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## **Agbami Project: People and Partnerships Delivering a World Scale Field Development**

Craig D. Bloomer, ASME, Chevron Project Resources Company

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### **Abstract**

The Agbami Project successfully commenced production in July 2008, ten years after the discovery of this world-class reservoir. Agbami represents one of Chevron Corporation's largest capital investments of the decade and the project achieved many outstanding results, overcoming various challenges along the way. This paper provides an overview of the project and discusses the key project objectives, strategies employed and some of the lessons learned, such as:

- establishing a world-wide incident and injury free culture
- building the largest FPSO in the world and an extensive subsea production system
- application of intelligent well completions for reservoir management
- setting new standards in Nigerian Content
- achieving schedule objectives and production reliability in a challenging cost environment

Agbami is a unitized deepwater oil field offshore Nigeria. Star Deep Water Petroleum Limited, an affiliate of Chevron Corporation, is the operator of the Agbami Unit. It took partnership with the concessionaires, Nigerian National Petroleum Corporation, Famfa Oil Limited, and the other funding participants: Statoil Nigeria Limited, Petroleo Brasileiro Nigeria Limited, and Texaco Nigeria Outer Shelf Inc. (an affiliate of Chevron Corporation), as well as countless contractors and suppliers across the globe to achieve this remarkable outcome. Earning their support required a strong commitment to finding solutions, focus on interface management, and responsiveness to each stakeholder's interests.

### **Introduction**

The Agbami field started production on 29 July 2008, a result of the efforts of a worldwide team of tens of thousands of people. In the ten years since the field's discovery, the project overcame a wide range of challenges to safely set new standards in Nigerian Content and expand technology boundaries. This paper, and related papers of the OTC conference, provides an overview of the project and highlights some of its accomplishments.

### **Discovery and Early Partnerships**

The Agbami discovery in 1998 hailed as the largest oil field discovery of the year with estimated recoverable reserves exceeding 900 MM BBLs. The largest deepwater field in Nigeria extends across two blocks, OML 126 and 127, with Famfa Oil Limited and Nigerian National Petroleum Corporation as concessionaires. Star Deep Water Petroleum Limited (an affiliate of Chevron Corporation) is the Unit Operator, and Statoil Nigeria Limited, Petroleo Brasileiro Nigeria Limited and Texaco Nigeria Outer Shelf Inc. (an affiliate of Chevron Corporation) are funding partners. As an early signpost to the level of partnership needed to develop Agbami, after six years of appraisal and project planning, the parties established the first deepwater Unit Agreement in Nigeria in 2004. From that point onward, the Agbami project was on its way to production.

### **Agbami Development Plan**

The Agbami field sits 70 miles offshore Nigeria in approximately 5000 feet water depth. The reservoir is a doubly plunging, thrust-faulted anti-cline comprising four main reservoirs. The crude is light and sweet, 47° API. The selected development plan, shown in Figure 1, includes a Floating Production Storage and Offloading (FPSO) vessel and subsea well completions. The FPSO has an oil production capacity of 250 000 BOPD, gas injection capacity of 415 MMSCFD, and water injection capacity of 450 000 BWPD. The combined production capacity of the FPSO ranks as the largest in the world. Crestal gas