

MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks September 27, 2013

WPX Energy Inc. San Juan Basin Innovator

Symbol	WPX	Ebitda Next Twelve Months ending 9/30/14 (US\$mm)	802
Rating		North American Natural Gas/Ebitda (%)	59
Price (\$/sh)	19.26	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	9/26/13	Adjusted Reserves/Production NTM	8.0
Shares (mm)	204	EV/Ebitda	7.7
Market Capitalization (\$mm)	3,930	PV/Ebitda	9.4
Debt (\$mm)	2,300	Undeveloped Reserves (%)	40
Enterprise Value (EV) (\$mm)	6,200	Natural Gas and Oil Ebitda (\$/boe)	10.70
Present Value (PV) (\$mm)	7,570	Present Value Proven Reserves(\$/boe)	10.11
Net Present Value (\$/share)	26	Oil and Gas Ebitda Margin (%)	40
Debt/Present Value	0.30	Earnings Next Twelve Months (US\$/sh)	-1.42
McDep Ratio - EV/PV	0.82	Price/Earnings Next Twelve Months	-14
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow	and earnings tied to one	-year futures prices for oil and natural gas.	
Reported results may	vary widely from estin	nates. Estimated present value per share revised only infrequ	uently.
Estimated present va	lue presumes a long-ter	m price for oil of US\$90 a barrel and natural gas, \$6 a million	on btu.

Summary and Recommendation

We add WPX Energy (WPX) to our research coverage at a preliminary Net Present Value (NPV) of \$26 and a McDep Ratio of 0.82 because we are impressed with the company's discoveries in the San Juan Basin. WPX appears to have the best fracking results in the oil window of the Mancos formation (see slides on page 2). Technically, the wells produce from a Gallup sandstone formation, which is usually encased within the Mancos shale. WPX has now proven high volume oil production in the southern part of the basin after having earlier proven high-volume natural gas production in the northern part. The company's leading innovation may be showing the way for more broadly successful fracking in the whole basin by WPX and other companies in our coverage. Among the remaining challenges, oil production needs to deal with low reservoir pressure while natural gas drilling is not needed at today's low natural gas price. Ultimately, the liquids-rich window may offer the best combination of longer-lasting flow and blended product price for the San Juan Basin. The company is pursuing liquids-rich drilling in the Piceance Basin of Western Colorado, oil drilling on the Fort Berthold reservation in North Dakota and dry gas production in the Marcellus of Pennsylvania. Like other traditional natural gas producers, WPX see its immediate opportunities in boosting its oil concentration, beyond the 32% of NPV it registers today (see table <u>Present Value</u> on page 3). With success on its ambitious capital program, oil growth next year ought to be higher than our cautious initial projection (see table Operating and Financial Estimates on page 2). Finally, as WPX has distinguished itself in the San Juan Basin, the stock appears to offer competitive value among peers and we look forward to learning more about the company and its management (see Tables ISC-1 to ISC-4 on pages 4-7).

Kurt H. Wulff, CFA



MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks September 27, 2013

Exploration Activities Result in San Juan Oil Discovery

Commencing commercial operations 2013 one rig program

- Plan to drill a total of 12-14 wells in 2013
- 4 exploratory wells drilled
 - Included science and testing in pilot holes
 - All four wells currently producing
- Next phase, 8-10 development wells
- 2013 expected exit rate of 3,400 Boepd
- Approximately 66 MMboe of resource potential

31,040 net acres in oil window

- ▶ 83.7% NRI
- Targeting additional acreage

Target metrics

- ▶ D&C < \$5.0MM
- EUR's > 500 Mboe
- Lateral length: 5,000 feet



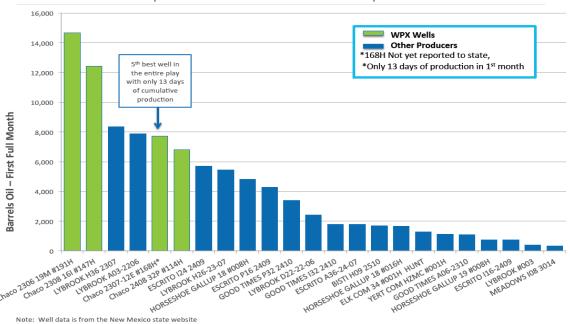
Well Name	Spud Date	Lateral Length	# of Stages	IP (BOe)	30 Day IP (BOe)
Chaco 2408-32P #114H	1/4/2013	4,425	18	488	346
Chaco 2308-16I #147H	2/20/2013	4,114	18	623	481
Chaco 2306-19M #191H	3/20/2013	4,331	18	1,004	731
Chaco 2307-12E #168H	5/9/2013	4,307	18	800	540
Chaco 2206-02P #228H	6/15/2013	4,208	14	1,029	700- 3 wk avg.
Chaco 2206-02H #225H	7/6/2013	4,234	14	970	580 – 2 wk avg.



Barclays CEO Energy Conference - September 11, 201

1

San Juan Mancos Gallup - First Full Month of Production Reported to State





W	PX Energy I	nc.								
Functional Ca	sh Flow and	Present Va	lue							
		Present								
I I	VTM Ebitda	Adjusted	PV/	Value						
	(US\$mm)	<u>R/P</u>	<u>Ebitda</u>	(US\$mm)						
North American Natural Gas	474	7.6	11.0	5,200	68%					
Oil	327	9.6	7.3	2,400	32%					
	802	8.0	9.5	7,600	100%					
Debt (US\$mm)					2,300					
Net Present Value (US\$mm)					5,300					
Shares (mm)					204					
Net Present Value - Standard Estimate (US\$/sh)					26					
NPV Approximation by Cash Flow Multiple Depe	ending on Res	erve Life (U	JS\$/sh)		30					

			WP	X Energy	Inc.					
	Ne	xt Twelve	Months O	perating	and Finar	ncial Esti	nates			
										Next
										Twelve
	Q2	Q3	Q4	Year	Q1	Q2	Q3E	Q4E	Year	Months
	6/30/12	9/30/12	12/31/12	2012	3/31/13	6/30/13	9/30/13	12/31/13	2013E	9/30/14
Volume										
Natural Gas (mmcfd)	1,123	1,058	1,051	1,086	1,004	989	1,000	1,000	998	1,000
Oil (mbd)	43	40	38	40	35	36	37	38	36	39
Total (mb)	20.9	19.9	19.6	81.0	18.2	18.3	18.7	18.8	74.0	75
Total (mbd)	230	216	213	221	202	201	203	204	203	206
Price										
Henry Hub (\$/mmbtu)	2.21	2.80	3.40	2.79	3.34	4.10	3.58	3.71	3.68	3.86
Differential (\$/mmbtu)	0.47	0.54	0.50	0.47	0.49	0.65	0.56	0.59	0.57	0.61
Company (\$/mcf)	1.74	2.26	2.90	2.32	2.85	3.45	3.01	3.12	3.11	3.25
WTI Cushing (\$/bbl)	93.32	92.22	88.18	94.16	94.41	94.22	105.90	103.31	99.46	99.20
Differential	49.44	51.89	39.98	49.31	41.92	39.83	44.77	43.68	42.43	41.99
Company (\$/bbl)	43.88	40.32	48.19	44.85	52.49	54.39	61.13	59.63	57.03	57.21
Total (\$/bbl)	16.67	18.52	22.90	19.56	23.22	26.73	25.86	26.29	25.53	26.67
Revenue (\$mm)										
Natural Gas	178	220	280	922	258	311	277	287	1,133	1,186
Oil	171	149	169	663	165	178	207	207	757	818
Total	349	369	449	1,585	423	488	484	494	1,890	2,004
Expense	0.7	207		2,000	.20			.,,	2,000	_,,,,,
Lease operating	187	192	208	789	182	184				
Production taxes	25	23	33	111	35	36				
General and administrative	71	67	81	287	72	74				
Total	283	282	322	1,187	289	294	290	297	1,170	1,202
Ebitda	66	87	127	398	134	194	194	198	720	802
Exploration	19	22	23	83	19	20	20	20	79	80
Deprec., Deplet., & Amort.	248	243	247	966	231	227	227	227	912	908
Other	(178)	(131)	(106)	(555)	(64)	(11)	27	34	(14)	151
Ebit	(23)	(47)	(37)	(96)	(52)	(42)	(81)	(83)	(257)	(338)
Interest	23	23	24	94	25	27	27	27	106	108
Ebt	(46)	(70)	(61)	(190)	(77)	(69)	(108)	(110)	(363)	(446)
Income Tax	(16)	. /	(21)	(66)	(27)	(24)	(38)	(38)	(127)	(156)
Net Income (\$mm)	(30)	(46)	(40)	(123)	(50)	(45)	(70)	(71)	(236)	(290)
Per Share (\$)	(0.15)	(0.23)	(0.20)	(0.62)	(0.25)	(0.22)	(0.34)	(0.35)	(1.16)	(1.42)
Shares (millions)	199	199	199	199	200	204	204	204	203	204
Ebitda Margin	199	24%	28%	25%	32%	40%	40%	40%	38%	40%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
1an 1ate	3370	3370	3370	33 70	3370	3370	3370	3370	33 70	33 70



				ble ISC-							
McDe	p Inco	m	e and S	Small C	Cap Energ	gy Po	rtfol	lio			
Debt, Seg	ments	s, (Cash Flo	ow, Inc	come and	McI	Dep :	Ratio			
, ,		Ĺ									
C	1 1/D		Price	EU/	F	DIZ	0 <)	E17/	D:	D:	
Sym			(US\$/sh)	EV/	Enterprise	PV(<u>70)</u>	EV/	Dist.	Dist.	M.D.
CD	$\mathbf{B} = \mathbf{F}$		26-Sep	Market	Value	Nat	0.1	Ebitda	NTM	Yield	McDe
CB	(see belo	w)	2013	Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Rati
Small Cap Independent Producers											
PDC Energy	PDCE		61.80	1.41	2,710	32	68	12.6	-	-	1.2
Continental Resources (32%)	CLR	В	107.36	1.23	7,800	16	84	7.5	-	-	0.9
Range Resources	RRC	В	78.10	1.28	16,060	74	26	13.5	0.16	0.2	0.89
Cimarex Energy Company	XEC	В	95.79	1.17	9,690	43	57	6.3	0.56	0.6	0.89
Peyto Exploration and Development Corp		_	29.11	1.18	5,130	80	20	9.8	0.76	2.6	0.88
Denbury Resources Inc.	DNR		18.43	1.49	10,250	5	95	6.3	-	-	0.80
Berry Petroleum Company	BRY		43.31	1.76	4,230	14	86	6.6	0.32	0.7	0.84
Whiting Petroleum Corporation	WLL	В	59.82	1.32	9,390	8	92	4.1		-	0.84
Halcón Resources	HK		4.64	2.52	5,160	8	92	5.4	_	_	0.83
WPX Energy Inc.	WPX		19.26	1.58	6,200	68	32	7.7	_	-	0.82
Birchcliff Energy Ltd.	BIREF	CB		1.44	1,620	69	31	8.5	_	-	0.65
Total or Median	DIKLI	СБ	0.73	1.41	78,200	32	68	7.5			0.80
					,						
Leveraged Cash Payers											
Vanguard Natural Resources, LLC	VNR		28.07	1.48	3,120	41	59	10.3	2.46	8.8	1.08
Legacy Reserves L.P.	LGCY		27.27	1.64	2,570	24	76	9.7	2.32	8.5	1.05
Linn Energy, LLC	LINE		26.32	2.03	12,480	47	53	9.8	2.90	11.0	1.01
Enerplus Corporation	ERF		17.03	1.49	5,000	34	66	6.3	1.05	6.2	0.96
Total or Median				1.57	23,200	38	62	9.8		8.6	1.0.
DIEC L D											
RTF Cash Payers Freehold Royalties Ltd.	FRHLF		23.10	TL	1.620	16	84	11.9	1.64	7.1	1.09
Dorchester Minerals, L.P.	DMLP	D	23.10	TL	730	54	46	10.5	1.86	7.1	0.92
·	NDRO	D	13.82	BL	180	48	52	7.9	1.61	11.7	0.92
Enduro Royalty Trust (40%)	SBR		51.54	TL	750	52	48	12.7	4.05	7.9	0.80
Sabine Royalty Trust Permian Basin RT	PBT		14.24	TL	660	19	81	7.7	1.21	8.5	0.80
Mesa RoyaltyTrust	MTR	D	23.45	BL BL	760	75 100	25	9.8	1.97	8.4	0.79
San Juan Basin Royalty Trust	SJT	В	16.26		760		- 20	13.3	0.88	5.4	0.77
Cross Timbers Royalty Trust	CRT		29.99	TL	180	70	30	10.1	2.72	9.1	0.71
Hugoton RoyaltyTrust	HGT		7.71	BL	310	90	10	8.2	0.79	10.3	0.64
Total or Median					5,200	54	46	10.1		8.4	0.79
CB=Contrarian Buy, Stock Price apparen	tly in do	wnt	rend comp	ared to 20)0-day averao	e					
McDep Ratio = Market cap and De bt to p											
Present Value (PV) presumes long-term							nature	al oas			
Dist. = Income distribution. NTM = Nex									arket Ca	n and De	eht
TL = Top Line income sources, BL = Bot				•	501 50, 2014.	Lincip	,115C V	uc - 1VI	unci Ca	unu D	· o.



	!	Table	e ISC-2					
McDep Inco	me and	l Sn	ıall Cap	Energ	y Portf	olio		
Net Pr	esent V	alue	e and M	IcDep 1	Ratio			
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		26-Sep	Shares	Сар	Value	Present	McDep
	Ra	ting	2013	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
PDC Energy	PDCE		61.80	31.0	1,920	45.00	0.36	1.24
Continental Resources (32%)	CLR	В	107.36	59.2	6,360	120.00	0.17	0.91
Range Resources	RRC	В	78.10	161.0	12,570	90.00	0.19	0.89
Cimarex Energy Company	XEC	В	95.79	86.5	8,290	110.00	0.13	0.89
Peyto Exploration and Development Corp.			29.11	149.0	4,340	34.00	0.13	0.88
Denbury Resources Inc.	DNR		18.43	372.0	6,860	23.00	0.28	0.86
Berry Petroleum Company	BRY		43.31	55.3	2,400	58.00	0.36	0.84
Whiting Petroleum Corporation	WLL	В	59.82	119.0	7,120	75.00	0.20	0.84
Halcón Resources	HK		4.64	441.0	2,050	7.00	0.50	0.83
WPX Energy Inc.	WPX		19.26	203.8	3,930	26.00	0.30	0.82
Birchcliff Energy Ltd.	BIREF	СВ	6.73	166.0	1,120	12.00	0.20	0.65
Total or Median					56,960		0.20	0.86
Leveraged Cash Payers								
Vanguard Natural Resources, LLC	VNR		28.07	75.0	2,110	25.00	0.35	1.08
Legacy Reserves L.P.	LGCY		27.27	57.3	1,560	25.00	0.41	1.05
Linn Energy, LLC	LINE		26.32	234.0	6,160	26.00	0.51	1.01
Enerplus Corporation	ERF		17.03	196.0	3,340	18.00	0.32	0.96
Total or Median	Litt		17.05	170.0	13,170	10.00	0.38	1.03
RTF Cash Payers		-						
Freehold Royalties Ltd.	FRHLF		23.10	66.8	1,540	21.00	0.05	1.09
Dorchester Minerals, L.P.	DMLP	В	23.10	30.7	730	26.00	-	0.92
Enduro Royalty Trust (40%)	NDRO	В	13.82	13.2	180	17.00	_	0.92
Sabine Royalty Trust	SBR		51.54	14.6	750	64.00	-	0.81
Permian Basin RT	PBT		14.24	46.6	660	18.00	-	0.80
Mesa RoyaltyTrust	MTR	+-	23.45	1.9	44	30.00	-	0.79
San Juan Basin Royalty Trust	SJT	В	16.26	46.6	760	21.00	_	0.79
Cross Timbers Royalty Trust	CRT	ь	29.99	6.0	180	42.00	-	0.71
	***	+	7.71	40.0	210	12.00	_	
Hugoton Royalty Trust Total or Median	HGT		7./1	40.0	5,150	12.00	_	0.64 0.79
B=Buy; CB=Contrarian Buy, Stock Price a						verage.		
McDep Ratio = \mathbf{M} arket \mathbf{c} ap and $\mathbf{D}\mathbf{e}$ bt to \mathbf{p} r								
Present Value presumes long-term prices of								
Recent NPV Changes: CLR to \$120 from	\$110, VN	K to \$	25 from \$	522, XEC t	o \$110 fro	m \$100		



		Tab	ole ISC-3	3				
McDep Inco	me an	d S	mall C	ap Ene	rgy Poi	tfolio		
Value	Multip	les ·	- Rank	by EV	Ebitda			
			Price	D.	D: /	Adjstd	DIT	F71.7
	~			Revenue	Dist/	Resrvs/	PV/	EV/
	Symbol/		26-Sep	Royalty	Equity	Prod	Ebitda	Ebitda
	Rai	ing	2013	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	78.10		-	13.1	15.1	13.5
PDC Energy	PDCE		61.80		-	15.3	10.1	12.6
Peyto Exploration and Development Corp	PEYUF		29.11		0.25	8.9	11.2	9.8
Birchcliff Energy Ltd.	BIREF	CB	6.73		-	18.6	13.1	8.5
WPX Energy Inc.	WPX		19.26		-	8.0	9.4	7.7
Continental Resources (32%)	CLR	В	107.36		-	11.4	8.2	7.5
Berry Petroleum Company	BRY		43.31		-	12.2	7.9	6.6
Denbury Resources Inc.	DNR		18.43		-	13.6	7.3	6.3
Cimarex Energy Company	XEC	В	95.79		-	7.4	7.1	6.3
Halcón Resources	HK		4.64		-	4.2	6.5	5.4
Whiting Petroleum Corporation	WLL	В	59.82		-	8.5	4.9	4.1
Median						11.4	8.2	7.5
Leveraged Cash Payers								
Vanguard Natural Resources, LLC	VNR		28.07		0.94	9.9	9.5	10.3
Linn Energy, LLC	LINE		26.32		1.09	13.5	9.8	9.8
Legacy Reserves L.P.	LGCY		27.27		0.86	11.1	9.2	9.7
Enerplus Corporation	ERF		17.03		0.38	6.6	6.5	6.3
Median			17.100		0.00	10.5	9.4	9.8
DTE Cook Dovovo								
RTF Cash Payers San Juan Basin Royalty Trust	SJT	В	16.26		0.72	9.8	17.2	13.3
	SBR	ь	51.54	100	1.00	10.1	15.8	12.7
Sabine Royalty Trust Freehold Royalties Ltd.	FRHLF		23.10	86	0.84	4.8	10.8	11.9
Dorchester Minerals, L.P.	DMLP	В	23.10	75	0.84	7.3	11.5	10.5
Cross Timbers Royalty Trust	CRT	D	29.99	90	0.82	12.3	14.1	10.3
	MTR		23.45	90	0.92	5.0	12.4	9.8
Mesa RoyaltyTrust Hugoton RoyaltyTrust								
• •	HGT		7.71		0.85	12.8	12.8	8.2
Enduro Royalty Trust (40%) Permian Basin RT	NDRO PBT			60	0.93	6.0	9.8	7.9
	LDI		14.24	69	0.65	12.7 9.8	9.7 12.4	7.7
Median						9.0	12.4	10.1
B=Buy; CB=Contrarian Buy, Stock Price	apparentl	y in c	lowntrend	compared	to 200-da	y average.		
EV = Enterprise Value = Market Cap and							on	
and amortization; NTM = Next Twelve M								
Earnings; PV = Present Value of oil and g								
Top Line Cash Payers defined as those ha				ee fifth co	lumn from	right).		



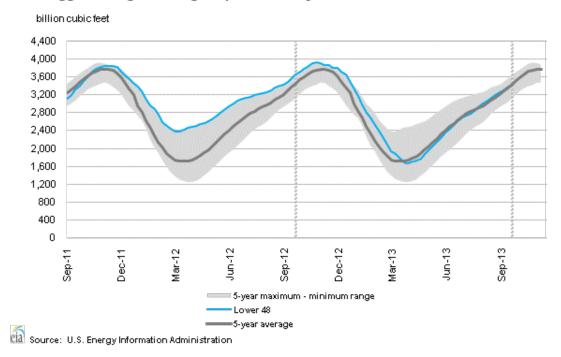
			Table I	SC-4					
McDep	Incom	e ar	ıd Sma	ll Cap 1	Energy	Portfol	io		
Total R	eturn a	nd	Enter	rise Va	lue M	omentur	n		
			-						
			Price	Equity					
			(\$/sh)	Total		Enterpris	e Value/		
	Symbol/		26-Sep	Return	52Wk	52Wk	50 Day	200 Day	McDep
	Ra	ting	2013	YTD (%)	High	Low	Avg.	Avg.	Ratio
Small Cap Independent Producers									
Cimarex Energy Company	XEC	В	95.79	66	1.00	1.56	1.13	1.28	0.89
Continental Resources (32%)	CLR	В	107.36	46	0.99	1.46	1.09	1.19	0.91
PDC Energy	PDCE		61.80	87	0.96	1.70	1.07	1.19	1.24
Whiting Petroleum Corporation	WLL	В	59.82	38	1.00	1.33	1.11	1.17	0.84
WPX Energy Inc.	WPX		19.26	27	0.94	1.26	1.00	1.07	0.82
Peyto Exploration and Development C			29.11	30	0.93	1.26	1.03	1.07	0.88
Range Resources	RRC	В	78.10	23	0.93	1.21	1.00	1.03	0.89
Denbury Resources Inc.	DNR		18.43	13	0.96	1.18	1.03	1.03	0.86
Berry Petroleum Company	BRY		43.31	30	0.93	1.21	1.02	1.02	0.84
Birchcliff Energy Ltd.	BIREF	СВ	6.73	(11)	0.82	1.03	0.96	0.91	0.65
Halcón Resources	HK		4.64	(32)	0.76	1.28	0.96	0.87	0.83
Median				30	0.94	1.26	1.03	1.07	0.86
Leveraged Cash Payers									
Enerplus Corporation	ERF		17.03	39	0.98	1.28	1.01	1.10	0.96
Legacy Reserves L.P.	LGCY		27.27	22	0.94	1.12	1.00	1.02	1.05
Vanguard Natural Resources, LLC	VNR		28.07	15	0.95	1.10	1.01	1.01	1.08
Linn Energy, LLC	LINE		26.32	(19)	0.77	1.13	1.01	0.88	1.01
Median				18	0.95	1.13	1.01	1.01	1.03
RTF Cash Payers									
Permian Basin RT	PBT		14.24	22	0.92	1.19	1.05	1.08	0.79
Cross Timbers Royalty Trust	CRT		29.99	18	0.93	1.27	1.06	1.06	0.71
Sabine Royalty Trust	SBR		51.54	37	0.94	1.33	0.99	1.05	0.80
San Juan Basin Royalty Trust	SJT	В	16.26	23	0.91	1.32	0.98	1.04	0.77
Mesa RoyaltyTrust	MTR		23.45	27	0.86	1.26	1.05	1.03	0.79
Dorchester Minerals, L.P.	DMLP	В	23.91	25	0.93	1.20	0.99	1.02	0.92
Freehold Royalties Ltd.	FRHLF		23.10	10	0.95	1.15	1.01	1.01	1.09
Hugoton RoyaltyTrust	HGT		7.71	14	0.77	1.24	0.93	0.91	0.64
Enduro Royalty Trust (40%)	NDRO		13.82	(9)	0.71	0.98	0.90	0.86	0.81
Median				22	0.92	1.24	0.99	1.03	0.79
CB=Contrarian Buy, Stock Price appar	rently in do	wntr	end comp	ared to 20	0-day aver	age.			
Source: Bloomberg, Yahoo, McDep L									



MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks September 27, 2013

Working gas in underground storage compared with the 5-year maximum and minimum



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.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

Certification: I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

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. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.