

HIGH-RESOLUTION SEQUENCE STRATIGRAPHY IN THE MIDDLE JURASSIC CUYO GROUP, SOUTH NEUQUEN BASIN, ARGENTINA.

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A sequence-stratigraphic analysis, based on outcrop data, is presented for the Middle Jurassic Cuyo Group in the southern Neuquén Basin. The studied area is located 40 Km south of Zapala city, and comprises Middle Jurassic outcrops placed in the Lohan Mahuida - Picún Leufú - Cerro Lotena area. In these outcrops, the Cuyo Group comprises shallow marine to continental beds up to 1200 m of thickness. Twelve sedimentary sections were measured through the succession, in which facies and sequence stratigraphic analysis have been carried out. The study allowed to recognize eight depositional sequences, related to both 3rd and 4th-order base level cycles. 3rd-order sequences, named JC4, JC5, JC6 and JC7, show an internal predictive succession of systems tracts, indicative of a mainly eustatically driven mechanics. Except for the last two sequences, which are continental deposits all over this area, ammonoid fossils remnants indicate an Upper Aalenian-Upper Bajocian age. The JC4 depositional sequence are internally composed by a progradational 4th order sequence set. These minor sequences are named JC4.1, JC4.2, JC4.3, JC4.4, and JC4.5. Local to regional studies allow to recognize an extensive truncation - non deposition episode (up to 200 meters) between the JC4.1-JC4.2 and JC5 sequences, because three 4th order depositional sequences (JC4.3, JC4.4, and JC4.5) are missing in the central-east area. Tectonic evidences have also been found between the JC5-JC6 and JC6-JC7 sequences in the Puesto Bascañán and Bosque Petrificado area. In this last position, the JC7 sequence rests over the JC6 sequence with a 50° angular uncorformity. The tectonic vs. eustatic controls of each sequence boundary are discussed. A detailed outcrop map of each recognized depositional sequences in the studied area is also included.