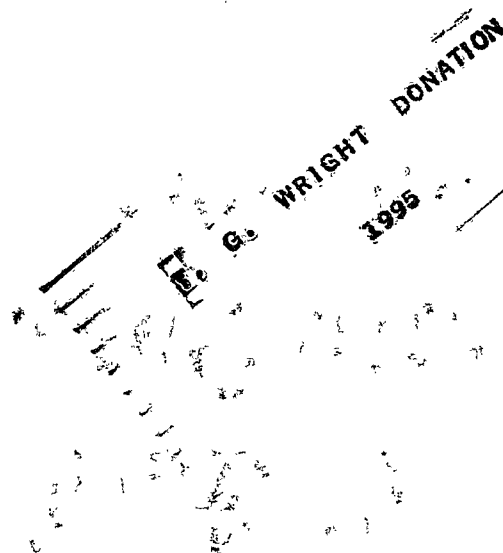


GEOLOGICAL REPORT COVERING A PORTION OF
THE FAIRPORT FIELD
RUSSELL COUNTY, KANSAS



Prepared for Mr. L. A. Farris
May 1, 1953

May 1, 1955

LOCATION

Section 52-119.-157., and Section 5-123.-157., Fairport Field,
Russell County, Kansas.

PURPOSE

To evaluate the NE/4 Section 5-123.-157. in an attempt to determine if it is economically practical to further develop this producing lease.

GEOLOGY

The Fairport Field is in general a strong structural feature, an elongated anticline with practically a north-south axis, the west flank dipping more sharply than the east flank.

Since the original folding occurred prior to the deposition of the Pennsylvanian rocks, the crest of the structure is truncated to Granite, with the Arbuckle and Reagan Sand wedging out on the steeply dipping flanks. The structure was again folded on the same general lines following Pennsylvanian deposition, which accounts for the prolific Pennsylvanian production from the Lansing and Topoka sections.

In the Pre-Pennsylvanian horizons, the Arbuckle and Reagan Sand are both productive along the east flank of the structure.

In addition to these, and more important with respect to this particular problem, is the accumulation of basal Pennsylvanian sand, commonly referred to as Cornsaw Sand, along the east flank of the Fairport structure. This sand directly overlies the Basal Pennsylvanian Conglomerate, and may be considered a part of it. It is not a blanket sand but occurs irregularly, being derived from the erosion off the crest of the structure, as is the Conglomerate. Due to the erratic nature of this sand, it is impossible to trace definitely, but has proved to be an economic "pay" on the lease under consideration at the #1 Brummitt, SW NE NE Section 5-123.-157.

The accompanying plat, contoured on the Base of the Pennsylvanian, indicates the structural picture, and present adjacent producing horizons.

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HISTORY OF DEVELOPMENT

The principle "pays" in the Fairport Field have occurred in the Pennsylvanian limestones, primarily Lansing-Kansas City. During more recent years old producers have been deepened to test the base of the Pennsylvanian, and have developed new "pays" in the Arbuckle and Reagan Sand, depending on their position on structure. Tests along the crest of the fold encountered Granite, consequently flanking leases are more attractive as far as Cambro-Ordovician production is concerned. This is also true with respect to Gorham Sand possibilities.

POSSIBLE PRODUCING HORIZONS

The subject lease is definitely on the east flank of the Fairport Field. It is felt that the subject lease has no merit as to possible Lansing-Kansas City production, being too low structurally. This may be observed by reference to the accompanying plat which indicates Lansing structural data.

When consideration is given to the Arbuckle as a possible producing horizon, the prospects are not encouraging. South of the subject tract in the SW NW SE Section 5, and SW SE SE Section 5, two Arbuckle producers have been drilled. However their respective Arbuckle elevations are -1423 and -1418 which is considerably higher than could be expected on the Brumitt lease, since the #1 well has a -1443 on the total depth, and the #2 well has a total depth of -1452. Consequently it is believed that Arbuckle possibilities are non-existent.

The only remaining possible producing horizon is the Gorham Sand. The dry hole #2 Brumitt, NW SW NE Section 3-123.-15W. would seem to preclude further development to the south, as the sand is not developed in the #2 well.

A dry hole in the SW SW SE Section 32-115.-15W., directly offsetting the subject tract to the north, lends considerable interest to the drilling of a location along the north line of the Brumitt lease. This dry hole encountered the Gorham Sand at a -1426, thirteen feet higher structurally than the #1 Brumitt. From available geological data a minimum of nine feet of Gorham Sand was penetrated, with a good show of oil, before casing was run, and subsequent deepening with cable tools went to 3167 total depth, -1445. The data as to what type of rocks were drilled from 3157 to 3167 total depth is not available, but at total depth the hole filled 1200 feet with fluid, of which 1000 feet was water, and 200 feet of oil. This fill up would indicate favorable sand conditions in the dry hole and it is felt that the well should have produced if properly handled. Considerably more penetration was made into the sand than would now be considered advisable.

I. G. WRIGHT, REGISTRAR
1995

As the #1 Brummitt has produced in excess of 60,000 barrels of oil since completion in June 1947, and is currently producing at an economic rate, it would appear that the well is draining a wider area than is apparent at this time. It is felt that further development to the north of the #1 well is advisable, a location NW NE NE Section 5 is recommended. This location will also offset a current Gorham Sand producer in the NE NE NE Section 5. It would of course not be considered advisable to drill the recommended location unless the SE/4 of Section 32-11S.-15W. is also controlled, as it is entirely possible that production of this type exists along the entire west line of the SE/4 of Section 32.

CONCLUSIONS

1. The Lansing-Kansas City section will not produce on the subject lease.
2. Arbuckle production possibilities are non-existent on the subject lease.
3. The Gorham Sand is the only possible producing horizon, but is considered a good prospect and that further development is justified.

RECOMMENDATIONS

1. To drill the location NW NE NE Section 5-12S.-15W. with the Gorham Sand as the objective.
2. Upon encountering the sand, hold penetration to a minimum before testing.

Respectfully submitted

T. G. Wright

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CONSULTING GEOLOGIST
335 FIRST NATIONAL BANK BUILDING
WICHITA 2, KANSAS
May 1, 1953

Mr. L. A. Farris
Brown Bldg.
Wichita, Kansas

Dear Sir:

For geological services in preparation of a geological report covering a portion of the Fairport Field, Russell County, Kansas

\$200.00

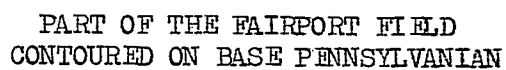
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June 5, 1953
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