

## HGS North American Explorationists Dinner Meeting, April 22, 1996

### *3-D Seismic Redevelopment of Louisiana's Tuscaloosa Trend— A Port Hudson Field Case History*

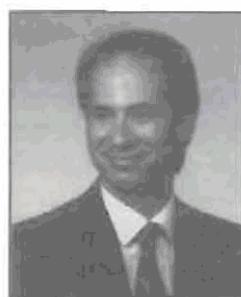
By Chip Story, Amoco Production Company

The Port Hudson field is a salt-cored anticline that produces from the Cretaceous Tuscaloosa Formation 15 miles north of Baton Rouge, Louisiana. Approximately 480 BCF and 45 MMBO have been produced in the last 18 years from depths between 15,400 and 17,400 feet. An extensive grid of 2-D seismic was acquired over the field during the 1970s and early 1980s. In October 1994, the interpretation of a new 60-square mile, 3-D dataset was completed.

To date, the Amoco Tuscaloosa asset group has defined nine new prospect locations based primarily on the highly detailed structural and stratigraphic mapping possible

with the new dataset. Seven of the locations have been drilled, with a 100 percent success ratio and added new proven gross reserves of 200 to 300 BCFE. The remaining two locations will be drilled by the spring of 1996 and bring the total drilling investment to \$50 million. The key point that will be made with this case history is that the tremendous improvement in imaging with 3-D seismic data can lead to entirely new depositional and structural models even in heavily drilled areas. ■

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physics from the Colorado School of Mines. His career began with Amoco in 1977 where he is currently a Senior Staff Geophysicist with the Southeast Business Unit in Houston. His professional interests include 3-D seismic interpretation along with workstation visualization and mapping technology.