



November 2020 Monthly Update North Dakota Pipeline Authority

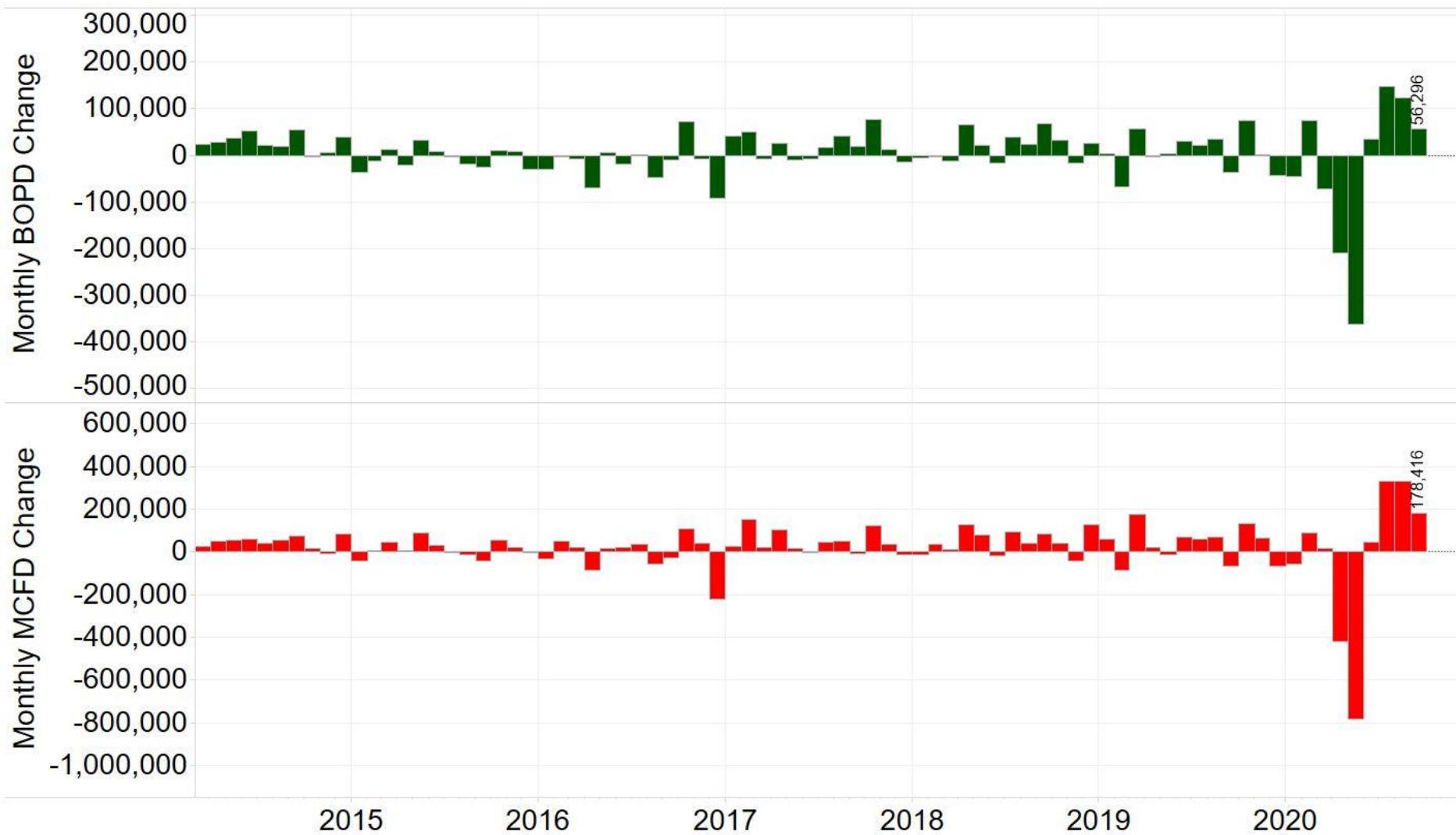
Justin J. Kringstad
November 17, 2020

US Williston Basin Oil Production - 2020

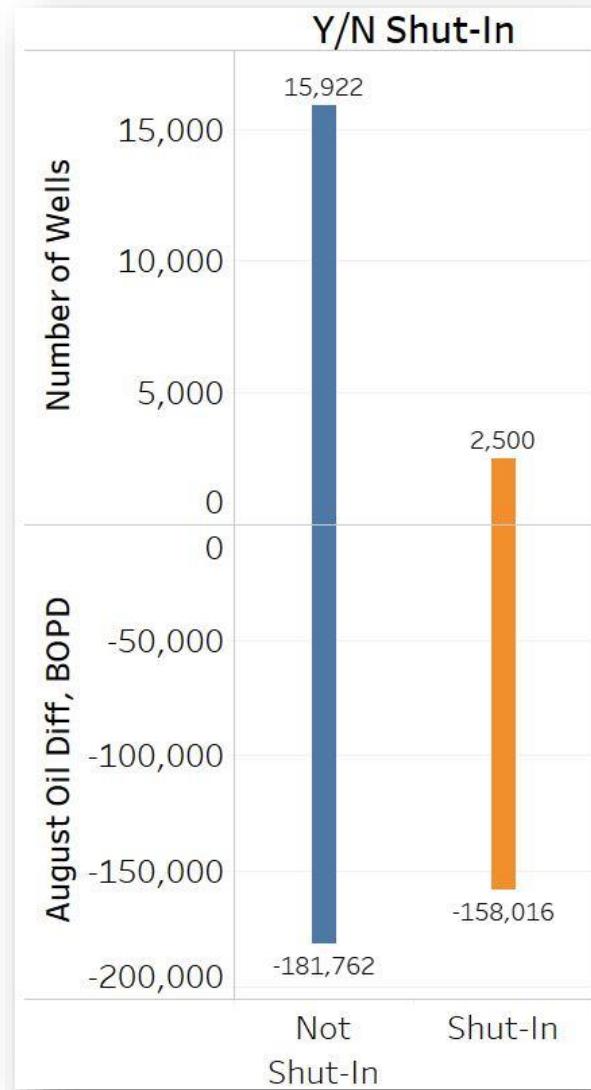
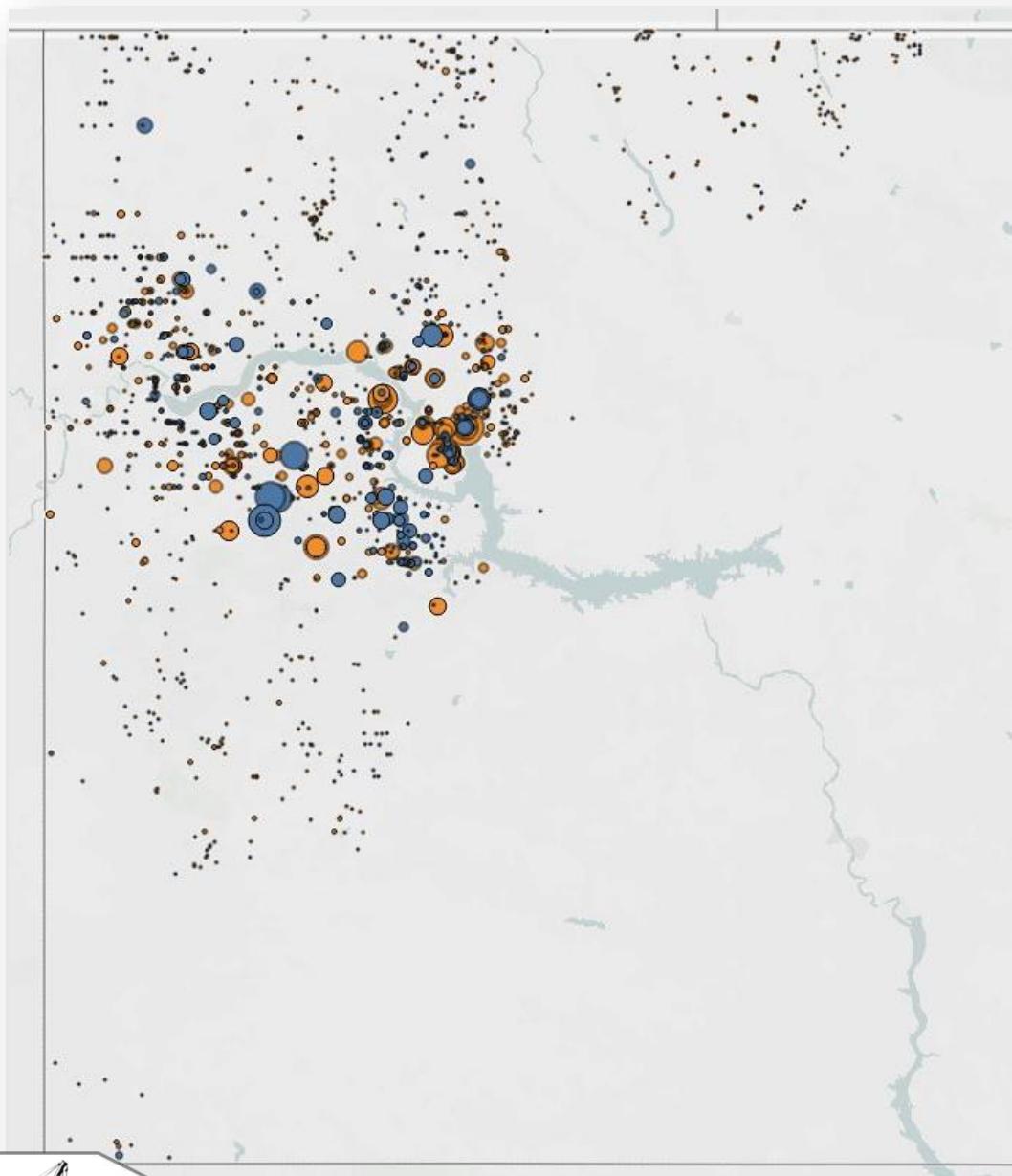
MONTH	ND	Eastern MT*	SD	TOTAL
January	1,430,614	57,426	3,091	1,491,131
February	1,504,856	55,396	3,070	1,563,322
March	1,432,756	57,695	2,946	1,493,397
April	1,222,940	49,023	2,610	1,274,573
May	860,142	37,012	2,466	899,620
June	893,738	42,726	2,680	939,144
July	1,042,081	48,296	3,435	1,093,812
August	1,165,371	46,783	2,807	1,214,960
September	1,221,667			
October				
November				
December				



North Dakota Monthly Production Change

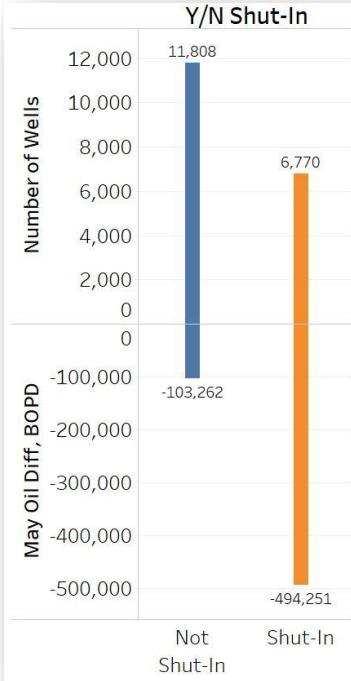


Mar. to Sep. 75+% M-O-M Oil Drop

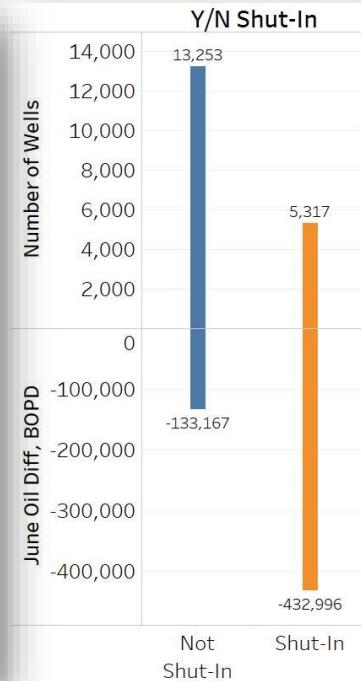


May to September Shut-In Comparison

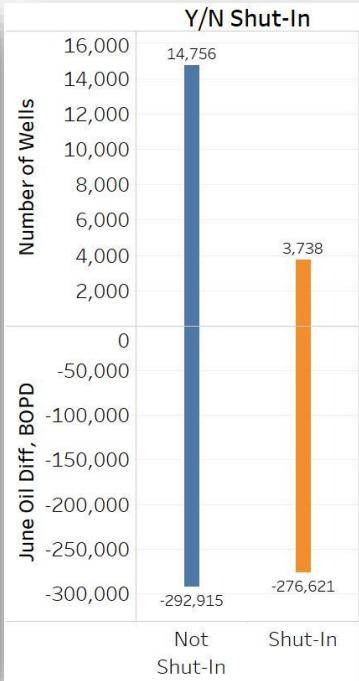
May 2020



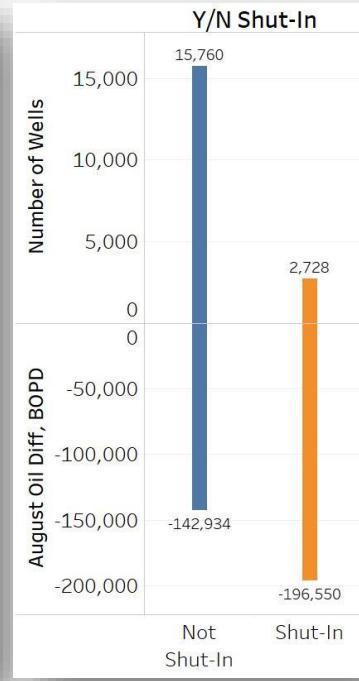
June 2020



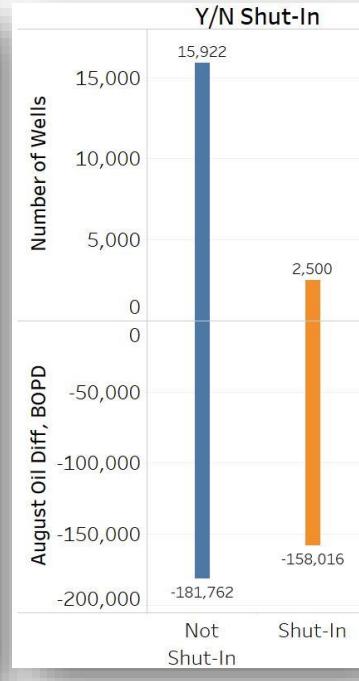
July 2020



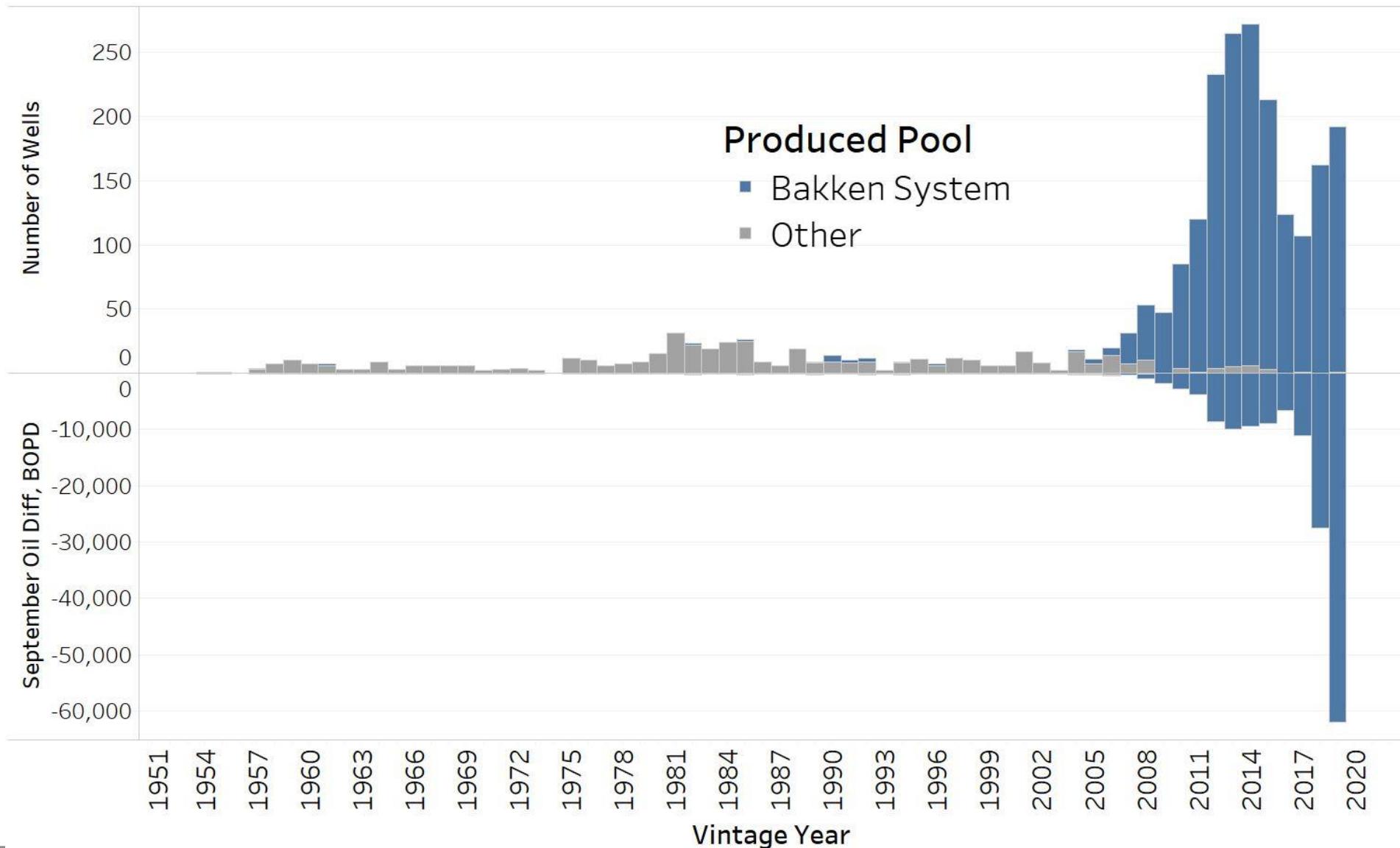
Aug. 2020



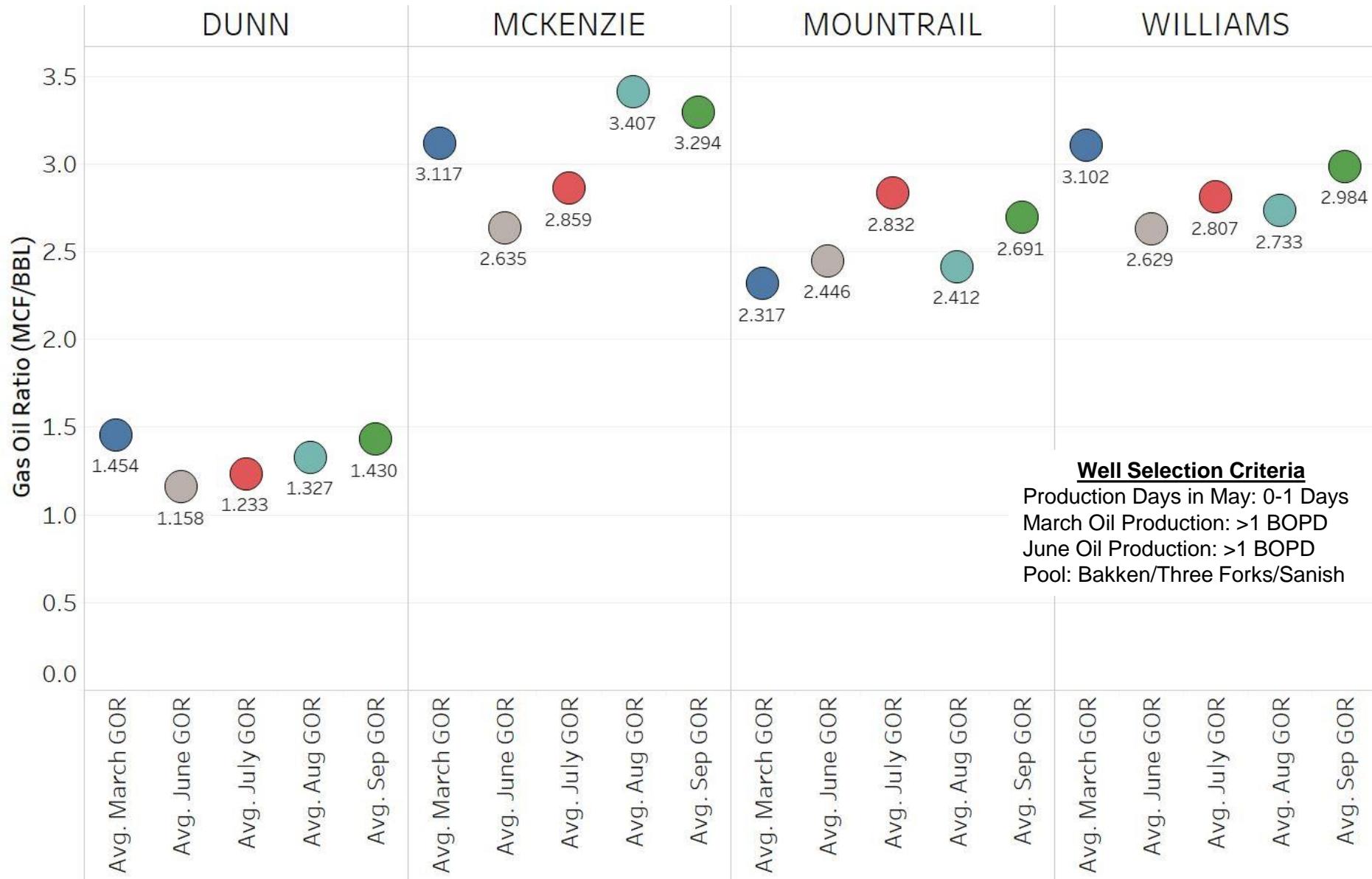
Sep. 2020



Vintage Year of Shut-In Wells – Sep. 2020



GOR Changes in Returning Curtailed Wells

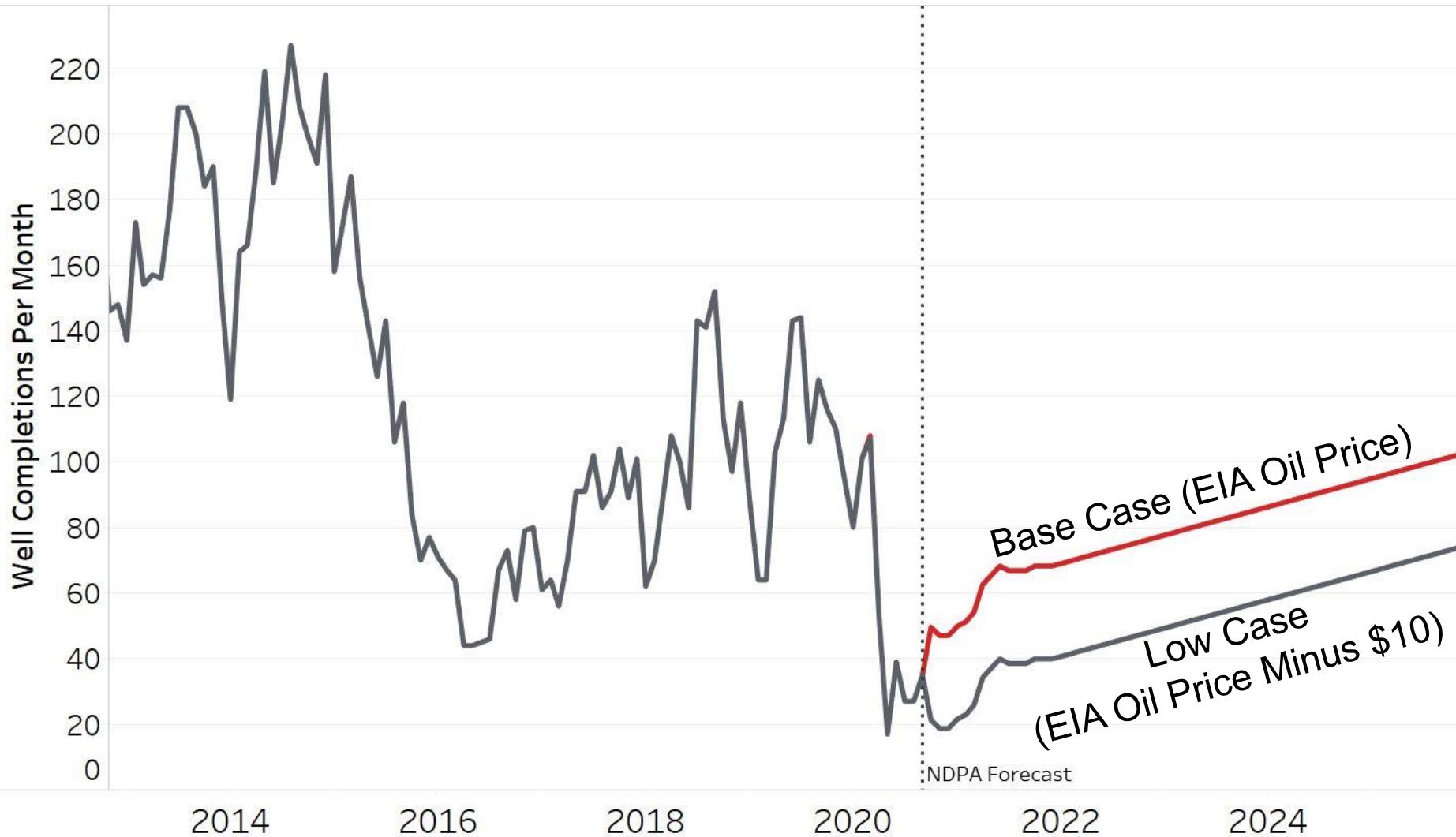


Well Selection Criteria

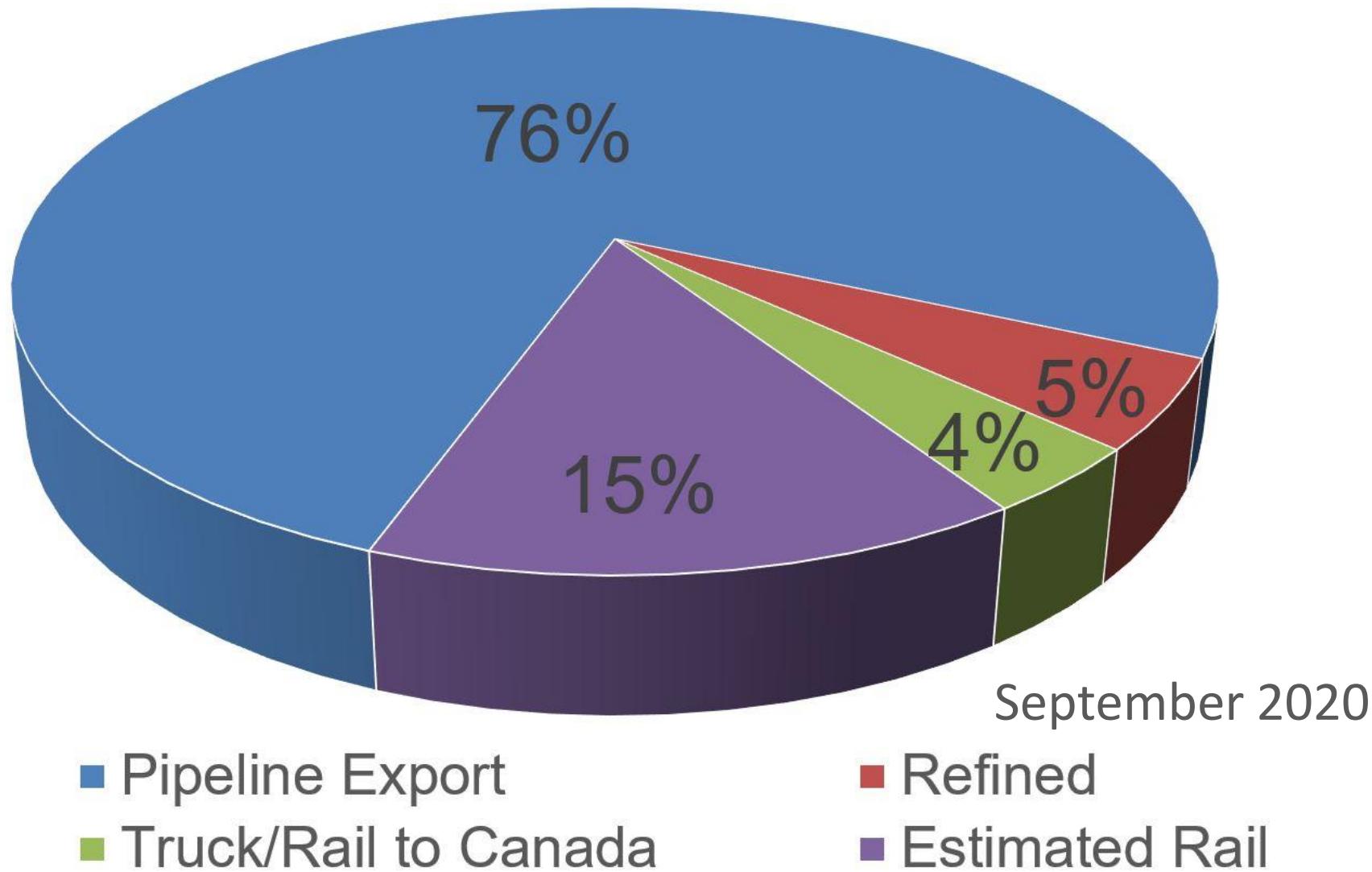
Production Days in May: 0-1 Days
 March Oil Production: >1 BOPD
 June Oil Production: >1 BOPD
 Pool: Bakken/Three Forks/Sanish



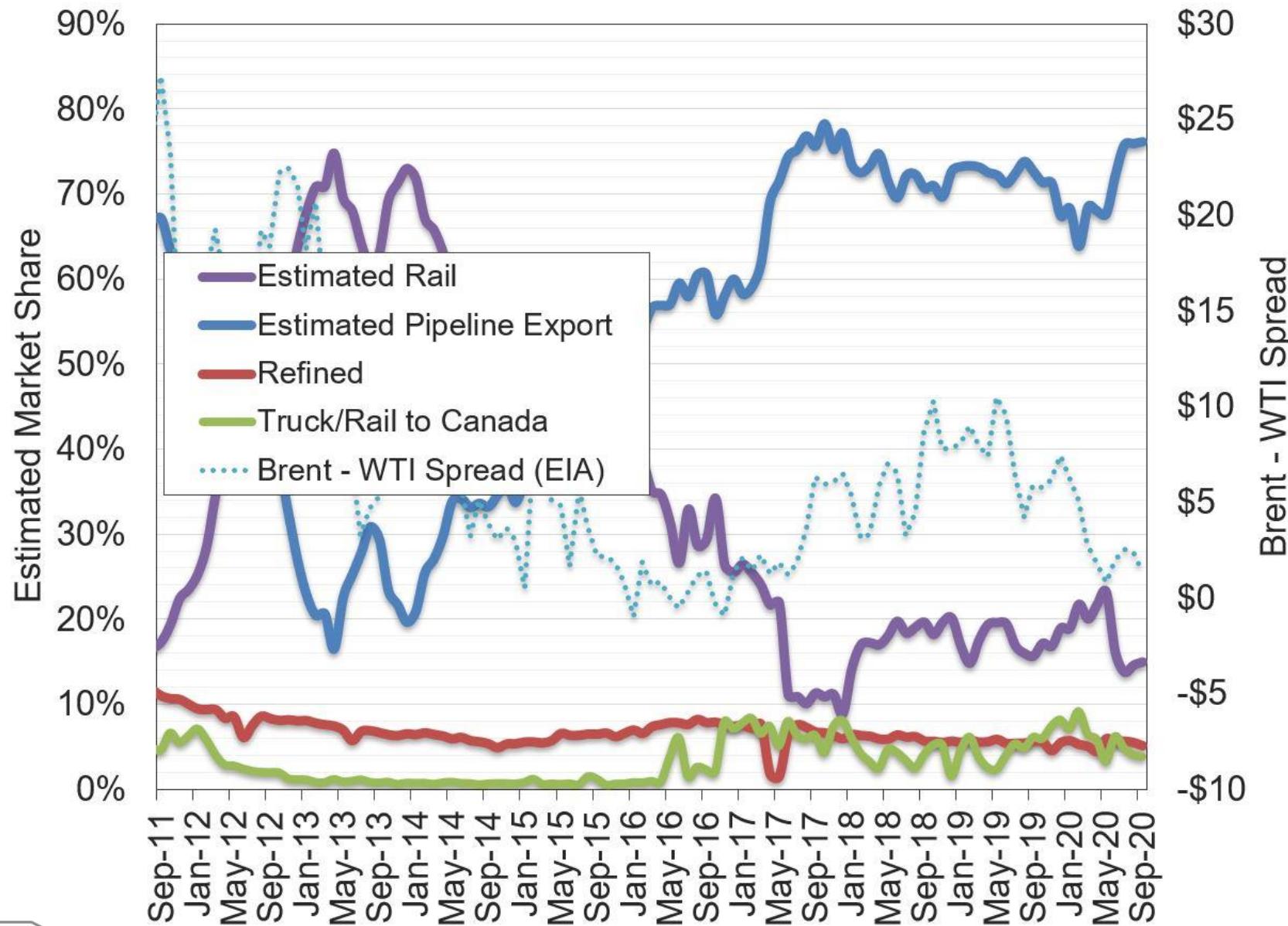
North Dakota Completions



Estimated Williston Basin Oil Transportation



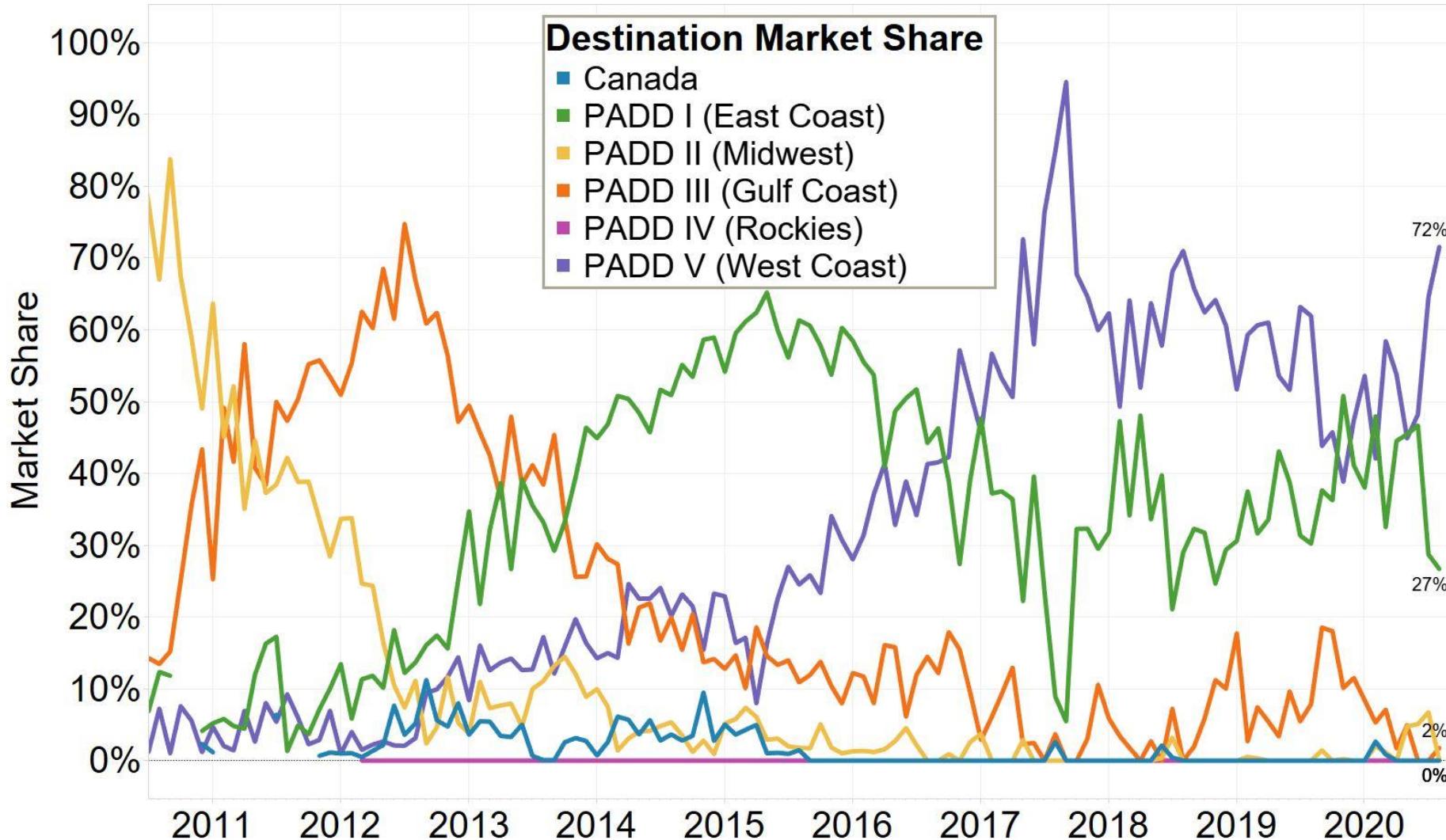
Estimated Williston Basin Oil Transportation



Estimated ND Rail Export Volumes



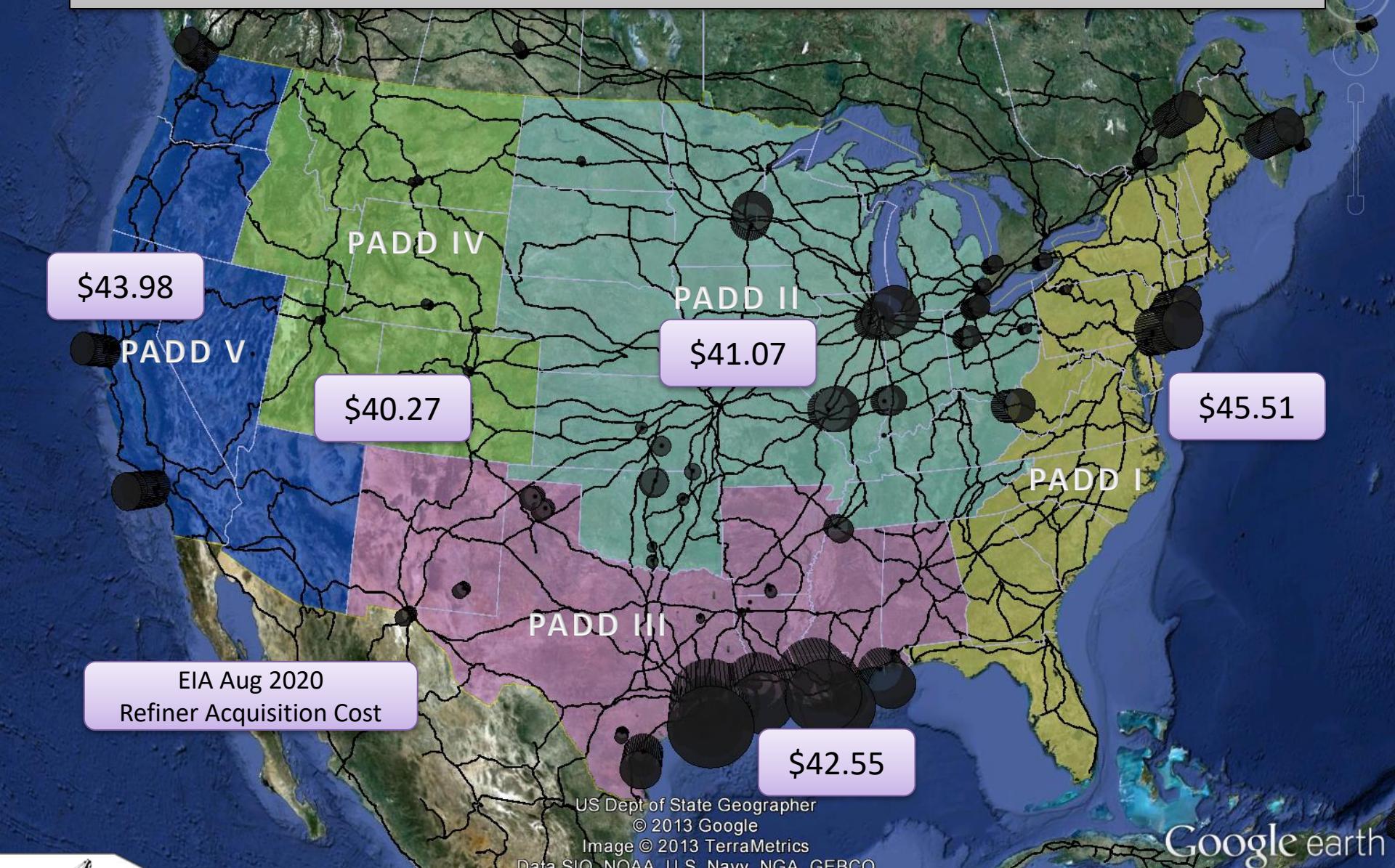
Rail Destinations Market Share (Aug. 2020)



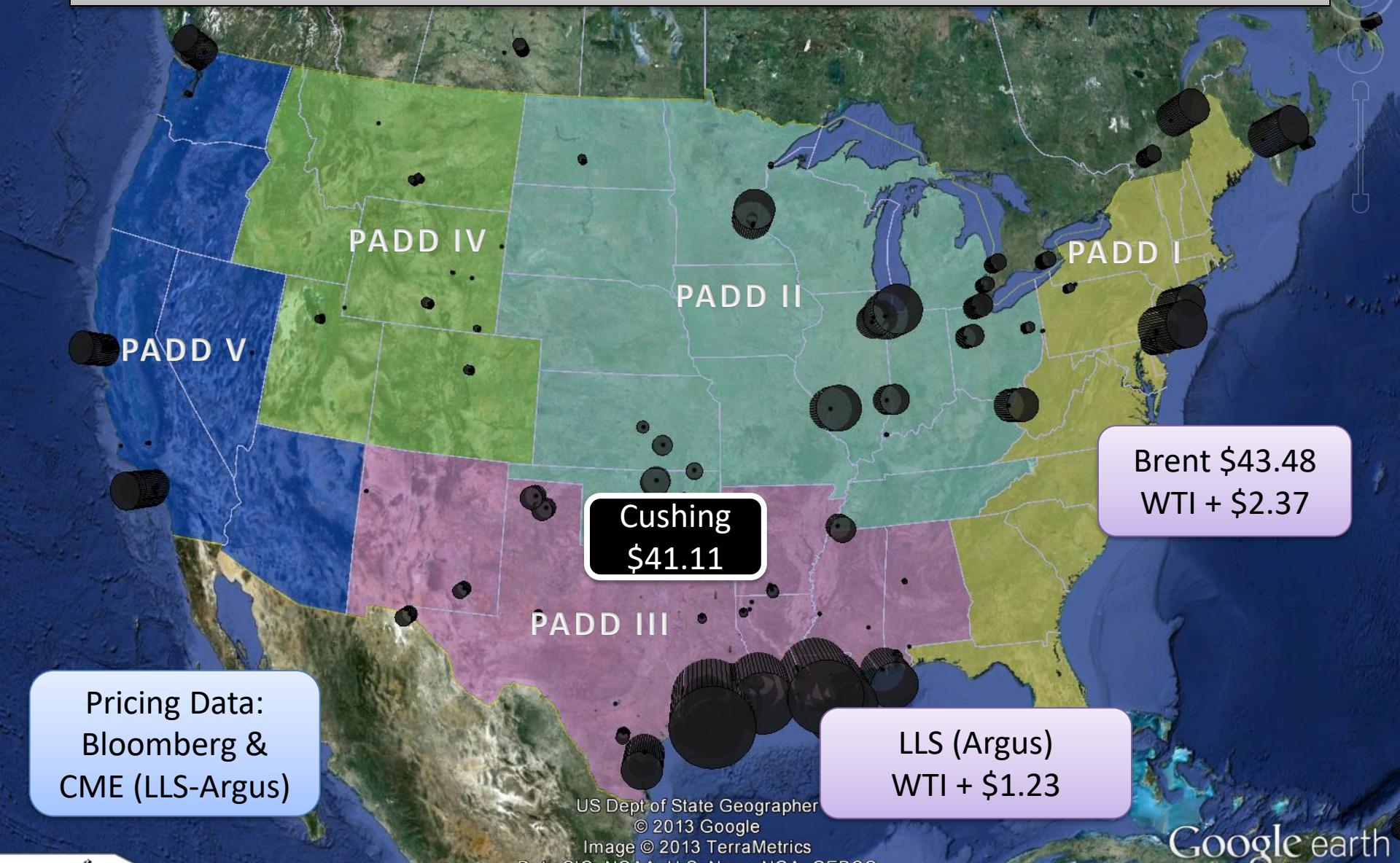
Data for Rail Destination Market Share Provided by the US Energy Information Administration



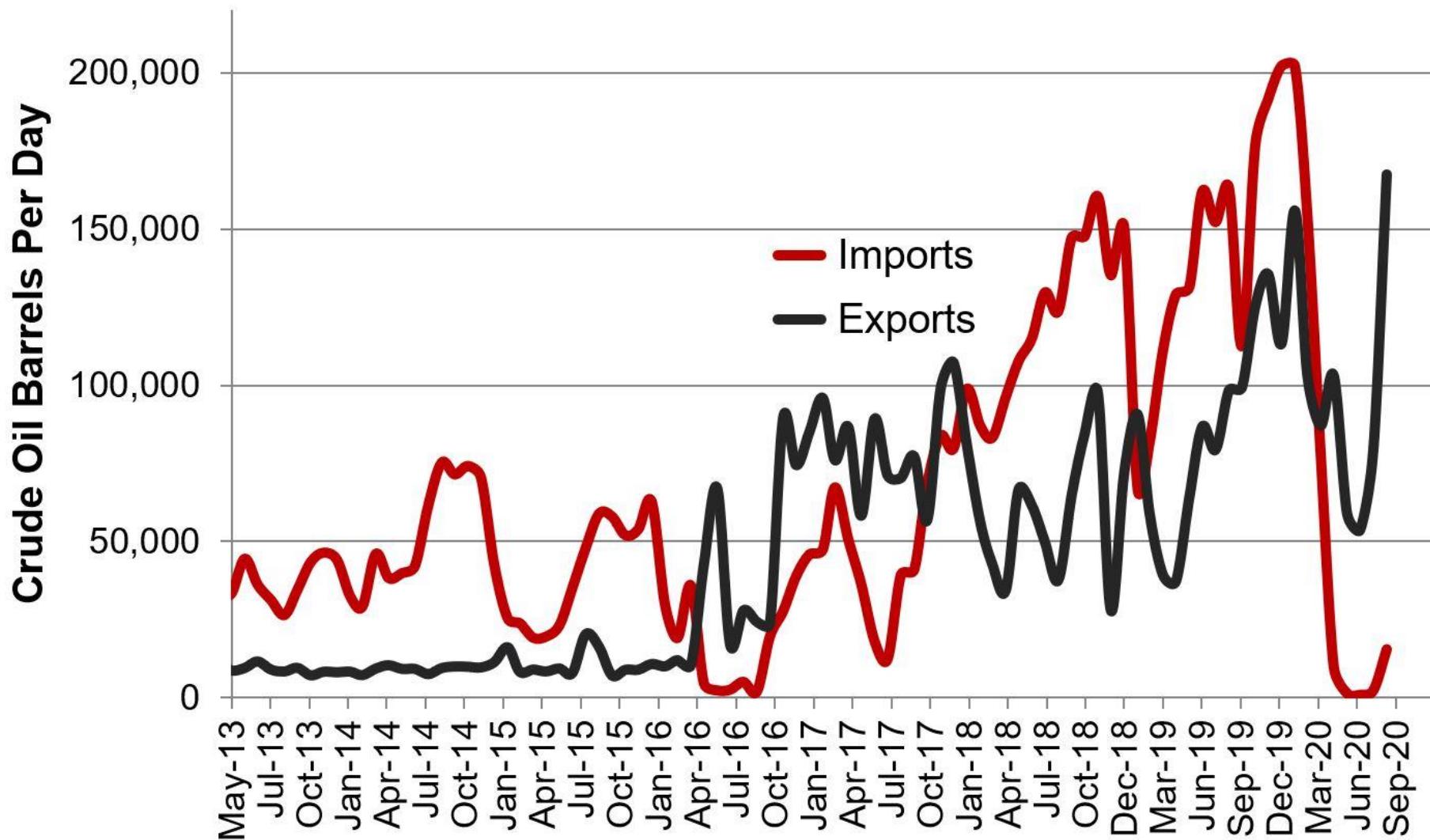
Major Rail Lines and Refineries



Crude Oil Prices – Nov. 17, 2020



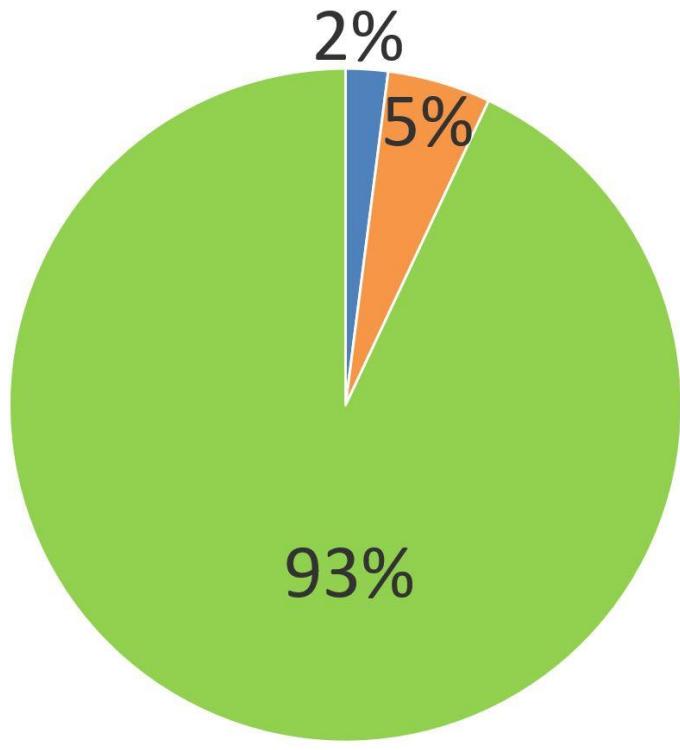
Williston Basin Truck/Rail Imports and Exports with Canada



Data for imports/exports chart is provided by the US International Trade Commission and represents traffic across US/Canada border in the Williston Basin area.



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.

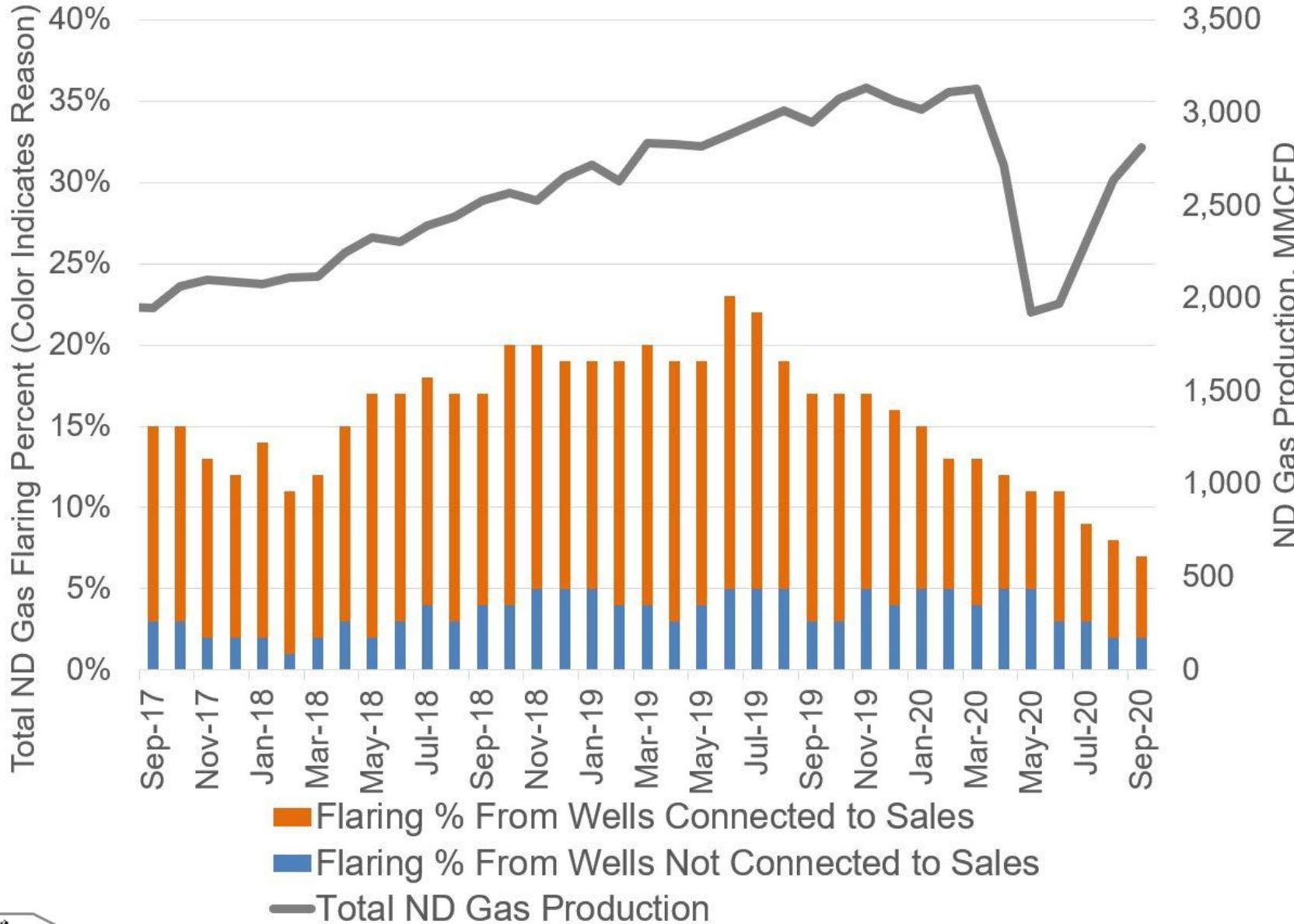
Simple Terms

Blue – Lack of pipelines
Orange – Challenges on existing infrastructure

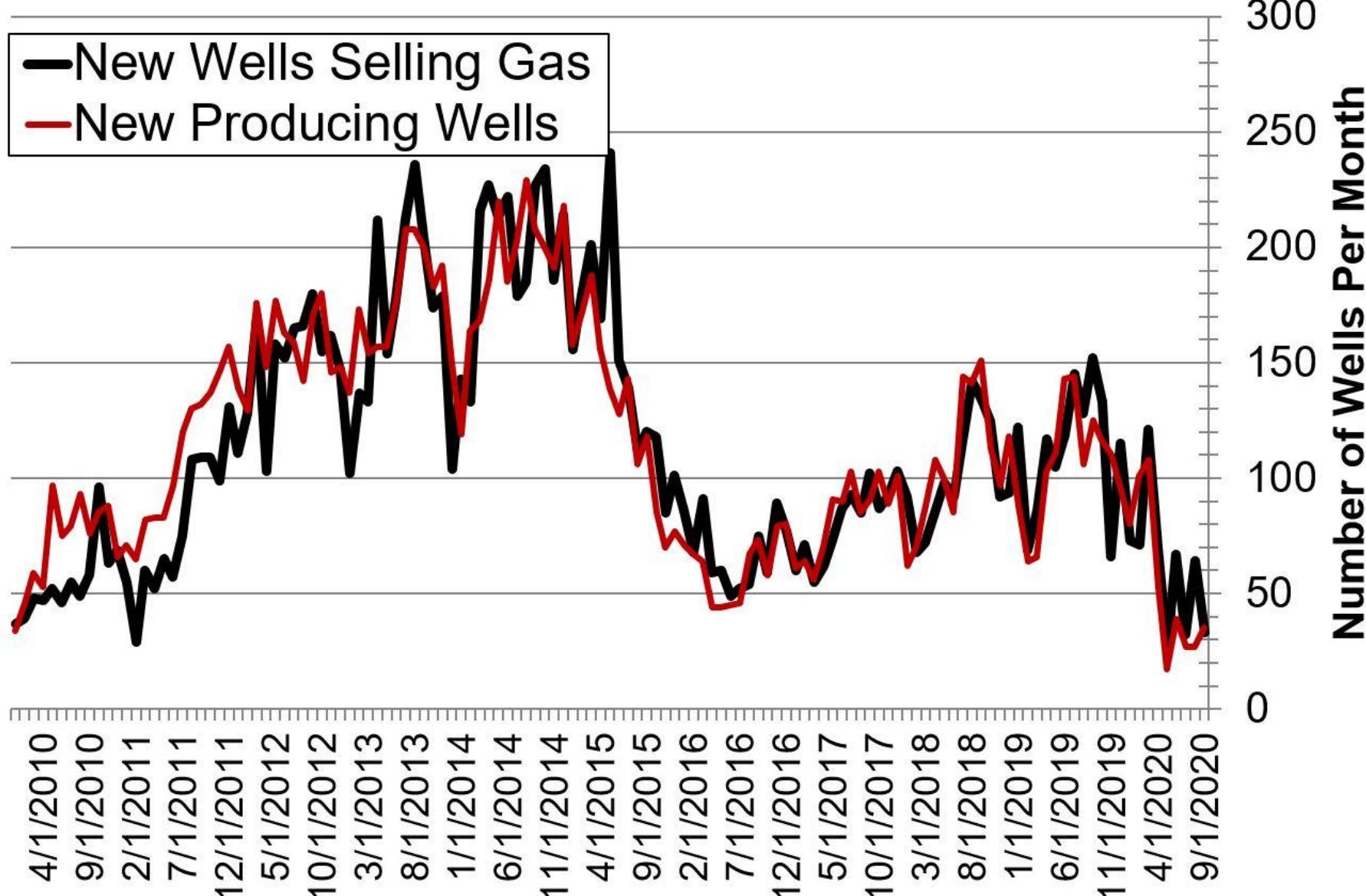
September 2020 Data – Non-Confidential Wells



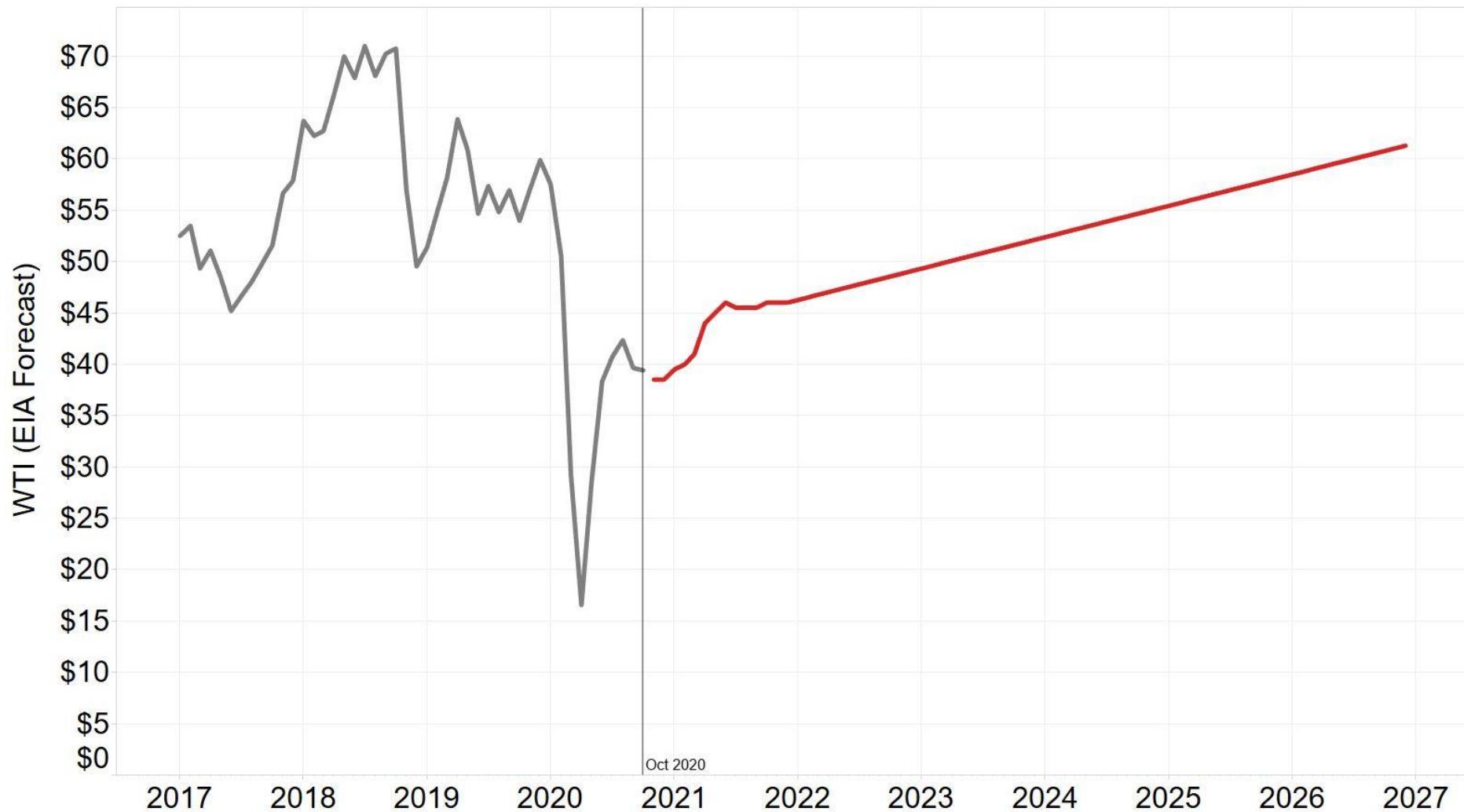
Solving the Flaring Challenge



Solving the Flaring Challenge



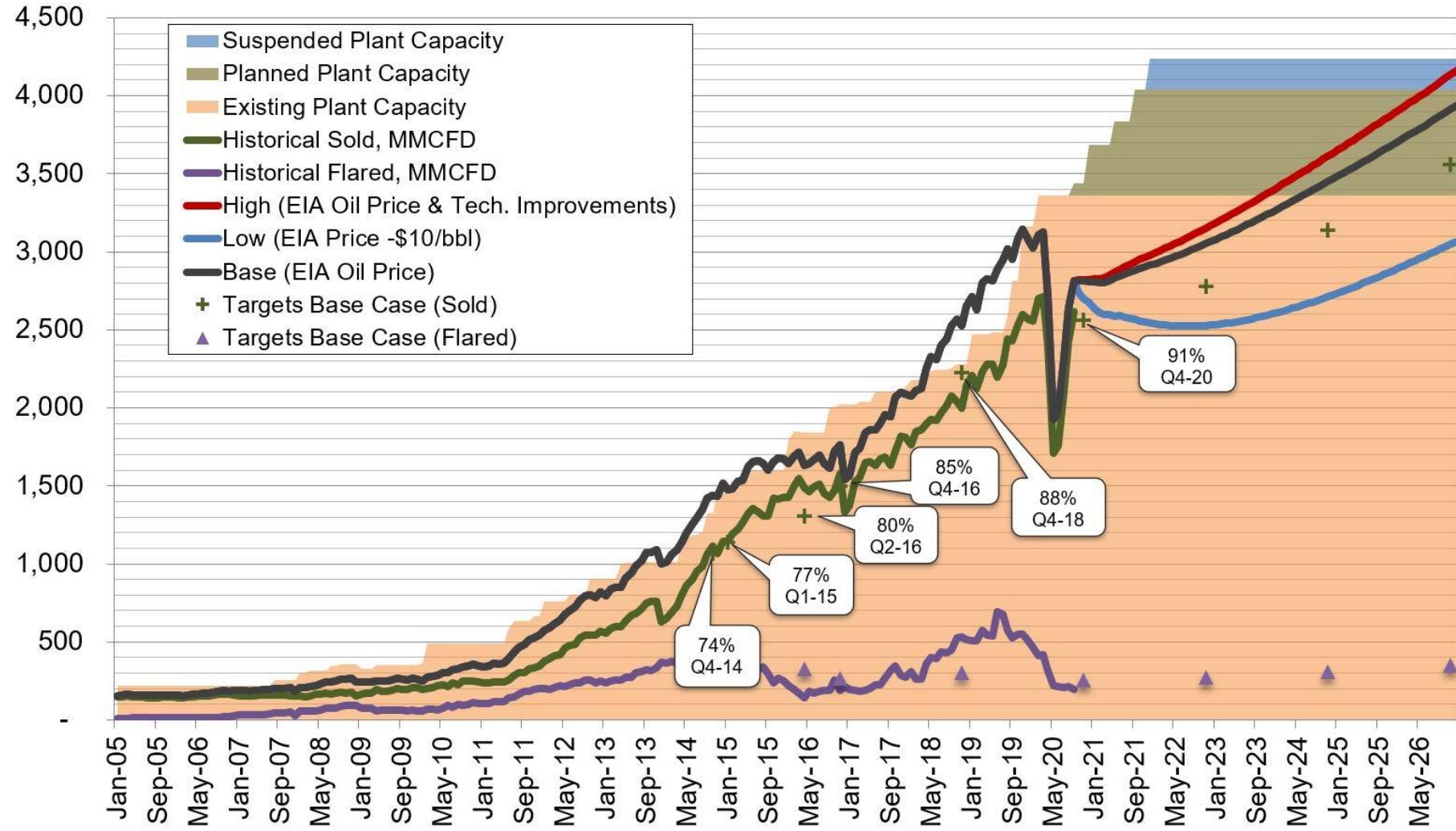
EIA Oil Price Forecast*



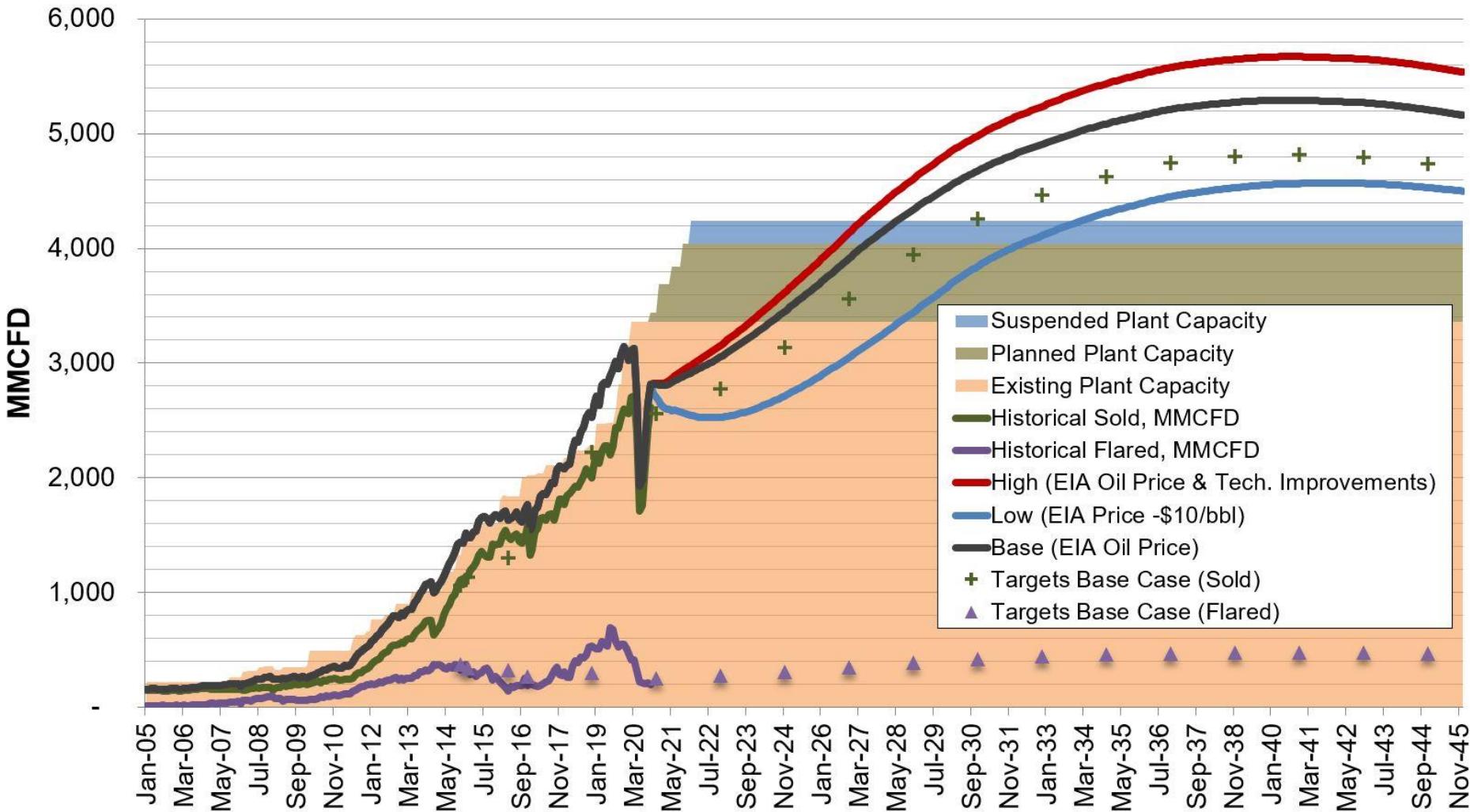
*EIA November 2020 SEO and January 2020 AEO Blend



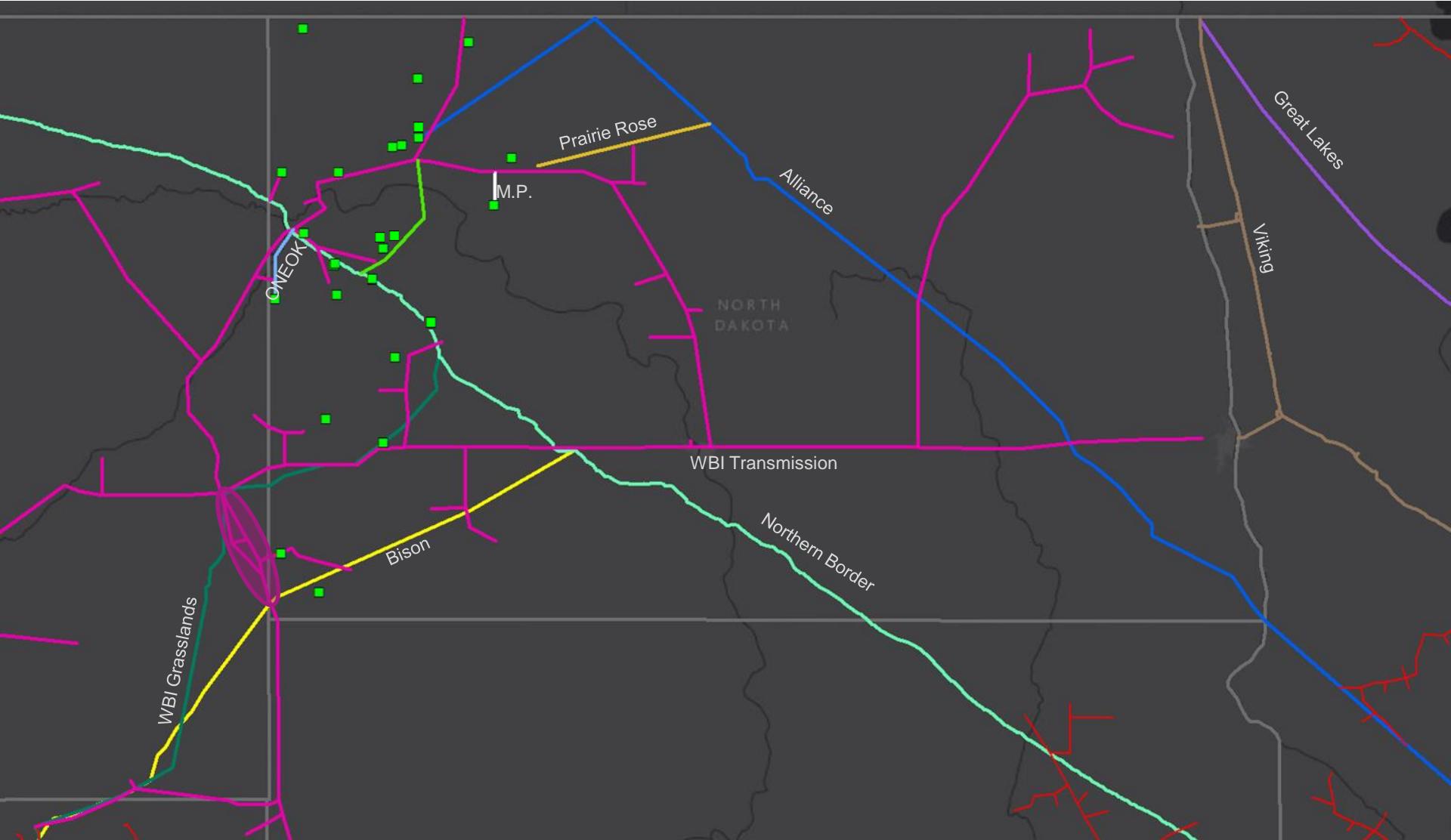
Solving the Flaring Challenge



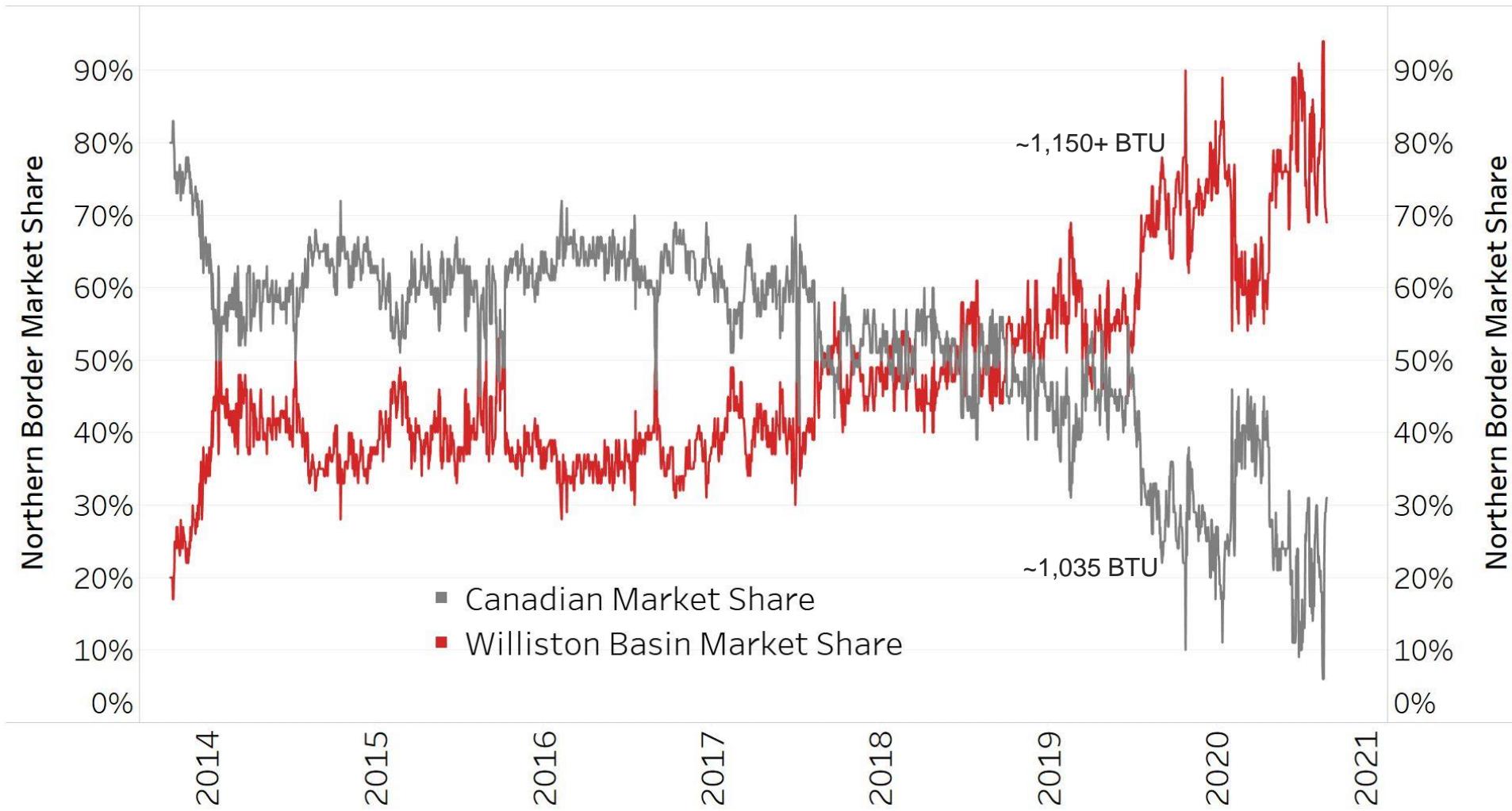
Solving the Flaring Challenge



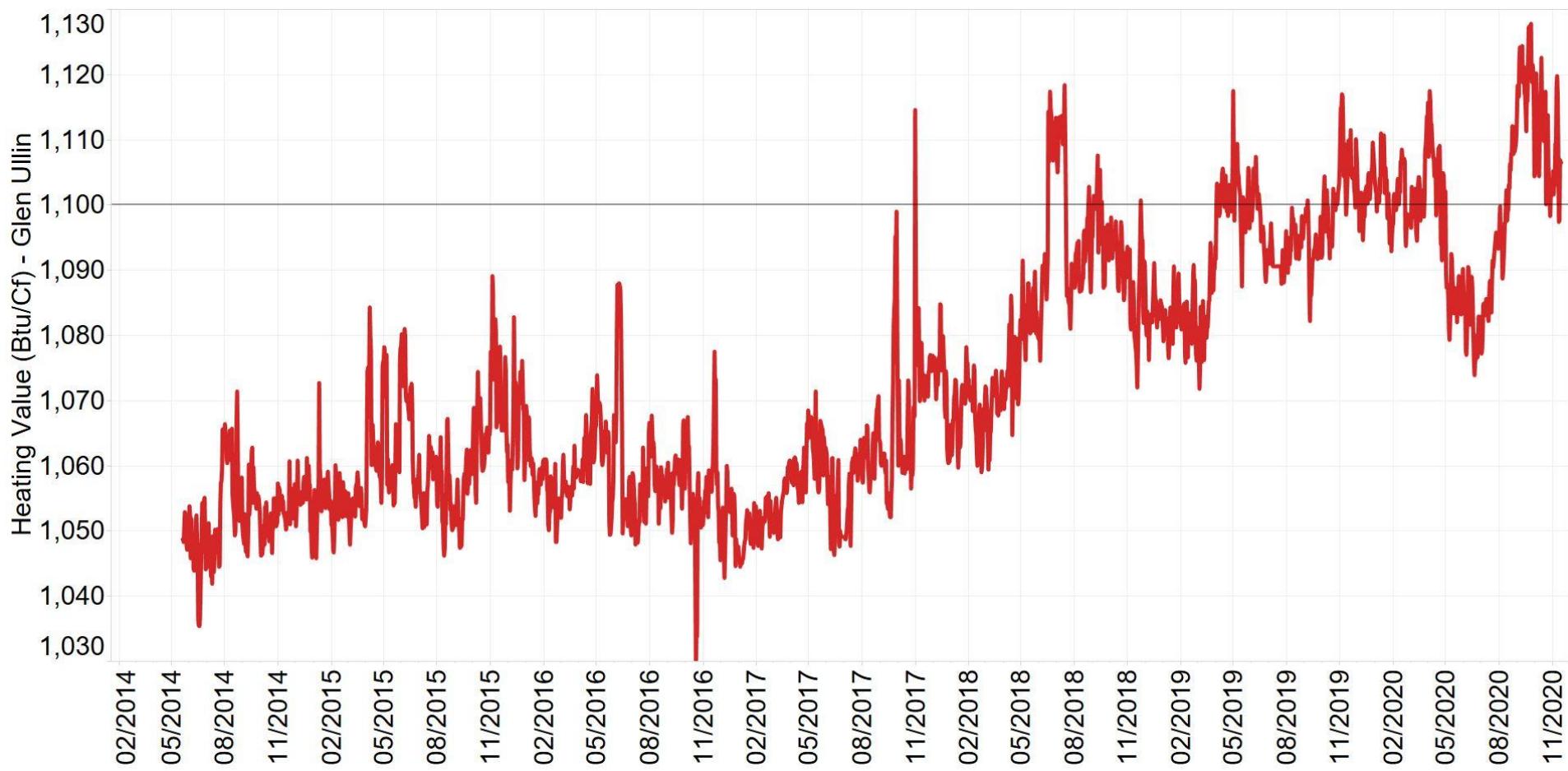
Major Gas Pipeline and Processing Infrastructure



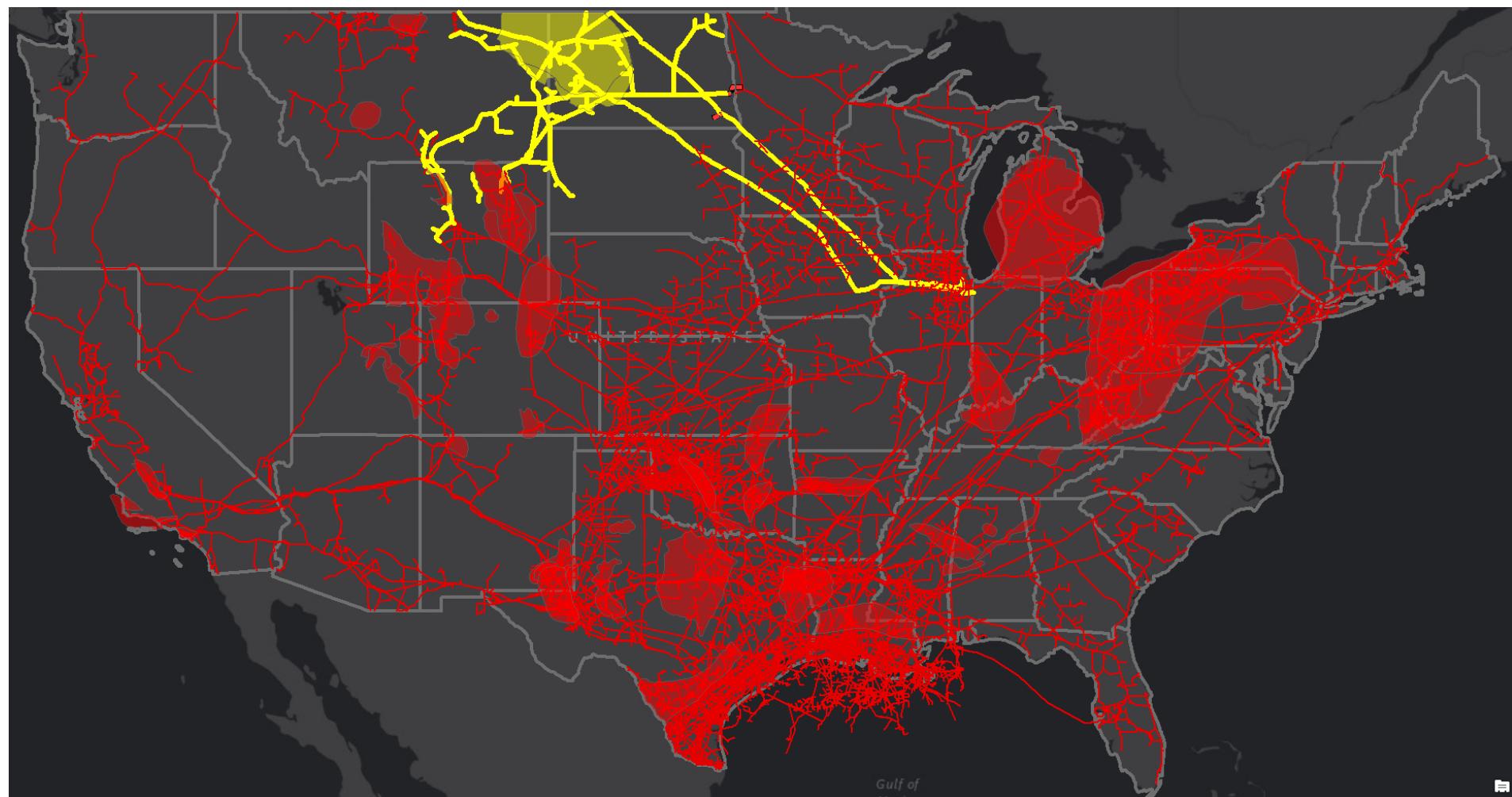
Northern Border Pipeline Market Share



Northern Border BTU at Glen Ullin, ND



Bakken Natural Gas Infrastructure



Contact Information

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



JJ Kringstad - North Dakota Pipeline Authority

Websites:

www.pipeline.nd.gov

www.northdakotapipelines.com

