



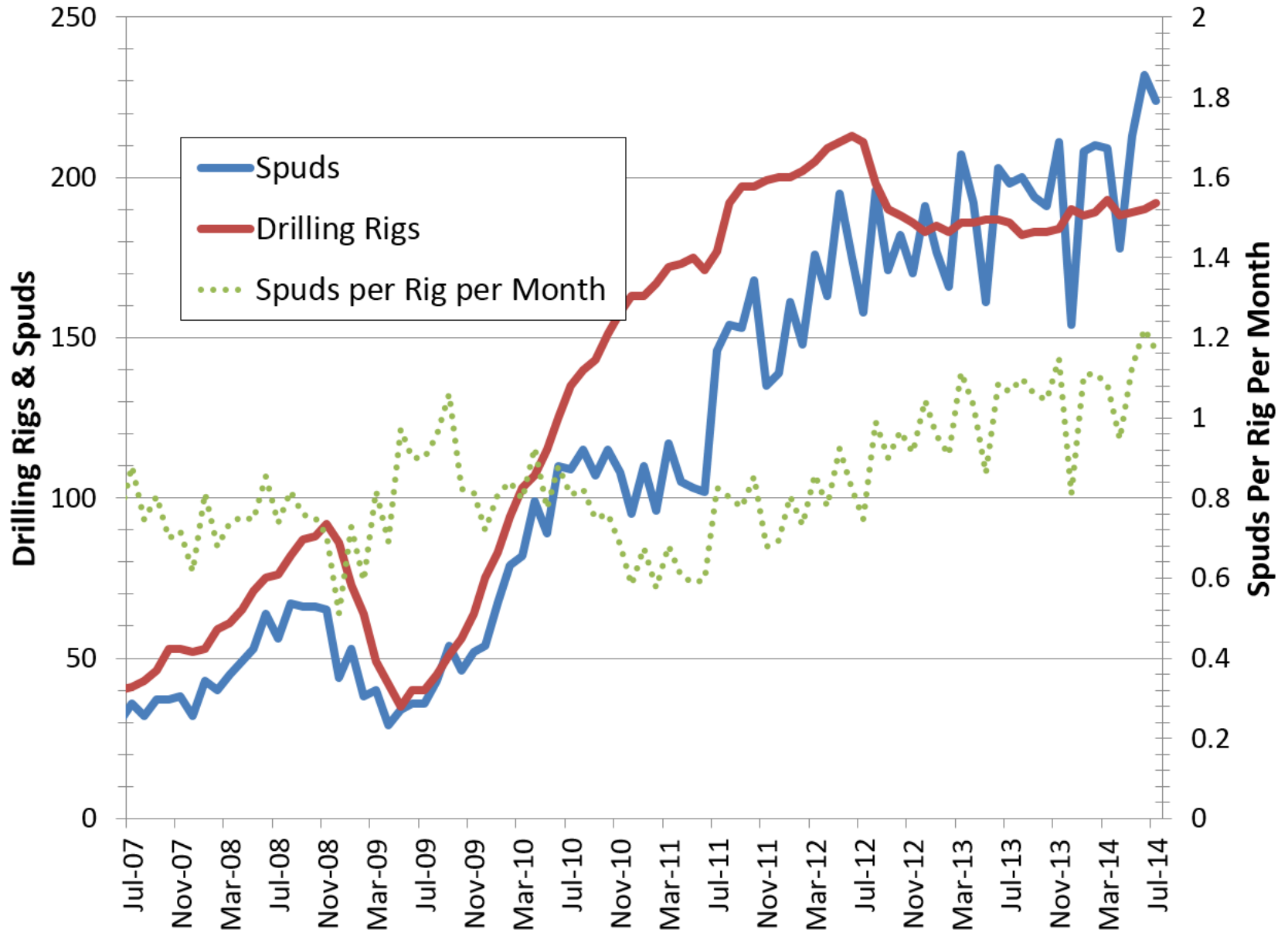
ND Oil and Gas Research Council Update

North Dakota Pipeline Authority

Justin J. Kringstad

September 15, 2014 - Bismarck, ND

ND Drilling Stats

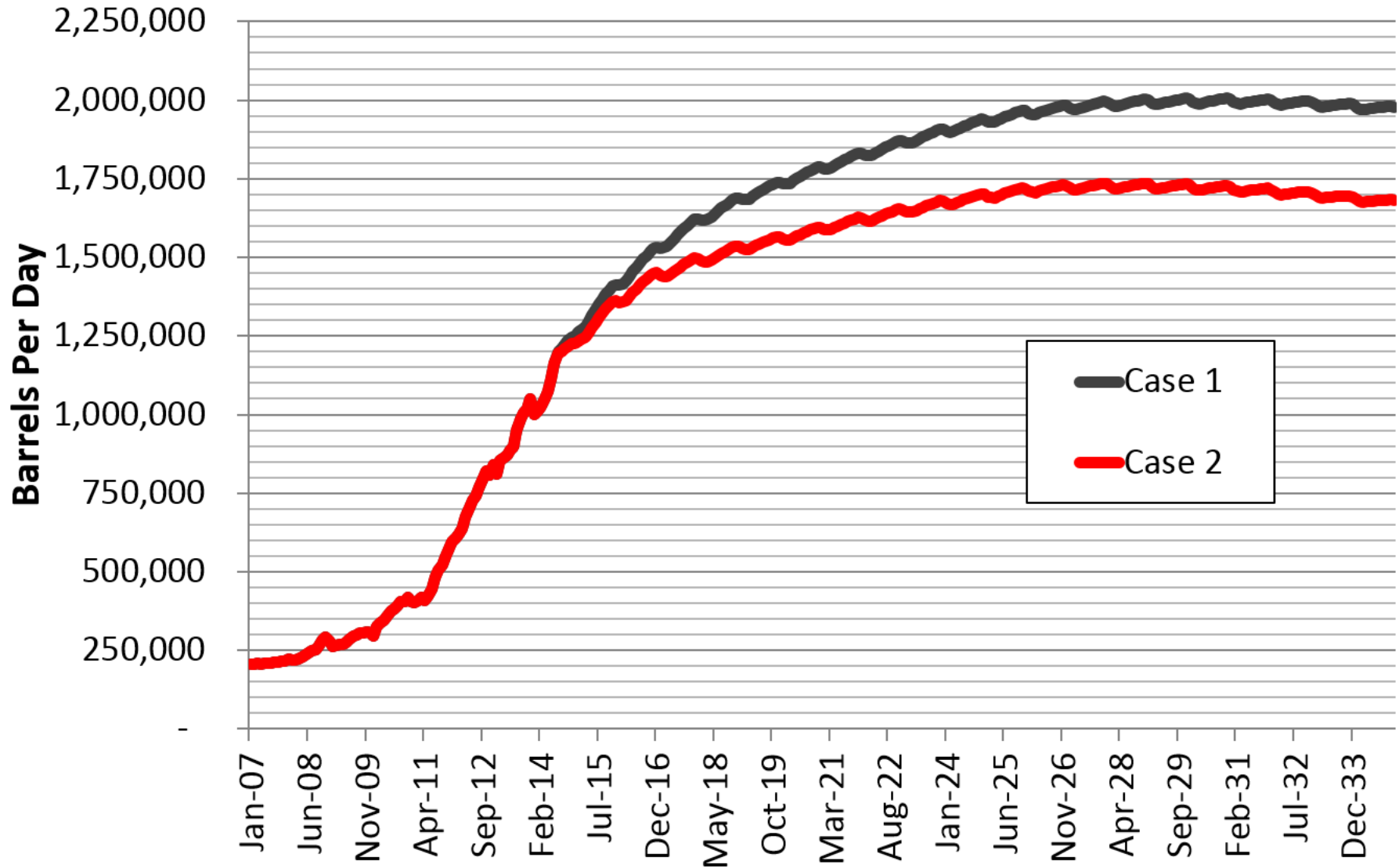


US Williston Basin Oil Production - 2014

MONTH	ND	Eastern MT*	SD	TOTAL
January	936,865	71,648	4,830	1,013,343
February	953,201	73,576	4,712	1,031,489
March	976,605	72,818	4,753	1,054,176
April	1,003,145	74,651	4,755	1,082,551
May	1,040,469	72,245	4,677	1,117,391
June	1,092,519	73,966	4,785	1,171,270
July	1,110,642			--
August				--
September				--
October				--
November				--
December				--



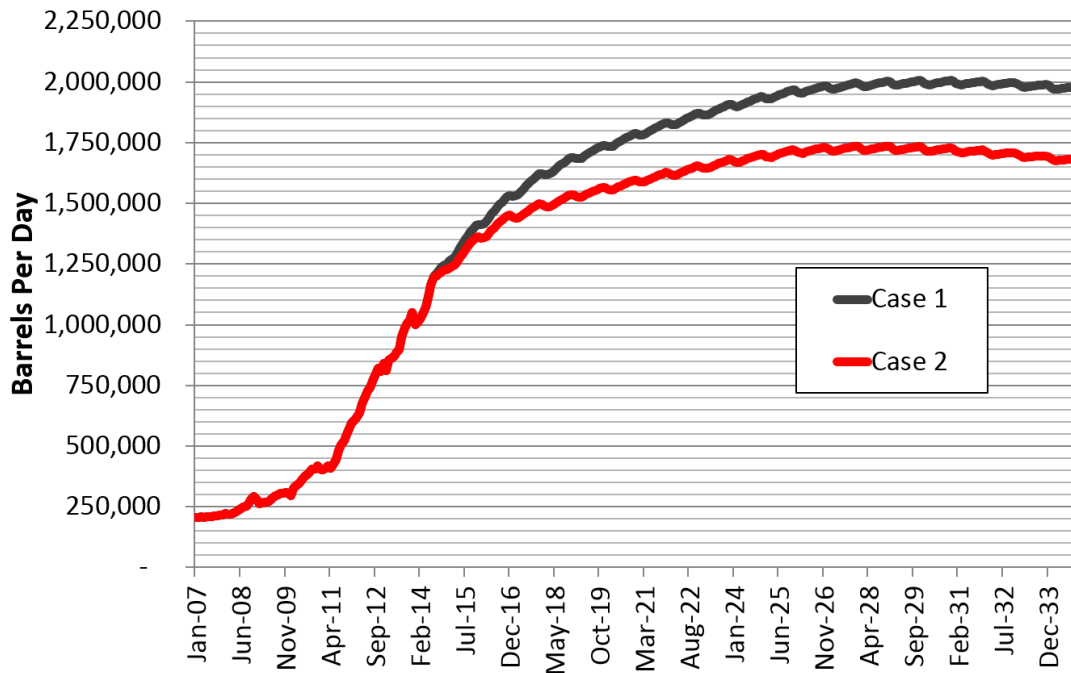
Forecasting Williston Basin Oil Production, BOPD



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



Forecasting Challenges



Current Model (Case 1)

- Approx. 46,000 New Wells Out to Dec 2034
- Average EUR Roughly 342,000 BBLS
- Average First Month Production of 349 BOPD

Ongoing Considerations

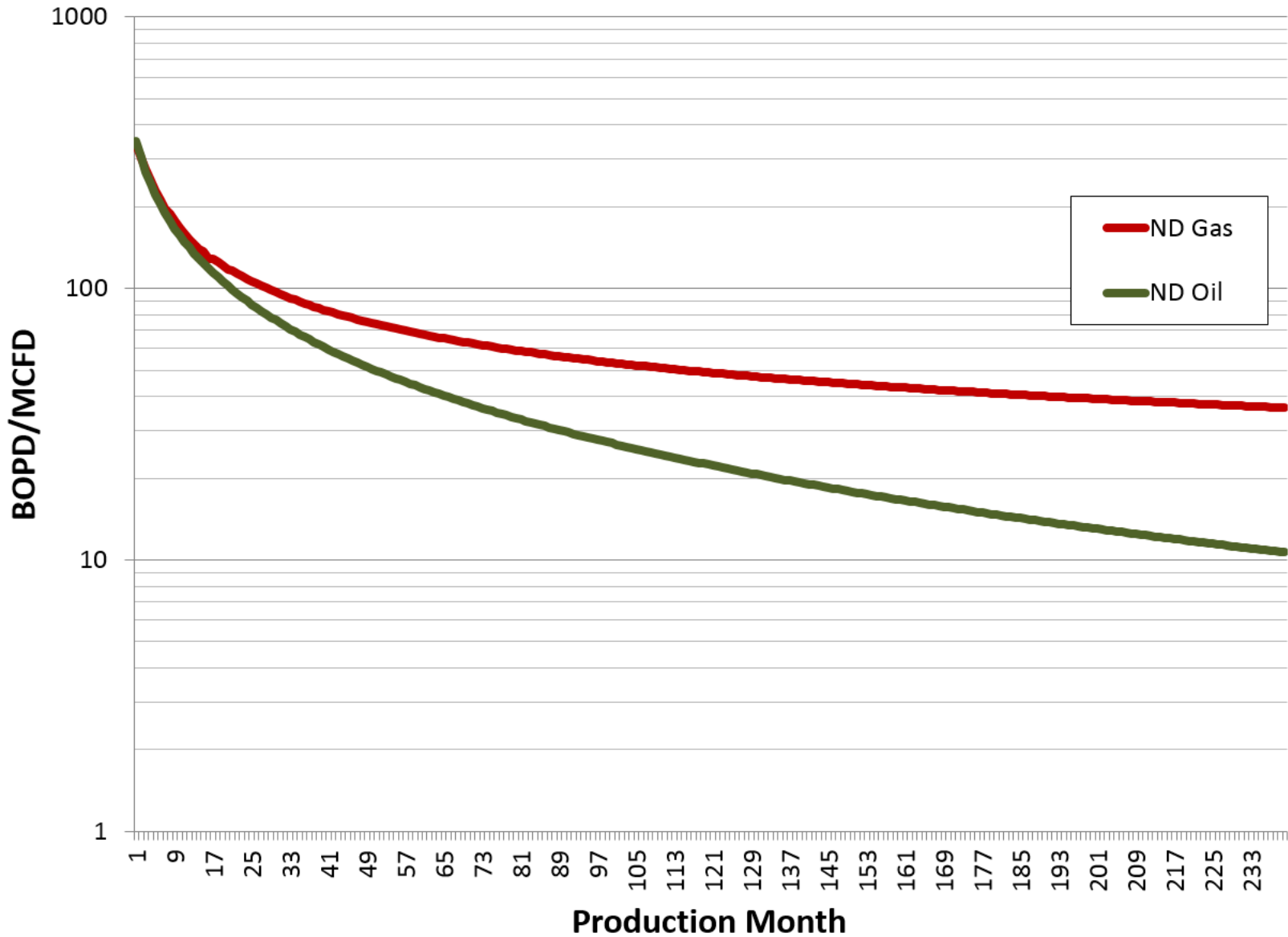
- Increased Density Drilling
- Drilling Efficiencies
- Improving Completion Techniques
- Productivity of the Lower Three Forks
- Eastern Montana Success
- Flaring production Restrictions

Long Term Considerations

- EOR Opportunities
- Pricing
- Competition
- Additional Williston Basin Plays



Average Decline Curve for a Bakken Well



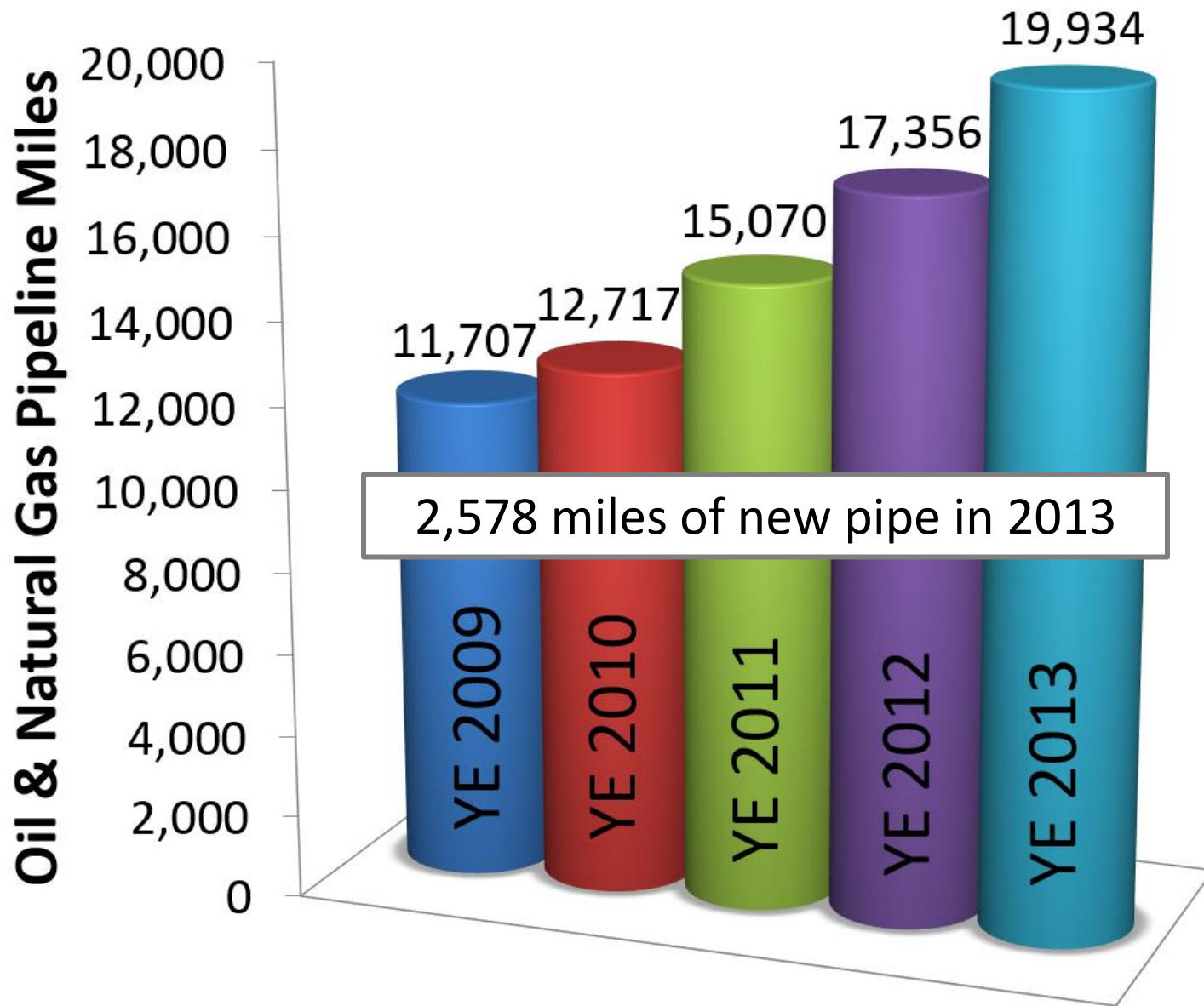
Industry Comments

- “I still think we will reach 2 million barrels a day,” said Harold Hamm, CEO of Continental Resources at the Williston Basin Petroleum Conference. “I don’t think that’s over the top, folks.”
- “We’ve got a resource life here that’s 50 to 60 years,” said Tommy Nusz of Oasis. “It’s not your father’s oil boom anymore. This is going to be part of life in North Dakota for a long time.”

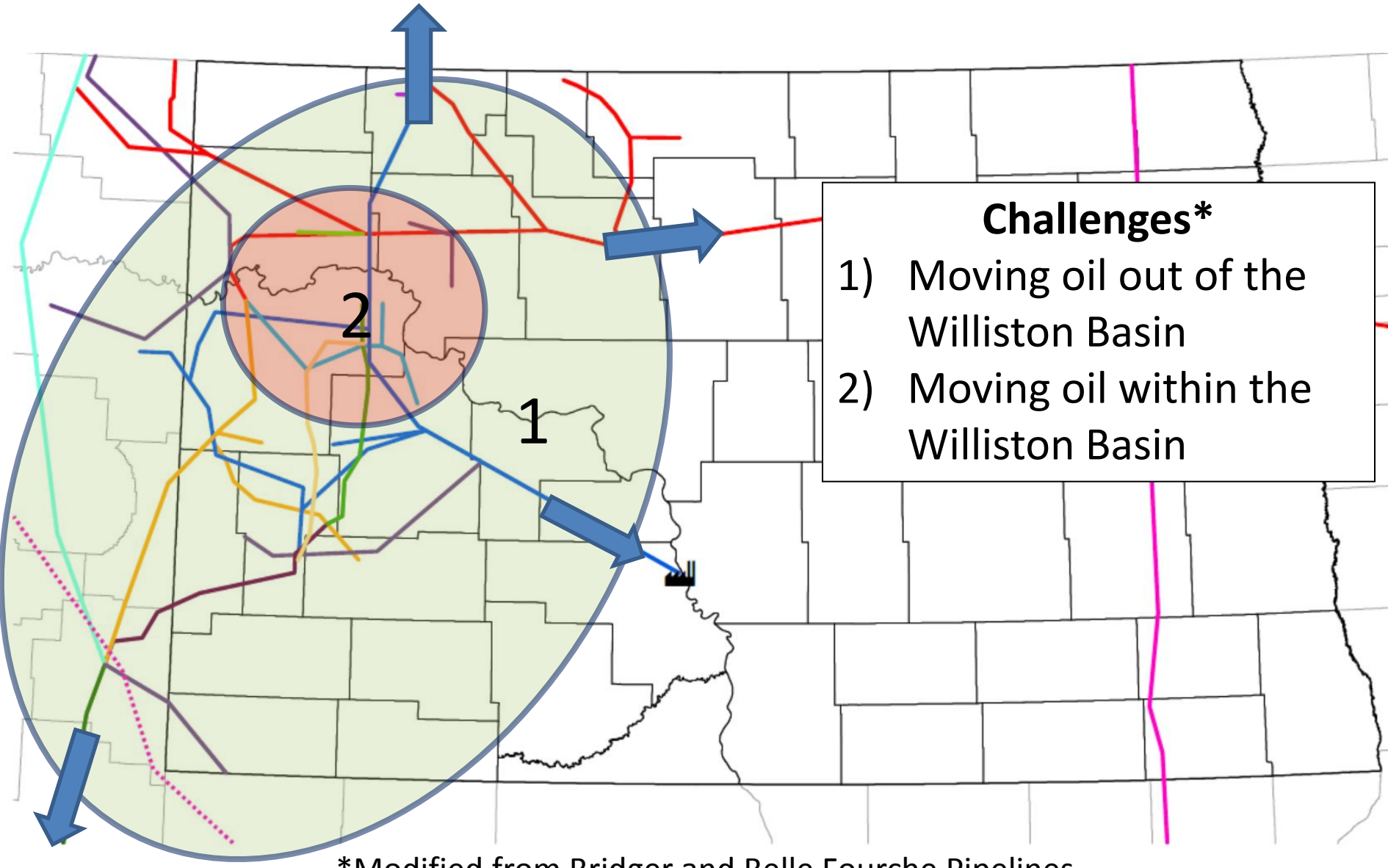
Source: Burnes, J. (2014, May 23).
Hamm: Bakken will double production
by 2020. *Williston Herald*. Retrieved
from www.willistonherald.com



North Dakota Pipeline Miles



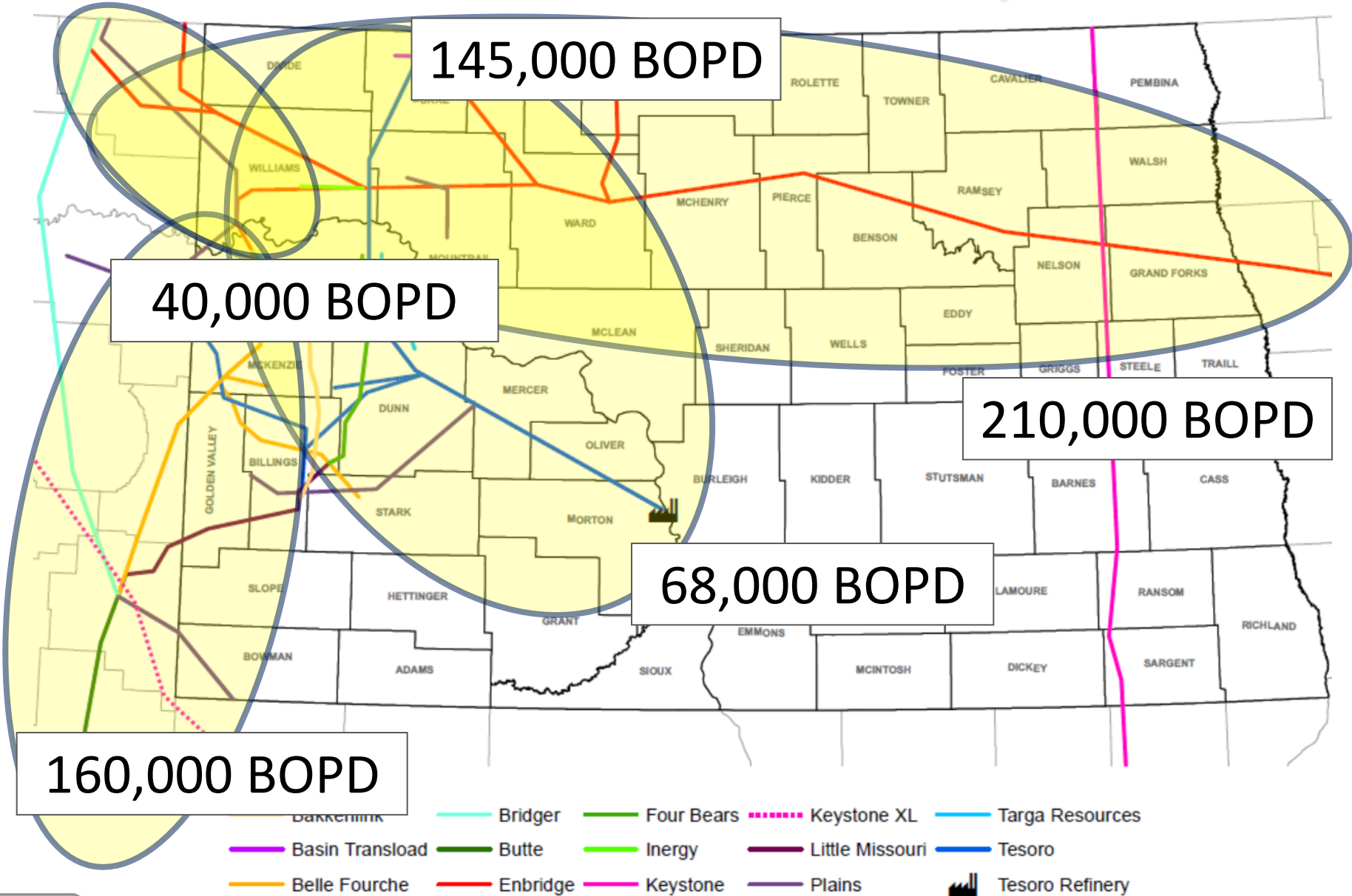
North Dakota Crude Oil Pipelines



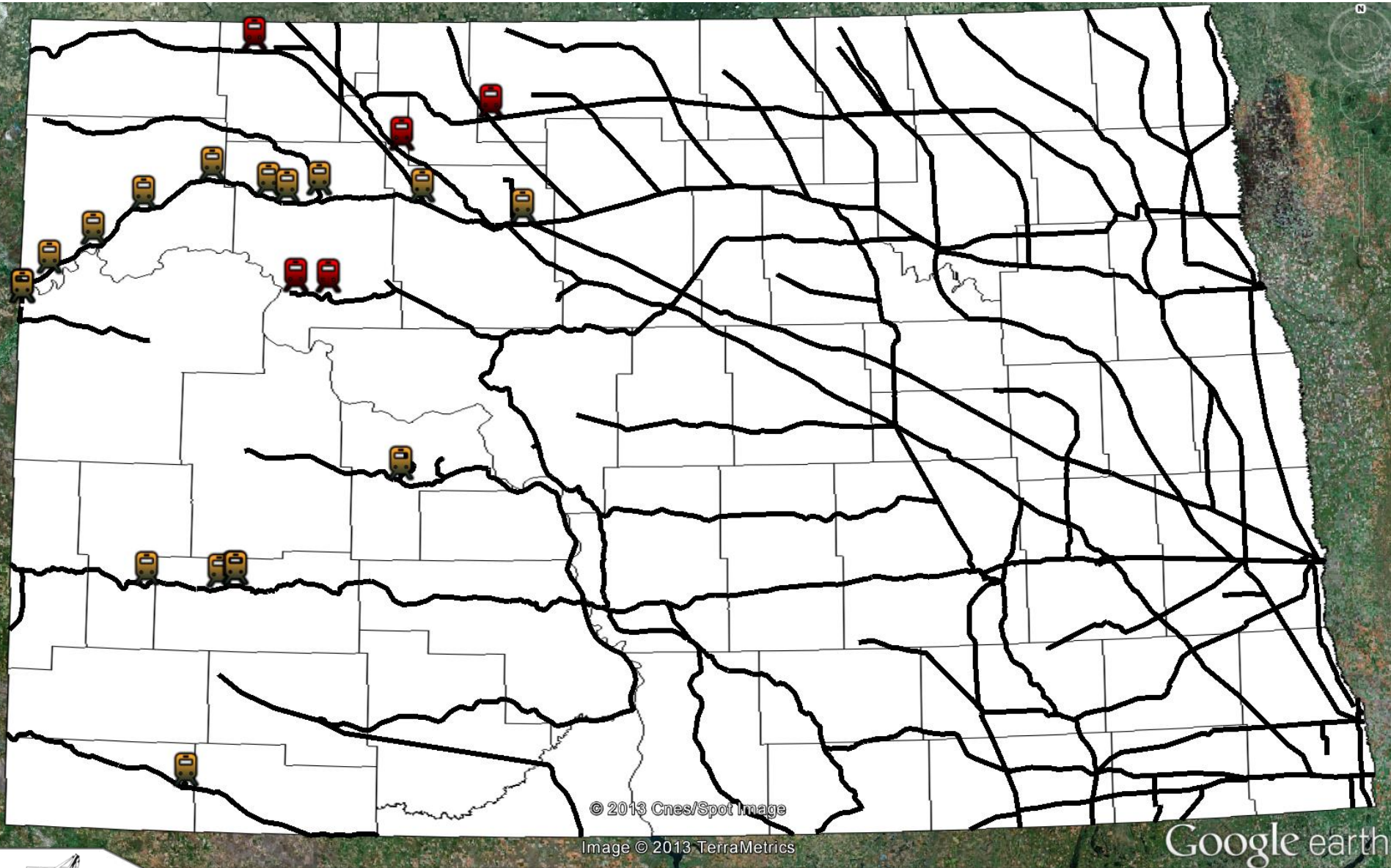
*Modified from Bridger and Belle Fourche Pipelines



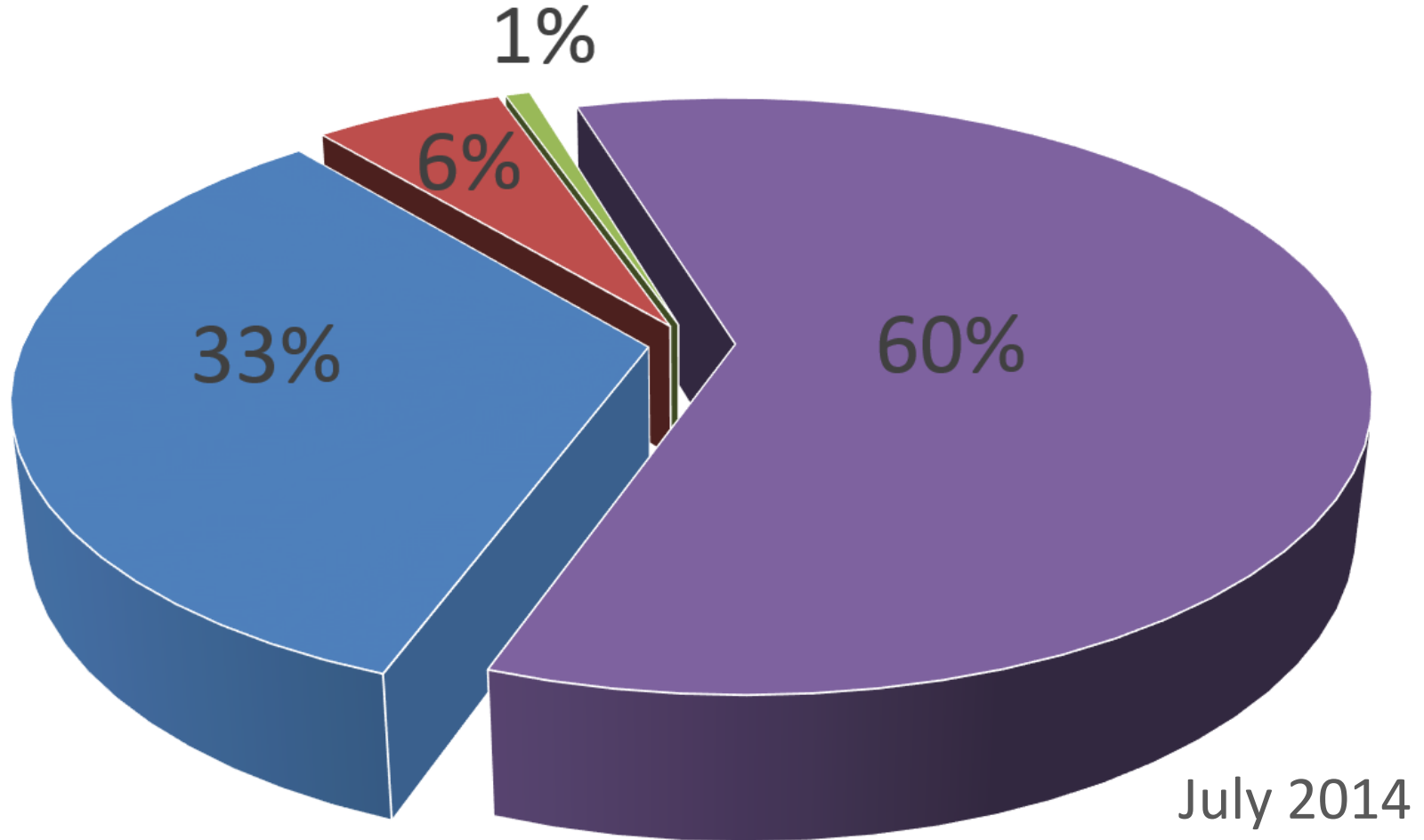
North Dakota Crude Oil Pipelines



Oil Loading Rail Facilities



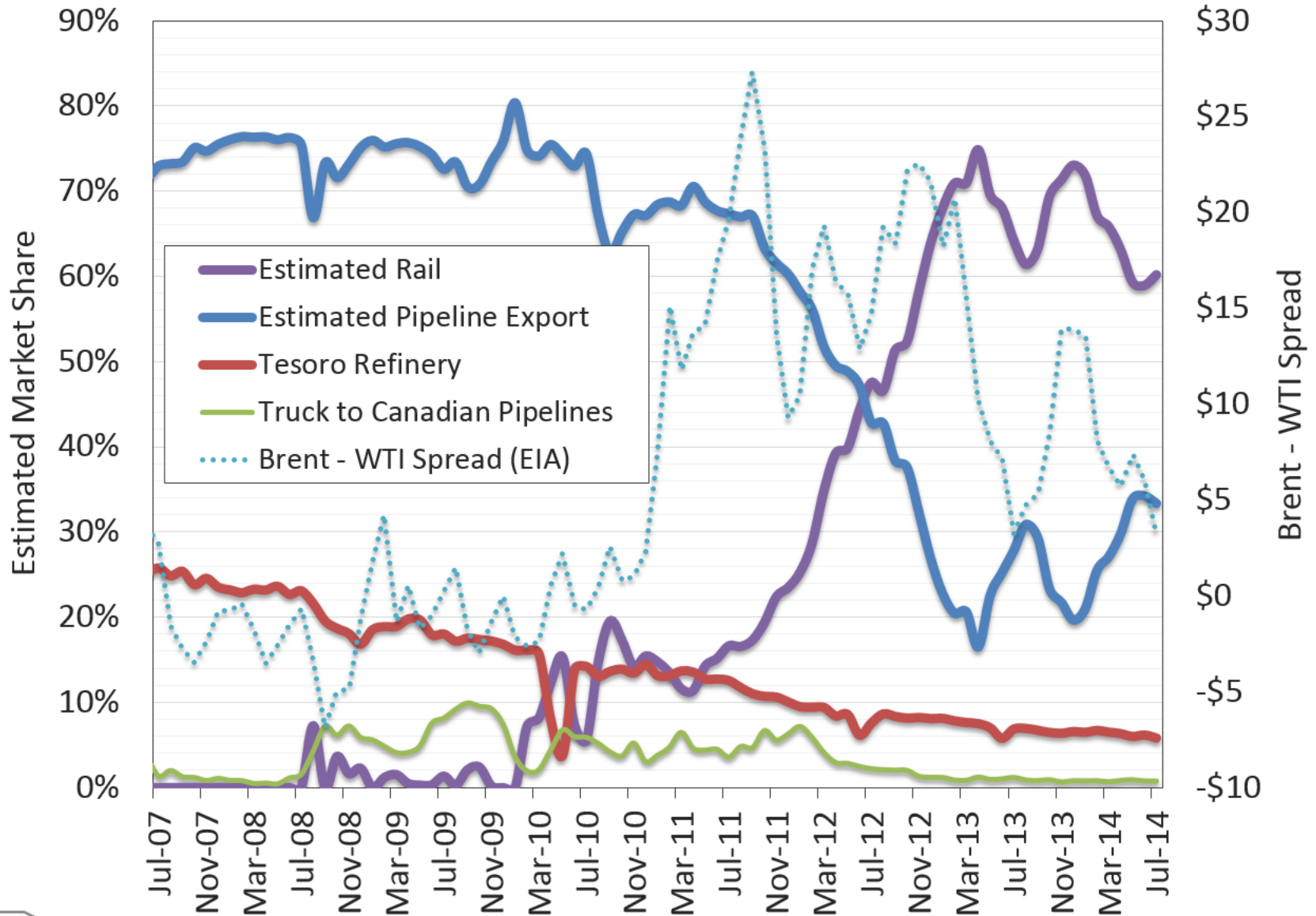
Estimated Williston Basin Oil Transportation



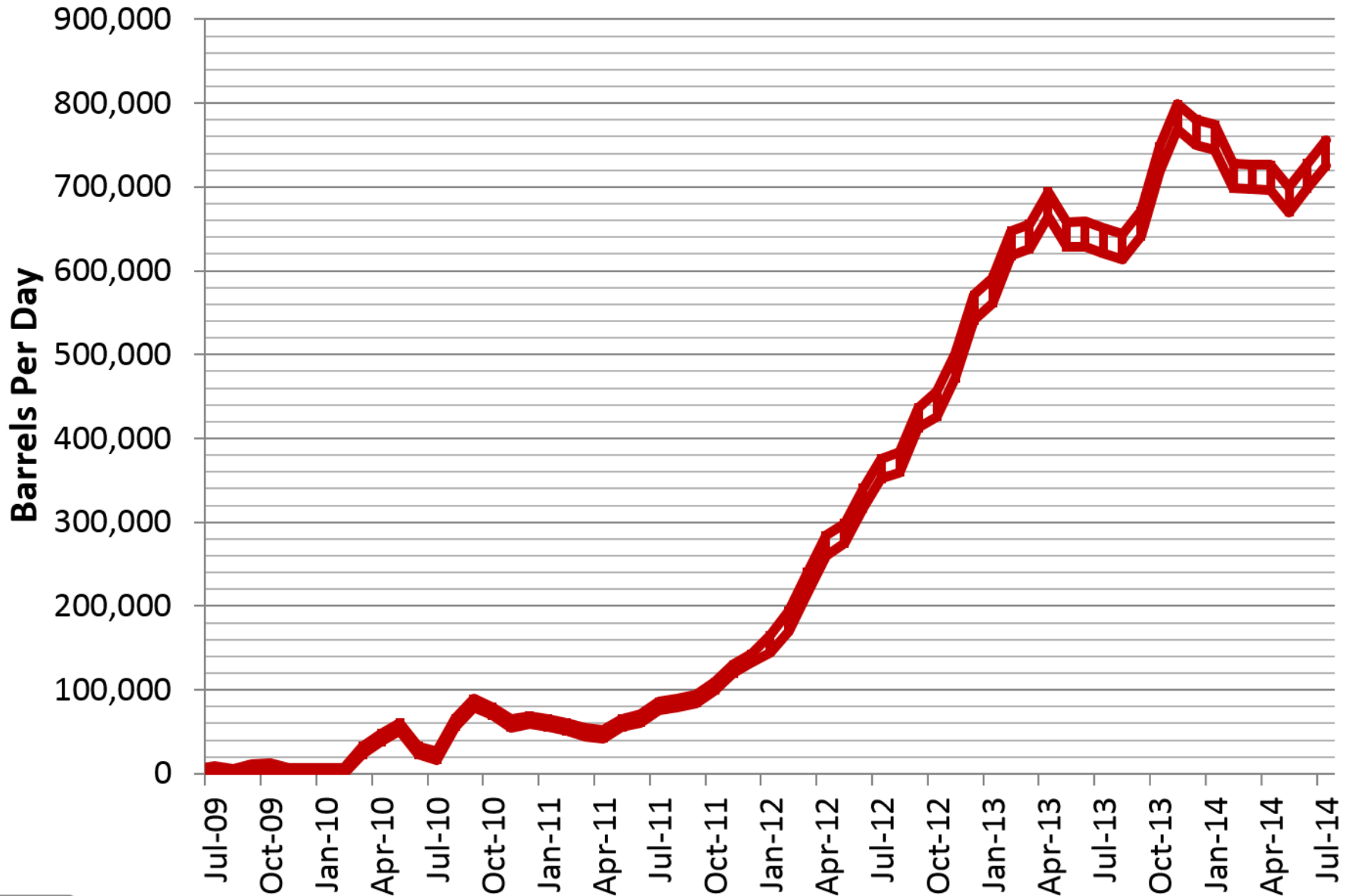
- Estimated Pipeline Export
- Tesoro Refinery
- Truck to Canadian Pipelines
- Estimated Rail



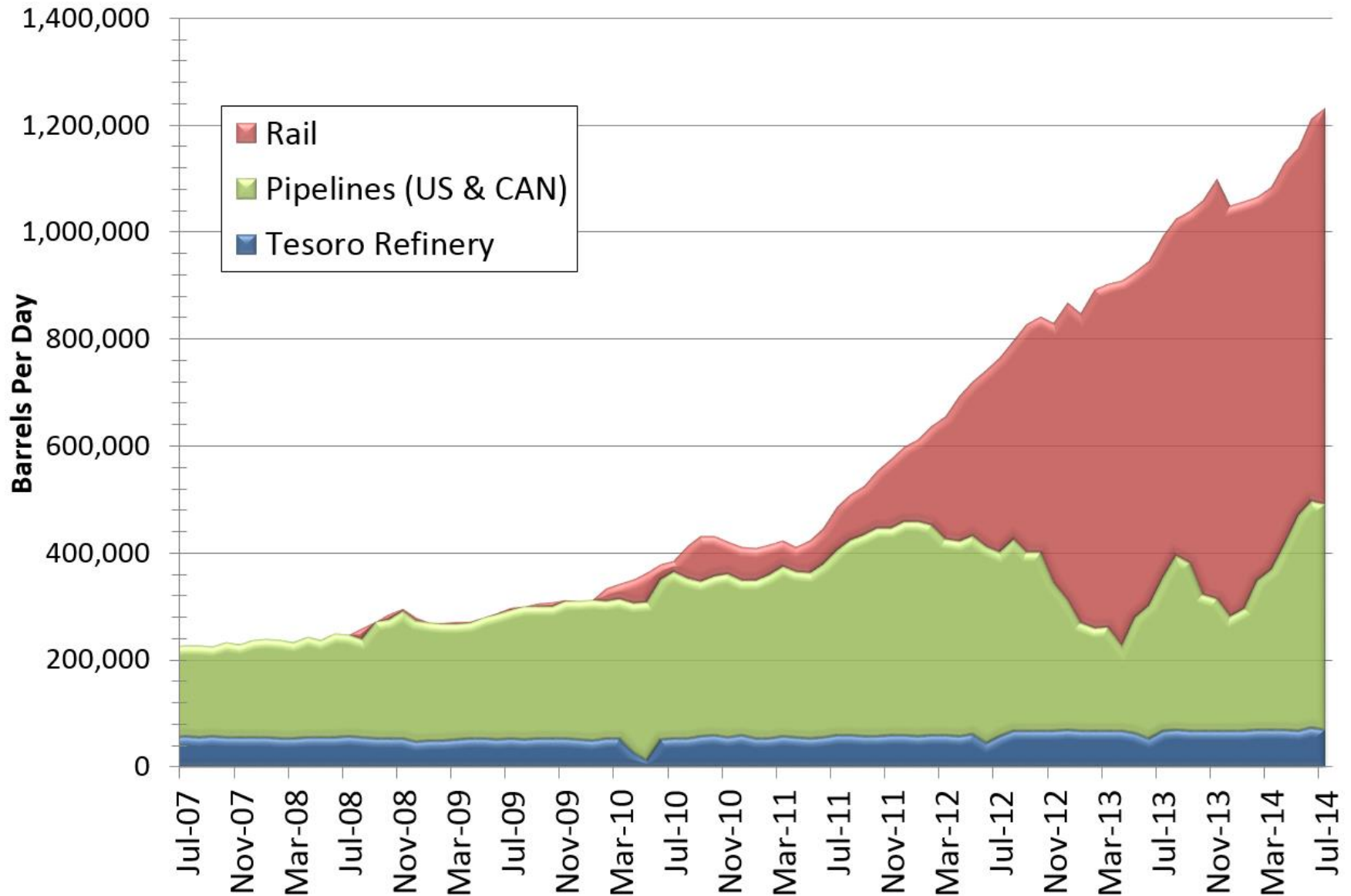
Estimated Williston Basin Oil Transportation



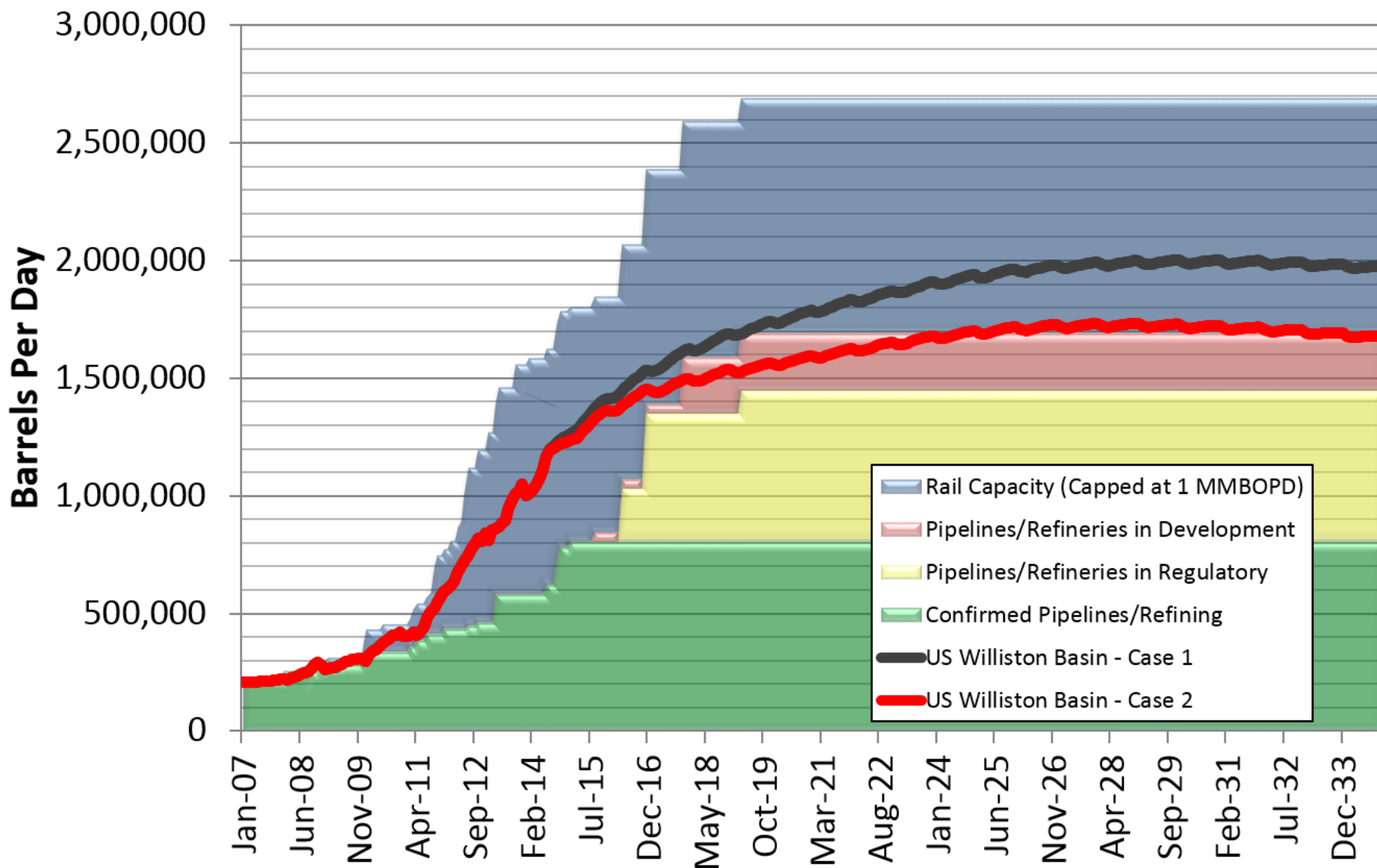
Estimated ND Rail Export Volumes



Estimated Williston Basin Oil Transportation



Williston Basin Oil Production & Export Capacity, BOPD



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Confirmed Pipeline Projects

Butte Loop

- In-service Date: Q3 2014
- 110,000 BOPD
- Service to Guernsey, WY

Hiland Double H

- In-service Date: Q4 2014
- 50,000 BOPD (Expandable up to 100,000 BOPD)
- Extended Open Season to April 16, 2014
- Service to Guernsey, WY

Plains Bakken North

- In-service Date: May 2014
- 40,000 BOPD (Expandable up to 70,000 BOPD)
- Movement North to Canadian Interconnect



Pipeline Projects In Business Development or Regulatory

North Dakota Pipeline Company Sandpiper

- 225,000 BOPD
- Route: ND to Clearbrook, MN, 24" Clearbrook to Superior, WI, 30"
- In-service Date: Q1 2016

Enterprise Pipeline

- 200,000-250,000 BOPD (Estimated ND Portion)
- Route: Stanley, ND to Cushing, OK 1,200 miles, 30"
- In-service Date: Q3 2017

TransCanada Keystone XL

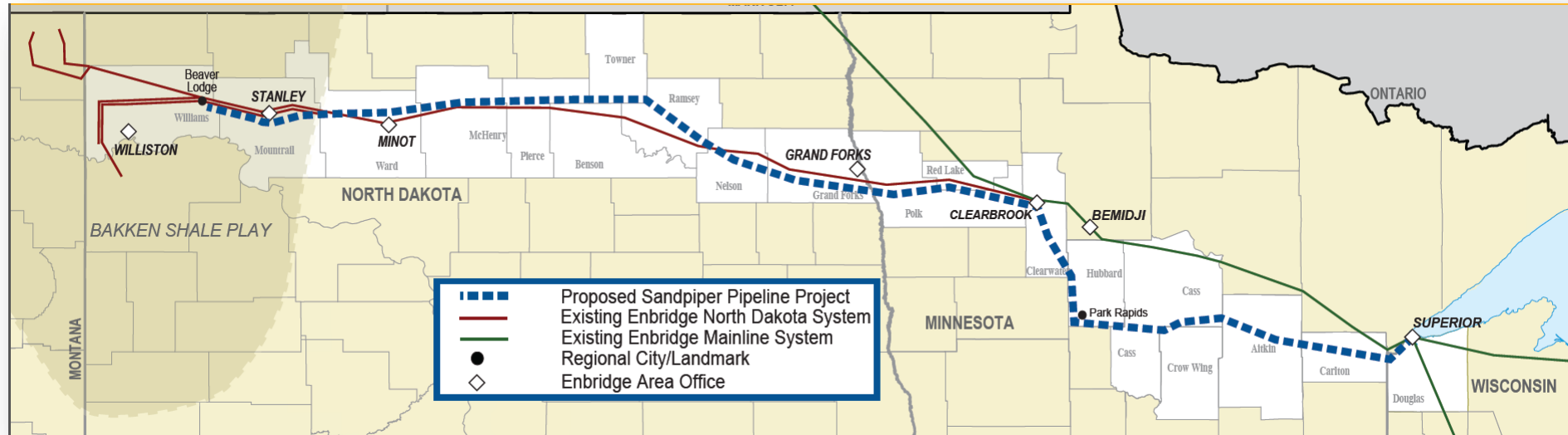
- Up to 100,000 BOPD
- Timeline Uncertain

Energy Transfer Partners

- 320,000 BOPD
- Route: ND to Patoka, IL, 1,100 miles, 30"
- In-service Date: Q4 2016



Sandpiper Pipeline

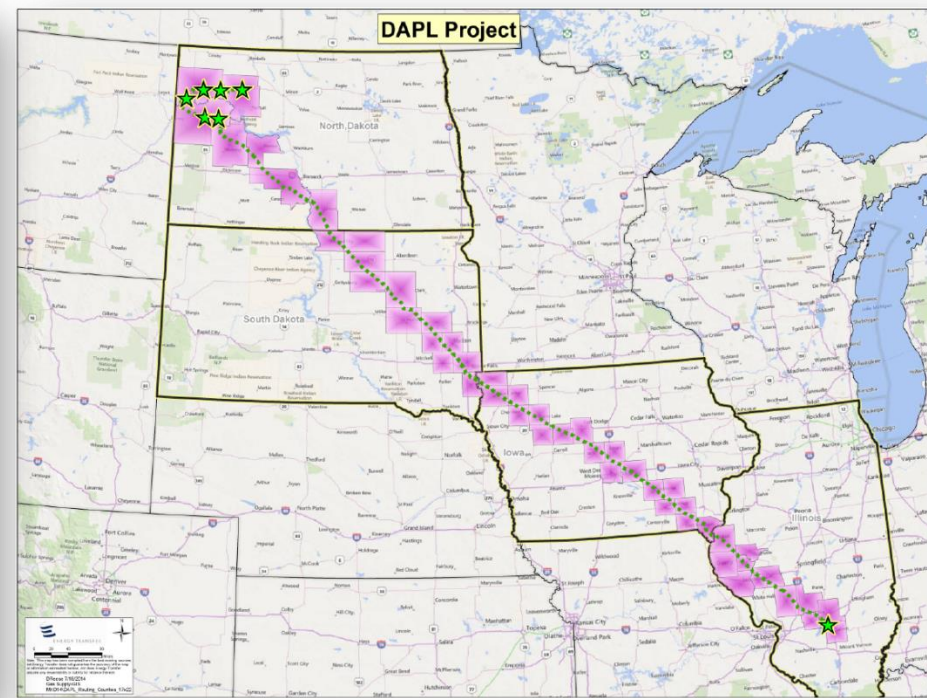
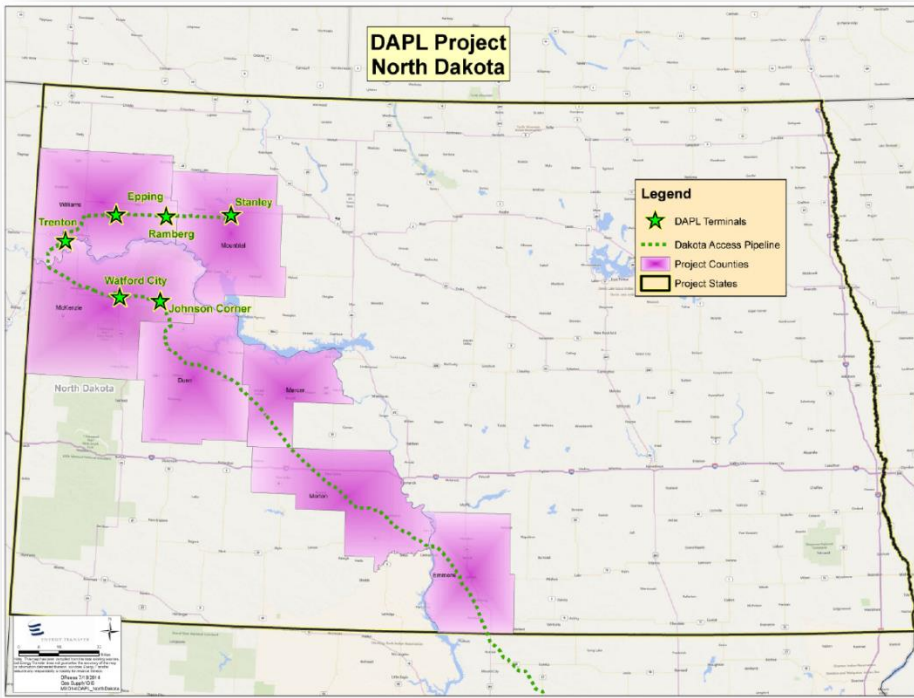


North Dakota Pipeline Company LLC - formerly known as Enbridge Pipelines (North Dakota) LLC

- Open Season Dates: November 26, 2013 – January 24, 2014
- 225,000 BOPD ND Capacity to Clearbrook, MN (24")
- 375,000 BOPD Clearbrook, MN to Superior, WI (30")
- In-service Date: Q1 2016
- Project cost: \$2.6 Billion



Energy Transfer Partners: Dakota Access

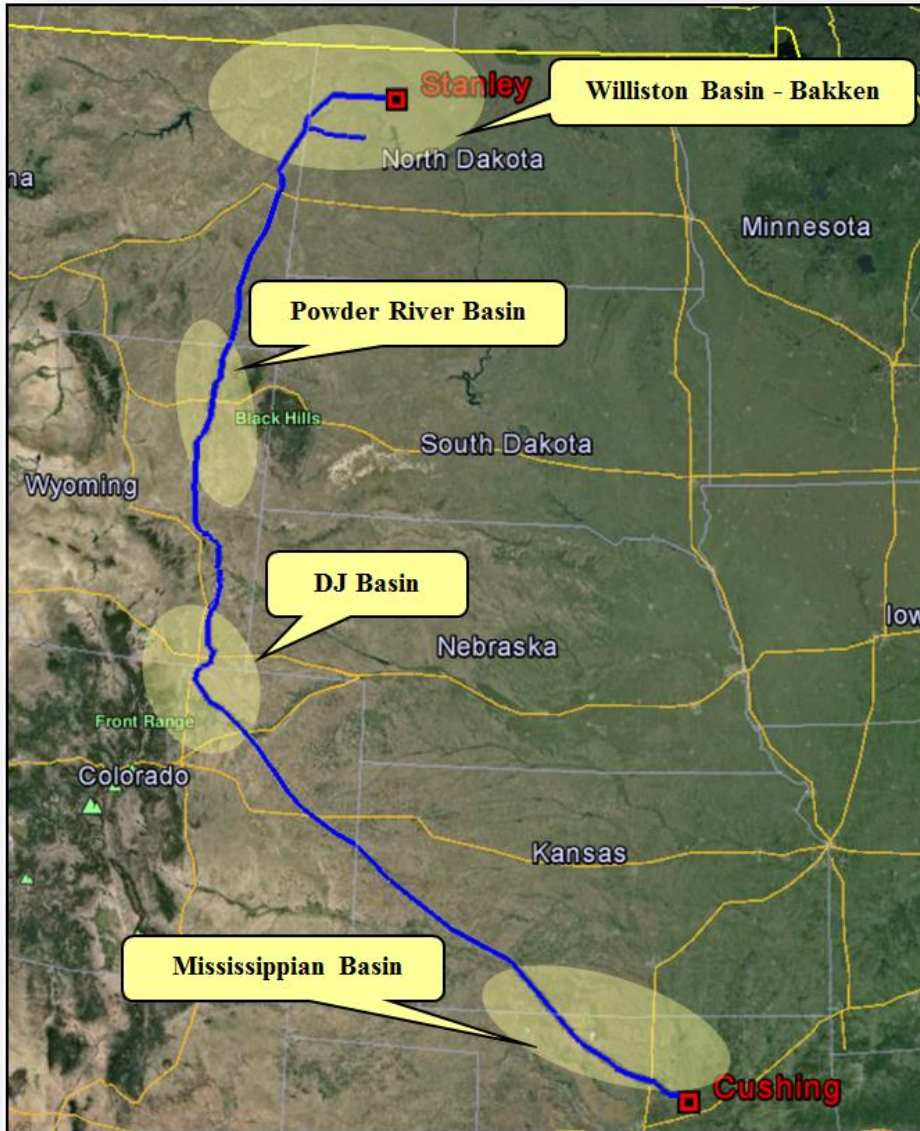


- Successful Open Season During the First Half of 2014
- 320,000 BOPD ND Capacity to Patoka, IL (30")
- Expandable Up To 570,000 BOPD if Shipper Demand Exists
- In-service Date: Late 2016

20
Map Source: Energy Transfer Partners



Bakken to Cushing Pipeline

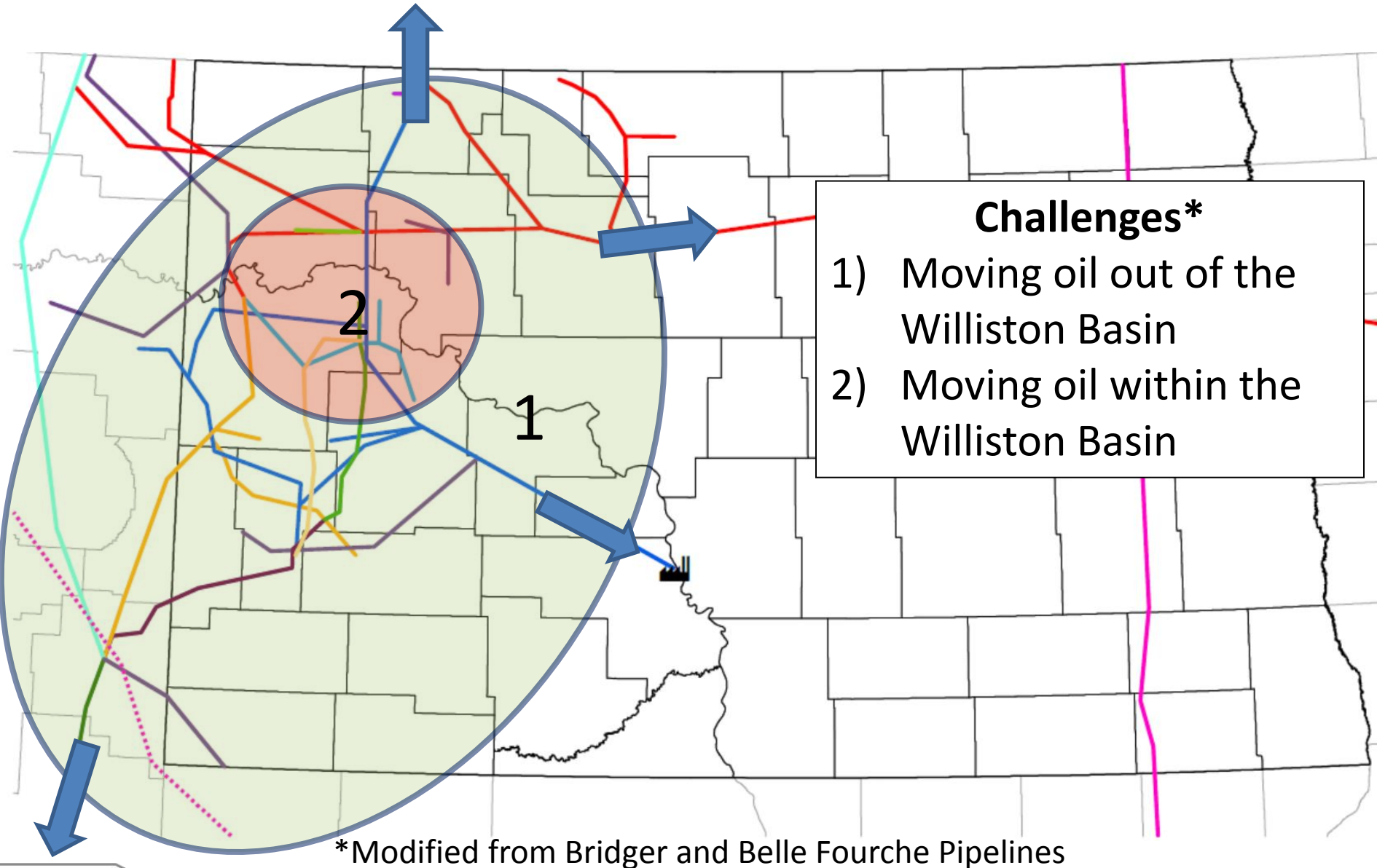


- Open Season Dates: September 4, 2014 – October 17, 2014
- 340,000 BOPD ND Capacity to Cushing, OK (30")
- Estimated 200-250,000 BOPD Available for Williston Basin Crude Oil
- 1,200 Miles, All New Construction
- Proposed In-service Date: Q3 2017

Map Source: Enterprise Products Partners

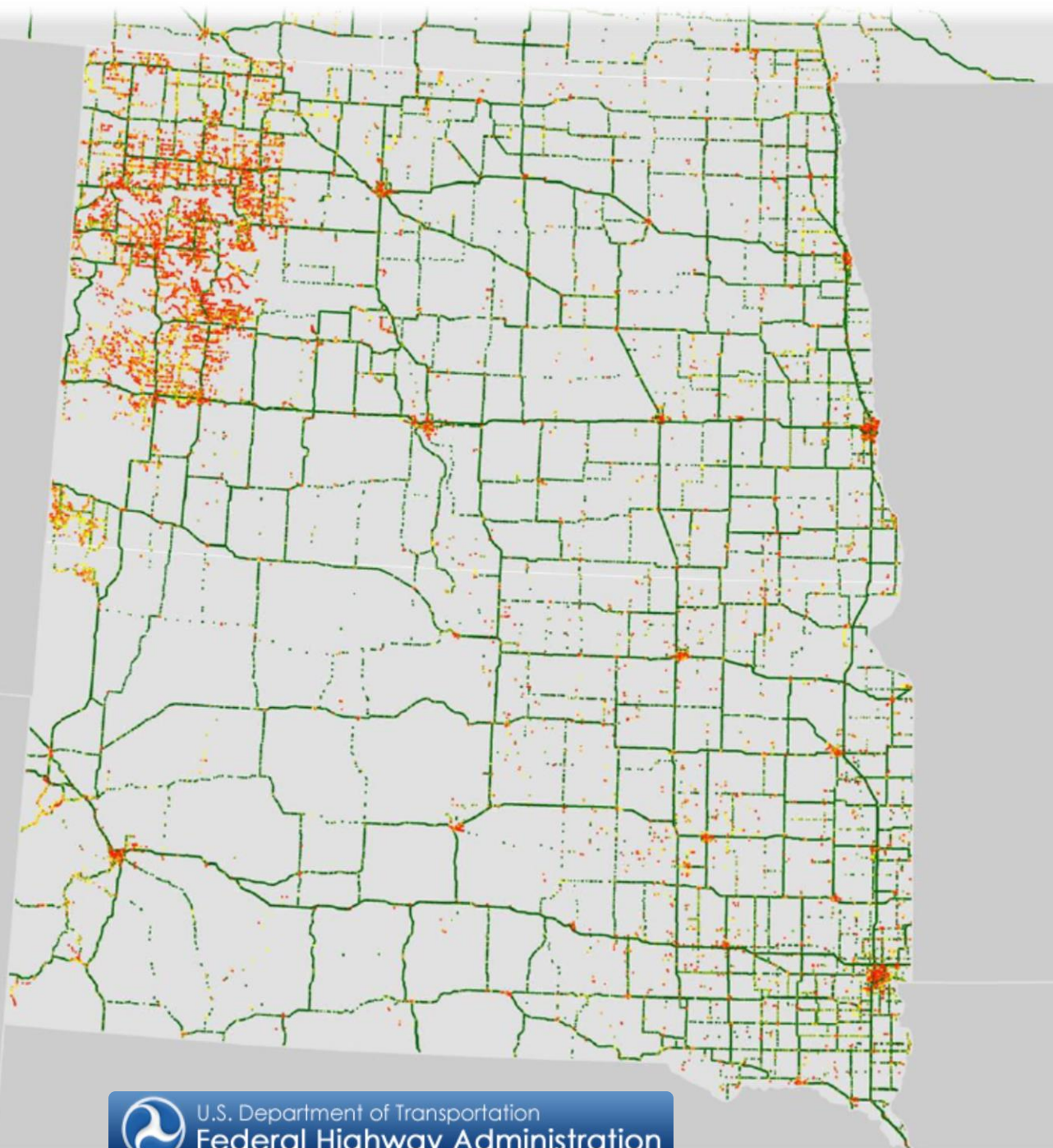


North Dakota Crude Oil Pipelines



Moving Truck Position Pings
Speed - MPH

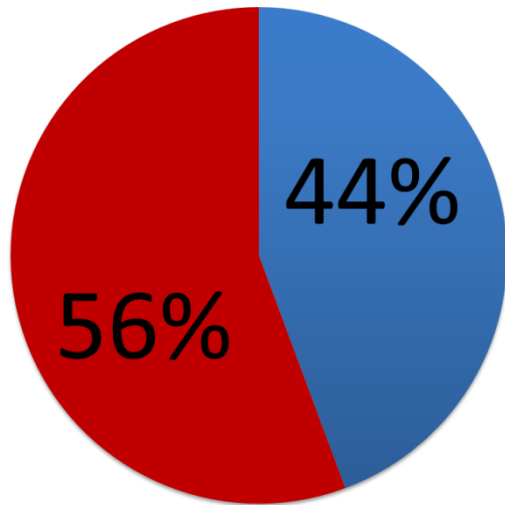
- 1 - 25
- 26 - 35
- 36 - 45
- 46 - 55
- > 55



U.S. Department of Transportation
Federal Highway Administration

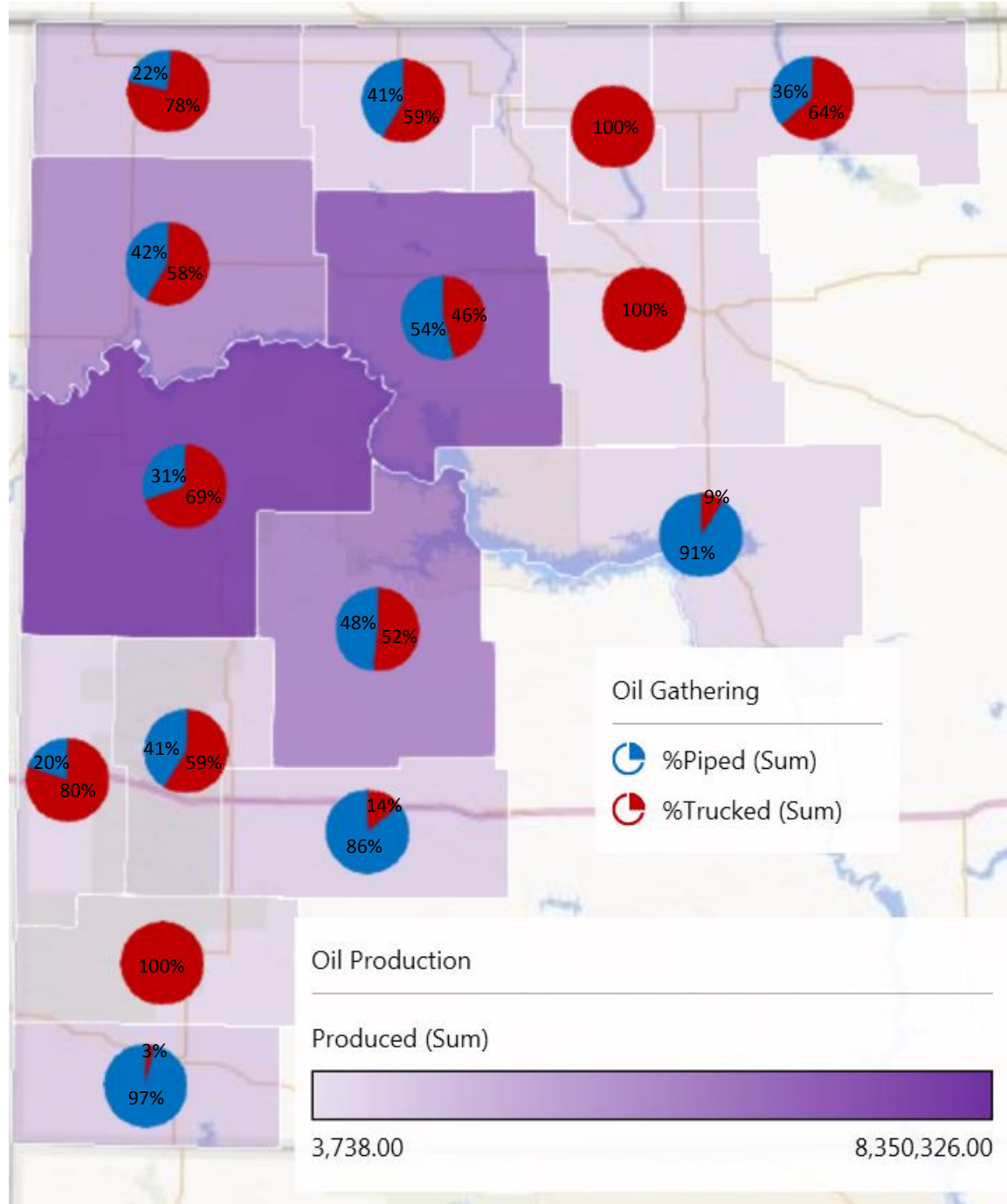
ND Oil Gathering

Red – Trucked
Blue – Pipeline

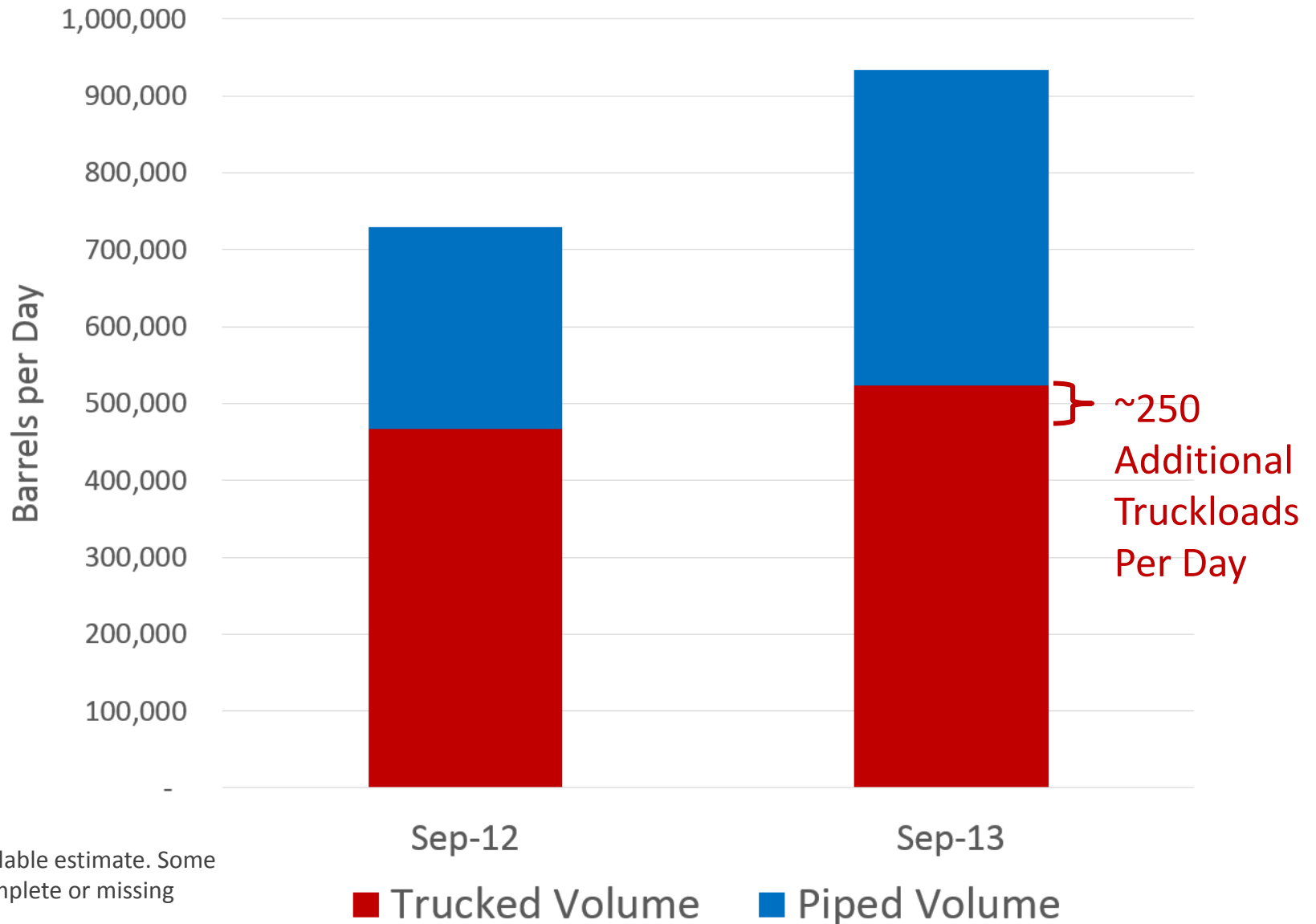


All ND Production

Sep 2013 Estimates
 Some data incomplete or unavailable



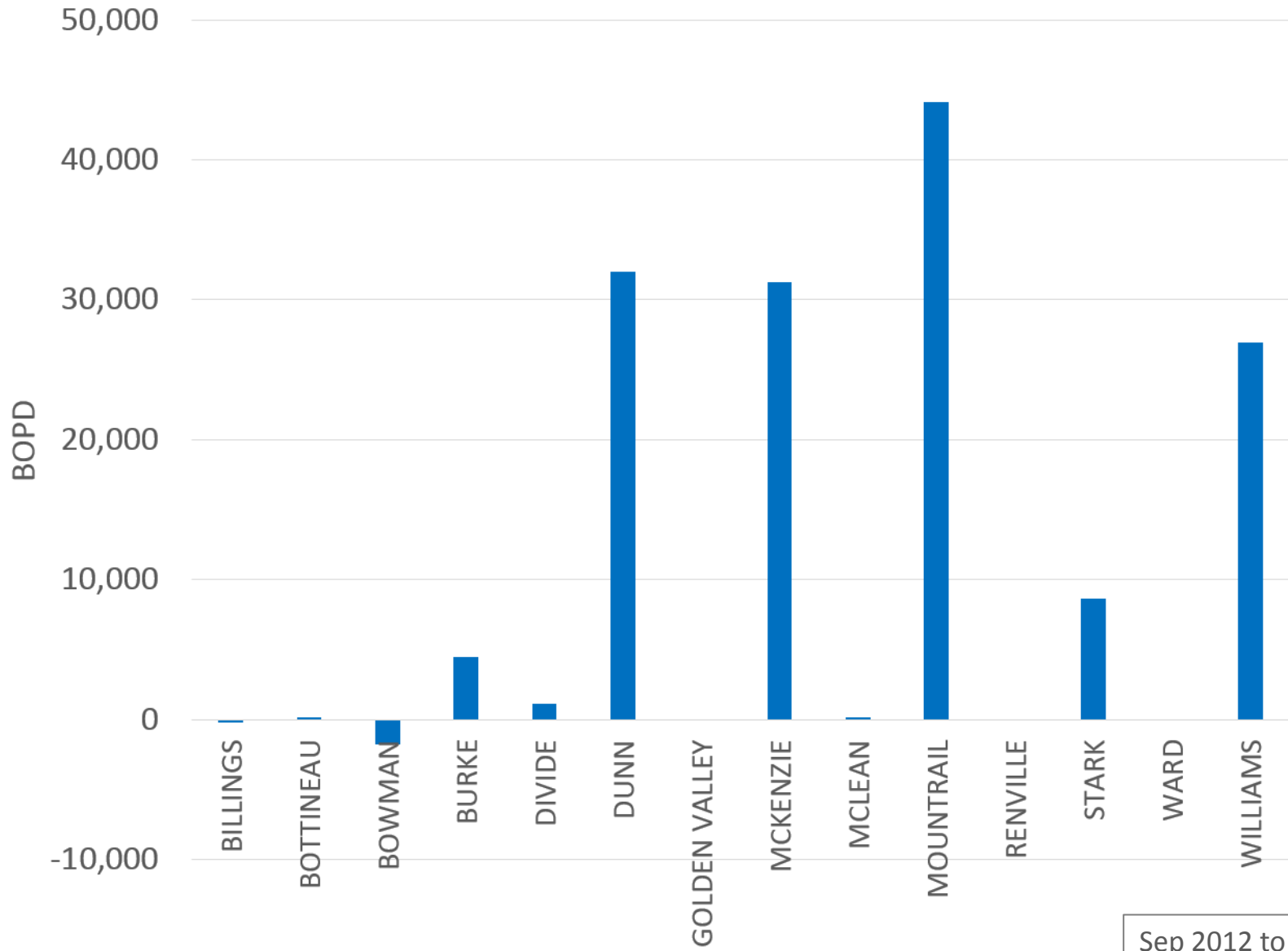
Year-Over-Year Oil Gathering Changes*



*Best available estimate. Some data incomplete or missing



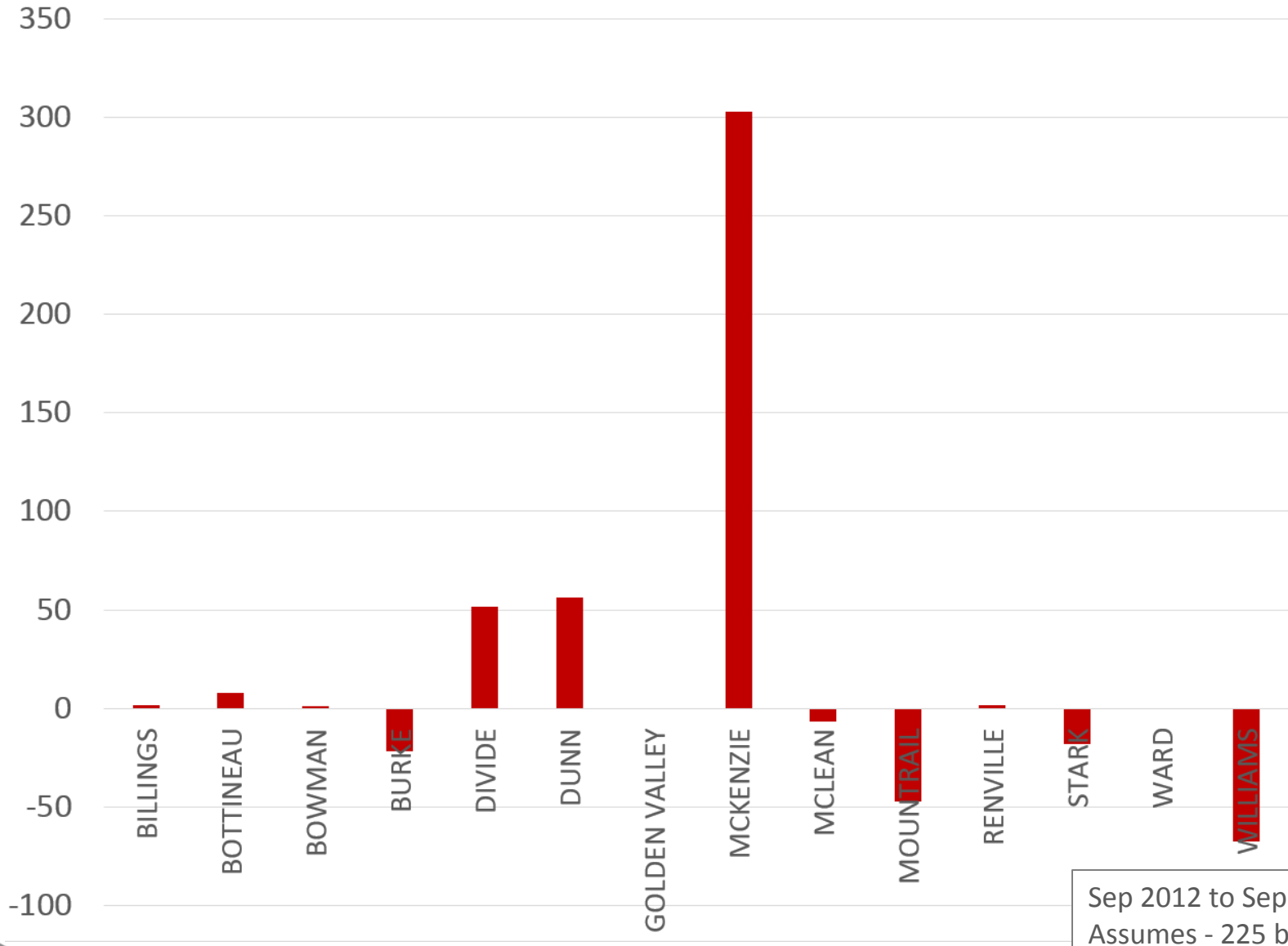
Estimated YOY Oil Gathering Change



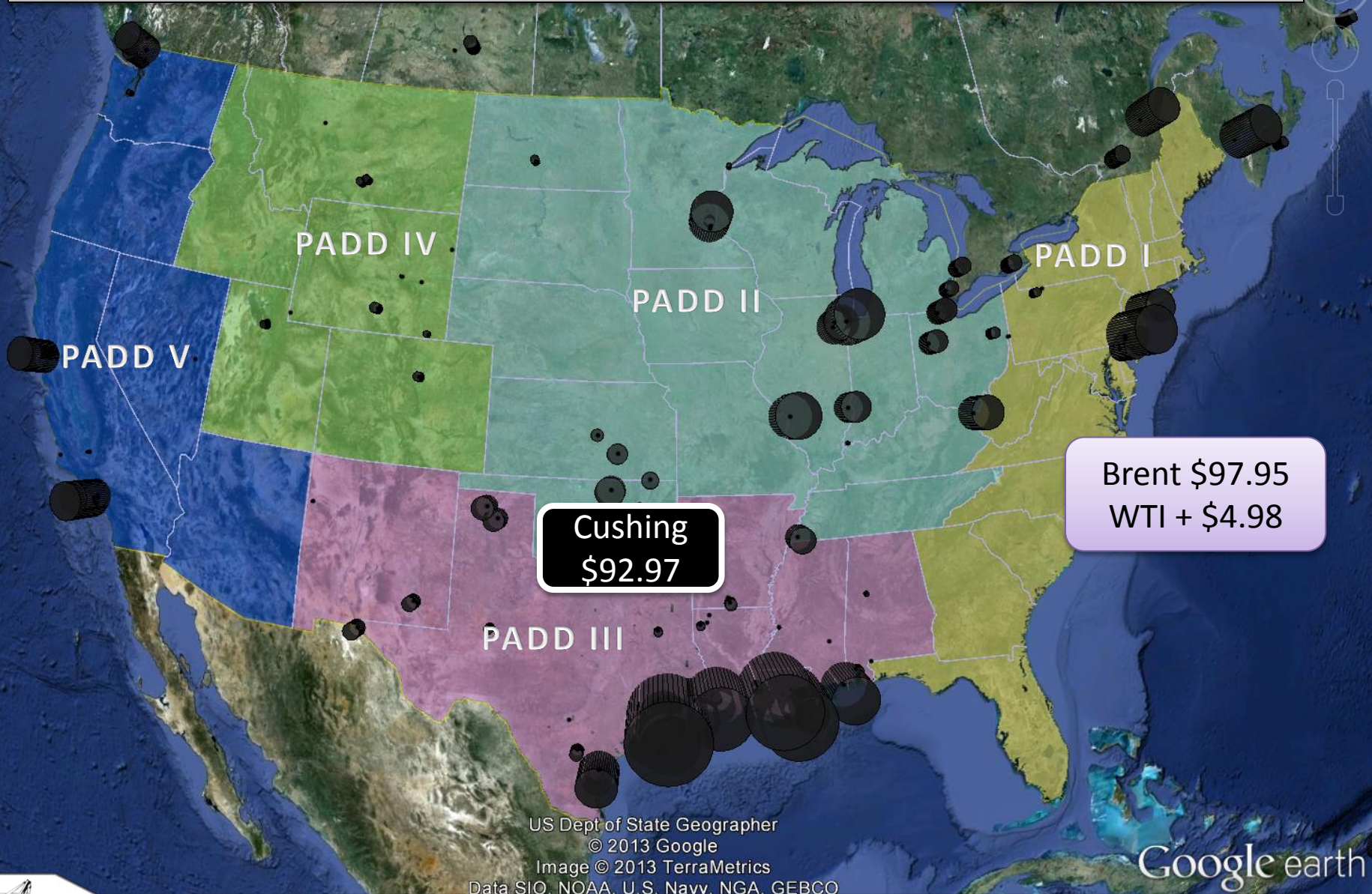
Sep 2012 to Sep 2013



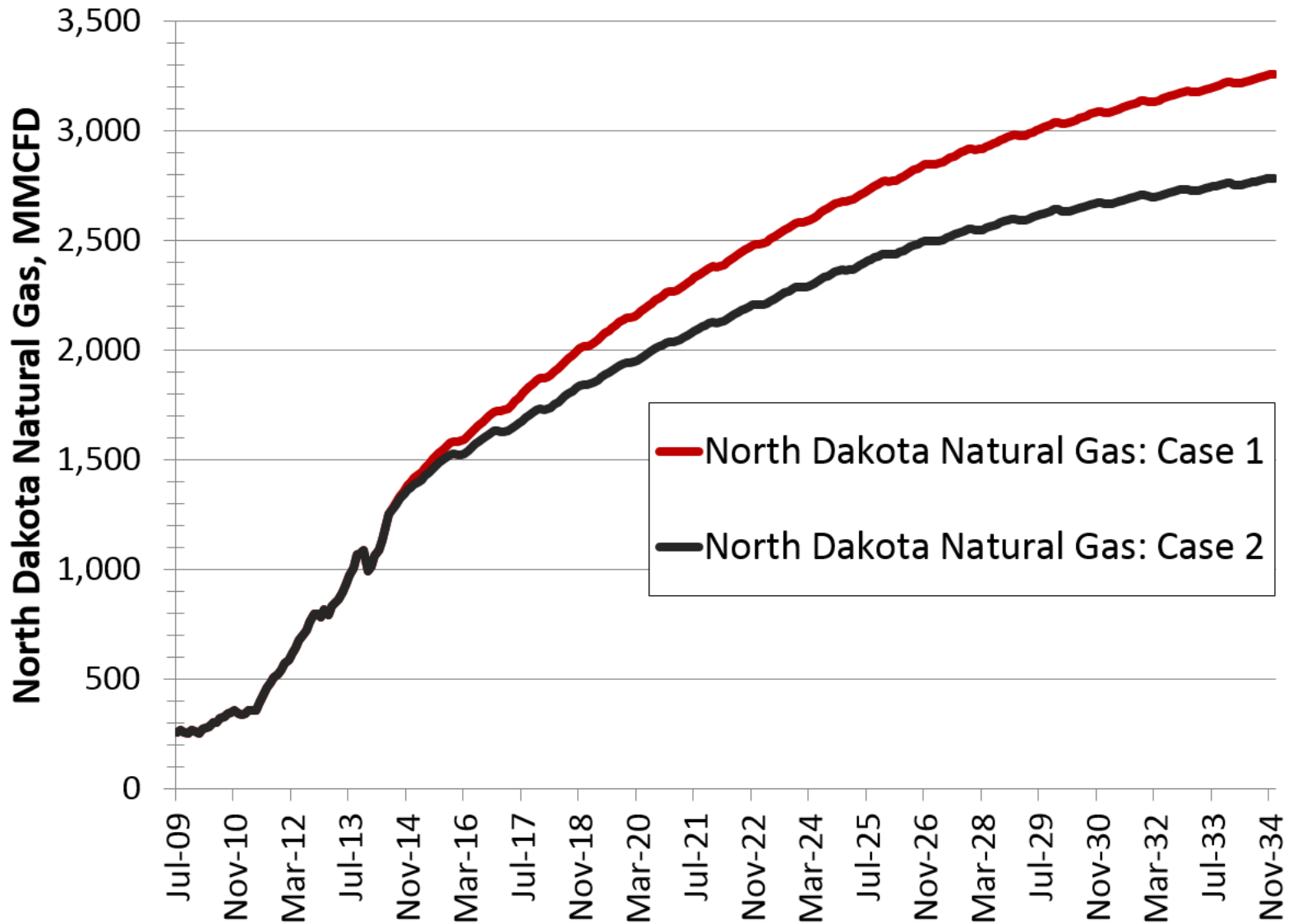
Estimated YOY Daily Truckload Change



Crude Oil Prices – Sep. 12, 2014



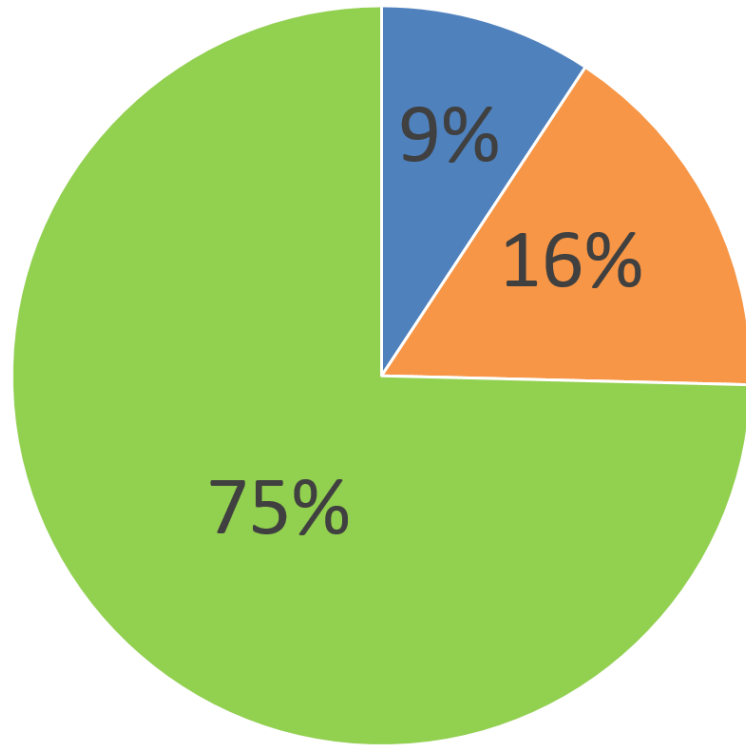
North Dakota Natural Gas Production



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



Solving the Flaring Challenge



Statewide

GREEN – % of gas captured and sold
Blue – % flared from zero sales wells
Orange – % flared from wells with at least one mcf sold.

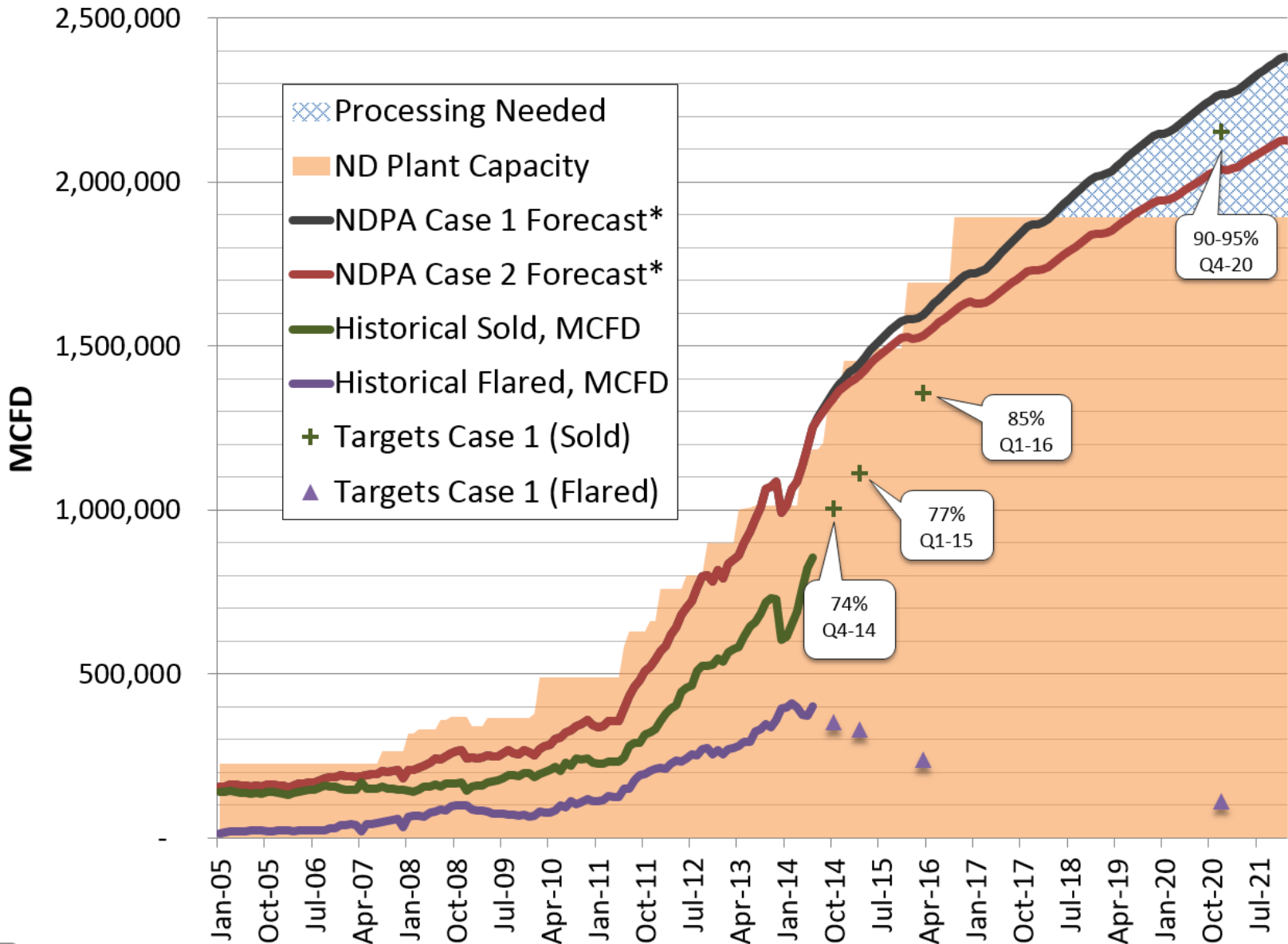
Simple Terms

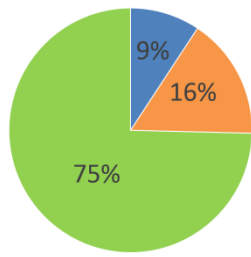
Blue – Lack of pipelines
Orange – Challenges on existing infrastructure

July 2014 Data – Non-Confidential Wells

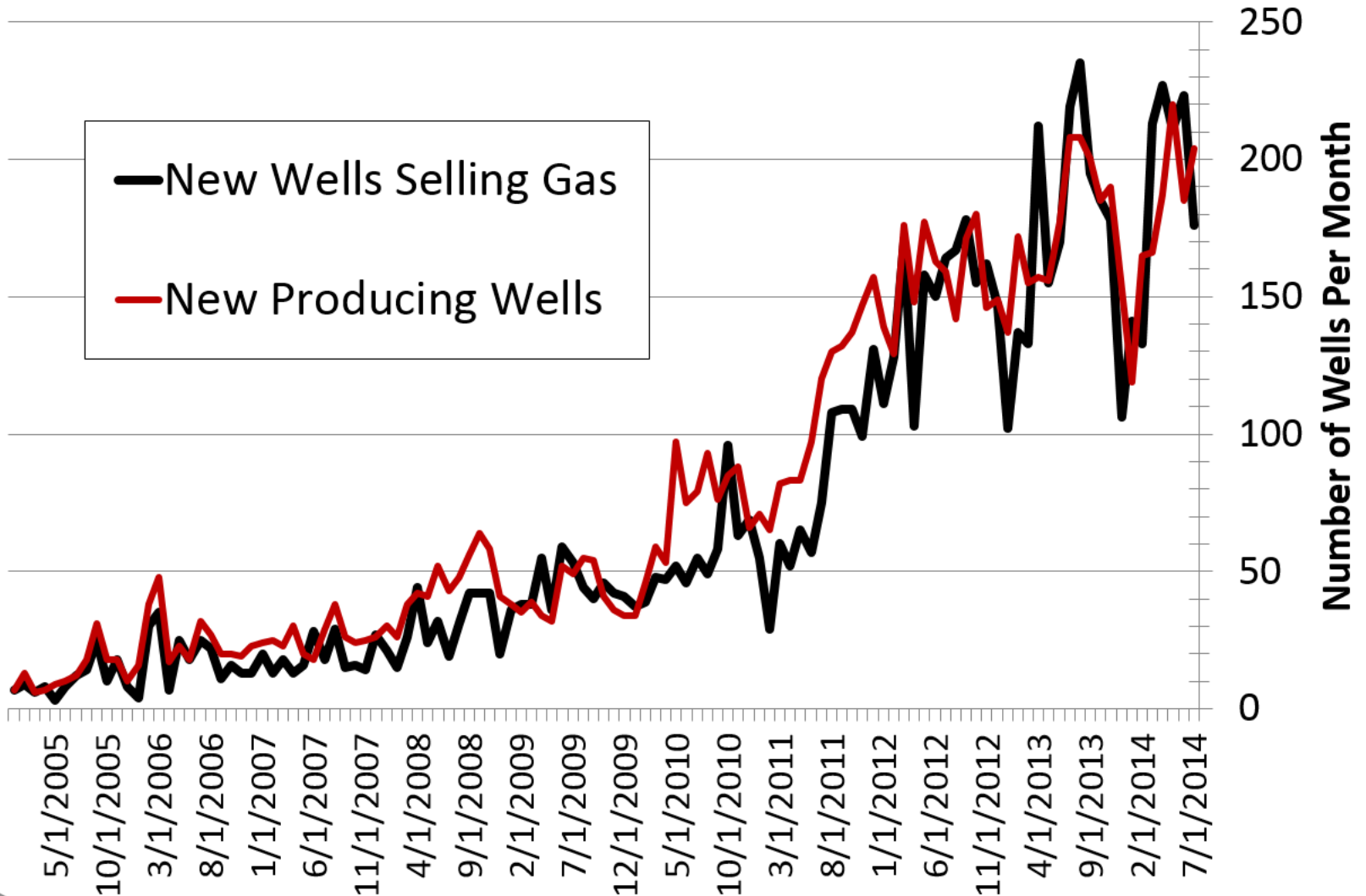


Solving the Flaring Challenge





Capturing the 9% Faster Well Connections



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www.northdakotapipelines.com



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