



GEOLOGY OF THE OKLAHOMA STATE PARKS

Charles N. Gould, *Regional Geologist National Park Service*

The National Park Service through the Branch of Planning and State Cooperation has done work on eight State Parks and seven Municipal Parks in Oklahoma. This is part of the Emergency Conservation Work. The greater part of this service is being accomplished by the enrolles of the Citizens Conservation Corps.

These 15 parks are widely distributed throughout the State, and differ greatly among themselves in geology, scenery, fauna and flora. It will be possible at this time to indicate only the briefest outline of the geology of the eight State parks in Oklahoma.

QUARTZ MOUNTAIN STATE PARK in Eastern Greer County is located in the western end of the Wichita Mountains at the west bank of

Lake Altus. The rocks are chiefly massive granite, usually considered as pre-Cambrian in age.

LAKE MURRAY STATE PARK is in southern Carter and northern Love Counties, south central Oklahoma. The park is being built around Lake Murray which, when and if filed, will contain 8,229 acres. The rocks are Pennsylvanian in age, consisting of sandstones, limestones, conglomerates and shales belonging to the Dornick Hills, Deese and Hoxbar formations. These rocks dip to the northeast at angles averaging 45 degrees. The total combined thickness of the various beds approximates 12,000 feet.

BEAVERS BEND STATE PARK, in southeastern Oklahoma, is located on Mountain Fork Creek in eastern McCurtain County. The rocks are of Lower Paleozoic age consisting chiefly of shales and sandstones. In ascending order the rocks have been named Big Fork Chert and Polk Creek Shale of Ordovician age, Blaylock sandstone and Missouri Mountain shale of Silurian age, Arkansas novaculite of Devonian age, and Stanley Shale, usually considered as Mississippian in age. The total combined thickness of these rocks is more than 2,000 feet. The rocks of the Ouachita Mountains, in which the park is located, have been folded into anticlines and synclines, so that the beds usually dip at high angles.

ROBBERS CAVE STATE PARK, near Wilburton, Latimer County, is located in the valley of Fourche Maline Creek, which here cuts across the San Bois Mountains. The rocks are sandstones and shales of Pennsylvanian age. The formation is known as the Savanna Sandstone.

SPAVINAW HILLS STATE PARK extends for three miles along the south side of Spavinaw lake in eastern Mayes county. The rocks consist of Chattanooga shale, Devonian and Mississippian in age, and the Boone chert, which is Mississippian.

OSAGE HILLS STATE PARK is located in central Osage County about half way between Bartlesville and Pawhuska. The rocks are sandstones and shales of Pennsylvanian age. The most conspicuous formation is the Revard sandstone.

ROMAN NOSE STATE PARK is in Roman Nose Canyon, in the Gypsum Hills of northern Blaine County. The rocks consist of red clay shales, with several ledges of massive white gypsum and beds of dolomite. The formations are known as the Flower Pot shales, Blaine Gypsum, and Dog Creek shales.

BOILING SPRINGS STATE PARK is situated on the north bank of North Canadian river, six miles east of Woodward. The rocks are chiefly wind-blown sand dunes, and alluvium valley-wash. One ledge of white Dolomite, probably the Day Creek, is exposed along a low bluff below the Sand Hills.

