

Buy ETF or Global Integrated Stock

			Price (US\$/sh)	Market Cap (US\$m)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	EV/ Ebitda NTM	PV/ Prod'n/ PV (%)	Oil Yield NTM (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
	Symbol/Rating		16-Nov 2017									
Royal Dutch Shell	RDS-A	B	61.88	258,000	382,000	1.48	6.8	8.1	47	6.1		0.84
Total S.A.	TOT	B	54.63	141,000	198,000	1.40	5.7	8.4	51	5.3		0.68
Marathon Oil Corporation	MRO	B	14.70	12,500	19,500	1.56	7.0	8.3	79	1.4		0.84
ConocoPhillips	COP	B	50.40	61,000	85,000	1.38	8.0	10.0	69	2.1		0.80
Continental Resources (32%)	CLR	B	45.29	5,400	7,500	1.39	7.6	8.8	75	-		0.86
Range Resources	RRC	B	17.32	4,200	8,800	2.08	6.8	14.1	32	0.5		0.48
Dorchester Minerals, L.P.	DMLP	B	15.05	490	490	1.00	9.8	15.5	77	9.8		0.63
Cross Timbers Royalty Trust	CRT	B	15.02	90	90	1.00	9.3	18.0	28	8.5		0.52
Suncor Energy	SU	B	35.13	58,400	76,100	1.30	7.3	8.7	84	2.9		0.84
Birchcliff Energy Ltd.	BIREF	B	4.01	1,100	1,700	1.55	5.6	11.0	30	2.0		0.51
<i>Total or Median</i>				<i>91,000</i>	<i>128,000</i>	<i>1.55</i>	<i>7.0</i>	<i>8.7</i>	<i>67</i>	<i>1.6</i>		<i>0.84</i>

Summary and Recommendation

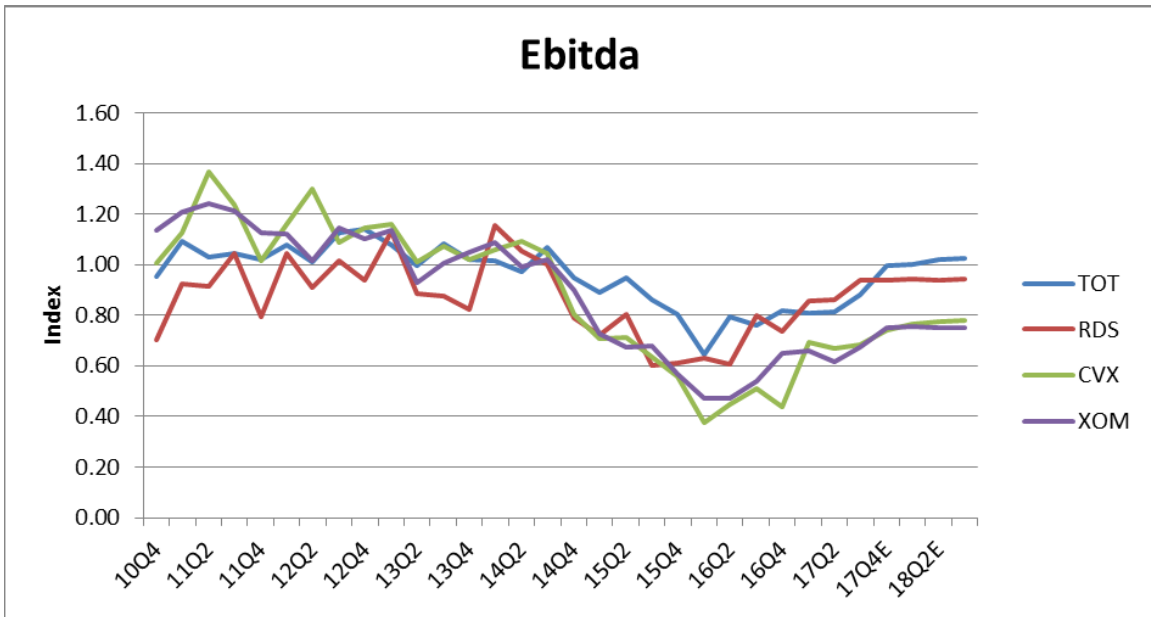
A buy and hold investor might have achieved similar results with an exchange traded fund like the Vanguard Energy ETF (VDE) as in the average of the four global integrated oil and gas stocks in our coverage. Stock prices for **Chevron (CVX)** and **ExxonMobil (XOM)** outperformed VDE in the past ten years while **Royal Dutch Shell (RDSA)** and **Total (TOT)** underperformed (see chart on page 2). Taking account of dividends would narrow the difference between the U.S. companies and the European companies and would improve the performance of all four relative to VDE. The example demonstrates that an ETF can be a convenient vehicle to achieve reasonably assured average performance. Alternatively, where an investor is willing to commit attention and resources to greater understanding of individual stocks, there remains an opportunity to do better than average along with the risk of doing worse. 2017 turned out to be a rewarding year to concentrate global integrated investments on buy recommendations of RDSA and TOT, selected on the basis of the McDep Ratio. Those two stocks remain the buy selections, but McDep Ratios of 0.88, 0.84 and 0.84 for CVX, XOM and RDSA are too close to call to expect differentiated future performance. Stock prices seem to have adjusted to expected cash flow (Ebitda) trends with the exception, perhaps, of TOT where relative upside may not be recognized (see chart Ebitda on page 2). Meanwhile among the 25 stocks in our coverage, 16 trace the golden cross chart pattern signaling a rising price trend. The golden cross is formed when the 50-day average crosses above the 200-day. Finally, low McDep Ratios keep us interested in conservative global giants, large cap shale oil innovators, high potential small caps, high income payers, and diverse Canadian producers (see Tables 1-4 on pages 3-6).

Kurt H. Wulff, CFA



Meter Reader

A Monthly Analysis of Oil and Gas Stocks
 Intraday November 16, 2017





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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/ PV (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
	Symbol/Rating	16-Nov 2017									
Global Integrated											
	Chevron Corporation	CVX	114.69	218,000	282,000	1.30	8.1	9.2	62	3.8	0.88
	Exxon Mobil Corporation	XOM	80.26	343,000	435,000	1.27	8.5	10.2	53	3.8	0.84
	Royal Dutch Shell	RDS-A B	61.88	258,000	382,000	1.48	6.8	8.1	47	6.1	0.84
	Total S.A.	TOT B	54.63	141,000	198,000	1.40	5.7	8.4	51	5.3	0.68
	<i>Total or Median</i>			960,000	1,297,000	1.35	7.4	8.8	52	4.6	0.84
Large Independent											
	EOG Resources, Inc.	EOG	101.73	58,900	66,100	1.12	10.6	9.1	89	0.7	1.17
	Pioneer Natural Resources	PXD	151.14	25,700	27,700	1.08	8.8	8.7	87	0.1	1.01
	Occidental Petroleum Corp.	OXY	67.11	51,400	64,900	1.26	9.7	10.6	81	4.6	0.91
	Devon Energy Corporation	DVN	38.05	20,100	27,800	1.39	7.1	8.0	62	0.6	0.88
	Marathon Oil Corporation	MRO B	14.70	12,500	19,500	1.56	7.0	8.3	79	1.4	0.84
	ConocoPhillips	COP B	50.40	61,000	85,000	1.38	8.0	10.0	69	2.1	0.80
	<i>Total or Median</i>			229,600	291,000	1.32	8.4	8.9	80	1.0	0.90
Small Independent											
	Cimarex Energy Company	XEC	115.87	10,800	12,300	1.14	8.7	9.0	70	0.3	0.97
	Continental Resources (32%)	CLR B	45.29	5,400	7,500	1.39	7.6	8.8	75	-	0.86
	California Resources	CRC	15.24	700	6,800	10.4	8.4	10.3	89	-	0.82
	Whiting Petroleum Corporation	WLL	22.54	2,100	5,300	2.58	5.4	10.0	92	-	0.54
	Range Resources	RRC B	17.32	4,200	8,800	2.08	6.8	14.1	32	0.5	0.48
	<i>Total or Median</i>			23,000	41,000	2.08	7.6	10.0	75	-	0.82
Income											
	San Juan Basin Royalty Trust	SJT	7.65	360	360	1.00	14.8	15.4	-	6.7	0.96
	Permian Basin RT	PBT	9.15	430	430	1.00	13.8	16.6	78	6.7	0.83
	Sabine Royalty Trust	SBR	42.32	620	620	1.00	17.1	24.3	66	5.8	0.71
	Dorchester Minerals, L.P.	DMLP B	15.05	490	490	1.00	9.8	15.5	77	9.8	0.63
	Cross Timbers Royalty Trust	CRT B	15.02	90	90	1.00	9.3	18.0	28	8.5	0.52
	<i>Total or Median</i>			2,000	2,000	1.00	13.8	16.6	66	6.7	0.71
Canada											
	EnCana Corporation	ECA	11.69	11,400	17,700	1.55	9.5	9.7	67	0.5	0.98
	Imperial Oil Limited (30%)	IMO	31.31	7,900	9,900	1.25	7.0	8.2	67	1.6	0.85
	Suncor Energy	SU B	35.13	58,400	76,100	1.30	7.3	8.7	84	2.9	0.84
	Cenovus Energy Inc.	CVE	10.18	12,500	22,400	1.79	5.2	8.6	85	1.5	0.61
	Birchcliff Energy Ltd.	BIREF B	4.01	1,100	1,700	1.55	5.6	11.0	30	2.0	0.51
	<i>Total or Median</i>			91,000	128,000	1.55	7.0	8.7	67	1.6	0.84

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 Price	Operating Expense		Ebitda NTM	Ebitda NTM	Oper Lev Ebitda chg/ Price chg	McDep Ratio
Symbol/Rating		16-Nov 2017	Volume (mmboe)		Fixed	Var.					
B = Buy					(\$/boe)	(%)	(\$/boe)	(\$mm)			
Global Integrated (excl. Downstream)											
Chevron Corporation	CVX		114.69	816	43.65	11	14	26.50	21,626	1.42	0.88
Exxon Mobil Corporation	XOM		80.26	1,476	42.36	4	37	22.60	33,359	1.18	0.84
Royal Dutch Shell	RDS-A	B	61.88	1,320	40.45	6	14	28.60	37,752	1.21	0.84
Total S.A.	TOT	B	54.63	922	42.41	0	38	26.20	24,161	1.00	0.68
<i>Total or Median</i>										<i>1.19</i>	<i>0.84</i>
Large Independent (excl. Downstream)											
EOG Resources, Inc.	EOG		101.73	230	39.36	11	3	27.00	6,223	1.41	1.17
Pioneer Natural Resources	PXD		151.14	117	39.28	11	3	27.00	3,161	1.41	1.01
Occidental Petroleum Corp.	OXY		67.11	228	39.87	12	9	24.10	5,505	1.50	0.91
Devon Energy Corporation	DVN		38.05	186	30.29	10	5	18.90	3,506	1.53	0.88
Marathon Oil Corporation	MRO	B	14.70	147	32.07	11	6	19.10	2,810	1.58	0.84
ConocoPhillips	COP	B	50.40	420	41.10	8	19	25.30	10,618	1.32	0.80
<i>Total or Median</i>										<i>1.45</i>	<i>0.90</i>
Small Independent											
Cimarex Energy Company	XEC		115.87	74	29.18	6	14	19.00	1,414	1.32	0.97
Continental Resources (32%)	CLR	B	45.29	35	36.44	3	13	28.60	998	1.10	0.86
California Resources	CRC		15.24	47	43.94	15	27	17.10	802	1.88	0.82
Whiting Petroleum Corporation	WLL		22.54	45	36.66	9	16	21.90	978	1.41	0.54
Range Resources	RRC	B	17.32	132	18.82	8	5	9.80	1,296	1.82	0.48
<i>Total or Median</i>										<i>1.41</i>	<i>0.82</i>
Income											
San Juan Basin Royalty Trust	SJT		7.65	3	15.23	5	15	7.99	24	1.63	0.96
Permian Basin RT	PBT		9.15	1	34.03	10	6	21.95	31	1.46	0.83
Sabine Royalty Trust	SBR		42.32	1	32.25	2	11	26.77	36	1.07	0.71
Dorchester Minerals, L.P.	DMLP	B	15.05	2	32.84	7	8	23.35	50	1.30	0.63
Cross Timbers Royalty Trust	CRT	B	15.02	0	37.82	8	10	26.08	10	1.31	0.52
<i>Total or Median</i>										<i>1.31</i>	<i>0.71</i>
Canada (excl. Downstream)											
EnCana Corporation	ECA		11.69	112	29.58	12	3	16.58	1,853	1.72	0.98
Imperial Oil Limited (30%)	IMO		31.31	66	40.50	17	5	21.60	1,421	1.79	0.85
Suncor Energy	SU	B	35.13	280	53.31	22	3	29.46	8,256	1.75	0.84
Cenovus Energy Inc.	CVE		10.18	208	31.52	11	5	19.08	3,966	1.58	0.61
Birchcliff Energy Ltd.	BIREF	B	4.01	23	18.18	4	7	12.90	297	1.31	0.51
<i>Total or Median</i>										<i>1.72</i>	<i>0.84</i>

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			<i>Price (US\$/sh)</i>					<i>Down- stream/ PV</i>	<i>Proven Undev. Resrvs (%)</i>	<i>Adjustd Resrvs/ Prod NTM</i>	<i>Net Present Value (US\$/sh)</i>
	<i>Symbol/Rating</i>		<i>16-Nov 2017</i>	<i>Shares (mm)</i>	<i>Debt (\$mm)</i>	<i>Dividend NTM (\$/sh)</i>	<i>P/E NTM</i>				
	B = Buy										
Global Integrated											
Exxon Mobil Corporation	XOM		80.26	4,271	91,771	3.08	18	24	31	11.4	100.00
Total S.A.	TOT	B	54.63	2,583	57,015	2.92	10	26	42	9.4	90.00
Chevron Corporation	CVX		114.69	1,896	64,410	4.32	24	18	32	9.2	135.00
Royal Dutch Shell	RDS-A	B	61.88	4,163	124,534	3.76	16	28	25	8.6	80.00
	<i>Median</i>									9.3	
Large Independent											
ConocoPhillips	COP	B	50.40	1,215	23,479	1.06		-	20	10.9	68.00
Occidental Petroleum Corp.	OXY		67.11	766	13,500	3.08	35	14	23	9.3	75.00
Devon Energy Corporation	DVN		38.05	529	7,746	0.24	64	10	20	8.9	45.00
Marathon Oil Corporation	MRO	B	14.70	850	7,044	0.20		-	39	7.7	19.00
EOG Resources, Inc.	EOG		101.73	579	7,214	0.67		-	30	7.0	85.00
Pioneer Natural Resources	PXD		151.14	170	2,000	0.08	33	-	7	6.0	150.00
	<i>Median</i>									8.3	
Small Independent											
Whiting Petroleum Corporation	WLL		22.54	91	3,242	-		-	53	12.5	72.00
Range Resources	RRC	B	17.32	245	4,575	0.08	16	-	44	11.8	56.00
Continental Resources (32%)	CLR	B	45.29	119	2,134	-		-	59	11.4	56.00
California Resources	CRC		15.24	43	6,100	-		-	29	10.4	50.00
Cimarex Energy Company	XEC		115.87	94	1,483	0.32	19	-	21	5.8	120.00
	<i>Median</i>									11.4	
Income											
Sabine Royalty Trust	SBR		42.32	15	-	2.47	17	-	4	12.3	60.00
San Juan Basin Royalty Trust	SJT		7.65	47	-	0.51	15	-	-	10.2	8.00
Permian Basin RT	PBT		9.15	47	-	0.62	15	-	12	9.4	11.00
Cross Timbers Royalty Trust	CRT	B	15.02	6	-	1.28	12	-	-	9.0	29.00
Dorchester Minerals, L.P.	DMLP	B	15.05	32	-	1.48	14	-	-	6.5	24.00
	<i>Median</i>									9.4	
Canada											
Suncor Energy	SU	B	35.13	1,663	17,687	1.01	13	16	44	13.7	44.00
Cenovus Energy Inc.	CVE		10.18	1,229	9,935	0.16		5	55	12.9	22.00
Birchcliff Energy Ltd.	BIREF	B	4.01	268	599	0.08	15	-	69	12.5	10.00
Imperial Oil Limited (30%)	IMO		31.31	254	1,962	0.50	10	32	23	9.1	38.00
EnCana Corporation	ECA		11.69	973	6,290	0.06		-	43	5.5	12.00
	<i>Median</i>									12.5	
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	Price			Equity	Unlevered		
			(\$/sh)	(\$/sh)	Price	Cash	Total	Debt	Return	McDep
	Symbol/Rati		16-Nov	30-Dec	Change	Distrib.	Return	(\$/sh)	(%)	Ratio
			2017	2016	(%)	(%)	(%)			
Global Integrated										
	RDS-A	B	61.88	54.38	14	5	19	30	12	0.84
	TOT	B	54.63	50.97	7	4	11	22	8	0.68
	CVX		114.69	117.70	(3)	3	0	34	0	0.88
	XOM		80.26	90.26	(11)	2	(9)	21	(7)	0.84
	<i>Median</i>				2		6		4	0.84
Large Independent										
	COP	B	50.40	50.14	1	2	3	19	2	0.80
	EOG		101.73	101.10	1	1	1	12	1	1.17
	OXY		67.11	71.23	(6)	3	(3)	18	(2)	0.91
	MRO	B	14.70	17.31	(15)	1	(14)	8	(10)	0.84
	DVN		38.05	45.67	(17)	0	(16)	15	(12)	0.88
	PXD		151.14	180.00	(16)	0	(16)	12	(15)	1.01
	<i>Median</i>				(10)		(8)		(6)	0.90
Small Independent										
	CRC		15.24	21.29	(28)	-	(28)	143	(4)	0.82
	CLR	B	45.29	51.54	(12)	-	(12)	18	(9)	0.86
	XEC		115.87	135.90	(15)	0	(15)	16	(13)	0.97
	WLL		22.54	48.08	(53)	-	(53)	36	(30)	0.54
	RRC	B	17.32	34.36	(50)	0	(49)	19	(32)	0.48
	<i>Median</i>				(28)		(28)		(13)	0.82
Income										
	SBR		42.32	35.15	20	6	26	-	26	0.71
	SJT		7.65	6.62	16	10	26	-	26	0.96
	PBT		9.15	7.71	19	7	26	-	26	0.83
	DMLP	B	15.05	17.55	(14)	5	(9)	-	(9)	0.63
	CRT	B	15.02	17.97	(16)	5	(12)	-	(12)	0.52
	<i>Median</i>				16		26		26	0.71
Canada										
	SU	B	35.13	32.69	7	2	10	11	7	0.84
	ECA		11.69	11.74	(0)	0	(0)	6	(0)	0.98
	IMO		31.31	34.76	(10)	1	(9)	8	(7)	0.85
	CVE		10.18	15.13	(33)	1	(32)	8	(21)	0.61
	BIREF	B	4.01	7.01	(43)	1	(42)	2	(32)	0.51
	<i>Median</i>				(10)		(9)		(7)	0.84
	<i>Grand Median</i>				(11)		(9)		(7)	0.84
	Natural Gas (\$/mmbtu)		3.08	3.74	(18)					
	Oil - West Texas Intermediate (\$/bbl)		55.26	53.72	3					
	Total Stock Market - U.S.	VTI	132.71	115.32	15					
	Developed Markets - ex US	VEA	43.96	36.54	20					
	Emerging Markets	VVO	44.54	35.78	24					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

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Index of Recent Research				
<u>Date</u>	<u>Series</u>	<u>Symbol</u>	<u>Subject</u>	<u>Theme</u>
12-Nov	ISI	BIREF	Birchcliff Energy	Downward Price Pressure Lifting
6-Nov	ISI	DMLP	Dorchester Minerals, L.P.	Royalty Growth Ratified
2-Nov	ISI	MRO	Marathon Oil	Shale Oil Value
26-Oct	ISI	SU	Suncor Energy Inc.	Record Production
24-Oct	ISI	CRT	Cross Timbers Royalty Trust	Free Cash Flow
17-Oct	II	COP, DVN, EOG, MRO,PXD, OXY		Oil Price Moderators
10-Oct	Meter Reader			Stock Price Momentum Picking Up
4-Oct	ISI	COP	ConocoPhillips	Cash to the Owners
25-Sep	II	CRT, DMLP, PBT, SBR, SJT		Cash, Fracking and Inflation
18-Sep	ISI	RRC	Range Resources	Natural Gas at Lowest McDep Ratio
12-Sep	Meter Reader			Currency, Interest and Oil
6-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 Reader			Energy Outlook to 2026
8-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	CRT, DMLP, PBT, SBR, SJT		Control Reinvestment with Income Payers
19-Jul	II	COP, DVN, EOG, MRO,PXD, OXY		Potential to Prosper
11-Jul	Meter Reader			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 Reader			Value Beckoning
6-Jun	ISI	MRO	Marathon Oil	A Fourth Shale Focus
30-May	ISI	RDS	Royal Dutch Shell	High Yield While Waiting
26-May	ISI	CVE	Cenovus Energy	High Operating and Financial Leverage
18-May	ISI	DMLP	Dorchester Minerals, L.P.	Midland Basin Spotlight
9-May	Meter Reader			Positive Progress
2-May	ISI	RRC	Range Resources	Growth Accelerating
24-Apr	II	CRT, DMLP, PBT, SBR, SJT		Income Payer Distributions Beat
21-Apr	ISI	PXD	Pioneer Natural Resources	Prominent Permian Producer
17-Apr	ISI	SJT	San Juan Basin Royalty Trust	New Operator to Enhance Value
11-Apr	Meter Reader			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 Reader			Extra Inventory
3-Mar	ISI	DMLP	Dorchester Minerals, L.P.	Shale Oil Royalties Rising
26-Feb	II	CLR, CRC, RRC, WLL, XEC		Small Cap Producers Rising Again
21-Feb	ISI	MRO	Marathon Oil	A Third, a Third, a Third
14-Feb	Meter Reader			Non-U.S. Buys at Low McDep Ratio
	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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