

September, 1935.

National Refining Company, #1 Wells,
C SW $\frac{1}{4}$, 13-23S-30W
Elevation 2791'

Unit 1

4740-4920 Limes, dense, oolitic in part, chert layers, rare
clastics. Pay in Scott County in this unit. Maremac ?

Unit 2

4920-5130 Limes, dolomitic, brown, disseminated fine sand. Con-
siderable chert. Present 4377-4492' in Coleman well,
25-17S-25W.

Unit 3

5130-5290 Chert, with granular white to brown glauconitic lime to
quantity of 5-15%. Probably an unconformity within
upper part of this unit. Burlington?

Unit 4

5290-5365 Lime, brown to grey, dense to crystalline. In other
wells sometimes white, co. crystalline. May be absent.
Probably St. Joe or Fern Glen.?

Kinderhook

5365-5405 Dolomites and sands with green shale.

Unclassified Post-Decorah Ordovician 5405-5580'

Arbuckle

5580-5875 Doubtful if Miller-Purcell is present. Probably all of
Decorah absent. Sand 5580-95 may be unconformity sand
which lies between Cotter and Trenton.

Extract from letter Max Littlefield, Sept. 12, 1935.

October, 1935

National Refining #1 Wells,
Sec. 13-23S-30W,
Elevation 2791'

Pre-Pennsylvanian.

Mississippian	Top 4740'	Sub-sea, minus 1949'
Unit 1	4740-4970'	Thickness 230'
Unit 2	4970-5125	" 155' (Total 385)
Unit 3	5125-5290	" 165'
Unit 4	5290-5365	" 75'
Kinderhook	5365-5405	" 40'
	Total	665'

This well is represented by good cable tool samples and is the Mississippian type section for western Kansas. Each of the units shown above can be subdivided into ~~more~~ detailed units suitable for local correlation, the degree of detail depending upon the quality of the samples.

Units 1 and 2 should be lumped together for regional study.

Ordovician Top 5405' Sub-sea, minus 2614'
Post-Decorah Cherty dolomite 5405-5580' . Thickness 175'
This dolomite can be zoned on chert criteria.
Decorah or unconformity sand. See Arbuckle.

Arbuckle Top 5580' Penetration 292' Sub-sea, minus 2789'
5580-5595 Sand, medium. Either Decorah, an unconformity sand, or the upper part of the Miller.
5595-5688 Dolomite. Probably Miller-Purcell, possibly the upper part of the Cotter.
5688-5872 Dolomite. Cotter. Zones correlate regionally.

Arbuckle Thicknesses
Post-Cotter? 108'
Cotter 347' (estimated)
Pre-Cotter 300 (estimated)
755 (estimated)
Top Pre-Cambrian 6335' (estimated)

2791

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