The Role of Palynology for Dating the Liassic Successions of the Silici Volcanic Deposits of Oued El Maleh, Coastal Meseta, Morocco

S. Rouh[1], Z. Youssfi, R. Zahour[1], T. Hssaida, and F. Oumalch[2]
[1] Université Hassan II, Mohammedia, Faculté des sciences, Ben M'Sik, Casablanca, Maroc
[2] ONHYM, Direction de l'Exploration Pétrolière, Division des Laboratoire Pétrole, Rabat, Maroc

The studied area is one of the Triassic – Liassic basins of the Moroccan coastal Meseta, near the city of Mohammedia. The Triassic silici volcanic deposits of Oued El Maleh, more than 70 meters thick, are composed of a silty to sandy conglomeratic unit (20m thick), overlain by basalts (10m) and claystone with gypsum layers (40m).

These series, having a fault contact with the cambro-ordovician micaceous schist basement, are overlain by the Neogene (Villafranchian) conglomerates.

The tectono-volcanic investigation, together with a sedimentological study, allowed us to propose the kinematics for the opening of this basin, during the Triassic, into a submeridian hemi-graben.

The sedimentation and the volcanism are guided by the Sidi Bouchaïb fault. This fault, striking approximately N10-30, could represent a structural heritage which induced the vertical movement and shifting of the series during the Triassic distension.

The gypsiferous clay horizons, herein investigated, have previously been assigned to the Permo-Triassic. The present palynological study allowed us to precisely date this unit, based on rich Liassic dinoflagellate cysts assemblages.

Keywords: Dinoflagellate, Liassic; Oued El Maleh; Morocco