

KADANWARI GAS FIELD, PAKISTAN; PERSEVERANCE PAYS

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The Kadanwari Gas Field was discovered in 1989 in the Middle Indus Basin of Pakistan. It was the first deep commercial gas discovery in the basin within the Lower Goru sands of Cretaceous age, at a depth of 3250 mss. The trap was considered to be a large four way dip closed structure with continuous sands, and initial sales gas reserves of 728 Bcf were estimated on the basis of one exploration and three appraisal wells. After drilling further development wells and with production data, it was realized that the reservoir was compartmentalized and following reprocessing and re-mapping of a major portion of the seismic data, sales gas reserves fell below 200 Bcf. A multi-discipline team was tasked to look for opportunities to optimize the field value. This resulted in a new reservoir model, several reservoir management, cost saving initiatives, and culminated in drilling of the K- 10 well, which discovered a significant accumulation in a separate compartment of the field. This was a major turning point for the field, which has led to increased present day reserves estimate of about 300 Bcf. As a result of the new model some of areas have become more prospective than were considered earlier. Persevering hard work, learning from the past, application of new models and technology by the multidiscipline team has, despite setbacks, made Kadanwari a valuable asset.