

IHS ENERGY

Monthly Progress Report

CO2 EOR, Recovery Economics and Future Economic Impact

Reporting Period: February 1 – February 29, 2016

29 February 2016

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Summary of work performed

IHS conducted a WebEx presentation of the CO2 sources of supply and cost of sequestration and price of Co2 for EOR on February 9, 2016 before the North Dakota Legislature Taxation Committee.

The IHS team has been working on research related to scientific information of enhanced oil recovery. The work performed during the month of February focused on:

- Overview of CO2 EOR techniques and fundamentals
- Technical data review on CO2 EOR fields by compiling reservoir and operational data in Texas, Wyoming, North Dakota, and Montana – completed
- Potential CO2 EOR field screening in North Dakota by leveraging IHS proprietary databases with expertise of IHS Fekete reservoir engineers – completed
- EOR field evaluation and ranking (in progress)

The research to date has focused on the following IHS proprietary data/reports and sources of information:

- IHS Enerdeq database of oil and gas fields and production data in North America
- North Dakota Industrial Commission data on oil fields in North Dakota

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CO2 EOR, Recovery Economics and Future Economic Impact

Reporting Period: March 1 – March 30, 2016

30 March 2016

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Summary of work performed

The IHS team has been working on research related to scientific information of enhanced oil recovery and economic modeling of EOR activities. The work performed during the month of March focused on:

- Researched and analyzed data for production units to gather modeling assumptions and inputs
- Researched CO2 EOR costing methodologies
- Developed CO2 EOR cost model
- Developed financial model for CO2 EOR projects in North Dakota
- Developed additional methodologies and commercial assumptions
- Currently finalizing all model inputs
- Work in progress with regard to finalizing all model inputs
- Fiscal research and comparison for applicable EOR terms and incentives
- Analyzed reservoir conditions and filtered out reservoirs that would not perform well with CO2 injection or that are assumed to have small incremental reserves
- Reservoir simulations were completed for 15 production units that met the minimum criteria
- Work in progress towards finalizing presentations of assumptions and results

The research to date has focused on the following IHS proprietary data/reports and sources of information:

- IHS Enerdeq database of oil and gas fields and production data in North America
- North Dakota Industrial Commission data on oil fields in North Dakota
- IHS cost models
- IHS economic and fiscal models for upstream oil and gas activities

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