cussed. It is suggested that both local and regional studies of producing horizons be made in the light of the theory of the "marine overlap."

9. CLARENCE E. BREHM, consulting geologist, Mt. Vernon, Illinois
Pickens Pool, Yazoo County, Mississippi

The Pickens pool was discovered by continuous profiling seismic work which showed an increase of closure with depth. This increase, causing four times as much reversal on the Eutaw as on the Midway, has been substantiated by drilling.

The "pool" consists of four wells producing 4–8 feet of saturated Wilburn sand in the Eutaw over approximately 160 acres. The producing area is practically defined by dry holes. Wells come in for 400 barrels, settle to a steady 200 barrels on pump. Production to date is 300,000 barrels.

The limited producing area suggests a small structure but an isopach of the Wilcox formation shows it to be in the center of an area of structural thinning extending 30 or 40 miles parallel to the Yazoo basin.

The break in seismic reflections near the field is interpreted as a fault extending into the Lower Cretaceous. It is suggested that the original reservoir was in those lower beds and that some oil migrated up the fault plane to impregnate this small area of the Wilburn sand. This condition is compared with the faulted Tinsley field and Upper Cretaceous fields of northern Louisiana and southern Arkansas.

10. A. N. WILSON, General Crude Oil Company, Houston, Texas
Basal Vicksburg Sand of Texas Gulf Coast

The discovery of commercially important oil sands at the base of the Vicksburg formation, on the flanks of some Texas Gulf Coast dome structures during the past few years, recalls the necessity for constant re-examination of the older producing areas by methods which make full use of the newest proved geological tools.

This paper employs the now common electrical well log, in conjunction with the best paleontological opinions, to identify and to map the areal extent and thickness of the basal Vicksburg sand in the Texas Gulf Coast, and to predict, with some foundation, its future possibilities for commercial oil production on the older known structures.

Electrical well log cross sections through the region, two of them down the dip and one along the sedimentary strike, are given in support of the sand thickness map.

11. JOSEPH M. WILSON, Dallas, Texas
South Cotton Lake Field of Chambers County, Texas

Torsion-balance work in 1934 indicated a large minimum which centered, after regional corrections were applied, slightly north of the present producing area. After two wells were drilled in the vicinity, both of which were abandoned after encouraging showings, the area was detailed with the reflection seismograph, using the continuous profile method. As the result of this work, the discovery well was located and subsequent development of the field showed that the seismograph gave a remarkably accurate picture of the structure, a faulted dome elongate east and west.

The three producing sands are the *Marginulina* sand with an average of $7\frac{1}{2}$ feet of effective sand, the No. 1 Frio with 10 feet and the No. 2 Frio with 5 feet. Each sand has a separate water level and oil-gas contact and all occur within an interval of about 100 feet. The average total depth of wells is 6,500 feet. The maximum producing area is expected to be about 1,200 acres. One deep test in the field failed to find any promising deeper sands. There are now 51 oil wells and two gas wells here and development is nearly complete. As of January 1, 1941, the field had produced a total of 1,573,400 barrels.

SOUTH TEXAS

12. L. B. HERRING, consulting geologist, Corpus Christi, Texas
Developments in South Texas during 1940

This paper discusses the developments during the year 1940 in the South Texas area and suggests that the collapse of foreign markets caused pipe-line proration and local price cuts.

Twenty-eight new producing areas were found during the year. Drilling was slightly under the 1939 rate, and geological exploratory work was greatly reduced.

Four wildcat wells were completed in Wilcox sands, three producing gas and condensate and one producing oil with water. None of these discoveries appears to represent reserves of consequence.

Condensate production reached 8,800 barrels per day, and nine plants were operating on a repressuring or a recycling basis.

13. PHIL F. MARTYN and CHARLES H. SAMPLE, Houston Oil Co., Houston, Texas
Oligocene Stratigraphy of East White Point Field, San Patricio County, Texas

The East White Point oil field is located in south-central San Patricio County, Texas, on the Gulf Coastal Plain of South Texas, being situated approximately midway between Galveston and Brownsville, 20 miles inland from the Gulf of Mexico, and 5 miles northward across Nueces Bay from the city and deep-water port of Corpus Christi. Subsequent to the discovery of oil in the 5,600-foot sand by the Plymouth Oil Company in February, 1938, the field has been subjected to continuous development. As of January 1, 1941, approximately 240 oil and gas wells have been completed in the four productive sands between the depths of 4,000 feet and 5,900 feet, which wells have yielded approximately $5\frac{1}{2}$ million barrels of oil.

Within the scope of this paper, the strata encountered in the drilling of the majority of the wells below a depth of 4,000 feet in the subsurface have been grouped in the Oligocene formation and the authors have restricted their study to the beds included in the interval below that depth and above the 5,600-foot (principal oil-producing) sand. Isopach and other geologic studies of the several sand and shale zones have presented some very interesting problems. The intermittent and periodic structure-making movements, and likewise the periods of quiescence, are reflected in the sedimentary intervals of the respective strata. The most outstanding feature of the stratigraphy, however, is the well developed erosional topography on the top of the 5,400-foot (Zone E) sand. Isopach maps of this stratum display the typical features of degradation and planation common to the erosion cycle of normal rivers in an area being subjected to cyclic rejuvenation. Similar maps of the overlying 5,300-foot (Zone D) shale reflect the effects of the deposition over the eroded topography. As suggested by the reconstructed terraces, and slopes attendant thereto, three periods of uplift and erosion are propounded. The erosional unconformity thus established, and advocated by the authors, offers additional criteria and evidence for the following: first, offlap or regression of the Gulf of Mexico at the close of Frio time, with the consequent development of stream drainage and erosional topography on the land surface; second, the location of an ancient Gulf of Mexico at some distance removed from the present location of the East White Point Field following the deposition of the 5,400-foot sand; and third, the delineation of the top of the Frio formation at the erosional break in the stratigraphy.

14. A. W. WEEKS, University of Texas, Austin, Texas
Late Cenozoic Deposits of Texas Coastal Plain between Brazos River and Rio Grande

This paper presents (1) a description of the deposits of the Coastal Plain between Brazos River and Rio Grande beginning with the Catahoula and extending upwards through the Recent, (2) a correlation of the up-dip terrace deposits with equivalent formations of the Gulf Coastal Plain, (3) a discussion of the age of these terrace deposits, (4) an outline of certain fault zones that are involved in the geologic history of the Coastal Plain deposits, and (5) a geologic history of sedimentation during late Cenozoic time.

The geologic section involved is as follows.

Recent	*Present Deposits, Sand Beach*
Pleistocene	Riverview
	First Street
	Beaumont or Sixth Street
	Lissie or Capitol
	Asylum
	Uvalde
	Bastrop Park
	Gay Hill
	Willis
Pliocene	Goliad
	Lagarto
	Lapara
Miocene	Fleming
	Cuero
	Oakville
	Catahoula