

BELL CREEK TEST SITE – 1 MILLION METRIC TONS INJECTED

Plains CO₂ Reduction (PCOR) Partnership Phase III Task 9 – Milestone M48

Prepared for:

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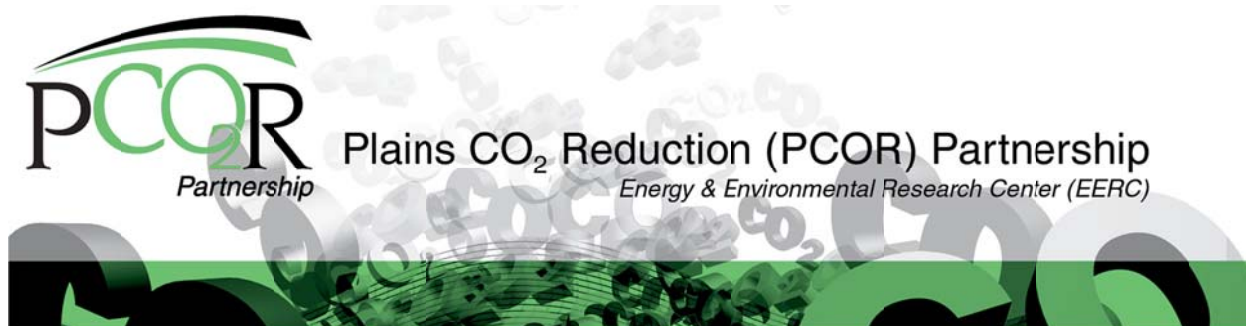
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BELL CREEK TEST SITE – 1 MILLION METRIC TONS INJECTED

BACKGROUND

The Plains CO₂ Reduction (PCOR) Partnership is one of seven Regional Carbon Sequestration Partnerships competitively awarded by the U.S. Department of Energy (DOE) National Energy Technology Laboratory in 2003 as part of a national plan to mitigate greenhouse gas emissions. The PCOR Partnership is led by the Energy & Environmental Research Center (EERC) at the University of North Dakota and includes stakeholders from the public and private sectors. The PCOR Partnership region includes all or part of nine U.S. states and four Canadian provinces.

Phase III, the development phase, is a 10-year effort (2007–2017) that extends the characterization (Phase I) and validation (Phase II) phases. The Phase III efforts of the PCOR Partnership include two large-volume demonstration tests, one in Canada (the Ft. Nelson project) and one in the United States (the Bell Creek project). The demonstration tests focus on injecting commercial-scale volumes of carbon dioxide (CO₂) into deep geologic formations for CO₂ storage.

Many different aspects of carbon capture and storage will be evaluated during the demonstrations, ranging from CO₂ capture, compression, and pipeline transport to injection; recycle; and monitoring, verification, and accounting.

1 MILLION METRIC TONS INJECTED AS OF JULY 1, 2014

The PCOR Partnership, led by the EERC, is working with Denbury Onshore LLC (Denbury) to study CO₂ storage associated with a commercial enhanced oil recovery (EOR) project at the Denbury-operated Bell Creek oil field located in southeastern Montana. Denbury is managing all injection, production, and recycle activities as part of its commercial CO₂ EOR operation. The EERC, through the PCOR Partnership, is studying the behavior of reservoir fluids and injected CO₂ to demonstrate safe and effective storage of CO₂ associated with a commercial EOR project. The PCOR Partnership is developing practices and technologies that will allow future commercial-scale CO₂ storage projects to make informed decisions regarding site selection, injection programs, operations, and monitoring strategies that maximize storage efficiency and effective storage capacity in clastic geologic formations.

Denbury is developing the Bell Creek oil field in a phased approach, with each development phase corresponding to approximately 12 months of injection before the next

development phase is brought online. Continuous CO₂ injection has been occurring at the Bell Creek oil field since May of 2013, primarily in the Phase 1 development area. Currently, active injection is expanded into the Phase 2 development area. The amount of injected CO₂ is being reported to the Montana Board of Oil & Gas (MBOG) by Denbury on a monthly basis.

This milestone marks that 1,000,000 metric tons of CO₂ were injected at the Bell Creek oil field as of July 1, 2014. The CO₂ is sourced from the Lost Cabin gas-processing facility, which processes gas from the Madden Field in the Wind River of Wyoming, and the Shute Creek gas-processing facility, which processes gas from the LaBarge Field in the Green River Basin of Wyoming. Current reported MBOG injection totals are 1,247,174 metric tons of CO₂ from 40 wells at the Bell Creek oil field as of August 2014. Subsequent monthly injection totals will be reported to DOE as part of the PCOR Partnership's regular quarterly reporting once the data become available. There is approximately a 2-month delay between when data are supplied to MBOG and when they are made publically available.

Attached in Appendix A is a letter dated September 24, 2014, which announced the last reported CO₂ injection totals (through July 31, 2014) to the DOE Project Manager.

APPENDIX A

CO₂ INJECTION TOTALS



EERC

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September 24, 2014

Dr. Andrea Dunn
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Dear Andrea:

Subject: Carbon Dioxide (CO₂) Injection Totals

Denbury Resources, Inc., in collaboration with the Plains CO₂ Reduction (PCOR) Partnership, initiated injection of CO₂ into the Bell Creek Field in the Powder River Basin in southeastern Montana to demonstrate CO₂ storage associated with commercial CO₂ enhanced oil recovery in May 2013. The project has injected **1,123,341** metric tons of CO₂ into the Muddy Sandstone as of July 31, 2014. The CO₂ is sourced from the Lost Cabin gas-processing facility, which processes gas from the Madden Field in the Wind River Basin of Wyoming, and the Shute Creek gas-processing facility, which processes gas from the LaBarge Field in the Green River Basin of Wyoming. CO₂ is delivered to the Bell Creek Field via the 232-mile Greencore Pipeline and a tie-in from the Anadarko Pipeline.

If you have any questions regarding the injection of CO₂, please contact me by telephone at (701) 777-5355 or by e-mail at cgorecki@undeerc.org.

Sincerely,

Charles D. Gorecki
Senior Research Manager
PCOR Partnership Program Manager

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