UNIVERSITY LANDS

2019 PARTNER FORUM

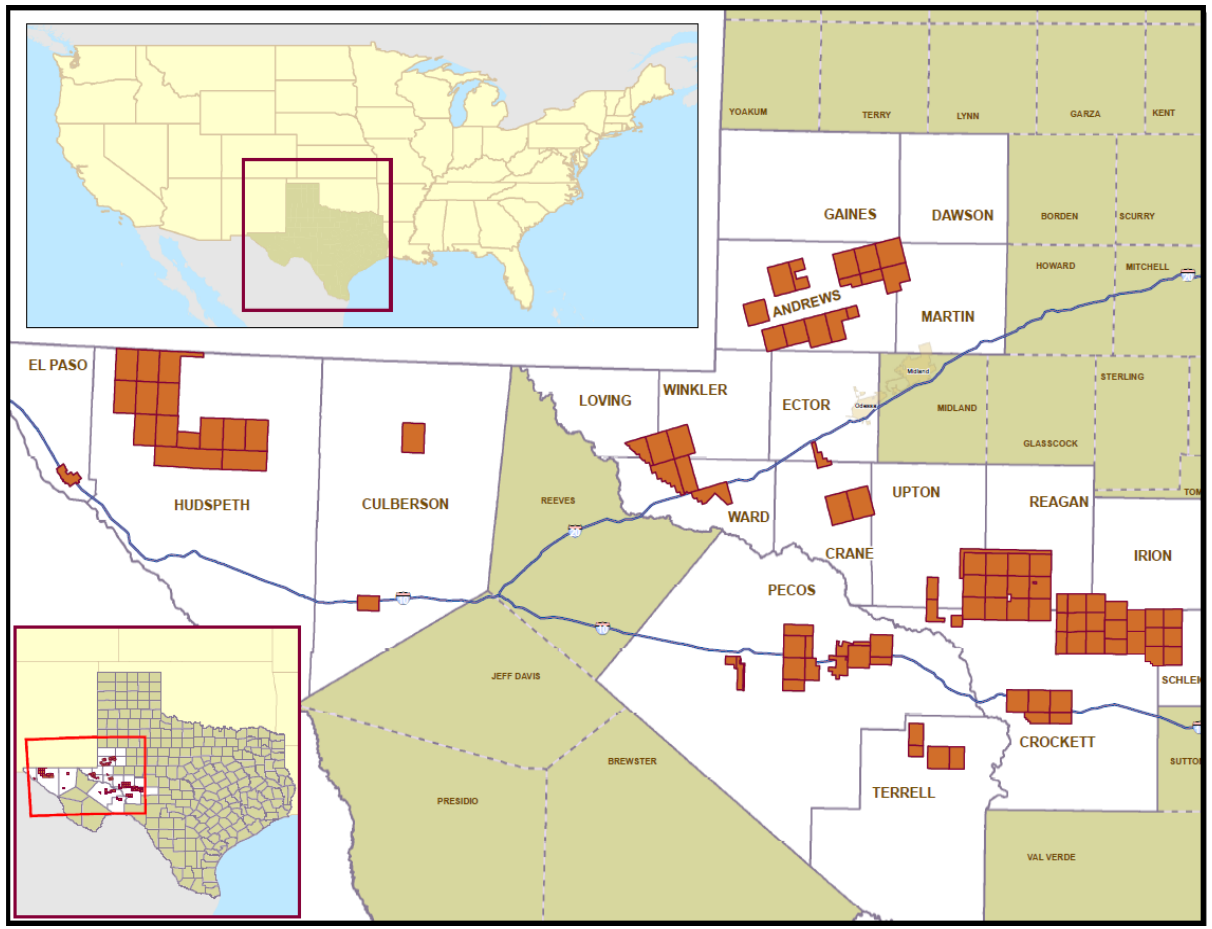
Thank you to today's reception sponsors

UJL Water MIDSTREAM

Fountain Quail ENERGY SERVICES

The PUF & University Lands Organization

2.1 million acres: ~1.5 million leased for oil and gas activity



111
Grazing leases

36,000
Head of Livestock

3,500
Oil & gas leases

5,200
Easements
(pipelines & power lines)

2,000
Commercial surface leases

~120,000
Acres of renewable energy projects under assessment

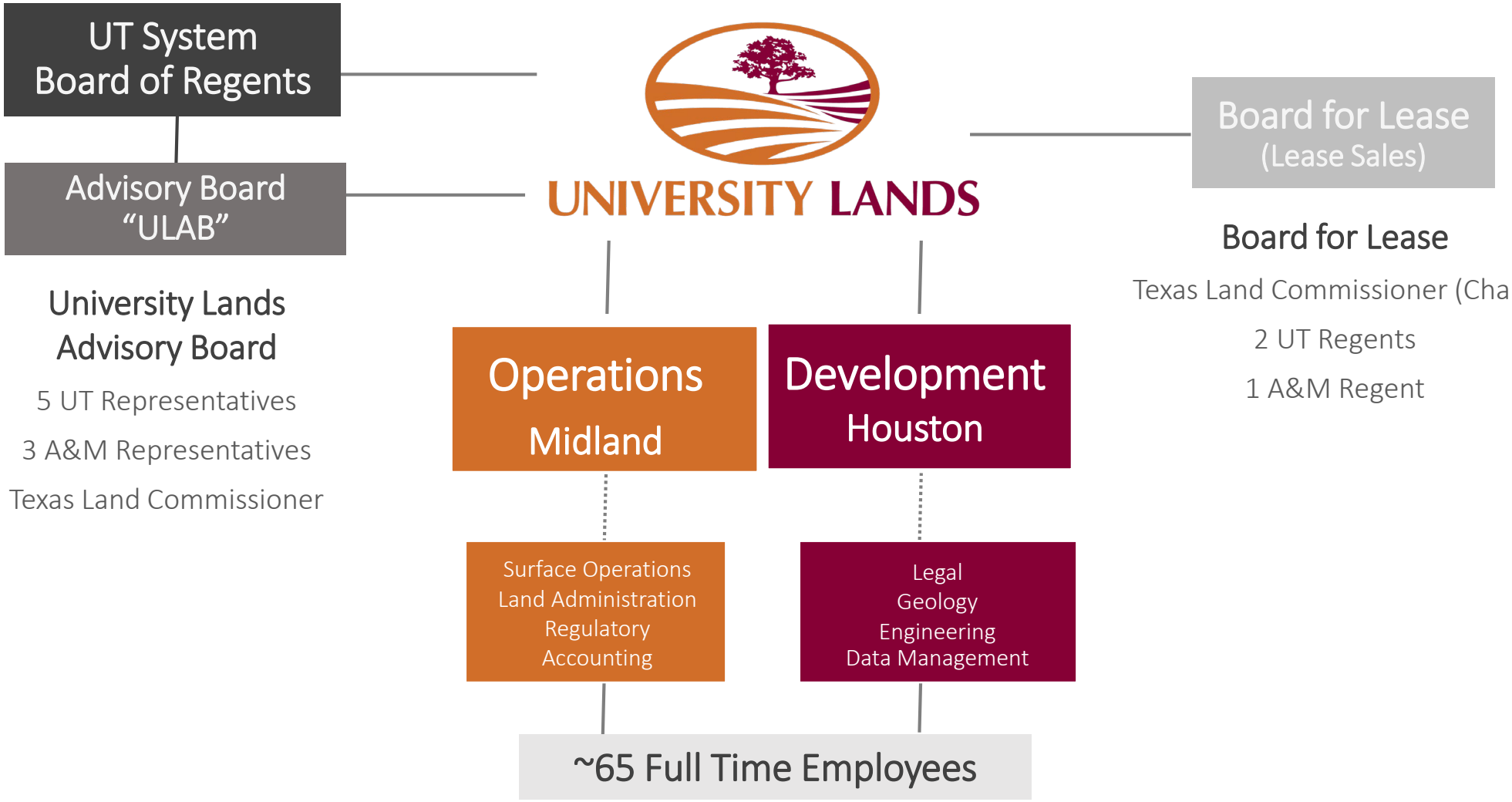
TOTAL NET RESERVES

2 Billion
Barrels of oil equivalent

>25,000
Future potential drilling locations

~9,000
Producing wells
~3,200 Horizontal wells
~4,800 Wells drilled since 2011

Organizational Structure



Economic Development Opportunities

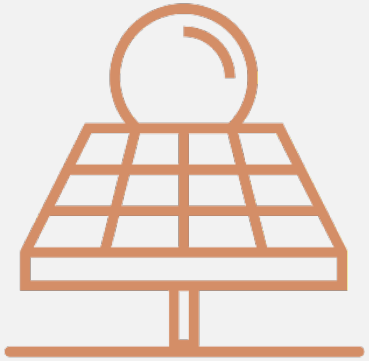
STRONG COMMERCIAL FOCUS

Oil and Gas Resources

Water Resources & Logistics

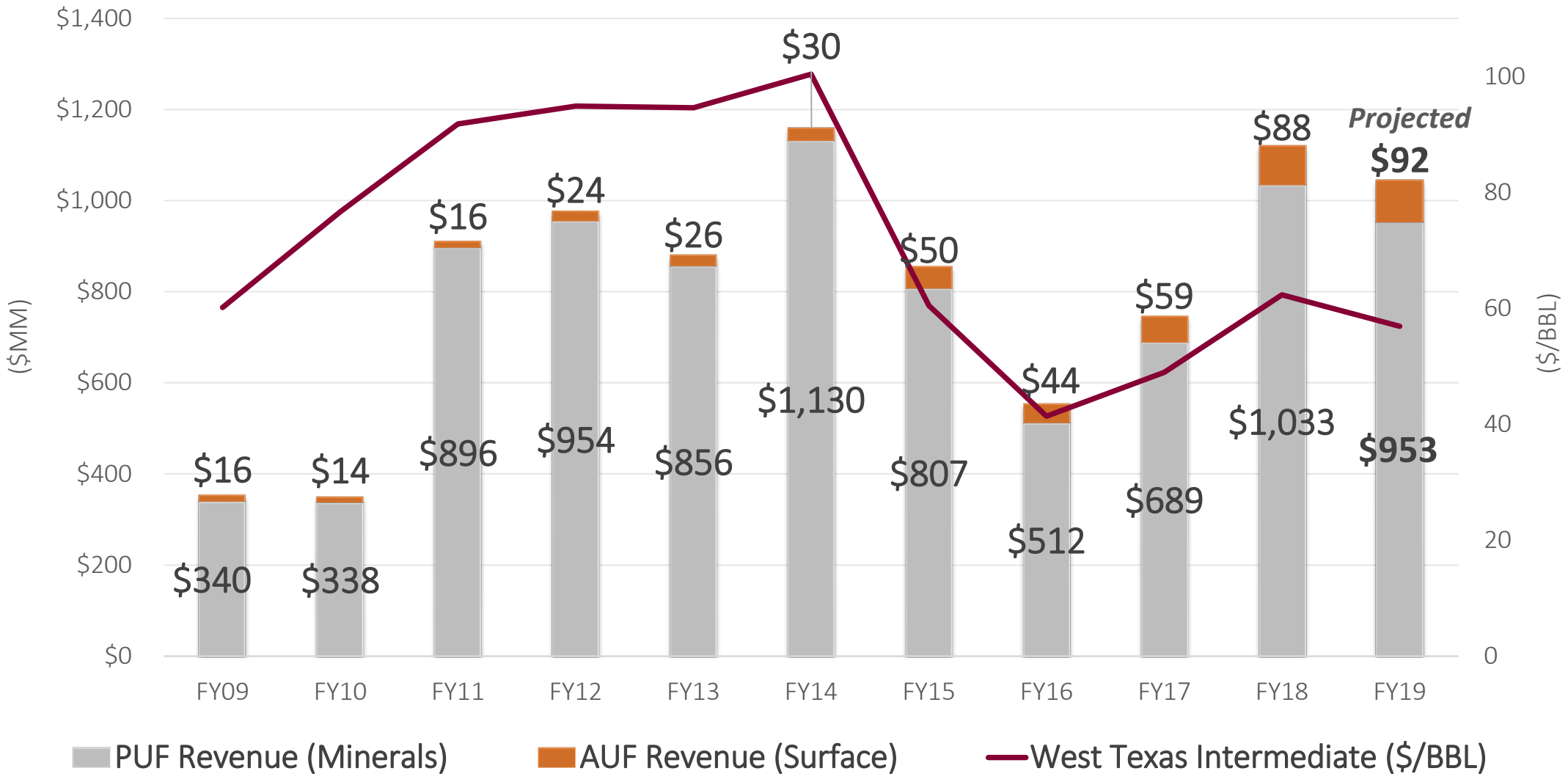
Solar and Wind

Other Surface Activities

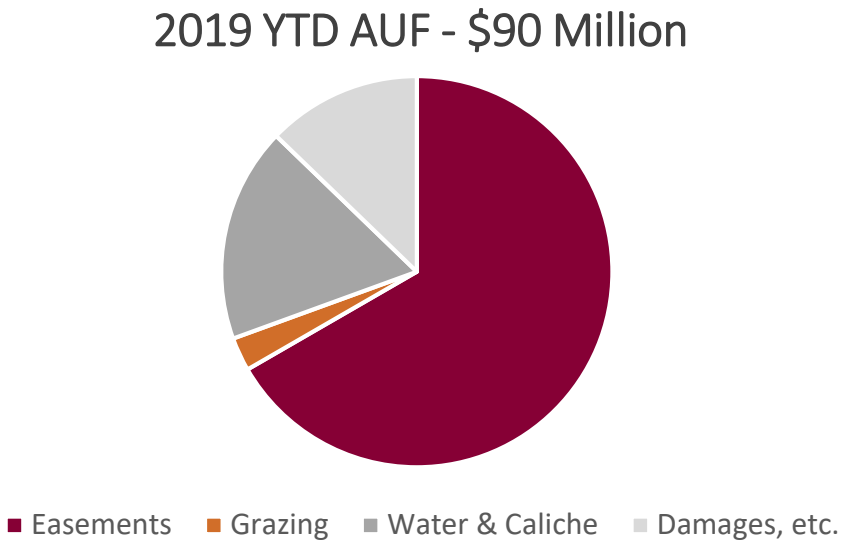


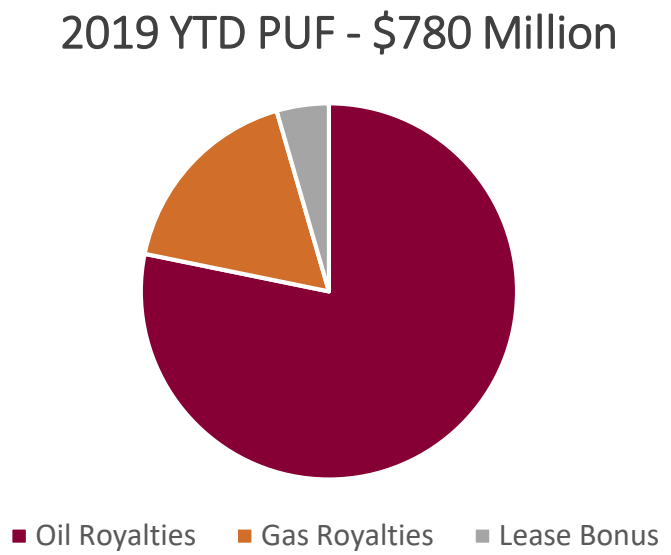
EXCELLENT ENVIRONMENTAL STEWARDSHIP

AUF and PUF Revenue vs. WTI Oil Price



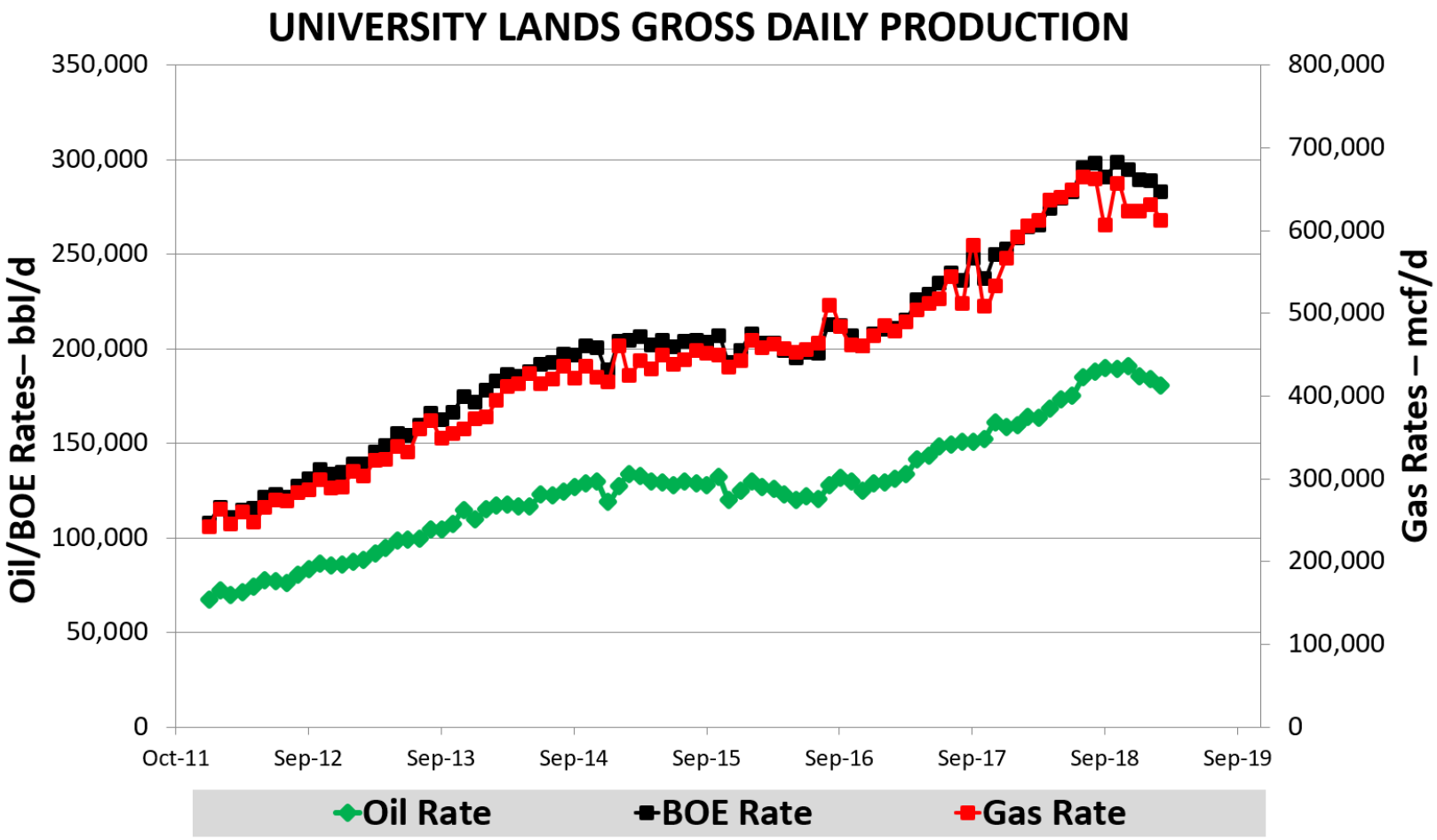
New UL Strategy: The Value-Add





	Pre-ULAB 2009 – 2013 (*millions*)	*Post*-ULAB 2014 - 2018 Estimate (*millions*)	% Change
AUF Revenue	96	251	161%
PUF Revenue	3,384	4,328	28%
Total Revenue	3,480	4,579	32%
WTI, $/Barrel	85	58	-32%

PUF Lands Gross Monthly Production *(2012 – March 2019)*



Key Stats

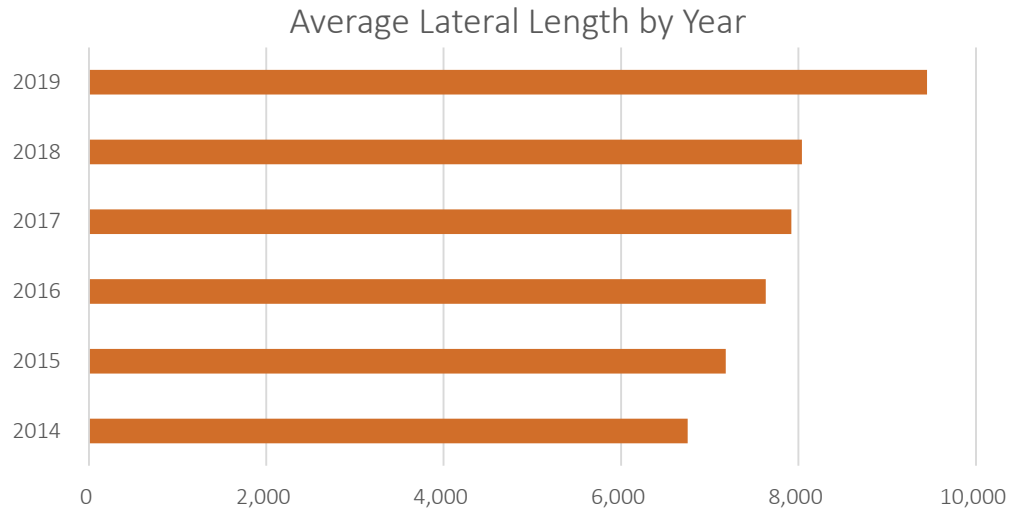
- 285,000 BOEPD (64% Oil)
- ~90% "modern" wells drilled since 2011
- 20% average royalty

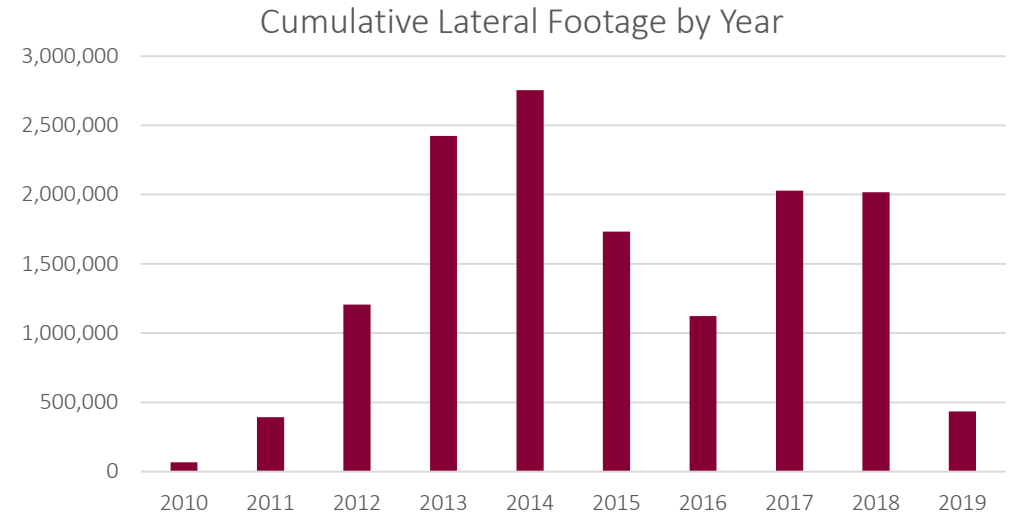
2019 Top Producers (Jan - April)

EP ENERGY
FELIX ENERGY
PIONEER NATURAL RESOURCES
SABLE PERMIAN RESOURCES
Sequitur ENERGY RESOURCES LLC
QEP RESOURCES
DIAMONDBACK Energy
JaggedPeak ENERGY
OXY

Horizontal Drilling is Reducing Surface Footprint

8 WELLS DRILLED BY 4 RIG PAD – FELIX ENERGY



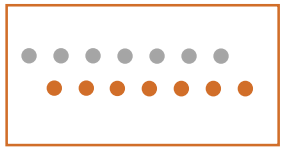


Operator Evaluations and Identifying Best Practices

Key Driver is NPV/Acre

High Level Notes: 1,280 acres, 10k Laterals, Same Block, Formation

Company 1: Wine Rack



General Info

377’ Spacing (≈550’ apparent)

14 wells total, wine rack spacing

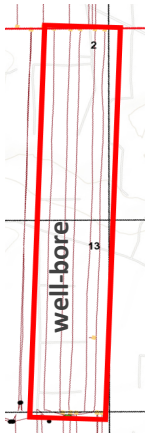
11.3 MMBOE total EUR;
802 MBOE per well EUR

Value Metrics

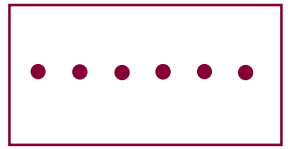
IRR: 68%

Avg PV10/Well: $8.3MM

PV10/Acre: $96M



Company 2: Single Layer



General Info

880’ Spacing

6 wells total, direct offset spacing

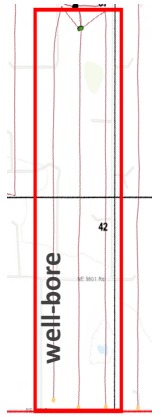
6.4 MMBOE total EUR;
1060 MBOE per well EUR

Value Metrics

IRR: 74%

Avg PV10/Well: $10.4MM

PV10/Acre: $51M



Company 1 Exhibits Development Best Practices

- “Full-field” development, i.e. maximizing **value creation** of acreage
- More **effective stimulation and drainage** of rock volume
- **Mutually beneficial** to PUF/UL and operators
- Risk of future **infill degradation decreased**

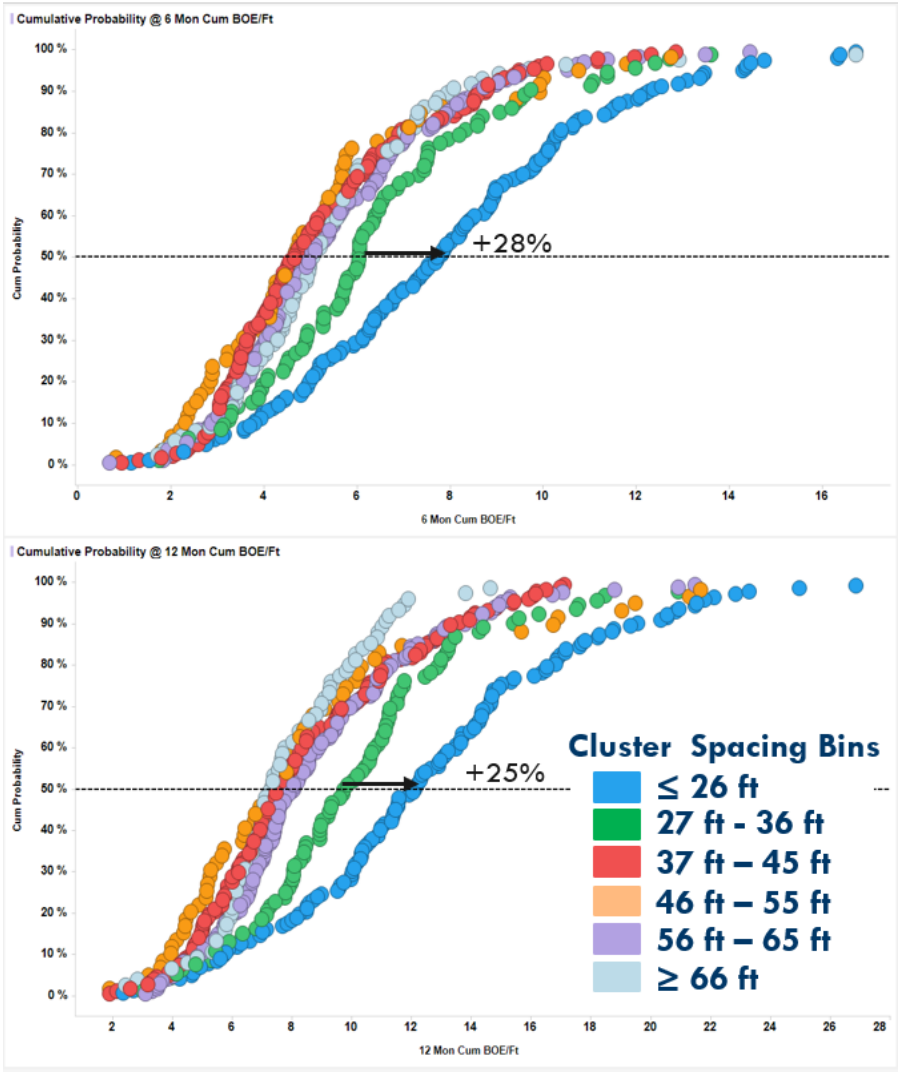
Key Technical Focus: Well Optimization

Data analytics guided heavily by engineering principles and expertise

- Over 1500 wells of completions data gathered in last 6 months
- Able to identify key factors in well performance and recommended best practices – formation, cluster spacing, fluid/proppant volumes, lateral footage performance, parent/child impacts

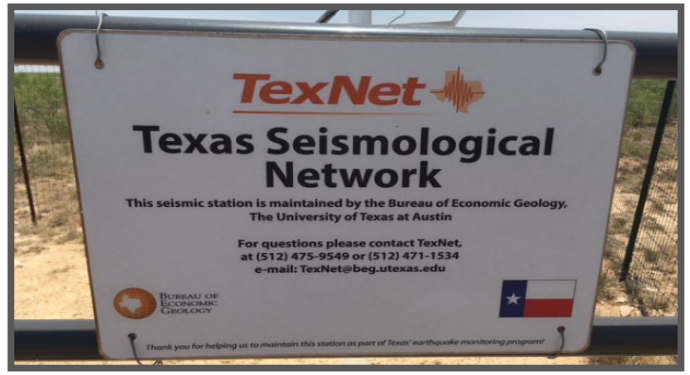
Reduced fracture spacing is a key factor in improved well performance

- Consistent trends of increased EUR with reduced cluster spacing
- Sample Result: Operator making recommended adjustments to cluster spacing based on UL input
  - Potential EUR increase of 25-30%
  - NPV, ROR improvement despite cost increase



Focus on Water: Water and Logistics Management

GOAL: Promote a more consolidated & holistic approach to oilfield water management



- UL is facilitating the development of more integrated water production, recycling and disposal systems
- Leverage UL size & scale to produce economies of scale in water-related infrastructure development

- Reduce costs for operators
- Increased efficiency of mineral development

Beneficial for industry, environment & Texas

Environmental Stewardship a Top Priority

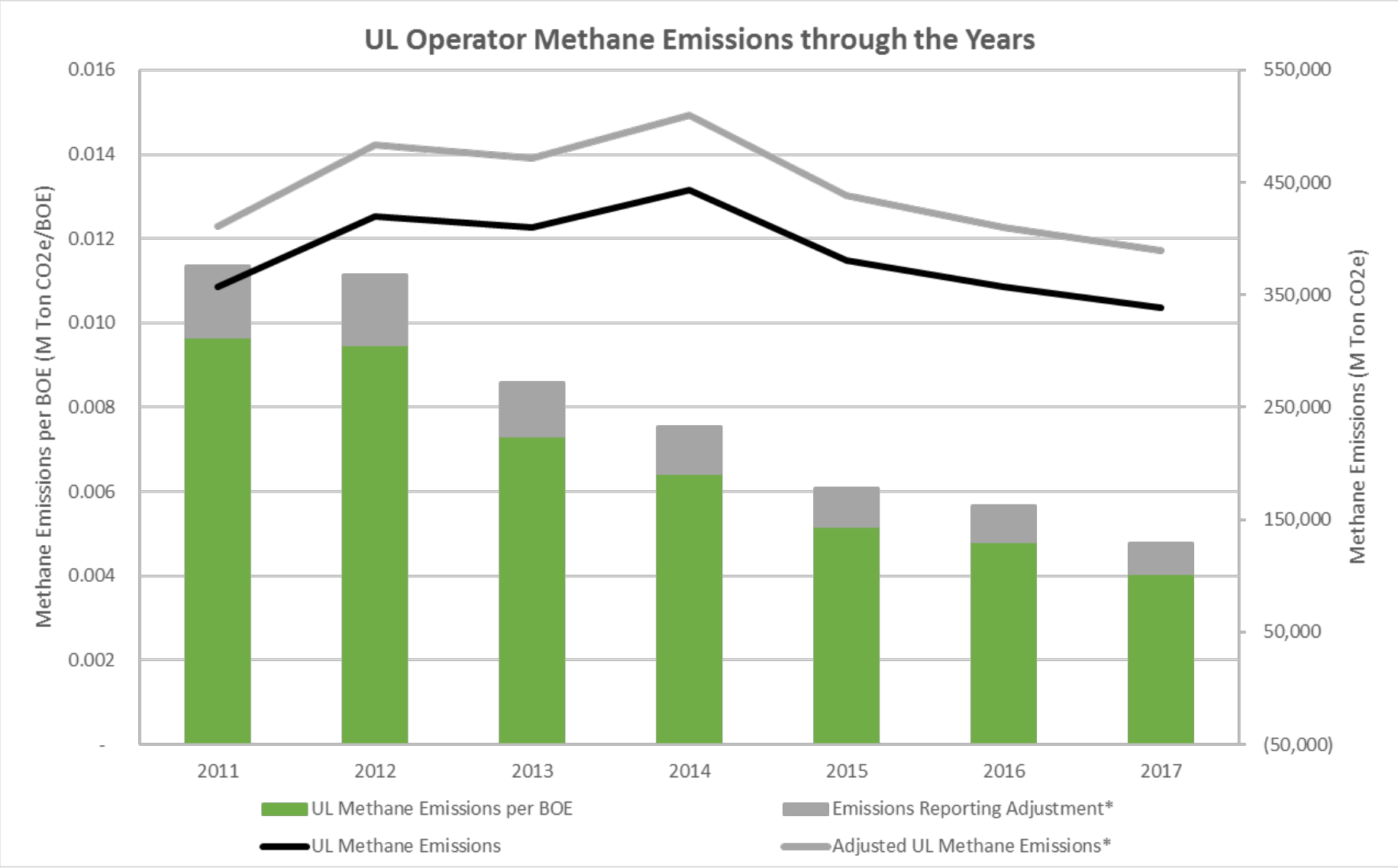
- Strong relationships with regulators
- Boots-on-the-ground lease inspections
- Policies that surpass regulatory requirements
- McDonald Observatory's Dark Skies Initiative
- Participation in TexNet seismicity monitoring
- Focus on initiatives that reduce truck traffic and promote shared infrastructure
- Reduction of methane emissions a focus

THE ENVIRONMENTAL PARTNERSHIP

UL Emissions Reductions Initiatives

1. UL Oil & Gas Lease requires law, best practices & royalty paid on flared volumes
2. New emissions-focused Facilities Engineer
3. New Infrared camera used in lease inspections *(~250 completed since Sept.)*
4. Environmental Stewardship Incentive Cost-share Program targeting emissions
5. 2018 Alignment with The Environmental Partnership
6. Low production lease & marginal well abandonment initiative – new focus in 2018
7. Considering Satellite imagery to compare permits to existing flares
8. Dialogue with oil and gas companies and industry associations (TXOGA, IPAA)
9. Currently working on “emissions reductions best practices” to publish
10. Future annual report that would include environmental performance

PUF Lands' Operators Methane Emissions



Emissions

24%

2014-2017

Emissions/BOE

37%

2014-2017

Energy Market Outlook – Key Conclusions

- Strong oil and gas demand beyond 2040
  - Exports of U.S. production will increase over next decade (Permian Basin will play a key role in this demand response)
  - Growing middle classes around the world will require more energy and goods, resulting in steady demand for oil and gas
  - In the U.S., renewables will replace coal, but increased demand in India and China keep coal in play globally
  - Oil's market share in the U.S. will begin to decline slightly in a decade, as worldwide oil demand plateaus and demand for natural gas increases
- Environmental and regulatory pressures will move towards goals like Paris Agreement
- Consolidation in the domestic exploration and production space will continue

Oil & Gas as Share of Global Energy Demand

Source	2016	2025	2040/ 2050*
BP	55%	56%	51%
ExxonMobil	55%	54%	55%
Shell	55%	56%	55%*
McKinsey & Co.	56%	56%	50%*
IEA	54%	55%	48%

Key Long-Term Focus Areas

- Prudently **accelerate oil and gas development**
- Develop more intensive, public-facing **environmental strategies**
- **More local impact** – explore ways we help address Permian Basin infrastructure, health, education constraints
- **Full-cycle water** initiatives are key to long-term sustainability
- **Renewable energy development** will continue