

February, 1936.

Skelly #1 Milhouse.  
C SW, 34-23S-17W.  
Elevation 2097'

Pennsylvanian conglomerate 4245-4335' See remarks below.

- 4245-4270 Clay shales and nodular limes with some included sand.  
4270-4280 No sample.  
4280-4287 Chert, weathered, irregular, oilstained. Some fragments look like Viola chert, so this is placed in the conglomerate rather than as residuum.  
4287-4322 No samples.  
4322-4330 Chert, weathered, looks like residuum. Some fragments appear to be Viola chert.  
4330-4335 No sample.

Mississippian 4335-4405' 70' Sub-sea, minus 2238'  
4335-4360 Chert, weathered, irregular. Residuum. Probably from both Unit 3 and 4 of Miss.  
4360-4405 Chert with traces of shale and fine sand. Very rare (5-15%) pink coarsely cryst. lime. Probably residuum from part of Unit 4 and from the Kinderhook. The latter does not show as much sand and shale as sections in 25S-17W.

Ordovician Top 4405' Sub-sea, minus 2308'

Post-Decorah Ordovician 4405-4525' 120'  
4405-4450 Chert, with 15-40% white and gray lime and fine white dolomite. Considerable solution has reduced this nearly to residuum.  
4450-4500 Limes, gray crystalline at top, white coarsely crystalline at base.  
4500-4510 No sample.

4510-4525 Dolomite, gray, fine, sandy. Probably Simpson.  
Decorah 4525-4595 70'. Mainly green shale. Hematite oolites abundant from 4535-70', also rare brown dense lime.

Arbuckle Top 4595' Penetration 407' Sub-sea, minus 2498'  
4595-4705 Miller-Purcell. Dolomite with interbedded gn. sh.  
4705-5002 Cotter. Base estimated at 5040'. Total Arbuckle estimated 745' or 43243' estimated top Pre-Cambrian.

Remarks: The chert 4280-4335' does not appear to be normal reworked Penn. conglomerate yet the presence of Viola chert indicates it is not Miss. residuum. Also the Miss. shown above does not show as good a sequence as could be desired. Solution may have caused surface residuum and Misener gravels to slump and become mixed. It is probable that 4280' represents the Pre-Pennsylvanian topographic surface and that at least 150' of Miss. and 160' of Viola were present at the beginning of solution in post-Miss pre-Penn time.

The Arbuckle section was well sampled, and, together with a well in 24S-18W, is the type section of the upper part of the Cotter.