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**TANGGUH – DISCOVERY OF A MAJOR GAS PROVINCE
IN IRIAN JAYA, INDONESIA**

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ABSTRACT

Hydrocarbon exploration in Irian Jaya began in the 1930s, and the first sixty years of activity targeted oil in surface anticlines and Tertiary reefs. Trend Exploration discovered about 350 MMBO in the Salawati Basin in the 1970s, and several small oil accumulations have been found in other basins by various operators. ARCO entered Irian Jaya in 1989 by farming into Conoco-operated acreage along the north shore of Berau Bay. Despite two initial dry holes, ARCO persevered in building geologic understanding of the region, and took its first operated license, the Wiriagar Block (Figure 1), in 1993 in partnership with Kanematsu. In 1994, a discovery well was drilled on this block and tested at 30 MMCF/D from the Wiriagar anticline. ARCO realized that the gas reservoirs in the well were significantly overpressured, and a gas column height in excess of 2000 feet was a reasonable interpretation of the data when analyzed in conjunction with seismic maps and with several early 1990s gas discoveries by

Occidental in Berau Bay. ARCO proceeded with an appraisal and exploration program that included farming into and licensing additional blocks, drilling sixteen wells, and shooting an extensive offshore/onshore 3D seismic survey. The work program demonstrated that the Bintuni Basin is a major gas habitat in which it is likely that there are many large gas-bearing structures (Figure 2). In particular, the Vorwata anticline east of Wiriagar was drilled on the Berau Block in late 1996 and tested at 31 MMCF/D. The Ubadari anticline about 50 km southwest of Wiriagar was drilled on the Berau Block in late 1997 and tested at 45 MMCF/D. In cooperation with British Gas, ARCO has recently received certification of 14.4 TCF of proved reserves and 3.9 TCF of probable reserves from DeGolyer & MacNaughton for the collection of structures drilled to date. About 80% of the reserves lie on the ARCO-operated Wiriagar and Berau Blocks, and the remaining 20% are on the BG-operated Muturi Block. The project to develop this Irian Jaya gas has been named Tangguh. It is now clear that there are extensive reserves to support many years of commercialization of this newest of Indonesia's major gas habitats.

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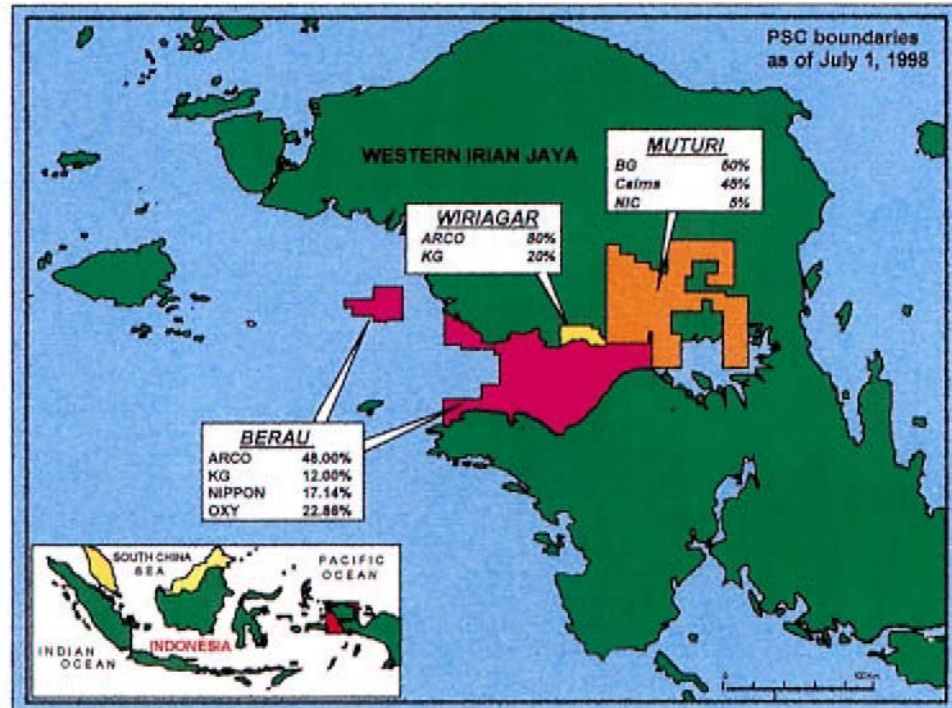


FIGURE 1 : Tangguh Production Sharing Contract (PSC) Areas.

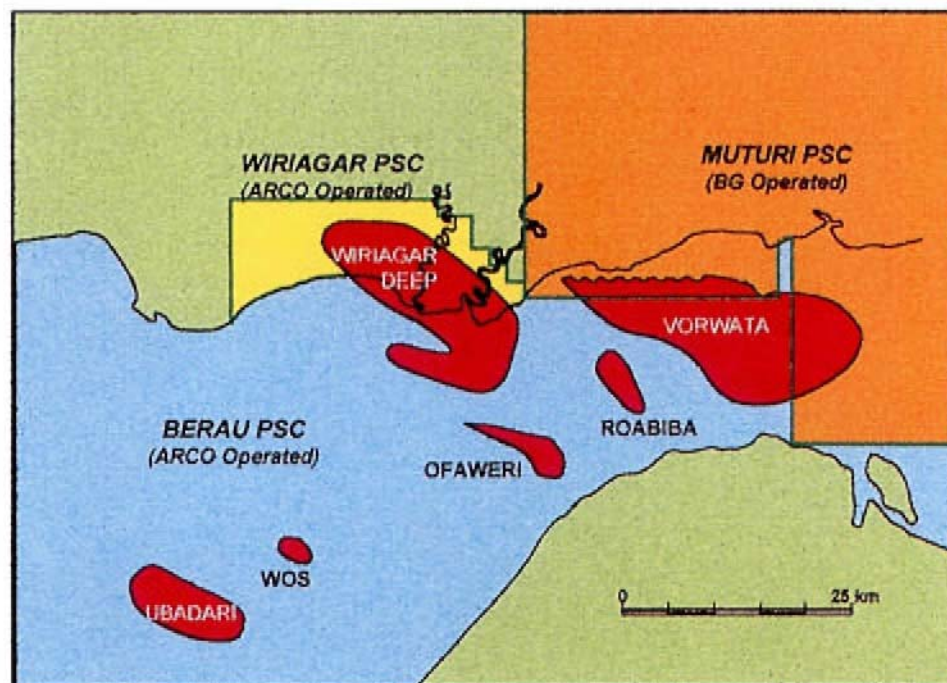


FIGURE 2 : Location of Tangguh Gas Fields.