

Fall 2015

# BASIN BITS

The Official Publication of the North Dakota Association of Oil & Gas Producing Counties

## Banking on the Bakken, Saving on Service Costs

Export to .BBL

All Roads Lead to  
Progress

The Nature of Things

Boasting Beautiful Cities  
in the Peace Garden State

The Bakken Top 20

COMPLIMENTARY  
PLEASE TAKE ONE!



# We don't just manage your drill cuttings.

We also decrease your compliance concerns by providing:

- **Accountability** through a single-source approach for all of your drilling waste management needs
- **Dependability** through 30+ years of proven and trusted environmental experience
- **Reliability** through comprehensive safety training and asset maintenance programs

We call it **Complete. Compliance. Comfort.**  
You'll call it **peace of mind.**



Call us at **1.307.382.4442** or download our Drilling Waste Management Services fact sheet at [cleanharbors.com/drillcuttings](http://cleanharbors.com/drillcuttings).



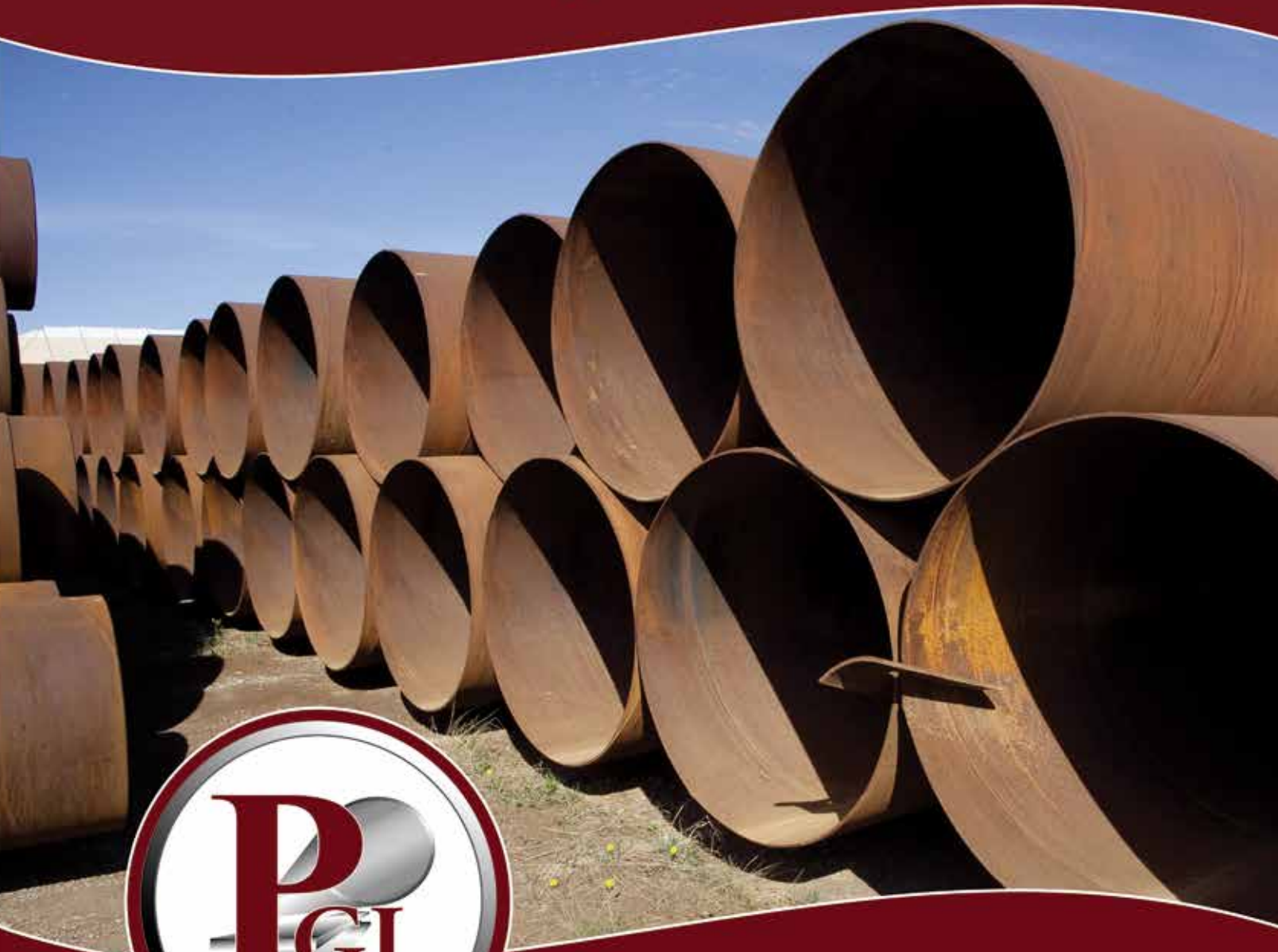
**OIL & GAS FIELD SERVICES**

**Solids Control • Tank & Rig Site Cleaning • Container Rentals • Emergency Response • Oilfield Transport & Disposal**



# Platinum Grover

## "The Piling Connection"™



Serving Canada and USA

27/8" to 72" O.D. Pipe  
.205" to 1" Wall Thk.  
Cut/Weld to Length



Toll Free: 1.844.777.PIPE (7473)

Sales @PlatinumGrover.com



750, 333 - 11 Avenue SW  
Head Office: 403.221.PIPE (7473)

Calgary, Alberta T2R 1L9  
Fax: 403.262.3209





## ELEMENTS OF YOUR SUCCESS

**Vision. Value. Passion. Integrity. Relationships. Attitude.**

These elements make up the structure of AE2S. What does that mean to you? Extreme client service, trusted relationships, a shared vision for your future, and passion for every project. They all translate into your success.

Offices located throughout the  
Upper Midwest and Rocky Mountain Region



[www.ae2s.com](http://www.ae2s.com)

WATER ENGINEERING  
WASTEWATER ENGINEERING  
WATER RESOURCES ENGINEERING  
CIVIL ENGINEERING  
ELECTRICAL ENGINEERING  
STRUCTURAL ENGINEERING  
LAND DEVELOPMENT  
SURVEYING/MAPPING/GIS  
INSTRUMENTATION & CONTROLS  
FINANCIAL/ASSET MANAGEMENT





# EMPLOYEES WANT IT. AND YOU CAN GET IT.

(AT A RATE THAT MIGHT SURPRISE YOU).

It starts with **BLUE**



**Nicole Wolla**  
Dickinson • 701-715-9028



**Derek Van Dyke**  
Minot • 701-858-5019



**Emmy Handeland**  
Williston • 701-715-9012



**Ryan Hartje**  
Bismarck • 701-255-5562



**Katie Veidel**  
Bismarck • 701-255-5565



**ND**

Contact one of our agents for help  
building a competitive and affordable  
employee benefit plan.

Blue Cross Blue Shield of North Dakota is an independent licensee of the Blue Cross & Blue Shield Association. Noridian Mutual Insurance Company.



**MAPLE LEAF  
MARKETING, INC.**

REPRESENTING ENDURANCE TECHNOLOGIES' ENDURALLOY TUBING

## **Endurance Technologies Markets EndurAlloy™ Tubing throughout the United States of America**



**Maple Leaf Marketing is  
the U.S. agent for Calgary, Canada  
based Endurance Technologies Inc.,  
the manufacturer of the  
EndurAlloy™ Tubing**

**Maple Leaf Marketing Inc. is the U.S. Agent providing sales support  
and service after the sale for EndurAlloy™ Tubing in the U.S. Oilfield.**



**MAPLE LEAF  
MARKETING, INC.**

3300 West 10th Street, Suite 917 Midland, Texas 79701

**401 West Texas, Suite 917 Midland, Texas 79701**

**Mike Truitt, President**  
[miket@mapleleafmarketinginc.com](mailto:miket@mapleleafmarketinginc.com)  
(432)978-5096

**Lyndon Kauk, Vice-President**  
[lyndonk@mapleleafmarketinginc.com](mailto:lyndonk@mapleleafmarketinginc.com)  
(432)853-6384

**Kevin Tucker, Business Development**  
[kevint@mapleleafmarketinginc.com](mailto:kevint@mapleleafmarketinginc.com)  
(832)312-6733

**Bill Truitt, Regional Account Rep**  
[williamt@mapleleafmarketinginc.com](mailto:williamt@mapleleafmarketinginc.com)  
(432)853-6671





**WANZEK**

a MasTec company



**WE DELIVER AN EXCELLENT  
CUSTOMER EXPERIENCE  
BEFORE, DURING AND AFTER  
PROJECT CONSTRUCTION**



**Our dedicated team  
elevates project management  
with sound procedures, controls  
and effective communication.**

**wanzek.com**

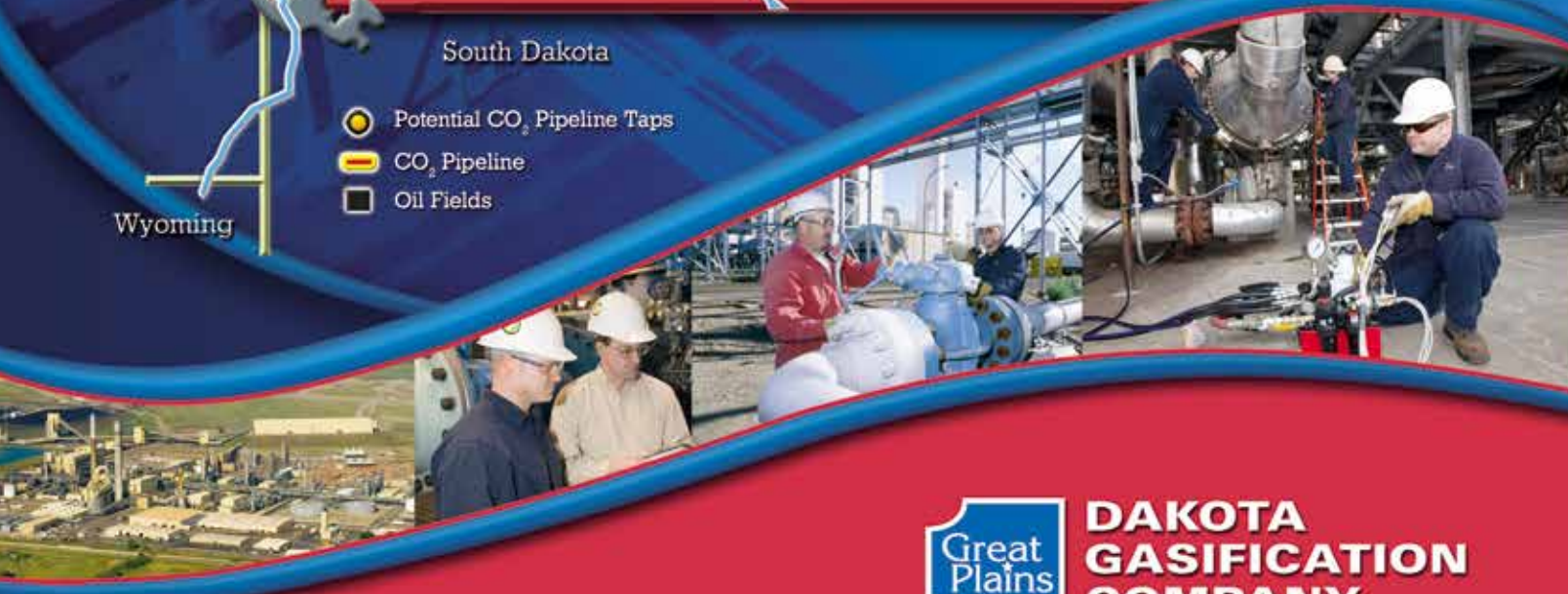
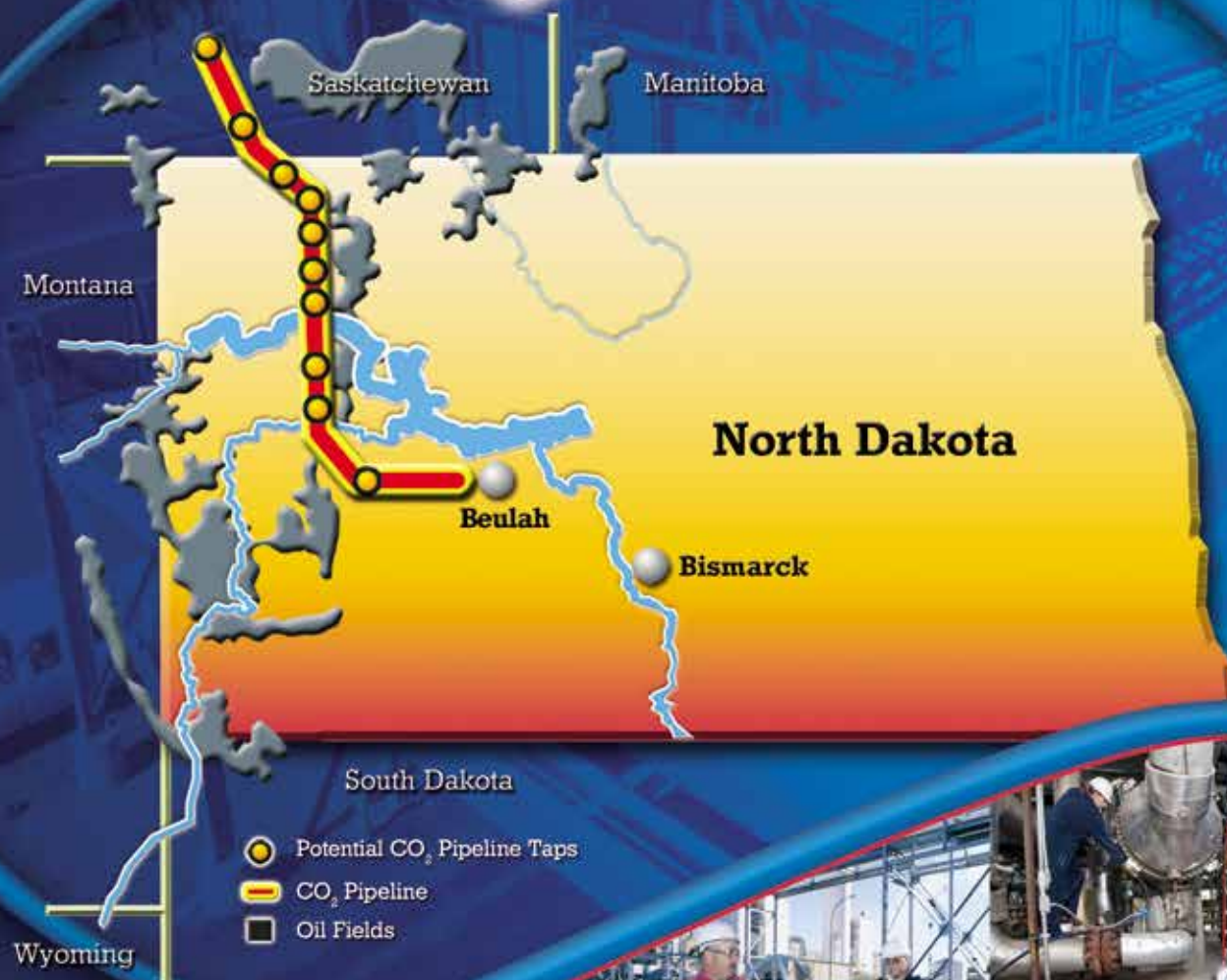
**701.282.6171**

**BUILDINGSTRONG**



# CO<sub>2</sub>

# TAP INTO THE FUTURE



Contact:  
Steven Liebelt  
Vice President of Marketing and Sales  
sliebelt@bepc.com 701-557-4418



**RESPONSIBLE CARE**<sup>®</sup>  
OUR COMMITMENT TO SUSTAINABILITY



**DAKOTA  
GASIFICATION  
COMPANY**

A BASIN ELECTRIC POWER  
COOPERATIVE SUBSIDIARY

[DAKOTAGAS.COM](http://DAKOTAGAS.COM)



# Table of Contents



## BASIN BITS

**Basin Bits is Printed for:**  
The North Dakota Association of Oil & Gas Producing Counties

**Association Office**  
859 Senior Avenue,  
Dickinson, ND 58601  
www.ndenergy.org

**Vicky Steiner, Executive Director**  
Tel: (701) 290-1339 (cell)  
Email: vsteiner@ndsupernet.com

**Printed by:**  
Matrix Group Publishing Inc.  
Please return undeliverable addresses to:  
5605 Riggins Court, Second Floor  
PO Box 41270  
Reno, NV 89504  
Toll-free: (866) 999-1299  
Toll-free fax: (866) 244-2544

**President & CEO**  
Jack Andress

**Publishers**  
Peter Schulz  
Jessica Potter

**Editor-in-Chief**  
Shannon Savory  
ssavory@matrixgroupinc.net

**Editors**  
Alexandra Walld  
awalld@matrixgroupinc.net  
Danelle Cloutier, Meg Crane

**Accounting/Administration**  
Shoshana Weinberg, Pat Andress, Nathan Redekop,  
Lloyd Weinberg  
accounting@matrixgroupinc.net

**Director of Marketing & Circulation**  
Shoshana Weinberg

**Sales Manager – Winniepeg**  
Neil Gottfred

**Sales Manager – Hamilton**  
Jeff Cash

**Sales Team Leader**  
Colleen Bell

**Account Executives**  
Alex Incretolli, Angie Carroll, Bonnie Petrovsky, Brian  
MacIntyre, Chad Morris, David Dodds, Emily Norsworthy,  
Frank Kenyeres, Jim Hamilton, Miles Meagher, Rachel  
Purvis, Rick Kuzie, Rob Allan, Rob Gibson, Shalynn  
Ramsden

**Advertising Design**  
James Robinson

**Layout & Design**  
Cody Chomiak

©2015 Matrix Group Publishing Inc. All rights reserved.  
Contents may not be reproduced by any means, in  
whole or in part, without prior written permission of the  
publisher. The opinions expressed in this publication are  
not necessarily those of Matrix Group Publishing Inc.

### OPENING REMARKS

- 11 From the Desk of the North Dakota Association of Oil & Gas Producing Counties' President
- 17 From the Desk of the North Dakota Association of Oil & Gas Producing Counties' Executive Director

### SPECIAL SECTION

- 19 Your Preview to the 2015 North Dakota Association of Oil & Gas Producing Counties' Annual Meeting
- 21 Your Guide to the 34<sup>th</sup> North Dakota Petroleum Council Annual Meeting

### A CLOSER LOOK

- 25 Banking on the Bakken, Saving on Service Costs

### FEATURES

- 31 Judging the Best Way to Handle Industry Impacts
- 35 Export to .BBL: National Efforts to Export U.S. Crude
- 38 Dismantling Criminal Organizations in the Bakken
- 43 Federal Funds Boost Health Care in North Dakota
- 46 Not Just for Kids: Bringing Gamification into the Workplace
- 48 At the Top of the Curve: Solving the Classroom Crunch
- 50 Rail Safety Pilot Program Gets a Green Light
- 51 Under Construction: All Roads Lead to Progress
- 52 Polyethylene Plant to Reduce Flaring in North Dakota
- 53 Landowners, Tenants Reclaim Satisfaction
- 56 The Nature of Things: Where the Wild Things Aren't
- 59 Legislative Line: State Suing Federal Government Over Fracking Laws

- 60 Hurry Up & Wait: The Drawn-Out Decision on Keystone XL
- 61 From Snail Mail to Speedy Delivery
- 63 Waste Not, Want Not: Part II: Increasing Landfill Radioactivity
- 65 Take it With a Grain of...Sand: Frac Sand Sources & Production in the U.S.
- 67 Boasting Beautiful Cities in the Peace Garden State
- 70 Soak Up the Sun
- 71 Marking Milestones, Making Memories: Celebrating 50 Years at Parks & Rec
- 72 What Are You Droning On About?
- 73 Searching for a Solution: Improving the Binder Engineering Properties of Gravel Surfacing
- 75 A Sight to See: Vision West Takes on Housing, Transportation, Child Care

### IN THE SPOTLIGHT

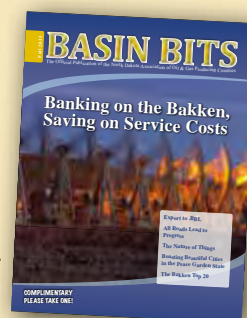
- 76 DLN Consulting: Recognizing the Strengths of Others

### NDAOGPC NEWS

- 77 Regional Roundup
- 79 Tools of the Trade
- 81 The Bakken Top 20

### BUYER'S DIRECTORY

**On the cover:**  
*The cover of the fall edition of Basin Bits shows eight oil pump jacks working in the Bakken oilfield of North Dakota.*

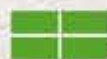




# Building a Strong America®

Our legacy of Building a Strong America® began in 1924, bringing energy to farm communities on the Montana-North Dakota border. Headquartered in Bismarck, N.D., today we operate in 48 states, providing natural resource products and related services that are essential to energy and transportation infrastructure. We power homes, businesses and industry through electricity, natural gas and oil. We keep our economy moving by building and maintaining the country's transportation network of roads, highways and airports. We connect homes, factories, offices and stores with pipelines and wiring. We are your resources for today and tomorrow.

1200 W. Century Ave., Bismarck, N.D. | [www.MDU.com](http://www.MDU.com)



**MDU RESOURCES**  
GROUP, INC.



# From the Desk of the North Dakota Association of Oil & Gas Producing Counties' President



**Supt. Steve Holen**  
President  
North Dakota Association of  
Oil & Gas Producing Counties

*Our areas can't afford breaks in building infrastructure required for the development and to meet future needs. Production will continue.*

The dynamic environment of the oil industry and life in the heart of the Bakken have evolved and changed as the 2015 summer construction season unfolded. Many projects, from roads, water and sewer lines, to housing take shape across western North Dakota. Since the onset of Bakken development in 2006, the region is accustomed to change and construction projects.

While many great accomplishments have been made since then, one also recognizes the many projects that remain. The time it takes to fully build the infrastructure is also part of that piece and is required to accommodate the workforce needs in our areas.

Lynn Helms, our state oil and gas director, told legislators last July the area from Watford City, ND to New Town, ND will be the "hot spot" for 2015.

The slow-down of drilling in our region, resulting from low oil prices, has had an impact, however areas like Watford City continue to grow and are catching up, with hopes of being prepared for a likely ramp-up when prices rise again.

The oil industry shows its resiliency in this time of challenging prices, and the idea that the Bakken is here to stay for the long-term is strong in our areas of mature development. We need to stay the course.

The 2015 North Dakota legislative assembly looked to address these needs, with legislation to provide continued support to oil-impacted areas.

Three main bills were passed this session to support the oil play: Senate Bill 2103, House Bill 1176 and House Bill 1377.

Senate Bill 2103 provided the necessary "surge" of funds to local subdivisions to allow infrastructure projects to occur during the 2015 construction season by releasing funds early in the session. The \$1.1-billion appropriation sent \$112 million to non-oil counties outside of the state's top oil producing counties, \$16 million to non-oil county townships, \$10 million to border communities near the Bakken, \$450 million to state highways—which was moved from the NDDOT budget—all told, western North Dakota received 47 percent of the \$1.1 billion as the share for oil political subdivisions.

House Bill 1176 increased the five percent gross production tax revenue back to local political subdivisions, from 25 to 30 percent. While this increase was less than the 60 percent requested by western area legislators, the drop in oil prices during the session and the looming "big trigger" blocked serious discussion of the change.

While this could be a major disappointment to areas in western North Dakota, the passage of House Bill 1377 provided relief and potential long-term assistance for additional necessary funding. The bill provides funding for local political subdivisions from the Strategic Infrastructure Investment Fund that is directly related to oil development and will increase as levels of revenue and oil prices increase. This is the first time revenue from the oil extraction tax goes directly back to local subdivisions. It allowed the legislature to provide direct funding for local areas if or when price and production increase again. These two pieces of legislation provide a solid move forward to address the needs in oil development areas. While it doesn't allow the

## ABOUT THE NORTH DAKOTA ASSOCIATION OF OIL & GAS PRODUCING COUNTIES

The North Dakota Association of Oil & Gas Producing Counties (NDAOGPC) is the trusted and unified voice for the betterment of the citizens of North Dakota and the membership of the NDAOGPC.

## THANK YOU TO THE NDAOGPC 2015-2016 EXECUTIVE COMMITTEE FOR SERVING WESTERN NORTH DAKOTA!

Supt. Steve Holen, President, McKenzie County Public School District

Dan Brosz, Past President, City of Bowman

Ron Anderson, McKenzie County

Daryl Dukart, Dunn County

Greg Boschee, Mountrail County

Supt. Jason Kersten, Bottineau Public School District

Shawn Kessel, City of Dickinson

Ken Callahan, City of Williston

John Phillips, City of Beulah

Supt. Gary Wilz, Killdeer Public School District

### Association Office

859 Senior Avenue,  
Dickinson, ND 58601  
[www.ndenergy.org](http://www.ndenergy.org)

Vicky Steiner, Executive Director  
Tel: (701) 290-1339 (cell)  
Email: [vsteiner@ndsupernet.com](mailto:vsteiner@ndsupernet.com)

areas hit hardest to address their production-related needs, it allows progress to continue and perhaps catch-up" during slower development with fewer drilling rigs.

Late in the session, the looming, "big trigger" was addressed, to remove the 6.5 percent extraction tax from oil companies, if the price was below the trigger value for five consecutive months. This trigger would provide a substantial removal of state revenue from its budget and played a major factor in the session, in relation to legislation and the state budget.

House Bill 1476, a delayed bill, looked to change the trigger language, providing a flat

tax regarding the oil extraction tax not dependent on any level of oil price. It reduced the oil extraction tax from 6.5 to five percent, providing relief to the oil industry and consistency to the legislature in knowing its revenues. The bill should provide a positive long-range change to the state and industry in budget planning and revenue projections.

As locals, maintaining a long-range vision continues to be our view, and it's expected the state, understanding Bakken development and potential over a generational perspective, will appreciate the longer view. Many locals are well-trained people adept at coping with oil slowdown, as seen in previous

developments in western North Dakota; however, the different characteristics and potential of this formation, and the success rates of the Bakken and Three Forks shale, continue to break past molds.

Our areas can't afford breaks in building infrastructure required for the development and to meet future needs. Production will continue.

Life in the Bakken continues to grow and evolve with the oil industry. While oil prices are very important, future generations will benefit from a continued effort to support the communities in western North Dakota.

The best is yet to come.



Glacier Oilfield Services, Inc. is in the business of hauling potable water and pumping and disposal of septic waste. We also can provide portable toilets with full servicing, and have conex storage units for lease. We are an experienced company, having worked in Wyoming for five years before expanding to North Dakota in 2011. We are based in Watford City, North Dakota, and are committed to providing fast and reliable service to the Bakken. We don't believe in cutting corners, and we do believe in doing things right the first time.

Safety is at the top of our priority list and all of our drivers adhere to a strict company safety policy, and we have a comprehensive company safety program in place. We have all the required insurance, licenses and permits in place, as well as having TERO licensing.

Our drivers are experienced drivers, and have driven extensively in North Dakota. Glacier Oilfield Services is dedicated to giving our customers prompt and reliable services at competitive prices.



**CONTACT STEVE AT**  
**701-300-0679**  
or  
**307-349-9214**



## Your Full-Service Heavy Construction and Aggregate Equipment Dealer



Sales ▲ Rental ▲ Parts ▲ Service

[www.genequip.com](http://www.genequip.com)

Fargo, Bismarck, Minot, Williston, ND | Shakopee, MN | Sioux Falls, SD | Regina, SK | Winnipeg, MB | 800-437-2924



# NORTH DAKOTA FACILITIES

## R360 ENVIRONMENTAL SOLUTIONS

### ABOUT R360 ENVIRONMENTAL SOLUTIONS

Based in The Woodlands, TX, R360 Environmental Solutions is the nation's leading oilfield environmental solutions company. We provide E&P waste disposal of both solids and liquids. R360 helps the nation's operators ensure environmental performance and compliance in major oil and gas plays.

WITH THREE FACILITIES ACROSS NORTH DAKOTA, R360 OFFERS CONVENIENT ACCESS TO THE RELIABLE WASTE MANAGEMENT SERVICES THAT KEEP AREA E&P OPERATIONS MOVING. NORTH DAKOTA FACILITIES INCLUDE:

1. JOHNSON SWD

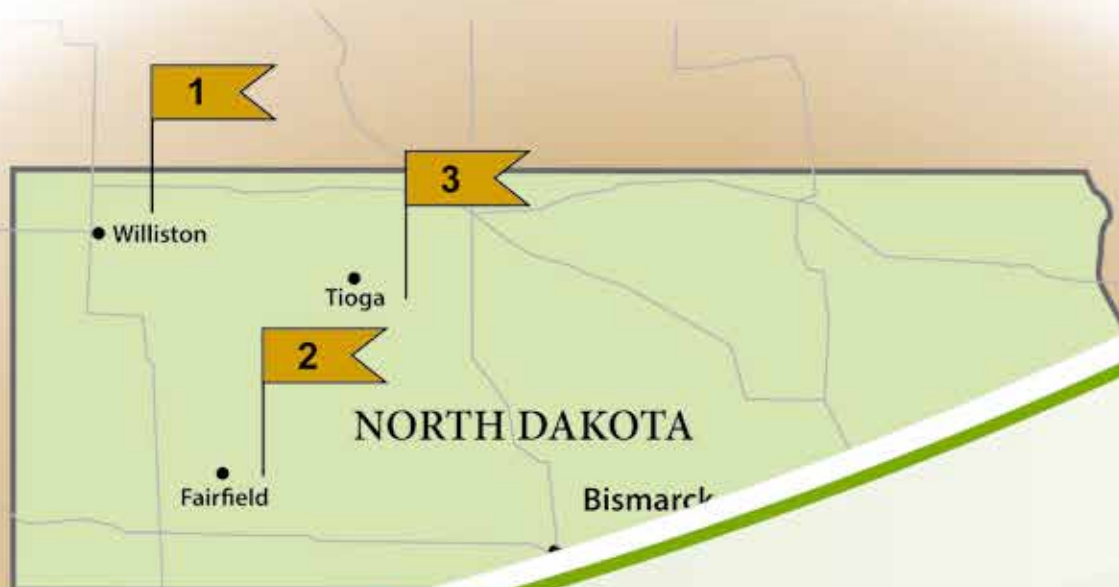
- + Salt water disposal

2. FAIRFIELD

- + Liquid waste disposal

3. PRAIRIE DISPOSAL

- + Solid disposal
- + Liquid Waste disposal



ALL AROUND RELIABILITY

© 2013 R360 Environmental Solutions. All Rights Reserved.



**NO MATCH  
FOR THIS  
PATCH.**

carharttFR.com



**NOBODY SELLS MORE  
CARHARTT  
FLAME RESISTANT CLOTHING.**

carhartt   
FR



WILLISTON WATFORD CITY MINOT DEVILS LAKE JAMESTOWN GRAFTON GRAND FORKS



# All Weather, All-Purpose Modular & Permanent Building Solutions.

## Why choose Britespan™ Building Systems

- Portable, temporary & permanent solutions, ability to extend or relocate
- Rapid installs in remote areas
- Built on containers - use for storage, offices, employee housing and more
- Post-welding hot dipped galvanized steel for superior rust protection
- Tested ability to withstand corrosive commodities
- Extra high clearance for truck safety & unloading
- Naturally bright interiors for safe working environments

Inaugural

**OIL & GAS  
AWARDS**

Canada

**WINNER**

Base rail foundations

Heavy equipment

Warehousing

**BRITESPAN™**  
BUILDING SYSTEMS INC

**1.800.407.5846**  
[www.britespanbuildings.com](http://www.britespanbuildings.com)





## BORING DOESN'T LIVE HERE. WE WON'T EVEN GIVE IT OUR ADDRESS.

Bismarck-Mandan delivers family-friendly discoveries around every turn. Take in the new Heritage Center on the capitol grounds. Test your game at our seven golf courses. There's hiking, biking and fishing on the Missouri River. And tempting choices of locally grown restaurants, a nice blend of one-of-a-kind shopping and national retailers, and our wide variety of lodging options will delight every family member. Make your plans at [discoverbismarckmandan.com](http://discoverbismarckmandan.com).

**BISMARCK-MANDAN  
NORTH DAKOTA**

Pack higher expectations.



# From the Desk of the North Dakota Association of Oil & Gas Producing Counties' Executive Director



**Vicky Steiner**  
Executive Director  
North Dakota Association of  
Oil & Gas Producing Counties  
North Dakota House Representative  
for District 37, Dickinson, ND

**W**ithout warning, and quite unexpected on my part, I spent some drive time last summer thinking about my favorite and least favorite things.

I devoted several summer afternoons to creating a mental list, which I eventually put down on paper, given my memory as of late.

One Sunday afternoon in July, while boating with friends on Lake Sakakawea in Nishu Bay, I noticed a darkening sky out west. "Check the radar app on the phone," we all say. Sure enough, a severe thunderstorm is predicted in three hours.

That happens to be one of my favorite things—the anticipation of a good thunderstorm with bolts of lightning. Love it. Prairie thunderstorms bring that welcome rush of a sweet-smelling, cool air, replacing hot, sticky hard-to-sleep air.

While another favorite is riding in the front bow of our old speedboat, I was pretty excited to see the small white caps on the water, as we took off for the boat ramp. You can watch the wind switch directions and the whitecaps start building on the bay, and know the storm is nearby.

Of course, once back at our yard, I grabbed the delicate, hanging flower baskets and safely tucked them under the sturdy boards of our deck. My flowers are more than favorite, and yes, they know it. Both flowers and grandchildren make the love-very-much list.

The trees echo that swishing sound at the beginning of the storm, like they don't know

*And what about the export of Bakken crude oil? Washington, D.C. politicians are so busy ensuring they return to office, I worry they forget that change is necessary to move the country forward.*

which way the wind wants them to bend. And the sky has strange, gray, puffy cotton balls hanging close to the ground. I hope we don't get stuck on the edge of the storm, left out of the action. Sometimes, you'll see a storm go north or south and it's quite anticlimactic for the pre-storm work putting the deck chairs on their sides.

This particular storm arrived right on time, at 5:00 p.m. CST. It blew and shook us in our little home, just enough for us to be amazed, with enough lightning and a small amount of rain. No threat of a tornado; that always ruins the storm, on my list of favorites. If there had been a rainbow, it would have been one for the books. Scary storms, when I'm outside, are on my least favorite list.

Also on my favorite list—probably on yours, too—is the book you can't put down when you know you should be doing something productive. And, of course, there's my favorite bird, the Great Blue Heron. My husband's rather tired of stopping for "one more photo of the prehistoric frog-eater." Rounding out my favorites list are my husband's famous chicken wings, and a late-night, unexpected call from a friend, just to talk.

I won't bore you with the entire list, but it became quite long and keeps growing. I have a lot to be thankful for.


One of my least favorite things of late is when I go to open my motel room door, and the key doesn't work. It only happens when I'm loaded with heavy suitcases. If you put the key near your phone in your pocket or purse, it reformats. If they give you the wrong key, you'll go back to the front desk, even if they call the room to tell you about it. I've been there. I've heard the phone ringing through the door. I'm not smart enough to travel light, so it's quite a slog to the lobby. I also annoy myself when I accidentally use the motel lotion instead of shampoo. Definitely not a favorite.

Near the top of my non-favorites is the federal EPA threat on fossil fuel. The oil and coal bull's-eye; constant and relentless. It's like they've hired consultants on how to wear people down to a frazzle-dazzle and leave them in a puddle, pressuring to close coal plants when lignite provides low-cost electricity and gives young people disposable income to achieve their dreams. North Dakota has an 800-year supply of lignite. Our coal plants may be able to supply carbon dioxide—not as a pollutant, but as a product to enhance oil production. It could mean getting 60 percent out of Bakken source rock, instead of less than 10.

I wonder if our kids, perhaps like yours—the Millennials—in their 20s today, understand how the EPA's choices mean less disposable income for them in the future. Inexpensive energy equates to prosperity, which I've benefited from in my lifetime and want for my kids and their children.

And what about the export of Bakken crude oil? Washington, D.C. politicians are so busy ensuring they return to office, I worry they forget to move the country forward.

As I see the Bakken moving forward, I expect to see it thrive. I realize the price of oil dips and rises, but oil industry executives I've met possess that "can-do" and "never-say-die" spirit—another favorite. They make their rigs more efficient, create money-making business units, hire terrific and talented people, and survive.

They will drill the "sweet spots" between Watford City and New Town, and then complete more infill wells on the big pads. They will add to North Dakota's prosperity, while the rest of the country just bobs along. Even with the lower per barrel price, I have full confidence the oil industry will make the most of the incredible Bakken and Three Forks discovery for years to come. That's what American oil entrepreneurs do. And that's another one on my favorites list. 

# Diamond Shelters

[www.DiamondShelters.net](http://www.DiamondShelters.net)

*Options  
Unlimited*

15' to 38' wide Single Hoop & 19' to 160' wide Welded Truss



*optional*  
**POWDER  
COATED  
TOUGH**

## Diamond Shelters

CDN TOLL FREE 1-888-240-5066 1-204-348-2144

USA TOLL FREE 1-888-204-2102 1-204-348-2733

[info@DiamondShelters.net](mailto:info@DiamondShelters.net) [www.DiamondShelters.net](http://www.DiamondShelters.net)

Whitemouth, MB.





# Your Preview to the 2015 North Dakota Association of Oil & Gas Producing Counties' AGM



The annual meeting of the North Dakota Association of Oil & Gas Producing Counties (NDAOGPC) will kick off September 10, 2015 at the North Dakota High Plains Cultural Center in Killdeer, ND.

Registration is open on the NDAOGPC website, [www.ndenergy.org](http://www.ndenergy.org). The meeting will feature updates on major western North Dakota issues, like dust control and how the industry is expected to continue development of the Bakken and Three Forks formations. Lynn Helms, ND Department of Mineral Resources' director, will update attendees on development.

Keynoting this year's event will be nationally-acclaimed economist Dr. Loren C. Scott, who will discuss how the Williston Basin oil play fits into the global energy scene.

Members will have the opportunity to elect county, city and school district committee members and the representatives on the executive committee.

We look forward to seeing you!



## A PREVIEW OF DR. LOREN C. SCOTT'S PRESENTATION

How does one explain the sharp drop in oil prices from the +\$100 level to the low \$40s? In 2008, the U.S. was importing 66 percent of the crude it consumed; by 2014, that dropped to 44 percent.

In August 2014, two companies approached the U.S. Department of Commerce for permission to export a barrel of crude with small amounts of volatile gas skimmed from the top. Permission was granted.

What do these two events—a radical decline in U.S. imports; and permission to export lightly refined crude—have to do with oil price collapse? What are the implications for the future and North Dakota's "edges"? Attend Dr. Scott's presentation to find out.



## A PREVIEW OF LYNN HELMS' PRESENTATION

The oil industry continues to be dynamic in North Dakota. For the 16<sup>th</sup> consecutive year, Lynn Helms, director of the North Dakota Department of Mineral Resources (DMR), will report on those dynamics at the North Dakota Association of Oil & Gas Producing Counties' (NDAOGPC) annual meeting—one of the most important talks Helms delivers every year.

Now, with the changing price of oil, projections for western North Dakota are more important than ever.

Helms will provide a county-by-county outlook for the number of expected drilling rigs, producing wells and industry-related jobs expected over the next two years and will discuss how those figures have changed over the past two years.

This information is critical during robust development and slower periods. Helms hopes community leaders who attend will use the details provided when preparing for budgets, construction season and the next legislative session.

Helms will also reflect on the most recent legislative session and the changes it has meant for his department. The DMR received 17 new positions and has been working efficiently to fill them. Helms will also highlight the department's work to implement a new gathering pipeline regulatory program.

Attend Helms' presentation to stay up-to-date.

Your grand *experience* is waiting  
Relax. Rejuvenate. Raise your glass to new memories.

- Modern amenities
- Fresh cuisine at Primo
- Spacious pool area
- Full cocktail menu at Luxe

*Grand*  
HOTEL

1505 N Broadway Box 777 • Minot, ND 58703  
852.3161 • 800.735.4493 • [GrandHotelMinot.com](http://GrandHotelMinot.com)



# VEIT IS RIGHT

**SERVING THE OIL/GAS AND INDUSTRIAL MARKETS**  
**EARTHWORK • UTILITIES • FOUNDATIONS • DEMOLITION**



**VEIT**

Bismarck, ND • Minot, ND • Minneapolis, MN • Duluth, MN • [VeitUSA.com](http://VeitUSA.com)

## NCS NESET CONSULTING SERVICE



**Neset Consulting Service**  
 6844 Highway 40  
 Tioga, ND 58852

Office# – 701-664-1492  
 Fax# – 701-664-1491  
 Email – [ncsoffice@nesetconsulting.com](mailto:ncsoffice@nesetconsulting.com)  
 Website – [www.nesetconsulting.com](http://www.nesetconsulting.com)

**TERRITORIAL LANDWORKS, INC.**

CIVIL ENGINEERING • LAND SURVEYING • LAND USE CONSULTING

**Geared to Serve**  
**the Oil & Gas Industry**

**855-875-4102 • [www.TerritorialLandworks.com](http://www.TerritorialLandworks.com)**



**HAGEMEYER**  
NORTH AMERICA

Technical Services



**H**agemeyer Technical Services offers a comprehensive Technical Services Solution to meet all your life safety equipment service requirements. Virtually a one stop shop for your service needs, Hagemeyer provides the highest level of Service, Repair, and Rental for the Fire, Safety, Respiratory, and Instrumentation products in the Hagemeyer North America product line. Service Centers, On-site Customer dedicated Service Centers, and Mobile Service Vehicles are conveniently and strategically located across the United States with knowledgeable, factory trained, and certified Technicians.

**For All Life Saving Equipment, Hagemeyer Technical Services Technicians Provide:**

- Inspection
- Repair
- Maintenance
- Testing

### Technical

- Trained and Certified Technicians
- Factory Authorization
- Standard Operating Procedures
- Quality and Service Audits

### Hagemeyer Technical Services Value

- Reduction of service Vendors
- Standardized Processes across all HTS sites
- Electronic documentation of Maintenance Records
- National Coverage/On-site Technicians Mobile Services

**North Dakota's Largest Stocking Distributor Of Flame Retardant Apparel**

Box #1 547 West View  
 Dickinson, ND  
 410 South 22nd Street  
 Bismarck, ND  
 Phone: 701 222 3005  
 Fax: 701 222 3225

Contact Hagemeyer North America Technical Services  
 Toll Free: 800.825.6328 • [WWW.hagemeyerna.com](http://WWW.hagemeyerna.com)



# Your Guide to the 34<sup>th</sup> North Dakota Petroleum Council Annual Meeting

September 21-23, 2015, Fargo, ND

Ramada Plaza Fargo Hotel & Conference Center



## MONDAY, SEPTEMBER 21, 2015

3:00 p.m. - 5:30 p.m.	Bakken Education Session (Free) <i>Welcome</i> , Rob Lindberg <i>Building a Company in Fargo to Serve Electrical Needs of Oil and Gas Companies and Their Communities, Including the Bakken</i> , Tammy Miller, Border States Electric	Fargo Theatre
3:25 p.m. - 3:50 p.m.	<i>Innovation Report: Seven-Minute Briefs on New Efforts</i> , Myriad Mobile: Mobile Apps in the Field; Glen Mitzel, JDP Automation; and Jason Sanden, AE2S	Fargo Theatre
3:50 p.m. - 4:15 p.m.	<i>How UAS Can Work in Oil &amp; Gas</i> , Tom Kenville	Fargo Theatre
4:15 p.m. - 5:30 p.m.	<i>Bakken 101 Education Sessions</i> , Kathy Neset, Neset Consulting Services; Lynn Helms, North Dakota Department of Mineral Resources (ND DMR); and Gene Veeder, McKenzie Co. Job Development Authority	Fargo Theatre
5:30 p.m. - 7:30 p.m.	Social for Annual Meeting Registrants	Ramada Plaza Hotel & Conference Center

## TUESDAY, SEPTEMBER 22, 2015

8:00 a.m. - 4:45 p.m.	Registration Opens	Hallway Outside Crystal Ballroom
10:00 a.m. - 10:05 a.m.	<i>Opening Remarks</i> , Ron Ness, North Dakota Petroleum Council (NDPC)	Crystal Ballroom
10:05 a.m. - 10:15 a.m.	<i>Welcome to Fargo</i> , Dr. Tim Mahoney, Mayor of Fargo	Crystal Ballroom
10:15 a.m. - 10:30 a.m.	<i>Ag &amp; Oil: Leading North Dakota Forward Together</i> , ND Future Farmers of America	Crystal Ballroom
10:30 a.m. - 11:00 a.m.	<i>NDPC Year in Review</i> , Perry Pearce	Crystal Ballroom
11:00 a.m. - 11:30 a.m.	<i>North Dakota Pipeline Study</i> , John Harju & Jay Almlie, Energy & Environmental Research Center (EERC)	Crystal Ballroom
11:30 a.m. - 11:45 a.m.	<i>North Dakota's Potential: A Characterization of Bakken Oil Production</i> , Scott McNally, Harvard University; and Center on Global Energy Policy, Columbia University	Crystal Ballroom
11:45 a.m. - 12:00 p.m.	Break	Crystal Ballroom
12:00 p.m. - 1:30 p.m.	Lunch Keynote Speaker, TBD; and NDPC Outstanding Service Award, Rep. George Keiser	Crystal Ballroom
1:45 p.m. - 2:45 p.m.	<i>Crude by Rail Panel</i> (Moderator: Kari Cutting, NDPC; and Panel: Beth Trieseder, American Petroleum Institute; Christian Varela, BNSF; and Tiffany Ziemer, U.S. Pipeline & Hazardous Materials Safety Administration)	Crystal Ballroom
2:45 p.m. - 3:15 p.m.	<i>Unconventional Enhanced Oil Recovery</i> , Dr. Steven Hawthorne & Jime Sorensen, EERC	Crystal Ballroom
3:15 p.m. - 3:30 p.m.	Break	Crystal Ballroom
3:30 p.m. - 4:45 p.m.	<i>North Dakota Regulatory Issues Panel</i> (Moderator: Zac Weis, Marathon Oil Company; and Panel: Heidi Riddle, U.S. National Park Service; Kevin Shelley, U.S. Fish & Wildlife Service; Dennis Neitzke, U.S. Forest Service; Loren Wickstrom, Bureau of Land Management; and Mark Herman, Bureau of Indian Affairs)	Crystal Ballroom
4:45 p.m.	Adjourn	Crystal Ballroom
5:30 p.m.	Social	Crystal Ballroom
7:00 p.m.	Chairman's Banquet <i>NDPC Outstanding Service Award</i> , Duane Jesch, MBI Energy Service; and <i>NDPC Hall of Fame Award</i> , 2015 Induction of Kathleen Neset, Neset Consulting Service Comedian Andy Hendrickson	Crystal Ballroom

## WEDNESDAY, SEPTEMBER 23, 2015

7:00 a.m. - 8:00 a.m.	Buffet Breakfast	Symphony Hall
7:30 a.m. - 4:45 p.m.	Registration Opens	Hallway Outside Crystal Ballroom
8:00 a.m. - 8:05 a.m.	<i>Opening Remarks</i> , Ron Ness, NDPC	Crystal Ballroom
8:05 a.m. - 9:00 a.m.	<i>Leadership &amp; the Power of Perspective</i> , Bob Upgren, Minot State University	Crystal Ballroom
9:00 a.m. - 9:15 a.m.	<i>Pipeline Ombudsman Program</i> , Doug Goehring, North Dakota Agriculture Commissioner	Crystal Ballroom
9:15 a.m. - 9:45 a.m.	<i>Salt-Water Remediation Done Right</i> , Dustin Anderson, Oasis Petroleum	Crystal Ballroom
9:45 a.m. - 10:15 a.m.	<i>Cost-Effective Ways to Market in a Tough Oil Market</i> , Mike Marcil, Shale Plays Media	Crystal Ballroom
10:15 a.m. - 10:30 a.m.	Break	Crystal Ballroom
10:30 a.m. - 11:00 a.m.	<i>From Flair to Fuel</i> , Philip Fusacchia, GE Oil & Gas	Crystal Ballroom
11:00 a.m. - 11:30 a.m.	<i>Super Fracs</i> , Dr. C. Mark Pearson, Liberty Resources, LLC	Crystal Ballroom
11:30 a.m. - 12:00 p.m.	<i>NDIC Regulatory Update</i> , Lynn Helms, ND DMR	Crystal Ballroom
12:00 p.m.	<i>Closing Remarks</i> , Ron Ness, NDPC   Meeting Adjourns (No lunch provided)	Crystal Ballroom

\*\*Agenda is current as of publication date. Please visit <https://annualmeeting.risprojects.org/agenda.aspx> for the most up-to-date conference schedule.

# UPSIDES EVERYWHERE

When it comes to hosting memorable meetings,  
Fargo is booming with options.

The oil industry moves too fast for boring meetings. Want a meeting that transcends typical? Head to Fargo and experience North of Normal. Every experience is slightly off center and one-of-a-kind: amazing facilities, unique lodging, happy hours, dining, nightlife and more. From every angle, it's a lot of fun over here.

NORTH OF NORMAL  
**FARGO**  
MOORHEAD | WEST FARGO

MeetinFM.com



@fargomoorhead



facebook.com/MeetinFM





## A & D DRILLING SUPPLY CORPORATION

**PORTADRILLMINI**  
Patent No. 6,345,009

The most versatile portable water well drill on the market!

With Pull-down Pressure Capabilities.

### PORTABILITY

#### Our biggest advantage

The Portadrillmini is designed to go where most other drills can't, allowing the user to drill in the most difficult or even the deepest of wells.

Because of its compact and efficient design, and its use of the patented technique of augerless drilling, it can be used in the most difficult of wells, even in the most difficult of wells, even in the most difficult of wells.

Drill drilling 4" to 12" diameter wells in soil.



#### Heavy Duty Wheels

Moving the Portadrillmini is easy! Its heavy duty wheels allow it to be moved on the toughest of terrain, even on the toughest of terrain.



#### Stabilizer Bars

Anytime you need a steady drill, the Portadrillmini has you covered.

The Portadrillmini has a built-in stabilizer bar that can be used in a variety of ways.

The Portadrillmini has a built-in stabilizer bar that can be used in a variety of ways.



### VERSATILITY

#### Ground types that can be drilled

Gravel, Sand, Gravel/Sand, Gravel/Sand/Clay, Gravel/Sand/Clay/Gravel, Gravel/Sand/Clay/Gravel/Clay, Gravel/Sand/Clay/Gravel/Clay/Gravel.

#### Supported drill bits

1.5" 6" 8" 10" 12" 14" 16" 18" 20" 22" 24" 26" 28" 30" 32" 34" 36" 38" 40" 42" 44" 46" 48" 50" 52" 54" 56" 58" 60" 62" 64" 66" 68" 70" 72" 74" 76" 78" 80" 82" 84" 86" 88" 90" 92" 94" 96" 98" 100"



#### Injection Drilling

3 way valve for water, air, or oil. The Portadrillmini has a built-in 3 way valve for water, air, or oil.



A & D Drilling Supply Corporation

Phone: (305) 345-7068

[www.portadrillmini.com](http://www.portadrillmini.com)

9595 North Kendall Drive Suite 200

Miami, Florida 33176 U.S.A.

## REPORT STYLISH BIRDS

You might notice birds wearing bracelets flying around North Dakota. When you spot a banded bird, report it!

All you need to report the bird is the band number. If you find a bird carcass or take a bird during hunting season, the number is easy to get. Numbers off of live birds' bands should also be reported, if you can get close enough or if your camera can zoom in.

Public help in tracking birds is integral to migratory bird conservation.

Report the number to the Bird Banding Laboratory website at [www.pwrc.usgs.gov/bbl/bblretrv/index.cfm](http://www.pwrc.usgs.gov/bbl/bblretrv/index.cfm).

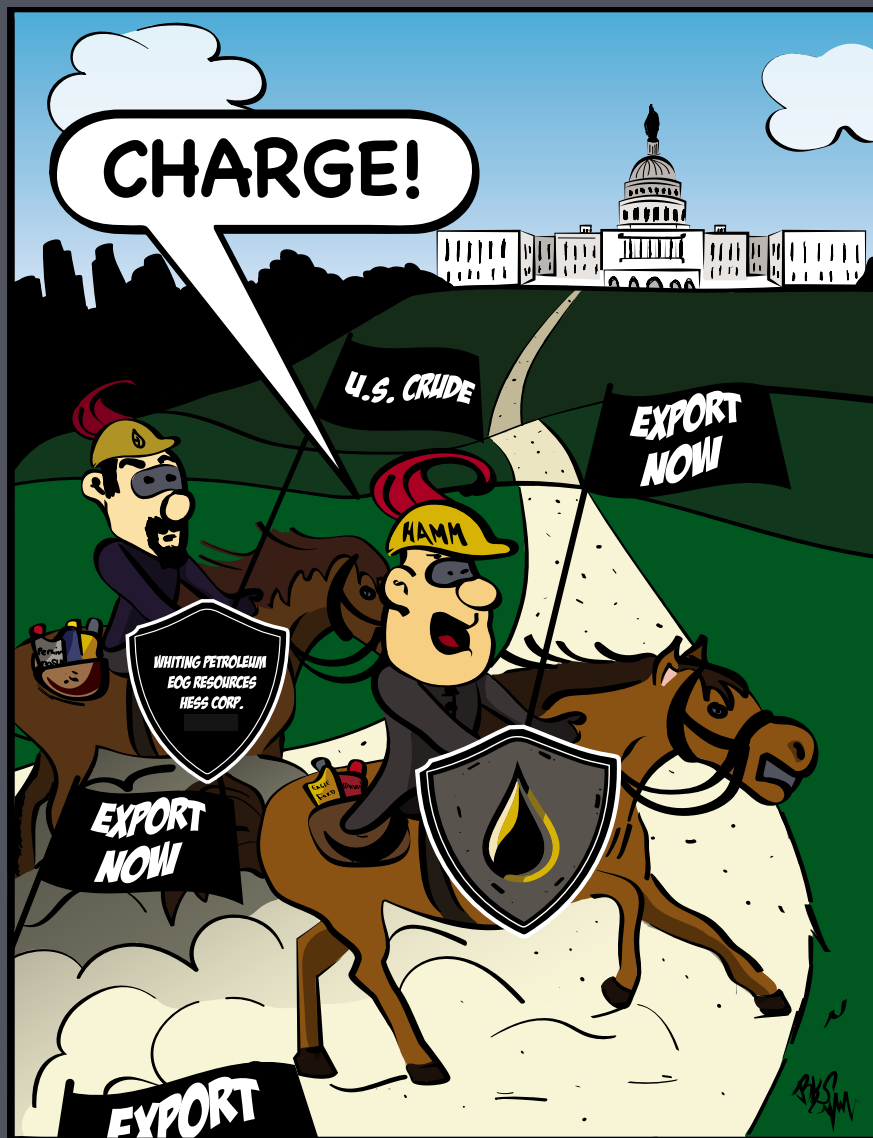
The appropriate researcher will get your info, which will be added to a database maintained by the U.S. Geological Survey Bird Banding Laboratory and the Canadian Wildlife Service Bird Banding Office.

Those who report bird bands will be told when and where the bird was banded and will also be sent a certificate of appreciation.

Source: [www.gf.nd.gov/wildlife/fish-wildlife/bands](http://www.gf.nd.gov/wildlife/fish-wildlife/bands)

## TRIVIA TIME

# CARTOON CORNER



Brooke Schreiber, [www.brookeschreiber.com](http://www.brookeschreiber.com)



# QUALITY MAT COMPANY



Beaumont  
Texas

Houston  
Texas

Killdeer  
North Dakota

1-800-227-8159



QMAT.COM

## ROCK drill site



## MAT drill site



## AFTER



## AFTER

### ROCK DRILL SITE

#### Disadvantages

- Damaging native farm land
- Loss of work time due to unsafe work surface
- Delays in Drilling
- Unable to access due to bad weather
- Wasting unnecessary amounts of rock
- Unnecessary extra cost

### MAT DRILL SITE

#### Advantages

- No reclamation cost
- Reduce the environmental impact
- Reduce the amount of rock on native farm lands
- Minimize unnecessary accidents
- Mats provide a safe and stable work surface
- 24/7 all-weather access with no down time
- Potential to drill one to two more additional wells per year
- Reduce the amount of truck traffic on roads
- No additional cost

WORLD'S LARGEST SUPPLIER

MANUFACTURING SINCE 1974



# Banking on the Bakken, Saving on Service Costs

By Paul Adair



There are many costs associated with developing and maintaining a well in North Dakota, and with the price of oil floating around six-year lows, a company's bottom line threatens to become shallow. Rather than roll over and accept dwindling profits, Bakken companies are finding innovative methods to cut costs and counter lower commodity prices.

Spending on well development typically begins long before product is pulled from the ground. Once leases are negotiated and signed by exploration and production companies operating in the Bakken and permitting has passed through the proper channels at state and federal levels, access roads are often required before any work on a well pad is done.

Oftentimes, the laying of a road will require heavy equipment; dirt will need to be moved, a base will need to be put down with aggregate, scoria, or class five gravel to ensure stability, and land reclamation will ensure property is returned to its natural state. Only then can the well pad be built, requiring tons of earth to be replaced with aggregate to maximize foundation stability.

The well itself means bringing in a drilling rig, building worker and rig housing, maintaining security services, facilitating fuel delivery, and arranging for power generators, drilling supplies, and all other gear necessary to allow rig crews to work a 24/7 work schedule.

Once the well is drilled and the well head is set, fracking begins, which requires the delivery of hundreds of thousands of gallons of water, tons of frac sand to be used as a proppant, chemicals, perforating charges, more pipe, more cement, slurry blending trucks, pump trucks, and a continuous 24-hour presence onsite.

When fracking crews leave, funding will be needed for the many roustabouts, electricians, cranes crews, trenching, plumbing, piping, pumps, SCADA, metal tanks, fiberglass tanks, flares, natural gas liquids (NGLs), separators, heater treaters, pump jacks, helical piers, cement pads, more aggregate, buildings to be made onsite, and pre-made buildings on skids.

Finally oil, gas, and production water starts to flow, requiring a new army to muster the many oil pipelines, gas pipelines, and tanks to hold production water. If there are no pipelines in the vicinity, there are oil



tanks to unload from trucks, NGLs to have picked up from the bullet tanks—supplied from the Mechanical Refrigeration systems with power, compression, refrigeration—and stabilizers to strip the valuable gas separated earlier from the oil in the heater houses.

“For the sake of brevity, I have not gone into the true details of these multi-million dollar operations,” says Tim Fisher, CEO and founder of Bakken Energy Service (BES), and co-host of the radio show *Energy Matters*.

“But at least a thousand truckloads of goods and services have entered the well site to get everything to this production phase.”

## BREAKING DOWN YOUR BANG FOR YOUR BUCK

The largest operational costs for the industry are traditionally associated with drilling, proppant use and the choice of hydraulic fluids. While these items do not always provide the best places to make large cuts, they play such a large part in the performance of a well that even superficial cuts can provide big savings.

“Currently, the popular trend seems to be in using less expensive proppants and fluids,” says Monte Besler, completion consultant at FRACN8R Consulting in Williston, ND.

“However, this may actually backfire on operators over the long-term in reduced estimated ultimate recovery, if the lower cost is concurrent with lesser quality or durability, particularly in the case of proppant choices.”

The geography of the Bakken also seems to conspire against it, adding to the already substantial expenses associated with oil and gas production in the state and impacting the Bakken's competitiveness compared to other shale plays, such as the Eagle Ford. Costs generally trend higher in North Dakota, largely because of its landlocked distance from major service and supply hubs.

“Bakken crude has a destination, and that destination is refineries,” says Fisher. “Almost all of the nation's refineries best-suited to refine Bakken crude oil are on the coasts. This means crude must be pumped via pipeline or railed via tanker cars thousands of miles; transportation costs can run as high as \$12 per barrel.”

Considering crude currently trades for around \$50 per barrel, just getting product to market from the Bakken can account for as much as 20 percent of a company's bottom line, right off the hop. In addition, there are also higher housing and food costs, state and federal taxes, and royalties to consider, all of which chip away at any potential profits.

## TRIMMING OVERHEAD THROUGH TECHNOLOGY

Despite these expenses, energy analysts like Wood Mackenzie are predicting the price of pumping a barrel of oil could drop as much as \$15 in some markets by next summer, as operators improve well performance

and service companies take advantage of the falling expense of proppants and reduced prices for drilling tools.

The real cost-cutting measures, however, can be found in the innovation and adoption of new technologies in the Bakken. The shale revolution is only about a decade old, and, like any emerging industry, it takes time to grow experience, training and technology. Over just the last five years, the industry witnessed profound advancement in all aspects of shale oil extraction and the techniques used to efficiently move product to market.

Hydraulic fracturing remains paramount in the success of an unconventional play like the Bakken. Without quality completion, a Bakken well simply will not pay out or produce its full potential. This is why understanding how the Bakken produces, and how hydraulic fracturing

fits into the future of the play, will yield benefits for the basin's energy sector.

Equipment currently used in the Bakken is specifically engineered for shale oil extraction and production. Rigs can now drill multiple wells on the same pad and move themselves from well to well. The latest generation of rigs uses greater horsepower engines, allowing them to drill faster and further. This extra horsepower has profoundly increased the horizontal feet drilled and the stages fracked.

Only 10 years ago, companies would drill about 8,000 feet down and transverse 2,000 feet horizontally; then frac approximately every 200 feet, allowing for a 10-stage frac. Currently, companies still drill 8,000 feet down, but they can do so in a third of the time and go over five times further horizontally, allowing for a 90-stage frac.

"We are still low on the learning curve for this type of technology," says Besler. "With the huge Original Oil in Place of the Bakken oil system, estimated anywhere from 300 to over 700 billion barrels of oil, and oil current recovery estimated to be under 10 percent—perhaps as low as seven percent—something as small as an additional one percent improvement in recovery is a significant increase in proven reserves."

There is also an increasing amount of infrastructure in the Bakken, greatly reducing costs associated with the set-up and maintenance of wells. Rail has become more established, allowing frac sand and ceramic proppant to be delivered to the well-site more efficiently. Water can be pumped miles to the well-site via pipelines, rather than requiring hundreds of trucks to transport it.

## MONTHLY OIL PRICES BY THE BARREL

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
1977	N/A	N/A	N/A	N/A	N/A	N/A	\$8.41	\$8.79	\$9.34	\$8.83	\$9.64	\$9.26
1978	\$9.16	\$9.09	\$9.38	\$9.59	\$9.44	\$9.54	\$9.67	\$10.00	\$9.98	\$10.20	\$10.25	\$10.32
1979	\$10.56	\$10.70	\$10.78	\$10.93	\$11.30	\$12.41	\$13.18	\$14.51	\$15.33	\$15.95	\$16.76	\$18.01
1980	\$20.78	\$21.94	\$23.94	\$23.66	\$26.48	\$28.37	\$26.97	\$30.35	\$27.10	\$28.11	\$28.60	\$30.92
1981	\$33.39	\$37.79	\$41.77	\$37.36	\$36.35	\$35.17	\$32.62	\$34.25	\$34.58	\$34.62	\$32.12	\$34.50
1982	\$34.59	\$33.62	\$32.01	\$31.02	\$31.61	\$31.13	\$30.77	\$31.17	\$31.38	\$32.29	\$32.38	\$31.42
1983	\$31.56	\$29.53	\$29.36	\$28.87	\$28.59	\$28.81	\$28.93	\$29.04	\$29.03	\$29.08	\$29.56	\$28.82
1984	\$28.94	\$28.97	\$28.75	\$28.73	\$28.72	\$28.78	\$28.70	\$28.58	\$28.35	\$28.52	\$26.98	\$26.56
1985	\$25.34	\$24.54	\$25.11	\$25.24	\$25.62	\$25.07	\$25.09	\$25.10	\$25.21	\$25.37	\$25.89	\$26.18
1986	\$24.51	\$17.80	\$11.84	\$10.81	\$11.56	\$12.22	\$10.46	\$11.72	\$12.79	\$12.54	\$12.55	\$13.09
1987	\$15.41	\$15.89	\$15.80	\$16.02	\$16.66	\$17.24	\$18.17	\$18.29	\$17.42	\$17.37	\$16.96	\$15.91
1988	\$15.19	\$14.96	\$14.08	\$15.32	\$15.50	\$14.83	\$13.43	\$13.32	\$12.79	\$11.84	\$11.55	\$13.31
1989	\$15.31	\$15.44	\$16.87	\$18.20	\$17.76	\$17.58	\$17.57	\$16.04	\$16.95	\$17.74	\$17.51	\$18.46
1990	\$19.87	\$19.65	\$18.16	\$16.16	\$15.92	\$14.65	\$16.05	\$24.36	\$30.41	\$33.38	\$30.07	\$24.34
1991	\$22.08	\$18.12	\$17.36	\$18.14	\$18.50	\$17.56	\$18.72	\$18.96	\$19.06	\$20.38	\$19.74	\$16.84
1992	\$16.26	\$16.43	\$16.32	\$17.72	\$18.39	\$19.86	\$19.21	\$18.85	\$19.40	\$19.21	\$17.92	\$16.93
1993	\$16.56	\$17.39	\$17.68	\$17.55	\$16.99	\$15.85	\$14.59	\$14.63	\$14.06	\$14.23	\$12.59	\$10.39
1994	\$11.73	\$11.50	\$11.36	\$12.98	\$15.05	\$16.16	\$16.69	\$15.23	\$14.32	\$14.65	\$14.97	\$14.03
1995	\$15.04	\$15.74	\$15.58	\$17.01	\$16.77	\$15.56	\$14.43	\$15.10	\$15.41	\$14.66	\$15.16	\$16.43
1996	\$16.23	\$16.13	\$18.50	\$20.46	\$18.50	\$17.82	\$18.68	\$19.37	\$21.28	\$22.38	\$20.99	\$22.32
1997	\$22.29	\$19.49	\$18.15	\$17.18	\$18.13	\$16.30	\$16.60	\$16.79	\$16.71	\$18.30	\$17.16	\$15.34
1998	\$13.69	\$13.05	\$11.92	\$12.33	\$11.68	\$10.29	\$10.91	\$10.37	\$11.87	\$11.48	\$10.18	\$8.62
1999	\$9.52	\$9.17	\$11.72	\$14.24	\$15.20	\$15.33	\$17.38	\$18.68	\$20.86	\$20.67	\$22.89	\$24.02
2000	\$24.97	\$27.41	\$28.04	\$23.75	\$26.95	\$29.27	\$28.04	\$29.10	\$31.57	\$30.86	\$32.27	\$26.26
2001	\$27.25	\$27.56	\$25.02	\$25.03	\$26.08	\$25.00	\$24.04	\$24.96	\$24.05	\$19.65	\$17.52	\$16.80
2002	\$17.16	\$17.90	\$21.90	\$23.58	\$24.63	\$24.39	\$25.02	\$26.04	\$27.44	\$27.21	\$25.95	\$26.58
2003	\$29.98	\$32.98	\$32.33	\$28.33	\$26.88	\$28.22	\$29.28	\$29.83	\$27.45	\$28.36	\$28.20	\$29.52
2004	\$30.90	\$32.31	\$33.90	\$34.80	\$36.61	\$34.84	\$37.68	\$42.48	\$43.90	\$47.78	\$48.57	\$42.61
2005	\$42.34	\$45.01	\$49.03	\$47.64	\$47.45	\$50.20	\$54.84	\$59.34	\$61.22	\$59.72	\$55.91	\$53.85
2006	\$56.41	\$51.70	\$48.36	\$57.43	\$61.52	\$62.37	\$66.44	\$65.91	\$57.79	\$50.68	\$49.40	\$51.70
2007	\$46.59	\$50.16	\$52.75	\$56.09	\$57.92	\$62.32	\$68.84	\$67.90	\$71.00	\$76.49	\$85.10	\$80.69
2008	\$84.86	\$85.97	\$97.99	\$107.01	\$118.06	\$126.68	\$126.53	\$107.33	\$93.42	\$67.36	\$45.29	\$27.86
2009	\$29.73	\$31.26	\$41.77	\$44.68	\$51.19	\$61.04	\$56.19	\$61.97	\$61.29	\$66.15	\$67.54	\$65.64
2010	\$69.73	\$69.28	\$73.99	\$75.27	\$63.98	\$65.38	\$66.33	\$68.32	\$66.22	\$69.43	\$74.41	\$79.77
2011	\$79.94	\$79.21	\$93.28	\$105.67	\$98.49	\$92.62	\$92.60	\$82.11	\$82.18	\$82.05	\$90.95	\$89.92
2012	\$90.18	\$89.99	\$85.57	\$85.07	\$83.94	\$74.54	\$74.22	\$83.56	\$88.57	\$87.65	\$84.26	\$82.62
2013	\$90.52	\$90.30	\$89.21	\$88.06	\$88.97	\$87.43	\$96.92	\$98.13	\$96.69	\$90.16	\$80.67	\$85.04
2014	\$82.70	\$91.68	\$91.17	\$92.37	\$92.94	\$96.25	\$92.51	\$87.66	\$83.45	\$75.64	\$67.26	\$50.51
2015	\$37.52	\$41.31	\$38.77	\$46.08	\$51.08	*	*	*	N/A	N/A	N/A	N/A

\*Not available at time of press.



"We now have better roads, bridges and fueling locations," says Fisher. "The sophistication and efficiencies in all areas are ever-increasing, allowing costs to come down. The bottom line is that everything and everyone has just become more efficient."

## DRILLING DESPITE THE DROP


With the price of oil down 50 percent from where it was last year, it is only natural that spending will curb to stay in line. So far, approximately 25 percent of overall costs have been reduced through technology and efficiency, but an additional 25 percent lingers to erode energy sector profits. For an industry in which analysts generally expect six percent net profits, a 25-percent erosion has a serious effect on a company's ledgers.

"The shale industry is a lot like farming," says Fisher. "Farm prices rise and fall, just as oil prices do. Farmers don't stop farming because prices drop; oil companies will not stop drilling because prices drop. Some years will be great; others will be not so great. But there will be no stopping an efficient farmer or oilman."

The drop in oil prices, however, tend to have a negative impact on overall oil and gas production in the state, despite substantial cost cuts made by North Dakota's energy sector. Some areas in the Bakken will remain productive enough to support activity while others weather current commodity prices; other areas

will have to wait for drilling until prices increase and stabilize.

This puts the onus on the industry to treat the Bakken as a triage patient, continuing

cost reductions in order to improve profit margins, while accepting that, in other areas, it will take more than simple savings to resume activity. 

## GET TO KNOW OUR EXPERTS

### MONTES BESLER



Monte Besler has over 34 years of experience in the industry, with extensive Williston Basin and Montana knowledge and experience. He spent over 18 years in the oilfield service business, primarily with Halliburton, and four years with Amerada Hess, as a production engineer in the Williston Basin. Besler has been consulting since 2002, and has also been the self-employed owner of FRACN8R Consulting, LLC since 2010.

Besler is an industry recognized expert in hydraulic fracturing and acidizing and has authored and/or co-authored 13 published technical articles. He is also a frequent speaker at industry conferences. He graduated from the South Dakota School of Mines and Technology with a Bachelor of Science degree in Geological Engineering.





### TIM FISHER




Tim Fisher is CEO and founder of Bakken Energy Service and co-founder of Tuscaloosa Energy Service in Louisiana. He is the co-host of the weekly radio show Energy Matters, which airs throughout the Bakken and into two Canadian provinces.

Fisher is a former partner and CEO of an international corporation located in Stockholm, Sweden, and continues ventures in the international arena. He earned an MBA in International Business.

Fisher is happily married with five children and seven grandchildren, and he still remains connected to his ranching roots.

 MARKETING
 DESIGN/BUILD
 OWN
 OPERATE

**AE2S Water Solutions Freshwater Delivery Pipeline System Conveys Water to Temporary Storage Reservoirs at Pad Sites Southeast of Wafford City**




**AE2S WATER SOLUTIONS**

[www.ae2swatersolutions.com](http://www.ae2swatersolutions.com)

**Project Development and Marketing**  
 Land Services/GIS/Mapping  
 Water Sourcing  
 Fresh Water Delivery Systems  
 Water Reservoirs/Storage

**Water Treatment/Recycling/Reuse**  
 Produce Water Collection Systems  
 Salt Water Disposal  
 Controls/Programming  
 Operations





The TORNADO brand represents 30 years of providing Engineering/Design/Manufacture of combustion related products to industry.

- **Flare Systems**
- **Thermal Oxidizers**
- **Pilots & Igniters**
- **Detonation/ Deflagration Flame Arrestors**





The ancient art of **combustion**  
manipulated by **innovative minds**



THERMAL  
ENVIRONMENTAL  
CONTROL  
SOLUTIONS

*Design and  
Manufacturing  
since 1984*

200, 261200 Wagon Wheel Way  
MD of Rocky View, AB, Canada T4A 0E3  
Main: 403-244-3333 | Fax 403-275-3740



4831 US Hwy 90  
Alleyton, Texas 78935  
Toll Free 1-888-732-2400



**Pressure Washers**



**www.HotsyND.com**



**#1 Pressure Washer  
in North America**

**Hotsy understands  
the Oil & Gas Industry**

Downtime due to equipment failures means you're losing money. Protect your investment by cleaning equipment regularly.

**Oil & Gas Industry Professionals Have Been Choosing Hotsy Since 1973**

**Hotsy is the brand leader...**

- Industrial grade high-pressure washers
- Best warranties in the industry
- Hot or cold pressure washers
- Over 100 models available
- Portable or stationary units
- Durable and rugged
- Powder-coated paint resists corrosion
- Removes caked-on dirt, grease and grime
- Full line of specialized detergents available



**EDMONTON, AB**  
16712 - 118 Ave. NW  
Edmonton, AB T5V 1P7  
www.hotsyAB.com  
Toll Free: 800-328-1555

**CALGARY, AB**  
3611 - 60 Ave. SE  
Calgary, AB T2C 2E5  
www.hotsyAB.com  
Toll Free: 800-717-8101

**RED DEER, AB**  
#8, 7419 - 50th (Gaetz) Ave.  
Red Deer, AB T4P 1M5  
www.hotsyAB.com  
Toll Free: 877-468-7973

**GRANDE PRAIRIE, AB**  
109, 10101 - 108 Street  
Grande Prairie, AB T8V 3X9  
www.hotsyAB.com  
Toll Free: 800-320-8848

**LETHBRIDGE, AB**  
Bay 1, 4002 - 9 Ave. N  
Lethbridge, AB T1H 6T8  
www.hotsyAB.com  
Toll Free: 877-303-3394

**LANGLEY, BC**  
#112, 20575 Langley By-Pass  
Langley, BC V3A 5E8  
www.hotsyBC.com  
Toll Free: 888-532-7021

**ESTEVAN, SK**  
1112 - 5 St.  
Estevan, SK S4A 0Z4  
www.hotsySK.com  
Toll Free: 855-634-8727

**BISMARCK, ND**  
3625 Saratoga Ave.  
Bismarck, ND 58503  
www.hotsyND.com  
Toll Free: 800-279-0172

**WILLISTON, ND**  
406 8th Ave. E  
Williston, ND 58801  
www.hotsyND.com  
Toll Free: 877-803-3913

Connect with  
**Hotsy Water Blast  
Manufacturing LP**  
   



# Judging the Best Way to Handle *Industry Impacts*

By Paul Adair

In May, the Eagle Ford Consortium held its fourth annual conference at the Grand Hyatt in downtown San Antonio, TX, to cover issues like the current lull in the oil market, workforce challenges, and road safety. County officials from the Cline Shale, the Bakken, and Eagle Ford formations were also given the opportunity to come together to discuss the effects of the oil industry on their respective counties and share what is being done to help mitigate the impacts.

At 20,000 square miles in size and having almost 250 active wells throughout the region, Texas' Eagle Ford Shale play lays roughly 1,200 miles due south of the Bakken. Going through its own oil boom, Eagle Ford has also faced many of the common problems currently plaguing North Dakota's energy producing counties.

Vicky Steiner, executive director of the North Dakota Association of Oil & Gas Producing Counties, spoke on a panel with community leaders from McComb, MS and Baton Rouge, LA, along with a moderator from Kearney, TX, and she later met with a small group of Texas judges who wanted to discuss local impacts and state taxation methods.

## FACING CHALLENGES HEAD-ON

An oil boom can produce several challenges for energy sector counties and many have found that the resources needed to grow and maintain their infrastructure are being stretched past the point of rescue, as cities and towns expand far beyond what city planners initially designed for.

The industry has flourished in the Eagle Ford, causing considerable job growth in an area that has virtually eradicated the double-digit unemployment rate that was hanging over the region. That being said, this double-edged sword of employment opportunity has also brought many more people to the Eagle Ford, resulting in significant institutional shortfalls for schools, hospitals, and emergency services.

Counties in the Lone Star State are struggling with a lack of available, affordable housing for its burgeoning population. Landlords are taking advantage of this increased demand, raising rent to reflect the dwindling supply. Where existing housing could once support the influx of workers into the Eagle Ford, living at man camps and sleeping in cars have become all too familiar for those working in the oilfields; this problem has somewhat balanced itself as drilling rig counts recently fell.

Massive clouds of dust kicked up by the trucks carrying equipment and product are causing safety and health concerns for residents, and the quality of county roadways has been hit hard, as the increase in heavy traffic wreaks havoc on rural highways and gravel roads which are not built to support such heavy loads.

Counties located in the heart of energy production in the Eagle Ford are asking the state capital who is responsible for resolving (and paying for) all of this, since it is a result of the oil play.

## FOOTING THE BILL

In the state of Texas, county-level revenue is currently resigned to property taxes, fines and fees, forfeitures, grants proceeds, and, in

some counties, a portion of the sales tax. However, without additional state assistance, local taxpayers are too often left to foot the bill for the cost of damages to county-maintained road systems, while Texas reaps the reward of increasing production taxes and sales taxes that go to the state's general fund.

Since 2012, a concentrated effort has been made by a handful of Texas counties in the Eagle Ford shale play to get the state of Texas to recognize a certain responsibility to local taxpayers, who have been burdened by stress resulting from the regional drilling activity that helps fill the state coffers.

One of these efforts would have diverted 25 percent of the state's production tax and remitted it back to the Texas Department of Transportation (TxDOT), in which the producing counties are domiciled. Under this arrangement, the counties and TxDOT would have shared the revenue; however, this bill unfortunately was shelved before being "revived" in a special session under different terms. The resulting legislation proposed to redirect 50 percent of the production tax destined for a so-called "rainy day fund," if the measure passed a 2014 state-wide constitutional amendment election.

"Although the constitutional amendment distributes the revenue around the state by formula, with some money going to energy impacted regions, TxDOT is the sole recipient," says Judge Daryl Fowler of DeWitt County, TX.

"In other words, state highway needs are being addressed and there is no direct appropriation to the county where the production occurs. Therefore, local taxpayers continue to pay for repairs on county roads caused by damages

inflicted through the movement of high volumes of heavy trucks and equipment used during the exploration and completion process.”

Another significant piece of legislation passed in 2013, creating a transportation infrastructure grant program for counties claiming road damages resulting from energy sector activities. Of the \$450 million appropriated for initial grant funding, TxDOT received \$225 million, and 191 counties shared \$224.5 million, which was based on a funding formula.

“Most of the Eagle Ford Shale counties received multi-million dollar grants, but they came nowhere near the amount of production taxes paid by producers and royalty owners,” says Fowler.

“For example, DeWitt County production yielded over \$244 million in production taxes during the calculation period and received a mere \$4.9 million for four local transportation projects in the high-impact areas. The production taxes remitted from operators and royalty owners in DeWitt County, alone, were more than the statewide appropriation.”

## FUNDS FALLING SHORT

Much of the funding problem lies with the demographic distribution of Texas. More than 80 percent of the population resides in metropolitan areas, representing about a dozen counties out of the 254 counties in the state. Generally speaking,

much of the energy sector activity is occurring out in rural areas, which only has about 20 percent of the representation in the Texas Legislature.

“Metropolitan Transportation Authorities have the loudest voice in Austin when it comes to transportation dollars,” says Fowler. “So, rural county needs typically get assigned as a lower priority, even though billions of dollars of production taxes are raised in the rural counties and the rural energy-producing counties are suffering from so much road damage.”

In fact, when there is a potential for appropriation, the oil-producing counties often find themselves competing against TxDOT for the funding. In 2014, approximately \$270 million was directed to the energy sectors in Texas and disbursed at TxDOT’s discretion. As a result,

the TxDOT district responsible for highways in DeWitt County was only given \$4 million for highway projects, falling far short of the \$337 million in production taxes originating from DeWitt County drilling operations that year.

Part of the solution will come from counties being able to lobby and inform state legislators about current conditions present in the Eagle Ford, enforcing the need for a change in the negative way oil production is addressed by the state.

“In 2017, I will head back to Austin and try to educate a new freshman class on the importance of continuing a pro-energy business environment, and bring to their mind that there is no free lunch,” says Fowler. “Someone is paying for the damages to the county road system, and it sure isn’t the State of Texas.”

## GET TO KNOW OUR EXPERT JUDGE DARYL FOWLER



Daryl L. Fowler was re-elected to a second term as DeWitt County judge. His public service began after a 25-year career in the insurance and financial services industry.

Fowler earned a Bachelor of Business Administration degree from Texas Christian University in 1982 and supplemented that degree with a certificate in Petroleum Land Practices from TCU in 2008.

In addition to being a constitutional county judge in Texas, Fowler manages a family-owned cattle ranch south of Yoakum, TX, and is a deacon at his church. He and his wife, Lisa, have three children.

NORTH DAKOTA  
CITY HALL FINANCIAL SERVICES  
[www.AE2SNexus.com](http://www.AE2SNexus.com)

# AE2S NEXUS

## The Financial Link

City and County Auditors and Finance Directors are expected to do more with less. AE2S Nexus professionals understand the challenges these positions face first hand. Our staff includes experienced City Auditors and Finance Professionals who have been through numerous budgeting and reporting processes, special assessments, utility rate analysis, and infrastructure financing. **Call Shawn Gaddie, PE at 701-746-8087 or email [Shawn.Gaddie@ae2s.com](mailto:Shawn.Gaddie@ae2s.com) to put our experience and expertise to work for you.**

City Hall Financial Services | Utility Rate Analysis | Project Funding/Financing | Development & Administration | Economic Development | Asset Management



# ***New World Stainless*** **Precision Welded Pressure Tubing for Critical Oil & Gas Applications**

New World Stainless is a US-based manufacturing facility for precision welded small diameter stainless steel and nickel alloy tubing. We have a proven record of providing expertise and producing premium quality long length coiled tubing. Our team has delivered product and services to both offshore and land-based gas and oilfield projects around the world.



## **Product Applications:**

- Capillary Strings
- Flying Leads
- Chemical Injection Lines
- Hydraulic Control Lines
- Instrumentation Tubing
- Umbilical Components

## **Stainless Steel and Nickel Alloy Performance Tubulars:**

304/304L, 316/316L, 321, 2205 Duplex, 825 Incoloy®, 625 Inconel®, Alloy 31 (superior corrosion resistance and significantly more economical vs. 625), and C276 Hastelloy®



**732.412.7138 / [newworldstainless.com](http://newworldstainless.com)**  
100 Randolph Road • Somerset, NJ • USA • 08873  
[info@newworldstainless.com](mailto:info@newworldstainless.com)

**AMERICAN OWNED ★ AMERICAN MADE**



# THE POWER OF INTEGRATED LOGISTICS



FLUIDS MANAGEMENT | SOLIDS MANAGEMENT | WATER MIDSTREAM | STORAGE  
E&P LANDFILL SERVICES | STAGING | DISPOSAL | RENTALS | RECYCLING & REUSE

When all roads lead to high performance, efficiency, and the highest safety standards, Nuverra is the proven leader for all of your surface solutions. Our end-to-end service model ensures your environmentally sensitive materials are managed responsibly, reliably and safely – every time.



FORMERLY  
***PowerFuels***

701-842-3618 | [www.nuverra.com](http://www.nuverra.com) | 3711 4th Avenue NE, Watford City, ND 58854



File Edit View Go Window Help

New  
Open  
Save

Export ▶

to ▶

.bbl ▶

By Paul Adair

In 1975, President Gerald Ford imposed the *Energy Policy and Conservation Act*, a counter-measure to oil scarcity brought on by an Arab oil embargo, creating price controls on oil and supporting these controls through crude oil export bans.

Forty years later, the idea of oil scarcity seems laughable, as the U.S. has the fastest-growing oil production in the world, surpassing Russia and Saudi Arabia. According to IHS Inc. testimony presented to the U.S. House of Representatives Committee on Agriculture this year, American entrepreneurship has increased U.S. crude oil output by 81 percent since 2008, representing 4.4 million barrels per day of light tight oil from regions like the Eagle Ford and the Bakken. It might be the time to lift the ban on U.S. crude export and allow our oil to flow into world markets.

### BENEFITS OF LIFTING THE BAN

The IHS report, *Unleashing the Supply Chain*, documented anticipated benefits across the economy from 2016 to 2030. Its results were stunning; as much as \$86 billion in additional GDP, \$1.3 trillion in federal, state, and municipal revenue from corporate and personal taxes, and about 400,000 new jobs annually.

"The benefits accrue across most of the U.S., not just oil-producing states," says Jamie Webster, senior energy director for IHS Inc. "It touches states like Minnesota, New York and Massachusetts. And Michigan, which has little or no oil production, also benefits substantially in terms of economic activity and jobs, owing to the interconnected nature of U.S. supply chains."

This supply chain currently contributes to diverse employment opportunities throughout the nation, and a lifting of the ban would enhance the oil industry's impact on the economy, increasing demand for industrial equipment and machinery, construction and well services, information technology, materials, logistics, and professional and financial services. Many of the

# National Efforts to Export U.S. Crude

## BRINGING THIS COUNTRY'S ENERGY POLICY INTO THE 21<sup>ST</sup> CENTURY

By Senator Heidi Heitkamp

Building a strong future for our country requires committing to a robust, all-of-the-above energy strategy that will help carry us forward—not decades-old policies that hinder our ability to prosper.

The 1970s-era ban on exporting American crude oil is as outdated as the typewriters on which the policy was written, but we're much closer to a solution than Congress has ever been. In July, just two months after Republican Sen. Murkowski and I introduced bipartisan, complementary bills to do away with the nonsensical, outdated ban on U.S. crude oil exports, Senator Murkowski's bill to lift the ban on oil exports passed in the Senate Committee on Energy, while the Senate Committee on Banking discussed my bill to reinforce the ban lift by going line-by-line through federal laws already on the books, striking any reference to prohibitions on crude oil exports.

We have now overcome one of the first hurdles; language from my bill was added to Sen. Murkowski's bill in Committee, and now that the two bills have merged and passed out of Committee, the issue is ripe for consideration on the Senate floor. This bill will now give the Senate the ability to consider a new path forward for our energy security that allows us to harness our resources here at home, level the playing field in the global energy market, and ensure our allies can get resources from us, instead of from volatile regions.

We can bring this country's energy policy into the 21<sup>st</sup> century and make this world a safer place, and we can do it by lifting the ban on crude oil exports.

### GET TO KNOW OUR EXPERT SENATOR HEIDI HEITKAMP



Sen. Heidi Heitkamp grew up in Mantador, ND and has been a champion for an energy strategy leading to North American energy independence and security. She has been a leader in finding a viable path for coal, supporting the development of renewable resources, and lifting the ban on American crude oil exports.

Sen. Heitkamp serves on the Senate Committee on Agriculture, Nutrition, and Forestry, the Senate Committee on Banking, Housing and Urban Affairs, and the Senate Committee on Homeland Security and Governmental Affairs. She also sits on the Senate Committee on Indian Affairs, and the Senate Committee on Small Business.

## LIFTING CRUDE OIL EXPORT BAN A SMART MOVE FOR AMERICA, OUR ALLIES

By Senator John Hoeven (R-ND)

Lifting the ban on the export of crude oil is a smart move that will benefit our nation and our allies in many ways. That's why I am co-sponsoring the *Energy Supply and Distribution Act of 2015*. This measure would authorize exports of crude oil and condensate produced in the U.S. without requiring a federal license, on the same basis that exports of refined petroleum products are currently authorized.

Doing so would create good-paying jobs for our citizens, enhance domestic production, help grow our economy and increase the global supply of crude. That means lower prices for gasoline and other fuels and more money in consumers' pockets. Those facts are backed up by studies at the U.S. Energy Information Administration, the non-partisan Brookings Institute and the Harvard Business School.

Further, the increased supply of crude would mean less volatility in the global markets. That will provide stability to our allies around the world and reduce their dependency on less stable regions, including Russia and the Middle East. It's clear that repealing this ban is long overdue, and I look forward to working with my colleagues in Congress to pass legislation that will do just that.

## GET TO KNOW OUR EXPERT SENATOR JOHN HOEVEN



Sen. John Hoeven served as governor of North Dakota for a decade, during which he worked to develop the state's vast energy resources with good environmental stewardship. To do so, he created Empower North Dakota, the state's comprehensive energy plan. Today, North Dakota is an energy powerhouse and the second-largest oil-producing state in America.

As a member of the Senate Energy Committee, Hoeven is working to implement the same kinds of national policies that proved successful in North Dakota. Hoeven believes common-sense energy development can provide our nation with true energy security.


400,000 jobs to be created by lifting the ban would be in the rural areas of the U.S. and are anticipated to pay as much as 25 percent more.

"Through lifting the ban on U.S. oil exports, America has an opportunity to once again be the growth engine of the world, as we were post-World War II," says Harold Hamm, CEO of Continental Resources.

"In addition to creating 400,000 jobs per year and stabilizing gasoline prices, exports would potentially eliminate the U.S. trade deficit, reduce our allies' dependence on Russia and Iran, and end OPEC dominance once and for all. Continuing the American Energy Renaissance is the single-most defining aspect on this planet today, and it will shape the next 50 years."

## BRINGING JOBS BACK

If the ban is lifted, ultimately, the American consumer will reap the most benefits. Studies have shown that not only will the export of U.S. crude oil lower gasoline prices (by as much as eight cents per gallon) but it would bring stability and the return of middle-class jobs.

"Since OPEC's predatory pricing tactics began last fall, over 130,000 oil and gas workers have lost their jobs, and up to 500,000 jobs have been lost across the broader economy," says Hamm. "America needs those jobs back! Foreign oil producers had the edge in the past, but U.S. crude oil exports will give that edge to American consumers." 

**FOUR SEASONS**  
EQUIPMENT OF NORTH DAKOTA, LLC.  
Sales • Rentals • Parts • Service

**KOBELCO**  **HYUNDAI**  
CONSTRUCTION EQUIPMENT U.S.A., INC.

**BELL**  **SANY**  
TRUCKS AMERICA, INC. AMERICA INC.

**SAKAI**  **MOROOKA**  
MASTERS OF COMPACTION TOTEM



Western North Dakota's  
 **TEREX**  
AUTHORIZED DEALER

**OUR RENTAL FLEET:**

- ♦ EXCAVATORS
- ♦ WHEEL LOADERS
- ♦ COMPACTION EQUIPMENT
- ♦ ARTICULATED TRUCKS
- ♦ HEATERS
- ♦ LIGHT TOWERS
- ♦ CRANES & MORE!



**701-577-7014**  
5033 Jackson Street, Williston, ND | [www.fsel-nd.com](http://www.fsel-nd.com)



## FUELLING THE ENGINE OF JOB GROWTH

By Congressman Kevin Cramer

It is time to lift the crude oil export ban put in place during a time of energy scarcity in the 1970s.

Technological advances provide an abundance of energy production. Our laws need to reflect this change. The world's energy markets have been controlled by despots and dictators for decades. The stability of U.S. exports can replace the unpredictable whims of cartel leaders in the Middle East and Russia, making the world safer without firing a lethal weapon.

Exports will fuel the engine of job growth. While labor force participation is the lowest since 1978, lifting the ban is expected to create 440,000 U.S. jobs in the energy supply chain, alone.

Critics argue diminishing the ban will raise gas prices. Many independent studies show exactly the opposite. We produce more light, sweet crude than U.S. refineries can take, causing oil prices to drop, while gasoline prices stay high since they are priced globally. Exporting crude will likely lower the price of fuel. Lower prices at the pump are good for consumers.

America's national and economic security are tied to our energy security. Lifting the export ban is good for all three.

## GET TO KNOW OUR EXPERT CONGRESSMAN KEVIN CRAMER



Kevin Cramer is a native of Kindred, ND. He was elected to the U.S. House of Representatives in 2012. He serves on the House Committee on Energy and Commerce and is assigned to three subcommittees: Communications and Technology, Environment and the Economy, and Oversight and Investigations. He also serves as co-chairman of the Northern Border Caucus.

In 2004, Cramer was elected to the Public Service Commission and he worked to ensure North Dakotans enjoy some of the lowest utility rates, enhancing their competitive position in the global marketplace. Cramer understands our country's energy security is integral to our national and economic security.



## MAIL EXPLOSION

Over the past four years, delivery points in North Dakota have increased by 14 percent and package deliveries have increased by 165 percent. Rural postal carriers' overtime increased by 241 percent.

## STABILIZING THE MAIL SYSTEM

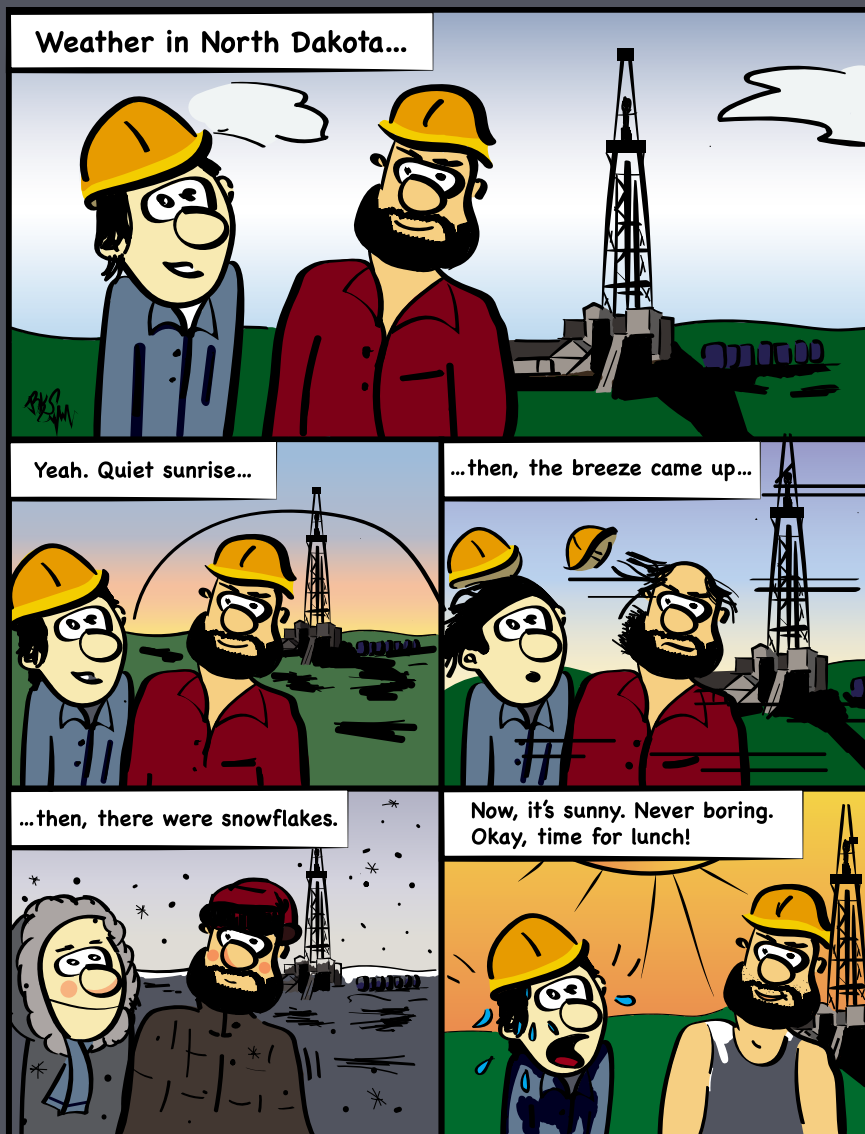
According to Darrell Stoke, district manager for the USPS Dakotas District, mail delivery in northwestern North Dakota has stabilized.

## TRIVIA TIME

Fiscal Year	Pieces of Mail Through USPS
2012	114 million
2013	117 million
2014	116 million

Source: [www.uspsaig.gov/sites/default/files/document-library-files/2015/drar-15-004.pdf](http://www.uspsaig.gov/sites/default/files/document-library-files/2015/drar-15-004.pdf)

## CARTOON CORNER



Brooke Schreiber, [www.brookeschreiber.com](http://www.brookeschreiber.com)



# DISMANTLING CRIMINAL ORGANIZATIONS IN THE BAKKEN

By Drew Kozub

North Dakota has armed a new weapon to fight organized crime. The Bakken Organized Crime Strike Force combines the strength of federal, state and tribal law enforcement to dismantle crime in the Bakken. After the oil boom, the population in western North Dakota exploded, and criminals looked to exploit this growth. Between 2004 and 2013, the crime rate doubled in the state, but those numbers are expected to reverse, thanks to the Strike Force.





The Strike Force was announced this June, after many months of planning and coordination. At the announcement, North Dakota Attorney General Wayne Stenehjem celebrated the collaboration between state and federal departments and delivered a message about the Strike Force's commitment to keeping the area a safe place to live and work.

"This effort will assure citizens that we will always protect our residents and tell criminals that they do not want to do business in North Dakota," Stenehjem announced.

## COMBATING ORGANIZED CRIME

Since then, the four state-run task forces in Williston, Minot, Dickinson and Bismarck were brought together under the umbrella of the Strike Force to combat organized crime—everything from firearms, to drugs and human trafficking, to white-collar crime. The taskforce was allocated federal and state prosecutors, as well as federal agents, to help carry out its mission: Target and dismantle large-scale organizations from top to bottom, wherever they might lead. North Dakota's Acting U.S. Attorney Chris Myers says attacking the entire organization is a key element to the Strike Force's power.

"When you target an entire organization and take them out, it ceases to exist," says Myers. "If you only target parts of the organization, they

will evolve, regenerate new members, and continue their business."

The Strike Force is the result of studying proven law enforcement systems and implementing them through complete support and collaboration between the U.S. attorney's office, the attorney general's Office, and state and federal law enforcement agencies. Myers says criminals do not respect jurisdictional boundaries, whether it's a county, city or international line, so law enforcement officials need to extend their boundaries, too.

"There is a partnership with the U.S. attorney's office and all of our federal and state and local partners, so it's a collective effort to maximize resources to take out these criminal organizations, wherever they are taking advantage of activity going on in the Bakken," says Myers.

"The addition or allocation to federal resources to these states of local taskforces extends the reach of law enforcement beyond the borders of the city, state or country to dismantle these organizations inside of the state or internationally. It extends the reach locally to be able to use federal authority."

## KEEPING THE INNOCENT SAFE

The effects of crime can impact many lives. This is something that Williston resident Windie Lazenko knows firsthand.

At the age of 13, Windie became the victim of sexual trafficking. For 16 years, Windie was trapped in this illegal confine, but after breaking free, she offers advocacy and healing for victims of sex trafficking and exploitation with her organization 4her North Dakota.

An honored member of the National Survivor Network, and a licensed Chaplain, Windie offers counselling and support to victims in the Bakken of similar circumstances she experienced and overcame.

Committing resources to the Strike Force was a favorable plan on the federal level. Over the past three years, the National Organized Crime Drug Enforcement Task Forces (OCDETF) office (which is a branch of the U.S. Department of Justice) has seen the caseloads in the two U.S. attorney's offices in North Dakota and Montana rise to among the highest in the nation. The director of the OCDETF, Bruce G. Ohr, says the level of cooperation between local and federal departments makes each stronger.

"OCDETF recognizes no single law enforcement entity is in a position to disrupt and dismantle sophisticated criminal organizations alone," says Ohr. "By effectively leveraging the investigative and prosecutorial strengths of all its members, each component's efforts are enhanced and produce a greater effect than if all acted alone."



Energy Services

MBI's continued focus on the safest and most efficient execution practices through training, technology and quality hiring provides consistent and dependable services for our customers.

[mbienergyservices.com](http://mbienergyservices.com)



The Theodore Roosevelt Expressway (TRE) is the northern third of the Ports-to-Plains Corridor. It runs from Rapid City, South Dakota to Saskatchewan, Canada through the Port of Raymond in Montana. The TRE Corridor serves the Bakken Shale Region including the cities of Spearfish, Belle Fourche, Bowman, Belfield, Watford City, Williston, Culbertson and Plentywood.

The Theodore Roosevelt Expressway Association (TREA) has been pleased with the North Dakota Legislature's support for infrastructure projects in oil impacted counties. Significant funds were made available earlier than normal to get a jumpstart on the bidding process for roads, schools, housing, water projects and more, due to the unprecedented growth in the Bakken Region.

*Point Your Compass North*

**2015 PORTS-TO-PLAINS CONFERENCE**  
**WILLISTON, NORTH DAKOTA**

**OCT 6-8**  
**NAVIGATING THE FUTURE**

**Williston**  
 Economic Development

**Williston**  
 ND  
 ECONOMIC DEVELOPMENT

**Williston**

Economic Development  
[www.willistondevelopment.com](http://www.willistondevelopment.com)

**Theodore Roosevelt**  
**EXPRESSWAY**

[www.trexpressway.com](http://www.trexpressway.com)





## PROGRESS SHOULDN'T DISTURB THE PEACE


Up until the oil boom in the late 2000s, western North Dakota had not experienced organized crime the way it has today. The landscape has evolved significantly, as workers in the oil and gas industry have come to establish new lives, thanks to the prosperity of the region. This peaceful existence should not be compromised by crime, and Ohr says his office supports the Strike Force and believes in its ability to get results.

"The Department of Justice recognizes the largely drug-fueled crime in the Bakken is an emerging threat to public safety in the region and elsewhere, as sophisticated regional and international criminal organizations are increasingly moving operations into the Bakken," says Ohr.

"The Department supports the Bakken partners' efforts to get ahead of the emerging threat and deploy adequate law enforcement resources and strategies, such as the Bakken Organized Crime Strike Force, before the threat becomes fully entrenched."

By intensifying the coordination among federal, state and law enforcement, the

establishment of the Bakken Organized Crime Strike Force ensures the maximum impact will be made for each case. From a law enforcement perspective, this means

justice will come to those who chose to disrupt peace and ruin lives with their criminal activities, no matter where they are from, or where they break the law. 

### GET TO KNOW OUR EXPERTS CHRIS MYERS



attorney in Fargo, ND.

### BRUCE OHR



Bruce Ohr is a career prosecutor and has worked with the Department of Justice (DOJ) for over 24 years. He started his career with the DOJ as an assistant U.S. Attorney in the Southern District of New York for eight years, including serving as chief of the Violent Gangs Unit in that office. He has been the Organized Crime Drug Enforcement Task Forces director since November 2014. Bruce is also an associate deputy attorney general and the director of the attorney general's Organized Crime Council.

### WAYNE STENEHJEM



Wayne Stenehjem was elected to the North Dakota House of Representatives in 1976 and then to the ND senate in 1980, which he served for 20 years. He was sworn in as the state's 29<sup>th</sup> attorney general in 2001 and has been re-elected for the role.

# ENROLL NOW

**NDSU** NORTH DAKOTA  
STATE UNIVERSITY

# ONLINE

#### Learn More

701.231.7938 | [jody.bohn.baldock@ndsu.edu](mailto:jody.bohn.baldock@ndsu.edu)  
[www.ndsu.edu/transportation/](http://www.ndsu.edu/transportation/)

**NDSU** UPPER GREAT PLAINS  
TRANSPORTATION INSTITUTE



#### Master's degree programs

- Managerial Logistics
- Transportation & Urban Systems

#### Certificate programs

- Transportation & Urban Systems
- Transportation Leadership



# SAVE THE DATE

*The 24<sup>th</sup> Williston Basin  
Petroleum Conference  
Bismarck, ND  
May 24 to 26, 2016*

## Oilfield Improvements®

ULTRA-FLOW®

FIELD INSTALLED

CENTRALIZERS/  
PARAFFIN SCRAPERS

### Full-circle Wiping of Tubing I.D.

More Gripping Force  
on Sucker Rods

More Fluid Flow-by Volume

Longer Useful Life

from Longer Vanes  
& Bearing Surfaces

Positive Wear Indicators

Amodel with Glass Fill

**CALL 1-800-LES WEAR**  
(800-537-9327) OR YOUR  
Oilfield Supply Store

[www.rodguides.com](http://www.rodguides.com)



**Oilfield Improvements,  
Inc.**

1902 N. Yellowwood Ave.  
Broken Arrow, Oklahoma 74012 U.S.A.  
PHO 918-250-5584 • FAX 918-250-4666



# The Best Solution is Clear

For over 40 years, the Gastec Pump and Tube System has provided fast, simple, and precise measurements of hazardous gases and vapors and remains a clear leader in detector tube technology.

## ■ BETTER TECHNOLOGY

Gastec offers a complete line of detector tubes for over 600 applications that includes over 375 single-stroke applications. No other manufacturer offers this number of single-stroke tubes or applications. The tubes are easy to read with clear lines of demarcation and only Nexteq offers an on-the-spot ambient temperature display.

## ■ BETTER QUALITY

No other manufacturer has more SEI-certified tubes than Gastec. With most applications requiring one stroke, there is less sampling time, less chance of errors, no miscalculated strokes and no miscompressions.

## ■ BETTER VALUE

Gastec's precision pump is backed by a LIFETIME WARRANTY. It was designed and built right the first time with the superior features that are important to today's busy professionals...features that competitors are still trying to duplicate.

**NEXTTEQ®**

BETTER TECHNOLOGY. BETTER QUALITY.  
BETTER VALUE.

For more information: NEXTTEQ LLC

Toll-free: 877-312-2333 • email: [info@nextteq.com](mailto:info@nextteq.com)  
[www.nextteq.com](http://www.nextteq.com)

Nexteq is Gastec's exclusive U.S. master wholesale distributor.



GAS DETECTION



Scan and find the largest  
selection of Gastec products

Used or Rebuilt Caterpillar & Waukesha  
Engines / Generator Sets / Engine Parts



1590 Old Whitfield Road  
Jackson, Mississippi 39208

**RON SWAGGART**

Cell: 601-594-2621

[rswaggart@enginesales.com](mailto:rswaggart@enginesales.com)

Office: 601/939-9620

FAX: 601/932-3342

Toll Free: 800/832-7745

[www.enginesales.com](http://www.enginesales.com)

**LEGEND  
ENERGY  
SERVICES LLC**

11121 30 M St SW  
Dickinson, ND 58601  
PH: 701-483-1393  
FAX: 701-483-1394

COIL TUBING

NITROGEN

FLUID PUMPING



# Federal Funds Boost Health Care in North Dakota

By Meg Crane

In May, the Health Resources and Services Administration (HRSA) announced it would be distributing \$101 million of *Affordable Care Act* funding. The money went to 164 health centers across the U.S., in communities that needed it most, including two in North Dakota's oil and gas producing region.

Patrick Butler, CEO of Northland Health Partners Community Health Center, says the center was approached by the North Dakota State of Health and local officials about opening a facility in western North Dakota.

"With the oil boom, there has been a shortage of care to oil workers and communities," says Butler. In many communities, residents or those who followed work to the patch are not receiving adequate health care.

Northland Health Partners applied for and received a grant of \$523,750 to help fund a health center in Ray, ND.

"This is going to cover the operation of it," says Butler. General funding and potential money from other grants the center may apply for will cover renovations and most supplies.

A portion of the grant may be spent on moveable equipment and one-time support supplies; those funds will be used for a digital x-ray, tables and chairs.

Prior to planning this new center, Northland Community Health Center was slated to begin working on providing telehealth services.

## CONVERTING TO A COMMUNITY HEALTH CENTER

Coal Country Community Health Center is also moving into the energy producing part of the state.

"For some time, we had been having dialogue with CHI St. Joseph's Health in St. Dickinson regarding Killdeer Medical Clinic," says Darrold Bertsch, CEO of Coal Country Community Health Center. "As the grant became available from HRSA, we accelerated those discussions."

The discussions circled around cooperatively converting the clinic to a community health center, to which those who are uninsured or underinsured—and meet federal poverty guidelines—could go for primary care. The \$450,000 the center received through the HRSA grant will help this conversion happen.

Bertsch says the center intends to reach out to the community and other providers, including Southwest District Health Unit, to determine what other service needs may exist.

"We're anxious and excited to be part of health care delivery in Killdeer and the surrounding area," says Bertsch. Coal Country assumed operation of the clinic in August.

## MEETING GROWING DEMAND FOR QUALITY CARE

"The health care facilities in Turtle Lake and Beulah already do a terrific job of

## RESCUING RURAL COMMUNITIES

No one can argue Dr. Benji Kitagawa and his wife Antoinette do not have huge hearts, although their retirement savings are draining quickly.

Unsettled that an Ulteig study determined Mandaree, ND was in dire need of an ambulance station, the Kitagawas put in \$50,000 of their own money and \$200,000 of acquired debt to fund an emergency medical station and non-profit community clinic. Increased traffic on Highway 22 from the oil and gas industry has resulted in more accidents, and Antoinette says the ambulance wait was 40 minutes, if the nearest service was not busy.

"We are trying to fund the service until it is self-sustaining," says Antoinette, who has been applying for grants for the station and has received two for equipment.

The Kitagawas are no longer able to financially support the project without help and are asking companies in the area for assistance.

"The danger of the industry poses a need for fast response to rigs and worksites," she says. No grants for employees have been awarded yet.

"The paramedics working for us, at this point, are donating their time," says Antoinette. Jessica Spotted Horse, a community member working for Mandaree EMS, says there is an emergency medical technician training class provided for free to community members.

"It's a great service for our community," says Spotted Horse, though she is worried it will take a few years before it will be self-sustaining.

The Kitagawas hope this can be a model for other rural communities lacking emergency services across the U.S.



# EXPERTISE IS AT OUR CORE.

**EERC CENTER FOR OIL AND GAS**  
The Energy & Environmental Research Center (EERC) has specialized expertise to design and implement new approaches for the exploration, development, and production of oil and gas.

Find out more at  
[www.undeerc.org/bakken](http://www.undeerc.org/bakken).




[www.undeerc.org](http://www.undeerc.org)

providing top-notch care and services, and these federal funds will help them meet the growing demand for rural and quality health care,” says Sen. Heidi Heitkamp. The funding was part of a national investment to expand access to primary health care services.

“Because of the increase in population in our state and the need for health care services in the Turtle Lake and Beulah areas, these two facilities will greatly benefit from the federal funding,” she adds.

Before this funding, four health centers were operating 18 delivery sites across North Dakota to over 31,600 patients.

The funding awarded to these two health centers is expected to increase access to services for over 2,200 patients, which should help alleviate pressure on other health care centers in the area. 

## GET TO KNOW OUR EXPERTS PATRICK BUTLER

Patrick Butler joined the Northland Community Health Centers (NCHC) in January 2012 as CEO. Prior to joining NCHC, Butler served as the director of a federally qualified health center in Texas. He brings over 25 years' business experience.



## DARROLD BERTSCH

Darrold Bertsch is CEO of Sakakawea Medical Center, a critical access hospital in Hazen, ND. He is also CEO of Coal Country Community Health Center, a federally-qualified health center in Beulah, ND.

Bertsch has served in this unique, shared CEO role for four years. He is the chairman of the North Dakota Hospital Association and the secretary of the Community Healthcare Association of the Dakotas. He is active on many other state and local committees.

## SENATOR HEIDI HEITKAMP

Sen. Heidi Heitkamp is North Dakota's junior senator. She grew up in Mantador, ND, where she learned the value of hard work and responsibility, leading her to choose a life of public service.

Prior to joining the Senate, she was an attorney general for North Dakota and a director of the Dakota Gasification syn-fuels plant.



**CavalierMeansBusiness**  
*Come Home and Move Forward*

Cavalier, located in Northeast North Dakota, is the perfect place for your next business expansion or relocation

**LEARN MORE AT  
CAVALIERND.COM/ECON**

- ✓ Natural Gas
- ✓ Low Utilities
- ✓ Full Service City
- ✓ 1 GB Internet Available
- ✓ Personalized Service
- ✓ Great Quality Of Life





# Ulteig's work improves lives!



Working at Ulteig is more than a job, it means you will be making a difference. We give you the opportunity to grow in your profession as you work on exciting projects in the power, government, renewable energy and communications markets. In addition to these challenging and rewarding projects, you will be offered competitive pay, comprehensive benefits, and 100% employee ownership.

Apply today at [ulteig.com/careers](http://ulteig.com/careers)

**Great projects. Great people. Great Opportunity.**



# Not Just for Kids: Bringing

By Danelle Cloutier

**H**ealth management company Keas is improving the well-being of employees through games.

The company recently launched Keas Health Hub, the first health management platform for self-insured employers. The hub streamlines health benefits in one engaging experience and recommends benefits and personalized health programs to users.

"It's about driving the right behaviors across your organization," says Adena DeMonte, vice-president of marketing at Keas. "This is really about knowing what challenges people have, which health risks they have, and making it easy to access those programs," she says.

The Keas Health Hub is made up of the Keas SmartHealth Engine, which takes existing data from health screenings, demographics and eligibility to personalize benefits and well-being programs for employees. The personalized plans are delivered to employees through the Keas+ app, which also offers

gamified health challenges, health and wellness coaching and progress tracking. Using Keas Insights, employers can view, on a macro level, the data from Keas+.

"They can benchmark and see the success over time," says DeMonte.

## NEED FOR HEALTH CARE COST DATA

The Keas Health Hub helps solve major problems in companies, including disjointed health benefits rollout and communications, low benefits use and engagement, incentive compliance, and fragmented reporting.

"Getting your employees to engage in their health benefits is a communications challenge," says DeMonte.

Jason Lang, team leader of the Centers for Disease Control and Prevention workplace

health programs, agrees. "Employers do a good job of communicating health benefits information to employees when first hired," he says, "but annual updates on plan changes are not as in-depth or routine, especially if you have been with the organization for some time."

DeMonte says the Keas Health Hub has brought together companies with employees who work opposite shifts from the human resource team. She says good communication starts outside of the health hub platform, and the platform ties it all together.

The platform eliminates administrative overhead for human resources and benefits departments, and drives the use of existing health benefits, which are often wasted, costing companies money. In the U.S., businesses spend over \$620 billion per year on employer-sponsored health care. That number is expected to rise to over \$1 trillion over the next five years, according to The Kaiser Family Foundation and Constellation Research.

Companies that determine diagnostic, treatment and service costs can analyze the data, identify diseases that contribute significantly to total health care costs and target those areas of health and wellness programs to lower costs.

"A more inclusive wellness strategy would be to develop broader lifestyle programs around diet and physical activity that, through targeted campaigns, can bring in employees who have chronic conditions such as hypertension, in addition to keeping your healthy employees healthy."

The Keas Health Hub launched in March 2015 and has been successful. Companies like Safeway, Land O'Lakes, Inc., J.B. Hunt and El Camino Hospital are using the health hub. Approximately 1,000,000 people use the Keas Health Hub an average of 14 times per month. "That's pretty unheard of in the benefits industry," says DeMonte.

# GAMIFICATION

## into the Workplace

**SANDPIPER**  
DUAL POWER  
DIAPHRAGM PUMPS  
FOR THE OIL & GAS MARKET

PUMP SYSTEMS LLC  
DICKINSON, ND  
701-225-4494/800-437-8076  
WWW.PUMPSYSTEMS.COM

CE, ISO 9001, API 608, API 675, NACE CORROSION RESISTANT

THE WIDEST RANGE OF  
CERTIFIED SAFE & RELIABLE PUMPS  
Designed & Tested to be Powered by Natural Gas or Compressed Air

SANDPIPER G SERIES

SANDPIPERPUMP.COM/OIL-GAS  
A WARREN RUPP, INC. BRAND



## GAMIFICATION

The Keas Health Hub is successful because it uses gamification to motivate employees to take charge of their health.

"Gamification is the core and what has always made us different," says DeMonte.

Gamification is the application of game elements and techniques to motivate behavior in non-game contexts. It has recently become popular for motivating employees in human resources, team building, productivity enhancement, innovation, and health and wellness. Marketers also use this approach to engage customers.

Keas+ uses gamification with challenges, quests and rewards. The app also allows users to integrate data from fitness trackers and GlobalFit.

"Gamification is about behavior design and motivating behavior," says DeMonte. "It's all about small changes and rewarding small changes over time."

Companies have had success using gamification to motivate workers. Blue Shield of California has been praised for its programs to engage workers in taking charge of their health.

In 2011, Blue Shield implemented Shape Up Shield, a social media, team-based physical activity program. Employees were encouraged to form teams, track physical activity

and compete against other teams using an online program. The program resulted in 130 teams comprised of 1,200 employees walking over 400,000,000 steps.

Next Jump, an e-commerce company, was recognized for motivating 80 percent of its employees to work out at least twice each week. The company split its employees into teams and had everyone log workouts in a computer system, in which colleagues could see the data. The team that worked out most each week received \$1,000.

## CHALLENGES WITH HEALTH CARE COST DATA

One of the problems with looking at health care cost data is that it is retrospective, says Lang.

"You can find out how many people have been diagnosed with cancer, but you've lost the opportunity to help stop it," he says. "Employers can use health care cost data in combination with employee health status and behavior data to look for opportunities to prevent conditions."

In addition, a company's claims data will only represent conditions that physicians bill for.

"If you have someone who has high blood pressure but doesn't know it, they won't necessarily go to a doctor to get it diagnosed,"

says Lang. "You might have people in your workforce who have health problems, and you're not going to know about it."

One solution, says Lang, is to have health care programs focused on early identification or coaching activities. Over the short-term, employers offering preventative services may see health care costs rise.

"Over the long-term," says Lang, "that will be a good value for both the employee and employer."

## GET TO KNOW OUR EXPERTS JASON LANG

Jason Lang is the team lead for the Workplace Health Programs at Centers for Disease Control and Prevention (CDC). He has managed projects and provided leadership for the CDC National Center for Chronic Disease Prevention's Workplace Health Initiative since 2007. He also established Maryland's comprehensive cancer and tobacco control programs and organized a statewide physical activity coalition.

He is a graduate of the 1998 Public Health Prevention Service and received his MPH and MS degrees from the University of Michigan.

# PROTECTING YOU AND THE ENVIRONMENT



Offfield Liners



Flexible Spill Containment



Polyurea Spray-In Liners



Heavy-Duty Walk-Over



Interlocking Tank Pads





## Complete Secondary Containment Structures



### Unit Liner company

WWW.UNITLINER.COM

Call For A Quote Today!

# (888) 748-5463

**Dennis Campbell**  
(405) 481-8074

**Jeremiah Jordan**  
(405) 481-8076

By Meg Crane

Last April, a bill passed in North Dakota, giving state funding to early childhood education (ECE) programs but it did not make it mandatory. State superintendent Kirsten Baesler says funding will come in the form of community grants.

Superintendents of each district will call a meeting of stakeholders to put together a proposal for an ECE program for their region.

When first discussing the bill, Baesler says stakeholders met to discuss bringing programs to all regions of North Dakota.

"It became clear that there was no one approach," she says. Instead, they are having communities determine what will work.

Schools in energy districts tend to be at capacity, with no extra classrooms, so early education could not be in schools.

For example, in Watford City, ND, the student population grew from a little over 500 students in 2010 to over 1,300 this past year, says Steve Holen, district superintendent, adding that a whole new high school is currently under construction.

While waiting for additional space, more students were placed into each class. The English as a Second Language class had 80 students; adding early education classrooms would just increase class sizes.

Dickinson city administrator, Shawn Kessel, says two grade schools were recently expanded and a new grade school was constructed.

"They built it, planning that they could expand in the future," says Kessel. After its first year of operations, it is already time to expand.

Last year, the area struggled to hire over 20 new teachers and is already looking for more.

The growing population in Williston, ND has put a great stress on schools, leading to the addition of 31 modular buildings for classrooms and the construction of a new school, says Ken Callahan, energy service manager for the Montana-Dakota Utilities Company. While adding space has been a challenge, it does not compare to the challenge of attracting teachers.

"Finding housing has been a huge problem for teachers," says Callahan. Williston has one of the highest rent prices in the U.S., making it an unaffordable city for teachers, but the school system has been proactive.

"The college has built housing units. The school superintendent in School District #1 has secured some apartment buildings and modulars. Teachers partner up and share apartments," he continues. "They've been thinking outside the box."

### USING ECE TO REDUCE COSTS

Some communities might propose turning a room within some of the many daycares into an ECE classroom. Since children are dropped off anyways, a teacher would just need to be brought in.

In other regions, schools may have space, but parents might be unable to transport children between school and daycare. In this case, a proposal could include that certain daycare providers transport students to school.

Communities can apply for multiple grants for multiple models, depending on what residents need.

"When we look at our workforce, our children are not in a home environment," says Cindy Schreiber-Beck, R-Wahpeton, who was on the North Dakota House Education Committee, which brought the recommendation to the floor. Most parents are working with children in daycares. It makes sense to have ECE programs available for them, she says.

Studies have shown positive and negative impacts of ECE, says Schreiber-Beck, however, research indicates students who attend high-quality programs are more likely to attend college. They are also less likely to drop out, become a teen parent, be placed in special education or be arrested for a violent crime.

Schreiber-Beck says investing in ECE programs could reduce costs related to those programs.

North Dakota Sen. Tim Flakoll, prime sponsor of the bill, says while there is a cost of \$3 million per year, it will save money spent on tutors. Flakoll thinks ECE will stop many children from falling behind later.

Flakoll says ECE increases how many words children are exposed to, teaches them how to learn and shows them learning can be interesting and fun, which will help close the gap between children from high-income and low-income families.

"As it was originally introduced, it was for any students," says Flakoll. However, there was not enough funding, so they focused on creating programs for low-income children, which accounts for about 35 percent of students across North Dakota. Students eligible for free lunch will receive \$2,000 per school year and students eligible for reduced lunch will receive \$1,000.

# At the Top of the Curve: Increasing Early Childhood Education





## CREATING WIDESPREAD PROGRAMS


The goal is to create more widespread programs in the future that will not just be focused on children; teachers will be required to have 10 hours of contact time with a parent or guardian of each student over the eight-month school year. Flakoll says involving parents in children's education shows what they can expect and how they can help their child succeed.

"We will be able to help our children begin reading earlier," says Dr. Janet Welk, executive director of North Dakota Education Standards and Practices Board.

Reading used to be taught in Grade 2 but has been moved to Kindergarten. Welk thinks students will begin to learn to read in ECE programs.

With reading down earlier, students will be able to apply that skill to other areas of learning earlier, too. According to Welk, reading to children at a young age can give them an edge over others, which they carry into later years.

"Any bit of a head-start helps. Additional education for our little kiddos is always a good thing," says Welk.

There is no way to know for sure how ECE programs will impact North Dakota. As Schreiber-Beck put it, the state is just testing the waters to see what evolves and where it will go. 

## GET TO KNOW OUR EXPERTS SENATOR TIM FLAKOLL



Sen. Tim Flakoll has served on the North Dakota Senate for 17 years. His service includes chairman of the Senate Education Committee, among other committees. He is the Provost for Tri-College University.

## DR. JANET WELK

Dr. Janet Welk is executive director of the Education Standards and Practices Board (ESPB). She holds a Ph.D from North Dakota State University in institutional analysis and is presently Council for the Accreditation of Educator Preparation commissioner.



## KIRSTEN BAESLER

Kirsten Baesler is superintendent of the North Dakota Department of Public Instruction, which oversees the education of over 106,000 public school students.



## CINDY SCHREIBER-BECK

Cindy Schreiber-Beck was elected to serve as a representative from North Dakota District 25 in 2014. She has worked with youth, ages three to 21.



## KEN CALLAHAN

Ken Callahan is the energy services manager for Montana-Dakota Utilities (MDU) and is an executive committee member of the North Dakota Association of Oil & Gas Producing Counties.



## STEVE HOLEN


Steve Holen is district superintendent for Watford City, ND. He is also the president of the North Dakota Association of Oil & Gas Producing Counties.



## SHAWN KESSEL

Shawn Kessel is city administrator for Dickinson, ND and an executive committee member of the North Dakota Association of Oil & Gas Producing Counties.






# SUCCESS

EXCEPTIONAL TALENT  
STRATEGIC ASSETS...  
A WINNING INVESTMENT.

QEP Resources, Inc. is a leading independent crude oil and natural gas exploration and production company focused on some of the most prolific resource plays in the continental United States.

A Proud Past—A Bright Future NYSE: QEP [www.qepres.com](http://www.qepres.com)





# Rail Safety Pilot Program Gets a Green Light



By Drew Kozub

**R**ail traffic in North Dakota is busier than ever. Between 2000 and 2012, rail traffic has increased by 233 percent, as a result of the oil boom. With increased traffic, there have been increased accidents. During the last five years, over 75 accidents related to track and equipment problems resulted in more than \$30 million in damages. To keep rail safety on the right track, the North Dakota Legislature is investing half-a-million dollars into a pilot program to keep citizens safe from railway accidents.

Rail safety has been an important issue in the Bakken, especially since the oil boom, and this spring, lawmakers adopted a program that will see two state employees hired to supplement the existing federal rail safety program. North Dakota Legislative Rep. Ron Guggisberg says this was an important move in protecting citizen's safety.

"The recent economic growth North Dakota has benefited from has come with a few challenges; one of them is public safety," says Guggisberg. "We needed to do something to ensure safety programs implemented by the private sector were, in fact, working. Adding a state rail safety inspection program to work with the Federal Railroad Association would get more eyes on tracks and equipment, improving defect recognition."

## MAKING RAIL TRAFFIC SAFER

The pilot project will be monitored over the next two years, with the intent of expanding it until 2019. Sen. Ronald Sorvaag chaired the conference committee for the Public Service Commission last session; one of the main focuses was establishing a state-controlled rail program to make traffic safer.

"The Rail Safety program this next biennium will help lay groundwork for developing a program controlled by the state to make rail traffic safer," says Sorvaag.

"This program is to supplement, not replace, what is happening now, and hopefully catch some problems before there is an accident. Also, it will provide information on what we can do to make rail traffic safer in our state."

The oil and rail industries in North Dakota have been prosperous, leading to new jobs for residents and attracting people from across the country to make the state their home. Rep. Guggisberg suggests the oil and gas and rail industries could contribute to programming that will supplement rail safety.

"We need to use a small portion of the money generated by oil production and transportation to ensure it is done safely," says Guggisberg. "Better inspection of tracks and equipment, better prepared responders, and research into limiting risk to communities can be better-funded. Safer systems—rail or pipeline—are the answer. If we don't act by getting in front on safety, our economy, communities, and citizens could be at risk."

Public safety is a sentiment shared by Sen. Sorvaag, who says this pilot program is a step in the right direction.

"There will always be a risk of train accidents, no matter what program is established, but hopefully with the state and federal government and the industry working together, we can prevent most accidents and keep our communities safe."

## GET TO KNOW OUR EXPERTS



### SENATOR RONALD SORVAAG

Sen. Ronald Sorvaag was elected to the North Dakota Senate in 2010. He has served 12 years as a Fargo Park Board Commissioner. Sorvaag has served on many different committees during both interim and regular sessions. He enjoys serving the community and contributing to the overall safety of its citizens by providing services with a reasonable expenditure of tax dollars.



### REP. RON GUGGISBERG

Rep. Ron Guggisberg lives in Fargo, ND and was elected in 2010 to the North Dakota Legislative Branch. He has served on budget, legislative management, and incarceration issues committees and has sponsored legislative bills in 2015, 2013, and 2011.

**GENERATORS FOR THE OIL & GAS INDUSTRY**

Taylor Power Systems  
Extreme Quality  
for  
Extreme Conditions



FAITH - VISION - WORK



Prime and Standby Units  
from  
9kW - 2000kW Diesel &  
18kW - 425kW Natural Gas  
**Wellhead Gas**

Contact: Reed Nicholas  
rnicholas@taylorpower.com  
Toll free: 1-800-748-9980  
[www.taylorpower.com](http://www.taylorpower.com)





# Under Construction: All Roads Lead to Progress

By Kim Babij-Gesell

It's rare to hear anyone speaking in glowing terms about road construction, but a couple of important projects in North Dakota are drawing plenty of happy words.

The well-traveled U.S. Highway 85 is undergoing a transformation this year, including bridge work replacement on the Lewis and Clark Bridge at Williston, ND and the completion of four lanes from Watford City to Williston.

It's a major undertaking and Cal Klewin, executive director of the Theodore Roosevelt Expressway Association, says it has been a long time coming.

"The Theodore Roosevelt Expressway Association is involved with the promotion of a corridor through North Dakota, South Dakota and all the way down to Texas; a central corridor that serves rural America and enhances economic development through the efficient movement of freight, the products that rural America delivers to the world. And that can be oil and gas, agriculture, manufactured goods or even tourism," explains Klewin.

"I've been in economic development in Western North Dakota since the early 1990s, and we always felt that Highway 85 was the lifeblood for our economy. And now, we are feeling very strongly about how this road work can enhance our economic development efforts."

## PART OF A NATIONAL CORRIDOR

Now, with the oil and gas industry and a world-class oil play in the Bakken along Highway 85, Klewin says it has essentially proven how important this road is in becoming a national corridor.

It has been a great relief for the local population and the industry in the area, adds Klewin, to see the construction on the four lanes begin, as it enhances the safety of the highway and the efficient movement of both freight and people.

With a short construction season, getting projects moving as quickly as possible in any given year is critical to their success. Klewin credits the North Dakota Legislature with swift decision-making.

*It has been a great relief...to see the construction on the four lanes begin, as it enhances the safety of the highway and the efficient movement of both freight and people.*

"The efficiency of getting the money out to the North Dakota Department of Transportation (NDDOT) and the counties and cities, to get these projects going, was crucial at the beginning of this legislative session, and it went out right away in February," he says. "It was a direct check to everyone to make sure they could plan those projects. We're happy with the way the North Dakota Legislature handled the funding and got it out to western North Dakota to address the transportation and infrastructure issues."

Wendy McCord is the NDDOT Williston District public information coordinator. She says the State is equally pleased with the progress on the projects.

"Everyone is happy with the way things are going," says McCord. "Thirty-three miles of roadway is quite a long way to expand from two to four lanes, and it's a lot of work to do over the course of a couple of short construction seasons. But we've been fortunate; the weather has been really good, both last year and this year, so far, so that has helped us to stay on track with our deadlines and timelines. We're very happy with that."

## ALL ROADS LEAD TO PROGRESS

According to McCord, the following is the current status of the projects.

### U.S. Highway 85

"Right now, they're working on the segment from County Road 16 North, all the way to Williston. Traffic has now been switched to the northbound lanes from the bridge, north to Williston—that four- to five-mile stretch—so they can do paving on the southbound lanes," she says. "As far as the rest of the project, there are some speed reductions in place, as they continue to pave and work their way up from County Road 16. Although weather could change this to

some degree, right now the fall is the projected completion, maybe around October."

### Lewis & Clark Bridge

"The first step for that project was to build a temporary work bridge, and then start the underwater work. And they're still in the process of building some of the concrete footings underwater. Essentially, this is a two-year project, so they'll get some done this year," she says.

"The real progress that would be visible is going to be done next year; that means the 2015 construction season is when this project started, and it will go through the 2016 season. The fall of 2016 is the projected completion."

## GET TO KNOW OUR EXPERTS



### CAL KLEWIN

Cal Klewin is the executive director of the Theodore Roosevelt Expressway Association. He's a native of Bowman, ND. He was previously the executive director of the Bowman County Development Corporation for 15 years and was instrumental in many projects, ranging from small businesses to corporate expansions.

Klewin is also a past president of the Bowman Chamber of Commerce and a member of the Rhame American Legion, as well as other civic organizations.

He is a U.S. Army Veteran, a licensed real estate broker in North Dakota and he and his wife, Peggy, also own and operate an Angus cattle operation in Bowman, ND.



### WENDY MCCORD

Wendy McCord is the NDDOT Williston District public information coordinator.

# Polyethylene Plant to Reduce Flaring in North Dakota

By Meg Crane

**N**orth Dakota will become home to a \$6.5-billion polyethylene manufacturing facility, which will create jobs and reduce the environmental impact of oil and gas producing activities.

The announcement was made in October 2014 by Gov. Jack Dalrymple, Badlands NGL CEO William Gilliam, North Dakota Agriculture Commissioner Doug Goehring, North Dakota Attorney General Wayne Stenehjem and Sen. John Hoeven.

North Dakota officials worked hard to attract Badlands NGL to the region to open the plant—the largest private sector investment in state history.

“North Dakota elected officials and agencies have provided Badlands with, by far, the most business-friendly and pro-development environment in the U.S.,” Gilliam said in a news release. “We have been fortunate to attract many of North Dakota’s leading business and community leaders as Badlands investors, and we continue to discuss debt and equity capital markets needs with major financial institutions.”

The North Dakota Industrial Commission did a lot of the work, reflecting the commission’s goal of promoting oil and gas production in a way that prevents waste and protects the rights of mineral owners.

“This project is fully aligned with our goals to reduce flaring, add value to our energy resources right here in North Dakota and create diverse job opportunities across the state,” said commission member Gov. Dalrymple in a news release.

## REDUCING FLARING

According to Goehring, the new plant has the potential to nearly eliminate the flaring of natural gas in North Dakota. “That’s real progress and good news for North Dakota,” said Goehring in a news release.

The plant will source ethane from the state’s abundant supply of liquid natural gas, which would otherwise be flared. The ethane will be converted into polyethylene plastic. The plant will make both low- and high-density plastics for consumer and industrial products, and the facility will be able to produce 1.5 million metric tons of polyethylene annually.

Polyethylene is in high demand across the nation and worldwide. “It opens new doors for other industries,” says Goehring. With a supply of polyethylene right in the state, it would make sense for plants producing objects using that plastic to set-up shop nearby.

Until that happens, most of the polyethylene will be distributed throughout the U.S. The rest will be sold to markets in Asia, South America and Europe. North Dakota’s central location makes it easy to ship the final product to Seattle, Vancouver and Atlantic ports for global distribution.

“We are committed to maximizing the value of Bakken ethane for producers, their midstream partners and all gas processors,” said Gilliam in a news release. “This facility is the solution needed to add value to North Dakota’s ethane supply and make it a commercially marketable product. In doing so, there will actually be a market advantage for North Dakota polyethylene products.”

The project will create 500 jobs for highly-trained personnel in manufacturing, marketing, administrative, safety, financial and executive positions.

“We have so many different, wonderful projects and industries here in North Dakota,” says Goehring. “It gives us more diversity and stability in our economy.”

## BOUNDLESS OPPORTUNITIES

At the annual Bakken Conference & Expo in late July, Gilliam announced the increased price tag of the project (up from the original \$4 billion announced in October 2014), adding that the company is close to selecting a site. Once binding agreements are signed, construction will begin. The project is estimated to be fully developed in three years.

Once the plant is operational, North Dakota will be producing polyethylene for some of the world’s plastic bags, hygiene product bottles, children’s toys and even bullet proof vests, increasing the impact of the Bakken.

“By advancing the responsible development of our energy resources,” said Dalrymple in a news release, “and by adding value to all of our resources, the opportunities in North Dakota are boundless.”



**got [clean] water?**

QUALITY FRESH WATER

CHLORINATED

CONTRACTS AVAILABLE

FILTERED

HOT WATER BY APPOINTMENT

701.528.5900  
701.570.7516  
www.appamwaterdepot.com

APPAM  
WATER DEPOT

Located in Williams County  
Just 2 miles E. of Hwy. 85 on Hwy. 50  
GPS 48.570585, -103.581011

## GET TO KNOW OUR EXPERT DOUG GOEHRING



Doug Goehring has been North Dakota’s agriculture commissioner since April 2009. He was elected to a full, four-year term in November 2010.





# Landowners, Tenants Reclaim Satisfaction

By Paul Adair

**E**arlier this year, the 64<sup>th</sup> Legislative Assembly of North Dakota enacted the pipeline restoration and reclamation oversight program, a clearing house, of sorts, to help address any issues or concerns that exist where pipeline has been placed in the ground. This two-year pilot project aims to improve the trust and cooperation between the farmers and ranchers of North Dakota and the energy sector's pipeline companies.

## RECLAIMING SATISFACTION

The sometimes cantankerous relationship between landowners and the energy sector is not a new phenomenon. For years, the Department of Agriculture has been receiving calls from farmers and ranchers needing assistance with follow-up and follow-through in working with pipeline companies, and with over 20,000 miles of pipeline already crossing the state and more anticipated over the coming years, it is very likely such issues will persist.

"Up to this point, there has been no designated agency or entity for landowners and tenants to work with, and this program fills that gap," says Ken Junkert with the North Dakota Department of Agriculture.

"With the program now in place, pipeline reclamation problems can be solved by bringing parties together and working out solutions to pipeline reclamation problems."

The program provides timely and effective complaint management through the use of an ombudsman who mediates between agriculture and industry. Once a complaint is lodged with the agriculture commissioner's office, a representative is sent out to meet with the landowner on-site to assess the reclamation issue before contacting the company

*"It just won't work out well for a company not to step up and do what's right for the landowners..."*

or contractor. The representative then brings the parties to the table—again, on-site—to facilitate the conversation and ensure the landowner's concerns are addressed within a reasonable amount of time.

"Communication is the key part of all of this," says Doug Goehring, North Dakota agriculture commissioner. "This project is to enhance communication for the landowners, the farmers, and the ranchers out there, but it will also help the companies in their ability to resolve these issues and be able to put more pipe in the ground in later years, by creating additional respect and understanding of how to manage the resource that's out there."

## DOING WHAT'S RIGHT FOR LANDOWNERS

Although the primary beneficiaries of the program are intended to be the farmers and ranchers in North Dakota, the industry is also welcoming the project. In the desire for the industry to run as efficiently as possible, pipeline companies know complaints against



## SAFETY TRAINING

*Invest in your people!*

Register for classes in Minot & Williston  
[www.willistonstate.edu/trainnd](http://www.willistonstate.edu/trainnd)

**trainND**  
NORTHWEST

them in no way expedite business or foster healthy, long-term trust in the work they do.

"It just won't work out well for a company not to step up and do what's right for the landowners," says Goehring. "Eventually, a company will need to obtain more easements and, if they choose to not play fair, word will get out and those companies won't be doing business in this state for long."

The program will also provide educational outreach to help the state's farmers and ranchers learn what they need to know before they sign-off on any agreements and understand issues like different types of pipeline installation, pipeline routes, soil impact, vegetation reestablishment and timelines.

### GET TO KNOW OUR EXPERT DOUG GOEHRING



Doug Goehring has been North Dakota's agriculture commissioner since April 2009, and he was elected to a full, four-year term in November 2010.

A third-generation farmer, Commissioner Goehring, along with his son, Dustin, operates a 2,000-acre, no-till farm near Menoken, ND, where they grow corn, soybeans, spring wheat, winter wheat, sunflowers and canola.

Commissioner Goehring attended Bismarck State College and is a licensed medical laboratory technician.

"I like that I'm helping make a difference. This job is about fixing problems, issues and situations, and dealing with people's concerns—helping them understand what the rules and laws are, and, ultimately, trying to make their lives better."

## Setting the Standard for Solids Control since 1927



**Hutchison Hayes  
Separation Inc.**

Since 1927, Hutchison Hayes has been a dedicated partner to the oil and gas industry. We offer sales of new decanter centrifuges, reconditioned decanter centrifuges, and rental decanter systems.

From our manufacturing facility in Houston, Texas, we supply quality spare parts and full service repairs for all manufacturers and models of centrifuges.



- New Decaners
- Reconditioned Decaners
- Decanter Rentals
- Centrifuge Spare Parts
- Field Service
- Technical Support
- Shop Repair for all Manufacturers Models

**Contact Us at [www.Hutch-Hayes.com](http://www.Hutch-Hayes.com) (800) 441-4850**



# Become an Associate Member of the North Dakota Association of Oil & Gas Producing Counties

Oil and gas industry members, economic development organizations and other private businesses doing business in the Bakken are welcome to sign up their organizations for an Associate membership through the NDAOGPC online signup site.

The \$500 yearly membership fee for Associate members offers a variety of advantages, including networking opportunities with county, city and school district officials of the oil patch at various association functions throughout the year. An Associate Member Committee was established during the 2011 NDAOGPC Annual Meeting, offering the opportunity for members involved with the oil and gas industry to meet and better interact with officials in the areas in which they operate. Associate members are also featured through member profiles (like the one on page 75 of this magazine) in the biannual NDAOGPC publication, *Basin Bits*, which is distributed throughout the Bakken and the state.

More information on how to become an Associate member and its benefits can be found by contacting the NDAOGPC office.



## Your Truck & Fleet Headquarters



1801 2nd Avenue West, Williston, ND 58801  
Sales: (877) 688-8584 | Service: (877) 776-0434

### Hours of Operation Sales | Service | Parts

Sunday Closed  
Monday 8AM to 8PM  
Tuesday 8AM to 6PM  
Wednesday 8AM to 6PM  
Thursday 8AM to 6PM  
Friday 8AM to 6PM  
Saturday 9AM to 5PM

[www.murphymotors.com](http://www.murphymotors.com)

# The Nature of Things: *Where the Wild Things Aren't*

By Danelle Cloutier

**T**he oil and gas boom that has taken over the state has brought about many changes, from population and economical explosions, to unprecedented growth and infrastructural strain and improvement.

The modern-day, black-gold rush has also affected Mother Nature. Oil and gas companies work with landowners and organizations to reclaim land to as close to its original state as possible, but when it comes to the Bakken

boom and its resulting benefits and challenges, how does progress affect the state's fauna?

The consequences of adding certain animals with North Dakotan habitats to the endangered species list could be immense and have huge ramifications for the oil and gas and agriculture industries. North Dakota has many more declining species than it did just 10 years ago and some of the species have only a small known habitat in the state. In addition, the area's overall temperatures are rising fastest among the lower 48 states, prompting the

North Dakota Game & Fish Department to, for the first time ever, include climate change in its wildlife management plans.

The North Dakota State Wildlife Action Plan (SWAP), which is in the process of being finalized, lists 115 species on the conservation priority list. The plan is a strategic vision with the goal of saving rare and declining fish and wildlife species in the state.

SWAP lists oil and gas drilling as a threat to grasslands, wetlands, lakes, rivers, streams and riparian, badlands and upland forests.

## FAST FACTS ABOUT SOME OF NORTH DAKOTA'S THREATENED AND ENDANGERED SPECIES



*This female Dakota Skipper is basking in typical grass skipper fashion, in what's been coined "airplaning," with the forewings and hindwings held at different planes. Photo provided by Bryan E. Reynolds / Flickr. This photo was taken in north-central North Dakota in 2014.*

### DAKOTA SKIPPER (*HESPERIA DACOTAE*)

- One-inch wingspan, thick body and faster, more powerful flight than most butterflies.
- Upper side of male's wing is tawny-orange/brown with a prominent mark on the forewing; lower surface is dusty yellow-orange. Upper side of female's wing is darker brown with tawny-orange and white spots on the forewing margin; lower side is gray-brown with faint white spotted-band across the middle.
- Dakota skippers live in moist bluestem prairie, which has three wildflower species—wood lily, harebell and smooth camas—and upland prairie, which is dry and often found on ridges and hillsides, with bluestem grasses, needlegrasses and purple coneflower. These habitats are not likely reestablished on a plowed site.
- Received protection as a threatened species under the *Endangered Species Act*.

### GREATER SAGE GROUSE (*CENTROCERCUS UROPHASIANUS*)

- Body length of 28 inches and wingspan of 38 inches; the largest of North American grouse species, males are dark brown with white breast, pointed tail and yellow above eye.
- Peak breeding season occurs from early May to mid-July.
- Destruction and/or degradation of sagebrush throughout North America is the biggest threat. Quality of remaining sagebrush has declined due to grazing, fire suppression or excessive fire, invasion of exotic plants, and human-related degradation.
- Labeled a candidate species for listing under the *Endangered Species Act*.



*This Greater Sage Grouse is standing upright during a mating display (posturing). Photo credit: Tom Reichner / Shutterstock.com.*

### PIPING PLOVER (*CHARADRIUS MELODUS*)

- During breeding season, adults have a black forehead, a black breast band, and an orange bill.
- Channelization, irrigation, and dam construction along the Missouri River, have drastically altered the sandbar habitat for nesting. Current river flows do not mimic the natural river flows to form sandbar habitat. High water releases during peak breeding season may flood nests.
- Use wide, flat, open, sandy beaches with very little grass or other vegetation. Nesting territories often include small creeks or wetlands.
- Received protection as a threatened species under the *Endangered Species Act*.



*A Piping Plover standing on the beach in Cape May, NJ. This photo was taken in 2013. Photo credit: Brian Kushner / Dreamstime.com.*



However, companies can help conserve areas by fostering relationships with environmental groups, avoiding areas that are crucial habitats to declining species and researching the impacts of oil and gas drilling on habitats and wildlife.

The 2005 North Dakota Comprehensive Wildlife Conservation Strategy included 100 species that were in decline or at risk. The newer version of the plan includes 47 birds, two amphibians, nine reptiles, 21 mammals, 22 fish, 10 freshwater mussels and four insects.

"We have to identify the habitats these species use and get some status of their health," says Steve Dyke, conservation supervisor of the North Dakota Game & Fish department.

"We did a good review of that across the state and will, in a narrative, give an idea of what's happening to the species."

Five species were taken off the priority list and 20 were added. Dyke says the addition of

the species to the priority list are because of increased threats, such as dams, channeling of streams, agriculture development, invasive weeds, invasive alien species, vegetation, fire suppression and urban development.

The newer edition of the plan has new information from State Wildlife Grant (SWG) studies conducted over the past 10 years. Some of the changes include modifications to the species of conservation priority list, focus areas, range/distribution maps, threats and management actions.

## HOW THE SWAP WORKS

The SWAP is made up of eight elements and takes a habitat-based approach rather than a species-based approach. North Dakota was divided into nine landscape components. The key to maintaining the survival of species is to maintain diverse grasslands, wetlands,

woodlands, rivers and streams because species depend on several types of landscapes for survival, according to the SWAP.

Each species has a priority designation based on the conservation need. Level I species are the top priority because they are declining in North Dakota or are abundant in the state but are declining in general.

Level II species have a moderate level of conservation priority or a high level of conservation priority but non-SWG funding available. Level III species also have a moderate level of conservation priority but are peripheral or non-breeding in North Dakota. The SWAP has 36 Level I species, 44 Level II species and 35 Level III species.

## CLIMATE CHANGE

One of the revisions in the 2015 plan is the addition of climate change. The section



### NORTHERN LONG-EARED BAT (*MYOTIS SEPTENTRIONALIS*)

- One of the species of bats most impacted by white-nose syndrome.
- Hibernates in caves and mines, swarming in surrounding wooded areas in autumn; during late spring and summer, it roosts and forages in upland forests.
- Received protection as a threatened species under the *Endangered Species Act* in April 2015.

*Jackie Jeffrey shows a Northern Long-Eared Bat during the 2013 Bat Blitz in Oklahoma. Photo credit: Pete Pattavina / U.S. Fish and Wildlife Service / Flickr.com.*

### POWESHIEK SKIPPERLING (*OARISMA POWESHIEK*)

- One-inch wingspan, dark brown with light orange along wing margins and a light orange head. Undersides of wings are dark to light brown with prominent white veins that create a striped effect.
- Live in high quality tallgrass prairie in both upland, dry areas and low, moist areas.
- Received protection as an endangered species under the *Endangered Species Act* in October 2014.

*This photo of the rare Poweshiek Skipperling was taken in Park Lyndon North in Chelsea, MI in 2011. Photo provided by Jackie W. Riley, The Ohio Lepidopterists / Flickr. No sightings were made during this year's annual count in the Poweshiek habitat.*



### SPRAGUE'S PIPIT (*ANTHUS SPRAGUEII*)

- Body length of 6.5 inches and wingspan of 10 inches; slender, dull light brown, wears a "necklace" of fine streaks.
- Peak breeding season occurs from early May to mid-August.
- Destruction and/or degradation of native prairie is the biggest threat in North Dakota. Overgrazing causes unfavorable breeding conditions and encroachment of woody vegetation causes negative impacts. Prescribed fires every two to four years can prevent woody encroachment and remove excessive vegetation.
- Labeled a candidate species for listing under the *Endangered Species Act*.

*This photo of a Sprague's Pipit was taken in 2010, just north of La Joya, TX. Photo provided by Robert Epstein / www.flickr.com/photos/robpstein.*



provides a summary of temperature and precipitation changes for North Dakota and a prediction of how species in North Dakota will be affected.

"The eastern part of the state is supposed to be wetter," says Dyke. "Western portions are dryer over the next few decades, and there will be changes in season." Droughts and temperature extremes increase invasive plants, limit management actions and reduce animal and plant production.

Climate change also shifts and alters habitats, which can change the composition, phenology and lifecycle of species.

## GOING FORWARD

The SWAP is a strategy, not a detailed guide to preserving North Dakota's wildlife.

"We need to find more information about these species," says Dyke. "They haven't been researched much. There are large data gaps." Dyke adds that until more is known about these species, their habitat cannot be created or restored.

"The challenge is to provide incentive to private landowners, so we can generate or maintain the type of habitat that's needed," he says. "Where's the money going to come from to do that?" There is a bit of funding available as incentives, but Dyke would like to see more.

"There's still a great shortfall of resources and money to put these practices on the ground."

Dyke says the demise of certain species will continue as long as land is private and the owners do not have incentives.

"We need to develop incentives to pay these landowners, so they willfully enroll in these programs."

Through the farm bill, the Natural Resources Conservation Service offers conservation practice programs that farmers can enroll in. However, the farm bill had its funding cut severely over the past five to 10 years.

"The amount of resources (money) just aren't there to match the needs of the various states," says Dyke.

"All the states in the nation are facing the same challenge of not affording enough to manage these species."

The SWAP was released for agency and public input. The final draft was submitted to the Wildlife Fish Service for review. The plan will be finalized by October 2015.

An industry leader in the development and application of high performance coating. Let us customize the right coating system for your application.

We offer the following products for corrosion and abrasion resistance:

- Teflon Coating
- (PTFE, ETFE, FEP, PFA)
- Whitford Xylan Coating
- Halar ECTFE Coating
- Kynar PVDF Coating
- Rilsan Coating
- B7 Stud and H2 Nuts Coating
- Plastisol Coating



**Les Industries C.C. Ltée**  
**Canadian Coating Industries Ltd.**

2470 Chemin du Lac, Longueuil, Quebec, Canada J4N 1G8  
Tel: (514) 728-9229 / Fax: (514) 728-4526

[www.cancoat.net](http://www.cancoat.net)

## CONSERVATION PRIORITY LIST

The species that were added to the 2015 North Dakota conservation priority list include:

1. Lesser Scaup
2. Rufa Red Knot
3. American Kestrel
4. Western Meadowlark
5. Spiny Softshell
6. Townsend's Big-eared Bat
7. Big Brown Bat
8. Little Brown Bat
9. Northern Long-Eared Bat
10. American Marten
11. Merriam's Shrew
12. Gray Fox
13. Burbot
14. Fragile Papershell
15. Deertoe
16. Creeper
17. Dakota Skipper
18. Poweshiek Skipperling
19. Monarch Butterfly
20. Regal Fritillary

## GET TO KNOW OUR EXPERT STEVE DYKE

Steve Dyke has been with the North Dakota Game & Fish Department for 27 years. He is currently the conservation section supervisor. His department deals with rare and declining fish and wildlife populations.



# Legislative Line:

By Paul Adair

## State Suing Federal Government Over Fracking Laws

**O**n June 23, 2015, the federal district court in Wyoming temporarily blocked implementation of the Bureau of Land Management (BLM) Hydraulic Fracturing Rule that had been scheduled to go into effect one day later.

The nine-hour hearing addressed North Dakota's request for a preliminary injunction and the separate requests from the states of Wyoming, Colorado, Utah, and Colorado's Ute Tribe. District Court Judge Scott W. Skavdahl's decision postponed further ruling on the motion for preliminary injunction until after the BLM files its administrative record for scrutiny by the court and the states. The BLM was given until the end of July to file the administrative record for the rule.

"The BLM rules are not ready for prime time," says Attorney General Wayne Stenehjem. "These rules undermine the state's authority to enforce existing oil and gas regulations. They also impose a new layer of federal bureaucracy on oil and gas development, not just in North Dakota but across the country."

The BLM's fracking rule requires companies drilling through federally held minerals to comply with the rule, even when the drilling rig is located on private lands far from the federally held minerals. Throughout the hearing, North Dakota pressed concern over the federal government's claim it has authority to regulate oil and gas activities on private lands.

"We have pointed out again and again where the unworkable aspects of the BLM rules were," says Kathleen Sgamma, vice-president of government and public affairs at Western Energy Alliance.

"While we have definitely improved the rule from what we originally saw, there are still so many things that just don't make any sense."

### CONCERN AND DOUBT

Part of the problem is with the federal administration's assertion that hydraulic fracturing deserves a one-size-fits-all approach and regulates it as such. In doing this, the federal government appears to be out-of-touch with the realities on the ground; something that makes sense in Texas may not work in North Dakota, due to dissimilarity between the two states.

The states also expressed doubt of the government's claim that the permitting process asked for by the BLM rules would not cause significant delays, noting the federal agency is not known for its speediness. In North Dakota, there is additional concern that BLM rules will only exacerbate delays, as federal wells, which make up about one-third of the wells in the state, often experience years of permitting hoops to jump through compared to private and state counterparts.

The states also challenged the BLM's "zero cost" estimate of the impact of the rule, providing testimony that the rule would cost North Dakota an estimated \$300 million in lost oil and gas production and extraction tax revenue. In response, the federal government criticized the North Dakota legislature for failing to plan ahead for the enormous adverse economic impact of the BLM's rule.


The states trying to block the BLM rules each have exemplary safety records, which were just reconfirmed by the Environmental Protection Agency. While the EPA did agree there are risks associated with hydraulic fracturing, it also pointed out the regulations in place on the state level are mitigating those risks.

"But, like with Keystone XL, the environmental lobby is the only one the federal government is really listening to," says Sgamma.

"The administration is ignoring all evidence and turning a blind eye as to how its policies are suppressing job creation. They just don't seem to care."

### PERSEVERANCE

North Dakota will continue its efforts with participating states to have the BLM rule permanently blocked. It is hoped the federal district court of Wyoming will grant a preliminary injunction and allow states to have their day in court. Should that occur, the implementation of the BLM rules could drag on for months, and, for the state of North Dakota, hopefully never.

"The ultimate goal is to stop this unnecessary, redundant regulation," says Sgamma. "We have been arguing all along that the states have been successfully and safely regulating fracking for decades, and that a new federal regulation is simply not needed. The BLM rules need to be overturned." 



### GET TO KNOW OUR EXPERTS



#### KATHLEEN SGAMMA

Kathleen Sgamma joined Western Energy Alliance in 2006. Before that, she spent 11 years in the information technology sector, including managing the European consulting practice for a software vendor, and three years as a military intelligence officer in the U.S. Army. Sgamma holds a Bachelor of Science degree in Political Science/Defense and Arms Control Studies from the Massachusetts Institute of Technology and an Master of Science degree in Information Technology from Virginia Polytechnic Institute & State University.

# Hurry Up & Wait: The Drawn-Out Decision on Keystone XL

By Paul Adair



**W**ith the Republican-controlled Senate fulfilling its electoral promise to pass a bill approving the controversial Keystone XL project, the beginning of 2015 held promise for TransCanada Corp.'s border-crossing pipeline to find some sort of closure; either Keystone XL would move forward to completion or the president would veto the measure entirely.

However, many months later, neither scenario has unfolded. Instead, a final decision on the matter has been delayed, leaving both supporters and critics of Keystone XL scratching their heads.

"I do not believe the Obama administration had any intentions, right from the beginning of the project, to render a decision to allow the building of the Keystone XL pipeline," says Senator Rich Wardner.

"The president has bought into the theory that carbon from fossil fuels is causing not only global warming but other disastrous events, such as flooding, drought, tornadoes and hurricanes."

Those predominantly on the left, who are opposed to the project, can glimpse the end in sight and are becoming impatient with taking a presidential "no decision" as a victory or being satisfied by the playing up of

many of the myths and misunderstandings of what Keystone XL represents for the country.


"Facts are not relevant to extreme environmental groups when the strategy is to drive down the use of oil and fossil fuels and drive up the cost of energy," says Wardner.

"Groups opposing the project are using every emotional issue to stop the project, believing that fossil fuels are the main reason for climate change, and they are putting pressure on a president—who already agrees with their position—to stop the use of fossil fuels. They call it 'dirty oil,' and to stop this project would be a big feather in their hat. It is simply political. Their real purpose, in my opinion, is to disrupt and destroy the economy."

The price of further delaying the decision does not come cheap. The longer the president draws out the process, the steeper the overall price tag of Keystone XL becomes; this is coupled with the potential expense of missing out on energy independence for the North American continent. In addition, this shell game being played runs the risk of having a negative effect on the long-term economies of both Canada and the U.S., and potentially damaging the mutually beneficial trade relationship between these two nations.

"Part of securing this nation's long-term goal of energy independence and sustained

economic growth means building a consensus on common sense solutions for an expanded energy infrastructure, and the Keystone XL pipeline is just one of many examples of needed infrastructure necessary for that growth," says Senator Heidi Heitkamp.

"More foot-dragging on Keystone XL only causes us to miss, yet again, our seasonal window of opportunity to begin construction, and the longer this issue hangs in the balance, the weaker our country becomes in its ability to commit to an all-of-the-above energy strategy it needs to thrive." 

## GET TO KNOW OUR EXPERTS SENATOR HEIDI HEITKAMP

Taking the oath of office on January 3, 2013, U.S. Sen. Heidi Heitkamp is the first female senator elected from the state of North Dakota.

In her first two years in the Senate, she has proven to who work across the aisle to fight for all North Dakotans. She has demonstrated that if senators work together, it can lead to real solutions.

Sen. Heitkamp received her B.A. from the University of North Dakota and a law degree from Lewis and Clark Law School. She lives in Mandan, ND with her husband, Dr. Darwin Lange, a family practitioner. They have two children, Ali and Nathan.



## SENATOR RICH WARDNER

Sen. Rich Wardner is a retired educator and farmer and former executive director of the Dickinson Area Chamber of Commerce. He has a Bachelor of Science degree from Dakota State University and a Master of Science from Northern State University.

Wardner is past president pro tempore of the senate, was chairman of the Sunrise Youth Bureau and was previously chair of the Midwest Legislative Conference and a member of Legislative Management for the Elks and Rotary International.

He was a member of the House from 1991 to 1997 and has been a member of the senate since 1999.



# From Snail Mail to Speedy Delivery

By Meg Crane

**T**he oil boom in North Dakota has had many benefits, but the strain it is putting on many public services has meant that some organizations have needed to quickly change how they do business.

In 2013, it became clear to Sen. Heidi Heitkamp that something needed to change with United States Postal Service (USPS) in North Dakota when she began receiving complaints.

"It was because of all these concerns that I launched my *Fix My Mail* campaign at the beginning of 2014 to gather stories from North Dakotans about the problems they face," says Heitkamp.

Through the campaign, Heitkamp heard about North Dakotans who did not receive mail for days, long wait times, damaged mail, and customers and packages being ignored. She also heard from USPS employees who were fed up with mandatory overtime, having to deliver mail in the dark and non-competitive wages.

In March 2014, Heitkamp requested a Postal Service Office of Inspector General (OIG) review.

"The recently-released report found that for the past several years, the postal service failed to process and deliver mail in a timely fashion, lacked retail windows to meet demand, did not have a plan to address rapid population growth or overworked employees, and rarely met national service standards in the state. These issues are unacceptable," says Heitkamp.

"I also received commitments from the U.S. Postal Service to improve mail service and delivery throughout North Dakota."

## TREADING MAIL

The USPS admits it was struggling to keep up with demand in North Dakota, but has worked hard to identify the specific issues and make appropriate changes.

"Between 2010 and 2014, mail delivery points in the Bakken region of western North Dakota increased by 14 percent, compared to one percent nationwide," says Darrell Stoke, district manager for the USPS Dakotas District. This put a lot of strain on USPS to provide the service customers expect.

However, USPS made changes to its system to help mail move more quickly and to shorten lines at post offices, which were the two most common complaints in the state.

"The Bakken region growth spurt has been unparalleled anywhere, with Williston and Dickinson being the fastest growing micropolitan areas in the country in 2013 to 2014," says Stoke.

In Williston, a second full-service post office was opened in 2014. In Williston, Dickinson and Watford City, USPS installed Self-Service Kiosks. These systems accept credit cards and give customers round-the-clock access to postal products and services without needing to wait for a USPS employee to assist them.

In those three cities, as well as Minot, Bismarck and Fargo, Stoke says Mobile Point-of-Sale technology has been introduced. Lobby assistants with modified iPod devices and portable printers can scan and accept prepaid packages, scan package pickups and

sell retail products. "This means customers with simple transactions can be pulled out of line and served quickly, reducing the wait times for all customers. This was especially helpful during the busy holiday season," says Stoke.

On top of these additions in specific locations, USPS added more than 2,000 residential and business deliveries across the region, established cluster box delivery for corporate and residential housing and established Consumer Advisory Councils (CAC). The CAC is a forum where community members and postal offices can work together to enhance relations and resolve concerns.



## GET TO KNOW OUR EXPERTS DARRELL STOKES



Darrell Stoke has served as district manager of the Dakotas District since July 2014. He has administrative responsibility for an annual budget of \$550 million, 1,255 postal facilities and over 6,800 employees.

Stoke began his postal service career as a distribution/window clerk in 1986 in Stratford, CA, and has been a manager for 21 years. Prior to his appointment as Dakotas District manager, Stoke served as postmaster of the Phoenix Post Office, manager of post office operations in Oakland, CA, route exam and adjustment team leader for the Bay Valley District, postmaster of several post offices throughout Northern California, and supervisor of customer services in Lenmore, CA.

Stoke is a graduate of the postal service's advanced leadership program and managerial leadership program.

## SENATOR HEIDI HEITKAMP

Heidi Heitkamp is North Dakota's junior senator. She grew up in Mantador, ND, where she learned the value of hard work and responsibility, leading her to choose a life of public service.

Prior to joining the Senate, she was an attorney general for North Dakota and then a director of the Dakota Gasification synfuels plant.

In the Senate, Sen. Heitkamp sits on the Senate Committee on Agriculture, Nutrition and Forestry; the Senate Committee on Indian Affairs; the Banking, the Small Business and Homeland Security Committee; and the Governmental Affairs Committee.

Sen. Heitkamp lives in Mandan with her husband, Dr. Darwin Lange, and two children, Ali and Nathan.

Behind the scenes, changes have been made as well. The Bismarck Processing and Distribution Facility received new equipment, including an automated flat sorting machine capable of processing up to 13,600 pieces of flat mail per hour. The facility also received an automated parcel and bundle sorter that can process up to 3,500 packages and bundles per hour, more than three times the capacity of previous equipment.

## CALLING ALL APPLICANTS

With all the growth came a need for more USPS employees, which is not easy in such a competitive region.

"The Postal Service has a long track record of being a good employer, with which people can build a stable, long-term career," says Stoke. "We still offer that, including competitive wages, a full package of employee benefits and opportunities for career

advancement. But in a job market so competitive, we have had to take extra steps."

An agreement with the National Rural Letter Carriers Association temporarily modified wages for rural carriers at 27 post offices in western North Dakota and eastern Montana to help attract and retain employees.

To get the word out about hiring, USPS has been using Facebook, Twitter, ZipRecruiter, and direct-mailing. It has also hosted job fairs with Job Services of North Dakota, at which potential USPS employees can fill out applications on the spot with assistance, if needed. This has helped streamline the hiring process.

"Recent job postings commonly attract 10 to 20 applicants, with most of them being long-term local residents," says Stoke. "We're getting good, motivated applicants who are invested in the region. When hired, they provide valuable local knowledge, which leads to better customer service."

## STAMP OF SUCCESS

These adjustments have helped resolve the issues residents contacting Heitkamp were concerned about.

According to the 2014 Postal Service OIG study, delays in Fargo and Bismarck have been significantly reduced. In Fargo, delayed mail was reduced to three percent in 2014, down from 10 percent in 2013. In Bismarck, delays were below the national average in 2014.

Over the past few years, mail volumes have stabilized in North Dakota. Stoke says USPS is satisfied that it has made significant progress, but it continues to improve.

"We encourage our customers to contact us directly either at 800-ASK-USPS or online at usps.com," says Stoke, "so we can document and address their service concern or complaint."



# Big

## dirty jobs.

# Rock

## solid

# reputation.

Baranko Bros Inc. has acquired the assets of a major environmental company. We now provide 24/7 environmental spill cleanup, roll offs, norm transportation and more.



**24/7 Emergency Line:**  
**[ 701.264.5004 ]**  
[www.barankoinc.com](http://www.barankoinc.com)

**3048 Hwy 22**  
**Dickinson, ND 58601**  
**[ 701.483.5868 ]**

**Environmental Services**



**Dispatch: 701-844-1234**  
**Office: 406-742-5312**



## URLEY'S

### OILFIELD SERVICE

**WATER & SEWER - COMMUNICATIONS**  
**TRUCKING - SKID HOUSES - EQUIPMENT RENTAL**



# Waste Not, Want Not:

## Part II: Increasing Landfill Radioactivity

By Kim Babij-Gesell

Dave Glatt knows the topic of radioactive waste can be a very emotional issue. That's why the North Dakota Department of Health's Environmental Health Section chief says they went straight to science when considering the proposal to increase the state's radioactivity limit in landfills.

The proposal would see the limit go from its current five picocuries to 50 picocuries, so that any waste under 50 would be deemed non-hazardous and stay in specialized state landfills instead of having to go out of state.

"We had to take a look at the science, and the science gives you the right direction," says Glatt. "Now, people are still going to have an emotional reaction to it, as it's a ten-fold increase. But you have to put it in perspective by looking at what's already occurring out there. You can go pretty much anywhere in North Dakota, take natural readings and see numbers that approach that, or are in excess of that. To make our number match what's naturally occurring at 50 is an appropriate number based on the sciences."

### BATTLING ILLEGAL DUMPING

The proposal was made in response to the rise of illegal dumping of filter socks used in the oil and gas industry in the state. The socks are used to filter materials from wastewater during the oil production process, and some of that material can be radioactive.

Because it's assumed the radioactive material has a higher picocurie per gram level than is allowed in North Dakota, the socks have to be sent away for disposal. But that's an expensive and inconvenient proposition for many companies, and, as a result, some have taken to illegal dumping.

Filter socks have a low level of radioactivity and are unlikely to pose a threat to people or the environment. But the potential for risk still exists with illegal dumping, which prompted new regulations last summer, to encourage proper disposal.

Now the ND Department of Health is going one step further with the proposal to increase the limit from five picocuries to 50, which will, hopefully, end the problem once and for all by giving companies a break on the expense of transporting the waste to dispose out-of-state.

"The current standard is based on background concentrations, and that's at five picocuries per gram," says Glatt. "When you look statewide, there are several areas, naturally occurring, that have higher numbers than that. There are natural materials we deal with on a daily basis that are far higher than five. So, our current standard is actually more stringent than what is out there in the natural background, and that didn't seem appropriate."

*In the fall 2014 edition of Basin Bits, we ran an article called Waste Not, Want Not, which discussed the increasing issue of the illegal dumping of filter socks in North Dakota landfills. The problem led to the introduction of new regulations aimed at making it more difficult to break the law. Now, the state's health department is proposing an increase of the radioactivity limit allowed in local landfills. Find out more, [here](#).*



## SETTING STANDARDS WITH SCIENCE

Glatt says they looked at the science and large amounts of other information, including how landfills are designed and located, and used that information to come up with a rational and reasonable number that's extremely safe for the public.

"That's when we went to Argonne National Laboratories in Illinois to really put this into perspective," he explains.

"What does five mean and what does 50 mean? And what they were showing us is that there's really very little risk associated with this, but it should still be handled appropriately and disposed of appropriately. That's why we came up with 50. From cradle to grave, from generation to transportation to final disposal, we looked at each of those elements to determine what the risk was, and the risk was very low."

The level of picocuries per gram allowed in landfills varies across the U.S. Several states allow approximately 30 picocuries, while there are some that allow several hundred per gram and into the thousands. Idaho, for example, has specialized landfills where they handle various types of waste and accept significantly over 1,000 picocuries per gram of radioactive material.

On the other side of the coin, there are some states that don't accept anything over five, which is considered "background" or low-dose radiation.

Of course, there are some who feel the proposed 50 picocuries per gram level for North Dakota still isn't high enough, but as a state agency looking at the science, Glatt says they're not willing to go any higher.

## DEALING WITH CHALLENGES

One of the cons of the proposal, says Glatt, is that real-time monitoring will now be needed in the field to know what the concentration of radioactivity is and whether it's above 50, thus needing to be transported out of state for disposal.

"That is a challenge that companies have identified. They want to be able to find some real-time measurement device, so when they're in the field, within a short period of time, they can get an indication if it's above 50 [picocuries] or not, and that has to be addressed," says Glatt.

"If it went above 50, what they do then—and it's one of the rules and we're going to require a type of manifesting, basically a record from generation to transportation to final disposal—it has to be transported out of state to an approved landfill. And that is what happens right now."

Glatt encourages anyone with questions to visit the [NDhealth.gov](http://NDhealth.gov) website and follow the links to TENORM (short for Technologically Enhanced Naturally Occurring Radioactive Material). On the page are studies on the topic, proposed rules, and background information on why the state is going in this direction.

## GET TO KNOW OUR EXPERT DAVE GLATT

Dave Glatt joined the North Dakota Department of Health in 1983 as an environmental engineer. In 1989, he became manager of the Ground Water Protection Program and became assistant director for the Division of Water Quality shortly thereafter.

In May 2000, David was named director of the Division of Waste Management, and in 2002, he was named section chief of the Environmental Health Section. David earned a bachelor's degree in biology and a master's degree in environmental engineering from North Dakota State University.

He is a member of the North Dakota Board of Water Well Contractors and the National Ground Water Association.

## Proudly Serving The Oil Patch Since 1981

*General Contractor Specializing In Regional Oil & Gas Related Construction Projects Including Gas Compressor Stations and Gas Processing Facilities, Both Retrofit & New*



# WESTCON

P.O. Box 1735 Bismarck, North Dakota 58502  
Phone: 701-222-0076 Fax: 701-224-8178

### Services Include:

- Project Management
- Planning/Scheduling
- Cost Reporting
- Equipment Setting
- Mechanical/Piping
- Structural
- Civil
- Specialty Subcontractors



# Take it With a Grain of...Sand: Frac Sand Sources & Production in the U.S.

By Paul Adair

**I**ncreased hydraulic fracturing and horizontal drilling across the nation's major shale formations have resulted in a burgeoning domestic frac sand mining industry targeting the highly pure silica sand deposits of the upper Midwest, predominantly Wisconsin and Minnesota. Known as Northern White or Ottawa sand, this highly-prized sand from the Great Lakes Region made up nearly 70 percent of last year's domestic production of frac sand. As demand for frac sand increases and technology improves, additional sources may become feasible to use, despite their lower quality.

The specialized silica sand, which consists of natural sand grains with strict mineralogical and textural properties, acts as a proppant that holds open fractures during the hydraulic fracturing process. Over the last quarter-century, about 119 metric tons of frac sand was used as a proppant in the nation's hydraulically-fractured oil and gas wells, at a cost of almost \$7 billion.

## MAPPING FRAC SAND SOURCES

From published literature and available map data, the recently released report, *Frac Sand Sources in the United States*, by U.S. Geological Survey (USGS) scientists Mary Ellen Benson and Anna Burack Wilson, is a compilation of all known locations and descriptions of the geologic units identified as producers, or potential producers, of frac sand.

The report also tracks recent published efforts to examine the potential for less optimal frac sand sources, reviews current and future sources in Canada, discusses the emergence of alternative proppants, and provides geologic guidelines for identifying potential new sources. A companion article by Don Bleiwas, USGS, provides estimates of U.S. frac sand production, consumption and reserve.

"These new USGS compilations will provide comprehensive information about frac sand to mining companies, the petroleum industry and land managers," said Benson, principal author, in a press release.

The primary factor in determining the desirability of frac sand is its silica content, which makes the traditional pure-silica glass sands of the Midwest so desirable to the energy sector; however, the Midwest is not the only source of frac sand available to the Bakken.

"One of our key findings was that while most of the productive units are already well-known to the frac sand industry in the mid-continent, there are many lesser known potential sources in both the eastern and southwestern states," says Benson.

"While the U.S. has abundant sand, the vast majority is not suitable for use as frac sand because it lacks roundness, crush resistance, friability, high silica content, or optimal grain size ranges."

## PLEASANT PROPPANT SURPRISE

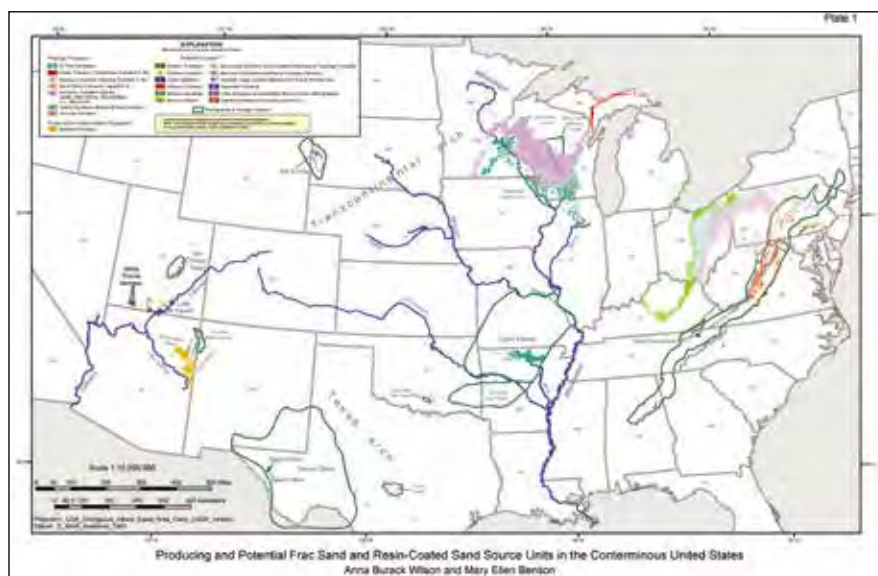
"A surprise finding is that much sand is being sold and used successfully as frac sand without meeting industry-defined specifications," continues Benson.

High silica content and grain size are only two of several criteria when determining quality of frac sand; high sphericity/roundness, a uniformly medium to coarse grain size, high crush resistance, low solubility, low turbidity, and good friability all play a part in fracking suitability. Other factors also influence the economics of frac sand mining and its viability for use by

the energy sector, such as a deposit's accessibility at or near the surface, areal extent and thickness, textural uniformity, proximity to transportation routes, and closeness to the active unconventional petroleum basins.

According to Benson and Wilson's research, while Northern White sand from the Midwest is preferred by the energy industry because of its 99.8 percent silica purity, slightly lower quality frac sand, called Brady or Brown sand, is mined from central Texas and used successfully in the fracking process. Brown or Brady sand is mainly sourced from the Upper Cambrian (Furongian) Hickory Sandstone Member of the Riley Formation.

Additional secondary frac sand sources include the Middle Ordovician Oil Creek Formation in Oklahoma, which has characteristics similar to the Ordovician St. Peter Sandstone of the Mississippi Valley. Sand deposits less suitable for frac sand, such as the Miocene-Pliocene Bidahochi Formation in Arizona and the modern



*A map of producing and potential frac sand and resin-coated sand source units in the conterminous United States. Map courtesy of Rock Products, May 2015.*



### Oilfield Improvements® WHEELED ROD GUIDE® COUPLINGS

For Deviated, Directional and Horizontal Wells

Used Successfully for Over 27 Years by Over 90% of Major Oil & Gas Companies in Over 40 Countries — Onshore and Offshore

Wheels are Field-replaceable

Call  
800-537-9327  
or Your Oilfield  
Supply Store

[www.rodguides.com](http://www.rodguides.com)



**Oilfield Improvements,  
Inc.**

1902 N. Yellowwood Ave.  
Broken Arrow, Oklahoma 74012 U.S.A.  
PHO 918-250-5584 • FAX 918-250-4666



Loup River sands of Nebraska are being used in the proppant industry.

### SATISFYING DEMAND

*Frac Sand Sources in the United States* indicates the development of a new industry to satisfy the oil and gas industry's demand for frac sand with the production of alternative proppants, such as coated sand or synthetic beads. Developed through emerging technologies, these alternatives balance a higher cost compared to traditional sources, with better performance under deep well conditions. These manufactured proppants can also be customized for each particular reservoir, well, or treatment design.

North America's unconventional oil and gas production will play a major role in meeting the increasing global demand for energy, both abroad and at home. The Freedonia Group has predicted the North American frac sand market will increase as much as 8.9 percent each year through 2016, reaching 34.4 million metric tons. The U.S. is expected to use approximately 75 percent of the market supply, with Canada coming in second, using eight percent.

These numbers have people anticipating that the domestically produced frac sand and alternative proppant industry will be booming for the foreseeable future.

### GET TO KNOW OUR EXPERTS

#### ANNA BURACK WILSON



For over 30 years, Anna Burack Wilson has been involved in mineral resource assessments, with an emphasis on database management and digital geologic mapping. She is project chief for the non-metallic industrial minerals studies, which includes frac sand resources.

Wilson received her undergraduate degree in earth sciences from Dartmouth College and her Master's degree in geology from the University of New Hampshire.



#### MARY ELLEN BENSON

Mary Ellen Benson has worked at the USGS for the past eight years, and since 2013, her focus has been on characterizing frac sand as a non-metallic industrial mineral resource and describing the geologic units that host frac sand in the U.S.

Benson has a Ph.D. in geological sciences from the University of Colorado at Boulder and a Master's degree in geology from the University of Idaho at Moscow.



A HUSBAND. A DAD. A HUNTER.  
A FISHERMAN. A VOLUNTEER.  
A MENTOR. A CIVIL ENGINEER.

**ACKERMAN-ESTVOLD.**

Meet Steve. He's a smart, forward-thinking civil engineer. But we know there's more to Steve than project management and hydraulic calculations. He's a dad you may pass on the road, taking his kids to school. He's a hunter that assesses the land while vying for the next big buck. So when Steve designs a roadway or plans the next utility lift station, he's not only envisioning your future, he's building his.

Would you like to be a part of building your community? View our job listings at [www.ackerman-estvold.com](http://www.ackerman-estvold.com)

**ACKERMAN  
ESTVOLD**  
WE'RE GROWING PLACES





# Boasting Beautiful Cities

By Meg Crane

While the oil and gas industry is not exactly known for its beautiful scenery, the population boom in North Dakota has led to the beautification of many hubs across the state, from Williston to Fargo.

Green space, cultural centers and innovation strategies to make cities more liveable have been popping up across the map, turning prairie towns into booming cities full of vibrant people and bustling nightlife.

Sara Otte Coleman, director of the tourism division of the North Dakota Department of Commerce, says it is often the parks, historic attractions, scenic drives and golf courses that bring guests to the state, but once they enter many cities' downtowns, they find so much more.

The Bakken boom is drawing residents from larger cities, where people are used to eclectic, unique and fun amenities. Instead of missing these features, new residents have been starting new businesses, drawing even more people to North Dakota.

Coleman says she met a family who moved to Bismarck from a larger city outside of North Dakota. They said they found everything in their new location that their old city had, which made the move easy.

"You're going to be surprised. When you get here, you're going to be really happy with what you find," says Coleman.

Here are a few of the gems that residents get to enjoy in some of North Dakota's fastest growing cities.



Welcome to Stanley, ND. Photos courtesy of Jimmy Emerson, DVM; flickr.com.

## STANLEY

A small town feel in a rapidly grown city; Stanley, ND is still the home residents always knew and loved.

"It's got the small town atmosphere, yet we've still got a hospital, shopping, a good park system," says Mayor Fritz Weisenberger. "We've kept that atmosphere, even though we're in the Bakken."

Part of that reason is the downtown has stayed much the same, while the southern part of the city has seen rapid development.

"We've still got a bowling alley," says Weisenberger, which is not something most North Dakotan cities' downtowns have.

A movie theater, hardware stores, bars and car dealership keep the city center bumping during the day. These are also amenities many modern cities still do not have downtown.

"As far as the downtown area goes, we converted it to a Renaissance Zone, so we're hoping that will help to do some updating here and there," says Weisenberger.

Business owners will be given tax breaks for expanding and updating buildings. This will help spruce up the appearance, but will not take away from the charming small town feel.

In the south of Stanley, things are a bit different; change is happening, and fast! The two new hotels are so popular that a third is now under construction. A new gas station and tractor supply have also popped up and a Shop Co. is expected soon.

And outside the city, Weisenberger says there is great hunting and fishing.

"It's just good, old North Dakota," says Weisenberger.

.....



6 Shooters Showhall. Photos courtesy of Gene Veeder.

## WATFORD CITY

Watford City, ND's population is exploding, and developments are rushing to keep up.

A new law enforcement center and health care facility are among the amenities being built to accommodate what Gene Veeder, director of economic development for McKenzie County, calls unprecedented growth, thanks to the Bakken formation.

While the job prospects initially draw people to the city, Veeder says it is what the city can offer children that attracts young families in particular.

Despite being so close to the oil and gas producing region, Watford is in a geographically stunning area, with national

parks—like the picturesque Theodore Roosevelt National Park—just a short drive away.

For parents who do not want to travel far with their children, there is plenty of child-friendly entertainment right in the city.

The three main downtown attractions are all major kid-magnets, which makes it no wonder that families are flocking to the city, children in tow.

First, there is 6 Shooters Showhall with its movie theater, restaurant and meeting rooms. "It seems to be the focal point," says Veeder.

Next, there is the Long X Visitor Center, a hub of information about the city and surrounding area. Within the center, visitors will also find the Pioneer Museum of McKenzie County and North Dakota's largest petrified tree stump.

For youngsters who are not into amazing paleontological discoveries, the Children's Play Park with swings, slides and a beautiful picnic area may be a more appealing stop.

Throughout the city, there are enough parks for the growing, monkey-bars-loving-aged population of Watford City. However, it is not all fun and games.

"The school system has been attractive," says Veeder. Watford City has been doing an excellent job of keeping up with exploding populations in schools, which is something many other growing cities in North Dakota have struggled with. It is currently building a new \$53-million high school, set to open in January 2016.

Children are the future, as they say, so attracting them to a growing city is one way to help support its long-term development.



*Williston, also known as Boomtown, U.S.A.  
Photo credit: Andrew Filer / Flickr.com.*

## WILLISTON

Four years running, Williston, ND has been the fastest growing micropolitan city in the U.S. “We grew at a rate of 20 percent between 2012 and 2014,” says Shawn Wenko, executive director of Williston Economic Development. And it is no wonder why; Williston is the dream city for anyone with a passion for being outdoors.

“Williston has some of the best hunting, fishing and hiking in the nation,” says Wenko. Plus, it has The Links of North Dakota, a nationally ranked golf course.

The city is near national parks that residents can escape to when not working or enjoying the growing number of city amenities, including an exploding variety of food.

Over the past three years, a donut shop, Hawaiian grill, Asian fusion restaurant and more have all popped up downtown. Many new shops and the revamped indoor mall have been bringing the big spenders to the city center, as have old favorites, such as Heddrich’s.

“The businesses that have always been here make it a great place to look at and walk around,” says Rachel Ressler, senior planner of Williston.

The Downtowners Association has been making an effort to liven up the area. Ressler says it is organizing events, including outdoor concerts during the summer.

And more changes are coming soon. Ressler says the city has been working with consultants to find out what people need and want downtown.

“[RDG Planning & Design and Kadrmas, Lee & Jackson] made a series of recommendations and a guide to how downtown could develop,” says Ressler. One recommendation suggests planting greenery, such as trees. “It adds to the family-friendly atmosphere,” says Ressler.

Wenko says the demographic of Williston is shifting. It is becoming an ideal place for entrepreneurs looking to start a new business and for young families.

“There is a bright future for this community, as we settle for some long-term economic growth,” says Wenko.



*The historic Fargo Theatre was built in 1926 as a cinema and vaudeville theatre.*

## FARGO

Fargo’s downtown has undergone a re-birth. Its funky feel and eclectic businesses make its slogan, *North of Normal*, very fitting.

“It’s vibrant; it’s active. There are dozens of shops and businesses,” says Sam Olson, coordinator of communications and special events for the Downtown Community Partnership.

Among the shops, galleries and restaurants, the Fargo Theatre stands out most. “It’s a landmark,” says Olson. “It’s classic.”

While that might be the most visually appealing feature, it is not all that draws people to downtown Fargo.

The art and culture scene has a great deal to offer, including *Unglued: Market & Craft Fest*.

The cuisine, alone, is worth dropping into Fargo for. Rooftop dining, local flare and microbreweries add to the city center’s vibrant feel.

“It has restaurants that are featured nationally,” says Olson.

There are also upscale boutiques with high-end fashion for those who want to look their best for a night on the town.

One of the more interesting aspects of downtown Fargo is its connection to another downtown; Link FM was recently launched. This free shuttle runs between downtown Fargo and downtown Moorhead, says Brenna Akkerman, event coordinator for Downtown Community Partnership.

“It really connects and incorporates the two cities.”

The main purpose was to make downtown more accessible and deal with parking issues. It also gives the people of Fargo easy access to Moorhead Center Mall.

The shuttle connects colleges in Fargo and Moorhead. “We wanted to appeal to those people, as well,” says Akkerman.

.....

## DICKINSON

Dickinson, ND is well-positioned for people to come and go, with an expanding airport, the interstate heading east to west



*Browse Antique Charm for the perfect collectible treasure. Photos courtesy of Shawn Kessel.*

through town, and the state highway taking those who are passing through north to south. However, easy access has people sticking around rather than just coming to check out the many attractions.

And those folks are working to make their city more alive and connected, turning the downtown into the city’s “living room,” where everyone meets.

Resident Eric Smallwood started “Alive @ 5,” a weekly summer entertainment series right in downtown Dickinson. Every Thursday, food vendors, inflatable bouncy castles and more fill a blocked off street, on which live musicians keep the crowd entertained.

A local property owner is more than willing to sell his prime location land to the city for a proposed town square, where the community can gather. The same owner is updating his buildings’ façade, which Shawn Kessel, city administrator for Dickinson, thinks will inspire other downtown property owners to do the same, further beautifying the downtown.

A Facebook page dedicated to Downtown Dickinson lets visitors know about exciting events, the unique retail and volunteer opportunities. The page even personally congratulates business owners on years of service.

A lot of focus is being put on the heart of the city. As part of *Dickinson 2035: Roadmap to the Future*, a project completed in 2013 by V3 Studio, an urban growth boundary has been created.

“We take advantage of open lots within the existing infrastructure first,” says Kessel. Only once all lots are being used would they look at expanding out.

And there is proof of this plan. “The difficulty we have in the downtown is that all of our storefronts are full,” Kessel says with a laugh, admitting it is not something to complain about.

Despite a lack of space, Kessel says many new amenities will be popping up in the downtown over the next few years, pushing further the idea that downtown Dickinson is a place where people meet, mingle and support one another.





Montana Furniture and Mercantile, located in the heart of downtown Bismarck.

## BISMARCK

"We are no longer just a big town. We are becoming a small city," says Jason Tomanek, a planner from Bismarck's downtown programs and land use planning department.

Bismarck is a government hub, with two major health care facilities and three post-secondary institutions, all of which draw professionals into the city. In 2006, these professionals were heading home at the end of the day, leaving downtown vacant by 6 p.m.

Now, Bismarck is bustling late into the night because of many exciting developments that are bringing the city to life.

A mix of niche retail stores, taverns, restaurants and rich culture makes downtown Bismarck one of the most livable neighborhoods for people over 50 in the U.S.

But Bismarck is not all under development; it also has many natural settings, including the Missouri River, parks and open space. "Bismarck is a very attractive community," says Tomanek.

While the population is exploding in Bismarck, there is not just one thing drawing people to the city. "We've got a lot of little things that all add up," says Tomanek.

Over the past year, the city has wrapped up the nation's largest softball tournament, which attracted international teams; unveiled an expansion of the North Dakota Heritage Center & State Museum; and added rooms to attract conventions to the Bismarck Event Center.

And it doesn't stop there. "There are some really neat things coming up on the horizon," says Tomanek.

The historic Northern Pacific Railroad depot has been purchased and is being developed into a space for entertainment, festivals and other public gatherings right in the heart of the city.

Project FiveSouth will see the redevelopment of an area just south of downtown, adjacent to the Bismarck Event Center, which will include a full-service hotel, more retail and restaurants, and 400 to 500 new housing units. Housing has not been built in Bismarck's downtown in decades.

"It's going to change the game significantly," says Tomanek. "It's going to be one more piece of that successful story."



## TRIVIA TIME

### FAST FACTS ON SOME OF THE BIGGEST OIL PLAYS IN THE U.S.

#### 1. The Cline Shale Formation

- Oil is 10,000 feet from the surface.
- In 2013, it had less than 100 wells.
- Estimates say the formation could yield 570,000 bbls of oil equivalent.

#### 2. The Eagle Ford Formation

- Oil is 4,000 to 14,000 ft from the surface.
- The development created 116,000 jobs.
- It has 16,000 producing wells. Estimates say it has around 3.5 billion barrels of recoverable oil.

#### 3. The Tuscaloosa Marine Shale Formation

- Oil is 10,000 to 15,000 ft from the surface.

#### 4. The Bakken Formation

- Discovered in 1951.
- Oil is up to 16,000 ft from the surface. Estimates say the formation could yield 400 billion bbls of oil equivalent.
- In part because of the Bakken play, unemployment is at 3.1 percent in the state. Recent drops in oil prices have impacted the rate.

Sources: [www.theclineshale.com](http://www.theclineshale.com); [www.investmentu.com/article/detail/33666/the-newest-hottest-shale-oil-play#.VZGEKkbo7Kg](http://www.investmentu.com/article/detail/33666/the-newest-hottest-shale-oil-play#.VZGEKkbo7Kg); [www.eaglefordshale.com](http://www.eaglefordshale.com); [www.bismarcktribune.com/bakken/breakout/tuscaloosa-marine-shale---lots-of-potential-slow-in/article\\_60adaa0c-ad5c-11e4-801c-73646d8c33e6.html](http://www.bismarcktribune.com/bakken/breakout/tuscaloosa-marine-shale---lots-of-potential-slow-in/article_60adaa0c-ad5c-11e4-801c-73646d8c33e6.html); [www.tuscaloosa-marine-shale.com](http://www.tuscaloosa-marine-shale.com); and [www.bakken shale.com](http://www.bakken shale.com)



## Distributors, Inc.

P.O. Box 295, Argo, Illinois 60501  
Telephone: 708-361-2300 Fax: 708-361-2352

### For all your Office, Lunchroom and Janitorial Needs.

Your one-stop source for all your office and paper supplies, furniture and equipment, lunchroom and janitorial supplies & more.



Call for your free catalog: 708-361-2300

or

Email Request to: [bldest@sbcglobal.net](mailto:bldest@sbcglobal.net)

Visit our website: [www.bldistributors.net](http://www.bldistributors.net)

**Free Dock Delivery on all orders.**



# Soak Up the Sun

By Danelle Cloutier

**N**orth Dakota's first community solar panel project is leading the way for renewable energy. Cass County Electric Cooperative's Prairie Sun Community (PSC) Solar project allows members to license solar panels and use the energy their panels produce as an energy credit.

"It will give our members an opportunity to access solar power without the hassle of equipment installation and maintenance and help make our community greener," says Marshal Albright, vice-president of member and energy services at Cass County Electric Coop (CCEC). "Investing in solar is a feel-good thing to support the environment and displace the use of fossil fuels, and that's really why most people do it," says Albright.

## SPECS

The entire project will be a 100.8 kilowatt (kW) solar array consisting of 252 solar panels near 63<sup>rd</sup> St. S, off of 52<sup>nd</sup> Ave S. in Fargo. CCEC members can purchase energy output of a half-panel for \$835 up-front or a full panel for \$1,670, up to 10 panels.

The cost of panels covers construction, installation and interconnection of the array. It also covers all maintenance and insurance expenses over the 25-year license agreement.

## COSTS

Non-renewable sources of energy, such as coal and natural gas, are still more common

than the sustainable and renewable alternatives. Though sunlight is free, the equipment to convert sunlight to electricity and the electronics required for the grid are expensive.

"Only recently have prices come down enough and government support gone up enough...to allow for economically viable solar installations," says Christopher Namovicz, team leader for renewable electricity analysis with the U.S. Energy Information Administration.

Namovicz added that even in places where solar energy is economic, it can take time for the market to develop.

"You need to get product distributors, qualified installers, and knowledgeable inspectors in-place, and in sufficient numbers, to handle the increasing demand," he says.

The price of solar energy compared to non-renewable energy varies. "In some areas with particularly high electricity costs and available government incentives, solar costs to the customer can be competitive with conventional electricity supply," says Namovicz. "Other parts have lower electricity costs, and solar is probably not competitive in those areas just yet."

## CHALLENGES

Though solar energy is abundant and reliable, solar panels only produce electricity during the day (more in the summer and less




*The tenKsolar DUO Ground Mount Solar PV System. The company is building the PSC Solar project panels. Photo courtesy of tenKsolar, Inc.*

in the winter), and energy output will vary, depending on cloud coverage.

"It is not generally controllable based on electricity demand, like most conventional generation sources," Namovicz says.

There are solar power energy storage systems, so homeowners can use solar power at night; however, Albright says, "storage technologies are just not there yet, from an affordability and maintenance perspective."

For now, Albright says solar energy is a good supplement to the energy we already use. "It will offset consumption," he says. 

## GET TO KNOW OUR EXPERTS CHRIS NAMOVICZ

Chris Namovicz is the team leader for renewable electricity analysis at the U.S. Energy Information Administration. Namovicz is responsible for analysis and forecasting of renewable resources and generation for the energy outlooks and reports to congress analyzing the impact of policies with significant potential to affect renewable energy markets.

He holds a master of science in environmental science from Johns Hopkins University and a bachelor of science in engineering and public policy from Washington University in St. Louis.

## MARSHAL ALBRIGHT

Marshal Albright is vice-president of member and energy services at Cass County Electric Cooperative Inc. (CCEC) in Fargo, ND. He has been with CCEC since 1986.

Albright is a graduate of the National Rural Electric Cooperative Association's Management Internship Program (2010) at the University of Wisconsin-Madison. He received an associate of science degree (with honors) from North Dakota State College of Science.



## ENERGY SERVICES

# HIRING TODAY!

## OIL AND GAS INDUSTRY JOBS: COMPETITIVE PAY, GREAT BENEFITS!



Stop by and complete your online application today!

4952 Highway 85, Williston, ND 58801

**OR APPLY ONLINE/CALL: [wmcareers.com](http://wmcareers.com) 1.877.220.JOBS**

EOE/M/F/D/V



# Marking Milestones, Making Memories: Celebrating 50 Years at Parks & Rec

By Drew Kozub



*Fort Abraham Lincoln State Park's visitor center circa 1940. Photo provided by the North Dakota Parks & Recreation Department.*

For enjoying the beauty of nature and connecting with the state's history, there is no better place to visit than North Dakota State Parks. Covering over 17,000 acres, this network of 13 parks provides a serene getaway from urban living, where locals and tourists enjoy horseback riding and hiking over rolling hills on beautiful summer days. Rivers and streams glisten with sunlight, inviting fisherman and paddlers to enjoy their sports. And winter days don't seem quite so cold or long with snowshoes strapped to your feet as you enjoy the crisp outdoor air.

This year marks the 50<sup>th</sup> anniversary of the North Dakota Parks & Recreation Department (NDPRD), which was honoured with an incredible celebration. To mark this milestone, the department planned a summer-long, touring celebration. Beginning in May and running through the end of September, different state parks invited guests for 50<sup>th</sup> anniversary festivities. Free food, music and entertainment, as well as contests and prizes, were mainstays at each stop along the tour. Travelling exhibits with archival photos and artifacts celebrating park history were shared with the public, and interpretive tours were offered at park locations.

## YEARS IN THE MAKING

A committee worked for two years planning tree plantings, written histories,

photography contests and more to determine the greatest ways to generate excitement. The ndprd's public information officer, Gordon Weixel, says this gave the department a chance to reflect on how it has changed since taking over park management from the North Dakota State Historical Society.

"Fifty years ago, we offered camping and fishing opportunities in the parks," says Weixel. "While that is still available, the NDPRD has become much more; there are trails, historic sites, nature sites, and interpretive education. The recreation division provides snowmobile and off-highway vehicle education, handles state and federal grants for recreational activities, and creates new trails and trail areas such as the Pembina Gorge State Recreation Area."


## RICH, CULTURAL DRAW FOR LOCALS AND VISITORS

Over one million people visit parks in North Dakota annually. One of these popular parks is the Fort Abraham Lincoln State Park (FALSP), near Mandan, ND. In addition to the rich military and early Native American history, the park also offers picturesque, modern campsites and a picnic area with a picture-perfect view of the Heart and Missouri Rivers meeting.

Visitors are greeted by the reconstructed 7<sup>th</sup> Cavalry Buildings (which housed Lieutenant Colonel George A. Custer's soldiers for the Battle of the Little Bighorn in Montana).

FALSP Park Manager Dan Schelske says most people come to enjoy outdoor recreation and camping, but touring through one of the park's main attractions, Mandan Village, is also very popular.

FALSP is the first and oldest state park in the department (1907) and is representative of the beauty and history of parks across North Dakota. Residents adopt local parks as a favorite destination and are proud to show it off to visitors. Programming and services have diversified over the NDPRD history, and even after the anniversary celebrations have finished, Public Information Officer Weixel hopes people's appreciation for their parks will be enhanced.

"We're hoping people will have a better idea what the NDPRD is all about and maybe a little of its history," says Weixel. "We're much more than an overnight camping spot." 

## GET TO KNOW OUR EXPERTS



### GORDON WEIXEL

Gordon has been with the North Dakota Parks & Recreation Department for seven years. As public information officer, he is responsible for celebrating the beauty and history of North Dakota's parks with locals and tourists. Through public relations, social media and marketing, Weixel attracts visitors to the parks and brings awareness to the many programs, activities and special events in state parks.



### DAN SCHELSE

Dan is the park manager at Fort Abraham Lincoln State Park (FALSP). He has been taking care of the overall management of the site and its satellite areas for 12 years and has spent 32 years with the North Dakota Parks & Recreation Department. Before that, he was the assistant manager at Devils Lake State Parks and the state trails coordinator at park headquarters.

# What Are You Droning On About?

By Danelle Cloutier

**D**rones are taking off in North Dakota. In May, the Altavian Nova F6500 made history as the first drone made in the state. The unveiling of the aircraft was a milestone for North Dakota, which is said to be a top place to test, develop and commercialize drones.

"We're really trying to help the drone economy take root," says Thomas Rambo, COO of Altavian. "We're building, flying, collecting data, and manufacturing here," he says.

## NORTH DAKOTA LEADS THE WAY

The drone—or unmanned aircraft system (UAS)—economy has taken root. The government and companies have put a lot of resources into drone development and research.

North Dakota is home to the Center for UAS Research, Education and Training, a conduit between the private industry and UAS researchers. In addition, Grand Sky, located adjacent to the Grand Forks Air Force Base, is the first commercial UAS Business and Aviation Park in the U.S. Beyond that, the Federal Aviation Administration (FAA) announced in February that North Dakota's drone testing site will expand to cover two-thirds of the state. The FAA and its partners operate about six test sites in the U.S., and North Dakota's is largest.

## DRONES IN AGRICULTURE AND OIL AND GAS

The Nova F6500 is an all-electric drone that can fly for up to 90 minutes, scanning four or more square miles in one flight. The drone provides 3-D mapping, real-time, thermal infrared images and high definition videos, making it ideal for the agriculture and oil and gas industries, which is precisely what Unmanned Applications Institute, Int'l (UAI) is doing. The Grand Forks-based company is aiming to advance the drone industry in North Dakota and surrounding areas.

"The F6500 is the workhorse," says Doug McDonald, director of special projects at UAI. The company will be using the Nova F6500 to look for agricultural diseases, infestations and productivity and is still exploring

how to use drones in the oil and gas industry. McDonald says UAS could help with pipeline maintenance, detecting erosion and slumping.

"The goal is preventative maintenance," he says.

BP Global, an oil and gas company, is already using drones. The Puma all-environment UAS, or Pumas, survey the company's operations around Prudhoe Bay, AK. Pumas, which are six feet long, with a seven-foot wingspan, can reach and map areas that are harder for humans to explore. They're radio-controlled and can fly for about three-and-a-half hours.

Pumas help monitor pipelines and offer efficient ways to inspect infrastructure, such as power lines, bridges, flare stacks and tanks. Thermal infrared and multi-spectral imaging capabilities on drones like the Puma and Altavian Nova F6500 allow them to detect leaks that are otherwise not easily visible.

Drones can also create a 3-D map of drilling pads and roads. BP is researching drone use in spill response and environmental monitoring.

## LOOKING AHEAD

U.S. Sen. John Hoeven and Sen. Cory Booker sponsored the *Commercial UAS Modernization Act*, which aims to incorporate drones into the National Airspace System (NAS), so drones and planes can fly in the same space. The bill provides guidelines for commercial use, testing and increased safety, and it aims to bridge the gap between the FAA's privacy concerns and the freedom to use drones for business.

"We want to be the leader in that development because it brings jobs to North Dakota," says Hoeven. "We want to be part of that development and ensure it's done right—safely and respecting privacy."

It is estimated the UAS industry in could create a total of 100,000 jobs and \$82 billion in economic impact in a decade, once regulations are finalized.

"It's going to be a huge part of the future of aviation," says Hoeven. "I'd rather be in North Dakota than anywhere else."



*Launching Altavian's Nova F6500.*

## GET TO KNOW OUR EXPERTS



### SENATOR JOHN HOEVEN

Sen. John Hoeven served as governor of North Dakota for 10 years, working to develop the state's vast energy resources with good environmental stewardship. He created Empower North Dakota, the state's comprehensive energy plan, and today, North Dakota is an energy powerhouse and the second-largest oil-producing state in America.

Sen. Hoeven also worked to establish North Dakota's leadership in unmanned aircraft systems (UAS). In 2006, he helped establish the Center for UAS at UND; as senator, he pushed to make Grand Forks Air Force Base a test site for integrating UAS into the National Air Space.

### DOUG MCDONALD

Doug McDonald has over 25 years of applied research, planning and development experience focusing on strategic development, unmanned aircraft systems (UAS), socio-economics and demography. He is a sociologist and holds undergraduate and graduate degrees from the University of North Dakota.

McDonald's consulting experience includes assignments in UAS, aerospace, value-added agriculture, information technology, and manufacturing.

He serves as president of the Great Plains Chapter of the Association for Unmanned Vehicle Systems Int'l. He was also appointed to serve on the North Dakota Airspace Integration Team by Sen. John Hoeven, Sen. Heidi Heitkamp, Congressman Kevin Cramer and Gov. Jack Dalrymple.



# Searching for a Solution: Improving the Binder Engineering Properties of Gravel Surfacing

By Paul Adair

In June, Nuverra Environmental Solutions was awarded a \$744,000 scientific research grant by the North Dakota Industrial Commission's Oil & Gas Research Council to demonstrate the beneficial uses of recycled oil well drill cuttings through Nuverra's Terrafficient process.

Terrafficient is an integrated process that removes and recovers water and diesel fuel, significantly reducing naturally occurring salt content in drill cuttings. The resultant material has several reuse applications, including gravel road resurfacing, general fill for use in roadbase, and municipal landfill daily cover.

"As the industry generates higher volumes of drill cuttings with multi-well pads and higher well densities, we identified the need for an alternative that will reduce the volume of waste and provide beneficial reuse options for the treated cuttings," says Mark Johnsrud, CEO at Nuverra.

"The Terrafficient process makes it possible to turn drilling waste into reusable products, and we intend to prove that through three demonstration projects funded, in part, by this grant."

## DECODING DUST CONTROL

McKenzie County has partnered with Nuverra for a road surfacing demonstration project to evaluate the real-world performance of road surface materials blended with treated drill cuttings. The hope is that the dry product will bind with gravel to reduce the negative effects of ever-increasing traffic rolling through the Bakken.

"We have designated a highly traveled gravel road for the demonstration," says McKenzie County Commissioner Ron Anderson. "The project is to be four miles long, divided into half-mile segments. McKenzie County will incorporate Nuverra's product at different levels with gravel that we provide. We will use different levels of magnesium chloride and production water on these segments to see what works best for dust control."

McKenzie County was selected as a test subject for the Nuverra Terrafficient process for the quality of its gravel—rather, its lack of quality gravel. While the county is blessed with copious reserves of oil and gas, its traditional gravel resource has a nil rating on

the plasticity index (PI) (essentially, the clay binding agent that binds gravel together).

"Without PI, it is difficult to hold a gravel structure together and results in a roadway surface that tends to washboard and have loose material on the surface," says Dale Heglund, program director at the North Dakota Local Technical Assistance Program/Upper Great Plains Transportation Institute.

"This project is a targeted effort to turn waste drill cuttings with initial run PI values of 10 to 12 into a valuable gravel additive that offers PI enhancement. Our hope is these processed drill cuttings improve the gravel roadway surface and turn a waste product into a beneficial one that is good for the environment and good for the safety of our gravel roadways."

## MITIGATING INDUSTRY HEADACHES

Should Nuverra be successful in the demonstration of its product, it will help mitigate two major issues for those living and working in oil country—counties and the industry would no longer need to bury drill cuttings on-site or in landfills, making disposal of drill cuttings more environmentally acceptable; and, in McKenzie County, where there is an estimated one to two tons per vehicle per year per mile attributed to dust loss, anything reducing dust

in the air would provide great health benefits for residents and livestock and make roads safer and less costly to maintain.

## GET TO KNOW OUR EXPERTS



### DALE HEGLUND

Dale Heglund's past 35 years have been a blend of growth opportunities. In addition to the different jobs he has held, he has volunteered on professional associations and joined the talented and energetic North Dakota Local Technical Assistance Program/Upper Great Plains Transportation Institute team in 2014, helping the state's transportation system leaders grow.



### RON ANDERSON

Ron Anderson was appointed McKenzie County commissioner in 1999 and was re-elected in 2000, 2004, 2008 and 2012. He is a third-generation rancher in the Keene, ND area and is an executive committee member with the North Dakota Association of Oil & Gas Producing Counties. Anderson and his wife, Myra have two sons.

**Knapheide** Gooseneck Platforms  
SINCE 1948

PGNA-838A

PGNB-116A

PGNC-96A

**SPECIALS ON TOMMY GATE LIFTS G2 SERIES!**

2000 & 1800 LBS CAPACITY

The original TOMMY GATE hydraulic lift

Serving the valley since 1939

**Bert's**  
TRUCK EQUIPMENT, INC.

800-325-2412 • 218-773-1194

Business Hwy 2  
East Grand Forks, MN

**Edward Jones congratulates  
Financial Advisor Troy Nelson,  
one of *Barron's* "Top 1,200  
Financial Advisors."**

**That's impressive.**

**But even more impressive is how  
Troy puts his experience to work  
for *you*.**



**Troy Nelson**

Edward Jones Financial Advisor

1701 Burnt Boat Drive  
Bismarck, ND 58503

701-255-1196

[troy.nelson@edwardjones.com](mailto:troy.nelson@edwardjones.com)

**Troy has been named No. 1 in North Dakota for the  
4th year in a row.**

---

Barron's "Top 1,200 Financial Advisors" Feb. 23, 2015. Barron's Top 1,200 criteria based on assets under management, revenue produced for the firm, regulatory record, quality of practice, philanthropic work and more. The rating is not indicative of the financial advisor's future performance. Neither Edward Jones nor its financial advisors pay a fee to Barron's in exchange for the rating. Barron's is a registered trademark of Dow Jones & Co.

**[www.edwardjones.com](http://www.edwardjones.com)**

Member SIPC

TAL-7212B-A

**Edward Jones®**  
MAKING SENSE OF INVESTING



# A Sight to See: Vision West Takes on Housing, Transportation, Child Care

By Drew Kozub

**C**reating the perfect place to live isn't easy, but one organization in North Dakota is trying. The Vision West ND project doesn't just imagine an ideal community; it's in the midst of building it.

With feedback from citizens and community leaders across the state's 19 oil and gas producing counties, it is balancing what people want most for their lifestyle and economy, and working to make it happen. Adjusting to a population boom doesn't happen overnight, but Vision West is looking at short-term actions to create long-term prosperity for the thousands of people moving their lives and families to the Bakken.

For the past five years, Vision West has solicited feedback from citizens and community leaders and brought it to its experienced consortium of experts. Vision West ND chairman Daryl Dukart says the organization has identified the next areas to address.

"As we started discussion for our new consortium in fall 2014, we decided to focus on only a few of the topics which are ongoing challenges: housing, childcare, transportation, and right of way easements," says Dukart. "Committees have been established for the working group in housing, transportation and child care. We will approach right-of-way, start-up phase over the next few months."

## ACCESSING AFFORDABLE PROPERTY

For the housing committee, the current priority is making it easier for people to access affordable rental properties and to own a home. The committee's chair, John Phillips, is Beulah's former city development director. Phillips says while the committee wants to ensure there are plenty of affordable rental properties for individuals moving or downsizing, it also wants to focus on home ownership being available for people over the next three to five years, seeing people spend money on a mortgage, rather than a rental.

"There's a group of people who are middle-income earners with a respectable salary, but that salary is going to pay their rent," says Phillips. "It would be better if that money

could provide payment on a home mortgage. There are programs available to make this happen, but people probably aren't aware of them and sometimes that first-time homeowner needs additional financing capacity.

"We need to do a better job to educate people there are programs that will help them become a homeowner, and we as a group have to assist with providing that resource to enable people to purchase their own home."

Guaranteed and direct loan programs already exist, and there are opportunities available to leverage the sale of tax credits that would allow more people to establish themselves in single-family homes. Over the next few months, the housing committee will be working to make information readily available, so that for the spring 2016 building season, new housing plans can already be in motion.

## DRIVING ECONOMIC GROWTH

The transportation committee sees good transportation systems as the backbone to economic growth. It is currently engaging the North Dakota Department of Transportation regarding north-south routes, including highways 85 from Williston to I-94, as well as several other farm-to-market roads overloaded with oil traffic. It also has plans to review with railroad officials increased lines, to see how this will reduce cargo traffic on roadways. The committee is also exploring road systems as recreational tools for citizens by having walkable/rideable shoulders.

## EASING EXPENSES

Improving the childcare system in the region is also an important priority. The childcare committee recognizes the scarcity of space and providers for childcare and is looking at ways to make regulating existing or new facilities easier for trained professionals to increase options for parents. The cost of running a child care centre and to send children to these places are both important factors for the committee, so it is looking at how subsidies could ease this expense and

allow facilities to turn a profit while making them accessible to parents.

The Vision West ND project will address issues such as emergency services, education and health care as part of its long-term strategy, but for now, housing, transportation, and child care are top priorities.

The complete 2015 regional plan is available at [www.visionwestnd.com](http://www.visionwestnd.com) and is well worth a read. The development plans in this part of the state are exciting and point to a bright future for people living and working in western North Dakota.

## GET TO KNOW OUR EXPERTS



### DARYL DUKART

Dunn County Commissioner Daryl Dukart, along with four fellow commissioners and the department heads of the county, plan the complete financial package for Dunn County. Dukart also serves on the North Dakota Association of Counties' legislative committee. He is Vision West ND's chairman and is Dunn County's representative for, and executive committee member with, the North Dakota Association of Oil & Gas Producing Counties.



### JOHN PHILLIPS

John Phillips worked as the development director and city planner with Beulah, ND before retiring after 25 years. Though retired, he helps as a consultant and is the Lutheran Social Services Housing program director of real estate development. He serves as the chairman of the housing committee for Vision West ND, and is an executive committee member with the North Dakota Association of Oil & Gas Producing Counties.

# DLN Consulting: Recognizing the Strengths of Others



By Drew Kozub

**K**nowing your strengths is good practice, but recognizing the strengths of others and asking for their help is good business. For over 15 years, companies working in North Dakota have asked DLN Consulting Inc. for help with strategic planning, meeting management, and more. Starting as a one-woman, part-time venture, DLN Consulting has become a multi-faceted, full-time force, supporting businesses in North Dakota and providing companies freedom to focus on what they do best, while DLN works out the details.

Deb Nelson spent years working as a community coordinator for a non-profit, but as her family grew, she ended her full-time job to spend more time with her children. In 1998, Nelson put her exceptional organization and planning skills to work for her own part-time, home-based business, writing and managing grants for non-profits. Through word-of-mouth, Deb found herself fulfilling requests for strategic planning, board training, grant evaluation and program management, and in 2000, the company was incorporated as DLN Consulting Inc.

## DRIVEN BY CORE VALUES

The company's success is driven by its core values: individualism, flexibility, creativity, reliability and community contribution. The first value, Deb believes, is most important.

"It is essential to see each of our clients as a unique individual (or company)," says Deb. "The work must be individualized—not cookie-cutter. We spend a lot of time on the front-end, learning about the people we serve before beginning."

Before starting DLN, Deb worked with counties and organizations in the Bakken on long-term strategic planning projects. DLN was approached to assist with planning a major U.S. Department of Housing and Urban Development project, a direct result

*Going over the Vision West ND regional plan at the 2014 BakkenRocks Cookfest.*



of the population boom from the oil and gas growth in western North Dakota. The project transformed into Vision West ND, and Deb successfully applied her strategic planning and program evaluation and coordination skills, piquing interest to work for other projects supporting the oil and gas industry.

"Coordinating the activities of Vision West ND has been a rewarding experience, from working closely with legislators and county officials, to helping come up with solutions for emerging and long-term needs brought about by oil impacts," says Deb. "Knowing we are able to help local communities by making referrals, conducting research, providing planning assistance, and helping bring people together to address the impacts brought about by the oil industry has been a profound experience."

DLN Consulting Inc. has five full-time staff members, two full-time consultants—a Ph.D.-trained analyst and an experienced community developer. In addition to contracts for strategic planning, DLN supplies event coordination, meeting management and facilitation, and program evaluation.

The company was recently contracted to conduct a feasibility study for mobile ambulance stations in two areas of the Bakken. With a three-week deadline, DLN worked with the Small Business Development Centre (SBDC) to provide a full feasibility study, including budgets for stick-built and mobile stations. Relationships like the one with SBDC allow DLN to succeed in a fast-paced, deadline-driven environment.

## TOOLS FOR SUCCESS

Giving back to the community is important to DLN. Deb believes that by taking care of the communities with which her company does business, everyone benefits.

"DLN is well-known for giving back to the communities it serves," says Deb, "through reduced costs, memberships in civic organizations, and donations to non-profits."

Another important success tool is the strategic partnerships DLN has developed with industry associations. Deb says the North Dakota Association of Oil & Gas Producing Counties has been an important partner for projects like Vision West ND.

"In addition to receiving the latest, most important news about the Bakken, our membership allows us to keep close ties with legislative action and the needs of the counties and cities that are association members," says Deb.

"We are also fulfilling one of DLN's core values: community contribution. In return for the powerful education we received from the Vision West ND project and the NDAOGPC, we are giving back to the organization by participating as a member."

## FOR MORE INFORMATION

**DLN Consulting Inc.**  
2493 4<sup>th</sup> Avenue West, Suite G  
Dickinson, ND 58601  
Tel: (701) 483-2801  
deb@dlnconsulting.com  
www.dlnconsulting.com



# Regional Roundup

## ENHANCED OIL RECOVERY NEEDS INCENTIVES

Recovery techniques can double the cost of an oil well. That's why the director of the North Dakota Department of Mineral Resources, Lynn Helms, says incentives might entice companies to use techniques for enhanced oil recovery.

Helms told lawmakers in the Interim Taxation Committee that tax breaks such as sales tax reductions could encourage more enhanced recovery efforts. He says if that were to happen, he would expect forward-thinking entrepreneurs would quickly take advantage of the incentives.

Helms said the drop in oil prices has reduced the incentives for some oil companies to spend money on enhanced recovery.

## MORE WOMEN WORKING IN THE OILFIELD

More women are working in the oilfield and that number is expected to rise. Oil companies are recruiting more women, building support networks for them and adding new benefits for them.

With the anticipated "Great Crew Change" of retiring engineers and technicians—most of whom are men—the replacement workforce will likely include more women. To this end, oil companies are adding new benefits, like child care benefits and on-site day care.

A 2014 report funded by the American Petroleum Institute showed women accounted for 19 percent of total employment in the combined oil and gas and petrochemical industries.

## ETHANOL PLANT IN FULL OPERATION NEAR JAMESTOWN

A \$155-million ethanol plant east of Jamestown, ND is fully operational since it went on-line in late July. The Dakota Spirit AgEnergy plant, owned by Great River Energy, is expected to produce 65-million gallons of ethanol annually. The company also owns the Blue Flint ethanol plant near Underwood, ND.

Production forecasts predict the plant will make 20 percent of the motor fuel used in the state. It will reach out-of-state markets with unit trains, shipping three 100-car trains every two months via Burlington Northern Sante Fe, through Central Minnesota and the Twin Cities.

## FORT BERTHOLD BACKS OFF STRICTER DRILLING RIGS

A group from the Mandaree, ND area of the western segment of the Fort Berthold Indian Reservation wants more oversight of drilling in its area of the Reservation and to collect more fees from drilling operators. The idea met with so much resistance it has backed off its original ideas.

The move from the Western Segment Regulatory Commission was strongly resisted by drilling companies and other regulatory agencies. Even some of the Fort Berthold Tribal Business Council was skeptical the idea was appropriate. Oil Companies working to meet state, federal and tribal rules on drilling felt the threat of additional regulations was too much and would result in less oil activity in the region, which would mean less money for lease holders and for the Three Affiliated Tribes.

The MHA Nation produces about one-third of the oil output from North Dakota, most of which, comes from the Mandaree segment.

## PILOT PROJECT IN NORTH DAKOTA TESTING FEASIBILITY OF USING FRACK WASTEWATER FOR GEOTHERMAL ENERGY

As a result of recent lower oil prices, a \$3.5 million pilot project in the oilfields of North Dakota aims to use well wastewater to generate geothermal electricity to reduce operating costs.

The low-temperature geothermal demonstration project, sponsored by the U.S. Department of Energy, captures heat from an existing wastewater stream to help fuel the turbine, with a goal of displacing energy burned from fossil fuels. The wastewater is around 102 degrees and cools to around 98 degrees, once it arrives at the University of North Dakota's project site, about a mile from the well site.

If the project is successful in turning well wastewater into geothermal energy, and if it can be done economically, it would provide mobile, low-cost, distributed electrical power to the oilfields and avoid the construction of additional coal-fired power plants, as they would become useless when the oil plays end.

## skim-pak™ LLC



**Skim-pak skimmers are "flow-controlled" weir skimmers.**

**The weir automatically adjusts to the flow being drawn from the system.**

**Draw slowly and create a thin skim cut, increase flow and take a thicker cut.**

**No manual adjustments. Custom-made swivel joints to ensure easy rotation. Entire system can be constructed from 304SS, 316SS, 625SS or 2205SS. Over 200 systems installed in the last 20 years.**

Also available: ABS plastic skimmers for rapid spill response.

**The only skimmer system you should trust in your tank.**

Skimpak LLC  
215 W. Franklin St. #209  
Monterey, CA 93940  
831-920-1470  
www.skimpak.com  
sales@skimpak.com



- Community and Environmental Planning
- Civil, Structural, and Water Resource Engineering
- Transportation Planning and Traffic Studies
- Parks, Trails, and Streetscapes
- Site Development
- Right of Way, Acquisition, and Appraisal
- Construction Administration and Surveying



ENGINEERS  
PLANNERS  
DESIGNERS

Offices in Bismarck, Fargo, and Minot  
[www.srfconsulting.com](http://www.srfconsulting.com)



## TRIVIA TIME

### LIFTING THE EXPORT BAN

- In 1975, President Gerald Ford banned the export of crude oil from the U.S. because of supply concerns.
- In 1985, President Ronald Reagan made an exception to the ban to export crude oil to Canada for Canadian use only.
- The U.S. is the only oil producing country that does not export crude oil.
- In recent years, pressure to lift the ban increased.
- Sen. Heidi Heitkamp, Sen. Lisa Murkowski and Rep. Joe Barton are all fighting the crude oil export ban.
- According to Encana President and CEO Doug Suttles, U.S. crude oil sells for about US\$10 less than the global price because of the ban.

Source: [http://business.financialpost.com/news/energy/pressures-mounting-to-end-u-s-oil-export-ban-and-why-that-might-be-good-for-canada?\\_\\_lsa=2bea-99e3](http://business.financialpost.com/news/energy/pressures-mounting-to-end-u-s-oil-export-ban-and-why-that-might-be-good-for-canada?__lsa=2bea-99e3)

## A C C E S S

FAST

CONVENIENT



North Dakota Records Information Network

COST-EFFECTIVE

SUBSCRIBE TODAY

% High Plains Technology  
1351 Page Drive, Ste. 106 Fargo, North Dakota 58103  
Phone: 701.364.1280 Fax: 701.271.1557  
[www.ndrin.com](http://www.ndrin.com)

## NORTH DAKOTA

*The fastest, easiest and most cost-effective way to retrieve land records in North Dakota.*

## MORE THAN JUST HEAVY-DUTY. EVERY DUTY.



Baldwin filters are recognized worldwide as high quality, reliable and cost-effective products that are backed by an outstanding warranty.

When you use Baldwin, you can be confident that your equipment is benefiting from the very best in protection.

[baldwinfilter.com](http://baldwinfilter.com)



# Tools of the Trade



## ATLAS COPCO XRVS 1550+ HIGH-PRESSURE AIR COMPRESSOR OPTIMIZES OPERATING PRESSURE TO MEET OPERATOR DEMANDS

The XRVS 1550+ portable compressor offers variable pressure and flow settings with Atlas Copco's DrillAirXpert™ system. The compressor is the latest addition to Atlas Copco's line of high-pressure compressors and has been specially designed for demanding oil and gas projects, from drilling to pipeline testing.

The XRVS 1550+ uses Atlas Copco's proven DrillAirXpert system to ensure maximum flexibility for a wide range of applications and regions. The DrillAirXpert system has a fully variable pressure and flow setting capability. Completely eliminating the pneumatic regulating system instantly makes the compressor more efficient, saving fuel, increasing output and lowering the operator's cost per project.

The XRVS 1550+ features the same base design, physical footprint and systems found on the Atlas Copco XRVS 1000+ to ensure maximum portability and flexibility at the job site. Powered by a CAT C18TT, EPA-compliant Tier 2 engine and coupled with multiple pressure vessel certifications for regions, such as the U.S., Australia, and Canada, it is truly versatile.

"The XRVS 1550+ is the big brother to the well-respected XRVS 1000+, with greater flow and flexibility," says Michael Sagermann, Atlas Copco Portable Energy business line manager.

"The compressor is suitable for a large range of applications, such as supplying feed air to one of our Hurricane Boosters for oil and gas sites, high altitude exploration drilling, and for drilling deeper, larger diameter holes."

[www.atlascopco.us](http://www.atlascopco.us)



## MAAG INDUSTRIAL PUMPS INTRODUCES PUMPS FOR CORROSIVE, HIGH-VISCOSITY APPLICATIONS

Maag Industrial Pumps, part of PSG®, a Dover company, and a global leader in positive displacement gear pumps, has announced the release of stainless steel models of its versatile G Series Internal Gear Pumps. The new stainless steel versions are ideal for challenging corrosive applications requiring a durable pump that can move liquids ranging from thin to highly viscous.

Maag Industrial's G Series internal gear pumps are available in cast iron and stainless steel construction, with one-and-a-half-inch to three-inch port connections. Stainless steel models are rated from 10 to 110gpm, and cast iron models range from 15 to 140gpm. Both models are capable of pumping viscosities up to 431,000cSt. In addition, G Series pumps are interchangeable with up to 95 percent of internal gear pumps currently available on the market. No changes are needed for piping, driver, coupling, flow rates or baseplates.

Operating equally well in both directions, G Series pumps provide a positive, non-pulsating flow with only two moving parts for easy maintenance. The enlarged bearing housing at the rear end of the pump allows convenient drive-end access to the shaft seal and single-point end-clearance adjustment. The pump casing revolves for easy multiple inlet and outlet positioning.

Maag Industrial G Series pumps are in use across the globe in wide range of industries, including chemical processing, petrochemical, oils, paints and coatings, inks and pigments, mining, pulp and paper, food and beverage, polyurethane foam and personal products.

[www.psgdover.com/maag](http://www.psgdover.com/maag)



**Northland Community Health Center**  
"Our Family Caring For Your Family"

## Opening in Ray, Fall 2015

Serving your healthcare needs.

Certified DOT Physicals    Medicaid welcome  
Women and Men's Wellness Specials  
Preventative Care for all ages.



## The Wilhelm Law Firm

Title Examinations, Civil Litigation  
Regulatory Work, Due Diligence  
Major Oil Company Experience

**Edward M. Wilhelm**  
North Dakota & Texas Licenses    [ewilhelm@wilhelmlaw.net](mailto:ewilhelm@wilhelmlaw.net)

**Jack M. Wilhelm**  
Texas, Louisiana, Illinois & Arkansas Licenses    [jwilhelm@wilhelmlaw.net](mailto:jwilhelm@wilhelmlaw.net)

512-236-8400    512-236-8404 fax  
1703 West Ave., Austin, TX 78701 | [www.wilhelmlaw.net](http://www.wilhelmlaw.net)



# Wallwork<sup>TM</sup>

## TRUCK CENTERS



FARGO • BISMARCK • MINOT  
WILLISTON • FERGUS FALLS • DICKINSON

250+ Trucks & Trailers Ready for Purchase  
11.9 Million in Parts Inventory on Hand  
60+ Diesel Technicians throughout North Dakota  
Two Heavy Truck Body Shops (Fargo and Bismarck)

*Going the Extra Mile to Keep Your Trucks Rolling*  
**wallworktrucks.com • 800-937-3003**



## DON'S Directory of the Oil & Gas Industry



REACH THE RIGHT  
CONTACTS AT THE RIGHT LEVEL

Thousands of Companies,  
Locations and People

Sections Include:

Exploration & Production • Geophysical  
Drilling & Well Servicing • Equipment & Supplies  
Services • Midstream • Government • Associations

In Print and Online



Visit us online at:  
**www.donsdirectory.com**  
or call us at: 888-622-9943

NLB Solutions

## TestJet<sup>TM</sup> :

### Fast, reliable hydrostatic testing

Reduce pressure testing  
downtime with the  
TestJet<sup>TM</sup> from NLB. It's  
a fast-fill (up to 21 gpm)  
hydrostatic unit that tests  
up to 15,000 psi. The  
rugged NLB pump is easy  
to operate and maintain,  
with overspeed shut-off  
and surge control.

Check out a TestJet today.  
For more information, call  
**800-441-5059.**



**NLB Corp.**

*The Leader in High-Pressure  
Water Jet Technology*

29830 Beck Road, Wixom, MI 48393 • (248) 624-5555  
**www.nlbcorp.com • e-mail: nlbmktg@nlbusa.com**



# THE BAKKEN TOP 20

The following are the top 20 oil and gas producers in North Dakota as of July 2015. The list, which shows the cumulative amount of oil and gas that the companies have produced in North Dakota in 2015, was provided by the North Dakota Department of Mineral Resources in July 2015. This list also reflects how many wells were in production for each of these top producers during that time.

As of mid-July 2015, there are 73 active rigs drilling in the North Dakota oil patch, according to the North Dakota Oil & Gas Division of the North Dakota Department of Mineral Resources. This number is down from 91 rigs in April, 83 in May, and 78 in June, and it is the lowest number since November 2009, when it was 63. The all-time high reached 218 on May 29, 2012. The biggest factor in the drop is falling oil prices and operators continue to experiment with running one or two fewer rigs than their planned 2015 minimum, to see if drill times and efficiencies will continue to improve. In the five most active counties, the rig count is down as follows:

1. Divide: Down 77 percent from its high in March 2013;
2. Dunn: Down 71 percent from its high in June 2012;
3. McKenzie: Down 61 percent from its high in January 2014;
4. Mountrail: Down 71 percent from its high in June 2011; and
5. Williams: Down 69 percent from its high in October 2014.

The number of producing wells in North Dakota, as of May 2015, is 12,659—a new, all-time high. Over 98 percent of drilling still targets the Bakken and Three Forks formations. The state is number two in oil production in the nation, with Texas holding onto the top spot.

## 1. Whiting Oil & Gas Corp.

Oil production (2015): 20,235,903 bbls  
Gas production (2015): 28,456,196 mcf  
Wells in production (2015): 1,264  
Tel: (303) 837-1661  
Fax: (303) 861-4023  
Web: www.whiting.com

## 2. Hess Bakken Investments II, LLC

Oil production (2015): 17,660,184 bbls  
Gas production (2015): 26,890,901 mcf  
Wells in production (2015): 1,059  
Tel: (713) 496-4000  
Web: www.hess.com

## 3. Continental Resources, Inc.

Oil production (2015): 17,479,658 bbls  
Gas production (2015): 25,759,983 mcf  
Wells in production (2015): 1,140  
Tel: (405) 234-9000  
Toll-Free: (800) 256-8955  
Killdeer: (701) 764-6582  
Rhame: (701) 279-6688  
Tioga: (701) 664-3001  
Fax: (405) 234-9253  
Web: www.contres.com

## 4. XTO Energy Inc.

Oil production (2015): 10,633,590 bbls  
Gas production (2015): 16,280,317 mcf  
Wells in production (2015): 648  
Tel: (817) 870-2800  
Toll-Free: (800) 299-2800  
Fax: (817) 870-1671  
Web: www.xtoenergy.com

## 5. Burlington Resources Oil & Gas Co., LP

Oil production (2015): 10,069,327 bbls  
Gas production (2015): 13,583,953 mcf  
Wells in production (2015): 463  
Tel: (432) 688-6800  
Web: www.br-inc.com

## 6. EOG Resources, Inc.

Oil production (2015): 9,877,185 bbls  
Gas production (2015): 11,217,852 mcf  
Wells in production (2015): 587  
Tel: (713) 651-7000  
Toll Free: (877) 363-3647 (EOGR)  
Web: www.eogresources.com

## 7. Marathon Oil Co.

Oil production (2015): 9,075,937 bbls  
Gas production (2015): 7,592,016 mcf  
Wells in production (2015): 478  
Tel: (713) 629-6600  
Web: www.marathonoil.com

## 8. Oasis Petroleum North America, LLC

Oil production (2015): 9,048,247 bbls  
Gas production (2015): 8,657,687 mcf  
Wells in production (2015): 588  
Tel: (281) 404-9500  
Web: www.oasispetroleum.com

## 9. Statoil Oil & Gas, LP

Oil production (2015): 8,534,180 bbls  
Gas production (2015): 10,612,022 mcf  
Wells in production (2015): 504  
Tel: (512) 427-3300  
Web: www.statoil.com

## 10. QEP Energy Co.

Oil production (2015): 7,618,397 bbls  
Gas production (2015): 9,589,051 mcf  
Wells in production (2015): 260  
Tel: (303) 672-6900  
Web: www.qepres.com

## 11. WPX Energy Williston, LLC

Oil production (2015): 5,512,121 bbls  
Gas production (2015): 5,624,320 mcf  
Wells in production (2015): 192  
Tel: (701) 837-2900  
Web: www.wpxenergy.com

## 12. HRC Operating, LLC

Oil production (2015): 4,703,705 bbls  
Gas production (2015): 4,864,821 mcf  
Wells in production (2015): 227  
Tel: (832) 538-0300  
Web: www.halconresources.com

## 13. Petro-Hunt, LLC

Oil production (2015): 4,092,420 bbls  
Gas production (2015): 6,791,735 mcf  
Wells in production (2015): 190  
Tel: (214) 880-8400  
New Town: (701) 675-2467  
Killdeer: (701) 863-6622  
McGregor (Tioga): (701) 546-4601  
Web: www.petro-hunt.com

## 14. SM Energy Co.

Oil production (2015): 3,849,001 bbls  
Gas production (2015): 5,050,113 mcf  
Wells in production (2015): 306  
Tel: (406) 245-6248  
Web: www.sm-energy.com

## 15. Newfield Production Co.

Oil production (2015): 3,415,298 bbls  
Gas production (2015): 6,529,748 mcf  
Wells in production (2015): 201  
Tel: (281) 210-5100  
Fax: (281) 210-5101  
Web: www.newfld.com

## 16. Oxy USA Inc.

Oil production (2015): 3,038,982 bbls  
Gas production (2015): 1,636,336 mcf  
Wells in production (2015): 289  
Tel: (713) 215-7000  
Web: www.oxy.com

## 17. Slawson Exploration Co., Inc.

Oil production (2015): 2,956,699 bbls  
Gas production (2015): 2,656,534 mcf  
Wells in production (2015): 270  
Tel: (316) 263-3201  
Fax: (316) 268-0702  
Web: www.slawsoncompanies.com/exploration.html

## 18. Enerplus Resources USA Corp.

Oil production (2015): 2,821,468 bbls  
Gas production (2015): 3,666,708 mcf  
Wells in production (2015): 110  
Tel: (701) 675-2135  
Web: www.enerplus.com

## 19. Triangle USA Petroleum Corp.

Oil production (2015): 2,270,940 bbls  
Gas production (2015): 2,596,051 mcf  
Wells in production (2015): 111  
Tel: (303) 260-7125  
Fax: (303) 260-5080  
Web: www.trianglepetroleum.com

## 20. Hunt Oil Co.

Oil production (2015): 1,766,647 bbls  
Gas production (2015): 1,461,454 mcf  
Wells in production (2015): 144  
Tel: (214) 978-8000  
Fax: (214) 978-8888  
Web: www.huntoil.com

## ADVOCACY GROUPS

Theodore Roosevelt Expressway Association .... 40

## COATINGS

Canadian Coating Industries Ltd. .... 58

## COMBUSTION SYSTEMS

Tornado Combustion Technologies ..... 28, 29

## COMMUNITY HEALTH/HEALTH CENTERS

Northland Community Health Center ..... 79

## COMPLETE TRUCK EQUIPMENT NEEDS

Bert's Truck Equipment Inc. .... 73

## CONCRETE CONSTRUCTION

MDU Resources Inc. .... 10

## CONSTRUCTION

Wanzek Construction ..... 7

## CONTRACTING & WASTE MANAGEMENT

Veit ..... 20

Waste Management Energy Services ..... 70

## CONVENTION CENTER & VISITORS

### BUREAU

Bismark-Mandan Convention &

Visitors Bureau ..... 16

Fargo-Moorhead Convention &

Visitors Bureau ..... 22

## COUNCILS

North Dakota Petroleum Council ..... OBC

## CRUDE OIL & WATER HAULING

MBI Energy Services ..... 39

## DIAMOND SHELTERS & STRUCTURES

Dueck's Mechanical Inc. .... 18

## DIRECTORIES

Don's Directory of the Oil &

Gas Industry ..... 80

## DISTRIBUTORS

B&L Distributors Inc. .... 69

## ECONOMIC DEVELOPMENT

City of Cavalier, Economic Development ..... 44

## EDUCATION

North Dakota State University

(Upper Great Plains

Transportation Institute) ..... 41

## EMERGENCY RESPONSE

Clean Harbors ..... IFC

Waste Management Energy Services ..... 70

## ENERGY FIELD SERVICES

Waste Management Energy Services ..... 70

## ENERGY PRODUCTION & RESEARCH CENTER

University of North Dakota Energy &

Environmental Research Center ..... 44

## ENERGY SERVICES

Legend Energy Services LLC ..... 42

MDU Resources Inc. .... 10

## ENGINE PARTS, SALES & SERVICE

ESSCO Inc. .... 42

## ENGINEERING

Ackerman-Estvold ..... 66

## ENGINEERS, LAND SURVEYORS, PLANNERS & CONSULTANTS

AE2S ..... 4

AE2S Nexus ..... 32

AE2S Water Solutions ..... 27

SRF Consulting Group ..... 78

Territorial Landworks Inc. .... 20

Ulteig Engineers & Land Surveyors ..... 45

## ENVIRONMENTAL SERVICES

R360 Environmental Solutions ..... 13

Nuverra Environmental Solutions ..... 34

Waste Management Energy Services ..... 70

## EQUIPMENT PARTS, SUPPLIES & SALES

Four Seasons Equipment of North Dakota LLC ... 36

General Equipment & Supplies Inc. .... 12

Tractor & Equipment Co. .... IBC

## FINANCIAL ADVISOR

Troy Nelson Edward Jones ..... 74

## FRESH WATER SOLUTIONS

Appam Water Depot ..... 52

## FUELS, LUBRICANTS & FILTERS

Baldwin Filters ..... 78

## GAS & CHEMICAL MANUFACTURER

Dakota Gasification Company ..... 8

## GASTEC PUMP & TUBE SYSTEMS

Nexteq LLC ..... 42

## GENERAL CONTRACTORS

Baranko Bros Inc. .... 62

Westcon Inc. .... 64

## GENERAL CONTRACTORS & TENSION

### FABRIC STRUCTURES

BRITESPAN Building Systems ..... 15

## GENERATORS

Taylor Power Systems Inc. .... 50

## GEOLOGICAL CONSULTING

Neset Consulting Service ..... 20

## HIGH-PRESSURE WATER JET TECHNOLOGY

NLB Corp. .... 80

## HOTELS & MOTELS

Grand Hotel ..... 19

## INDUSTRIAL HIGH-PRESSURE WASHERS

Hotsy Blast Manufacturing LP ..... 30

## INSURANCE

Blue Cross Blue Shield of North Dakota ..... 5

## JANITORIAL EQUIPMENT & SUPPLIES

B&L Distributors Inc. .... 69

## LAND RECORDS

North Dakota Recorders Information

Network ..... 78

## LINERS, SECONDARY CONTAINMENT &

### POLYETHYLENE TARPS

Unit Liner Company

(Enviroguard Containment Systems) ..... 47

## MATS

Quality Mat Company ..... 24

## NATURAL GAS TRANSMISSION

MDU Resources Inc. .... 10

## OFFICE FURNITURE & SUPPLIES

B&L Distributors Inc. .... 69

## OIL & GAS EXPLORATION & PRODUCTION

QEP Resources Inc. .... 49

## OIL & GAS-FOCUSED LEGAL SERVICES

Wilhelm Law Firm ..... 79

## OIL SKIMMING EQUIPMENT

Skim-Pak LLC ..... 77

## OILFIELD & SAFETY CLOTHING

Home of Economy ..... 14

## PORTABLE MINI DRILL & DRILLING SUPPLIES

A&D Drilling Supply Corp. .... 23

## POTABLE WATER SOLUTIONS & SEPTIC SERVICES

Glacier Oilfield Services Inc. .... 12

## PRODUCTION

MDU Resources Inc. .... 10

## PUMPS

Pump Systems LLC ..... 46

## ROD GUIDES, COUPLINGS & ARTIFICIAL LIFTS

Oilfield Improvements ..... 42, 66

## SAFETY EQUIPMENT & SUPPLIES

Hagemeyer North America ..... 20

## SAFETY TRAINING

Train ND Northwest ..... 54

## SERVICE COMPANY

Wildfire Hyperheaters ..... 82

## SOLIDS CONTROL EQUIPMENT

Hutchison Hayes Separation Inc. .... 54

## STEEL TUBING SOLUTIONS

New World Stainless ..... 33

## STRUCTURAL PIPE & PILING

Platinum Grover International Inc. .... 3

## TRUCK & FLEET SALES, PARTS, SERVICES & SUPPLIES

Murphy Motors ..... 55

Wallwork Truck Centers ..... 80

## U.S. AGENT FOR ENDURALLOY™

### PRODUCTION TUBING

Maple Leaf Marketing Inc. .... 6

## WATER, COMMUNICATIONS & RENTALS

Hurley Enterprises Inc. .... 62

## WELDING

Parr Welding & Machine LLC ..... 82



DIESEL POWERED FRAC HEATERS | FRAC WATER TRANSFER  
WINCH TRUCKS | TANK & EQUIPMENT RENTALS

10948 - 27<sup>th</sup> ST. S.W.  
DICKINSON, N.D. 58601

PHONE: 701-483-0982  
EMAIL: zrodne@wildfirehyperheaters.com



General Welding, Machining, & Metal Fabrication  
parrweldingandmachine.com

hardware specialized for measurement,  
communication, and control equipment

Tim Parr  
OWNER  
580 214 0580  
tmparr00@gmail.com

22105 E 1020 Rd  
Arapaho, OK 73620  
NW of Clinton, OK





# Your Local Williston Cat® Dealer

*Two Branches Providing Unrivaled Local Support  
**WHEN and WHERE** You Need Us!*



**T&E WILLISTON WEST**

## 1. Cat Parts and Service

- Full parts/service support for Cat machinery, Cat generators/engines, and Cat truck engines
- 24/7/365 on-call service
- 35+ service techs based in Williston with additional rotating technicians
- On-Site Scheduled Maintenance service
- 9,000+ parts line items warehoused in Williston
- Drop box delivery locations in Bainville, Sidney, Tioga, and Watford City
- 24/7/365 on-line parts ordering
- Now offering complimentary in-town delivery

## 2. Cat Machinery and Vocational Truck Sales

- Legendary Cat performance/reliability

**Williston West**  
**14078 West Front Street**  
**701-572-8377**



**T&E WILLISTON NORTH**

## 1. Equipment Rental

- Largest fleet in the Bakken!
- Cat heavy equipment
- Mobile generators to 2,000 kW
- Air compressors to 1,600 cfm
- Scissor and boom lifts
- Light towers
- Trench shoring
- Other preferred-brand products

## 2. Agricultural Equipment

- Ag sales, parts, and service for Gleaner, Challenger®, Ag-Chem™, Massey Ferguson, LEXION, and Seed Hawk

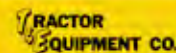
## 3. Cat Generator/Engine Sales

- Now offering wellhead generators!

**Williston North**  
**221 Niehenke Street**  
**701-713-2100**



**T & E**



AGRICULTURAL DIVISION



24TH ANNUAL  
**WILLISTON**  
**BASIN**  
**PETROLEUM**  
**CONFERENCE**



**SAVE  
THE  
DATE**

**MAY 24-26, 2016 | BISMARCK, ND**

- » Biggest Bakken Conference in the U. S.
- » Talks from Industry Experts & Leaders
- » Networking Opportunities
- » 500 booths & More!

Learn more at  
[www.williston.com](http://www.williston.com)

