

Technological Challenges in the Integral Development of the Orinoco Oil Belt, Eastern Venezuela

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The Faja Petrolífera del Orinoco (Orinoco Oil Belt), “F.P.O.”, constitutes the foundation for Venezuelas future economic and energy development. Currently, the corporation is promoting new developments which are based on growth at a technological level. These new developments will promote the corporations medium and long term autonomy in generating and managing new products based on the experiences which have been obtained over the past decade in the fields under development by existing joint ventures and over a longer time period in the extra heavy oil traditional areas.

The objective of this paper is to analyze the need for incorporating new technology as a crucial aspect in the exploitation of these extra heavy oils. A general vision of the lessons learned in the areas currently under development in the F.P.O. is presented, also, an analysis of the critical aspects to be considered in the application of new technologies for the best characterization and development of the existing resources.

The analysis incorporates the lessons learned from the geological and fluid characterization of the existing reservoirs to the enhanced oil recovery methods applied to date. The results are utilized to determine which technologies can feasibly be applied in future developments and the impact these may have on the profitability of the future ventures in the F.P.O.