

## Evaluation of Hydrocarbon Prospects of 'ADE' Field, Niger Delta

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**Abstract :** Prospect evaluation of 'the 'ADE' field was done using 3D seismic data and well log data. The field is located in the offshore Niger Delta where water depth ranges from 450 to 800 m. The objectives of this study are to explore deeper prospects and to ascertain the kind of traps that are favorable for the accumulation of hydrocarbon in the field. Six horizons with major and minor faults were identified and mapped in the field. Time structure maps of these horizons were generated and using the available check-shot data the maps were converted to top structure maps which were used to calculate the hydrocarbon volume. The results show that regional structural highs that are trending in northeast-southwest (NE-SW) characterized a large portion of the field. These highs were observed across all horizons revealing a regional post-depositional deformation. Three prospects were identified and evaluated to understand the different opportunities in the field. These include stratigraphic pinch out and bi-directional downlap. The results of this study show that the field has potentials for new opportunities that could be explored for further studies.

**Keywords :** hydrocarbon, play, prospect, stratigraphy

**Conference Title :** ICOGR 2018 : International Conference on Oil and Gas Research

**Conference Location :** Montreal, Canada

**Conference Dates :** May 24-25, 2018