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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Federal Center, Denver, Colorado 80225

SOUTHWEST-NORTHEAST CROSS SECTION, TATUM DOME,
IAMAR COUNTY, MISSISSIPPI

(Dribble-29)

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SOUTHWEST-NORTHEAST CROSS SECTION, TATUM DOME,
LAMAR COUNTY, MISSISSIPPI

Compiled by

D. Hoye Eargle

The accompanying map (fig. 1) shows the location of cross section A-A across Tatum dome, Lamar County, Miss., the site of Project Dribble of the Atomic Energy Commission and Department of Defense's Vela Uniform Program. The section (fig. 2) extends northeastward from Hydrologic Test Well No. 2, southwest of the dome, to Hydrologic Test Well No. 1. It shows the essential features of the uppermost sedimentary strata surrounding and overlying the diapiric salt stock and its caprock; it shows the stratigraphy and structure of these sedimentary rocks; it designates, defines, and correlates in a general way the aquifers within these strata; and shows the boundaries of the salt stock and the zones of the caprock.

The section was prepared from drill-hole data, analyses of well logs, and examination of cuttings and cores of the recently drilled wells, from information from seismic surveys (R. A. Black and W. S. Twenhofel, written commun., 1962), and from a company report on the geology of Tatum dome by geologists of the Freeport Sulphur Co.

A series of six cross sections and a fence diagram of the dome were prepared early in the work of the project by K. W. Stauffer from data and well logs of the Willmut Gas and Oil Co., the Shell

Oil Co., Humble Oil and Refining Co., and the Freeport Sulphur Co.

These sections were utilized in the preparation of this cross section.

Geologists who have collected and analyzed data for this cross section at various stages of the project are, in alphabetical order: C. A. Armstrong, R. V. Chafin, B. O. Davis, D. H. Eargle, H. B. Harris, E. J. Harvey, J. W. Lang, T. N. Shows, J. F. Stanford, Jr., K. W. Stauffer, and R. E. Taylor. Cooperation of the management of the Atomic Energy Commission and of the geologists and engineers of Holmes and Narver, Inc., in furnishing information while the wells were being drilled, and of the employees of the Reynolds Electric and Engineering Co. in furnishing facilities for the work, is gratefully acknowledged.

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Adapted by U.S. Geological Survey from "Composite Site Map, Project Dribble," December 4, 1962, by Holmes & Narver, Inc.

Figure 1.— MAP OF TATUM DOME AREA

Figure 2.—SOUTHWEST—NORTHEAST SECTION THROUGH TATUM DOME