

# Barbados: A Need to Explore the Offshore

It's about time to explore the offshore in more detail. That means the international oil industry is now welcome to bid in the next licensing round closing in April.

The oil industry is certainly not new to Barbados, a small island located to the north of Trinidad with abundant oil and gas resources. The first wells were drilled in the early 1900's, and by now almost 250 wells have been drilled, of which about 100 are producing either gas or oil. We are talking about only small quantities, some 1000 bopd and 1.6MMcfcpd being produced and remaining oil reserves just in excess of 1 MMbo, meaning that there is an urge to find more. This is why the Government of Barbados is now in the process of moving

offshore with their first licensing round.

The offshore basins cover some 42,000 km<sup>2</sup> (equivalent to 7 North Sea quadrants) with water depth in the range from 1000-3000m. So far, there is a seismic data base of 14,000 km of 2D. Previous attempts to test the offshore basins have not been successful. Only one well has been drilled (Sandy Lane in the Barbados Trough) and – albeit gas shows (pure methane) were encountered – Conoco-Phillips with Total as a partner relinquished their acreage in 2004. Amplitude brighten-

ing of sandstone events is now believed to be related to the presence of gas in the Sandy Lane prospect.

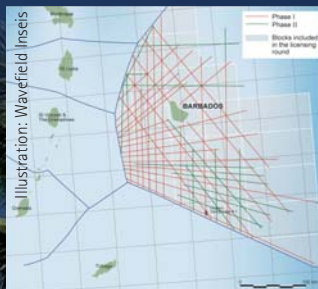
The Sandy Lane drilling thus established the presence of good quality reservoir rocks that have possibly been sourced from the southern segment of the Orinoco complex and may be related to the prolific La Luna source rock of the Maracaibo Basin in Venezuela.

The Tobago Trough and offshore Barbados Ridge have not yet been tested by the drill bit.

## Barbados

Barbados – with a total land area of 430 km<sup>2</sup> – is situated just east of the Caribbean Sea where it is a part of the Lesser Antilles island-chain. The sea on the west coast (Caribbean Sea) is tranquil while to the east coast, the waves become rough (Atlantic Ocean). To the south lies Trinidad and Tobago with which Barbados now shares a fixed official maritime boundary. Barbados has one of the highest standards of living and literacy rates worldwide.

Barbados – the island was uninhabited when first settled by the British in 1627 – is a flat island with less than 300,000 inhabitants. Historically, the Barbadian economy was dependent on sugarcane cultivation and related activities. However, production in recent years has diversified into light industry and tourism, with nearly three-quarters of GDP and 80% of exports being attributed to services (The World Factbook). Barbados is made up of various marine sediments of mainly Paleocene to Eocene age that are covered by a Quaternary coral reefs. The reefs surrounding the island contribute to its white, sandy beaches. The coral and limestone are extremely permeable, and allow rain water to filter through which is collected in catchments and then pumped to the taps by the various pumping stations around the island. This unique filtering system provides Barbados with the exceptionally pure drinking water.



Wavefield Inseis has acquired a multiclient regional seismic survey in cooperation with the Government of Barbados totaling 5960km. The survey covers the main prospective basins offshore Barbados and delineate the structural relations between the Tobago Basin, the Barbados Ridge and Barbados Trough as well as the northwest part of the Barbados Ridge. Surrounding the island, the survey provides for important ties both to the onshore geology of Barbados and to the Sandy Lane well located 145 km south of Barbados, just north of the border with Trinidad and Tobago.

