



**American Association of Petroleum Geologists Eastern Section Meeting
September 25-28, 2011
Hyatt Regency, Crystal City
Arlington, Virginia**

**Workshop: Understanding the Reservoir- Characterization, Modeling, and
Monitoring for CCS - Lessons Learned from the Permian Basin**
September 25, 2011

Location: Hyatt Regency – Crystal City, VA, Room TBD

Who should attend: Engineers and geo-scientists responsible for the screening and evaluation of candidate reservoirs for CCS; all professionals involved in the operation of CCS and CO₂ projects; project management and company decision-makers involved in potential or active CCS projects.

About the Course:

Carbon Capture and Storage (CCS), whether associated with enhanced oil recovery (EOR) or storage in deep saline formations, involves distinct but interrelated stages: capture, transportation, injection and storage, monitoring and (if applicable) CO₂ flood surveillance. The geoscientist, working alongside engineers, plays a key role in defining the reservoir through characterization, modeling and selection of monitoring methods. This workshop includes sessions on reservoir screening and characterization, plume modeling and management, and hybrid (saline formations with residual oil) projects. Attendees will be exposed to the breath of experience from the large number of injection projects active in the Permian Basin region of the southwest United States. They will learn how to screen and model candidate reservoirs for carbon storage and EOR, required data and models for reservoir characterization, injection and production, reservoir monitoring (surveillance) and the theory behind storage and EOR operations in hybrid projects.

Course Content:

- Siliciclastics vs. Carbonate Reservoirs
- Geophysical Techniques for Evaluation
- Overview of the Elements of CO₂
- Key Elements of Reservoir Geology
- Reservoir Modeling, Sweep Efficiency, Injection Response
- Plume Modeling and Management
- Why Floods Fail Petrophysical Characteristics of ROZ

- Resource Quantity, Distribution and Economic Considerations

Learning/Know after Attending: Attendees will know to screen and model candidate reservoirs for carbon storage and enhanced oil recovery (EOR), required data and available models for reservoirs characterization, injection and production, reservoir monitoring (surveillance) and the theory behind storage and EOR operations in hybrid projects.

Instructor Biography: Steve Melzer is President of the Applied Petroleum Technology Academy and owner of Melzer Consulting. Dr. Robert Trentham is Director of CEED, on the faculty of the school of Geology at the University of Texas of the Permian Basin.

Cost: \$350