

## **Bakken Petroleum: The Substance of Energy Independence**

### **Subcommittees on Energy and Oversight**

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#### **Oral Presentation**

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The North Dakota Petroleum Council (NDPC) represents over 530 companies engaged in all aspects of oil and gas activities in North Dakota, South Dakota, and the Rocky Mountain region. NDPC members produce 98% of all oil and gas in North Dakota.

The State of North Dakota is one of the only states with a multi-resource comprehensive energy policy. North Dakota is proactive and aggressive in addressing energy development and serves as a model for America in fostering innovation, and long-term energy development to meet our nation's growing demand and need for energy security in an environmentally responsible manner.

North Dakota is now the second largest oil-producing state in the nation, reaching 1 million barrels of daily production in May 2014, up from 100,000 barrels per day in 2007. The industry has almost 11,000 producing oil wells, employs tens of thousands of direct and indirect jobs, has a \$30 billion economic impact and contributes \$11 million per day to the state and political subdivisions in oil production taxes.

The states of Texas and North Dakota combined produce nearly half of the crude oil produced in the United States, and increased domestic production has helped stabilize energy prices despite turmoil overseas. In fact, this new domestic energy production has reduced imports by 4.4 million barrels per day since 2005. Imports from Saudi Arabia are down 25.3 percent, while imports from Venezuela are down 47.8 percent. Because of shale oil and gas, North American energy security is now achievable and North Dakota is proud of its role in this progress.

Although North Dakota's oil and gas production has grown substantially in recent years, pipeline capacity to key markets has not, requiring 59 percent of Bakken crude to be hauled via rail in June. Since the increase of crude being transported by rail, there have been eight railway incidents involving crude oil that have raised questions as to the chemical characteristics of Bakken crude, how it compares with other flammable liquids under U.S. Department of Transportation regulations and whether it can be safely transported across North America under the current regulatory environment as enforced by the Pipeline and Hazardous Materials Safety Administration.

Three independent studies have now shown that Bakken crude is similar to other North American light, sweet crude oils in gravity, vapor pressure, flash point and initial boiling point, the key parameters in proper classification. According to these studies, Bakken crude oil chemical properties attest to its proper classification as a Class 3 flammable liquid. This category contains most of the valuable fuels and fuel feed stocks offered for transportation in the United States.

One of these studies was commissioned by the NDPC to answer questions raised about the chemical properties and transportation safety of Bakken crude oil. The study included a comprehensive sampling,

and analysis plan and was conducted by Turner Mason & Company, an internationally known and recognized group of engineering consultants with extensive crude oil expertise, at a significant cost.

The oil and gas industry in North Dakota has a strong safety culture focused on zero incidences. All incidences, large and small generate a safety investigation to determine the root cause of the safety incident. Procedural changes or additional safety measures are implemented to mitigate the root cause and prevent a reoccurrence of a similar incident. This is true whether the incident occurs during drilling, completions, production or transportation aspects of the industry's activities. Commissioning of the Turner Mason study is an example of the industry's desire to investigate safety incidences.

The TM & C study was designed to provide scientific answers to address the growing perception that light crude oil is more hazardous than other flammable liquids or hazardous materials being transporting in the United States. The results of the study do not support the speculation that Bakken crude, in particular is more volatile than all other crude oils or other flammable liquids.

There are nine classes of hazardous materials transported by truck, rail, ship and cargo air in the United States. Materials from all nine hazardous materials classes are transported safely every day in this country, millions of times per year. Those who offer hazardous materials for shipment must be certified and are required to properly classify the material being offered for transportation.

All classes of Hazardous Materials transported by rail arrive safely at destination 99.997% of the time. The efforts of all stakeholders, including PHMSA, the oil and gas industry, tank car builders and owners, the railroads and the state of North Dakota, are focused on effecting an incremental safety improvement for the remaining 0.003% incidences.

In Conclusion, safety always has and continues to be a core value of the oil and gas industry. The NDPC and its members believe rail safety improvements must be developed using a holistic, comprehensive, and systematic approach that examines prevention, mitigation, and response. Safety solutions must be data-driven and produce measurable improvements to safety without creating new risks or inadvertently shifting the risks to other businesses or operations. To achieve this, collaboration is needed among government, shippers, railroads, and tank car builders.

All stakeholders recognize the importance of implementing additional safety measures to reduce the probability of the remaining 0.003%; efforts to improve safety of the railcar, routing analysis, infrastructure inspection and enhancements as well as additional training and information for Emergency Management personnel are all efforts being addressed. The oil and gas industry in partnership with the railroads is working to develop a common educational tool to be distributed broadly to fire departments either through web portal or DVDs. This information will also be available for companies to use in continued interaction with fire departments and other EMS personnel. Rail and oil industries in many states have worked collaboratively on drills and exercises, development of additional response resources and periodic meetings to keep the lines of communication open to maximize information sharing of the latest data on emergency response for crude incidents.

We look forward to continuing our work with state and federal leaders to enhance safety in bringing this product to market and ensuring our state can continue to improve our energy security by providing a reliable energy resource for our nation.