

Era	System	Series	Stratigraphic unit	Lithology	Hydrogeologic unit
Cenozoic	Quaternary	Holocene and Pleistocene	Alluvium, eolian, and lacustrine deposits	Windblown sand and silt, fluvial flood plain deposits, and lake deposits of silt and clay	High Plains aquifer
	Tertiary	Miocene	Ogallala Formation	Tan, yellow, and reddish-brown, silty to coarse sand mixed or alternating with yellow to red silty clay and variably sized gravel. Caliche layers common near surface	
Mesozoic	Cretaceous	Lower Cretaceous	Undifferentiated	Fine to medium, thin to thick-bedded sandstone, shale, and limestone	
	Jurassic and Triassic		Undifferentiated	Shale, fine to coarse sandstone, and limestone	
Paleozoic	Permian		Undifferentiated	Interbedded red shale, siltstone, sandstone, gypsum, anhydrite, dolomite, salt, and local limestone	

Modified from:

Gutentag, E.D., Heimes, F.J., Krothe, N.C., Luckey, R.R., and Weeks, J.B., 1984, Geohydrology of the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming: U.S. Geological Survey Professional Paper 1400-B, 63 p.

Knowles, Tommy, Nordstrom, Phillip, and Klemt, W.B., 1984, Evaluating the ground-water resources of the High Plains of Texas: Texas Department of Water Resources Report 288, v. 1, 177 p.

Figure 40. Sands of the Ogallala Formation are the major water-yielding deposits in the High Plains aquifer of Texas and Oklahoma. Quaternary deposits are part of the aquifer in some places.