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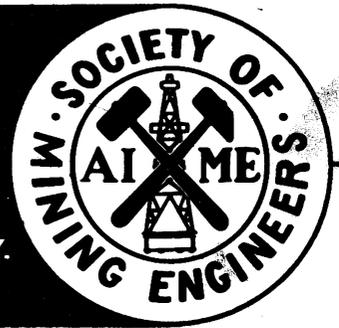
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DISCOVERY AND EXPLORATION  
OF THE KALAMAZOO OREBODY

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DISCOVERY AND EXPLORATION  
OF THE KALAMAZOO OREBODY  
San Manuel District, Arizona

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INTRODUCTION

This paper describes the geology of the Kalamazoo copper orebody discovered in the course of an exploration project carried out by Quintana Minerals Corporation under the author's direction in an area immediately southwest of the San Manuel mine, Pinal County, Arizona.

In the period 1943-1947, exploration projects were carried out in the San Manuel area by the U.S. Bureau of Mines and Magma Copper Company which resulted in the development of the San Manuel underground block-cave mine which is now in production at a rate of 41,000 tons per day.

Mining claims covering the area immediately west of the San Manuel orebody were staked in 1946 by Frank F. Salas, R. A. Buzan, H. G. Buzan, and W. C. Buzan of Mammoth, Arizona. These claims were optioned to Martha Purcell in 1946, and in the period of 1947-1958 seven churn drill holes ranging in depth from 1,400 to 2,950 feet were drilled by Mrs. Purcell. These holes did not intersect ore and no further deep exploration was attempted prior to the Quintana Minerals project which began in August, 1965, and which is described in this report.

The Kalamazoo deposit is in Sections 3, 4, 9, and 10, T 9 S, R 16 E, Pinal County, Arizona, and it is reached by driving seven miles east from Oracle, Arizona (Figure 1).

The writer is indebted to Corbin J. Robertson and Ronald B. Thompson who participated in the exploration planning of this project and to a number of other individuals who contributed to its execution and management. Petrographic work by J. M. Guilbert was used as a basis for rock and alteration classifications.

SUMMARY

Twenty-five exploration drill holes have been completed in the Kalamazoo project to an average depth of about 4,000 feet. These holes