

EXECUTIVE SUMMARY

A high-resolution biostratigraphic evaluation of potential source rock samples from the Campos, Santos and Espírito Santo basins of Southeast Brazil has been conducted. These samples were previously analyzed as part of a larger scale evaluation of the Great Campos Basin performed by GSI. This study was designed to evaluate the age of potential source rock intervals in each of the three sub-basins in order to assist exploration efforts in the less developed areas.

This was accomplished by the detailed evaluation of approximately one hundred-seventy (170) well cuttings and/or core samples. This study includes sixty-six (66) samples from twenty-eight (28) wells in the Campos Basin, forty-seven (47) samples from seventeen (17) wells in the Espírito Santo Basin and fifty-one (51) samples from ten (10) wells in the Santos Basin.

These samples were processed and analyzed for Calcareous Nannofossils, age dated and correlated with the new Global Cycle Chart of Hardenbol et al., 1998 and Wornardt, et al., 2001.

The procedure included the processing of each geochemical sample for Calcareous Nannofossils. A Biostratigraphic/Geochemical chart with relative age, Formation names, TOC, maturity, rock-eval, oil proneness and a well-log was constructed. The age of each sample was determined from the Important Calcareous Nannofossils and the superpositional relationships of the sample in each well.

This study provides valuable information with regard to:

- age date of each source rock sample in relative age/or in millions of years, Ma,
- Identify different age samples in the same well
- Identify same age samples in different wells
- Identify samples with same age and different TOC/ maturity
- Identify samples with different age and similar TOC/maturity
- Identify age of Formation
- Age date potential reservoirs
- Assign age of samples to associated Maximum Flooding Surface in Ma where possible, after Hardenbol et al., 1998 and Wornardt, 2001
- Provide data to help understand and interpret time of migration and generation
- Provide age of potential source rocks and seals

The stratigraphic interval covered by the samples extends from the middle Cretaceous to the Middle Tertiary.

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