

Poster Presentation
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***Ship Shoal 113 and South Pelto 20 Fields:
Detection of Subtle Traps Utilizing 3-D Technology
and Detailed Development Geologic Practices***

by Ronald J. Chassaniol and James H. Bailey, Murphy Exploration and Production Company, New Orleans, LA

Ship Shoal Block 113 Field and South Pelto Block 20 Field are located about 100 miles southwest of New Orleans, Louisiana in 30' to 50' of water. To date, over 374 wells have yielded 144 million BO and 446 BCFG from Lower Pleistocene through Upper Miocene sands (2,000' to 15,000'). Production is primarily from complexly-faulted structural traps (domal and interdomal) associated with episodic salt movement throughout Late Miocene to Pleistocene time.

Detection of these fields was based on gravity data. Development of the

field evolved to include the integration of all well information into fair to good quality 2-D seismic data and ultimately into state-of-the-art 3-D seismic survey which was acquired in April, 1988 (Ship Shoal) and January, 1991 (South Pelto).

Through December, 1991, 26 wells had been drilled in Ship Shoal 113 and South Pelto 20 Fields based on the 3-D interpretation with a 92% success rate. All wells were amplitude supported and were primarily structural traps. With amplitude supported prospects waning, a comprehensive effort was undertaken, utilizing an interactive 3-D workstation

to detect subtle non-amplitude related structural traps along the flanks of these salt domes.

In November, 1991, the Ship Shoal Block 113 "N-2" well was successfully drilled and completed in a subtle salt overhang play, with no amplitude support. The well encountered 85' net oil in two Upper Pliocene sands prior to penetrating salt. Subsequently, five salt flank locations were drilled in these fields (four were successful). Additional domal tests will be drilled in the upcoming year.