Current NETL Projects in the Gas Hydrates Program

Alvin Dives in the Gulf of Mexico – submersible dives for in-situ sampling and observation at two sites where deposits of gas hydrate occur near the seafloor.
Primary performer: Woods Hole Oceanographic Institution, Texas A & M University

Blake Ridge Seismic Characterization – 3D seismic imaging of known hydrates deposits with ocean-bottom seismometers in the Blake Ridge area of the Atlantic ocean (read more.)
Primary performer: University of Wyoming, Laramie, WY

Characterization of Recoverable Resources for Methane Hydrate Deposits – integrating geology, geophysics, and reservoir simulation to characterize natural gas hydrate occurrences in permafrost and marine environments.
Primary performer: Lawrence Berkeley National Lab

Collection of Gas Hydrate Samples from the Nankai Trough, Japan – collection of in-situ gas hydrate samples from the Nankai Trough subduction zone.
Primary performer: Idaho National Engineering and Environmental Lab

Enhanced Methane Hydrate Reservoir Characterization, Seafloor Stability Assessment and Up-scaling of Recovery Technologies – conducting laboratory experiments on hydrates using the Seafloor Process Simulator vessel, which simulates natural seafloor environments.
Primary performer: Oak Ridge National Lab

Fundamental Physical Properties and Chemical Stability of Gas Hydrates – experimental testing of thermomechanical behavior of hydrates and hydrate-bearing sediments.
Primary performer: Lawrence Livermore National Lab

Fundamentals of Hydrate Dissociation – using a multiphase flow laboratory to visualize and measure the way hydrates disassociate; modeling rates of pressure buildup during drilling and the way gas and water flow in a reservoir as the hydrates release their gas (read more.)
Primary performer: Clarkson University, Potsdam, NY

Gulf of Mexico Sea Floor Stability and Gas Hydrates Monitoring Station Project – development of multisensor monitoring systems for gas hydrate mounds and hydrocarbon vents in the Gulf of Mexico (read more.)
Primary performer: University of Mississippi, University, MS

Kinetic Inhibition of Natural Gas Hydrates in Offshore Drilling, Completion, and Processing Operations – consortium effort to gather information on potential problems in production wells within the gas hydrate stability zone and the use of inhibitors to eliminate or reduce those problems.
Primary performer: Colorado School of Mines

Marine Hydrate Characterization using Ocean-Bottom Cable Seismic – multi-component, 3D seismic imaging of hydrates in the Gulf of Mexico (read more, click on techlines, find the one dated 9/5/00.)
Primary performer: The University of Texas at Austin, Bureau of Economic Geology, Austin, TX

Mechanical Testing of Gas Hydrate/Sediment Samples – quantify mechanical characteristics of gas hydrate and sediments for model development
Primary performer: Army Corps of Engineers, Cold Regions Research Lab

Offshore Hydrate Evaluation with Deep-Tow Streamer – deployment of a deep-tow seismic acquisition system in the Gulf of Mexico to collect seismic data that will help define areas of over-pressure associated with natural gas hydrates.
Primary performer: Naval Research Lab

Onshore and Offshore Gas Hydrate Resource Evaluation – evaluation of seismic data and collection of well samples in the Alaskan permafrost region; acquisition of piston core data in the Blake Ridge area of the Atlantic Ocean.
Primary performer: U.S. Geological Survey

Structure Characterization and Sono-Stimulated Kinetic Study with Tracers in Pressure Vessels: An Integrated Approach to the Study of Natural Gas Hydrates – experimental work on synthetic methane hydrates to aid in understanding factors crucial to their thermodynamic and kinetic stability.
Primary performer: Brookhaven National Lab