

P  
March, 1938.

Olson #1 Fowler,  
C SW 26-27S-22W,  
Elevation 2419'  
Rotary samples.

| Mississippian | Top 5050' | Sub-sea, minus 2631' |
|---------------|-----------|----------------------|
| Unit 1        | 5050-5160 | 110'                 |
| Unit 2        | 5160-5365 | 205'                 |
| Unit 3        | 5365-5525 | 160'                 |
| Unit 4        | 5525-5595 | 70'                  |
| Kinderhook    | 5595-5680 | 85'                  |
|               |           | <hr/> 630'           |

The lower part of Unit 2 is here beginning to have some of the characteristics of Unit 3 further to the south. It is probable that these correlations in all wells in western Kansas will need to be revised when more control is available. Unit 4 is a dense lime with a few shale and sand layers. The footage assigned to the Kinderhook is white, gray, and brown lime, with some sandy and shaly layers.

|            |   |                      |
|------------|---|----------------------|
| Ordovician | Top 5680'                                   | Sub-sea, minus 3261' |
| Viola      | 5680-5800'                                  | 120'                 |
| 5680-5800  | Dolomite, fine, brown; with abundant chert. |                      |

|           |   |     |
|-----------|---|-----|
| Decorah   | 5800-5850'  | 50' |
| 5800-5850 | Dolomites, sand, sandy lime, and green shale. The samples are none too good in this interval, due to considerable coring. The details of the sequence are not well shown. In fact, the top and base are both arbitrary points and may be too low. There does not appear to be any sand thick enough to be a commercial reservoir. |     |

|           |  |                 |                      |
|-----------|--|-----------------|----------------------|
| Arbuckle  | Top 5850'  | Penetration 57' | Sub-sea, minus 3431' |
| 5850-5907 | Dolomite, brown, mainly finely crystalline; with some oolitic chert. The top is picked on the first oolitic chert and may be as much as 10' too low. |                 |                      |

This test demonstrates either lithologic change or discrepancies in correlation in the lower part of Mississippian Zone 2 and the upper part of Zone 3. There appears to be a finely granular facies which is relatively higher in the section toward the southward. The cherts suggest that this is lithologic change and that the beds are equivalent laterally. The natural tendency is to thicken Unit 3 toward the southward by adding Zone 2 beds to the upper part.