**Postdoctoral Researcher – Fracture Mechanics and Cryogenics**

The Department of Petroleum Engineering at Colorado School of Mines is seeking a Postdoctoral Researcher to work on a project funded by RPSEA (Research Partnership to Secure Energy for America) and the US DOE (Department of Energy) on developing cryogenic fracturing technology for shale and tight gas reservoirs. Partners in the project include the Petroleum Engineering Department of Colorado School of Mines (PE CSM), Lawrence Berkeley National Laboratory (LBNL), and Pioneer Natural Resources. This is a multi-million dollar research project, and the Postdoctoral Researcher will work with all other members of the research team (three PE CSM faculty, one LBNL scientist, and multiple graduate students) to:

1) Design, test, and lead laboratory cryogenic fracturing experiments;

2) Investigate scaling laboratory processes to field scale applications.

The position will start on approximately October 1, 2012. Annual salary will be competitively offered based on the level and experience of the applicant, and will include full employee benefits. Applicants with extraordinary experience in the area will be considered higher-level positions (e.g. Research Associate or Fellow or Research Professorship) that commensurate with experience. Appointment will be made for two (2) years (2013 - 2014), with the potential to be extended past 2014.

**Required Skills:**

Solid laboratory experience with mechanical equipments; background in fracture mechanics, geomechanics, rock mechanics, or strength of materials; good communication and presentation skills.

**Desired Skills:**

Experience in handling cryogenic fluids (liquid nitrogen or CO2); knowledge in thermodynamics, fluid phase behavior, heat transfer processes; experience with MATLAB.

Recently graduated Ph.D. students without all of the required skills, but who are exceptional in research capability and initiative, are encouraged to apply. There is no specific requirement on the majors of applicants, but the following disciplines are preferred: Petroleum Engineering, Mechanical Engineering, Chemical Engineering, Civil and Environmental Engineering.

Interested applicants please submit electronic CVs to Dr. Yu-Shu Wu ([ywu@mines.edu](mailto:ywu@mines.edu)). CVs should include two references, as recommendations will be sought. Application review begins immediately and will continue until the position is filled.