

INDUSTRIAL COMMISSION OF NORTH DAKOTA

NORTH DAKOTA PIPELINE AUTHORITY

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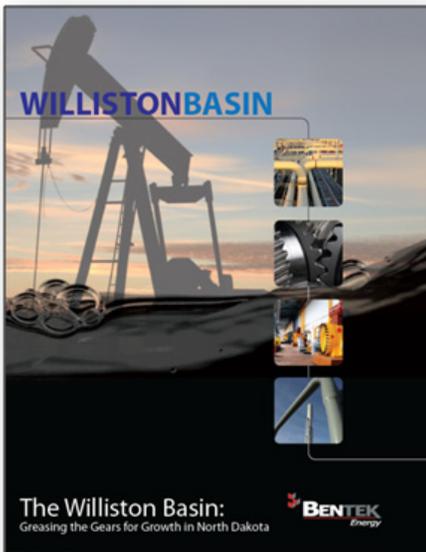
The Pipeline Publication

Keeping North Dakota Connected

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BENTEK Report Released

On July 25, 2012, the Pipeline Authority published the final results from the BENTEK Energy natural gas production and transportation study. The full report is available for free download at the following Pipeline Authority website: www.ndpipelines.wordpress.com.



Natural Gas Production

The primary study objective regarding natural gas production was to investigate the relationship between the crude oil and natural gas production from a typical Bakken well over time. This relationship is known in the petroleum industry as gas-oil-ratio (GOR). The study concluded that over time, the GOR of a typical well is expected to increase as the reservoir pressure is reduced due to petroleum production. In other words, the overall oil and natural gas will decline as the well ages; however, the natural gas production is not expected to decline as quickly in the long term. This seemingly small difference between the oil and natural gas decline rates has major implications for the overall natural gas production from the region when you figure in the number of wells it will take to fully develop the Bakken resource.

Using data obtained from the study, the Pipeline Authority has recently released a natural gas forecast that estimates North Dakota could be producing 2.0-2.4 billion cubic feet of natural gas each day in the late 2020's. This is up from North Dakota's current natural gas production of roughly 0.72 billion cubic feet per day. North Dakota can expect to see continued investment in local natural gas gathering and processing in order to handle the expected increase in production.

Natural Gas Transportation

The second key component of the study was to look at the current interstate natural gas pipeline system and its capability to handle growing natural gas volumes from the region. The ability for North Dakota to export natural gas to consumers in the midcontinent is currently made possible by two major pipeline systems, Northern Border and Alliance.

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**North Dakota
Production Numbers**

	May-12	June-12	July-12
Average Daily Oil Production, BOPD	643,123	664,618	674,067
Average Daily Gas Production, MMCFD	675.7	699.9	718.8
Average Rig Count	211	213	211

As of September 28, 2012, there are 189 active rigs in North Dakota.

www.pipeline.nd.gov

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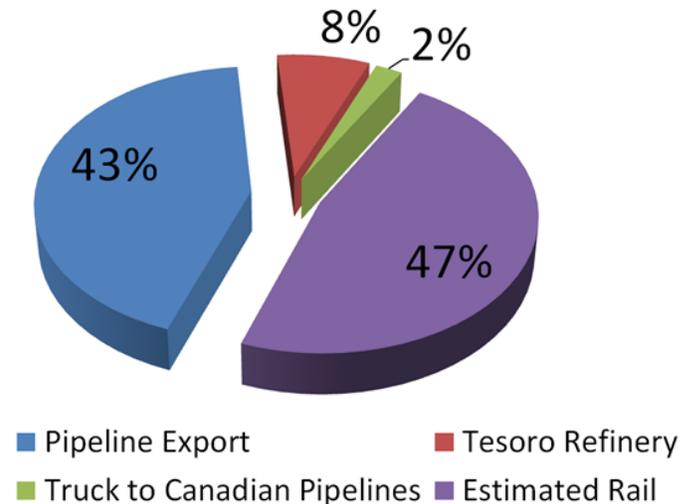
Natural Gas Transportation (continued)

Both of these large pipeline systems originate in western Canada and pick up North Dakota natural gas at various interconnecting locations in the state. North Dakota must compete on price with natural gas production from Canada, Montana, and Wyoming in order to maintain access to these pipeline systems. BENITEK Energy believes that competition for pipeline space will intensify, but North Dakota natural gas production has economic advantages that will allow it to gain access to the pipeline networks over the long term.

NGL Content and Location

One unique factor of Bakken natural gas is its high content of natural gas liquids (NGL) such as ethane, propane, butane, and natural gasoline. In the past, NGL received relatively little attention in the Williston Basin. That could all change as natural gas volumes ramp up in the coming years and additional gas processing plants capable of handling the rich gas are constructed. Bakken natural gas is estimated to contain 8-12 gallons of NGL per thousand cubic feet of raw natural gas. Simple calculations would estimate the potential for 400,000-450,000 barrels per day of NGL production from North Dakota during the next decade. In order to fully realize this potential, continued investment in gathering pipelines and new processing plants will be required.

Williston Basin Crude Oil Transportation



July 2012 Figures



North Dakota Pipeline Authority

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