QUATERNARY SEQUENCE EAST OF THE FRONT RANGE
NEAR DENVER, COLORADO

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INTRODUCTION

This paper is based on detailed mapping of the surficial deposits of the Kassler and Littleton quadrangles, which lie along the east flank of the Front Range about 15 miles south of Denver, Colorado (fig. 1). The surficial deposits (pl. 1) were mapped in the summers of 1953 and 1957, with the purpose of extending the geologic units of the Denver area (Hunt, 1954) up the South Platte River to the mountain front. Pertinent details of the Quaternary stratigraphy, geomorphology, and sequence of ancient soils are summarized here to give participants on an accompanying field trip a preview of the geology.

The Quaternary surficial deposits along the east edge of the Front Range fall into four categories: alluvium; wind-blown sand and loess; bog deposits; and landslides. Together they cover about one-half of the hogback area and nearly all of the area east of the hogbacks. As a result of this widespread distribution they previously have been described intensively in reports on the surficial deposits, and briefly in papers on the underlying sedimentary rocks.

Six published reports contain essentially the same stratigraphic framework as that now used in the Denver area (fig. 2). The earliest of these is by Cannon (1888) in which he described Quaternary alluvium and loess. Emmons, Cross, and Eldridge (1896) wrote the first comprehensive geologic report on the bedrock of the area and mapped several Quaternary deposits including alluvium and loess.

Bryan and Ray (1940) described the glacial drift, pediments, and stream terraces of the Cache la Poudre Canyon and named three pediments and three terraces near Greeley, Colorado. Levings (1951) described the geomorphic development of the Raton Mesa area, including three pediments and a high-level erosion surface over which he concluded the Ogallala formation was transported and deposited. On the basis of physical geology,