

occur in the subsurface. The anhydrite beds, which form distinctive markers between the various formations in

the subsurface, are used in the correlation of the stratigraphic units.

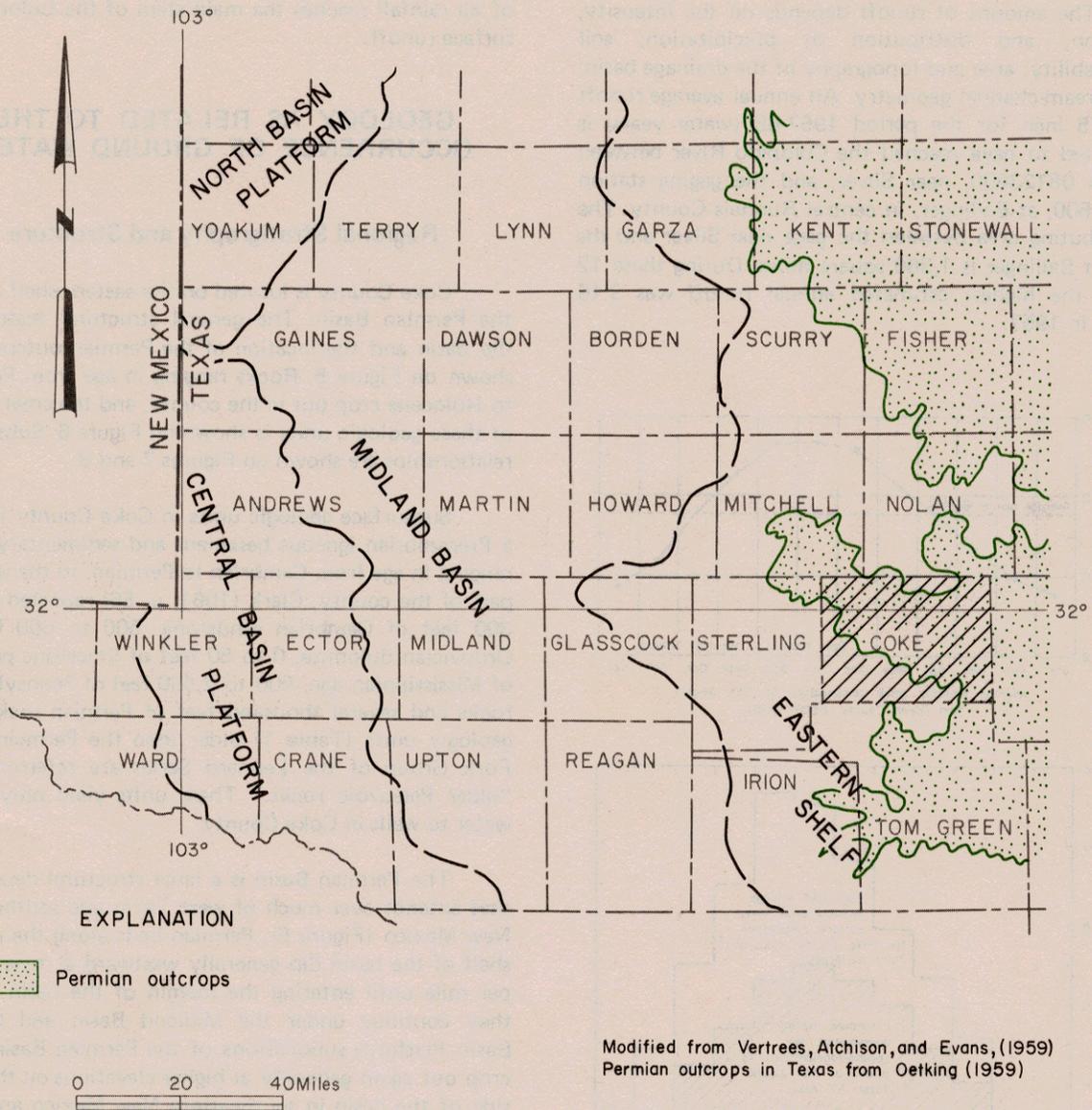


Figure 5.—Major Structural Features and Permian Outcrops in the Permian Basin of West Texas

The average dip of the Permian beds in Coke County is about 40 feet per mile. Beede and Bentley (1918, p. 66) found the dip to be about 50 feet per mile in the eastern and central parts of the county. Seven miles northwest of Robert Lee, the dip of surface beds begins to decrease and the strata become nearly level; the dip steepens again near the northwestern edge of the county.

Sediments of Triassic, Cretaceous, and Quaternary age unconformably overlie the Permian rocks. The

Triassic rocks dip to the northwest; the Cretaceous rocks dip to the southeast. Most of the Triassic section and much of the Cretaceous section have been removed by erosion.

Geologic Units and Their Water-Bearing Properties

The thickness, lithology, and water-bearing properties of the geologic units in Coke County are