

Hydrocarbon New Business Opportunities in the Bida Basin of Central Nigeria: Prospect and Challenges

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Abstract : An integrated study combining geological prospectivity mapping and geophysical aeromagnetic interpretation was carried out to determine hydrocarbon new business opportunities that may exist in the Bida Basin of Central Nigeria. Geological mapping was used to delineate the geological boundaries between the formations which is a significant initial criterion in evaluating hydrocarbon prospectivity. Processed and interpreted geophysical aeromagnetic data over the basin juxtaposed against the geological map has led to ranking of the prospectivity as less prospective, prospective and more prospective. The prospective and more prospective areas constitute new hydrocarbon business opportunities in the basin. The more prospective areas are at Pattishabakolo near Bida and at Kandi near Gulu. Prospective areas cover Badegi, Lemu, Duba, Kutigi, Auna, Mashegu and Mokwa. Geochemical data show that hydrocarbon source rocks exist within the Enagi and Patti formations in the northern and southern sections respectively. The geophysical aeromagnetic data indicates depths of more than 2,000m (> 2 Km) within the identified prospective areas. New business opportunities as used here refer to open acreages in Nigeria's sedimentary basins that have not been licensed out by the government (Department of Petroleum Resources) to any operator but with significant potentials for commercial hydrocarbon accumulation.

Keywords : hydrocarbon, aeromagnetic, business opportunity, Bida Basin

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