

Large-Scale Hydrocarbon Gas Injection EOR Pilot to Inform Future CO2 EOR in the Bakken

Submitted by:

Chord Energy

Principal Investigator: Arvo Buck

- ☐ **Total Funding Request - \$13,998,200**
- ☐ **Total Project Costs - \$38,632,967**
- ☐ **Project Duration: 2 Years**

PROJECT DESCRIPTION

- The objective is to complete the necessary modifications to the originally planned EOR modeling and simulations, injection scheme design, operational planning, permitting, and reservoir surveillance to successfully transition from a purely CO₂ injectate stream to a hydrocarbon gas stream for a 20-month multiwell, multicycle EOR pilot.
- The EOR pilot will be located in the Indian Butte Area of the Bakken, McKenzie County, North Dakota. The proposed project intends to use pairs of wells for injection, oil production, and reservoir surveillance throughout the project. Additional offset wells will be monitored for production responses after injection commences. The two HnP wells along with the other four wells on the DSU pad are currently drilled and will be completed and put in production prior to the injection project commencing.
- Execution of the pilot test activities will help demonstrate a pathway towards commercial-scale deployment of Bakken EOR for hydrocarbon and CO₂ injectates.

TECHNICAL REVIEWERS' RATING SUMMARY

Statement	Weighting Factor	<u>TR G-62-L1</u>	<u>TR G-62-L2</u>	<u>TR G-62-L3</u>	<u>Average Weighted Score</u>
Objectives	9	4	4	4	36
Achievability	7	3	4	5	28
Methodology	8	4	3	4	24
Contribution	8	4	5	4	32
Awareness/ Background	5	5	3	4	20
Project Management	3	4	3	3	9
Equipment / Facilities	2	4	5	3	8
Value/Industry- Budget	4	4	5	4	16
Financial Match – Budget	4	5	5	5	20
<i>Average Weighted Score</i>		202	202	206	203
<i>Maximum Weighted Score</i>				250 possible points	

TECHNICAL REVIEWER TOTALS

- G-62-L1

Average Weighted Score: **202 out of 250**

FUNDING TO BE CONSIDERED

- G-62-L2

Average Weighted Score: **202 out of 250**

FUNDING TO BE CONSIDERED

- G-62-L3

Average Weighted Score: **206 out of 250**

FUND

TECHNICAL REVIEWER COMMENTS

Reviewer G-62-L1

This proposal is strategically important, bridging the gap between current hydrocarbon EOR and future CO₂ deployment. It leverages federal funding, aligns with NDIC's EOR initiative, and could unlock billions of barrels in the Bakken. The technical team is highly qualified, and the infrastructure plan is robust.

Recommendation: FUNDING TO BE CONSIDERED

TECHNICAL REVIEWER COMMENTS

Reviewer G-62-L2

Projects like the one Chord has proposed are needed to gain the necessary data, analyze the data, and modify in a way that becomes commercially viable across industry. With dwindling inventory for new drills across the United States unconventional plays, industry needs to move to the next phase and utilize an existing assets and infrastructure to increase oil recovery. This project does exactly that and uses a strong technical framework to lab test injectates to find most viable, model/simulate, and then test and monitor. The small flaws in the application/project were: 1.) not expanding on what has been done by industry to date in either the Bakken or the broader United States unconventional plays, which may or may not have altered the approach to the project and 2.) not fully laying out the huff n puff wells, location in DSU, and pattern in map detail.

Recommendation: FUNDING TO BE CONSIDERED

TECHNICAL REVIEWER COMMENTS

Reviewer G-62-L3

The applicant has the scalability to improve the probability of success with this project. The partner EERC has the knowledge and experience to increase the probability of success. The location of the proposed project creates some uncertainty regarding the location and availability of gas gathering, processing, and supply infrastructure in the area.

Recommendation: FUND

Director's Recommendation:

☐ Fund in the amount of \$13,298,290