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Viola Rpt
on Dean

December, 1937.

Lester and Dean #1 Metheny,
SE SE NE, 29-10S-20W,
Elevation 2200'

Cable

Pennsylvanian conglomerate. 3747-3837'

3747-3837 Chert and clays. The cherts are mainly white and milky, with a porous and weathered aspect. There is very little sand and the clays are in part residual in type.

It is probable that much of the lower part of this interval is Mississippian residuum in place but it cannot be identified as such. Quartzose cherts from 3810-3829' and red and green shales with some sand, from 3829-3837' suggest Fern Glen or Unit 4 residuum. If this material is not Mississippian residuum in place it is locally derived wash from a Mississippian terrain.

Ordovician ? Top 3837' Sub-sea, minus 1637'

Viola residuum 3837-3860'

3837-3860 Cherts, mainly pink to red; with red clay. Material typical of residuum of lower Viola. There are abundant cavings and the placing of Viola is a matter of interpretation of a part of the cuttings.

Decorah 3860-3879'

3860-3879 Red and green shales with some sand. Some of the shale is sandy and phosphatic. Again a matter of interpretation as cuttings are mainly cavings.

Arbuckle Top 3879' Penetration 56' Sub-sea, minus 1679'

3879-3905 Dolomite, pink and brown, medium to fine. Badly riddled by solution at top, in fact, the upper 15' is little more than residuum. This, coupled with cavings from above, makes correlation difficult.

This interval may be Miller-Purcell or Cotter. More well sections will be necessary in order to be sure of the age of this material.

3905-3935 Cotter dolomite.

This section is necessarily messy because of the difficult drilling through a long section of residual trash. It emphasizes the fact that solution was the last active process before the deposition of the Pennsylvanian. The top of "conglomerate", which here was the surface on which the Pennsylvanian sea encroached, is -1547', which is not particularly low structurally. However, this spot was probably a local syncline in pre-Pennsylvanian time.