

Because of the possible economic importance of the arched Ordovician beds, the identification of subdivisions by insoluble residues and general character of well cuttings has been attempted with encouraging results.

To facilitate correlation of the Pennsylvanian and Lower Permian strata, a classification by "subseries" as in the northern Mid-Continent and West Texas regions has been used in this paper. Such procedure places emphasis on unconformities and faunal changes of wide regional importance. Former group names are retained but boundaries redefined where needed.

The probable influence of the regional conditions in this area upon oil and gas migration and accumulation is discussed, such as the overlap of structurally high reservoirs by apparent source beds; differential pressures resulting from wedge-shaped overburden; progressive development of structural trends and local folds; and the character and distribution of sedimentary material, especially the development of local sandstone or limestone reservoirs and stratigraphic traps.

6. ELLIOT H. POWERS, geologist, Gulf Oil Corporation, Midland: Sand Hills Area, Western Crane County, Texas.

The Sand Hills area of western Crane County includes two pools, the Tubb and McKnight, in which production is obtained from Permian dolomite. In a third small area on the northwest side of the Tubb pool, three wells have encountered flush production of high-gravity oil in the upper portion of the Lower Ordovician dolomite, and two small wells produce from a sandstone member of the Simpson, having failed in the Lower Ordovician.

Lower Permian dolomite lies unconformably on the eroded surface of a seemingly complex structural system, which involves Lower and Middle Ordovician sediments. Intermediate beds of probably Upper Ordovician, Silurian, and Devonian ages, respectively, appear in a test which was drilled approximately eight miles southeast of the Ordovician producing area.

7. L. A. NELSON, associate professor of geology, College of Mines and Metallurgy, El Paso: Paleozoic Stratigraphy of the Franklin Mountains of West Texas.

The Franklin Mountains are located within a region that is bounded on the east by longitude  $104^{\circ}30'$  W., on the west by longitude  $109^{\circ}$  W., on the south approximately by latitude  $31^{\circ}$  N., on the north approximately by latitude  $34^{\circ}$  N. From just north of El Paso the Franklin Range trends almost parallel with the  $106^{\circ}30'$  meridian to a point about 4 miles north of the Texas-New Mexico boundary line.

The Franklin Mountains are eroded block mountains typical of the basin-and-range structure of the southwestern United States. The west side is a steep dip slope developed principally on beds of limestone. The east side is a fault scarp.

The Paleozoic stratigraphic section, which aggregates 5,600–7,000 feet in thickness, is as follows: Permian, Wolfcamp formation; Pennsylvanian, Magdalena formation; Mississippian, Helms formation; Devonian, Canutillo formation; Silurian, Fusselman limestone; Ordovician, Montoya and El Paso limestones; Cambrian, Bliss sandstone. The section is overlain by the Comanche and rests, in places, on pre-Cambrian granite and at other places on the Llanoria quartzite.