GEOLOGIC MAP OF THE EAST OF GROTTO HILLS QUADRANGLE, CALIFORNIA: A DIGITAL DATABASE

Geology By
Janie E. Nielson

Digital Database By
David R. Bedford

DESCRIPTION OF MAP UNITS
AERIAL SURVEY
Three and four figure numbers identify side of hillside, valley, and flat. See map on reverse side for geometric relationships between map units and USGS survey control points.

DESCRIPTION OF MAP UNITS
GEOLOGY

Quaternary deposits (Huronian): thin deposits of fine sand and gravel. Divided into:

- Overbank flood deposits with sandy matrix having bar and swale morphology. Chiefly braided-channel deposits, which have bar-and-swale morphology. Formed on flood plains and fan fronts. Evident as low, gently sloping, terraces in the Signal Hill quadrangle. Also exposed along the shore of young lakes and in streams where the water surface is impounded. Estimated thickness less than 2 m.

- Clast-supported pebble- and cobble-size, angular to subangular gravel deposits. Consists of angular gravel with moderate to large amounts of matrix. Typical in areas of low, finely dissected ridges made of silt and sand, and in streams where the water surface is impounded. Estimated thickness less than 2 m.

- Gravel deposits (Miocene)—Buff, dark-tan, and reddish-brown sand, overbank flood deposits with sandy matrix having bar and swale morphology. Chiefly braided-channel deposits, which have bar-and-swale morphology. Formed on flood plains and fan fronts. Evident as low, gently sloping, terraces in the Signal Hill quadrangle. Also exposed along the shore of young lakes and in streams where the water surface is impounded. Estimated thickness less than 2 m.

- Air-fall tuff, tuff breccia, tephra, and pyroclastic deposits (Miocene)—Grayish-white, gray, and dark-gray sandstone, siltstone, and mudstone. Overbank flood deposits with sandy matrix having bar and swale morphology. Chiefly braided-channel deposits, which have bar-and-swale morphology. Formed on flood plains and fan fronts. Evident as low, gently sloping, terraces in the Signal Hill quadrangle. Also exposed along the shore of young lakes and in streams where the water surface is impounded. Estimated thickness less than 2 m.

- Volcanic flows, andesite, andesite lapilli tuff, and andesite fraser (Miocene)—Grayish-white, gray, and dark-gray sandstone, siltstone, and mudstone. Overbank flood deposits with sandy matrix having bar and swale morphology. Chiefly braided-channel deposits, which have bar-and-swale morphology. Formed on flood plains and fan fronts. Evident as low, gently sloping, terraces in the Signal Hill quadrangle. Also exposed along the shore of young lakes and in streams where the water surface is impounded. Estimated thickness less than 2 m.

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