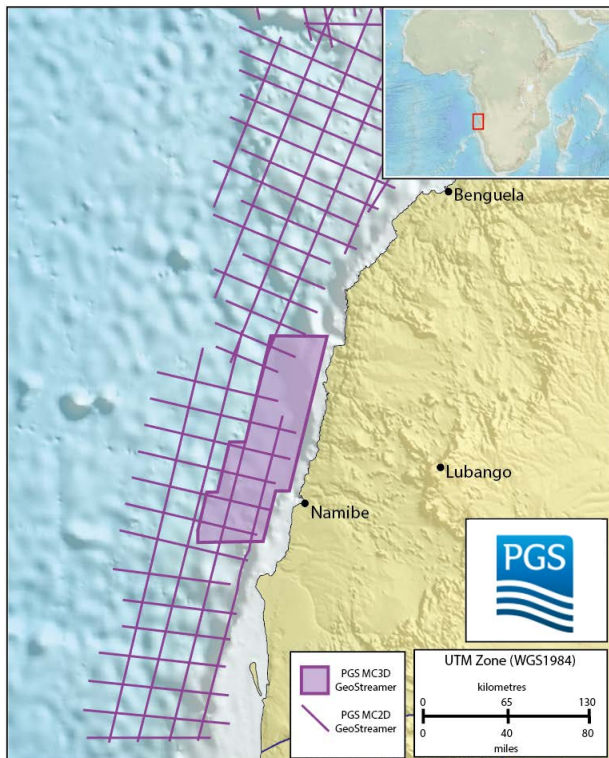


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# De-risking the Frontier

## A clearer image of the Namibe salt basin

PGS dual-sensor broadband GeoStreamer® data has been used to identify significant pre- and post-salt potential in the Namibe Basin, offshore southern Angola. This article aims to use the superior imaging offered by dual-sensor seismic data, combined with geoscience evaluation work, to present an understanding of the structural setting, reservoir facies and hydrocarbon charge of this frontier basin. It furthermore seeks to address some of the pre-salt exploration challenges in this basin that have also been encountered in the neighboring Kwanza Basin.



**Fig.1 Basemap showing the location of PGS GeoStreamer® 2D data in Southern Angola and the recently acquired GeoStreamer® 3D survey over the Namibe Basin**

The Namibe Basin represents a significant un-explored hydrocarbon province located onshore and offshore southern Angola. During the Late Jurassic to Early Cretaceous the eastern Atlantic margin of this part of West Africa developed as the conjugate to the prolific hydrocarbon bearing Santos and Campos basins. Although recent research describes the conjugate basins of Brazil and Angola as asymmetrical with each basin containing slightly different petroleum elements, discoveries of supergiant oil fields in the Santos Basin and Campos Basin resulted in a wave of pre-salt exploration optimism in Angola with some notable successes.

The recent exploration of the pre-salt plays in the Angolan Basins has been rapid with significant discoveries made away from the present-day shelf in the Kwanza Basin, such as Lontra, Orca and Bicular, demonstrating the success of this play.

A large regional 2D dual-sensor broadband survey was acquired by PGS in 2011 and processed and migrated to a depth of 15 kilometers, allowing the basin architecture and pre-salt plays of the Angolan basins to be de-risked (Figure 1).