

GEOLOGIC TECHNICAL REPORT

Proposed Horizontal Drilling Project
State "C" No. 3
King (Devonian) Field
Lea County, New Mexico

Introduction

Based on the interpretation of our 3-D seismic survey in conjunction with subsurface well data, there is opportunity to drill a development well on the King Field structure in a structurally high position to previously abandoned and current Devonian production. In order to exploit those reserves we proposed to re-enter the State "C" #3 well at a surface location of 1550' FNL and 10' FWL of Section 36, T13S, R37E and drill a 900 ft. horizontal borehole in the Devonian formation in a south-southwest direction. The proposed horizontal borehole will intersect upthrown hydrocarbon bearing Devonian reservoir in a fault-block that has not been previously produced.

The State "C" #3 well was originally drilled as a vertical borehole in during early 1998 to a depth of 12,015'. The well penetrated approximately 100 ft. of oil saturated Devonian formation in a structurally high position to all other previous Devonian producers in King Field. Completion attempts within this Devonian section were unsuccessful because the reservoir lacked sufficient permeability to produce. The State "C" #3 well was deepened to a depth of 12,245 ft. and tested on a beam pump, but commercial production was not established from the Devonian reservoir. The well is currently shut-in.

Reprocessing and re-interpretation of the 3-D seismic data set indicates that the Devonian formation in King Field is characterized by randomly distributed "pockets" of reservoir development over the structure. These reservoir "pockets" are interconnected to varying degrees with the reservoir system through primary stratigraphic and/or fracture communication. The erratic nature of reservoir development in the Devonian coupled with a complex pattern of faulting has resulted in some isolated areas of the reservoir system that have not been drained by previous producing wells. The trajectory of the proposed horizontal borehole in the State "C" #3 well has been chosen to intersect and communicate several areas of seismically indicated reservoir development in a structurally high position relative to surrounding previous Devonian completions. We expect to establish commercial production rates with a low initial water-cut. The reserves for this proposed lateral borehole are estimated to be 250,000 to 350,000 bbls of recoverable oil. We believe these reserves can only be commercially exploited through the drilling of the proposed horizontal borehole and are not available through vertical drilling/completion techniques.