

Regional Hydrogeology of the Navajo and Hopi Indian Reservations, Arizona New Mexico, and Utah

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With a section on Vegetation

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HYDROGEOLOGY OF THE NAVAJO AND HOPI INDIAN RESERVATIONS
ARIZONA, NEW MEXICO, AND UTAH

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[Plates are in plate volume]

Frontispiece. Sketch of arch, White Mesa.

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 3. Physiographic map.
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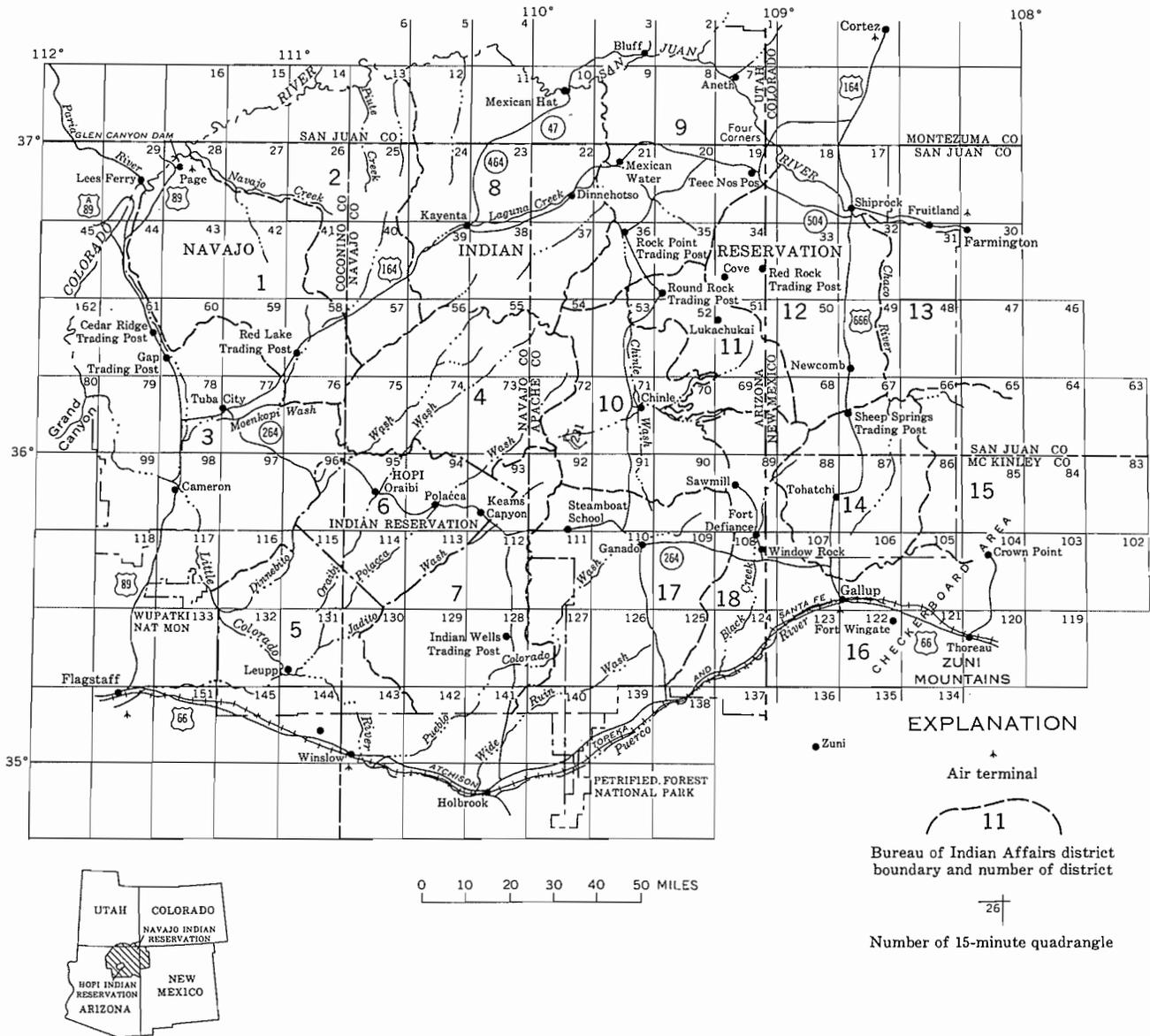


FIGURE 1.—Location map of the Navajo and Hopi Indian Reservations showing the Bureau of Indian Affairs' administrative districts.

Few detailed maps of the reservations were available at the time of this study, but 15-minute planimetric maps compiled from aerial photographs were available. These maps are numbered arbitrarily from 1 to 151, starting in the upper right corner of the reservations and numbering consecutively from right to left in rows (fig. 1).

TOPOGRAPHIC RELIEF

The major part of the reservations consists of plateaulike features 4,000–7,000 feet above sea level. Rising to altitudes of more than 8,000 feet are Navajo Mountain, Defiance Plateau, the Carrizo, Chuska, and Zuni Mountains, and the northern part of Black Mesa; at alti-

tudes of less than 3,000 feet are the deep canyons of the Colorado River—Grand, Marble, and Glen Canyons—the San Juan Canyon, and the canyon of the Little Colorado River. In general, the valleys of the Little Colorado River, Chinle Wash, and Chaco and San Juan Rivers range from 4,000 to 5,500 feet in altitude. The highest point on the reservations is Navajo Mountain, 10,344 feet, and the lowest is the mouth of the Little Colorado River, about 2,800 feet.

ORGANIZATION OF THE REPORT

This report is the first chapter of U.S. Geological Survey Prof. Paper 521, which will describe the geology