

Abstract:

The Klikov Formation (Upper Cretaceous) represents the lowest stratigraphic unit of the South Bohemian basins.

It provides record of continental deposits related to fluvial processes. Analysis of facies and architectures supplemented with paleocurrents data provided a basis for interpretation of depositional system exposed underground on the locality Hosín-Orty.

In this study identifies sedimentary facies corresponding to high-energy river environment with dominance of traction current deposition are identified. Next to this, facies corresponding to low-energy deposition from suspension is preserved. From the perspective of architecture analysis depositional record represent active river channels and their fills eventually fills of abandoned channels.

Low dispersion of paleocurrent values is consistent with a low-sinuosity river.

Vertical aggradation of channels, dominance of river bars in channel-fill, downstream accretion, absence of ripples, point-bars, laterally accreted patterns and floodplain deposits correspond with braided river environment.

Stratigraphic units A, B, C, D, E, F corresponding to fluvial environment or environment of abandoned channel were distinguished.

The direction of river flow is interpreted to northeast in unit A, and northwest in unit B, respectively.

Autogenic and allogenic processes which could have influence on fluvial depositional style and its changes. Dominant mechanism of deposition seems to be autocyclicality of fluvial system but patterns that point to possible influence of tectonic activity are present as well.