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Salt structures from different structural domains in Algeria

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The Algerian structural framework shows different structural domains where several evaporite levels are known within Mesozoic and Cenozoic sequences. They are summarized in this paper.

(a) In the Saharan Platform and the tello- rifain system they are mainly Triassic – Liassic in age and Messinian in the Mediterranean Sea corresponding to the Algerian-Provençal basin.
(b) In these domains, some thickness and facies change of the overburden sequences of the evaporites are linked to salt tectonics.
(c) In the Saharan Platform, Triassic- Liassic evaporite sequences seal Paleozoic petroleum reservoirs and affect the thermal evolution of some Paleozoic source rocks. These evaporites are locally mobilized during the Lower Cretaceous.
(d) To the north of the Saharan Platform, the Triassic evaporites make diapirs and salt pillows as observed in the Saharan Atlas. Some of the Triassic salt pillows formed at the first stage became diapiric during the Upper Jurassic and Cretaceous times and continued by downbuilding.
(e) During the Tertiary compressive regime this material has played a significant role in governing deformation in the Algerian Saharan Atlas. Salt structures characterize also a part of the Algerian offshore domain. They are made up by the Messinian evaporites.

All these structures are coeval with the extensional events that affected the northern margin of the African plate. They occurred during the Liassic, Lower Cretaceous and likely during the Pliocene.