

STRUCTURAL GEOLOGY OF KEECHI SALT DOME,
ANDERSON COUNTY, TEXAS

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A B S T R A C T

The Keechi Salt Dome, one of the seventeen Interior Salt Domes of East Texas, is located in central Anderson County, Texas. This salt dome lies in the south-central portion of the East Texas Embayment, a northward extension of the Gulf Coast Geosyncline. Upper Cretaceous marls and Lower Tertiary sands and clays crop out as a result of the uplift, with about 4200 feet of structural uplift on the lowermost exposed strata.

The salt core, which is only 435 feet below the ground surface at the shallowest known point, is roughly egg-shaped in plan view and possesses an overhang on the south and southeast sides. The strata overlying the salt have been steeply domed and complexly faulted by the rise of the salt core. This fault pattern is dominantly radial, with one large fault, the Link Fault, crossing the entire dome from northeast to southwest.

Major periods of inferred movement took place in late Comanchean and early Gulfian, and early Tertiary times.