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Jerry Gill¹, David Cameron¹ (1) VAALCO Energy, Inc, Houston, TX

3D Revives an Old Play: Result; An Aptian Subsalt Discovery, Etame Field, Offshore Gabon, West Africa

VAALCO Gabon (Etame), Inc. was awarded the Etame Marin permit in July 1995. The permit encompasses 3074 km² within the northern portion of the Congo Basin offshore southern Gabon. The Congo Basin developed and evolved as a result of rifting and subsequent drifting of the African continent from South America. An upper Aptian salt series divides the underlying syn-rift sediments and structures of the basin from the overlying drift-sag sediments, which have been structured by post Albian salt tectonics. The dominant salt features are sub-parallel "salt walls" that extend for 10-50 kilometers.

Between 1969 and 1992 various operators, including Shell, Elf and Esso, drilled 25 subsalt tests within the permit area on the basis of 2D seismic. For the most part their primary objective was the middle Aptian Gamba sandstone reservoir, with porosities of 25-30% and permeabilities of 1-3 darcies. These early exploration efforts accumulated 6000 km of 2D seismic and discovered two noncommercial oil fields of approximately 10 MMBO each. Production on trend from this world class reservoir includes the onshore Gabon fields of Rabi-Kounga and Gamba-Ivinga (EUR~1200 MMBO).

VAALCO and partners acquired a 385 km² 3D seismic survey in 1997 and drilled the discovery well for Etame Field in June 1998 on the basis of Post Stack Depth Migrated data. The discovery well tested 3700 BOPD from a 13 meter interval in the Gamba sandstone. A subsequent well, although successful, reinforced the need for better seismic resolution below the "salt walls" and a better velocity model to delineate the low relief drape structure that defines Etame Field. Pre Stack Depth Migration processing was performed on the 3D survey by Paradigm Geophysical in 1999, and two very successful appraisal wells followed in 2001. Development planning is underway and first production is expected in mid 2002.