

Tectonic Role in Carbonate Platforms Configuration: A Case Study of Cenomanian-Turonian Deposits at Khorramabad Area, NE of Lurestan, Iran

Seyed Abolghasem Mahmoudi¹ & Mohammad Ali Kavooosi²

*N.I.O.C. Exploration Directorate, 1st Dead End, Seoul St., NE Sheikh Bahaei Sq. 1994814695 Tehran, IRAN
Email: samahmudi@yahoo.com, kalenoo2002@yahoo.com*

The Cenomanian-Turonian deposits of the Sarvak Formation are oil reservoir in Zagros-fold-thrust-belt. This formation is oil producing in the Lurestan area in two fields named Sarkan and Maleh Kuh. Some drilled wells in these fields are dry. We try to understand what control the reservoir properties of this formation and lateral facies changes in this area.

According to absence of siliciclastics and transition of shallow-water carbonate platform from interior part of Kuh-e Safid towards pelagic facies that named Garau Formation, an isolated platform in Kuh-Safid is suggested.

The transition of pelagic facies from fine to coarse-grained calcitubidites can be assigned a progressive progradation. In vertical succession this progradation is accompanied with clinofolds and coarse-grained calciturbidites that contain oil-staining intraclasts in the Turonian deposits. From this location towards south, shallow carbonates change suddenly to the pelagic facies. Meanwhile, towards north, at Aleshtar section shallow and restricted carbonates of the Sarvak Formation were deposited. Very sharp lateral facies change in north-south direction with different facies variation from supratidal facies inferred from mudcracks and salt pseudomorphs to deeper marine carbonates. Along with lateral thickness changes confirm the tectonic control in configuration of platform before deposition of the Lower Cretaceous deposits.

Key words: *Tectonic, Cenomanian, Turonian, Zagros, Lurestan, Sarvak*