

Play Identification by Well Log Correlation in the Armàncies (!) Petroleum System. SE Pyrenees (Catalonia)

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Andrea Tabares Cardona*

*Reservoir Geology and Geophysics - University of Barcelona

Tutor: Dr Josep Giner

ABSTRACT

Petrophysical and stratigraphic data of the study area have been analyzed in order to establish the reservoir/seal pairs and the play concepts within the Armàncies Petroleum System, in the southeastern Pyrenees. The source rock, the Armàncies formation, consists of alternating layers of organic-rich shales and thin limestones; this formation outcrops in the Cadí thrust sheet. The results show that two reservoir-seal pairs, that could be charged by the Armàncies formation, are present in the studied area. A main play formed by Peña and Banyoles formations, and a potential play produced by Cadí and Corones formations. The main play can increase its reservoir capacity when Corones formation has sandy facies and allows Peña, Corones and Cadí formations act as one body that can be charged with hydrocarbon. The potential play can be produced when Corones formation consist on shaly facies and can perform as a seal. The well correlation also has evidenced the occurrence of different Eocene sequences. Their evolution and the large changes of thickness northward are strongly connected with the emplacement of the south Pyrenean thrust sheets.