

August, 1934.

Slick #1 Schmidt,
NW NW, 15-18S-10W,
Elevation 1771'

Pennsylvanian conglomerate. 3263-3294'

3263-3268 Clay shales, mainly red, sandy.

3268-3294 Sand, medium to coarse; with abundant stained chert.

3294-3370 Residuum. ~~Mixtly~~ Mainly chert, with considerable fine to medium sand. Also maroon, green and greenish white clays. This material appears to be the chert content of the Cotter dolomite with the dolomite completely dissolved. No intra-Cotter zones were identified but the general sequence tends to check the Cotter sequence, particularly a green shale zone near the base.

It is probable that the topography of the pre-Pennsylvanian land surface was considerably higher than the top of the dolomite. In this case 3294', the residuum top, will give a different picture than does 3370', the dolomite top.

Residuum, top sub-sea minus 1523'.

Arbuckle Top dolomite 3370' Penetration 178'

" " " 1599'

3370-3548 Pre-Cotter.

Divided as follows:

3370-3475 Undifferentiated. (Boyce and Weigel may be present and not identified)

3475-3540 Everleigh sand.

3540-3548 Basal sand.

3600
1771
1829

Pre-Cambrian was not reached but should be present within 50'.

Remarks: This well presents two interesting features;

The Cotter residuum indicates that this well locality had Cotter which was dissolved. Miller and Purcell may have been present but in residuum their criteria would be hard to distinguish from Cotter. In mapping the paleo-outcrop bands the residuum is Cotter and should be mapped as Cotter outcrop. Production characteristics, with porosity in the "Chat" residuum, should be more characteristic of Cotter than of Purcell or pre-Cotter. However, the dolomite itself is pre-Cotter and if the dolomite is to be mapped, it should be placed on the outcrop band of the pre-Cotter.

This relatively long section gives some information on thicknesses. It shows that the pre-Cotter is at least 178' thick. There may be from 0-50' of basal sand between the total depth and the granite. Also, some of the upper part of the pre-Cotter may have been dissolved, as there appears to be little Cotter material in the last ten feet of the residuum. It shows that the pre-Cotter may attain a thickness of about 200' within a relatively short distance of the granite axis but it also suggests thinning along the axis in pre-Cotter time, or erosional beveling of the pre-Cotter before Cotter deposition.

3600
1773
-1827 E
?

3573
1773
-1800 E

1599
50
178
1827
1757
228
1529