

**NORTH DAKOTA OIL & GAS  
RESEARCH COUNCIL  
UPDATE: 2006**

# OVERVIEW

- Established in 2003
- The Mission of the Oil and Gas Research Council is to promote the growth of the oil and gas industry in the State through research and education.

- The Program is funded from the state's share of the oil and gas production tax and oil extraction tax.
- Two percent of the state's share of the oil and gas gross production tax and oil extraction tax revenues, up to \$1.3 million, is available to the OGRC each biennium.



- Grant round deadline dates will be May 1 and November 1.
- Additional grant round deadline dates may be established by the Industrial Commission of North Dakota.

# MISSION STATEMENT

- The mission of the OGRC is to promote the growth of the oil and gas industry in North Dakota through research and education.

# Statutory Goals & Purposes

- **Promote** efficient, economic, and environmentally sound **exploration, development**, and use of North Dakota's oil and gas resources.
- Preserve and create **jobs** involved in the exploration, production and utilization of North Dakota's oil and gas resources.
- Ensure **economic stability, growth**, and opportunity in the oil and gas industry.
- Encourage, and promote the use of **new technologies** and ideas that will have a positive economic and environmental impact on oil and gas exploration, development, and production in North Dakota.
- Promote **Public Awareness** of the benefits and opportunities provided by the North Dakota oil and gas industry.



# Examples of Previously Funded Projects

- Remediation of Salt & Hydrocarbon Impacted North Dakota Soils
  - Submitted by BioRem Environmental Consultants; Amerada Hess Corporation; Industrial Commission Department of Mineral Resources Oil and Gas Division
- Custom North Dakota ArcIMS Map Server
  - Submitted by Kadrmas, Lee & Jackson

# Examples of Previously Funded Projects

- Digital Thin section & Core Photo Project
  - Submitted by NDGS
  
- Plains CO<sub>2</sub> Reduction Partnership
  - Submitted by EERC with Industry & Government Partners



# EDUCATIONAL & OUTREACH

- Industrial Safety Training Program
  - Submitted by Williston State College
  
- Oil-site Firefighting Training Program
  - OGRP & Oil and Gas Producing Counties

- North Dakota Petroleum Council Teacher Education Seminars
- Energy Career Awareness Partnership (ECAP)
- An educational outreach program to demonstrate to the public, teachers, students and parents the value of North Dakota's energy industry as well as career opportunities.

# 2006 FUNDED PROJECTS



## ■ Cretaceous Gas/Shale-Gas Expansion

- submitted by Continental Resources, Inc.
- Collect **data** from a Cretaceous gas well and compare that data to **well log signature**.
- Create a **template** to use throughout the State.

- The lithology consists of **thin interbeds** of silt/sand in a shale matrix.
- **Traditional logging techniques are of little value in interpretation.**

## **Data Collection**

- core
- porosity & permeability analysis
  - gas desorption
  - clay analysis
  - water sensitivity

## **Logging Suite**

- Spectral Gamma ray
  - Dipole Sonic
- Platform express
  - Geo-chemical
  - Pulse Neutron



- Project is simple but important:
- **-Compare core porosity and permeability of gas producing streaks to the signature of high resolution logs .**
- A necessary procedure to **validate or truth log interpretation.**
- A validated log interpretation procedure or logging template that can be used for a potentially significant resource throughout much of the State.

# ■ Crude Oil Transportation Capacity Study

- Submitted by: Northern Alliance of Independent Producers

- Research Williston basin crude oil transportation and infrastructure capacity and attempt to identify factors influencing the movement of North Dakota crude oil.

## Evaluate:

- How crude oil is currently **moved & current capacity**.
- Which markets are product shipped to & the **influence on those markets**.
- Manner in which **allocation of capacity** is made.
- Potential for **future** impacts on existing capacity.
- Current **response to transportation bottlenecks**, the adequacy of current responses and **recommendations**.



- **Polymer Gel Treatment – a Remediation for Produced Waters**

- Submitted by: Aeon Energy Corp.

- The project will investigate the use of a **polymer treatment to decrease the amount of produced water** from a well in Bottineau County.

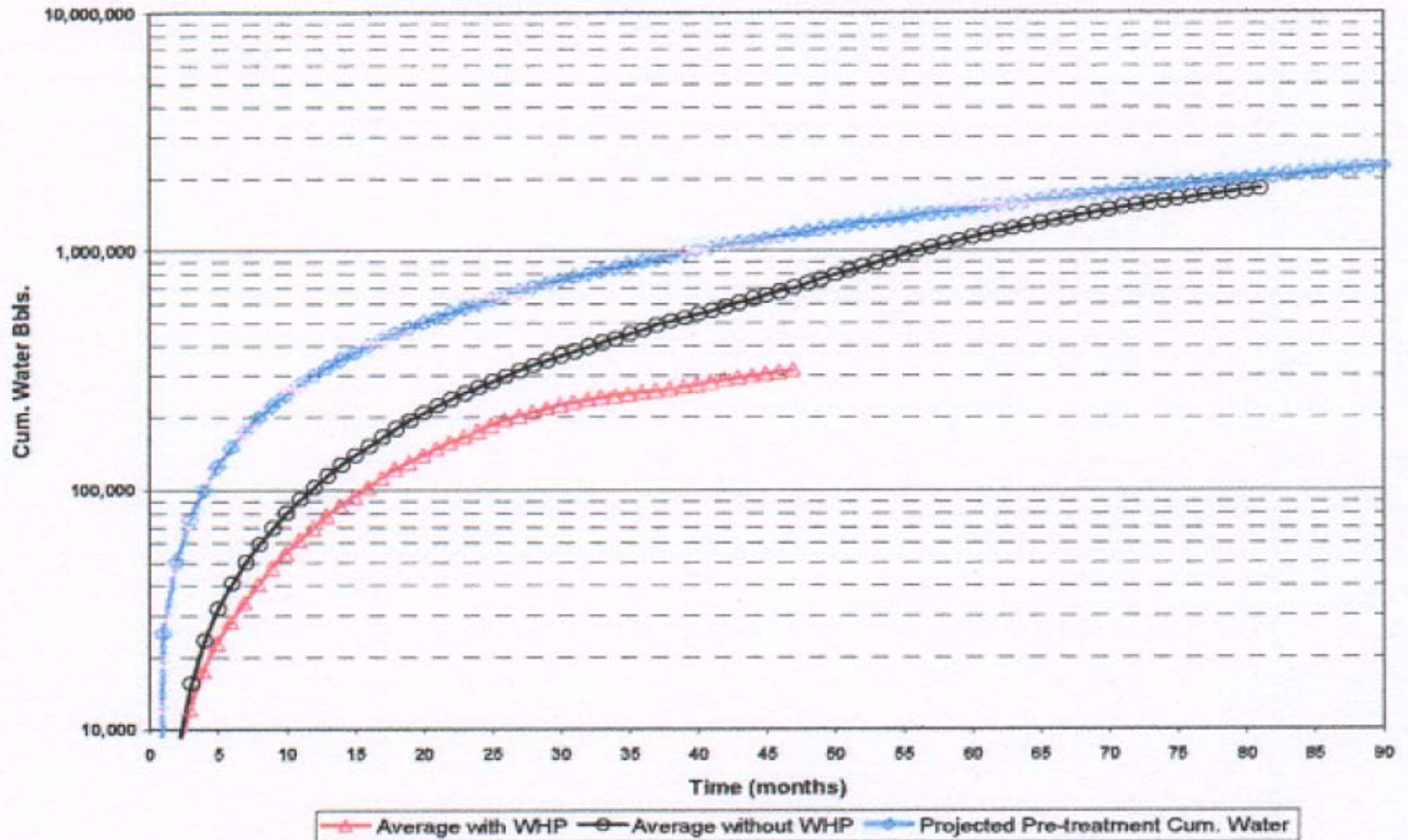
- Treatment has been successfully used in Kansas to treat marginally economic wells in the Arbuckle dolomite.
- **95% success rate** (approximately 200 wells: SPE 94906).

SPE 94096

## The Kansas Arbuckle Formation: Performance Evaluation and Lessons Learned from More Than 200 Polymer-Gel Water-Shutoff Treatments

J. T. Portwood, SPE, TIORCO, Inc.

Post-treatment Cum. Water Bbls. (with vs. without WHP)





# UPCOMING GRANT ROUND

Deadline **November 1, 2006**

Available funding for upcoming grant round:

-Research: \$247,380

-Education: \$42,015

Guidelines & requirements:

<http://www.state.nd.us/ndic/ogrp-infopage.htm>

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