

## HGS Dinner Meeting, October 14, 1996

### *Analysis of Allochthonous Salt and Salt Welds in the Northern Gulf of Mexico Utilizing 3-D Seismic*

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The widespread availability of 3-D seismic data sets in the northern Gulf of Mexico has resulted in the emergence of new play concepts such as subsalt exploration. Time and depth migrations of these 3-D data allow interpreters to develop a detailed understanding of the geological processes that contribute to the structural and stratigraphic framework of the Gulf. These data provide excellent imaging of structural features and result in the correct spatial positioning of those structural elements. Analysis of the geometrical relationships between allochthonous salt, salt welds, and subsalt reflectors aids in the development of salt emplacement models. These models are subsequently tied to other elements of the hydrocarbon system, such as fluid migra-

tion and reservoir development. Salt sheets and horizontal salt welds often separate distinct structural domains in the supra-salt and subsalt section, and complex structural deformation above salt or a salt weld may not translate into the subsalt section.

#### **Biographical Sketch**

**John A. Pritchett** received a bachelor's degree in marine geology (1981) from Washington and Lee University. He joined Amoco Production that year. He has worked in exploration and field development, and his current assignment is Exploration Manager of the Gulf of Mexico Shelf. ■

