

# **DISCRIMINANT ANALYSIS FOR GEOLOGICAL DATA INTEGRATION IN TURBIDITES OF CAMPOS BASIN**

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Available reservoir data encompasses measurements in different scales, from seismic to thin sections. Ideally, all measurements should be integrated into a unified self-consistent model. This integration depends on collaborative effort between specialists in several disciplines including geology, rock physics, and reservoir simulation. In this work we intend to contribute to the effort of reservoir data interpretation reporting a method that integrates different scales, including rock samples and well logs, of the most important oil bearing zone of Campos Basin. The studied area has 1200 km<sup>2</sup> in which 130 wells were selected to build the model. By employing discriminant analysis, wireline logs and core data were used to estimate facies in cored and uncored intervals. We called each estimated facies association a virtual core as opposed to the facies association described from core rock samples. Discriminant equations and facies estimation were checked by crossvalidation, alternating wells inside the model. The percentage of massive median sandstone, from virtual cores, was the index chosen to represent each well. This index was plotted in map and validated in uncored intervals with cuttings grain size analysis. Facies estimation by discriminant equations in cored and uncored wells provided a useful set of data for geological interpretation. Grain size and depositional energy were estimated from the index map. The index map in conjunction with isopac maps could help the definition of sedimentological processes.