



Energy - Oil and Gas Research; Study Results from University of Texas Austin Broaden Understanding of Oil and Gas Research (Geologic Characterization of the Type Cored Section for the Upper Cretaceous Austin Chalk Group In Southern Texas: a Combination Fractured and ...)

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2020 DEC 18 (VerticalNews) -- By a News Reporter-Staff News Editor at Energy Weekly News -- Data detailed on Energy - Oil and Gas Research have been presented. According to news originating from Austin, Texas, by VerticalNews correspondents, research stated, "A rock-based geologic characterization was completed on a continuous core through the Austin Chalk Group section, an active exploration target in southern Texas. Because this core (located in the Pearsall field) is continuous and includes both lower and upper contacts, it can be used as the type cored section for the southern Texas Austin Chalk."

Funders for this research include RCRL at the **Bureau of Economic Geology**, **Bureau of Economic Geology** STARR Project.

Our news journalists obtained a quote from the research from the University of Texas Austin, "Several general lithofacies are defined. Two lithofacies (lithofacies 1 and 2) are highly bioturbated and have low to moderate organic matter content and are poor to moderate source rocks. Two other lithofacies (lithofacies 3 and 4) are laminated, lithofacies 3 containing some burrows and lithofacies 4 containing no burrows. Both lithofacies are good source rocks. Organic matter in the laminated lithofacies 3 and 4 and some of the organic matter in the bioturbated lithofacies 2 are dominated by type II kerogen, suggesting the section can be self-sourcing. A general trend is observed whereby lithofacies that were deposited under more-oxygenated conditions increase in abundance up section and is related to a decrease in total organic carbon and, hence, source-rock quality. The primary oil and gas production is from fractures with possible later production from the nano- to microporous matrix after pressure drawdown. Pore types are predominantly interparticle nano- to micropores and lesser intraparticle nanopores as defined by Loucks et al. (2012). Porosity is less than 8%, and permeability is less than 0.05 and ranges down into the nanodarcy range. The type cored section adds to the understanding of the southern Texas Austin Chalk by providing a geological description of lithofacies, stacking patterns, source-rock quality characterization, and reservoir quality."

According to the news editors, the research concluded: "The type core can be used as a comparison section to other cored sections of the Austin Chalk."

This research has been peer-reviewed.

For more information on this research see: Geologic Characterization of the Type Cored Section for the Upper Cretaceous Austin Chalk Group In Southern Texas: a Combination Fractured and Unconventional Reservoir. AAPG BULLETIN, 2020;104(10):2209-2245. AAPG BULLETIN can be contacted at: Amer Assoc Petroleum Geologist, 1444 S Boulder Ave, PO Box 979, Tulsa, OK 74119-3604, USA.

The news correspondents report that additional information may be obtained from Robert G. Loucks, University of Texas Austin, Bur Econ Geol, Austin, TX 78712, United States. Additional authors for this research include Toti E. Larson, Charlie Y. C. Zheng, Christopher K. Zahm, Lucy T. Ko, James E. Sivil, Peng Sheng and William A. Ambrose.

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