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Tectono-stratigraphic evolution of the Comondú Group from Bahía de La Paz to Loreto, Baja California Sur, Mexico

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ABSTRACT

The late Oligocene to mid-Miocene volcanic and volcaniclastic rocks of the Comondú Group are well exposed along the Main Rift Escarpment of Baja California Sur from the Bahía de La Paz region to Bahía Concepción. New mapping and stratigraphic analysis of the Comondú Group from Bahía de La Paz to Loreto reveal facies trends and correlations that form the foundation for a continuous stratigraphic framework for the Comondú Group along a 300 km-long transect on the eastern coast of the Baja California peninsula. Broad but distinct lithostratigraphic trends, alluvial fan facies, and volcanic and volcaniclastic facies record an overall coarsening-upwards package that includes ignimbrite deposits within increasingly proximal alluvial fan deposits, both derived from the east. Geochronology of the unit, including 32 isotope ages and 12 previously unpublished ⁴⁰Ar/³⁹Ar ages, provide the timing of four main increasingly proximal depositional events. Non-marine sandstone, defining the base of the Comondú Group, was first deposited between ~26 Ma and ~24 Ma. Emplacement of rhyolitic ignimbrites initiated between ~24 Ma

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