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 "Chaveroo Revisited"

The Chaveroo San Andres Field is located on the county lines of Chaves and Roosevelt Counties, New Mexico. The field, located geologically on the south flank of the Matador Arch on the Northwestern Shelf, was discovered in March, 1965, with the completion of the Champlin Petroleum Company and Warren American Oil Company No. 1 Hondo State. This well was plugged back from a total depth of 9100 feet to 4400 feet. The field has grown to in excess of 300 wells. Production is a sour 24° gravity crude and the cumulative field production was 2,291,835 barrels of oil on 1 December 1966.

The discovery was made using a combination of subsurface geology and reflection seismograph data. Oil production is from a gray to brown fine crystalline to granular anhydritic dolomite with fine vugular intercrystalline and fracture-type porosity zones located some 700 feet below the top of the San Andres of Guadalupian-Permian age. A gross pay section of approximately 200 feet is encountered in the field. The structure in the field consists primarily of a southward plunging nose. Reservoir conditions are controlled by thin porosity zones which pinch out updip. Development in the field has slowed considerably and appears at present to be nearing completion.

Certain areas of the field have presented water problems. It is hoped different and improved completion techniques will cure these ills.

The Chaveroo Field has rekindled interest and thinking about San Andres production on the Northwestern Shelf. Another new field, the Cato Field, has further extended the Levelland-Slaughter-Buckshot-Milnesand-Chaveroo trend to the west. The future looks bright for further San Andres development in this area of New Mexico.

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*"Geologic Framework and Petroleum
 Potential of the Atlantic Coast"*

The Atlantic Coastal Plain and Conti-

ental Shelf of North America is represented by a belt of Mesozoic and Cenozoic rocks, 150 to 300 miles wide and 2,400 miles long, extending from southern Florida to the Grand Banks of Newfoundland (Figure 1). This belt encompasses an area of about 400,000 to 450,000 square miles, more than three-fourths of which is covered to depths of 600 feet by the Atlantic Ocean. The volume of Mesozoic and Cenozoic rocks beneath the Atlantic Coastal Plain and Continental Shelf exceeds 450,000 cubic miles, perhaps by a considerable amount. More than one-half of this is seaward far enough to contain marine source rocks in sufficient proportion to attract exploration for oil. A larger fraction, perhaps three-quarters of the volume, may be of interest in exploration for gas.

The Coastal Plain consists of an area of more than 100,000 square miles between the crystalline piedmont of the Appalachian System and mean low-tide from southern Florida to the tip of Long Island plus a few small offshore islands and the Cape Cod Peninsula.

The Continental Shelf extends from mean low-tide to the break marking the beginning of the continental rise, which is somewhat less than 600 feet in depth at most places. It is a gently sloping platform, about 350,000 square miles in area, that widens from less than 3 miles off southern Florida to about 285 miles off Newfoundland.

The Blake Plateau occupies an area of about 70,000 square miles between the 500-foot and 5,000-foot bottom contours from the Cape Hatteras vicinity to the northernmost bank of the Bahamas. It has a gentle slope with only minor irregularities and scattered patches of Recent sediments.

Both gravity and magnetic anomalies along the Atlantic Coast reflect primarily compositional differences at considerable depths in the earth's crust, but are related to some extent to the structure and composition of the Coastal Plain sedimentary rocks and shallow basement. Four alternating belts of predominantly positive and predominantly negative Bouguer gravity anomalies extend diagonally across the region from southwest to northeast (as shown on the Bouguer Anomaly Map of the United

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