



Gulf Coast Carbon Center

GCCC applies technical and educational resources to implementation of geologic storage of anthropogenic carbon dioxide on an aggressive time scale, focusing on a region where large-scale reduction of atmospheric releases is needed and short-term action is possible.

Through combined industry-academic funding, GCCC provides training for future geotechnical research experts in CO₂, provides rigorous, technical information to diverse stakeholders, and invests in key research to strengthen confidence of industries moving to large-scale deployment of carbon capture and storage.



Dr. Susan D. Hovorka, Senior Research Scientist at The University of Texas at Austin Bureau of Economic Geology, is the GCCC Principal Investigator and a renowned expert in using geologic media to reduce atmospheric release of CO₂. Sue began the program in 1998 that has led five major field research projects to develop effective technologies to monitor retention of CO₂ in the subsurface. Two more projects are currently being developed.

The GCCC develops expertise in these areas:

Capacity Estimation – To refine capacity estimates, tools are currently being developed to assess dynamic rate-dependent capacity. Work includes fluid flow interaction with heterogeneous rocks at slab to interwell scales, pressure and fluid interactions with faults and seals, basin scale pressure perturbation and hydrocarbon migration analogues.

Offshore Storage for the US – In the US, as in many places in the world, large volume, high quality storage is found in geologic units beneath the sea floor. Funding from DOE and State of Texas to determine Miocene capacity in Texas state waters, identify CO₂ plays, evaluate regional containment and fault/seal leakage, select site, and conduct risk assessment.

Value of Information – Characterization and monitoring is needed to identify and confirm operation of safe, effective CO₂ storage sites, however how much information is needed? GCCC is currently testing approaches in the field and through models to constrain this question.

Unconventional EOR – To “kick start” capture by providing mature, low risk off-takes for captured CO₂ with cost offset, and sales of CO₂ for enhanced oil recovery is attractive. How do larger but more intermittent volumes and the need to ensure storage value change EOR? GCCC has both field and model-based assessment of this question.

Analogues for Near-Surface Monitoring – Soil-gas monitoring to detect CO₂ leakage from an injection site has become a focus at GCCC. Studies in process-based soil gas methods are being tested to mitigate environmental variability and complexity in near-surface monitoring.

Knowledge Sharing – Besides providing service and training to our sponsors, GCCC is also active in building stakeholder relationships. Public acceptance is critical for sequestration activities to flourish and GCCC is committed to educating the public at many levels.

Interested in finding out more about GCCC? Visit the experts at our exhibit who are eager to discuss the GCCC program and how you can participate as a sponsor and join the ranks of our prestigious industry members.

Please contact Ms. Sigrid Clift, sponsor recruiter, for more information on how your organization can participate in the GCCC program. Sigrid will also be at the exhibit during the conference along with the GCCC experts.

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