

**HYDROCARBON SOURCE POTENTIAL AND DEPOSITIONAL ENVIRONMENT
OF EASTERN BLOCKS IN NAM CON SON BASIN, OFFSHORE VIETNAM**

Quan VO THI HAI

Geochemical Laboratory of Vietnam Petroleum Institute

Nam Con Son basin contains one of the most prolific hydrocarbon source rocks in offshore Viet Nam. Its organic-rich succession, mainly found in lower part of Middle Miocene, Lower Miocene and Oligocene claystone, coaly claystone and coal, indicates a strong hydrocarbon generation potential of oil and gas-prone which were derived from type III/I kerogens. They were deposited in high to medium oxidizing conditions of fluvial-deltaic, lacustrine and nearshore environments with variable amounts of higher plant, algal and bacterial input. Much of the source rocks are thermally mature and have already entered into the main phase of petroleum generation.

The facies with the highest hydrocarbon source potential were deposited during a paleobathymetric maximum at Late Cretaceous to Recent, with shallow to relative deep water conditions. Such an event is also recorded in the stratigraphic sequences and corresponds to a global tectonic-eustatic, sea level rise.

Biological marker data of the oils discovered up to now in the Nam Con Son basin show very good correlation with the ones presented by the organic extracts from the organic-rich facies of the Eastern blocks, thus confirming the oil's origin.

REFERENCES

- Gwang H.Lee, Keumsuk Lee, and Watkins J.S. (2000) Geologic evolution of the CuuLong and Nam Con Son basins, offshore southern Vietnam, South China Sea.
Matthews, Fraser, Lowe S., Todd S.P.& Peel F.J. (1997) Structure, stratigraphy and petroleum geology of the SE Nam Con Son basin, offshore Vietnam.