

# BAKKEN CHANGE & EVOLUTION

**BAKKEN WELL COUNT OUTLOOK**

20 YEARS LOW END  
70 YEARS HIGH END

**12% HIGHER**  
THAN 2017 WELLS  
New well initial production rates

## WELL PRODUCTION

**3,000 MCFD**  
Average 24-hour IP rates for Bakken gas

**2,400 BOPD**  
Average 24-hour IP rates for Bakken oil

**1.2 TO 2.4 MCF/BBL**  
Gas-to-Oil Ratio in IP year

**105 BOPD**  
Existing ND Bakken wells production average per day

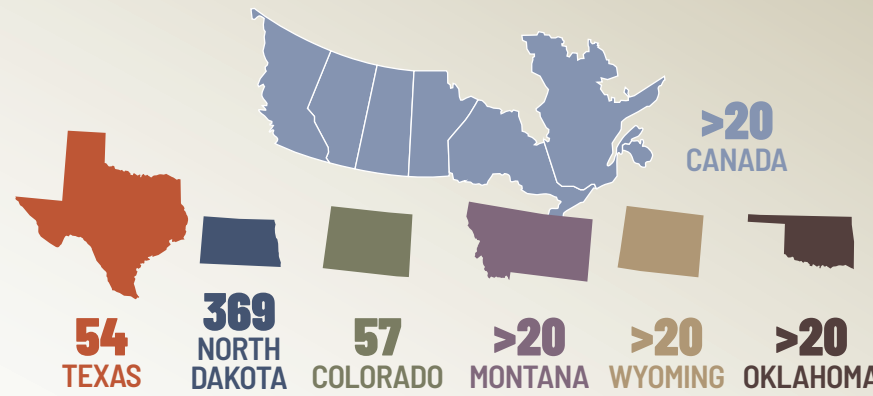
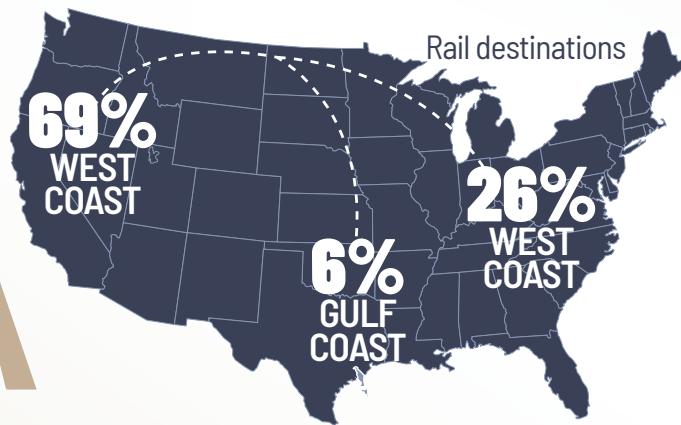
**3,200 BOPD**  
per month

## OIL MOVEMENT

**75% PIPELINE**

**18% RAIL**

**7% RAIL**



## COMPANIES READY FOR BUSINESS



From the North Dakota Petroleum Council Buyers Guide  
More than 750 entrants, listed by state address provided

## NATURAL GAS LIQUIDS BREAKDOWN

BARRELS PER DAY

**500,000** ALL NATURAL GAS LIQUIDS

**275,000** ETHANE

**150,000** PROPANE

**42,000** BUTANE

**24,000** NATURAL GAS

**15,000** ISOBUTANE

## WHO'S ACTIVE IN OIL COUNTRY: 51 BAKKEN OPERATORS IN JANUARY



- Equinor Energy
- Murex Petroleum
- Hunt Oil Co.
- EOG Resources
- Oasis Petroleum
- Petro-Hunt LLC
- Slawson Exploration Company
- Whiting Oil and Gas Corp.
- Crescent Point Energy U.S. Corp.
- Continental Resources
- Hess Bakken Investments
- XTO Energy
- Resource Energy
- Abraxas Petroleum
- Enerplus Resources USA Corp.
- Bruin E&P Operating
- Burlington Resources Oil & Gas Co.
- Marathon Oil Corp.
- Missouri River Resources
- Petrogulf Corp.
- Petroshale Inc.
- White Butte Oil Operations
- WPX Energy Williston
- Iron Oil Operating
- Nine Point Energy
- Legacy Reserves Operating
- NP Resources
- Citation Oil and Gas
- Condor Petroleum Inc.
- Petro-Harvester Operating Co
- Newfield Production
- QEP Energy Co.
- Liberty Resource Management Co.
- Thunderbird Resources
- Wesco Operating
- True Oil LLC
- Sinclair Oil & Gas
- Kraken Operating
- Lime Rock Resources
- SHD Oil and Gas LLC
- Cornerstone Natural Resources
- Peregrine Petroleum Partners
- Zavanna LLC
- White Rock Oil and Gas
- Gadeco LLC
- Future Acquisition Co.
- Galaxy Oil
- Cobra Oil & Gas
- Condor Petroleum
- Rimrock Oil and Gas
- Prima Exploration Inc.

## KNOWING THE CORE FOUR

### WILLIAMS

Wells producing: **2,658**

Wells producing: **2,943**

Oil produced: **7.4 M**

Gas produced in Mcf: **16 M**

### MCKENZIE

Wells producing: **4,389**

Wells producing: **5,092**

Oil produced: **18.1 M**

Gas produced in Mcf: **43.24 M**

### DUNN

Wells producing: **2,159**

Wells producing: **2,405**

Oil produced: **8.0 M**

Gas produced in Mcf: **9.3 M**

### MOUNTRAIL

Wells producing: **2,839**

Wells producing: **3,081**

Oil produced: **7.4 M**

Gas produced in Mcf: **12 M**



### CAPITA

**\$60,533** Core Oil & Gas Counties in ND Per capital personal income

**\$52,284** State of ND Per capital personal income

**\$1,473** Core Oil & Gas Counties in ND Average weekly wage

### UNEMPLOYMENT

**1.8%** Core Oil & Gas Counties in ND Feb. 2019

**3.0%** State of ND 2018



### TOP JOB OPENING BY OCCUPATION GROUP in Core Oil & Gas Counties

Transportation & Material Moving Installation

Maintenance & Repair Construction & Extraction



**90%** of all ND oil PRODUCTION in Core Oil & Gas Counties

## ACTIVE 13 DRILLING RIG COMPANIES

- Nabors Industries Ltd.
- Patterson-UTI Energy Inc.
- Cyclone Drilling Inc.
- Pioneer Energy Services Corp.
- Akita Drilling Ltd.
- Helmerich & Payne Inc.
- Unit Drilling Co.
- Noble Corp.
- Capstar Drilling Inc.
- True Drilling LLC
- Ensign Energy Services
- Precision Drilling Corp.
- Stoneham Drilling Corp.

## 2018 ECONOMIC IMPACTS

**\$8.8 BILLION** Drilled & completed wells

**\$660 MILLION** Drilled but uncompleted wells

## INVESTMENT TOTALS 2006-2018

**\$1.25 BILLION** Rail & transport facilities

**\$2 BILLION** Crude pipelines

**\$15 BILLION** Natural gas processing