SOURCE ROCK UNCERTAINTY ANALYSIS IN THE GIPPSLAND BASIN (SE AUSTRALIA) BASED IN 2D SEISMIC INTERPRETATION AND PETROLEUM SYSTEM MODELING

ABSTRACT

Source rock within the stratigraphic units in Gippsland basin are distributed at different depths, mainly characterized by adequate features with a high content of organic matter, and sediments properly deposited within paleo-environments that comply with suitable conditions to generate hydrocarbon accumulations in different structures for the extraction of the resource. Despite high potential in its physical properties, there is a percentage of uncertainty that has been studied in recent years. The development of uncertainty analysis project includes aspects of geology, regional setting, geophysical data measurements and record of the petroleum systems to achieve a wide variety of accurate results as source rock location, percentages of maturity and kerogen transformation within the oil window, and hydrocarbons migration as well.

***Key words**: Source rock uncertainty, 2D Seismic interpretation, Petroleum system modeling, Organic matter, Boundary conditions, Hydrocarbons.*

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