are based on a number of control points, but the southern extension of the nose through southern Sheridan and Gove counties is largely conjectural. Because of its greater size as compared with the other folds in Kansas it offers an attractive region for prospecting and should be thoroughly tested. A well is now being drilled near Norcatur on the crest of the fold.

A rather pronounced and extensive series of structural "highs" extends from northwestern Ellis County north-northeastward across Rooks County, passing a few miles west of Stockton and thence into Phillips County near Phillipsburg. It is possible that the nose crossing the southeast corner of Trego County is the southward continuation of the Stockton fold, or one en echelon to it. A well located south of Glade in Phillips County, another north of Stockton, and one southwest of Plainville in Rooks County, are being drilled on this regional high. The Glade well has been reported shut down at a shallow depth for several months. Inasmuch as it appears to be admirably located structurally, it is hoped that it will be continued.

The Fairport-Natoma anticline, which is most prominent near the Russell oil field, extends north-northeastward from eastern Rush County into northern Osborne County.

In the southwest part of the area the Syracuse anticline in Hamilton County is the most pronounced feature and is shown here much as presented by Dar- ton's map, although some changes have been made. A well located on the Syracuse anticline was drilled to 5,488 feet but encountered no encouraging shows of oil or gas. The slight bending of the contours toward Scott City is based on a log of a water well given from memory, as a written record of the well could not be found. The position of the contours in this region is consequently subject to change.

CONCERNING THE ACCUMULATION OF OIL

The source of oil and the manner in which it accumulates in rock folds has long been a problem of much interest to petroleum geologists. Lateral migration of oil to the fold in which it became trapped was for a long time a generally accepted and logical explanation. However, as knowledge of geologic factors and forces became greater these prevented the acceptance of such a universal solution of the problem and proved in some cases that its operation is impossible. To account for accumulation in many of these impossible cases, vertical migration by way of fault planes or joints was resorted to and appears to serve very well in some cases. More detailed consideration, however, revealed that this method of migration is necessarily limited. Undoubtedly lateral and vertical migration in operation, either singly or together, have caused the accumulation of oil in many cases.

The writer wishes to emphasize the possible accumulation of oil with the aid of only very local vertical or lateral migration. It may be assumed that oil originates from organic matter that was deposited with sedimentary rocks. That organic shale beds are closely associated with oil sands in many parts of