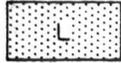
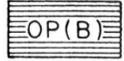


# EXPLANATION



**Lakewood terrace:** Generally 15 to 30 feet above the channel of the Pecos River. Underlain by unconsolidated silt and fine sand which overlies in some places unconsolidated lenses of gravel and silt. Young soil profile with fairly even distribution of 6 to 16 percent calcium carbonate.



**Orchard Park plain:** Lower phase, OP (L), 20 to 30 feet above Lakewood terrace. Generally compact but not hard silt overlies, in some places, a consolidated lime-cemented gravel. Older soil profile than Lakewood terrace. Soil contains about 15 percent calcium carbonate at surface. Calcium carbonate content increases to 30 percent at a depth of 3 feet.

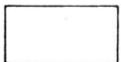
Upper phase, OP (U), surface characterized by hard impermeable caliche which is overlain by 1 to 3 feet of silt.

Gypsiferous phase, OP (G), in part underlain by gypsum and in part by large amounts of limestone gravels and angular detritus. In places soil is composed mainly of gypsiferous silt.

Black River phase, OP (B), generally 25 to 35 feet above Black River in lower reaches and 10 to 20 feet above Black River in upper reaches. Young soil profile characterized by high calcium carbonate content (20 to 25 percent).



**Blackdom plain:** An erosional terrace in the vicinity of Black River in part underlain by bedrock of Castile and Rustler gypsum and capped by 5 to 27 feet of gypsiferous silt and by a mature bed of caliche. In Loving area isolated remnants capped by a younger caliche profile than in Black River area. In Carlsbad area in part alluvium capped by mature caliche profile, in part bedrock terrace west of Carlsbad.



**Permian bedrock of Guadalupe and Ochoa age.** Includes younger eolian, fluvial and playa deposits east of the Pecos River.

Contact dashed where indefinite

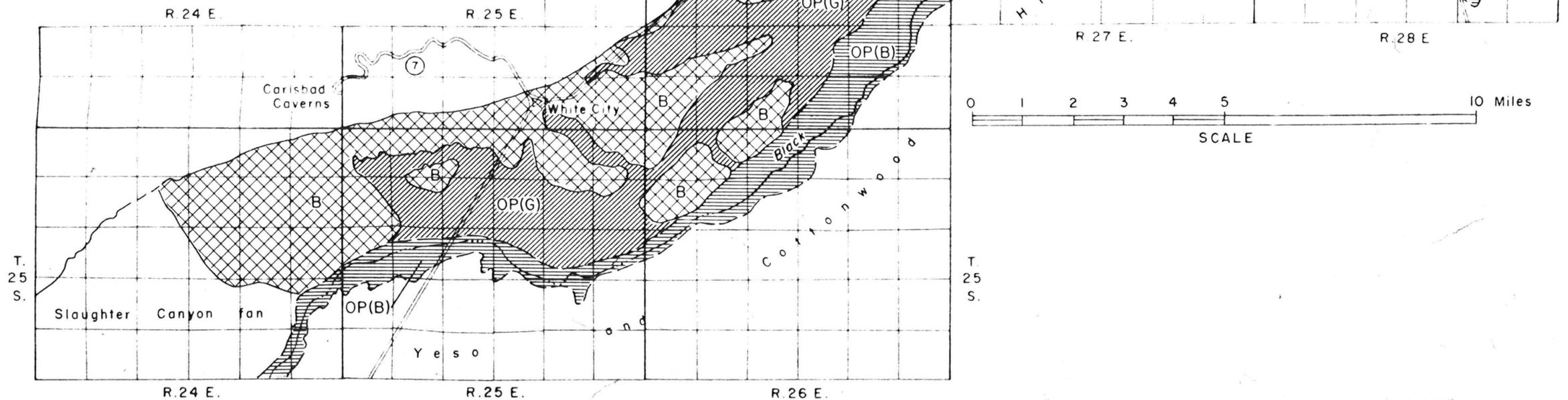


Figure 4.--Map showing lowland surfaces in the Pecos River valley near Carlsbad and in the Black River valley, Eddy County, N. Mex.