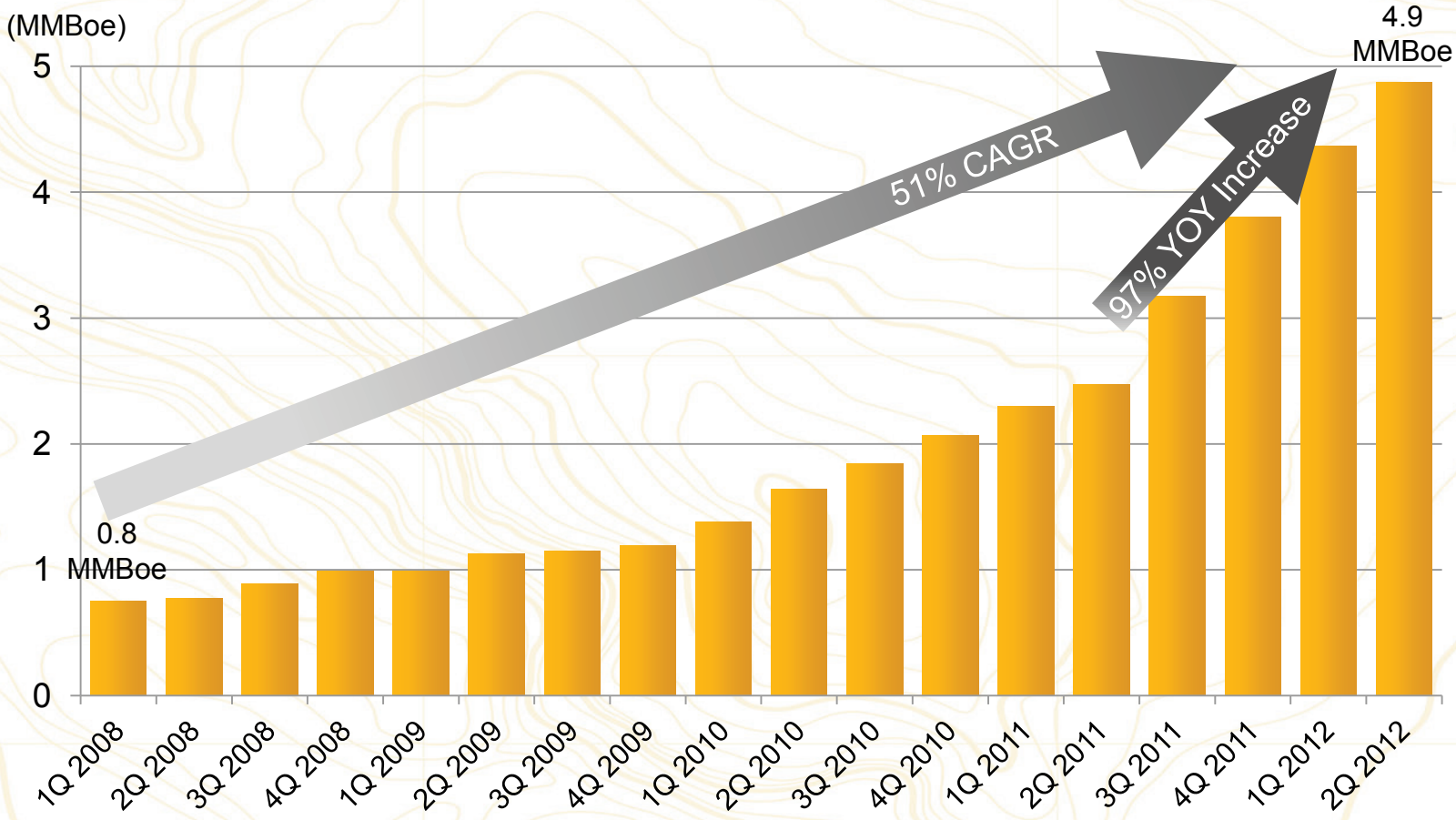
The Bakken

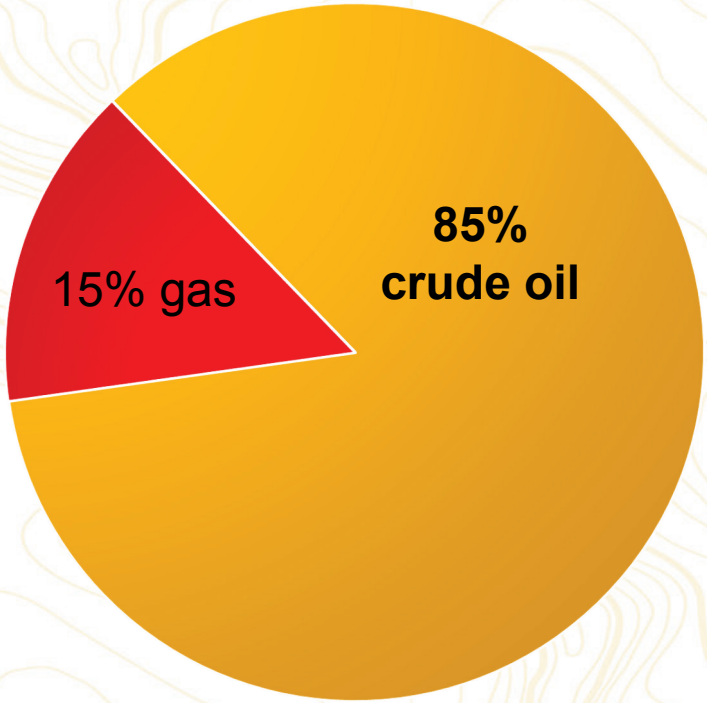
CLR Bakken Production: Accelerating Growth



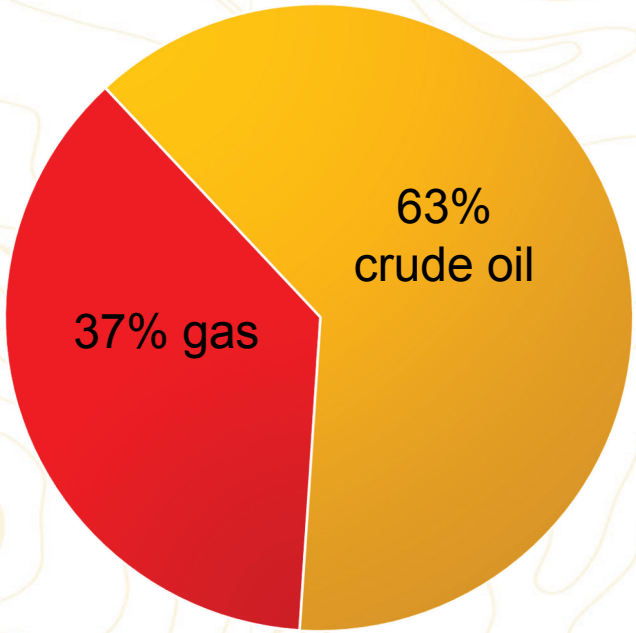
Bakken: King of Tight Oil Fields

- Continuous oil field of unprecedented magnitude
  - 15,000 sq. miles, 87% proven productive
  - 24 BBoe technically recoverable (Oct. 2010)
- Field continues to grow
  - Deeper intervals
  - Down-spacing
- True oil play
  - Premium crude, refiner's crude of choice

Bakken: True Oil Field



Bakken



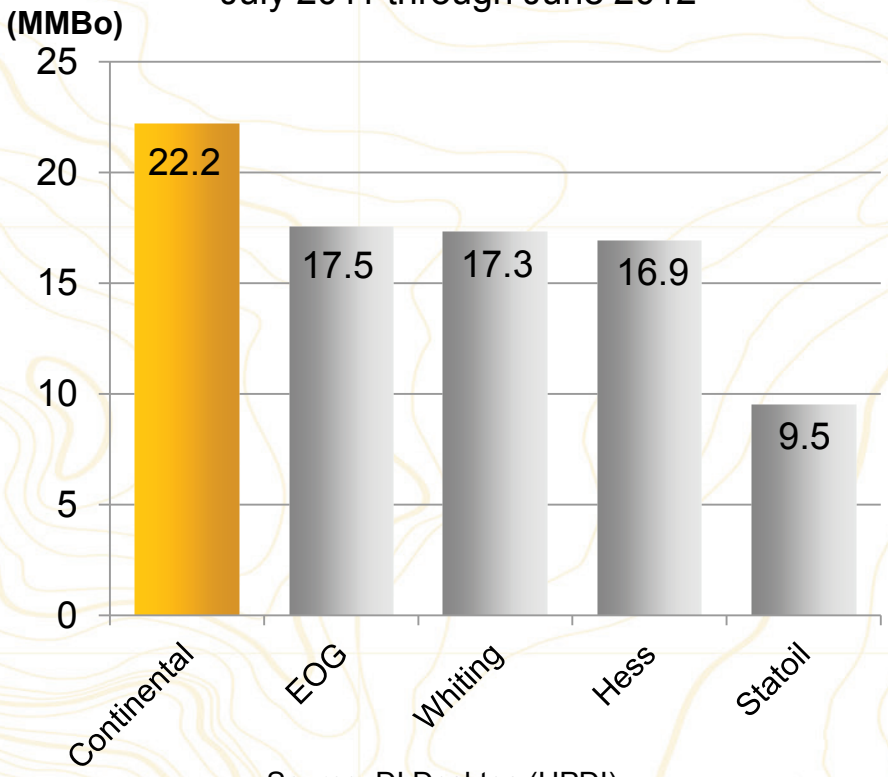
Eagle Ford

Crude oil = Liquids at wellhead, percentages based on June 2012 monthly production totals: DI Desktop (HPDI)

CLR: King of the Bakken

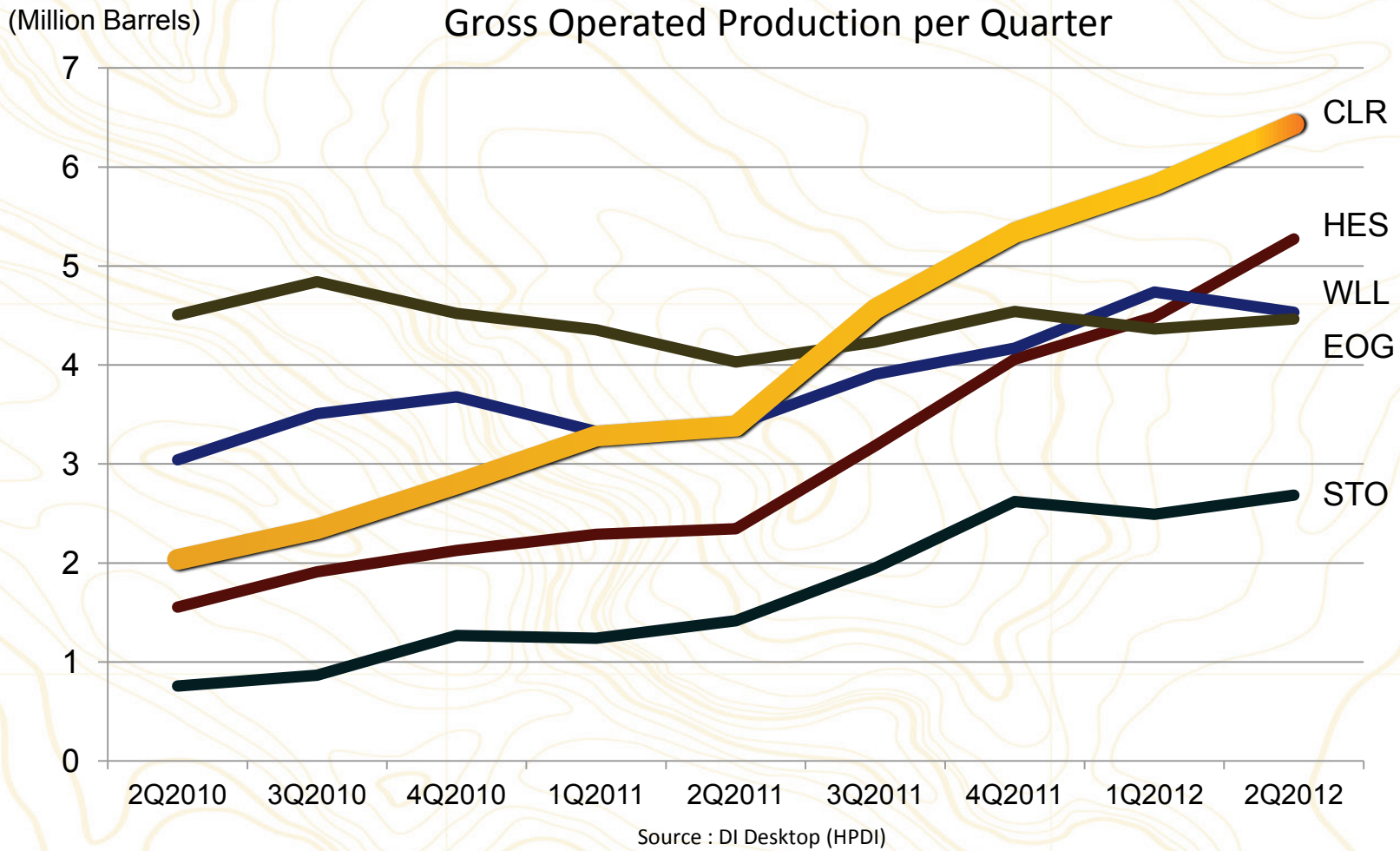
- #1 Bakken producer, driller and leasehold owner
  - 13% production
  - 10% rigs
  - 10% acreage
- Net unrisked potential (MB + TF1 only)
  - 1.5 BBoe
  - 3,988 locations
- Potential to quadruple reserves
  - Lower TF
  - 160-acre down spacing

Cumulative Gross Operated Oil Production
July 2011 through June 2012



Source: DI Desktop (HPDI)

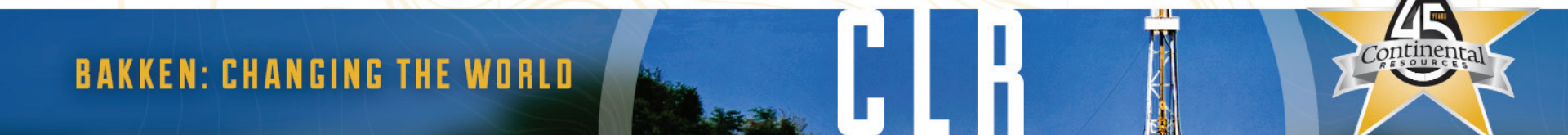
CLR Bakken Growth Outpacing Competitors



Source : DI Desktop (HPDI)

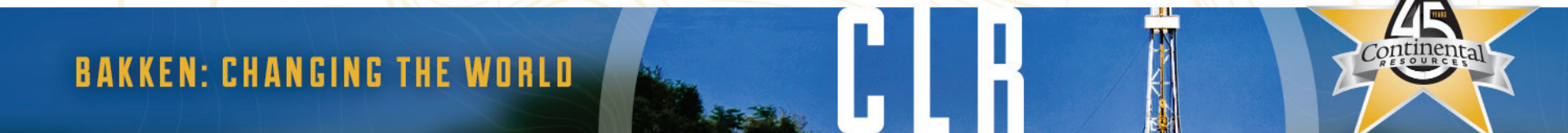
CLR Bakken Assets Continue to Grow

- Vertically
  - Lower Three Forks exploration and development
- Geographically
  - Step-out and exploration drilling
- Strategically
  - Bolt-on acquisitions, leasing and field consolidation



CLR Bakken Value Continues to Grow

- Efficiencies
  - Reduced drilling and completion cycle times
  - ECO-Pad® optimization
  - Longer laterals
- Oil and gas marketing strategies

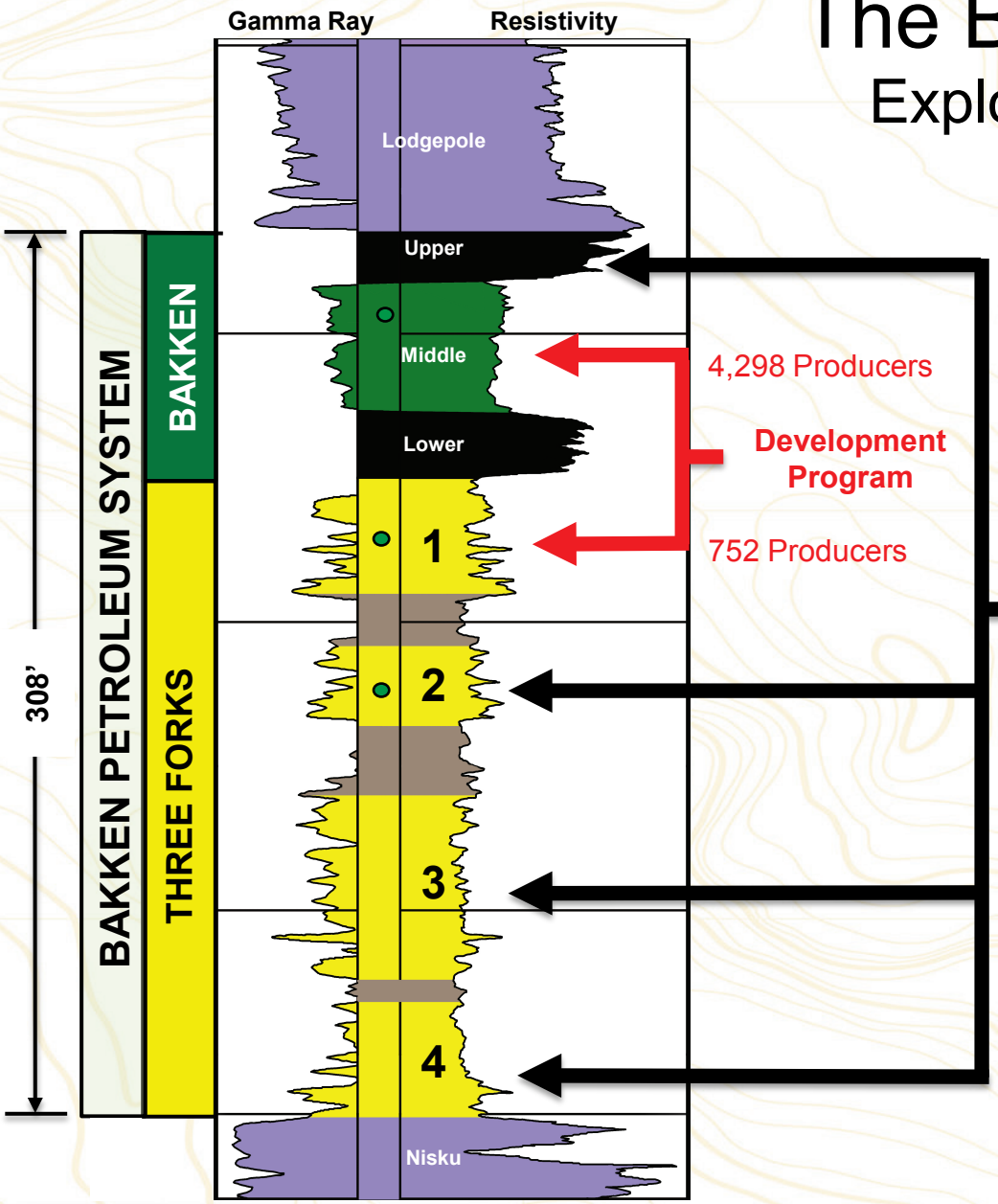


CLR's Next Bakken Catalysts

- Accelerated Lower TF exploration/appraisal
- Pilot density tests
  - 320-acre development of 4 reservoirs in 1280-acre unit (3 locations)
  - 160-acre development of 4 reservoirs in a portion of a 1280-acre unit (1 location)
- Simultaneous Operations (SIMOP) process
- Reservoir optimization
  - 3D seismic/micro-seismic
  - Reservoir modeling
  - Coring

The Bakken Paradox

Exploring while developing



17 Producers
(since January 2008)

4,298 Producers

Development Program

752 Producers

Exploration Program

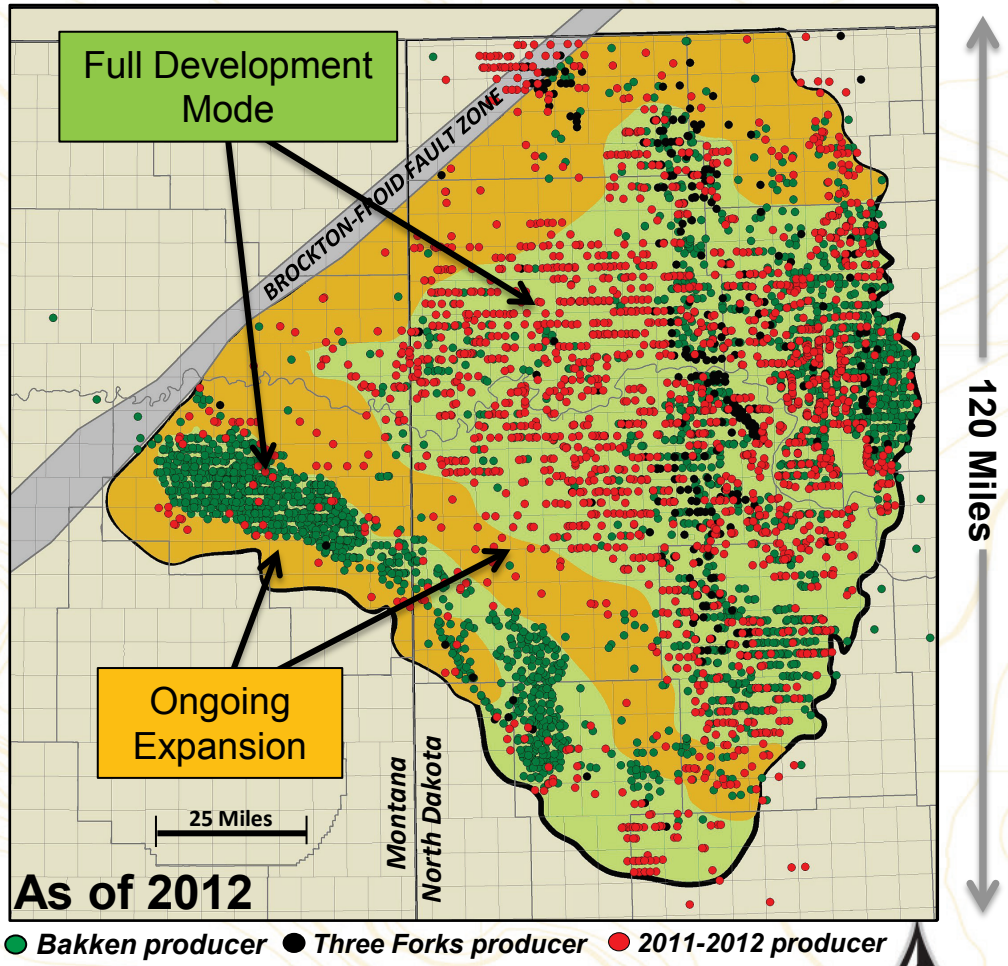
2 Producers
Accelerated derisking
planned for 2013-2014

Accelerated derisking
planned for 2013-2014

Test program planned 2013

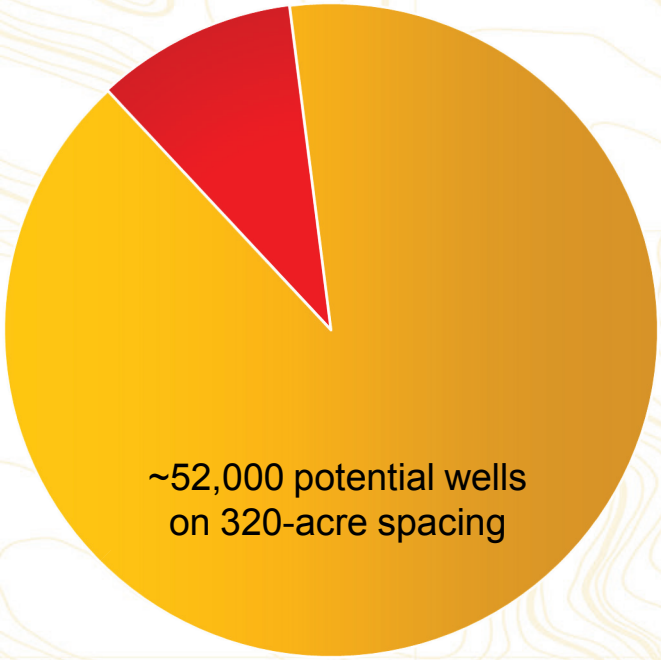
MB + TF1: Early Stages of Full Development

- 13,000 sq. miles under development
- 202 rigs operating
- Less than 1 well per 1280-acre unit on average
- 4-to-8 wells per zone for full development



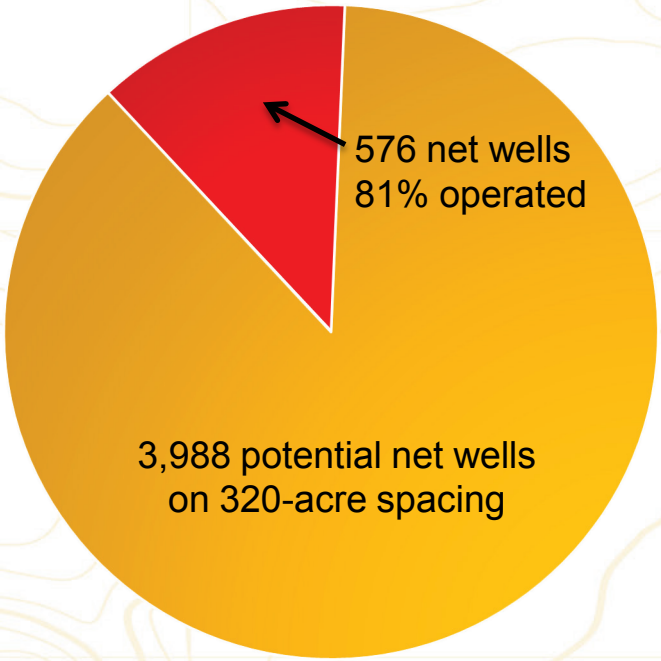
MB+TF1: Development Drilling Just Beginning

Industry
5,050 wells completed



90% Remaining

Continental Resources
1,526 gross wells, 46% operated

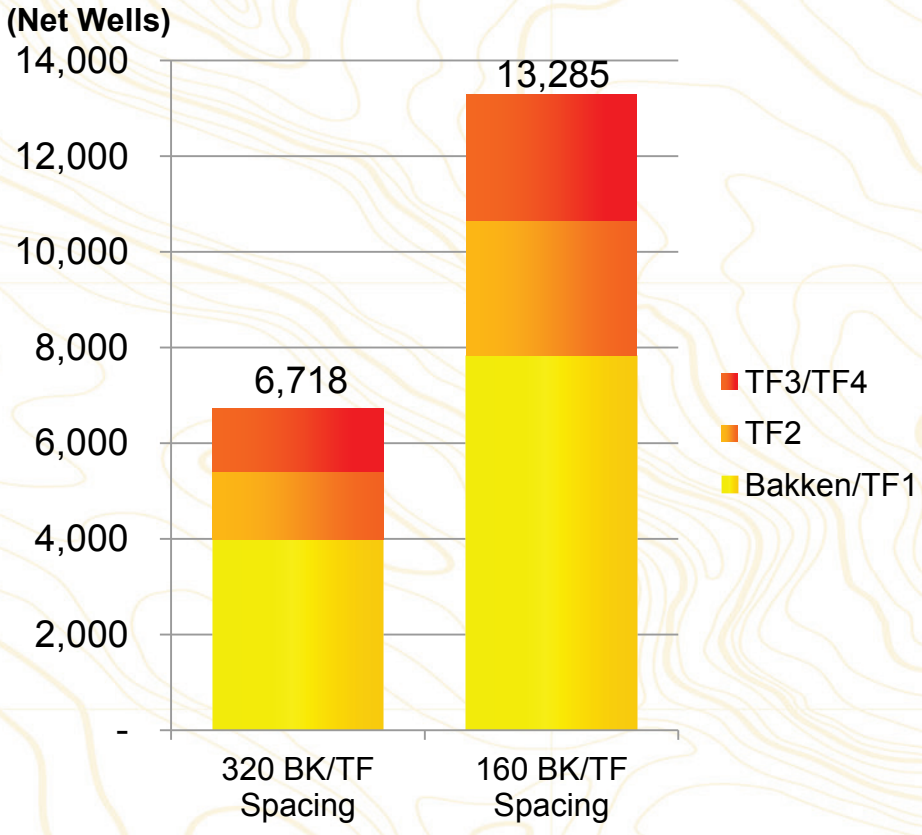


87% Remaining

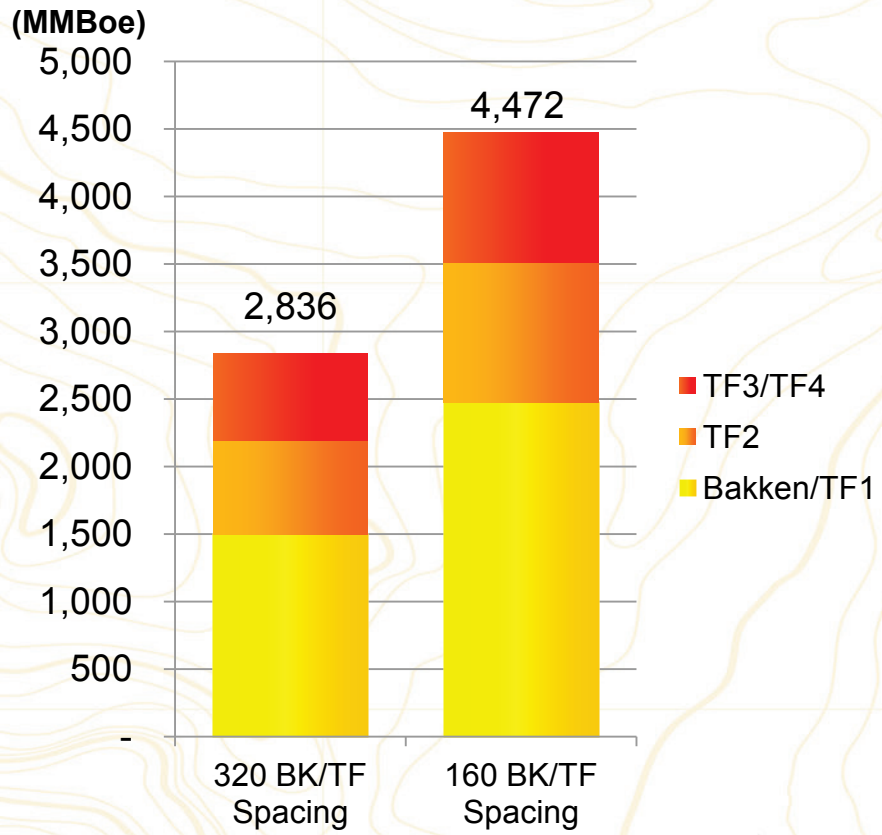
CLR has participated in 30% of all Bakken wells drilled to date.

CLR: 4.5 BBoe Bakken Resource Potential

Unrisked Potential Net Wells



Unbooked Net Resource Potential

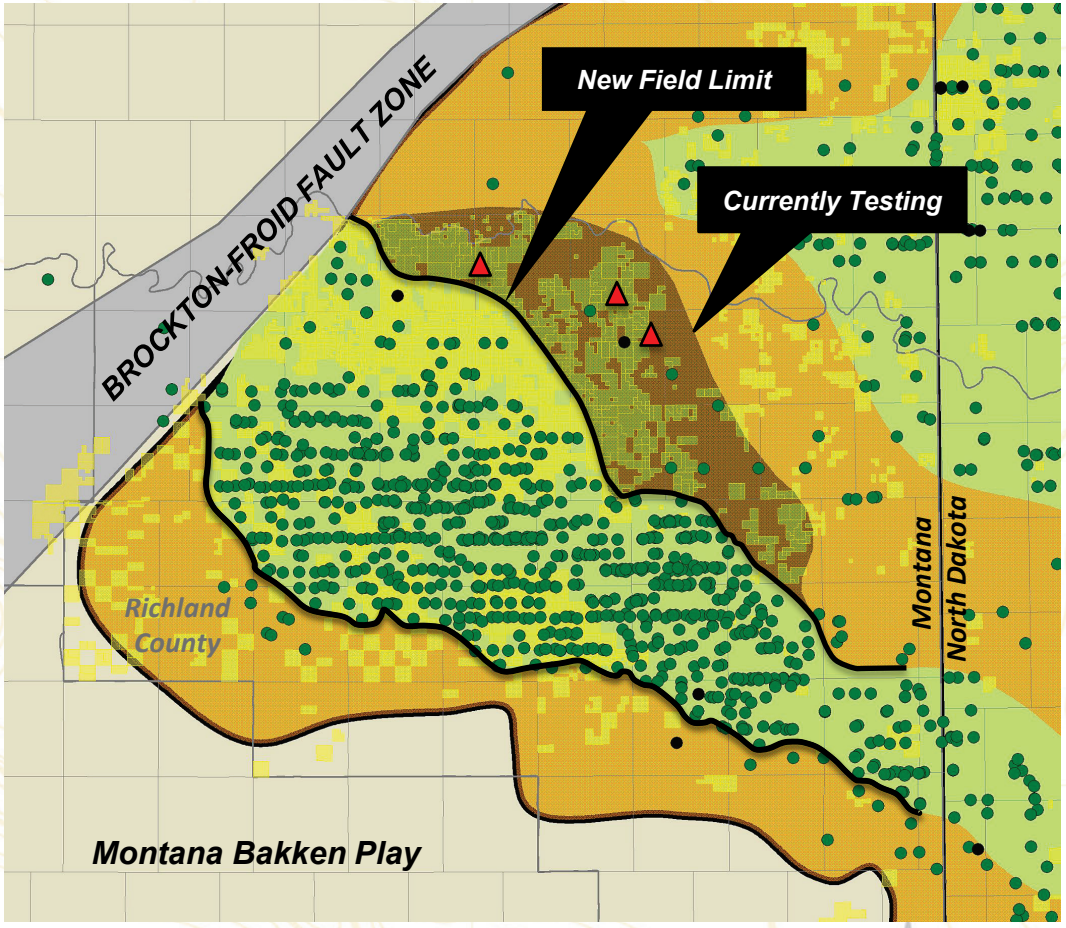


CLR Bakken estimated proved reserves MY2012: 380 MMBoe

(calculations exclude non-prospective acreage)

Expanding Elm Coulee Field with Technology

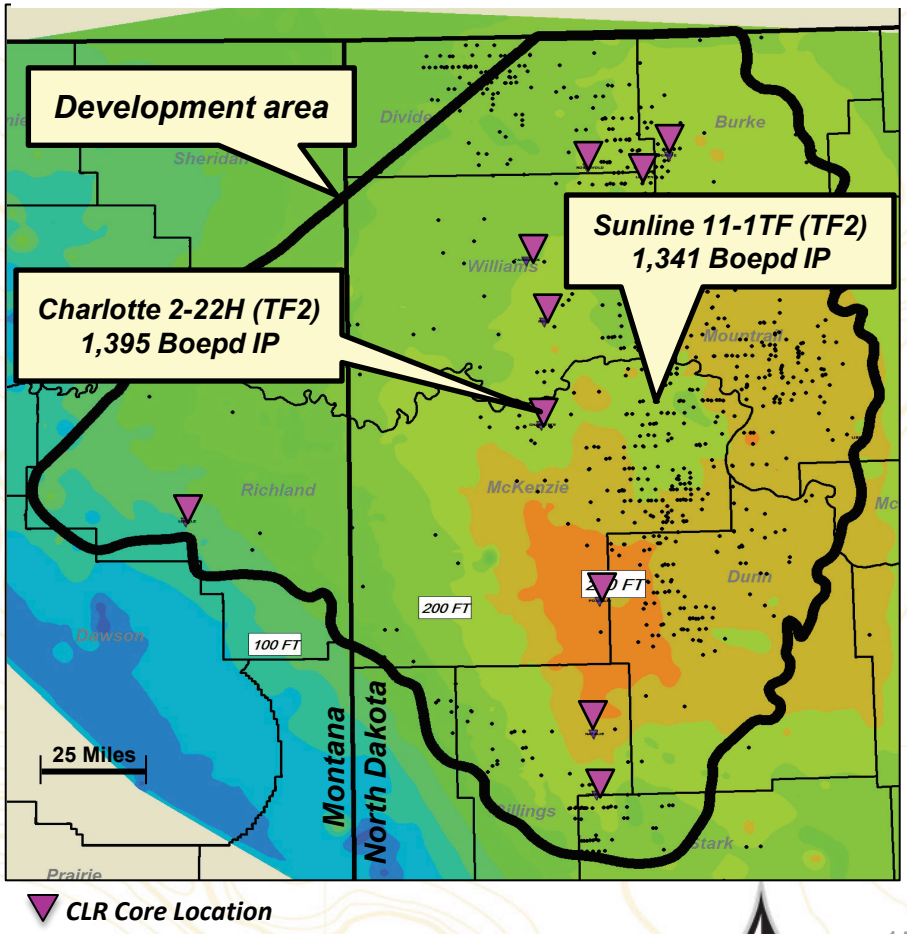
- Extended field an average of 8 miles north
  - 97,000 gross acres of proven reservoir added
  - 130 MMBoe gross reserve potential
  - 303 gross wells
  - CLR owns 64%
- CLR testing another 157,000 gross acres
  - 211 MMBoe gross reserve potential



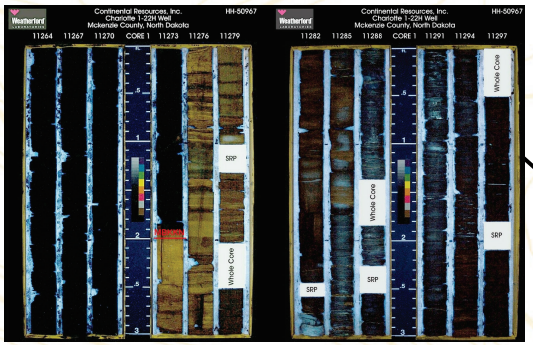
CLR: Three Forks Pioneer

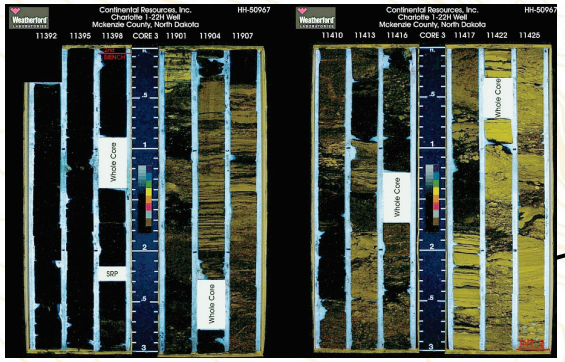
- Drilled 25% of all TF wells
- Proved separation of MB + TF1
- 10-well coring program
- Cores show oil in TF2, TF3 + TF4
- Redefined “Bakken Petroleum System”
- Completed first TF2 producer
- First TF3 test waiting on completion
- TF4 test scheduled

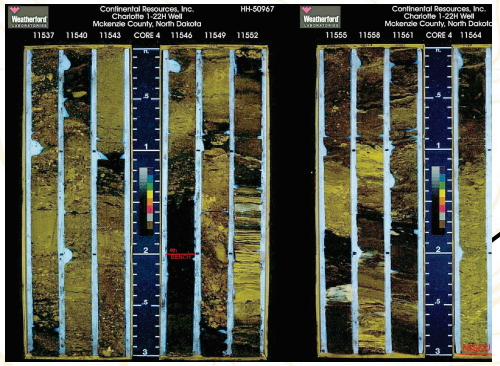
Three Forks Isopach Map

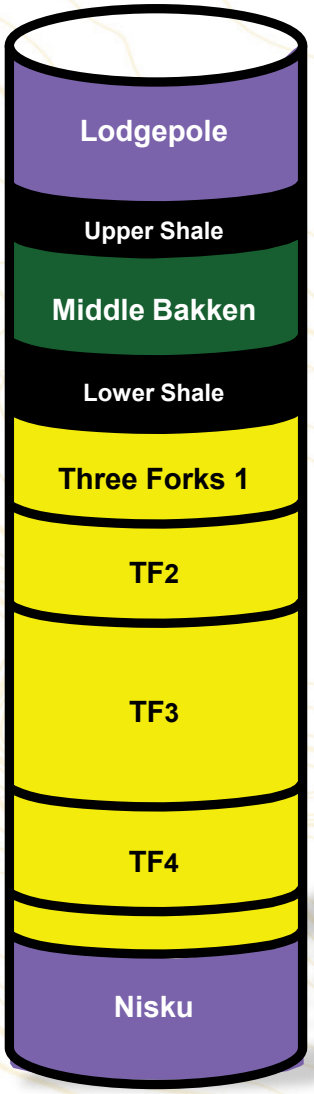


Bakken Petroleum System Redefined

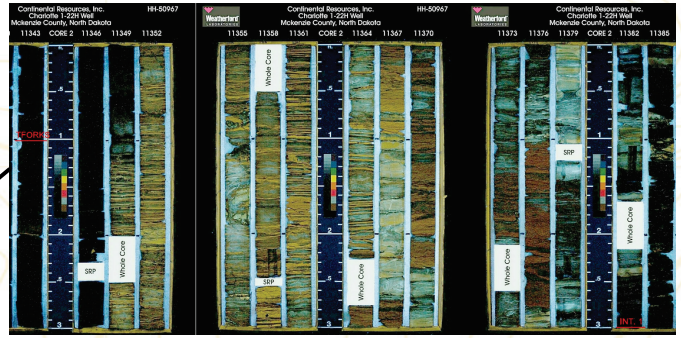


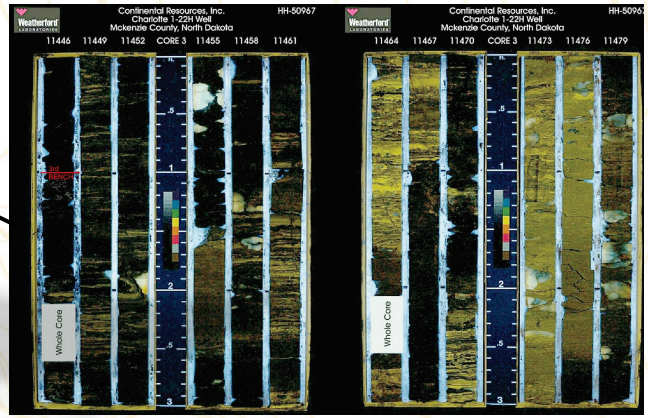




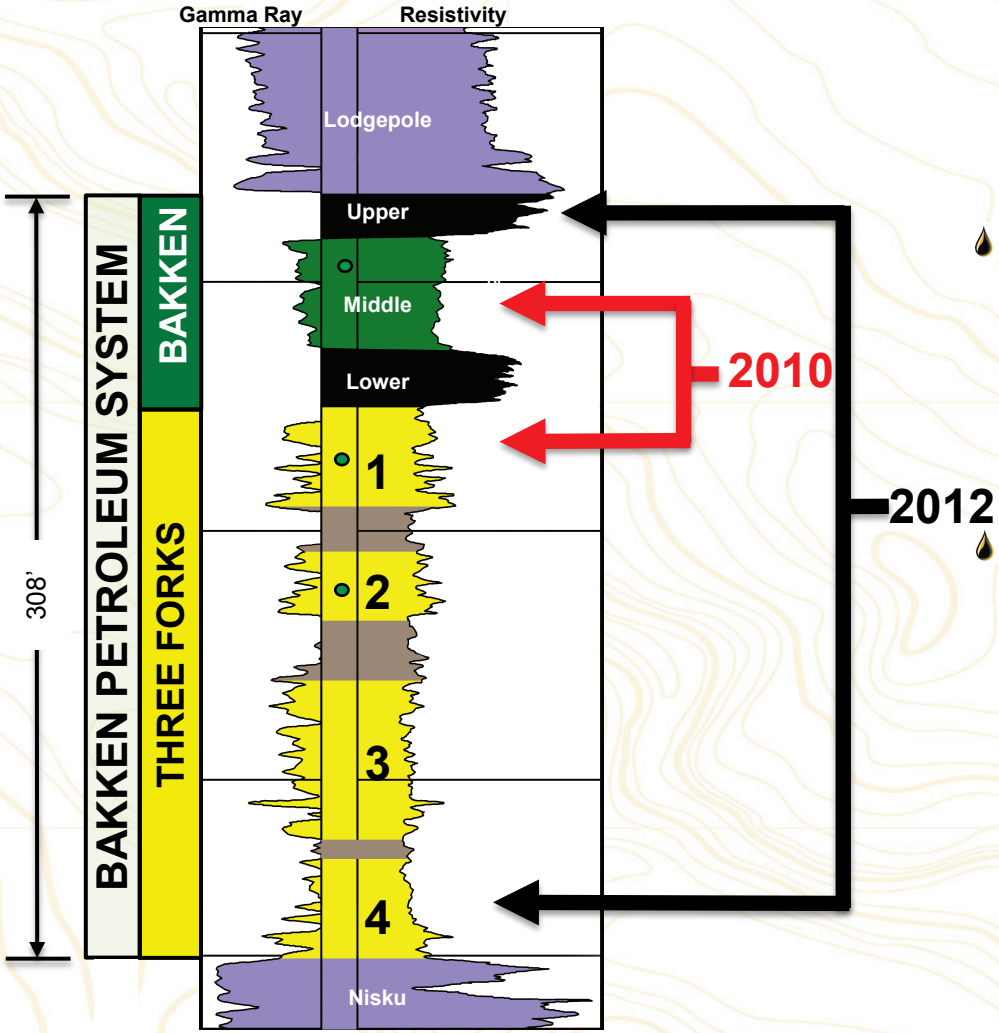


Charlotte 1-22H core photos (UV light)
308', with 154' of oil fluorescence



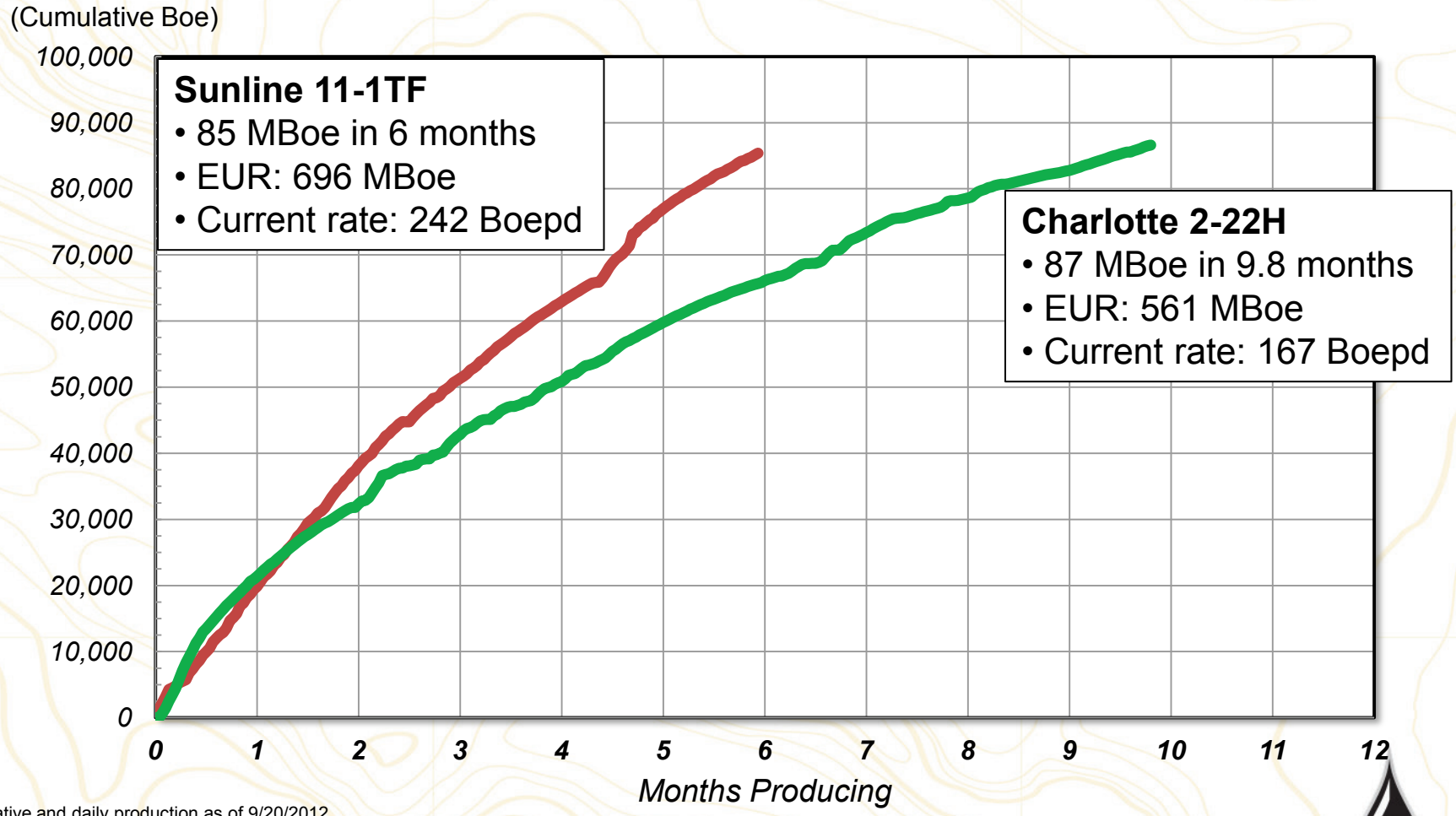


Lower TF Increases OOIP 57%



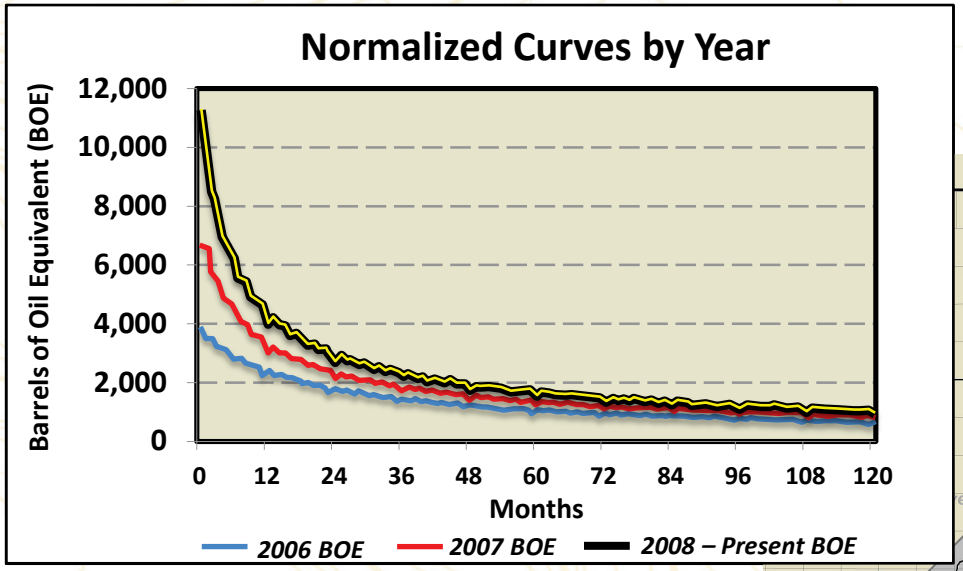
- 577 BBo in place (2010)
  - 24 BBoe recoverable
  - 20 BBo (3.5% recovery factor)
  - 320-acre spacing per zone
- 903 BBo in place (2012)
  - 32 BBo recoverable @ 3.5%
  - 36 BBo @ 4%
  - 45 BBo @ 5%

TF2 First Producers in the Play

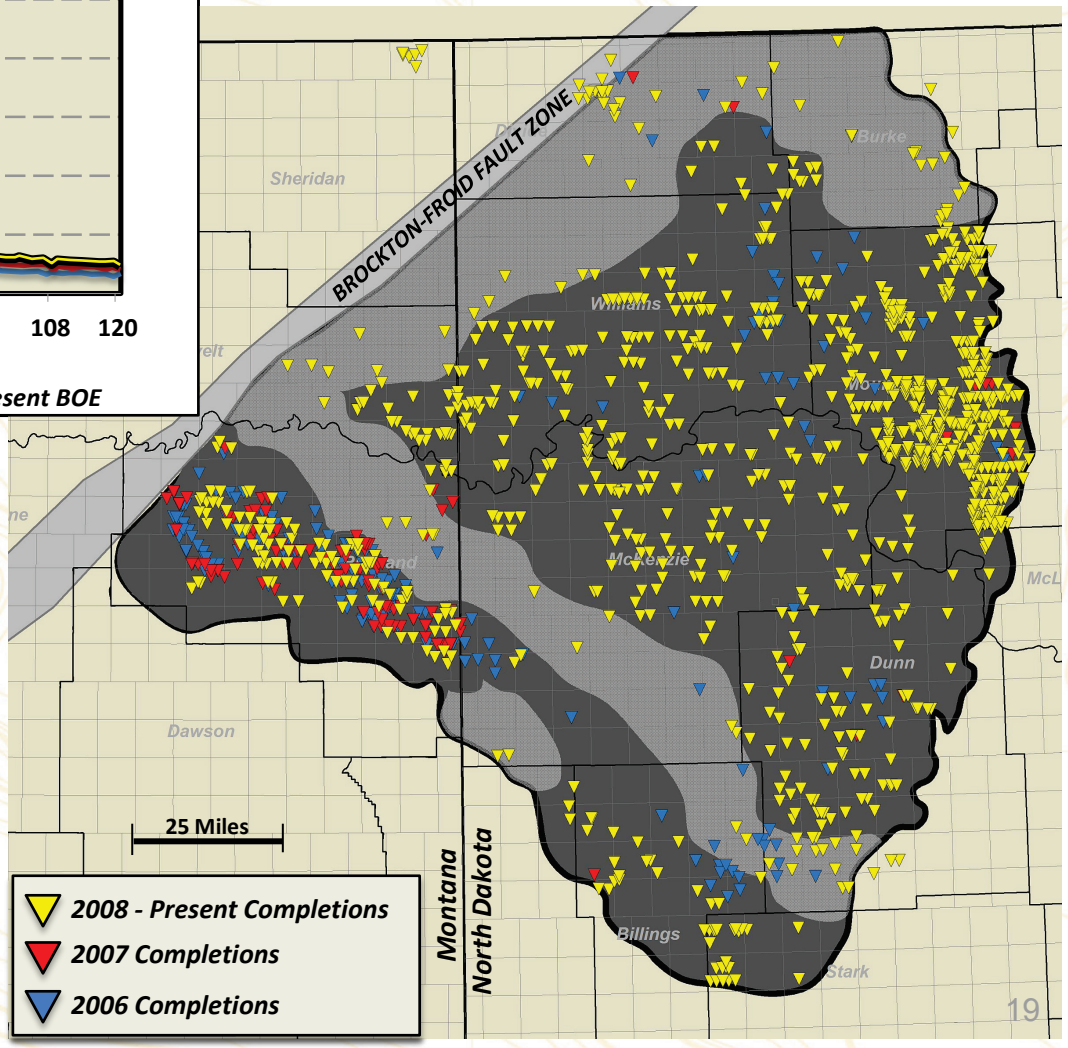


*Cumulative and daily production as of 9/20/2012

Well Performance Continues to Improve

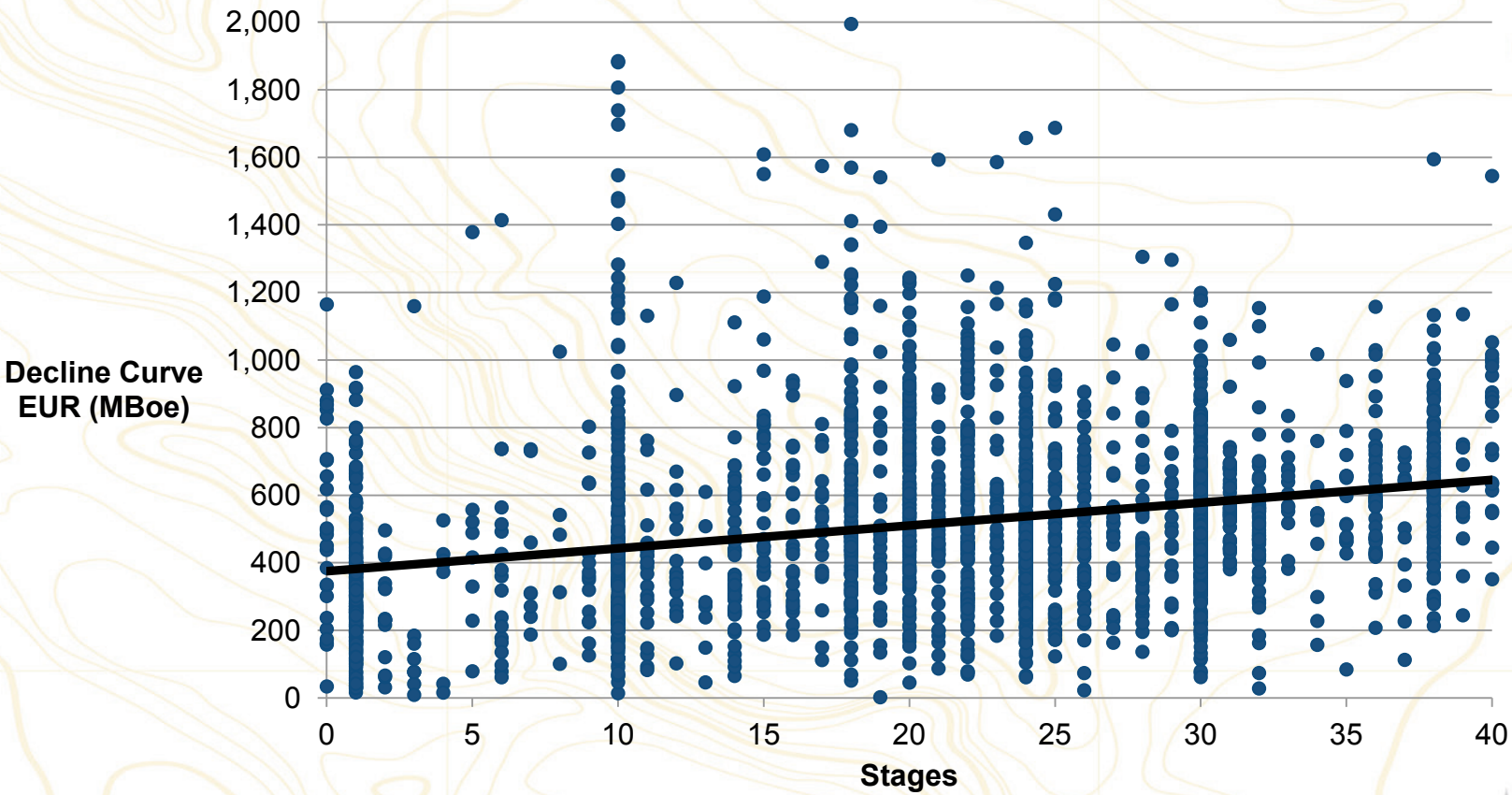


- Consistent YOY improvement in early time rates
- Expanded footprint over time



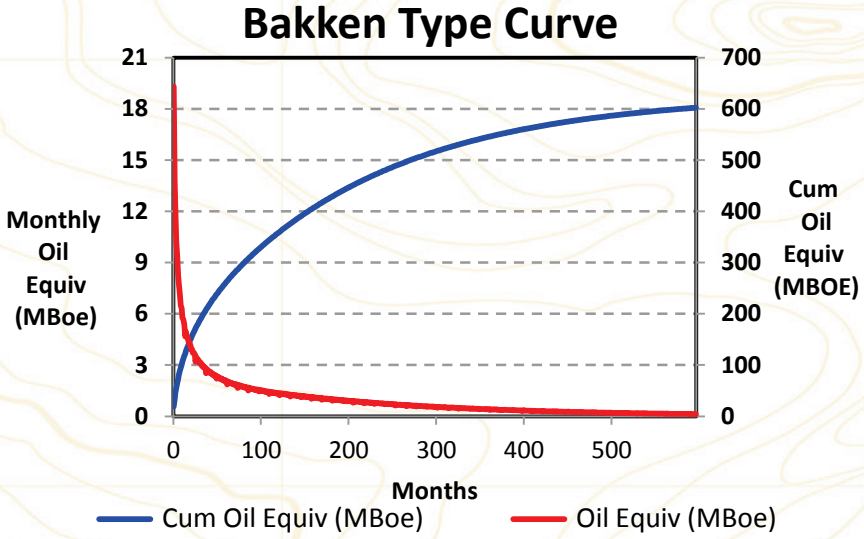
Historical Performance

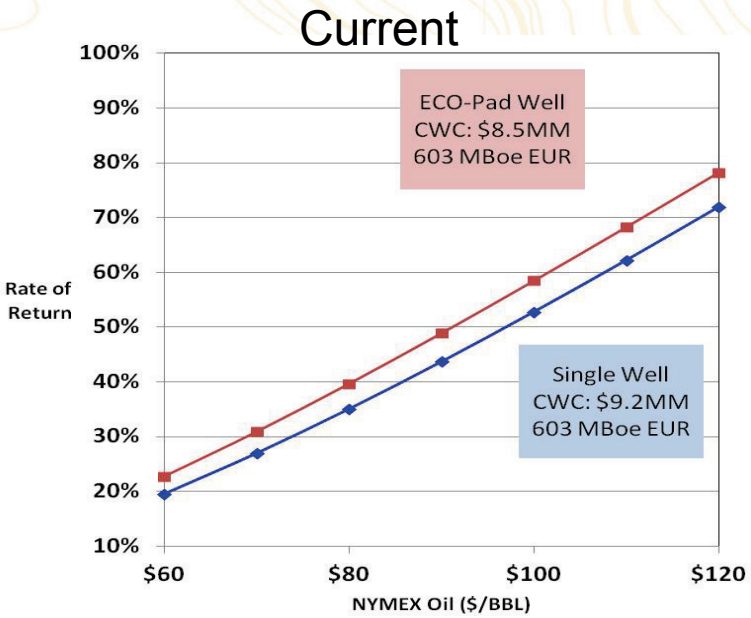
EURs have improved with the increased number of stages.

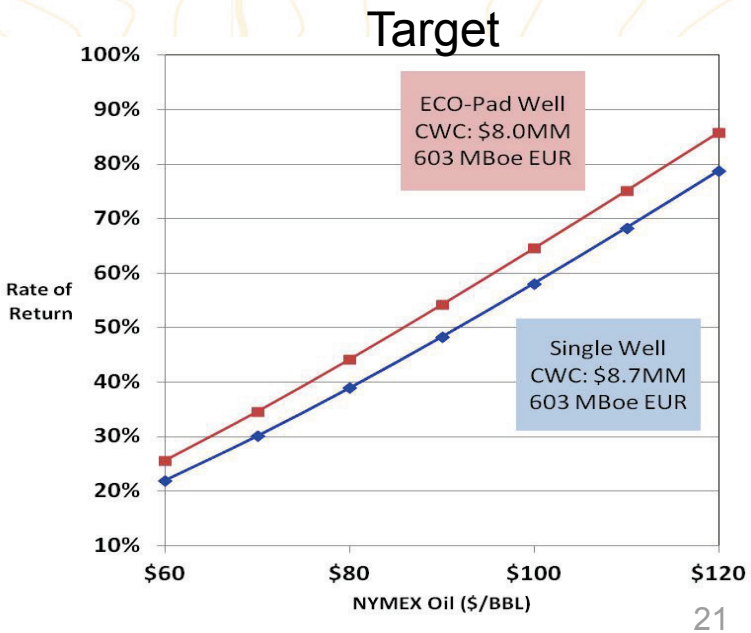


Single Well Economics

- Type curve
  - 10,000' lateral / 30 stages
  - 603 MBoe EUR
  - Completed well costs (CWC)
    - Single well ($9.2MM)
    - ECO-Pad well ($8.5MM)
  - 82.5% NRI



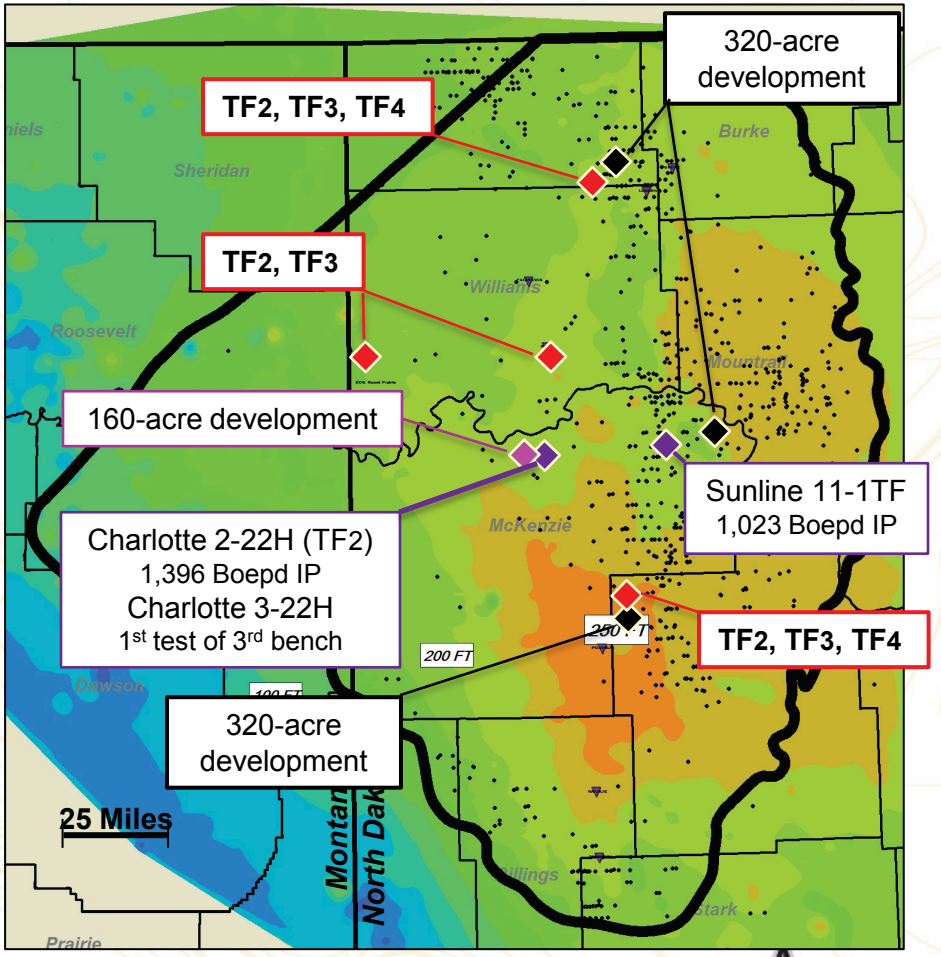




Exploration and Appraisal Catalysts to Accelerate Growth

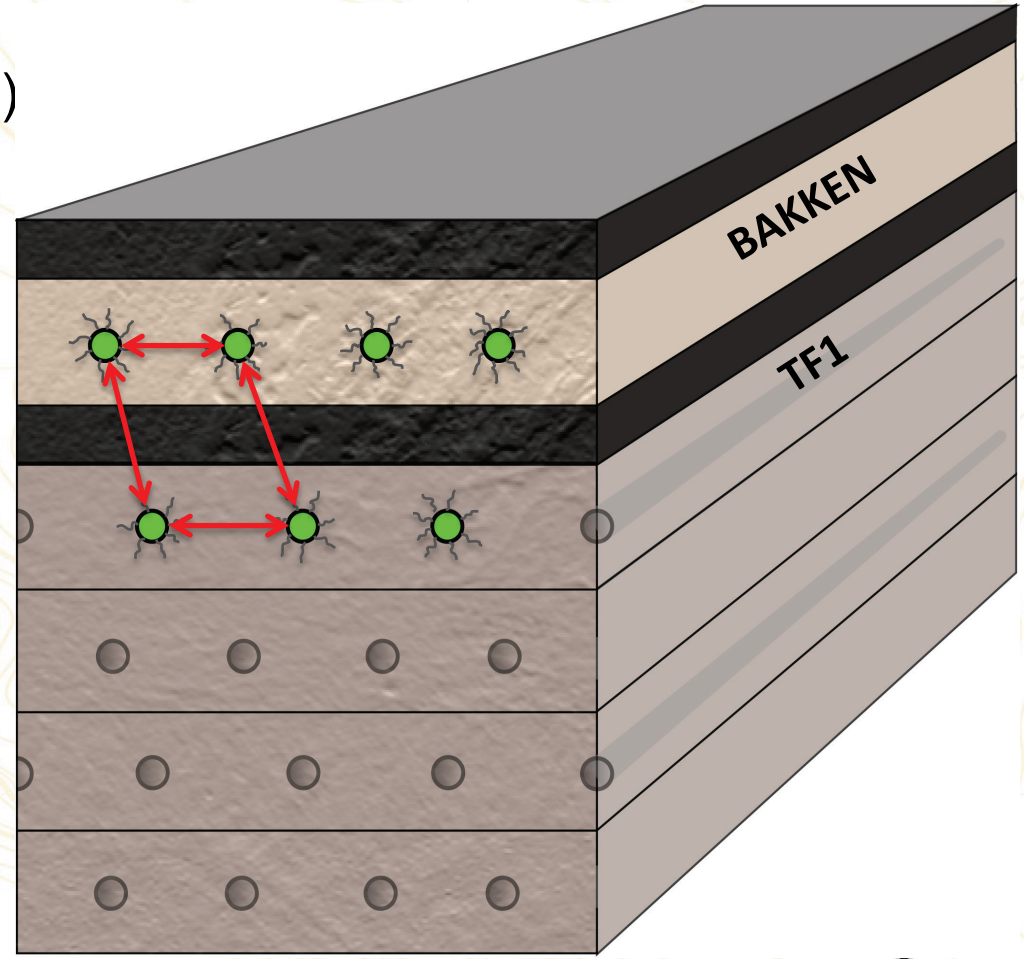
- Lower TF exploration and appraisal
  - 2013-2014 Capex: $70MM
- Pilot 320-acre development
  - 4 wells per zone per 1280
  - 2013-2014 Capex: $212MM
- Pilot 160-acre development
  - 8 wells per zone per 1280
  - 2013-2014 Capex: $55MM

Three Forks Isopach Map



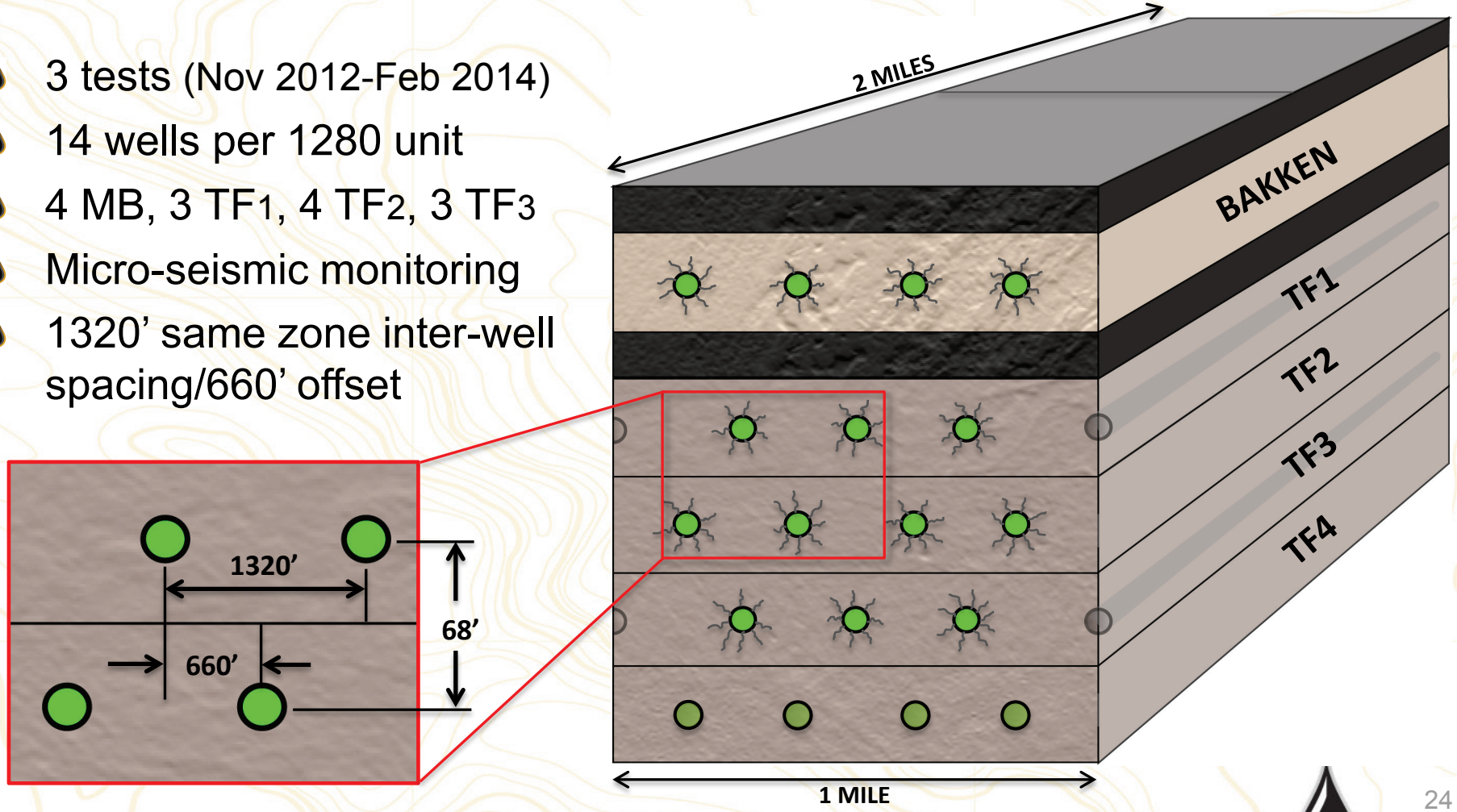
Results Support 320-Acre Spacing

- 312-well database (156 pairs)
- No interference between:
  - 1320’ spaced wells in same zone
  - 660’ offset pairs



CLR: First Full-Pattern 320-Acre Development Pilot

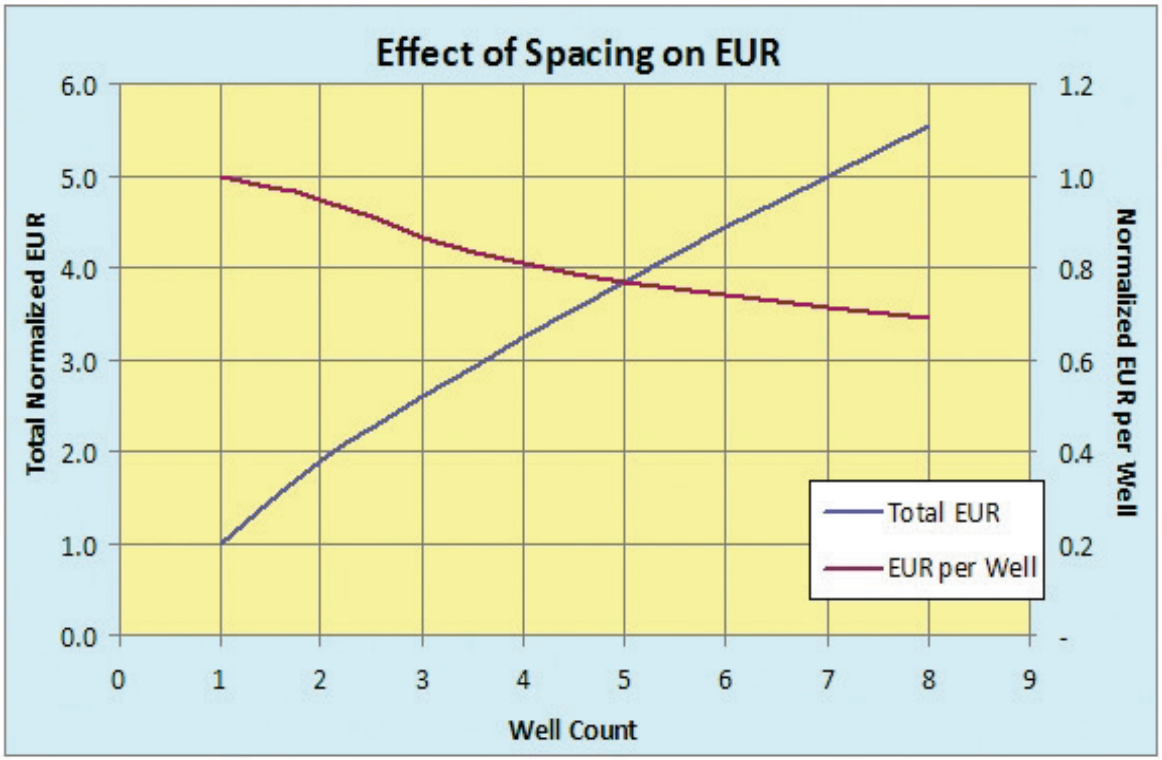
- 3 tests (Nov 2012-Feb 2014)
- 14 wells per 1280 unit
- 4 MB, 3 TF1, 4 TF2, 3 TF3
- Micro-seismic monitoring
- 1320’ same zone inter-well spacing/660’ offset



Third-Party* Simulation Supports160-Acre Spacing

Conclusions of third party simulation:

- 8 wells per zone
- 1st well recovers 1.0 MMBoe
- 8 wells recover 5.6 MMBoe
- 8 wells average 700 MBoe per well (70% of 1-well scenario)

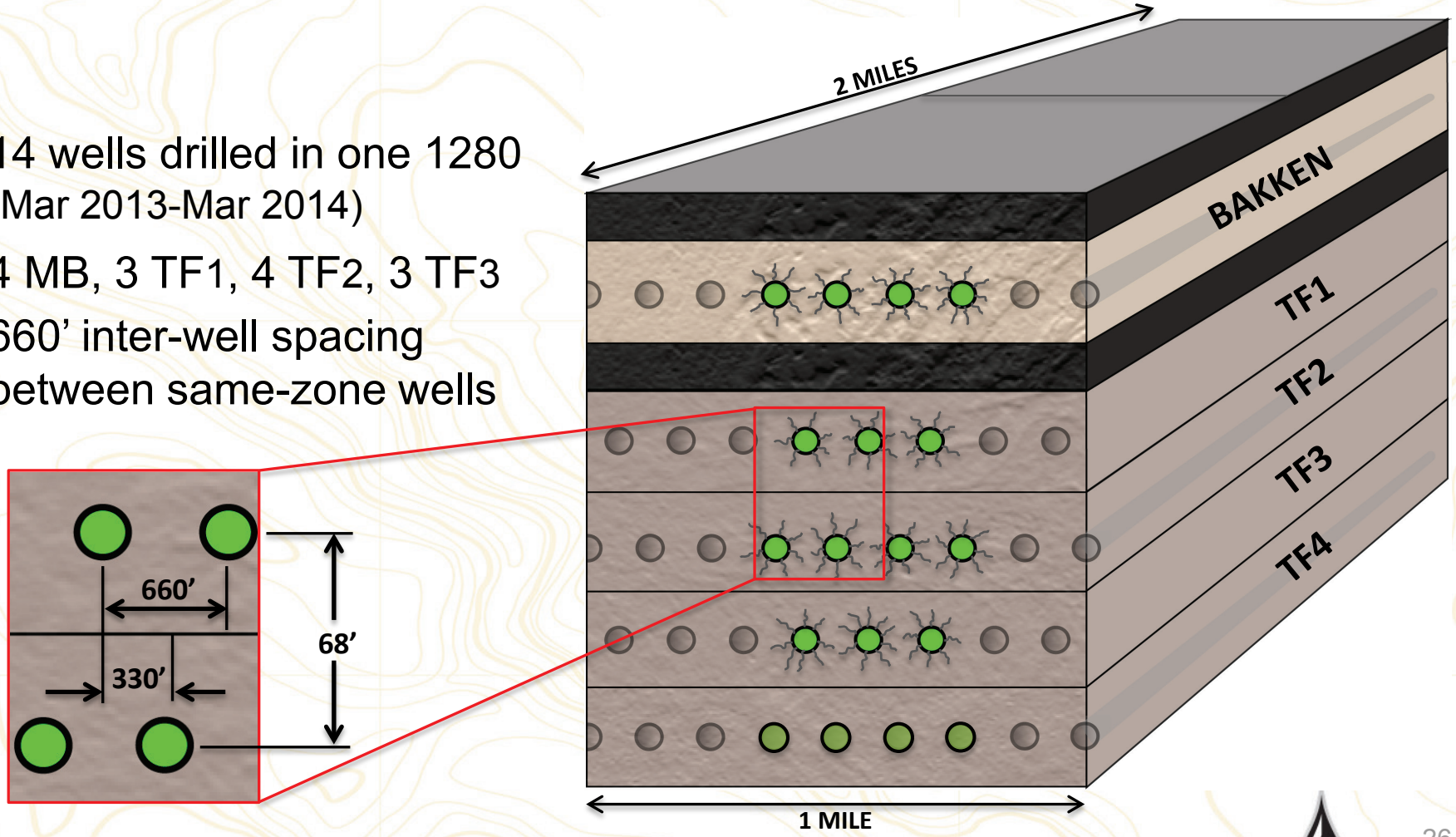


*Ryder Scott Co. LP, Reservoir Solutions, June-August 2012 /Vol. 15 No. 2

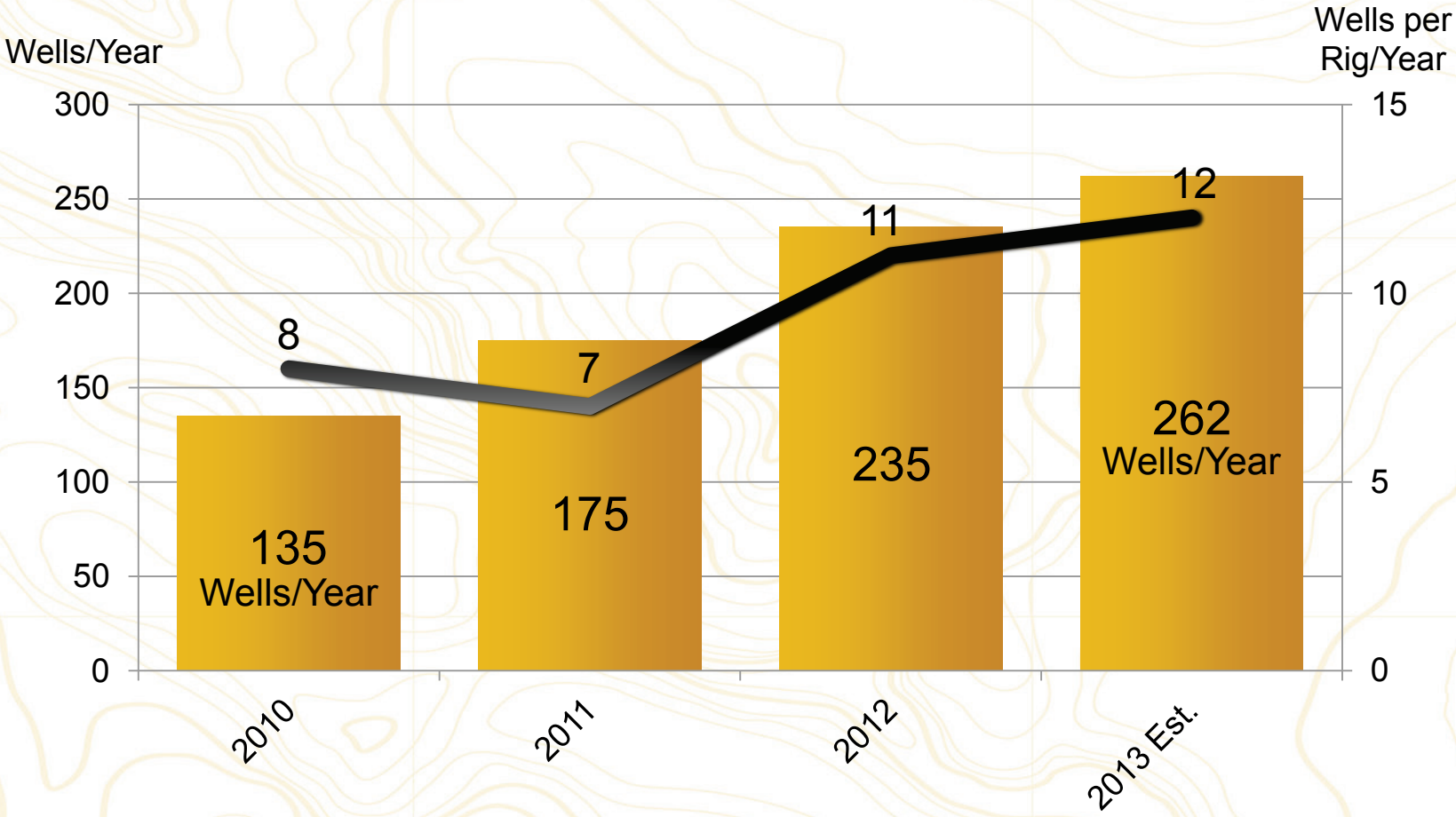
- 1280-acre unit
- 45 ft net pay
- 8.4% porosity
- 6900 psi
- 1,000 psi FBHP
- 1,100 BFPD IP

First Full Pattern 160-Acre Development Pilot

- 14 wells drilled in one 1280 (Mar 2013-Mar 2014)
- 4 MB, 3 TF1, 4 TF2, 3 TF3
- 660’ inter-well spacing between same-zone wells

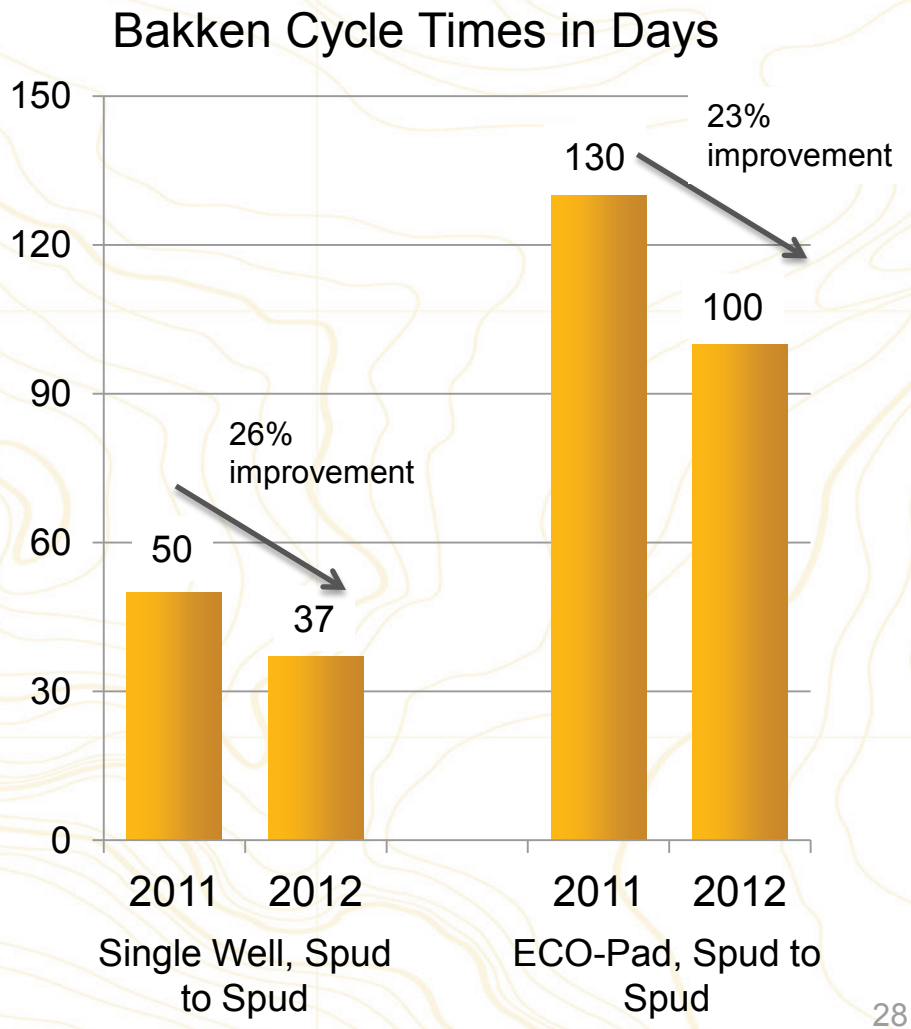


Drilling Efficiencies Result in 40% More Wells Per Rig

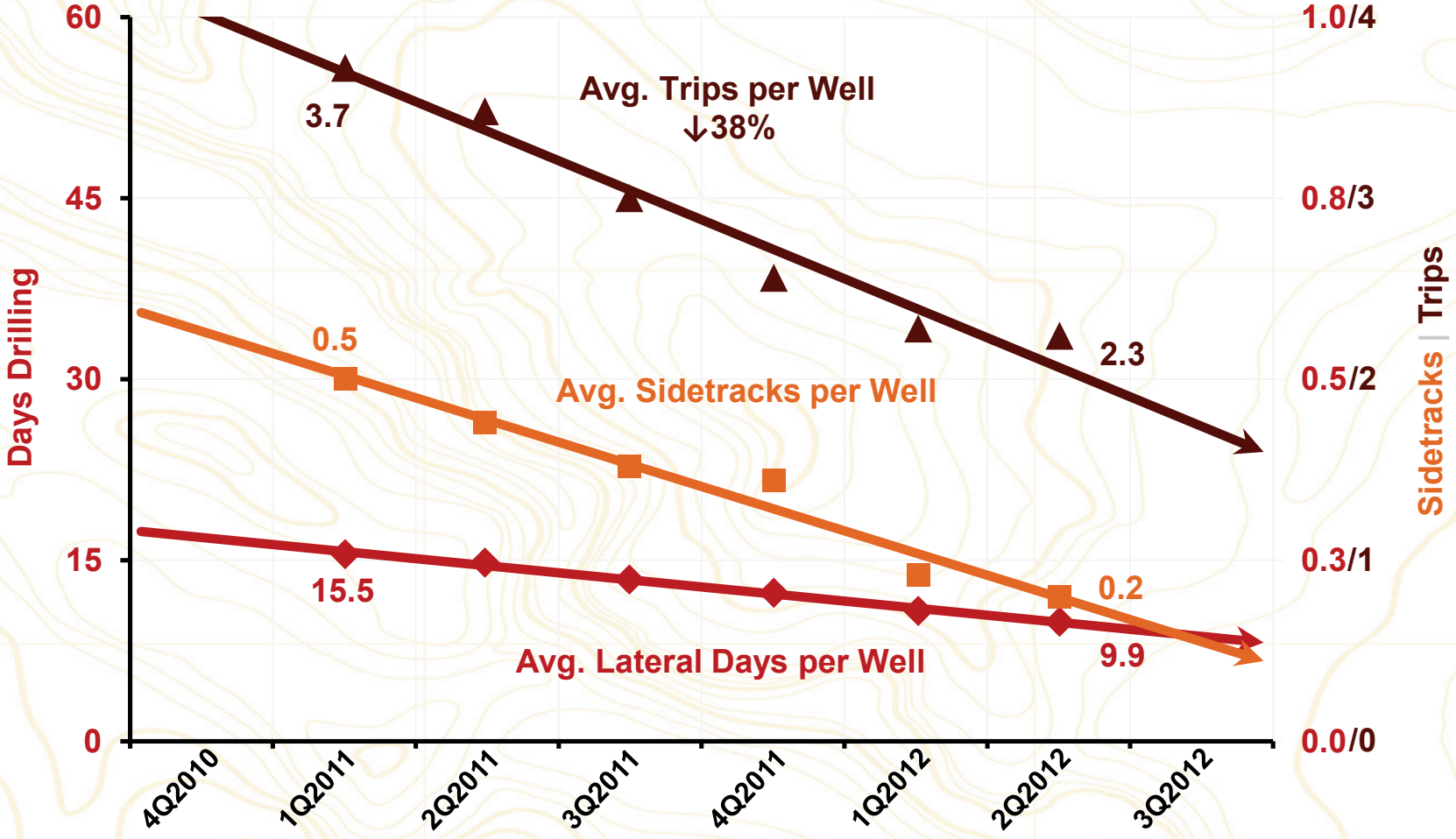


Drilling Efficiency Components

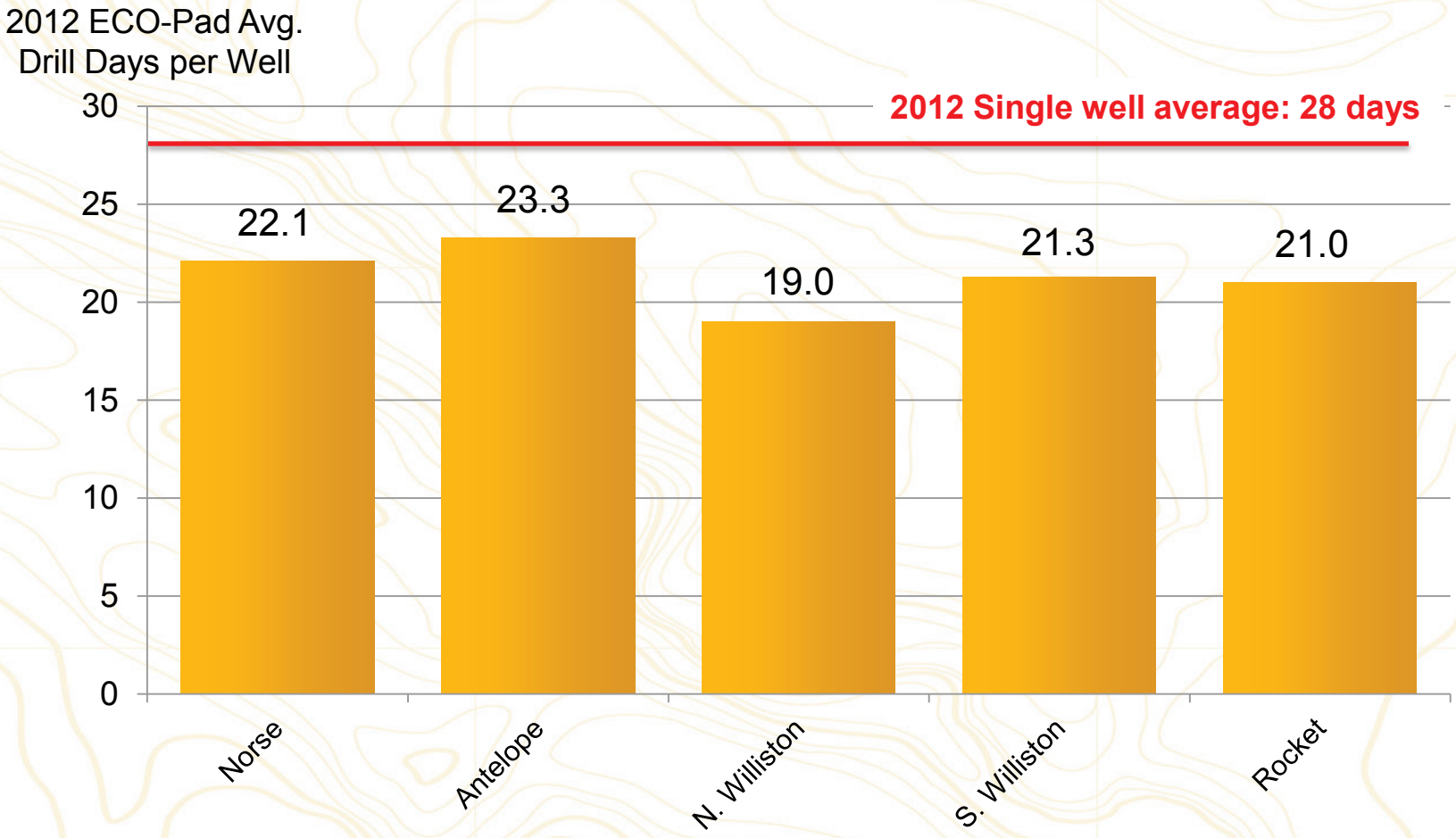
- Increased knowledge sharing
  - Vertical section
  - Curve section
  - Lateral section
- Rig move optimization
- Upgrading rig fleet
- Technology advancements
  - Mud motors
  - Drill bits



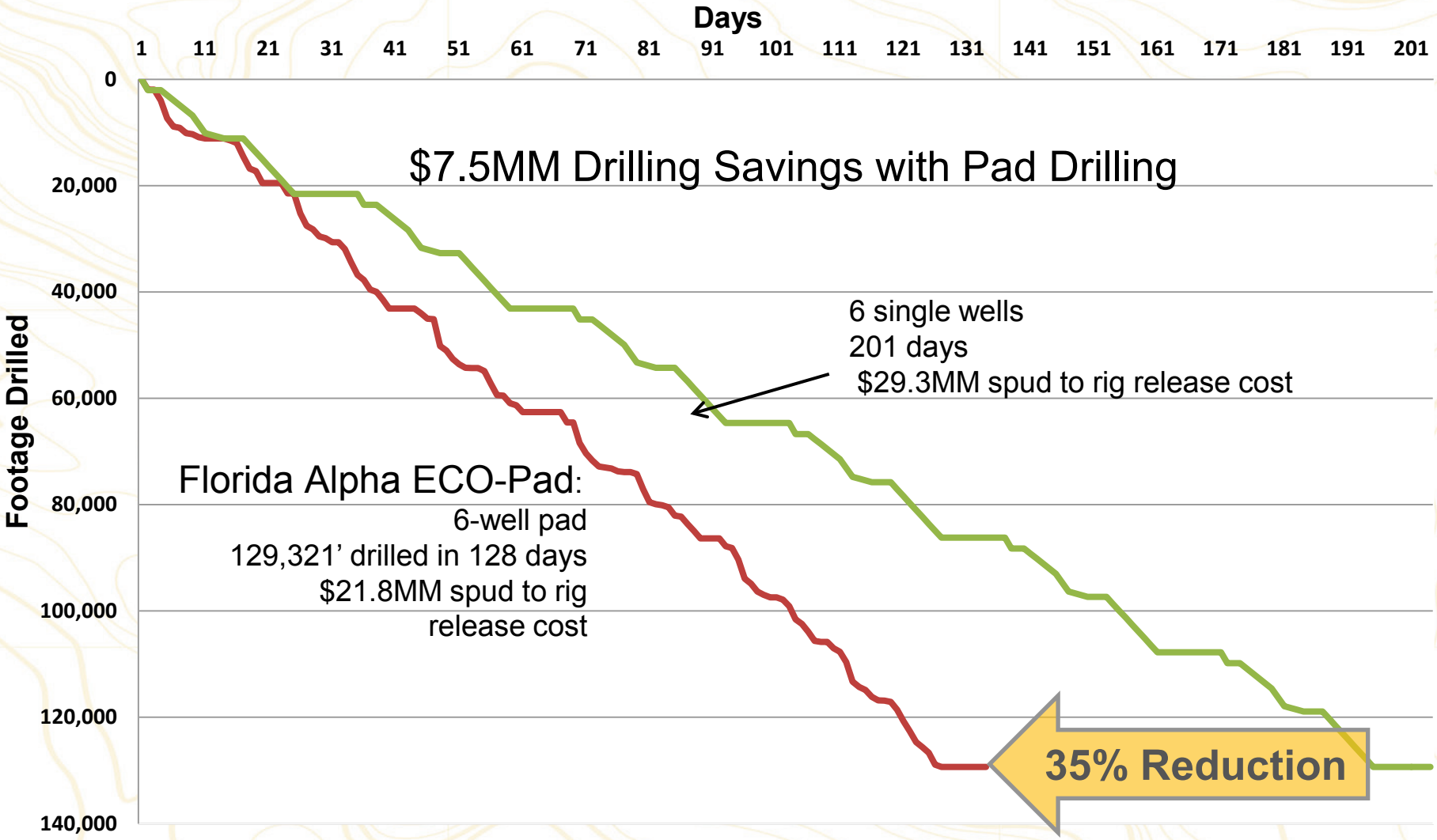
Integrated Approach Results in Drilling Efficiencies



CLR ECO-Pad Drilling Times Reduced 25% in 2012

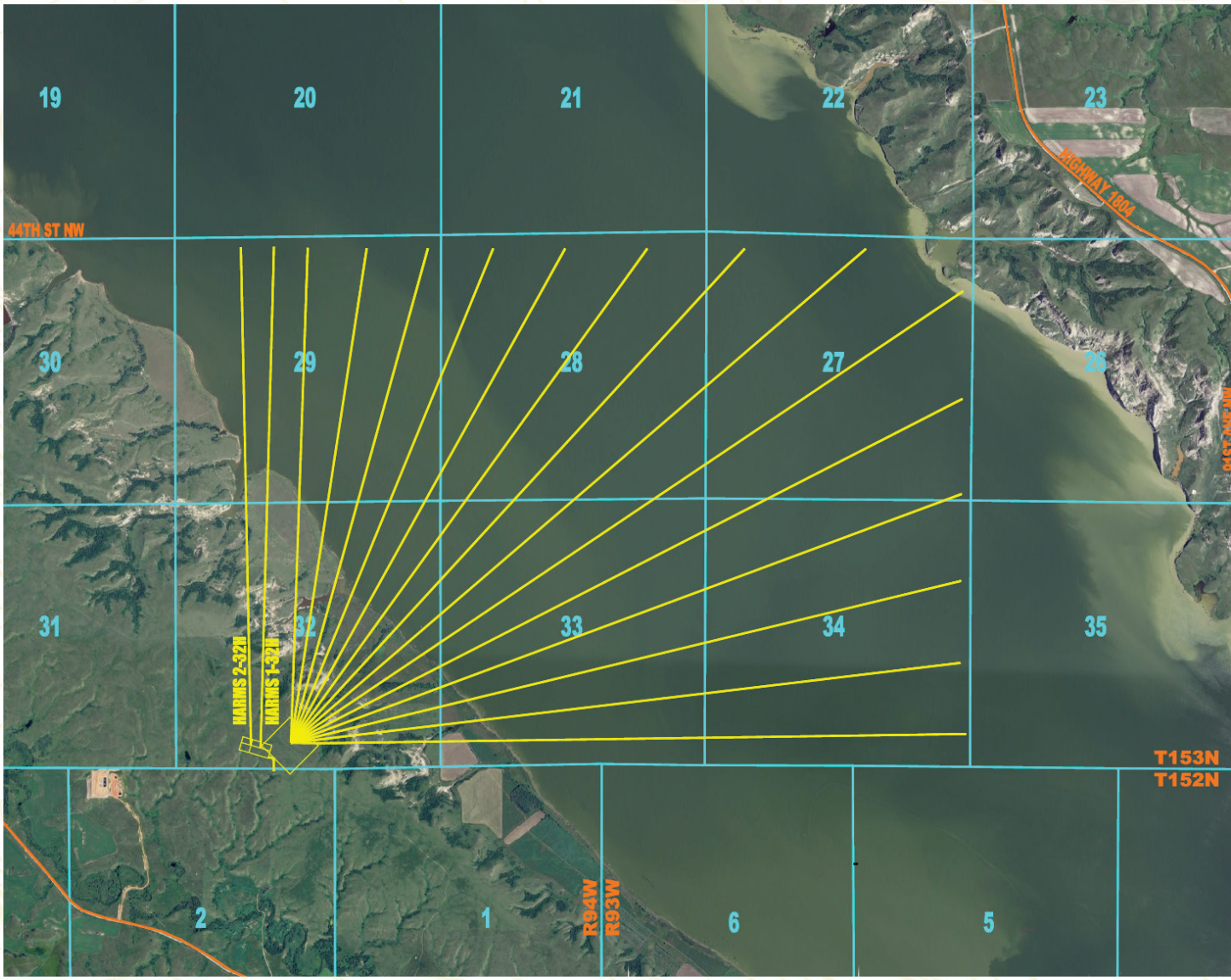


Glimpse of the Future



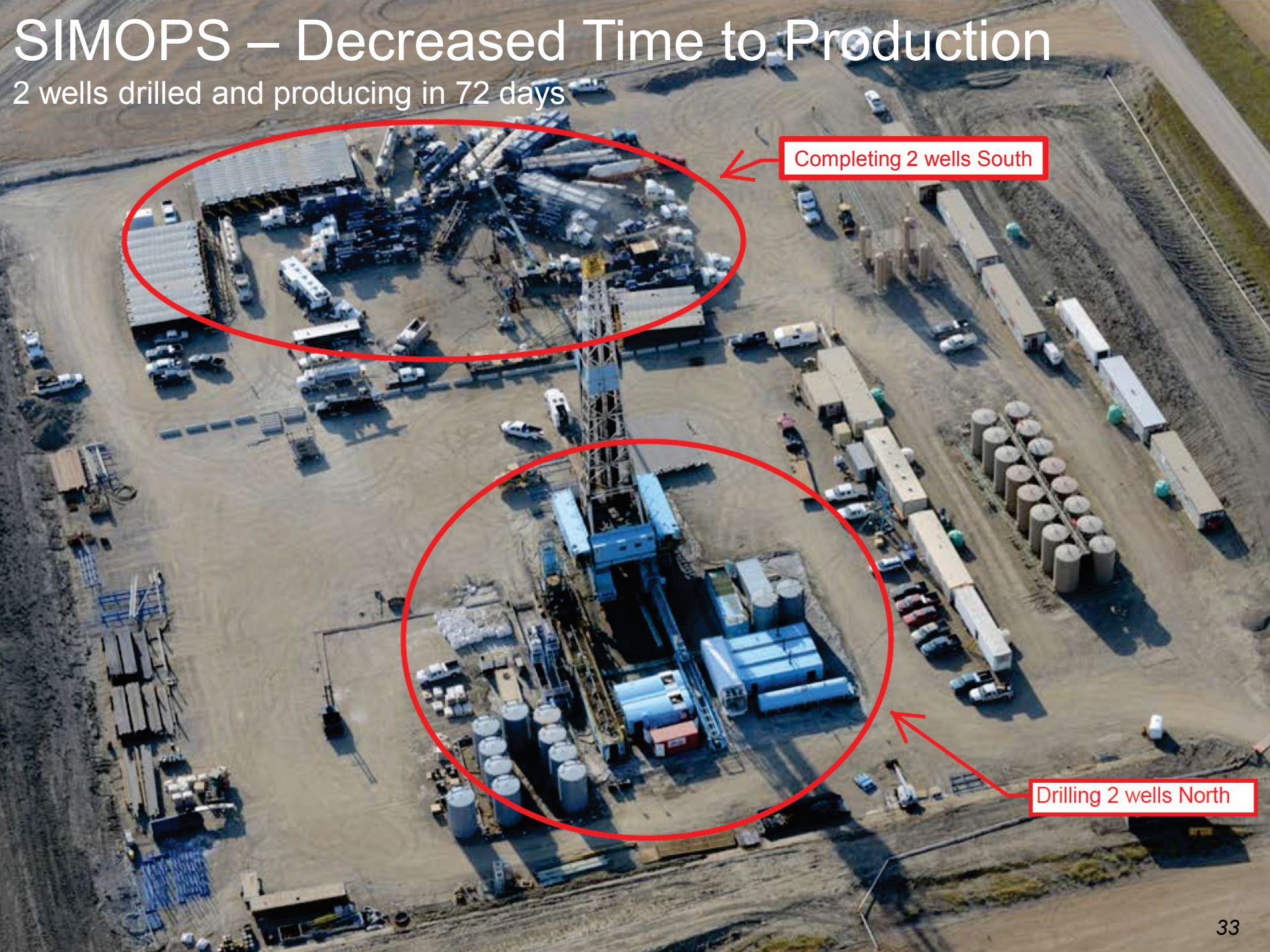
Accessing Environmentally Sensitive Areas

- Extended reach laterals
- Multi-well pad
- Minimize surface footprint
- Allows for improved economics



SIMOPS – Decreased Time to Production

2 wells drilled and producing in 72 days



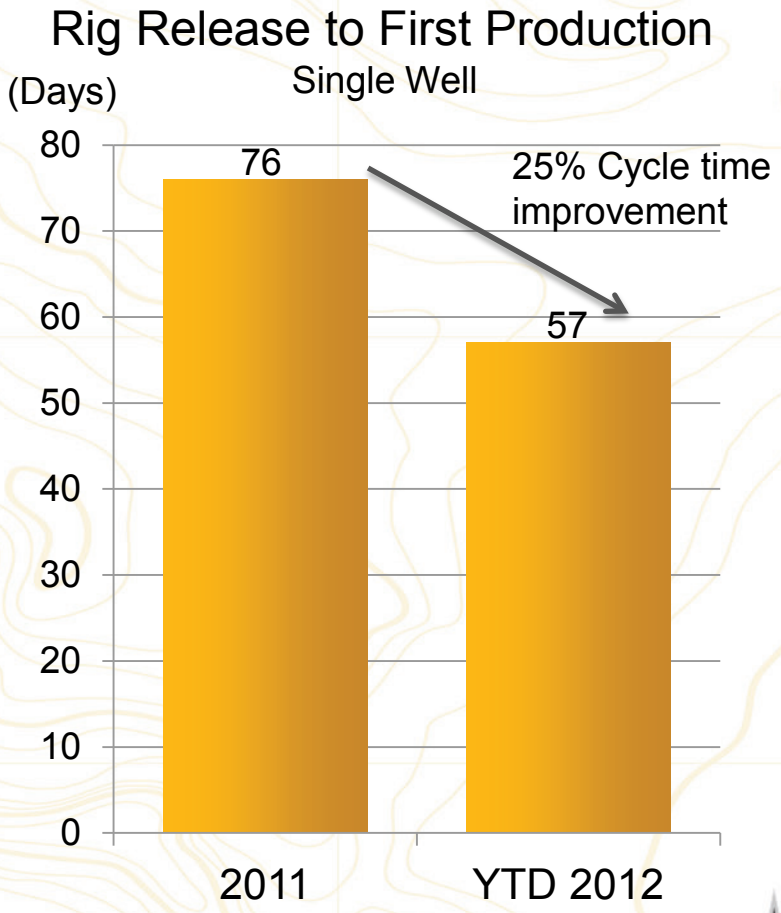
VIDEO IN PROGRESS

Completion Cost-Reduction Drivers

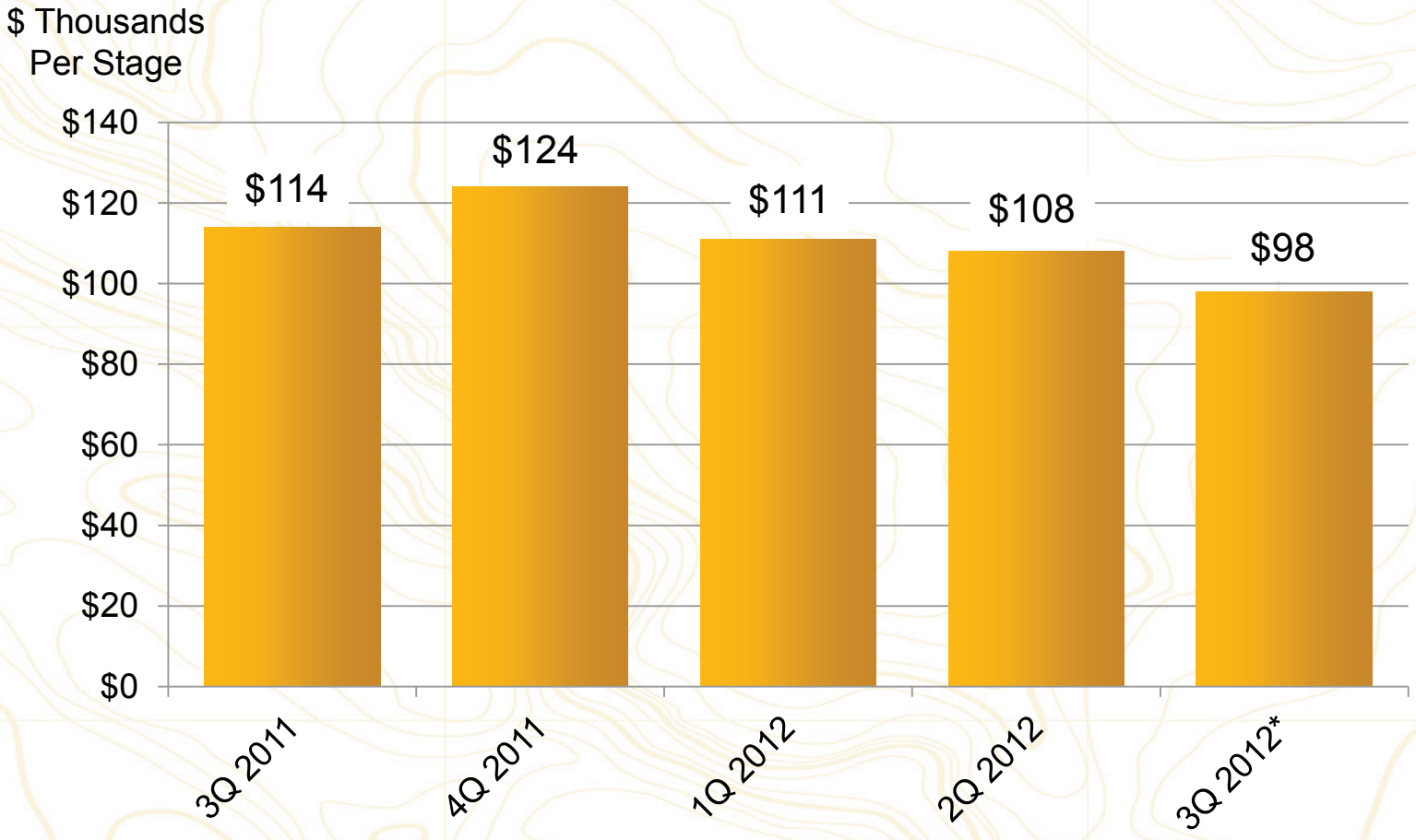
- Vendor relationships
  - Stimulation
  - Trucking
  - Rigs
- Operating efficiencies
- Economies of scale
- Direct purchase of materials
  - Proppant
  - Chemicals
- Design changes

Significant Decrease in Completion Time

- Long-range planning
- Equipment availability
- Execution
- Reduced cost

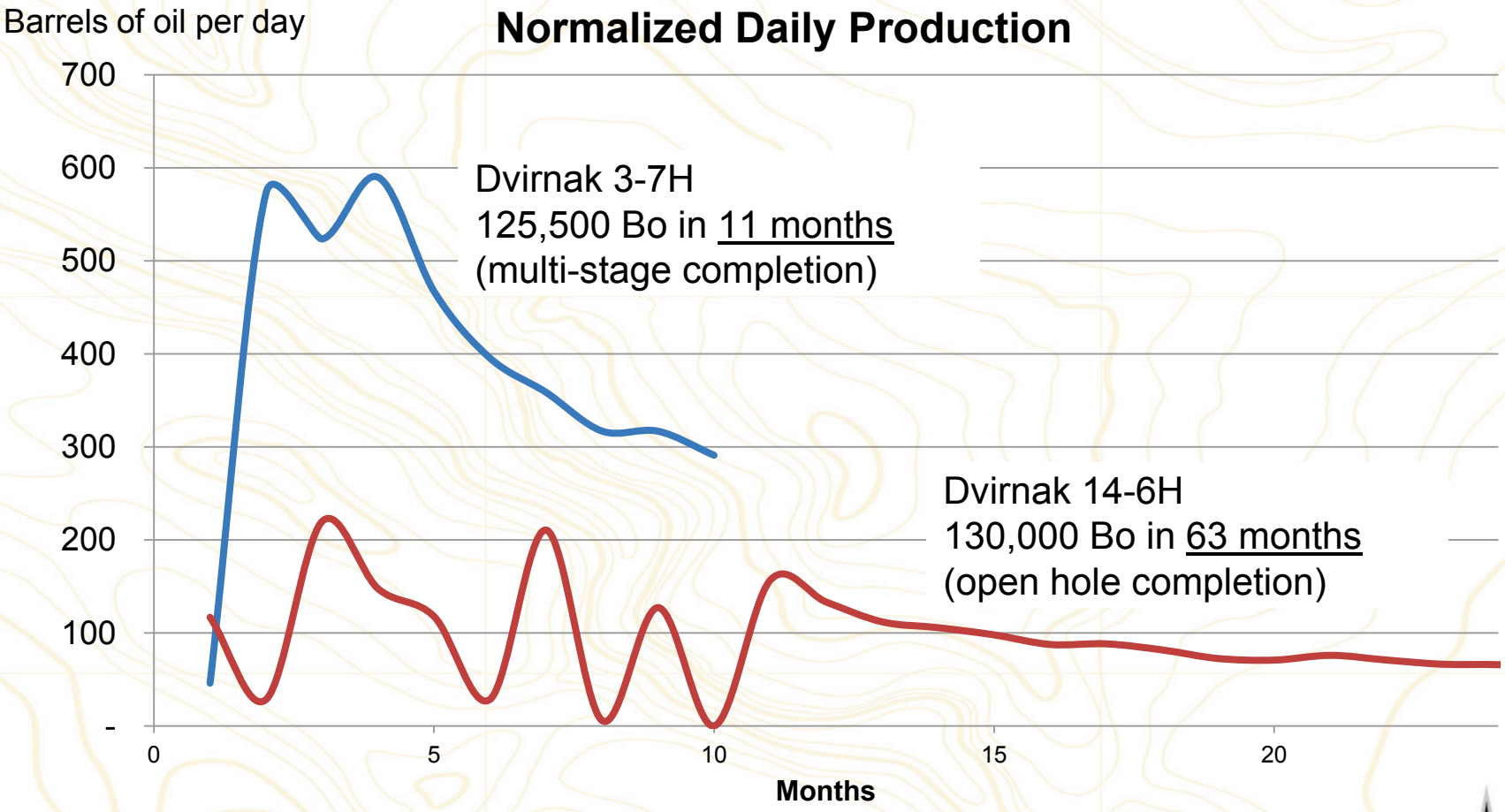


Decreasing Stimulation Costs per Stage*



*Costs include pumping services, wireline, water, packers and plugs. 3Q 2012 through August.

Results of Evolving Technology

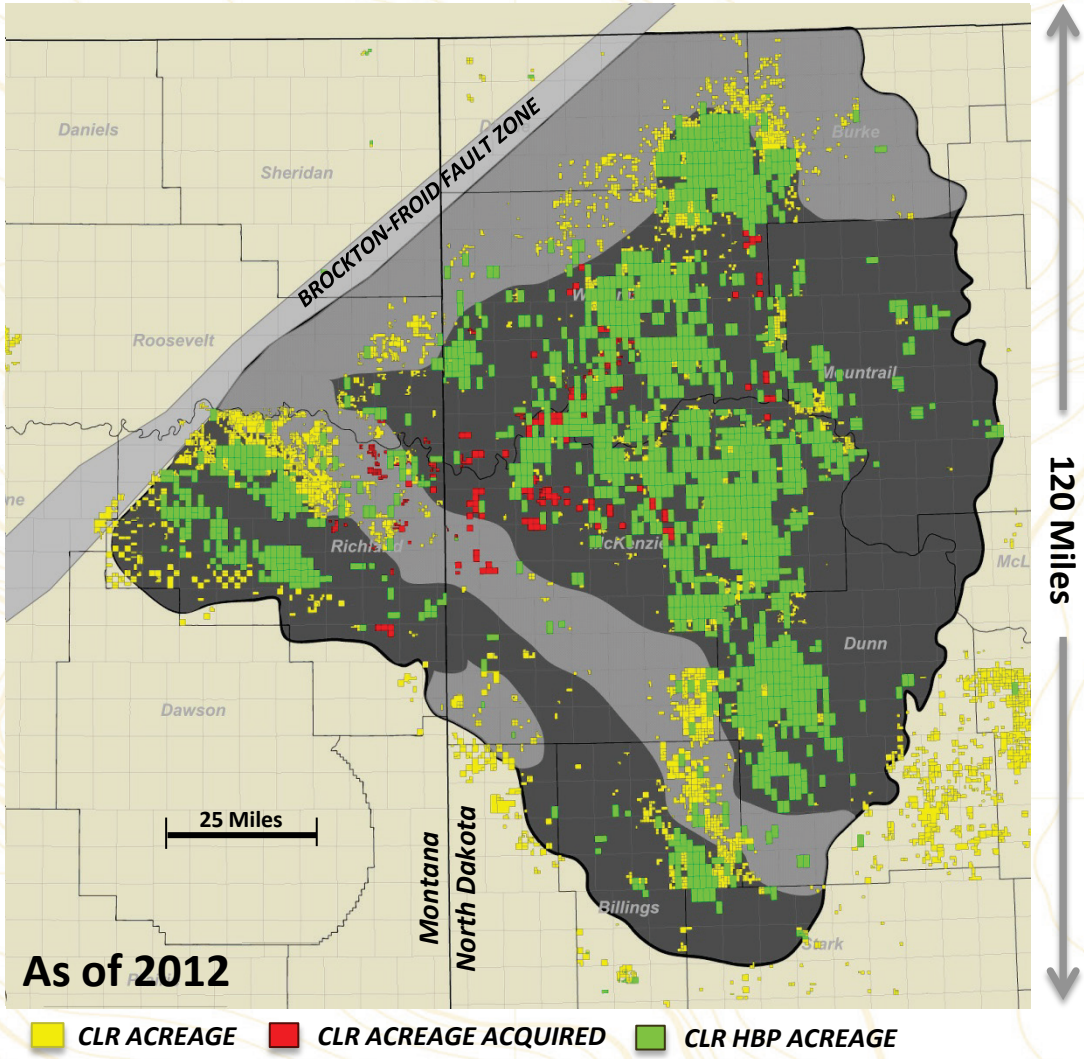


Bakken Infrastructure Investment

- Saltwater disposal systems
  - 6 active operated SWD wells
  - 46,000 Bwpd capacity exceeds current production
  - 3 additional SWD wells planned for 2013
  - SWD control resulting in ~$2/bbl savings
  - Additional SWDs and gathering systems to come
- Fresh water distribution system
  - Supply to well (~$2/bbl savings)
  - Reduced operating costs

Growing and Rapidly Developing Acreage

- 2010 – 855,936 net acres
- 2012 – 972,056 net acres
- Leasing
  - 30,100 net acres added in 2012
- Strategic acquisitions
  - 83,722 net acres over 14 months
- Project by YE2013
  - 85% HBP in ND
  - 65% HBP in MT



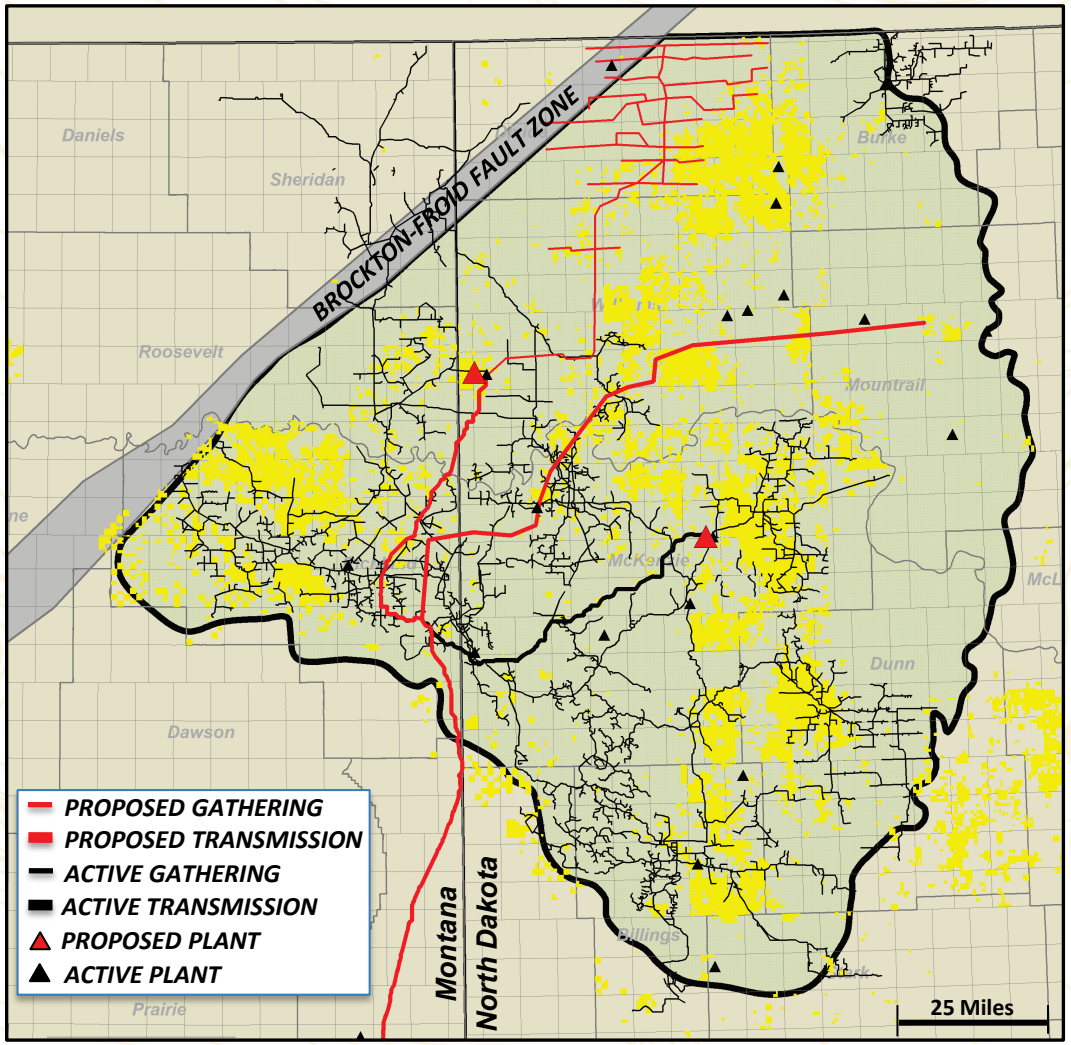
Oil and Gas Marketing

Infrastructure

ONEOK Gathering & Processing

2012 Infrastructure investment

- 275 MMcfd compression capacity
- 145 miles large diameter gathering lines
- 4 processing plants
  - Garden Creek I & II (200 mmcfd)
  - Stateline I & II (200 mmcfd)
- Divide County gathering system
- 615 miles Bakken NGL pipeline (2Q13)
- 37 miles dual high-pressure pipelines
- 166 wells connected

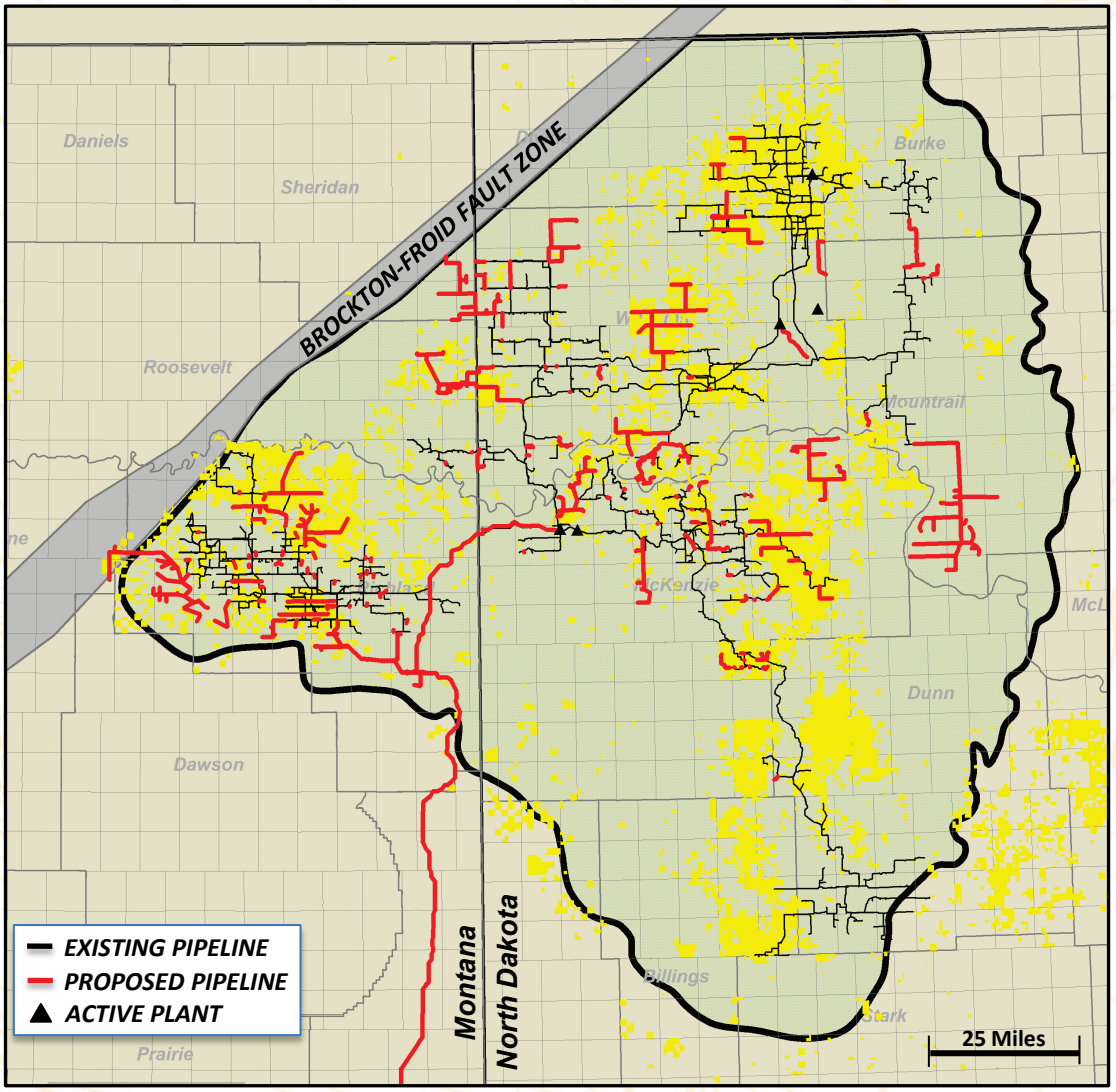


Infrastructure

Hiland Gathering & Processing

2012 Infrastructure investment

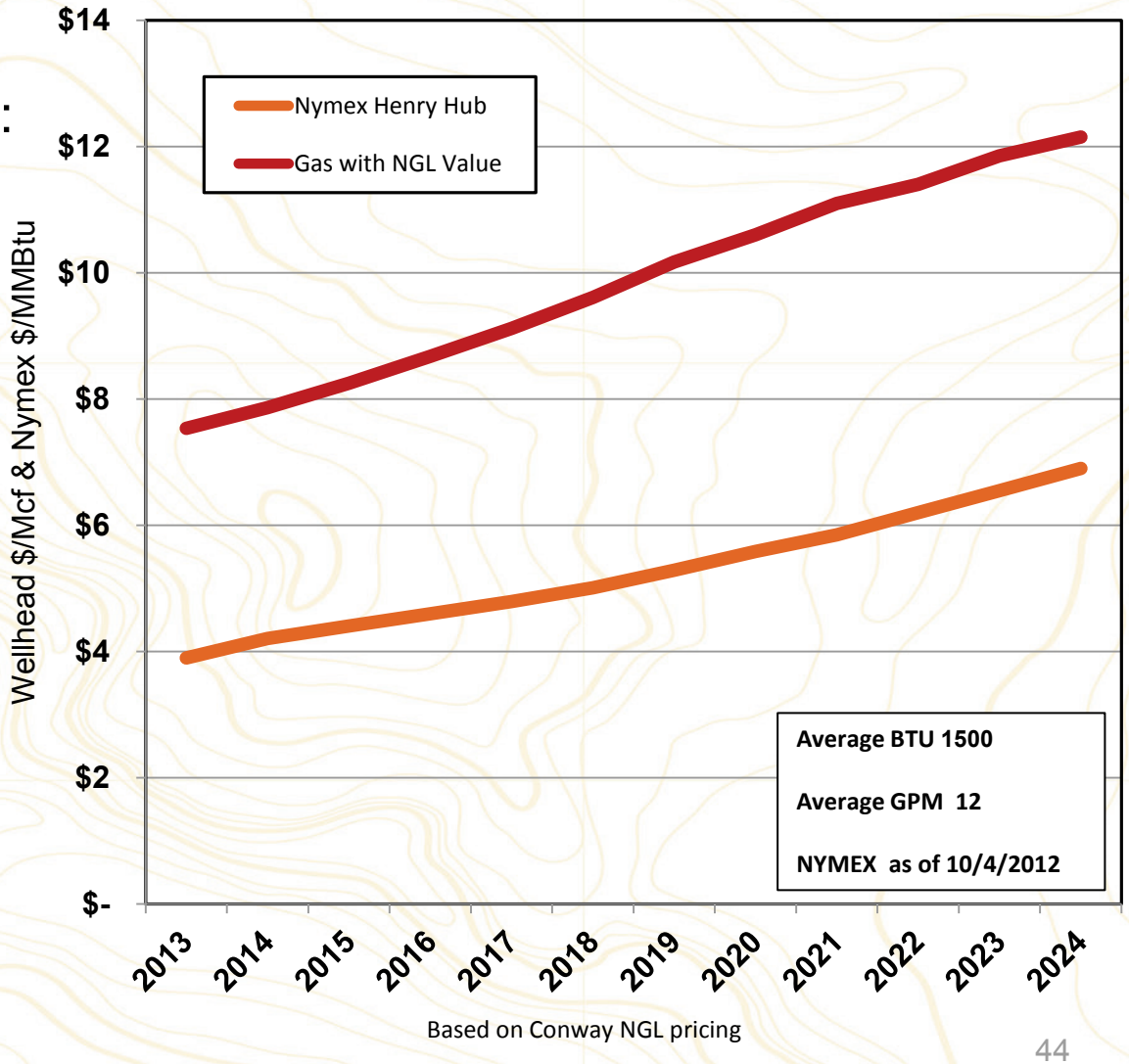
- 150 MMcf/d processing capacity
  - MT Bakken plant
  - ND Norse plant
  - ND Watford City plant
- 73,000 horsepower compression
- 1,000 miles of gathering lines
- 267 wells connected



North Dakota Net Price Forecast

Anticipated pipeline startups:

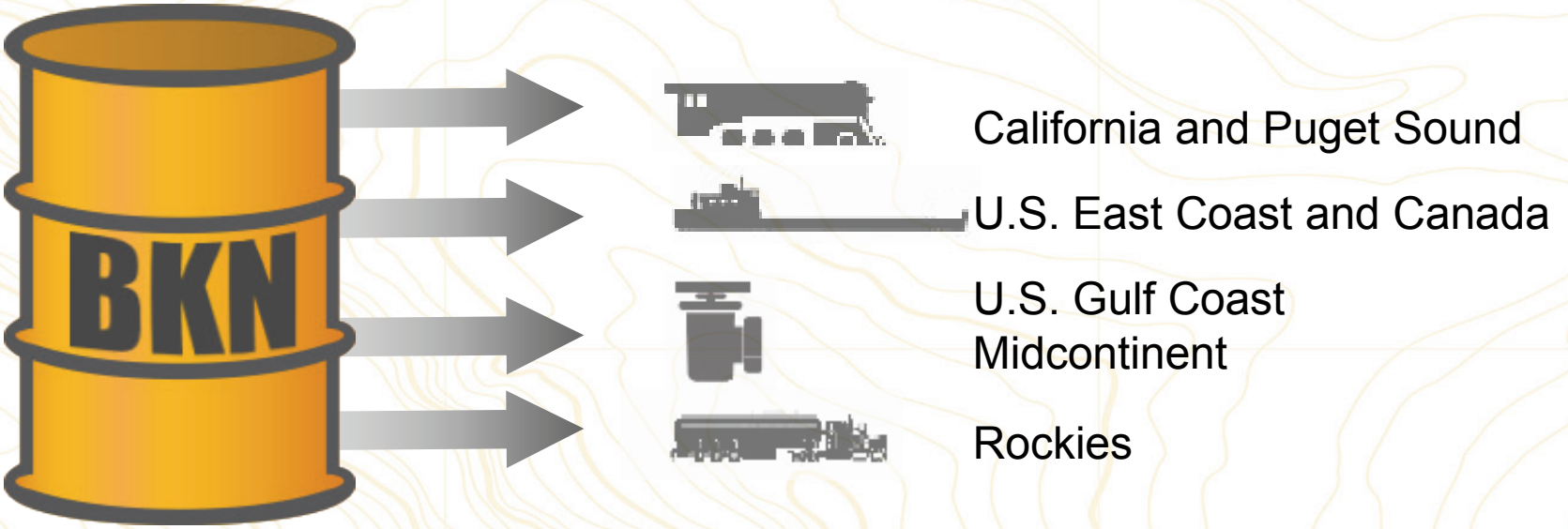
- ONEOK NGL pipeline (2Q13)
- Alliance wet gas pipeline
  - Tioga lateral (3Q13)
- Vantage ethane pipeline (2Q13)



Crude Oil Marketing Guiding Principles

- Reliability: Move 100% of production every day
- Diversification: “Portfolio approach” to transportation modes and outlets
- Optimize: Anticipate market dynamics
- Maximize Value: Improve Bakken basis to other benchmarks

Where Are We Now? Where Are We Going?



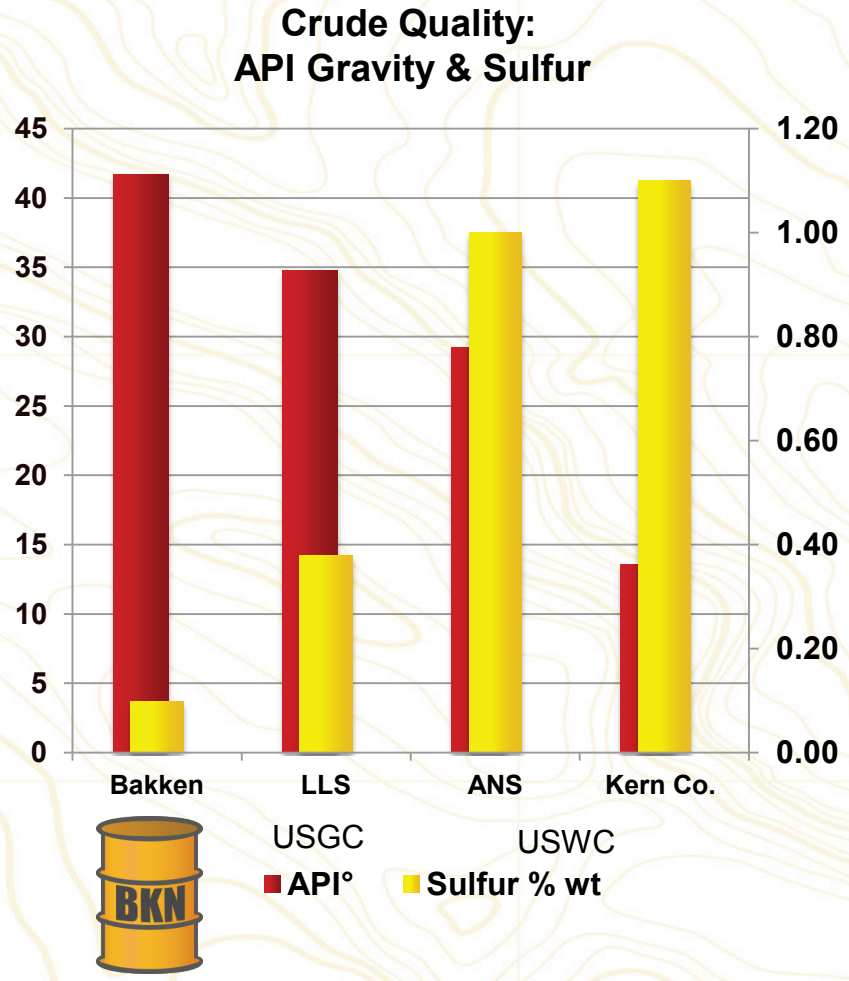
- Ability to deliver Bakken Premium Quality (BKN) to all regional transportation systems
- Have secured base-load pipeline takeaway space and are evaluating proposed projects
- Implementing strategies to reduce gathering and rail transportation costs
- Adding transport capacity to increase deliveries to premium markets

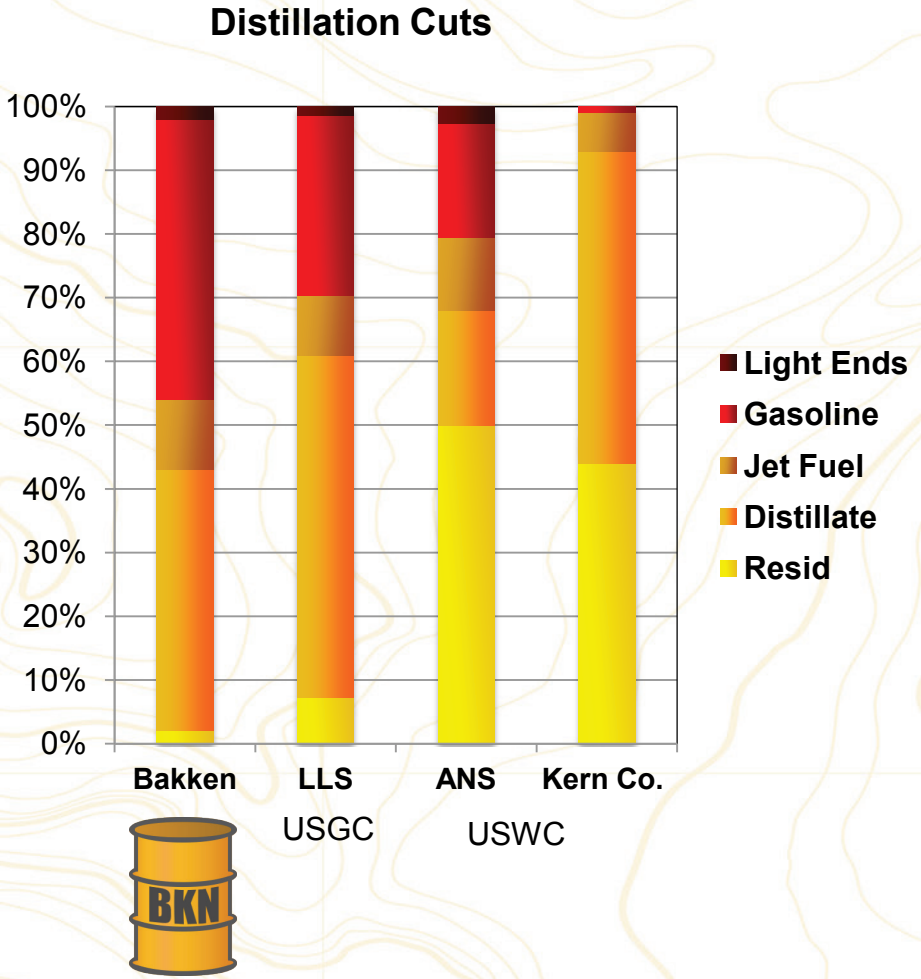
Bakken Premium Quality

Improving the health of the N. American refining industry by:

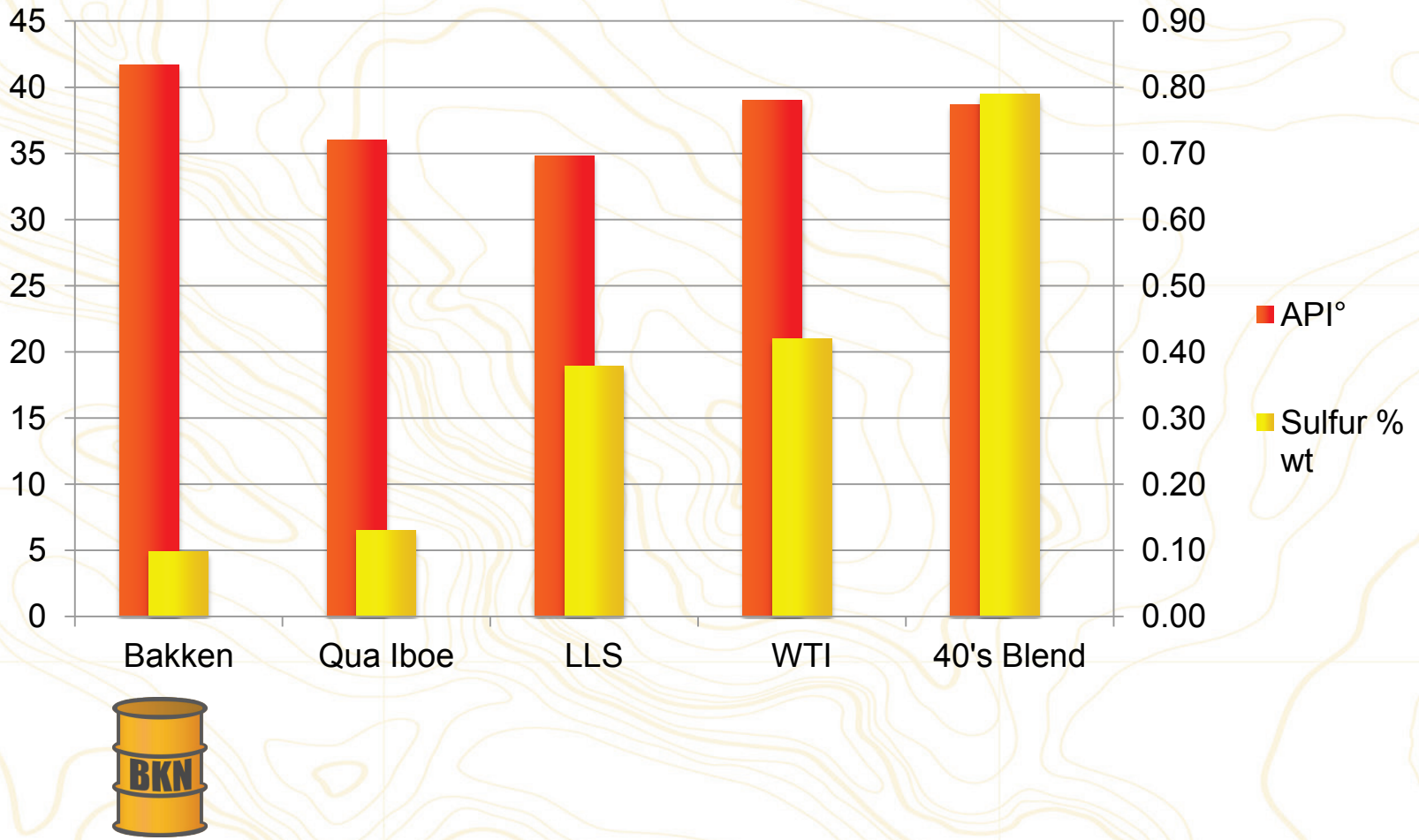
1. Replacing higher-priced foreign sweet & Alaskan N. Slope supplies.
2. Supplying quality blendstock to heavy/sour refiners to assist in meeting low-sulfur refined fuel specs.
3. Enabling higher run rates with fewer vapor or bottoms concerns.
4. Becoming a favorite feedstock of lube and petrochemical manufacturers.

Improved Refinery Yields vs. Other Benchmarks

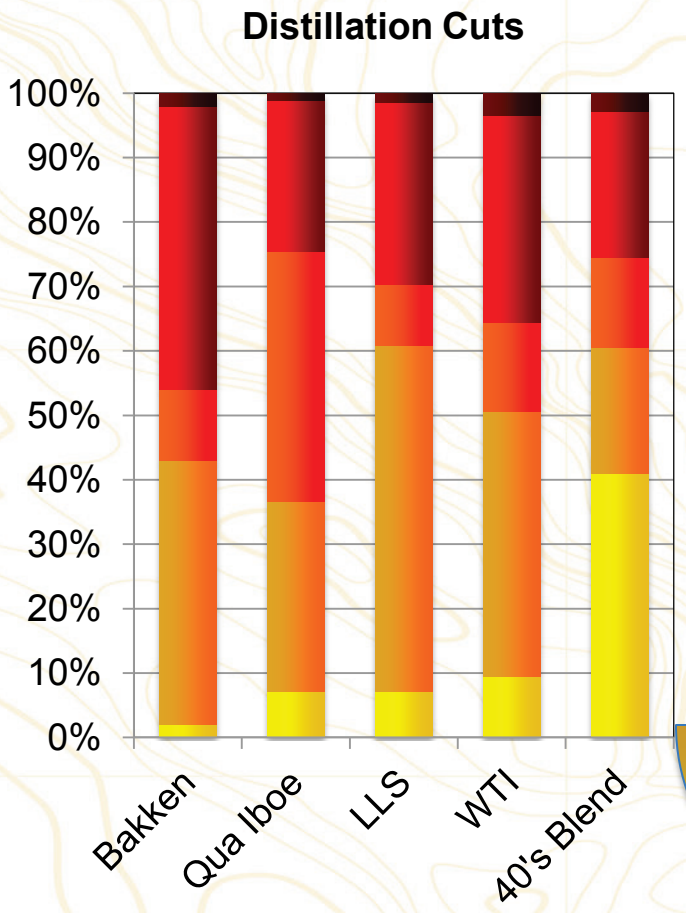


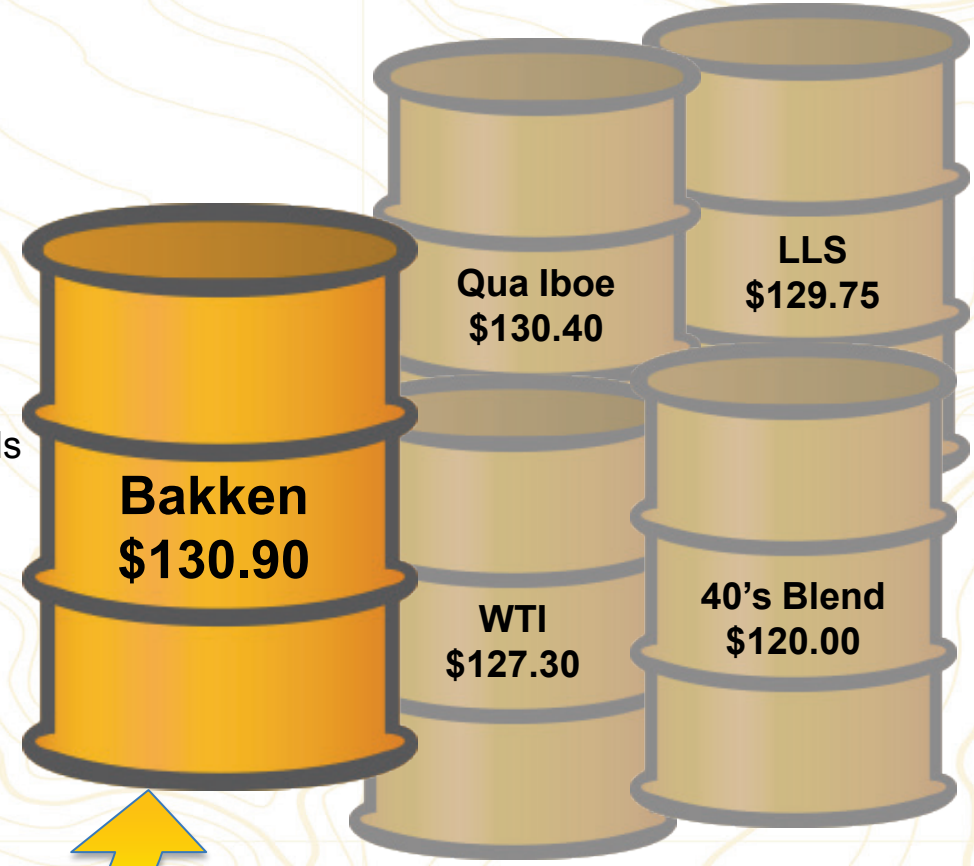


Bakken Premium vs. Other Sweet Crudes



Improved Refinery Yields vs. Other Benchmarks



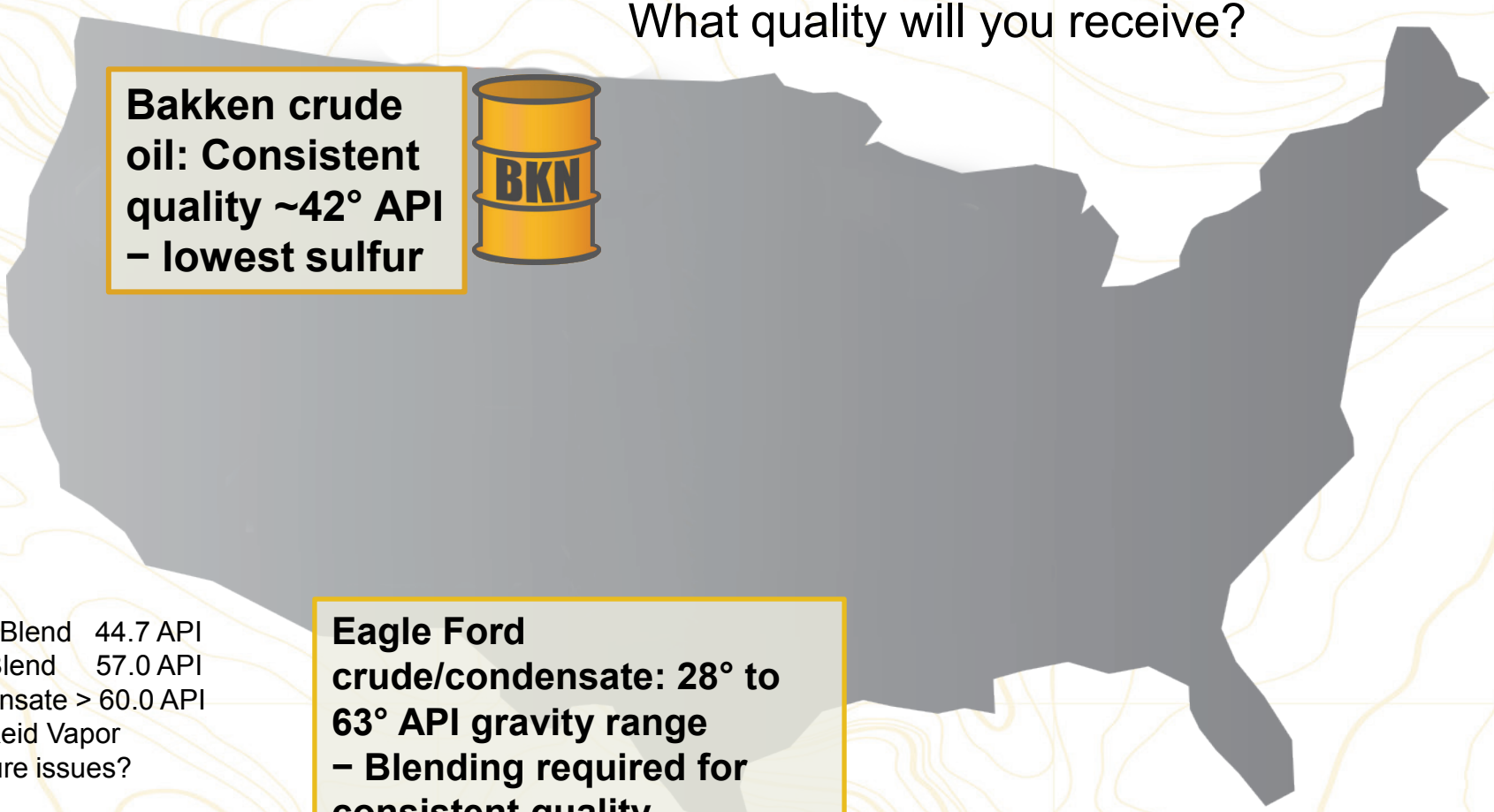


EIA Weekly Status Report – NY Harbor/Mt. Belvieu, CME 9/21/2112 prices

The “Big 2” North American Tight Oil Plays

What quality will you receive?

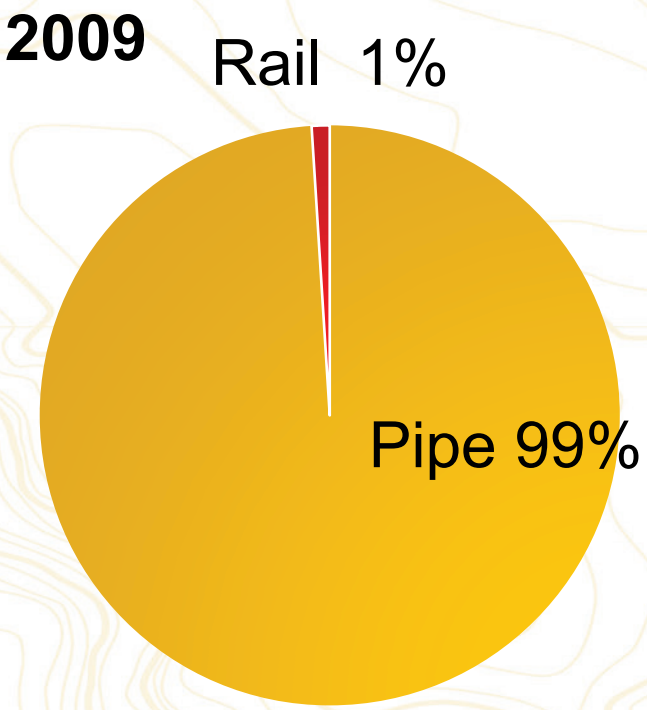
Bakken crude oil: Consistent quality ~42° API – lowest sulfur



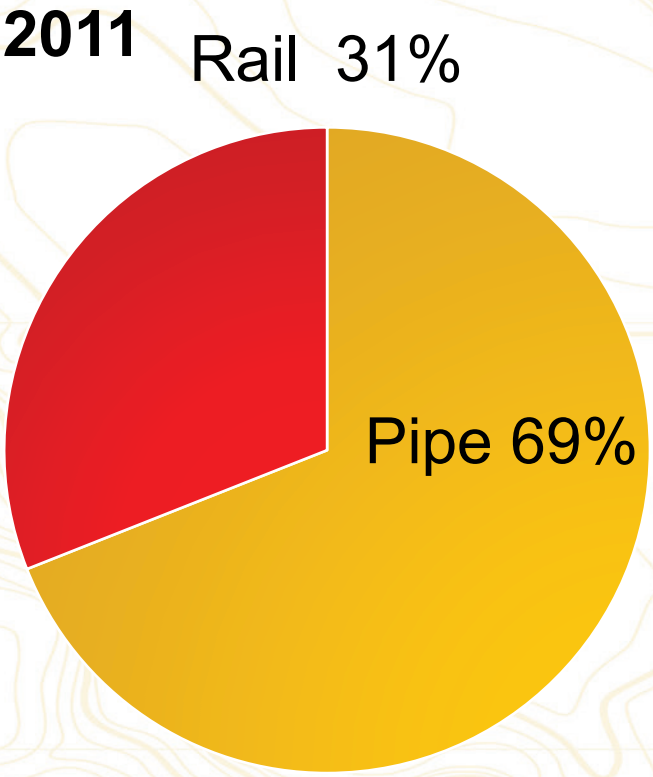
Crude Blend 44.7 API
Light Blend 57.0 API
Condensate > 60.0 API
High Reid Vapor Pressure issues?

Eagle Ford crude/condensate: 28° to 63° API gravity range – Blending required for consistent quality

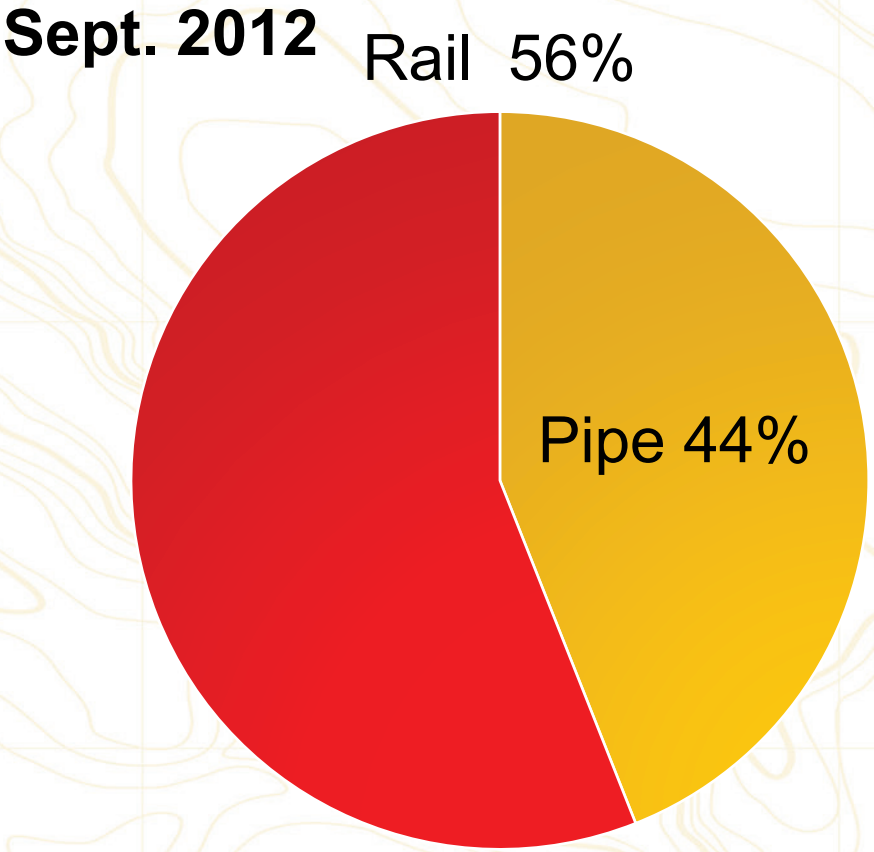
Bakken Transportation Analysis 2009-2012



Bakken Transportation Analysis 2009-2012

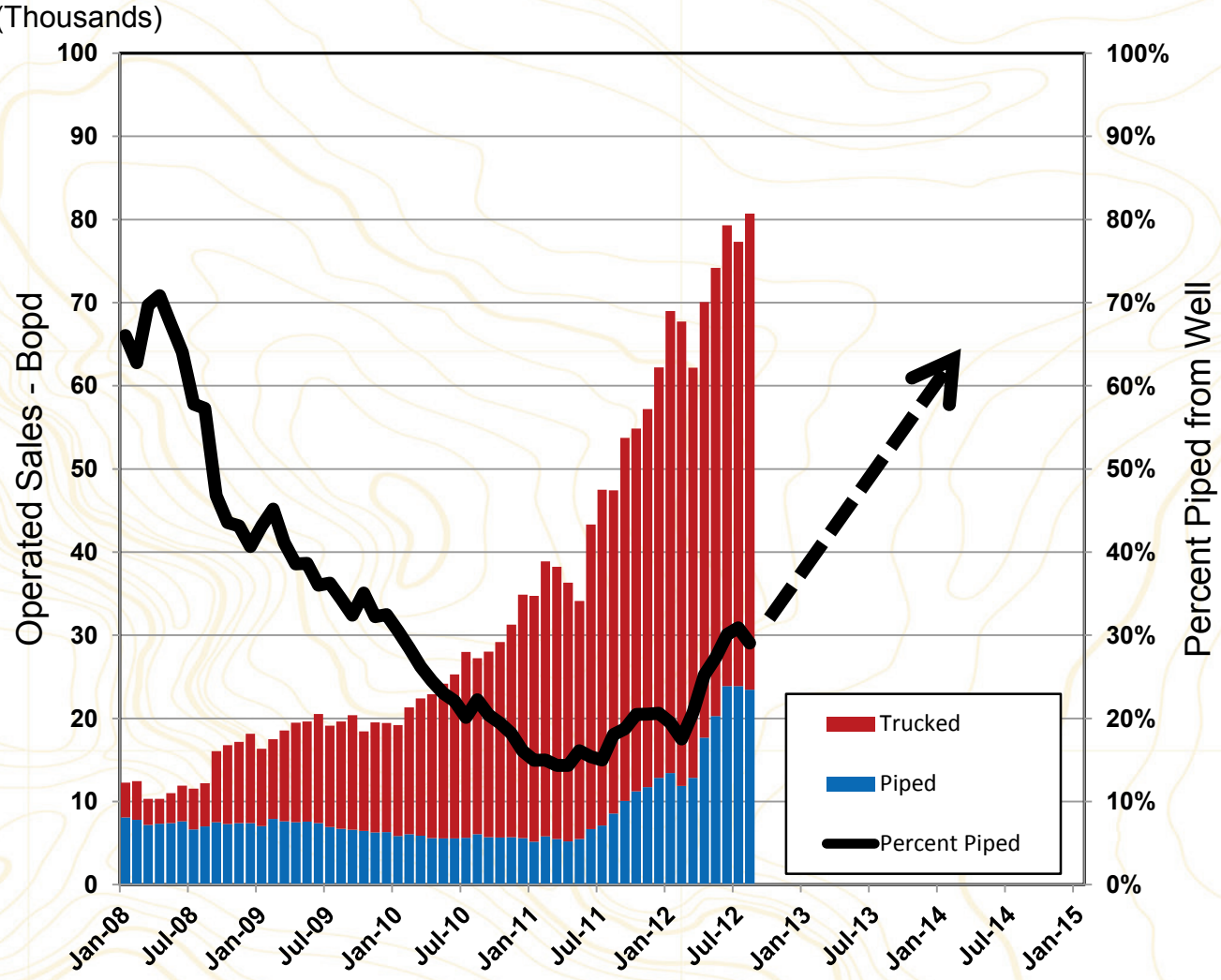


Bakken Transportation Analysis 2009-2012

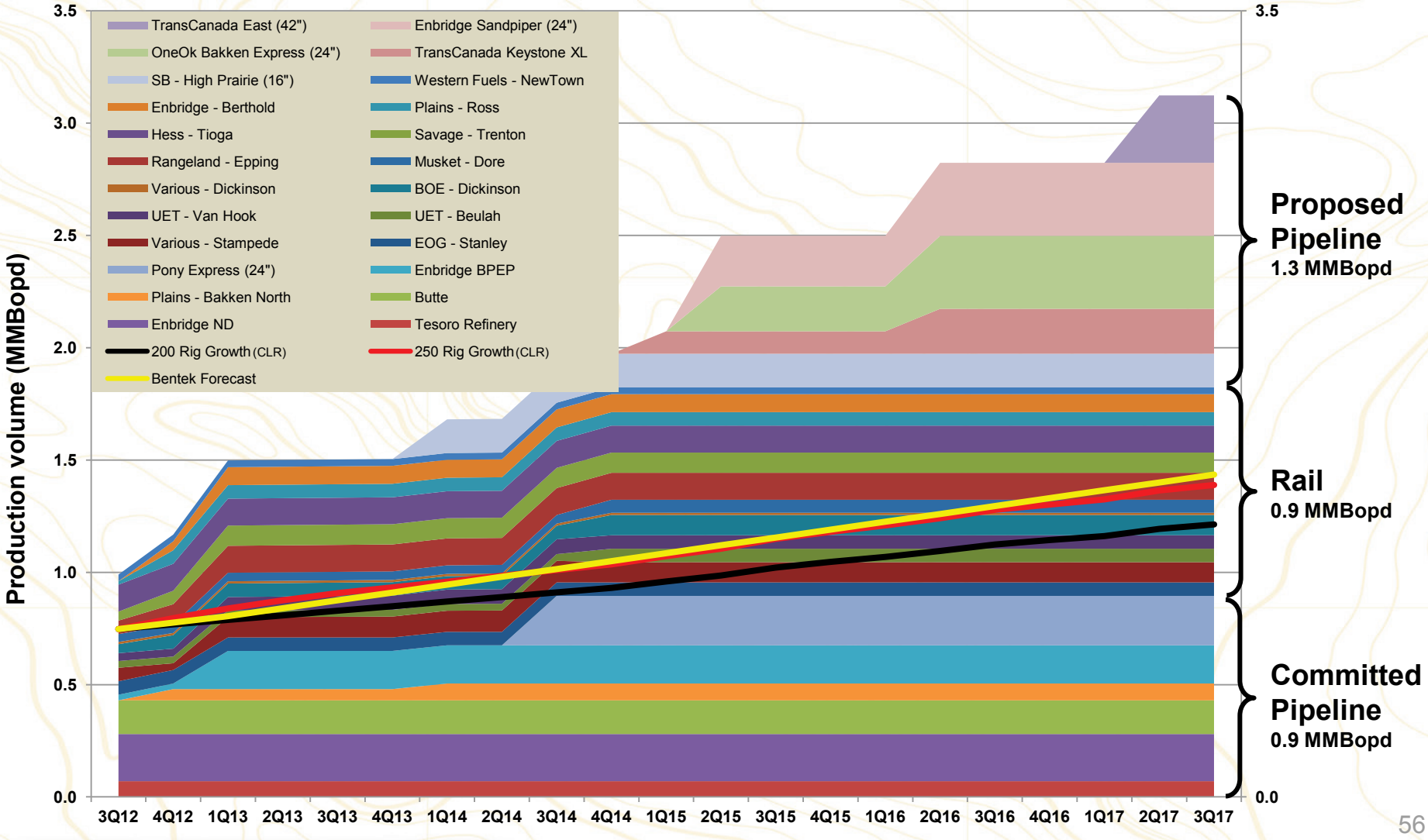


"1st Mile" Infrastructure

- Wellhead gathering
  - Montana Gathering
  - Four Bears
  - Market Center
- Cost savings
  - $1.50 to $2.00/bbl
- Goal
  - 65% piped by YE2013
  - 80% piped by YE2017



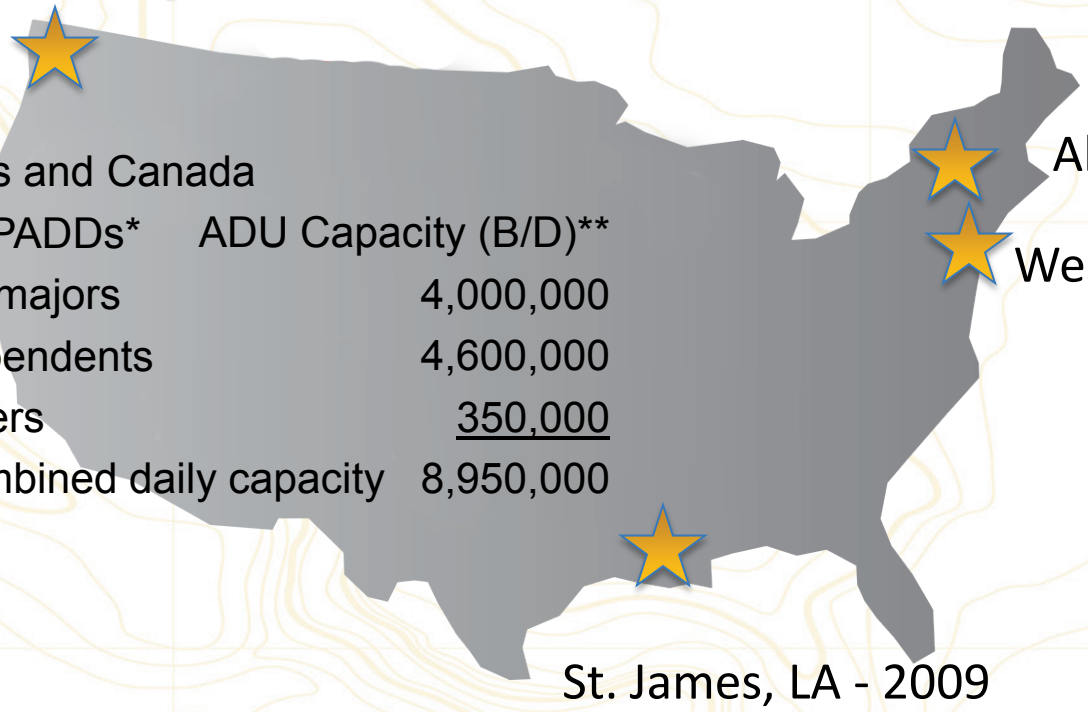
Williston Basin Evacuation Capacity



CLR Going Directly to North American Refiners

Reliable supplier to a wide cross-section of refiners

Anacortes, WA - 2012



- United States and Canada
- All five U.S. PADDs*

	ADU Capacity (B/D)**
3 integrated majors	4,000,000
6 large independents	4,600,000
4 small refiners	350,000
Combined daily capacity	8,950,000

* PADDS: Petroleum Administration for Defense Districts; **ADU: Atmospheric Distillation Unit (Barrels per Day)

Tesoro Refinery – Anacortes, Washington

CLR 1st shipper, Sept. 2012

Market Differentials to Brent

Expanding Infrastructure*

2012

- Seaway 150 MBopd

2013

- Enbridge BPEP 120 MBopd
- Seaway 250 MBopd
- Keystone GOM 400 MBopd
- Enbridge 9a Reversal 100 MBopd

2014

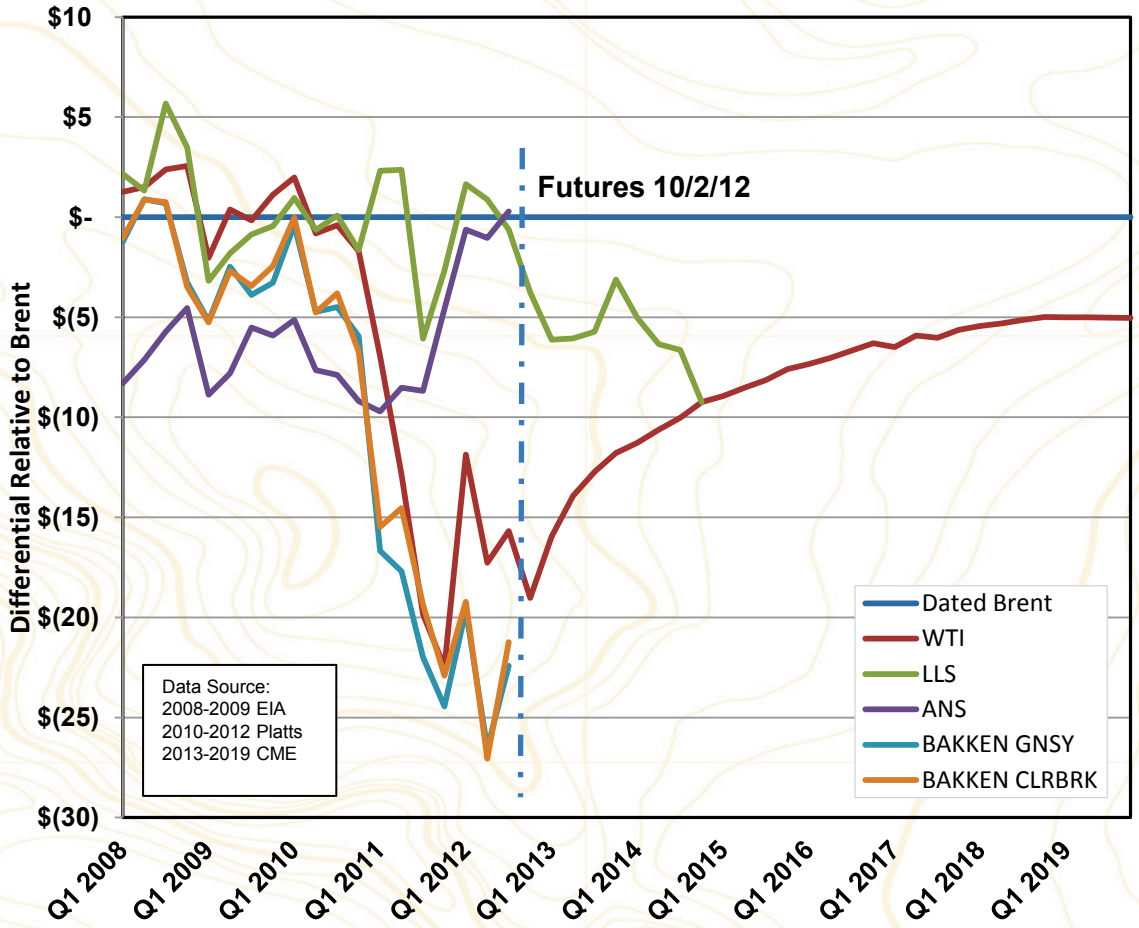
- High Prairie 150 MBopd
- Seaway II 450 Mbopd
- Enbridge 9b Reversal 140 MBopd
- ET Trunkline 400 MBopd
- Pony Express 200 Mbopd
- Enbridge Flanigan South 600 MBopd

2015

- Enbridge Sandpiper 325 MBopd
- OneOk Bakken Express 325 MBopd
- Keystone XL 200 MBopd

2016

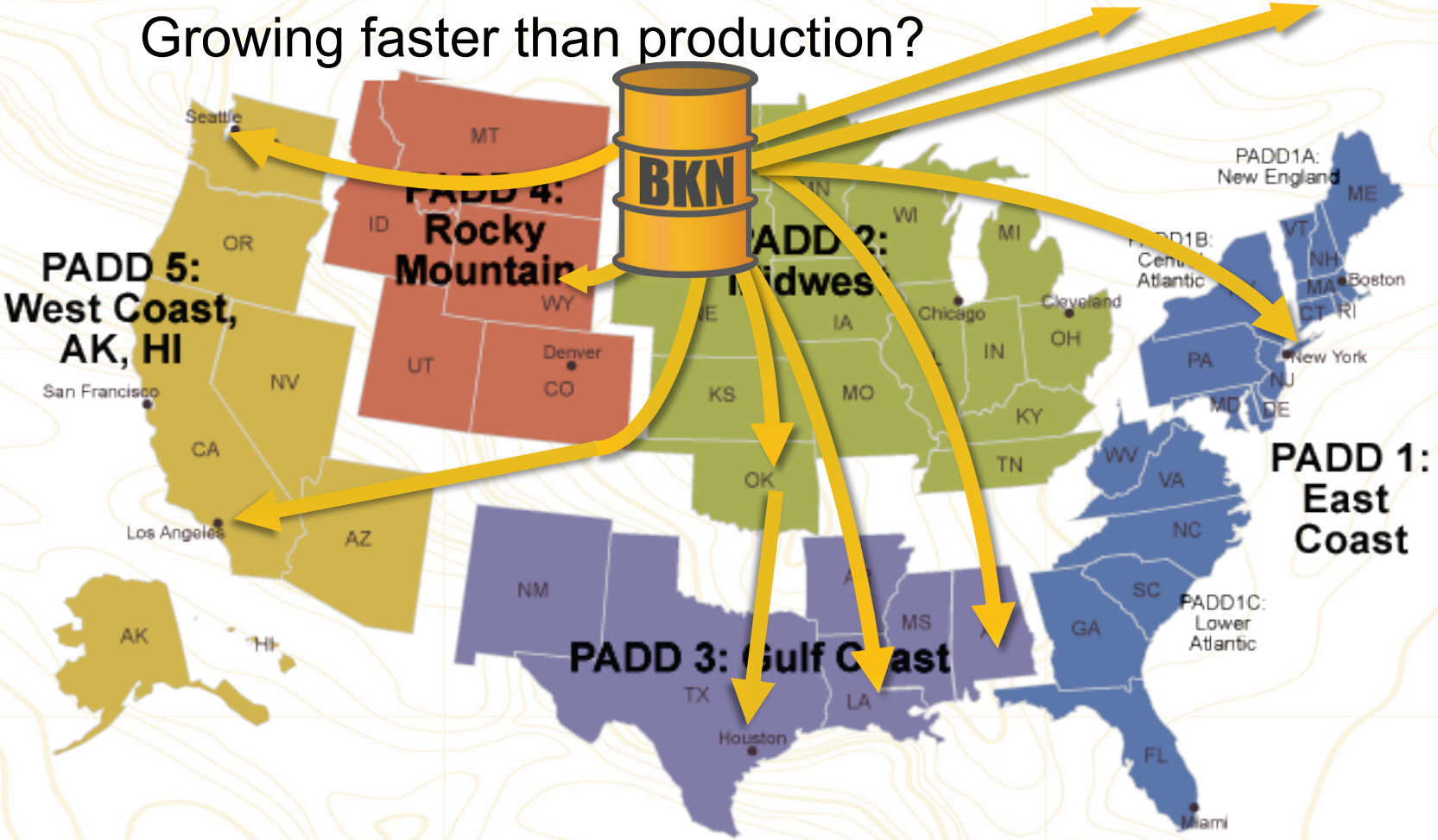
- Enbridge Mainline East 300 MBopd



*Black is direct benefit impact on Bakken; red is indirect benefit impact.

The Market for Bakken Premium Quality…

Growing faster than production?



QUESTIONS?