

State of the Industry

Kathy Neset
President, NESET

January 9, 2024

www.NDOil.org

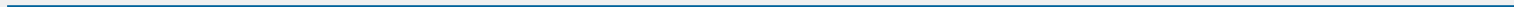


2024 Member Picture
from Hess Corporation

2023 North Dakota State Legislative Session



- Extraction Tax Positive Price Trigger Repeal – HB 1286
- Restimulation Well Extraction Tax Rate Reduction Incentive – HB 1427
- Creation of Enhanced Oil Recovery (EOR) Potential Well Status – HB 1272
- Royalty Owner Ombudsman Program – SB 2194
- Grant Dollars for Gas Capture Technology Incentives, Pipeline Safety, Clean Sustainable Energy Authority (CSEA), and Oil and Gas Research Program



NDPC Regulatory Engagement



- ✓ 350+ on NDPC Regulatory Committee, with over 150 regular participants on monthly calls
 - ✓ State-Level Regulatory Issues
 - Dakota Skipper Habitat Conservation Plan
 - ND Air Quality General Permit
 - Admin Rule Changes: ND Land Board; ND Industrial Commission
 - ✓ Climate Executive Orders – All federal agencies ordered to review policies/rules/regulations and make suggestions for addressing climate change
 - ✓ EPA – Quad-O Rule
 - Pending Comments on GHG Reporting Program (Subpart W)
 - ✓ BLM – Comments filed on Waste Prevention Rule, ND Resource Management Plan, and Conservation and Landscape Health Rule
 - Pending Comments on Onshore Leasing Rule
 - ✓ PHMSA – Gas Pipeline LDAR Rule
 - ✓ Army Corp of Engineers – DAPL Environmental Impact Statement
 - ✓ Methane Rules
-



- 4 Community Liaisons
 - Williston
 - Watford City
 - Minot
 - Dickinson
- 16 Employers
- 65 Ukrainians (from March 2023 to Jan 2024)
 - More want to come
 - Employers waiting until Spring
- 5 Consultants (Ukrainian Interpreters)
- Sponsors are still needed



Using Immigration as a Workforce Solution



ND PRODUCTION – Oct 2023

Statewide Gas Capture Rate 94%

1,244,857 Barrels Per Day

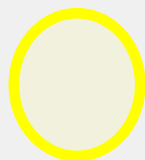
3,402,532 MCF Per Day
(All-time high set in Sept 2023)

18,619 Producing Wells
(New all-time high set in Oct 2023)

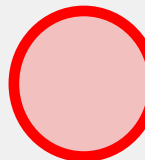




Core=Tier 1 > EOR
 80-85% developed
 +8,000 wells
 1-2% growth = 35 rigs = 8 years

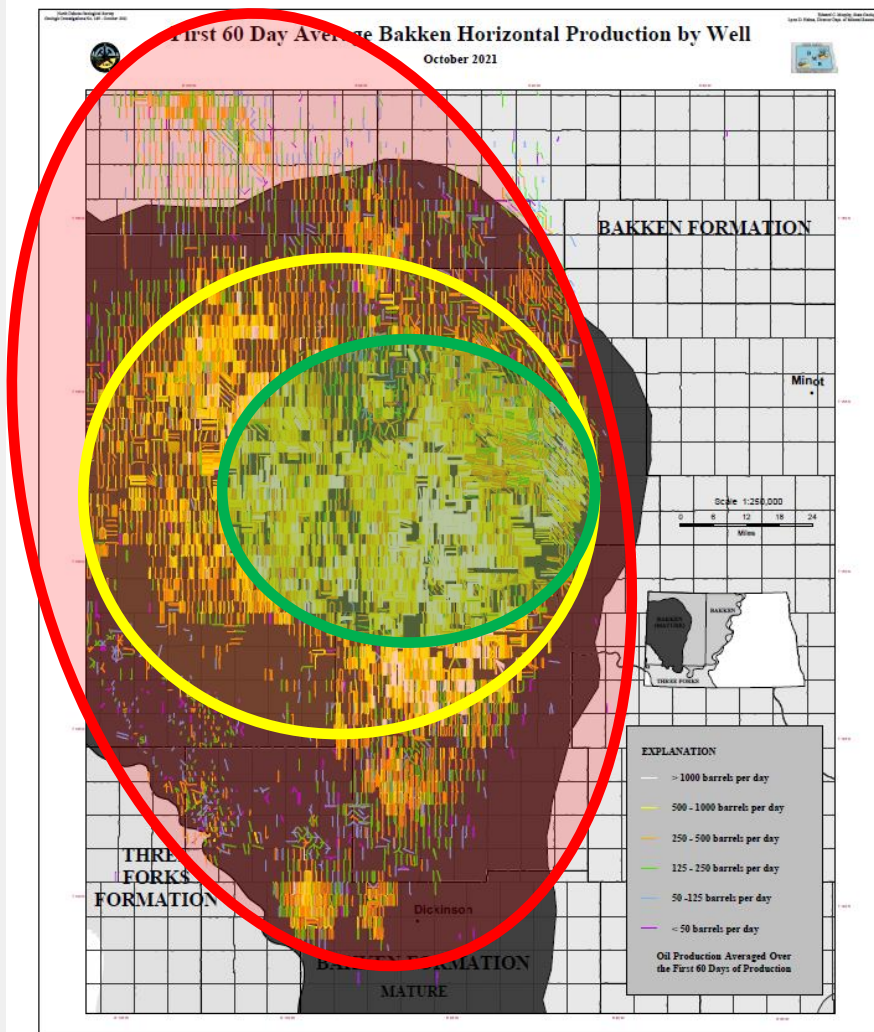


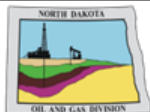
Tier 2 > 3 mi laterals
 50% developed
 +8,000 wells
 1-2% growth = 50 rigs = 6 years



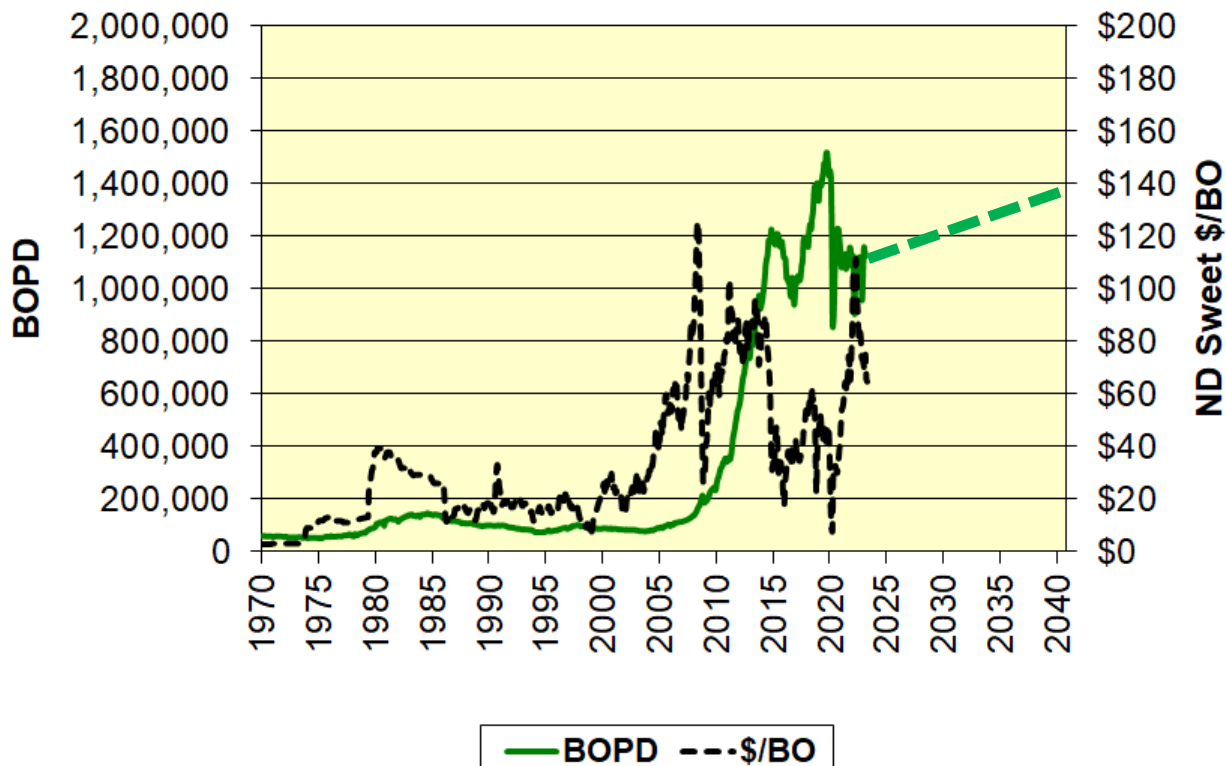
Tier 3 > 3-4 mi laterals
 25% developed
 +7,000 wells
 1-2% growth = 75 rigs = 4 years

Total = 23,000 wells & 18 years
 Current 17,000 wells & 16 years



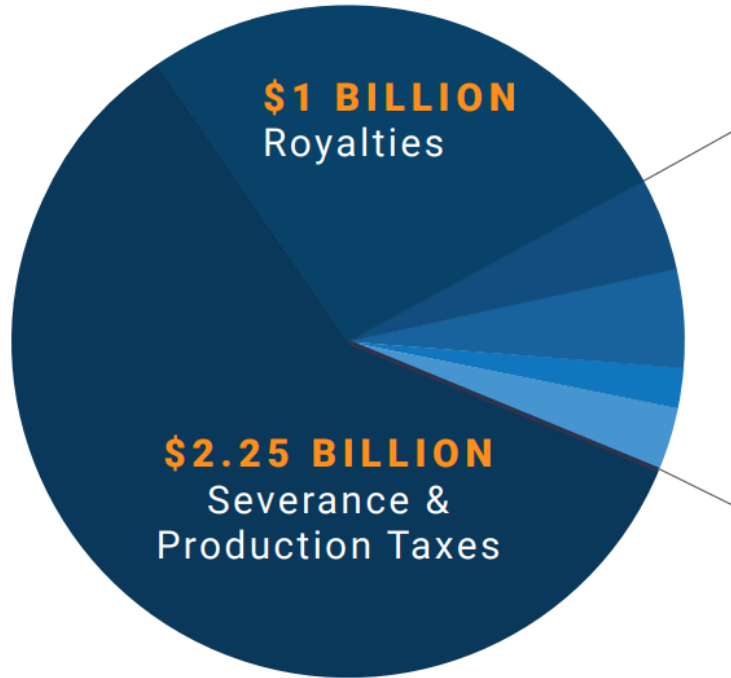


North Dakota Daily Oil Produced and Price



\$3.8 BILLION

IN STATE AND LOCAL GOVERNMENT REVENUES



\$172.2 MILLION

Property

\$180.8 MILLION

Sales & Use Taxes

\$69.3 MILLION

Corporate & Personal
Income

\$112.3 MILLION

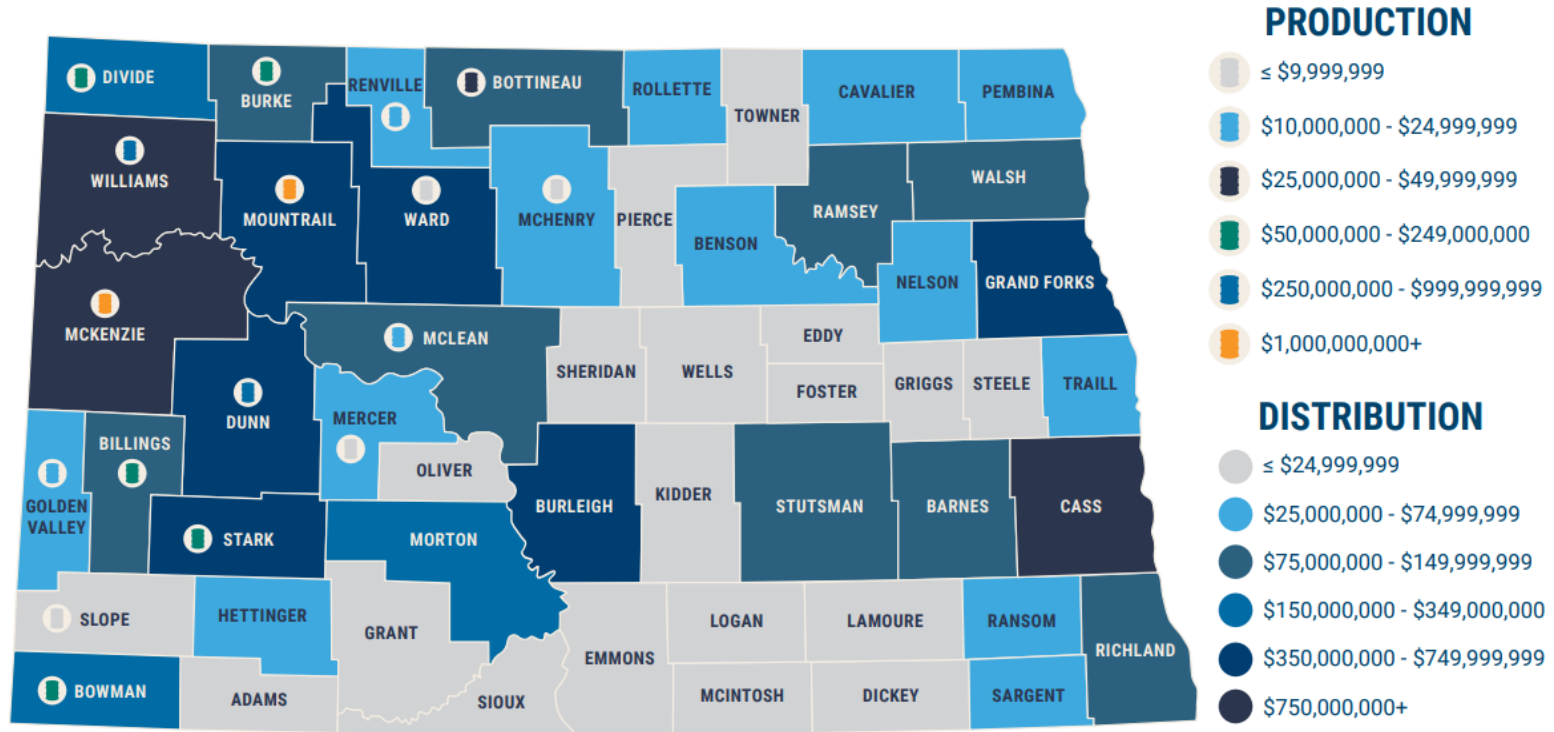
Other Taxes, Permits, Fees
& Licenses

\$1.8 MILLION

Lease Bonuses

STATEWIDE BENEFITS

WHERE DOES STATE OIL TAX COME FROM AND WHERE DOES IT GO?



14,200 DIRECT JOBS + 35,185 SECONDARY JOBS =

49,385 TOTAL JOBS

WITH A
PAYROLL TOTALING

\$3.9 BILLION

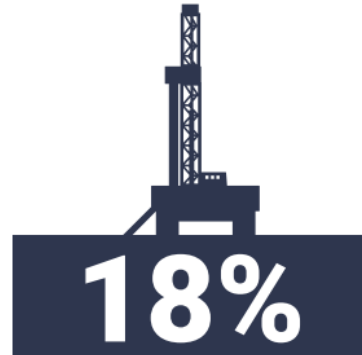
A MAJORITY OF JOBS ARE IN PRODUCTION, WHICH OFFER
LONG-TERM JOBS & CAREERS FOR NORTH DAKOTANS.



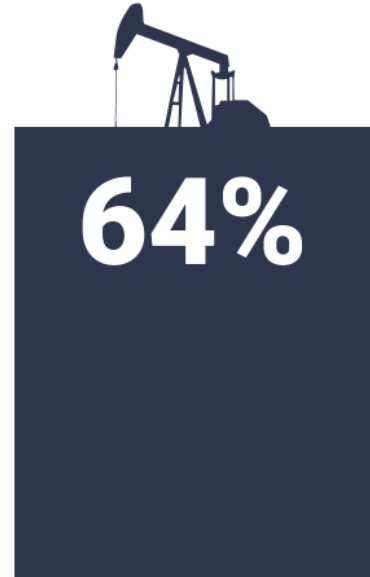
INFRASTRUCTURE
DEVELOPMENT



PROCESSING &
TRANSPORTATION



EXPLORATION & WELL
DEVELOPMENT



EXTRACTION &
PRODUCTION

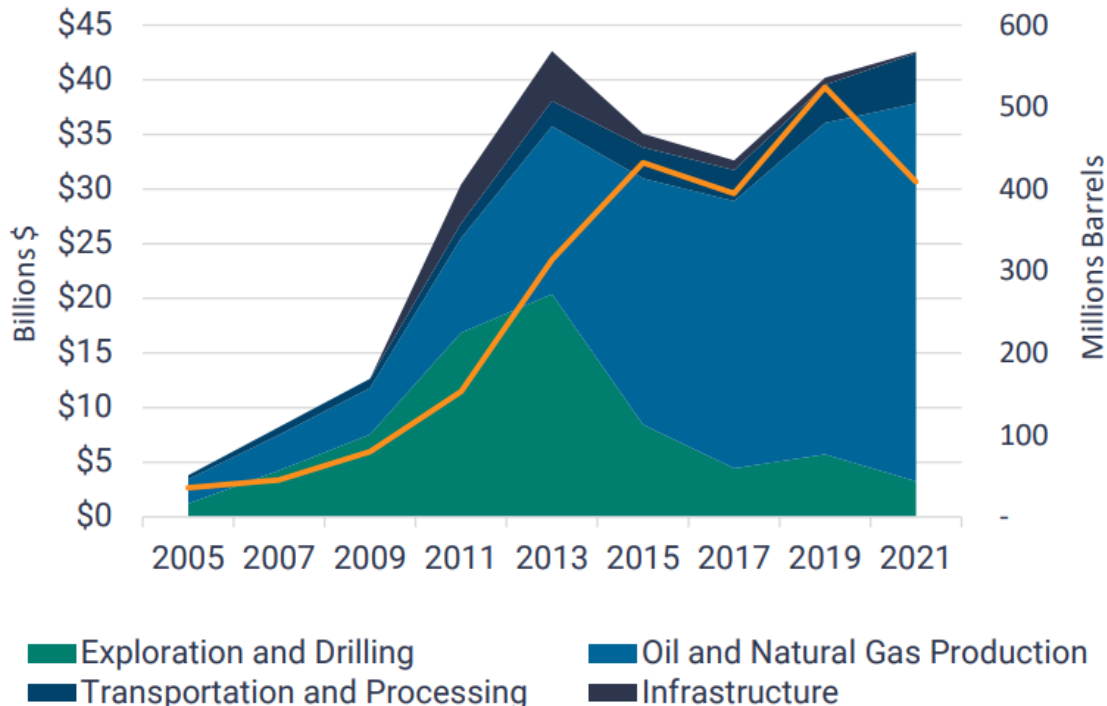
\$42.58 BILLION TOTAL ECONOMIC IMPACT IN 2021



30.8%

OF ND'S GROSS STATE PRODUCT

CAME FROM THE OIL & GAS INDUSTRY



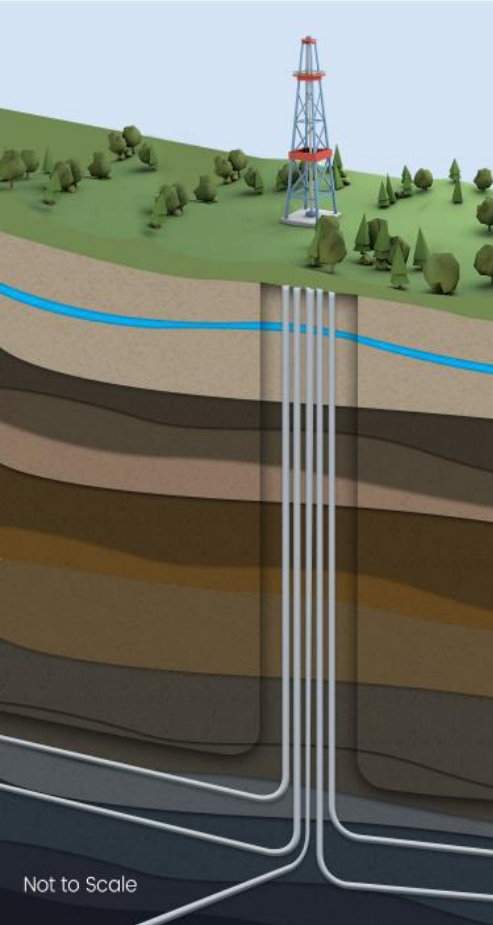
| 51% → state tax revenues from oil & gas

Put it in perspective:



For every dollar of
revenue to the state --
Fifty-One Cents
comes from oil & gas

WHERE WE'RE GOING IN THE FUTURE

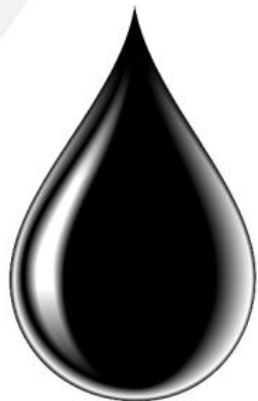


- Putting Technology to Work in the Bakken:**
- zero-emission Bakken wellsites
 - three-mile lateral
 - wellsite efficiency
 - gas capture
 - maximizing production

Not to Scale

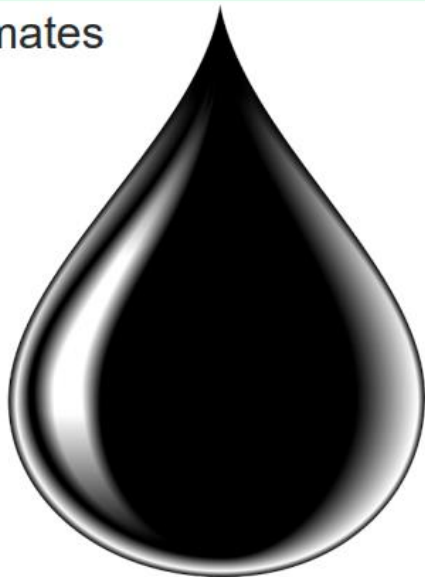
BAKKEN EOR SIZE OF THE PRIZE

OOIP Estimates



300 Bbbl

(Flannery and Kraus, 2006)



900 Bbbl

(Continental Resources, 2011)

Technically Recoverable Reserve Estimates



24 Bbbl

(Continental Resource, 2011)



7.4 Bbbl

(USGS, 2013)



4.3 Bbbl

(USGS, 2021)

Bakken and Three Forks Production to Date



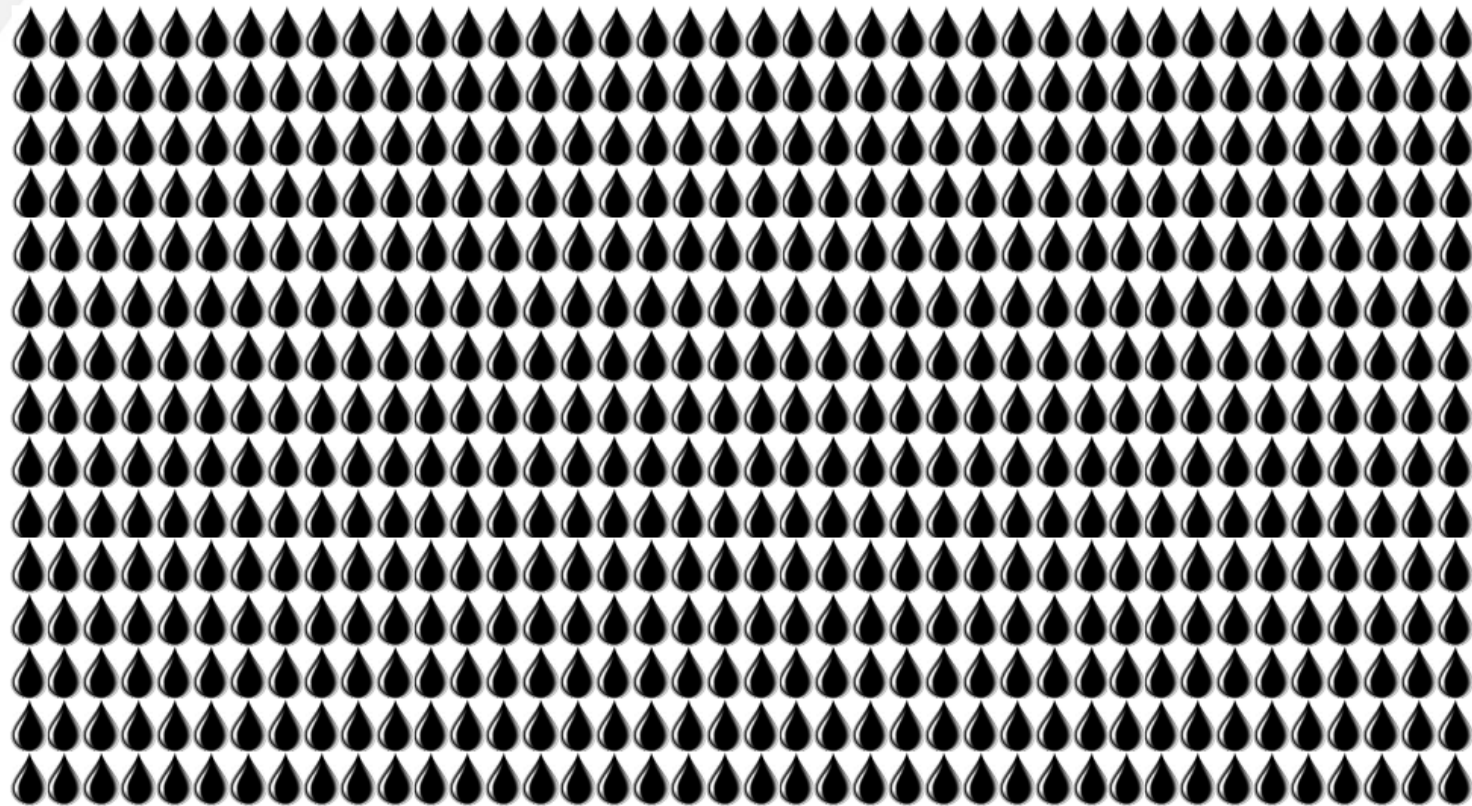
~4 Bbbl

(NDIC, 2022)

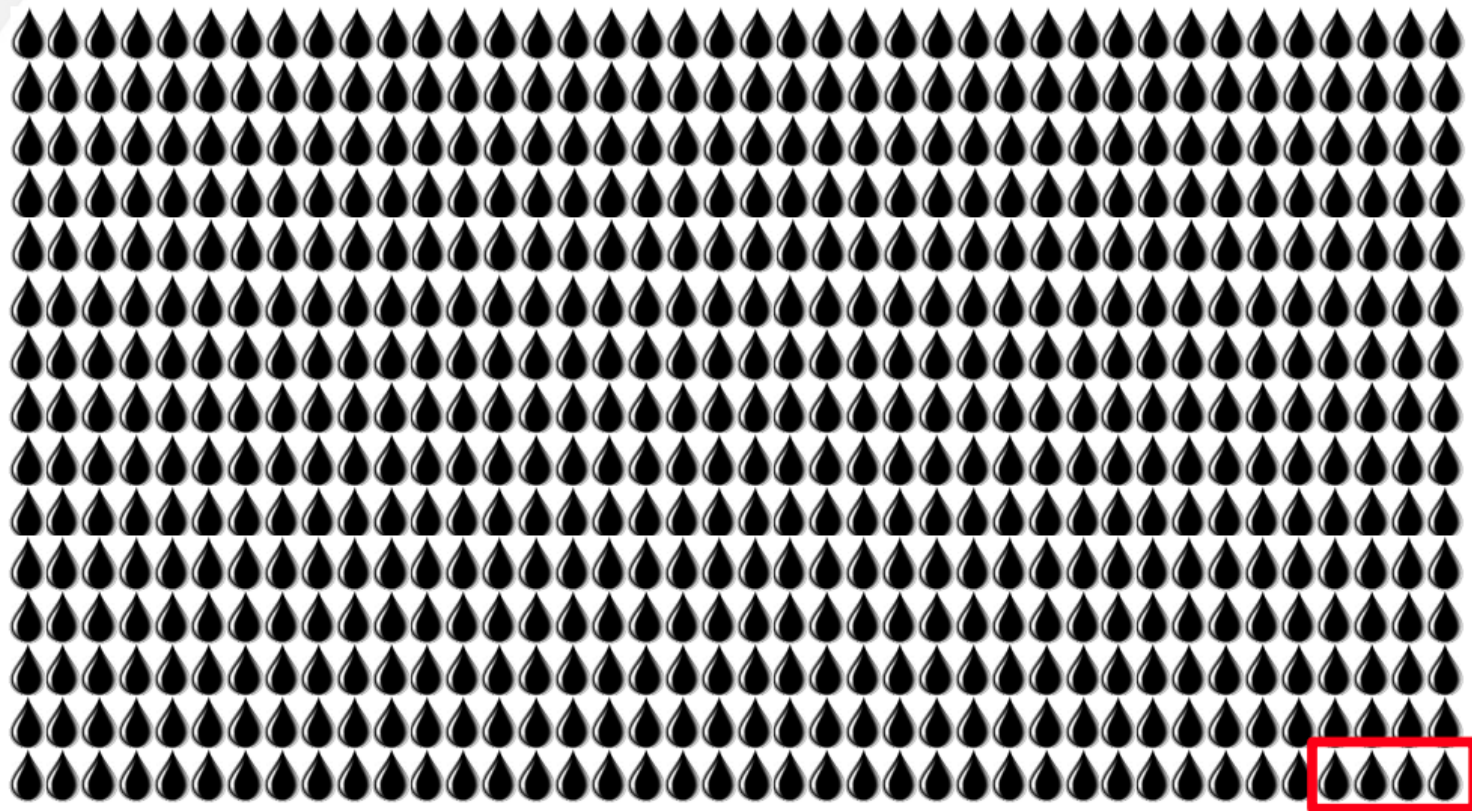
Critical Challenges. Practical Solutions.



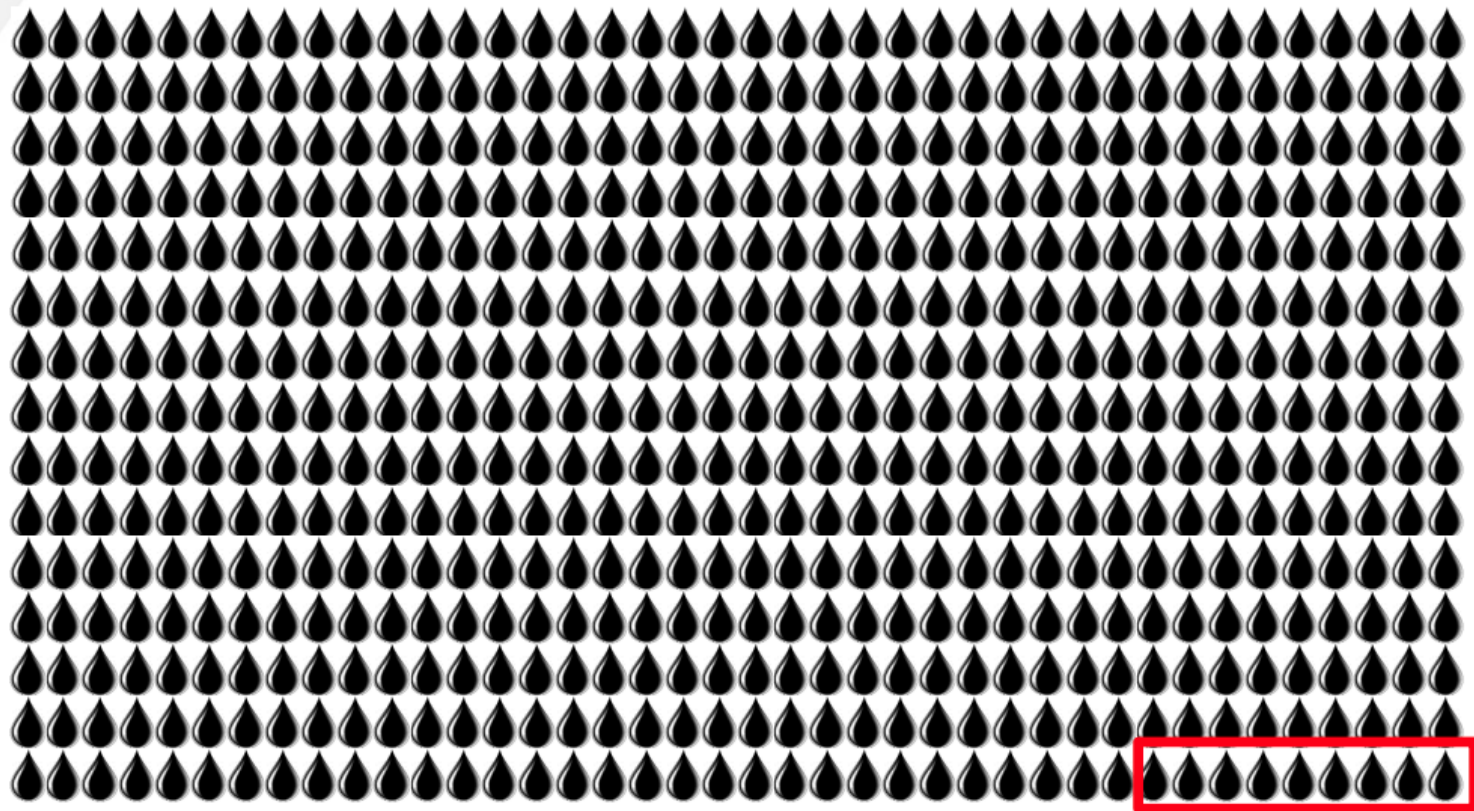
BAKKEN OIL IN PLACE



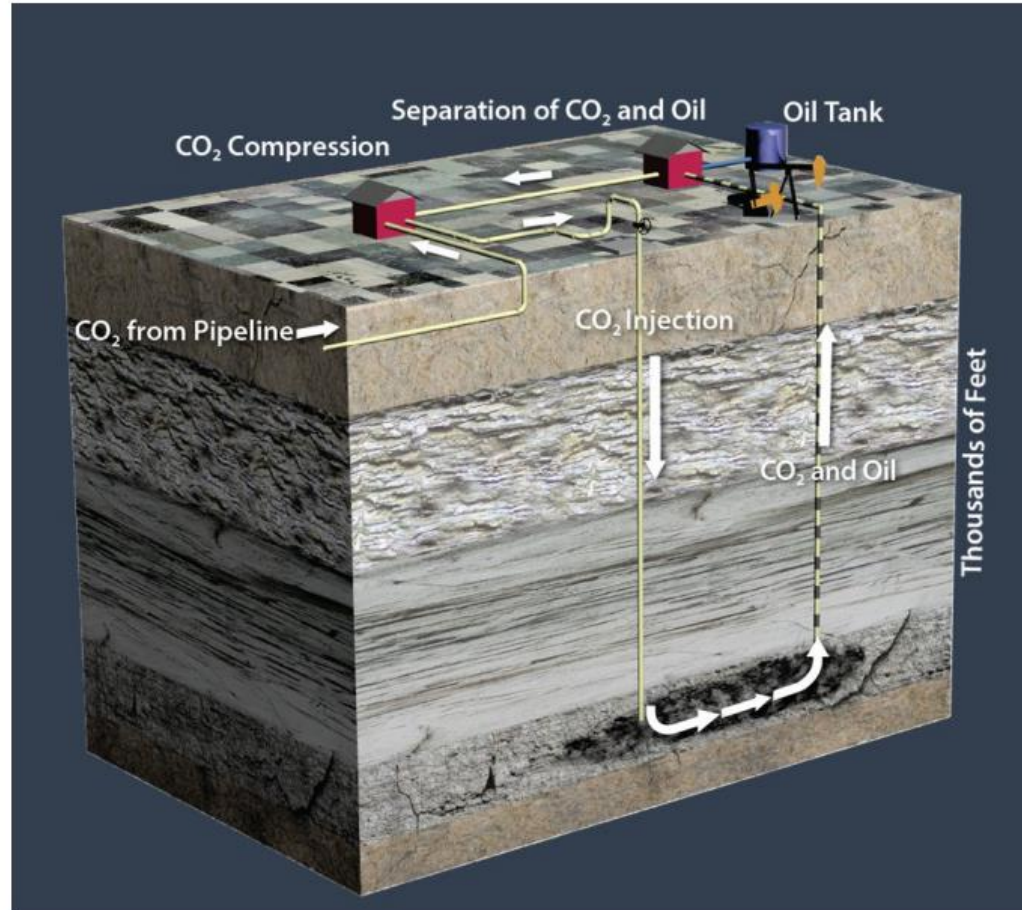
BAKKEN OIL RECOVERY



BAKKEN OIL RECOVERY BY 2033



ENHANCED OIL RECOVERY (EOR)



EOR in North Dakota Legacy (conventional) Fields – Size of the Prize

Identified

201

Conventional Oil Fields

Requiring

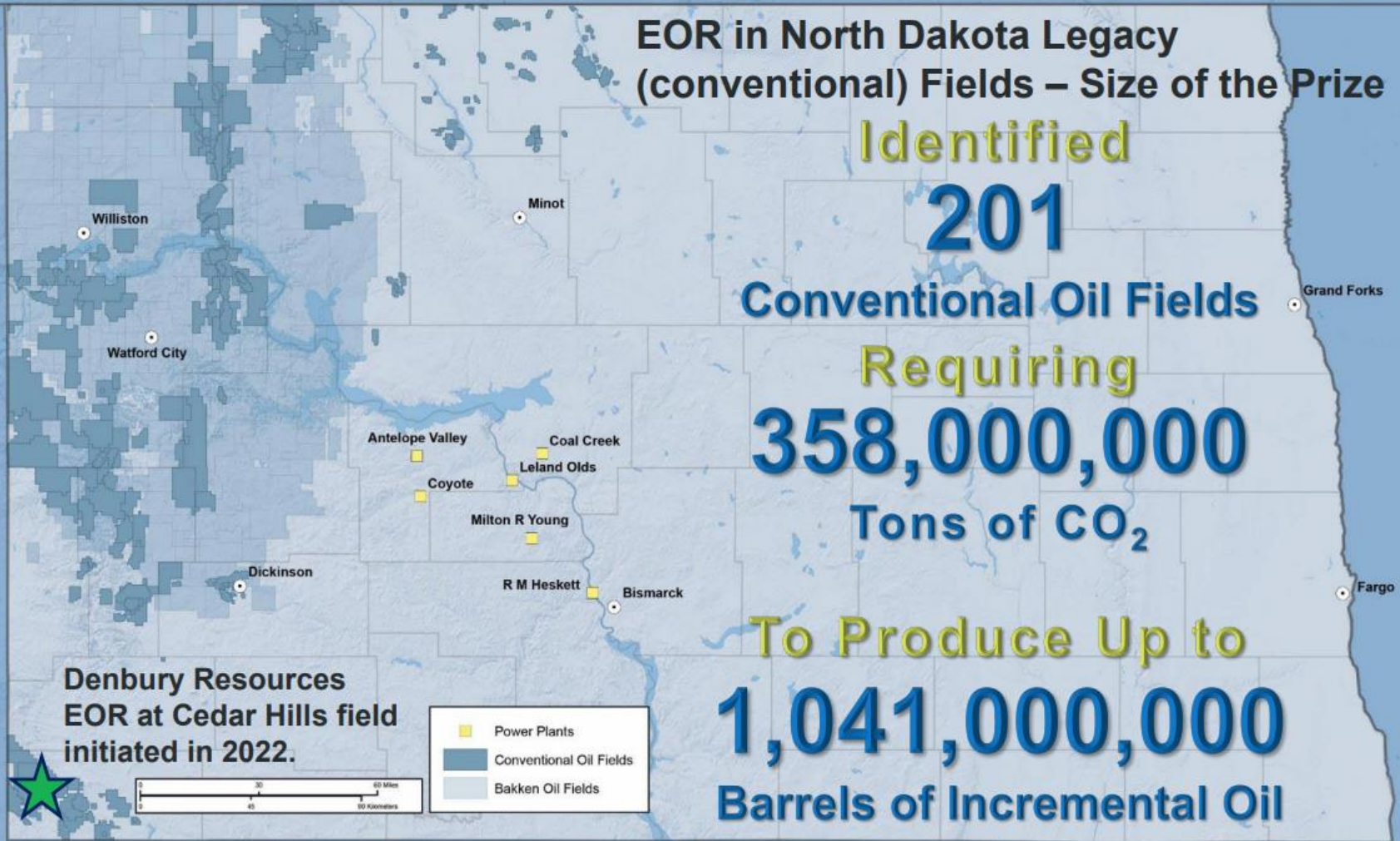
358,000,000

Tons of CO₂

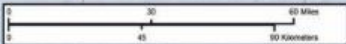
To Produce Up to

1,041,000,000

Barrels of Incremental Oil



Denbury Resources
EOR at Cedar Hills field
initiated in 2022.



	Power Plants
	Conventional Oil Fields
	Bakken Oil Fields

EOR in Bakken and Three Forks – Size of the Prize

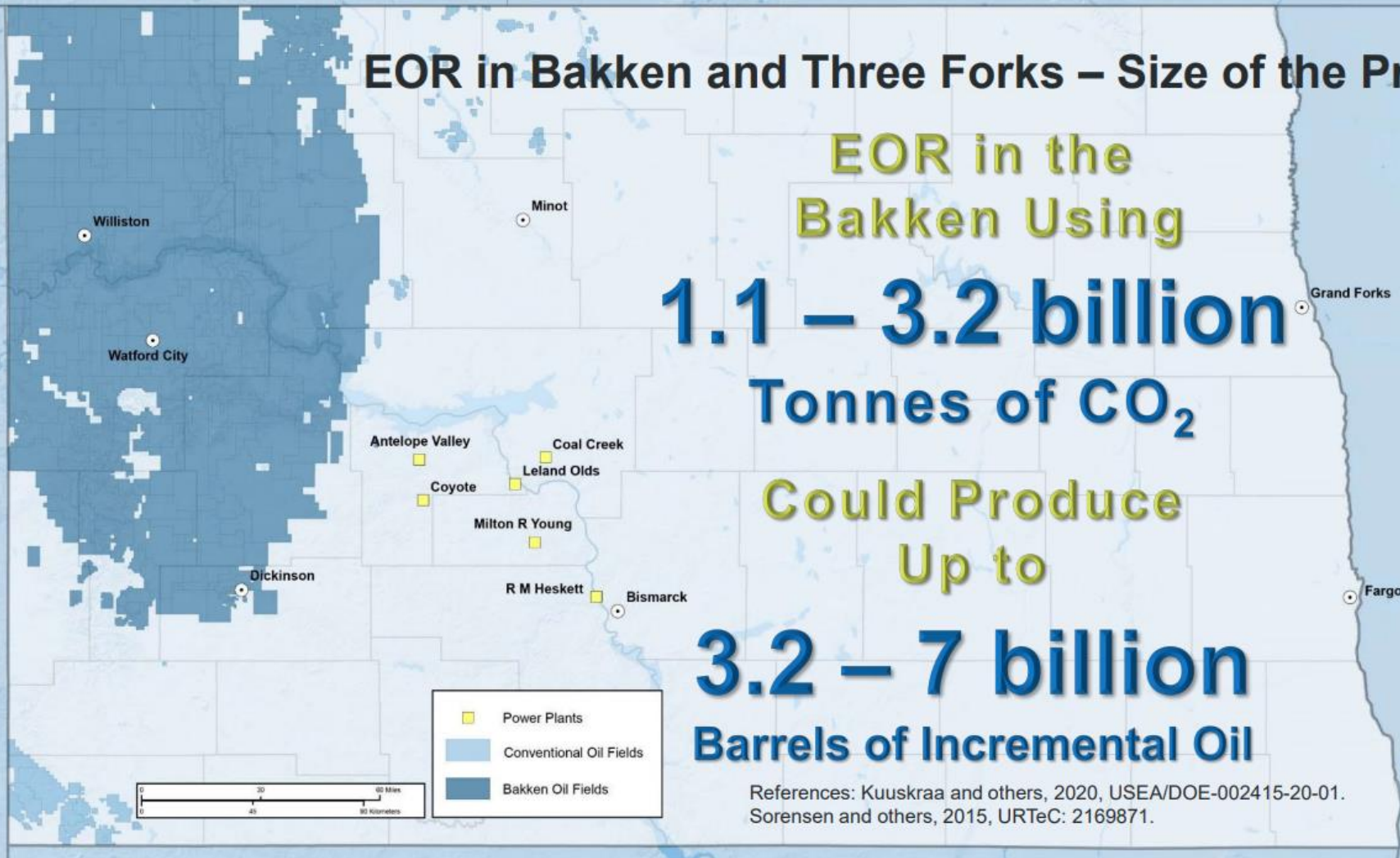
EOR in the
Bakken Using

1.1 – 3.2 billion
Tonnes of CO₂

Could Produce
Up to

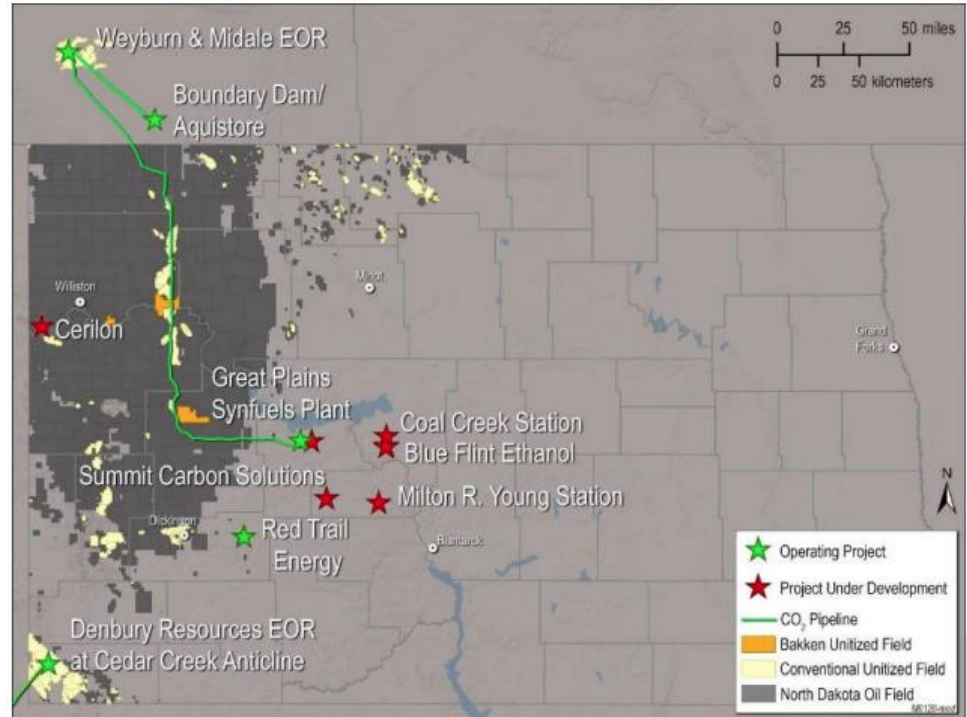
3.2 – 7 billion
Barrels of Incremental Oil

References: Kuuskraa and others, 2020, USEA/DOE-002415-20-01.
Sorensen and others, 2015, URTec: 2169871.



But... North Dakota Does Not Have Enough CO₂

- ND stationary sources produce ~30 million tons CO₂/yr.
- Conventional EOR produces about 2 barrels of oil/ton CO₂.
- If all our CO₂ was used for EOR, we could expect ~165,000 bbl/d or ~60 million bbl/yr or 50–100 years to produce the next 3–7 billion barrels!
- We need 5 times more CO₂ to replace primary production!



2024



WILLISTON
BASIN
PETROLEUM
CONFERENCE

**REGISTRATION
OPENS JAN 10TH**

MAY 14-16, 2024 | BISMARCK, ND

LEARN MORE

www.WBPCND.org



BREAKING NEWS

ND Oil Production will Reach a New Milestone

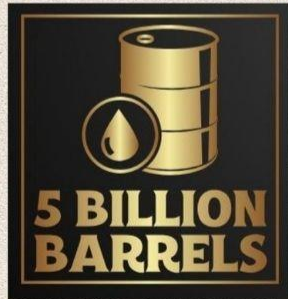
Another milestone for oil production in North Dakota.

"In mid-2024, we're going to reach 5 billion barrels of Bakken oil," said North Dakota Petroleum Council President Ron Ness. "It took us about 60 years to reach a billion barrels of oil."

That first billion came from conventional wells.

Ness said there's more oil in the Bakken that can be recovered.

"Somewhere down the line, technology and opportunity are going to align," Ness said. "We have the opportunity to extend the life of the Bakken another 30 to 50 years, and produce another 5 to 8 billion more barrels, just because of technology."



5 BILLION BARRELS

by mid-2024

[Link to Prairie Public Broadcasting article](#)

Upcoming Events



MAY **14-16**

Williston Basin Petroleum Conference – Bismarck

JUNE **4**

Birds & Birdies – Watford City

JUNE **18-19**

NDPC Summer Social – Medora

JUNE **24-27**

Teacher Education Seminar – Bismarck

JULY **16**

Bakken Classic Fishing Derby – New Town

JULY **18**

Bakken Rocks CookFest – Tioga

AUG **29**

ND Oil PAC Golf – Bully Pulpit, Medora

SEPT **17-19**

NDPC Annual Meeting – Watford City

DEC **3**

NDPC Christmas Gala – BSC, Bismarck





The NDPC/BITCO Insurance Program

- The NDPC serves as the leading voice for North Dakota's oil and gas industry. We are committed promoting and enhancing the discovery, development, production, transportation, refining, conservation, and marketing of oil and gas in North Dakota. To achieve this, we will work to facilitate open discussions among members, influence regulatory policies, and engage key stakeholders. Further, the BITCO Insurance Program will distribute a portion of NDPC members' premiums back to the NDPC to support the association's advocacy work.

About BITCO Insurance

- BITCO is proud to be a member of the Old Republic Insurance Group, one of America's fifty largest shareholder-owned insurance businesses and currently ranks among the Fortune 500 list of the nation's biggest companies.
- For over 75 years, BITCO has provided insurance to companies involved in on-shore production of petroleum and natural gas, including insurance for operators, drillers and contractors located from the Rocky Mountains to the Appalachian Basin.

AssuredPartners and BITCO Insurance share a vision for comprehensive, industry-specific solutions. NDPC members can enjoy peace of mind knowing their insurance is placed with a carrier that's rated A+ Superior by AM Best, reflecting financial strength and stability, further demonstrating our commitment to providing reliable and effective insurance solutions.



Questions?



www.NDOil.org