



**Plains CO₂ Reduction (PCOR) Partnership Monthly Update
May 1–31, 2007**

Task 1 – Project Management and Reporting (Edward N. Steadman/John A. Harju)

Highlights

- 3rd Annual Carbon Capture and Transportation Working Group Workshop information released on May 18, 2007.

Travel/Meetings

- April 29–May 1, 2007: Williston Basin Symposium in Regina, Saskatchewan.
- May 6–8, 2007: Interstate Oil and Gas Compact Commission (IOGCC) Conference in Point Clear, Alabama.
- May 22, 2007: Met with Lignite Energy Council and regional utility companies to discuss Phase III in Bismarck, North Dakota.
- June 10–15, 2007: 32nd International Technical Conference on Coal Utilization & Fuel Systems in Clearwater, Florida.
- September 10–14, 2007: 24th Pittsburgh Coal Conference in Johannesburg, South Africa.
- September 24–26, 2007: Air Quality VI in Arlington, Virginia.
- October 14–17, 2007: Gasification Technologies Council in San Francisco, California.

Task 2 – Field Validation Test at Beaver Lodge, North Dakota (James A. Sorensen)

Highlights

- Met with representatives of Hess Corporation regarding plans to conduct CO₂ injection activities in the Beaver Lodge field.
- A draft preliminary report was prepared on the results of the evaluation of Class II injection well data from North Dakota, South Dakota, Montana, Nebraska, Wyoming, and Iowa. Final report on the Class II well evaluation activities is due at the end of September, 2007.

Travel/Meetings

- April 29–May 2, 2007: Williston Basin Petroleum Conference in Regina, Saskatchewan.
- May 2, 2007: Participated in Western Canada Sedimentary Basin Working Group meeting, in Regina, Saskatchewan. Meeting was hosted by Saskatchewan Industry & Resources Petroleum Geology Branch and included representatives from the geologic surveys of Manitoba, Alberta, British Columbia, Yukon Territory, and Northwest Territory, as well as representatives from the Geologic Survey of Canada.

Task 3 – Field Validation Test at Zama, Alberta (Steven A. Smith)

Highlights

- Preparing for June 7 quarterly meeting in Calgary, Alberta, Canada.

- Received the following reports for Zama activities (draft form):
 - Experimental Study of CO₂ and H₂S Partitioning in a Brine-Saturated Porous Medium.
 - Evaluation of Zama Field Wellbore Integrity Part I & II.
 - Reservoir Condition CO₂ Brine Drainage and Imbibition Relative Permeability Displacement Characteristics in the Zama Area, Muskeg Anhydrite Formation (Caprock).
 - Uniaxial, Triaxial and Elastic Properties Determinations on Samples from the Zama Field, Northwest Alberta.

Travel/Meetings

- April 29–May 1, 2007: Williston Basin Symposium in Regina, Saskatchewan, Canada.
- May 2, 2007: Presented to the Western Canada Sedimentary Basin Working group on Zama Activities in Regina, Saskatchewan, Canada.
- May 7–10, 2007: Presented at the Sixth Annual Conference on Carbon Capture & Sequestration in Pittsburgh, Pennsylvania.
- June 5–8: Zama Quarterly Meeting in Calgary, Alberta, Canada.

Task 4 – Field Validation Test of Lignite Coal in North Dakota (Lisa S. Botnen)

Highlights

- Three well site locations were resurveyed to better accommodate testing procedures.
- Drilling permits were filed and approved by the state.
- The applicability of various MMV technologies (tiltmeter survey, gravity survey, tracer study, and seismic survey) to the lignite test continues to be researched and evaluated.
- Baseline characterization is continuing.
- Agreements are being finalized with various service providers, including those completing various field tests and logging services.
- Discussions are continuing with Eagle Operating Inc. with regard to the logistics of the project and potential start dates. Their agreement is being finalized.
- The cementing and perfing proposals were finalized.
- The punch list for the field validation test has been updated.
- Meeting was held at the site with the State Land Department to go over the experimental design and drilling plans.
- Plan to meet with local officials in Burke County, North Dakota, to provide them with more details regarding the research project.
- Drilling is anticipated for mid-to-late June.

Travel/Meetings

- May 7–11, 2007: Presented a poster on the lignite task at the Carbon Sequestration Conference in Pittsburgh, Pennsylvania.
- Trip to field site to supervise pad construction and drilling.

Task 5 – Terrestrial Validation Test (Barry W. Botnen)

Highlights

- Continued wetland sampling at South Dakota sites (initiated late March 2007).
 - Completed three sample events to date.

- Established photo stations for each treatment.
- Grazing study underway (May 1, 2007).
- Vegetation study currently underway.
- Currently analyzing grassland samples from 2006.
- 2007 grassland sampling will commence in June 2007 for two sites in South Dakota and one in Minnesota.
- Continue to refine the business requirements document for the carbon-tracking database.
- Continue to refine the first draft of the Best Management Practices fact sheet.
- Continue to further develop business flow processes:
 - Completed prospectus for grassland carbon offset sale in the Prairie Pothole Region.
 - Completed Carbon sequestration fact sheet for investors.
 - Initiated evaluation of state and regional greenhouse gases or cap and trade programs.
 - Completed private carbon/easement document.
 - Prepared a draft landowner agreement document for carbon marketing.
 - Prepared a draft legal document to transfer carbon rights from landowner to aggregator.
 - Completed business model and term sheet for packaged carbon offsets.
- Review of U.S. Department of Energy (DOE) technical guidelines (1605b) ongoing.
- Continue to update Ducks Unlimited (DU), Inc. /PCOR terrestrial project Web site.
- Working with all partners on Phase III opportunities.
- Working on characterization inputs and the terrestrial portion of the decision support system (DSS).
- Continue to conduct presentations on terrestrial carbon sequestration at a variety of meetings and conferences.

Travel/Meetings

- June 2007: Meeting with DU in Bismarck, North Dakota.
- June 2007: Traveling to sampling site in South Dakota.

Task 6 – Continued Characterization of Regional Sequestration Opportunities **(Erin M. O’Leary)**

Highlights

Characterization

- Continued working on correlation of key stratigraphic horizons in the greater Washburn, North Dakota, area. The new data will soon be input into the database used by the Petra software.
 - Three cross sections were produced. These cross sections are needed to complete the stratigraphic correlations.
- Fine-tuning the gas analysis DSS site.
- Making plans for central data storage of the neurolog/Petra output.
- The North Dakota Industrial Commission sent two spreadsheets containing information regarding pool and oil field production statistics. These data are part of an update activity to get more recent information into the DSS.
- Continued working on design changes to the gas analysis application. A page displaying a graphical representation of gas analysis data is now functional.

Class II Wells Project

- All maps of target and sealing formations in Nebraska and Wyoming are completed for Class II Wells study.

DSS

- Continued working on the capture technology information within the DSS.
- Updated presentations, memberships, etc.
- Attempting to install the latest version
- The gas analysis Web/GIS site is ready to be reviewed internally.
- Working on getting the Spatial Database Engine/Environmental Systems Research Institute products set up on the new server.

Other

- A draft copy of the second edition of the PCOR Partnership Regional Atlas is being reviewed internally.

Travel/Meetings

- May 7–10, 2007: Sixth Annual Conference on Carbon Capture & Sequestration in Pittsburgh, Pennsylvania.
- June 18–22, 2007: Attend the ESRI conference in San Diego, California.

Task 7 – Research, Safety, Regulatory, and Permitting Issues (Lisa S. Botnen)

Highlights

- The IOGCC meeting in Alabama was attended by the Energy & Environmental Research Center (EERC) Associate Director John Harju.
- Continued writing an analysis of carbon market strategies.
- Submitted the drilling permits for the Lignite Field Validation Test.
- Continued to follow legislative actions occurring in Congress.
- Began an assessment of the process of the Regional Greenhouse Gas Initiative states.
- Continued review of recent publications relating to regulating CO₂ sequestration and MMV issues.

Travel/Meetings

- May 21–23, 2007: Carbon Finance and Investment Summit in New York, New York.

Task 8 – Public Outreach and Education (Daniel J. Daly)

Highlights

Videos

- Completed rewrite of the carbon market script.
- Received a copy of the Blue Source, LLC, interview on DVD from Prairie Public Television and reviewed for pertinent quotes.
- Talked with WestCarb to set up filming of the terrestrial projects in California.

Fact Sheet 10

- Field Validation Test of Lignite Coal in North Dakota Fact Sheet sent to DOE on May 31, 2007.

Outreach Working Group

- Reviewed a final PowerPoint that was presented by Sarah Wade at the Pittsburgh meeting.

Travel/Meetings

- Nothing to note at this time.

Task 9 – Identification of Commercially Available Sequestration Techniques Ready for Large-Scale Deployment (Melanie D. Jensen/Michael L. Jones)Highlights

- Discussed CO₂ capture and sequestration with Bharat Heavy Electricals Ltd. in India.

Web site

- Reviewed a portion of the CO₂ capture Web page that will be added to the PCOR Partnership DSS Web site.

Working Group Meeting

- To be held at the EERC June 18–20, Grand Forks, North Dakota.
 - Working with Dakota Gasification Company personnel to facilitate the group tour that will take place on June 18, 2007.

Travel/Meetings

- Nothing to note at this time.

Task 10 – Regional Partnership Program Integration (Edward N. Steadman)Highlights

- Conference call conducted on May 23, 2007, to discuss coordination of EERC and National Energy Technology Laboratory for the analysis of Williston Basin lignite core. More details will develop once drilling begins.
- Carbon Sequestration Leadership Forum recognized Zama Project. An e-mail blast to send to PCOR Partnership partners is in internal review. Once completed, we will also place on the PCOR Partnership public Web site.
- Received notice of 2007 Carbon Sequestration Peer Review due to DOE on July 27, 2006.

Travel/Meetings

- June 19–20, 2007: Capture working group meeting at the EERC in Grand Forks, North Dakota.
- September 17–20, 2007: Peer Review of the CS Program in Pittsburgh, Pennsylvania.
- Formulating details on the 2007 PCOR Partnership Annual Meeting for October 18 and 19, 2007. Location will be at the EERC in Grand Forks, North Dakota.