



## **Gas hydrates over the Egyptian Med. Coastal waters**

Sayed Sharaf El Din and Marawan Nassar  
(ecosalex@yahoo.com)

The Nile Delta is a major Tertiary basin along the margin of the African Craton in the Eastern Mediterranean Sea. The main petroleum system comprises of an Oligocene Type II/III mixed oil and gas prone source rock which charges the overlying thick sequence of Neogene-Quaternary clastics. The hydrocarbon plays are dominated by Pliocene turbidite fans and channels, deltaic sandstone, Natural gas hydrates occur worldwide in different oceanic environments, especially in areas of onshore and offshore permafrost and in sediments on continental slopes.

P\_T conditions required to initiate the hydrate formation and to stabilize its structure are encountered along the continental slope of the Nile Delta

Hydrocarbon gases in the Nile delta are not geochemically homogeneous, originating from the decomposition of organic matter by biochemical and thermal processes.

The structure of the hydrate determines the types of gas molecules contained.

Although Gas hydrates exist over the Egyptian Med. Coastal waters, very little is known on its origin, quality and quantity.

Several studies had been done by several oil companies in the vicinity of the Egyptian territory.

High concentration in thin, patchy zones just above the BSR may be, destabilized by Tectonic uplift or climatic changes.

The seismic profiles taken over the continental slope of the Nile showing strong evidences of MH with very clear BSR.

Geological and geochemical setting of the Gas Hydrate in front of the Egyptian Nile Delta needs more investigations.