

Geologic Storage Technologies and Simulation and Risk Assessment Projects and Congressional Districts

Title	Performer	Congressional District
Actualistic and Geomechanical Modeling of Reservoir Rock, CO ₂ and Formation Fluid Interaction, Citronelle Field, Alabama	West Virginia University	WV01
Advanced CO ₂ Leakage Mitigation using Engineered Biomineralization Sealing Technologies	Montana State University	MT01
An Advanced Joint Inversion System for CO ₂ Storage Modeling with Large Data Sets for Characterization and Real-Time Monitoring - Enhancing Storage Performance and Reducing Failure Risks Under Uncertainties	Leland Stanford Junior University	CA14
Assessing Reservoir Depositional Environments to Develop and Quantify Improvements in CO ₂ Storage Efficiency: A Reservoir Simulation Approach	Illinois State Geological Survey	IL15
Carbon Dioxide Sealing Capacity: Textural or Compositional Controls?	Brooklyn College	NY10
CO ₂ at the Interface: Nature and Dynamics of the Reservoir/Caprock Contact and Implications for Carbon Storage Performance	New Mexico Institute of Mining and Technology	NM02
Commercial Scale CO ₂ Injection and Optimization of Storage Capacity in the Southeastern United States	Advanced Resources International	VA08
Developing a Comprehensive Risk Assessment Framework for Geological Storage of CO ₂	University of Texas at Austin – Bureau of Economic Geology	TX21
Development and Test of a 1,000 Level 3C Fiber Optic Borehole Seismic Receiver Array Applied to Carbon Sequestration	Paulsson Inc.	CA27
Development of Improved Caprock Integrity Analysis and Risk Assessment Techniques	Terralog Technologies	CA32
Enhanced Analytical Simulation Tool for CO ₂ Storage Capacity Estimation and Uncertainty Quantification	University of Texas at Austin – Bureau of Economic Geology	TX21
Enhanced Simulation Tools to Improve Predictions and Performance of Geologic Storage: Coupled Modeling of Fault Poromechanics, and High-Resolution Simulation of CO ₂ Migration and Trapping	Massachusetts Institute of Technology	MA08
Experimental Design Applications for Modeling and Assessing Carbon Dioxide Sequestration in Saline Aquifers	Fusion Petroleum Technologies	TX08
Field Test and Evaluation of Engineered Biomineralization Technology for Sealing Existing Wells	Montana State University	MT01
Inexpensive Monitoring and Uncertainty Assessment of CO ₂ Plume Migration Using Injection Data	University of Texas at Austin.	TX21
Influence of Local Capillary Trapping on Containment System Effectiveness	University of Texas at Austin.	TX21
Integrated Experimental and Modeling Studies of Mineral Carbonation for Permanent CS in Mafic/Ultramafic Rocks	Yale University	CT03
Management of Water from CCS	Argonne National Laboratory	IL13
Maximization of permanent trapping of CO ₂ in the highest-porosity formations of the Rock Springs Uplift	University of Wyoming	WY01
Model Complexity and Choice of Model Approaches for Practical Simulations of CO ₂ Injection, Migration, Leakage, and Long-term Fate	Princeton University	NJ12
Novel Materials for Robust Repair of Leaky Wellbores in CO ₂ Storage Formations	University of Texas at Austin – Bureau of Economic Geology	TX21
Optimal Model Complexity in Geological Carbon Sequestration: A Response Surface Uncertainty Analysis	University of Wyoming	WY01
Optimizing Accuracy of Determinations of CO ₂ Storage Capacity and Permanence, and Designing More Efficient CO ₂ Storage Operations: An Example from the Rock Springs Uplift, Wyoming	University of Wyoming	WY01

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Optimizing and Quantifying CO ₂ Storage Resource in Saline Formations and Hydrocarbon Reservoirs	University of North Dakota Energy & Environmental Research Center	ND01
Proof-of-Feasibility of Using Well bore Deformation as a Diagnostic Tool to Improve CO ₂ Sequestration	Clemson University	SC03
Prototype Development and Testing Advanced CO ₂ Leakage Mitigation Using Engineered Biomineralization Sealing Technologies	Montana State University	MT01
Prototyping and testing a new volumetric curvature tool for modeling reservoir compartments and leakage pathways in the Arbuckle saline aquifer: Reducing uncertainty in CO ₂ storage and permanence	University of Kansas Center for Research	KS02
Radiocarbon as a Reactive Tracer for Tracking Permanent CO ₂ Storage in Basaltic Rocks	Columbia University	NY15
Reactive Transport Models with Geomechanics to Mitigate Risks of CO ₂ Utilization and Storage	University of Utah	UT02
Reducing Uncertainties in Model Predictions Via History Matching of CO ₂ Migration/Reactive Transport Modeling (Sleipner)	Indiana University	IN09
Risk Assessment and Monitoring of Stored CO ₂ in Organic Rocks Under Non-Equilibrium Conditions	Southern Illinois University	IL12
Simplified Predictive Models for CO ₂ Sequestration Performance Assessment	Battelle Memorial Institute	OH15
Simulation of Coupled Processes of Flow, Transport and Storage of CO ₂ in Saline Aquifers	Colorado School of Mines	CO07
Statistical Analysis of CO ₂ Exposed Wells to Predict Long Term Leakage through the Development of an Integrated Neural-Genetic Algorithm	University of Louisiana at Lafayette	LA03
Systematic Assessment of Wellbore Integrity for Geologic Carbon Storage Projects using Regulatory and Industry Information	Battelle Memorial Institute	OH15
The Coal-Seq III Consortium: Advancing the Science of CO ₂ Sequestration in Coal Seam and Gas Shale Reservoirs	Advanced Resources International	VA08
Validation of Models Simulating Capillary and Dissolution Trapping during Injection and Post-Injection of CO ₂ in Heterogeneous G	Colorado School of Mines	CO07
Wellbore Seal Repair Using Nanocomposite Materials	University of New Mexico	NM01