

Laboratory.
Oct. 28, 1938.

Mr. E. B. Wilson,
B a i l d i n g .

Dear Sir:

Following are determinations on the Arbuckle sections in three wells mentioned by Mr. Brooks in his letter of the 24th.

Crown #1 Wolf, SE SW SE, Sec. 36-19S-12W:

Penn.-Arbuckle contact	3345'
Miller-Purcell	3345-3360'
Miller-Purcell or Cotter	3360-3374'

The cherts from 3345-3360' have a general Miller-Purcell aspect. Those from 3360-74' suggest Cotter but they may belong to the highly variable Purcell. I suggest that Mr. Garbady compare the residue sequence in this well with that from the Mideo #1 Sifers, Sec. 23-21S-11W, tentatively correlating 3360' in the Crown test with 3501' in the Mideo dry hole.

Ash #B-1 Schwartz, NW NE SW, Sec. 7-20S-11W:

Penn.-Arbuckle contact	3324'
Miller-Purcell (probably Miller)	3324-3345'

This correlation is from the general character of the cherts, as the sequence does not stand out clearly.

Crown #1 Schwartz, SW SE NW, Sec. 7-20S-11W:

Penn.-Arbuckle contact	3350'
Questionable	3350-3352'

Mr. Lockwood called this top at 3342' so it is possible that there is a correction to be applied which was not noted on the sample envelopes. There are only a few fragments of dolomite in the sample, too few to make a determination. However, the fine texture of the dolomite suggests Cotter, a condition hardly in view of the Miller-Purcell in in the south offset.

The occurrence of Miller-Purcell in these wells, together with the presence of Decorah in 21-20S-12W and in 2-21S-12W, calls for considerable revision of the Arbuckle paleogeologic map. It is probable that Miller-Purcell and Decorah overlap in a re-entrant in the synclinal area between the Rush and Russell axes.

Very truly yours,

Max Littlefield

cc Mr. Brooks

October, 1939.

Crown #1 Wolf,
SE SW SE, 36-19N-12W,
El. 1792'

Pennsylvanian conglomerate 3332-3340'.
3332-3340 Stained chert included in clay shale.

Ordovician residuum 3340-3345'
3340-3345 Cherts and clay.

Arbuckle Top 3345' Penetration 29' Sub-sea, minus 1553'
3345-3356 ~~Upper Miller~~ Lower Miller
3356-3374 Upper Purcell.
Pay zone is from Purcell, Zone 6.

Amount of erosion, 24' Restored Arbuckle top -1529'

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