31	9.0	9.5	80	1.0	0.90
Small Independent										
Cimarex Energy Company	XEC	119.62	11,400	12,800	1.13	10.8	10.9	63	0.3	1.00
Continental Resources (32%)	CLR	B 41.60	4,900	7,100	1.43	8.8	10.9	74	-	0.81
California Resources	CRC	11.61	500	6,500	13.2	9.3	11.6	89	-	0.80
Whiting Petroleum Corporation	WLL	6.29	2,300	5,500	2.42	6.2	10.9	92	-	0.56
Range Resources	RRC	B 18.09	4,400	9,000	2.03	7.5	15.3	32	0.4	0.49
	<i>Total or Median</i>		24,000	41,000	2.03	8.8	10.9	74	-	0.80
Income										
San Juan Basin Royalty Trust	SJT	7.47	350	350	1.00	15.2	16.3	-	6.5	0.93
Permian Basin RT	PBT	9.24	430	430	1.00	14.8	17.6	78	6.2	0.84
Sabine Royalty Trust	SBR	42.70	620	620	1.00	17.9	25.2	59	5.6	0.71
Dorchester Minerals, L.P.	DMLP	B 14.80	480	480	1.00	10.2	16.5	72	9.5	0.62
Cross Timbers Royalty Trust	CRT	B 14.92	90	90	1.00	9.6	18.5	28	8.3	0.52
	<i>Total or Median</i>		2,000	2,000	1.00	14.8	17.6	59	6.5	0.71
Canada										
EnCana Corporation	ECA	12.15	11,800	18,300	1.55	9.4	9.3	56	0.5	1.01
Imperial Oil Limited (30%)	IMO	30.52	7,800	9,800	1.26	7.6	9.1	67	1.6	0.84
Suncor Energy	SU	B 34.58	57,500	75,000	1.30	7.6	9.2	84	2.9	0.83
Cenovus Energy Inc.	CVE	10.40	12,800	22,700	1.78	6.3	10.2	83	1.5	0.61
Birchcliff Energy Ltd.	BIREF	B 4.25	1,100	1,700	1.51	6.0	11.3	30	1.8	0.53
	<i>Total or Median</i>		91,000	128,000	1.51	7.6	9.3	67	1.6	0.83

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 9/30/18.
 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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Table 2										
McDep Energy Stocks										
Production Operating Leverage										
Ranked by McDep Ratio										
			Price (US\$/sh)		Oil Equiv. Price (\$/boe)	Operating Expense Fixed Var. (\$/boe) (%)	Ebitda NTM (\$/boe)	Ebitda NTM (\$mm)	Oper Lev Ebitda chg/ Price chg	McDep Ratio
	Symbol/Rating	2-Nov 2017	Volume (mmboe)							
	B = Buy									
Global Integrated (excl. Downstream)										
Chevron Corporation	CVX		115.31	832	41.03	11 15	24.00	19,964	1.46	0.88
Exxon Mobil Corporation	XOM		83.41	1,463	40.87	4 42	19.60	28,673	1.20	0.86
Royal Dutch Shell	RDS-A	B	63.11	1,289	38.37	6 13	27.40	35,321	1.22	0.85
Total S.A.	TOT	B	56.16	963	40.78	0 37	25.80	24,849	1.00	0.70
	<i>Total or Median</i>								<i>1.21</i>	<i>0.86</i>
Large Independent (excl. Downstream)										
EOG Resources, Inc.	EOG		101.98	234	36.78	11 3	24.60	5,750	1.45	1.17
Pioneer Natural Resources	PXD		151.60	117	37.40	11 3	25.30	2,954	1.43	1.01
Occidental Petroleum Corp.	OXY		66.30	231	37.78	12 10	22.00	5,076	1.55	0.91
Devon Energy Corporation	DVN		38.86	184	28.89	10 5	17.50	3,214	1.57	0.90
Marathon Oil Corporation	MRO	B	14.99	147	30.47	11 6	17.50	2,574	1.63	0.85
ConocoPhillips	COP	B	51.97	420	39.52	8 20	23.70	9,954	1.34	0.82
	<i>Total or Median</i>								<i>1.50</i>	<i>0.90</i>
Small Independent										
Cimarex Energy Company	XEC		119.62	71	26.60	6 15	16.60	1,185	1.36	1.00
Continental Resources (32%)	CLR	B	41.60	33	32.26	3 14	24.80	806	1.12	0.81
California Resources	CRC		11.61	47	40.94	15 27	14.80	699	2.01	0.80
Whiting Petroleum Corporation	WLL		6.29	45	34.69	9 16	20.10	898	1.45	0.56
Range Resources	RRC	B	18.09	133	18.06	8 6	9.00	1,194	1.89	0.49
	<i>Total or Median</i>								<i>1.45</i>	<i>0.80</i>
Income										
San Juan Basin Royalty Trust	SJT		7.47	3	14.77	5 15	7.58	23	1.66	0.93
Permian Basin RT	PBT		9.24	1	32.72	10 7	20.54	29	1.49	0.84
Sabine Royalty Trust	SBR		42.70	1	31.02	2 11	25.66	35	1.08	0.71
Dorchester Minerals, L.P.	DMLP	B	14.80	2	32.41	7 10	22.26	47	1.31	0.62
Cross Timbers Royalty Trust	CRT	B	14.92	0	36.42	8 10	24.85	9	1.32	0.52
	<i>Total or Median</i>								<i>1.32</i>	<i>0.71</i>
Canada (excl. Downstream)										
EnCana Corporation	ECA		12.15	113	30.22	12 3	17.22	1,946	1.70	1.01
Imperial Oil Limited (30%)	IMO		30.52	64	38.79	17 4	20.10	1,277	1.85	0.84
Suncor Energy	SU	B	34.58	283	50.56	22 3	26.94	7,626	1.82	0.83
Cenovus Energy Inc.	CVE		10.40	212	27.31	11 1	15.91	3,370	1.69	0.61
Birchcliff Energy Ltd.	BIREF	B	4.25	23	17.68	4 7	12.40	288	1.32	0.53
	<i>Total or Median</i>								<i>1.70</i>	<i>0.83</i>

For historical research see www.mcdep.com



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Table 3											
McDep Energy Stocks											
Net Present Value Per Share											
Ranked by Reserve Life (Adjustd Resrvs/Prod NTM)											
			Price					Down-	Proven	Adjustd	Net
			(US\$/sh)					stream/	Undev.	Resrvs/	Present
	Symbol/Rating		2-Nov	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		4,271	91,152	3.08	21	27	31	11.5	100.00
	Total S.A.	TOT	B	56.16	2,583	57,015	2.88	11	22	42	8.9
	Chevron Corporation	CVX		1,896	66,793	4.32	27	20	32	9.2	135.00
	Royal Dutch Shell	RDS-A	B	63.11	4,146	126,975	3.76	18	24	25	8.8
	<i>Median</i>										9.1
Large Independent											
	ConocoPhillips	COP	B	51.97	1,215	24,405	1.06	-	20	10.9	68.00
	Occidental Petroleum Corp.	OXY		66.30	766	12,800	3.04	42	14	23	9.2
	Devon Energy Corporation	DVN		38.86	529	7,746	0.24	69	10	20	8.9
	Marathon Oil Corporation	MRO	B	14.99	850	7,044	0.20	-	39	7.7	19.00
	EOG Resources, Inc.	EOG		101.98	579	7,250	0.67	-	30	7.0	85.00
	Pioneer Natural Resources	PXD		151.60	170	1,700	0.08	41	-	7	6.0
	<i>Median</i>										8.3
Small Independent											
	Range Resources	RRC	B	18.09	245	4,575	0.08	22	-	44	11.8
	Whiting Petroleum Corporation	WLL		6.29	363	3,242	-	-	53	12.5	18.00
	Continental Resources (32%)	CLR	B	41.60	119	2,124	-	-	59	11.4	56.00
	California Resources	CRC		11.61	42	6,000	-	-	29	10.3	50.00
	Cimarex Energy Company	XEC		119.62	95	1,442	0.32	27	-	21	6.1
	<i>Median</i>										11.4
Income											
	Sabine Royalty Trust	SBR		42.70	15	-	2.38	18	-	4	12.3
	San Juan Basin Royalty Trust	SJT		7.47	47	-	0.48	15	-	-	10.2
	Permian Basin RT	PBT		9.24	47	-	0.58	16	-	12	9.4
	Cross Timbers Royalty Trust	CRT	B	14.92	6	-	1.24	12	-	-	9.0
	Dorchester Minerals, L.P.	DMLP	B	14.80	32	-	1.40	13	-	-	6.6
	<i>Median</i>										9.4
Canada											
	Suncor Energy	SU	B	34.58	1,663	17,506	1.00	15	16	44	13.6
	Cenovus Energy Inc.	CVE		10.40	1,229	9,956	0.16	-	4	55	12.8
	Birchcliff Energy Ltd.	BIREF	B	4.25	268	585	0.08	18	-	69	12.4
	Imperial Oil Limited (30%)	IMO		30.52	255	1,988	0.50	11	32	23	9.2
	EnCana Corporation	ECA		12.15	973	6,457	0.06	-	43	5.5	12.00
	<i>Median</i>										12.4
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 2017										
Ranked by Unlevered Total Return										
			Price (\$/sh)	Price (\$/sh)	Price Change	Cash Distrib. (%)	Equity Total Return (%)	Unlevered Total Return (%)		McDep Ratio
	Symbol/Rati		2-Nov 2017	30-Dec 2016	(%)	(%)	(%)	Debt Return (\$/sh)	(%)	
Global Integrated										
	RDS-A	B	63.11	54.38	16	5	21	31	14	0.85
	TOT	B	56.16	50.97	10	4	14	22	10	0.70
	CVX		115.31	117.70	(2)	3	1	35	1	0.88
	XOM		83.41	90.26	(8)	2	(5)	21	(4)	0.86
	<i>Median</i>				4		7		5	0.86
Large Independent										
	COP	B	51.97	50.14	4	2	6	20	4	0.82
	EOG		101.98	101.10	1	1	2	13	1	1.17
	OXY		66.30	71.23	(7)	3	(4)	17	(3)	0.91
	MRO	B	14.99	17.31	(13)	1	(13)	8	(8)	0.85
	DVN		38.86	45.67	(15)	0	(15)	15	(11)	0.90
	PXD		151.60	180.00	(16)	0	(16)	10	(15)	1.01
	<i>Median</i>				(10)		(8)		(6)	0.90
Small Independent										
	CRC		11.61	21.29	(45)	-	(45)	142	(6)	0.80
	XEC		119.62	135.90	(12)	0	(12)	15	(11)	1.00
	CLR	B	41.60	51.54	(19)	-	(19)	18	(14)	0.81
	WLL		6.29	12.02	(48)	-	(48)	9	(27)	0.56
	RRC	B	18.09	34.36	(47)	0	(47)	19	(31)	0.49
	<i>Median</i>				(45)		(45)		(14)	0.80
Income										
	SBR		42.70	35.15	21	6	27	-	27	0.71
	PBT		9.24	7.71	20	7	27	-	27	0.84
	SJT		7.47	6.62	13	10	23	-	23	0.93
	DMLP	B	14.80	17.55	(16)	5	(11)	-	(11)	0.62
	CRT	B	14.92	17.97	(17)	5	(12)	-	(12)	0.52
	<i>Median</i>				13		23		23	0.71
Canada										
	SU	B	34.58	32.69	6	2	8	11	6	0.83
	ECA		12.15	11.74	3	0	4	7	2	1.01
	IMO		30.52	34.76	(12)	1	(11)	8	(9)	0.84
	CVE		10.40	15.13	(31)	1	(31)	8	(20)	0.61
	BIREF	B	4.25	7.01	(39)	1	(38)	2	(29)	0.53
	<i>Median</i>				(12)		(11)		(9)	0.83
	<i>Grand Median</i>				(12)		(11)		(6)	0.84
	Natural Gas (\$/mmbtu)		2.90	3.74	(22)					
	Oil - West Texas Intermediate (\$/bbl)		54.27	53.72	1					
	Total Stock Market - U.S.	VTI	132.44	115.32	15					
	Developed Markets - ex US	VEA	44.27	36.54	21					
	Emerging Markets	VWO	44.81	35.78	25					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see www.mcdep.com



Independent Stock Idea

Intraday November 2, 2017

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