BURIED CHANNELS ON THE BASIN FLANK IN THE BAY OF MERSIN

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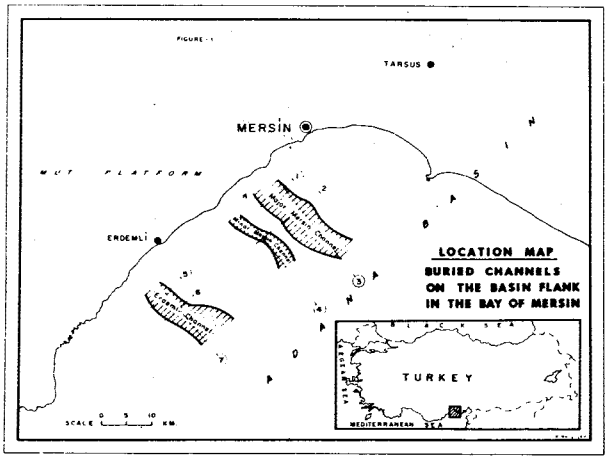
There exists a number of buried channels, which formed during Lower or Middle Miocene age, on the northwestern flank of the Adana Basin in the Bay of Mersin, south of Turkey (Figure 1). The purpose of this paper is to investigate probable origin of the channels and their depositional facies using some representative reflection seismic data from the area.

On a constaté la présence d'un certain nombre de canaux enterrés sur les profiles sismiques au Golfe de Mersin au sud de Turquie (Figure 1). Formés à l'âge de Miocène inférieure-moyen, et remplis avec des sédiments récents, ces canaux sont situés sur le flanc du bassin plus ou moins perpendiculaire à la côte actuelle. Le but de cet exposé est d'examiner leur origine et leur conditions de sédimentation par des données sismique réflexion representant de la région étudiée. 3 profiles dans le sens de direction et 4 profiles dans le sens de pendage sont inclus dans l'interprétation.

From a geological point of view, it appears that there is continuity between main structural units defined onshore and offshore along southern coast of Turkey. Three main geological provinces are mentioned from west to east; namely, Antalya Basin, Mut Platform and Adana Basin. In the Alpine orogenic zone, these Neogene basins correspond to subsiding areas generally developed over an allocthonous substratum (BEICIP Report, 1976). During Middle Miocene, Mut Platform can be considered as a submerged platform area, the subsiding Adana Basin in the east and the Antalya Basin in the

west. Deeply incised channels occur on the shelf platform and the basin slope of the Adana Basin running NW-SE. Three of these channels were recognized and examined on the seismic sections. These are Major and Minor Mersin Channels and Erdemli Channel. 3 strike lines and 4 dip lines were included in the interpretation. Width of the channels varies between 2.8-8 km and vertical relief between 250-550 m. These are examples of erosional channels. Channel-fill deposits are of weak reflector to chaotic in character and they contrast sharply with the more continuous layering of the pre-channel deposits. The fills are unconsolidated characterized by low velocity resulting in a time sagging of subchannel reflections. On lower parts of the channels, two different formations are significant within the channel-fill sediments. Deltaic environment can be observed on seismic sections running along the channels characterized by the progradation within Pliocene-Pleistocene sediments in the Adana Basin.



REFERENCE

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