



Plains CO₂ Reduction (PCOR) Partnership Monthly Update August 1–31, 2010

PHASE III ACTIVITIES

Task 1 – Regional Characterization (Wesley D. Peck)

Highlights

- Continued efforts to update the partners-only Web site as follows:
 - Drafted text for the new carbon markets section.
 - Began extracting material from the Phase II final report to update the online information on the field validation test sites.
 - Added new reports and presentations as well as a revised version of the atlas to the products database.
 - Continued the annual update of the large stationary sources on the Decision Support System (DSS, © 2007–2010 EERC Foundation) including the following:
 - ♦ Updated the emission data of 127 U.S. power plants, including CO₂, SO₂, and NO_x (the data source is the 2009 U.S. Environmental Protection Agency [EPA] Clean Air Market data and map).
 - ♦ Added 13 U.S. power plants (the data source is the 2009 EPA Clean Air Market data and map).
 - ♦ Using 2009 statistics, updated the majority of the emission data of 83 U.S. ethanol plants, including CO₂, SO₂ and NO_x (the data were collected from the online Nebraska Ethanol Board's plant list [www.ne-ethanol.org/industry/plantlist.htm], various company Web sites, and the online Ethanol Producer Magazine [www.ethanolproducer.com/plant-list.jsp]).
- Continued collaborative efforts for a U.S.–Canada joint characterization effort of the Basal Cambrian Sandstone Aquifer (Deadwood Formation) located in the upper Great Plains of the United States and south-central Canada.
- Submitted contact page information and images for the PCOR Partnership as requested by the National Energy Technology Laboratory (NETL) national atlas coordinator.
- Continued development of a series of technical briefs prepared for a more scientific, rather than general, audience.
- Continued discussions regarding a future collaborative effort to characterize the Forest City Basin.
- Efforts conducted as part of the continuing work at the Zama, Alberta, Canada, field site included the following:

- Continued planning activities with specific focus on feasibility analysis of the deployment of vertical seismic profiling (VSP) field work and wellbore integrity laboratory experimental design setup.
- Discussions are under way with site host, Apache Canada, Ltd., to determine the best survey design to optimize data sets for inputs into a new geological model of the pinnacle, long-term verification, and improved understanding of reservoir performance.
- Scheduled a meeting in Calgary, Alberta, Canada, for the first week of September to discuss and finalize the VSP survey design and implementation.
- Initiated experimental design of wellbore integrity, with implementation of laboratory testing scheduled to begin in early September 2010.
- Uploaded a paper to be published in the conference proceedings entitled “Zama Acid Gas Enhanced Oil Recovery, CO₂ Sequestration, and Monitoring Project” on August 31, 2010.

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

Highlights

- Held an in-house meeting on August 5 to review the procedure for tracking all outreach activities conducted on a quarterly basis, including presentations, television broadcasts, promotional and literature distribution, and Web site activity. Reviewed a draft report detailing the activities.
- As designated lead on a poster presentation for the Regional Carbon Sequestration Partnership (RCSP) Outreach Working Group (OWG) at the upcoming 10th International Conference on Greenhouse Gas Technologies (GHGT-10), the following actions were taken:
 - Distributed a draft concept and text to the OWG for review, and incorporated the comments received.
 - Added the Petroleum Technology Research Centre (PTRC) as a coauthor and featured the Aquistore communications plan as an example of the utility of the RCSP Outreach Best Practices Manual.
 - Submitted a paper to the GHGT-10 Conference entitled “Road-Testing the Outreach Best Practices Manual: Applicability for Implementation of the Development Phase Projects by the Regional Carbon Sequestration Partnerships” on August 31 and submitted the copyright transfer form to allow publication of the paper in the conference proceedings.
 - Continued efforts to finalize the poster for presentation during the conference on September 21–22, 2010, in Amsterdam, the Netherlands.
- Continued efforts to update and increase the number of informational fact sheets, including the following:
 - Prepared a draft fact sheet for the Bell Creek test site (Deliverable [D] 15) for in-house review prior to its due date of October 31, 2010.
 - Prepared updated drafts of the terrestrial sequestration fact sheets.
- Efforts continued toward finalization of the carbon footprint documentary, including the following:
 - On August 4, met with home energy efficiency personnel from the City of Grand Forks for feedback on the household carbon footprint concepts in the documentary.
 - Reviewed the documentary script with in-house management and provided a revised edition to Prairie Public Broadcasting (PPB).

- Traveled to the Fargo, North Dakota, offices of PPB to cut new narration and upgrade images in the documentary.
- Designed a DVD jacket and cover art for the documentary.
- Hosted an in-house review on August 18, and prepared talking points for the documentary introduction.
- Filmed an introduction to the documentary by the Energy & Environmental Research Center (EERC) director on August 23.
- Traveled to PPB to edit the introduction and incorporate it into the documentary.
- Continued communications with Star Group LLC (consultants) regarding use of the Implications Wheel[®] at the annual meeting workshop, including the following:
 - Held various conference calls to discuss the two scenarios, i.e., the saline reservoir CO₂ injection and enhanced oil recovery/CO₂sequestration projects.
 - Held two online “GoTo Meetings” with Star Group on August 25 and 31.

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

Highlights

- Continued to develop a summary, incorporating participant reviews, of the second annual PCOR Partnership Regulatory Meeting held July 21–22, 2010, in Deadwood, South Dakota.
- Held a teleconference with Interstate Oil and Gas Compact Commission (IOGCC) personnel about expanded efforts regarding the timely communication of regulatory issues.
- Participated in an IOGCC Pipeline Transportation Task Force conference call to discuss technology transfer issues.
- Upon request, provided a partner with information regarding IOGCC’s model rules and statutes.
- Began review of EPA’s proposed rules released August 12 on Clean Air Act permits for sources of greenhouse gas emissions under the Prevention of Significant Deterioration Program.
- Prepared a summary of the August 12 report of the President’s Interagency Task Force on Carbon Capture and Storage (CCS) and continued review of the 233-page document (www.epa.gov/climatechange/downloads/CCS-Task-Force-Report-2010.pdf).
- Upon request, provided a partner with the summary of the Task Force report.

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

Highlights

- Initiated planning for a meeting in Grand Forks, North Dakota, on September 1, with Spectra Energy to review preliminary modeling results.
- Continued efforts on the RCSP Sim/Risk best practices manual, including the following:
 - Continued drafting the case study of the Phase II Northwest McGregor Huff ‘n’ Puff project.
 - Worked on the sidebar.
- Submitted a paper (not for publication) to the GHGT-10 Conference entitled “The Fort Nelson Carbon Capture and Storage Feasibility Project – A Program for Large-Scale

Geologic Storage of CO₂ from a Natural Gas-Processing Plant in British Columbia, Canada” on August 31, 2010.

- Risk management activities continued, including the following:
 - Submitted a paper (not for publication) to the GHGT-10 Conference entitled “A New Risk Management Methodology for Large-Scale CO₂ Storage: Application to the Fort Nelson Carbon Capture and Storage Feasibility Project” on August 31, 2010.
 - On August 5, participated in the RCSP Sim/Risk conference call.
 - Held a conference call with Spectra Energy personnel to discuss project deliverables and the agenda for the upcoming meeting in Grand Forks.

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

Highlights

- Nothing to note at this time.

Task 6 – Infrastructure Development (Melanie D. Jensen)

Highlights

- Prepared PowerPoint slides summarizing various capture technology types for use in the Partnership for CO₂ Capture annual meeting presentation held at the EERC on August 11. The two partnerships work closely together and, when possible, share resources so as to maximize the use of U.S. Department Of Energy (DOE) funding.
- The task lead will attend the 2010, CO₂ Capture Technology meeting scheduled for September 13–17, 2010 in Pittsburgh, Pennsylvania, (www.netl.doe.gov/events/10conferences/co2capture/index.html).
- Initiated incorporation of the NETL project manager’s review comments into the value-added report entitled “Regional Emissions and Capture Opportunities Assessment.”
- Drafted text on CO₂ pipelines for inclusion in a proposed technical brief.
- Continued editing process on the draft capture technology value-added report.
- Continued this year’s update and quality assurance/quality control check of the CO₂ emission sources database.

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)

Highlights

- Nothing to note at this time.

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

Highlights

- Continued work on the June 2010 Fort Nelson CCS Feasibility Project geologic model based on refined property data sent by Spectra Energy for incorporation into the recently completed structural model.
- The subcontract between RPS Energy Canada and the EERC is in place, and RPS initiated wellbore and near-wellbore modeling to determine the state of the injected CO₂ and H₂S.
- Continued upscaling the June 2010 static model for simulations in preparation for Spectra Energy's visit on September 1.
- Continued drafting the subcontract add-on scope of work for RPS Energy Canada to manage upcoming Hycal lab work.

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

- Welcomed the Wyoming Office of State Lands and Investments to the PCOR Partnership.
- On August 11, held a conference call with NETL personnel to discuss the overall PCOR Partnership program risk management plan.
- Continued work on the update to the project management plan (PMP).
- Lisa Botnen updated the risk management portion of the PMP.
- Continued planning for the annual meeting premeeting workshop, including participation in several in-house meetings.
- Contacted several potential speakers for the upcoming annual meeting.
- Participated in a conference call on August 4 regarding the “Coordination between the U.S. Geological Survey (USGS) and the Regional Partnerships” on the USGS Resource Assessment effort.
- Participated on August 5 in a telephone interview with Craig Hart regarding the Phase III study which, as done with the Phase II study, will be reviewed and commented on by the regional partnerships and will be published by Harvard (the study is due to be published in January 2011).

- Participated in a conference call with the Fort Nelson CCS Feasibility Project manager on August 10 and in a quarterly conference call, including all of the key Spectra Energy and EERC staff working on the Fort Nelson project, on August 16.
- Continued plans for a visit from Spectra Energy personnel to Grand Forks on September 1.
- Presented a PCOR Partnership Program overview at the Partnership for CO₂ Capture Phase II Kickoff Meeting held August 11 at the EERC.
- Held a PCOR Partnership group meeting on August 16, where topics discussed included an overview of program activities and an update on outreach activities.
- Held a task leader meeting on August 26, where topics discussed included the Northwest McGregor project write-up in August's NETL Carbon Sequestration Newsletter, task updates, and upcoming deliverables and meetings.
- Continued participation in the Carbon Sequestration Leadership Forum Assessing the Progress in Closing the Gaps – Storage Working Group, including review of a revised gaps analysis checklist.
- Reviewed a summary and detailed record of the first U.S.–Canada Bilateral National Conference on CCS held on May 10, 2010, in Pittsburgh, Pennsylvania.
- Received acceptance of an abstract on the PCOR Partnership for the EUEC 2011 Energy & Environment Conference scheduled for January 31 – February 2, 2011, in Phoenix, Arizona.
- Submitted a paper to the GHGT-10 conference on August 31 entitled “The Plains CO₂ Reduction (PCOR) Partnership: Developing Carbon Management Options for the Central Interior of North America” to be published in the Conference proceedings.
- Received the final version of the summary report of the First Bilateral National Conference (BNC) on CCS held in Pittsburgh, Pennsylvania, on May 10, 2010. This meeting was part of the U.S.–Canada Clean Energy Dialogue.
- Deliverables and milestones for August:
 - July monthly update
 - M23: Task 14 – monthly Water Working Group (WWG) conference call held

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

Highlights

- Sent the July monthly conference call notes to the WWG.
- Continued work on the road-mapping document, and a draft chapter was sent out to the WWG participants for feedback on its style and direction.
- Continued work on the WWG canned PowerPoint presentation which may become a value-added deliverable.
- Presented the WWG PowerPoint presentation at the American Association of Petroleum Geologists (AAPG) Geosciences Technology Workshop on Carbon Capture and Sequestration in Golden, Colorado, on August 12 (www.aapg.org/gtw/CarbonCapture_Sequestration/day3.cfm).
- Held the monthly conference call on August 31.

Travel/Meetings

- August 4, 2010: Traveled for an edit session at PPB's offices in Fargo, North Dakota.
- August 5–6, 2010: Attended the Midwest Geological Sequestration Consortium STEP Advisory Group meeting in Champaign, Illinois.
- August 8–19, 2010: Attended attend Schlumberger software training courses, i.e., Petrel Introduction and Petrel Reservoir Engineering, in Houston, Texas.
- August 9–13, 2010: Presented at the AAPG Geosciences Technology Workshop on Carbon Capture and Sequestration in Golden, Colorado.
- August 19–20, 2010: Attended partner meetings in Bismarck, North Dakota.
- August 24, 2010: Traveled for an edit session at PPB's offices in Fargo, North Dakota.
- August 29 – September 1, 2010: Traveled to Calgary, Alberta, Canada, for meetings with Spectra Energy and traveled to Edmonton, Alberta, Canada, for meetings with Natural Resources Canada.