



North Dakota Pipeline Authority
House Energy and Natural Resources Committee
January 11, 2013

Crude Oil

Understanding production potential

Understanding current transportation dynamics and potential transportation constraints

Understanding current and future market conditions

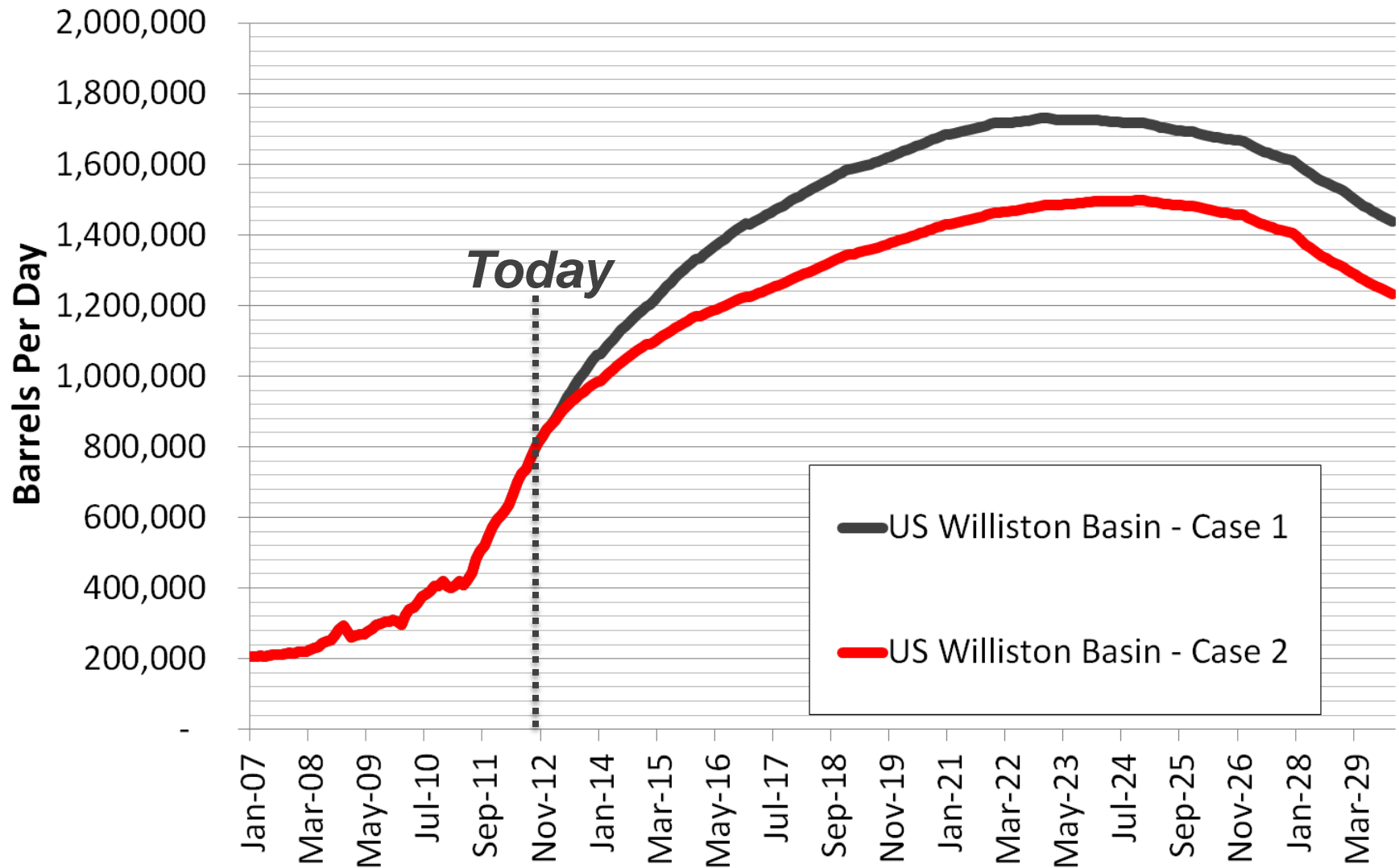
Crude Oil

Understanding production potential

Understanding current transportation dynamics and potential transportation constraints

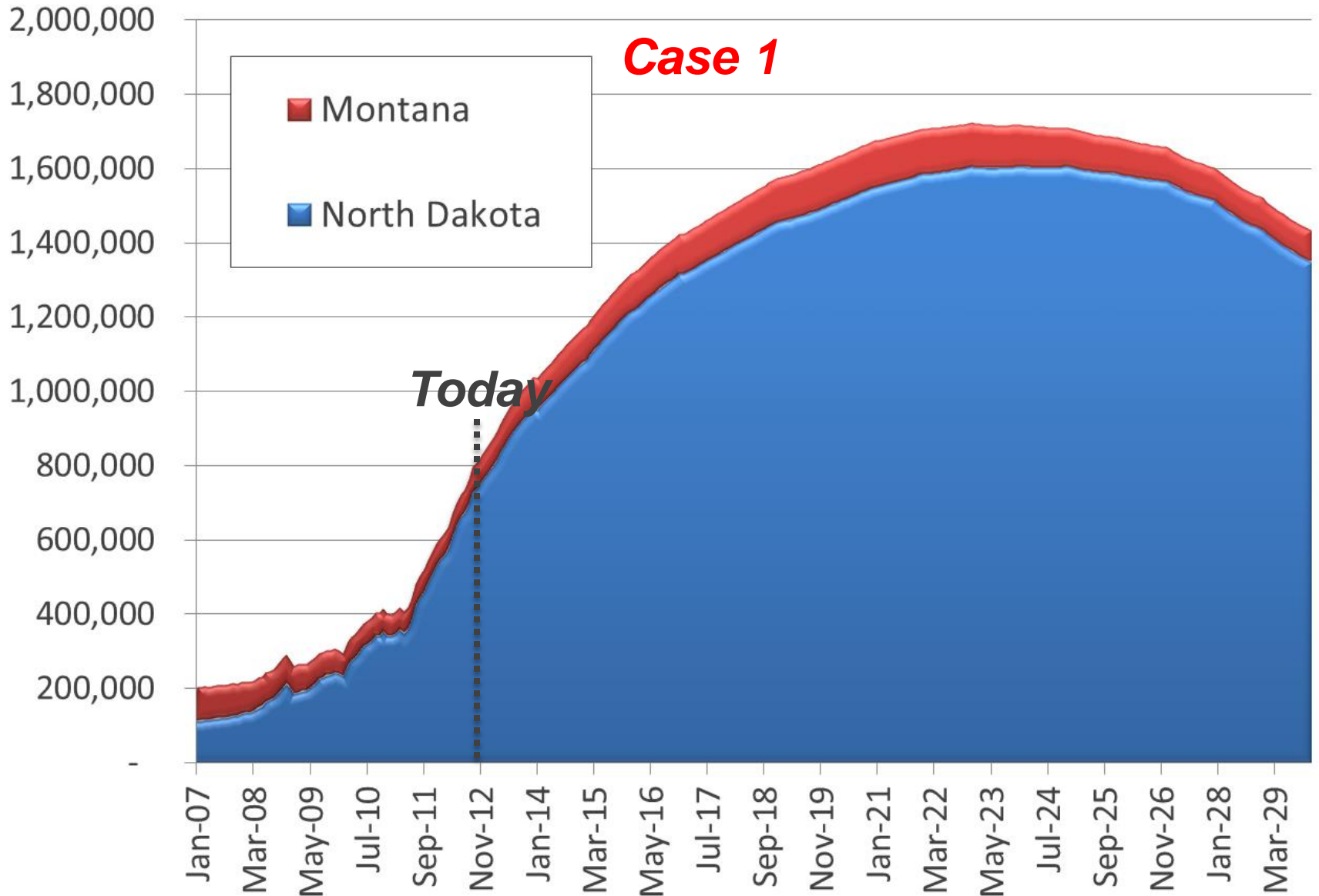
Understanding current and future market conditions

Forecasting Williston Basin Oil Production, BOPD



Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

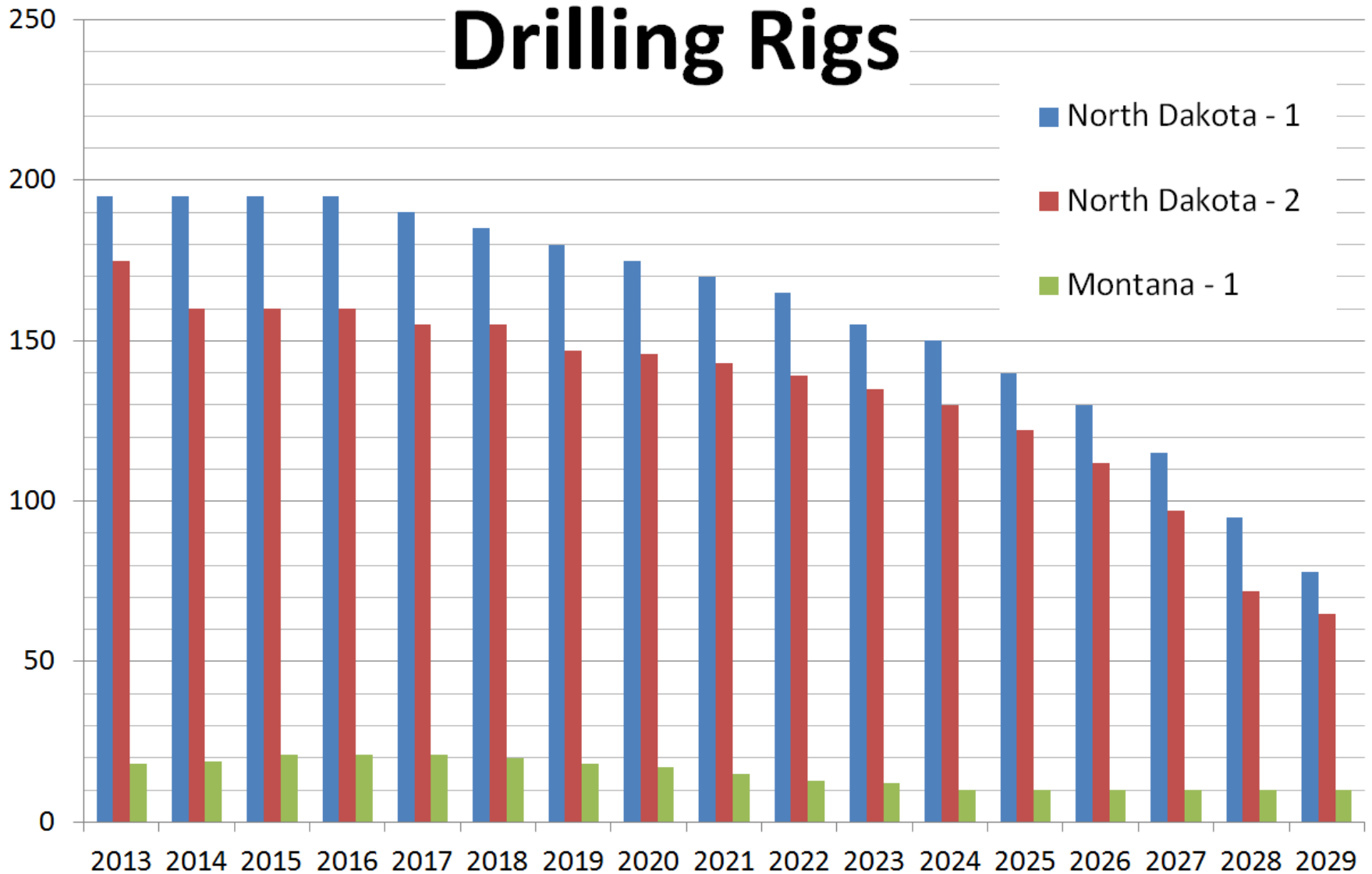
Forecasting Williston Basin Oil Production, BOPD



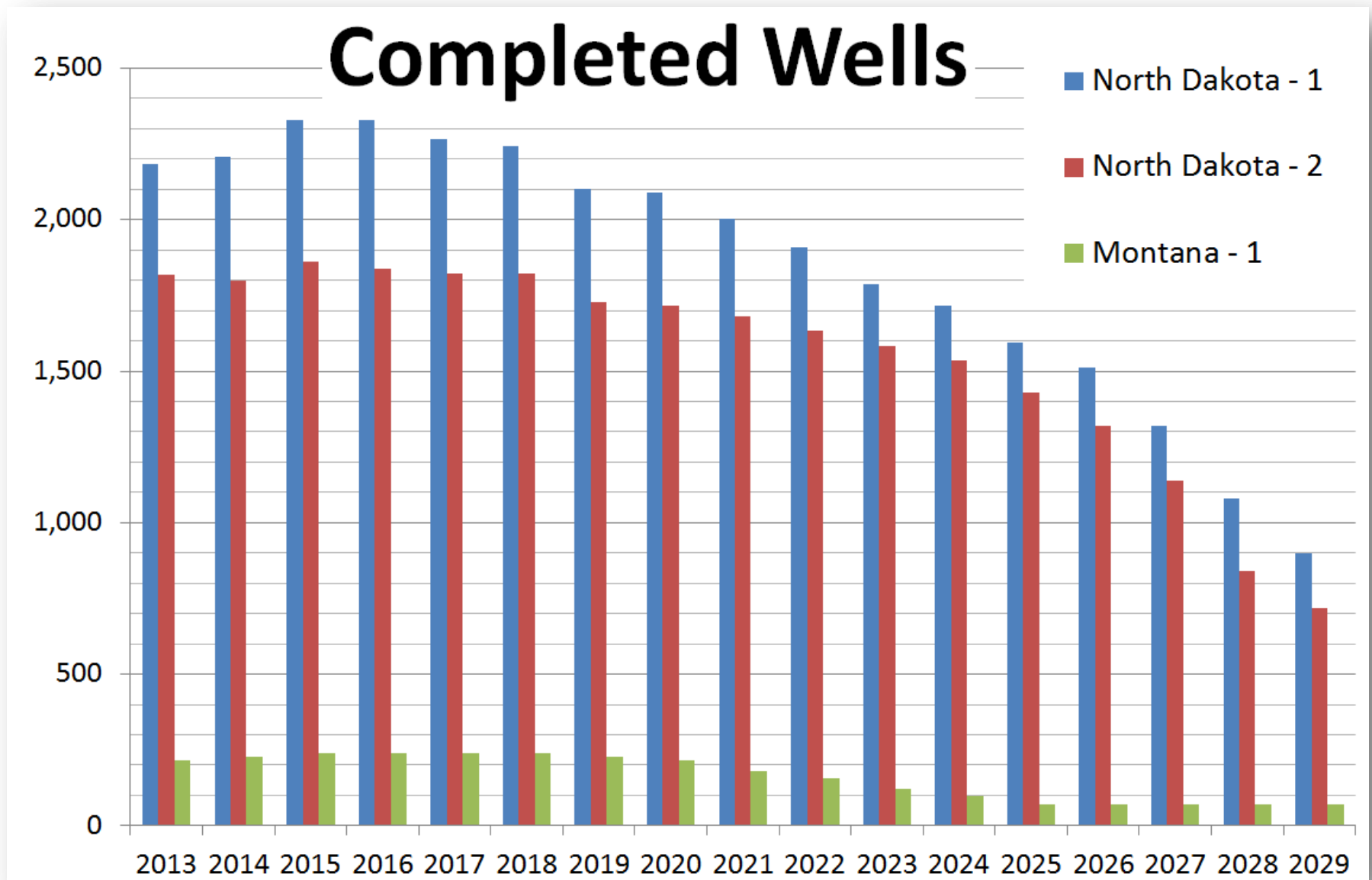
Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

Forecast Assumptions

Drilling Rigs



Forecast Assumptions



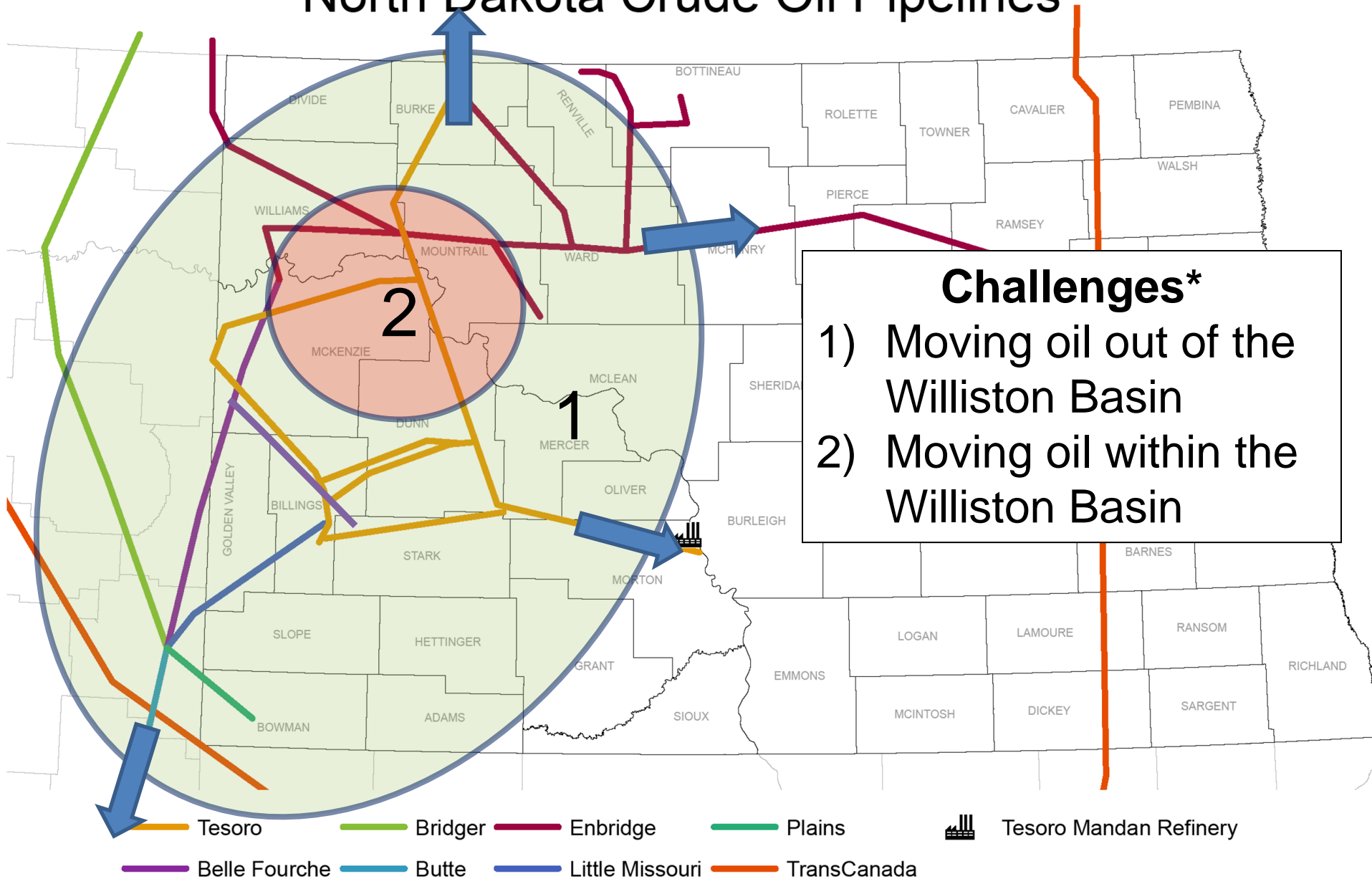
Crude Oil

Understanding production potential

Understanding current transportation dynamics and potential transportation constraints

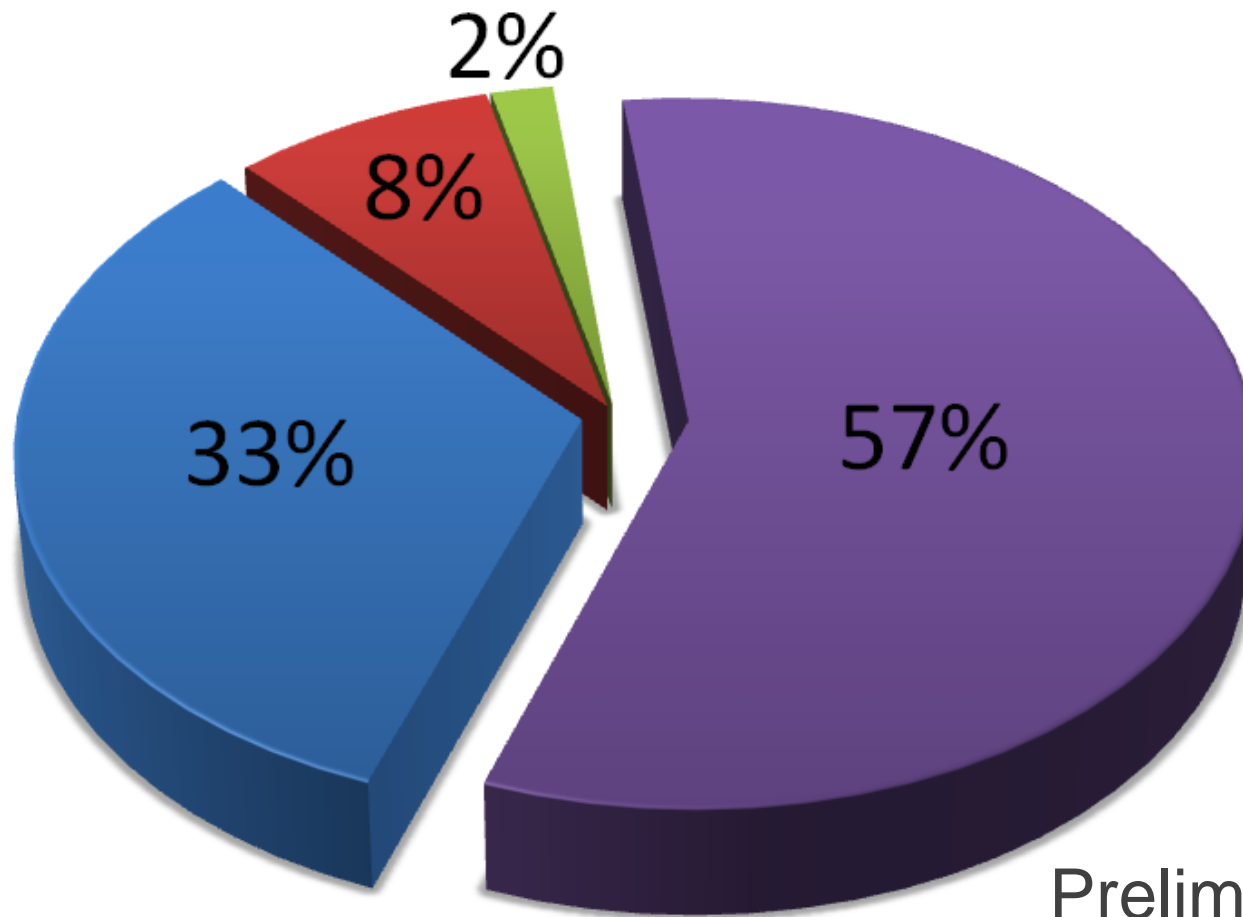
Understanding current and future market conditions

North Dakota Crude Oil Pipelines



*Modified from Bridger and Belle Fourche Pipelines

Williston Basin Oil Transportation



Prelim Nov 2012

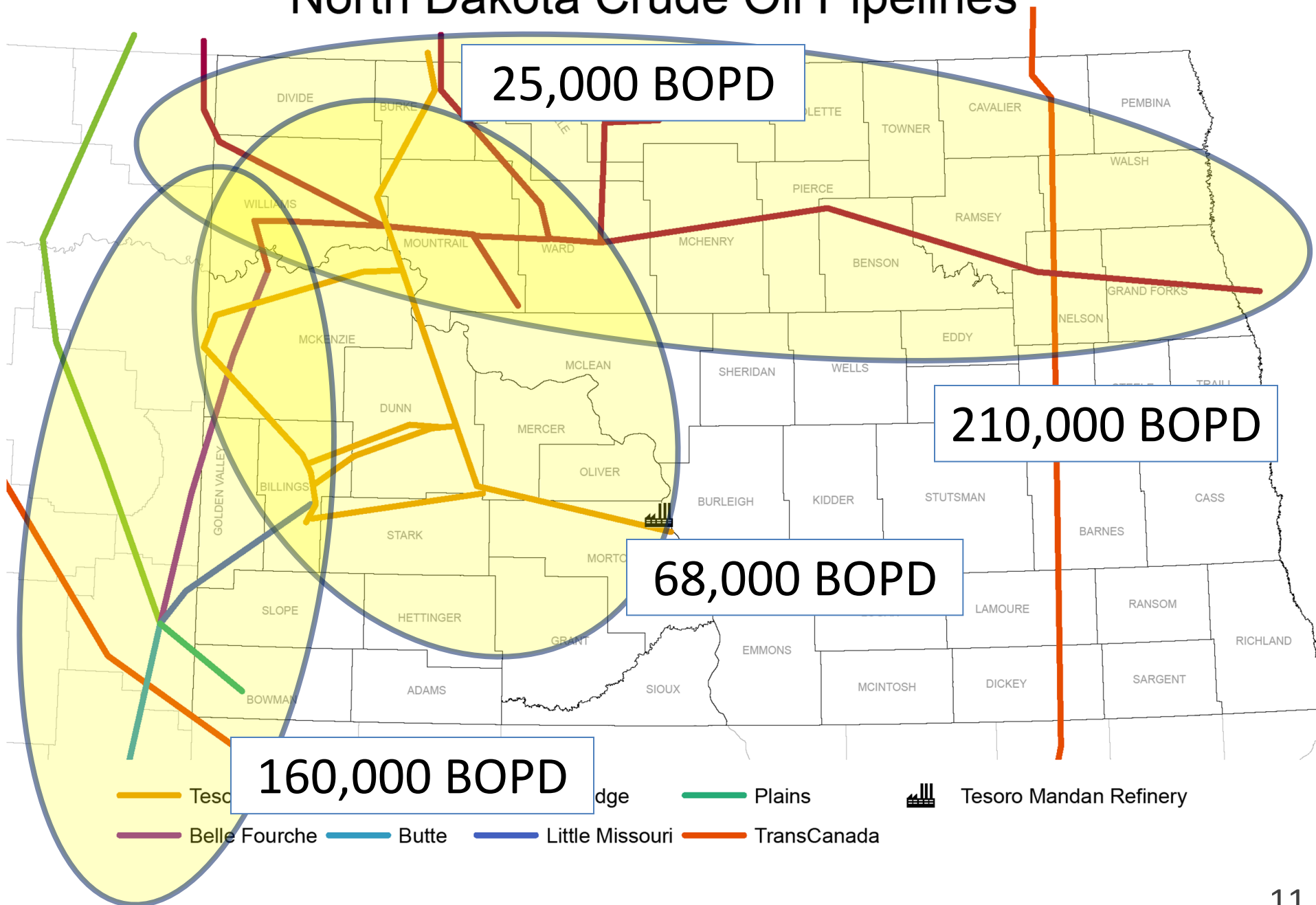
■ Pipeline Export

■ Tesoro Refinery

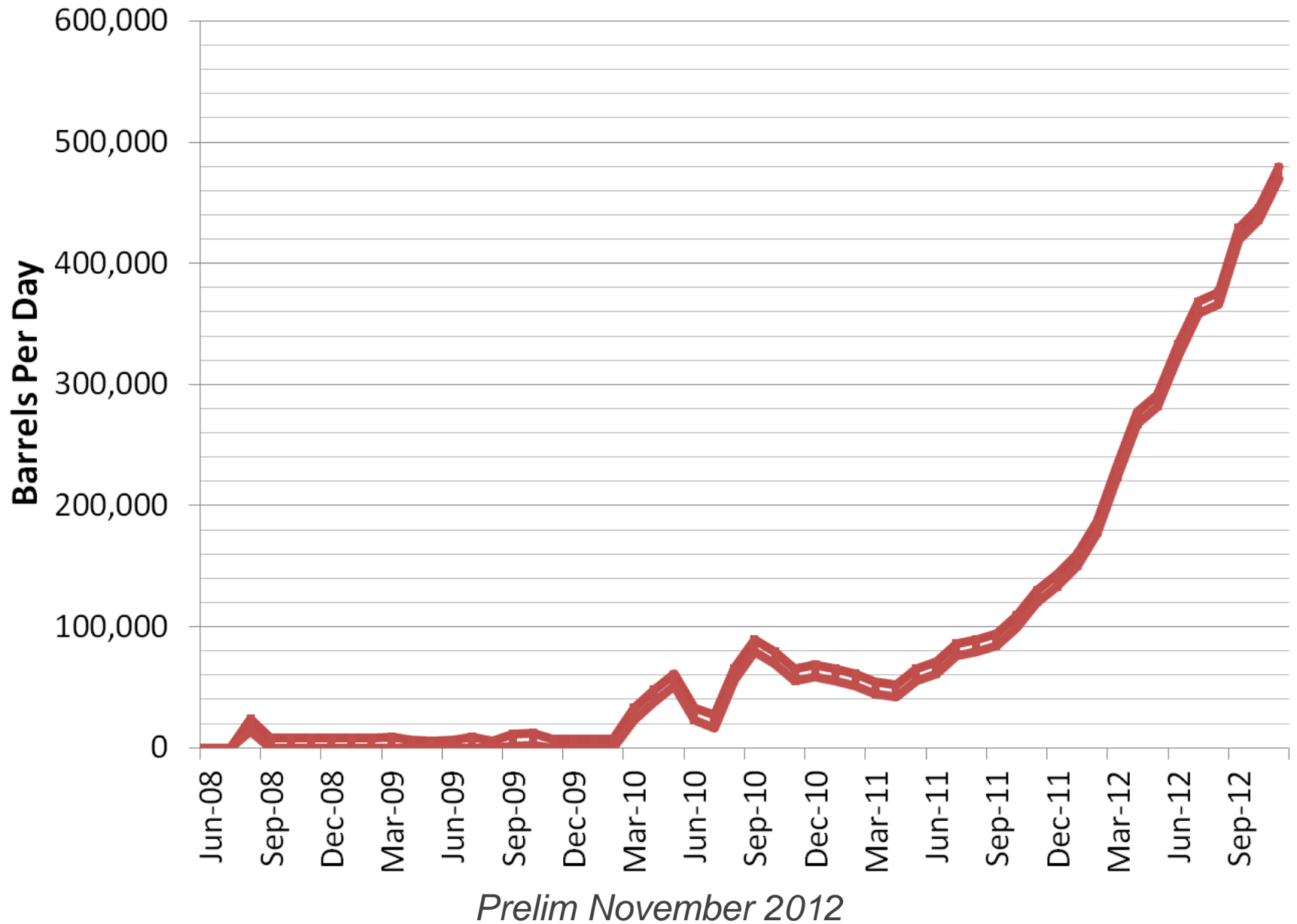
■ Truck to Canadian Pipelines

■ Estimated Rail

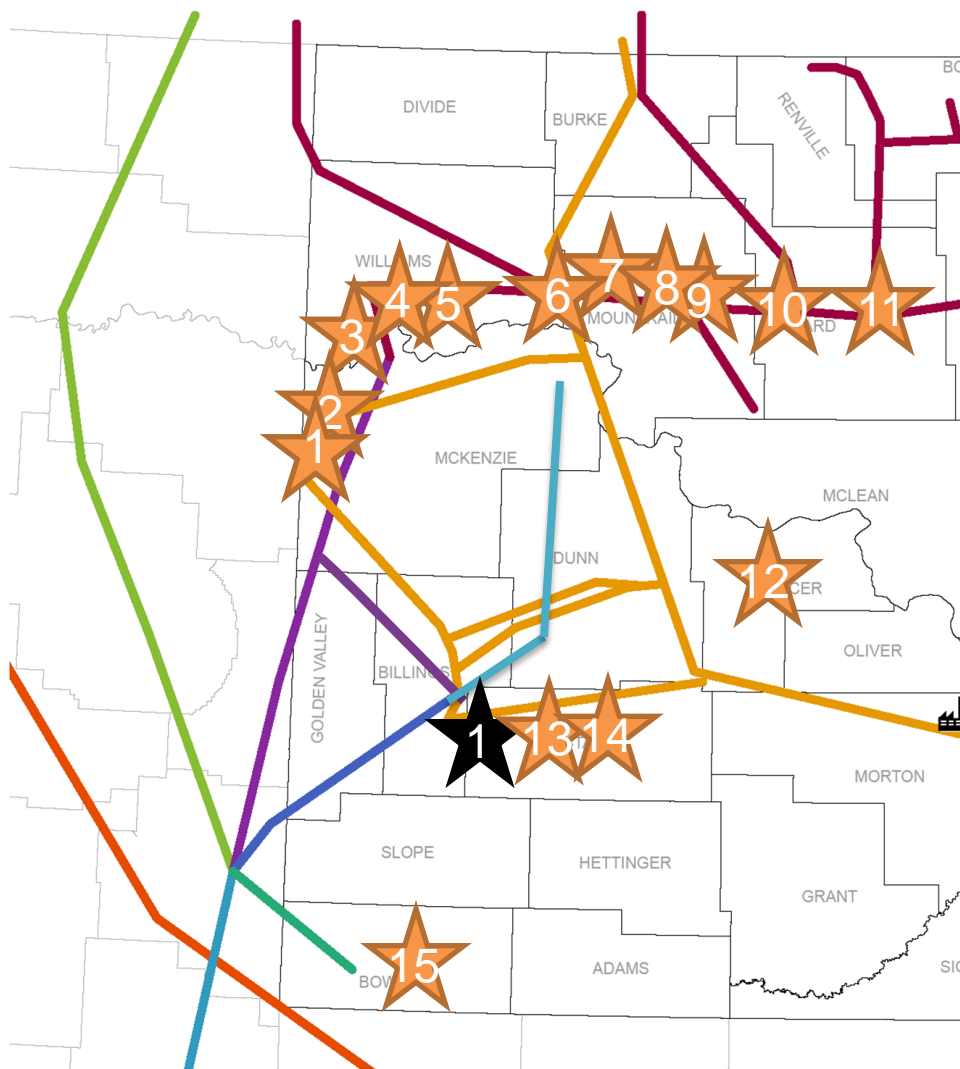
North Dakota Crude Oil Pipelines



Estimated ND Rail Export Volumes



BNSF Crude Rail Locations



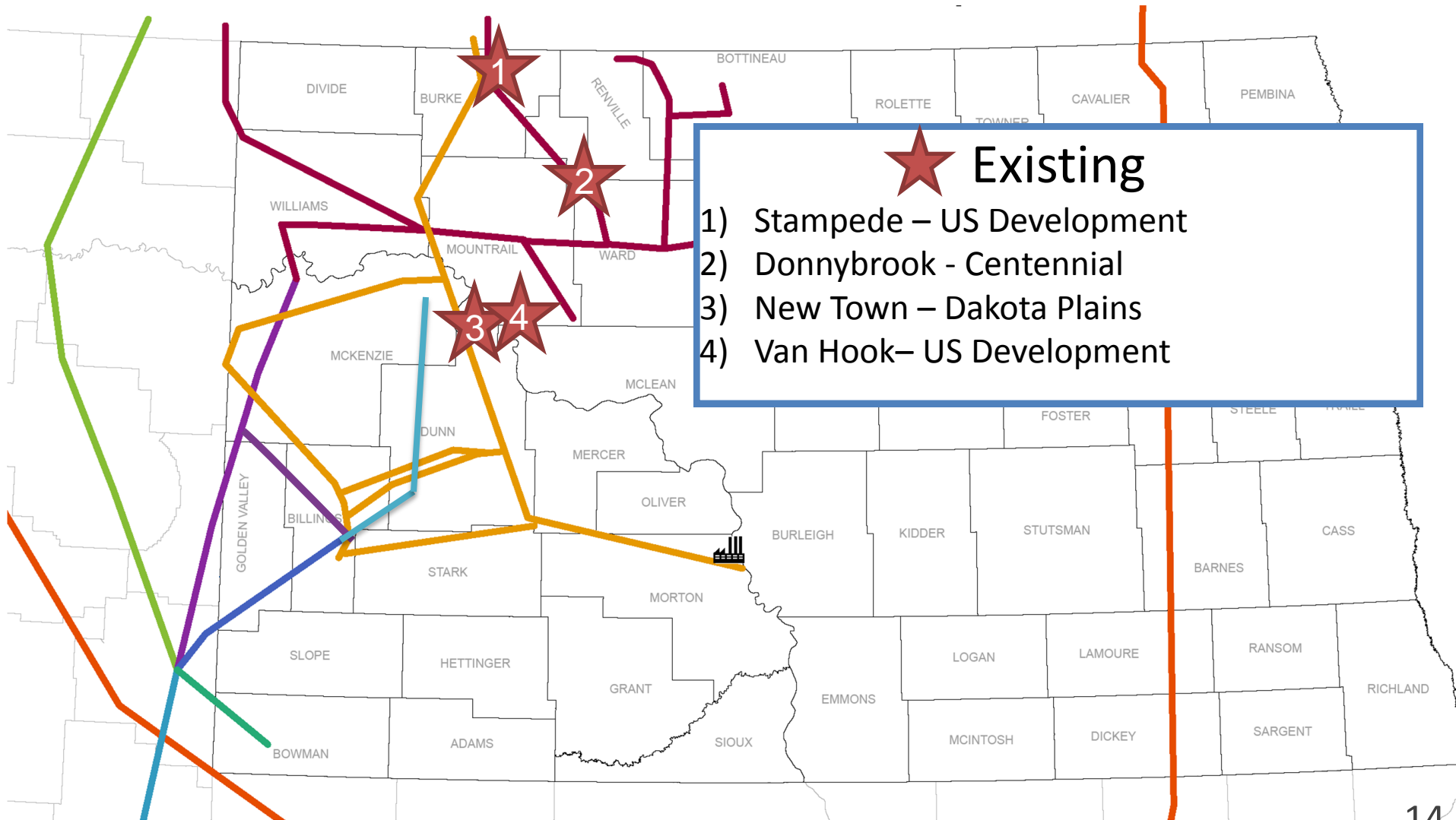
★ Existing

- 1) Dore – Musket – Unit
- 2) Dore - Manifest
- 3) Trenton – Savage – Manifest/Unit
- 4) Williston – Red River Supply – Manifest
- 5) Epping – Inergy Midstream – Unit
- 6) Tioga – Hess - Unit
- 7) Manitou – Plains - Unit
- 8) Ross – Bakken Transload - Manifest
- 9) Stanley – EOG – Unit
- 10) Berthold – Enbridge – Unit (Full Q1/13)
- 11) Minot – ND Port Services- Manifest
- 12) Zap/Republic – Basin Transload - Unit
- 13) Eland – BOE - Unit
- 14) Dickinson – Centennial - Manifest
- 15) Gascoyne – Enserco – Manifest/Unit

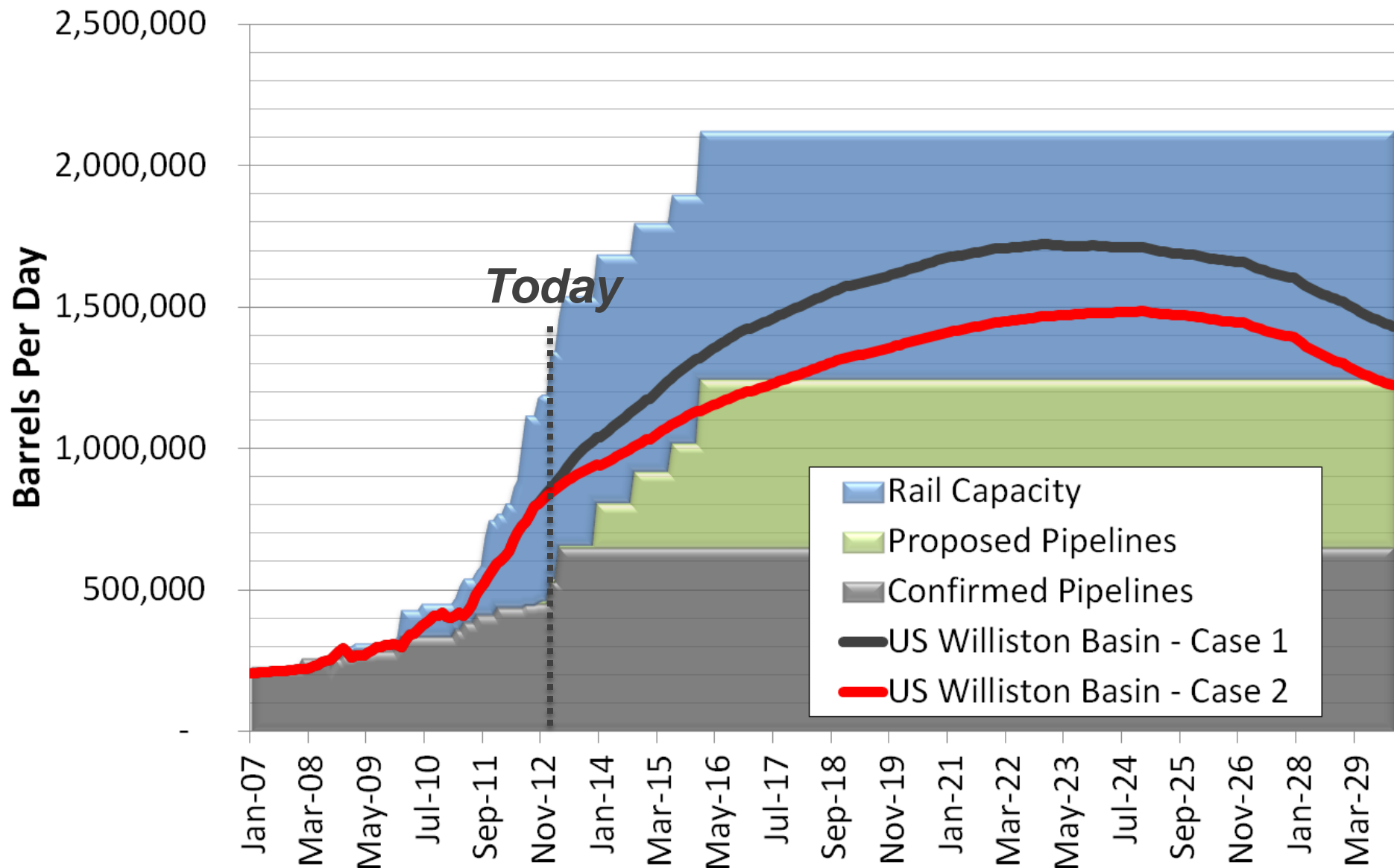
★ Planned

- 1) Fryburg – Great Northern – Unit (Feb-13)

CP Crude Rail Locations

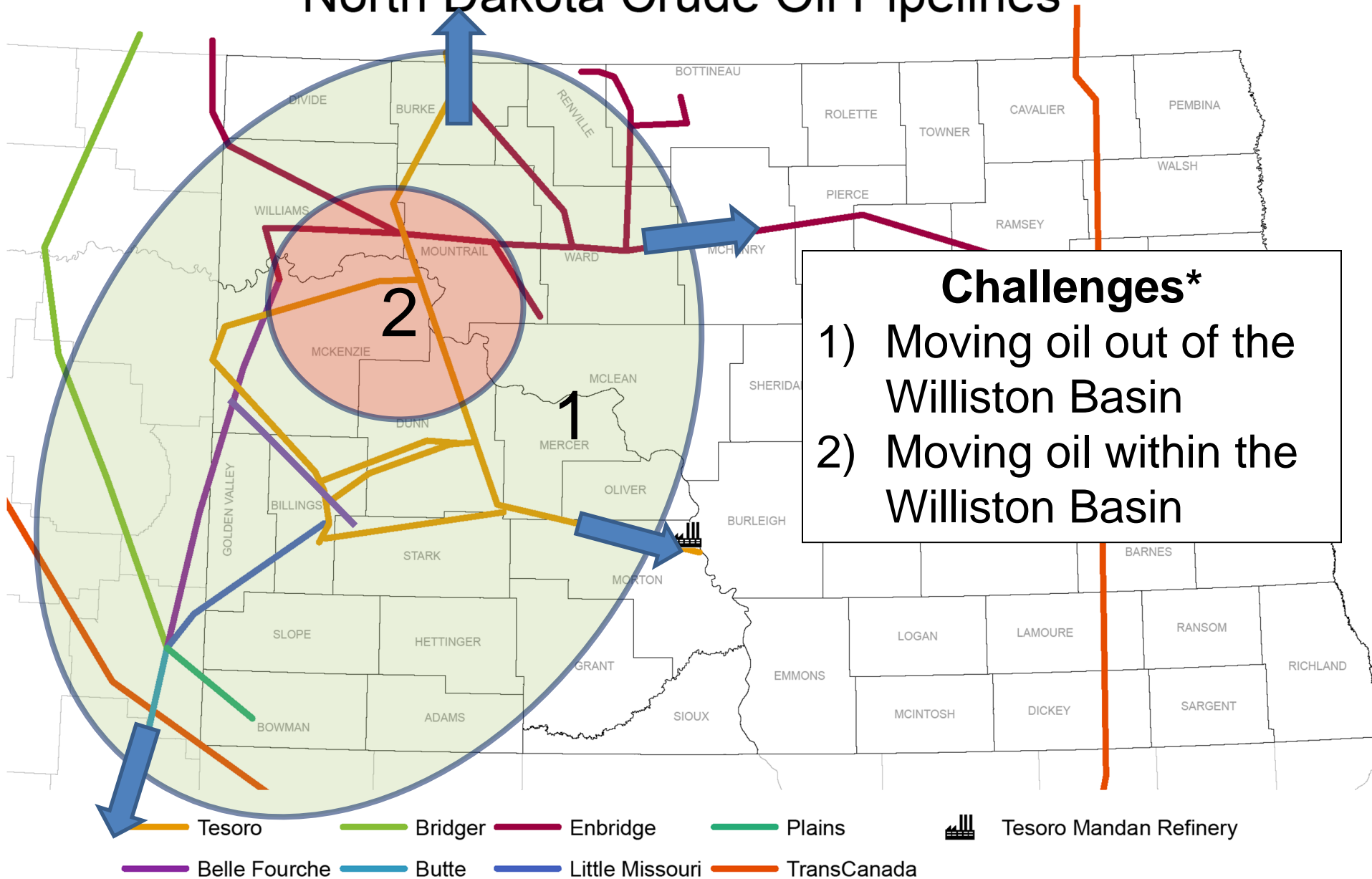


Williston Basin Oil Production & Export Capacity, BOPD



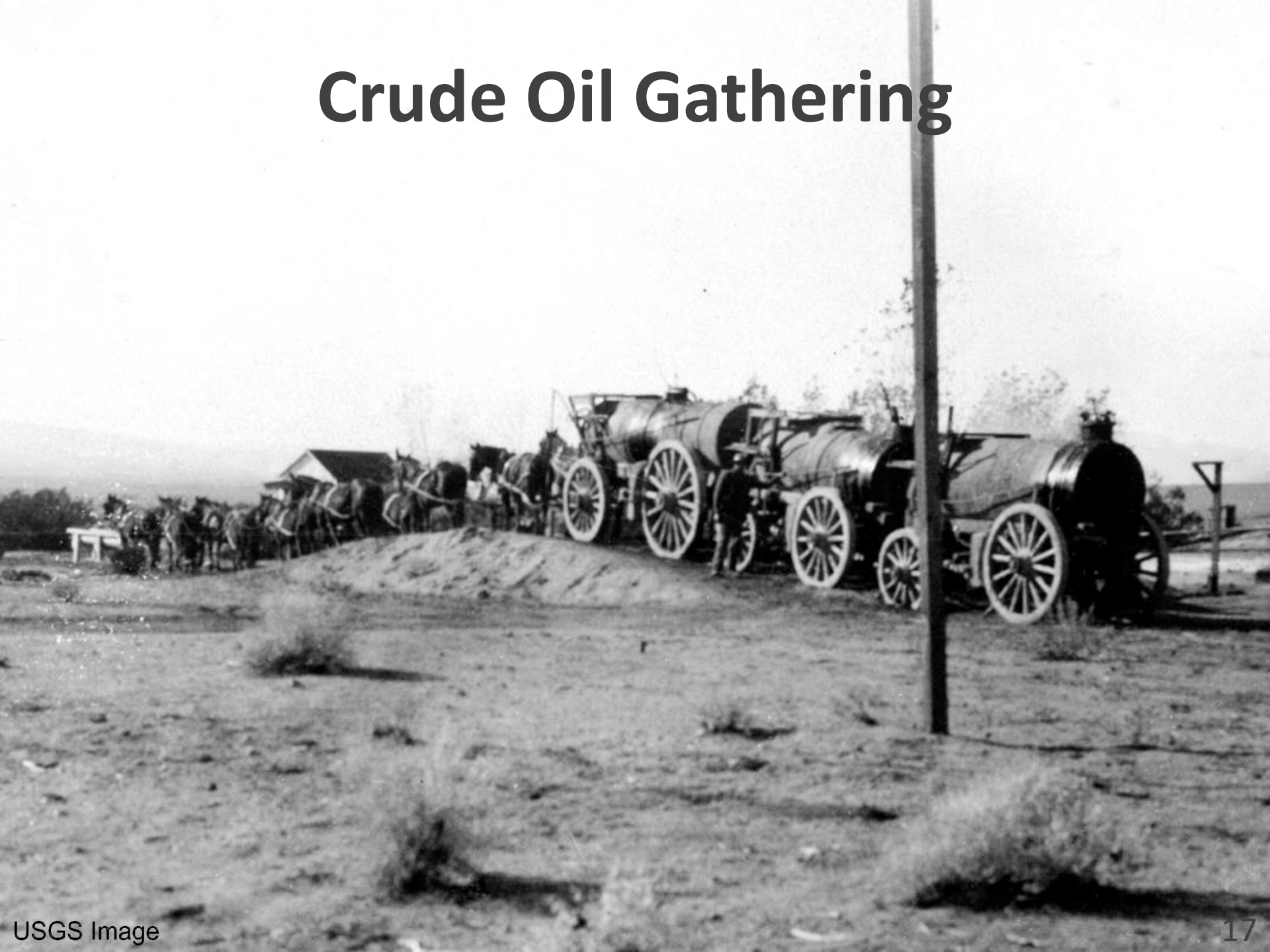
Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

North Dakota Crude Oil Pipelines

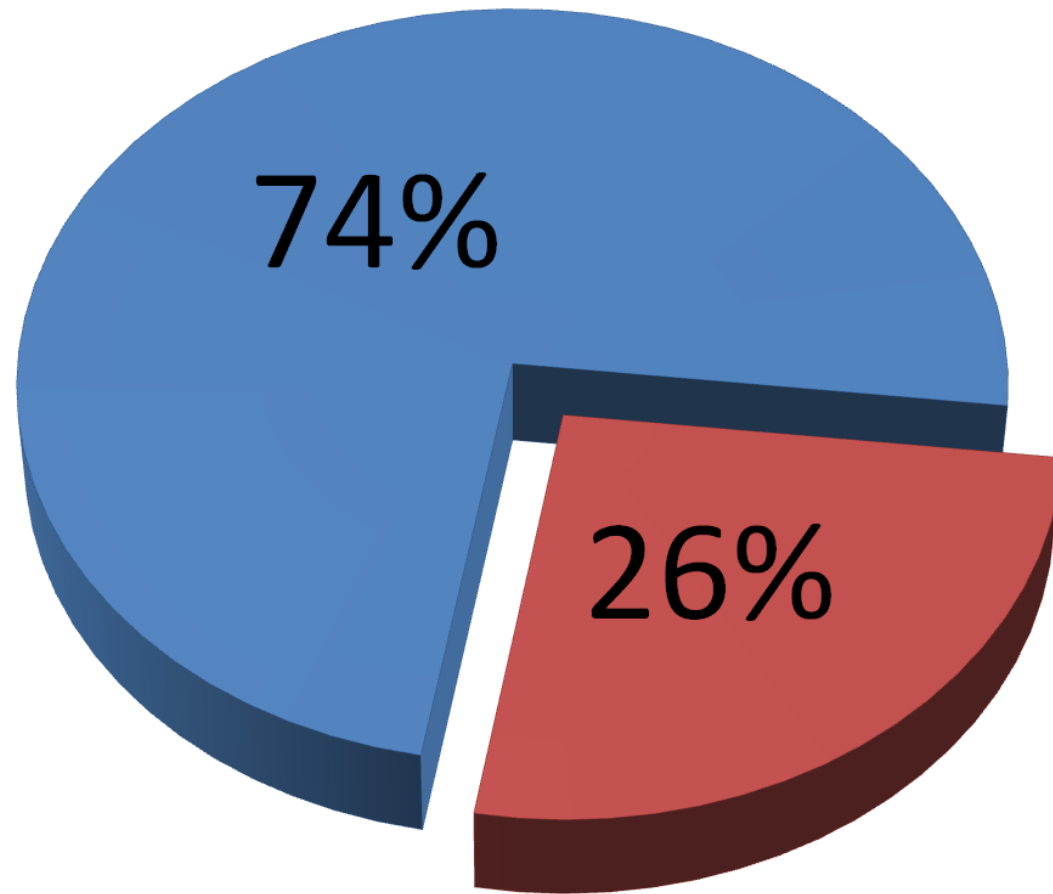


*Modified from Bridger and Belle Fourche Pipelines

Crude Oil Gathering

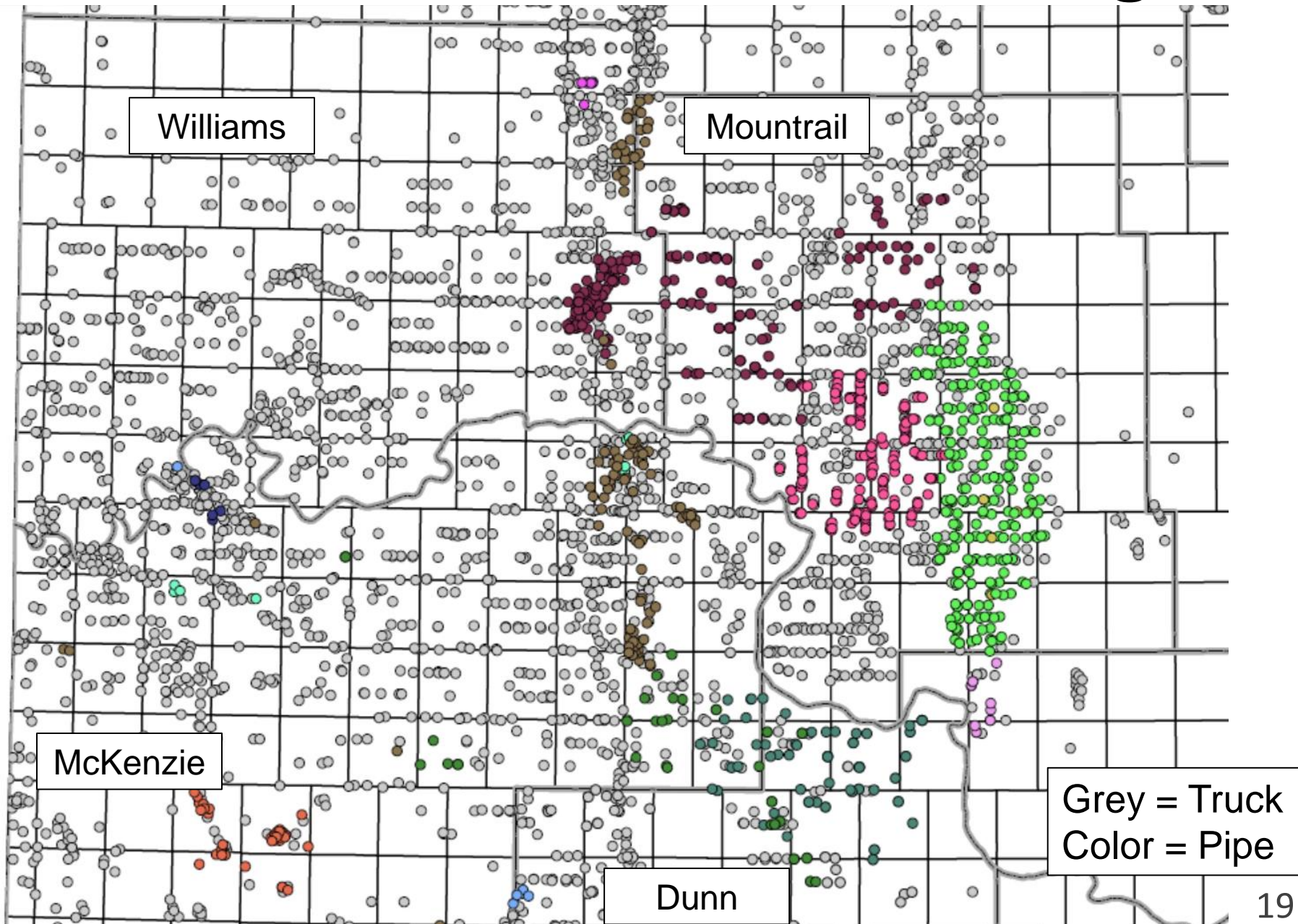


North Dakota Crude Gathering

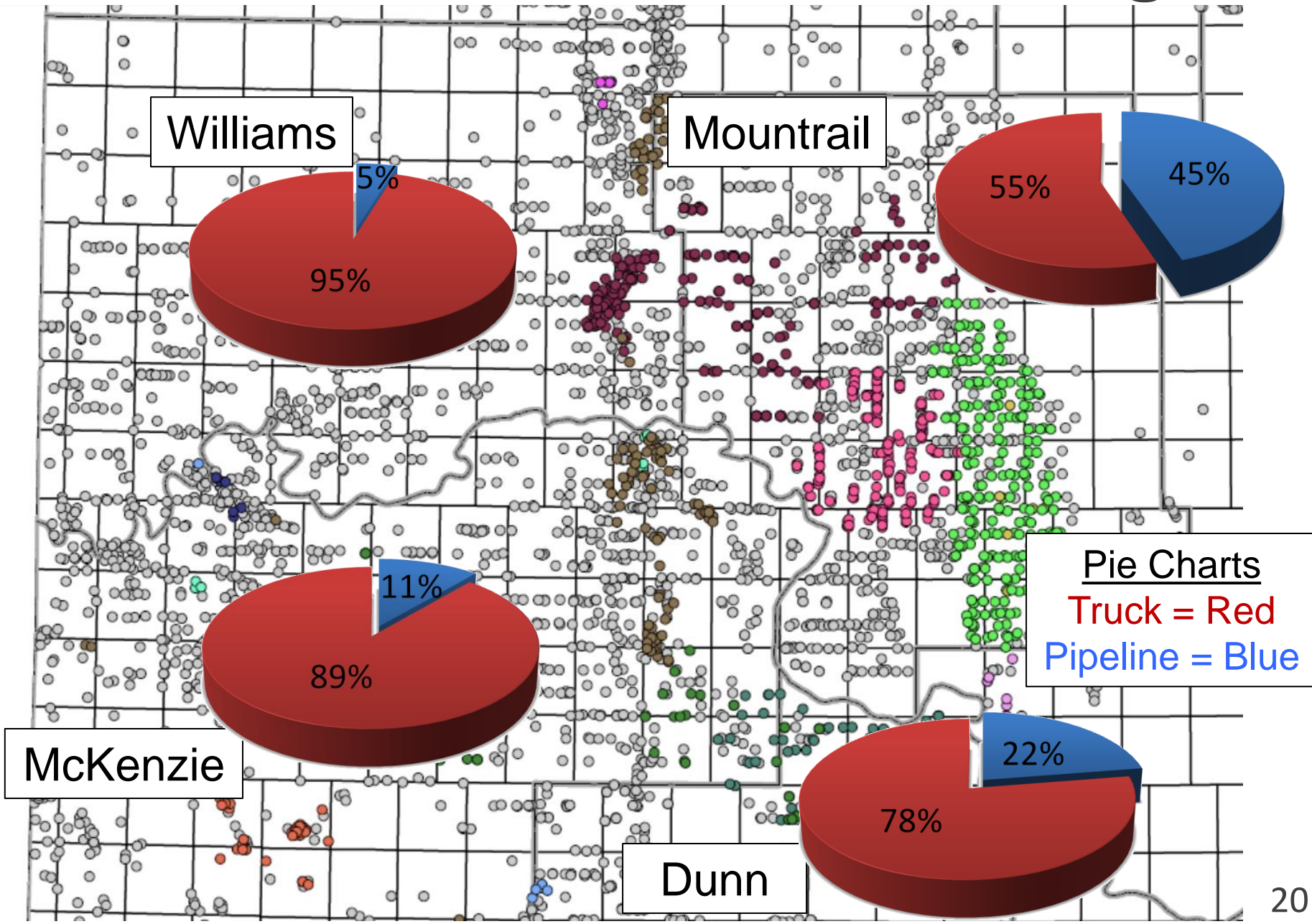


■ Truck ■ Pipeline

North Dakota Crude Gathering



North Dakota Crude Gathering



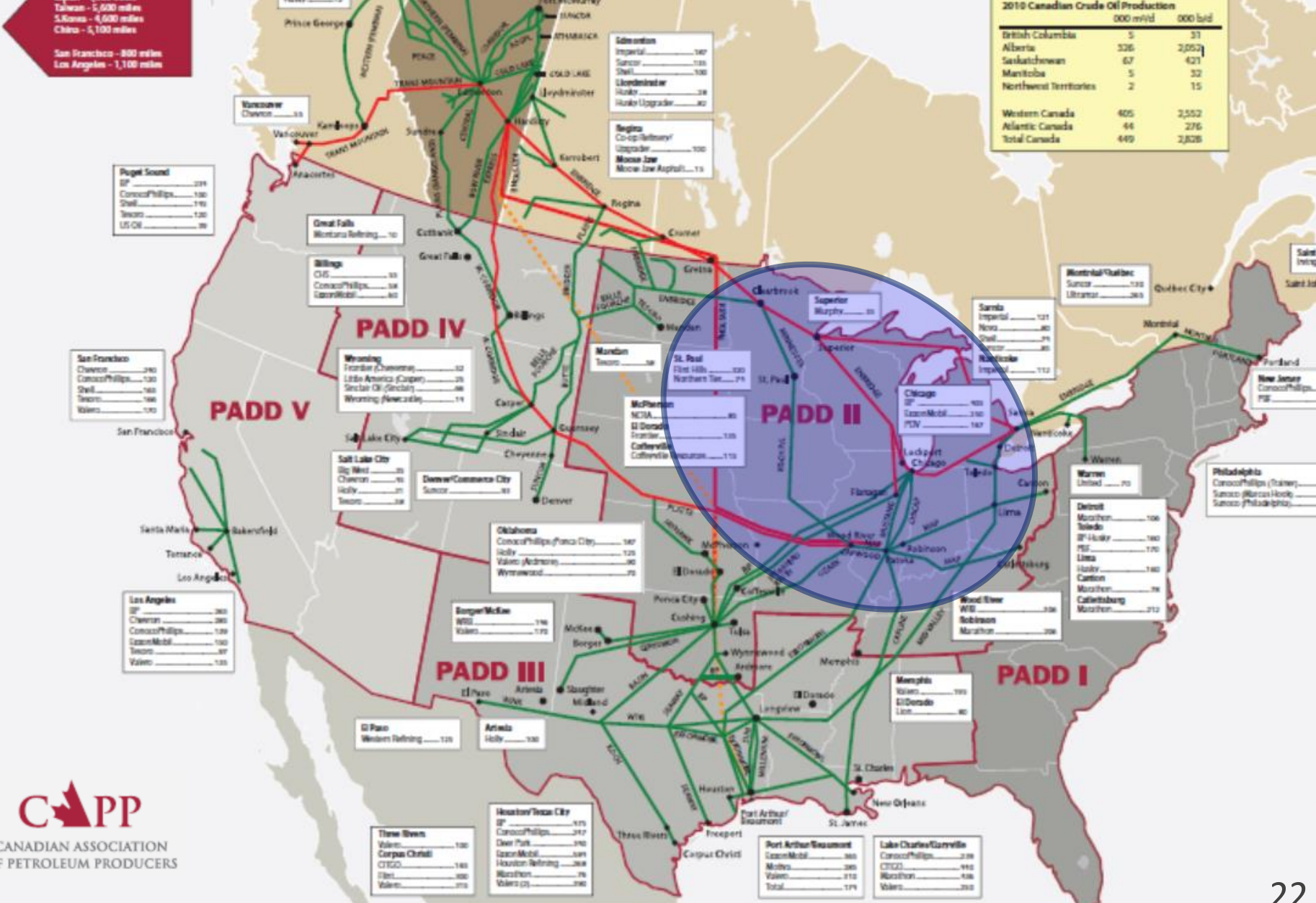
Crude Oil

Understanding production potential

Understanding current transportation dynamics and potential transportation constraints

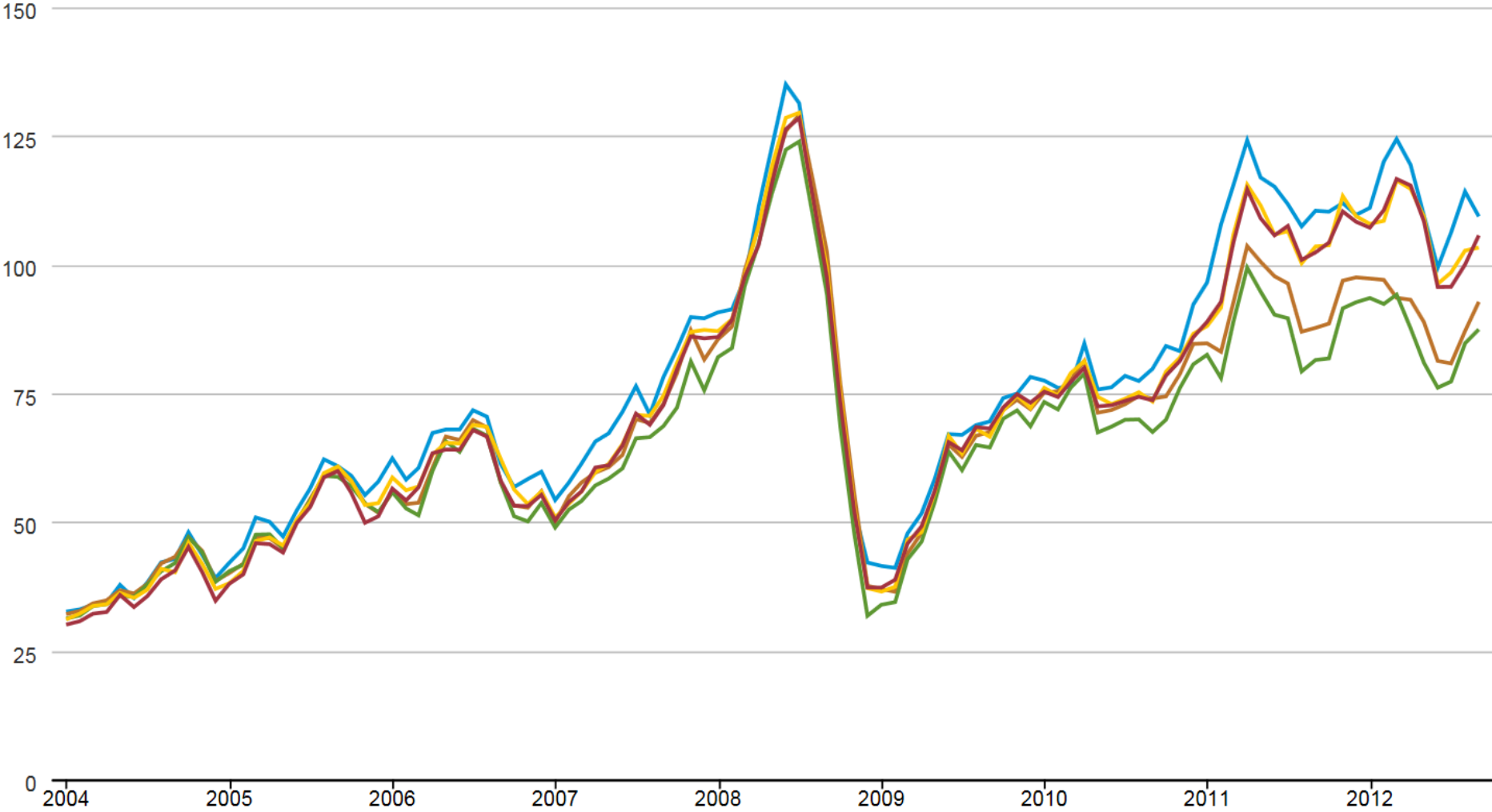
Understanding current and future market conditions

Pipeline Challenges Outside ND



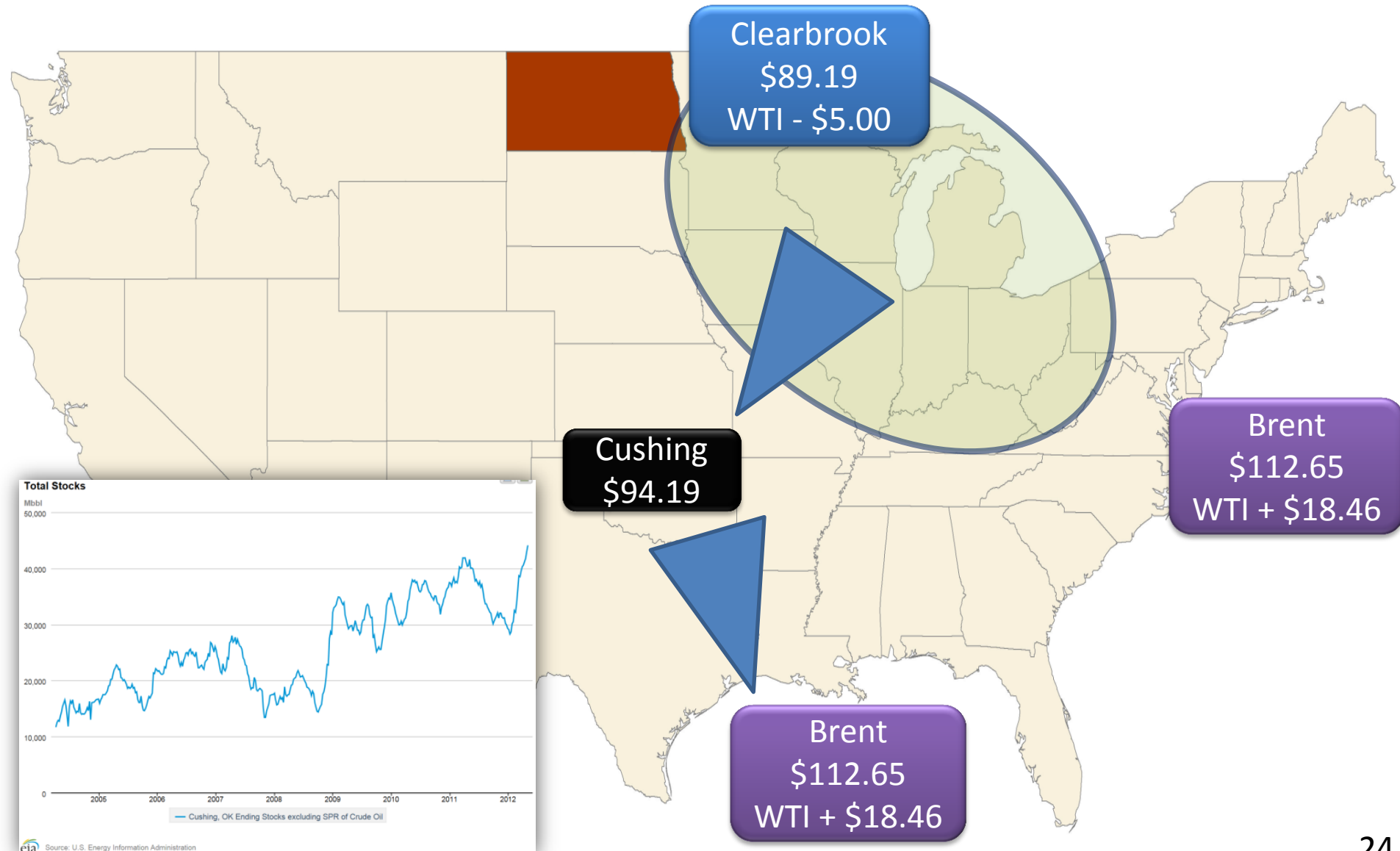
Refiner Acquisition Cost of Crude Oil

\$/bbl

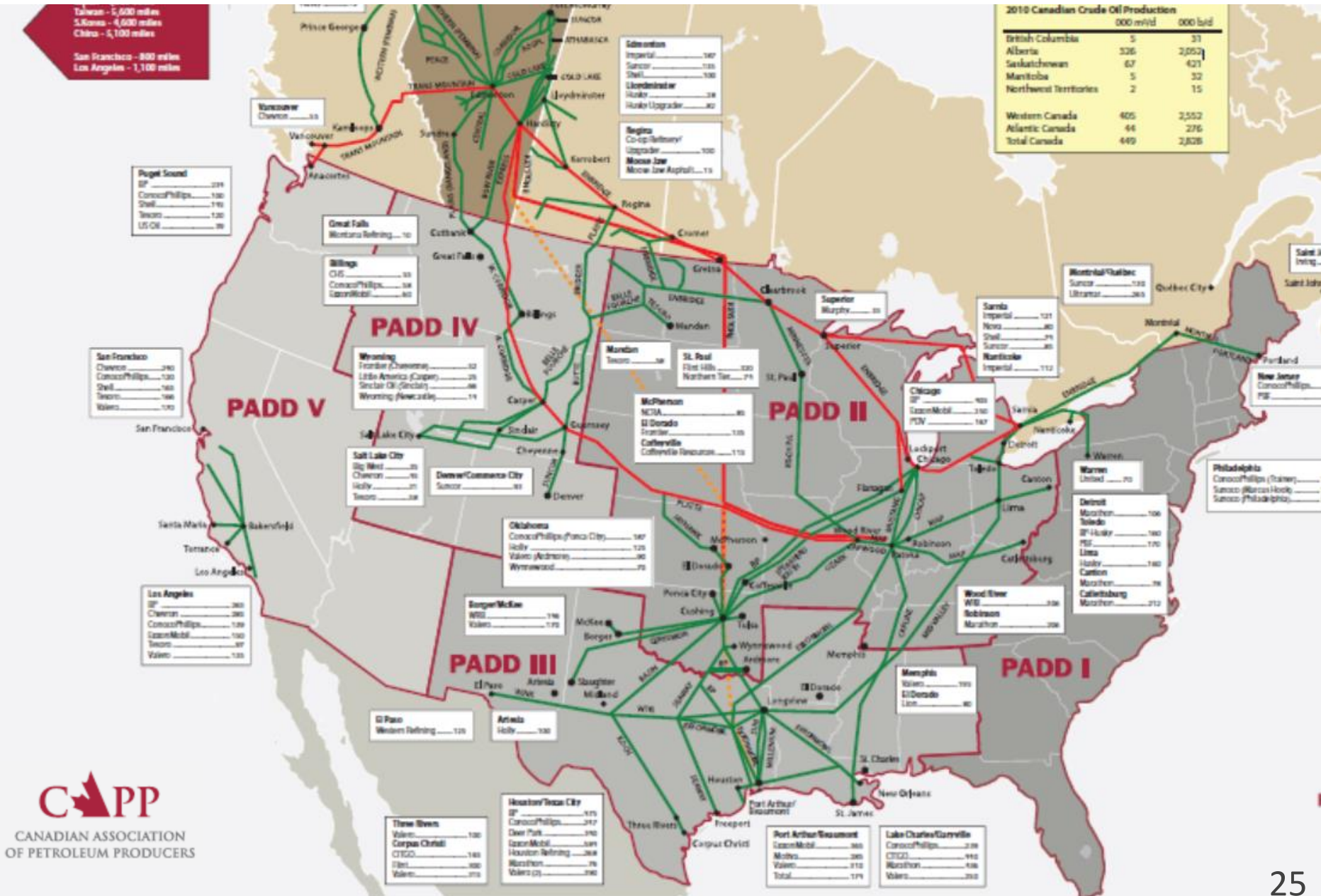


- East Coast (PADD 1) Crude Oil Composite Acquisition Cost by Refiners
- Midwest (PADD 2) Crude Oil Composite Acquisition Cost by Refiners
- Rocky Mountain (PADD 4) Crude Oil Composite Acquisition Cost by Refiners
- West Coast (PADD 5) Crude Oil Composite Acquisition Cost by Refiners
- Gulf Coast (PADD 3) Crude Oil Composite Acquisition Cost by Refiners

Crude Oil Prices – January 10, 2013

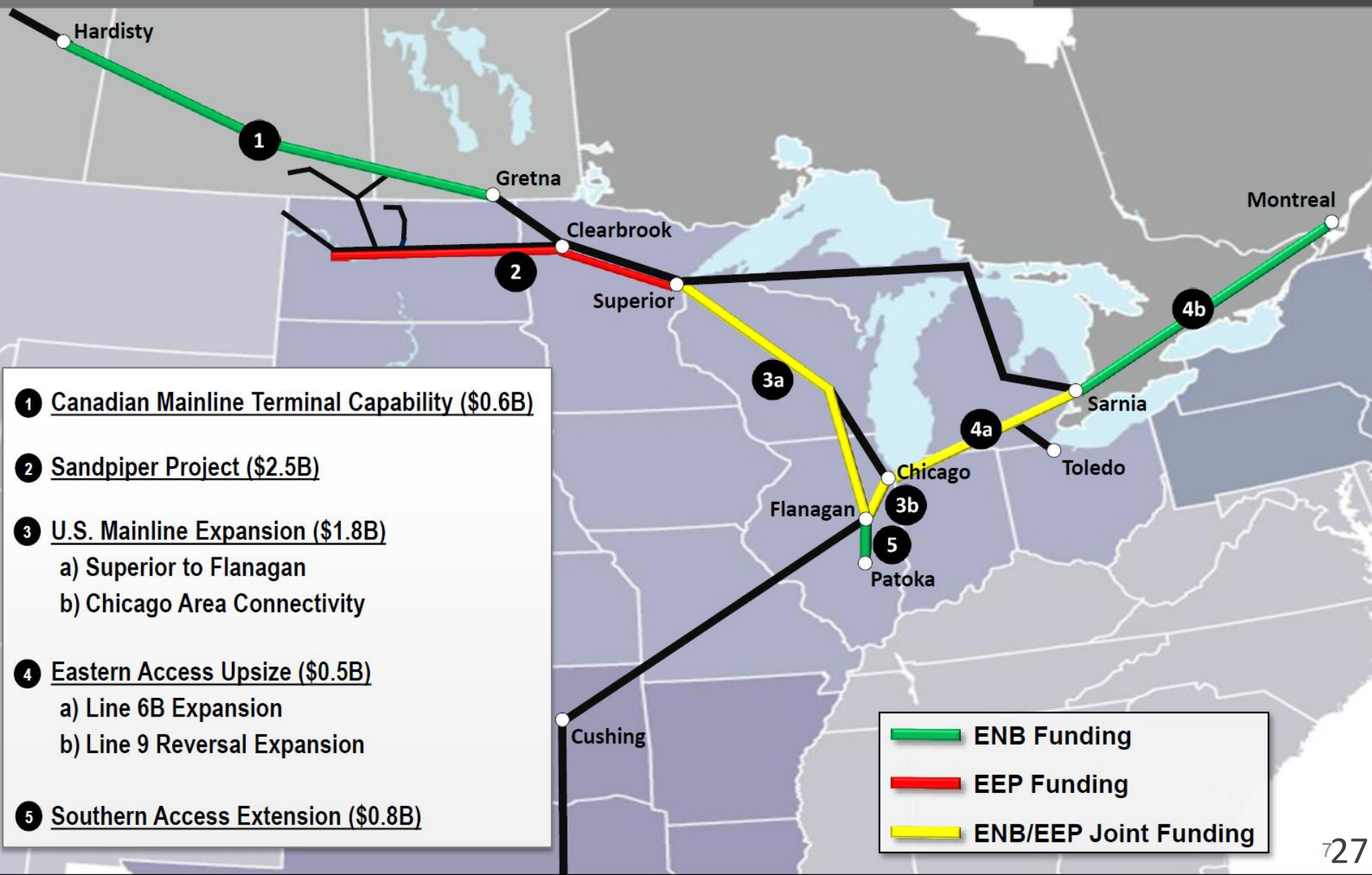


Pipeline Challenges Outside ND

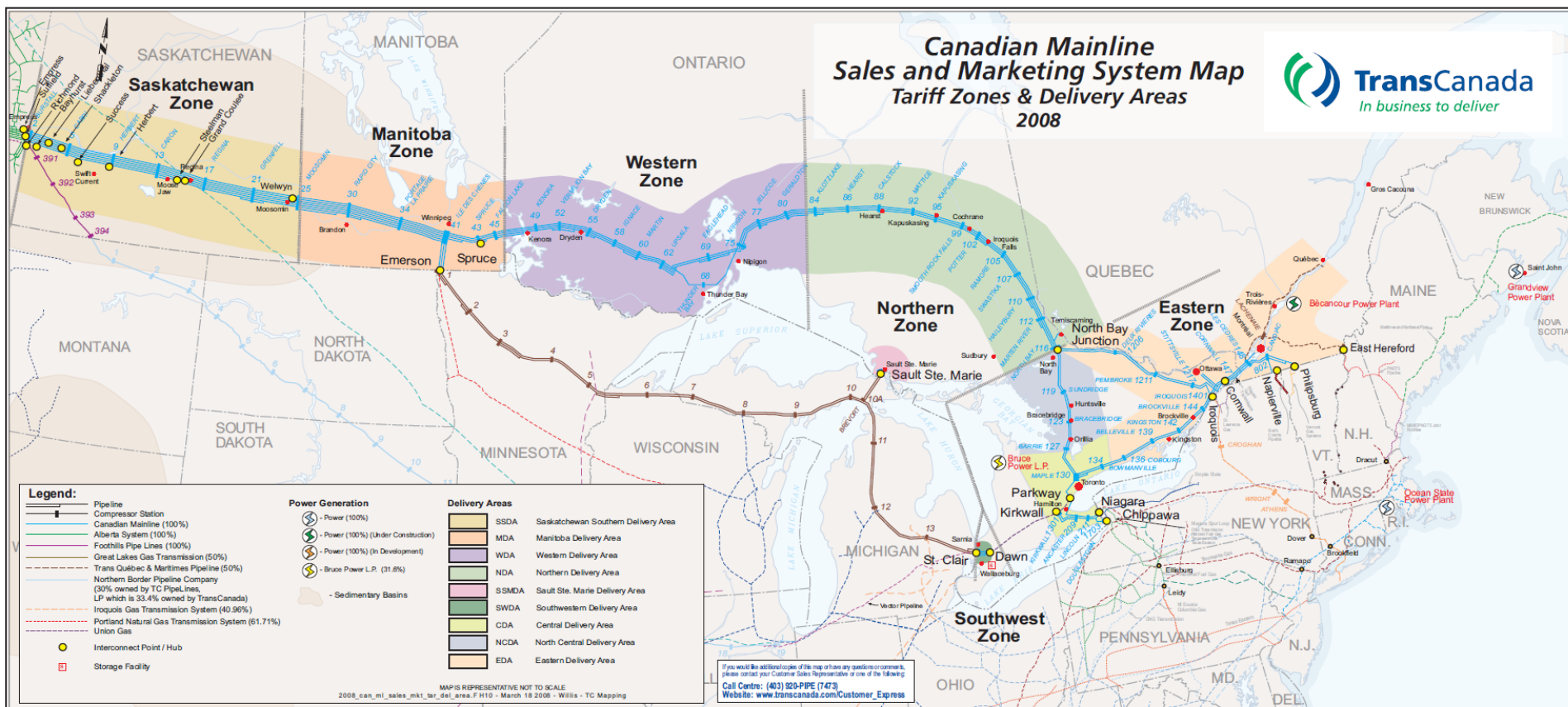


Developing Projects to Watch...

\$6.2 Billion – Light Oil Market Access



TransCanada Mainline Conversion



Natural Gas

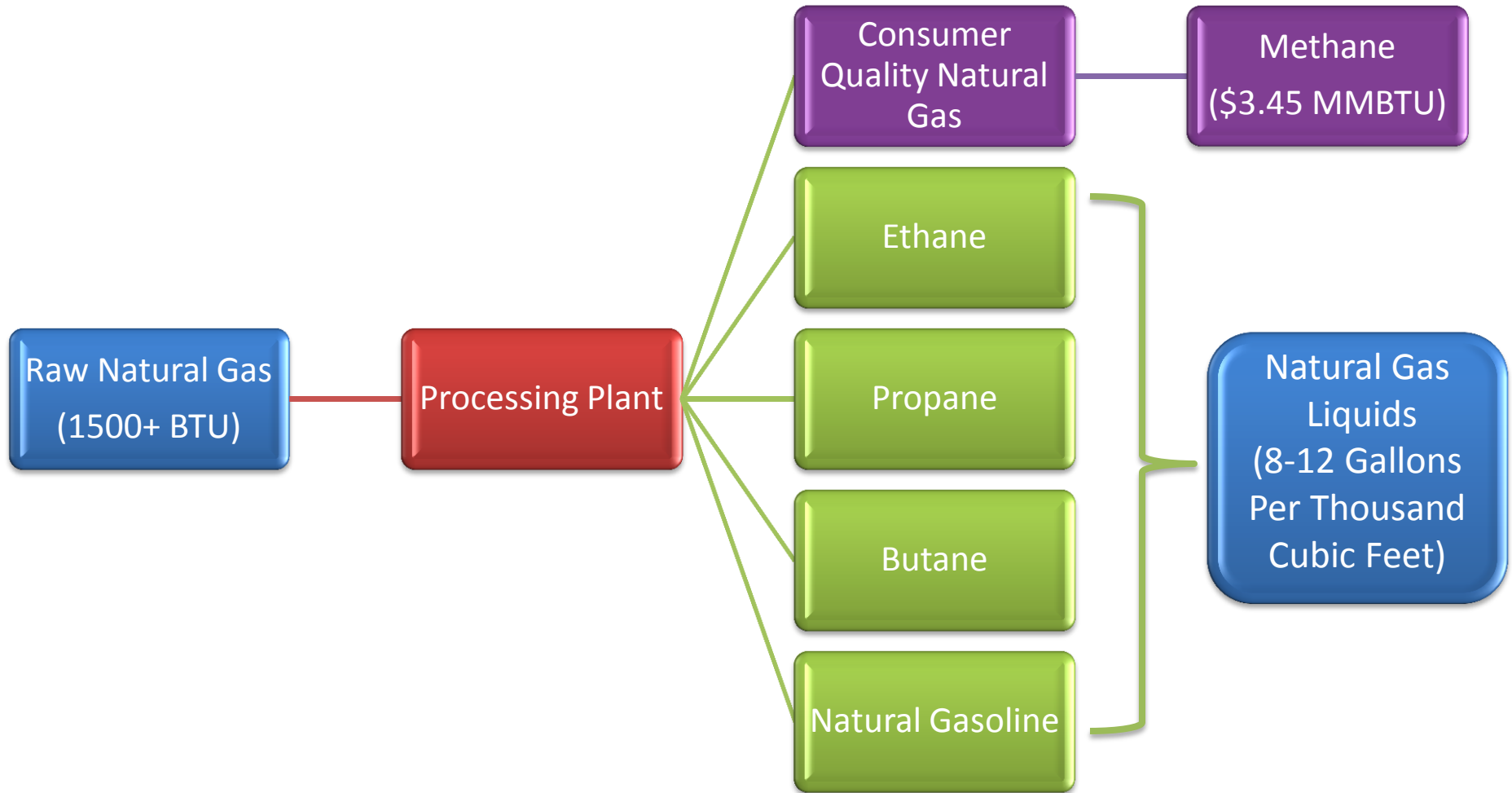


Top Two Natural Gas Misconceptions

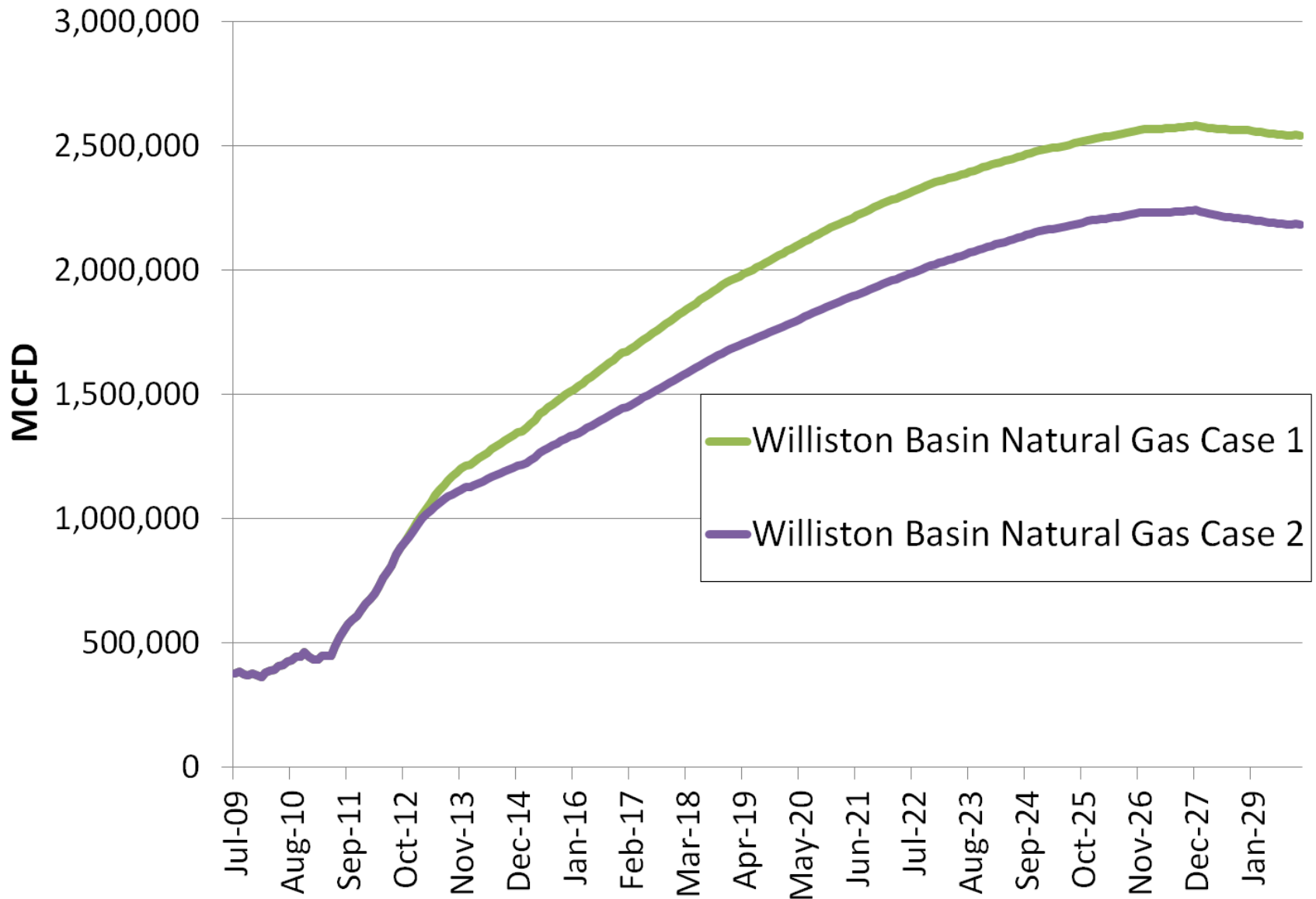
“Natural gas is just a byproduct of oil production with very little economic value.”

“Nothing is being done to address natural gas flaring in western North Dakota.”

Rich Bakken Natural Gas

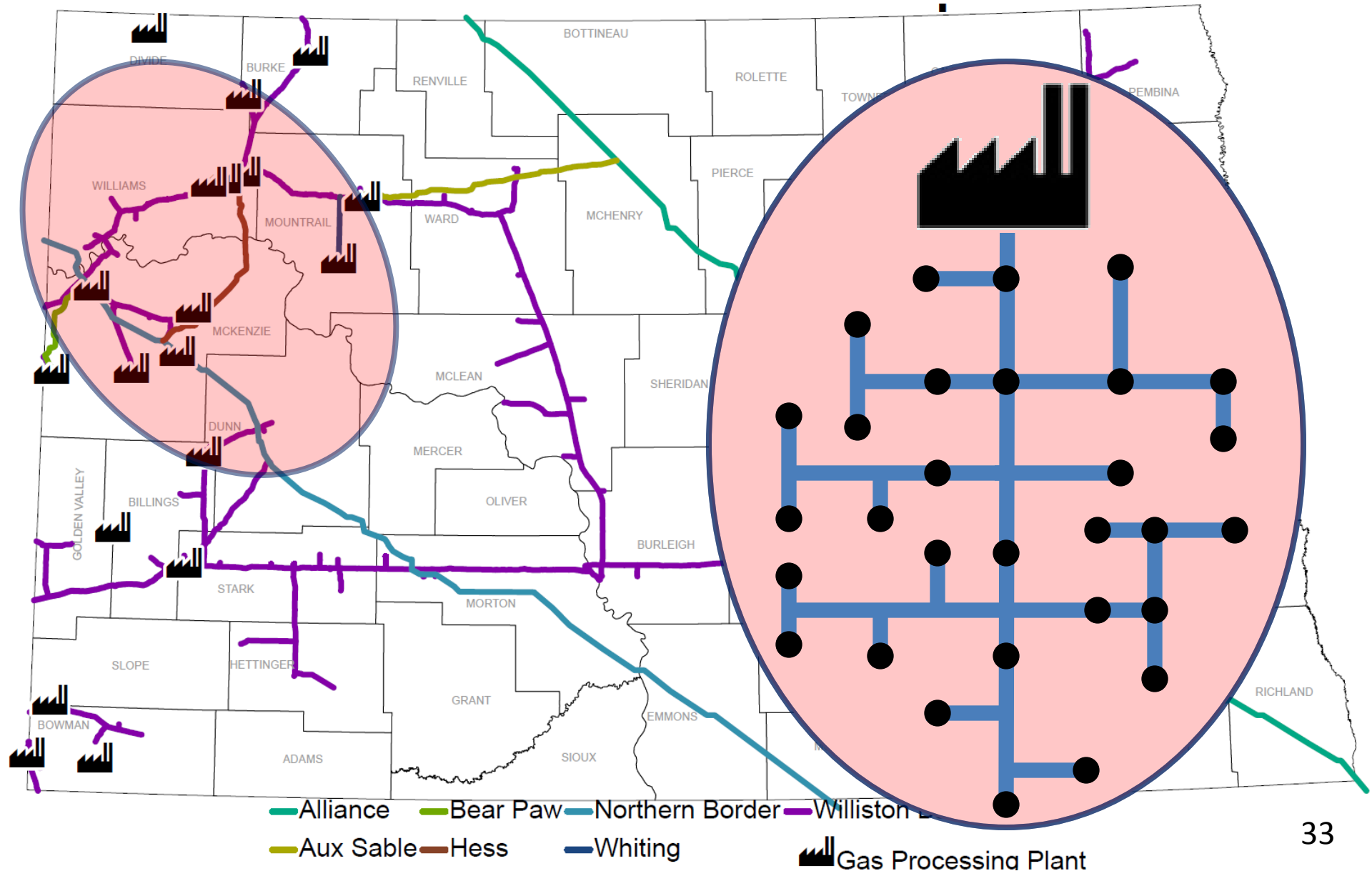


Williston Basin Gas Production

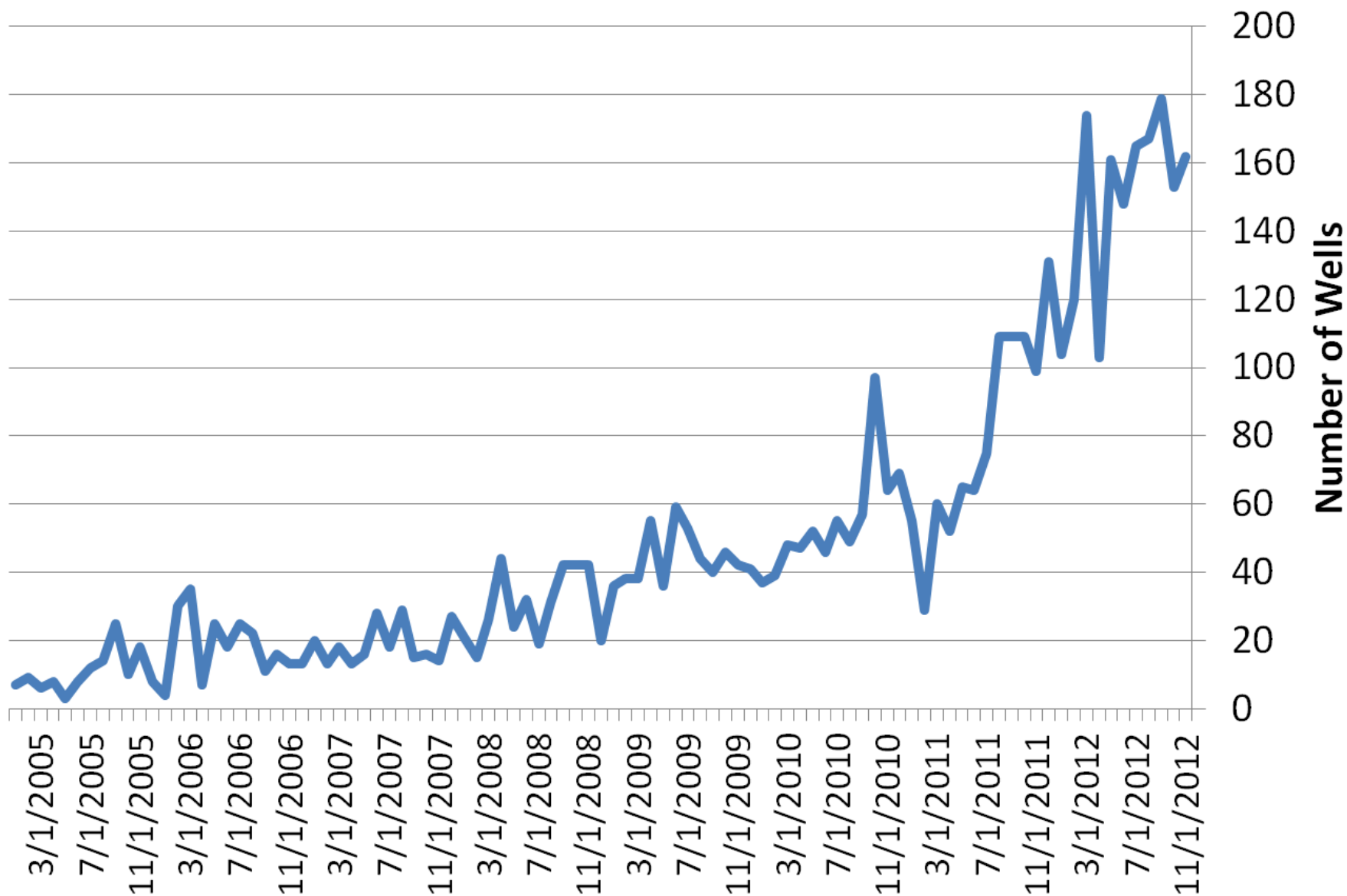


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

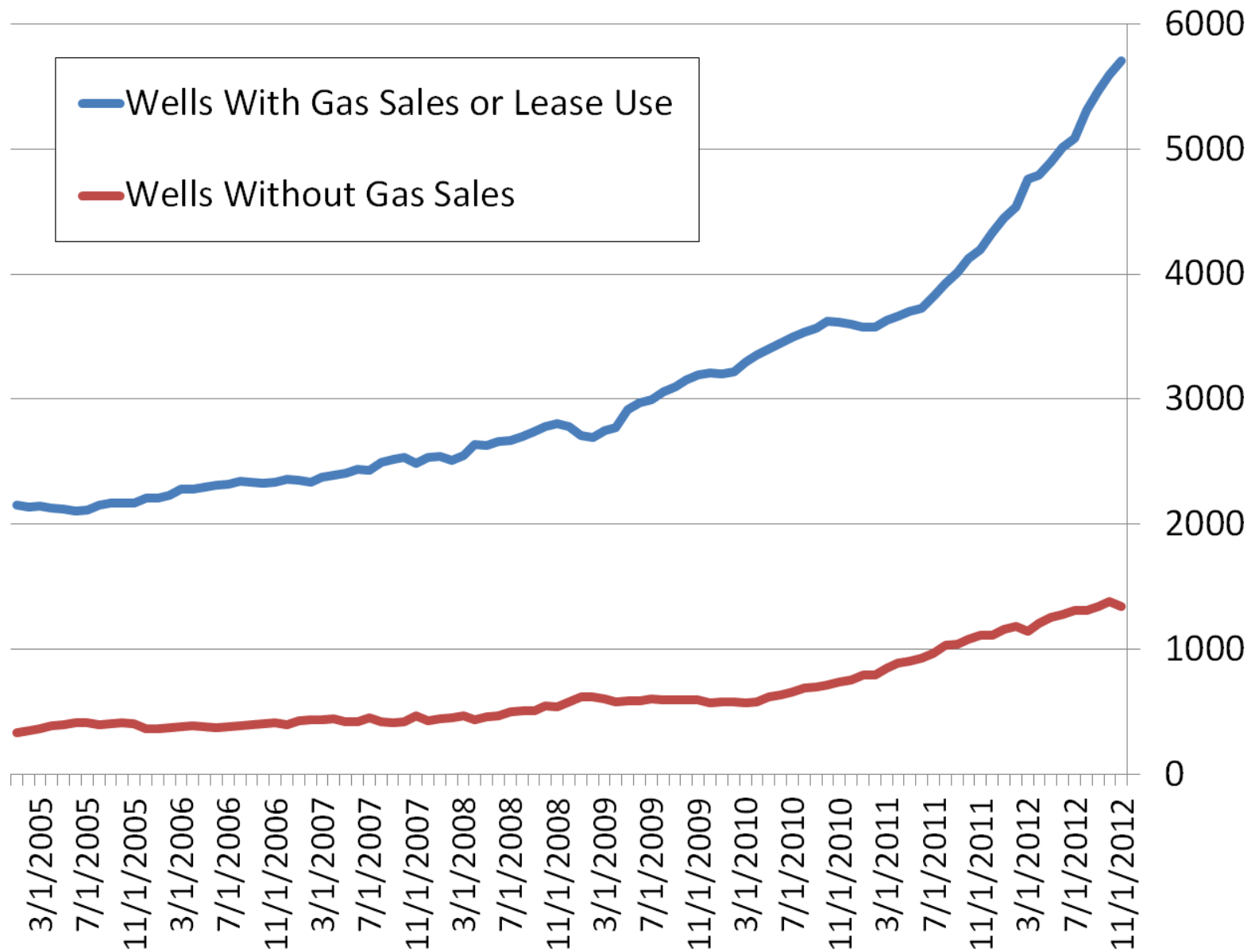
Natural Gas Gathering Challenge



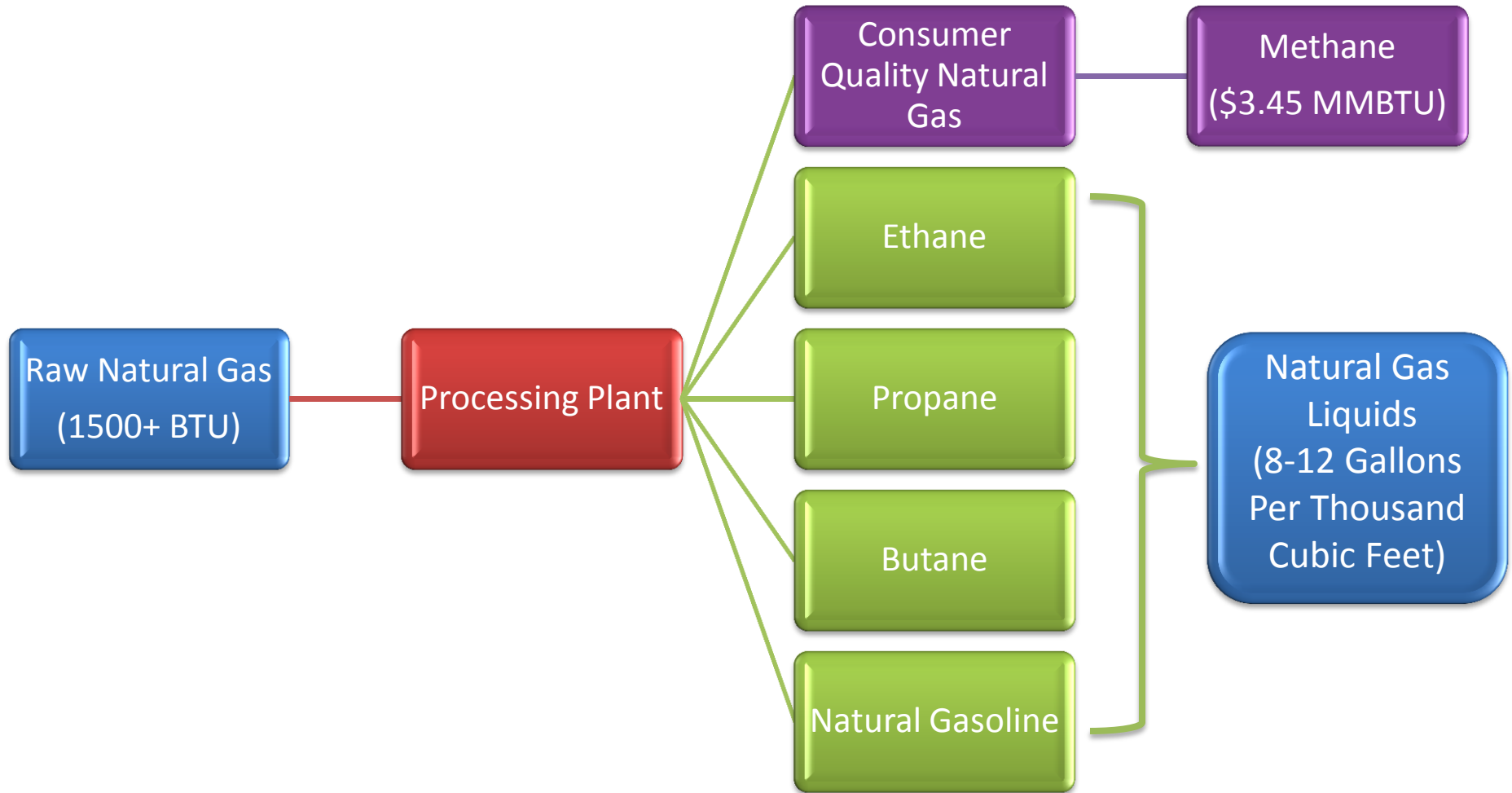
First Time Gas Sales Per Month



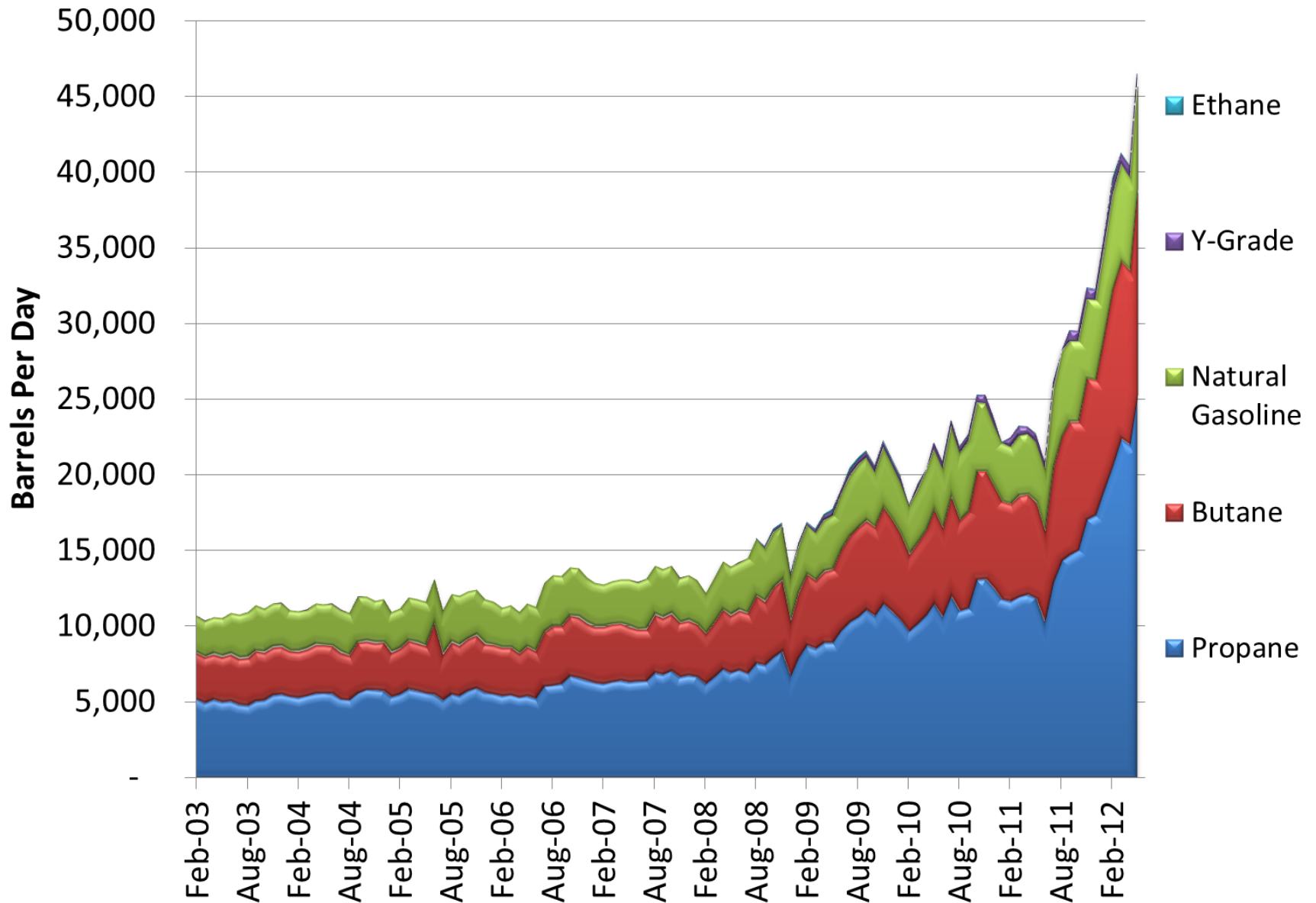
ND Gas Gathering Statistics



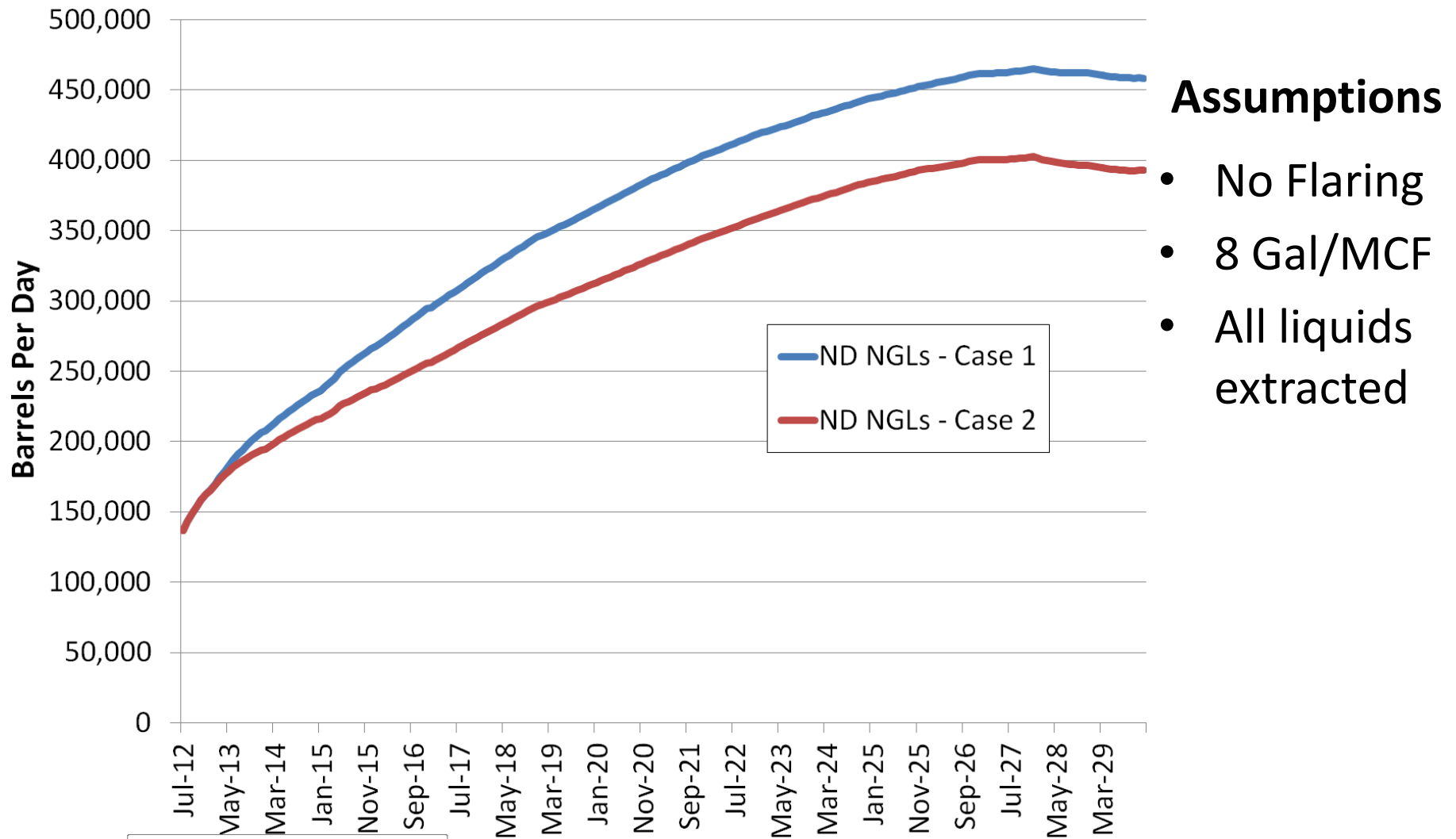
Rich Bakken Natural Gas



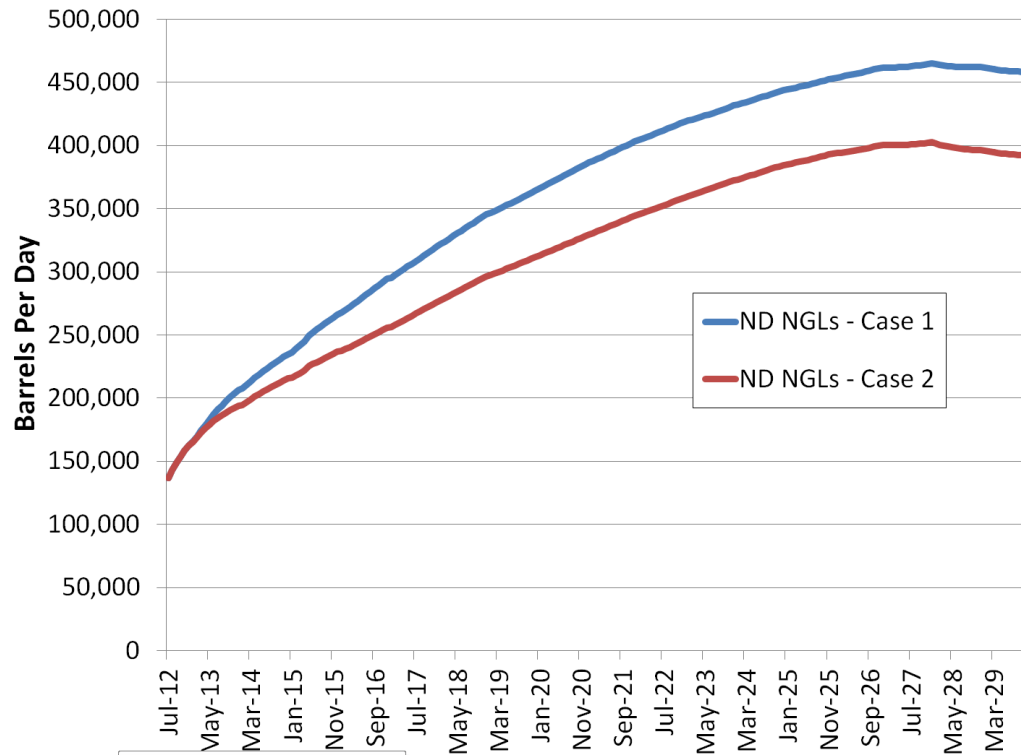
ND Gas Plant NGL Production



North Dakota NGL Potential



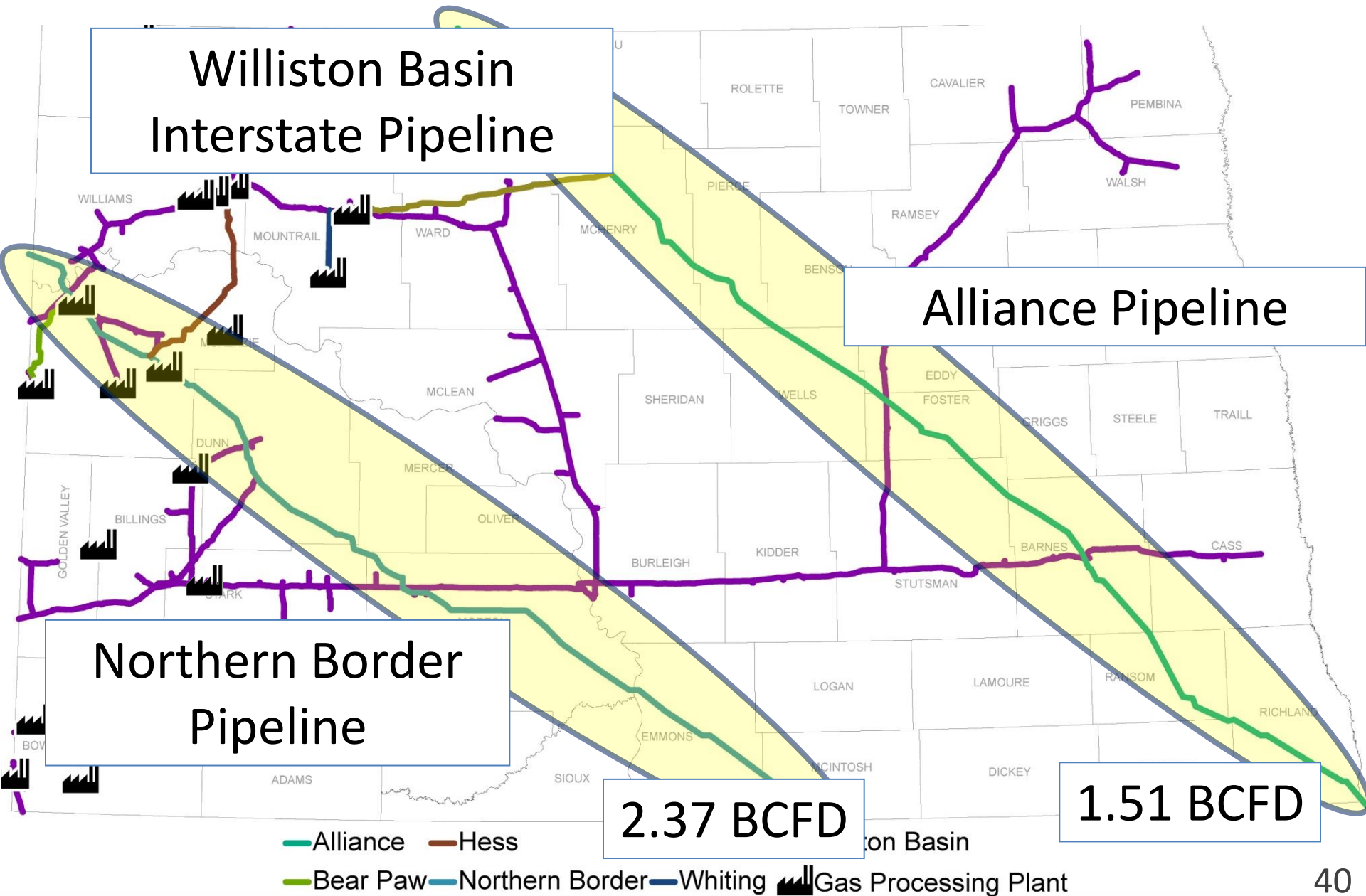
Moving Future NGL Volumes



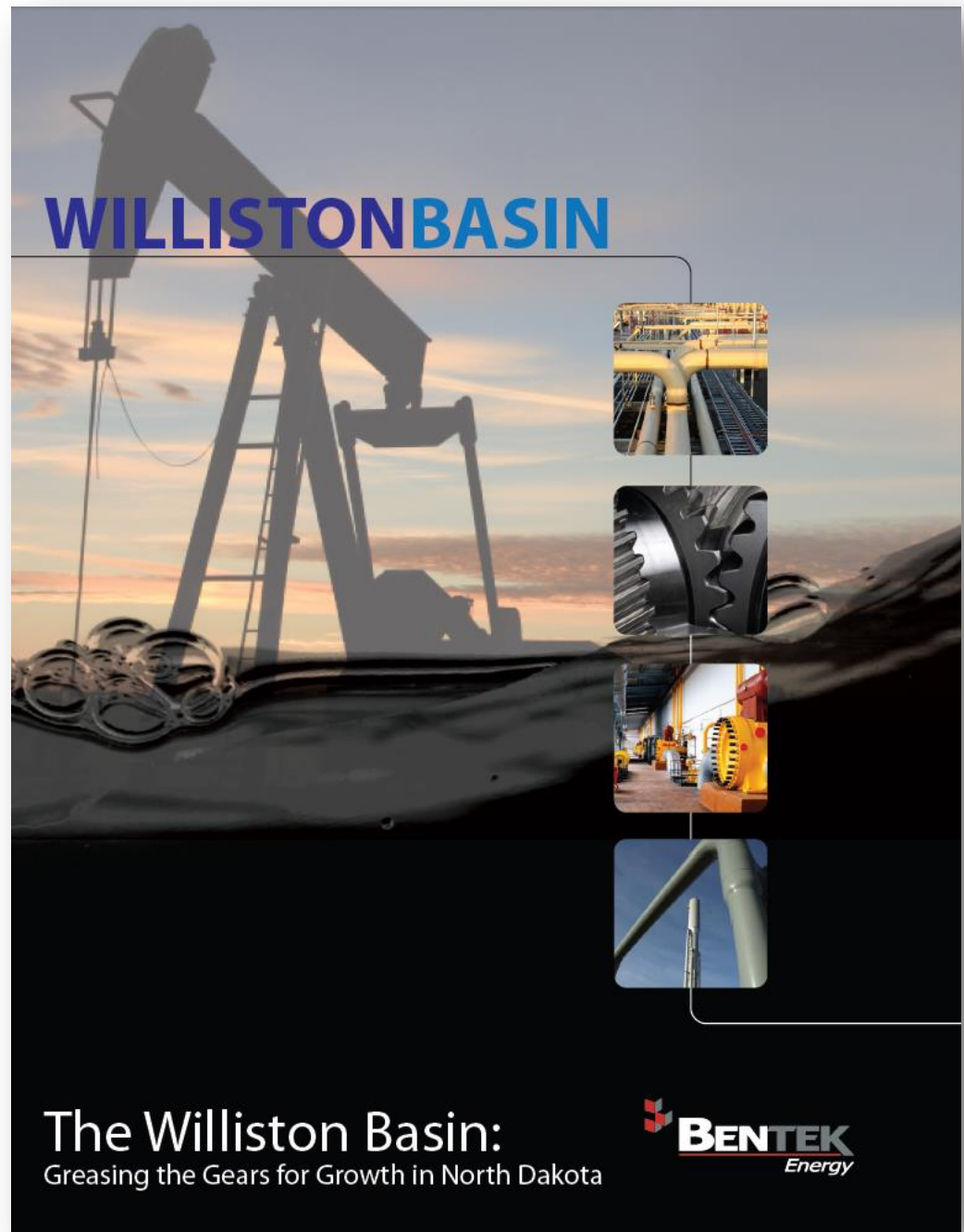
Transportation Options

- Trucking Regionally
- Rail Transportation
- Vantage Pipeline (Ethane)
- ONEOK Bakken Pipeline (Y-Grade)
- Alliance Pipeline (Rich Gas)
- New Pipeline Infrastructure??

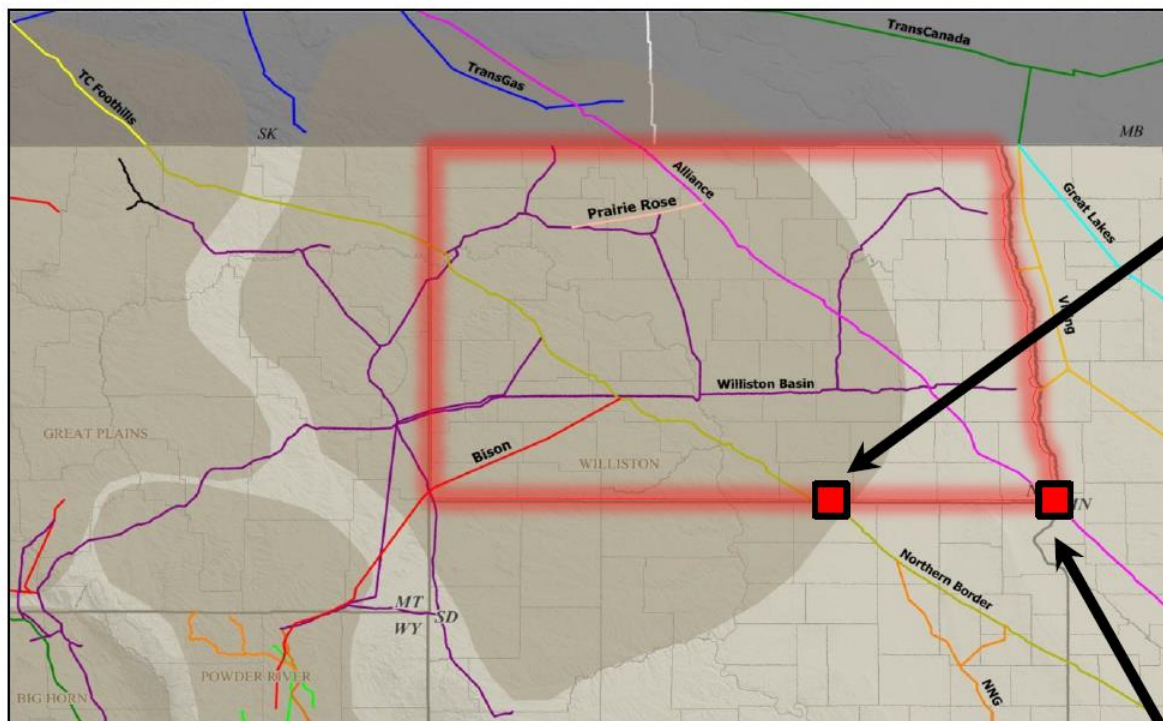
ND Natural Gas Pipelines



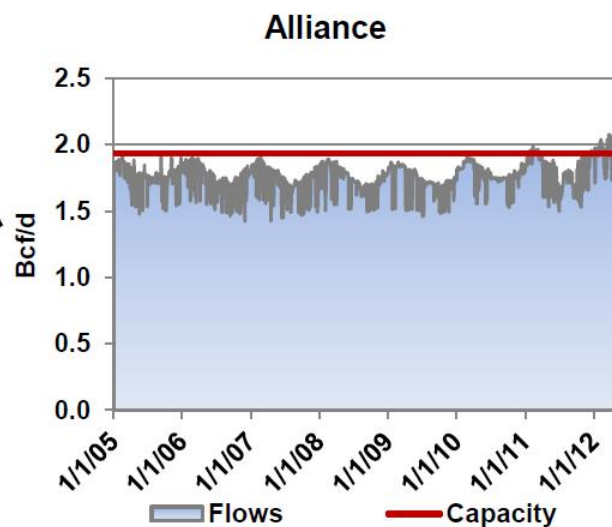
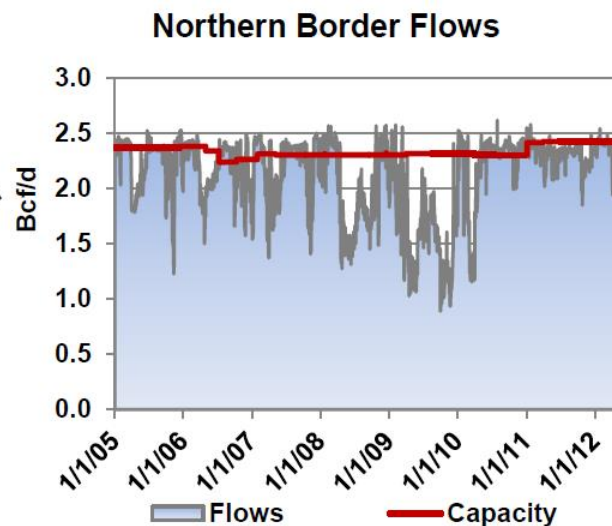
Natural Gas Study

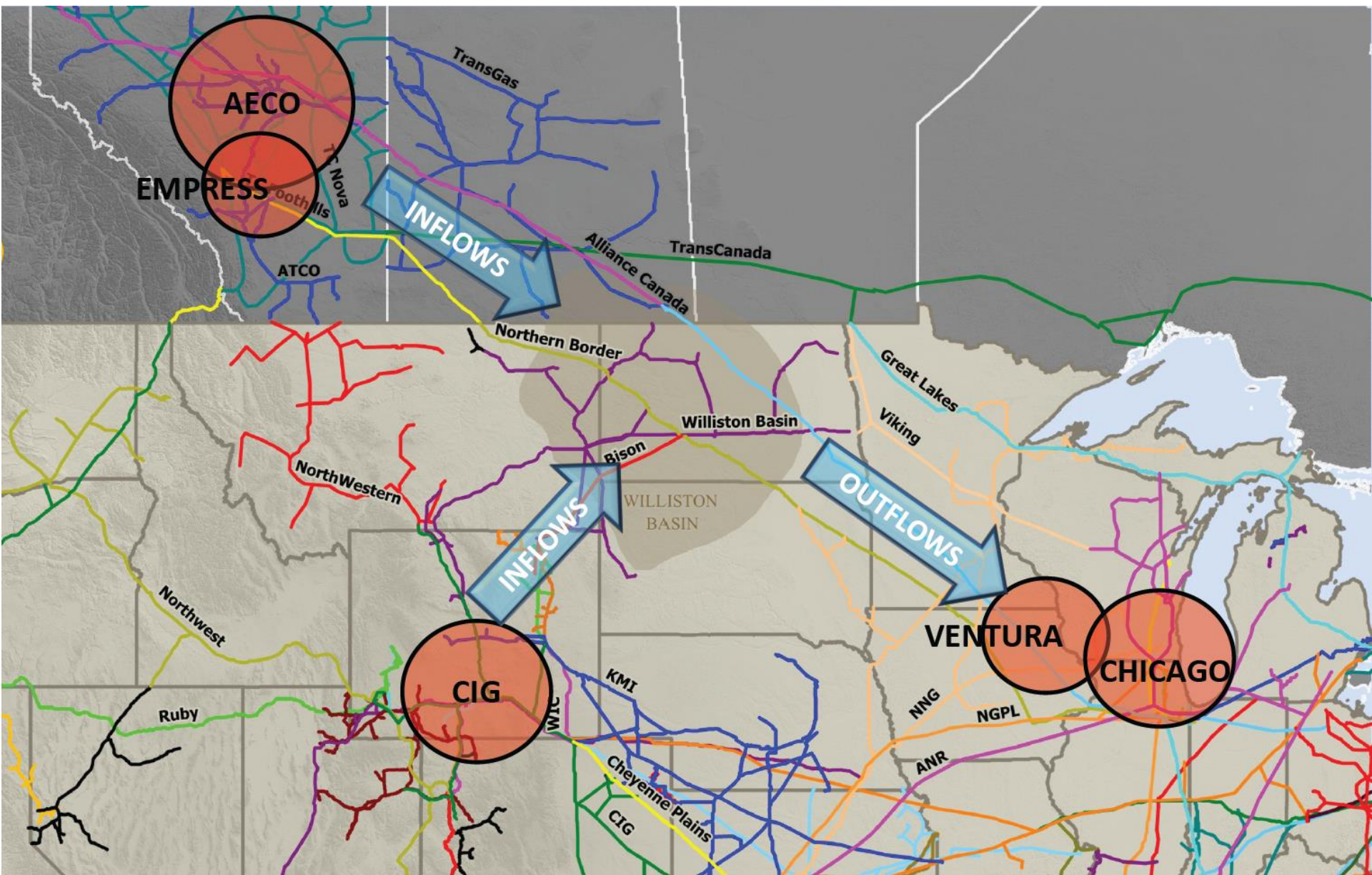


Open Capacity Leaving N. Dakota Is Tight



- 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.





Source: BENTEK Energy July 2012 Report

Contact Information

North Dakota Pipeline Authority

600 E. Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

Phone: (701)220-6227

Fax: (701)328-2820

E-mail: jjkringstad@ndpipelines.com

Websites:

www.pipeline.nd.gov

www.northdakotapipelines.com



**Know what's below.
Call before you dig.**

