

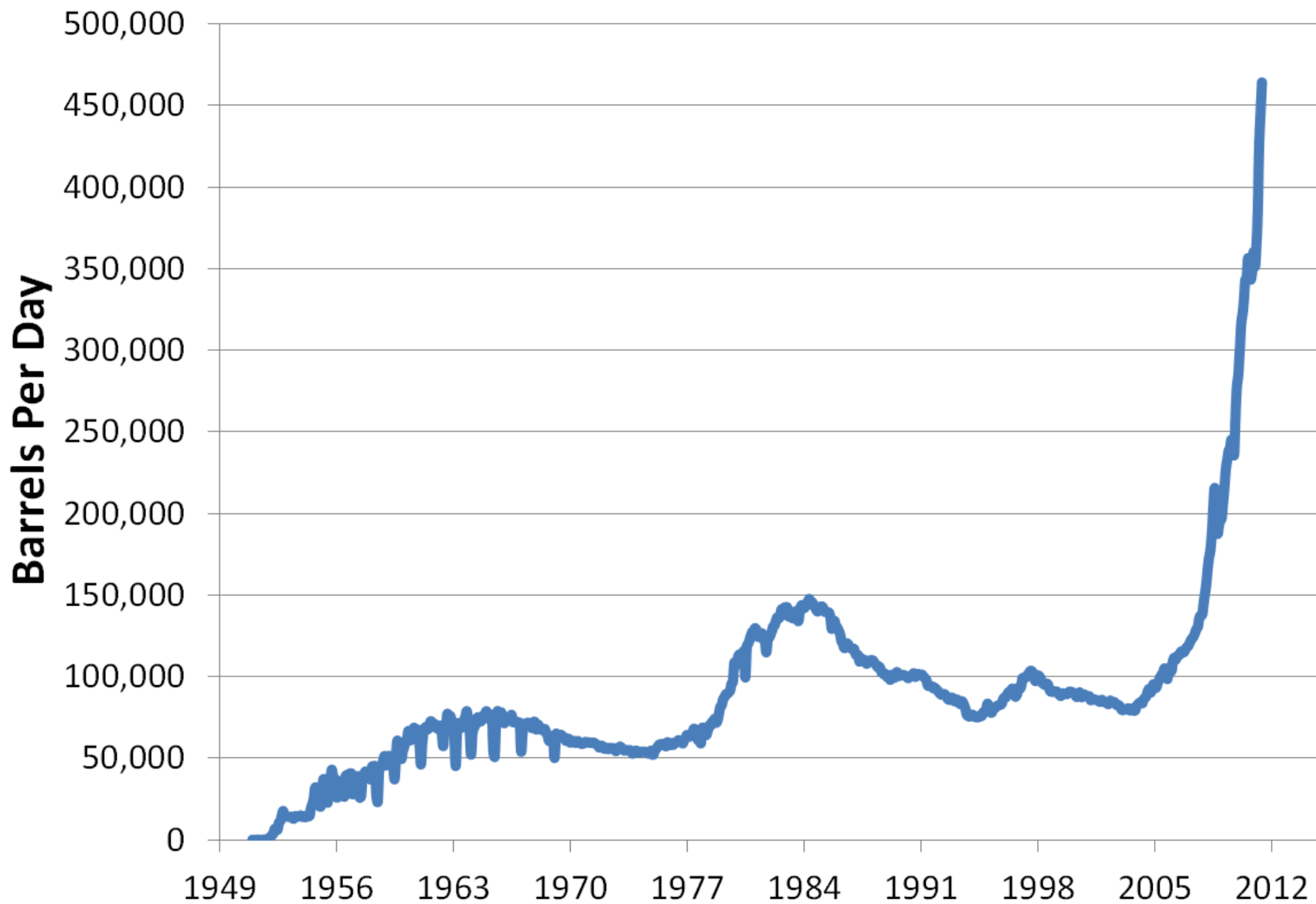


**North Dakota Pipeline Authority**  
**Energy Development and Transmission Committee**  
**Justin J. Kringstad**  
**November 29, 2011 – Bismarck, ND**

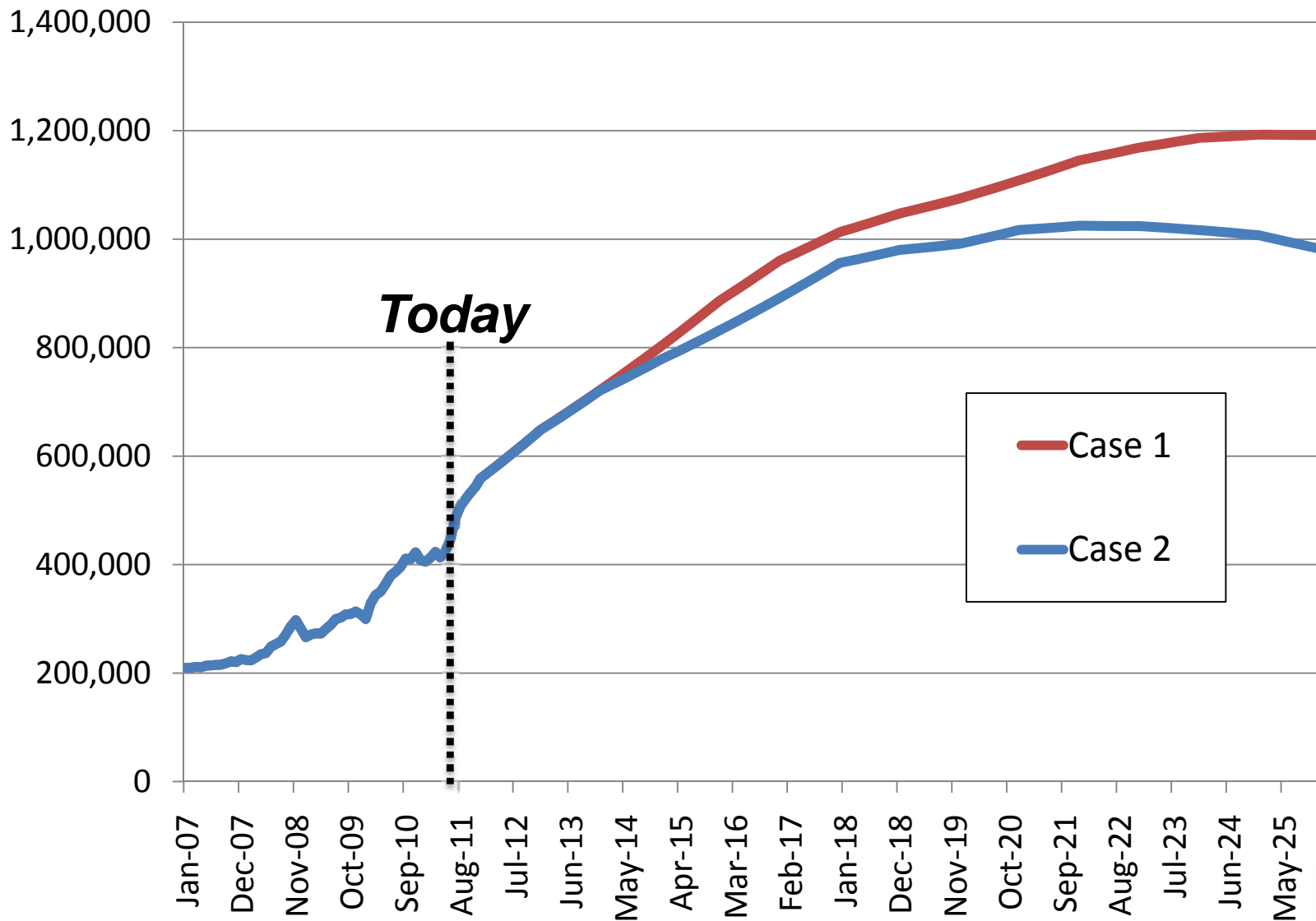
*“Goldman Sachs predicted that the U.S. will overtake Russia and Saudi Arabia in six years. Producers and industry insiders noted the untapped reserves in the liquids-rich **Bakken Play of North Dakota** and Montana, the Granite Wash of western Oklahoma and Texas Panhandle and other previously uneconomical plays.”*

Tulsa World  
October 8, 2011

# North Dakota Crude Oil



# Forecasting Williston Basin Oil Production, BOPD

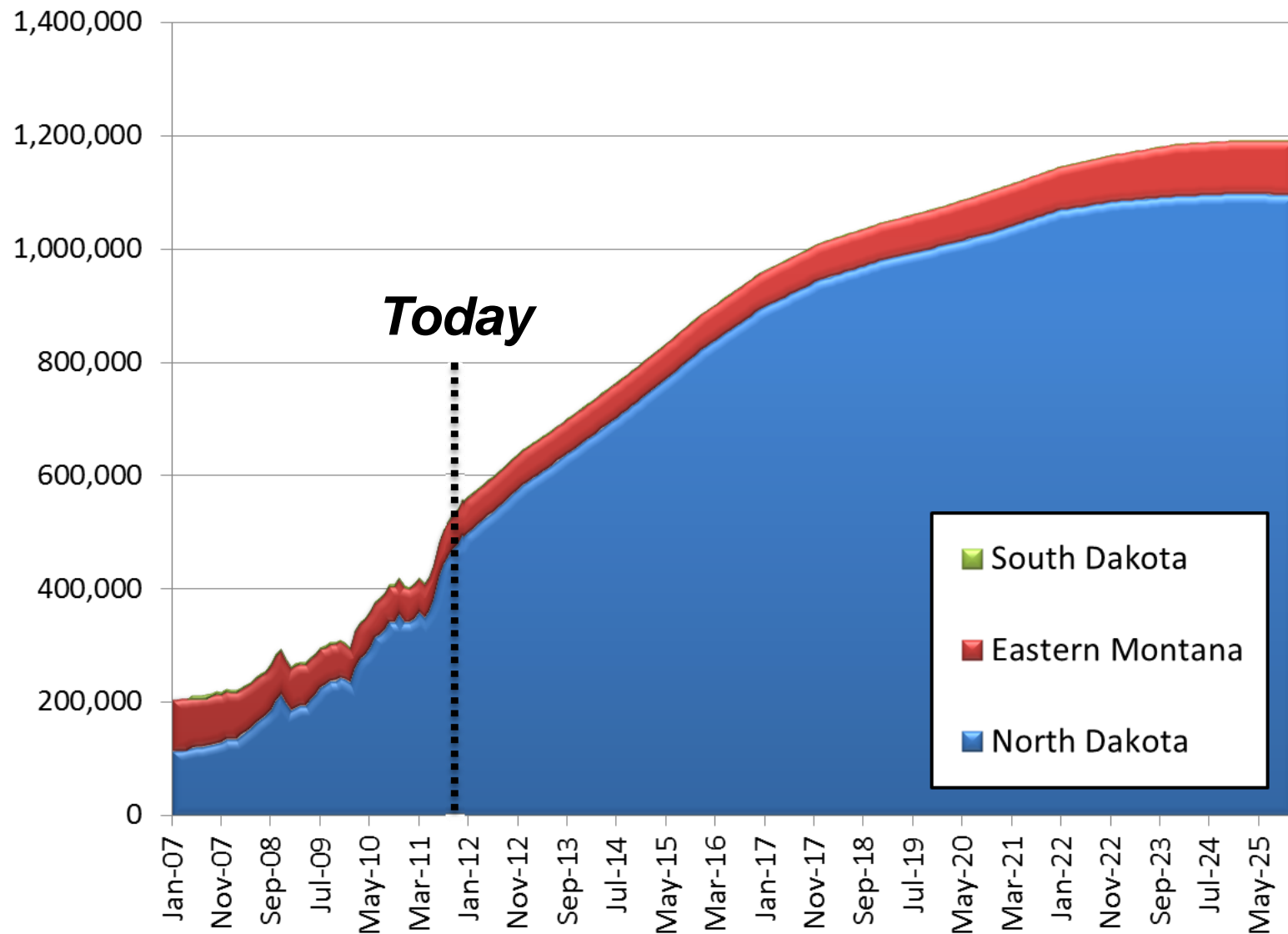


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.





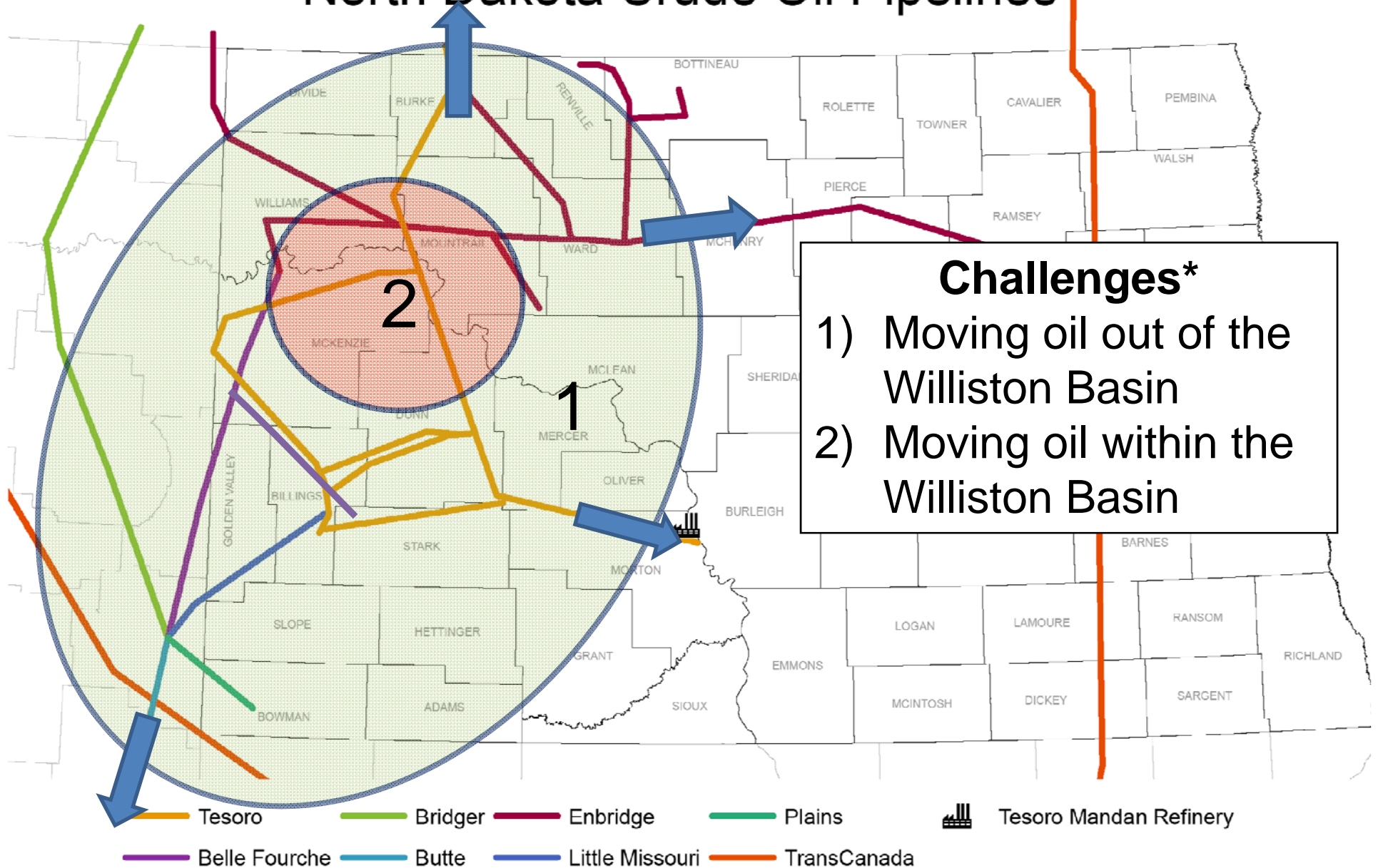
# Forecasting Williston Basin Oil Production, BOPD



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

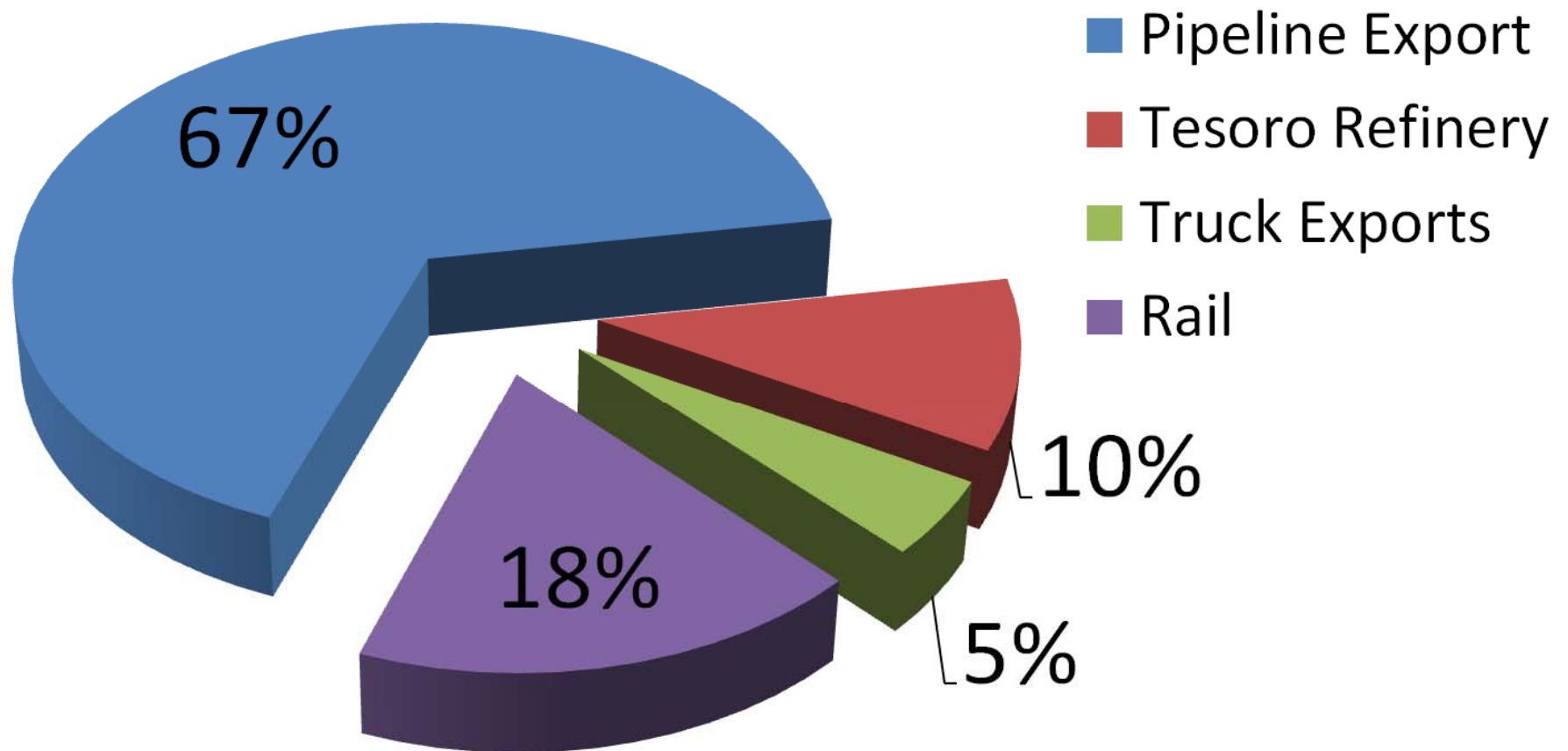


# North Dakota Crude Oil Pipelines



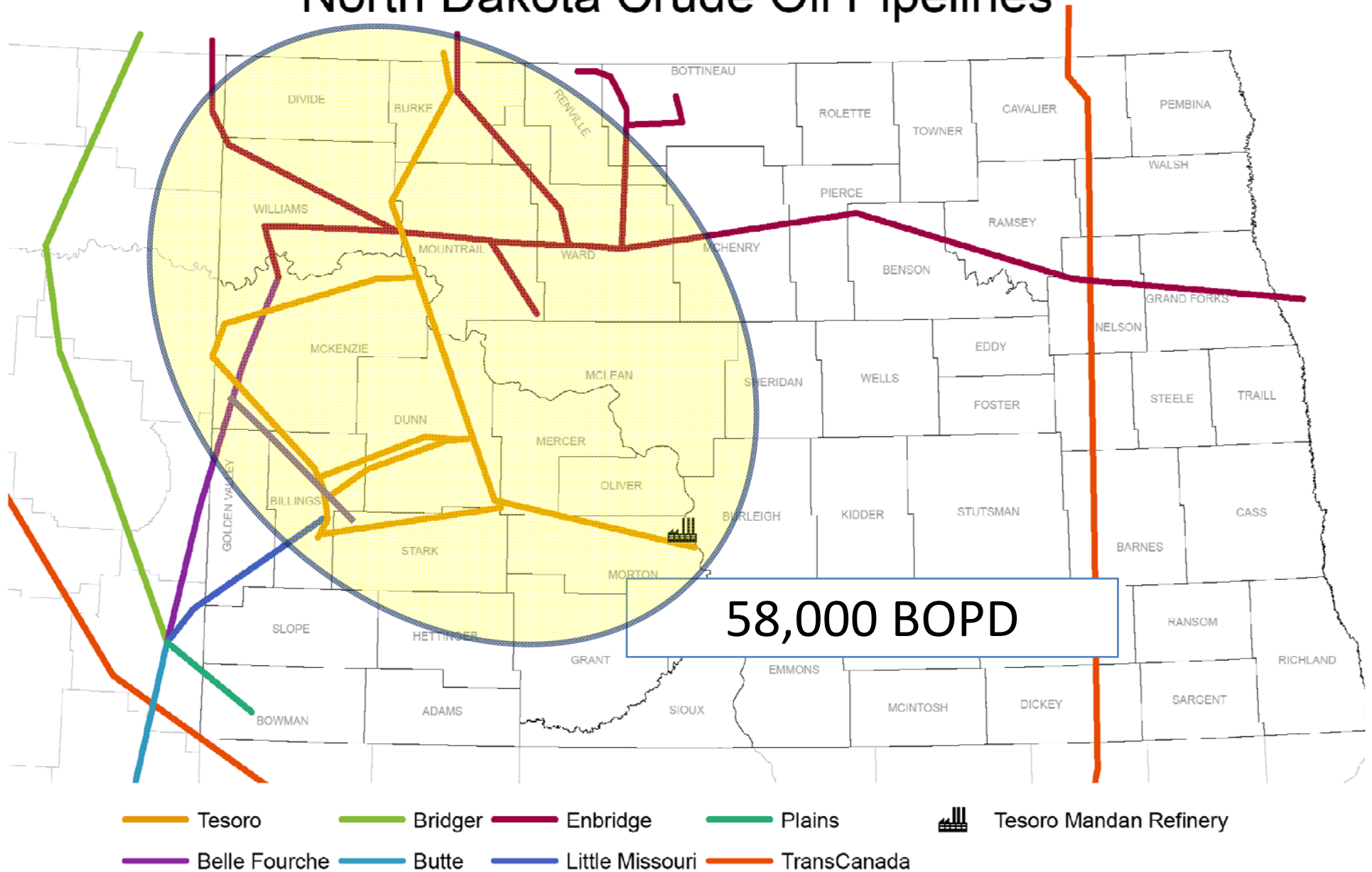
\*Modified from Bridger and Belle Fourche Pipelines

# Williston Basin Oil Transportation



September 2011 Estimates

# North Dakota Crude Oil Pipelines

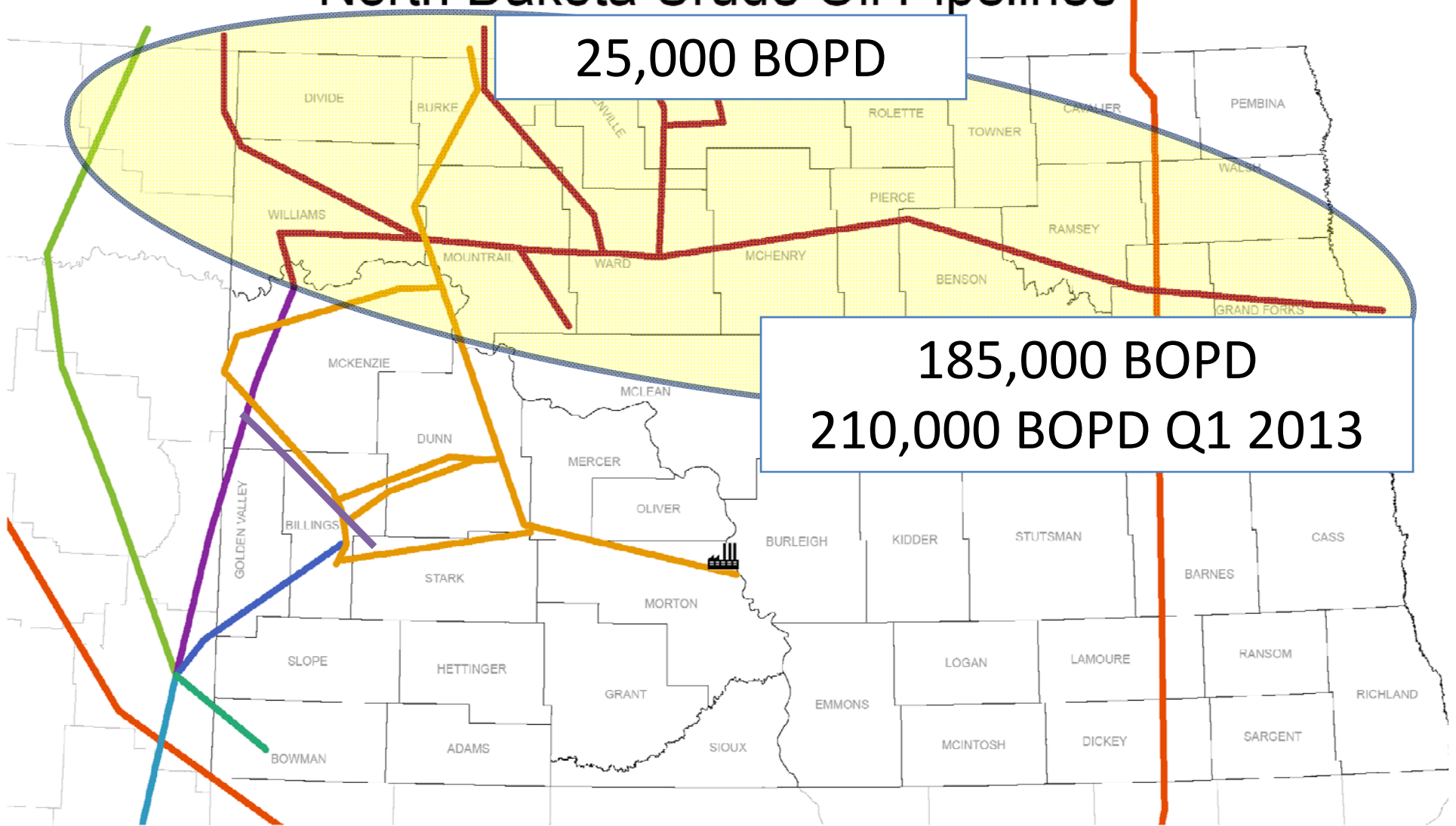




# North Dakota Crude Oil Pipelines

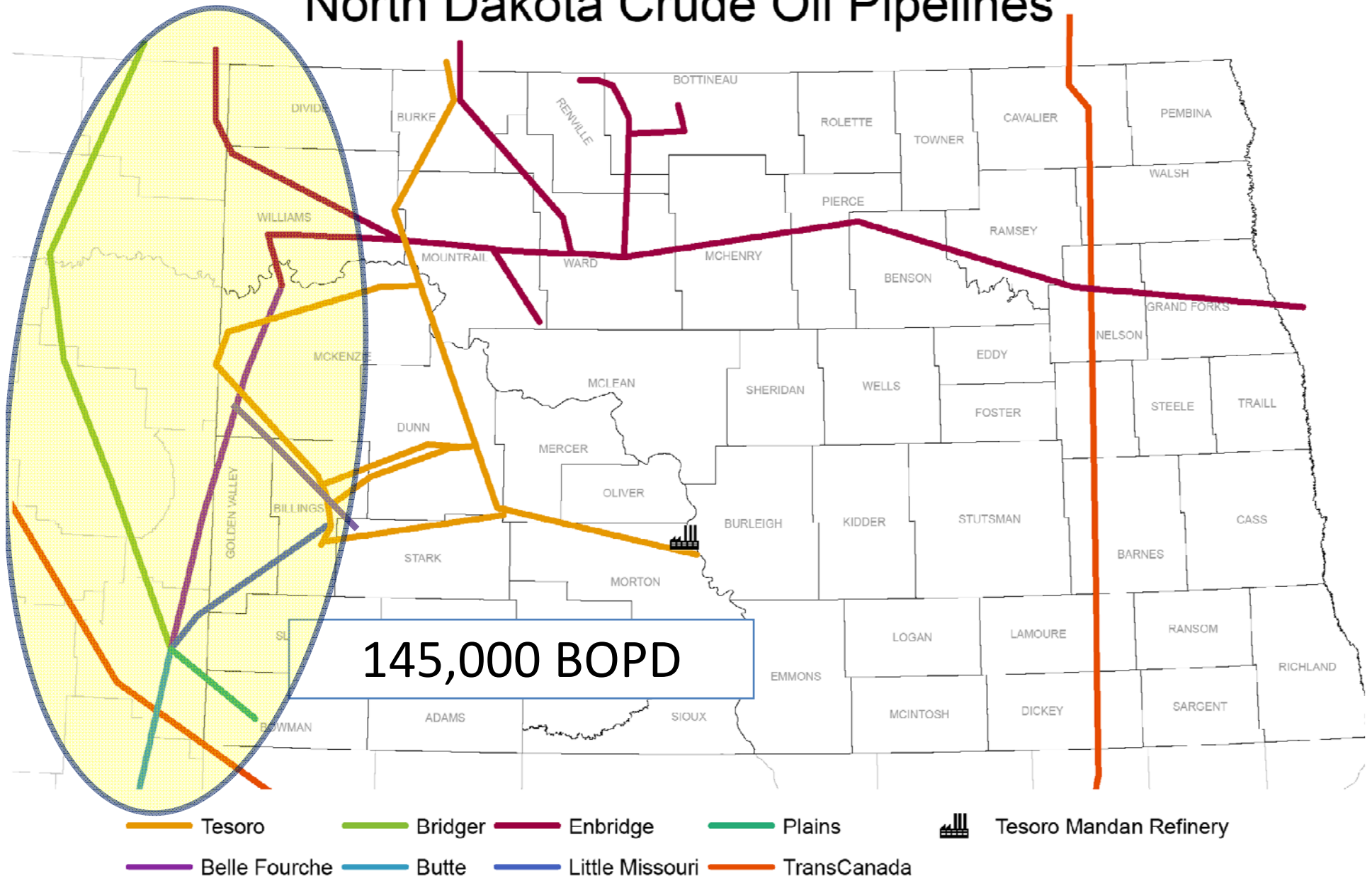
25,000 BOPD

185,000 BOPD  
210,000 BOPD Q1 2013



— Tesoro   
 — Bridger   
 — Enbridge   
 — Plains   
  Tesoro Mandan Refinery  
— Belle Fourche   
— Butte   
— Little Missouri   
— TransCanada

# North Dakota Crude Oil Pipelines



# Recent Developments For Post 2011 Crude Oil Transport...

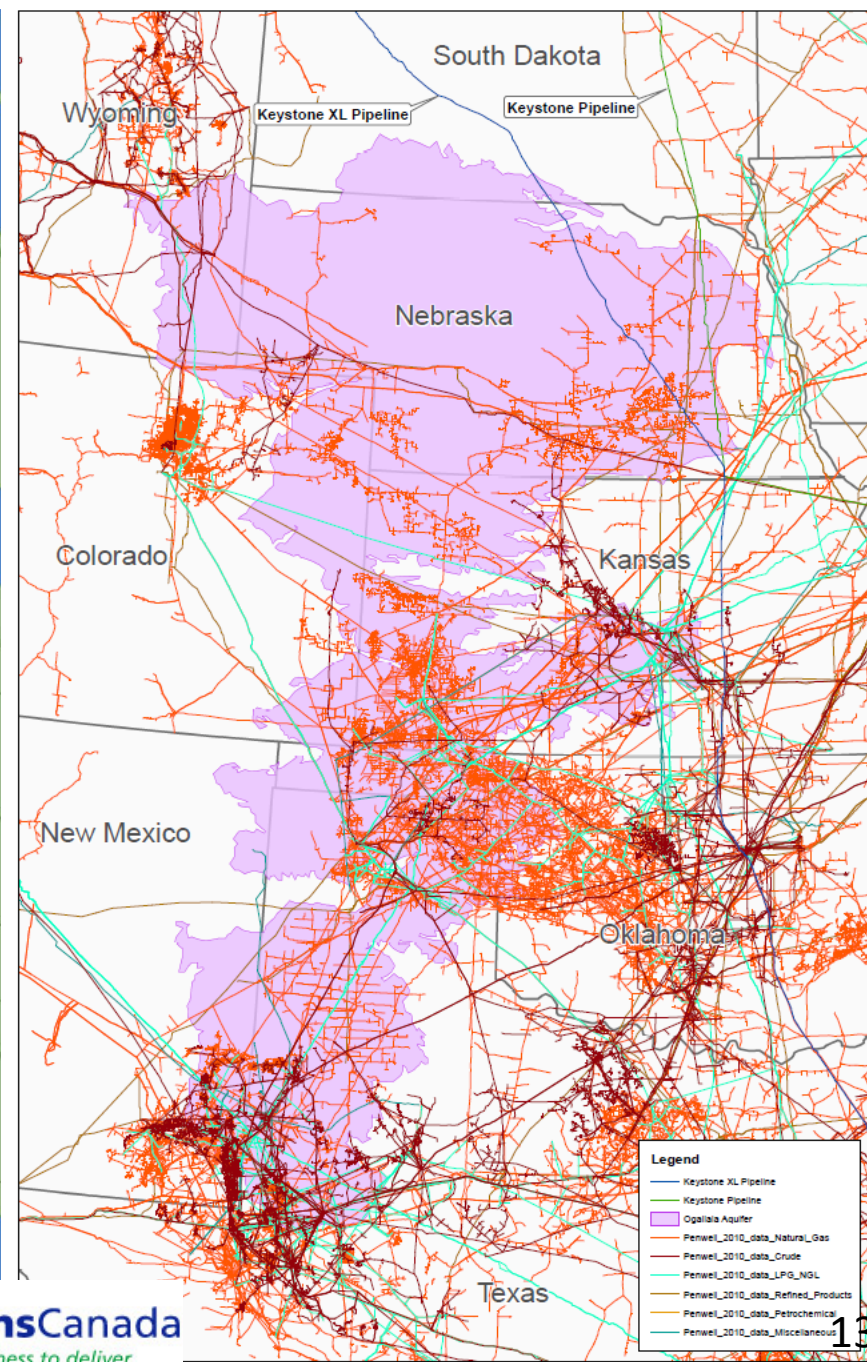
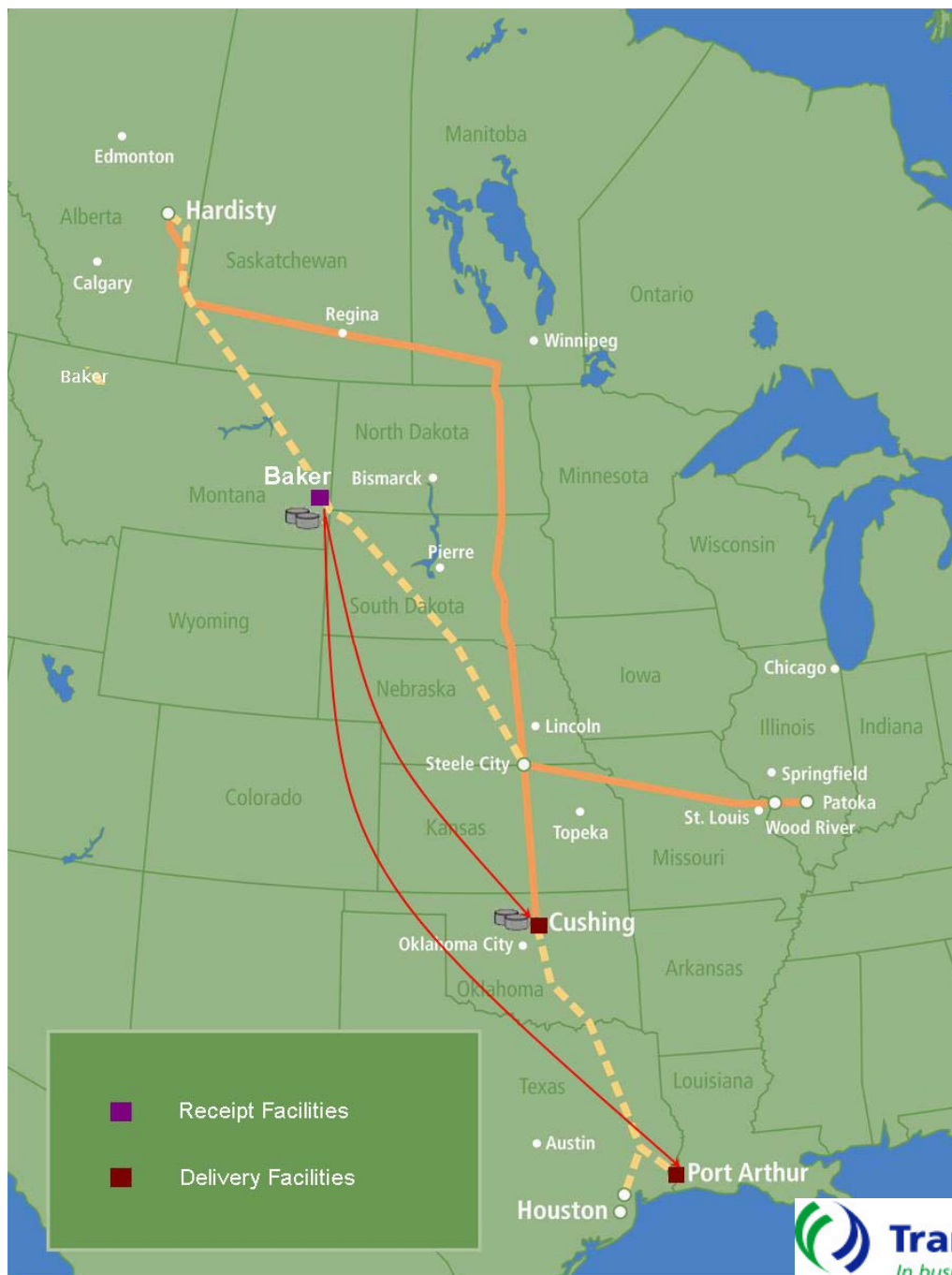
# Proposed TransCanada Marketlink

- Successful Open Season in 2010
- 2015? Startup (Subject to Presidential Permit – Q1 2013)

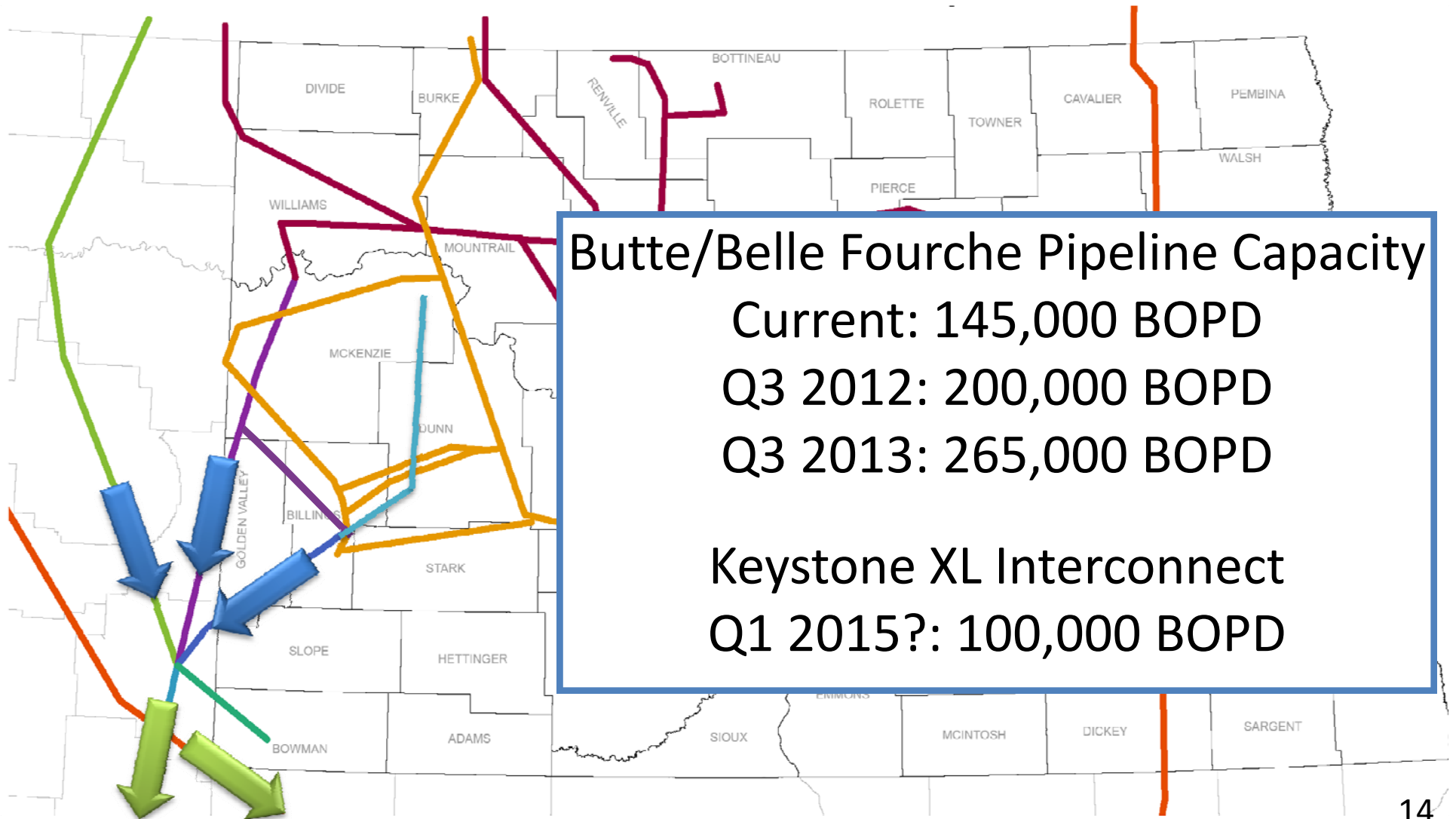
Image: TransCanada Notice of Open Season



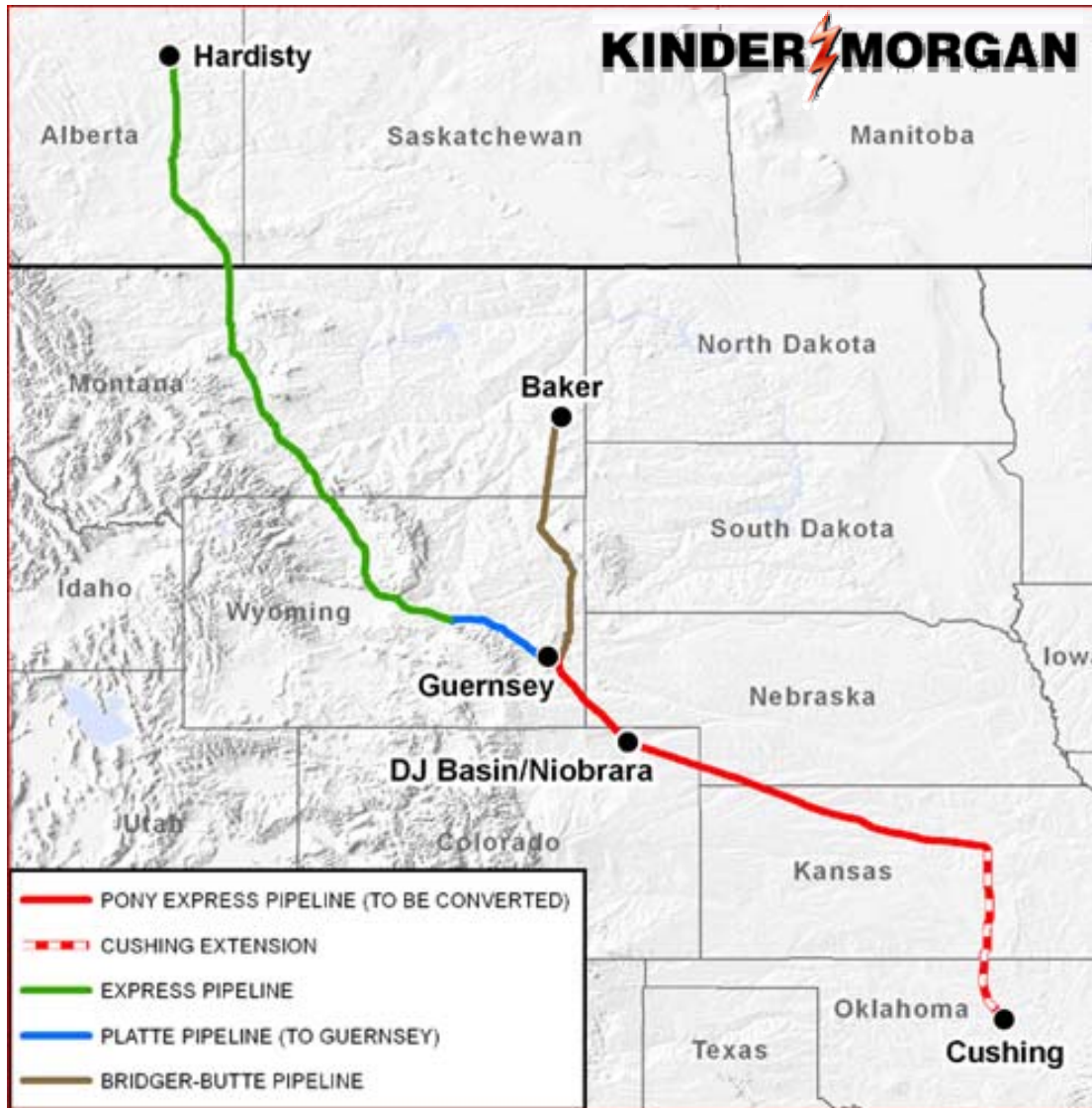




# True Co.'s Proposed "Baker 300"



# Pony Express Conversion

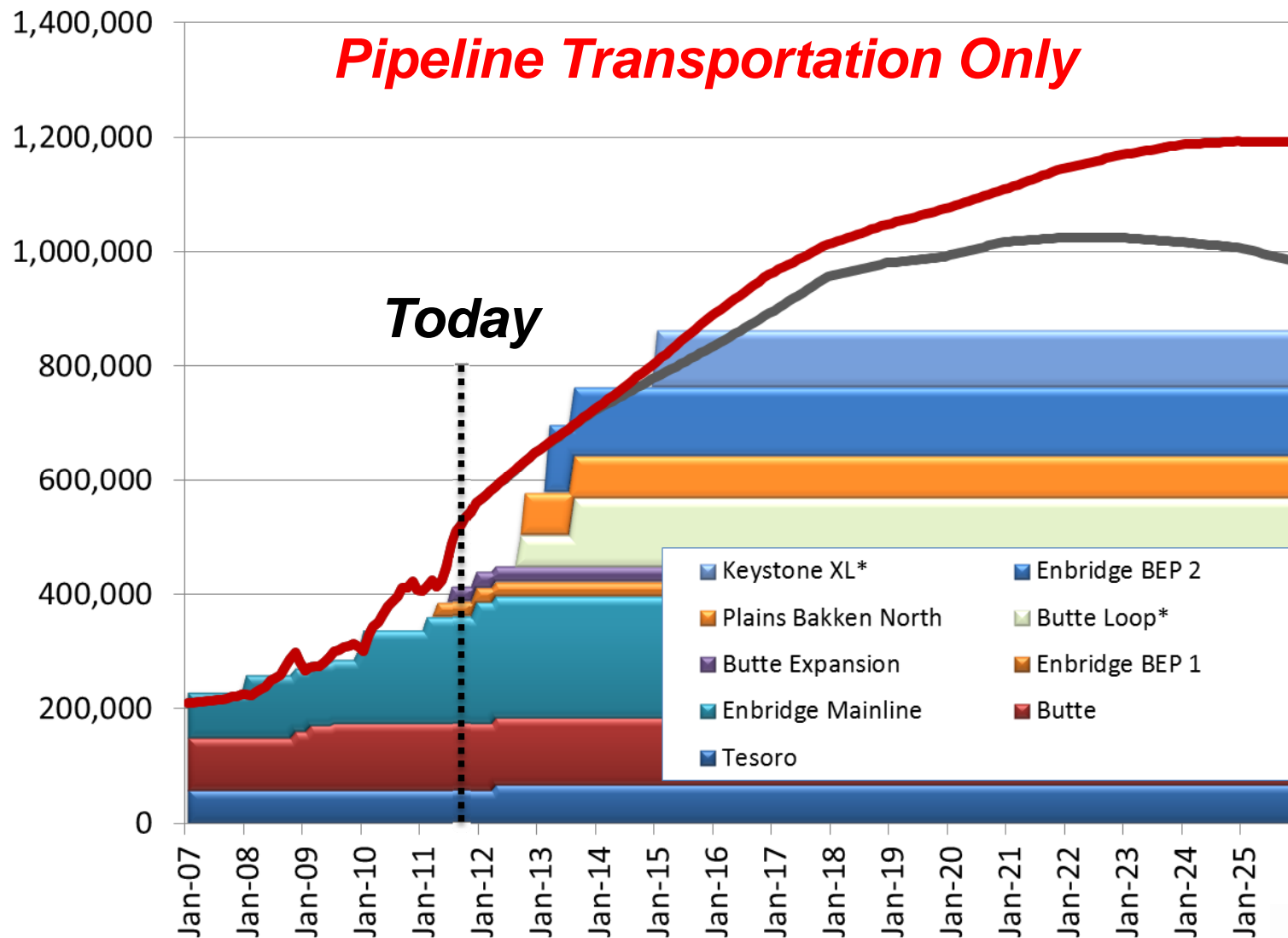


Proposed Capacity  
210,000 BOPD  
Q1 2014

Convert 500 miles of  
natural gas pipeline to oil  
service

210 miles of new pipe to  
Cushing, OK

# Williston Basin Oil Production & Export Capacity, BOPD



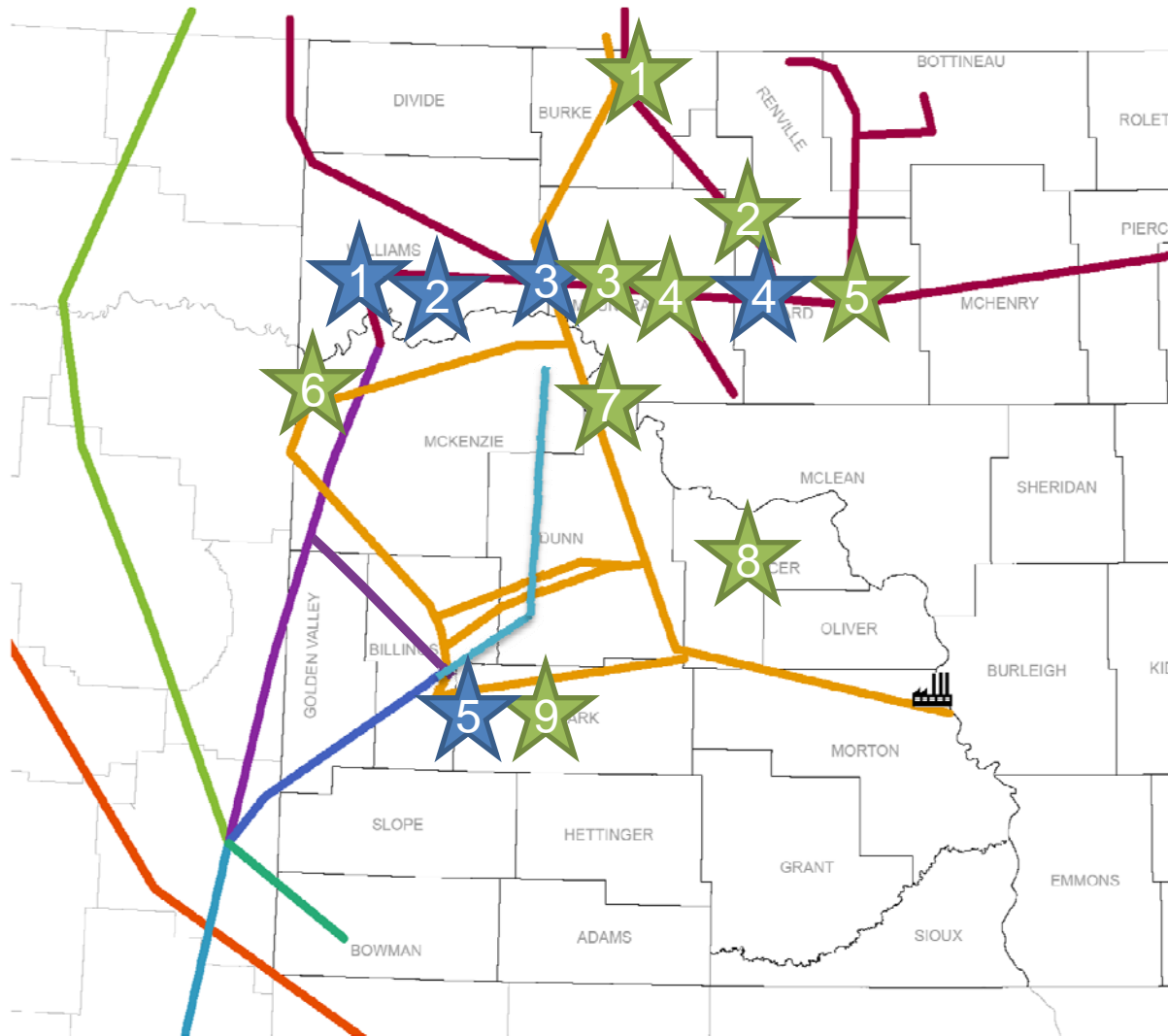
Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

\*Projects still in the proposed or internal review process





# Existing & Planned Rail Locations



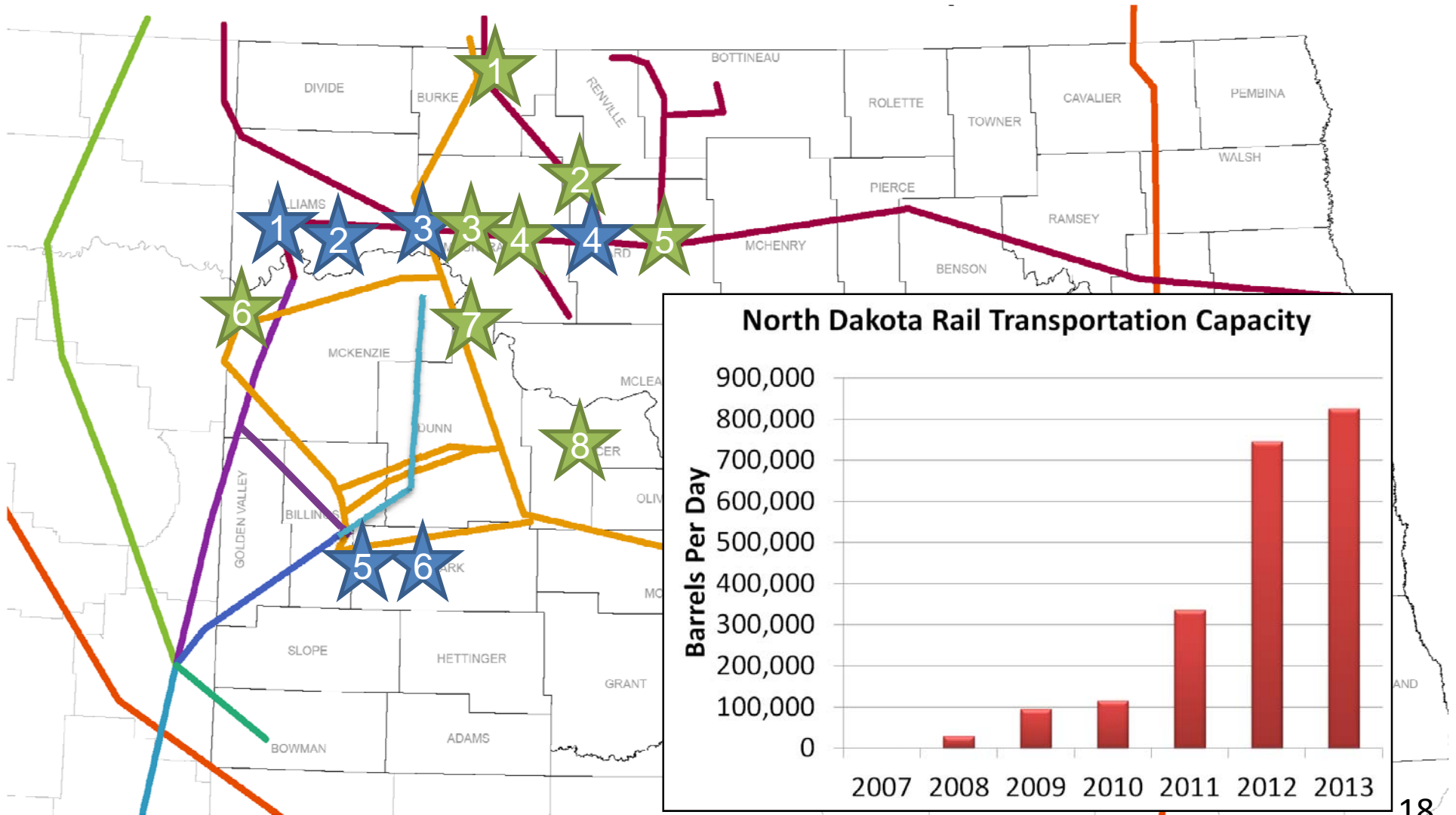
## ★ Existing

- 1) Stampede
- 2) Donnybrook
- 3) Ross – Plains
- 4) Stanley – EOG
- 5) Minot – ND Port Services
- 6) Dore
- 7) New Town – Dakota Transport Solutions
- 8) Zap – Basin Transload
- 9) Dickinson – BOE

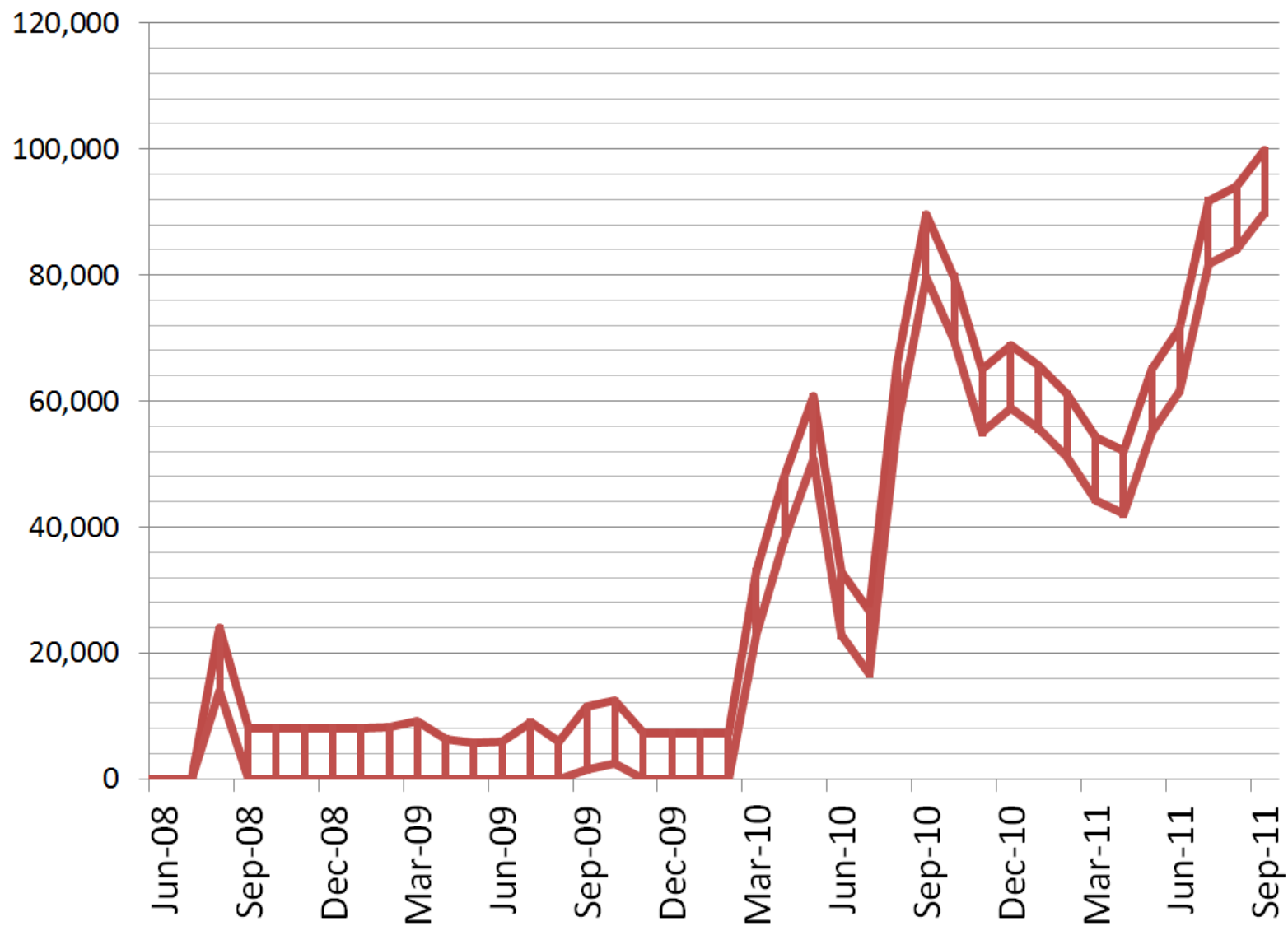
## ★ Planned

- 1) Trenton – Savage
- 2) Epping – Rangeland
- 3) Tioga – Hess
- 4) Berthold – Enbridge
- 5) Fryburg – Great Northern

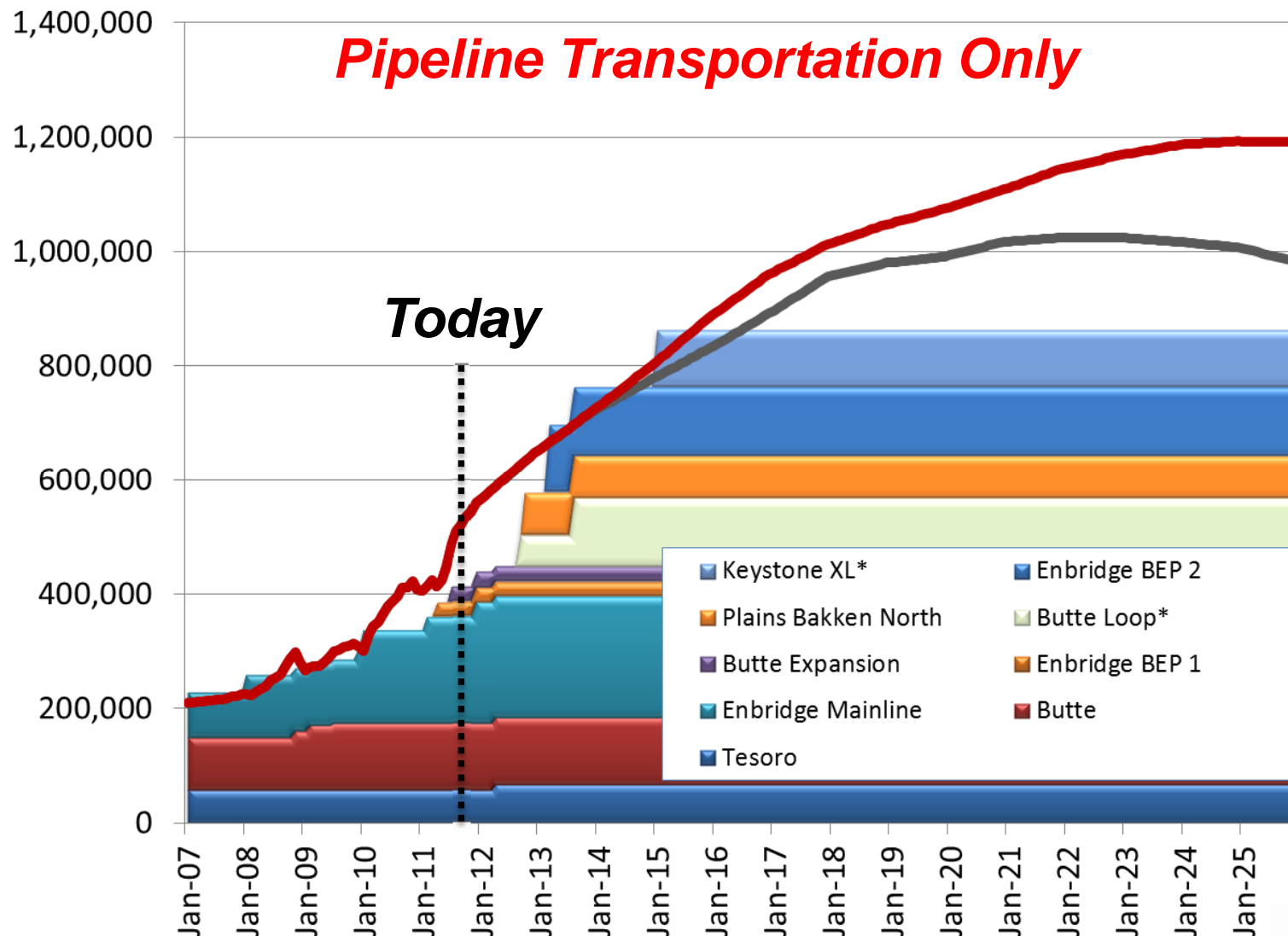
# Existing & Planned Rail Locations



# High-Low Rail Estimate, BOPD



# Williston Basin Oil Production & Export Capacity, BOPD



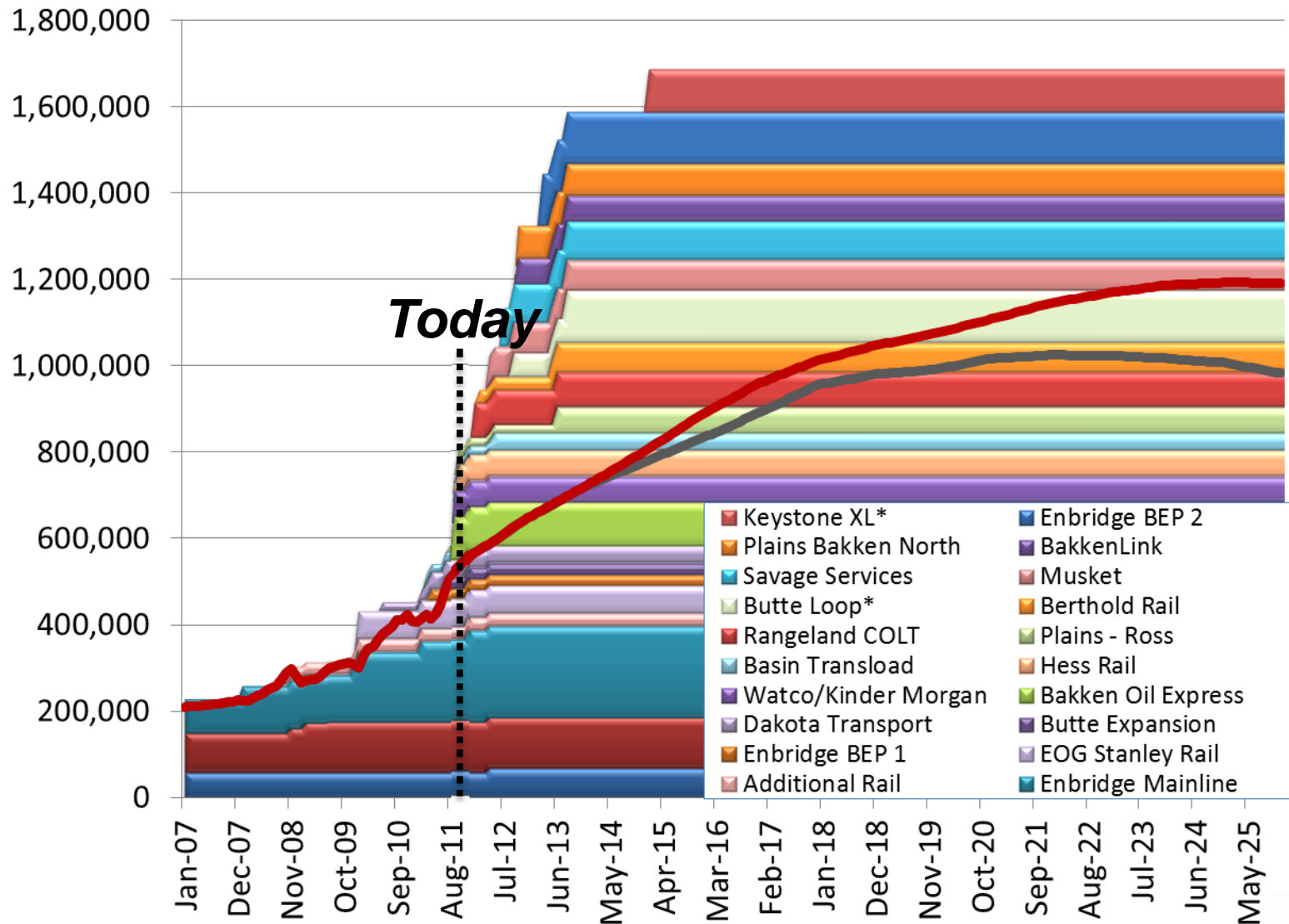
Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

\*Projects still in the proposed or internal review process





# Williston Basin Oil Production & Export Capacity, BOPD

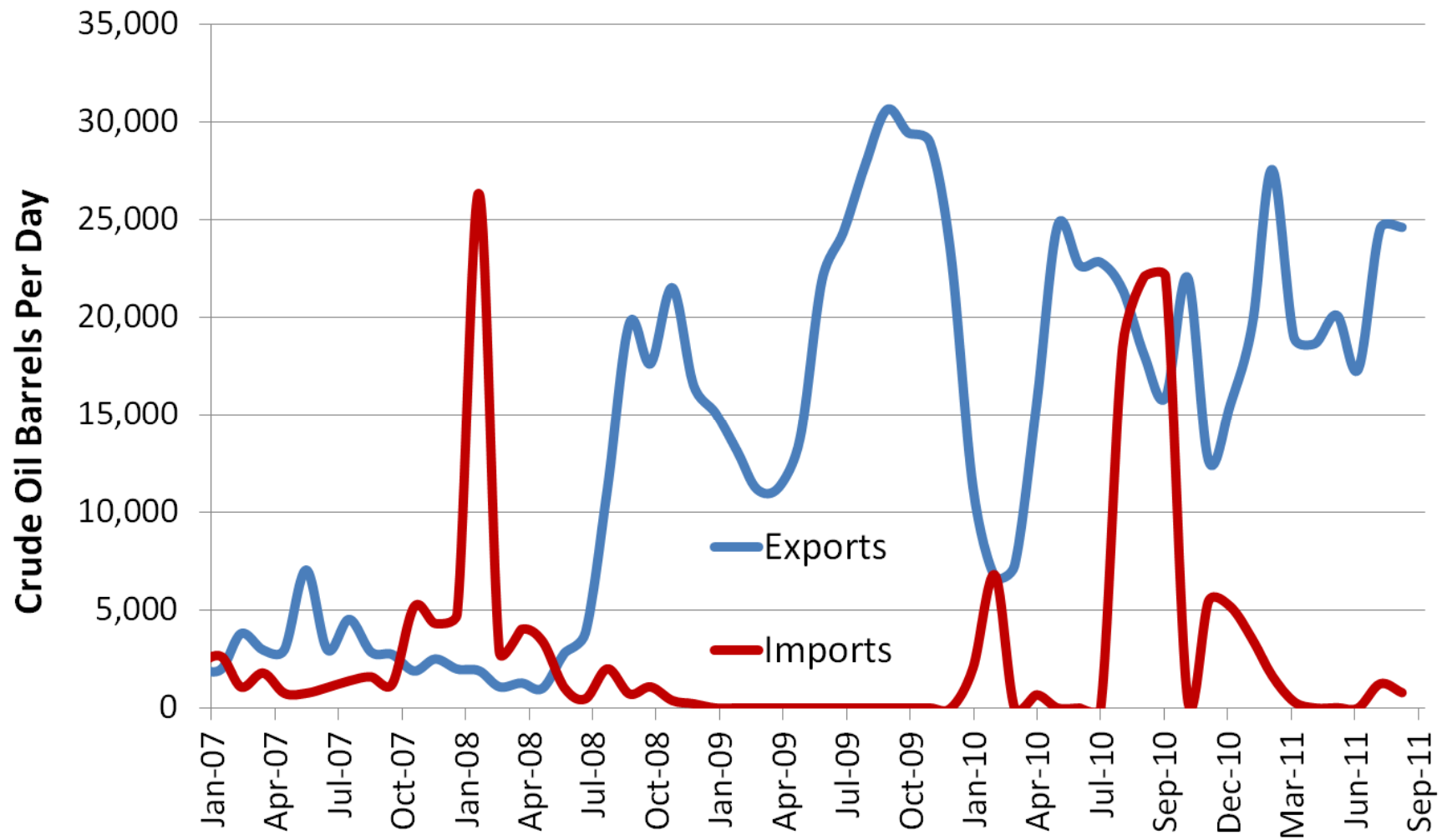


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

\*Projects still in the proposed or internal review process

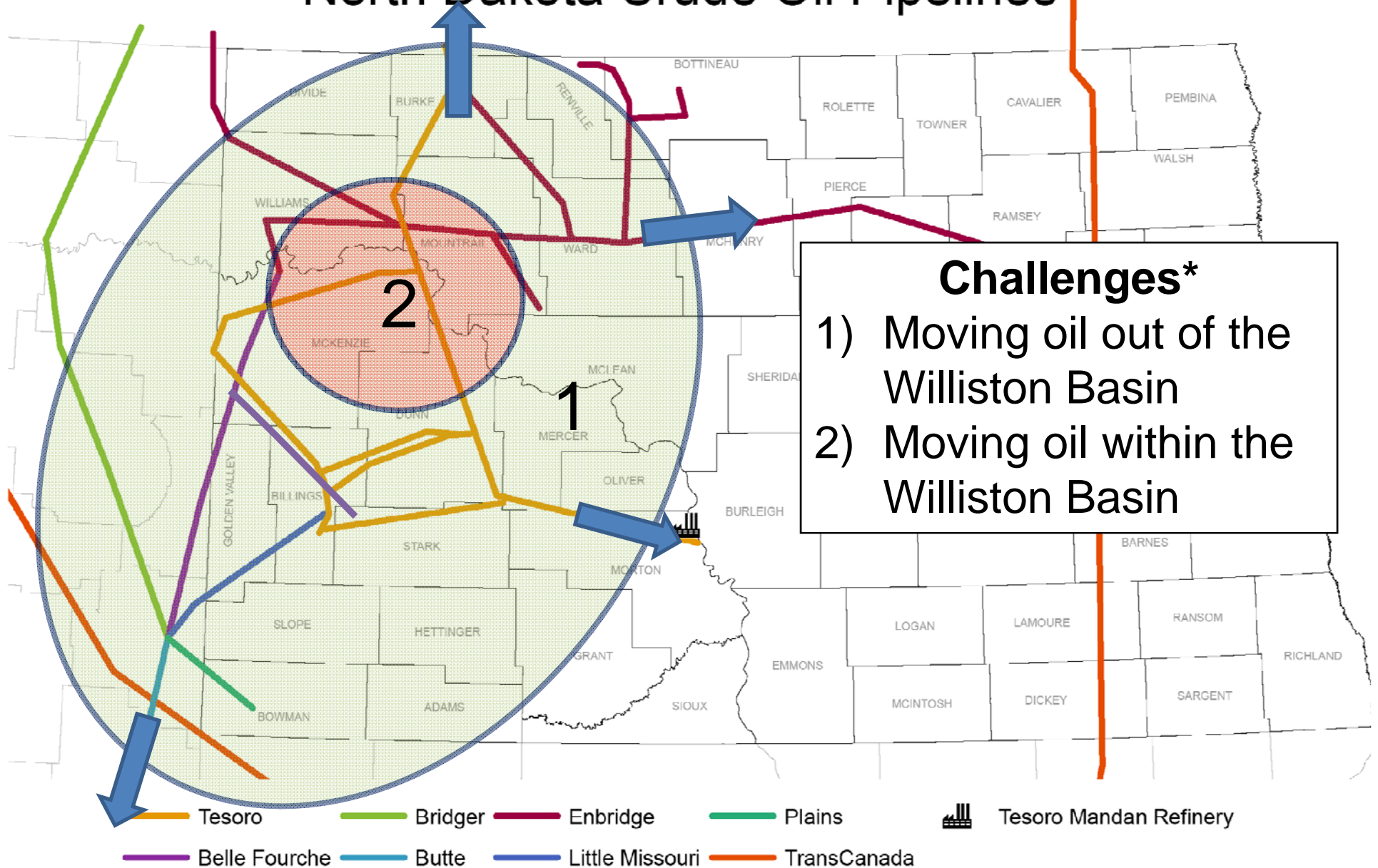


# Williston Basin Truck Imports/Exports



Information collected through the United States International Trade Commission's *Interactive Tariff and Trade DataWeb*

# North Dakota Crude Oil Pipelines



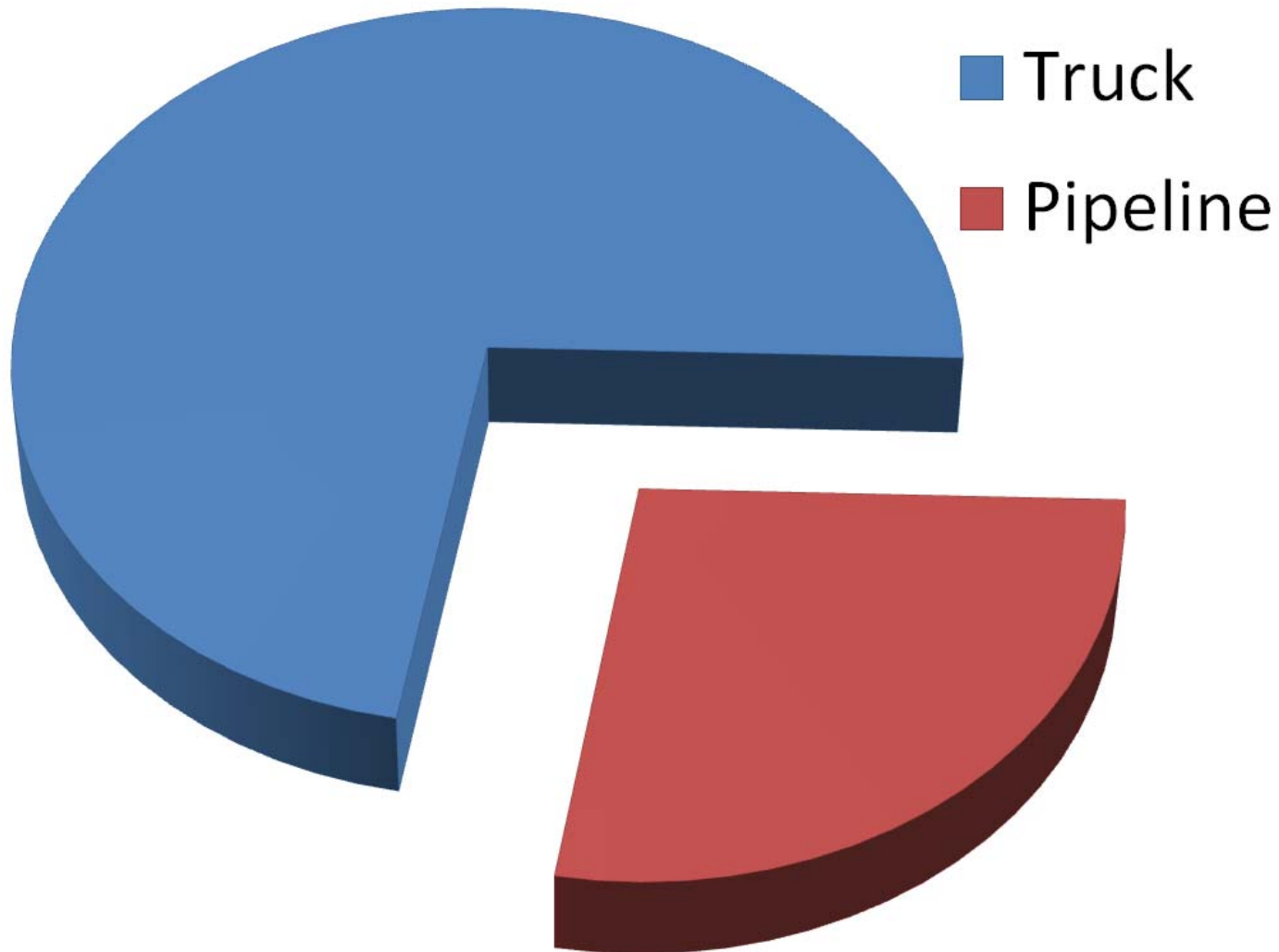
\*Modified from Bridger and Belle Fourche Pipelines

# North Dakota Crude Gathering

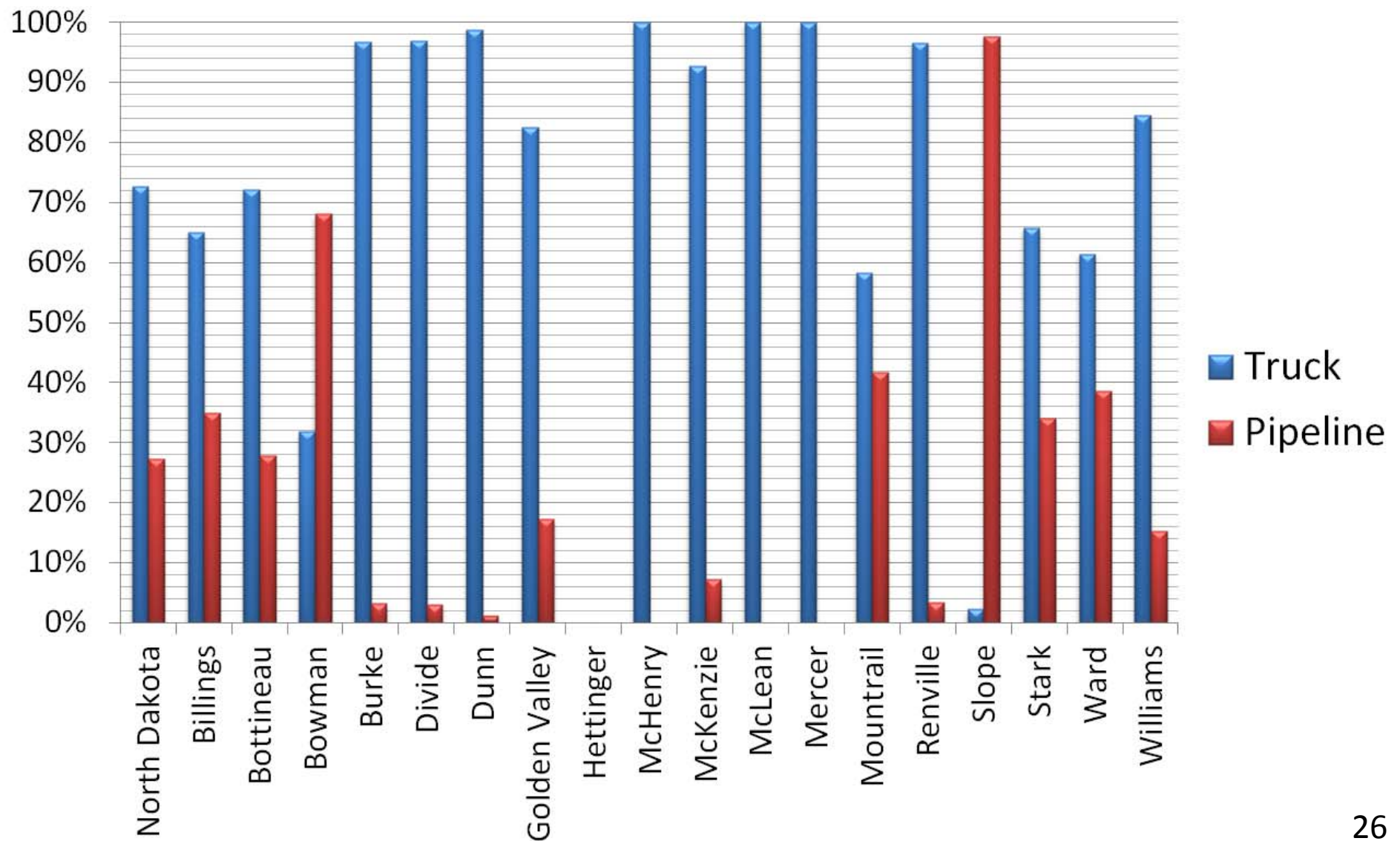




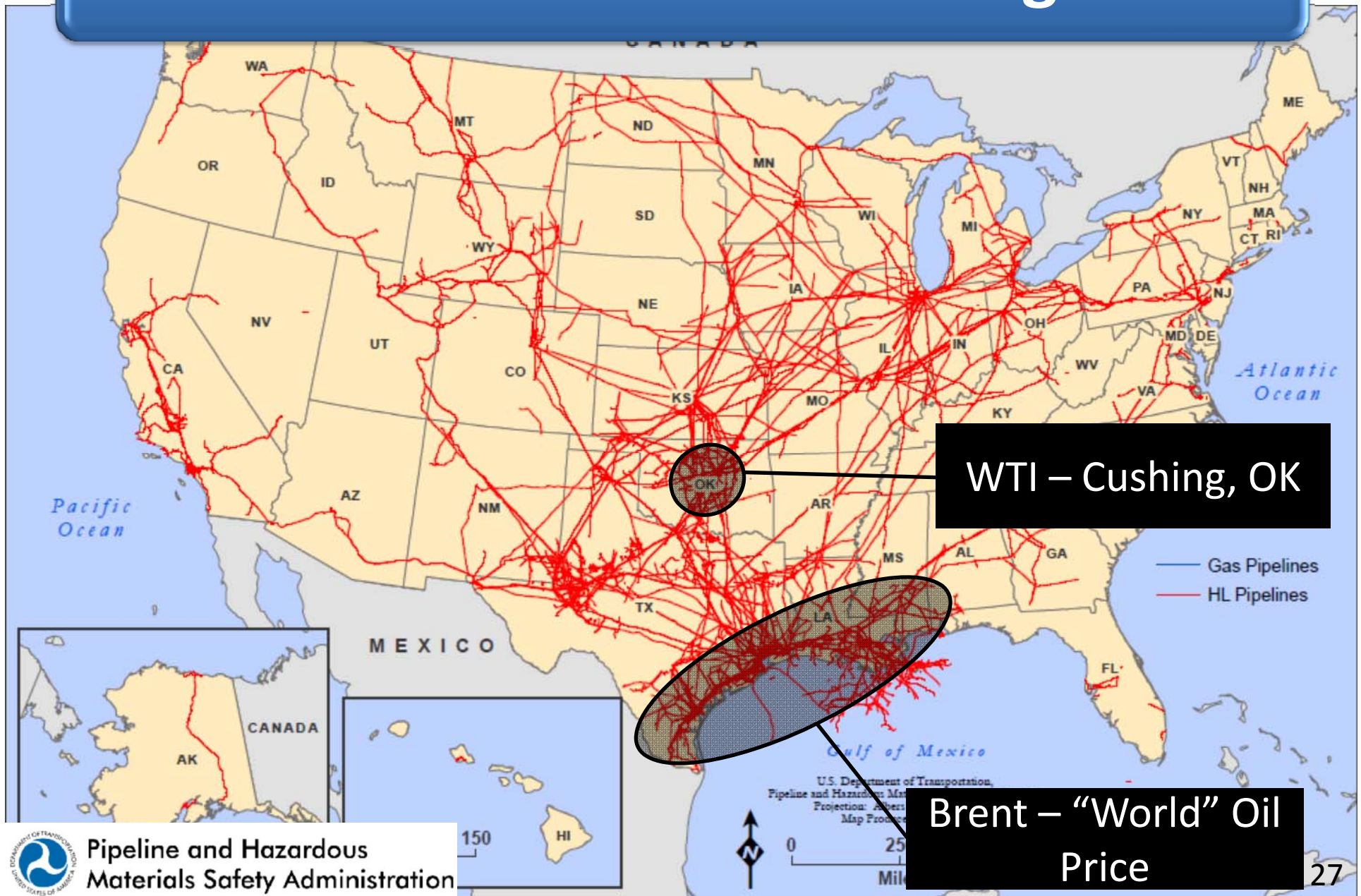
# North Dakota Crude Gathering



# Crude Gathering By County

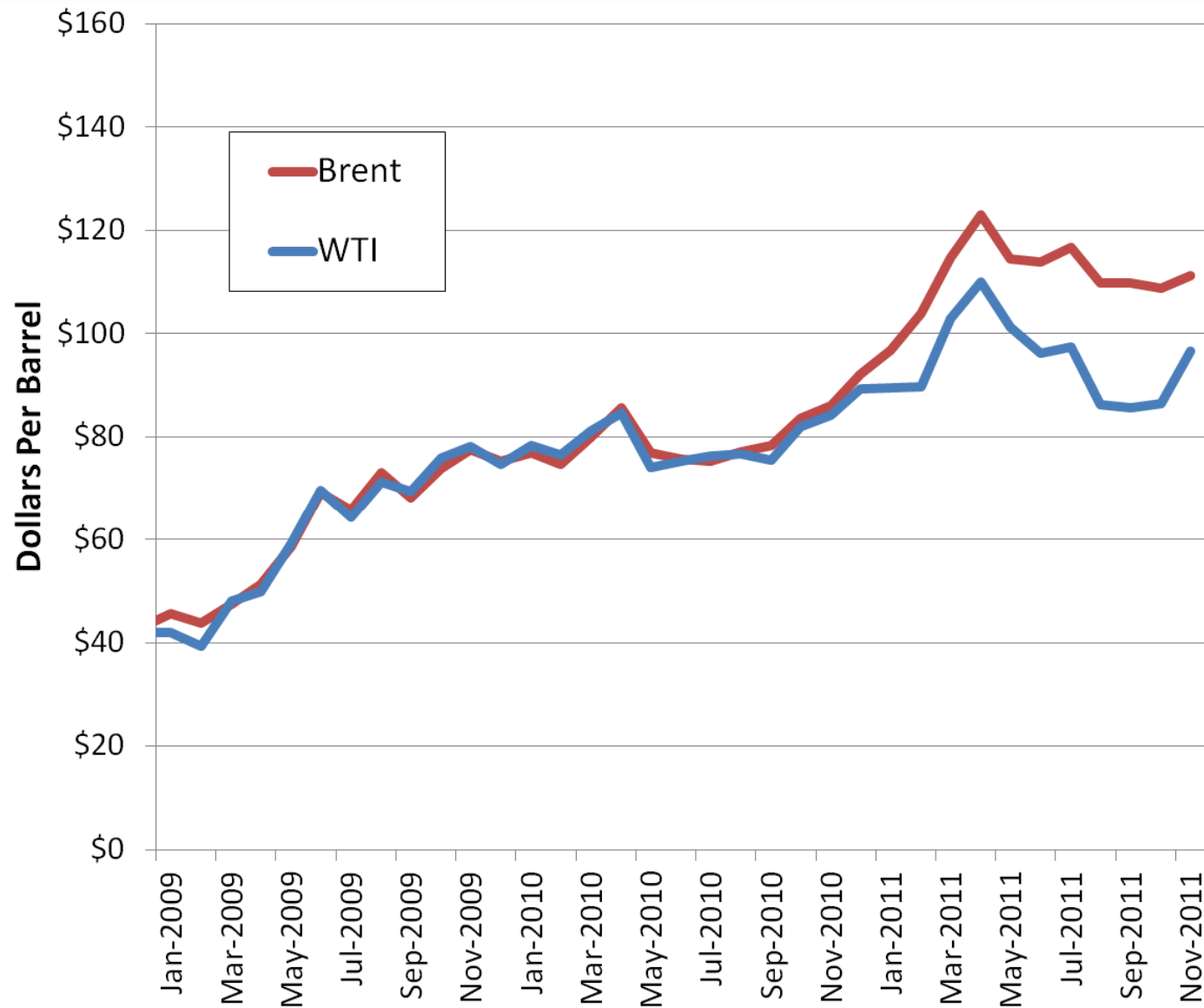


# Brent-WTI Crude Pricing



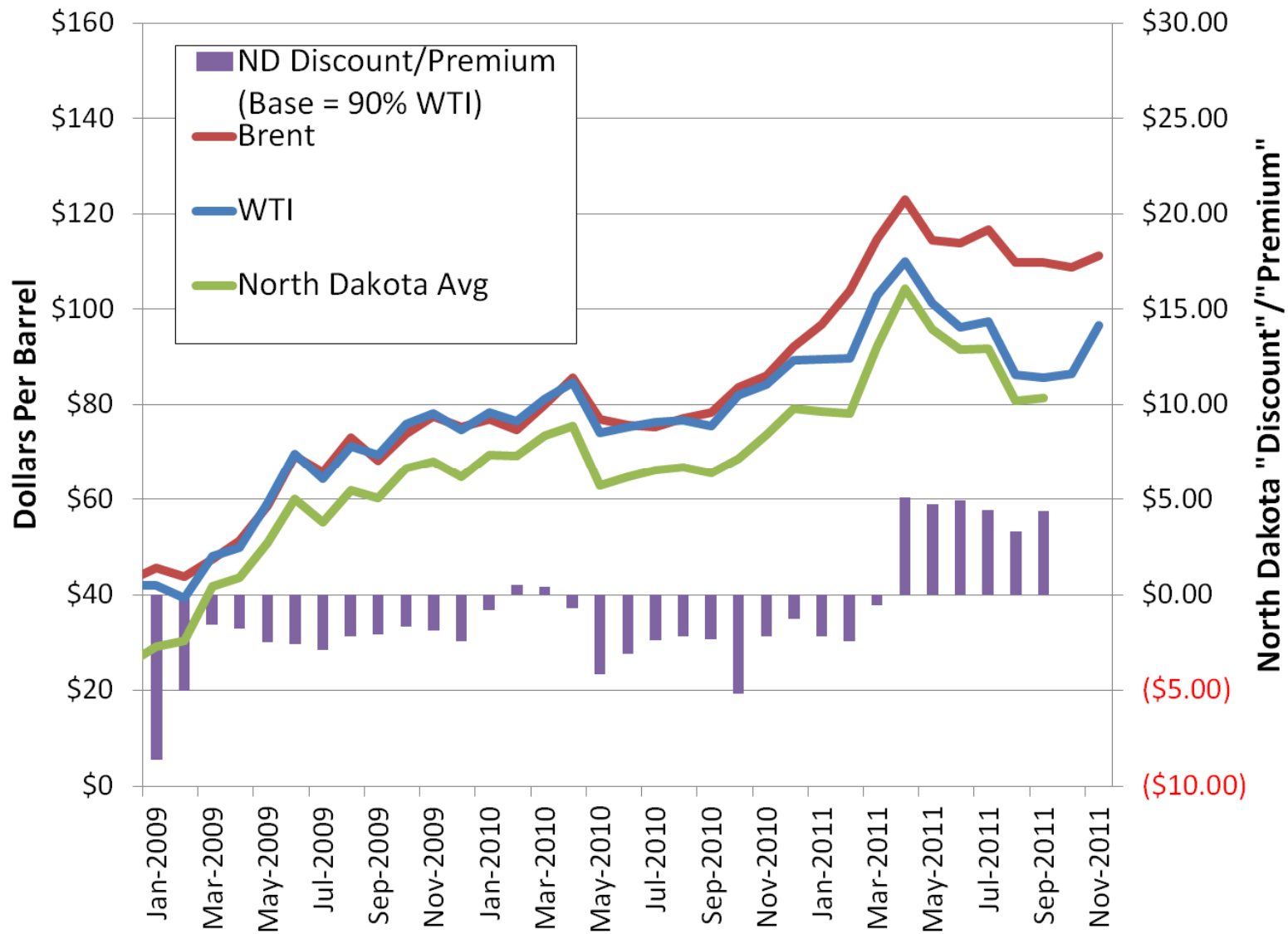
Pipeline and Hazardous  
Materials Safety Administration

# Brent-WTI Crude Pricing





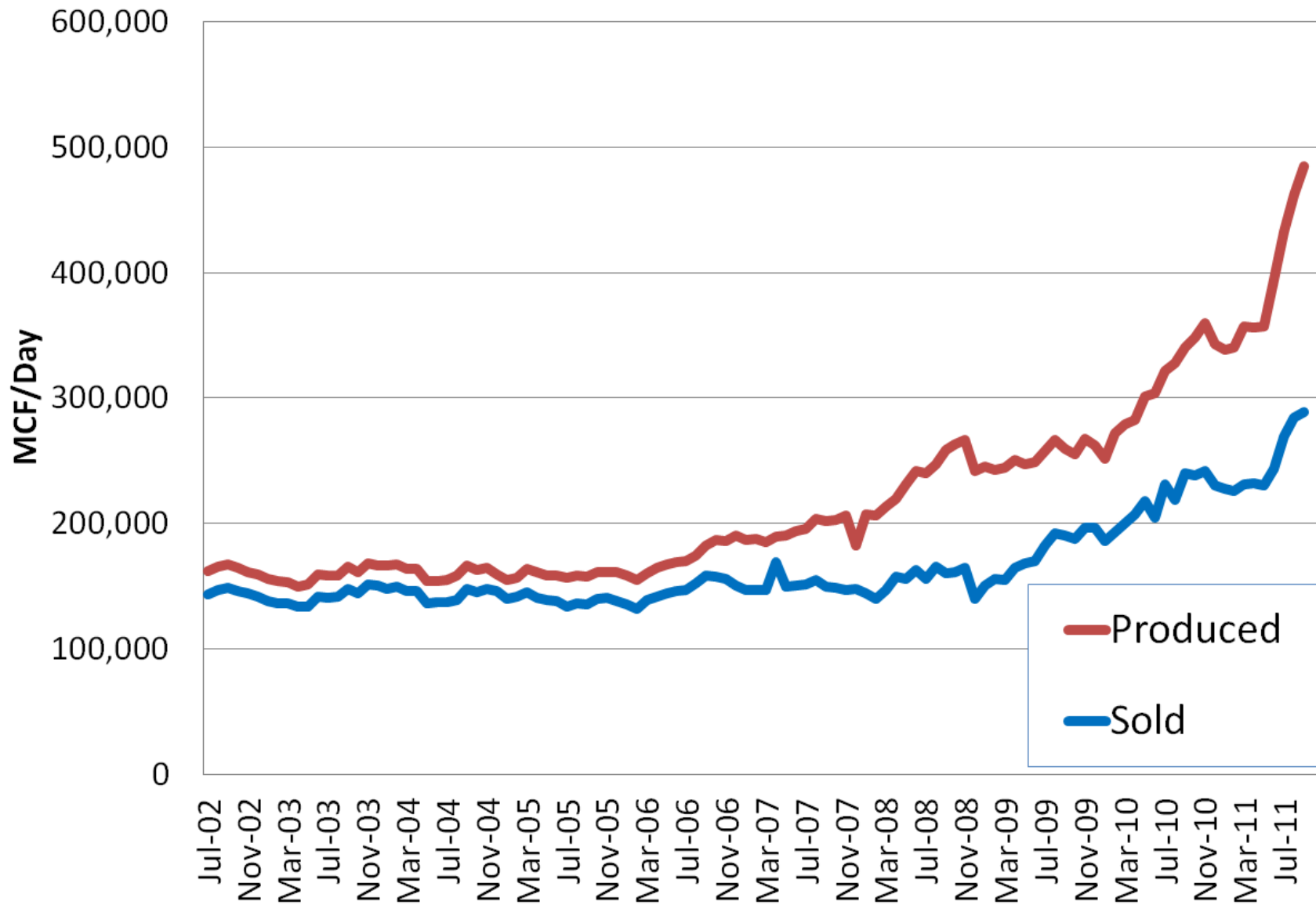
# Brent-WTI-ND Crude Pricing



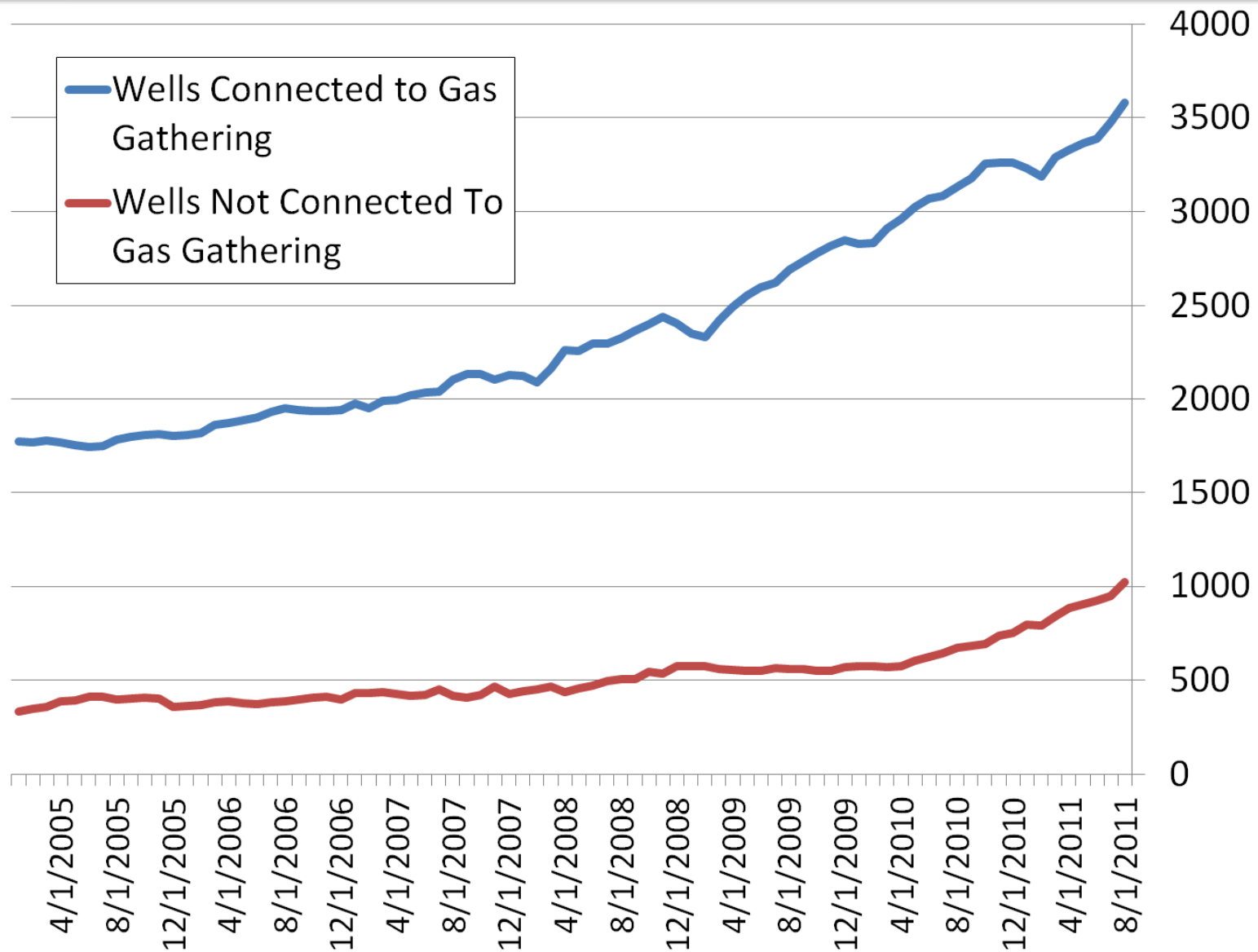
# Natural Gas Projects



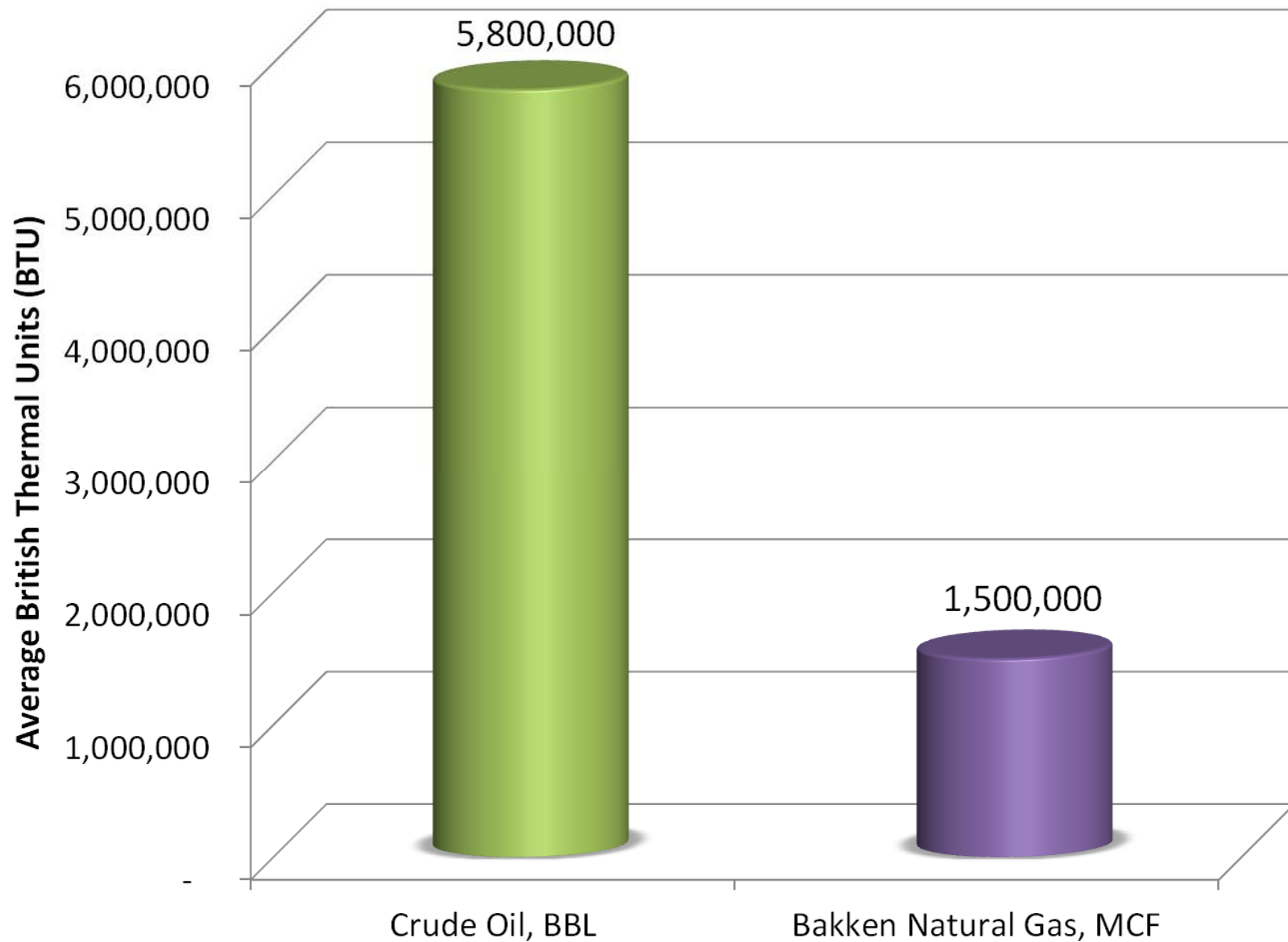
# ND Gas Production



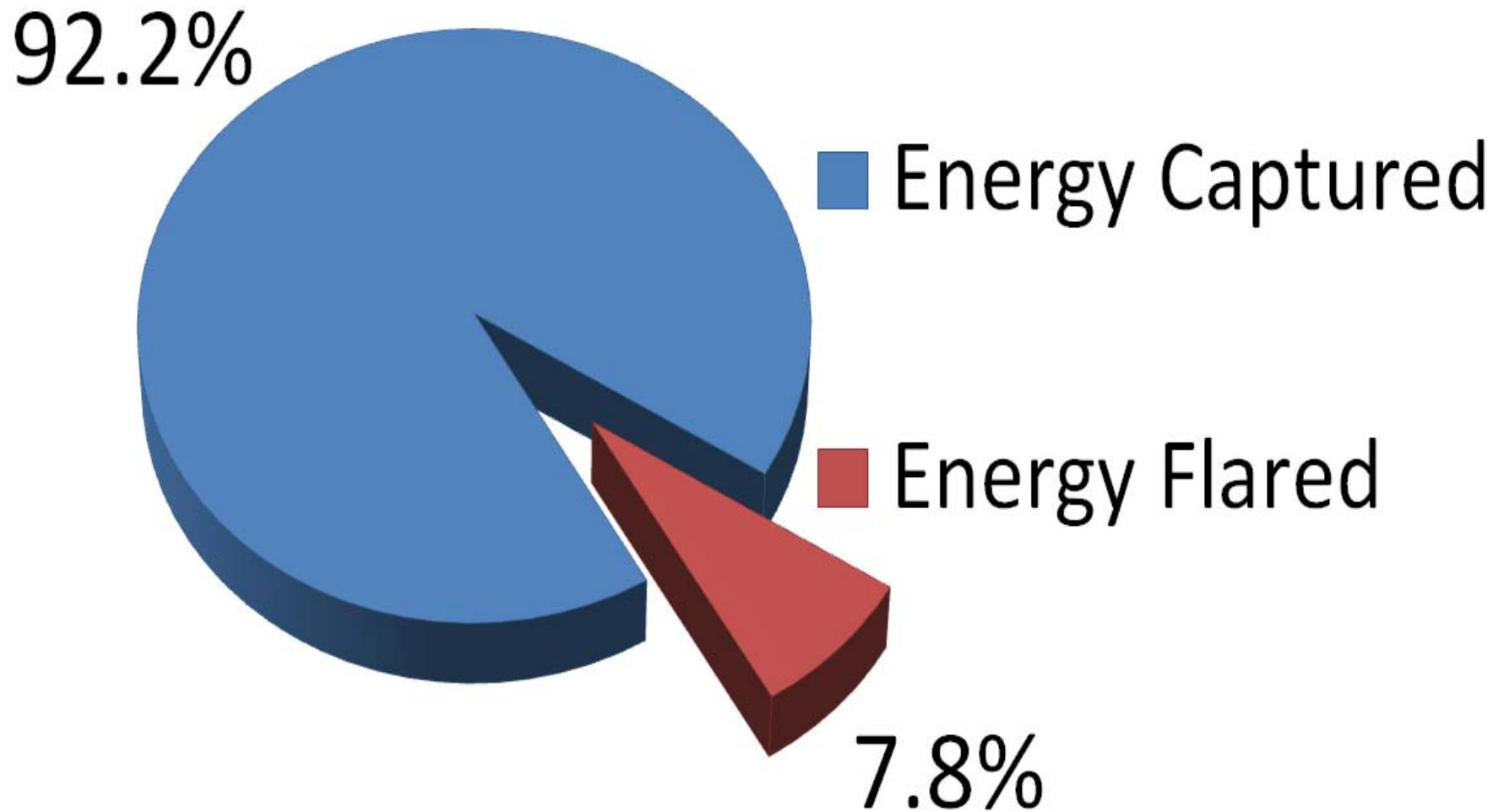
# ND Gas Gathering Statistics



# Bakken Resource Energy Content

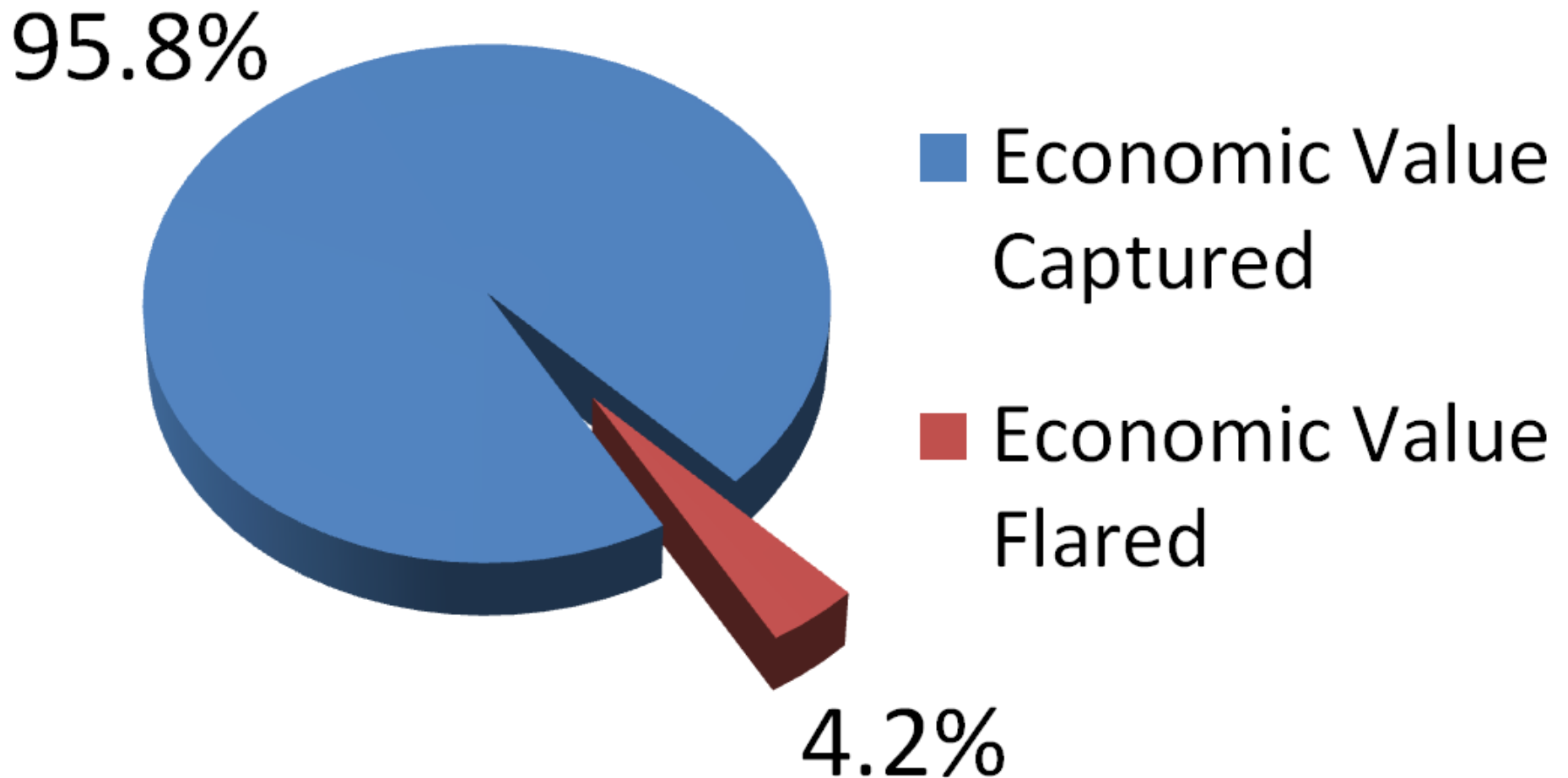


# ND Oil & Gas Development Efficiency



September 2011 Data

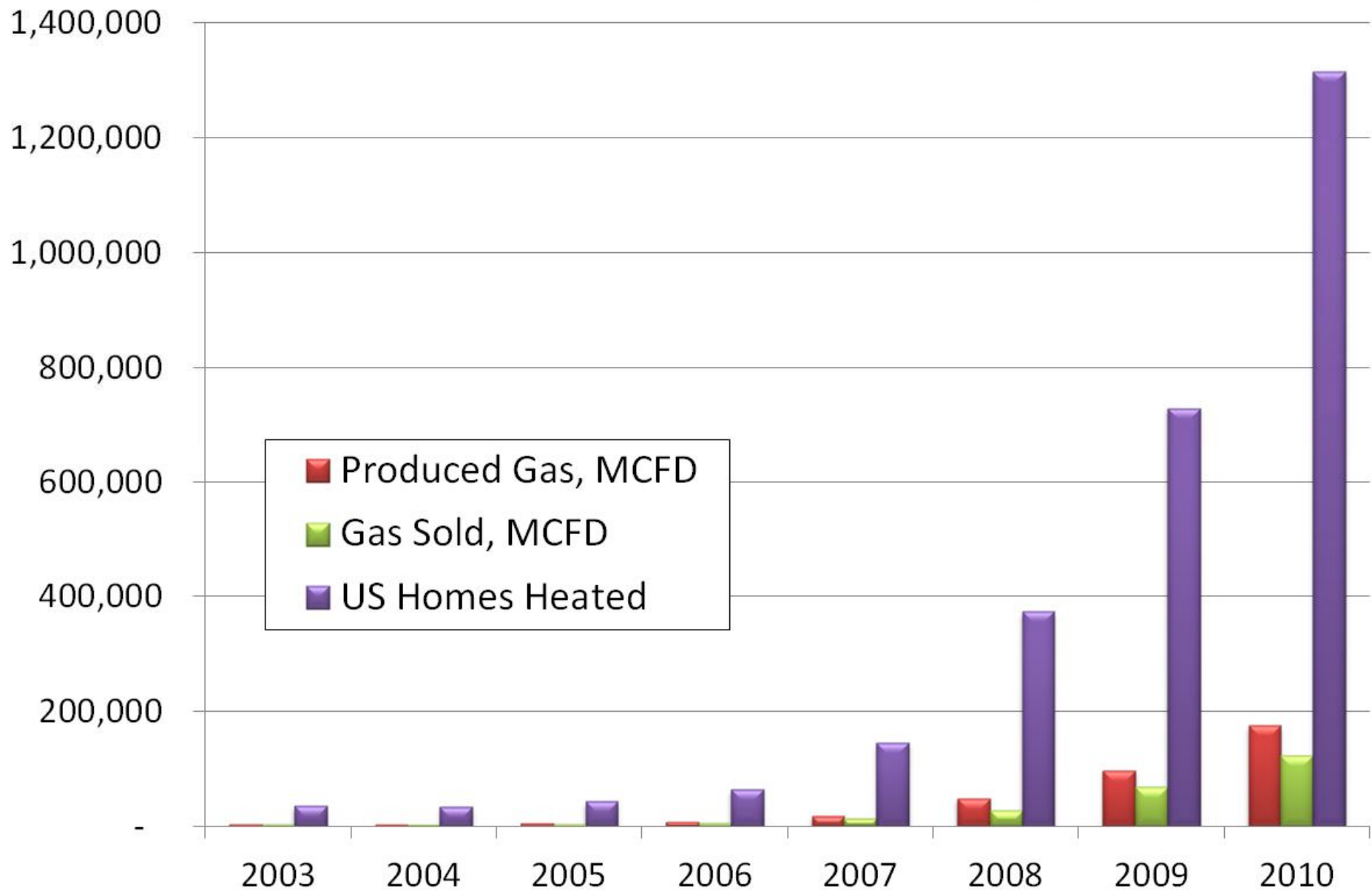
## ND Oil & Gas Development Efficiency



September 2011 Production Data, Oil Price of \$81.38/bbl,  
Est. Natural Gas/NGL Wellhead Price of \$10.00/MCF



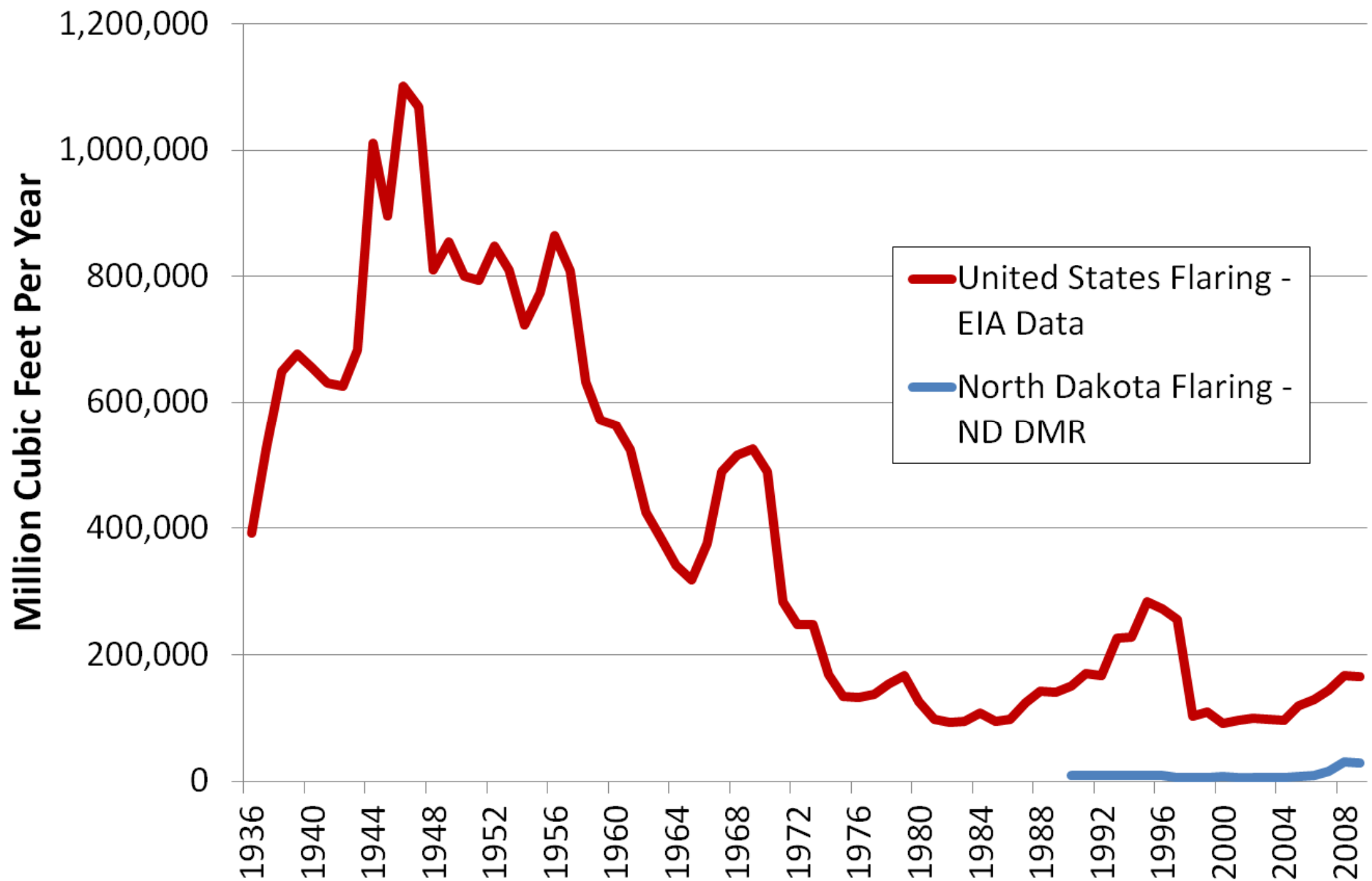
## Bakken & Three Forks Natural Gas



*Assumes Avg Home Uses 72.4 Million BTU's Per Year - Source: AGA*

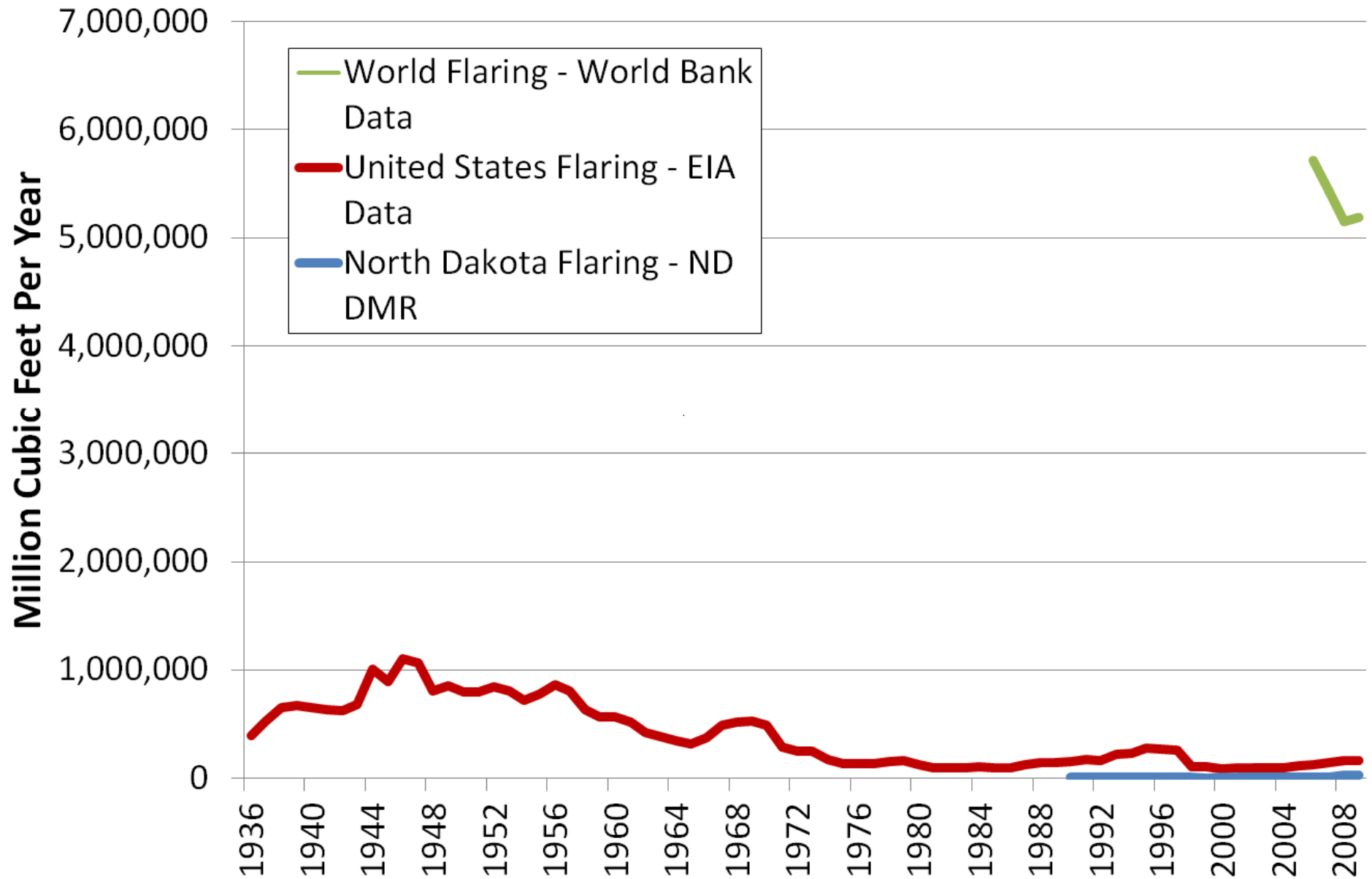


## United States - North Dakota Natural Gas Flaring



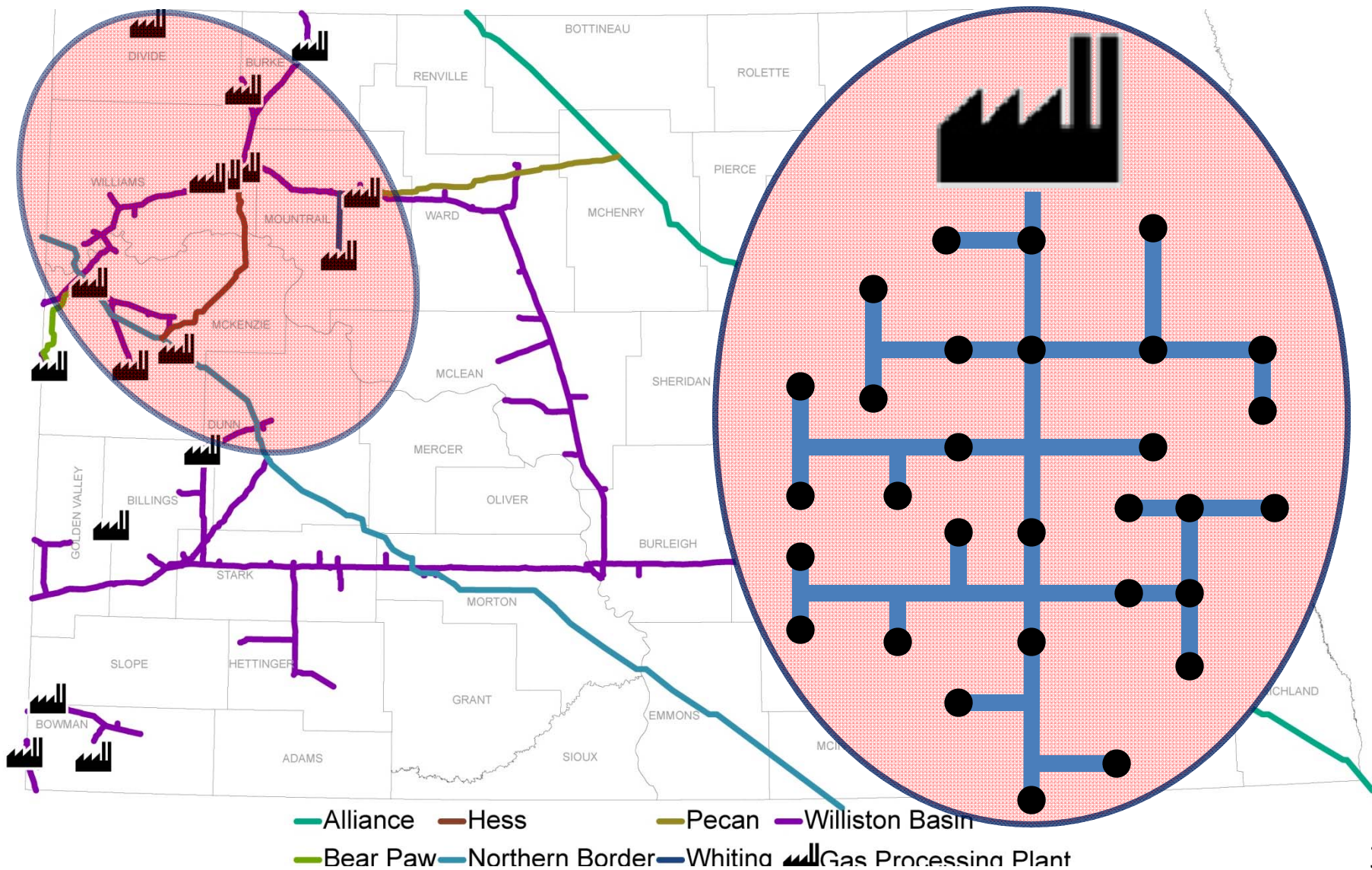
Data: Most Recently Available US EIA Data and ND Department of Mineral Resources

# World Natural Gas Flaring

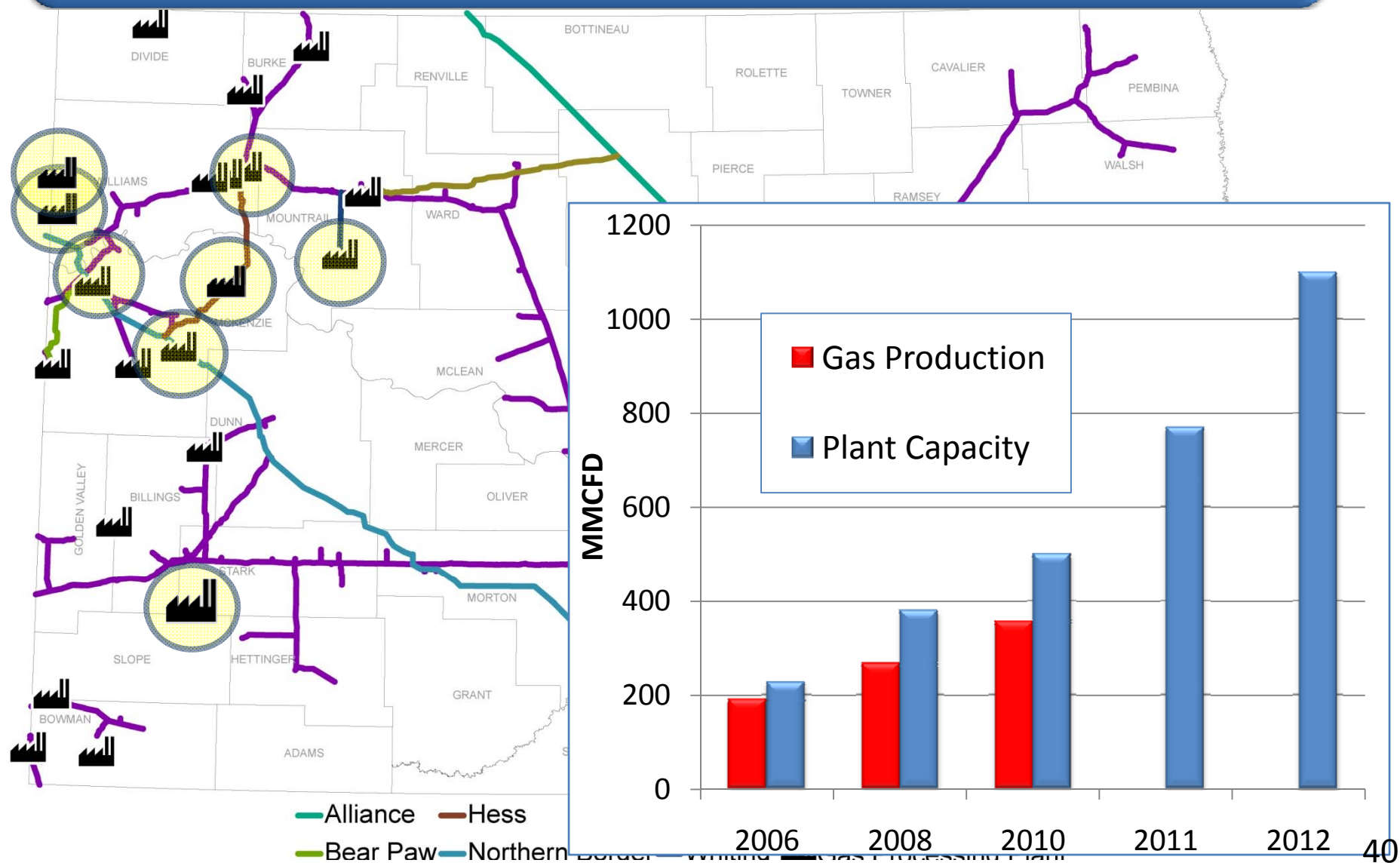


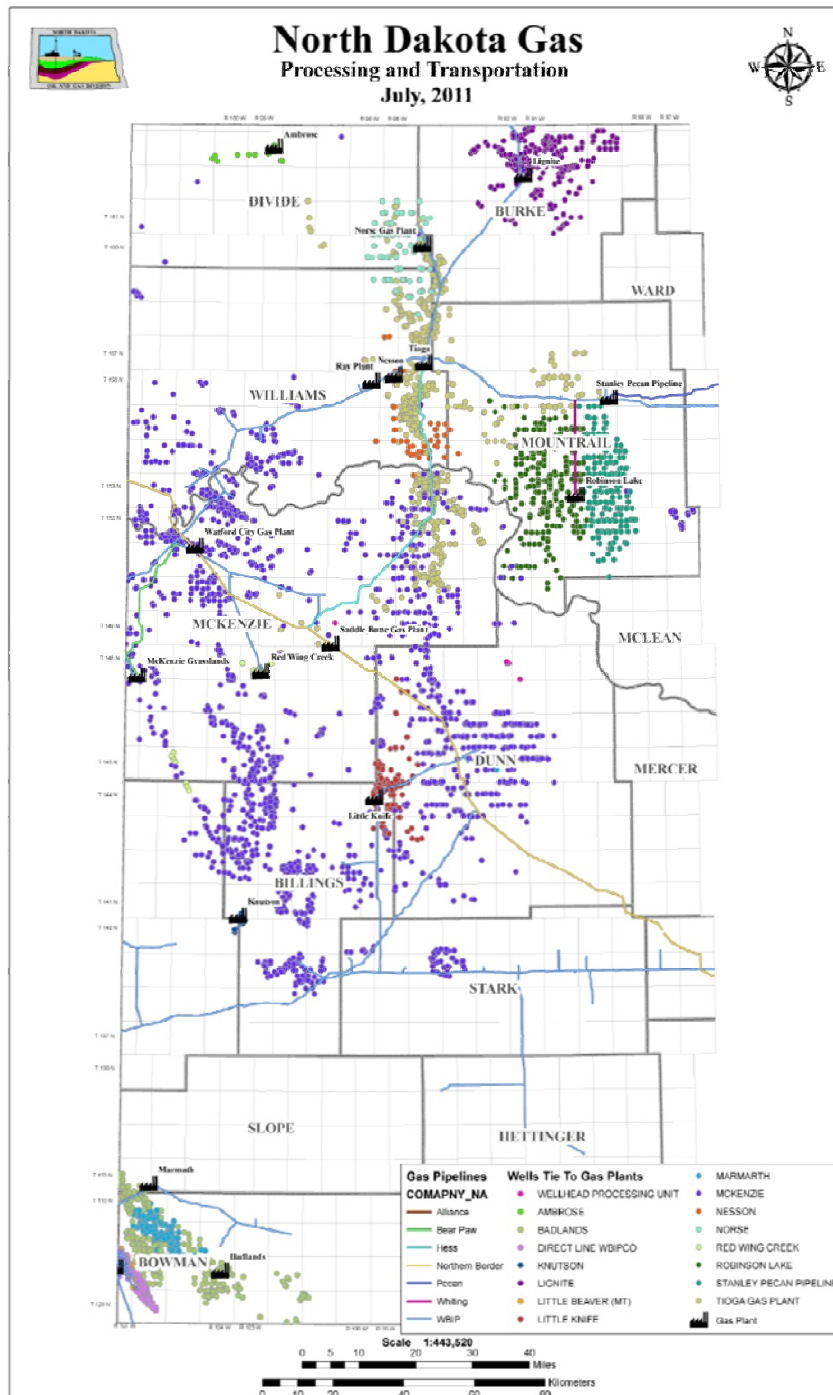
Data Source: World Bank, Most Recently Available US EIA Data, and ND Department of Mineral Resources

# Natural Gas Challenge I



# New or Expanding Gas Plants

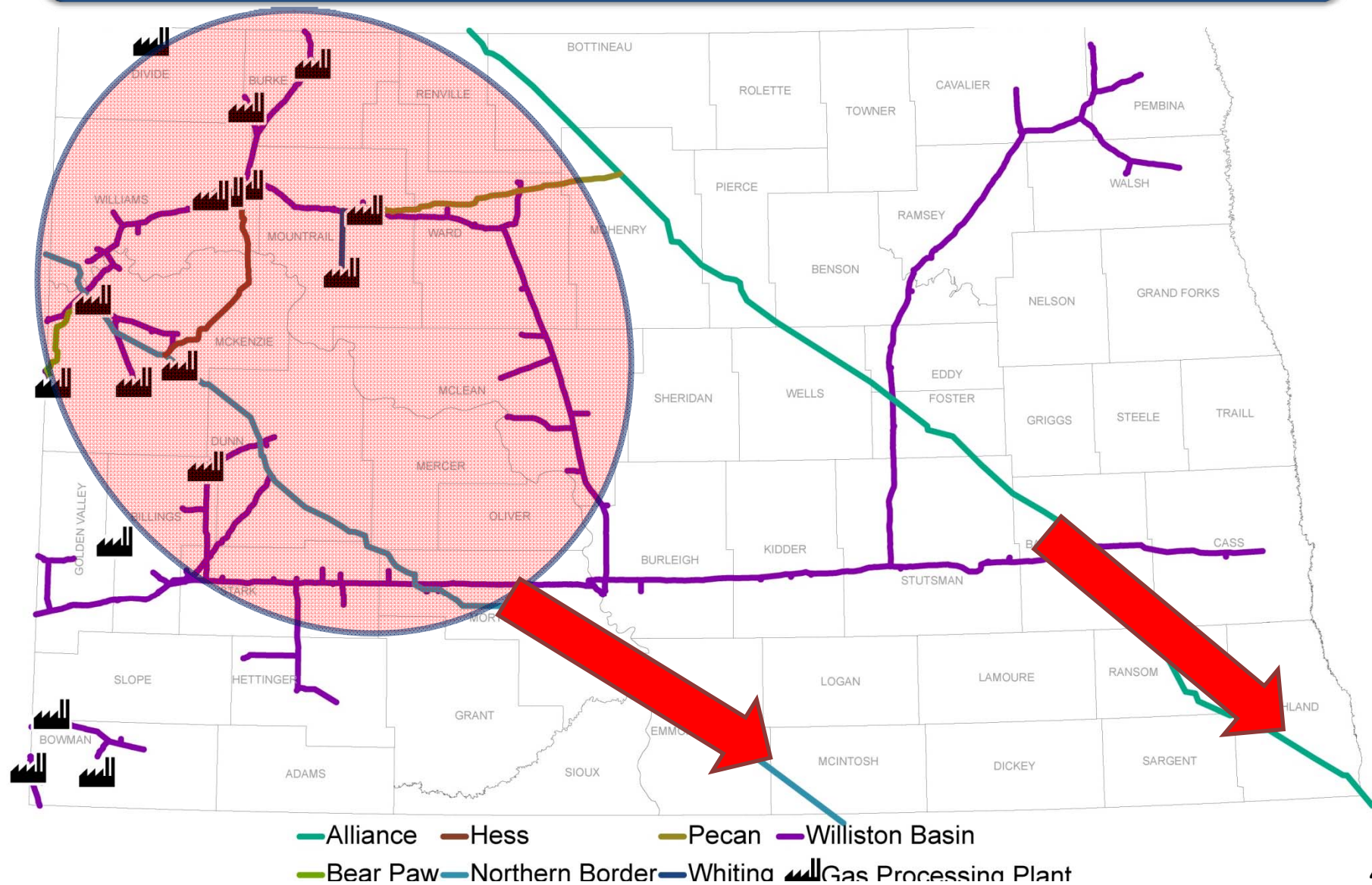




# North Dakota Natural Gas Processing and Gathering



# Natural Gas Challenge II



# NDPA Webinars

- Past Slides and Video Available Online

- Industry Experts

- New Topics Each Month

- Audience Interaction



# Contact Information

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Website:

[www.pipeline.nd.gov](http://www.pipeline.nd.gov)



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