Rafted Wood in the Bouldin Member of the Eagle Ford Formation, Walnut Creek, Travis County, Texas

Justin Mauck^{1,2} and Gregory Frébourg²

¹Jackson School of Geosciences, University of Texas at Austin, 2305 Speedway Stop C1160, Austin, Texas 78712–1692

²Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Rd., Austin, Texas 78758

GCAGS Explore & Discover Article #00078*
http://www.gcags.org/exploreanddiscover/2016/00078_mauck_and_frébourg.pdf
Posted September 13, 2016.

*Article based on an extended abstract published in the *GCAGS Transactions* (see footnote reference below), which is available as part of the entire 2016 *GCAGS Transactions* volume via the GCAGS Bookstore at the Bureau of Economic Geology (www.beg.utexas.edu) or as an individual document via AAPG Datapages, Inc. (www.datapages.com), and delivered as a poster presentation at the 66th Annual GCAGS Convention and 63rd Annual GCSSEPM Meeting in Corpus Christi, Texas, September 18–20, 2016.

EXTENDED ABSTRACT

The Cenomanian/Turonian Eagle Ford Formation is an important unconventional reservoir and source rock in Texas. The study area is within the Walnut Creek locality (Figs. 1 and 2). This study focuses on the Bouldin Member, which is not found in the productive subsurface. The Bouldin Member was deposited within the Eagle Ford Shale Basin. Paleogeography of the Cenomanian/Turonian boundary is shown (Fig. 3) (Ruppel et al., 2012). It corresponds to the middle/lower Eagle Ford Formation (Fairbanks, 2012). The measured section is 10–13 ft thick (Fig. 4). Presence of *Teredolites* in large wood fragments recovered in this study signifies the wood was exposed in a saltwater environment long enough for the bivalves to colonize and bore the surface. The wood fragments are interpreted to have been rafted at the oxygenated sea surface for a period long enough to allow for intense boring by bivalves before sinking to the bottom of the sea in the pelagic realm. Preservation of the wood was favored by low oxygenated bottom water (dysoxic/anoxic) (Fairbanks, 2012; Robinson, 1997; Ruppel et al., 2012). Does this mean shallow water? This study focuses on the significance of such large wooden fragments in the Eagle Ford Formation.

•••