

September 23, 1974

Mr. H. A. Mayor
Southwest Petro-Chem
(Production), Inc.
220 W. Waterman
Wichita, Kansas 67202

Re: Shallow gas
investigation - Olathe
Area, Johnson County,
Kansas

Dear Sir:

I recently spent some time in northeast Kansas investigating shallow gas possibilities adjacent to your new plant at Olathe. By necessity the data acquired is general in nature since we are dealing with an old gas producing area, long abandoned for the most part, and developed primarily in the 1920's.

Existing records of old wells cannot be considered as complete, but all available logs were examined in the files at The State Geological Survey, Lawrence, and also the files of the Kansas Geological Society in Wichita, the best information available.

While in the Olathe area I contacted both Panhandle Eastern and Cities Service Gas to confirm that no commercial gas is being purchased within the vicinity of Olathe although Cities Service is presently using the old Olathe North Gas Area as a gas shortage project.

Submitted herewith are several plats showing data which I feel is important.

The copy of P. 243 of the State Geological Survey Bull. #104 shows the oil and gas producing areas of Johnson County and shows the geographic relationship of your plant and leasehold to the old producing areas. Also enclosed is a plat prepared to show total depths of as many of the original old wells as possible, as well as two recent wells drilled for domestic use.

Of primary importance was to discover any old tests drilled within your lease block comprising all of Section 11, N/2 Section 14, SW/4 Section 1 and NW/4 Section 12 - T.14S-R.23E. I could find evidence of two holes in Section 11, neither having

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September 23, 1974

tested the Squirrel Sand. A hole in NW SW SW of Section 11 appeared to produce from the 300-foot Knobtown Sand. Adjacent to your acreage in Section 11 are several Squirrel Sand oil producers, present status not know, which the records show were drilled in the early 1960's. For the most part your lease block is untested as to Knobtown and Squirrel Sand except for the gas well in the NW SW SW of 11.

There are two potential gas producing horizons in the area, namely the Knobtown Sand at approximately 300 feet and the Squirrel Sand at approximately 600 feet. Enclosed herewith is a plotted log from the Kansas Geological Society files on a gas producer in the NW SW NW of Section 27-13S-23E which is about 3 miles northwest of your acreage. It is included to show the geologic section which carries these potential gas "pays". You will note that no "shows of gas" are logged between the Squirrel Sand and the top of the Mississippian Limestone.

The purpose of this study is to consider the advisability of drilling a test on your acreage to evaluate the Knobtown and Squirrel Sands and hopefully discover sufficient gas to be used in the operation of your Olathe plant. I discussed your fuel needs with Mr. Johnston in your Olathe office and he advised that 100,000 MCF of gas per year was estimated necessary to supply all the plant. In my opinion it would be impossible to develop sufficient gas reserves to satisfy your needs for any length of time. If we were fortunate enough to develop Knobtown and Squirrel gas in a test well the venture would be more attractive, but at this point it is my opinion that the best one could expect is to develop sufficient reserves to supplement your fuel needs, possibly during periods of peak load.

Also enclosed is a copy of P. 35 of Bull. #203, a recent "Geology & Ground Water Resources of Johnson County" published by the State Geological Survey. This plat shows an interpretation of the geologic structure on the top of the Lansing-Kansas City at or near surface in this locality. It would appear that your leases are located on regional west dip and are not particularly well located structure-wise.

It is recommended that you test your block by drilling a cable tool hole to test Knobtown and Squirrel Sands. Both could be tested with a 700 foot hole. It would be hoped sufficient gas reserves could be developed to supplement your fuel needs at the plant. A location near the center of Section 11-T.14S-R.23E primarily because it appears untested and is located geographically toward the center of your leasehold.

Yours very truly,

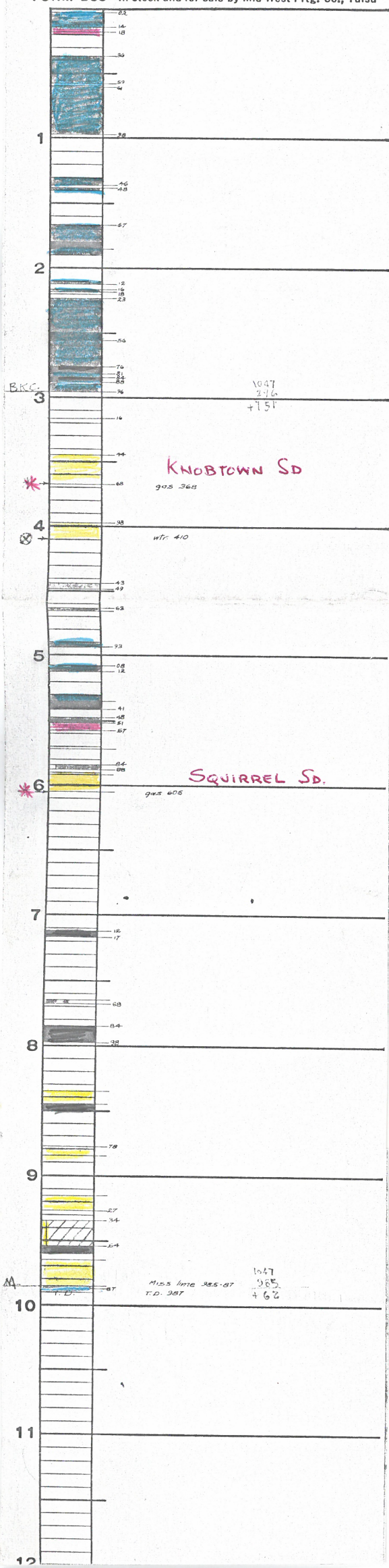
T. G. Wright

TGW:wlr

1993
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SEC. 27		STATE	COUNTY
TOR BK	R OR SUR	Kansas	Johnson
13S	23E	SURVEY	
4 27			
COMM.		COMP.	
WELL NO. 1	LOCATION IN SECTION NWSW $\frac{1}{4}$ NW $\frac{1}{4}$		
LEASE			
Keepers			
COMPANY			
ELEV. 1047 ¹⁰⁵	CASING RECORD		
987' L+S. (changed in T.C. book)			
I. PROD.			

FORM 265 - In stock and for sale by Mid-West Prtg. Co., Tulsa



September 23, 1974

Mr. H. A. Mayor
Southwest Petro-Chem
(Production), Inc.
220 W. Waterman
Wichita, Kansas 67202

Re: Shallow gas investigation
Olathe Area, Johnson County,
Kansas

S T A T E M E N T

3 days @ \$150.00	\$ 450.00
520 miles @ 15¢ per mile	78.00
Meals & lodging	30.00
	\$ 558.00

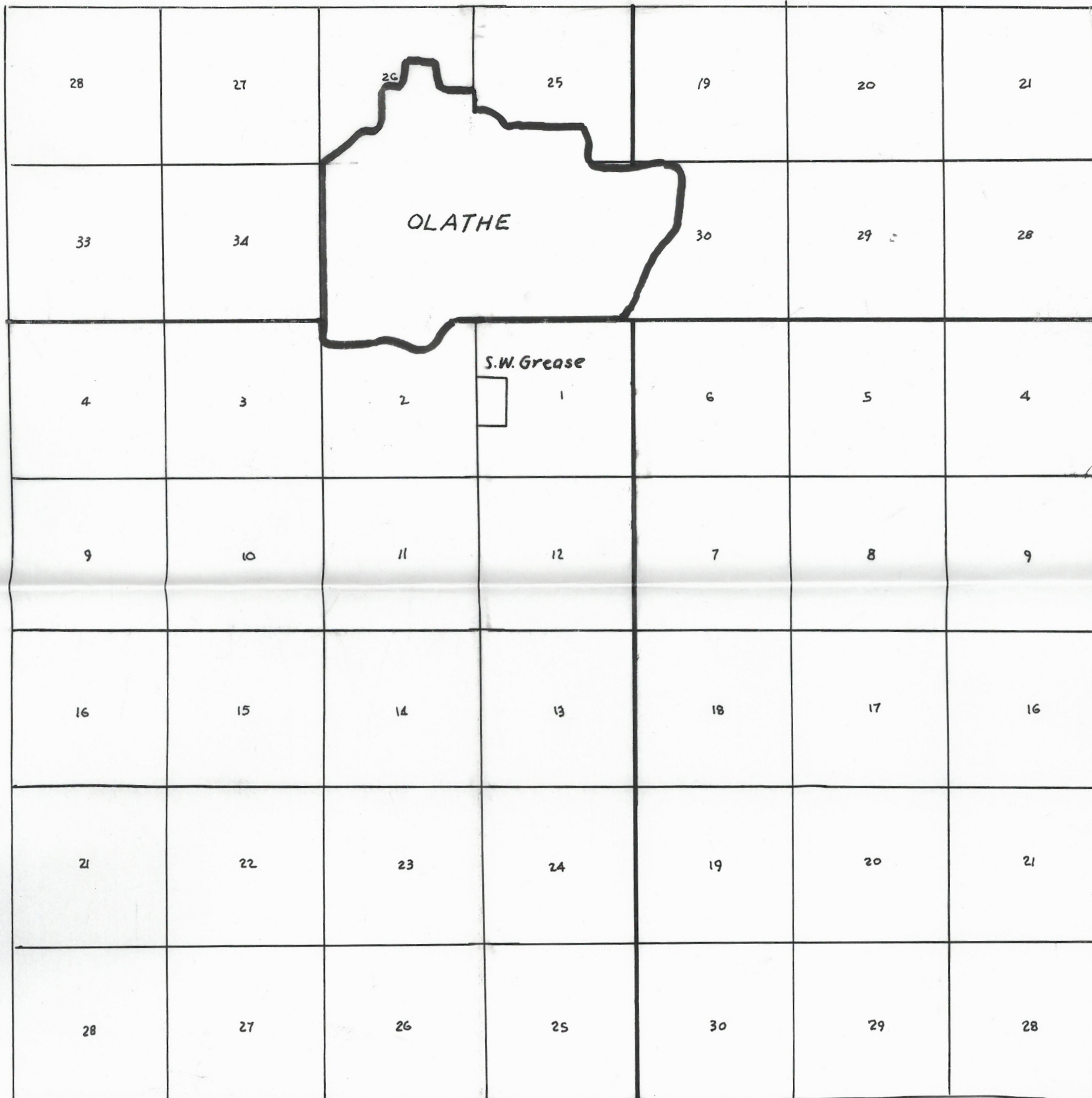
*Check received
10-10-74
#3387*

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1995

R.23E.

R.24E.

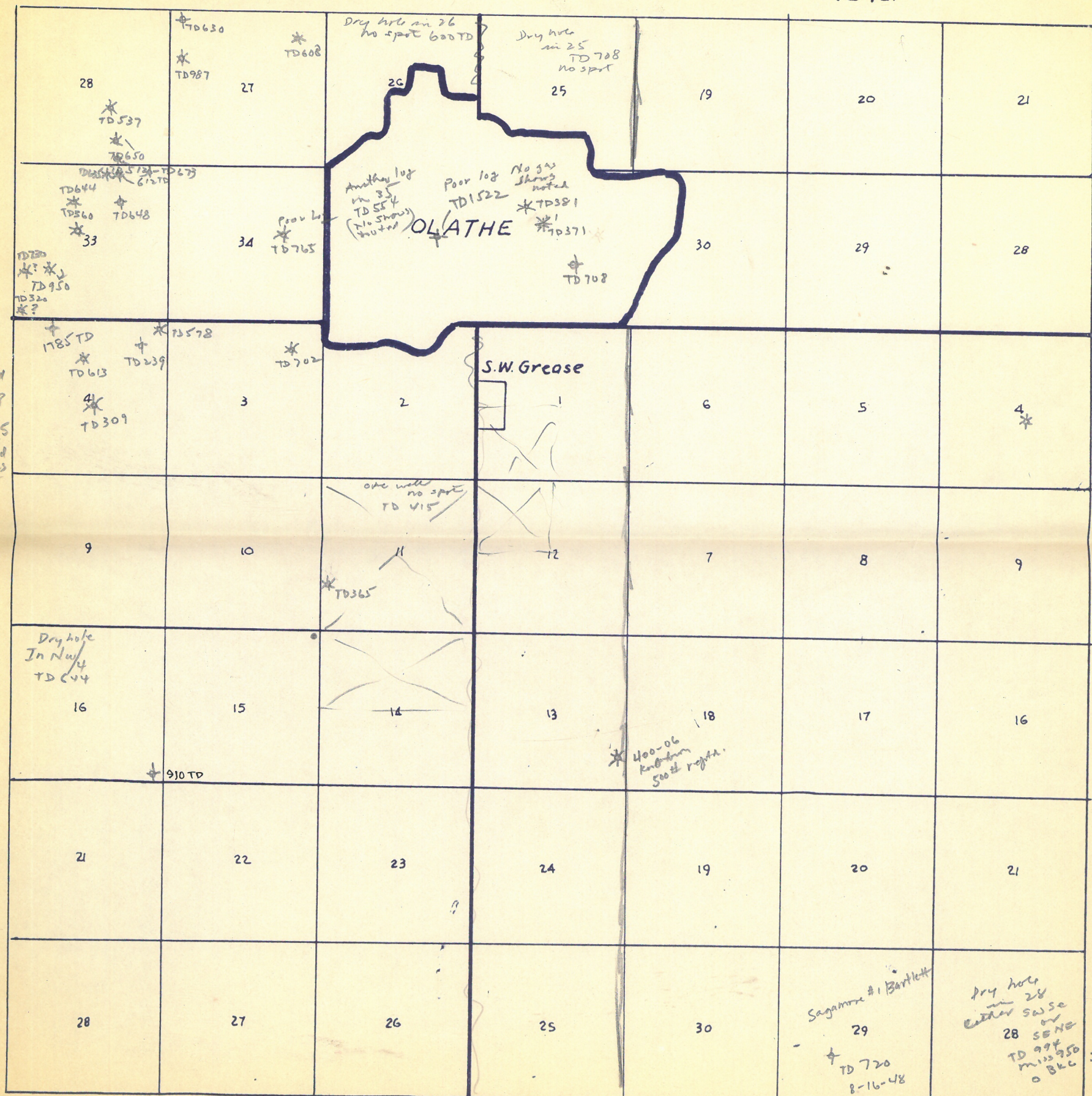


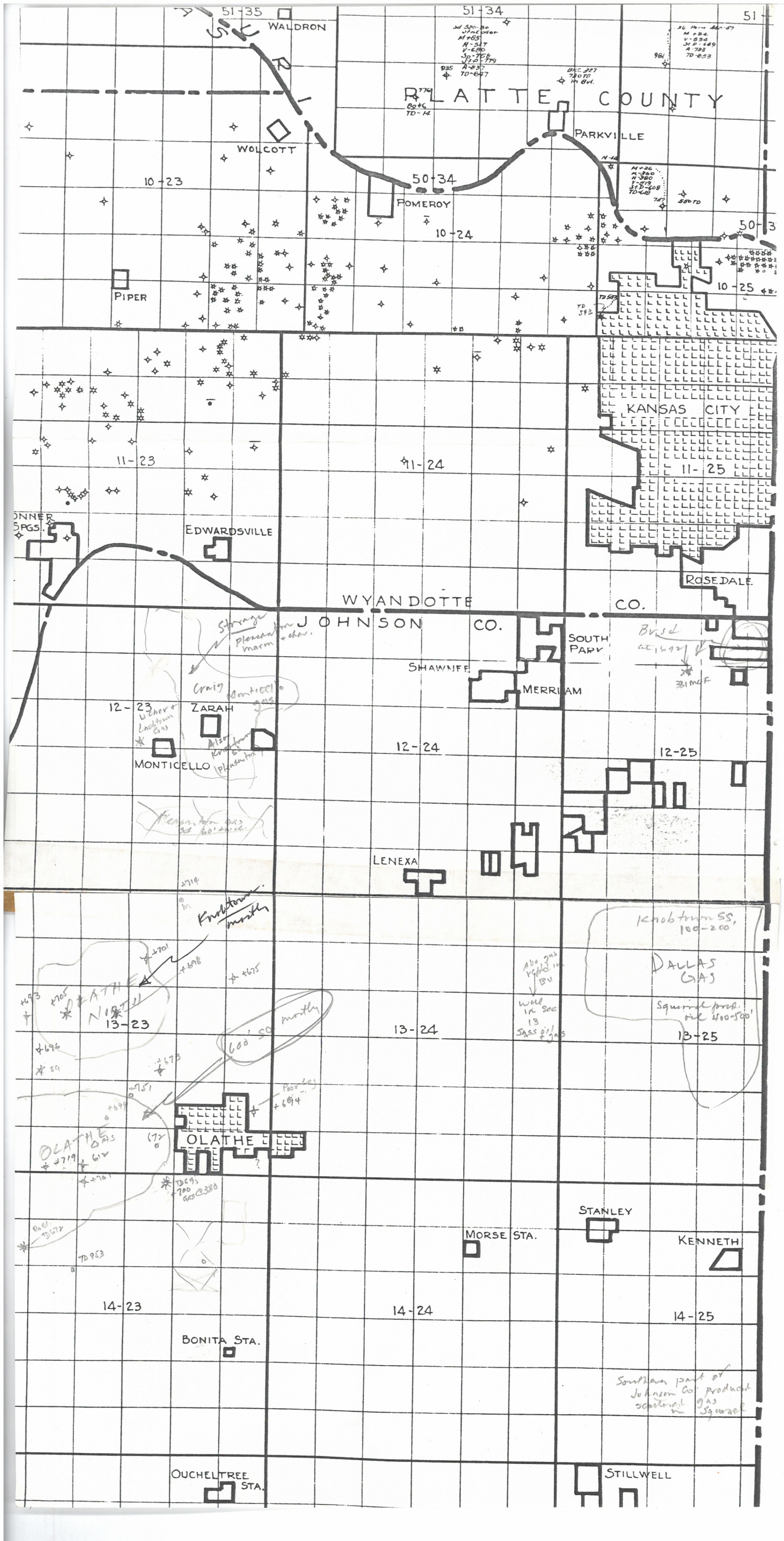
T.
13
S.

T.
14
S.

R.23E.

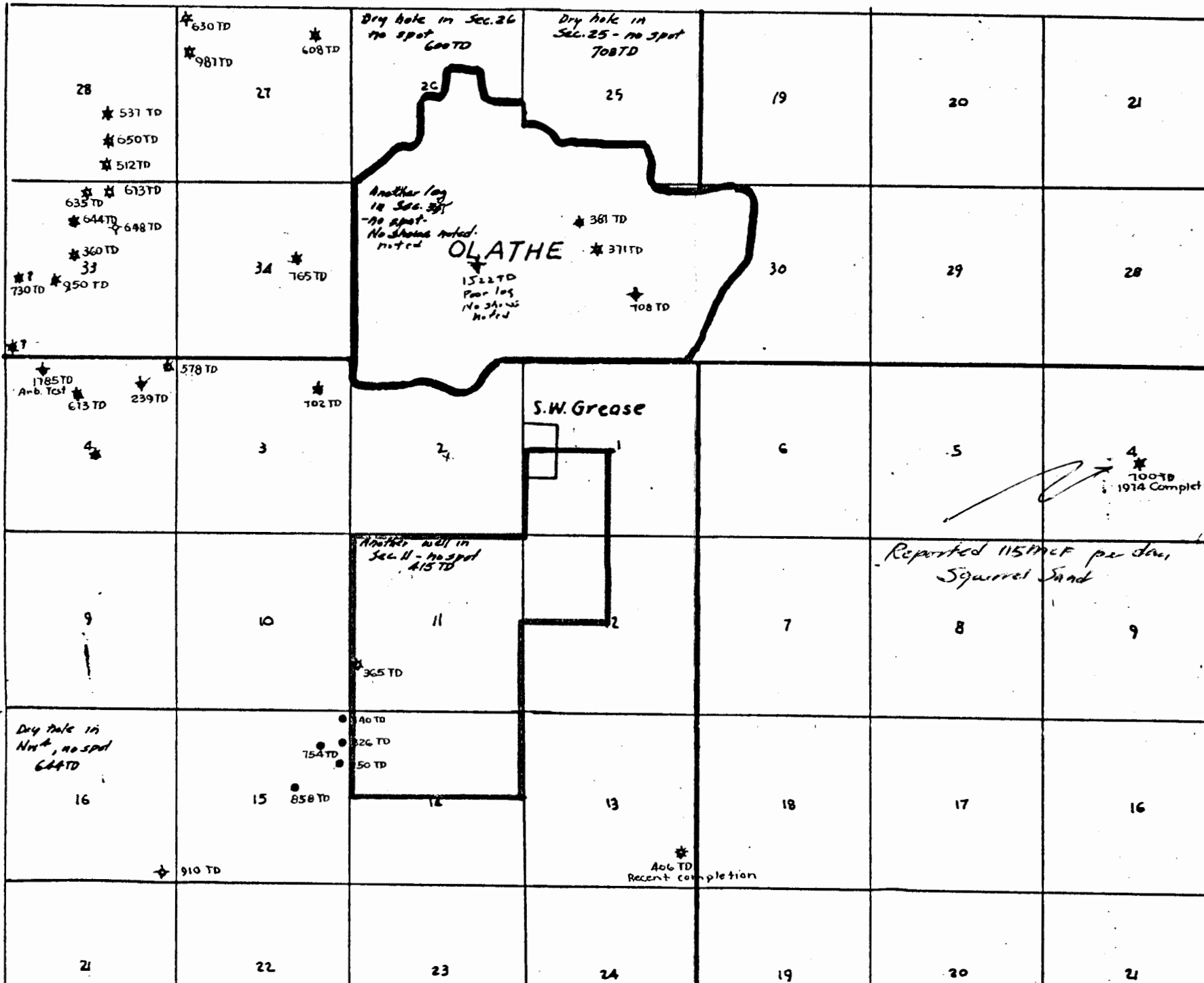
R.24E.

T.
13
S.T.
14
S.Probably
from
S.W.
Enorm
Name



R.23E.

R.24E.

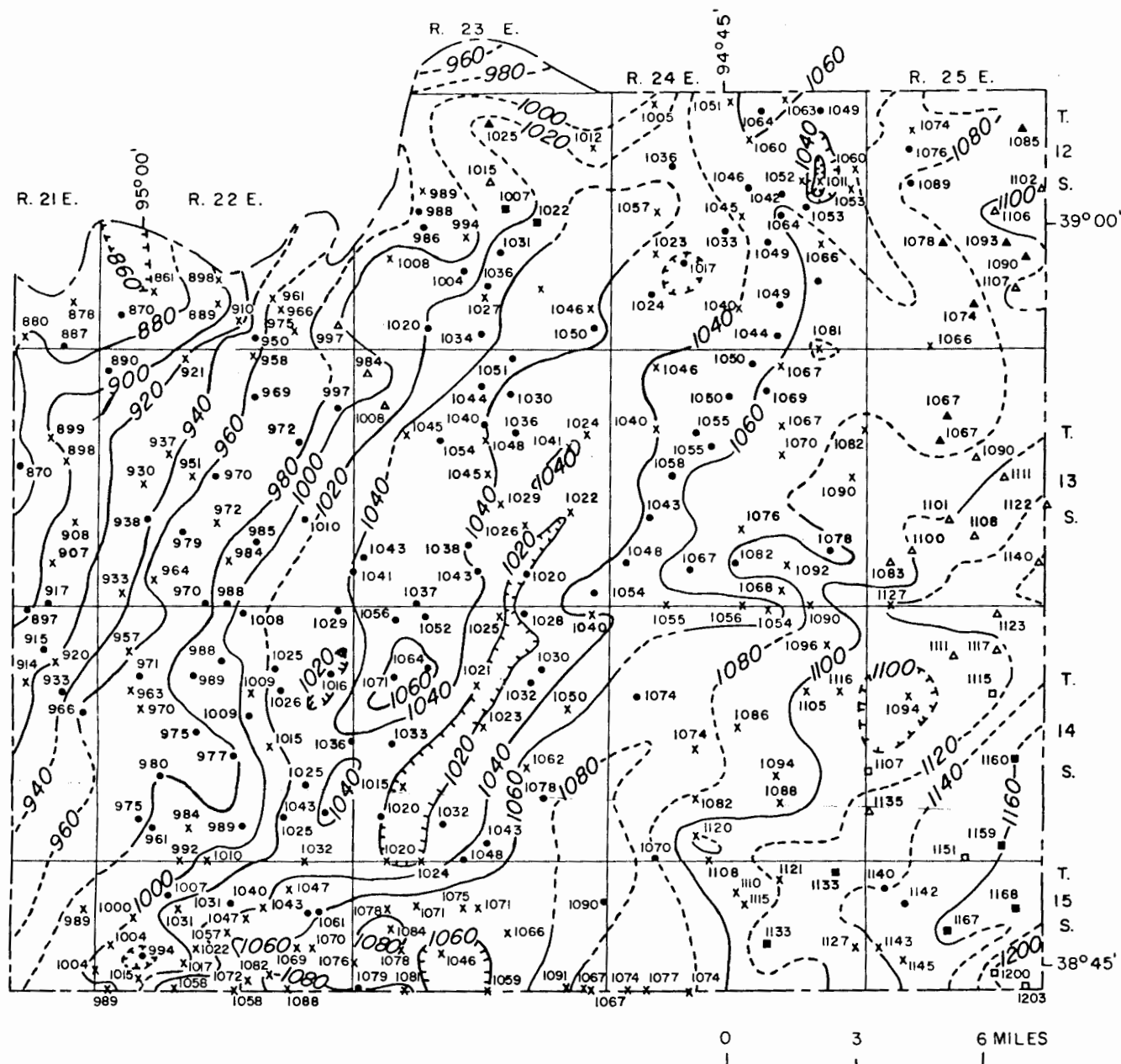


T. 13 S.

E. G. WRIGHT DONATION

1995

T. 14 S.



EXPLANATION

880
Altitude projected to top of Stanton Limestone. Datum is mean sea level

—1040—
Structure contour

Shows altitude of top of Stanton Limestone. Dashed where approximate or inferred. Contour interval 20 feet. Datum is mean sea level

Depression contour

Subsurface control points

Stanton or Plattsburg Limestone

Wyandotte Limestone

Iola Limestone

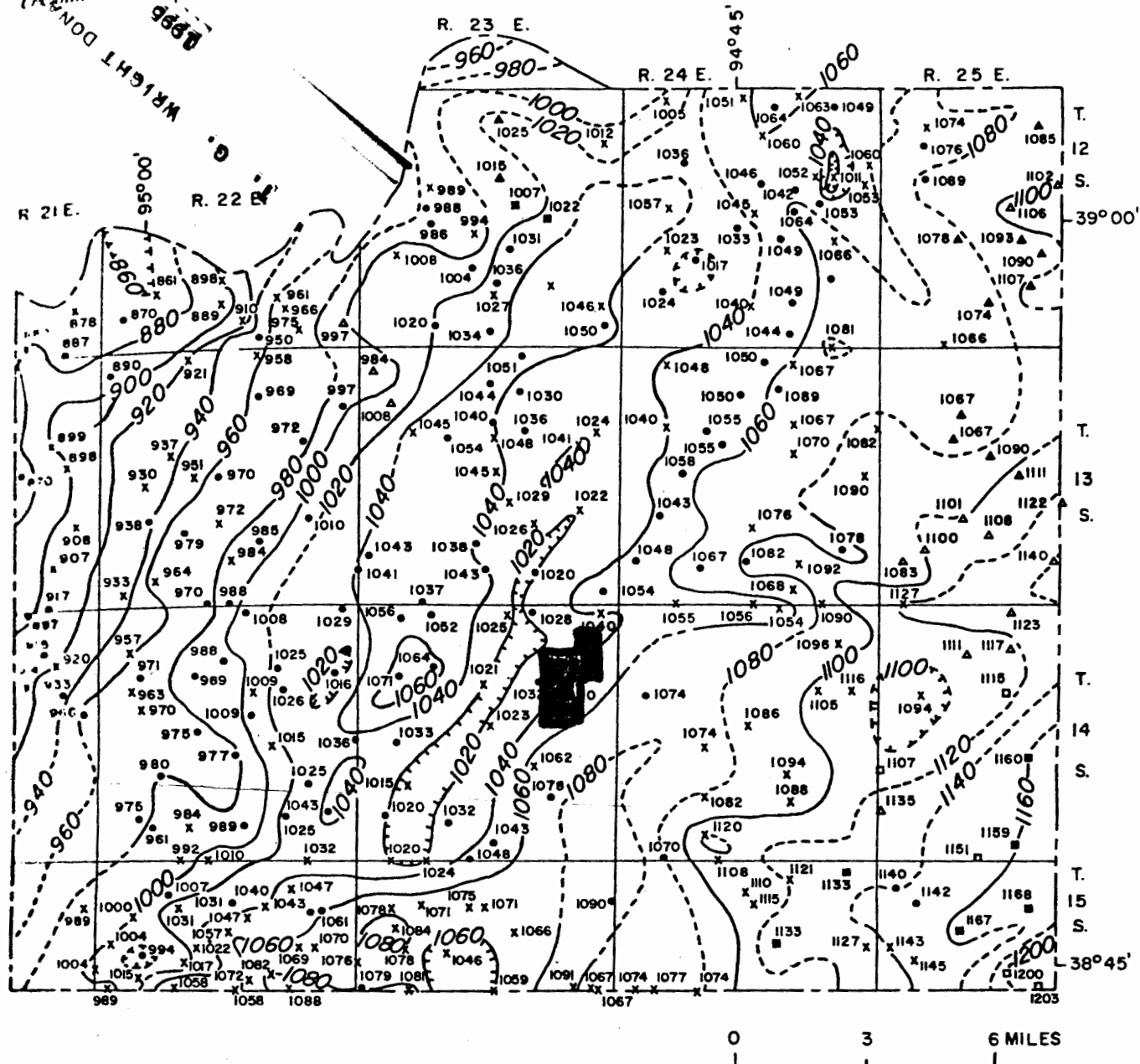
Surface control points

Stanton or Plattsburg Limestone

Wyandotte Limestone

Iola Limestone

FIGURE 15.—Configuration of the top of the Stanton Limestone. Faults mapped on plate 1 are not shown.



EXPLANATION

- | | | |
|---|---------------------------------|---------------------------------|
| 880 | Subsurface control points | Surface control points |
| Altitude projected to top of Stanton Limestone. Datum is mean sea level | • | x |
| —1040— | Stanton or Plattsburg Limestone | Stanton or Plattsburg Limestone |
| Structure contour | ■ | ■ |
| Shows altitude of top of Stanton Limestone. Dashed where approximate or inferred. Contour interval 20 feet. Datum is mean sea level | Wyandotte Limestone | Wyandotte Limestone |
| | ▲ | ▲ |
| | Iola Limestone | Iola Limestone |
| | | |
| Depression contour | | |

FIGURE 15.—Configuration of the top of the Stanton Limestone. Faults mapped on plate 1 are not shown.

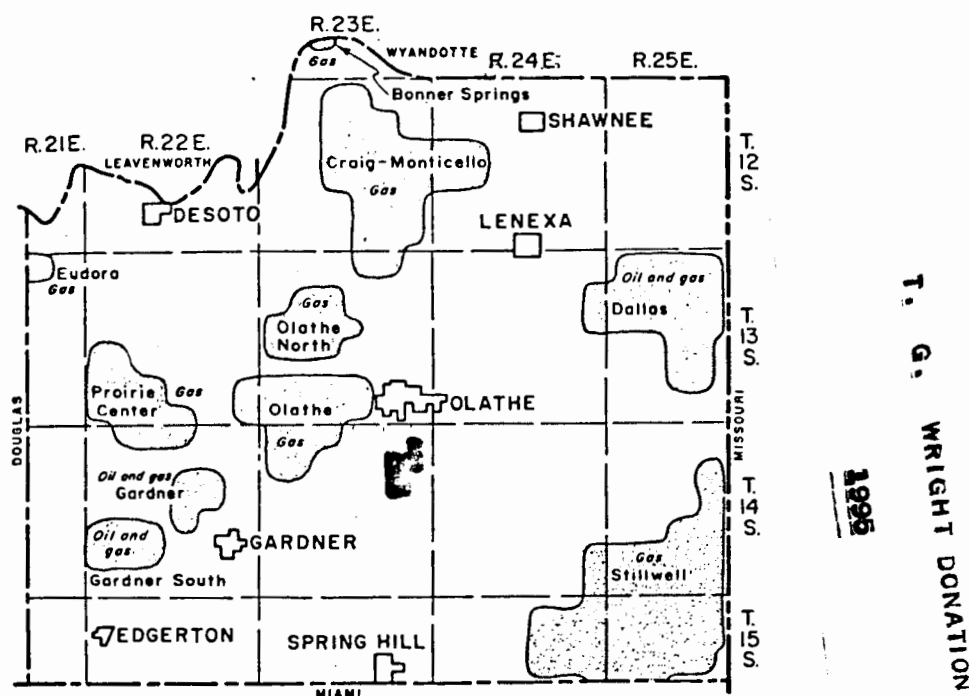


FIG. 39.—Map of Johnson County showing oil and gas fields as designated by the Kansas Nomenclature Committee.

Gas was produced from several zones in an unnamed field in the northeastern part of T. 12 S., R. 25 E. The "Bartlesville sand" at a depth of 692 feet is reported to have yielded an initial flow of 331,000 cubic feet of gas in a well in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 12 S., R. 25 E.

The Dallas oil and gas area has had several revivals after temporary abandonments through the last several years. Gas was produced from the Knobtown sandstone. Several wells were drilled in about 1938. Depths to the Knobtown sandstone in the area range from about 100 to 200 feet. Oil was produced many years ago in the same area from the "Squirrel sand" at depths ranging from 400 to 500 feet. A few years ago a small amount of oil was produced from the "Squirrel sand" in sec. 13, T. 13 S., R. 24 E., after some "Squirrel sand" gas wells had been drilled near by. In 1952 gas was reported in the "Bartlesville sand" in sec. 13, T. 13 S., R. 24 E. The field had no commercial gas production in 1952, but a very small