



**EXPLANATION**

Recent	Qal	Alluvium	QUATERNARY
		Sand, silt, and small amounts of gravel	
Platonic(?)	Qht	High terrace gravels	CRETACEOUS
		Pebbles and cobbles of limestone, chert, quartz, and quartzite; some finer material	
		UNCONFORMITY	
Comanche	Kcp	Comanche Peak limestone	CRETACEOUS
		Limestone; base of fossil bed near middle, Kcp1	
	Kw	Walnut clay	CRETACEOUS
		Shale and limestone	
	Kt	Trinity group	PERMIAN
		Sandstone containing small amounts of conglomerate, siltstone, and shale	
		UNCONFORMITY	
	Ppu	Puham formation	PERMIAN
		Mainly shale; small amounts of limestone, sandstone, and siltstone	
		Base of Coleman Junction limestone member, Ppu1	
	Ppm	Moran formation	PERMIAN
		Chiefly gray and red shale; some limestone and a small amount of sandstone, siltstone, and coal	
		Base of limestone units indicated as follows: upper limestone bed of Sedwick limestone member, Ppm1; lower limestone bed of Sedwick limestone member, Ppm2; Goodrich limestone member, Ppm3; lower limestone bed of Camp Colorado limestone member, Ppm4; unnamed limestone bed in Salt Creek Road shale member, Ppm5; Shookwater limestone member, Ppm6; Saddle Creek limestone member, Ppm7; unnamed sandstone bed in Waldrip shale member at or near the base of the Puritan, Ppm8; Channel-fill deposits (chiefly sandstone) indicated by stipple pattern	
	Pps	Pueblo formation	PERMIAN
		Gray and red shale containing thin limestone beds and small amounts of sandstone, siltstone, and channel-fill deposits	
		Waldrip shale member mapped separately at base, Pps1	
		Base of limestone or sandstone units indicated as follows: Upper limestone bed of Camp Colorado limestone member, Pps2; lower limestone bed of Camp Colorado limestone member, Pps3; unnamed limestone bed in Salt Creek Road shale member, Pps4; unnamed limestone bed in Waldrip shale member at or near the base of the Puritan, Pps5; Channel-fill deposits (chiefly sandstone) indicated by stipple pattern	
	Ppt	Thirity formation	PENNSYLVANIAN
		Gray shale containing limestone, sandstone, siltstone, and red shale	
		Base of limestone units indicated as follows: Chaffin limestone member, Ppt1; Breckwidge limestone member, Ppt2; Spock Mountain limestone member, Ppt3	
	Pgr	Graham formation	PENNSYLVANIAN
		Gray shale containing small amounts of limestone, sandstone, siltstone, and red shale	
		Base of limestone units indicated as follows: Iron limestone member, Pgr1; Gannett limestone member, Pgr2	

Basal limestone or sandstone units  
Dashed where approximately located

Contact  
Dashed where approximately located

X (16026)  
U.S. Geological Survey upper Paleozoic fossil locality

X  
Sand and gravel pit

Sections shown on figures 8, 10, and 14

Base compiled from Production Marketing Administration photographs taken for Coleman County in 1938, and for Brown, Callahan, and Eastland Counties in 1947-48. All county boundaries are approximate.

Horizontal control from first order triangulation by U. S. Coast and Geodetic Survey and by use of radial template layout. Planimetry by low order stereoscopic plotter and vertical projector.

Polyconic projection, 1927 North American datum.

**GEOLOGIC MAP OF THE CROSS PLAINS QUADRANGLE, BROWN, CALLAHAN, COLEMAN, AND EASTLAND COUNTIES, TEXAS**

