

# Bakken Production Optimization Program 4.0

**Submitted by:**

**EERC**

Principal Investigator: James A. Sorensen

- ☐ Total Funding Request - \$6,000,000**
- Total Project Costs - \$12,000,000**
- Project Duration: 3 years**

# PROJECT DESCRIPTION

- The Energy & Environmental Research Center (EERC) proposes a 3-year extension of the existing and highly successful Bakken Production Optimization Program (BPOP). The first 9 years of BPOP were sponsored by the North Dakota Industrial Commission (NDIC) Oil and Gas Research Program (OGRP) and many of the Williston Basin's premier operating companies. Objective: To provide technical solutions and tools that optimize oil production, reduce carbon intensity, and lead to the broad deployment of technologies, including enhanced oil recovery (EOR), that enable continued sustainable development of North Dakota's vast Bakken resources. Expected results: Increased productivity and decreased carbon intensity of Bakken resources.
- **Participants:** In addition to DOE, the EERC anticipates ongoing support of at least eight companies, including Chord Energy, ConocoPhillips, Devon, XTO Energy (a subsidiary of ExxonMobil), Hess Corporation, Liberty Resources LLC, Marathon Oil Company, and Petro-Hunt, L.L.C., which have supported previous BPOP phases. Additional partners are anticipated to join as the program continues.

## TECHNICAL REVIEWERS' RATING SUMMARY

Statement	Weighting Factor	<u>TR G-58-03A</u>	<u>TR G-58-03B</u>	<u>TR G-58-03C</u>	<u>Average Weighted Score</u>
Objectives	<b>9</b>	5	4	5	36
Achievability	<b>7</b>	4	4	4	28
Methodology	<b>8</b>	4	4	5	32
Contribution	<b>8</b>	5	3	4	32
Awareness/ Background	<b>5</b>	5	5	4	20
Project Management	<b>3</b>	3	4	5	12
Equipment / Facilities	<b>2</b>	3	3	4	6
Value/Industry- Budget	<b>4</b>	4	3	5	16
Financial Match – Budget	<b>4</b>	3	3	5	12
<b><i>Average Weighted Score</i></b>		<b>213</b>	<b>187</b>	<b>228</b>	<b>209</b>
<b><i>Maximum Weighted Score</i></b>				250 possible points	

# TECHNICAL REVIEWER TOTALS

- G-58-03A

Average Weighted Score: **213 out of 250**

**FUND**

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- G-58-03B

Average Weighted Score: **187 out of 250**

**FUND**

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- G-58-03C

Average Weighted Score: **228 out of 250**

**FUND**

# TECHNICAL REVIEWER COMMENTS

## Reviewer G-58-03A

Based on the accomplishments of the first nine years, I strongly support the continuation of BPOP. The program's mission is closely aligned with that of the OGRP, and it has consistently delivered substantial value to the stakeholders who rely on the success of North Dakota's petroleum industry. BPOP's track record of success and its ability to cater to the needs of various stakeholders make it a worthy endeavor that should be continued. I commend the joint efforts of the EERC and industry in establishing the key areas of emphasis for BPOP 4.0. Among the many important topics included in BPOP 4.0, I feel the continued efforts towards developing a commercial CO2 EOR strategy for the Bakken/Three Forks will be of highest value.

**Recommendation: FUND**

## Reviewer G-58-03B

The project is a continuation of the long running and successful Bakken Production Optimization program operated by the EERC, and this extension should continue to produce valuable insight and recommendations into the most efficient, economical, and environmentally friendly use of this ND resource.

**Recommendation: FUND**

## Reviewer G-58-03C

“Reducing the oil and gas industry's carbon footprint is a significant accomplishment, in and of itself. EOR utilization of carbon dioxide in the process has the potential to bring worldwide acclaim for ND's ingenuity. Capturing tank vapors using Polar Bear is another area of national interest. Its implications for EPA methane rules and environmental concerns are significant to the O&G industry's social license to operate within our state and nation.

**Recommendation: FUND**

# **Director's Recommendation:**

Fund in the amount of  
\$4,000,000 over 2 years.