



## **Plains CO<sub>2</sub> Reduction (PCOR) Partnership Monthly Update October 1–31, 2010**

### **PHASE III ACTIVITIES**

#### **Task 1 – Regional Characterization (Wesley D. Peck)**

##### **Highlights**

- Attended the 2010 Regional Carbon Sequestration Partnership (RCSP) Annual Review Meeting in Pittsburgh, Pennsylvania, and participated in a geographic information system (GIS) working group side meeting and a Fort Nelson carbon capture and storage (CCS) Feasibility Project dinner meeting.
- Participated in the 2010 PCOR Partnership Annual Meeting and Workshop held October 19–21, 2010, in Minneapolis, Minnesota, including presenting an update on the Decision Support System (DSS, © 2007–2010 EERC Foundation) and awarding the 2nd Annual DSS User of the Year award.
- Continued characterization and modeling efforts of the Rival oil field in north-central North Dakota with respect to enhanced oil recovery (EOR)-based CO<sub>2</sub> storage.
- Submitted updated data and images to the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) and NATCARB (the NATIONAL CARBOn Sequestration Database and Geographic Information System) for the upcoming third edition of the DOE NETL carbon sequestration atlas.
- Continued planning efforts and development of ideas and new maps for a revised PCOR Partnership Atlas, 4th Edition, due next September.
- Bad weather prevented attendance at the Basal Cambrian Aquifer Kickoff Meeting in Edmonton, Alberta, Canada, on October 28; however, work plans are under development for project initiation.
- Continued efforts to add a new page to the partners-only DSS housing the results and presentations from the annual meeting.
- Efforts conducted as part of the continuing work at the Zama, Alberta, Canada, field site included the following:
  - Continued efforts on the interpretation of facies distribution, reservoir geometry, and geo-statistical distributions for the static modeling being conducted.
  - Finalized the planning and scheduling of the wellbore integrity laboratory experiments.
  - Requested samples of cap rock and wellbore cements to carry out laboratory activities.

## **Task 2 – Public Outreach and Education (Daniel J. Daly)**

### Highlights

- A poster entitled “Outreach Best Practices: A Practical Foundation for the Future” was prepared and presented on behalf of the RCSP Outreach Working Group at the RCSP Annual Review Meeting in Pittsburgh.
- Provided verbal and written comments on the World Resources Institute’s draft final 105-page document entitled “Guidelines for CCS Outreach.”
- Coordinated and participated in the Carbon Capture and Storage (CCS) Project Development Workshop (featuring the I-Wheel®) held on the afternoon of October 19 in Minneapolis, Minnesota.
- The new documentary entitled “Global Energy and Carbon: Tracking Our Footprint” premiered on Prairie Public Broadcasting (PPB) on October 18, 2010. Both an Energy & Environmental Research Center (EERC) press release and an e-mail announcement to the PCOR Partnership partners were prepared and distributed.
- On October 22, the EERC Marketing Research Manager attended the annual Education Minnesota Professional Conference in downtown St. Paul, Minnesota, as part of an ongoing effort to develop strategies for education outreach across the region.
- Discussed development of a GIS-based system to aid in planning for outreach and technical activities with a representative of the Indian Land Tenure Foundation.
- Discussed the possibility of using PCOR Partnership documentary materials in national-level outreach activities with the American Coalition for Clean Coal Electricity.
- Provided documentary video materials for use by Swedish Television in its segment on CCS featuring Biorecro.
- Participated in discussions with Spectra Energy regarding collaborative outreach activities at the Fort Nelson site.

## **Task 3 – Permitting and NEPA (National Environmental Policy Act) Compliance (Lisa S. Botnen)**

### Highlights

- Attended and presented on North Dakota’s framework for CCS at the 6th Annual Clean Carbon Policy Summit & Project in Austin, Texas.
- Attended and participated in the 2010 PCOR Partnership Annual Meeting and Workshop in Minneapolis, Minnesota.
- At the annual meeting, prepared and distributed a handout entitled “Regulatory Roundup,” covering U.S. Environmental Protection Agency activities, the U.S. Presidential Interagency Task Force on CCS, and general regulatory activity throughout the PCOR Partnership region.
- Completed review and provided comments on the Interstate Oil and Gas Compact Commission (IOGCC) Pipeline Transportation Task Force report.
- Participated in a conference call of North Dakota’s CO<sub>2</sub> Storage Work Group/Task Force to discuss the upcoming legislative session in North Dakota.
- Participated in a Webinar sponsored by the North Dakota Pipeline Authority covering North Dakota’s regulatory requirements for pipelines.
- Completed review of the RCSP Sim/Risk best practices manual.

- Initiated review of Craig Hart’s paper on Phase III of the RCSP Program, including financial, legal, and regulatory barriers.
- Coordinated a conference call with IOGCC staff to discuss regulatory communication issues.

#### **Task 4 – Site Characterization and Modeling (James A. Sorensen)**

##### Highlights

- Attended and presented at a meeting with Denbury Resources on October 13 in Plano, Texas.
- Attended and participated in the PCOR Partnership Annual Meeting and Workshop in Minneapolis, Minnesota, including copresenting with Spectra Energy an update on the Fort Nelson CCS Feasibility Project.
- Completed planning and scheduling of new laboratory experiments to determine the effects of injection on reservoir rock samples from the Fort Nelson exploratory well.
- Participated in a conference call on October 28 with Spectra Energy personnel regarding ongoing activities at the Fort Nelson site, in northeastern British Columbia, Canada.
- Completed the geomechanical work plan (D87) for the Bell Creek CCS project.

#### **Task 5 – Well Drilling and Completion (Steven A. Smith)**

##### Highlights

- As part of the monitoring, verification, and accounting (MVA) planning, samples analogous to the Muddy Sandstone (the reservoir at Bell Creek) have been obtained and examined for petrophysical and geochemical attributes. These activities will aid in the design and selection of appropriate MVA technologies utilized at the site.

#### **Task 6 – Infrastructure Development (Melanie D. Jensen)**

##### Highlights

- Attended and participated in the 2010 PCOR Partnership Annual Meeting and Workshop held in Minneapolis, Minnesota.
- Provided a desk copy of the draft “Current Status of CO<sub>2</sub> Capture Technology Development and Application” for partners’ review at the annual meeting.
- Statistics (such as the percentages for each CO<sub>2</sub> source type) were performed on the recently updated master sources spreadsheet.
- Responded to a partner’s request for information about CCS costs.

#### **Task 7 – CO<sub>2</sub> Procurement (John A. Harju)**

##### Highlights

- Continued discussions with Phase III demonstration partners. We are working toward securing a cost-share agreement with Denbury Resources.

## **Task 8 – Transportation and Injection Operations (Steven A. Smith)**

### Highlights

- Attended and participated in the PCOR Partnership Annual Meeting and Workshop in Minneapolis, Minnesota, and engaged in discussions with industry partners and subcontractors.

## **Task 9 – Operational Monitoring and Modeling (Charles D. Gorecki)**

### Highlights

- Attended the 2010 RCSP Annual Review Meeting in Pittsburgh, Pennsylvania, including participation in the RCSP Sim/Risk Working Group side meeting and a dinner meeting with Spectra Energy to discuss the Fort Nelson CCS Feasibility Project.
- Completed the base case simulation on the June 2010 Fort Nelson Geologic Model, and initiated running variations on the model.
- Attended and presented at the meeting with Denbury Resources held October 13 in Plano, Texas.
- Participated in several planning meetings on the Bell Creek Project and continued preparation for the data transfer.
- Presented on both the Bell Creek CO<sub>2</sub> EOR and Fort Nelson CCS projects at the PCOR Partnership Annual Meeting in Minneapolis on October 21, 2010.
- Participated in the October 28 monthly conference call with Spectra Energy including discussions on the upcoming and ongoing laboratory, simulation, and field activities.
- Began working on rough history match of the Fort Nelson A and B gas pools to gain a better understanding of the system and improve the property distribution.
- Risk management activities continued, including the following:
  - Reviewed the project management plan of the DOE NETL National Risk Assessment Partnership.
  - Developed a preliminary document outlining the next steps for the risk assessment for the Fort Nelson project.

## **Task 10 – Site Closure (to be announced [TBA])**

- This task is anticipated to be initiated in Quarter 1 – Budget Period (BP) 5, Year 9 (October 2015).

## **Task 11 – Postinjection Monitoring and Modeling (TBA)**

- This task is anticipated to be initiated in Quarter 1 – BP5, Year 9 (October 2015).

## **Task 12 – Project Assessment (Katherine K. Anagnost)**

### Highlights

- Nothing to note at this time. The next project assessment report is due December 31, 2010.

### **Task 13 – Project Management (Edward N. Steadman)**

#### Highlights

- Presented an update on the PCOR Partnership at the RCSP Annual Review Meeting in Pittsburgh and participated in several side meetings including discussions on the Bell Creek project and Fort Nelson project.
- Presented an overview of PCOR Partnership efforts and abilities to Denbury Resources on October 13 in Plano, Texas.
- Completed a survey on Phase III projects for the National Coal Council.
- Participated on October 27 in the monthly conference call with Spectra Energy and transmitted minutes and an updated action item listing to the team.
- Updated the current status of PCOR Partnership activities on the 2008 Peer Review document and transmitted the same to DOE NETL on October 27.
- Continued planning for the December quarterly Fort Nelson project update meeting at Spectra's headquarters in Calgary.
- Continued to review various methodologies for the development of a PCOR Partnership programmatic risk assessment.
- Continued efforts on the update to the PMP.
- Reviewed a draft Fossil Energy Techline regarding the Lignite project and forwarded comments to DOE.
- Hosted the annual meeting and workshop, which attracted 74 attendees representing 45 organizations from 16 states, the District of Columbia, and four Canadian provinces.
- Deliverables and milestones for October:
  - September monthly update
  - Task 4: D87: Bell Creek test site – geomechanical experimental design package
  - Task 13: D58/59: quarterly progress report/milestone quarterly report

### **Task 14 – RCSP Water Working Group Coordination (Charles D. Gorecki)**

#### Highlights

- Held the monthly conference call for the Water Working Group (WWG) on October 26, during which the due dates were set for the road-mapping document and discussion was held about submitting a peer-reviewed paper based on the white paper, fact sheet, and road-mapping document.
- Continued efforts on the road-mapping document.
- Waived the conference call for November.

#### **Travel/Meetings**

- October 1–6, 2010: Attended Schlumberger software training entitled “Petrel Structural Modeling” in Houston, Texas.
- October 4–6, 2010: Presented at the 6th Annual Clean Carbon Policy Summit & Expo in Austin, Texas.
- October 4–7, 2010: Attended and participated in the 2010 RCSP Annual Review Meeting in Pittsburgh, Pennsylvania.

- October 6–7, 2010: Attended the Lignite Energy Council Annual Meeting in Bismarck, North Dakota.
- October 12–14, 2010: Presented a project update at Denbury Resources' headquarters in Plano, Texas.
- October 18–21, 2010: Hosted the PCOR Partnership Annual Meeting in Minneapolis, Minnesota.
- October 19–23, 2010: Attended Computer Modeling Group's software training entitled "CO<sub>2</sub>-Based Enhanced Oil Recovery (Miscible Flood) Course in Houston, Texas.
- October 29 – November 3, 2010: Presented at the 2010 Geological Society of America Annual Meeting held in Denver, Colorado.