Plains CO<sub>2</sub> Reduction (PCOR) Partnership Monthly Update November 1–30, 2007

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

## Highlights

- Completed draft Phase III Project Management Plan on November 30, 2007.
- Added new section to presentations link on PCOR Partnership private Web site. The new section includes poster presentations in addition to the PowerPoint presentations that are currently located on the site.
- Completed PCOR Partnership 2007 Annual Meeting summary. The summary is currently available on the public and private Web site.
- Completed the PCOR Partnership Task 9 Best Practice Manual: Excelsior Energy on November 30, 2007.

# Travel/Meetings

- November 7–9, 2007: Clean Power in the West Summit in San Francisco, California
- November 11–14, 2007: Society of Petroleum Engineers (SPE) Annual Technical Conference in Anaheim, California
- November 14–16, 2007: Carbon Reduction Project Development and Finance in Houston, Texas
- December 11–13, 2007: POWER-GEN International in New Orleans, Louisiana
- January 23–31, 2008: Energy Generation Conference in Bismarck, North Dakota
- January 24–25, 2008: Platts Carbon Trading Conference in Houston, Texas
- January 27–30, 2008: 11th Annual Conference on Clean Air, Mercury, Global Warming, and Renewable Energy in Tucson, Arizona
- April 6–10, 2008: 235th American Chemical Society National Meeting (Advances in CO<sub>2</sub> Management: CO<sub>2</sub> Sequestration, Utilization, Capture, and Enhanced Oil Recovery) in New Orleans, Louisiana
- June 29 July 2, 2008: 4th International Symposium on Energy, Informatics, and Cybernetics: EIC 2008 in Orlando, Florida
- August 13–15, 2007: Coal-Gen in Louisville, Kentucky
- November 16–20, 2008: Greenhouse Gas Technology Conference (GHGT-9) in Washington, D.C.

# Task 2 – Field Validation Test at a Williston Basin Oil Field, North Dakota (James A. Sorensen)

#### Highlights

• Continued evaluation of oil fields in Williston Basin that may be suitable candidates to host the Task 2 injection and monitoring, mitigation, and verification (MMV) activities. Efforts

are focused on developing baseline characterization data for fields in the Cedar Creek Anticline area, the Billings Anticline–Dickinson area, and along the Nesson Anticline.

## Travel/Meetings

- December 18, 2007: Schlumberger Model Training in Denver, Colorado
- December 12–14, 2007: Regional Carbon Sequestration Review Meeting in Pittsburgh, Pennsylvania

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

## **Highlights**

- Participated in Greenhouse Gas Monitoring Network Meeting in Edmonton, Alberta. Presented an overview of the monitoring program and current status of the Zama project.
- Attended SPE Technical Conference in Anaheim, California.

## Travel/Meetings

- April 20–23, 2008: American Association of Petroleum Geologists in San Antonio, Texas
- April 30–May 1, 2008: Carbon Capture and Storage in Houston, Texas

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

## **Highlights**

- Geophysical logs of 38 wells were identified, and the logs have been processed.
- Three cross sections in the vicinity of the Burke County test site have been correlated.
- The correlated results have been summarized for the integration into ArcGIS.
- Two major coal seams have been traced throughout the study area.
- Water and pressure level data in the five wells have been collected.
- A conference call was held with North Dakota state geologist and North Dakota Oil and Gas Division to discuss a variety of possible field-scale experiments for the test site.
- Plans for additional field-scale experiments are under development and will be finalized as collected data are analyzed and interpreted. Weather permitting, a small pressure test may be conducted before hard winter sets in.
- Core analysis and log interpretation by Terratek and Schlumberger are nearing completion.
- Model development and baseline characterization are continuing.
- 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.
- CO<sub>2</sub> sources for injection have been contacted, and various delivery methods are being evaluated.

## **Travel/Meetings**

• To be determined: Denver, Colorado, to observe Schlumberger and Terratek processing of data collected in the field.

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

## Highlights

- Completed 2007 grassland and wetland sampling efforts at North Dakota and South Dakota sites; samples are currently being prepared for analysis. Grassland samples from 2006 have been analyzed, and the results are available.
- Evaluating other state and regional greenhouse gas or cap-and-trade program rules and policies and Guidelines for Aggregators and Terrestrial Offset Providers.
- Documents have been developed to answer potential grassland carbon sequestration investor questions on issues such as leakage and, additionally, biotic values of the Prairie Pothole Region, emission offsets because of tillage practices, and sequestration rates. These documents will be presented as fact sheets.
- Continuing to update the Ducks Unlimited, Inc. and PCOR Partnership terrestrial project Web site.
- Working on characterization inputs and the terrestrial portion of the Decision Support System (DSS, © 2007 EERC Foundation).

## Travel/Meetings

• Nothing to note at this time.

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

## Highlights

#### Characterization

- New images and statistics on sources were reviewed and completed. The new total of industrial sources in the region is 1546, with an annual emission amount of 583,212,915 tons.
- Started working on Class II Injection Well Report.
- The Broom Creek Formation has been assessed in Petrel and will be integrated into the geographic information (GIS) system format to be posted on the DSS.
- Currently working on philosophies and project plans related to GIS for Phase II.

## Gas Analysis Web Site

• Draft version of the gas analysis Web site to be ready December 2007.

#### DSS

- First steps taken to convert DSS Web site into the new .NET framework
- Updated DSS with monthly reports and presentations.
- Troubleshooting issues with Zama Zone file size.
- Resolved issues related to the Environmental Systems Research Institute, Inc., Service Pack 3 installation on the GIS server.

## Travel/Meetings

• December 12–14, 2007: Regional Carbon Sequestration Review Meeting in Pittsburgh, Pennsylvania

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

## Highlights

- Began development of permitting flowchart for PCOR Partnership Phase II Field Validation Tests.
- Continue to follow the developments of various state and regional initiatives, and completed an update of internal documents that outline these groups.
- Continued analysis of carbon market strategies.
- Continued to follow legislative actions occurring in Congress.
- Continued review of recent publications relating to regulating CO<sub>2</sub> sequestration and MMV issues.

## Travel/Meetings

• Nothing to note at this time.

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

## **Highlights**

#### **Documentaries**

- Comments were received from the Department of Energy (DOE) on the Carbon Market Video. These comments will be reviewed and addressed appropriately.
- Terrestrial video raw footage has been reviewed and is being pulled together in appropriate segments.

#### Public Web Site

• A hard copy of the Web site is being compiled for future updates.

#### Fact Sheet 12

• DOE has approved the document. Currently finishing internal reviews before it is placed on the PCOR Partnership Web site.

#### Travel/Meetings

 December 12–14, 2007: Regional Carbon Sequestration Review Meeting in Pittsburgh, Pennsylvania

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

## Highlights

• Finalized report describing the methodology used to determine source emission rates in the PCOR Partnership region.

## **Travel/Meetings**

- December 3–5, 2007: Carbon Capture Status and Outlook Conference in Washington, D.C.
- December 12–14, 2007: Regional Carbon Sequestration Review Meeting in Pittsburgh, Pennsylvania

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

# **Highlights**

- The PCOR Partnership Phase II Field Validation Test summaries are being revised for the private Web site and will be available in December 2007.
- Currently working on two posters for the Regional Carbon Sequestration Review Meeting December 12–14, 2007. The first poster will give overviews on Phase II and III activities, and the second poster will focus on the Zama Field Validation Test.
- On November 30, 2007 completed fact sheets for the Regional Carbon Sequestration Review Meeting December 12–14, 2007.

## Travel/Meetings

- December 12–14, 2007: Regional Carbon Sequestration Review Meeting in Pittsburgh, Pennsylvania
- November 16–20, 2008: Greenhouse Gas Technology Conference (GHGT-9) in Washington, D.C.