

System	Series	Group/formation	Remarks	Tectonic Setting	Tectonic Association
Pleistocene		Terraces	Sedimentation in coastal and offshore Louisiana (not in site region)	Reactivation of southern Rocky Mountains, uplift of Colorado Plateau, eastward tilting of the Great Plains and renewed uplift of southern Appalachians.	Gulf of Mexico Basin Loading Subsidence
Pliocene		Goliad			
Miocene		Fleming			
Oligocene		Frio	Deposition of sandstone, siltstones and shales advancing to deep Gulf of Mexico basin	Sedimentation recording calc-alkaline volcanism in Mexico and southwestern portions of the Gulf of Mexico catchment	
		Vicksburg Group			
Eocene		Jackson Group	Offlapping deltaic depositional sequences of sandstones, siltstones and shales prograding to continental margin	Large amounts of sedimentary input in Late Paleocene to Early Eocene from early Larimide Orogeny	
		Claiborne Group			
		Wilcox Group			
Paleocene		Midway Group	Increasing amounts of terrigenous input derived from western sources	Probable initial influences of Larimide Orogeny	
Late Cretaceous		Navarro Group			
	Taylor Group				
	Austin Group				
	Eagle Ford Group	Shelf carbonate and terrigenous clastic sequences affected by cyclic sea-level fluctuations; terrigenous material provided by periodic uplift of crustal blocks			Return to tectonically stable conditions - maximum transgression with connection to Pacific by "Western Interior Seaway".
Woodbine Group					
Early Cretaceous	Washita Group	Buda	Widespread unconformity at base	Gulf of Mexico Thermal Subsidence	
		Del Rio			
	Fredericksburg Group	Georgetown	Transgressive - regressive sequences of carbonate and terrigenous clastic sediments		Continental and marine deposition with tectonically stable conditions and continued subsidence
		Kiamichi			
		Edwards Formation			
		Comanche Peak Formation			
		Walnut Formation			
	Trinity Group	Paluxy Formation			
		Glen Rose Formation			
		Travis Peak/Twin Mountains Formation			
Late Jurassic	Cotton Valley Group		Thick sequence of upward coarsening terrigenous clastics	Transgression maximum with clastic input from prograding delta systems. Development of unconformity at top.	
	Haynesville Formation and equivalents/members		Terrigenous clastics, carbonates and evaporites	Widespread transgression due to thermal relaxation of the crust	
	Smackover Formation		Carbonate and calcareous shales		
	Norphiet Formation		Basal coarse clastic facies		
Jurassic Upper- Middle	Werner Anhydrite - Louann Salt		Widespread development shallow bodies of hypersaline water periodically replenished from Pacific Ocean resulting in evaporite deposits primarily of either anhydrite or halite	Beginning of thermal relaxation of the crust following rifting and crustal thinning	Gulf of Mexico Formation
Late Triassic to mid- Early Jurassic	Eagle Mills Formation		Deposition of non-marine clastics and basaltic volcanics in isolate basins	Initiation of Gulf of Mexico formation with rifting of Pangea with deposition of rift facies sediments and volcanics.	
Permian	WOLFCAMP	Cisco Group	Deposition in waning phases of Ouachita orogeny and successor basins	Syn- Post orogenic Ouachita deposition	Ouachita Orogenic Phase
Pennsylvanian	VIRGIL	Canyon Group			
	MISSOURI	Strawn Group	Shallow water clastic deposition with decreased paleoslopes		
	DES MOINES	Atoka Group	Deltaic deposition in foreland basins	Syn-orogenic Ouachita clastic wedge	
	MORROWAN	Marble Falls and Comyn Formations	Shallow water carbonate deposited over and along flanks of crustal arches		
Mississippian	CHESTERIAN - MERAMECIAN	Barnet Formation	Deposition of shales and some carbonate into "starved basin"	Deposition in basin and in shallow water associated with crustal arching front of foredeep and westerly advancing synorogenic deltas	
		OSAGEN			Chapple Formation
Cambrian - Ordovician	CANADIAN	Viola and Simpson Formations and equivalents	Carbonate dominated stable platform sequence; minor amounts of Upper Ordovician, Silurian, Devonian and Lower Mississippian preserved in karst at top of Ellenburger.	Laurentian shelf	Laurentian Platform Basement - Cover
		Ellenburger Group			
		Wilberns and Riley Formations			
Pre-Cambrian	N/A	Wachita Mountains Igneous Province	Rift related bimodal plutonic and volcanic suite, early mafic phase with late silicic phase	Magmatic series in core of the Southern Oklahoma Aulacogen marks initial rifting of Rodinia	
		Llano Series	Middle Proterozoic (1232 - 1301 Ma) metagneous and metasedimentary terrane intruded by post-kinematic plutons (1116-1070 Ma).	Crystalline Grenville basement	

COMANCHE PEAK NUCLEAR POWER PLANT
UNITS 3 AND 4

Regional Stratigraphy
FIGURE 2.5.1-203

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