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November 22, 1966

C. H. KEPLINGER

Keplinger and Associates, Tulsa  
*"Interim Report on the Use of Steam to Increase Oil Recovery"*

Utilization of steam has found its greatest economic application, as of now, in the state of California.

Ten fields accounted for a net increase of 33,800 barrels per day. During 1964 the greatest increase in production was from the Midway-Sunset area. During 1965 production of heavy oil by steam injection had risen at an astounding rate.

Outside the state of California there have been many steam injection projects inaugurated. Steam injection has been tried in almost every producing state in the union. Several steam injection projects were in operation during 1965 in the state of Pennsylvania. Both Illinois and Indiana had steam projects in operation. Several steam injection projects were also in operation in the states of Arkansas, Texas, Oklahoma, Kansas, and Wyoming.

The theory of what happens during a steam soak process is not entirely understood at this time. The main object of steam injection is to increase the temperature of the oil and reduce its viscosity. Based upon information from individual wells which have been stimulated and produced by the so-called huff and puff method, it is evident that the increased production is, in part, due to the resulting radial improvement of oil mobility within the formation around the bore hole.

Equipment suppliers have furnished oil operators a number of different thermal recovery heaters to choose from and in a variety of sizes. The most popular design is the forced circulation once-through steam generator. The units are designed to produce steam of approximately 80 per cent quality and up to 3,000 psi pressure. The mechanical design of most heaters consists of a radiant section and an economizer section. The heater and all the accessories can either be skid or trailer mounted.

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November 28, 1966

DANIEL F. MERRIAM

Kansas Geological Survey,  
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*"Use of Computers by Geologists"*

Computers now are being used by geologists to aid in the exploration and exploi-