Some time after the completion of the laying down of the banded anhydrite Castile Formation of evaporites, a further, extensive formation of evaporites was deposited on top, thus thickly covering both the Delaware Basin, Castile deposits, and the Capitan reef. These later evaporite layers make up what are called the Salado and the Rustler Formations.[16] These evaporite beds do not always have the fine laminations which are characteristic of the Castile banded anhydrite, but in some parts they do.[17]

The subsurface map, "Cross Section Through Delaware and Val Verde Basins From Lea County, New Mexico to Edwards County, Texas," published by the West Texas Geological Society (1963) shows the Salado and Rustler evaporite covering layers, as determined by the drilling records of many wells. (See Figure 1 for a segment of it which has been redrawn.) The approximate thicknesses of the Salado and Rustler layers at three of the wells which are shown on the map are listed below (These can be seen on Figure 1, but for somewhat greater accuracy we have listed the thicknesses here):

1. Richardson--Bass #1 Cobb--Federal well, in eastern Eddy, Co., N. Mexico. This well penetrates the main part of the Capitan reef, on the northern side of the Delaware Basin. Directly above the reef are shown:
   1250 ft. (Salado) salt (NaCl), with some $CaCO_3$ mixed in.
   200 ft. (Rustler) anhydritic dolomite
   125 ft. (Rustler) anhydrite
   225 ft. red sandstone
   200 ft. red shale
   200 ft. sandstone (the final, surface layer)

2. Phillips #1 Powe well, in the northwestern part of Pecos Co., Texas--This well penetrates the main part of the Capitan reef on the eastern side of the Delaware Basin. Directly above the reef are shown:

   800 ft. (Salado) dolomitic anhydrite
   250 ft. (Rustler) anhydritic dolomite
   100 ft. (Rustler) anhydrite
   425 ft. red sandstone
   425 ft. red shale
   300 ft. calcareous sandstone
   250 ft. shaley limestone
   125 ft. limestone (the final, surface layer)