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**Upper Jurassic Ephemeral Fluvial Systems of the Neuquen Basin: Tordillo Formation, Argentina**

A sedimentary model for the Kimmeridgian Tordillo Formation of the Neuquén basin is proposed. Through the measurement of six stratigraphic logs, an ephemeral fluvial system associated with continental mud flats is proposed.

Gravelly and sandy-gravelly longitudinal bars formed in a traction-dominated braid-plain characterize the proximal areas. Towards distal areas, sandy lobes composed of small 3D bars and aggrading current ripples formed during sudden non-channelized floods, alternate with mudflat deposits.

This ephemeral fluvial system was developed under a generalized phase of arid to semiarid climate. The volcanoclastic nature of the Tordillo deposits and the paleocurrent trends allow to suggest positive lands located to the south (Dorsal de Huincul) and west (Andean Magmatic Arc).

The uplift of these structures was intense and active at the time of deposition of the Tordillo Formation.