

## **Fluid inclusion screening of Central Luconia carbonates — follow up 2002**

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A pilot study had been carried out using 8 wells as a calibration set in 2001, results were presented at the 2001 GSM conference. Clear indications for top seal failure, lateral seal failure and the liquid content of the gas had been observed and reasons for failure of dry wells were established. Given these encouraging findings a follow up study was initiated. Results of this work will be presented and discussed.

Fluid inclusion screening is a fast and cost effective technique, which has been used routinely in the oil industry for several years now. With this technique cutting samples are dried and crushed, fluid inclusion volatiles are released and then analysed in a mass spectrometer. This provides a log of palaeofluids and/or present day geochemistry throughout the stratigraphy. This reveals information on hydrocarbon composition, migration, seals and proximity-to-pay zones.

Historically in Central Luconia the Miocene carbonate build-ups have been the main exploration objective. The key risks associated with this play are the charge and retention risks as quite a number of structures were dry and nearby structures, in a similar geological setting, were gas-bearing. For the ongoing carbonate evaluation it is important to know if structures are dry due to “lack of charge” or due to “retention failure”. This technique can provide a quick and cheap way to resolve some of these questions.