

DISPOSITION OF THE LATE TERTIARY FORMATIONS IN THE SOUTHERN AREA OF THE SAN JOSE DEPARTMENT (URUGUAY).

1,2 SPOTURNO, J. J. 1 Fac. de Ciencias , Dep. de Geología, Montevideo, Uruguay. 2, DINAMIGE, Montevideo, Uruguay.

This work is part of the studies related to the Raigón Aquifer Project. The area corresponds to the western portion of the Santa Lucía rift, originated during the Juro-Cretacic with the fragmentation and drift of the Gondwana continent. Basic volcanic rocks and sediments more than 2.000 meters thick, fill the basin. Departing from the 1:100.000 geological map and twenty boreholes, the bathymetry of the Fray Bentos formation (Oligocene) and the isopach of the Camacho (Miocene) and Raigón (Pliocene) formations were obtained. Fine deposits of continental origin, which represent a basal unit, are characteristics of the Fray Bentos formation. The bathymetry shows a central zone with a NW-SE direction sub-surface morphological high, which divides the region into south and north sub-basins. This morphology is one of the factors that subsequently control the sedimentary process. Transgressive littoral marine sedimentation of Camacho formation took place in the south sub-basin. Its main depocentre occurs in the southwest sector with a thickness of 35 meters, being progressively thinning towards the north and east-northeast basin limit. Coarse and fined grained sands of fluvial and fluvial-deltaic origin with tidal control, characterize the Raigón formation aquifer. These sediments occur in both sub-basins. In the south sub-basin, the main depocentre is located in the southeast sector, with a thickness of 40 meters and a thinning towards the west-northwest and north. The main depocentre of the north sub-basin is located in the central zone, with a thickness of 15 to 20 meters and a thinning to the south and north.