

# **STRATIGRAPHIC FRAMEWORK PROPOSAL FOR CAMBRO-ORDOVICIAN SANTA BÁRBARA FORMATION, CAÇAPAVA DO SUL (RS), BRAZIL**

**BORBA, ANDRÉ W. DE – IG/UFRGS, Porto Alegre (RS), Brazil.**

This study aims to establish a preliminary stratigraphic framework for Santa Bárbara Formation west of Caçapava do Sul (RS), Brazil. This unit filled out a fault-bounded basin formed by extensional and strike-slip stresses after a transpressive phase which folded underlying Bom Jardim Group and allowed intrusion of foliated granites. Santa Bárbara Formation consists of red immature sedimentary rocks dipping 45° to 23° southeast and unconformably overlying Cambrian acid alkaline volcanics.

Santa Bárbara Formation can be divided in two main subunits: the first represents alluvio-lacustrine systems with conglomerates rich in rhyolite clasts and tabular siltstone-sandstone beds with an extensive lateral continuity. Relative base-level falls, associated with fault activity in the basin, originated local erosional surfaces and dissection features such as mudcracks. Paleocurrents indicate east-northeastward flow sense and breccias composed of foliated granitic/metamorphic angulose clasts represent eastern border talus deposits.

The second subunit results of braided fluvial systems and consists of conglomerates and coarse-grained sandstones with lenticular geometry. Rounded clasts of granitic/volcanic composition and red siltstone intraclasts occur. Paleocurrents indicate transport toward the south, and relative base-level variations are recorded in conglomerate- and sandstone-predominance periods.

Detailed stratigraphic profiles, petrography applied to provenance and diagenesis, Rb-Sr dating, apatite fission-track analysis, and accurate structural survey are being performed in order to improve knowledge on the tectonic model for the deposition of Santa Bárbara Formation.