

# STRATIGRAPHIC AND STRUCTURAL CONTROLS OF THE OCCURRENCE OF STEAM AT THE GEYSERS

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**ABSTRACT**

Over the past 20 years several stratigraphic/structural models have been proposed for The Geysers field. The one most compatible with drilling results is the one presented by McNitt (1968). This model consists of the simple superposition of a thick sequence of argillaceous graywacke over a more massive, deformed, and indurated graywacke. Subsequent uplift formed a NE-dipping homocline broken by regularly spaced, steeply dipping faults. The geothermal reservoir is contained in randomly oriented fractures in the hard, indurated graywacke located on the structural highs formed by the tilted fault blocks. Because of its low density, steam migrates and becomes trapped in these structural highs in the same manner, and for the same reason, that oil and gas migrate into and become trapped in structural highs.

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