

October 1940

288508
Elwell and Lario, No. 1 Bickerdyke
SW/c 29-15S-8W
Elevation 1641 feet *DF_{Le} (Printed)*

Cable Tool Dry Hole. S.L.M. 3002 equals 2995 corrected.

Pennsylvanian

Conglomerate

2989 feet Reworked Cotter-type cherts, red and green clay and minor amounts sand

Ordovician and Cambrian

Arbuckle

Top 2989 feet corrected (1348 feet subsea). Penetration 211 feet.

2989-3060 feet Residual Cotter slumped into pre-Cotter sink. Heavily concentrated quartzose colitic cherts of Cotter type, sand, and residual green sandy shale, with minor amounts of relatively fresh white medium to coarse crystalline dolomite indicative of pre-Cotter. Oxidization relatively unimportant. Cherts fairly fresh and clean with possible secondary quartzose addition by circulating waters.

3060-3200 feet Pre-Cotter, including Reagan. Subdivisions are:

(140)
3060-3102 feet Pre-Cotter dolomite, slightly sandy, sand content increasing downward. Contaminated by cavings from leached zone in upper portion. Base gradational and somewhat arbitrary.

3102-3125 feet Highly sandy dolomite which may include Boyce or top of Everleigh, or both. Apparently transitional between zones above and below.

3125-3165 feet Everleigh dolomitic sandstone, possibly including Boyce at top. Lithologic rather than chronologic significance.

3165-3200 feet "Reagan (Lamotte)" sandstone. Basal Sand

Pre-Cambrian

3200-3953 feet Total Depth. Slightly metamorphosed arkosic sandstones, with micaceous shales and phyllites. "Red Clastics".

This section is clearly solutionally compacted in part at least. The upper 71 feet is interpreted as a filled sink or cave in pre-Cotter, with slumped Cotter materials constituting the fill. It might be interpreted as Cotter residuum mantling pre-Cotter dolomite except for the presence of persistent amounts of relatively fresh crystalline dolomite of pre-Cotter type present throughout the interval. It would also be necessary to assume considerable leaching and condensation of the remaining pre-Cotter section to account for the thin interval resulting if the upper interval were classed as Cotter residuum, and the middle and lower pre-Cotter dolomites do not show any such solutional effects.

Classification of the basal sandy dolomites is necessarily arbitrary. They are chiefly sedimentational facies whose time value may change greatly in short distances.

This section suggests that a nearby test along the stratigraphic strike might encounter normal pre-Cotter, rather than Cotter, or much thinner Cotter residuum than in this well

FBC