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PRESS BULLETIN
(For immediate release)

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November 19, 1921
By L. A. Mylius

**OIL POSSIBILITIES OF THE POSTEN SCHOOL
STRUCTURE, MONROE COUNTY, ILLINOIS**

Last summer the Illinois State Geological Survey sent a field party headed by Mr. D. M. Collingwood and Mr. J. E. Lamar to Monroe County for the purpose of working out structures in the vicinity of the Waterloo anticline which had been described in press bulletins published during the past year. Mr. Lamar spent almost the entire summer in the area, and parts of the following townships were covered:

Monroe County	St. Clair County
New Design	Columbia
Bluff	Millstadt
Renault	Stookey
Mitchie	

The conformable St. Louis-Salem contact was chosen as the key horizon to be contoured, and the geological maps, which had already been prepared some years ago by Doctor Stuart Weller, served as a basis for the work. Unfortunately, in certain critical areas, outcrops were lacking. Because dependable horizons, especially in the St. Louis, are scarce, the map may be inaccurate as to details in some parts. However, it is felt that errors due to such conditions can not and do not materially affect the main structural features as shown in the accompanying map.

The summer's work revealed somewhat favorable irregularities of structure other than that described herewith, but either because the irregularities are small, or because the data from which they were determined are more

doubtful, it seems inadvisable to publish a description of them at this time. Should the Posten School structure prove productive, these other irregularities will be described in a later bulletin, as they may then warrant testing.

The Posten School structure is part of a larger structure known as the Valmeyer anticline. As noted in our press bulletin of February 10, 1921, this latter anticline may be seen in outcrop on the Mississippi River bluffs at Salt Lick Point, northeast of the town of Valmeyer. The trend of its axis is southeast from that point, passing through sec. 33, T. 3 S., R. 10 W., east of Maeystown. The anticline is asymmetrical, its west side being marked by a steep southwesterly dip, and the eastern side by a distinctly gentler northeasterly dip. Some abrupt changes in dip observed on the west slope may indicate the existence of a fault paralleling the axis of the fold. The axis of the anticline has a southeastward pitch, which means that whereas the "Trenton" outcrops on the axis at Salt Lick Point, it becomes progressively deeper on the axis toward the southeast.

It was thought unwise to recommend the testing of the Valmeyer anticline unless some marked doming or flattening of the strata along the axis could be shown to exist; such a subordinate structure, if present, might contain enough oil to be commercially important in spite of the conditions that otherwise would tend to permit its escape at the outcrop in the vicinity of Salt Lick Point.

The accompanying map, with contours drawn on the St. Louis-Salem contact, shows a distinct lessening of the pitch on the axis of the anticline, from the SE $\frac{1}{4}$ sec. 19 to the SE $\frac{1}{4}$ sec. 33. Due to the scarcity of datum points it is impossible to show the exact nature of the irregularities of structure in the SE $\frac{1}{4}$ sec. 19. Northwest from this point the axis pitches more steeply than to the southeast. At this place the irregularity and the narrowing of the fold, and the change in the rate of anticlinal pitch make it appear that there is a fair possibility of a small closure at the north end of the Posten School structure. The easterly and westerly dips, and also the southward pitch, are well marked, but the lack of a demonstrated closure at the north end reduces the favorability of this structure.

Although there is considerable question as to the existence of a reversal of anticlinal pitch at the north end of the Posten School structure sufficient to cause a commercial accumulation of oil, yet in view of the shallowness of the prospective pay horizon, and the outline and extent of the flattened area, the structure deserves testing.

Datum points, and dip and strike observations used in contouring this structure are shown on the map. It is considered that the contours as published show a consistent interpretation of the available data, but any geologist who desires more detail on the datum points may examine our records for this structure in the Survey office.

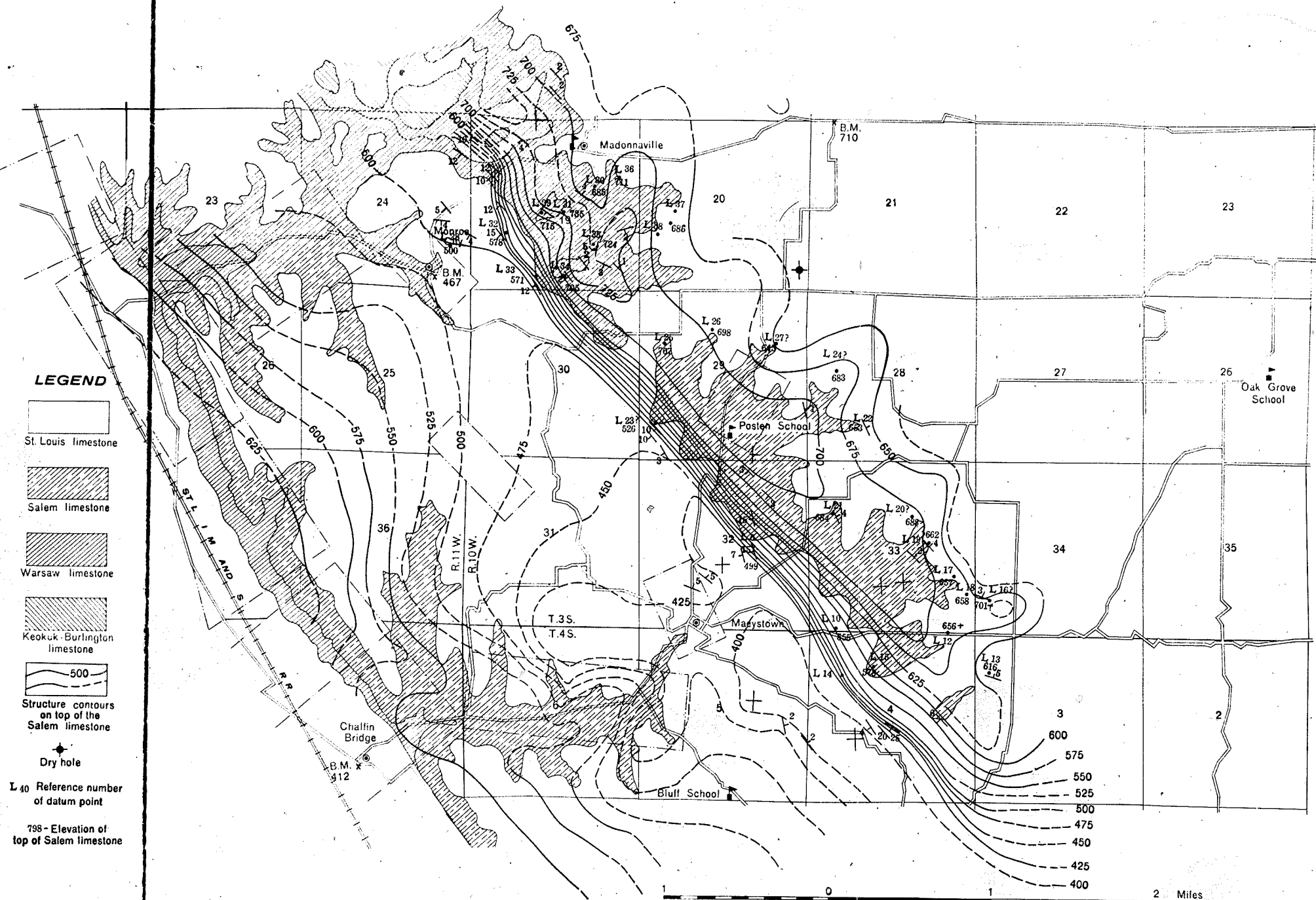
The closest tests to the Posten School structure are the well on the Harbaugh farm in the center of the NW. $\frac{1}{4}$ sec. 20, which found the "Trenton" at 507 feet, and the well on the Fred Feltmeir farm in the SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 20, which found the "Trenton" at about 575 feet. Both holes are reported dry with salt water in the "Trenton".

It is considered that this structure deserves two or three test holes in the area enclosed by the 700-foot contour in parts of secs. 33, 29, and 30, and the SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 19. It is not thought advisable to make initial tests outside of this area. The top of the "Trenton" should be reached at from 470 to 500 feet. Even should commercial production result from tests in the locality recommended above, it seems unlikely from present knowledge that production will be found on the Posten School structure outside the area southeast of sec. 19 which is enclosed by the 650-foot contour.

The columnar section with notes on the various horizons is self-explanatory. The areal extent of such of the formations as outcrop is shown on the map. Even though tests of this structure fail, the results will be of value in preventing unwarranted drilling of other structures in this area that present similar features.

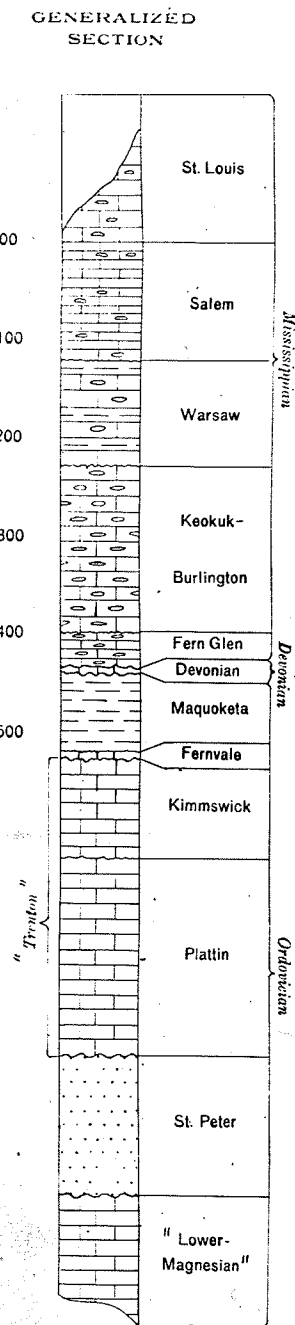
Generalized geologic column

Name	Thickness Feet	Description
St. Louis (locally eroded)	0-100	Limestone, fine grained, dense, hard, compact, and brittle. May have some chert (flint). Cuttings commonly fine and flour-like.
Salem (locally eroded)	0-140	Limestone, fine and coarse grained, granular, moderately hard and gray-white, and speckled. May have some chert. Commonly oolitic.
Warsaw	100-115	Limestone and interbedded shales. Gray, dark gray and buff, granular, moderately hard limestone, and shaly limestone, with thin layers of interbedded shale. <i>Spirifer</i> and <i>Productus</i> abundant in the upper beds of the formation.
Keokuk—Burlington	155-185	Limestone, granular, white. Much blue-white chert interbedded with limestone.
Fern Glen ("red rock")	30-40	Limestone, dominantly red, coarse grained, soft and granular, with minor amounts of white and green limestone. Locally greenish or red shale caps the limestone or is interbedded with it.
Devonian (locally absent)	0-10	Limestone, granular, gray-white, and moderately hard.
Maquoketa	70-90	Shale, compact, and dark gray.
Fernvale ("Trenton cap") (locally absent)	0-15	Limestone, dense, fine grained, hard brittle, and white.
Kimmswick	100±	Limestone, coarse grained, granular, soft, porous, and white. Cuttings have appearance of sand.
Plattin	200±	Limestone, fine grained, gray and buff.
St. Peter	140±	Sandstone, white, grains transparent and rounded.
"Lower Magnesian"		Limestone, dolomitic and siliceous, dense, and white.



LEGEND

- St. Louis limestone
- Salem limestone
- Warsaw limestone
- Keokuk-Burlington limestone
- Structure contours on top of the Salem limestone
- Dry hole
- Reference number of datum point
- Elevation of top of Salem limestone



MAP OF VALMEYER ANTICLINE IN THE VICINITY OF POSTEN SCHOOL