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**Thin Bed of Tuffaceous Sandstone Reservoir Can be Recognized from High Velocity Zone in The Manantiales Behr Field, San Jorge Basin, Argentina**

The Golfo San Jorge Basin, the oldest hydrocarbon producing basin in Argentina, is an intracratonic extensional basin located in the central part of The Patagonia Terrane. The Chubut Group of the Upper Cretaceous age has been the main producing unit with an average reservoir thickness of 2 to 10 meters. These intervals have a high pyroclastic content which decrease the reservoir quality. This study involves a thorough seismic, petrophysical, sedimentological and stratigraphic analysis utilizing 3D seismic information, wireline logs and cutting or sample data in order to identify and characterize reservoir facies laterally and vertically. Most of the reservoirs are below tuning thickness, so instead of using seismic isochrones (DT) their distribution was interpreted based on seismic amplitudes, extracted from 3D seismic data, acquired in 1999. The reservoir within channel belts have a relatively higher velocity than adjacent rocks, This characteristic can be used to identify facies. Sonic log and VSP were run in order to get more accurate and precise analysis, related to seismic reflections and interval velocity anomalies. Some basalt intrusion can be found in the well and they interfere with the seismic reflection from the reservoir zones, making interpretation more difficult and reducing accuracy. But we can take them into consideration in our risk analysis.