beds are found to thicken and dip steeply away from the salt core, indicating structural movement both during and after deposition. Thinning of Upper Cretaceous sediments over the deeper-seated domes where the evidence has not been obliterated confirms this structural growth. The basin position of these domes and the time of origin indicates that the Lower Cretaceous sediments dip toward the domes.

Deep-seated domes are found to have many of the aspects of anticlinal structures. These domes began their growth much earlier than piercement domes and are located, and have always been located, on locally high areas. Thinning of Lower Cretaceous sediments furnishes evidence for their early origin, and uniform thinning of Upper Cretaceous beds suggests that these domes grew uniformly throughout Upper Cretaceous and Tertiary time and were never subjected to the violent displacements which affected their neighbors, the piercement domes. These structures are ideal reservoir anomalies and seven out of ten are now producing, with the possibility that some of the others will produce with subsequent development.

6. "Merigale-Paul Field, Wood County, Texas," Hastings Moore, Danciger Oil and Refining Company, Henderson, Texas. Prior to 1947, this field was classified as two separate fields—Merigale and Norman-Paul fields.

The Merigale-Paul field in central Wood County is the most important sub-Clarksville (upper Eagle Ford) reserve now known.

The Merigale-Paul field was discovered in December, 1944, by Bobby Manziel. As of July 1, 1949, the field had produced 3,269,813 barrels from 160 sub-Clarksville wells and 64,790 barrels from the single Woodbine producer.

The oil column is 235 feet; maximum net effective sand thickness is 38 feet, with the average about 16 feet.

Reservoir energy is gas expansion plus a probable limited water drive.

Structurally the Merigale-Paul field is a faulted monocline dipping southeastward, 550 feet to the mile. The trapping fault is a low-angle continental fault (average dip 32°), which parallels very closely the strike of the strata.

The eastern end of the field is at the intersection of the water table with the fault zone, and the western end is at the facies change of the sub-Clarksville sands into ash beds.

7. "Blackfoot Field, Anderson County, Texas," D. O. Branson, Stanolind Oil and Gas Company, Tyler, Texas.

This paper presents a review of the structure, stratigraphy, and history of the Blackfoot field, Anderson County, Texas.

The Blackfoot producing structure is a relatively small, faulted, elongate, domal, closure situated on an anticlinal trend which extends from northeastern Freestone County through west-central Anderson County into southeastern Henderson County and is known as the Blackfoot-Bradford Tennessee Colony trend.

Productive formations include the Rodessa and Pettit limestones, and the Travis Peak sands of the Trinity group. The productive limits are not defined since the field is only partly developed.

Faulting, although present at Blackfoot, is thought to be of minor significance and known faulting does not effect the local accumulation of gas and oil. Control furnished by development wells shows a typical graben fault pattern; however, the exceptional feature in Blackfoot is the termination of both faults at the point of intersection.

8. "Petroleum Exploration in Eastern Arkansas," C. A. Renfroe, Arkansas Resources and Development Commission, Division of Geology, Little Rock, Arkansas.

The area with which this paper is concerned lies in the Gulf Coastal Plain in Arkansas north of the Arkansas River. The following conclusions are based on a study of the available samples and electric logs.

Tertiary rocks are for the most part non-marine in origin. Some of the beds in the Jackson and Claiborne groups may be thin tongues of either marine, deltaic, lagoonal, or estuarine deposits. The Wilcox group is predominantly thick, coarse-grained sandstones which are ordinarily water-bearing. The Midway group consists of two formations: the Porters Creek clay and the Clayton. None of the Tertiary rocks is considered promising as a potential oil reservoir.

In the Cretaceous two formations offer possibilities for oil and gas: the Nacatoch sandstone and a basal transgressive sandstone, probably Ozan in age overlying the Paleozoic floor. The Nacatoch is of sufficient thickness and porosity to serve as a reservoir bed. However, local variations in porosity or in the sand-shale ratio should be expected. The basal sand is coarse- to medium-grained, commonly pyritic and glauconitic. Electric logs show a well developed self-potential curve in this unit. If found on structure or as a wedge-edge pinch-out, this basal sand has good possibilities as a future oil source.

Paleozoic rocks, ranging in age from Pennsylvanian to Cambro-Ordovician, are present below the Cretaceous. A paleogeographic map of the pre-Cretaceous surface shows that older Paleozoic