GEOLOGY
OF THE
MOUNT MOSES QUADRANGLE, NEVADA

By H. G. Ferguson, S. W. Muller, and Ralph J. Roberts

INTRODUCTION

The geologic map of the Mount Moses quadrangle, Nevada, is part of a project for the study of the Sonoma Range 1-degree area. The preliminary results of this work are published as four 30-minute quadrangles, of which this is one. For regional relations reference is made to the adjoining quadrangles: Winnemucca (northwest), Mount Tobin (west), and Golconda (north), fig. 1.

Field work was done in parts of the 1939, 1940, and 1941 field seasons, and shorter visits were made to the area in 1945 and 1946. The work was almost entirely of a reconnaissance nature; detailed study was confined to the areas of pre-Tertiary rocks in the southern part of the Tobin Range and the western and northern parts of the Fish Creek Mountains. Mapping of the Shoshone Range was confined to reconnaissance of areas easily accessible from the road bordering the west flank. The higher parts of the range and the east slope were not visited.

H. G. Ferguson was in charge of the work and is responsible for the present form of the text, except for the sections dealing with Mesozoic rocks, by S. W. Muller, and those on igneous rocks and ore deposits, by Ralph J. Roberts. Roberts has also made a detailed study of the Antler Peak 15-minute quadrangle north of the eastern half of this quadrangle, the results of which have been published separately (Roberts, 1951)...

Triassic formations were determined by Muller.

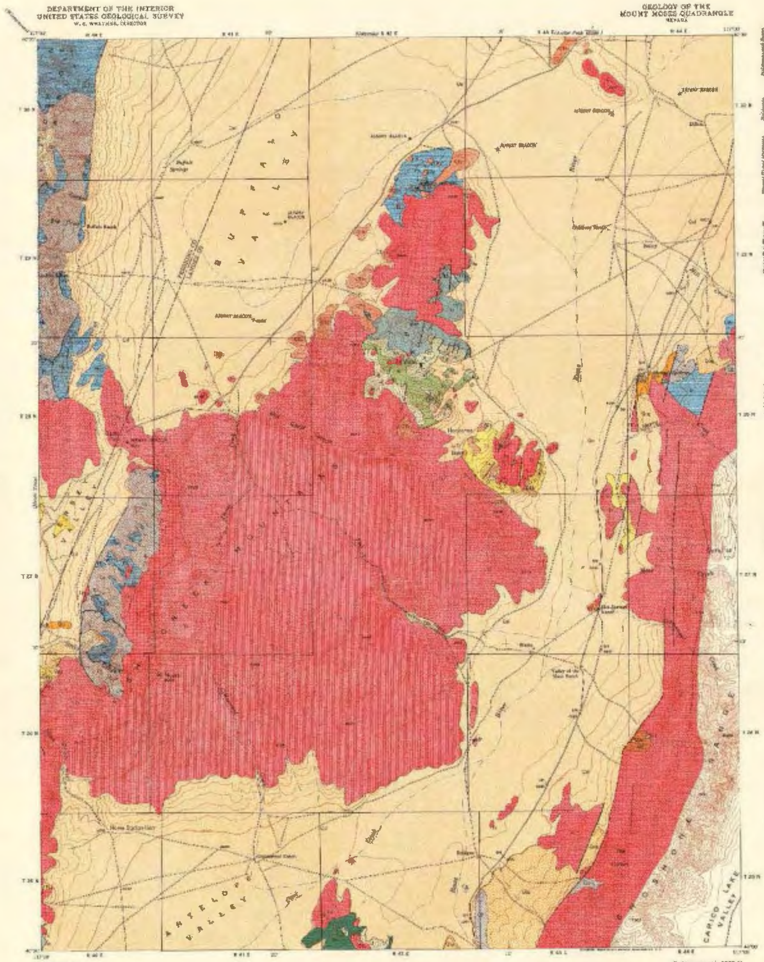
The area is in north-central Nevada, within the Basin and Range physiographic province, and includes the Fish Creek Mountains and parts of the Tobin Range and Shoshone Range, which rise to heights of about 4,000 feet above the intervening desert valleys. The nearest town and railroad point, Battle Mountain, is about 15 miles north of the northeast corner of the quadrangle. The highway from Battle Mountain to Austin follows the valley of Reese River in the eastern part of the quadrangle; passable roads traverse Buffalo and Jersey Valleys in the western part.

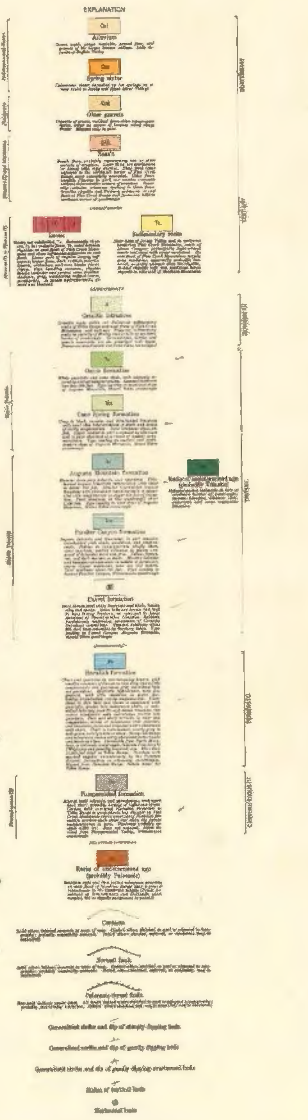
GEOLOGY

SUMMARY

Pre-Tertiary rocks crop out over only a relatively small part of the area, so that conclusions as to their relations are necessarily derived from study of the adjoining quadrangles. It is thought that all the exposed Paleozoic and Triassic rocks form part of the upper plate of the Golconda thrust (fig. 1). The Pumpernickel and Havallah formations of Pennsylvanian (?) and Permian (?) age respectively were highly folded during the Permian and are unconformably overlain by the volcanic Koipato formation, also of Permian age, which does not crop out in this quadrangle. After an erosion interval, formations ranging from Lower to Upper Triassic were deposited in conformable sequence. ...

FIELD-SKETCH MAP SHOWING INFERRED EXTENT OF TOBIN AND GOLCONDA THRUSTS





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