

STRATIGRAPHY AND DEPOSITIONAL SYSTEMS OF THE LOWER CRETACEOUS AREADO GROUP, CENTER WEST OF MINAS GERAIS, BRAZIL.

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The study area belongs to the Galena District from Presidente Olegário City. At the base, the Cretaceous sedimentary succession are separated from the Neoproterozoic Bambuí Group by an angular unconformity. The João Pinheiro fault, a trans-pressure strike-slip fault oriented N-NW/S-SE, crosses the area. At the top, an erosional contact separates the Areado Group from the Upper Cretaceous volcanogenic sediments from the Mata da Corda Group. A detailed geological survey using facies analysis together with a careful structural study of the Neoproterozoic basement resulted in a paleogeographic model, for that part of the Sanfranciscana Basin. Twenty nine sedimentary facies were defined and clustered in five different depositional systems. The sedimentary pattern represent a transgressive/regressive cycle during the Lower Cretaceous. The transgressive phase shows a retrogradational pattern stacking of alluvial eolian, deltaic, lacustrine and marine systems. The top of the section matches with the lower chert level. Subsequently develops a progradational delta transitional system and on the top occurs thin radiolarian chert layer which proves a probably short marine episode during Lower Cretaceous. Above that level, are deposited eolian facies truncated on the top by the volcanogenic sediments. The retrogradational pattern indicates a fast rising of the water level till the position of the first chert layer. Follows a slow lowering of the water level and the formation of the delta systems. A short stability period allowed the eolian deposition further truncated in response to the rising of the Alto Paranaíba arch, at Southwest.