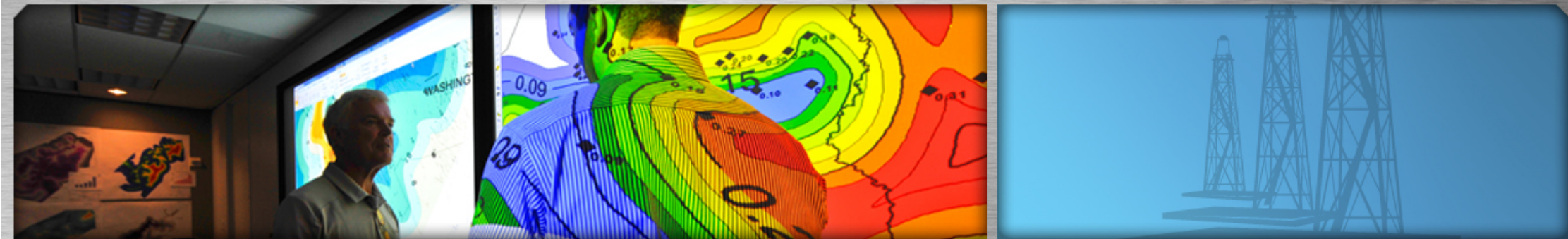
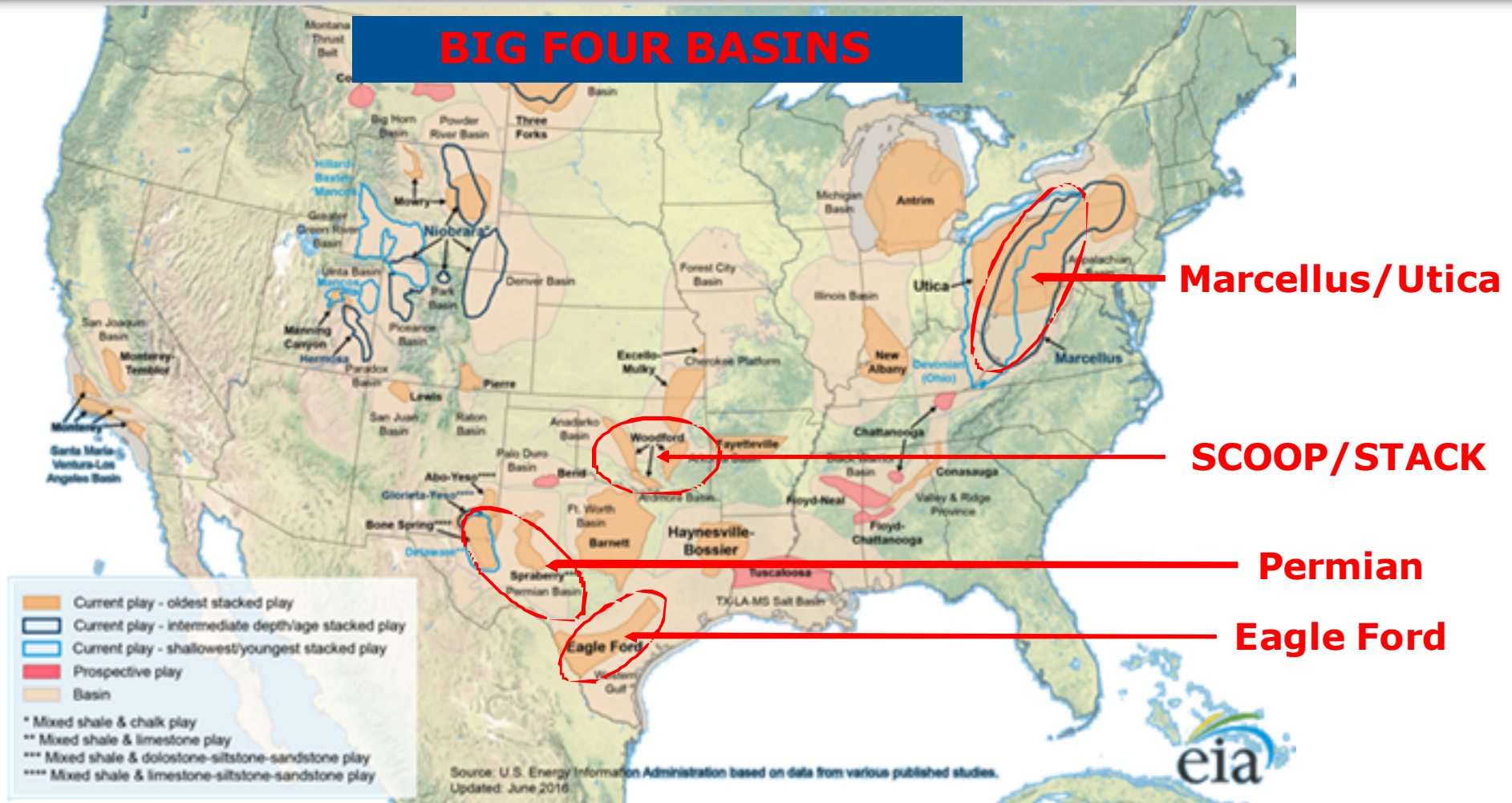


# TECHNOLOGY IS A GAME CHANGER



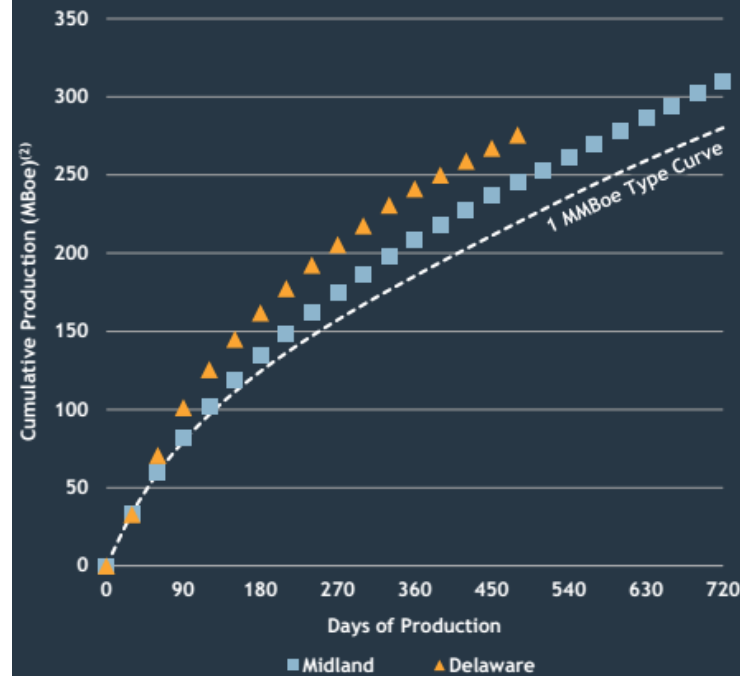
BRINGING OUT THE BEST

# U.S. Basin Overview

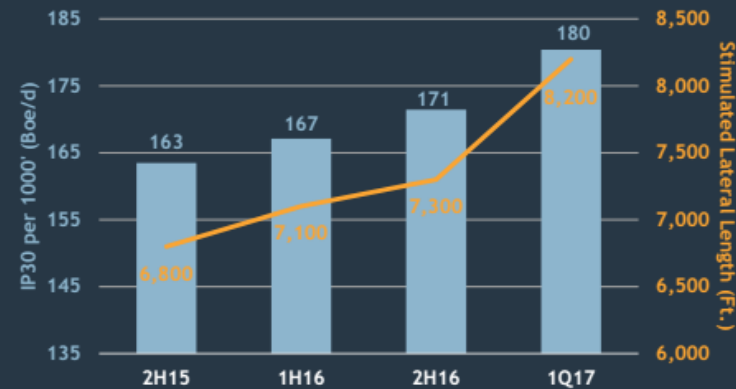


### Robust and Improving Well Results

- Consistently strong well results across acreage footprint and well vintage
- Length-normalized productivity improving even as lateral lengths increase



Midland Basin Normalized IP30s<sup>(1)</sup>

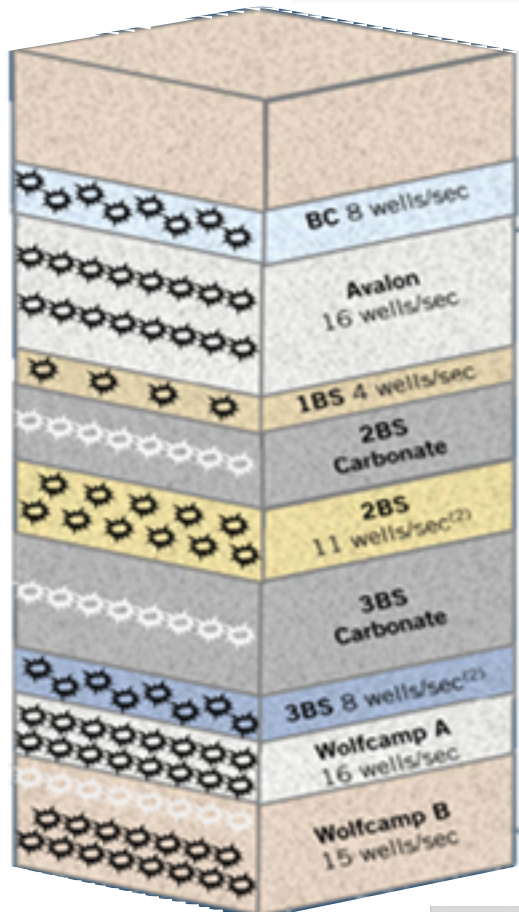


1Q17 Well Summary<sup>(1)</sup>

	Midland	Delaware
Wells <sup>(3)</sup>	18	1
Average Lateral Length	8,213'	6,374'
30-day IP (Boe/d)	1,429	1,686
30-day IP per 1,000' (Boe/d)	180	265
% Oil	71%	62%

Source: Parsley Energy June, 2017

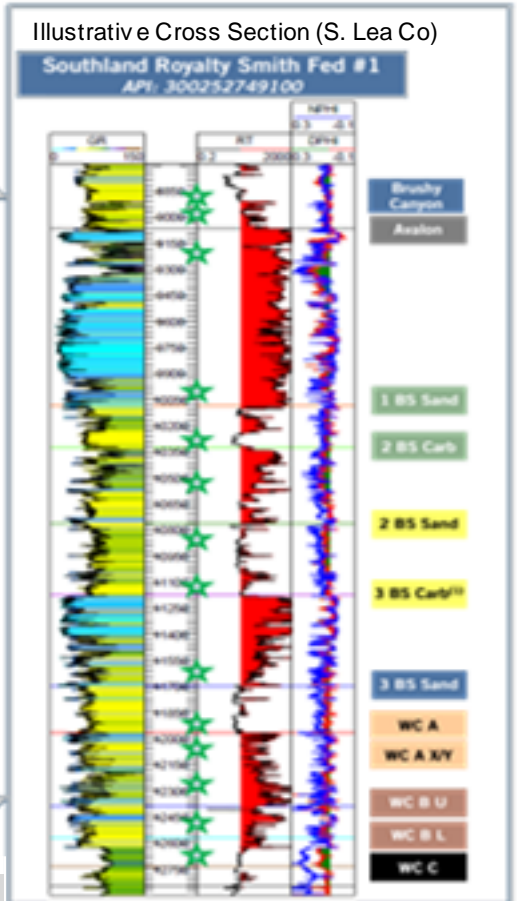
# Permian Wells per Section Northern Delaware



Over 4,000' of Pay

Primary Target  
 Secondary Target

(1) Target is shale/siltstone lithology within carbonate zone.  
 (2) Second row of targets modeled where net thickness >250'



Industry Landing Zone

<b>Brushy Canyon</b> * Type Curve: Up to 1,040 MBoe (66% oil) * Offset Activity: BOPCO, CXO, DVN, Endurance
<b>Avalon</b> * Type Curve: Up to 770 MBoe (Up to 48% oil) * Offset Activity: BOPCO, CVX, DVN, Endurance, EOG, MTDR
<b>1<sup>st</sup> Bone Spring Sand</b> * Type Curve: Up to 700 MBoe (Up to 34% oil) * Offset Activity: Endurance, EOG, MTDR
<b>2<sup>nd</sup> Bone Spring Carbonate</b> * Offset Activity: BOPCO
<b>2<sup>nd</sup> Bone Spring Sand</b> * Type Curve: Up to 1,000 MBoe (Up to 77% oil) * Offset Activity: BOPCO, CXO, DVN, Endurance, EOG, MTDR, OXY
<b>3<sup>rd</sup> Bone Spring Carbonate<sup>(1)</sup></b> * Offset Activity: BOPCO
<b>3<sup>rd</sup> Bone Spring Sand</b> * Type Curve: Up to 770 MBoe (Up to 83% oil) * Offset Activity: BOPCO, CXO, DVN, Endurance, EOG, MTDR, OXY
<b>Wolfcamp A-X/Y Sand</b> * Type Curve: Up to 1,160 MBoe (Up to 77% oil) * Offset Activity: BOPCO, CXO, Endurance, EOG, MTDR, Mewbourne
<b>Wolfcamp A - Lower</b> * Type Curve: Up to 1,480 MBoe (Up to 59% oil) * Offset Activity: CXO, Endurance, EOG, MTDR, BC, RSPP, XTO
<b>Upper Wolfcamp B</b> * Offset Activity: EOG, RSPP
<b>Lower Wolfcamp B</b> * Type Curve: Up to 1,450 MBoe (Up to 33% oil) * Offset Activity: MTDR, Mewbourne, CXO, BC
<b>Wolfcamp C</b> * Type Curve: Up to 2,070 MBoe (Up to 33% oil) * Offset Activity: CVN, MTDR, XEC

# Continental Resources

## SCOOP/STACK



### SCOOP: New Wells Outperforming Historical Type Curve by 35% to 100%

First operated Springer completions since 3Q'15

Production uplifted by:

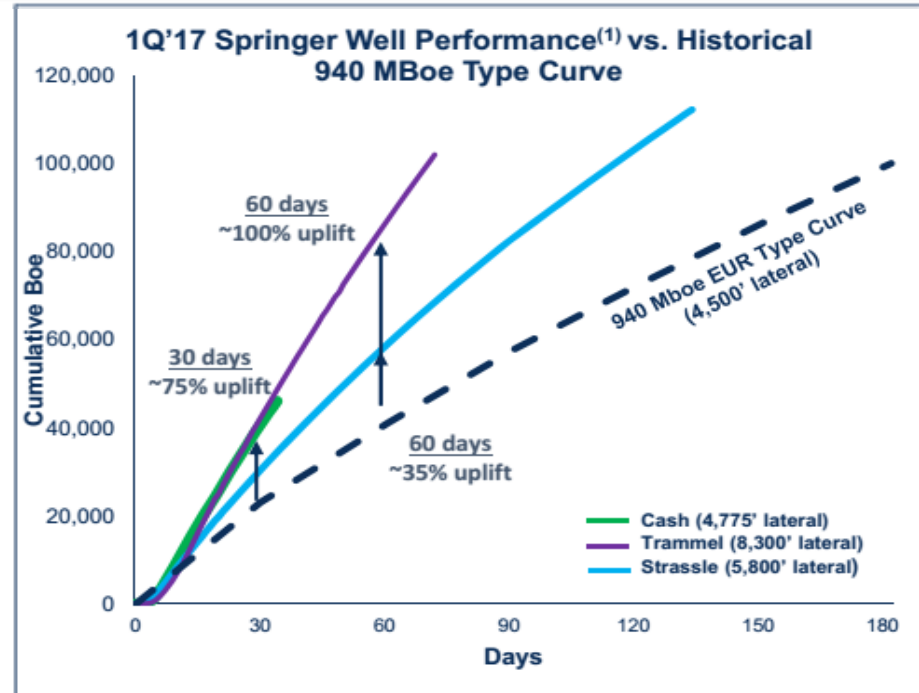
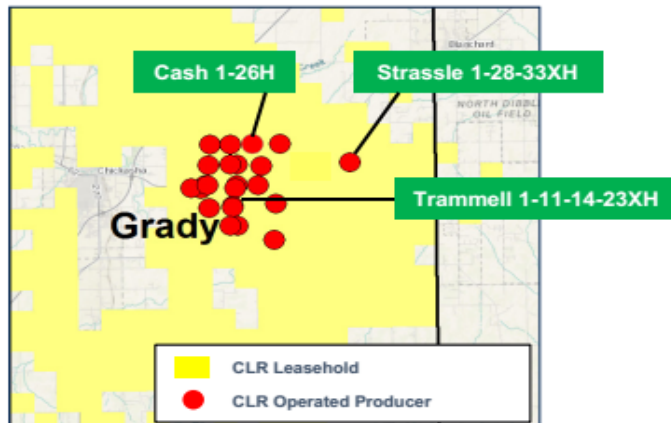
- Next-generation completions & longer laterals

Cash 1-26H (1-mile): cycle times & costs vs. 3Q'15 wells

- Spud-to-TD 34 days, down 45%
- Drilling cost down 33%
- Total CWC: \$7.6 million, down \$2.7 million

Drilling to continue in 2017

- Targeting up to 10 Springer completions in 2017
- 1 to 2 operated rigs through year end



### 1Q'17 Springer 24-hour IPs

- 1,691 Boepd, 84% oil - Cash 1-26H
- 1,257 Boepd, 89% oil - Strassle 1-28-33XH
- 2,300 Boepd, 79% oil - Trammel 1-11-14-23XH

Source: Continental Resources May, 2017

# EOG Resources

## Eagle Ford



### South Texas Eagle Ford Oil

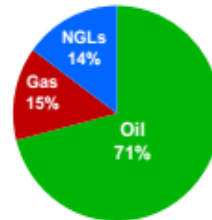
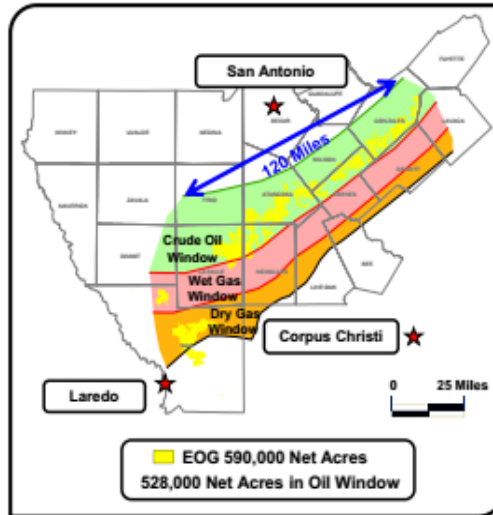
- Largest Oil Producer and Acreage Holder in the Eagle Ford
  - Average 8 Rigs Operating in 2017
  - Complete ≈195 Net Wells in 2017 vs. 236 in 2016
- Estimated Resource Potential 3.2 BnBoe;\* 7,200 Net Wells
- Typical Well
  - 5,300' Lateral; ≈40-Acre Spacing
  - EUR 580 MBoe, Gross; 450 MBoe, NAR
  - CWC\*\* \$4.7MM in 2016: Target \$4.3MM

- Precision Targeting
  - Lateral Drilling Window 20' vs. Prior 150'

	Bopd	Boed	Lateral
1Q 2017 65 Gross Wells 30-Day IP	1,130	1,390	6,500'

#### 2017 Operations

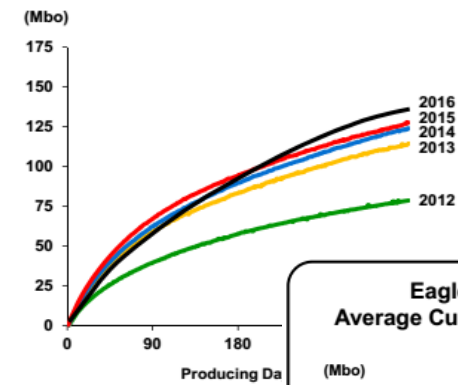
- Shifting to Longer Laterals in West
- Completion Innovations Lower Well Costs with Same Productivity
- Acreage 97% Held by Production



Typical Eagle Ford Well

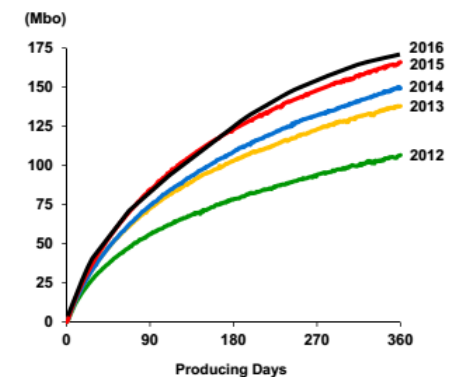
### Improving Well Productivity

Eagle Ford West Wells Average Cumulative Oil Production\*



\* Normalized to 6,600-foot lateral.

Eagle Ford East Wells Average Cumulative Oil Production\*



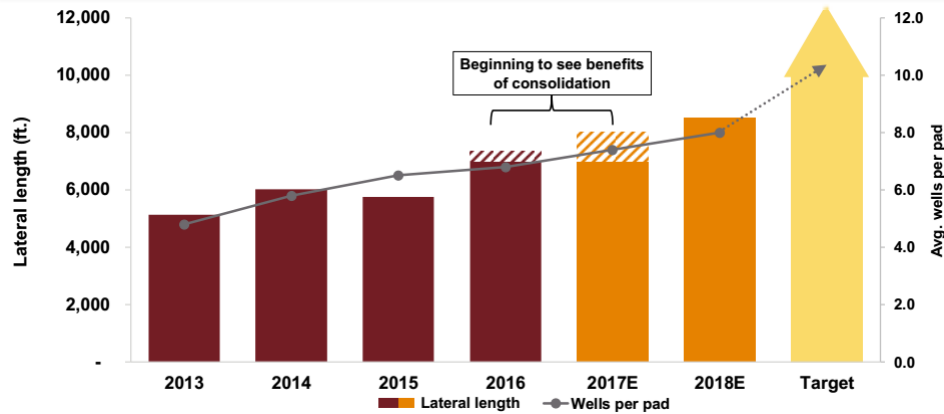
\* Normalized to 4,600-foot lateral.

\* Estimated potential reserves net to EOG, not proved reserves. Includes 1,003 MMBoe proved reserves booked at December 31, 2016 and prior production from existing wells.

\*\* CWC = Drilling, Completion, Well-Site Facilities and Flowback

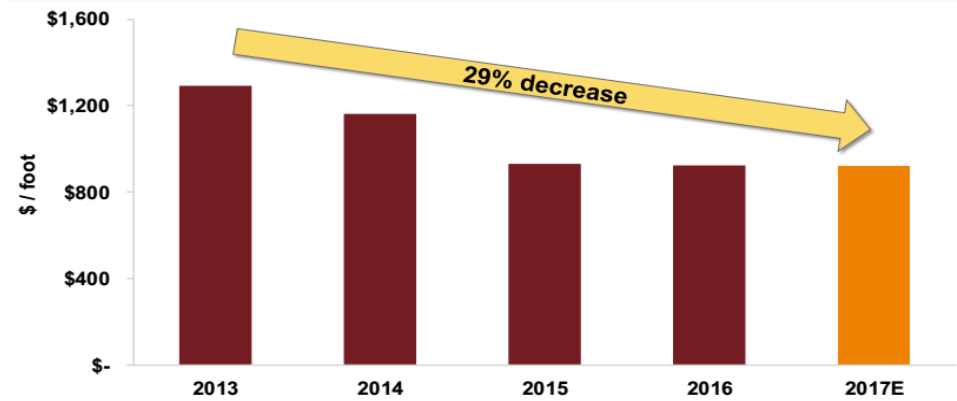
Source: EOG Resources May, 2017

## Longer Laterals and More Wells Per Pad



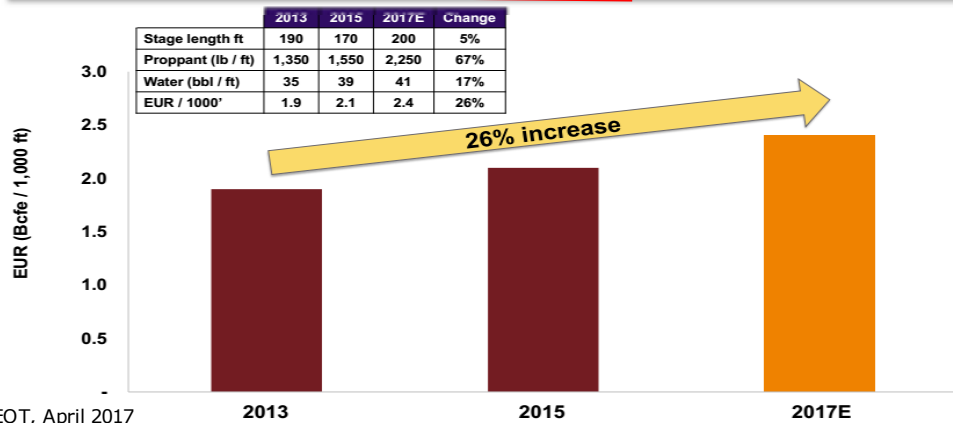
Includes Upper Devonian; wells per pad benefits to consolidation are based on 2016 and 2017 guidance of 7,000 ft laterals; actual 2016 laterals were 7,343 ft, and the projected lateral for 2017 is 8,000 ft

## D&C Costs Constantly Decreasing



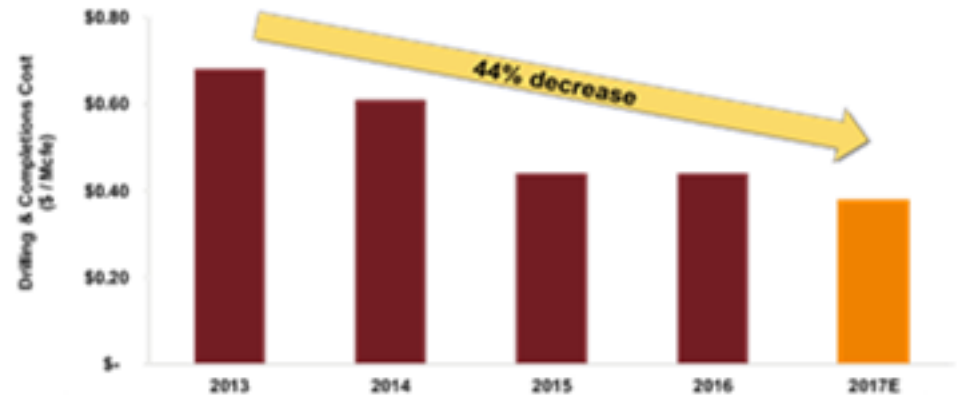
Assumes 8,000 foot lateral for 2017; includes 2017 increase of \$75K per well for larger frac jobs and \$40K per well of completion cost inflation (15%)

## Larger Frac Jobs Increase Recoveries



Source: EQT, April 2017

## Lower Cost per Mcfe



### Well Results Driven by Being a Technical Leader

#### Drilling

- Lateral Placement**
- Pioneered lateral targeting proficiency in the Marcellus in 2011 using rotary steerable tools
  - Every RICE operated well is geosteered by our 24/7 team in RICE's headquarters

- Lateral Length**
- Drilled first 10,000 ft. lateral in 2013
  - RICE laterals ever since have consistently been on average over 2,000 ft. longer than peers

#### Completions

- Completion Size**
- Pumped ~1,900 lb/ft. on first Marcellus well (2010)
  - Pumped ~2,900 lb/ft. on first Utica well (2014)
  - Most peers' design just now catching up to what we adopted 8 years ago → "Gen 4" is our "Gen 1"

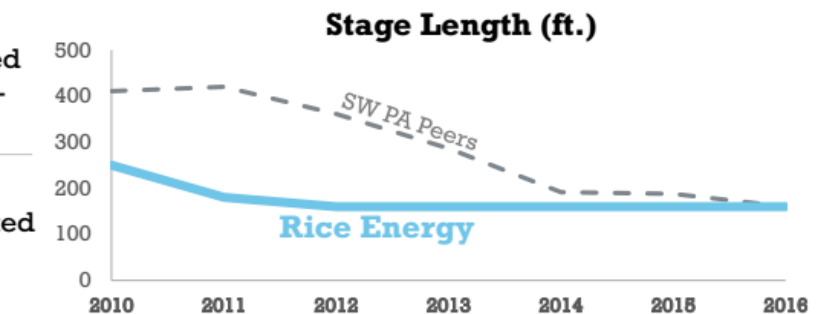
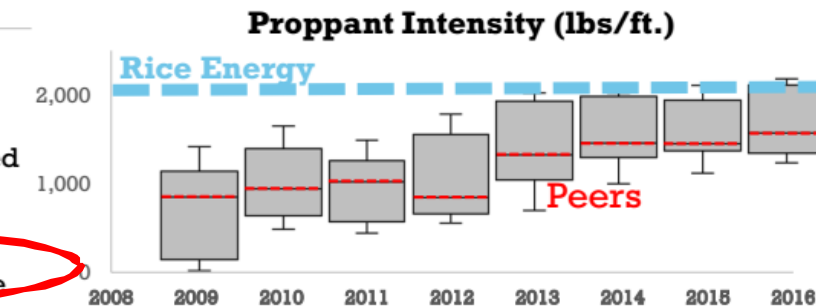
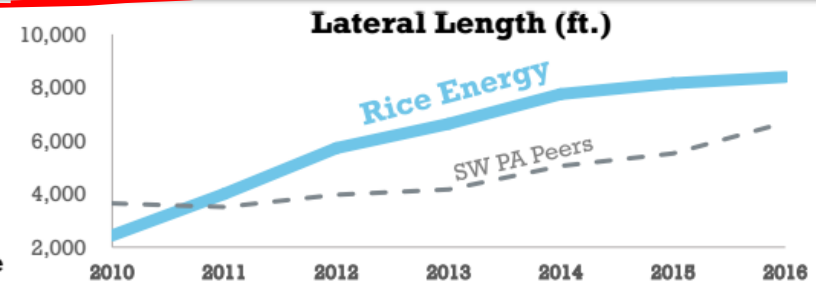
- Stage Length**
- 250 ft. stage length on first Marcellus well → 160 ft. stage length on the 5<sup>th</sup> well → 150-200 ft. stage lengths ever since

#### Production

- Choke Management**
- In 2010, mapped relationship between flow rate (normalized for lateral length) and pressures to determine current best-in-class choke management practice

#### The Future

- Innovation Still in Full Force**
- RICE completed ~420 value driving initiatives in 2016 related to project cost reductions and productivity improvements
  - We are actively working through >200 new initiatives





# Completion Designs Improve Well Performance

## Haynesville



### Completion Evolution

- Original wells were typically shorter laterals (<5,000') and smaller fracs (<1,000 lbs/ft)
- Recent wells have had longer laterals (7,500'+) and larger fracs (>3,000 lbs/ft)
  - These designs have been tested and proven to improve well performance
- Evolution in completion design continues, and additional refinements are expected to further optimize well performance and reduce costs
  - Increased proppant and fluid concentration, diversion agents, and nano-surfactant

### Progression in Haynesville Well Designs and Performance

Company	Illustrative	Description	Years	EUR / F&D
<b>Gen 1</b>		<ul style="list-style-type: none"> <li>4,200' Laterals</li> <li>677 lbs/ft</li> <li>11 frac stages</li> </ul>	2008 - 2012	<ul style="list-style-type: none"> <li>EUR: 3.8 BCF</li> <li>BCF/1,000': 0.9</li> <li>F&amp;D: \$3.04/MCFE</li> </ul>
<b>Gen 2</b>		<ul style="list-style-type: none"> <li>4,200' Laterals</li> <li>1,200 lbs/ft</li> <li>13 frac stages</li> </ul>	2008 - 2014	<ul style="list-style-type: none"> <li>EUR: 5.8 BCF</li> <li>BCF/1,000': 1.4</li> <li>F&amp;D: \$2.01/MCFE</li> </ul>
<b>Gen 3</b>		<ul style="list-style-type: none"> <li>4,500' Laterals</li> <li>2,700 lbs/ft</li> <li>21 frac stages</li> </ul>	2015	<ul style="list-style-type: none"> <li>EUR: 10 BCF</li> <li>BCF/1,000': 2.3</li> <li>F&amp;D: \$0.90/MCFE</li> </ul>
<b>Gen 4</b>		<ul style="list-style-type: none"> <li>7,500' Laterals</li> <li>2,700 lbs/ft</li> <li>27 frac stages</li> </ul>	2015	<ul style="list-style-type: none"> <li>EUR: 15 BCF</li> <li>BCF/1,000': 2.0</li> <li>F&amp;D: \$0.88/MCFE</li> </ul>
<b>Gen 5</b>		<ul style="list-style-type: none"> <li>7,500' Laterals</li> <li>3,600 lbs/ft</li> <li>33 frac stages</li> </ul>	2015	<ul style="list-style-type: none"> <li>EUR: 20 BCF</li> <li>BCF/1,000': 2.7</li> <li>F&amp;D: \$0.69/MCFE</li> </ul>
<b>Next Gen Completions</b>		<ul style="list-style-type: none"> <li>7,500' Laterals</li> <li>4,200 - 4,500 lbs/ft</li> <li>33 frac stages</li> </ul>	2016+	<ul style="list-style-type: none"> <li>EUR: 22 BCF +</li> <li>BCF/1,000': 2.9 +</li> <li>F&amp;D: \$0.65/MCFE</li> </ul>

Assumes 5 clusters per stage

Source: Jefferies July, 2017; CHK, Comstock Resources

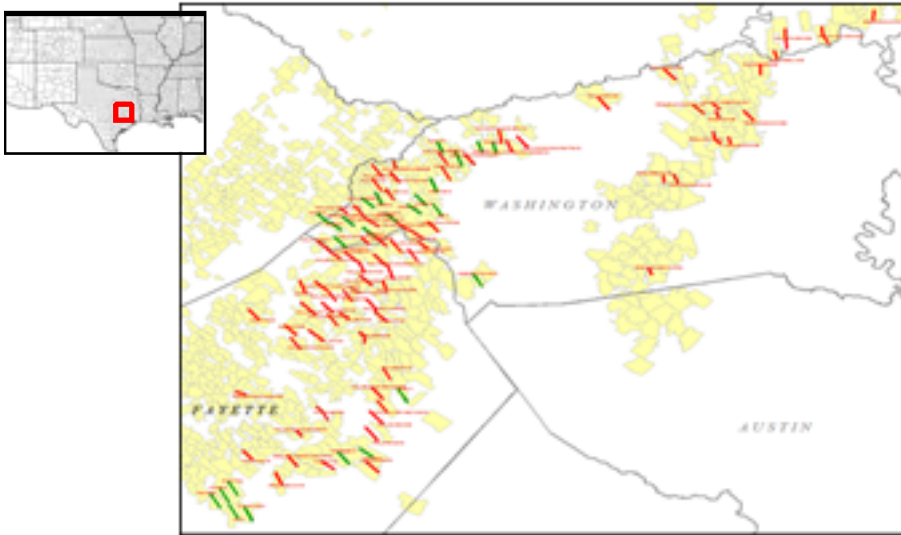
# Austin Chalk – Application of Multi-stage Completions

**EnerVest**

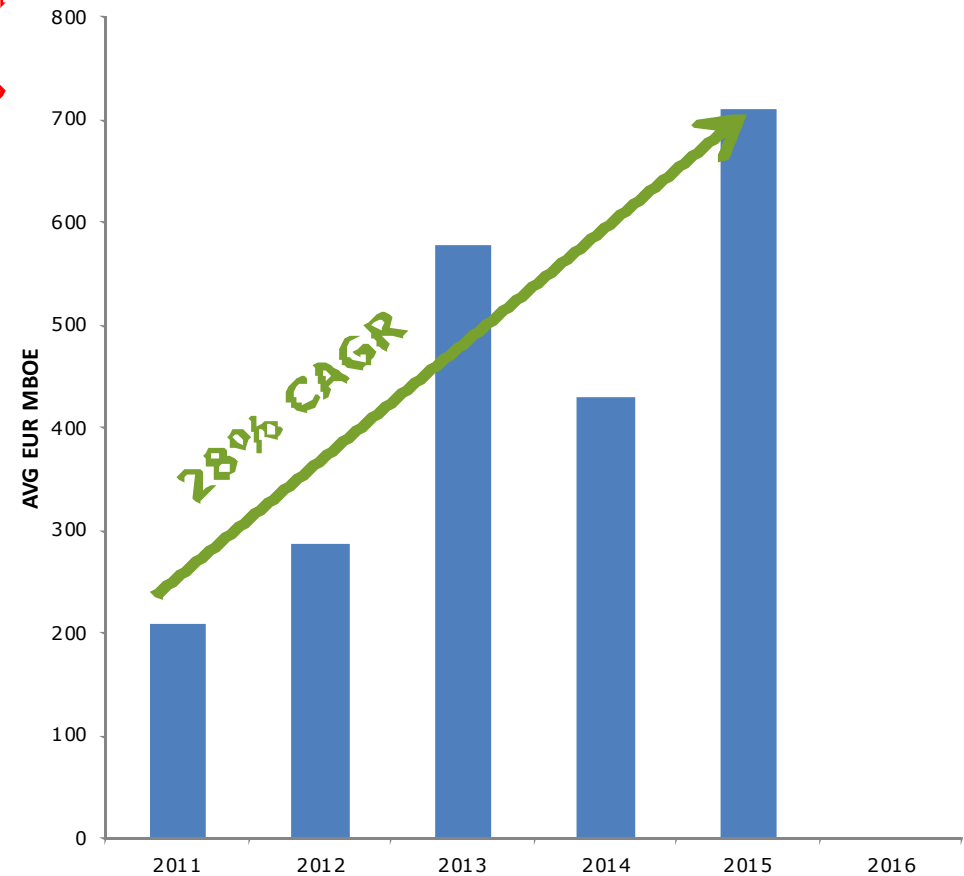


## Key Points

- Multi-stage completion technology in the Austin Chalk A-zone began in 2011 and has improved almost ever year development has occurred
- Enhanced performance over the last five years is due to improved well targeting and completion techniques
- Achieved solid, repeatable results with increasing economic returns over time
- Western Washington County identified as core development area with significant upside seen across Fayette and Lee Counties



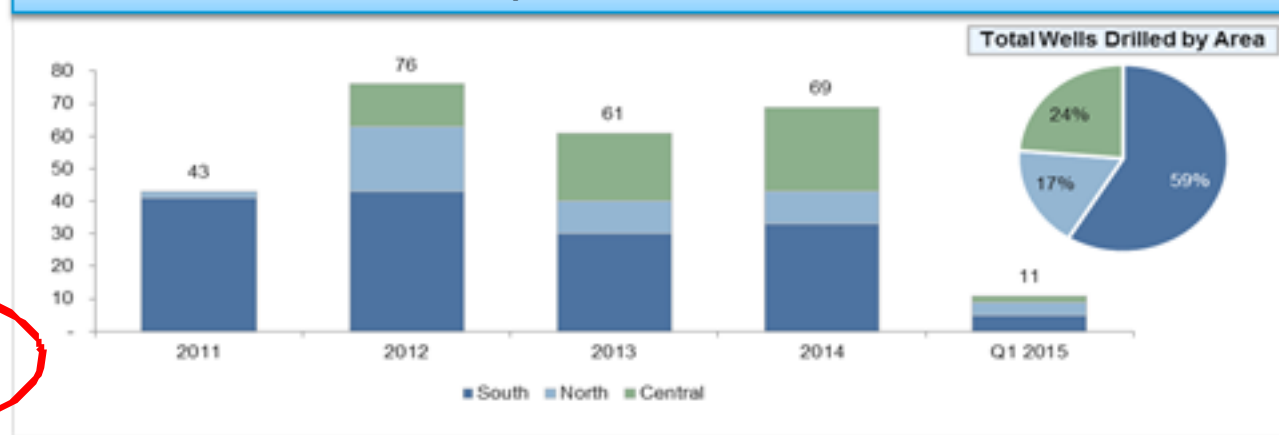
## Austin Chalk A-Zone Multistage Performance



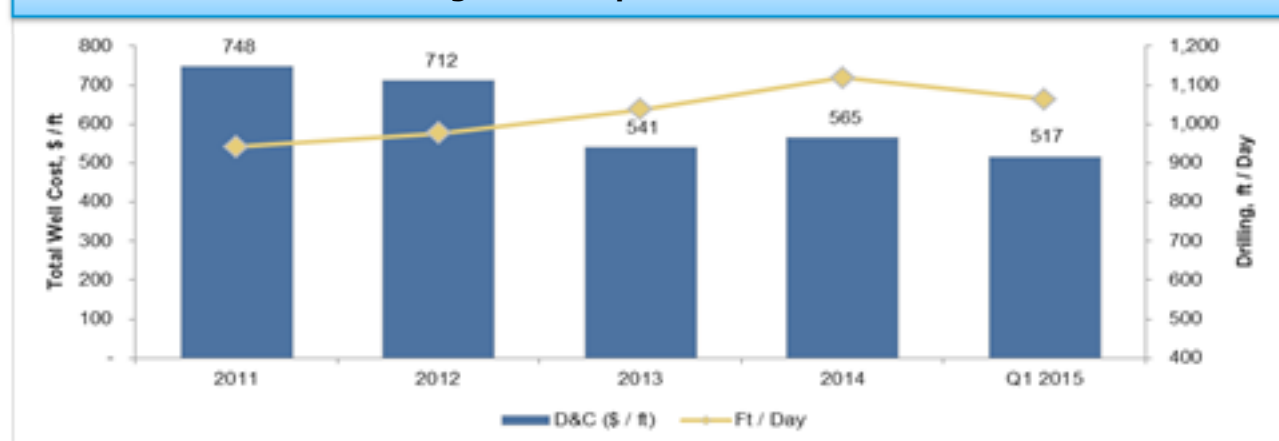
### Key Points

- Since 2011, EnerVest has drilled 260 wells in the Barnett while driving down D&C costs and increasing feet drilled per day
- D&C improvements implemented include:
  - Geo-steer every well and tailor every completion to minimize risk of fracturing into a water hazard
  - Implemented oil-based mud in the North area in 2013 to achieve more consistent drilling conditions; resulted in reduced drilling days
  - Proppant loading of 1,200 - 1,300 lbs / ft in the North and 800 lbs / ft in the South
  - Increased to 15 stages with 250' - 350' stage spacing

### Historical Development of EnerVest Barnett Position



### Drilling and Completion Efficiencies<sup>(1)</sup>



(1) Data represents EnerVest drilling results in the Barnett South area.

# Technological Advancements

**1. Lateral lengths (longer is better)**



**2. Completion Techniques (more sand/more fluid)**



**3. Geosteering/Lateral Placement (smaller targets)**



# INDUSTRY TRENDS



BRINGING OUT THE BEST

# Challenging Times

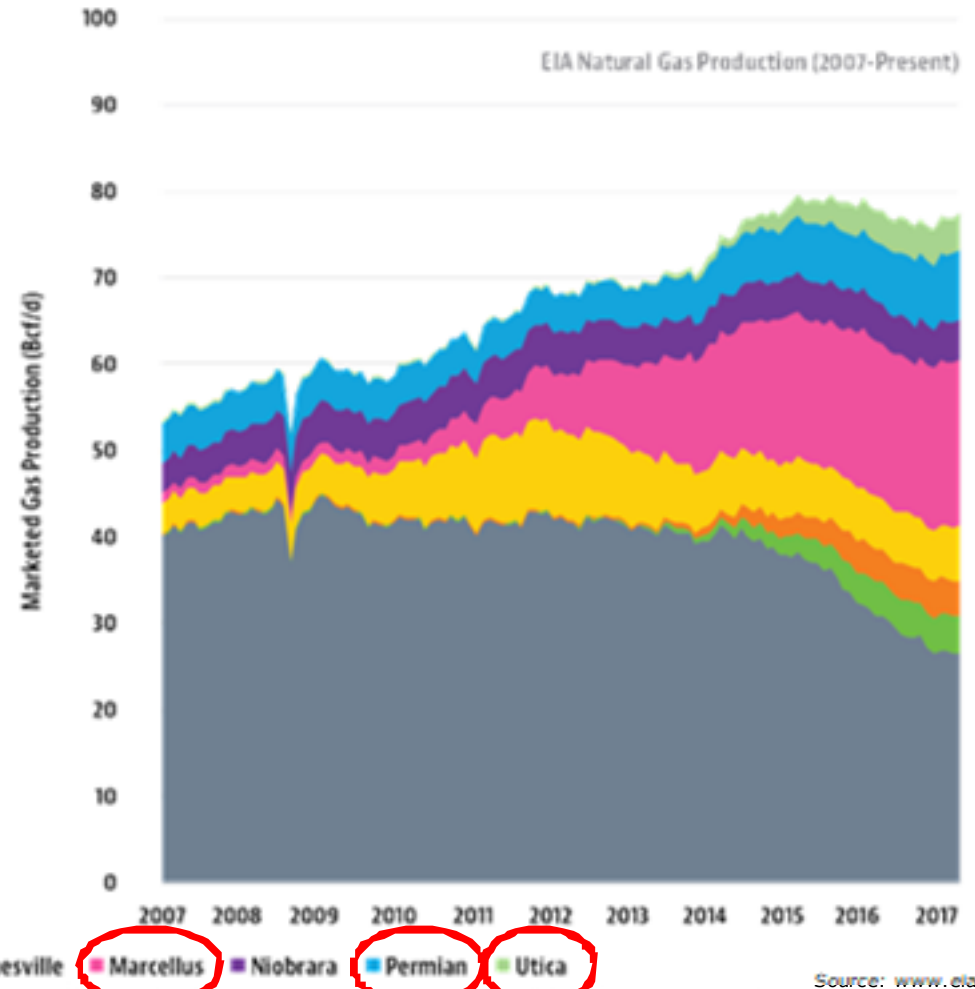
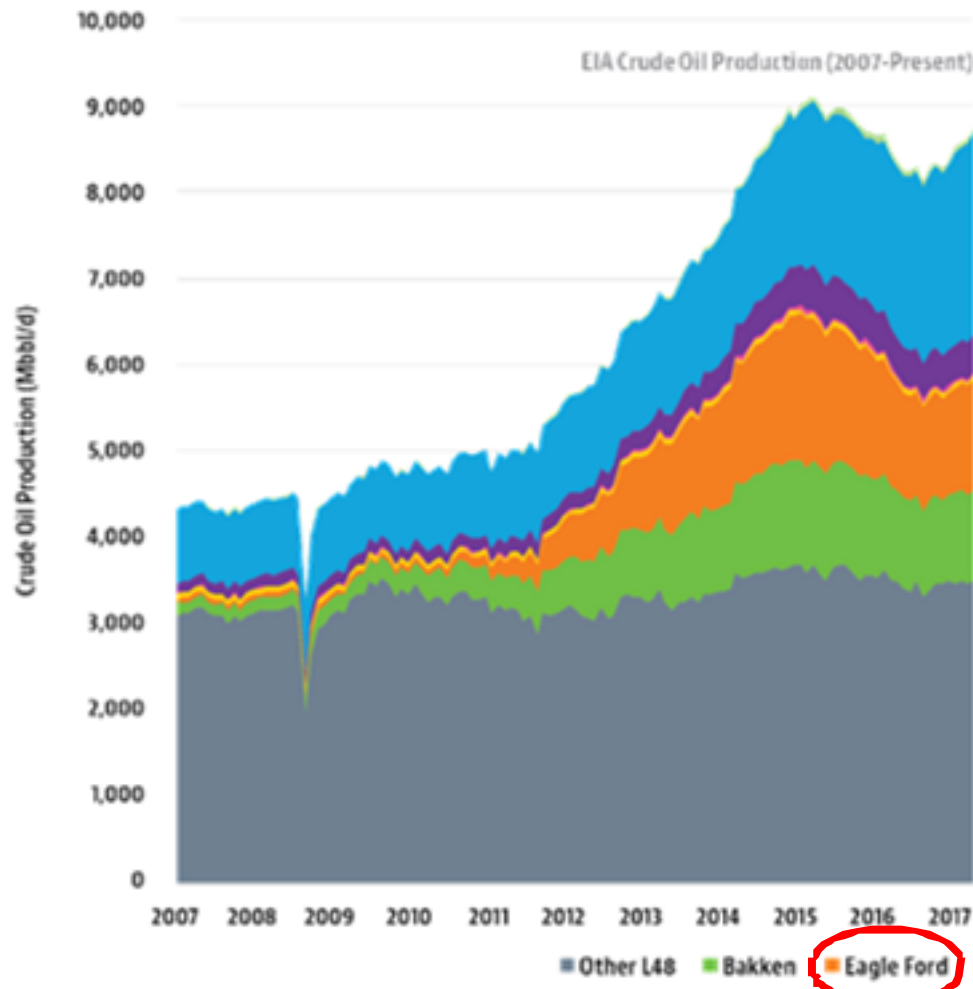


Graveyard of  
Bankrupt Companies

# Challenging Times, But...



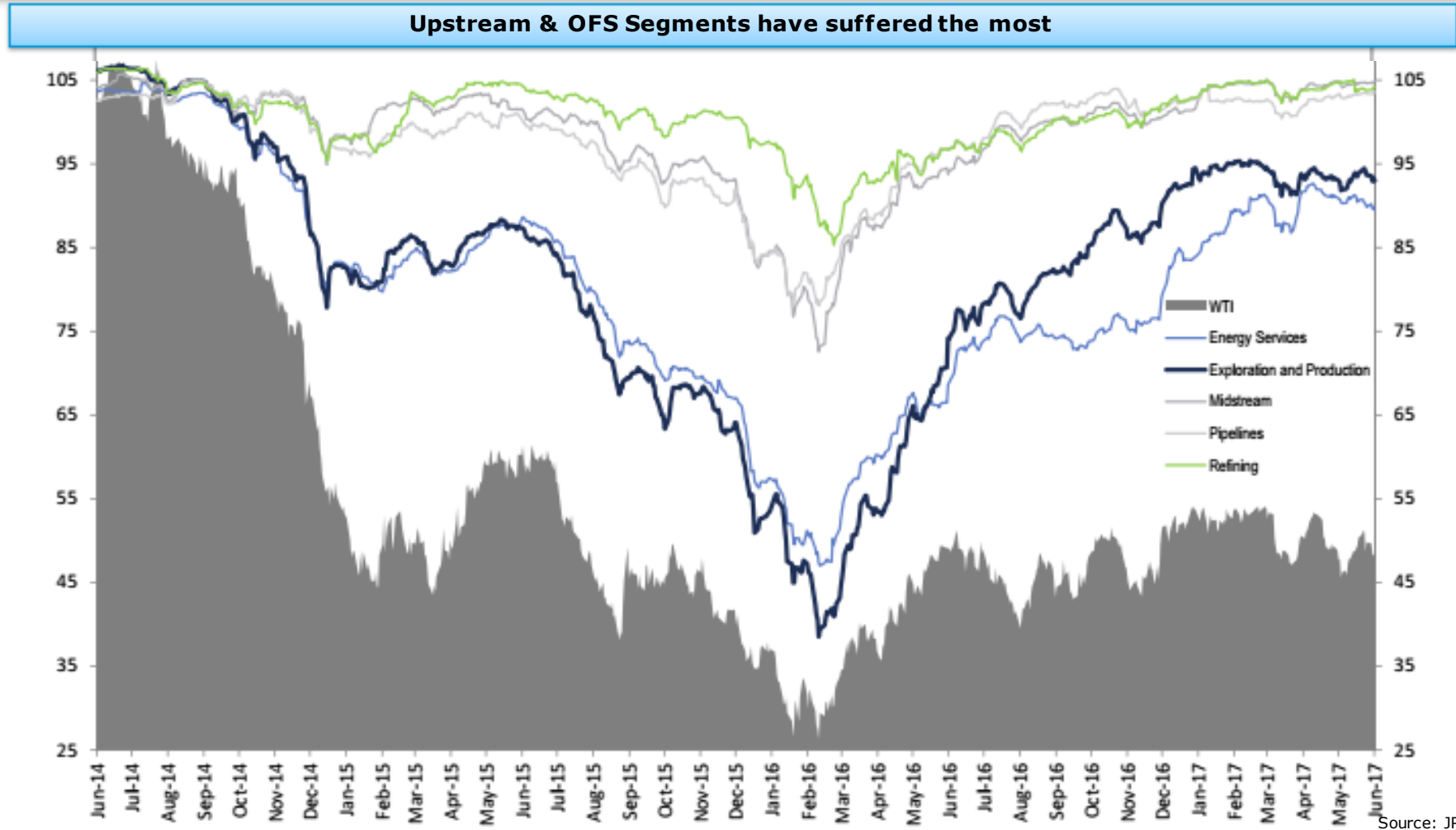
# U.S. Oil & Gas Production Cont.



Source: [www.eia.gov](http://www.eia.gov), RSEG



# Commodity Price Collapse

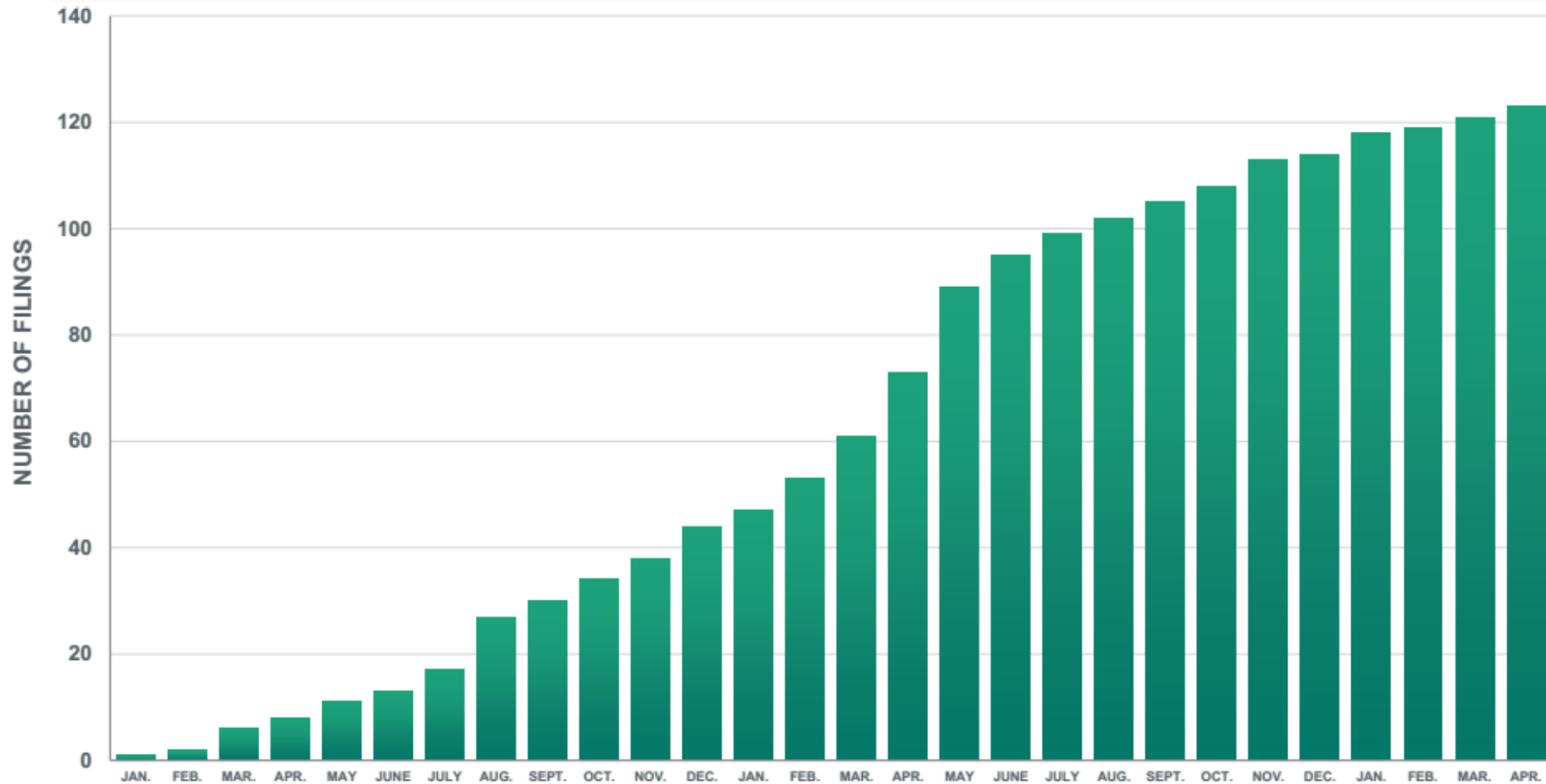


Source: JP Morgan Capital Markets

# Bankruptcy Widespread



2015-2017 Cumulative North American E&P Bankruptcy Filings



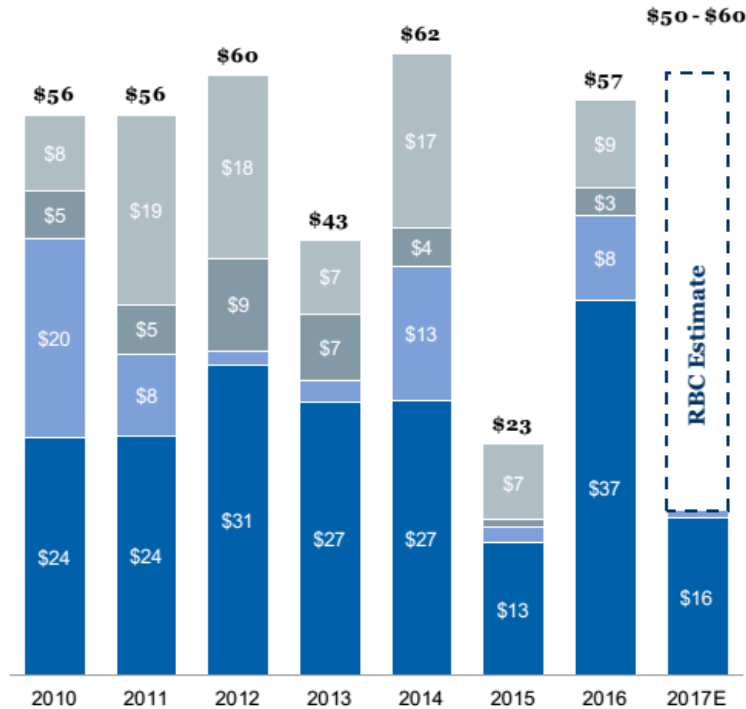
Source: Haynes and Boone

# Market Returned to Normal Levels in 2016; 2017 Expected to be Robust



## Annual U.S. E&P Onshore A&D Supply (\$B) <sup>1</sup>

- Oil Resource Play
- Gas Resource Play
- Conventional Oil
- Conventional Gas



(1) Includes onshore U.S. asset transactions greater than \$20 million.  
 (2) Backs out \$600 MM allocated to midstream assets.  
 (3) Does not include further contingent payments of up to \$1 billion.  
 Source: Public filings and RBC estimates.

## Top 15 Recent Transactions

	Buyer	Seller	Amount (\$ MM)	Region	Date
Q1 '17	ExxonMobil	Bass Family	\$5,600 <sup>(3)</sup>	Delaware	1/17
	Parsley	Double Eagle	\$2,800	Midland	2.7
	Sanchez	Anadarko	\$2,275	Eagle Ford	1/12
Q4 '16	Alta Resources	Anadarko	\$1,240	Appalachia	12/21
	Gulfport	Vitruvian	\$1,855	SCOOP	12/14
	Diamondback	Brigham	\$2,430	Delaware	12/14
	Castleton	Anadarko	\$1,100+	Ark-La-Tex	11/07
	Oxy	Confidential	\$1,765	Delaware	10/28
Q3 '16	SM	QStar	\$1,600	Midland	10/18
	RSP Permian	Silver Hill	\$2,433	Delaware	10/13
	Rice	Vantage	\$2,100 <sup>(2)</sup>	Appalachia	9/26
	EOG	Yates	\$2,500	Delaware, Powder	9/06
	PDC Energy	Kimmeridge	\$1,505	Delaware	8/23
	Concho	Reliance	\$1,625	Midland	8/15
	Silver Run	Centennial	\$1,575	Delaware	7/22

Private Equity Seller

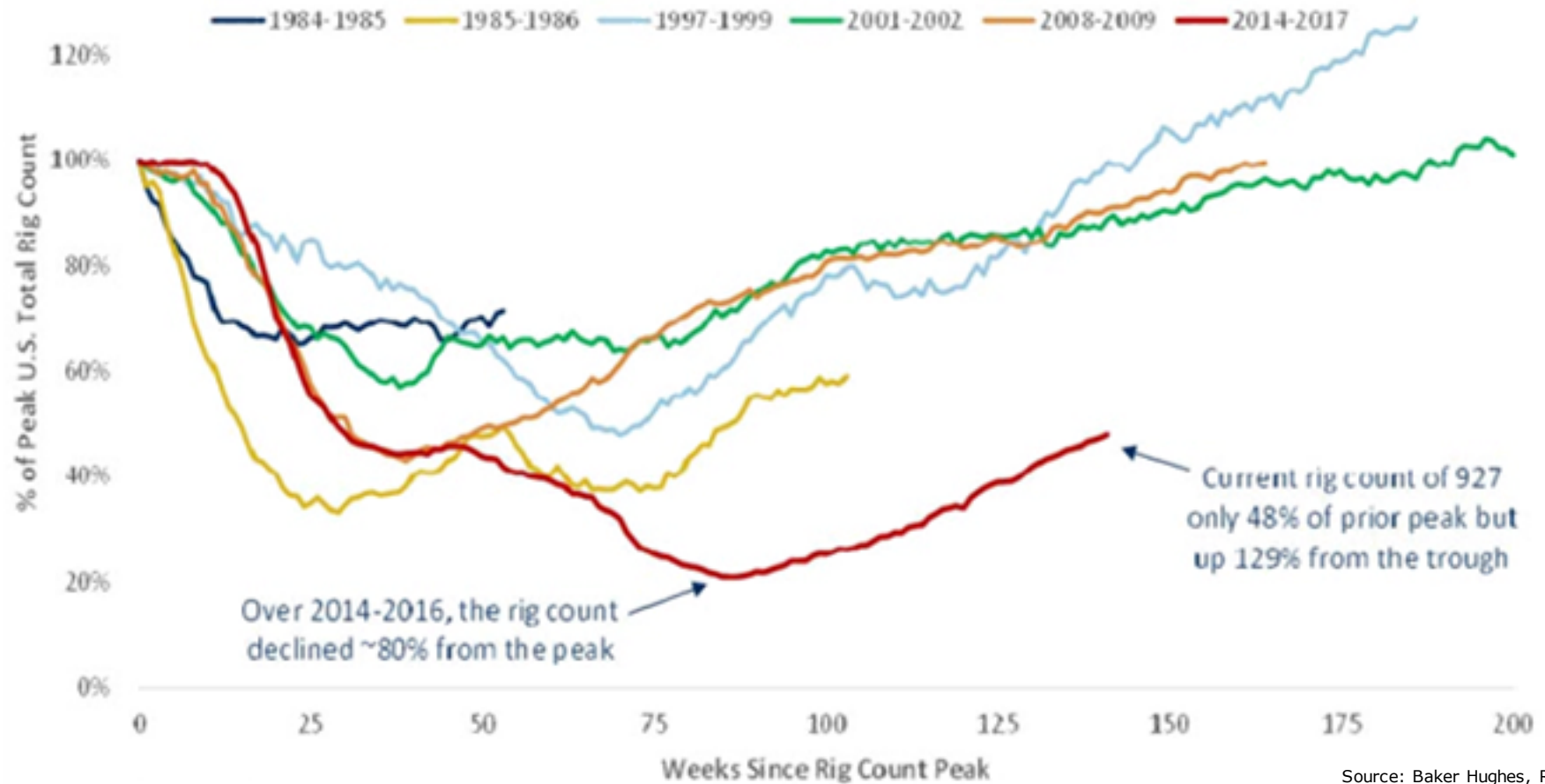
Source: RBC Richardson Barr, Feb. 2017

# Rig Count Recovery

## Accelerated in the Unconventional World

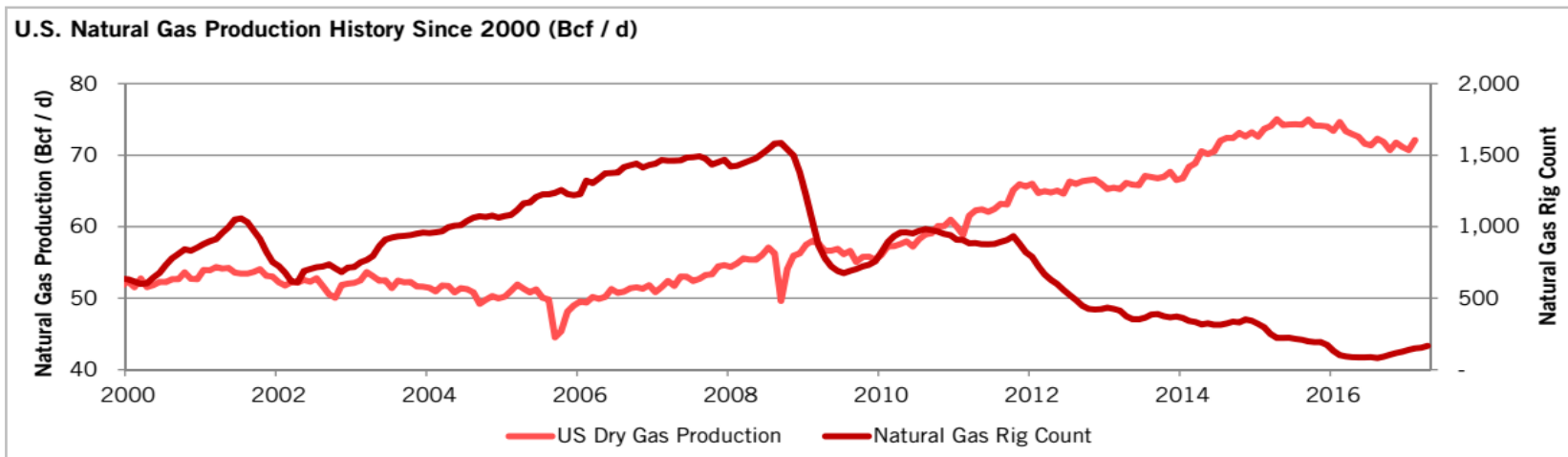
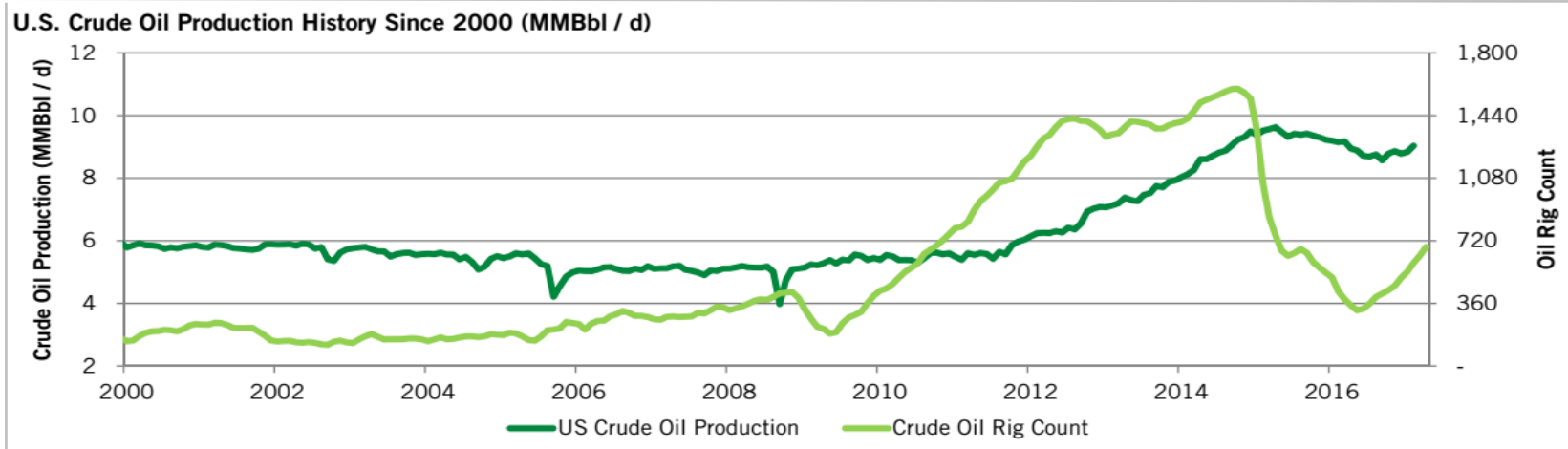


Comparison of Historic Rig Count Cycles (% of Peak Rig Count)



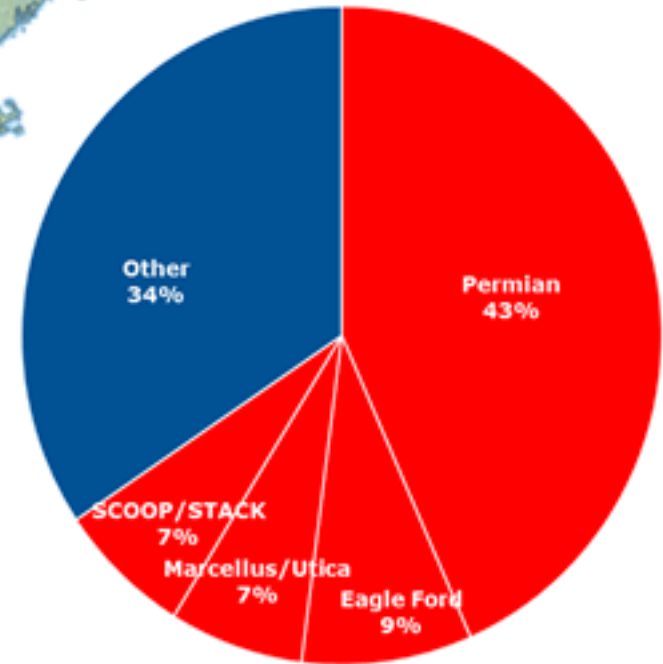
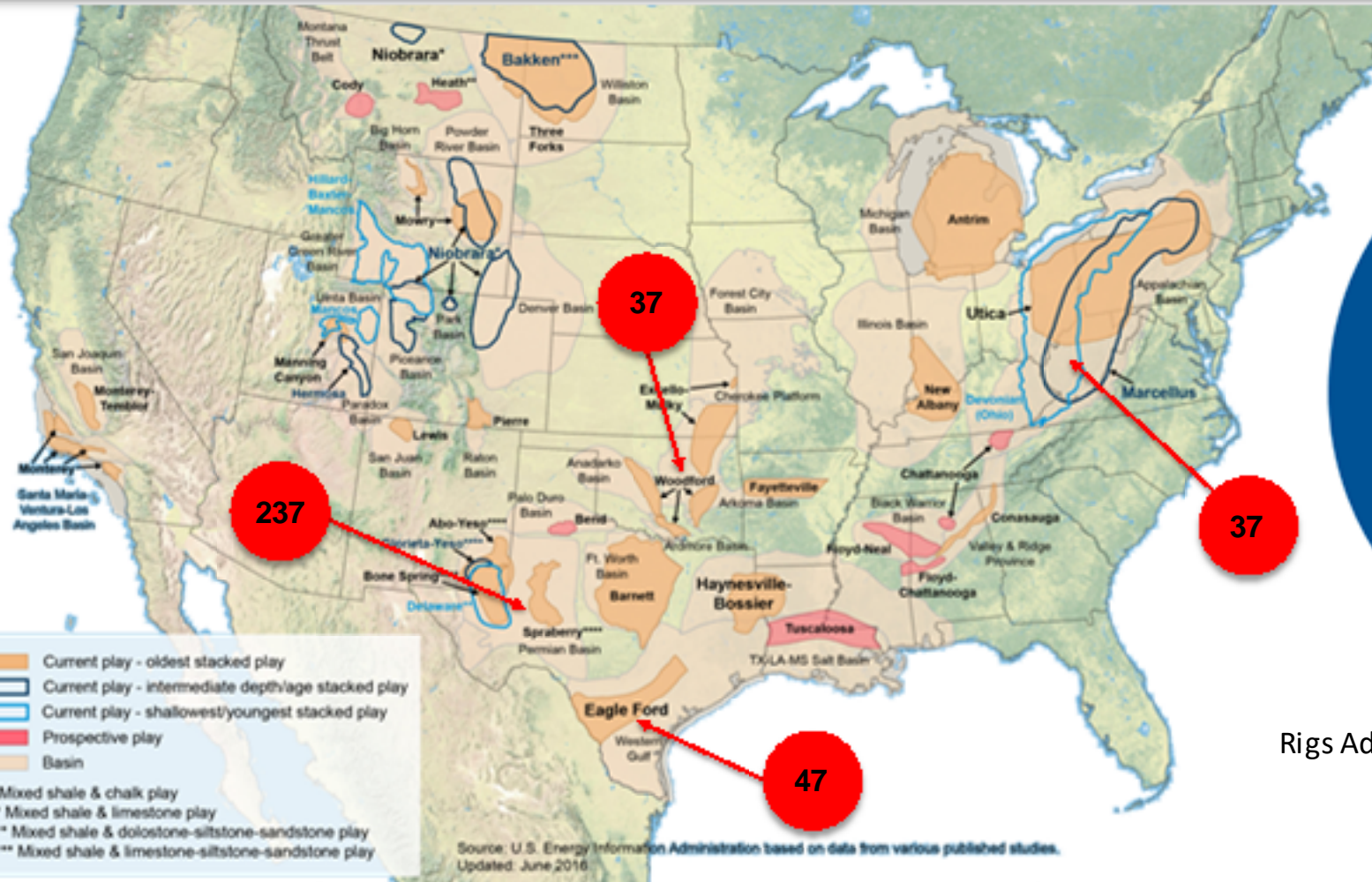
Source: Baker Hughes, Raymond James Research

# U.S. Oil & Gas Production



Source: [www.eia.gov](http://www.eia.gov)

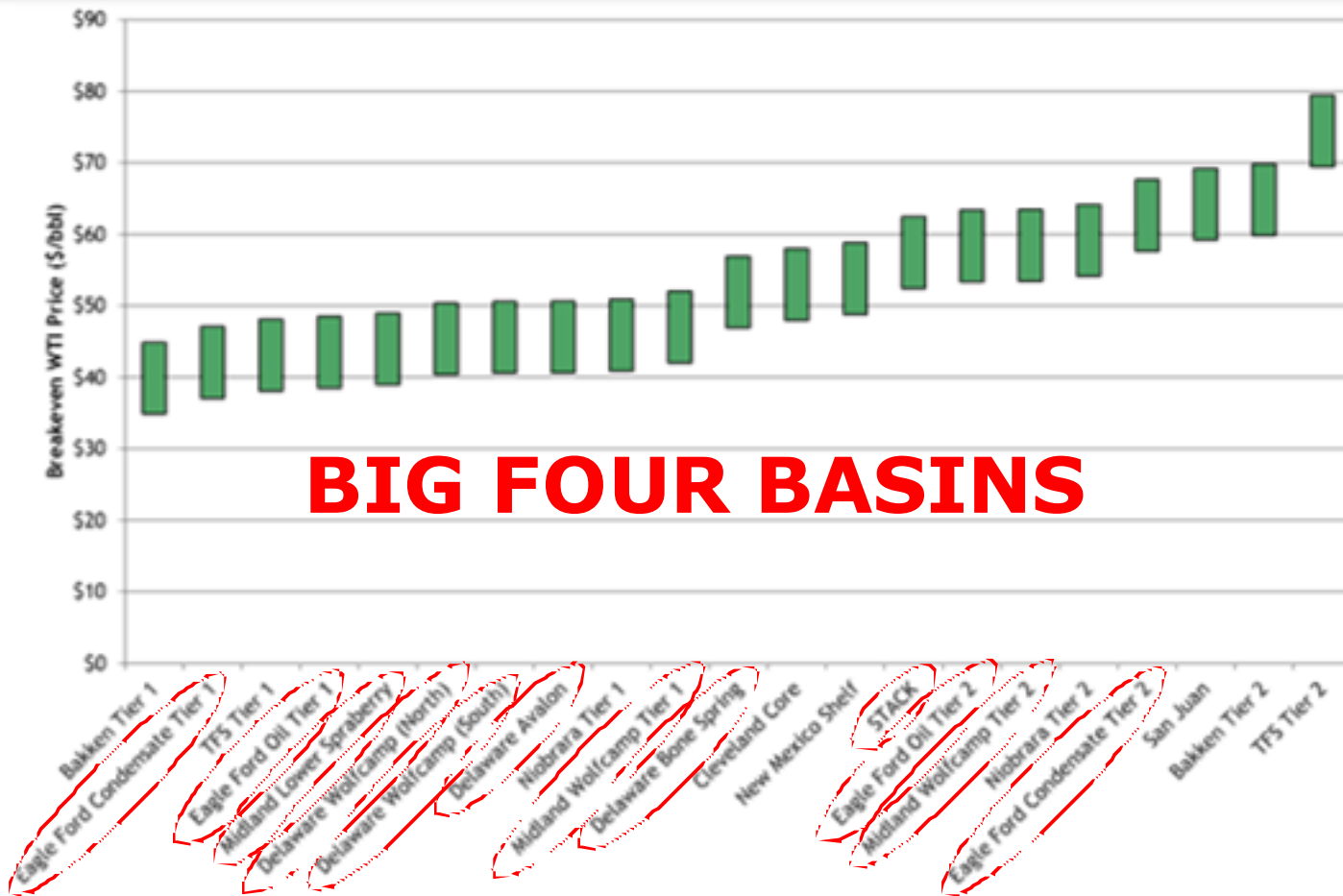
# Rig Count And CapEx Concentrated in **Big Four Basins**



Rigs Added since downturn (5/20/2016): **546**  
 Total Rig Count as of 7/21/2017: **950**

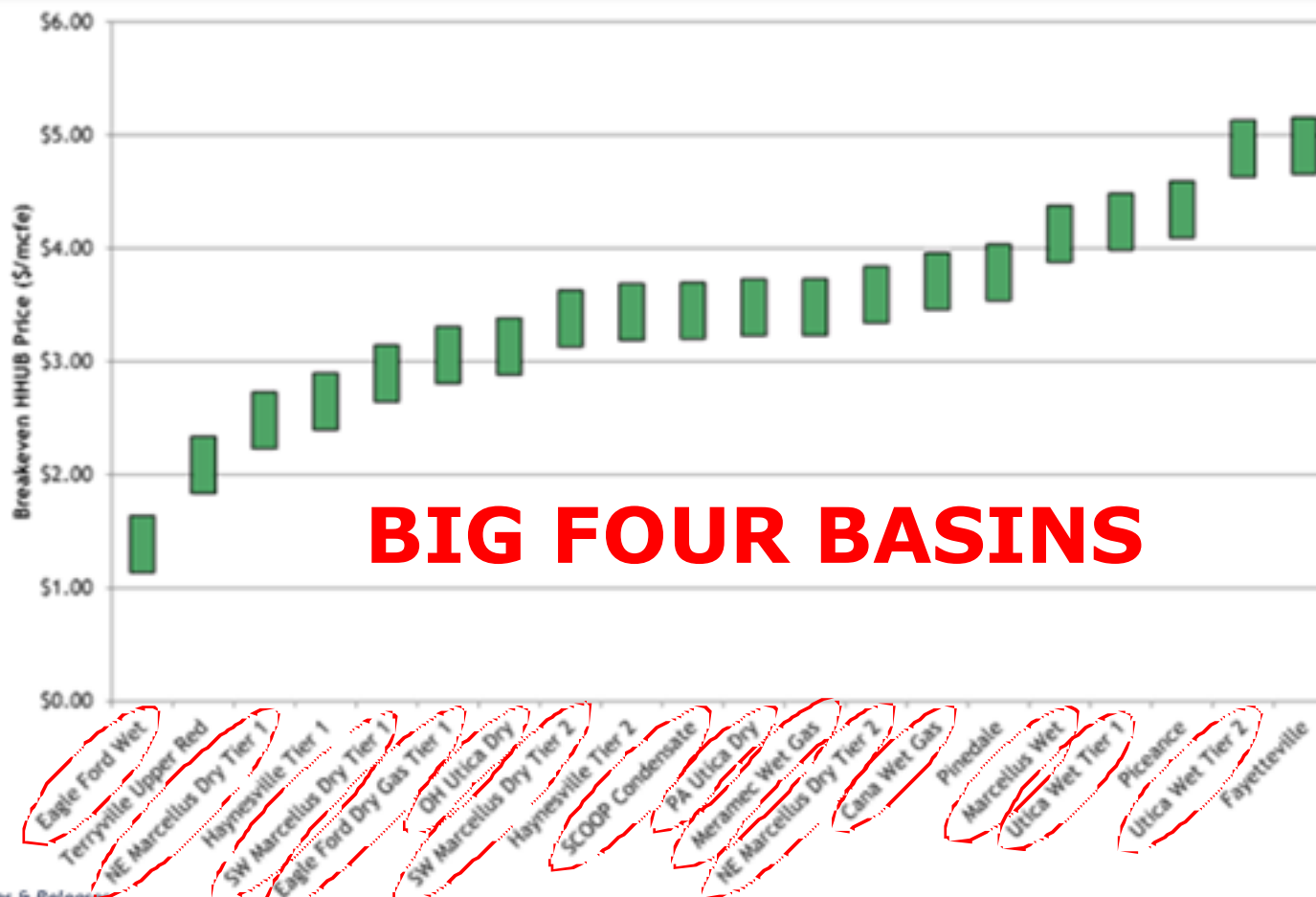
Source: Baker Hughes

# Oil Basin Economics – 30% ATROR



Source: TPH Research, Company Presentations & Releases  
 Assumes \$50/bbl WTI, TPHe basin differentials, NGL realizations; current well costs; 80% NRI  
 Represents TPHe \$/mcf needed for 30% ATROR half-cycle returns

# Gas Basin Economics – 30% ATROR



**BIG FOUR BASINS**

Source: TPH Research, Company Presentations & Releases  
 Assumes \$3/mcf HHUB, TPHe basin differentials, NGL realizations; current well costs; 80% NRI  
 Represents TPHe \$/bbl needed for 30% ATROR half-cycle returns



# Conclusion



## Yesterday

- Core of the core much larger at \$100/Bbl oil and \$4/Mcf gas
- G&A expense much more reasonable at higher prices versus low prices
- Cheap capital promotes inefficient capital deployment and riskier investments

## Today

- Location, location, location
- Efficiency, efficiency, efficiency

## Tomorrow

- Leverage technology in tier 2 assets
- Access to capital critical
- Old rig count of 5,000 (1985); 2,000 (2014); 850-1,000 (Currently)
- Gas: \$3/Mcf? Oil: \$40-\$60/Bbl?

# QUESTIONS



BRINGING OUT THE BEST