



**THE 4TH GEOLOGICAL CONFERENCE
OF
THE GEOLOGICAL SOCIETY OF TRINIDAD AND TOBAGO**
June 17-22, 2007, Hilton Trinidad & Conference Centre
Port-of-Spain, Trinidad and Tobago

“Caribbean Exploration – Planning for the Future”

ABSTRACT

**GEOLOGY AND GEOPHYSICAL INTERPRETATION OF THE NORTH MARINE-5
DISCOVERY, BLOCK 1A, GULF OF PARIA**

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The North Marine-5 Discovery lies in the Gulf of Paria approximately 28km WNW of Point Fortin and within Block 1a. The well was drilled by Trinmar in 1962 to target Upper Miocene and Lower Pliocene Manzanilla Sandstones in a low relief, domal structure identified on 1961 vintage seismic data. The Manzanilla sands were absent but multiple levels of the Pleistocene Talparo Formation were hydrocarbon bearing, with gas in the Sum Sum Sands and both oil and gas in the Durham Sands. A 3D seismic survey acquired in 2006 by Petro-Canada across Blocks 1a and 1b, has enabled a re-interpretation of the extent of the hydrocarbon accumulation at North Marine-5. Mapping of the sands and seismic amplitude anomalies due to gas-fill has re-defined the volumetric assessment, improved the understanding of fault control and identified additional prospectivity.