The Intermediate allogroup surfaces are generally dissected and lack distinct features. The sediments are generally clay, silty clay, reddish brown sand, silt, silty clay, and sandy clay. The Intermediate allogroup is divided into two temporal depositional phases: Late Sangamon and Early Sangamon.

The Intermediate allogroup is characterized by ridge and swale topography. Near the Mississippi River flood plain, the unit is blanketed by Sicily Island Loess, which is overlain by less than 1 meter of Peoria Loess in places. The Intermediate allogroup is present throughout the study area.

The Upland allogroup is composed of discrete and often small plateaus, characterized by meander scars substantially larger than those of younger deposits. This unit includes the Upland geosol, which is regionally extensive and occurs at the top of the unit. The Upland allogroup is composed of calcium carbonate, with scattered irregular calcareous nodules up to several meters in diameter. The Upland allogroup is present throughout the study area.

The Prairie Allogroup is composed of alluvial deposits of early Pleistocene streams. The Prairie Allogroup units of southwestern Louisiana exhibit the relict channels and meander scars characteristic of their adjacent source. The Prairie Allogroup is composed of gray or yellowish gray sandy clay, silt, and clay. The Prairie Allogroup is present throughout the study area.

The Prairie Allogroup is unconformably underlain by Tertiary formations of Miocene to Recent age, which are mostly buried by younger deposits. The Prairie Allogroup is present throughout the study area.