



## **Plains CO<sub>2</sub> Reduction (PCOR) Partnership Monthly Update January 1–31, 2007**

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

#### **Highlights**

- Updated presentations for October–December 2006 on the private Web site.
- PCOR Partnership Phase II now has 62 partners:
  - Westmoreland Coal Company joined Phase II on January 5, 2007.
  - Shell Canada Limited joined Phase II on January 8, 2007.
- Added the northeastern corner of British Columbia, Canada, to the maps depicting the PCOR Partnership region.

#### **Travel/Meetings**

- January 17–18, 2007: attended North America and the Carbon Markets in Washington D.C.
- January 21–24, 2007: Presented the PCOR Partnership Overview at Electric Utilities Environmental Conference in Tucson, Arizona.
- January 24, 2007: attended the Ground Water Protection Council Regulatory Workshop on Geologic Sequestration of CO<sub>2</sub> in San Antonio, Texas.
- March 7, 2007: Capture and Transportation Model Seminar in Pittsburgh, Pennsylvania.
- Formulating details on 2007 PCOR Partnership Annual Meeting. No dates have been determined. Location will be the Energy & Environmental Research Center (EERC), Grand Forks, North Dakota.

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

#### **Highlights**

- Draft Experimental Design Package and National Environmental Policy Act (NEPA) document for the Beaver Lodge demonstration was prepared.
- Results from the EERC's initial laboratory experiments to evaluate rock–water–CO<sub>2</sub> interactions were completed, and a preparation of a report on those activities and results was initiated.
- Continued gathering baseline information on the Beaver Lodge Duperow Unit.

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

#### **Highlights**

- Zama has continued to inject over the past 2 weeks. Doug Nimchuck (Apache Canada, Ltd.) is reviewing the rates and will begin evaluating incremental production.
- Began setting up meeting schedule for Zama task in 2007. Tentative meeting times are for March (Calgary), June (Zama), October (Grand Forks, EERC, to coincide with the annual PCOR Partnership meeting).

- Profiling Keg River and Muskeg rock properties.
- No significant reservoir-related problems apparent to date.

#### Travel/Meetings

- March 6–8, 2007: Calgary for Zama Meeting.
- March 31–April 4, 2007: American Association of Petroleum Geologist Conference in Long Beach, California.
- May 7–10, 2007: Sixth Annual Conference on Carbon Capture & Sequestration in Pittsburgh, Pennsylvania.

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

#### Highlights

- The model for simulation of injection/production from lignite in Burke County is under development. Additional inputs for this model will come from logging that will be completed once the wells are drilled.
- Drilling prognosis is being completed for drilling this spring.

#### Travel/Meetings

- Field site visit sometime this spring.

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

#### Highlights

#### **North Dakota State University (NDSU)**

- Larry Cihacek (NDSU) presented Hettinger results (Phase I) at SSSA Annual Meetings in November 2006.
- Sheridan County soil samples are being analyzed by Larry Cihacek.
  - Plans to sample three areas in May/June 2007 (South Dakota, Iowa, and Minnesota).
  - Plans to complete evaluation of the century model by January 31. Larry started with the COMET-VR model.
- *Fact Sheets*. Two draft Fact Sheets have been circulated for review: 1) Cobenefits of Terrestrial Sequestration and 2) Best Management Practices for Sequestering Carbon. Final documents anticipated by February.
- *Grassland Loss Risk Model*. Grasslands are under high threat of conversion to cropland which builds the case for additionality via preservation. The risk is estimated to be approximately 78% based on spatial and economic risk assessment models.
- *Coordination Meeting*. A meeting was held with EERC, Ducks Unlimited, Inc. (DU), U.S. Geological Survey, and NDSU to coordinate the plans for the 2007 field season. Study sites, landowner contacts, data collection, and a review of the 2006 field season were discussed.
- *Outreach*. Meetings were held with NWF, TNC, Edison Electric and API to discuss recent policy developments, carbon market activity, terrestrial offset programs, and to present aggregated grassland offsets to potential investors using recent research on business models.
- *Outreach*. Article published in Ecosystem Marketplace.

#### Travel/Meetings

- January 30, 2007: Meet with DU in Bismarck, North Dakota.

- February 2007: Meeting at the Goebel Ranch, South Dakota.

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

#### **Highlights**

- Revised PCOR Atlas is in for internal review.
- Updating the maps for the National Atlas.
- Continued working on the PCOR Partnership Gas Analysis Web site – Spatial Database Engine (SDE) view development and Javascript coding for SDE queries.
- New contacts were added to all PCOR Partnership sites
  - Westmoreland Coal Company, British Columbia Ministry of Energy and Mines, Shell Canada Ltd.
- British Columbia sources have been included in the decision support system (DSS).
- Added the measuring tool and moved the scale bar to the left on the DSS.

#### **Travel/Meetings**

- February 2007: attending the Environmental Systems Research Institute Petroleum Users Group annual meeting in Houston, Texas. There is no registration fee for this event.

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

#### **Highlights**

- Completed NEPA for Beaver Lodge Field Validation Test.
- Began work on site health and safety plan (SHSP) and Regulatory Permitting Action Plan (RPAP) for Lignite Field Validation Test.

#### **Travel/Meetings**

- January 17–18, 2007: Point Carbon North American Carbon Markets Conference in Washington, D.C.
- January 23–25, 2007: CO<sub>2</sub> Sequestration Workshop at the Ground Water Protection Council’s 2007 UIC Conference in San Antonio, Texas.

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

#### **Highlights**

- Prepared a draft treatment of the terrestrial video.
- Outreach Booth due to National Energy Technology Laboratory (NETL) by April 30, 2007. Booth is something that can serve multiple audiences, both for public and for the U.S. Department of Energy, etc., functions, or could be focused for just the public.
- PowerPoint due to NETL by February 28, 2007.

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

#### **Highlights**

- Completed the Task 9 milestone chart for the October–December 2006 quarter.

#### Travel/Meetings

- May 7–10, 2007: Attend the “2007 Carbon Capture & Sequestration Conference” in Pittsburgh, Pennsylvania.

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

#### Highlights

- Sent Ivan G. Krapac (MGSC partnership – Illinois State Geological Survey) information regarding the monitoring, mitigation, and verification techniques being implemented by the PCOR Partnership. Ivan is presenting at the Ground Water Protection Council Meeting in San Antonio, Texas, on January 24, 2007.

#### Travel/Meetings

- July 15–20, 2007: Carbon 2007 – American Carbon Society Conference, Seattle, Washington.
- September 10–14, 2007: 24th Pittsburgh Coal Conference, Johannesburg, South Africa.