FACIES DISTRIBUTION AND EVOLUTION ASSOCIATED TO A SUBMARINE ANTICLINE GROWTH: ANALYSIS OF THE MARINE TO CONTINENTAL GROWTH STRATA RELATED TO THE BOLTAÑA ANTICLINE (EOCENE, JACA BASIN, SOUTHERN PYRENEES)

Rafael Ignacio Robertson Luco (student) Msc Reservoir Geology and Geophysics UB-UAB

Miguel Lopéz Blanco (advisor) **Pau Arbués Cazo** (co-advisor) – University of Barcelona, Faculty of Earth Science, Department of the Earth and Ocean Dynamics.

ABSTRACT

The research Master´s thesis is focus on the topics of sequence stratigraphy and stratigraphy itself applied to a sedimentary succession (Middle Eocene of the foreland Jaca basin) in the Southside of the Ara Valley, in the Jaca basin. The study of the facies distribution and evolution related to a submarine anticline growth (Boltaña anticline) show a generalized regressive trend from the transition of marine to fluvial continental environments affected by syntectonic deformation. This wedge strikes (Pinch out) against a series of progressive angular unconformities which are located in Aguilar (Southeaster area of the map) and condensates all these units into a growing relief and develops geometries such as onlaps or angular unconformities. The stratigraphic work analyses the vertical and lateral variation of these syntectonic units and through the use of sequence stratigraphy improves the comprehension of the different depositional cycles. The understanding of this geometry works as an analogue of possible stratigraphic traps and reservoirs for the accumulation of hydrocarbon.

Key words: Sequence stratigraphy, Eocene, Jaca Basin, Pyrenees, Boltaña Anticline, Syn sedimentary growth

Date: 27/06/2017