

ABSTRACT

SEDIMENTOLOGY OF THE LOWER STRAWN FORMATION, DESMOINESEAN,
CENTRAL TEXAS WITH PARTICULAR EMPHASIS
ON RESERVOIR QUALITY ROCK

By:

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The Strawn Formation (Atokan (?) - Desmoinesean) is well exposed throughout its outcrop belt in central Texas, allowing examination of a stratigraphic sequence that records the transition from deep basin to shallow shelf sedimentation. The present investigation describes the lower 2/3 of the unit, which constitutes turbidite fill of the Fort Worth (foreland) Basin.

Careful study of outcrop features (grain size, bedding character, and sedimentary structures) and comparison with the submarine fan model of Walker and Mutti (1973) aided interpretation of depositional environments within Strawn fan systems and determination of gross sedimentology of these beds. Analysis of grain size parameters of representative sandstone samples revealed transport and depositional mechanisms supporting deposition on a submarine fan. General trends in median grain size, fine truncation point, and percent suspension suggest a correlation with facies/environment of deposition, and may be used to help identify other similar deposits.