Early Cretaceous (Aptian–Albian) palynology of the Kabrit-1 borehole, onshore Northern Gulf of Suez, Egypt

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Abstract:

Abstract Aptian and Albian palynofloras were extracted from a Lower Cretaceous succession penetrated by the Kabrit-1 borehole, northern Gulf of Suez. Representatives of Murospora and pollen such as Afropollis operculatus and A. zonatus are diagnostic of the Aptian palynoflora. Afropollis jardinus, Crybelosporites pannueus spores and elaterate pollens such as Elaterosporites klaszii and E. verrucatus date the overlying succession as Albian and Upper Albian–lower Cenomanian? Reyrea polymorphus and Cicatricosisporites sinuosus co-occur only in the Albian. The palynofloras are suggestive of shallow marine environment and warm humid palaeoclimate, as directly inferred from the nature and composition of the palynomorph content, which is dominated by pteridophytic spores, along with marine dinoflagellates. The occurrence of rich terrestrial influx of palynomorphs and palynodebris suggests proximity of the depositional sites to source vegetation. The vertical distribution of terrestrial versus marine palynomorphs cannot reflect contemporaneous regressive/transgressive cycles during deposition of the different rock units. The Kabrit-1 palynoflora share general features of the Northern Gondwana province.

Keywords:

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