

## **HYDROCARBON PROSPECTS OF NATRUN-BASIN, WEST NILE DELTA, EGYPT**

1SADEK, A., 2BARAKAT, M.G., and 3DARWEESH, M.; Geology Department, Cairo University, Cairo, Egypt.

Wadi El-Natron area occupies the border between two important hydrocarbon provinces. These are the Nile Delta to the east and the Northwestern Desert to the west. The Nile Delta has proved to be a major gas reservoir, and the Western Desert is looked upon as a promising province of good hydrocarbon potentialities. Our foreseen expectation predicts that the Natrun basin has various geological characters inherited from both neighbouring basins. The stratigraphic column in this area reaches up to 6000m thick, including an almost complete sedimentary succession from the Early Paleozoic to the Recent. In terms of hydrocarbon potentiality, the following topics are discussed; 1. Source rocks; geochemical analysis carried out through most of the stratigraphic succession have shown that the potential source rocks could be identified in the Upper Cretaceous, Lower Cretaceous, Jurassic and Paleozoic. 2. Reservoir and Seal rocks; Fair to good sandstone reservoirs are recorded throughout most of the stratigraphic succession in the Natrun basin. Intra sequential impervious strata within the stratigraphic column would impede transverse hydrocarbon migration. 3. Traps and timing of pressure readjustment; Various types of traps including both structural and stratigraphic are expected in the study area. These are believed to be the outcome of truncation and overlap during the older orogenic movements and the sequential Late Cretaceous-Early Tertiary transgression and regression.