

Bakken Update – May 2012



“This is more than Oil – It’s Opportunity”

-Ron Ness, President of North Dakota Petroleum Council



OPPIDAN

Builder of towns. Creator of value.

North Dakota Oil Patch

In March 2012, North Dakota surpassed Alaska as the No. 2 oil producing state in the country, now trailing only Texas.

- North Dakota produced 17.8 million barrels of oil in March, a daily average of 575,490 barrels , beating the previous February record.
- In March, the number of oil wells producing in North Dakota jumped to 6,921, also a new record.
- There are 210 drilling rigs currently working in the North Dakota oil patch.
- March also saw a record amount of Natural Gas produced in North Dakota, 620.8 million cubic feet.

North Dakota's oil production has nearly quintupled since March 2007, when it averaged 118,103 barrels per day.

Lynn Helms, North Dakota's director of the Department of Mineral Resources, said North Dakota could DOUBLE its oil production to more than 1 MILLION barrels of oil per day by 2015.



OPPIDAN

Builds towns. Creates value.

Need for Housing

The US Census Bureau has listed 3 North Dakota oil cities in the top ten for fastest growing Micropolitan Areas:

#1 – Williston

#4 – Dickinson

#8 – Minot

The 10 Fastest Growing Micropolitan Areas in the US
From April 1, 2010 to July 1, 2011

		<i>Percent Increase</i>
1.	Williston, ND	8.8%
2.	The Villages, FL	4.6%
3.	Andrews, Texas	4.5%
4.	Dickinson, ND	4.0%
5.	Dunn, NC	4.0%
6.	Statesboro, GA	3.8%
7.	Heber, UT	3.8%
8.	Minot, ND	3.6%
9.	Tifton, GA	3.3%
10.	Guymon, OK	3.3%

A Bakken housing summit was held in Williston, ND the week of May 14th

- It was sold out, attended by more than 350 people from 33 states.
- THK Associates, a company that conducts market feasibility studies for builders and developers, said there is an immediate need for 7,000 homes in Williston alone and that Williston will need 25,000 homes built over the next decade.
- According to Peter Elzi, principal of THK, Dickinson and other oil patch communities also have significant needs for housing.

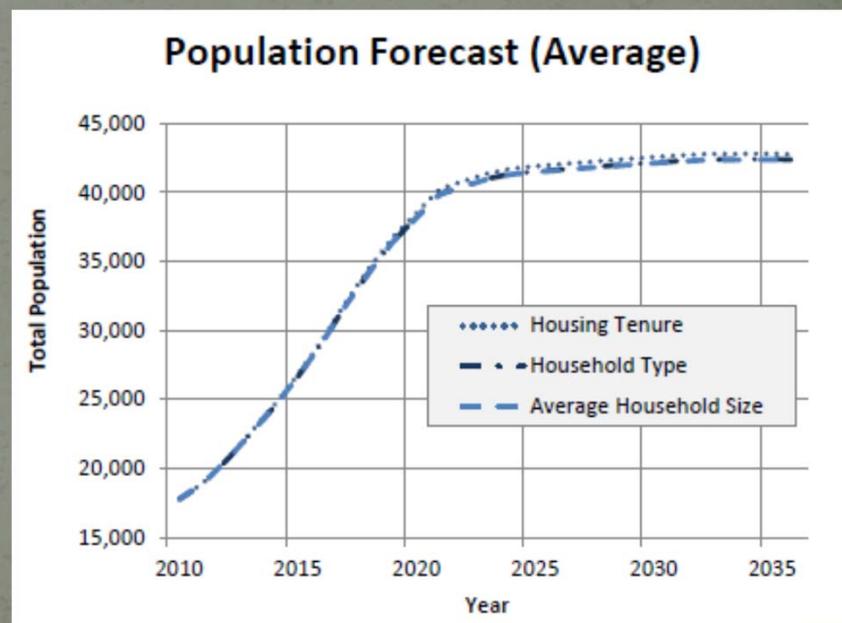
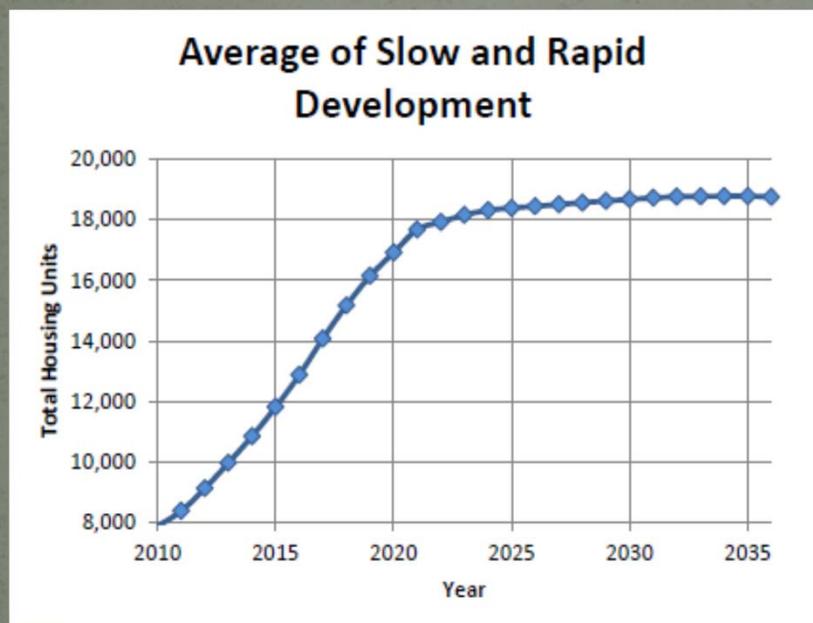


OPPIDAN

Builder of towns. Creator of value.

Need for Housing

Below are average estimates from a NDSU housing study for the City of Dickinson, North Dakota for both housing and population growth. They are expecting large growth over the next 10+ years.



Graphs based on an NDSU housing study



OPPIDAN

Build towns. Create value.

Need for Natural Gas Infrastructure

Natural Gas is produced in connection with the extraction of oil and its flaring has become a hot topic in North Dakota.

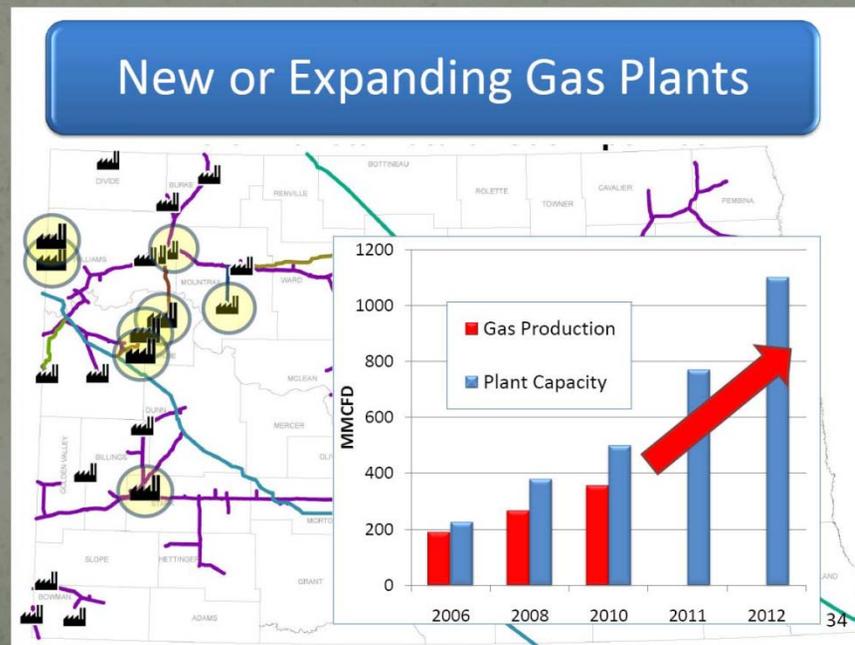
- Almost one third of the gas produced in North Dakota is flared because of the lack of infrastructure to transport or otherwise monetize it.
 - Generally, it's better to flare natural gas than to vent it into the atmosphere because natural gas methane is a more powerful greenhouse gas than carbon dioxide.
 - Less than 1% of the total natural gas produced in the US is flared or vented.
 - State regulations allow gas produced with crude oil from an oil well to be flared during a one-year period from the date of first production from the well. After this time, gas must be captured.
- Today, it is not economical to capture much of the gas produced in association with Bakken Shale oil production given the lack of gas-related infrastructure.
 - Gas generally needs to be hooked up to pipelines for transport whereas oil can move by truck, rail, or pipelines.



Need for Natural Gas Infrastructure

\$3 billion worth of infrastructure projects are in the works in North Dakota's Bakken region to monetize the natural gas produced in association with oil production.

- According to the North Dakota Pipeline Authority, these improvements include new gas processing plants and expansion of existing plants, two NGL pipelines and adding compression to the North Dakota intrastate gas system.



Courtesy of North Dakota Department of Mineral Resources

New Hydraulic Fracturing Regulations

The Obama Administration recently instituted new Regulations on hydraulic fracturing, April/May 2012 – What are they?

- Require the disclosure of chemicals used in the hydraulic fracturing process AFTER drilling on federal or American Indian lands.
- Require additional testing of oil and gas well construction and require the industry to have a management plan for the water used in the process.
- Drillers need to capture emissions of certain air pollutants from new wells. Not required until 2015 when the technology is expected to be readily available.

Many drilling regulations are controlled at the state level which already encompass many important environmental regulations.

- State officials from North Dakota are most concerned with how these regulations could effect the drilling on the Fort Berthold Indian Reservation south of New Town.
- There is little effect to ND regarding the chemical disclosure regulation on federal land due to the fact the most Bakken oil wells are drilled on private land. Currently there is one well being drilled on federal land in North Dakota.
- The Obama administration is generally supportive of fracking.



OPPIDAN

Builds towns. Creates value.