Williston Basin

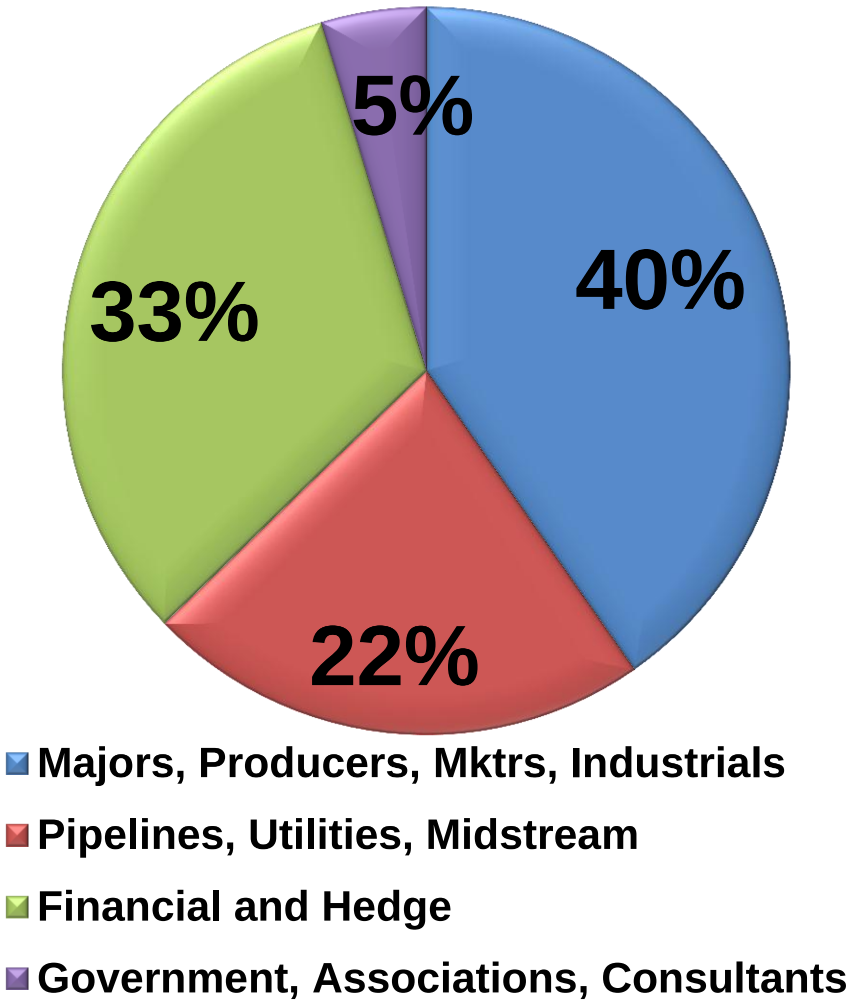
Greasing the Gears for Growth in North Dakota

NDPA/NDIC Study

Presented By:

BENTEK *Energy*

BENTEK Energy



Who We Are

- Based in Evergreen, CO
- 120+ People
- 500+ Customers
- Reports, Data, Consulting, and Tools
- Subsidiary of McGraw-Hill/Platts

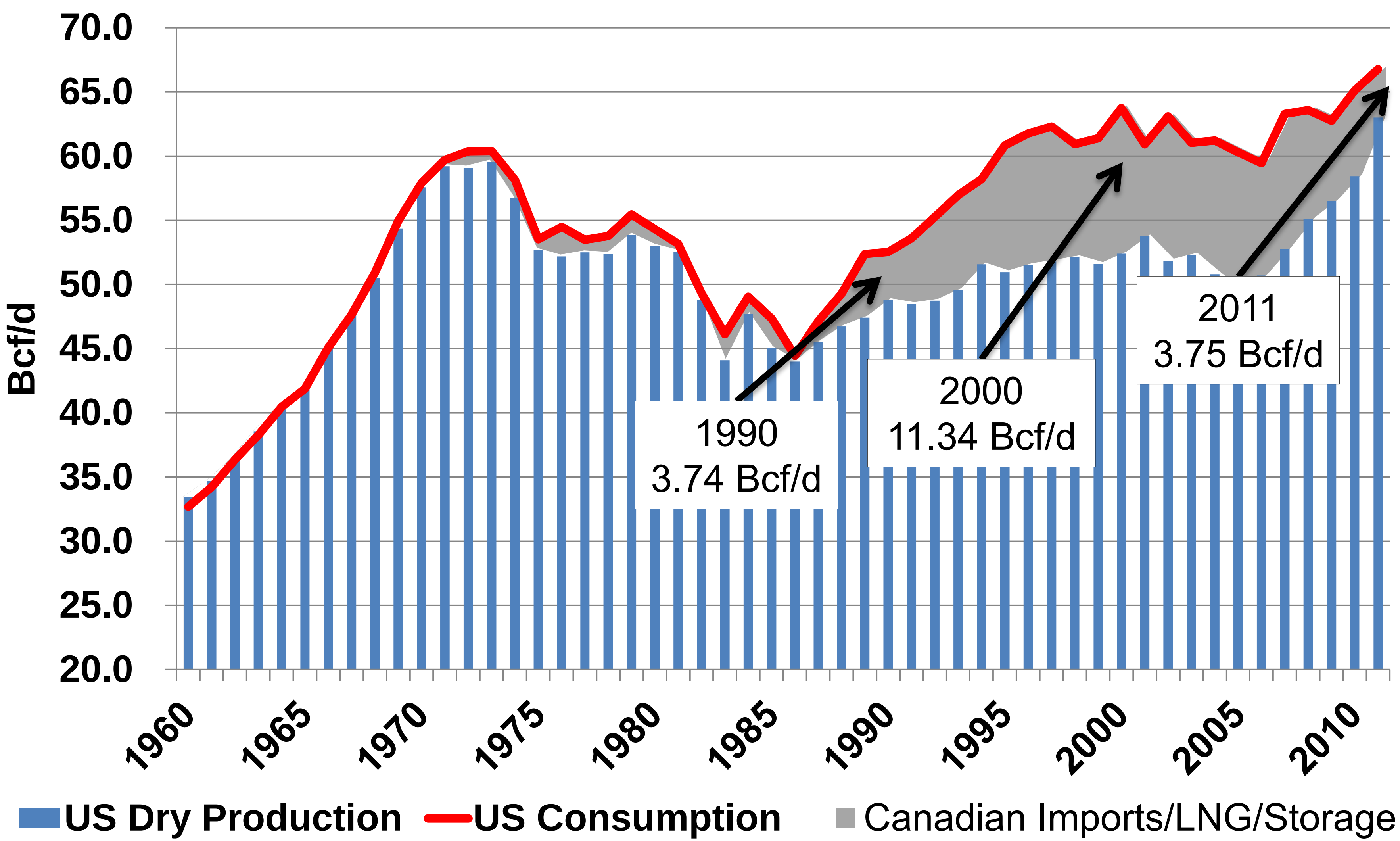
Basin Conclusions

- The Williston Basin Is Benefiting From the Significant Shift in Natural Gas Dynamics as a Result of:
  - A Realignment of Producer Investment Criteria Toward Oil and NGL Plays.
  - Reduction in Production From Neighboring, Less Economic Producing Basins.
- While Still Early, Current Data Suggests the Basin Could Yield Higher Future Gas and NGL Volumes Due to a Rising Gas to Oil Ratio (GOR).
- Strong Drilling Economics, a Rising GOR and Greater Efficiency Will Increase the Future Output From the Basin. Under BENTEK's Base Case Scenario, Oil Production Will Climb to 2.2 MMB/d and Gross Gas Production Will Top 3.0 Bcf/d by the end of 2022.

Basin Conclusions (Continued)

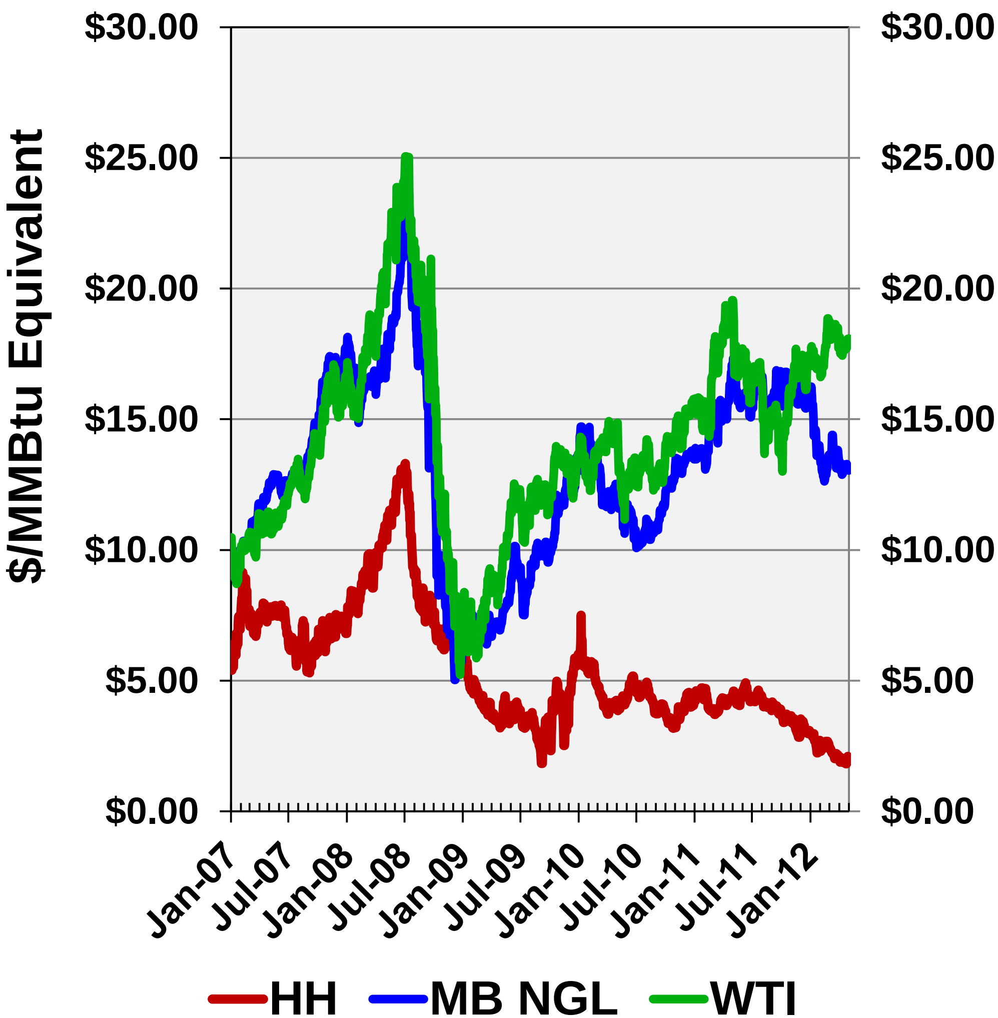
- Oil Prices and Oil Infrastructure Takeaway Capacity Are Primary Drivers of the Strong Economics in the Region and Will Ultimately Drive Growth.
- Given Growth Expectations, Significant Midstream Investment Will Be Required To Capture Natural Gas and NGL Value in the Basin.
- Williston Basin Economics Enable Producers in the Region to Sufficiently Compete on Price with Upstream Natural Gas Supply In the Rockies and Canada for Space Out of the Region on Existing Infrastructure.

Natural Gas Supply Growth is Changing The US Energy Landscape



Source: EIA

Commodity Price Disparities Are Shifting Producer Behavior



Source: ICE, EIA

- Low Natural Gas Prices Are Forcing Producers to Revaluate Economics and Investment in Conventional and Even Unconventional Lean Gas Assets.

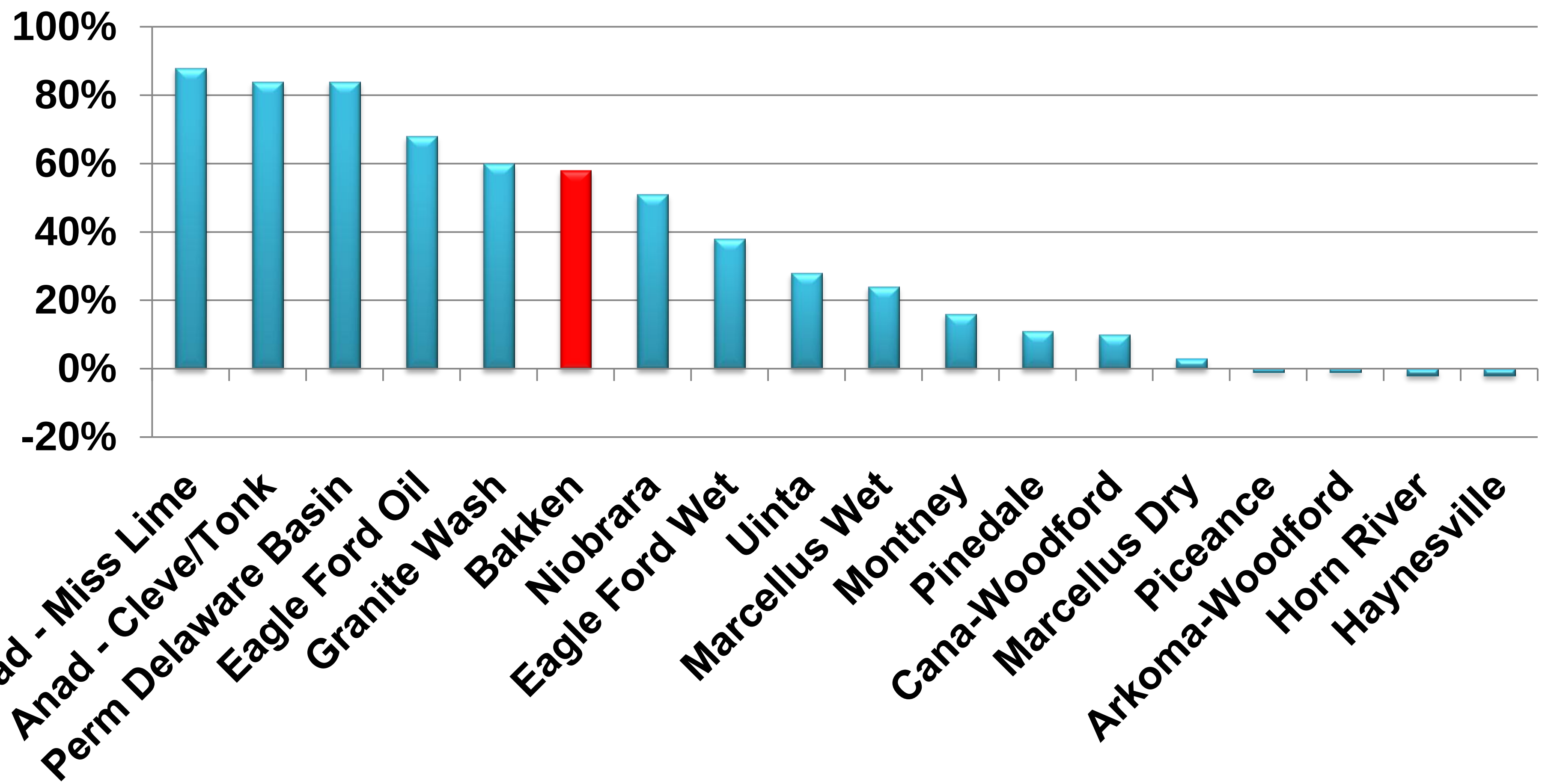
AND

- Higher Relative Oil and NGL Prices Incentivize Producers to Redirect Resources Toward Assets With a Higher BTU Content.

ARE

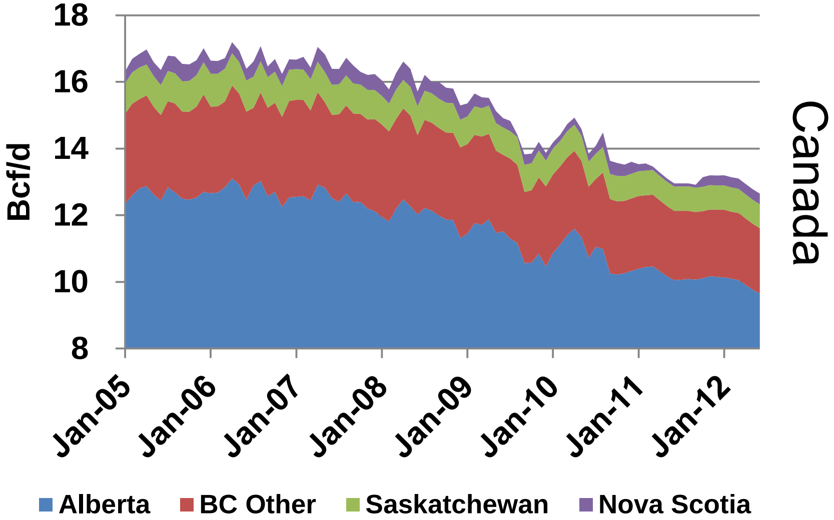
- Driving Capital into the Williston Basin and Reducing Competition For Space on Existing Infrastructure Moving Gas Out of the Area.

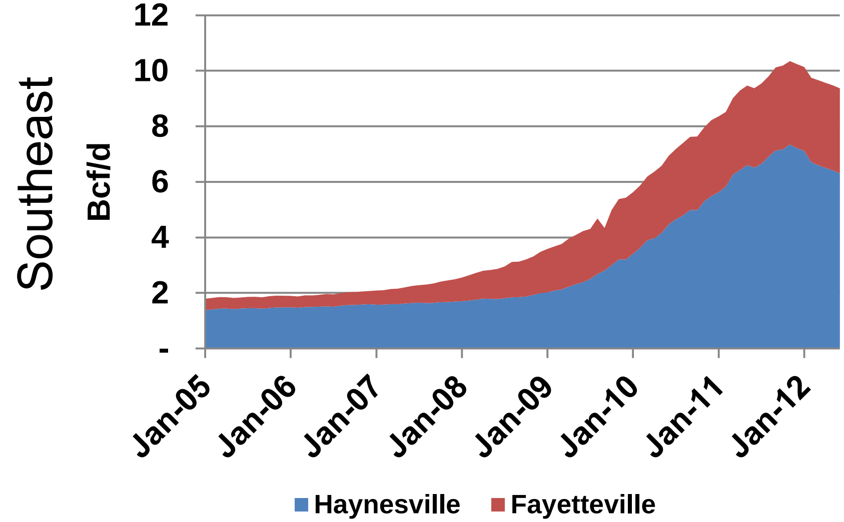
Bakken Earns Above Average Returns



Price Assumptions: *Gas = 12 month forward average curve for each regional pricing point as of June, 2012 (price range $2.45-$2.86/Mcf)*
Oil = 6 month average WTI +/- differential as of June, 2012 (price range $84.40-$100.43/barrel)
NGLs = weighted average $/barrel based on current Mt. Belvieu prices and the typical composition in each region (range $23.79-$45.22/barrel)

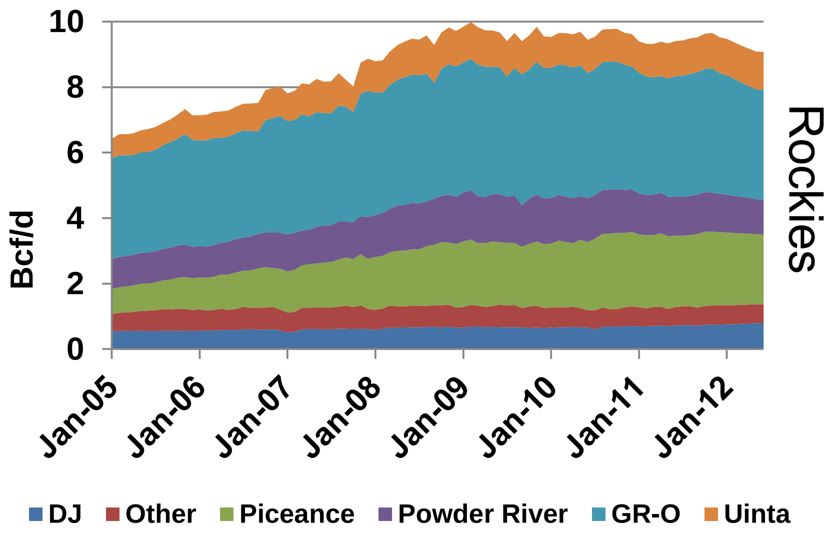
New Economic Realities Challenge Basin Returns

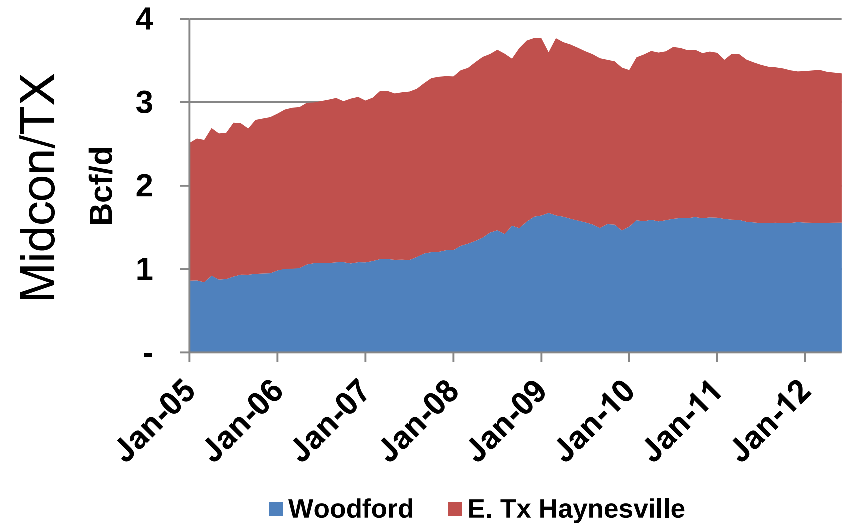




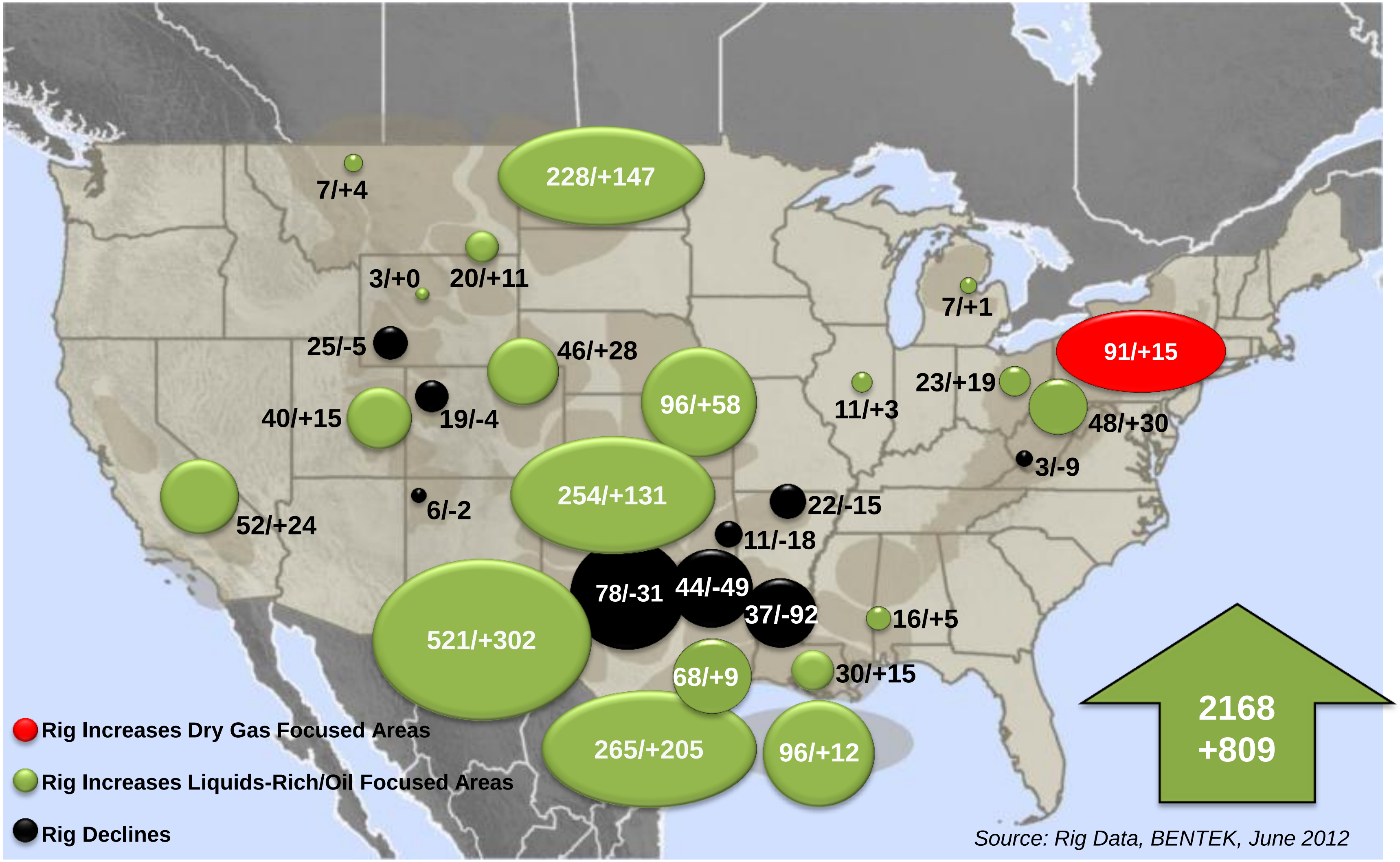
Conventional

Unconventional



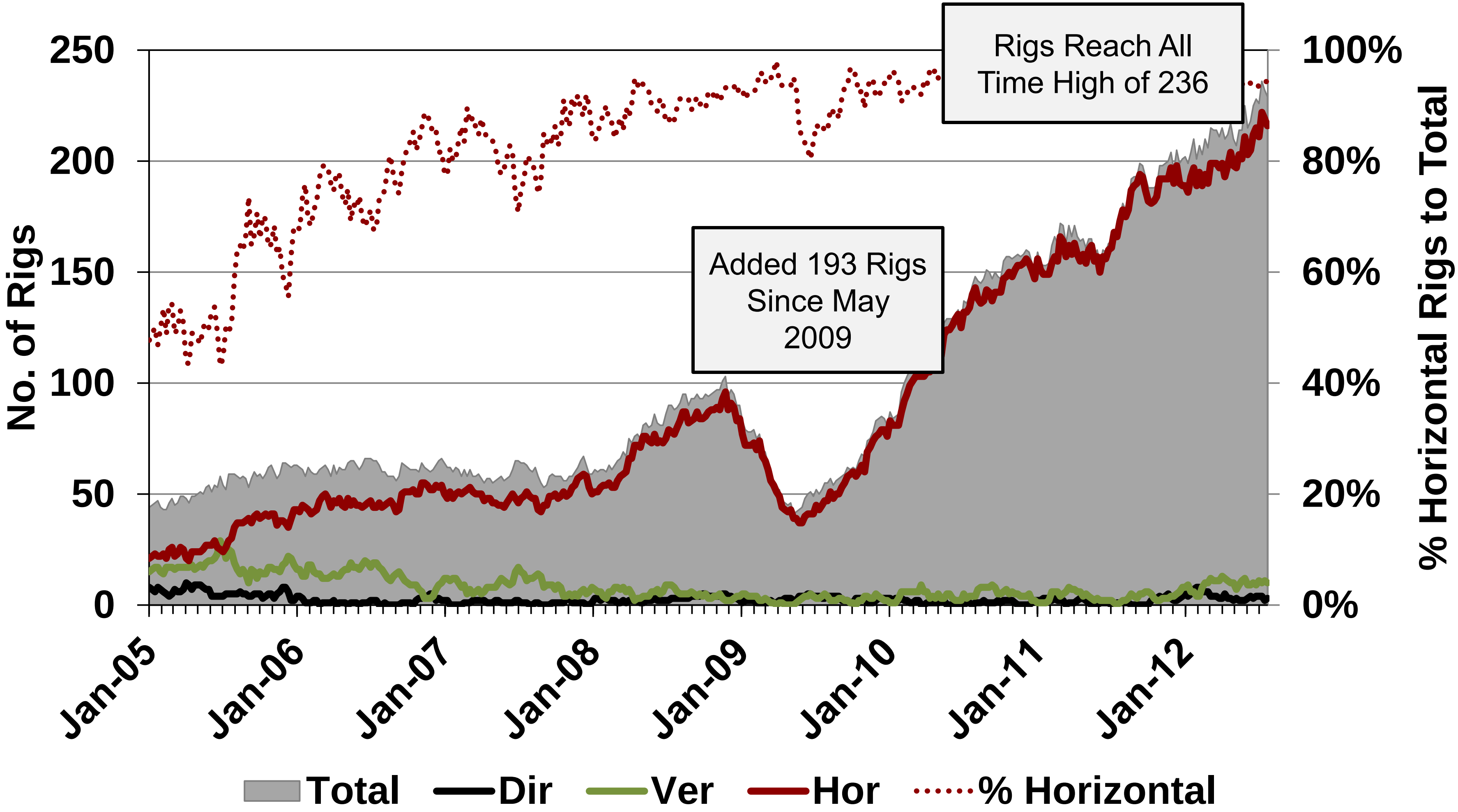


Plays With High Returns Attract Drilling Rigs



Active rig count: June 15, 2012 / Change in rig count from Jan. 1, 2010

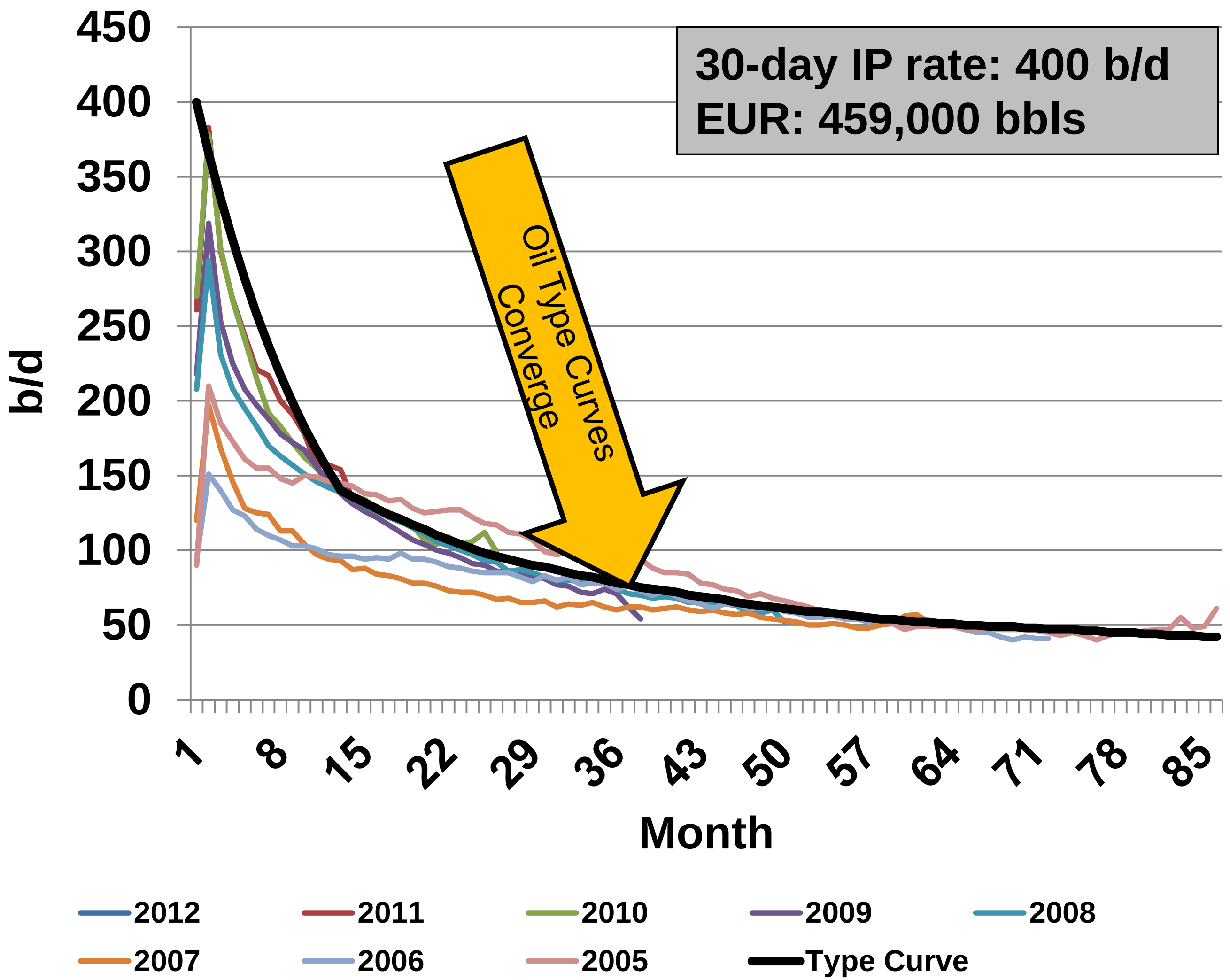
Capital Moving to Oil - Williston Basin (MT and ND) Rigs



RigData: July 2012

Williston Basin Forecasts

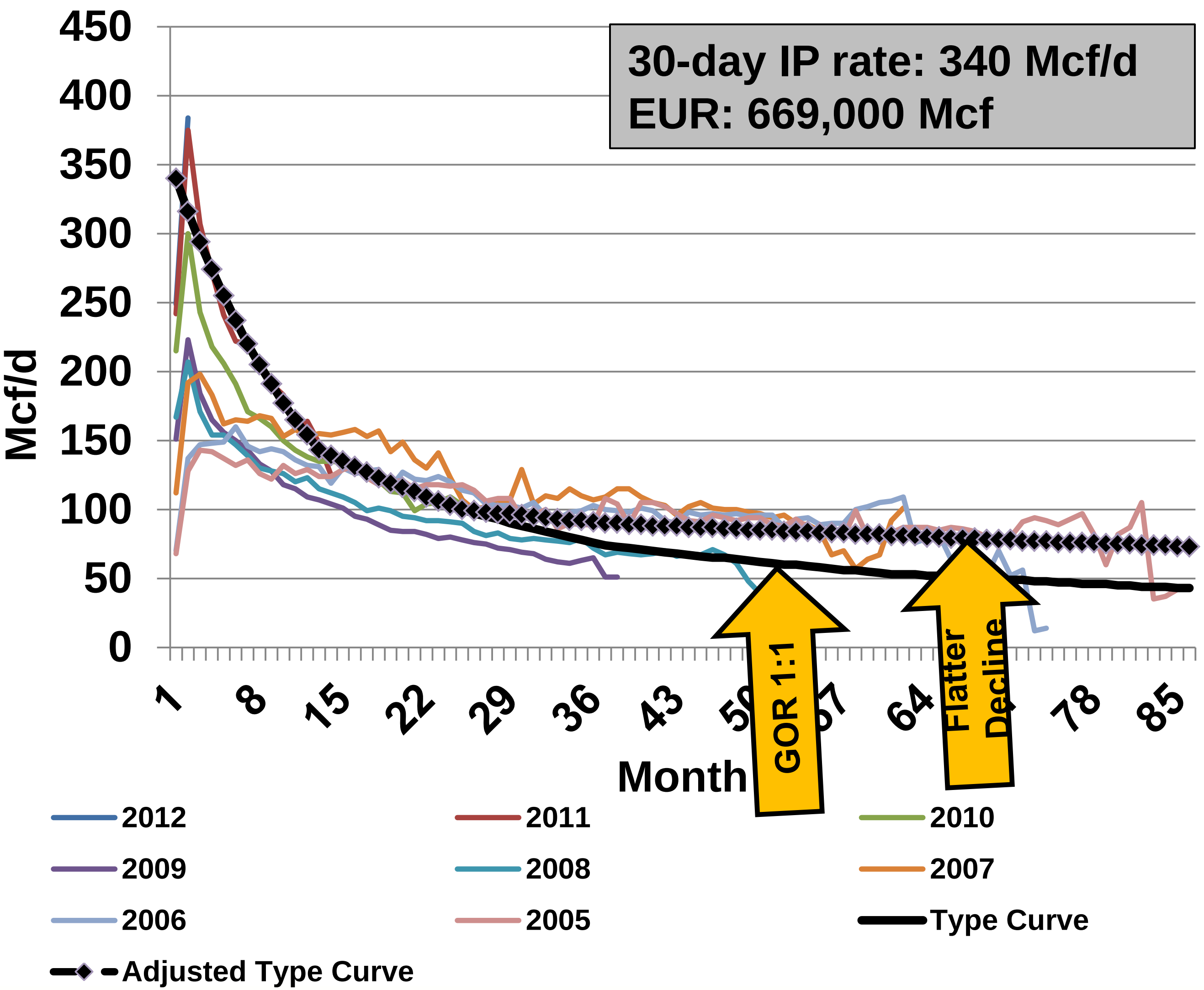
Williston ND Horizontal Oil Type Curve Converges



Yr	Decline
1	65%
2	30%
3	22%
4	19%
5	16%
6	10%
7	10%
8	5%
9	5%
10	2%

Well Life: 25 years

Older ND Wells Suggest a Flat Gas Type Curve



Yr	Avg Decline	Adj Decline
1	58%	58%
2	30%	30%
3	26%	10%
4	15%	5%
5	15%	5%
6	10%	5%
7	10%	5%
8	6%	5%
9	4%	4%
10	2%	2%

ND Model EURs Inline with Producers Expectations

Model
Oil: 459,000 Bbls
Gas: 111,500 Boe

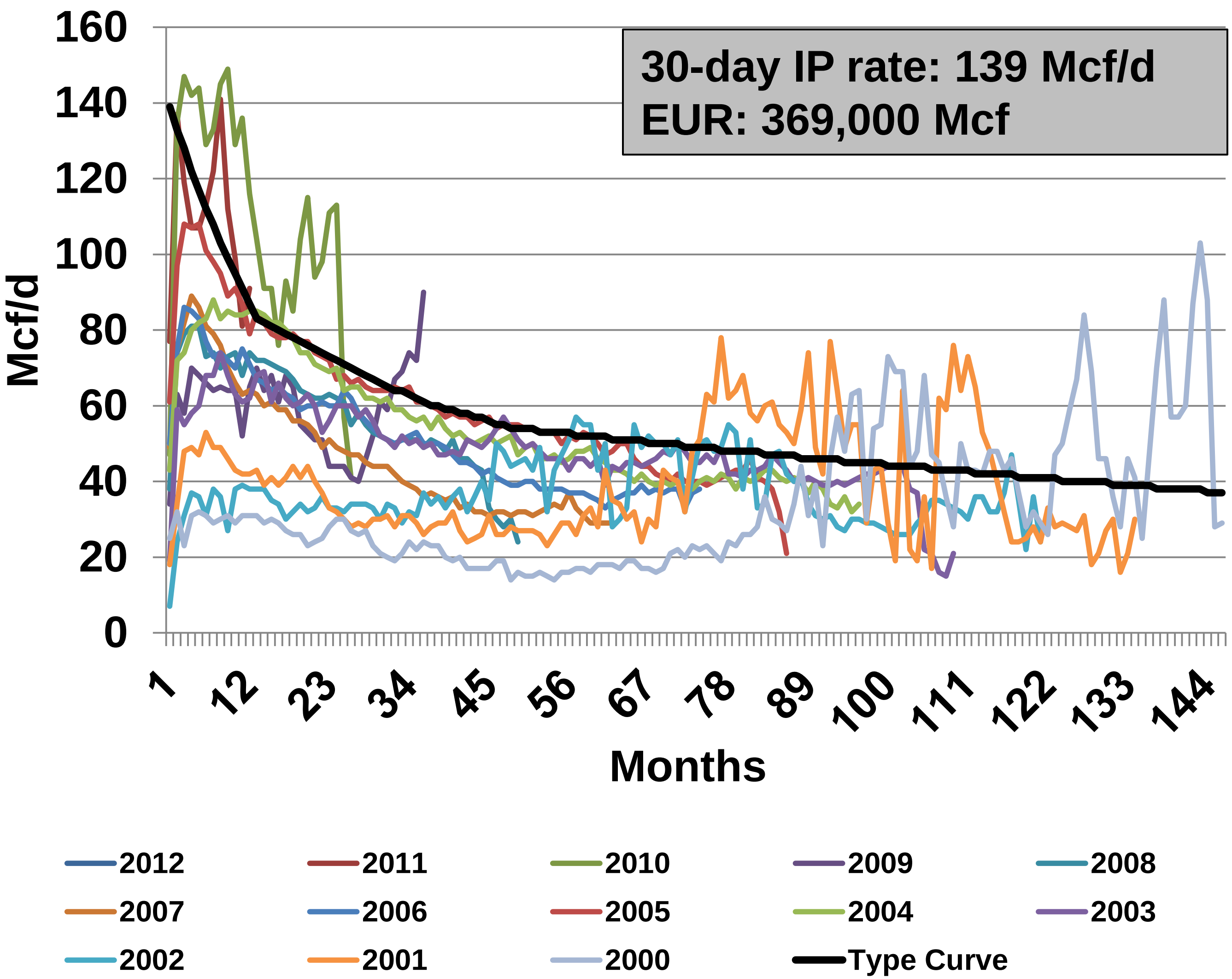
Total: 570,500 Boe

CLR: 603 Mboe

Whiting:
450-900 Mboe
(Sanish)

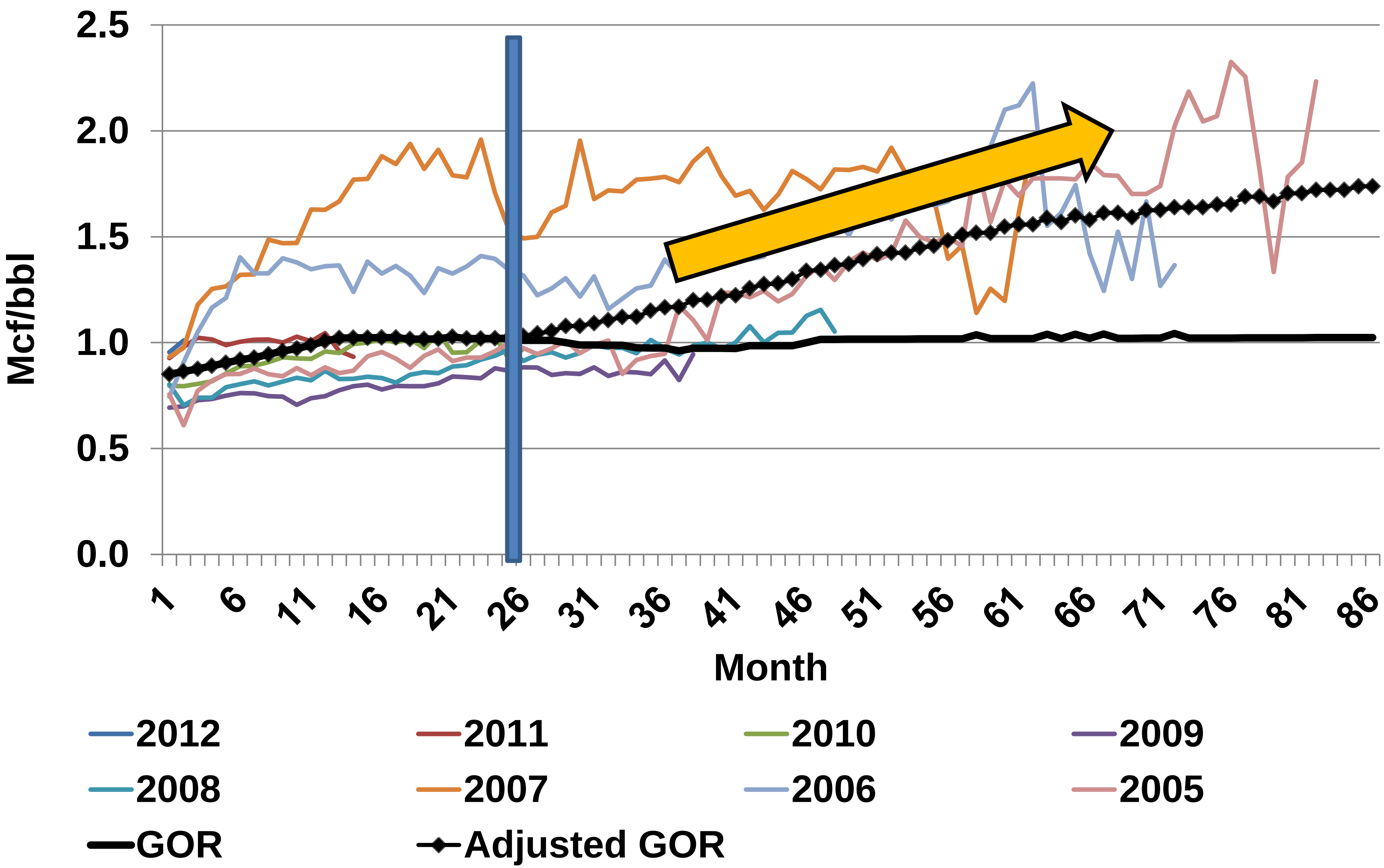
Oasis:
450-750 Mboe
(Middle Bakken)

Williston MT Horizontal Associated Gas Type Curves Reflect Adjusted ND Type Curve

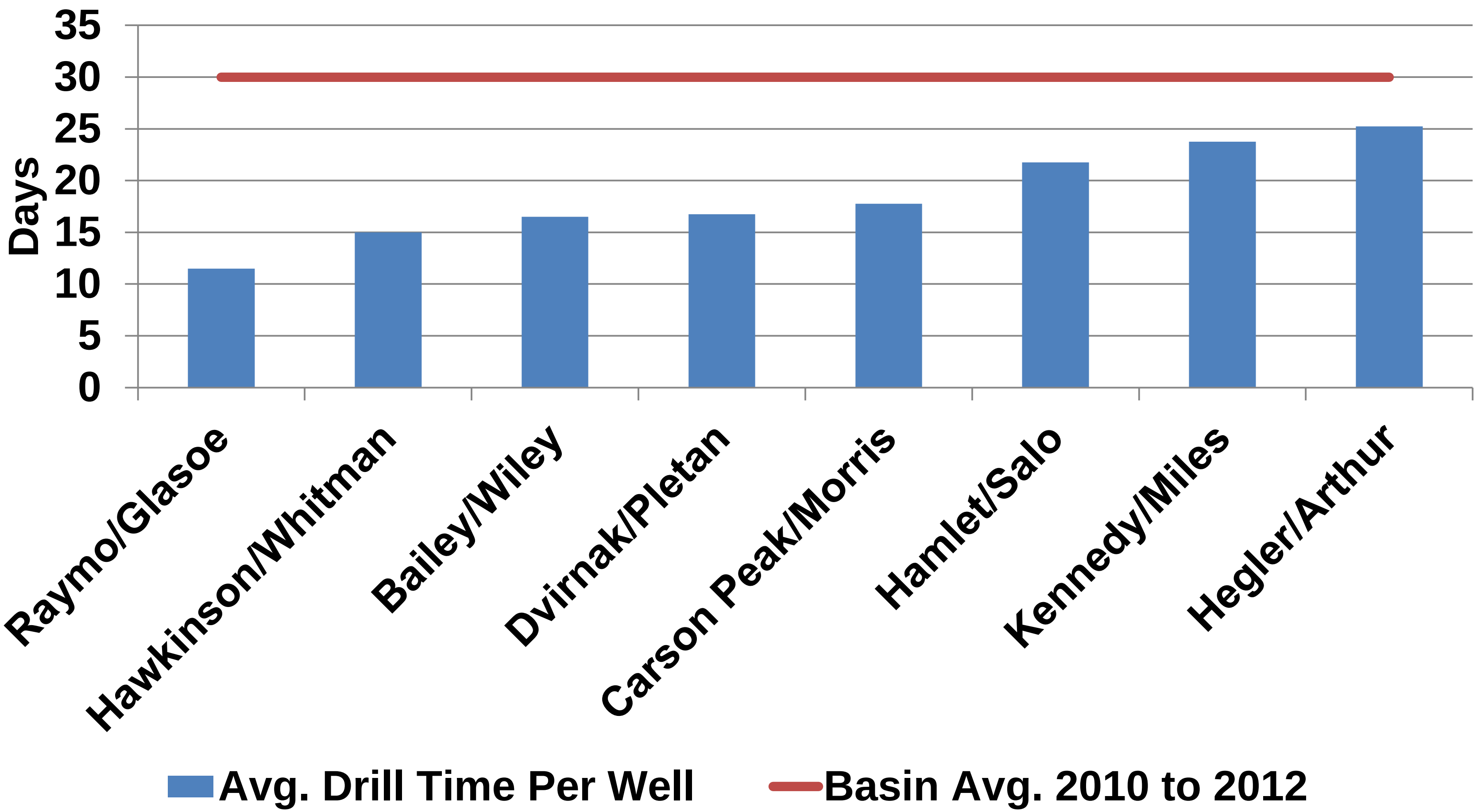


Yr	Decline
1	40%
2	15%
3	15%
4	10%
5	5%
6	5%
7	5%
8	5%
9	5%
10	5%

Stronger Gas Oil Ratio (GOR) Expected For ND Horizontal Oil Wells

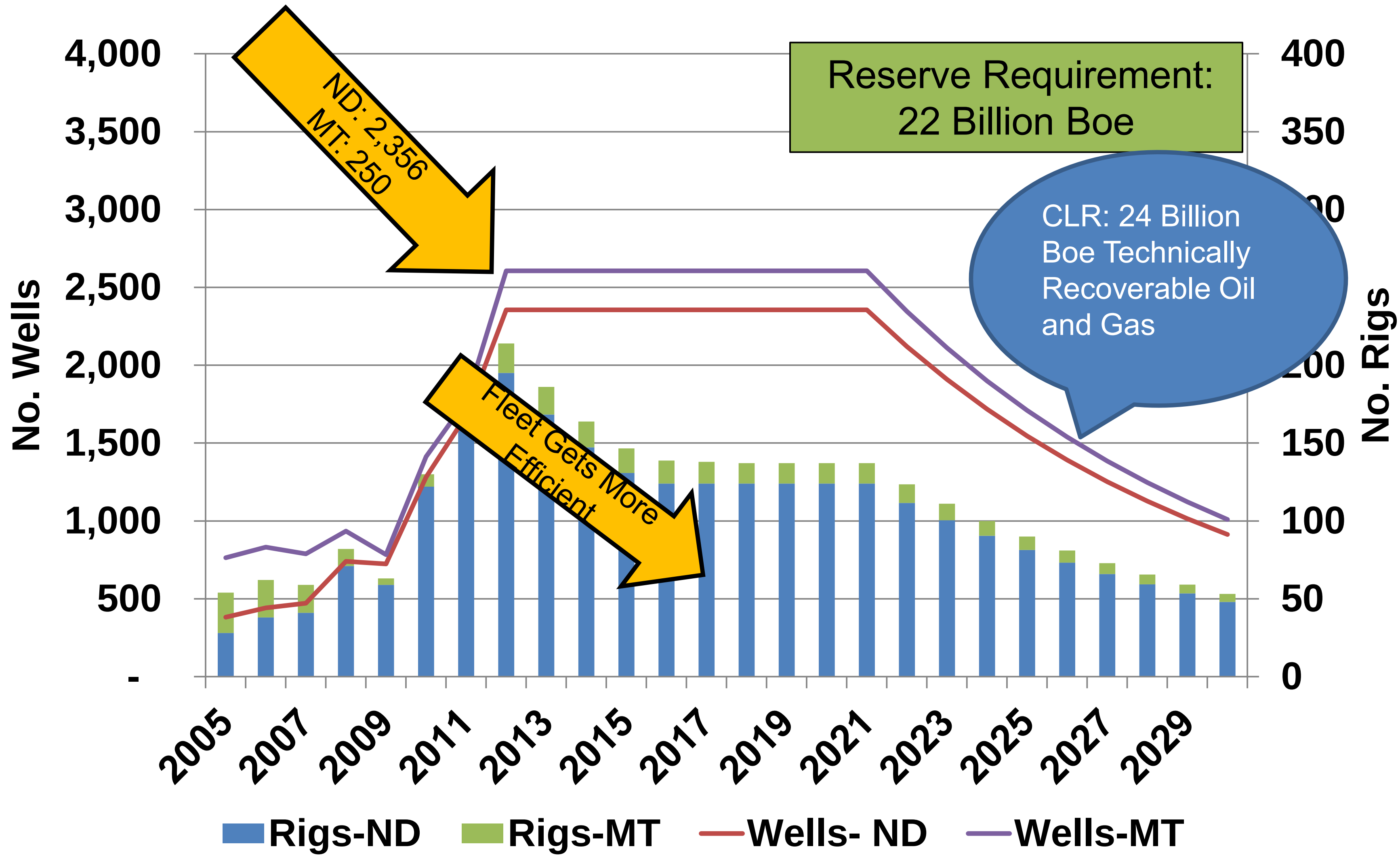


PAD Drilling Leads to a Reduction in Drill Time of 11 Days

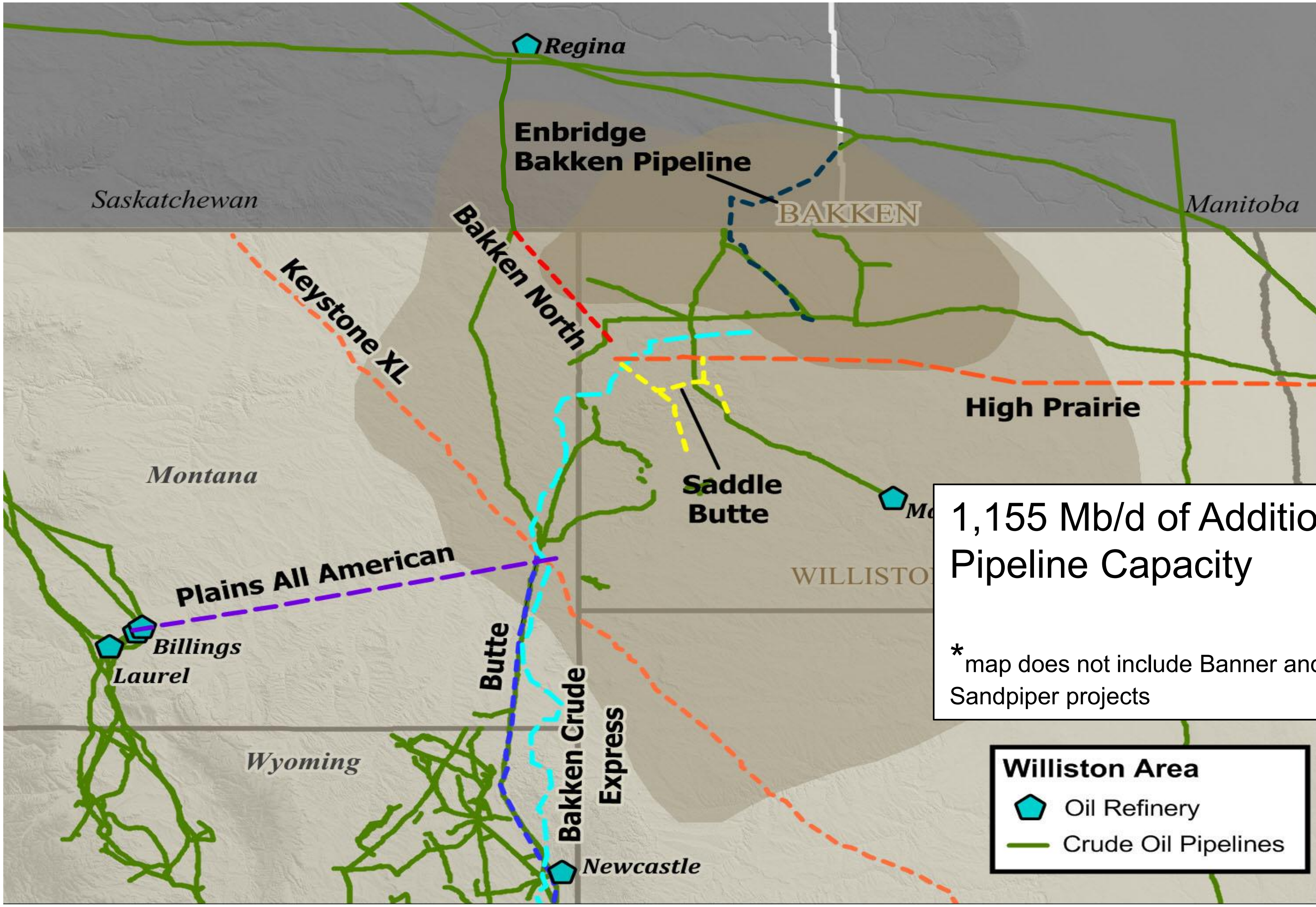


Source: RigData

Base Case- Level of Activity Remains At Current Levels For the Next 10 years



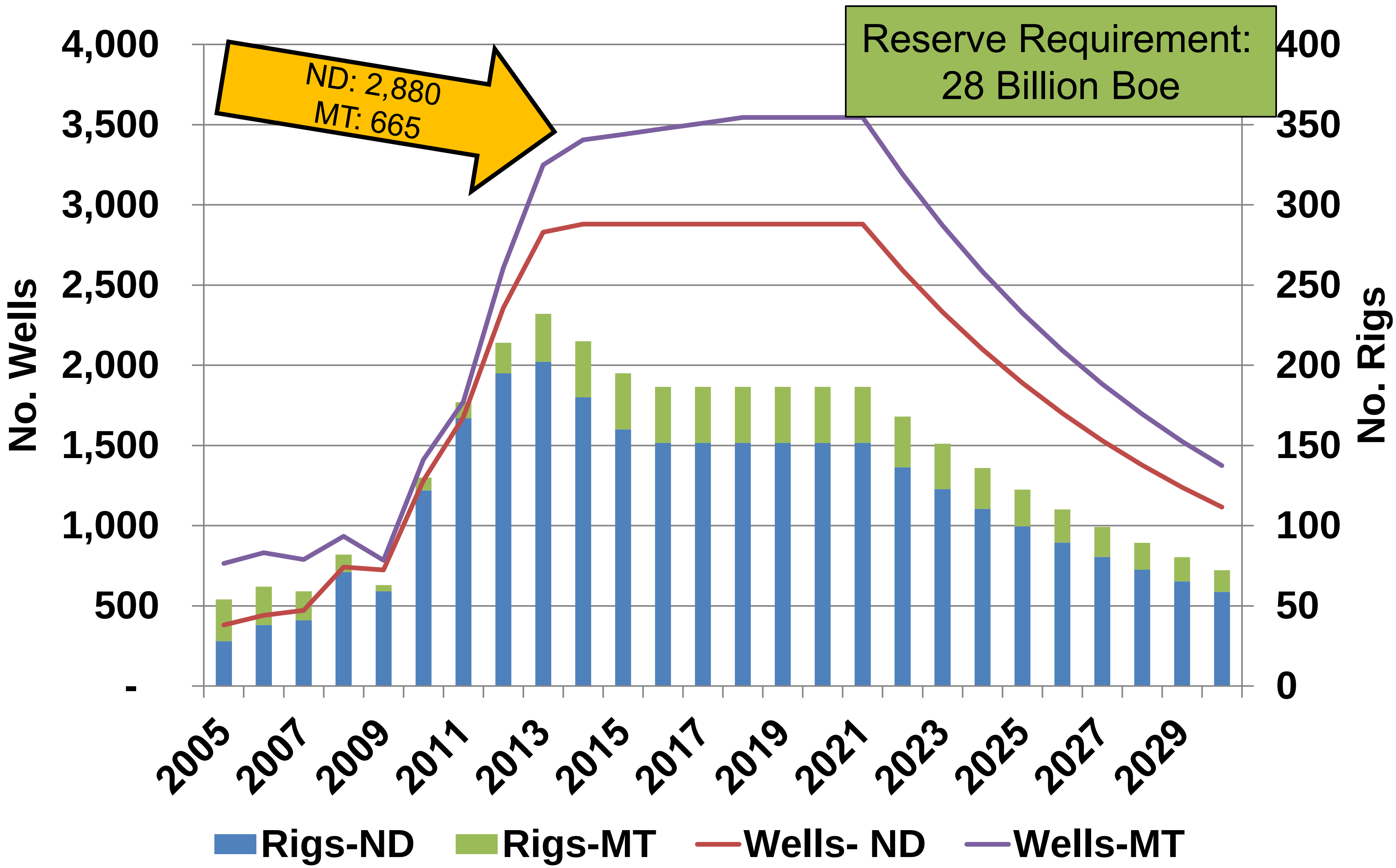
Nine New Pipeline Expansions or New Build Slated in the Next Six Years; One Refinery Expansion



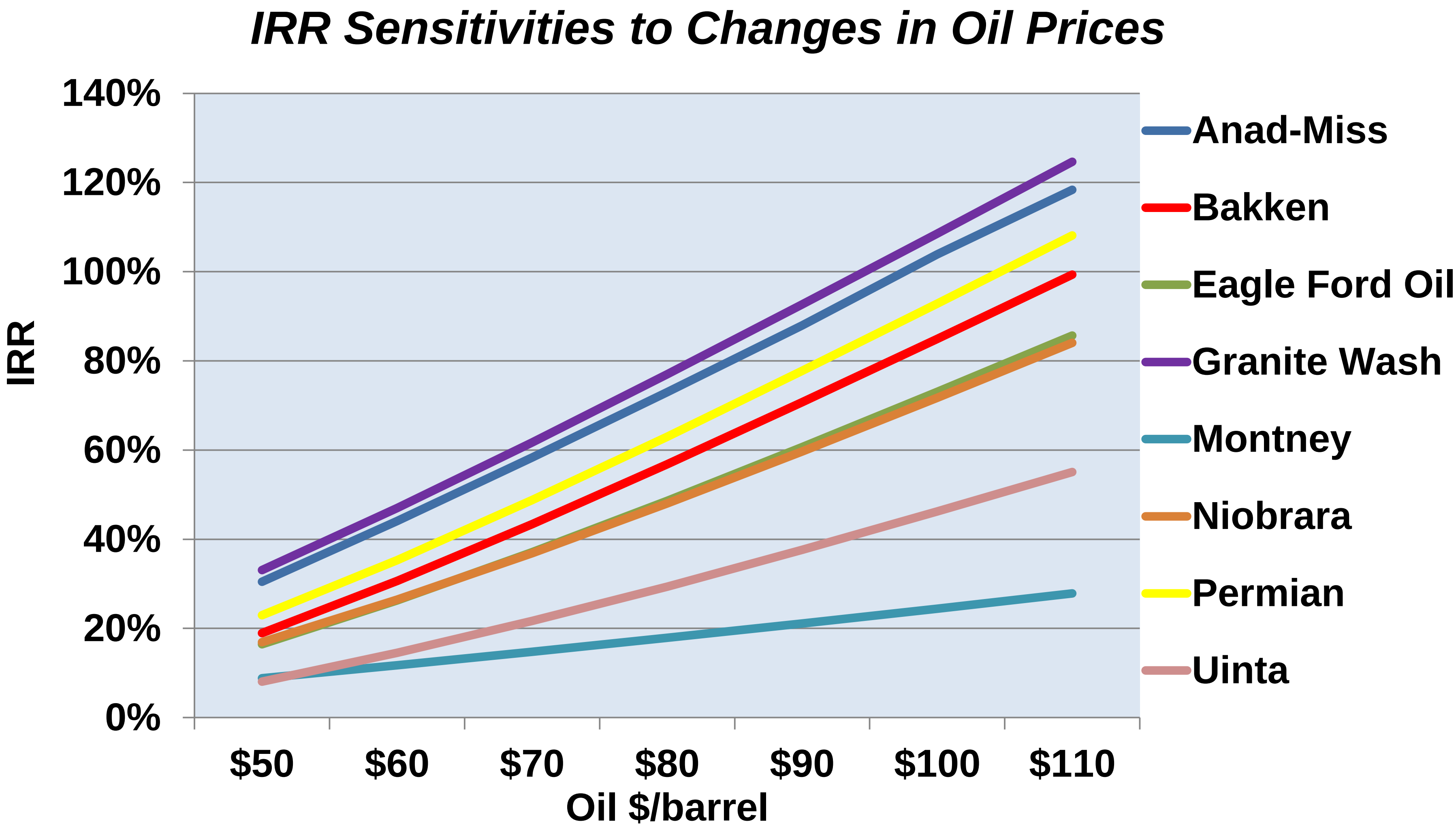
1,155 Mb/d of Additional Pipeline Capacity

*map does not include Banner and Sandpiper projects

High Case Scenario-Consistently Tests Oil Takeaway Capacity, Stressing Prices and Producers

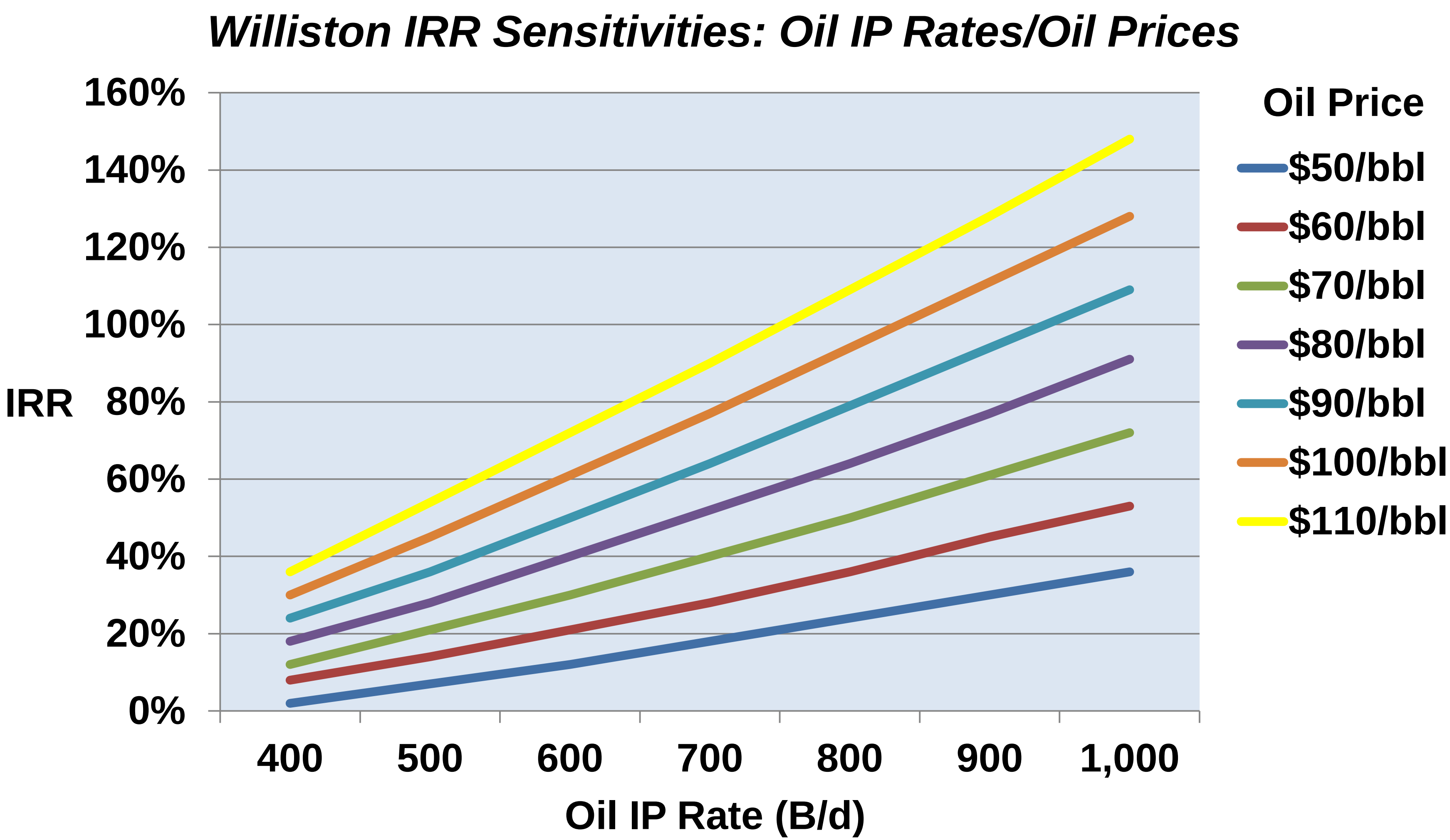


Drilling Economics Struggle @ $50 Oil

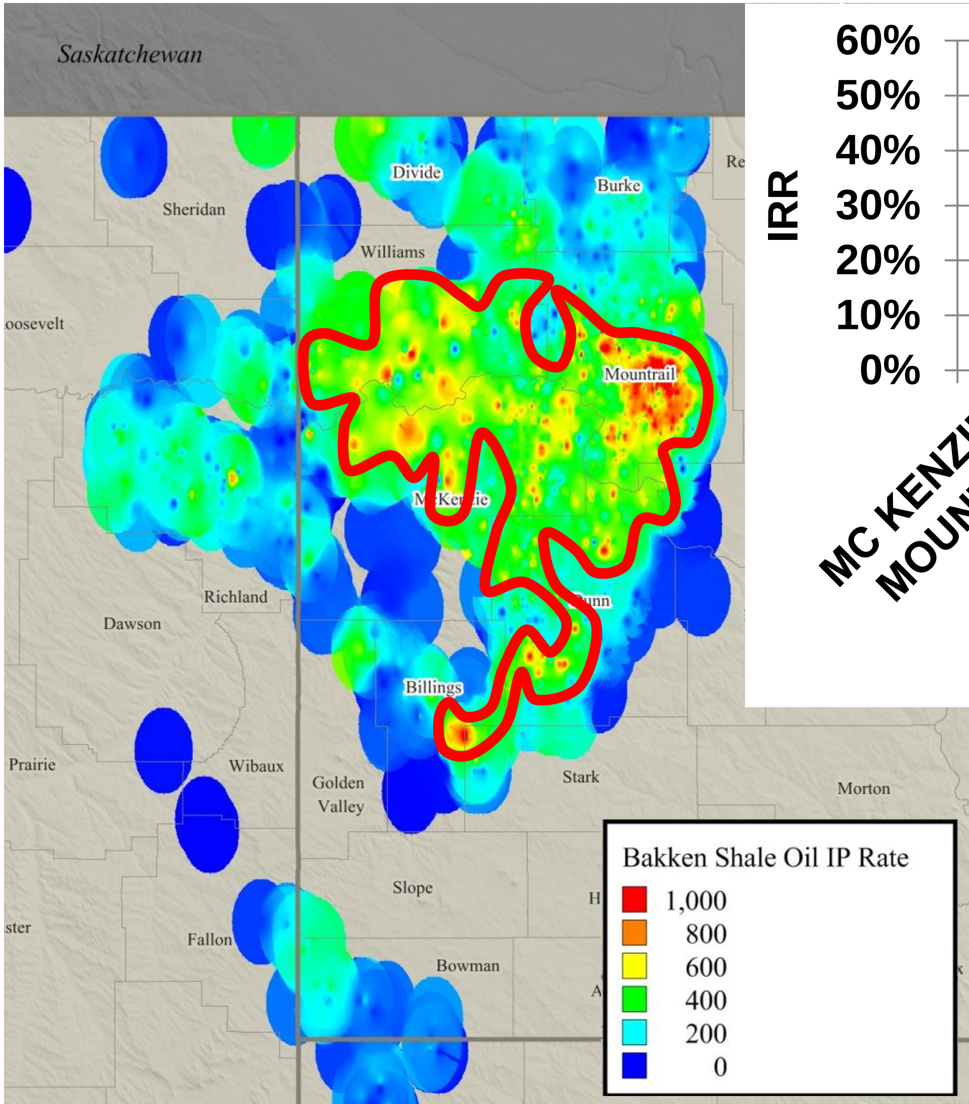


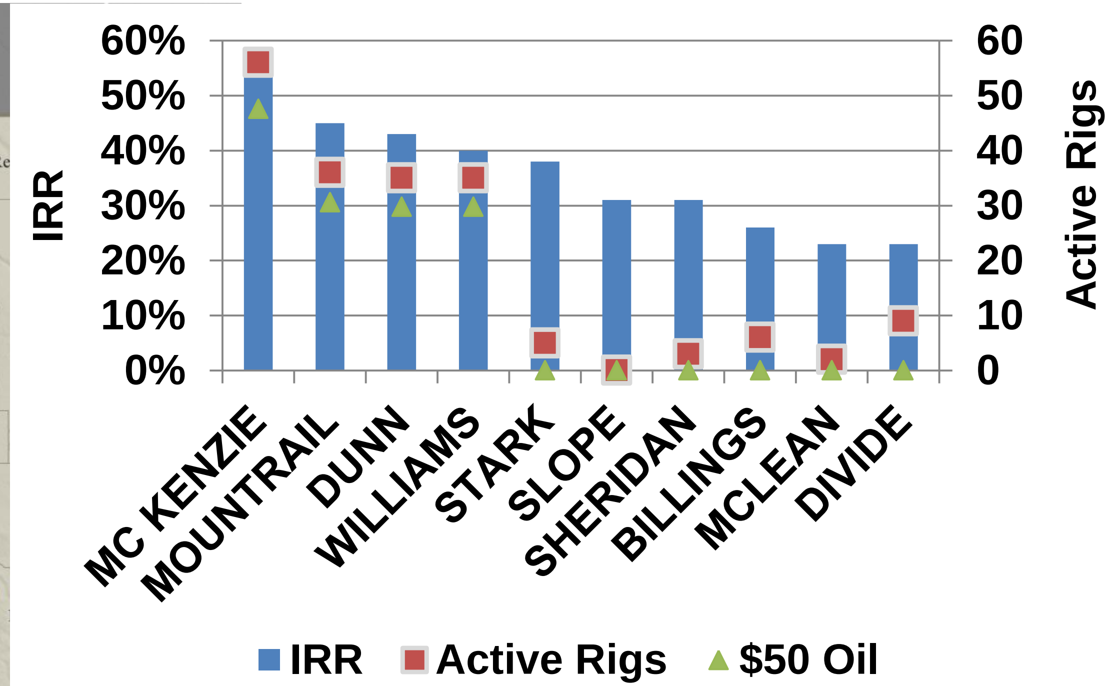
Note: Assumes NGL: Oil price ratio 50%; IP(oil/gas/ngl): 700 B/d, 400 Mcf/d, 60 b/d; 1,300 BTU; D&C Costs $8.5 Mil

Williston Growth Can Be Maintained at Low Prices



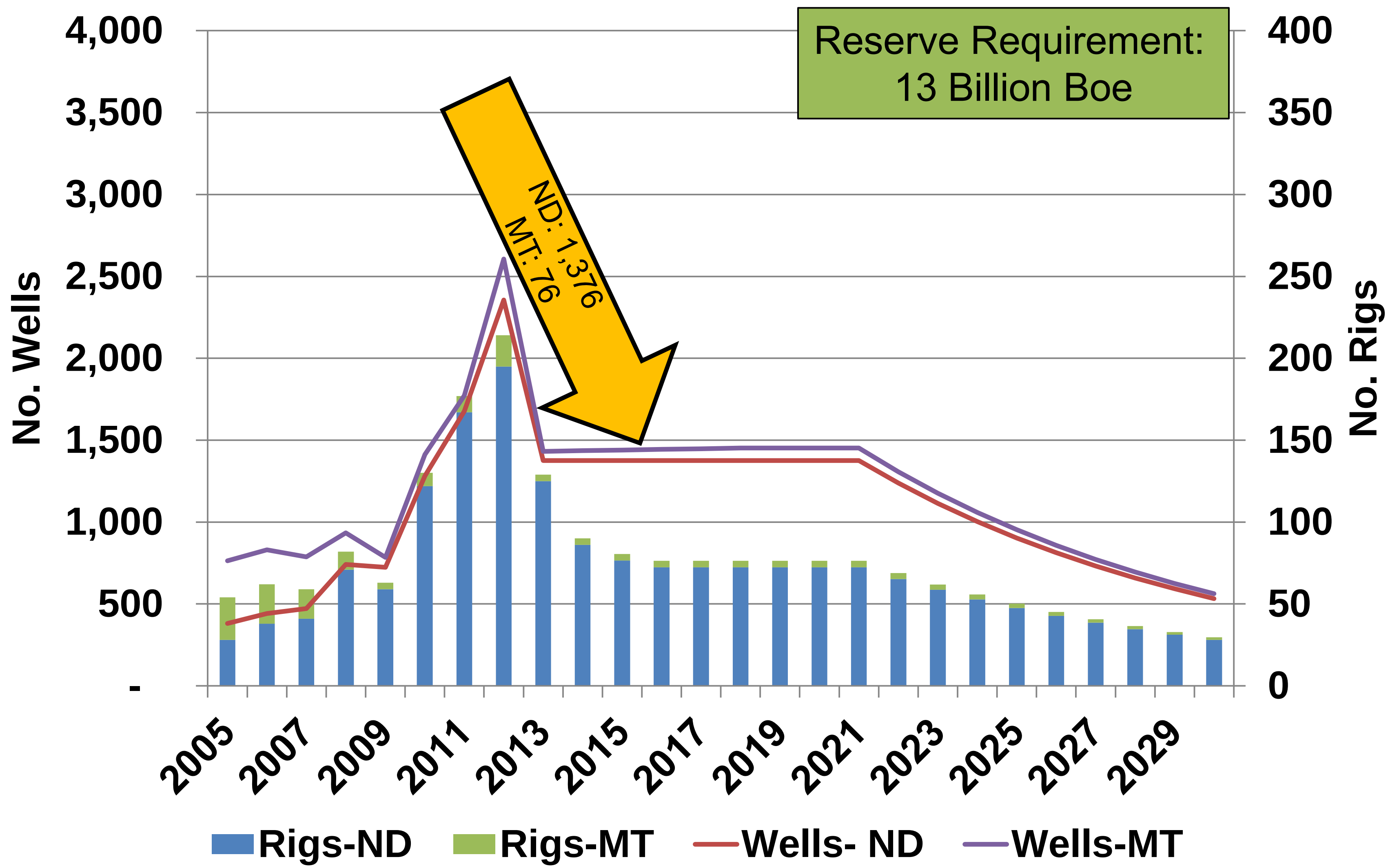
$50 Oil Challenges Fringe Economics



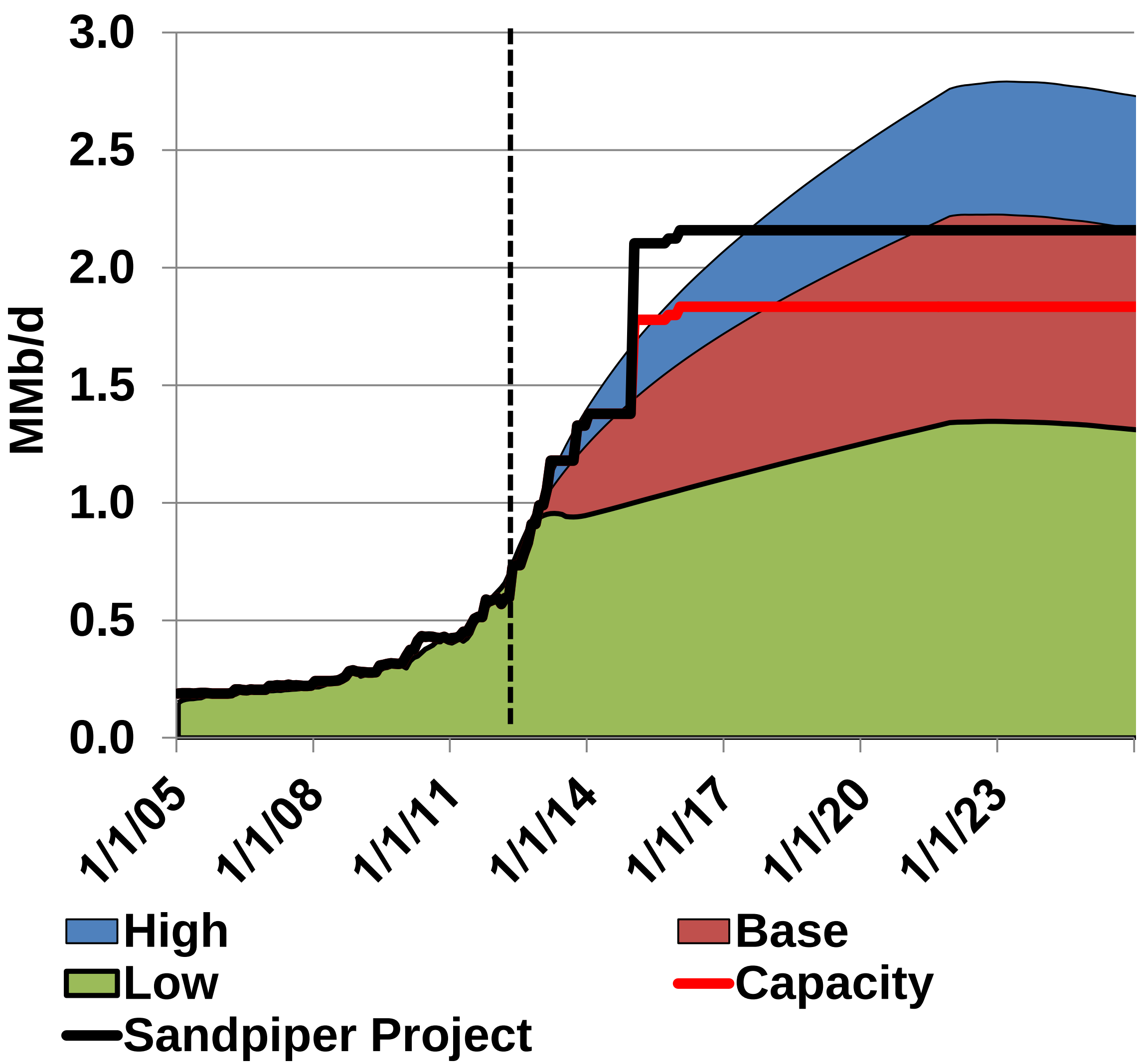


Other counties with active rigs that see reduced activity include: Bowman, Roosevelt, Richland, Golden Valley, Burke

Low Case – Driven By Low Oil Prices

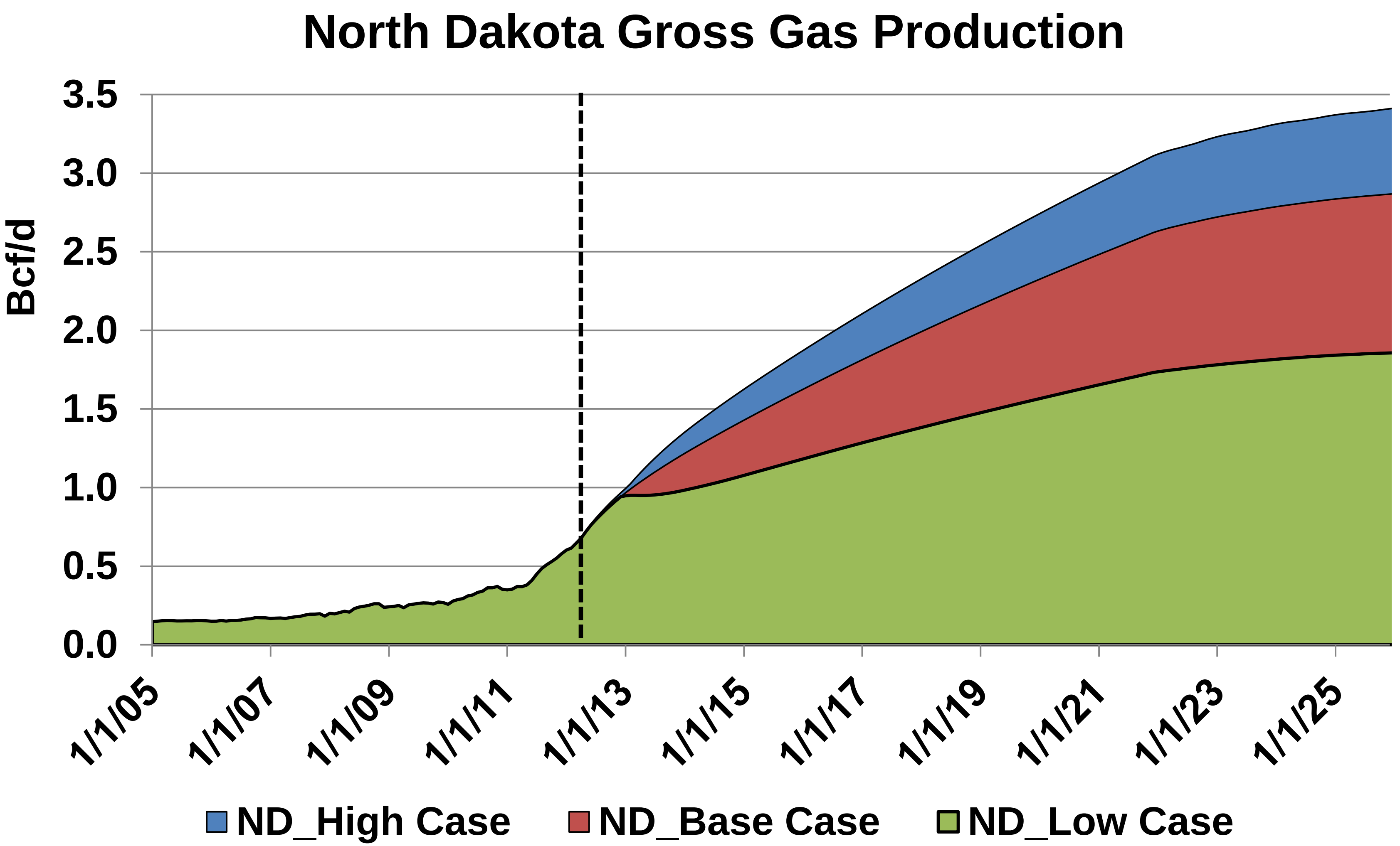


Comparison of Oil Production Based on Various Scenarios



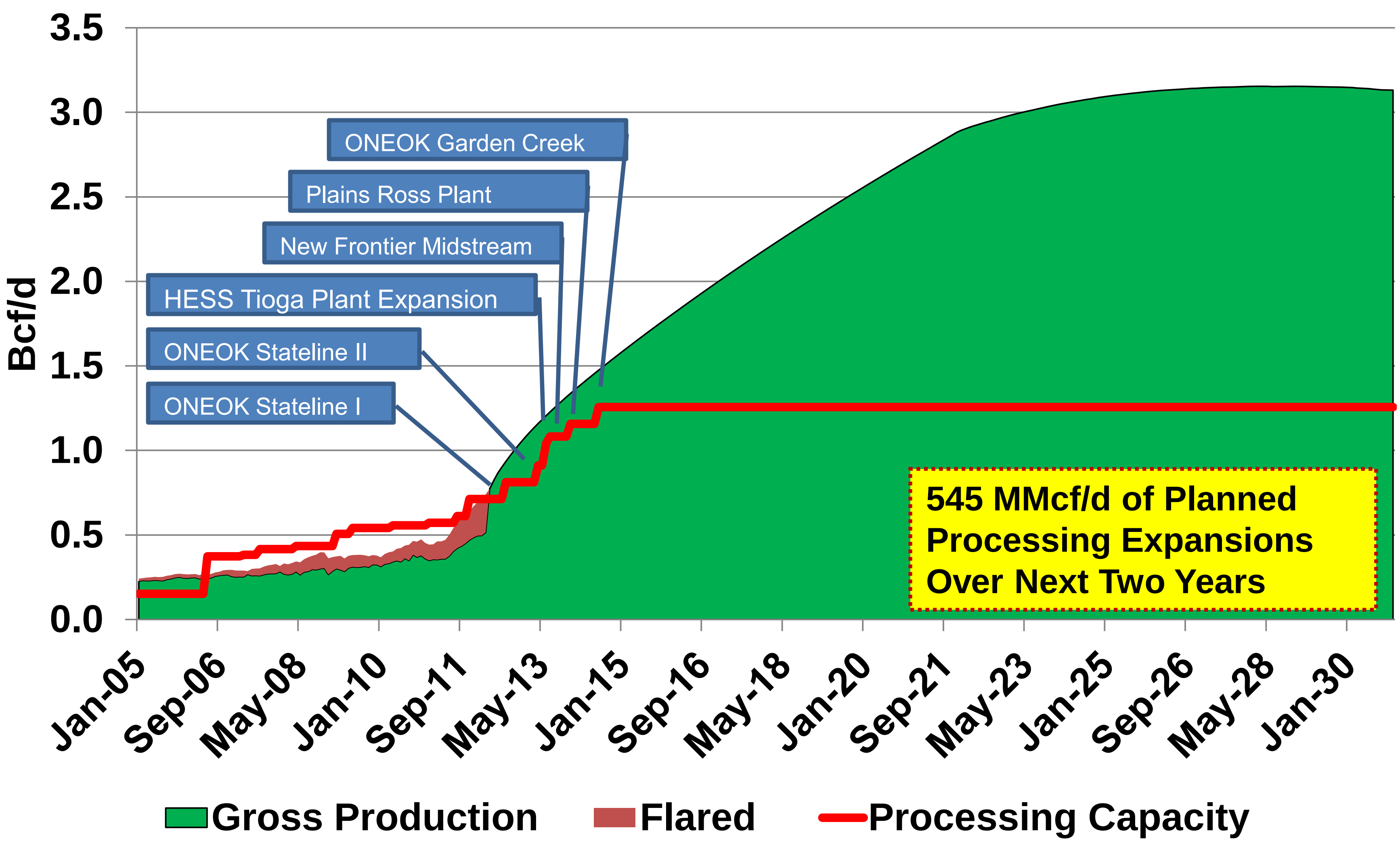
- **High Case: Consistently Tests Oil Takeaway Capacity, Stressing Prices and Producers.**
- **Base Case: Provides Strong Consistent Growth For the Basin Without Straining Takeaway Capacity Until Around 2022.**
- **Low Case: Suggests a Significant Pullback in Activity Due to Falling Oil Prices.**

North Dakota Gross Gas Production Set To Climb

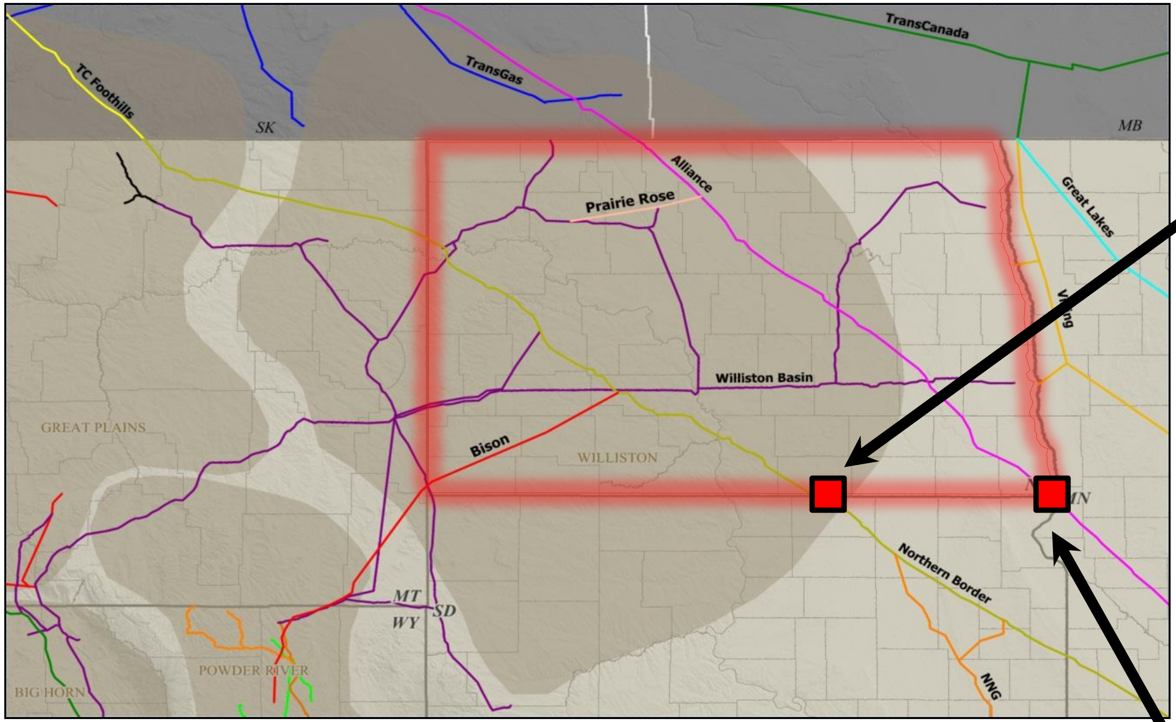


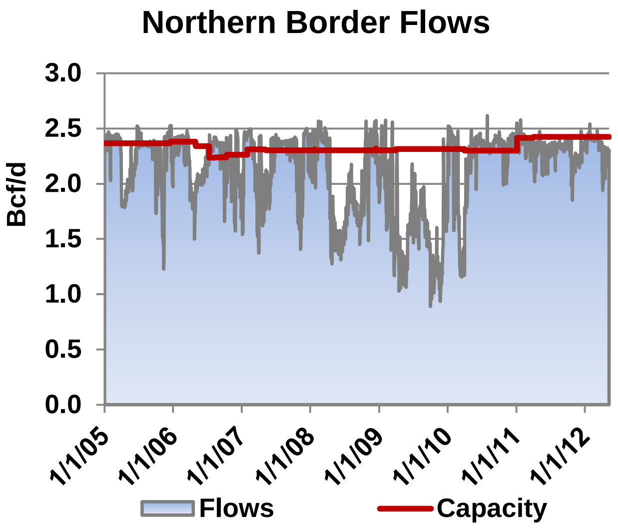
Bring Gas Supply to Market

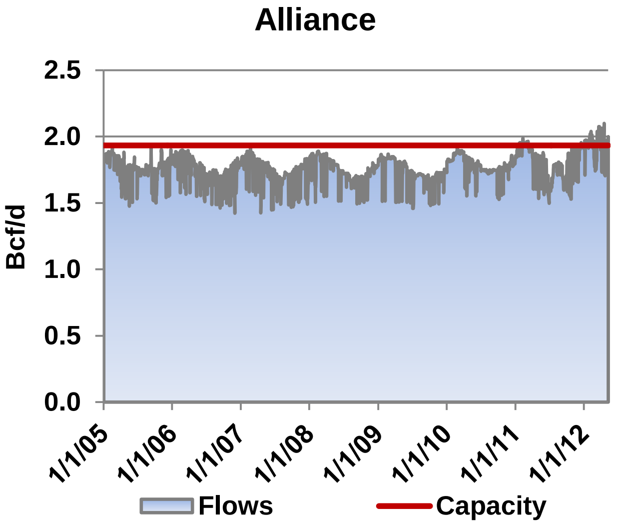
New Processing and Midstream Infrastructure Needed to Meet Growing Gas Production in the Williston



Open Capacity Leaving N. Dakota Is Tight

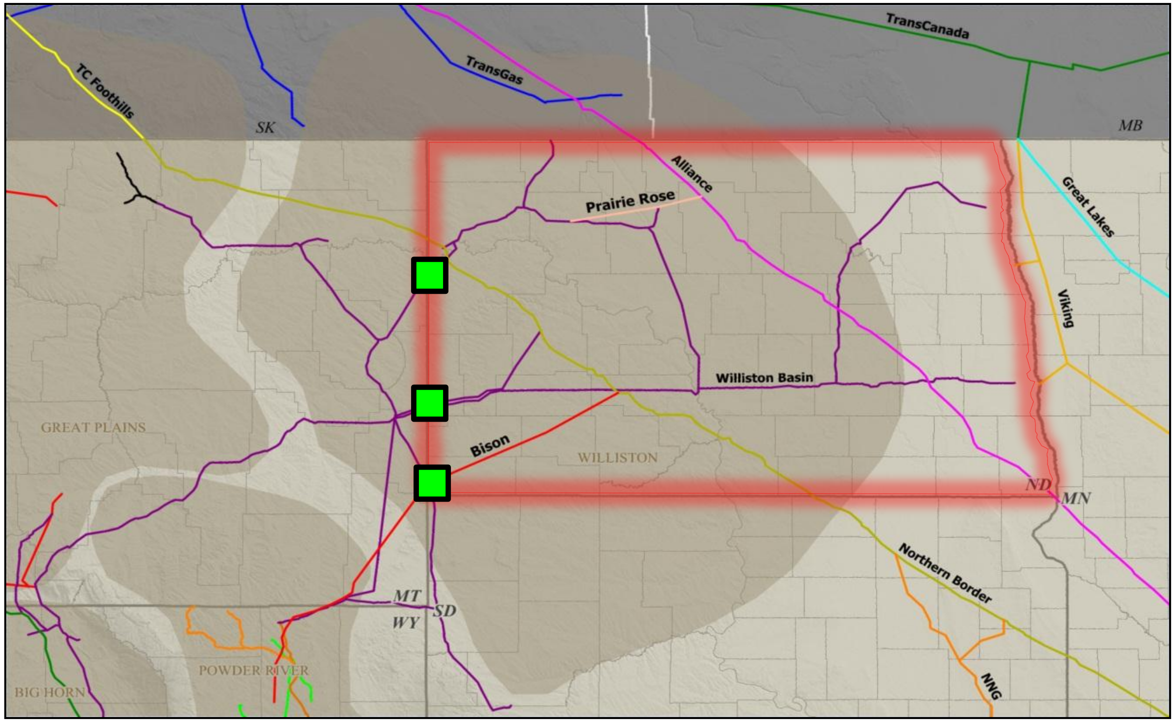


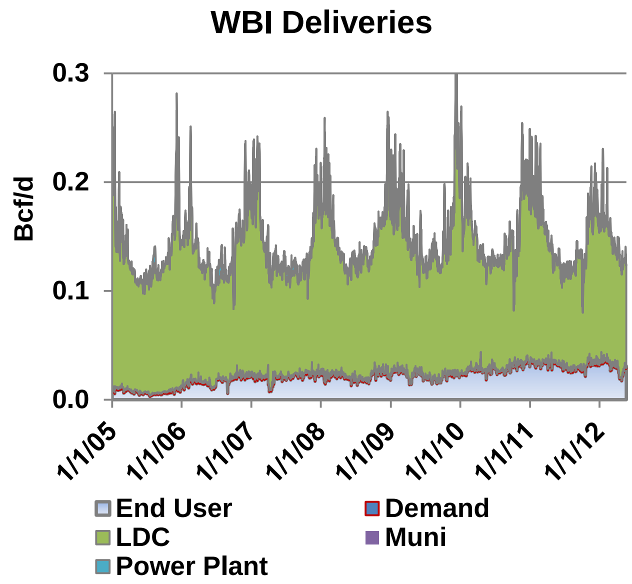


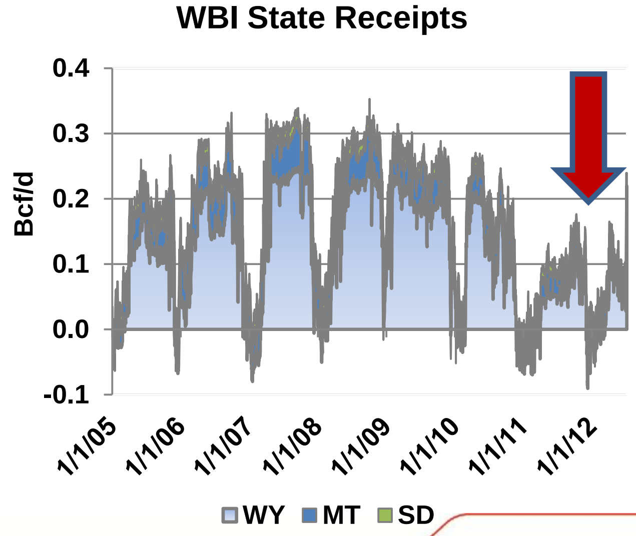


- **Northern Border and Alliance Serve As the Primary Routes to Transport Gas From the Region.**
- **Each Have Limited Open Mainline Capacity to Carry Additional Williston Supply.**

WBI Provides Local Demand Support

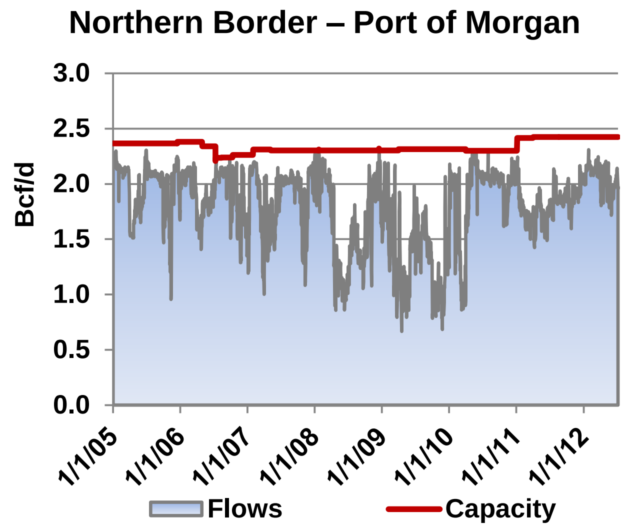


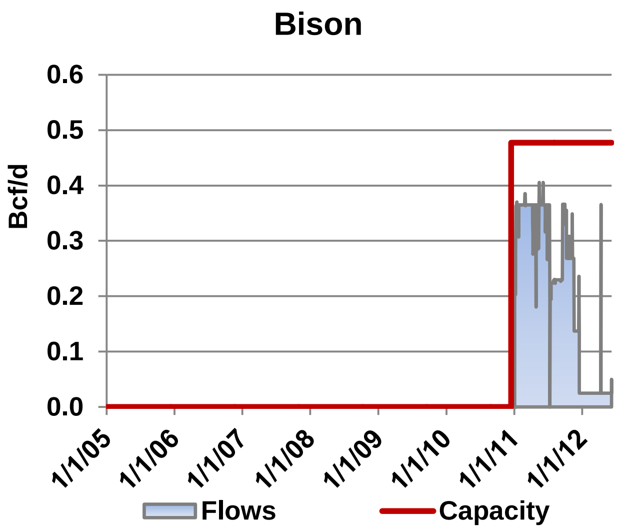


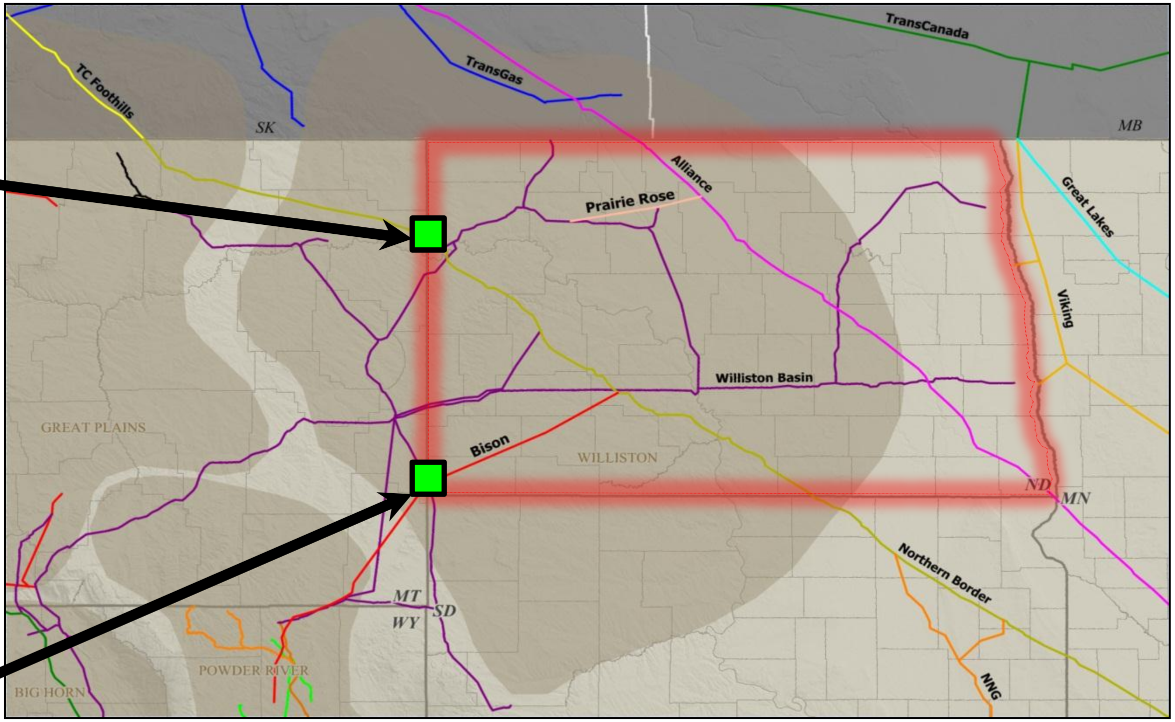


- **Total Deliveries off of WBI Have Not Increased Substantially Over the Last Several Years**
- **Receipts Into the WBI System From MT, WY and SD Have Already Been Reduced.**

Inlet Flows Currently Losing Market Share



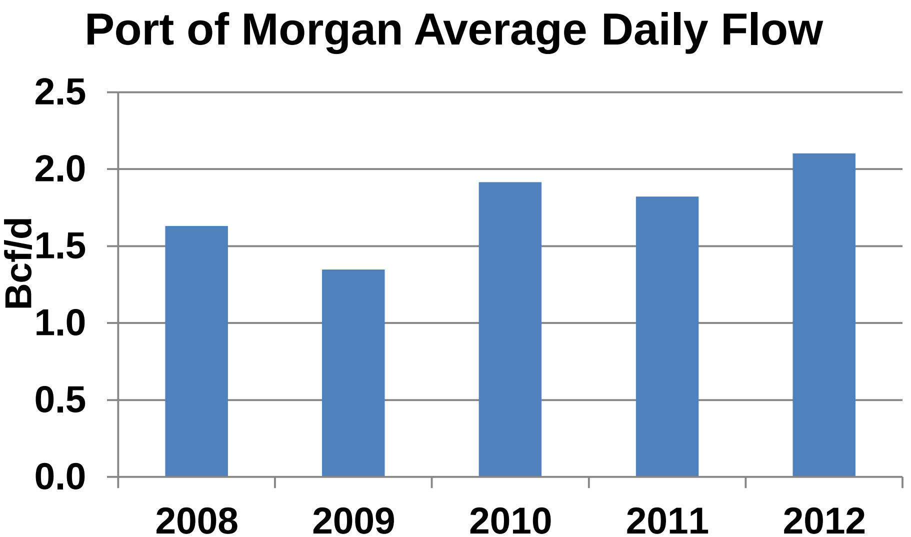


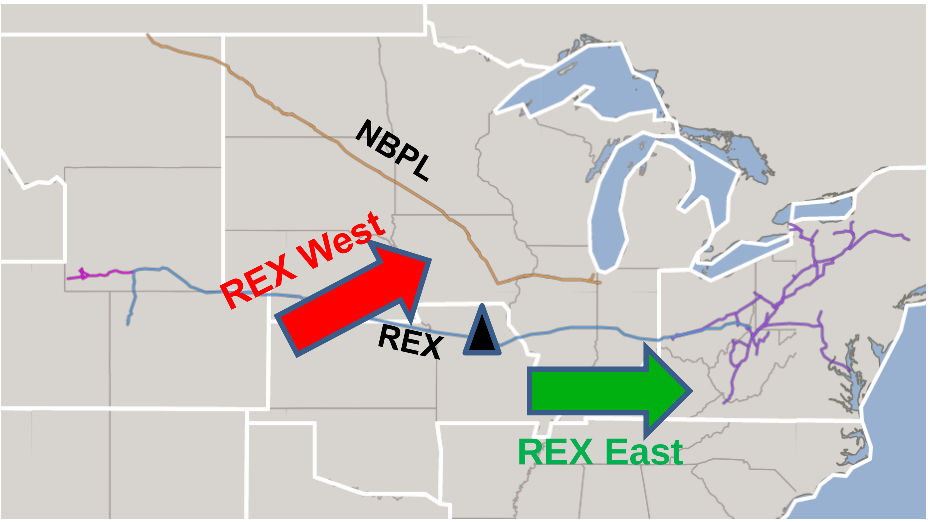


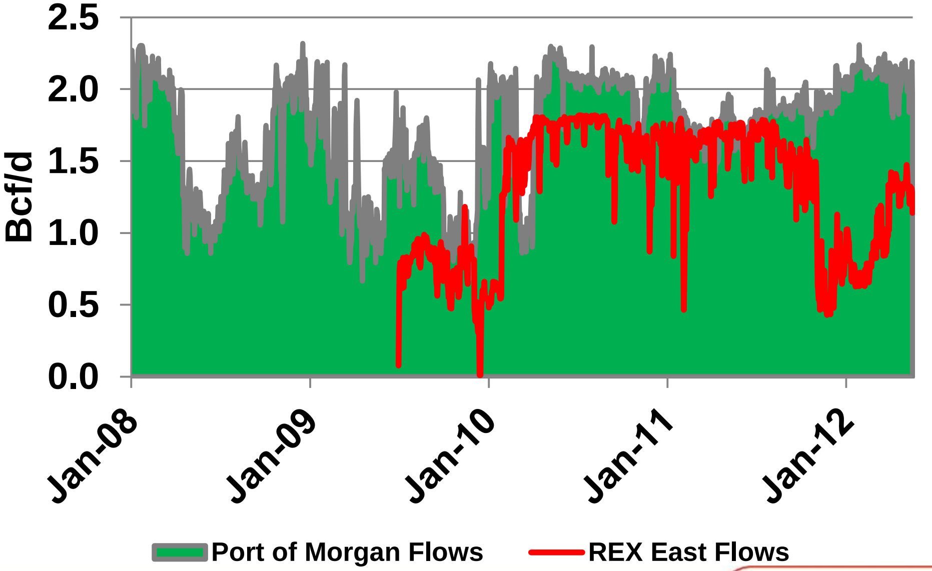
- Declining PRB Production and Increased Competition For Space Has Resulted in Reduced Flows on Bison.
- Canadian Inflows Into Northern Border Have Remained Relatively Strong, But Have Experienced Displacement in the Past and Now.

Port of Morgan: The Rex Effect

- **From 2008 – 2010, Rex Deliveries Into The Midwest Pushed out Existing Inflows From Canada. Once Rex Completed Zone Three Into the Northeast, Canada Resumed Stronger Flows Into the U.S. on Northern Border.**

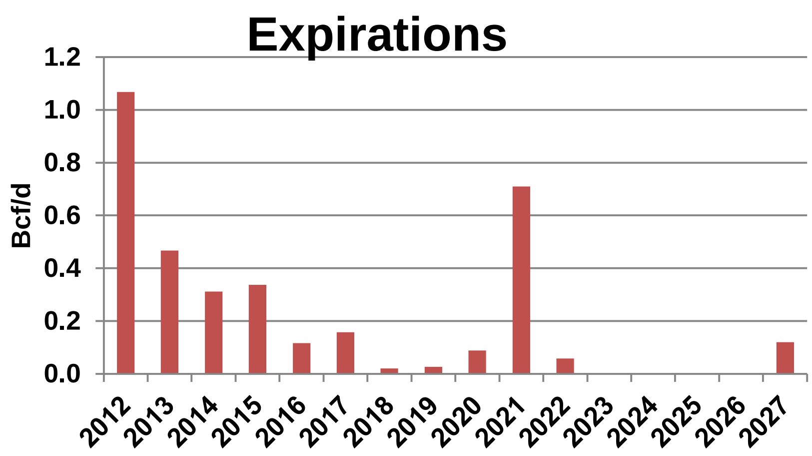


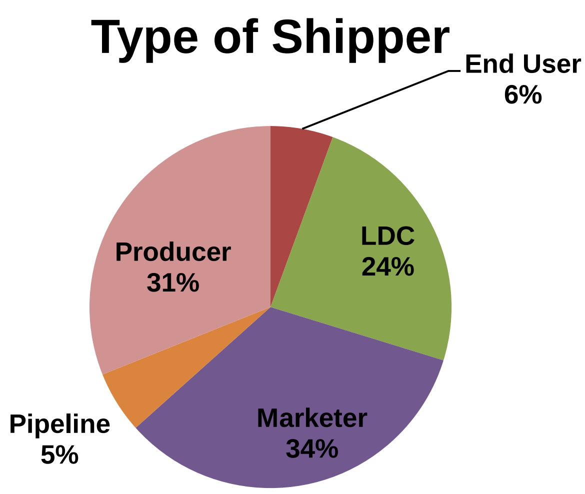




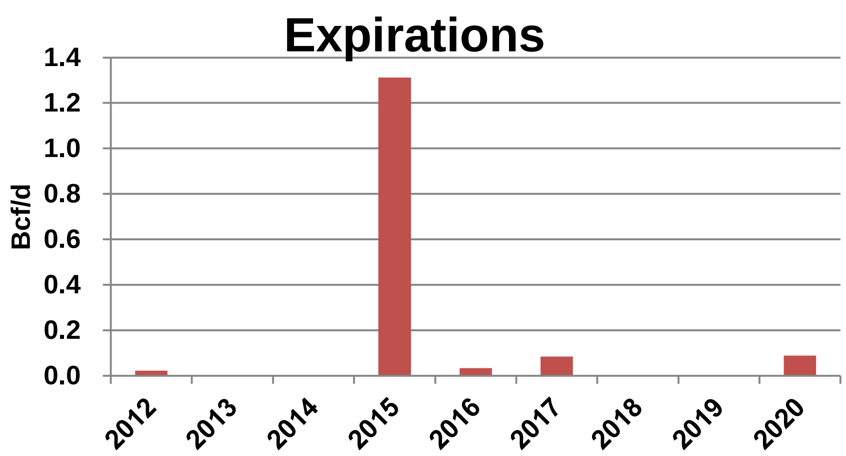
Contract Holders and Expirations Provide Latitude

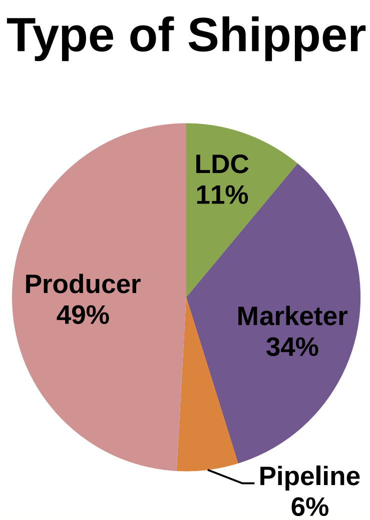
Northern Border





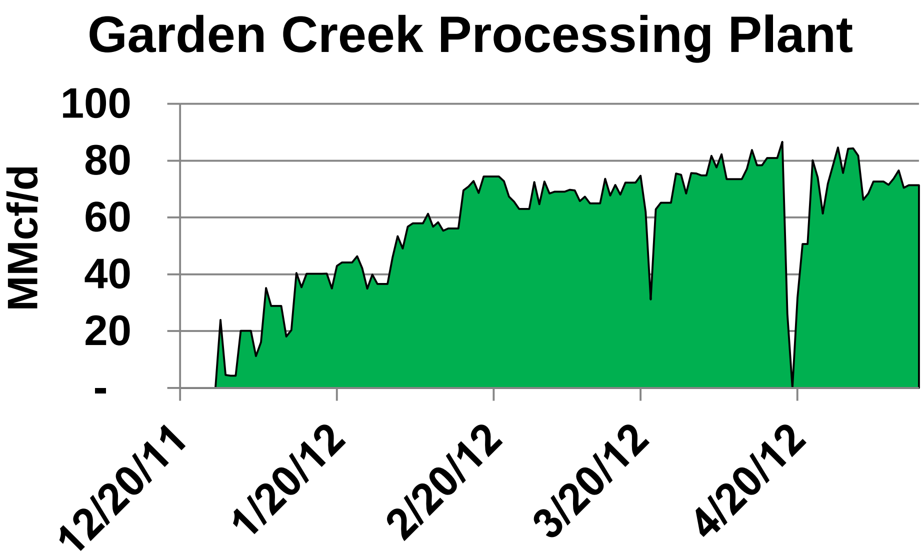
Alliance

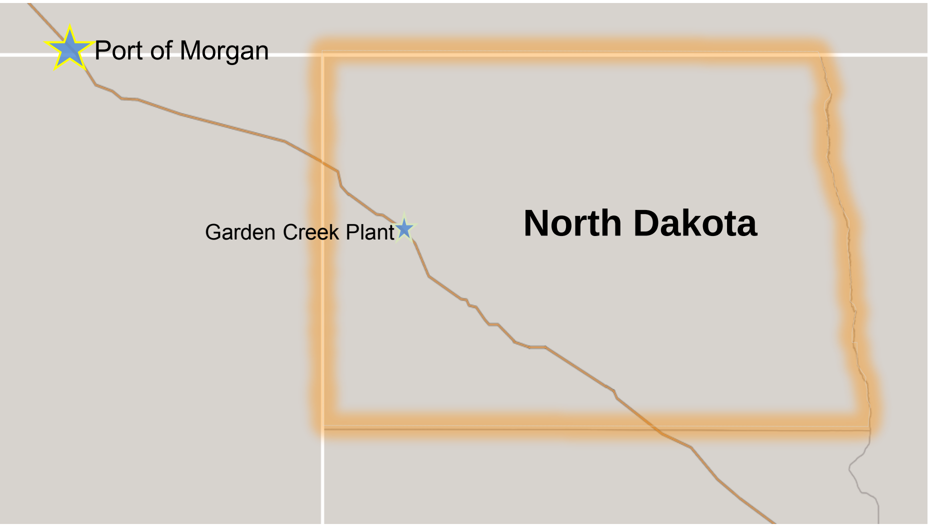




New Residue Volumes Move In on Canada

- **Garden Creek Deliveries Into Northern Border Have Ramped Up Quickly, Effectively Displacing Other Receipts Into the System.**
- **Other New Facilities That Are Coming Online in the Williston Basin Have the Potential to Displace Canadian Supplied Gas.**
- **Williston Basin Supply Has A Competitive Advantage When Competing For Access to Pipeline Space.**

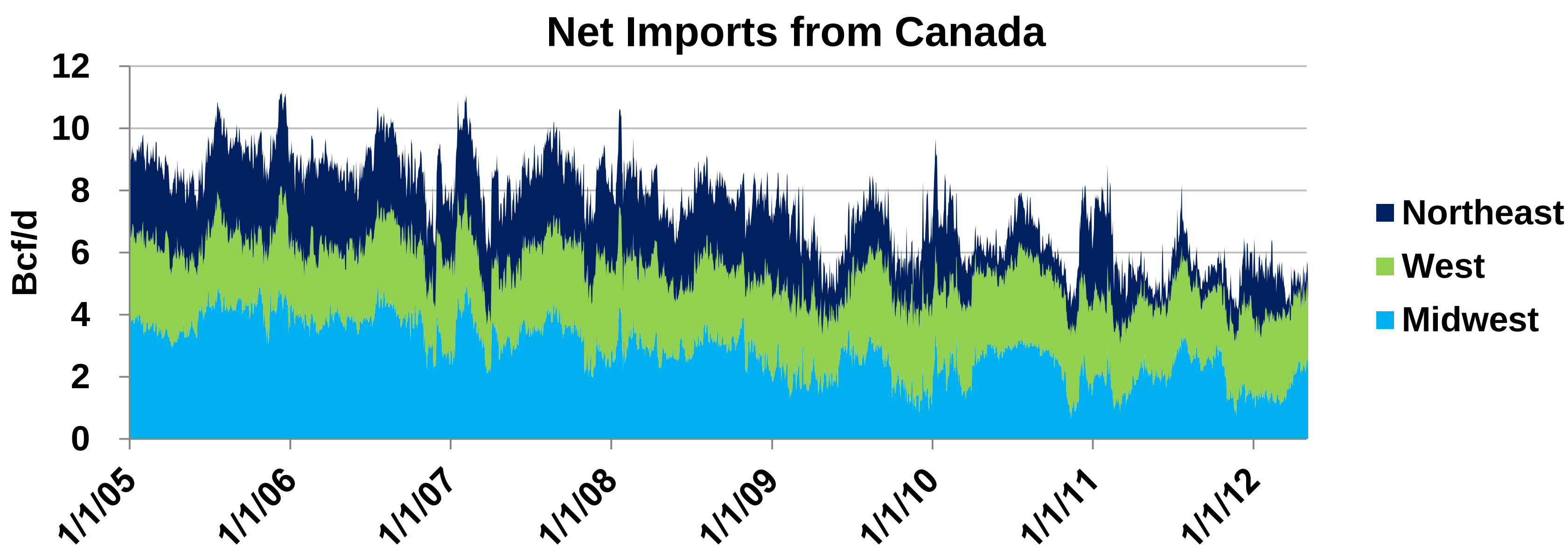




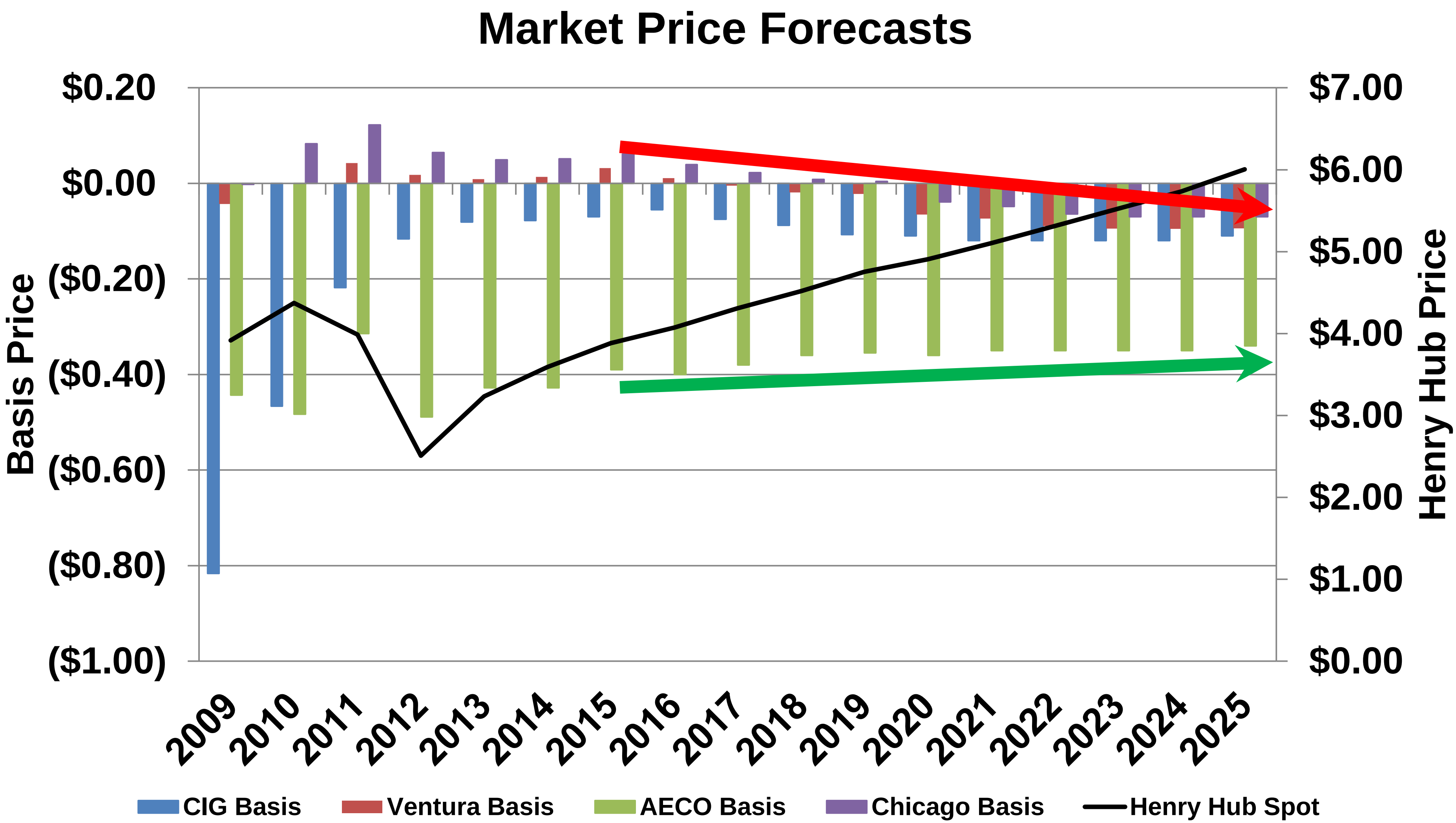
Canada Continues to Lose U.S. Market Share

- In Addition to An IRR Economic Advantage, Williston Basin Producers Also Have Transport Advantage Versus Canadian Suppliers.
- In a Low Gas Price Environment, The Marginal Suppliers Gets Pinched at the Wellhead.

Variable Transport Cost To Chicago @ $4.00 per MMBtu	
SE/Gulf	$ 0.12
Bakken	$ 0.16
Midcon	$ 0.16
Rockies	$ 0.22
Canada	$ 0.24



Canadian Spreads Narrow to Surrounding Markets



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BENTEK Energy

BENTEK is an energy market analytics company, focused on the natural gas market and related energy sectors.

Justin Carlson

jcarlson@bentekenergy.com

Jodi Quinnell

jquinnell@bentekenergy.com

Jennifer Van Dinter

jvandinter@bentekenergy.com

Contact Any Analyst Direct at

(303) 988-1320