

## **North Soldado - Still pumping**

**Adrian Thomas**

*Petroleum Company of Trinidad and Tobago Petrotrin, Pointe-à-Pierre, Trinidad and Tobago*

### **Abstract**

The prolific North Soldado Field, discovered in 1961, has proven to date to be the only large oilfield in the Caroni Basin, having produced >200 million barrels of oil. Development of the field, the reservoirs of which are the Manzanilla and lower Springvale sands of Late Miocene to Pliocene age, has been achieved by a combination of single wells, clusters and platforms. The stratigraphy consists of at least four transgressive-regressive cycles, with environments of deposition varying from lower delta plain in the upper Manzanilla section to middle neritic in the lower Manzanilla section. This presentation sheds new structural and stratigraphic insight on the deeper “lower Manzanilla stratigraphy”, which has proven prolific in the past. There has been a re-examination of the structural model and new traps and potential reservoirs have been realised. The structural picture contains a large east-west striking extensional fault that exhibits growth stratigraphy in excess of 800 ft. This fault is kinematically linked to the transtensional horse tailing of the Los Bajos fault. Further examination of the model reveals a well imaged flower structure that formed heavily segmented compartments within the upper Manzanilla Formation, but has preserved larger compartments at depth within the “lower Manzanilla”. This lower Manzanilla section is believed to have potential in the mid-neritic sands that are interbedded with shales but exhibit high oil saturations. Successful drilling of these targets can substantially increase proven reserves in the North Soldado field.