



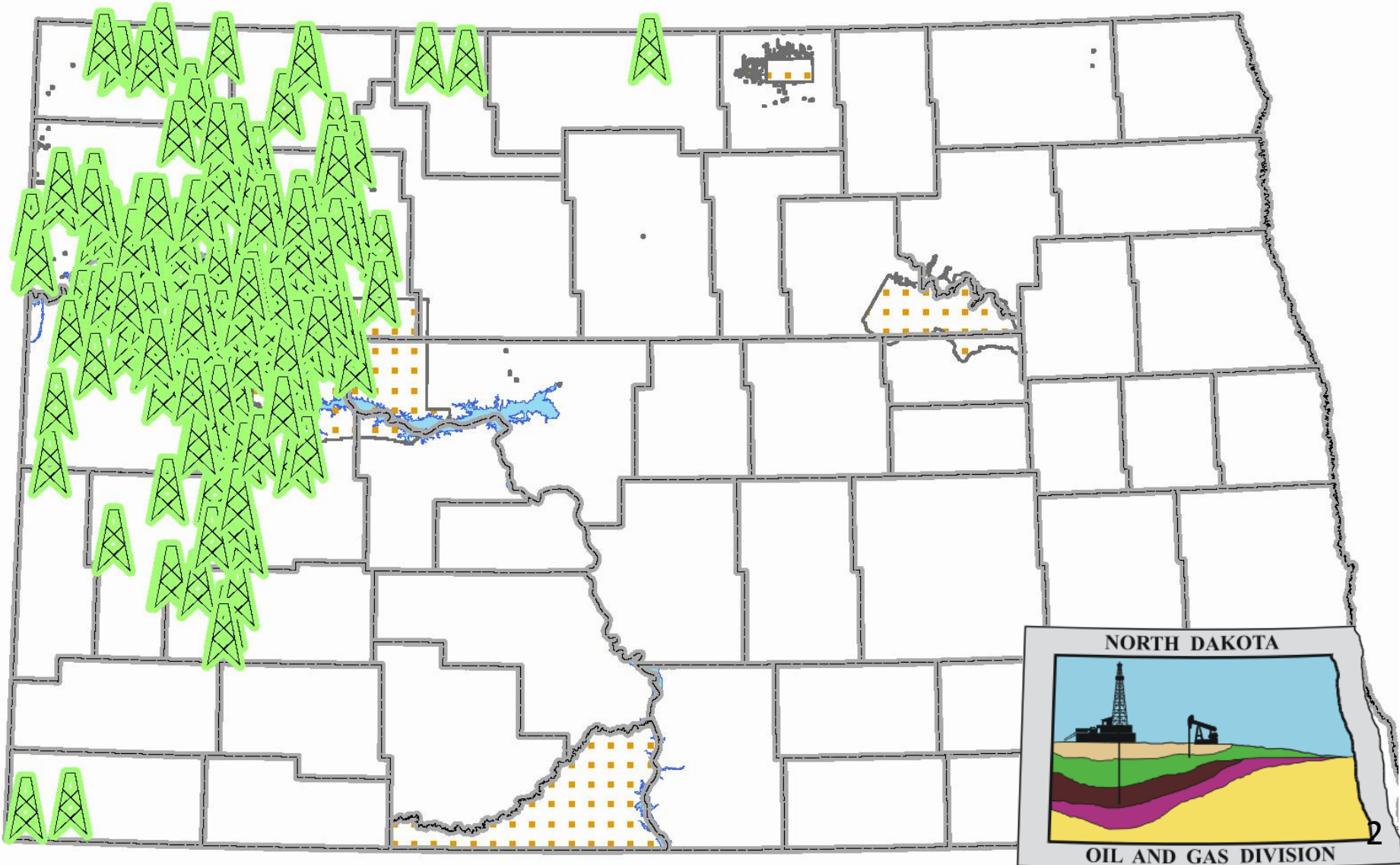
North Dakota Pipeline Authority

Oil and Gas Research Council

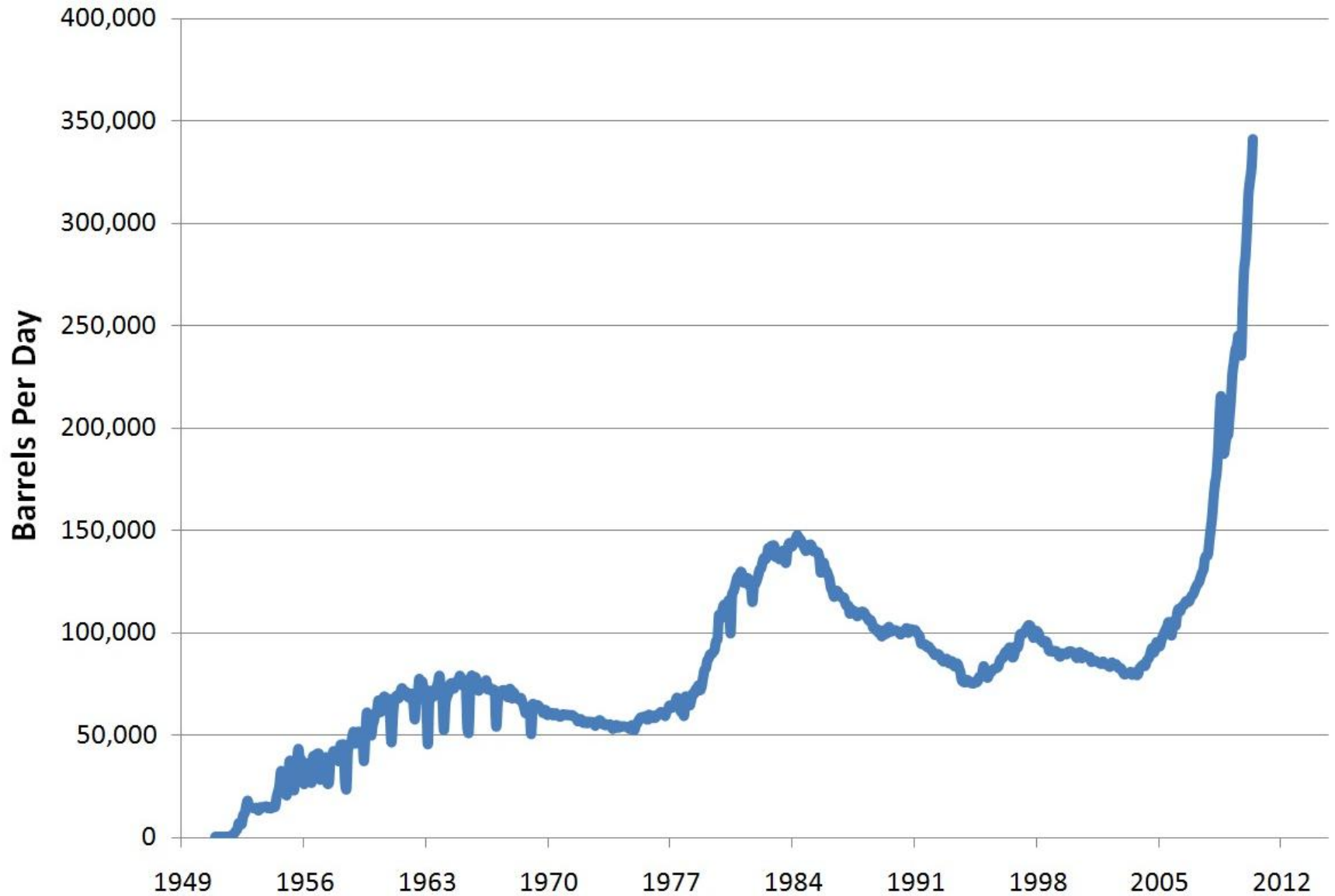
Justin J. Kringstad

December 9, 2010 – Bismarck, ND

December 8, 2010: 162 Drilling Rigs



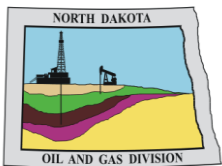
North Dakota Crude Oil



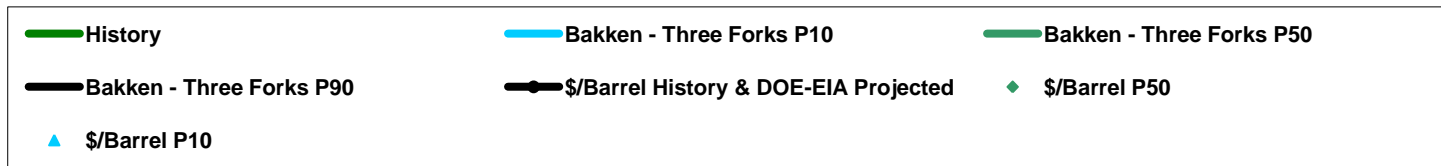
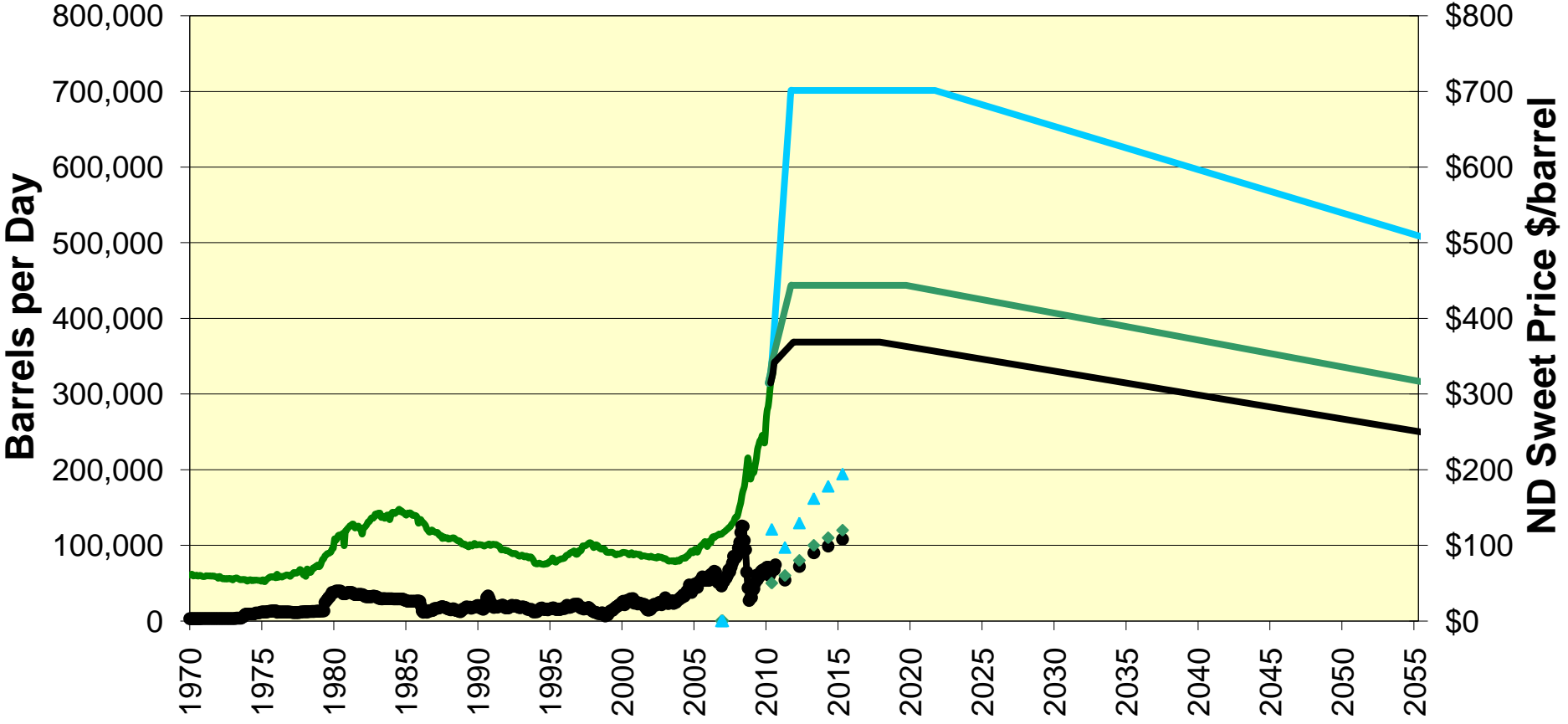
*Prediction is very difficult,
especially if it's about the future.*

-Niels Bohr

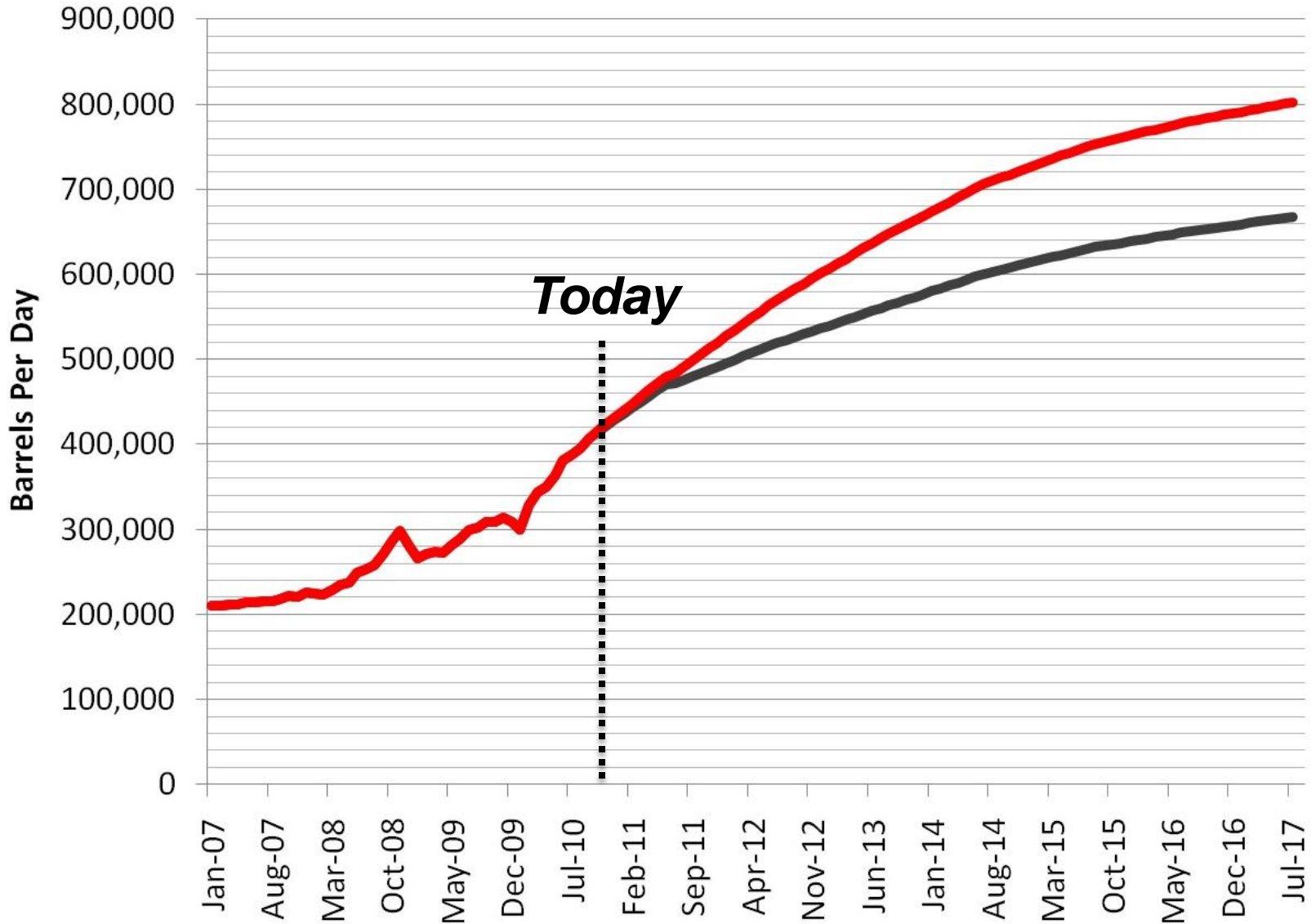




North Dakota Oil Production and Price



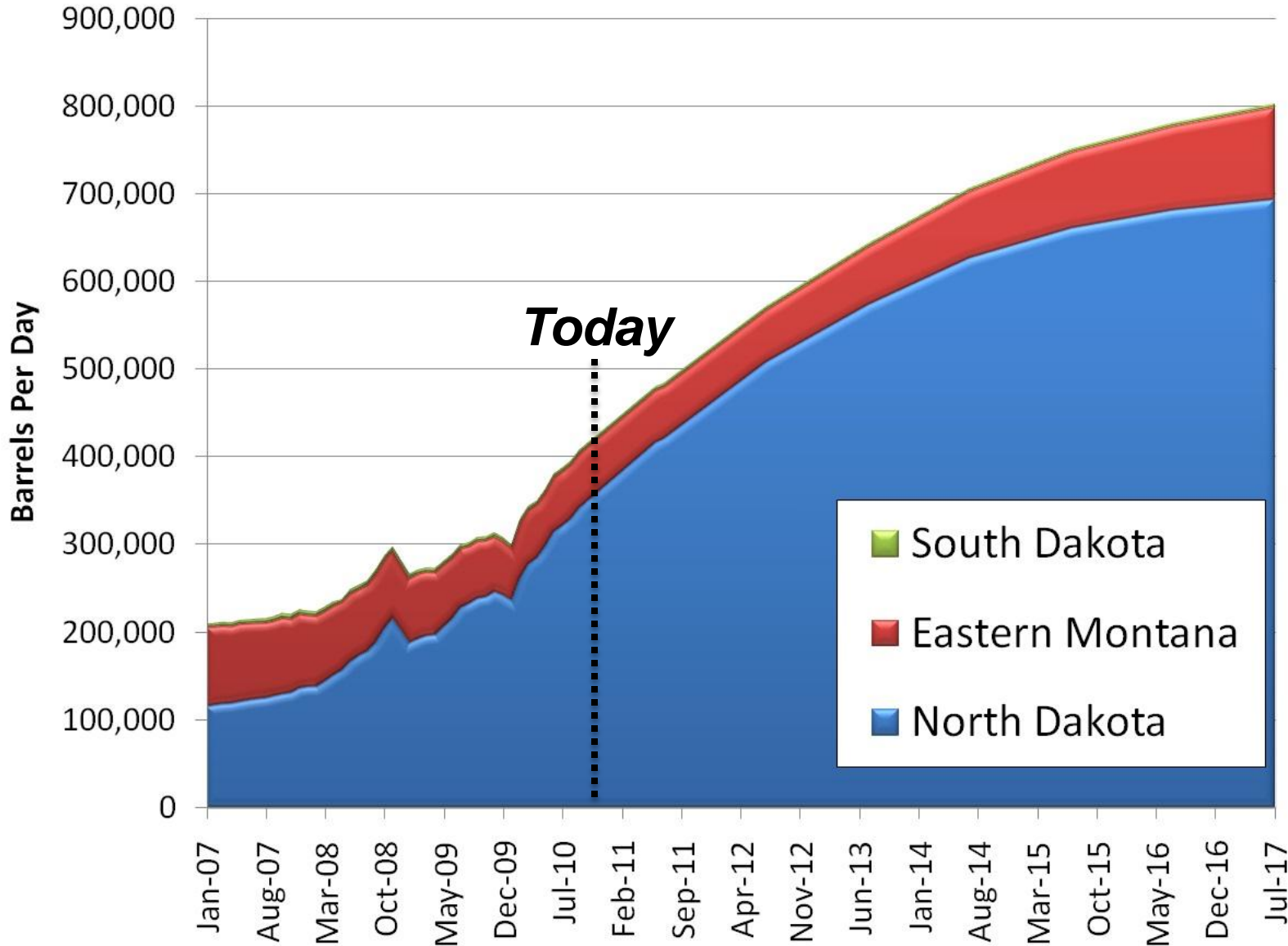
Forecasting Williston Basin Oil Production, BOPD



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



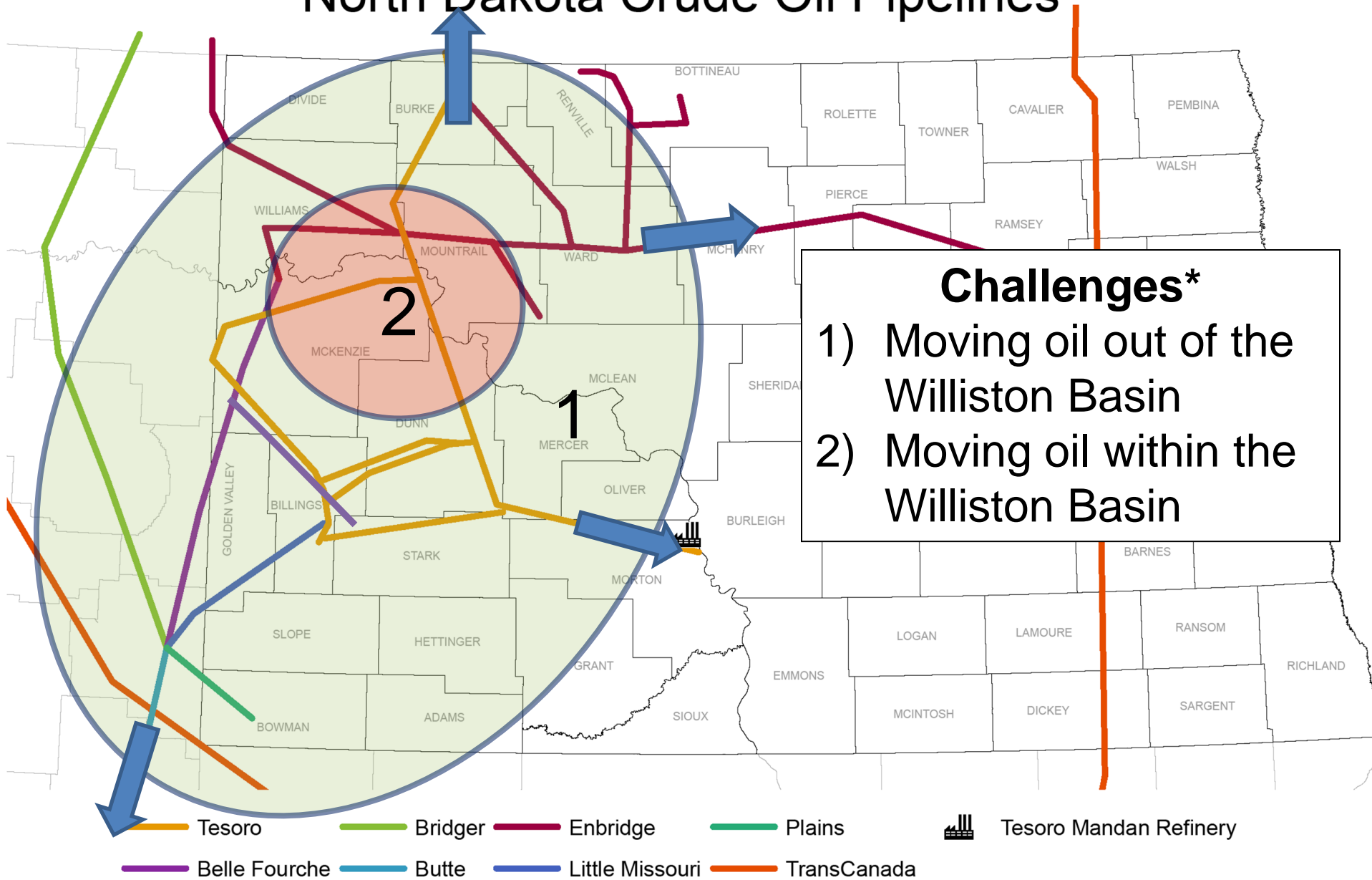
Forecasting Williston Basin Oil Production, BOPD



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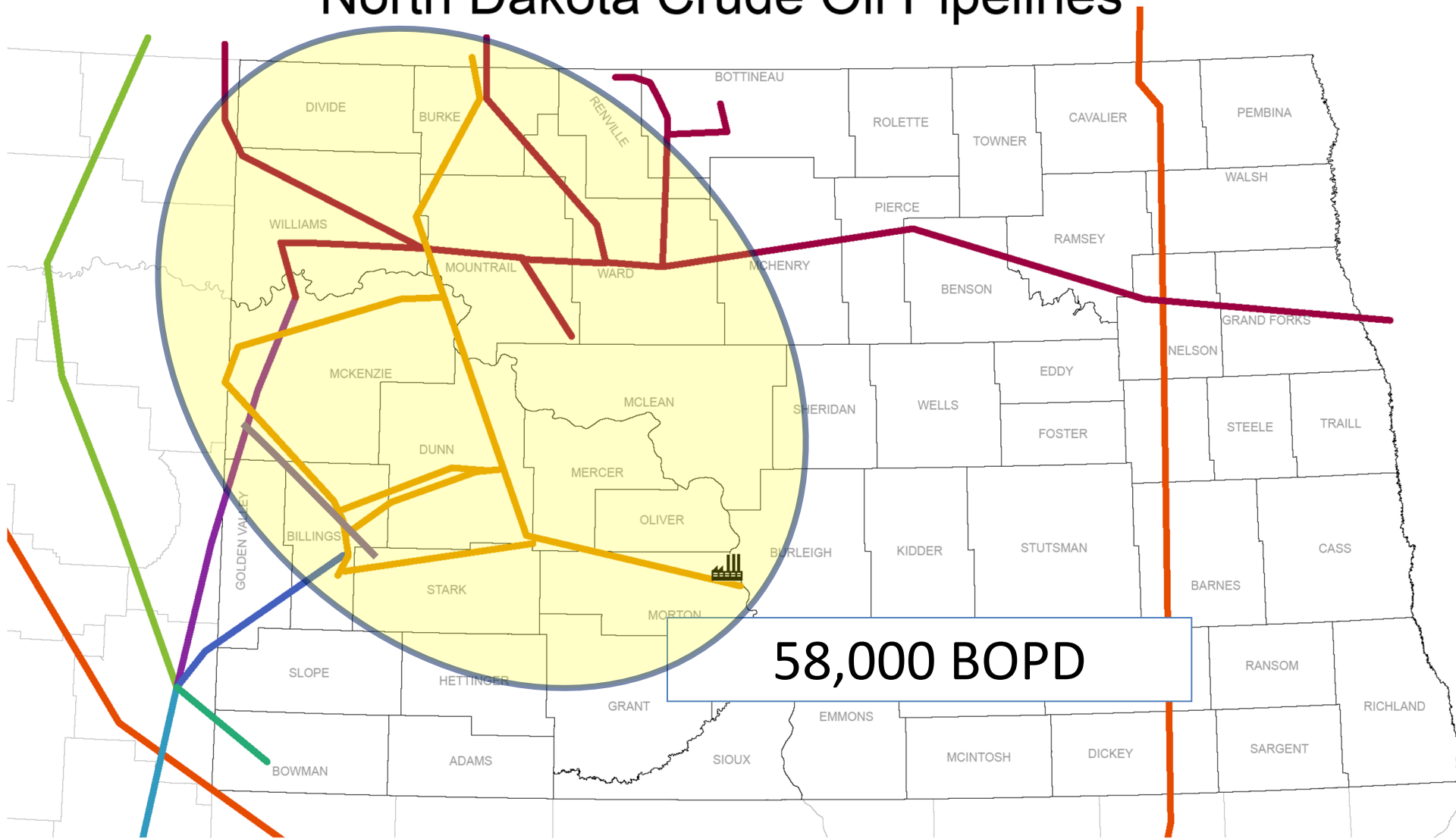


North Dakota Crude Oil Pipelines



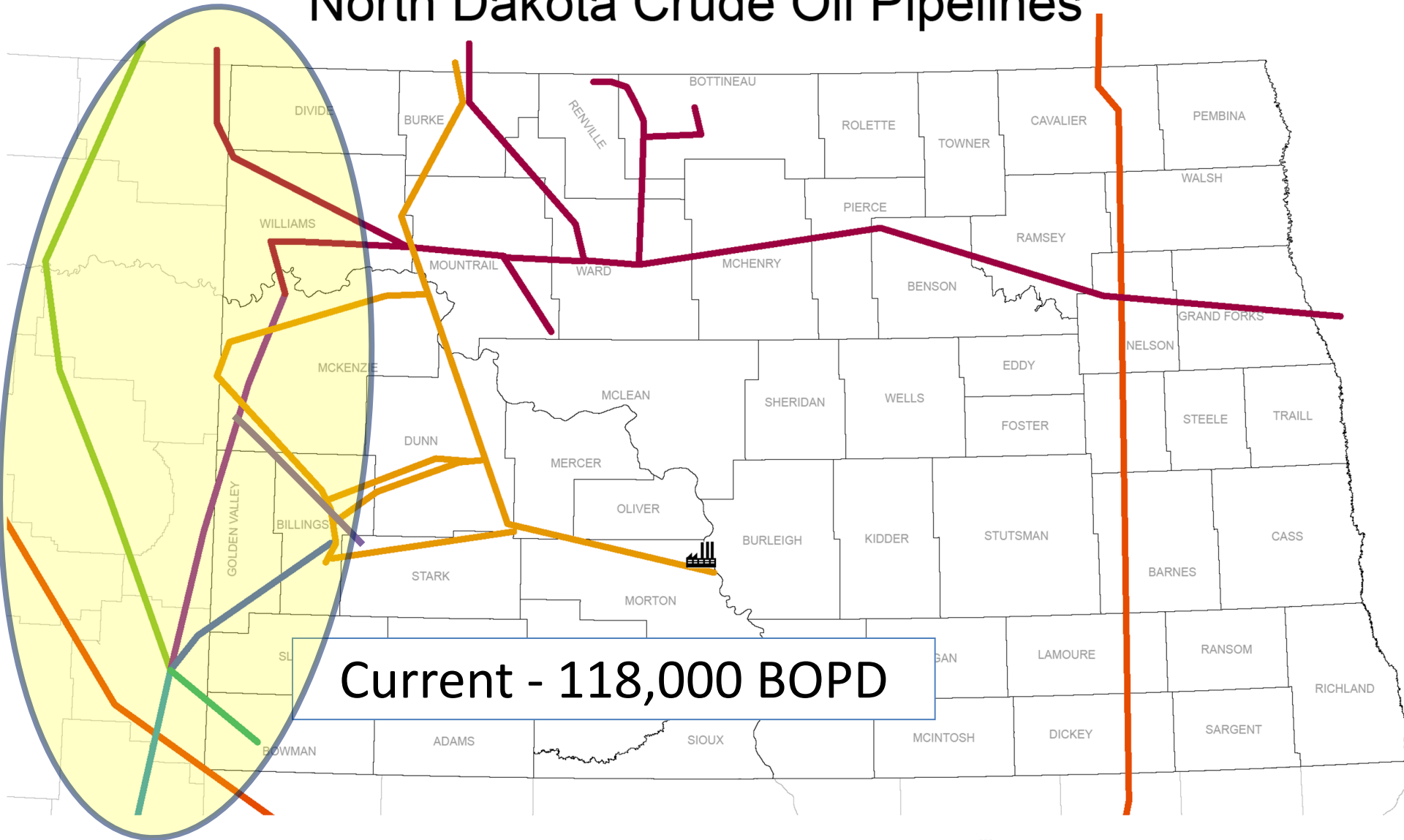
*Modified from Bridger and Belle Fourche Pipelines

North Dakota Crude Oil Pipelines



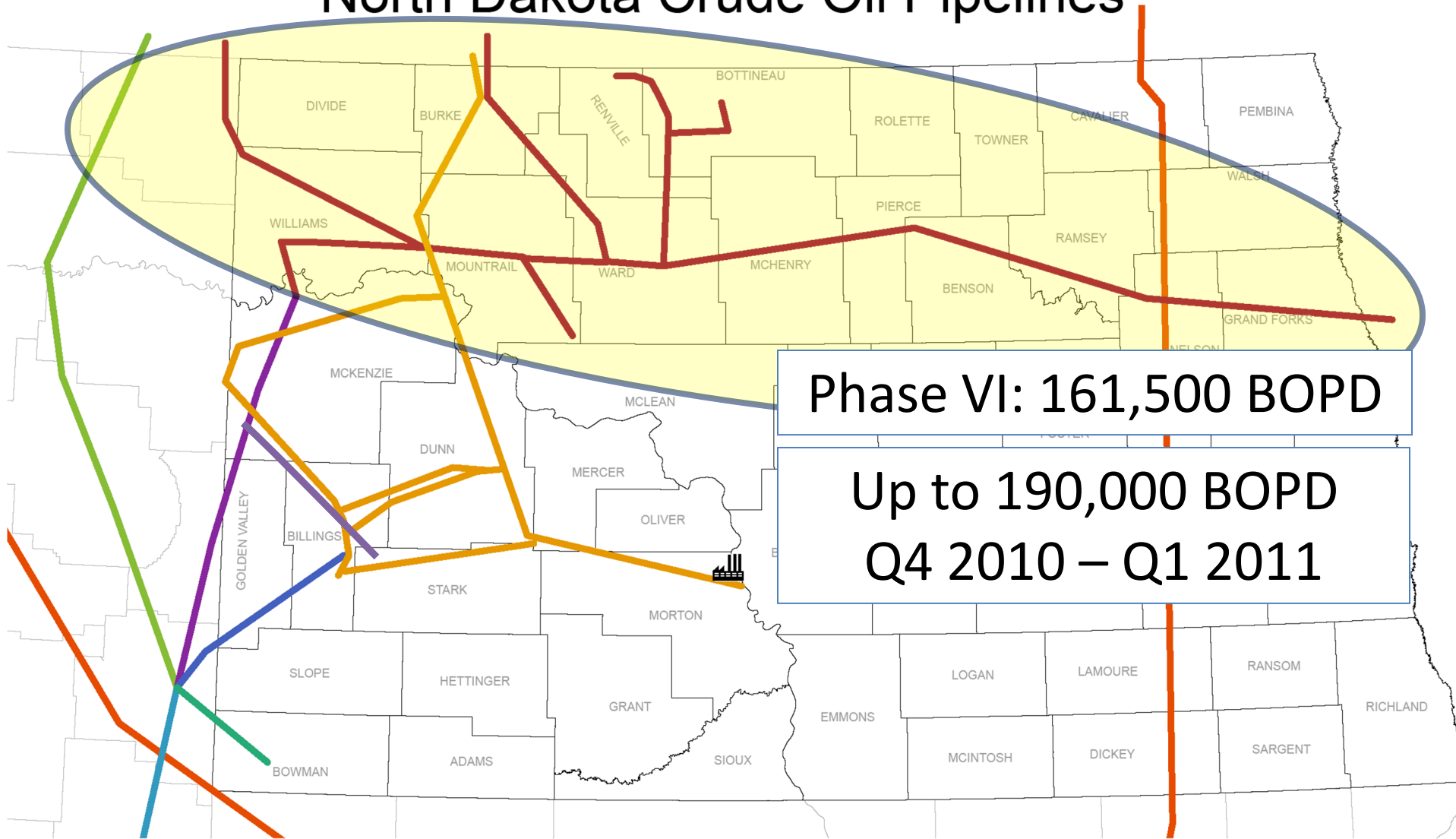
- Tesoro
- Bridger
- Enbridge
- Plains
- Tesoro Mandan Refinery
- Belle Fourche
- Butte
- Little Missouri
- TransCanada

North Dakota Crude Oil Pipelines



- Tesoro
- Bridger
- Enbridge
- Plains
- Tesoro Mandan Refinery
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North Dakota Crude Oil Pipelines



- Tesoro
- Bridger
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- Belle Fourche
- Butte
- Little Missouri
- TransCanada

Rail Transportation

EOG – Stanley, ND



Others Include:

Minot

Dore

Stampede

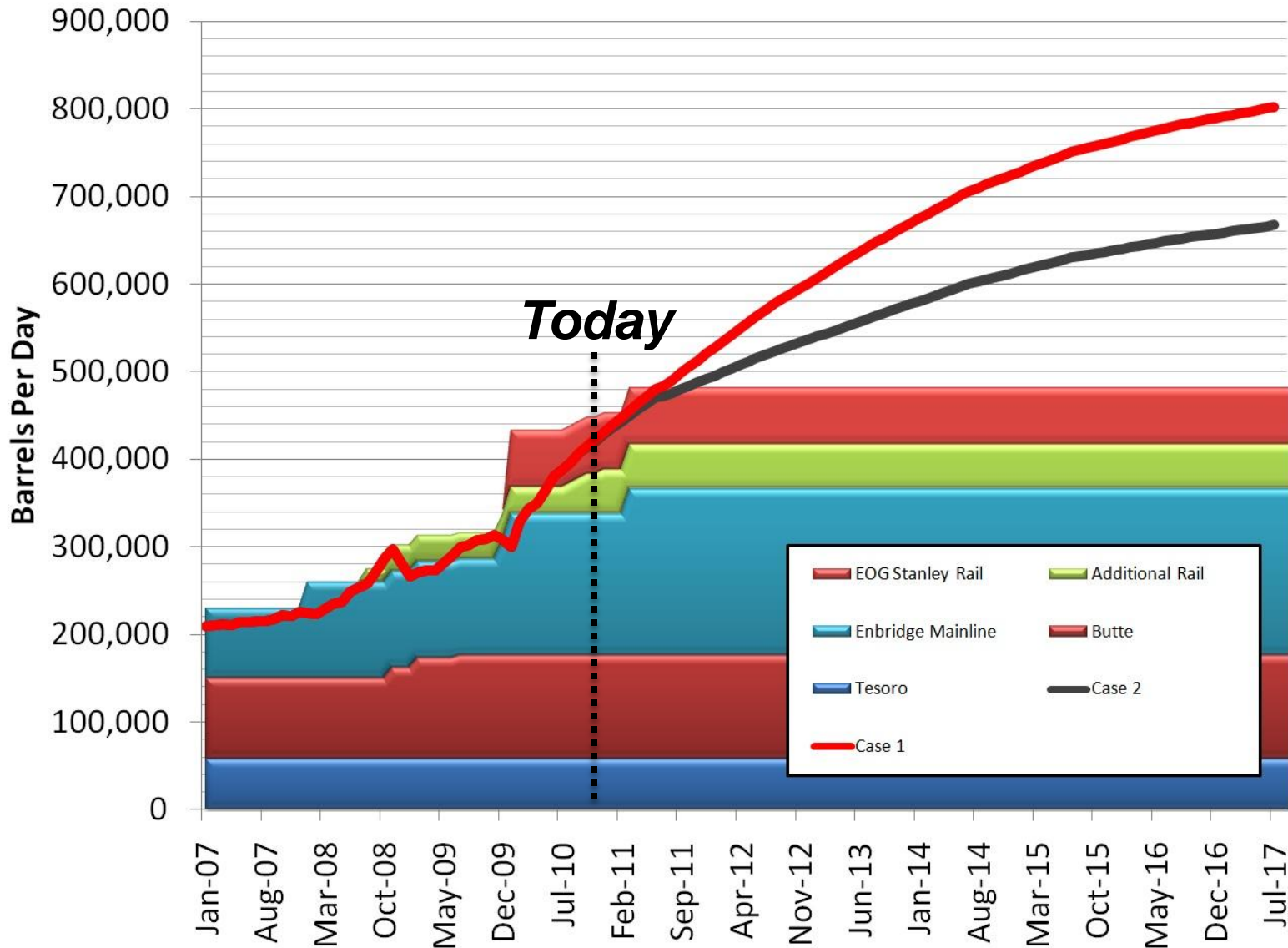
Donnybrook



Dakota Transport Solutions – New Town, ND

**Images Provided By:
Loren Kopseng**

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.



*The future starts today,
not tomorrow.*

-Pope John Paul II



Several Exciting Developments For Post 2010 Crude Oil Transport

Enbridge Bakken Expansion Program

Keystone XL Marketlink

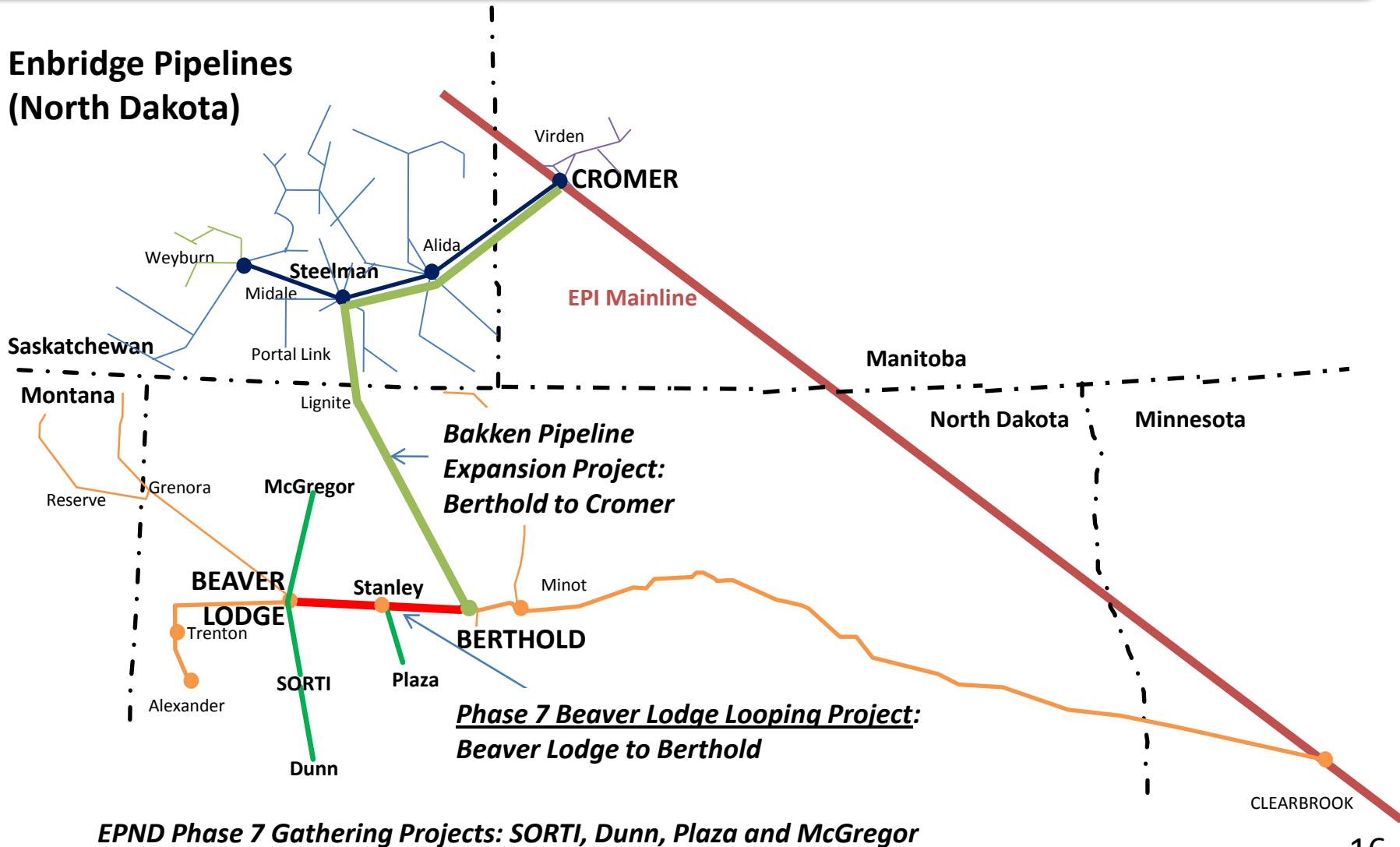
True Co.'s Baker 300

Plains Bakken North

Unit Train Development

Bakken Pipeline Expansion

Enbridge Pipelines (North Dakota)

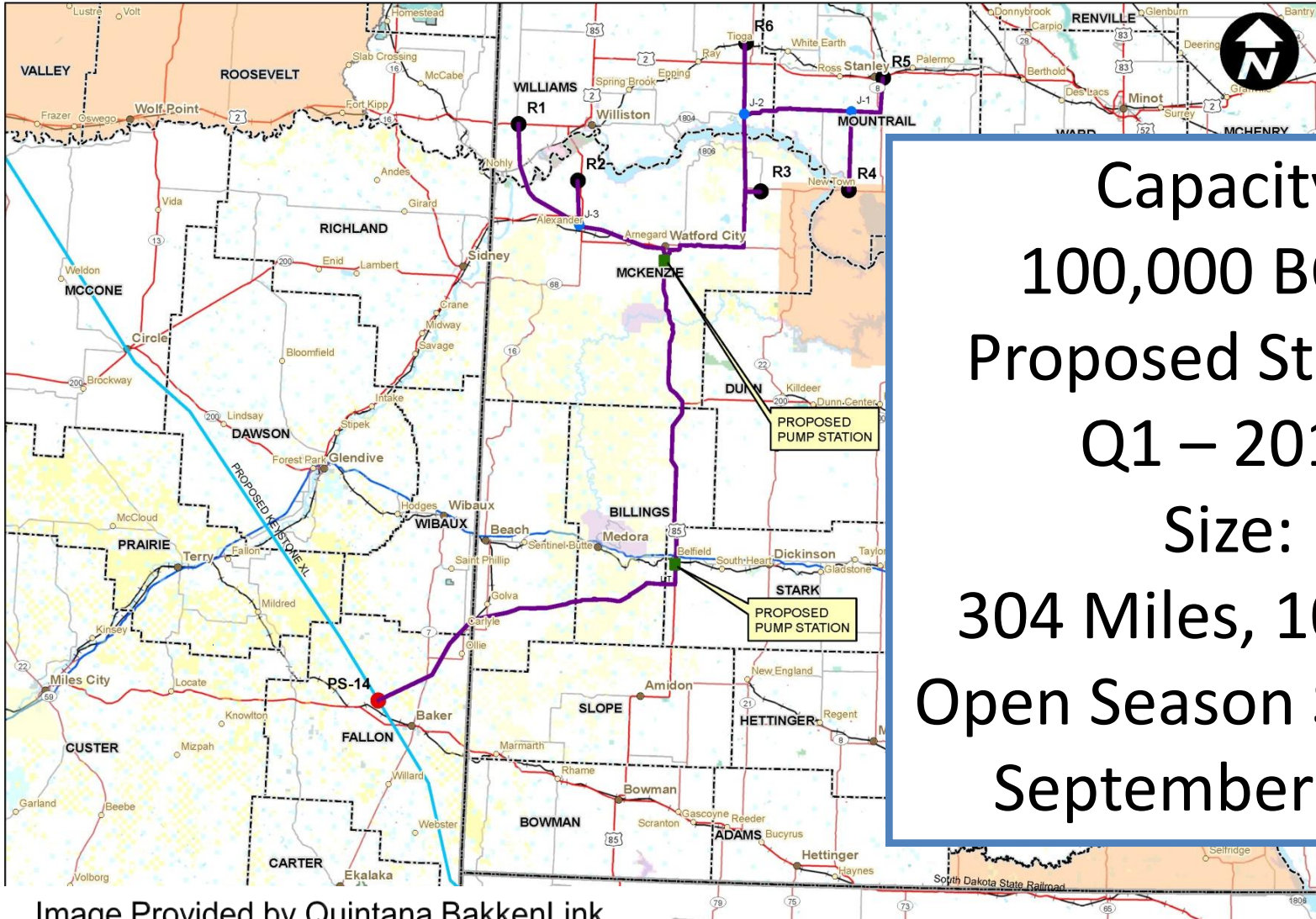


Proposed TransCanada Marketlink

- Binding Open Season Complete
- Q1 2013 Proposed Startup



Proposed Quintana BakkenLink



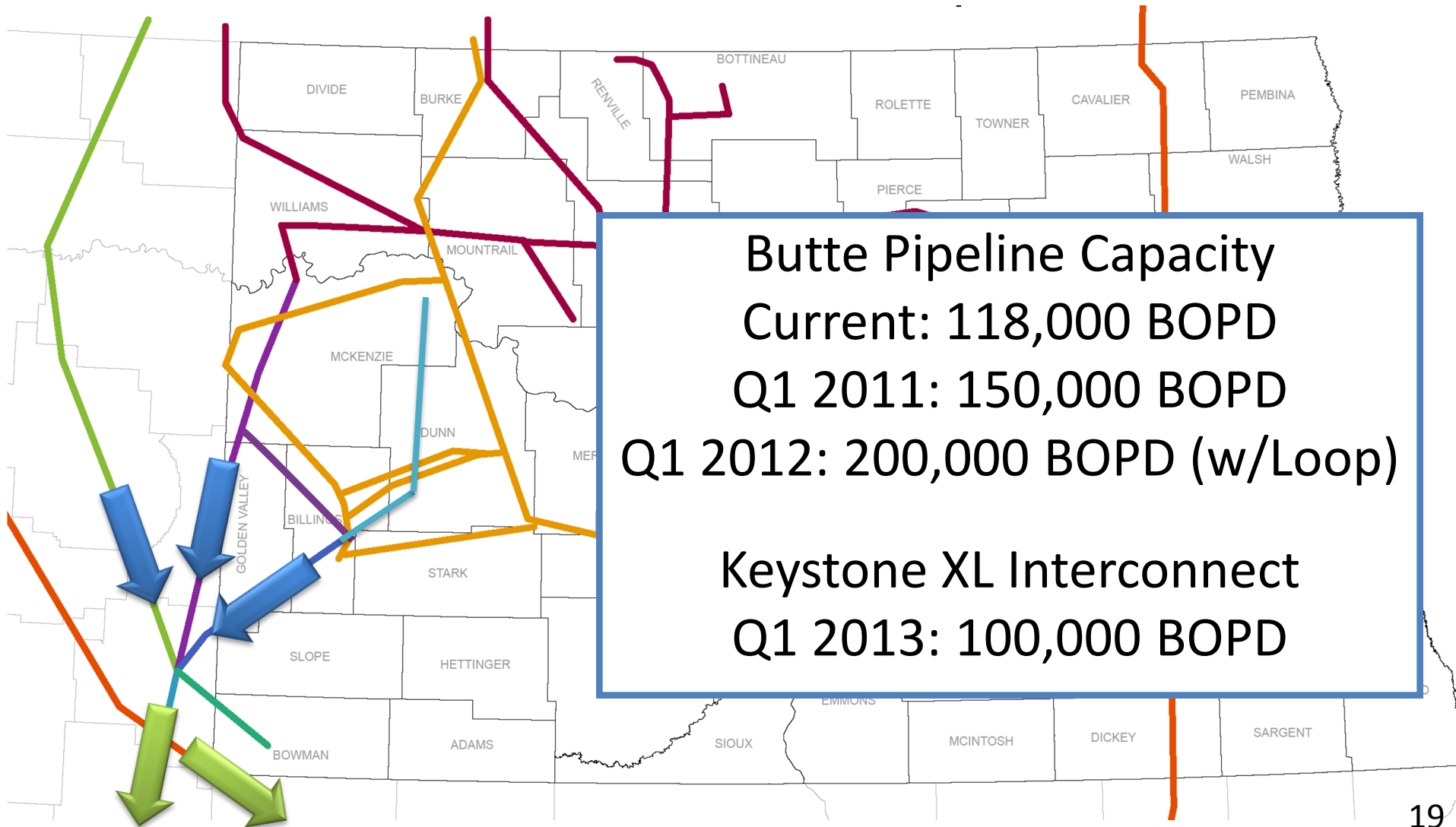
Capacity:
100,000 BOPD

Proposed Startup:
Q1 – 2013

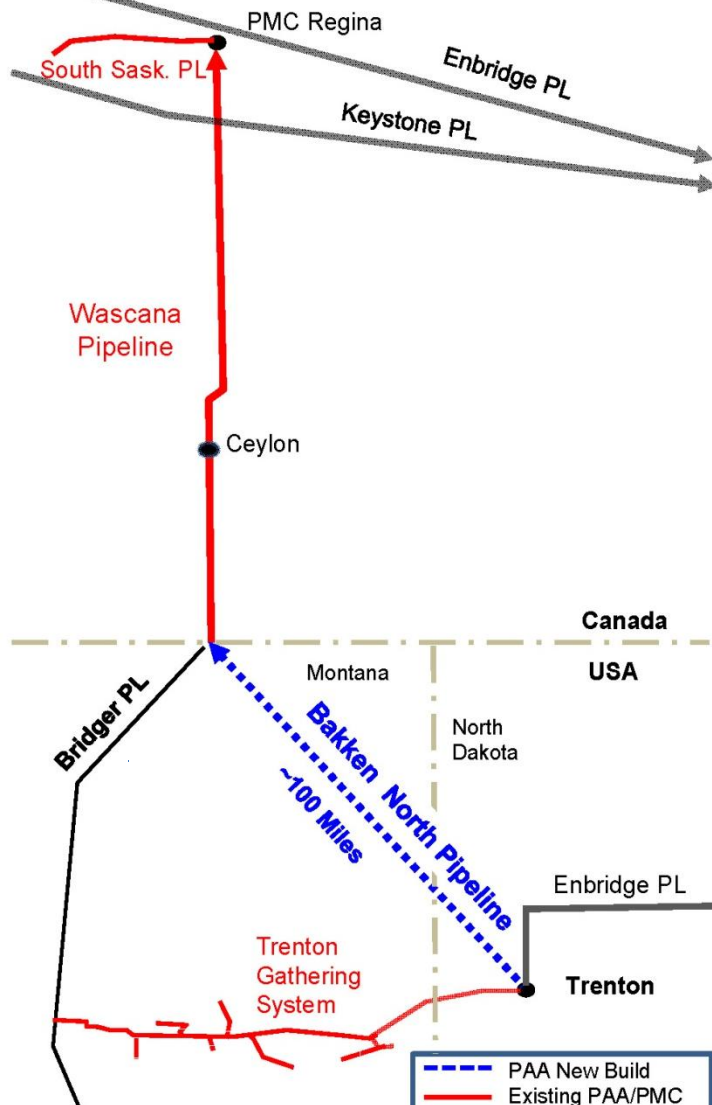
Size:
304 Miles, 10"-16"

Open Season Started:
September 27th

True Co.'s Proposed "Baker 300"



Plains Bakken North Pipeline

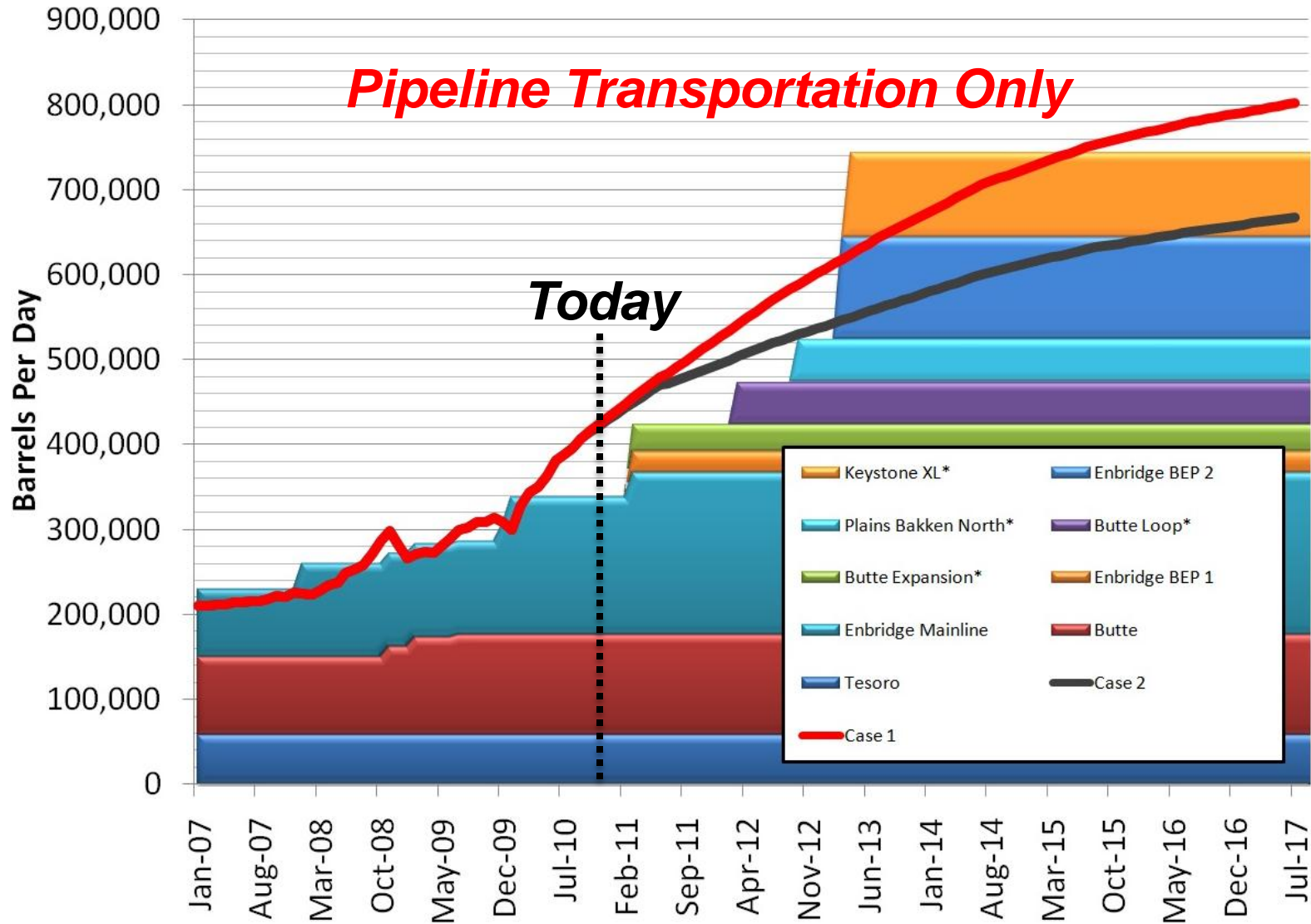


Proposed Capacity
50,000-75,000 BOPD
Q4 2012

New 103 Miles, 12" Pipeline
Reverse Wascana Pipeline

\$160-\$200 Million

Williston Basin Oil Production & Export Capacity, BOPD

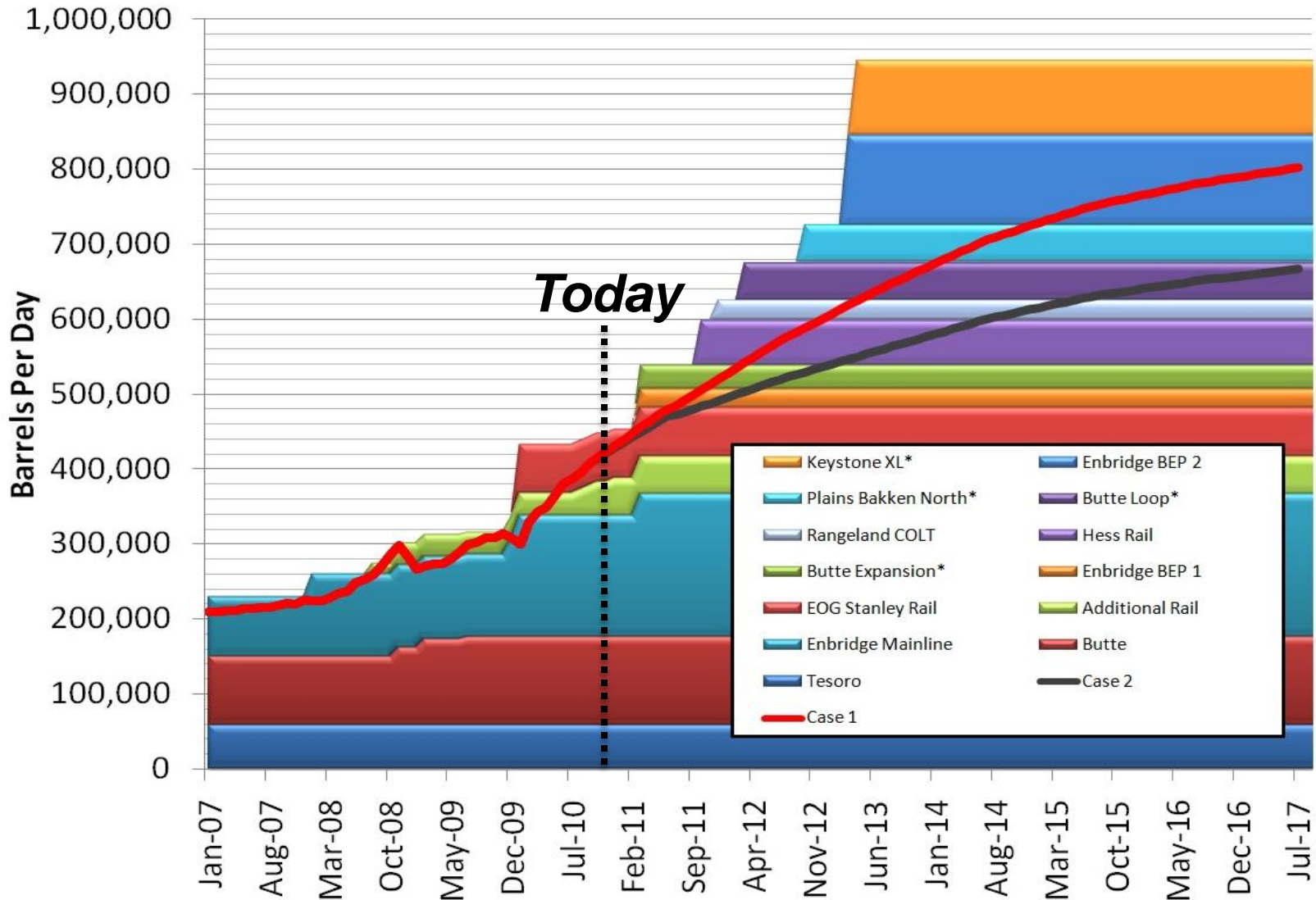


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

*Projects still in the proposed or internal review process



Williston Basin Oil Production & Export Capacity, BOPD

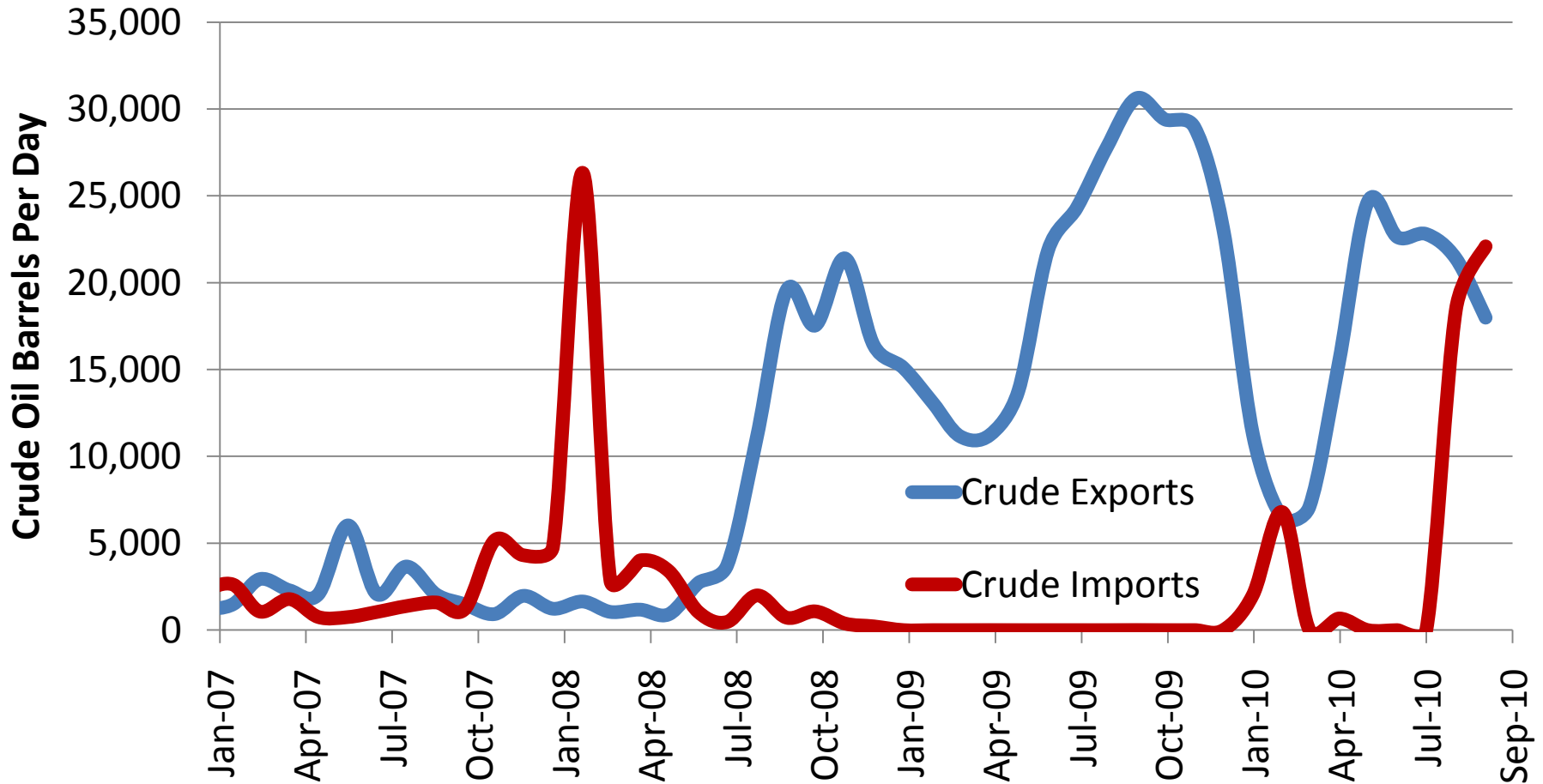


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

*Projects still in the proposed or internal review process

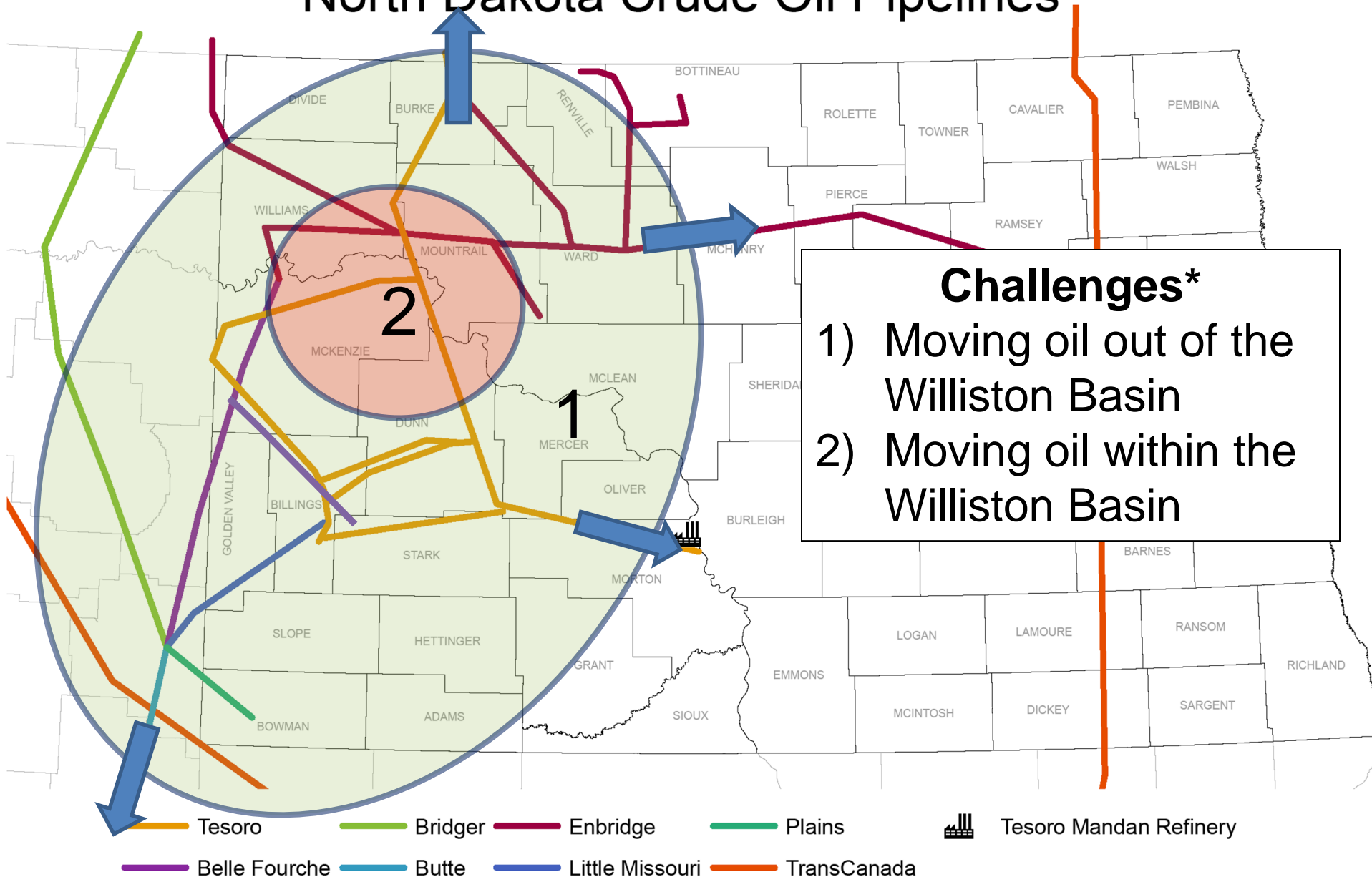


North Dakota Truck Imports/Exports



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

North Dakota Crude Oil Pipelines



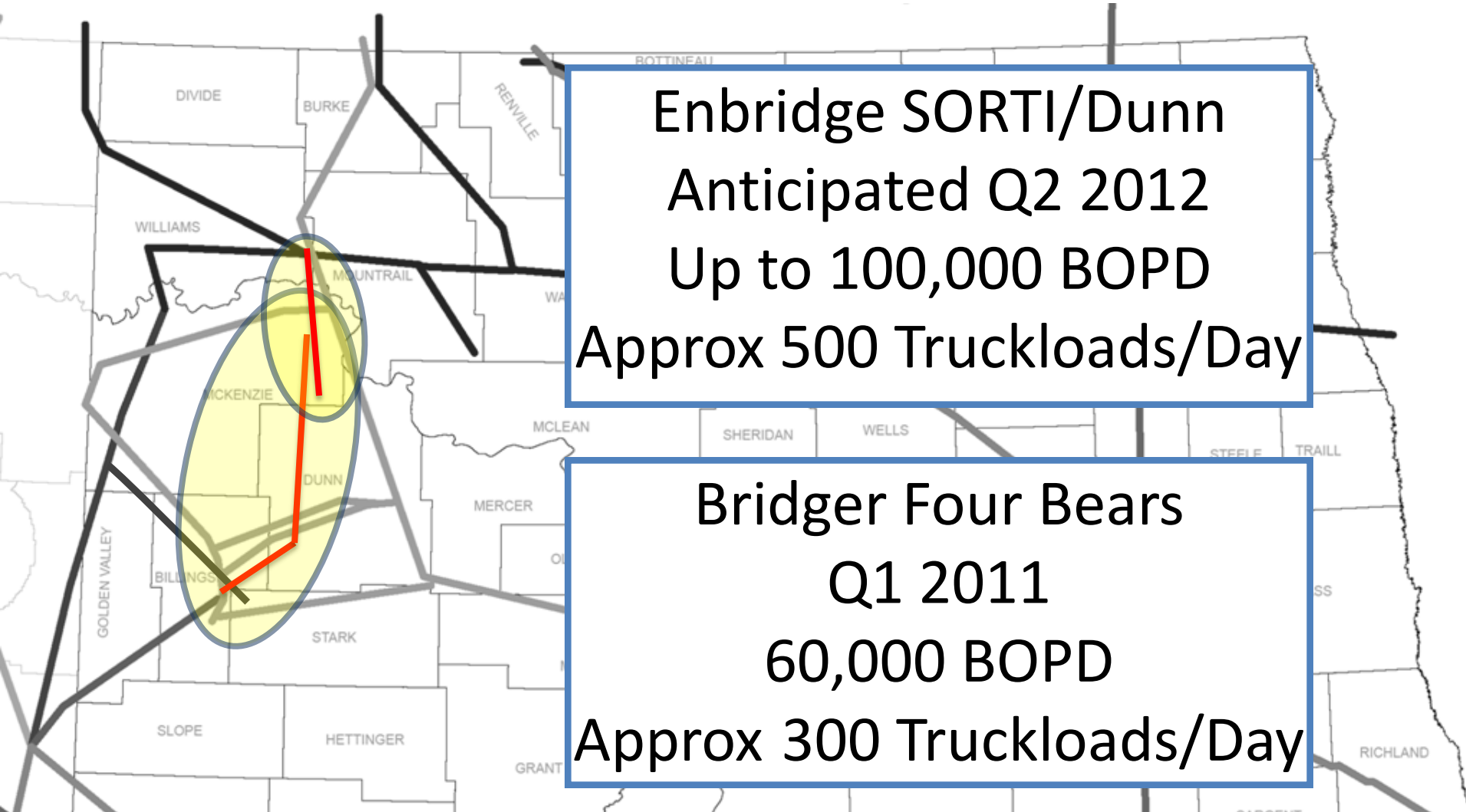
Challenges*

- 1) Moving oil out of the Williston Basin
- 2) Moving oil within the Williston Basin

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

*Modified from Bridger and Belle Fourche Pipelines

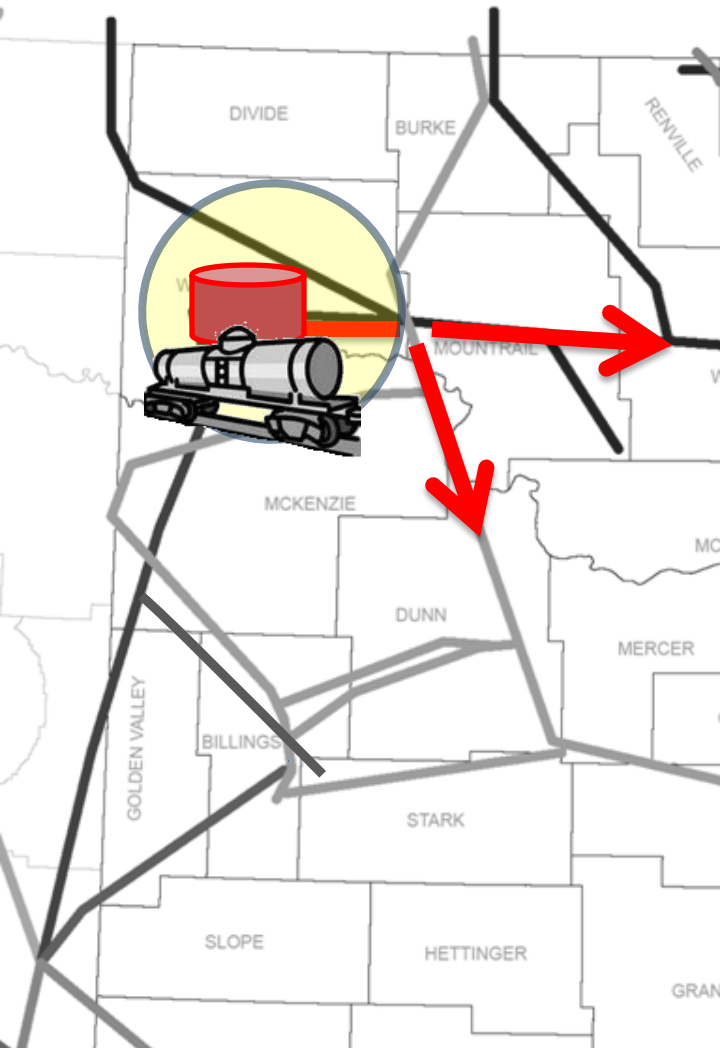
Reducing Truck Traffic



Enbridge SORTI/Dunn
Anticipated Q2 2012
Up to 100,000 BOPD
Approx 500 Truckloads/Day

Bridger Four Bears
Q1 2011
60,000 BOPD
Approx 300 Truckloads/Day

Rangeland COLT Hub and Pipeline



Gathering, Storage, &
Transportation

Tie into Enbridge & Tesoro
(20 Mile - 8" - 40,000 BOPD)

Anticipated Dec 2011

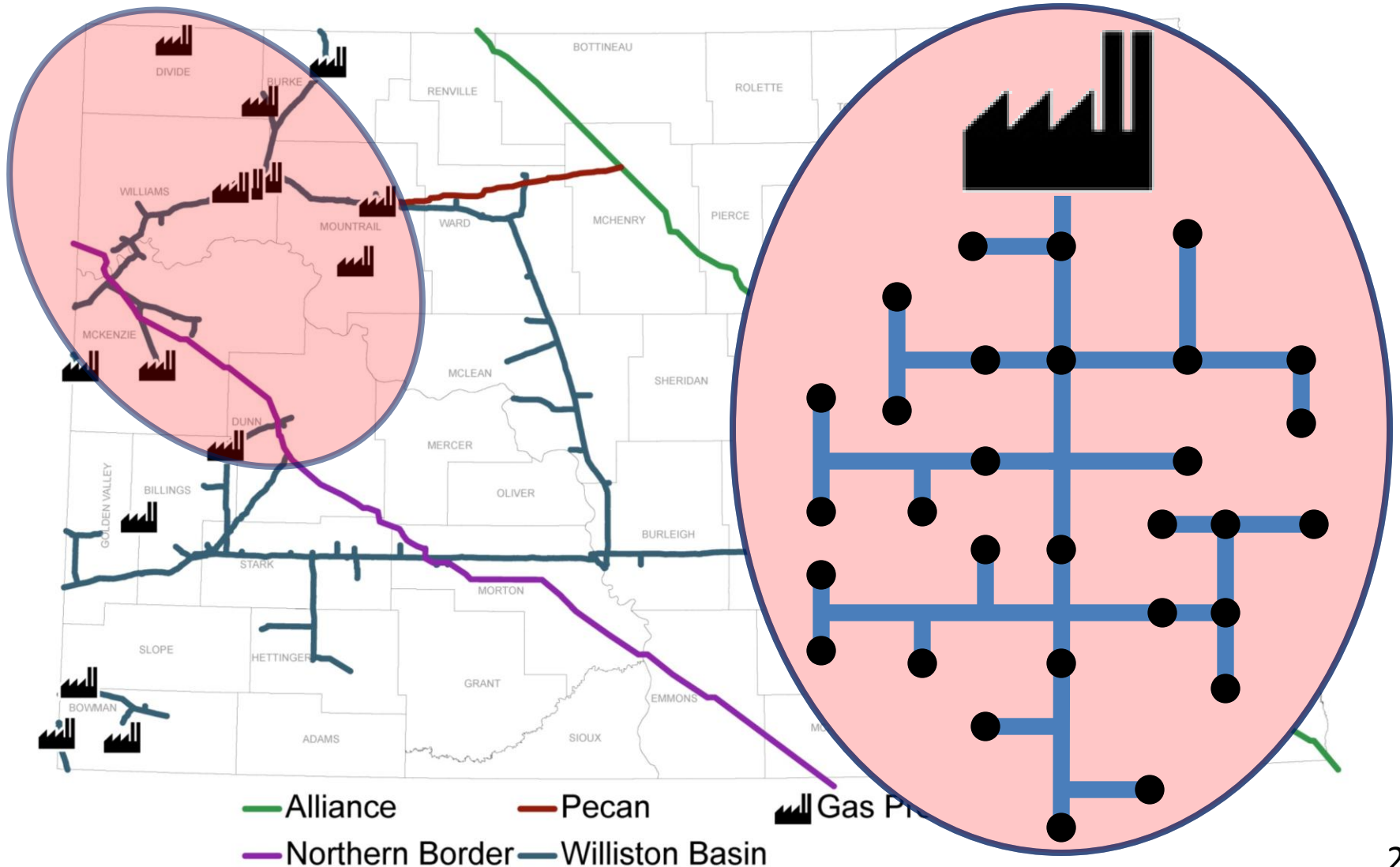
210,000 Barrels of Tankage

Rail up to 27,000 BOPD initially
(Expandable up to 60,000)

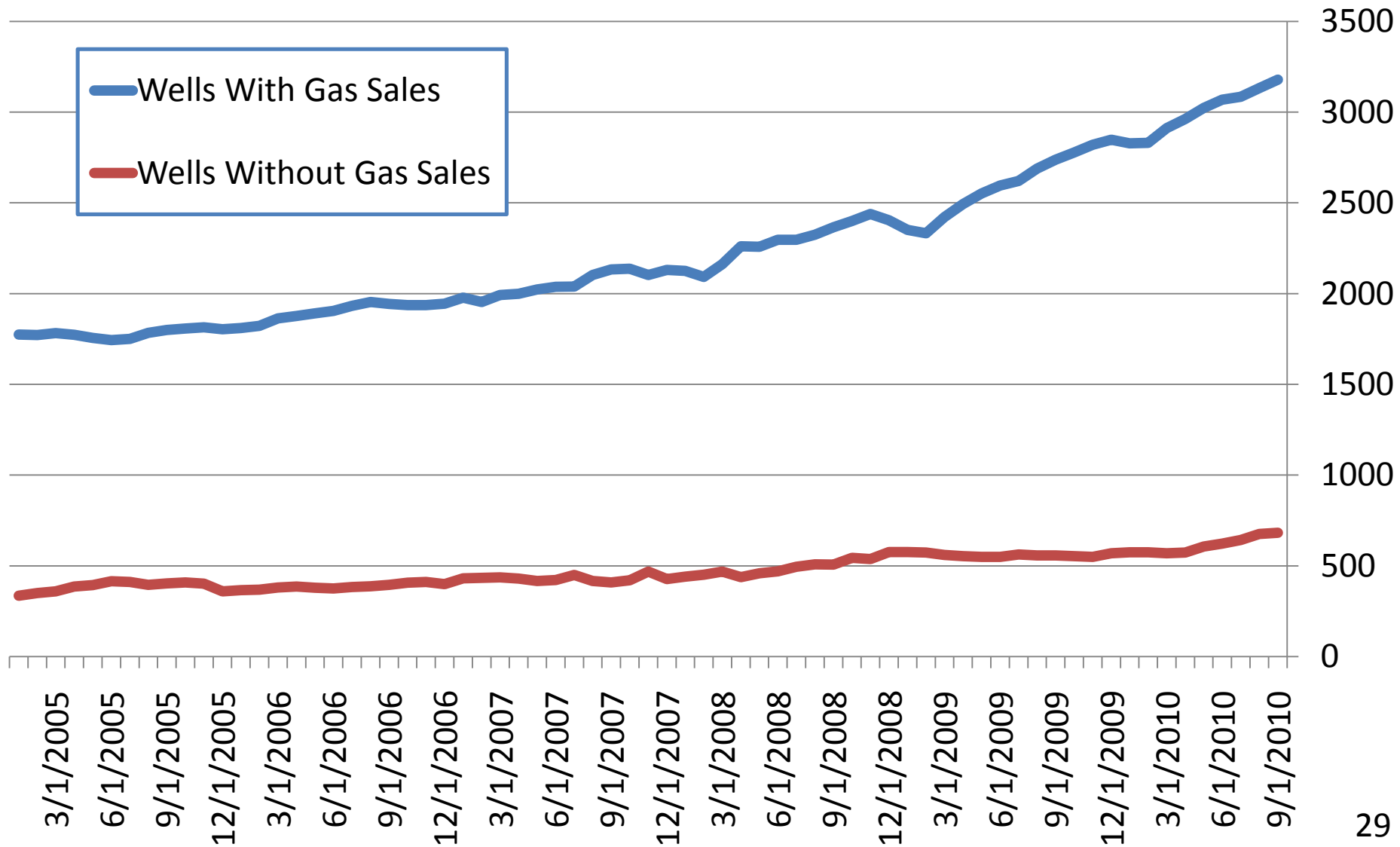
Natural Gas Projects

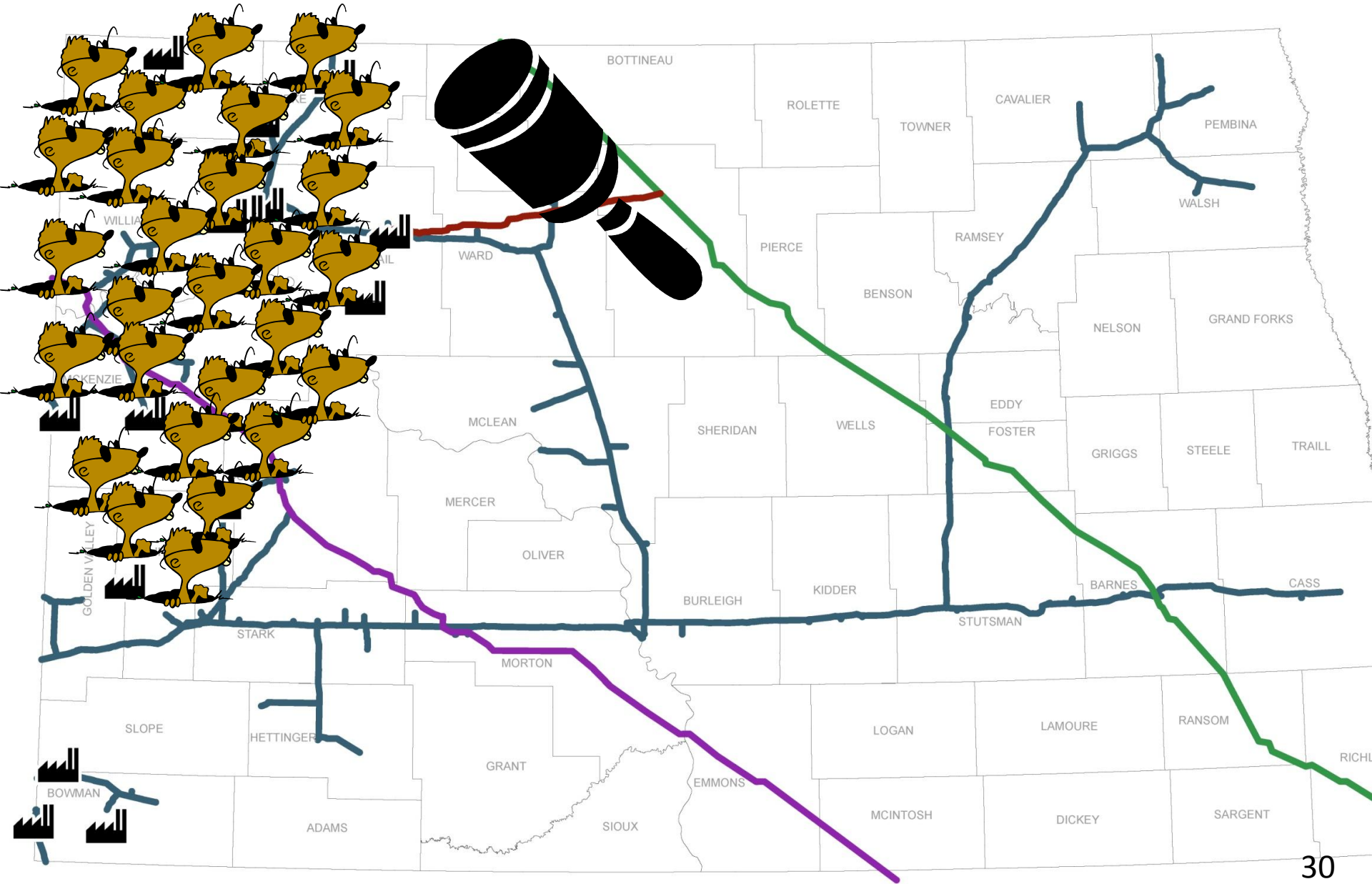


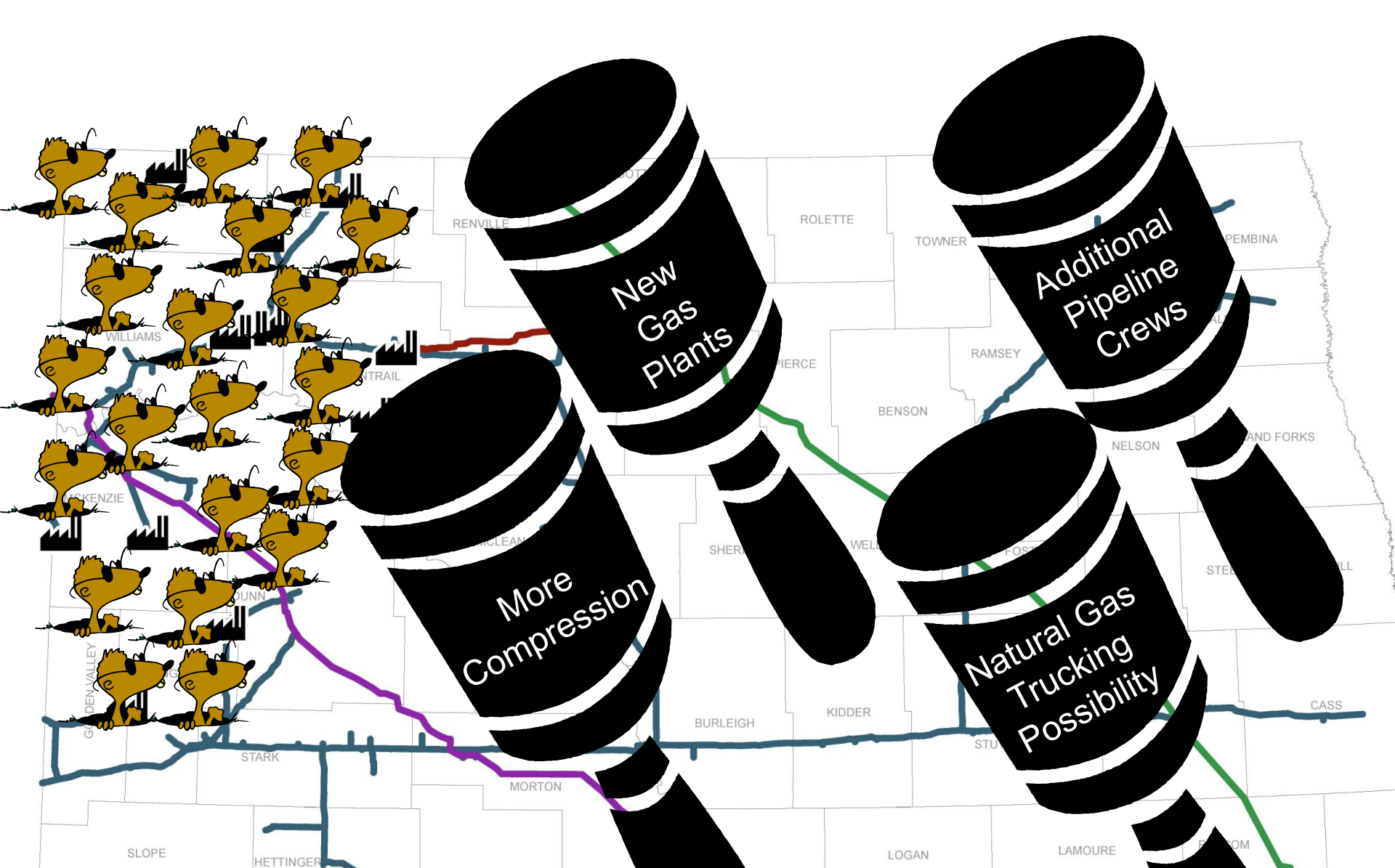
Natural Gas Challenges



ND Gas Gathering Statistics

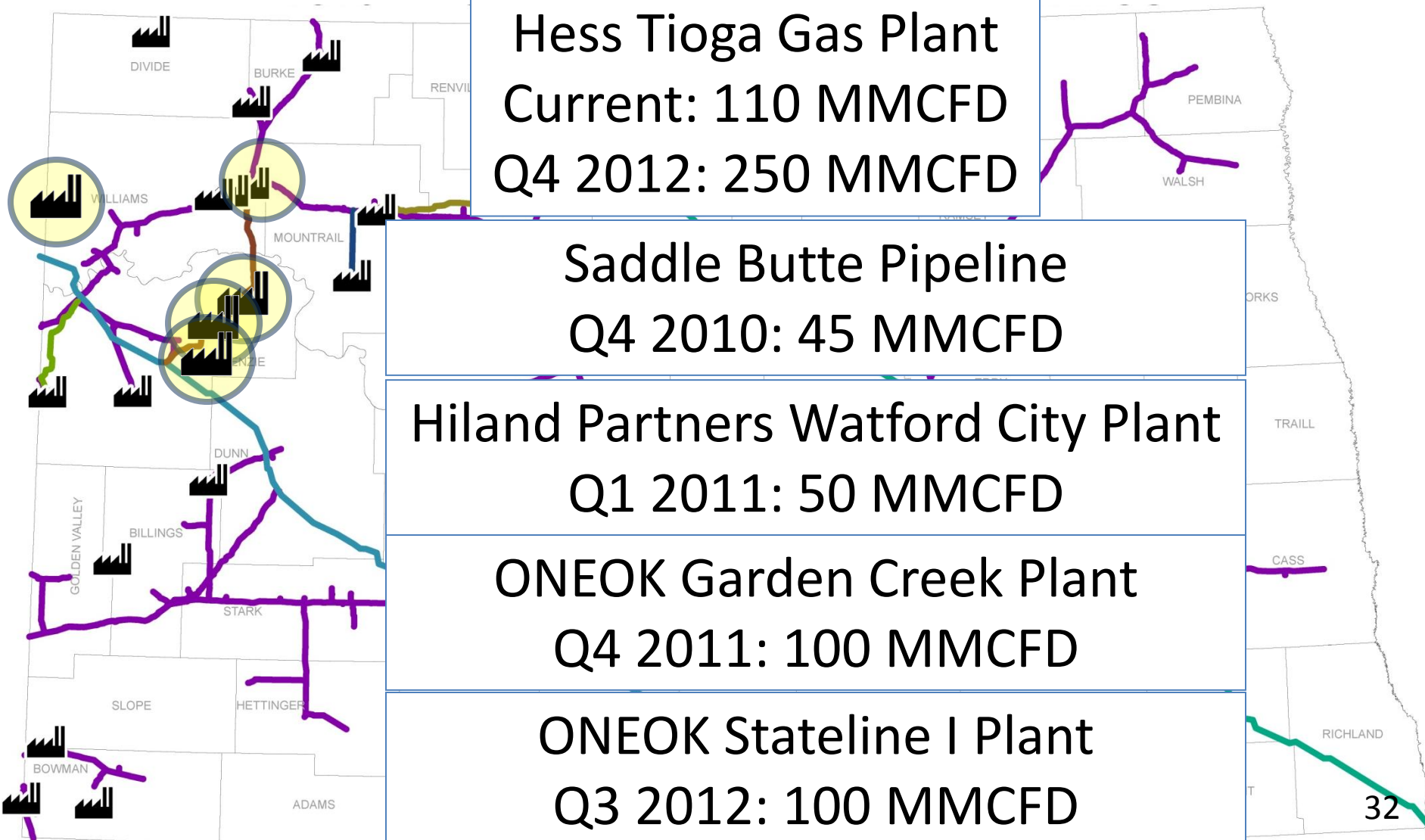






\$2.2 - \$2.5 BILLION In the Next 1-3 Yrs

New or Expanding Gas Plants



Hess Tioga Gas Plant
Current: 110 MMCFD
Q4 2012: 250 MMCFD

Saddle Butte Pipeline
Q4 2010: 45 MMCFD

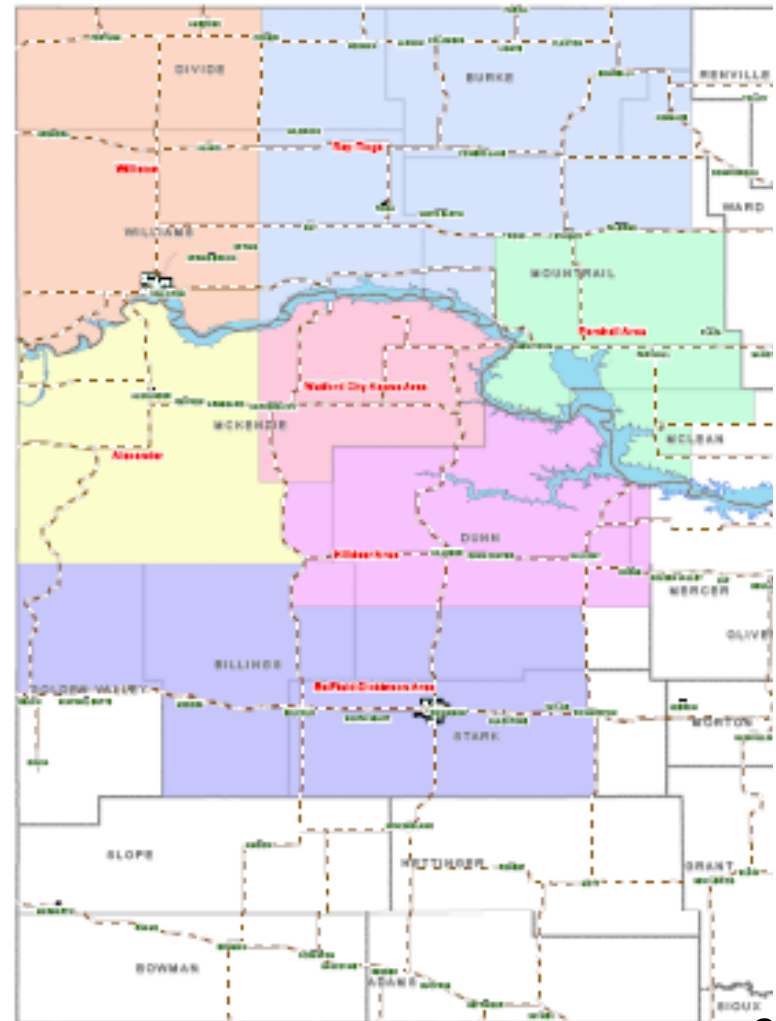
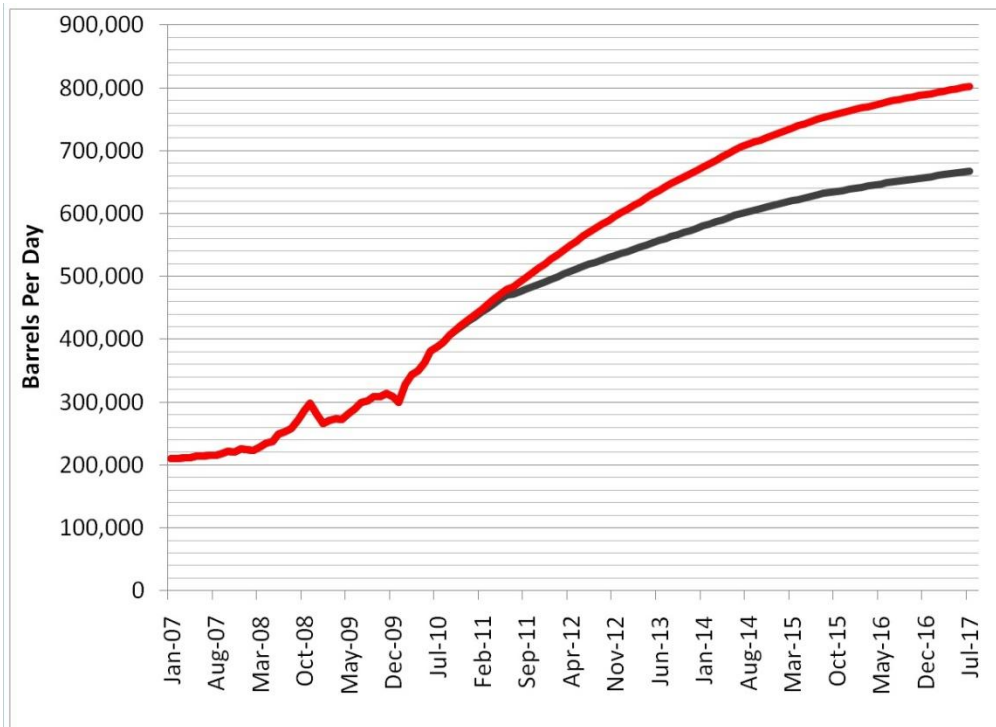
Hiland Partners Watford City Plant
Q1 2011: 50 MMCFD

ONEOK Garden Creek Plant
Q4 2011: 100 MMCFD

ONEOK Stateline I Plant
Q3 2012: 100 MMCFD

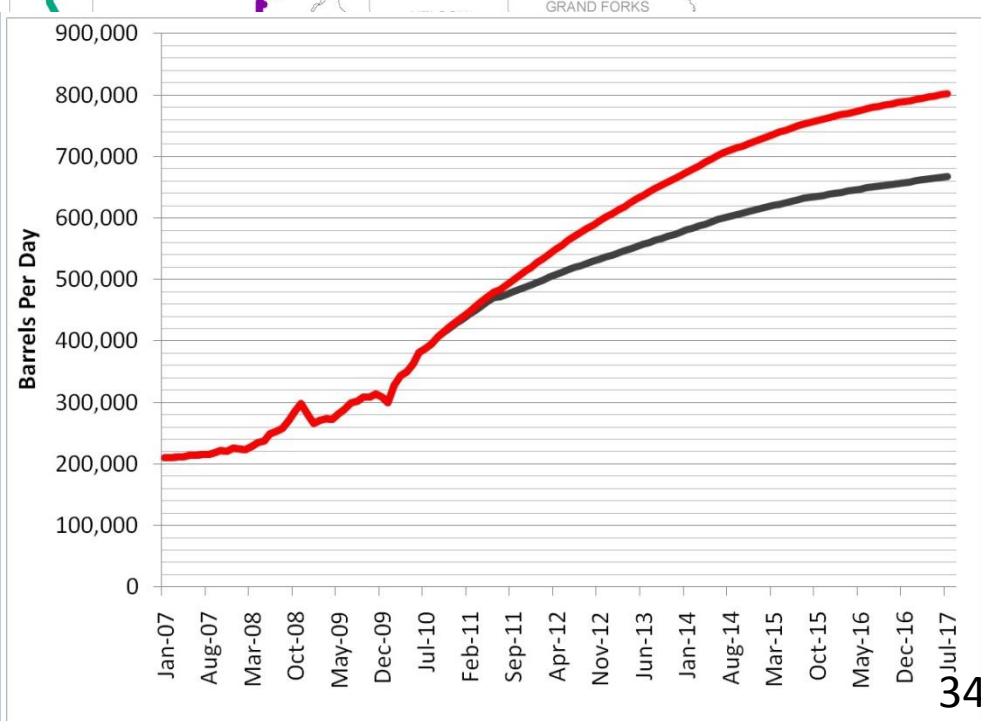
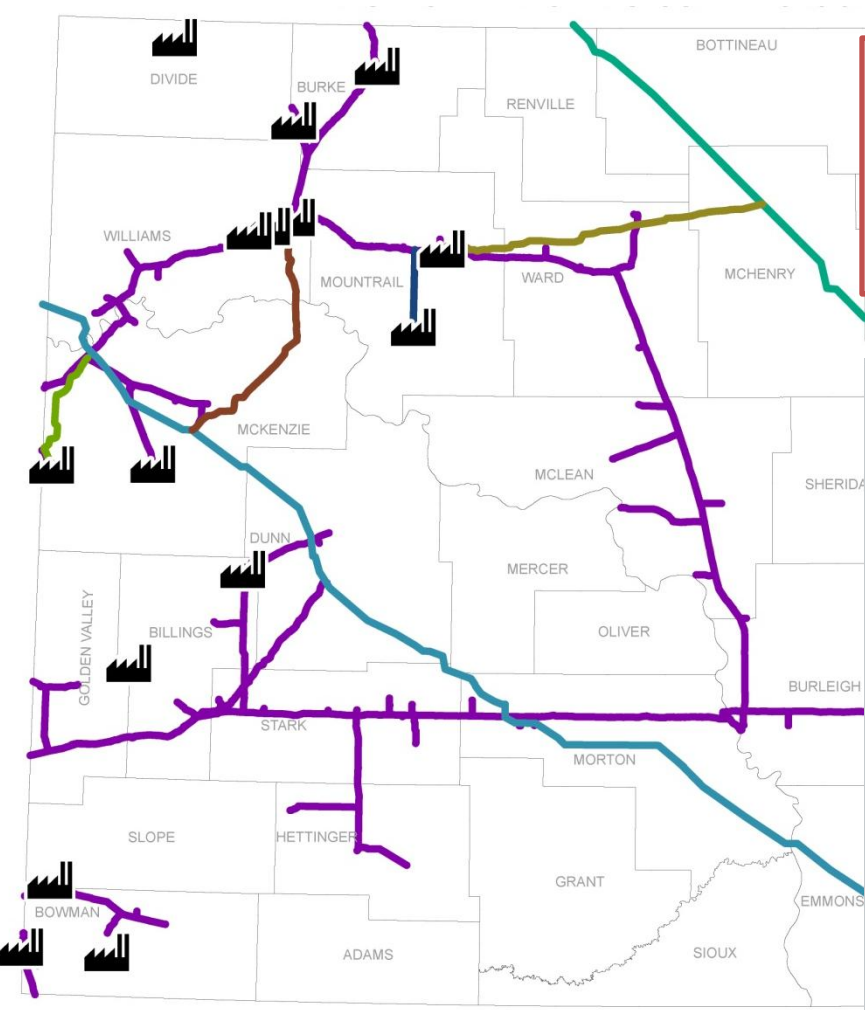
What's Next for the NDPA...

Enhanced Regional Forecasting



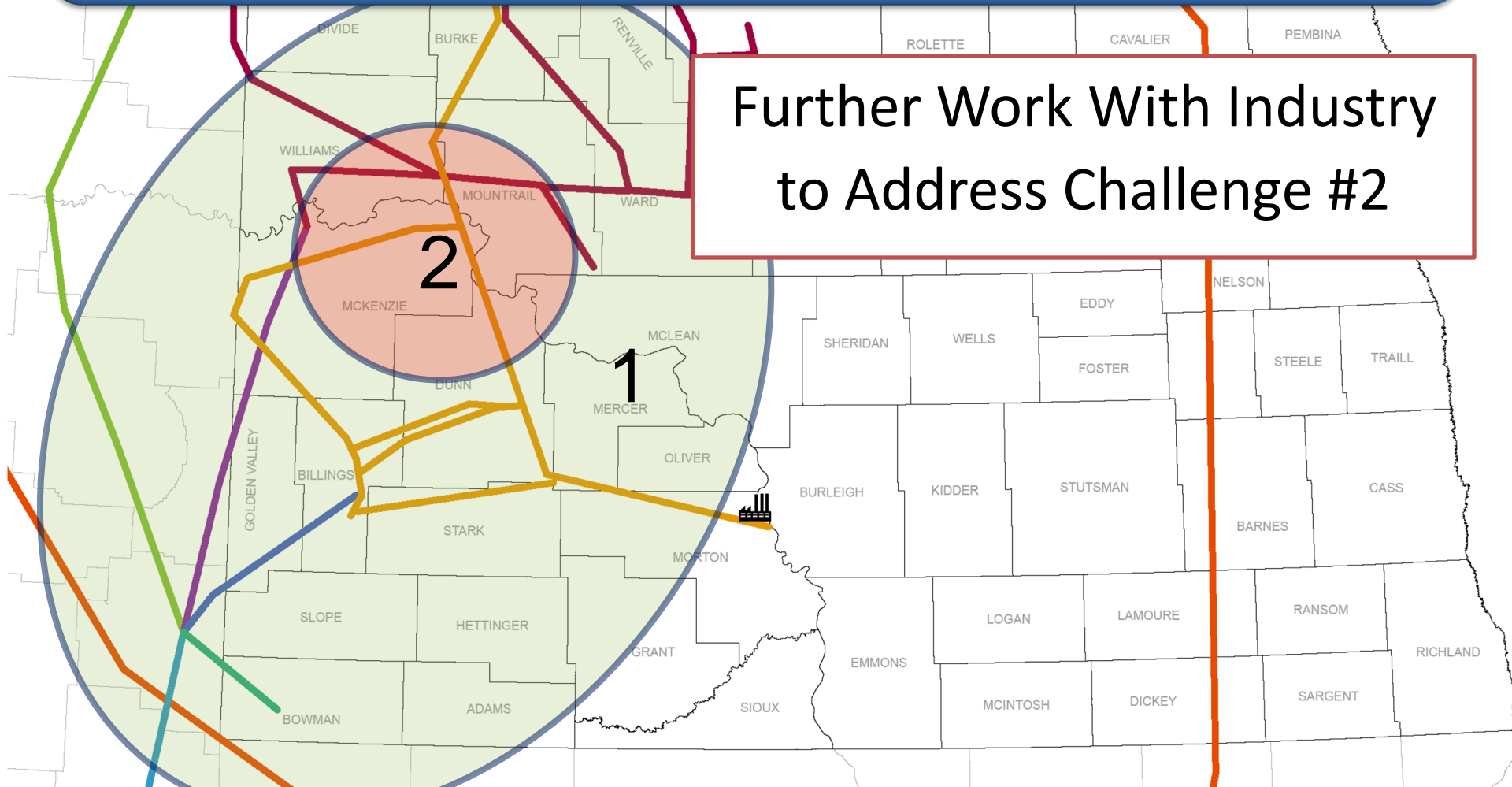
What's Next for the NDPA...

Reassess Natural Gas Transmission Infrastructure



What's Next for the NDPA...

Further Work With Industry to Address Challenge #2

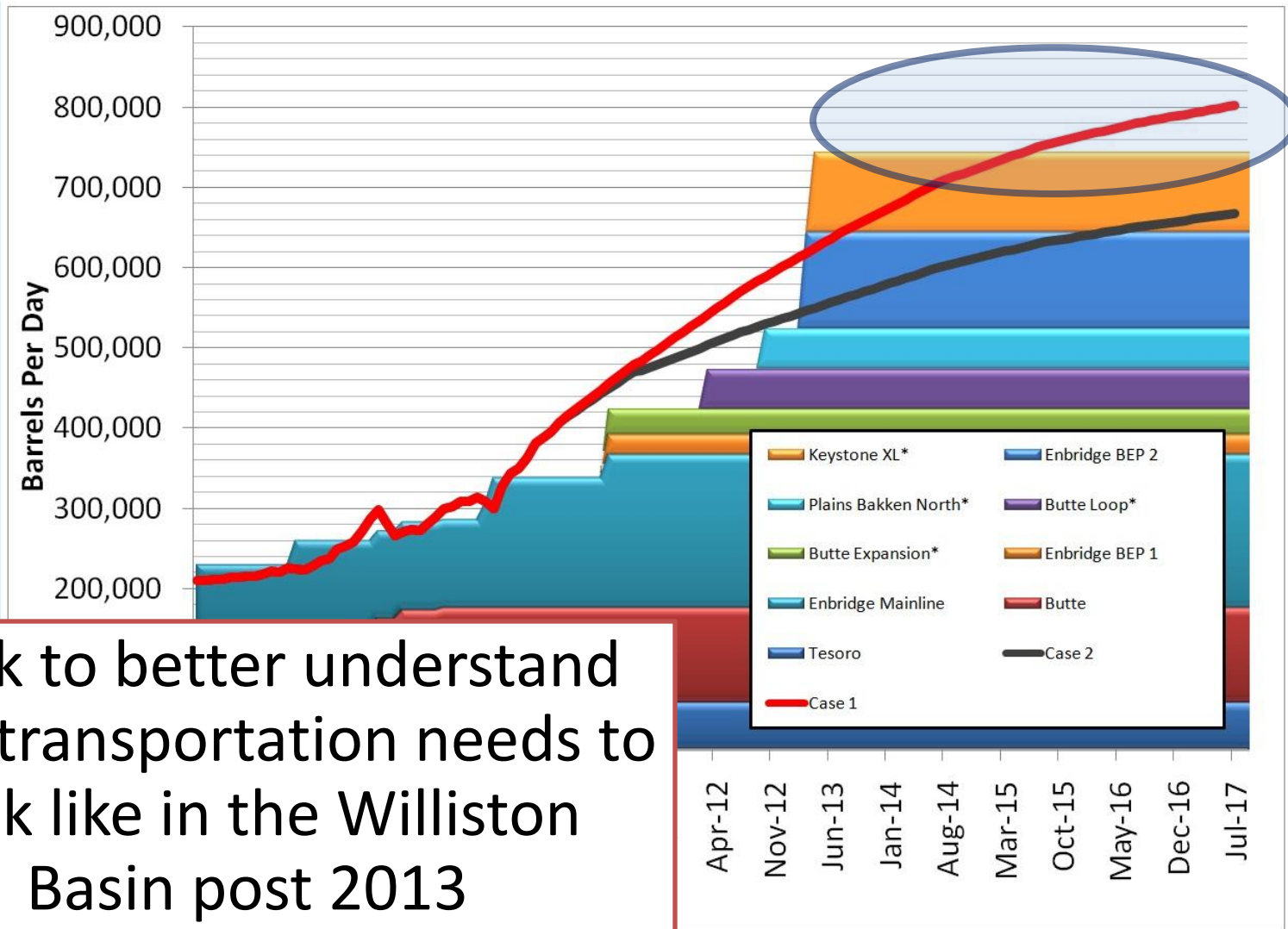


- Tesoro
- Bridger
- Enbridge
- Plains
- Belle Fourche
- Butte
- Little Missouri
- TransCanada



Tesoro Mandan Refinery

What's Next for the NDPA...



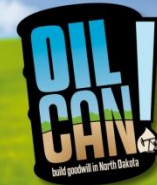
Work to better understand what transportation needs to look like in the Williston Basin post 2013

Public Presence



2nd Annual Bakken Rocks

COOKFEST

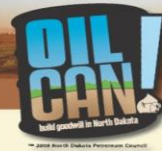


JULY 27 Tioga, ND
5:00 - 8:00 p.m. CDT City Park

JULY 29 New Town, ND
5:00 - 8:00 p.m. CDT 4 Bears Casino
Little Shell Amphitheater

Bakken Basics Education Sessions will be held at both locations at WWW.NDOIL.ORG.

rikara Banquet Rooms
e RSVP by visiting
WWW.NDOIL.ORG



BAKKEN BASICS TOWN HALL MEETINGS

Learn about the oil and gas production activities taking place in your area from industry professionals.
Light food and beverages provided

Vicky Steiner, ND Association of Oil & Gas Producing Counties
Ron Ness, ND Petroleum Council
Kathy Neset, Neset Consulting
Steve Pine, Great Northern Energy
Justin Kringstad, ND Pipeline Authority
Lynn Helms, ND Department of Mineral Resources



TUESDAY, OCTOBER 5

Westhope - High School
8:00 - 9:45 a.m. CDT

Bowbells - City Hall
12:15 - 2:00 p.m. CDT

Crosby - Movie Theater
5:30 - 7:15 p.m. CDT

WEDNESDAY, OCTOBER 6

Williston - International Inn
7:30 - 9:15 a.m. CDT

Watford City - High School
11:30 - 1:15 p.m. CDT

Dickinson - Grand Dakota Lodge
3:30 - 5:15 p.m. MDT

VISIT [NDOIL.ORG](http://WWW.NDOIL.ORG) FOR MORE INFORMATION

NDPA Monthly Webinars

- Past Slides and Video Available Online

- Industry Experts



- New Topics Each Month

- Audience Interaction



INDUSTRIAL COMMISSION OF NORTH DAKOTA
 NORTH DAKOTA PIPELINE AUTHORITY
 Governor **John Hoeven**
 Attorney General **Wayne Stenehjem**
 Agriculture Commissioner **Doug Goehring**
 Director **Justin J. Kringstad**

The Pipeline Publication

Keeping North Dakota Connected

Volume II Issue IV - December 2009

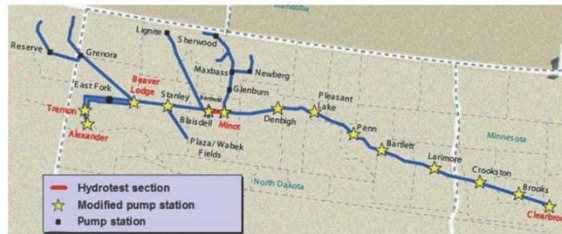
Greetings

Season's Greetings from the North Dakota Pipeline Authority! While the temperature in North Dakota is dropping fast, the activity in North Dakota's oilfields is heating up. With more rigs moving into the basin, improved well completion techniques, and quicker spud to spud times, North Dakota petroleum production is expected to grow for many years to come. Along with the growing crude oil production, several exciting transportation expansion projects are very near completion, with many more in the works. For additional project information, past newsletters, maps, reports, and more please visit the Pipeline Authority website, www.pipeline.nd.gov.

Enbridge Phase VI Expansion Update

The much anticipated Enbridge Phase VI Expansion is nearly complete. Scheduled to be in service on January 1, 2010, the expansion will increase Enbridge's mainline capacity to Clearbrook, MN from 110,000 barrels per day (BOPD) to 161,600 BOPD. Once complete, Enbridge North Dakota will have more than doubled its 2007 system capacity of 80,000 BOPD.

More good news is that Enbridge has no intentions of stopping at 161,600 BOPD and is actively working to gain support from interested shippers for the proposed Portal Reversal Expansion Project or PREP. As proposed, PREP would allow Enbridge to transport an additional 30,000 BOPD by 2011 and up to an additional 115,000 BOPD by 2013.



Details of Enbridge's Phase VI Expansion.
 Source: Enbridge Pipelines LLC - www.enbridge-expansion.com

North Dakota Statistics

	Aug-09	Sept-09	Oct-09
Average Daily Oil Production, BOPD	232,355	238,265	239,067
Average Daily Gas Production, MMCFD	266.66	259.76	253.04
Wells Producing	4,545	4,579	4,606
Average Rig Count	45	51	56

As of December 16, 2009, there are 77 active rigs in North Dakota.

www.pipeline.nd.gov

Prairie Rose Pipeline Nears Completion

An unexpected construction specification change has delayed the startup of the Pecan Prairie Rose Pipeline until Mid-January, 2010. The new 75 mile, 12 inch pipeline is designed to transport up to 80 million cubic feet of unprocessed natural gas per day from Mountrail County to an interconnect with the Alliance Pipeline near Towner, ND.

Proposed Baker Storage Enhancement

Williston Basin Interstate Pipeline Company is developing a project to increase firm deliverability from its Baker gas storage field in eastern Montana. With current firm storage withdrawal rates of 115 million cubic feet per day (MMCFD), Williston Basin sees an opportunity to add an additional 125 MMCFD of firm withdrawal capacity, which would more than double the firm withdrawal rate from Baker. Along with the gas storage field upgrades, Williston Basin is planning a pipeline expansion to transport the increased, firm storage volumes to an interconnect with the Northern Border Pipeline in North Dakota. The project has a proposed in-service date of 2012 and an open season is expected in January 2010.



Source: Williston Basin Interstate Pipeline Co.

Natural Gas Storage Explained

During the mid 1900's, natural gas grew in popularity as a winter heating fuel. As a result, natural gas markets began experiencing seasonal demand swings that needed to be managed using underground storage operations. Depleted natural gas fields are most often targeted for storage due to existing infrastructure and reservoir knowledge. During the summer months when demand is low, natural gas is injected into storage and when demand increases in the winter months, natural gas is withdrawn for consumer use.



ND Pipeline Authority

State Capitol 14th Floor • 600 E. Boulevard Ave. Dept. 405 • Bismarck, ND 58505-0840
 Phone: (701) 220-6227 • Fax: (701) 328-2820
 E-mail: jjkringstad@gmail.com • www.pipeline.nd.gov

North Dakota Pipeline Authority
 State Capitol, 14th Floor
 600 E. Boulevard Ave. Dept. 405
 Bismarck, ND 58505-0840



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- Oil & Gas GIS
- DOT Pipeline Mapping System
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- Related Links
- Contact Us



Know what's below.
Call before you dig.

» ABOUT PIPELINES

"Pipelines are really the energy lifelines of almost every daily activity. Pipelines play a role in everyone's lives and are essential to the nation's industries. Yet few people are aware of the work done by the country's 200,000-mile petroleum pipeline network that delivers the products that are integral parts of America's economy. It is a network that delivers the nation's crude oil and petroleum products (such as gasoline, jet fuel, home heating oil) reliably, safely, efficiently, and economically." ~ Pipeline 101

To learn more about pipeline operations, safety, construction, and more, please visit:



Supply Line Video



• Video provided by AOPL » www.aopl.org

AOPL
Association of Oil Pipe Lines

Thank You!

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



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