

**3-D Seismic Volume of a Buried Thrust Front, Foredeep to Emergent Thrust Sheets, Quiriquire Block: Improved Exploration and Production, Eastern Venezuela Basin**

*by Vincent Rigatti, et al., Maxus, Dallas, TX*

Sizeable 3D seismic surveys over buried thrust fronts provide the start of a full 3D work process that greatly improves the exploration and production efforts of multiple plays in complex geologic trends and maximizes their profitability. This full 3-D platform not only improves seismic imaging and interpretation, but allows continuous 3-D analysis of the projects; from structural modeling and mapping, to cost reduction efforts for well and development programs; to stratigraphic, structural and fracture modeling input for full field simulation and in fill drilling.

YPF/Maxus and its partners have achieved a full 3-D image of a buried thrust front in one of the most prolific hydrocarbon-bearing trends in the world with two merged 3-D seismic surveys totaling 550 km<sup>2</sup> of surface coverage. This 3-D volume covers the series of stacked thrust sheets that form the eastward continuation of the Furrial field complex in the Eastern Venezuela basin. These data and the interpretive products were performed as a part of our technological commitment to Lagoven in the service contract of the Quiriquire block, awarded to Maxus in the 1993 Venezuela second marginal field bid round.