



**Plains CO₂ Reduction (PCOR) Partnership Monthly Update
June 1–30, 2010**

PHASE III ACTIVITIES

Task 1 – Regional Characterization (Wesley D. Peck)

Highlights

- The image gallery, containing over 150 images, is now available on the Partners-Only Decision Support System (DSS, © 2007–2010 EERC Foundation) at www2.undeerc.org/website/pcorp/ImageGallery/.
- On June 1, participated in a Regional Carbon Sequestration Partnership (RCSP) geographic information system (GIS) Working Group conference call to discuss the GIS layers to be used by the NATIONAL CARBOn Sequestration Database and Geographic Information System (NATCARB).
- Completed compilation of the images for the next U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) Carbon Sequestration Atlas of the United States and Canada.
- Added a new risk management section, including policy and processes, to the DSS.
- Initiated preparation of a value-added technical brief for dissemination amongst partners. This would be the first of a series of informational flyers focusing on specific technical issues related to carbon capture and storage (CCS).
- Completed preparation of PCOR Partnership state and province maps for use during the upcoming regulatory meeting in Deadwood, South Dakota.
- On June 14, presented an overview of PCOR Partnership activities at the Rocky Mountain Section of the American Association of Petroleum Geologists (AAPG) in Durango, Colorado.
- Continued compilation of information to be used in a preliminary report on Nebraska geology as it relates to CO₂ storage.
- Held multiple in-house meetings and/or discussions with team members to further refine the topics and direction of the proposed CCS Project Development Workshop to be held the day before the annual meeting.
- On June 17, provided information to a partner on a potential characterization study in the southern portion of the PCOR Partnership region.
- On June 23, provided images from the PCOR Partnership Atlas, 3rd Edition, in response to a request from Industrial GHG Solutions magazine for an upcoming article.
- On June 29, met to further discuss and develop the new carbon markets section of the DSS.

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

Highlights

- On June 9, gave two PowerPoint presentations and distributed outreach materials to a group of approximately 40 teachers at the North Dakota Petroleum Council's (NDPC's) 2010 Teacher Education Seminar held in Bismarck, North Dakota.
- On June 15, gave a PowerPoint presentation and distributed outreach materials to a group of approximately 125 teachers at the Lignite Energy Council's (LEC's) 2010 Lignite Education Seminar: Energy, Economics, and Environment held in Bismarck, North Dakota.
- Continued efforts to gather and assess information in preparation for a quarterly summary of outreach activities including presentations, television broadcasts, material distribution, and Web activity.
- On June 17, participated in an Outreach Working Group (OWG) conference call.
- On June 23–24, participated in the OWG workshop in Washington, D.C., exploring implications of increased outreach activity at the DOE headquarters level.
- On June 27, contacted Sallie Greenberg (Midwest Geological Carbon Sequestration Consortium) and Judith Bradbury (Midwest Regional Carbon Sequestration Partnership) for input on past interactive workshops in order to further plan for the upcoming pre-annual meeting workshop.
- On June 30, submitted for review and approval Deliverable D17 entitled “General Audience CO₂ Sequestration Outreach PowerPoint Presentation – Update.”
- On June 29, submitted a value-added, noncontractual update to the public Web site for review and approval. This update included a revised video clip gallery format, 29 additional video clips, and three updated Web pages.
- On June 29, submitted, and on June 30 received approval of, Deliverable D19 entitled “Fort Nelson Test Site PowerPoint Presentation – Update 1.”

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

Highlights

- On June 1, reviewed a draft U.S. Carbon Sequestration Council (USCSC) paper entitled “Advances in CO₂ Sequestration Capability,” and provided comments to the author on June 4.
- Volunteered to serve on peer review committee for the U.S. Environmental Protection Agency (EPA) on a geologic sequestration guidance document for testing and monitoring.
- On June 4, 11, 18, and 25, participated in RCSP Risk/Sim Working Group conference calls.
- Updated internal regulatory guidance documents with information regarding EPA's Final Tailoring Rule issued in May.
- Continued efforts toward planning the upcoming regulatory meeting in Deadwood, South Dakota, on July 21–22, 2010, including the following:
 - Held multiple in-house planning meetings.
 - Made numerous follow-up telephone calls to invitees.
 - Coordinated hotel accommodations and menu options.
 - Sent out informational PCOR Partnership materials to new contacts.
 - On June 7, sent an updated draft agenda to invitees.

- On June 18, sent a notice that the hotel deadline was extended.
- On June 23, provided a spreadsheet showing the status, by state, of legislation and rules for the geologic sequestration of carbon dioxide upon request of a partner.
- Participated in the Interstate Oil and Gas Compact Commission (IOGCC) Pipeline Transportation Task Force conference calls.
- Provided comments on various reports currently being finalized by IOGCC.
- Participated in planning meetings for the PCOR Partnership Annual Meeting workshop.

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

Highlights

- Continued update of the petrophysical model for the Fort Nelson CCS site based on input gathered during meetings in Calgary the week of June 1–4, as well as the incorporation of seismic data recently purchased by Spectra Energy.
- Continued laboratory experiments on the effects of CO₂ and H₂S on samples of potential reservoir and seal rock from the Fort Nelson location and samples from Powder River Basin outcrops that serve as analogs for the Bell Creek reservoir and seal.
- Based on initial results from the laboratory experiments, conducted geochemical modeling to evaluate the geochemical reactions that are occurring, or have occurred, between the rocks, brine, and CO₂/acid gas.
- Held numerous discussions with Oxand Risk & Project Management Solutions regarding the development of a paper and poster for the 2010 International Conference on Greenhouse Gas Technologies (GHGT-10) conference.
- Discussed potential updates and revisions to the Fort Nelson risk assessment.

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

Highlights

- Nothing to note at this time.

Task 6 – Infrastructure Development (Melanie D. Jensen)

Highlights

- Provided comments on a draft USCSC paper entitled “Advances in CO₂ Sequestration Capability.”
- Work continued on the capture technology overview update.
- Initiated the 2010 update and quality assurance/quality control check of the CO₂ emission sources database, and it is anticipated the effort will continue throughout the summer.
- Reviewed a summary of basic CO₂ compression information. Following internal PCOR Partnership review, the summary will be submitted as a value-added report.
- On June 4, in response to a partner inquiry, provided review of a National Academy of Sciences/National Research Council comprehensive study of climate change report.
- Completed the update of CO₂ emissions statistics for use in PCOR Partnership presentations and publications. Global emissions for 2007 are proving difficult to find, especially emissions from the transportation sector.

- Completed review and submitted comments regarding the latest draft of the CO₂ emissions calculation methodology document compiled by NETL and the RCSP Capture and Transportation Working Group.
- On June 28, in response to a partner request, provided information on the Fluor Econamine process.
- Prepared slides for potential use in presentations about the Bell Creek enhanced oil recovery (EOR) project.
- Prepared a short summary of the PCOR Partnership's expertise and project management approach to the EOR demonstration.

Task 7 – CO₂ Procurement (John A. Harju)

Highlights

- Continued discussions with potential CO₂ suppliers. Because of the sensitive nature of negotiations, specifics cannot be shared at the present time.

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

- This task is anticipated to be initiated Quarter 3 – Budget Period (BP) 4, Year 4 (April 2011).

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

Highlights

- Met with Spectra Energy personnel in Calgary, Alberta, Canada, from June 1–4, and worked on updating the Fort Nelson geologic model to be used for future dynamic simulation.
- Participated in RCSP Risk/Sim conference calls.
- Continued the laboratory testing program for the Fort Nelson core samples.
- Continued coordination of the June 2010 version of the Fort Nelson geologic model.
- As a member of the organizing committee for the upcoming AAPG Geotechnical Workshop on Carbon Capture and Storage, August 10–12, 2010, invited Spectra Energy to give a presentation on the Fort Nelson project.
- Ordered parts for the relative permeability apparatus, and testing will begin shortly after they arrive.
- The computer cluster, which will be used to improve simulation turnaround time, is still in the design phase, but will likely be ordered in mid-July. Computer Modelling Group has offered to help with the design of this high-performance computing cluster.
- Traveled to Calgary to discuss Fort Nelson project status during the week of June 14.
- While in Calgary, held discussions with vendors regarding the use of microseismic and also regarding a feasibility study that may be performed in the future.

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

- This task is anticipated to be initiated in Quarter 1 – BP5, 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

- On June 3, presented “Reducing Industry’s Carbon Footprint: Exploring Progress Made in Carbon Capture and Storage in B.C.” at The Canadian Institute’s 13th B.C. Natural Gas Symposium in Vancouver, British Columbia, Canada.
- On June 7, presented at the Geologic Carbon Sequestration Site Integrity: Characterization and Monitoring Science and Technology Workshop at Ohio State University in Columbus, Ohio.
- On June 9, participated in a conference call with a writer from Industrial GHG Solutions magazine regarding a potential article on the Regional Carbon Sequestration Partnerships (www.industrialghg.com/).
- On June 11, participated in a conference call coordinated by Traci Rodosta regarding the U.S. Geological Survey 3-year assessment project entitled National Geologic CO₂ Sequestration Assessment Project, its plans to estimate the CO₂ storage potential of the nation and how each partnership will be called upon to help.
- Held multiple in-house meetings to discuss the pre-annual meeting workshop scheduled for October 19, 2010. Continued planning the annual meeting to be held October 20–21, 2010.
- On June 20, John Harju presented on the topic of “Dividing Responsibility into Partnerships Across the Country” at the Carbon Capture & Storage World Australia 2010 held in Melbourne, Australia.
- Continued planning for the regulatory workshop to be held in Deadwood in July.
- Led a task leader meeting on June 16, where topics discussed included Modification No. 17 to the cooperative agreement and the revised Statement of Project Objectives and the upcoming 2010 International Conference on Greenhouse Gas Technologies; task leads provided updates on the demonstration projects.
- On June 25, presented an overview of the PCOR Partnership Program at the DOE Fossil Energy–Masdar Cooperation Workshop in Pittsburgh, Pennsylvania.
- On June 29–30, attended the 4th Annual Wyoming CO₂ Conference in Casper, Wyoming.
- Contacted multiple partners regarding continuing membership in the PCOR Partnership.
- Provided information on the PCOR Partnership Program to potential new members.
- Continued review and revision of informational fact sheets.
- Agreed to serve on the Storage Working Group of the Carbon Sequestration Leadership Forum Task Force on “Assessing the Progress in Closing the Gap” led by Stefan Bachu of Alberta Innovates – Technology Futures.

- Initiated planning for several partner visits to the Energy & Environmental Research Center in July.
- Deliverables and milestones for June:
 - May monthly update
 - M23: Task 14 – monthly Water Working Group (WWG) conference call held
 - D17: Task 2 – general Phase III information PowerPoint presentation (update)
 - D19: Task 2 – Fort Nelson Test Site PowerPoint presentation (update)

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

Highlights

- Held the monthly conference call on June 23, during which the following action was taken:
 - Discussed the WWG road-mapping document; a sample will be provided to the group for the next conference call.
 - Asked each partnership to provide by July 15 a list of potential stakeholder groups that would be interested in the nexus of water and CCS (some of these groups may be contacted by WWG and participate in a single call addressing their concerns).
 - Distributed the canned PowerPoint presentation and requested comments by July 15.
 - Announced plans for a WWG mission statement to be distributed by July 15 in order to hold discussion thereon during the July conference call.

Travel/Meetings

- June 1–4, 2010: Participated in meetings with Spectra Energy in Calgary, Alberta, Canada.
- June 1–4, 2010: Presented at The Canadian Institute's 13th Annual BC Natural Gas Symposium in Vancouver, British Columbia, Canada.
- June 6–7, 2010: Presented at the Geologic Carbon Sequestration Site Integrity: Characterization and Monitoring Science and Technology Workshop in Columbus, Ohio.
- June 7–11, 2010: Attended the AAPG Hedberg Research Conference entitled Applications of Reservoir Fluid Geochemistry in Vail, Colorado.
- June 8–10, 2010: Presented at the NDPC's 2010 Teacher Education Seminar in Bismarck, North Dakota.
- June 13–15, 2010: Presented at the AAPG Rocky Mountain Section Meeting in Durango, Colorado.
- June 14–16, 2010: Presented at LEC's 2010 Lignite Education Seminar: Energy, Economics and Environment in Bismarck, North Dakota.
- June 15–18, 2010: Participated in project meetings with subcontractors in Calgary and Edmonton, Alberta, Canada.
- June 19–21, 2010: Attended advanced D8 x-ray diffractometer service training (and received certification) at Bruker AXS Inc. in Madison, Wisconsin.
- June 21–24, 2010: Attended an IEA Greenhouse Gas R&D Programme Weyburn–Midale CO₂ Monitoring and Storage Project (PRISM–VI) meeting in Saskatoon, Saskatchewan, Canada.
- June 22–24, 2010: Participated in an RCSP OWG meeting in Washington, D.C.
- June 24–25, 2010: Presented at a DOE Fossil Energy–Masdar Cooperation Workshop in Pittsburgh, Pennsylvania.

- June 28 – July 1, 2010: Attended the 4th Annual Wyoming CO₂ Conference in Casper, Wyoming.
- June 28 – July 5, 2010: Traveled with PPB to Pueblo, Colorado, to gather imagery for use in outreach materials and presentations.