

May 25, 2011

NAPTP
Investor Presentation

VANGUARD NATURAL RESOURCES, LLC

Forward-Looking Statements

Statements made by representatives of Vanguard Natural Resources, LLC during the course of this presentation that are not historical facts are forward looking statements, including (but not limited to) statements about the acquisition (including its benefits, results and effects), the related financing plans, whether and when the acquisition will be consummated, the operating results of Encore Energy Partners LP following the acquisition and statements with respect to future distributions. These statements are based on certain assumptions and expectations made by the Company which reflect management's experience, estimates and perception of historical trends, current conditions, anticipated future developments and other factors believed to be appropriate. Such statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond the control of the Company, which may cause actual results to differ materially from those implied or anticipated in the forward looking statements. These include risks relating to the satisfaction of the conditions to closing of the acquisition, uncertainties as to timing, financial performance and results, our indebtedness under our revolving credit facility, availability of sufficient cash to pay our distributions and execute our business plan, prices and demand for oil, natural gas and natural gas liquids, our ability to replace reserves and efficiently develop our reserves, our ability to make acquisitions on economically acceptable terms and other important factors that could cause actual results to differ materially from those anticipated or implied in the forward looking statements. See "Risk Factors" in the Company's 10-K Annual Report for 2010, Form 10-Q dated March 31, 2011 and any other public filings and press releases. Vanguard Natural Resources, LLC undertakes no obligation to publicly update any forward looking statements, whether as a result of new information or future events. This presentation has been prepared as of May 20, 2011.

VANGUARD NATURAL RESOURCES, LLC

Q1 Update / Key Developments

Q1 Update:

- Increased quarterly distribution for the second consecutive quarter to $0.57 per unit
- Adjusted EBITDA attributable to Vanguard increased 103% to $37.6 million from $18.5 million in the first quarter of 2010
- Distributable Cash Flow attributable to Vanguard unitholders increased 88% to $28.3 million from $15.1 million in the first quarter of 2010 for a 1.64x distribution coverage
- Adjusted Net Income attributable to Vanguard unitholders was $16.5 million in the first quarter of 2011 or $0.55 per basic unit, as compared to $11.2 million or $0.59 per basic unit, in the first quarter of 2010
- Reported average production of 13,273 BOE per day, up 205% over 4,345 BOE per day produced in the first quarter of 2010
- On a BOE basis, crude oil, natural gas liquids ("NGLs") and natural gas accounted for 57%, 8%, and 35% of our production, respectively

Key Developments:

- On March 24, 2011, Vanguard announced that it submitted a proposal to purchase all of ENP's outstanding publicly-held units through a unit-for-unit exchange

Overview of Vanguard Natural Resources

- **Upstream oil & gas LLC, headquartered in Houston, Texas**
  - Initial Public Offering – "VNR" - October 2007
  - Six strategic acquisitions totaling ~$730MM expanded geographic profile and commodity diversity
    - The most recent acquisition totaling ~$380MM
    - VNR is the General Partner of Encore Energy Partners LP (NYSE: ENP) and owns approximately 46% of ENP common units

Company Profile (in 000's)	IPO(1)	VNR	ENP
TOTAL SHARES OUTSTANDING	**5,250**	**30,200**	**45,490(2)**
EQUITY MARKET CAP(3)	$99,750	$904,515	$1,022,160
TOTAL DEBT	$28,800	$347,000	$224,000
LESS CASH	$4,445	$500	$1,500
ENTERPRISE VALUE	$124,105	$1,251,015	$1,244,660

- **Positive Cash Distribution Coverage**
  - Quarterly distribution of $0.57 per unit ($2.28 annualized) yields approximately 7.7% at current price; ENP's current quarterly distribution is $0.49 per unit
  - Increased distributions 34% since IPO
- **Diverse portfolio of mature, long life gas and oil properties, combined with a multi-year hedging program provide stable cash flow and support distribution growth**
  - *69.3 MMboe total proved reserves, 80% proved developed and 14 year R/P
  - 55% oil / 37% gas / 8% NGLs on a VNR-ENP consolidated basis

*Proved reserves as of 12/31/10 based on reserve report prepared by our independent reserve engineers, DeGolyer & MacNaughton (D&M) and 12-month average spot prices; Amounts illustrated reflect ENP's and VNR's proved reserves on a consolidated basis
(1) Cash and Debt as of June 30, 2007, pro forma for IPO
(2) VNR owns 20,924,055 ENP common units
(3) Market pricing as of May 20, 2011; VNR includes 420m Class B units excluding IPO column

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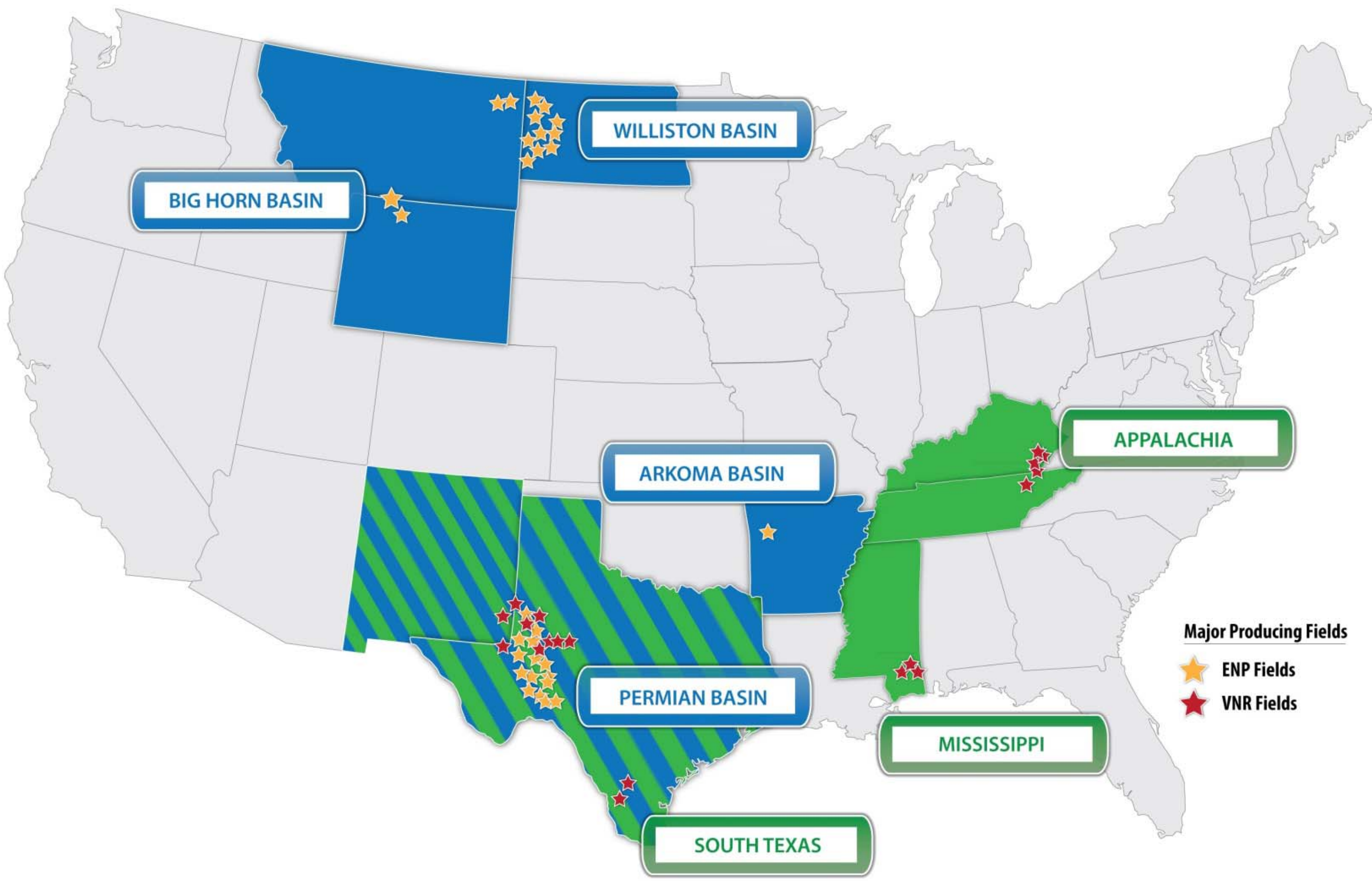
ENP Transaction Rationale

- **Largest acquisition to date at $380 million**
- **Increased exposure to crude oil for VNR unitholders**
- **Significantly increases size and scale, overall operating reach and cash flow stability**
- **Improved ability to compete for acquisitions going forward**
- **Geographic diversification through exposure to the Big Horn Basin, Williston Basin and Arkoma / Mid-Continent**
  - Enhances existing footprint in the Permian Basin
- **Larger opportunity set for internal growth**
- **Adds complementary, high-quality asset base characterized by:**
  - Predictable production profiles
  - Low decline rates
  - Long reserve life
  - Modest capital requirements
- **Immediate accretion to VNR's distributable cash flow**

VNR & ENP Combined Operating Areas



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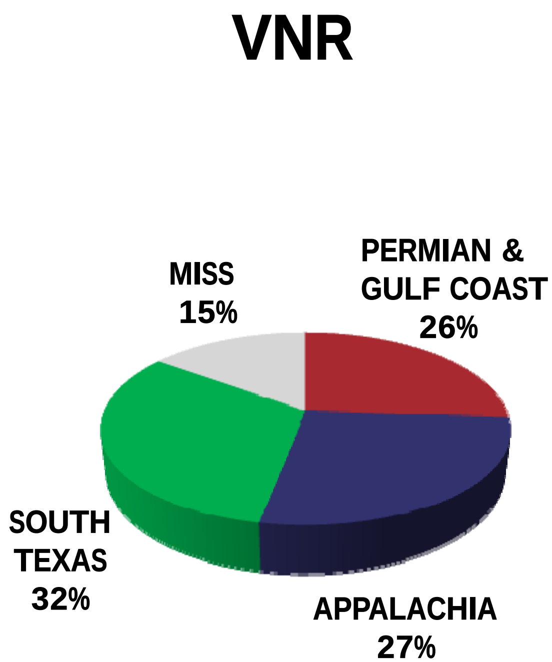
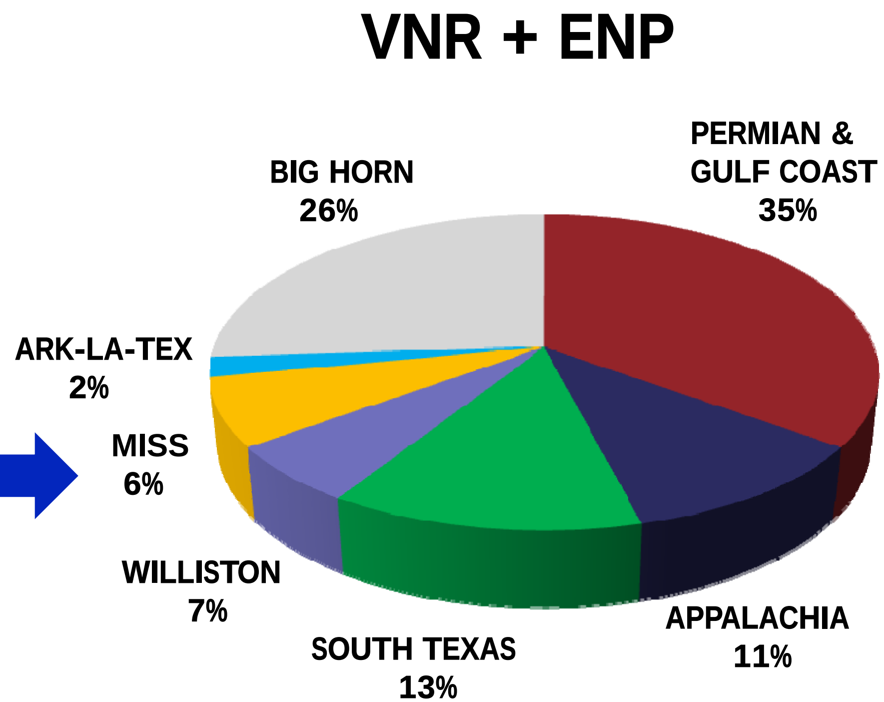
Proved Reserves by Area

Standalone (1) - 28.2 MMBoe



Combined (1)(2) - 69.3 MMBoe



Adds Significant Geographic Diversification along with Enhanced Presence in the Permian Basin

(1) Proved reserves as of 12/31/10 based on reserve report prepared by our independent reserve engineers, DeGolyer & MacNaughton (D&M) and 12-month average spot prices

(2) Amounts illustrated reflect ENP's and VNR's proved reserves on a consolidated basis; includes the non-controlling interest of approximately 53.2% as of December 31, 2010

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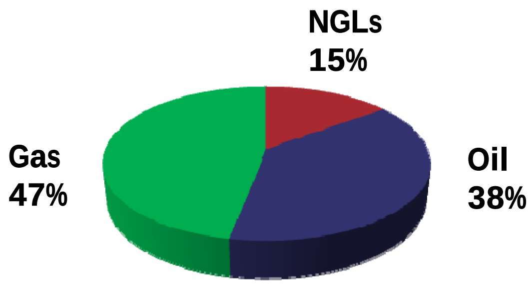
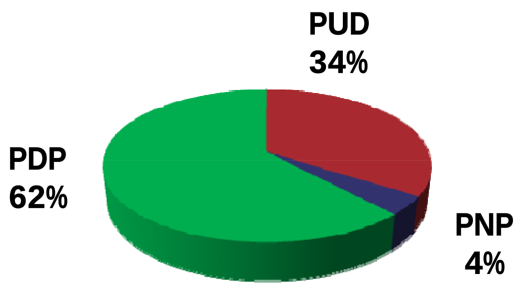
Proved Reserves

Standalone (1) – 28.2 MMBoe

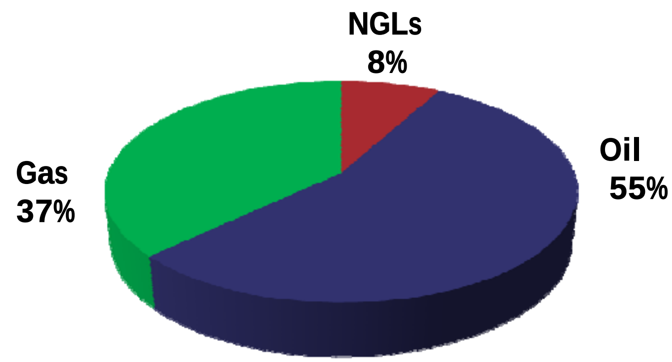
Combined (1)(2) – 69.3 MMBoe

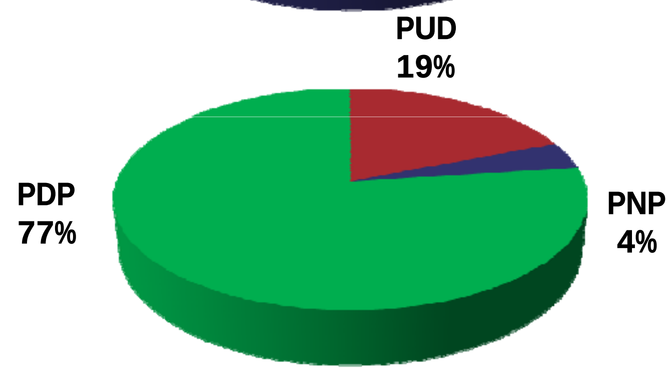
VNR





VNR + ENP





Substantial Increase in Size and Scale and Large % of PDP Reserves Provides Added Cash Flow Stability

(1) Proved reserves as of 12/31/10 based on reserve report prepared by our independent reserve engineers, DeGolyer & MacNaughton (D&M) and 12-month average spot prices

(2) Amounts illustrated reflect ENP's and VNR's proved reserves on a consolidated basis; includes the non-controlling interest of approximately 53.2% as of December 31, 2010

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Snapshot of Strategic Acquisitions Since IPO

Acquisition	Date	Region	Deal Size	Proved Reserves/ PDP*	Key Features
Apache	Feb 2008	Permian Basin	$73.4M	4.4 MMBoe 90% PDP	83% oil
Dos Hermanos	Jul 2008	South Texas	$53.4M	20 Bcfe 65% PDP	98% natural gas
SUN TSH	Jul 2009	South Texas	$52.3M	27 Bcfe 74% PDP	94% natural gas & NGLs
Ward County	Dec 2009	Permian Basin	$55.0M	3.2 MMBoe 65% PDP	83% oil
Parker Creek	May 2010	Mississippi, TX & NM	$114.6M	4.7 MMBoe 90%	96% oil
Encore	Dec 2010	Permian, Williston, Arkoma & Big Horn Basins	$380.0M	43.4 MMBoe 91% PDP	67% oil & NGLs

(1) Proved reserves and proved developed producing (PDP) numbers are calculated as of the acquisition closing date.

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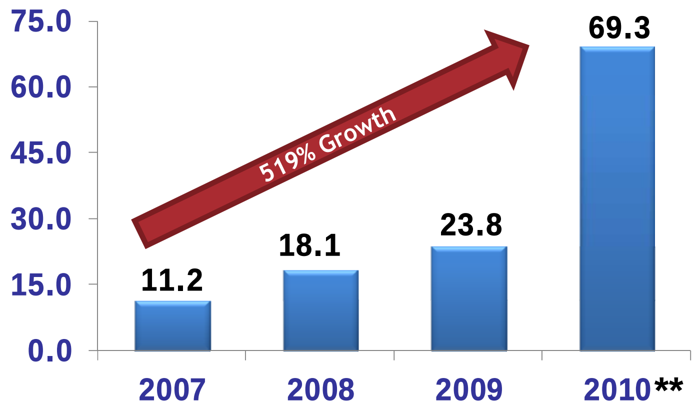
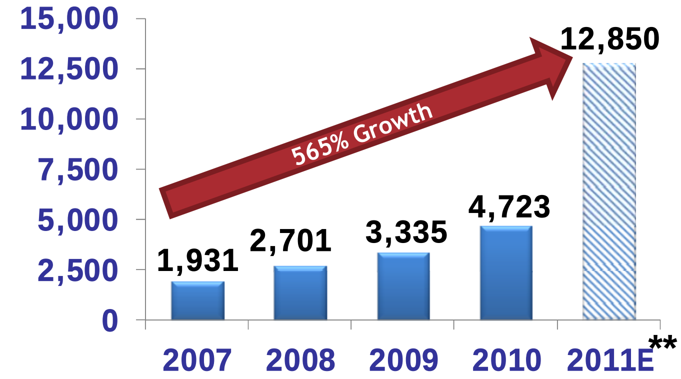
Accretive Acquisitions Drive Growth

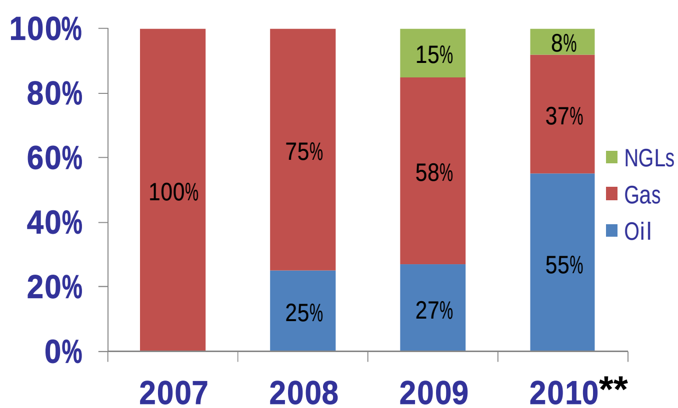
Reserves (MMBoe) *



Production (Boe/d)



Commodity Diversity



Distribution Growth

*Proved reserves as of 12/31/10 based on reserve report prepared by our independent reserve engineers, DeGolyer & MacNaughton (D&M) and 12-month average spot prices

**Amounts illustrated reflect ENP and VNR proved reserves and production on a consolidated basis

***Annualized quarterly distribution

****Annualized based on current quarterly distribution of $0.57 per unit

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FINANCIAL OVERVIEW

Hedges Mitigate Distribution Risk

- **Approximately 60% of expected crude oil production (total proved) through 2014 is hedged via a combination of swaps and collars at a weighted average floor price of $85.63 per barrel:**

	2011	2012	2013	2014
% Hedged	61%	69%	62%	56%
Swaps	36%/$85.06	48%/$85.62	59%/$89.20	55%/$89.78
Collars	25%/$80.69-$97.17	21%/$77.54-$94.11	3%/$88.89-$107.34	1%/$100-$116.20

- **Approximately 50% of expected natural gas production (total proved) through 2013 is hedged via a combination of swaps, collars and puts at a weighted average floor price of $6.27 per MMBtu:**

	2011	2012	2013
% Hedged	84%	39%	32%
Swaps	58%/$6.89	36%/$5.69	32%/$5.17
Collars	16%/$7.34-$8.44	-	-
Puts	10%/$6.31	3%/$6.76	-

All figures shown includes both VNR and ENP on a 100% consolidated basis.

Hedged Cash Flow=Stable Distribution Coverage

2011 Natural Gas Prices ($/MMBtu)

2011 Crude Oil Prices WTI ($/Barrel)	$2.00	$3.00	$4.00	$5.00	$6.00
$70.00	1.13x	1.14x	1.15x	1.16x	1.17x
$80.00	1.25x	1.26x	1.27x	1.28x	1.29x
$90.00	1.38x	1.39x	1.40x	1.41x	1.42x
$100.00	1.49x	1.50x	1.51x	1.52x	1.53x
$110.00	1.56x	1.58x	1.59x	1.60x	1.61x

Existing oil and gas hedges support the distributions in a period of volatile commodity prices – ABOVE 1.10x coverage in almost any price environment

Liquidity

($ in millions) All figures shown as of 5/12/11

	VNR	ENP
Facility Size	$400	$475
Borrowing Base	$235 [1]	$400 [1]
Amount Outstanding	$180	$224
Borrowing Availability	**$55**	**$176**
Maturity Date	October 1, 2012	March 7, 2012
Interest Rate Pricing	L + 225-300 bps	L + 225-300 bps

Interest Rate Hedges as of 3/31/11

2011 Weighted Average Amount	$115
Weighted Average Fixed Rate	2.60%
2012 Weighted Average Amount	$94
Weighted Average Fixed Rate	2.61%
2013-2015 Weighted Average Amount	$47 [2]
Weighted Average Fixed Rate	2.21%

(1) VNR's borrowing base increased $10 MM to $235 MM and ENP's borrowing base increased $25 MM to $400 MM
(2) $30 MM expires August 2015

2011 Calendar Year Guidance

	VNR 2011 Guidance(1)	VNR 2010 Actual	ENP 2011 Guidance(1)	ENP 2010 Actual
AVERAGE DAILY PRODUCTION	12,500 to 13,200 BOE/day (2)	4,721 BOE/day	7,930 to 8,350 BOE/day	8,766 BOE/day
LEASE OPERATING EXPENSES	$12.85 to $13.50 per BOE (3)	$10.72 per BOE	$12.85 to $13.50 per BOE	$13.45 per BOE
G&A	$3.00 to $3.30 per BOE (3)	$5.88 per BOE	$3.70 to $4.00 per BOE	$3.87 per BOE
CAPITAL EXPENDITURES (in millions)	**$27.0 to $28.5 (3)**	**$15.3**	**$19.5 to $21.0**	**$6.2**
ADJUSTED EBITDA (in millions)	**$140 to $147 (3)**	**$80.4**	**$120 to $127**	**$124.3**

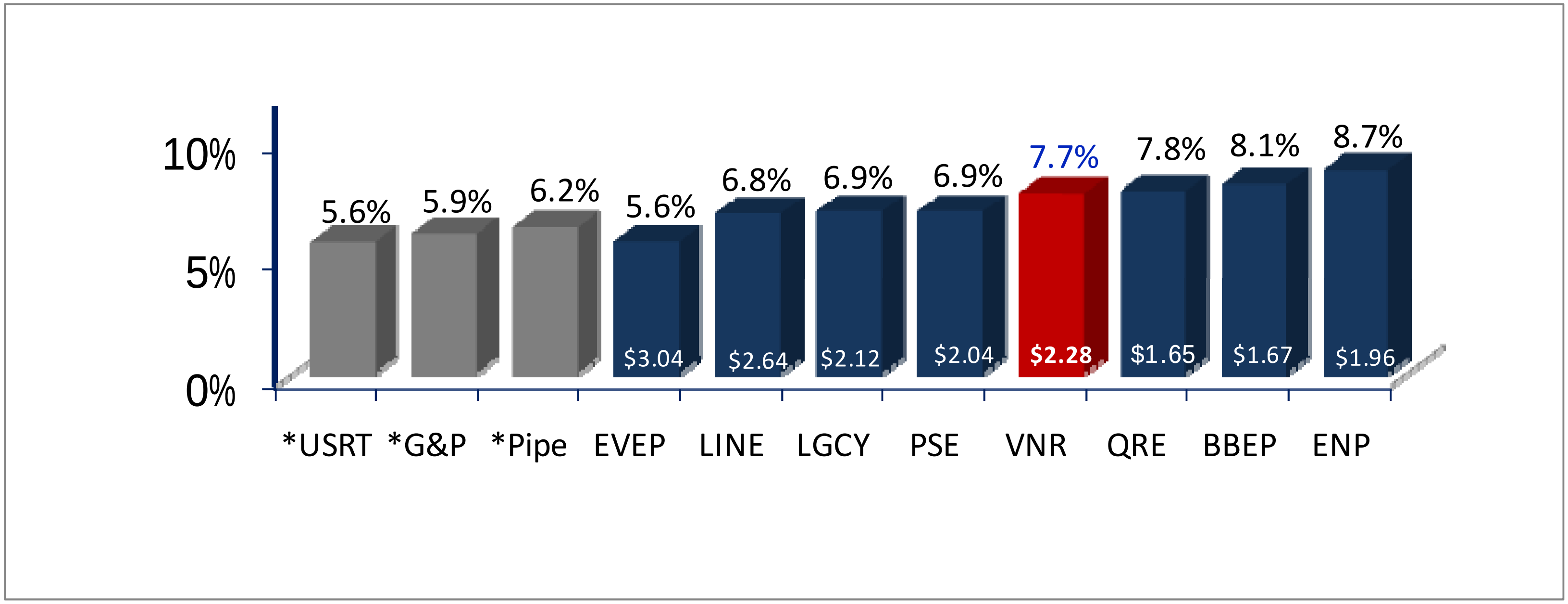
(1) Forecast based on an average WTI Sweet oil price of $93.51/bbl, an average natural gas NYMEX price of $4.27 per MMBtu, and an average composite NGL price of $42.00 per barrel for 2011. No new acquisitions included in forecast.

(2) Includes VNR and ENP on a 100% consolidated basis.

(3) Includes activity applicable to the controlling interest of approximately 46.6% in Encore Energy Partners LP.

Comparable Company Distribution Yields

CURRENT DISTRIBUTION YIELDS OF PEER GROUP



***USRT - Average Yield of U.S. Royalty Trusts (CRT, HGT, MTR, PBT, SBR and SJT)**

***G&P - Average Yield of Gathering & Processing Companies (APL, DPM, CPNO, EROC, MWE, NGLS, RGNC, WES, WPZ, XTEX)**

***Pipe - Average Yield of Large Pipeline Companies (BWP, EEP, EPB, EPD, ETP, OKS, SEP, TCLP)**

Yield calculated using the closing unit price on 5/20/11.

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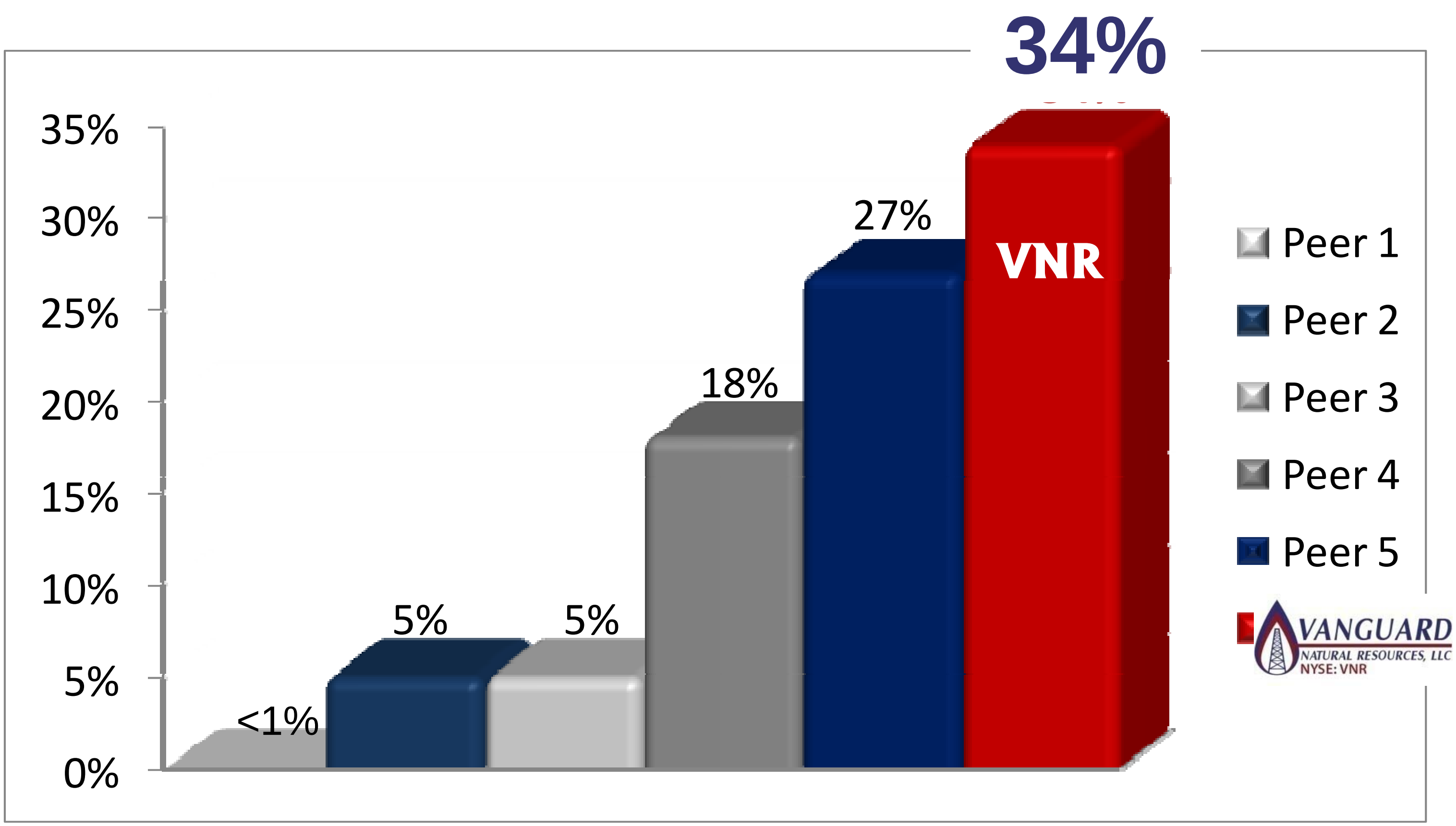
Comparable Company Distribution Increases

VNR Leads Peer Group in Overall Distribution Growth



Calculations include all quarterly distributions from 2008 thru May 2011

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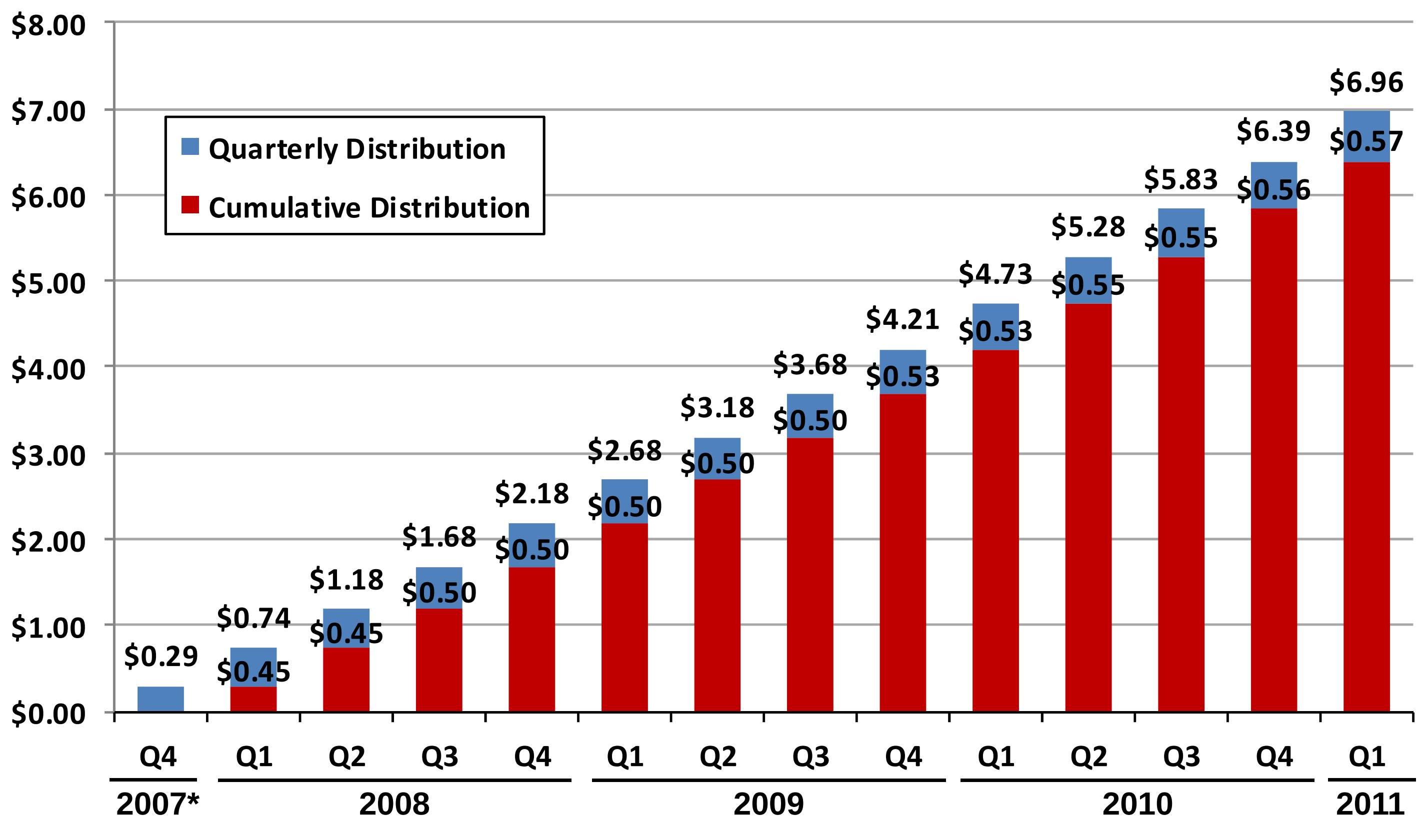
Consistent Distribution Growth

- VNR has raised its distribution 34% since IPO equating to ~$7.00 in cumulative distributions



*Q4 2007 distribution of $0.425 is pro rata for October 29, 2007-December 31, 2007

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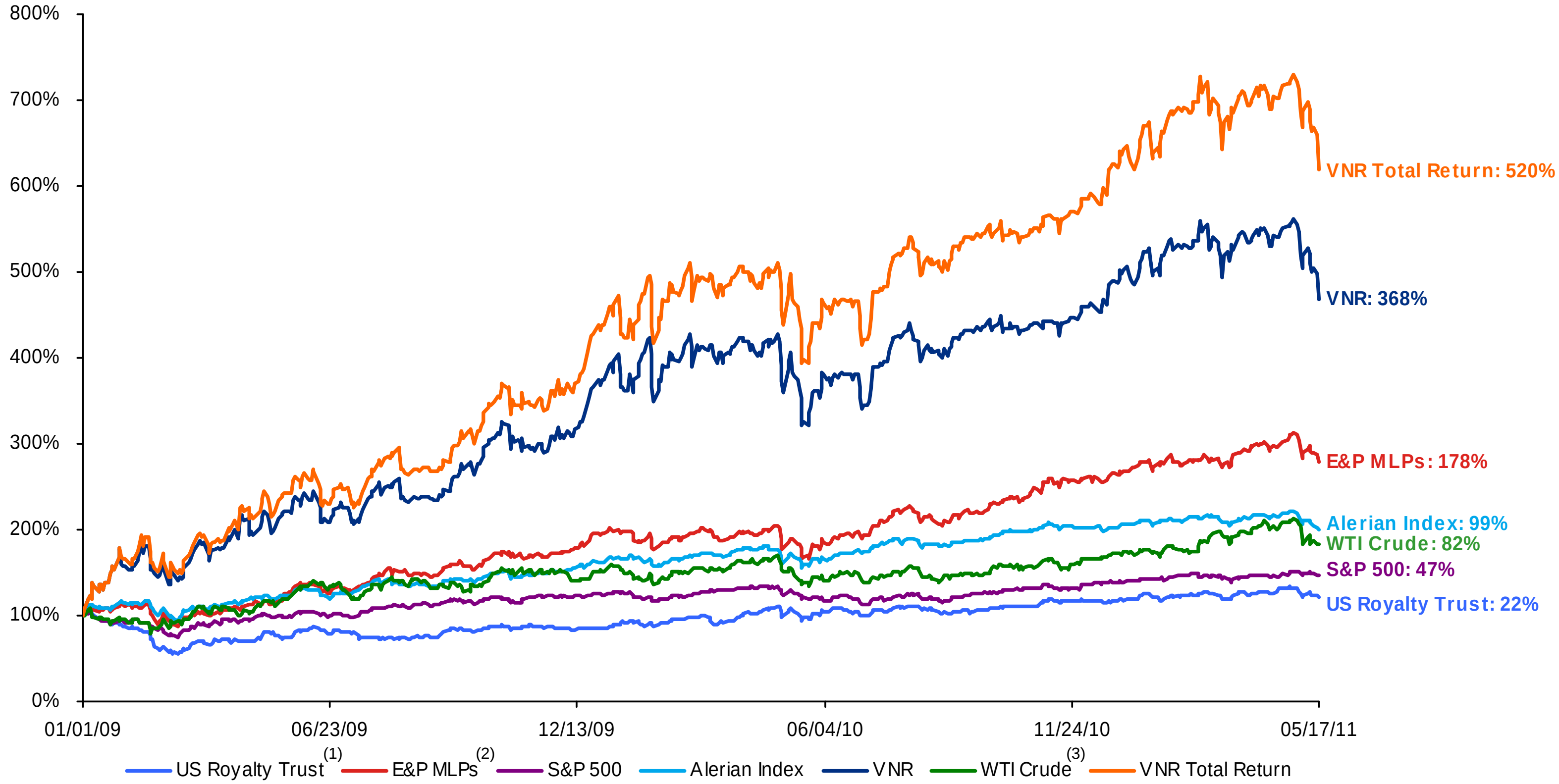
Price Performance Since 2009

The results have been good. VNR has outperformed US Royalty Trusts, C-Corps and other E&P MLPs. The strategy works.



Note: Market data as of 5/17/11.

(1) US Royalty Trust Index includes: CRT, HGT, MTR, PBT, SBR and SJT.

(2) E&P MLP Index includes: BBEP, CEP, EVEP, LGCY, LINE and VNR.

(3) 12 month strip pricing.

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Key Investor Considerations

- Management and unitholders are well aligned
- High quality, long lived reserves
- Asset base generates stable cash flow
- Multi-year hedge program mitigates commodity risk
- Geographic and commodity diversity
- LLC structure gives unitholders a voice
- Attractive distribution yield
- Profitably grow company and increase distribution

APPENDIX

Snapshot of Strategic Acquisitions Since IPO

- **Apache (Feb 2008)**
  - First acquisition (3-months post-IPO); diversified commodity mix
- **DOS Hermanos (July 2008)**
  - Lewis takes 13% ownership in VNR as part of this transaction
  - Acquired from Lewis Energy, largest operator in the Olmos trend; Lewis to operate; VNR assumed natural gas swaps and collars on 85% of estimated gas production
- **SUN TSH (July 2009)**
  - Another acquisition from Lewis Energy as they monetize assets to focus on Eagle Ford Shale development
  - Lewis operates and conducts PUD drilling program thru 2015
- **Ward County (Dec 2009)**
  - Increased net oil production by more than 100% in the Permian Basin
  - Hedged approx. 90% of PDP production thru 2013 at weighted average price of $86.35 / bbl
- **Parker Creek (May 2010)**
  - Very low operating costs (sub $5 / bbl) and development costs ($6.90 / bbl) equate to high margins
- **Encore (Dec 2010) largest acquisition to date; full details on next page**