



## Regional Structure and Petroleum Potential of the North Panama Deformed Belt

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### EXTENDED ABSTRACT

Newly acquired 2D seismic reflection data, designed to evaluate prospectivity of the frontier area of offshore Panama in the Caribbean gives insight into the structural style and potential petroleum system(s) of the North Panama Deformed Belt (NPDB), an accretionary prism and foldbelt lying north of the Panamanian isthmus. This is the first seismic survey acquired in this region in three decades, extending to the wholly unmapped areas in the deepwater. The program contains 9954 sq km of long offset seismic data designed to align to the shape of the NPDB and obtain a deep structural image orthogonal to the curvature of the foldbelt wherever possible down to the crustal reflectors (Fig. 1).

The Panama-Costa Rica Arc is believed to have been built upon the southwestern fringe of the Caribbean Plate which is an abnormally-thick and buoyant oceanic plateau complex (Burke et al., 1978). The current tectonic setting of the Panamanian Isthmus is complex due to the influence of several plates and microplates moving at different rates and directions relative to each other creating the complex tectonic evolution of the area. The Panamanian isthmus consists of two major blocks separated from the Panama Canal Fault Zone (PCFZ): the Chorotega Block to the west and north-west shared with Costa Rica, and the Choco Block to the east, currently colliding with Colombia. To the north, the Caribbean Plate is subducting under Colombia and the Panamanian isthmus (Barat et al., 2014).

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