

**Congress of the United States
House of Representatives
Committee on Science, Space, and Technology
Subcommittee on Energy
And
Subcommittee on Environment
May 7, 2013
Room 2318 Rayburn House Office Building, Washington, DC**

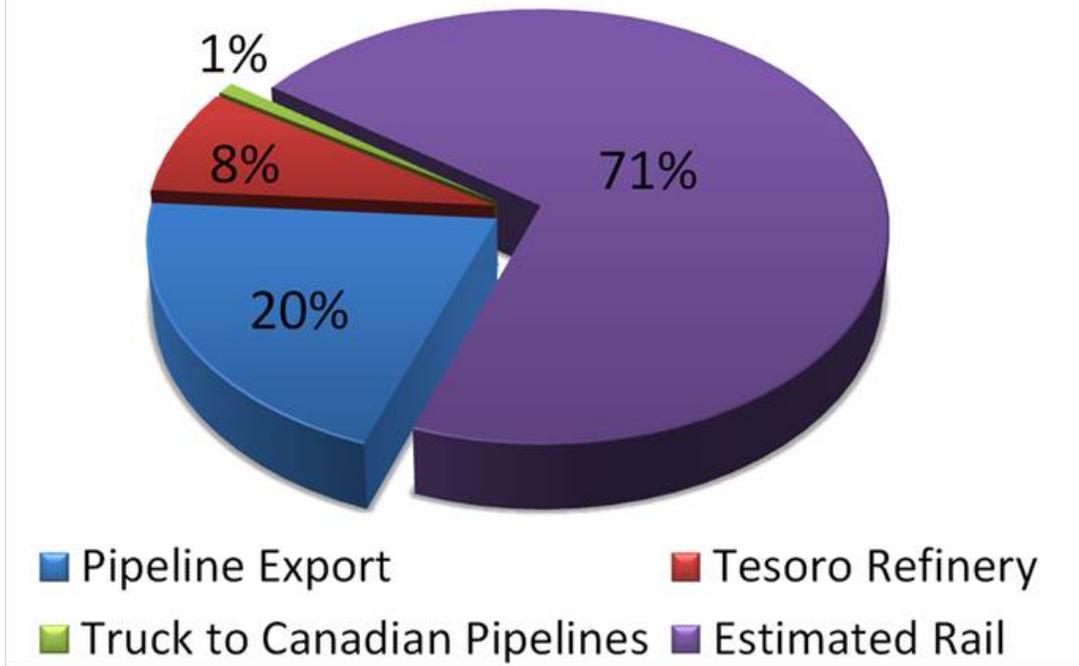
**Testimony by Lynn D. Helms, Director
North Dakota Industrial Commission
Department of Mineral Resources**

The Bakken Formation is a large unconventional resource that underlies most of the western portion of the state of North Dakota and eastern Montana. The United States Geological Survey stated in their April 2013 report that it is the largest continuous resource they have assessed in the lower 48 states.

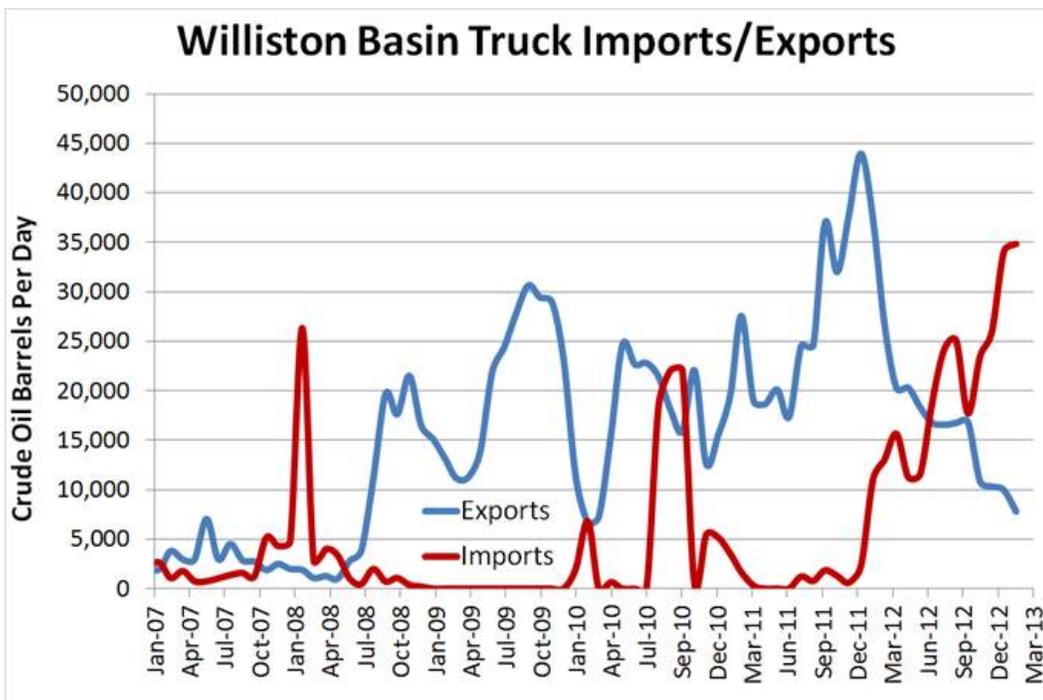
Production from Bakken development has moved North Dakota from number eight to number two among US states in daily production at almost 780,000 barrels of oil per day. Achieving those production levels has required significant increases in pipeline, natural gas processing, electric generation and transmission, refining, highway, and housing capacity.

Major shortfalls in pipeline capacity have resulted in a very unbalanced transportation market as can be seen in the following charts. Lack of pipeline capacity in the midcontinent has led to much higher oil prices on the coasts and shifted the normal transportation mode away from pipelines, to higher risk and impact alternatives; such as rail and truck.

Estimated Williston Basin Oil Transportation



Currently, 5,000 to 10,000 barrels of sour North Dakota crude are being trucked into Canada to access pipelines serving the best markets for that type of oil while 35,000 barrels per day is being trucked into North Dakota to access rail transportation loading facilities serving the best markets for that type of oil.



Keystone XL has signed up over 60,000 barrels per day of Bakken crude to transport from Baker to Guernsey and has committed to carry 100,000 barrels per day. Currently, that production is being trucked from the wells to rail facilities. This is the equivalent of 50 long haul truck loads for each 10,000 barrels. Once Keystone XL is in place, those trucked barrels will most likely be connected to a gathering system that will deliver them to Keystone XL. Approval of Keystone XL will cause two things to happen: 1) 300 – 500 truck-loads per day will be taken off North Dakota highways and 2) there will be 1 - 2 less trains per day leaving North Dakota.

Our calculations show that green-house gas emissions from rail transportation are 1.8 times and from truck transportation are 2.9 times the emissions from pipeline transportation. In addition, oil spills from truck transportation occur at 3 - 4 times the rate of spills from pipelines. Approval of the Keystone XL pipeline will result in 450,000- 950,000 Kg/day less green-house gas emissions in North Dakota as well as significant decreases in dust and 60 – 80 fewer spills per year.

In the five years from 2006-2011 the number of crashes involving semi-trucks has risen substantially. Fatal crashes have more than doubled, injury crashes have more than tripled, and property damage crashes have doubled. The rate of fatal crashes has remained constant at 1.4 and injury crashes at 40 per 100 million miles driven. Approval of the Keystone XL pipeline is expected to reduce highway fatalities in North Dakota by 3 to 6 per year and injury crashes by 85 to 150 annually.

The findings of the State Department Supplemental Environmental Impact Statement (SEIS) regarding spill frequency and impacts are consistent with our experience regulating spill reporting and reclamation in North Dakota.

The findings of the State Department Supplemental Environmental Impact Statement (SEIS) regarding potential green-house gas emissions from rail transportation of oil sands production to markets is consistent with our experience in North Dakota. In 2006, I co-authored an analysis of Williston Basin Crude Oil Bottlenecks that concluded transportation by rail would be an inefficient, uneconomic, short term solution. As shown by the current North Dakota oil transportation breakdown the size of the resource, changing markets, and innovations in the rail transportation industry have resulted in just the opposite.

Lynn D. Helms

Director, North Dakota Department of Mineral Resources

His work in the oil industry has taken Lynn Helms all over the world. Most recently, Lynn has served as Director of the North Dakota Industrial Commission Oil & Gas Division since July 1998 and Director of the Department of Mineral Resources since it was formed in July 2005. Before moving to Bismarck to work in state government, he worked as a production engineer, reservoir engineer, and asset team leader on projects in Abu Dhabi, Alaska, Arkansas, Louisiana, Mississippi, Montana, New Mexico, North Dakota, Texas, and Wyoming. Lynn earned his Bachelor of Science Degree in Engineering from South Dakota School of Mines and Technology. When he's not working Lynn enjoys spending his free time with his wife, college-aged children, and his four horses.