

TEXAS BOARD OF WATER ENGINEERS

H. A. Beckwith, Chairman  
A. P. Rollins, Member  
James S. Guleke, Member

GEOLOGY AND GROUND-WATER RESOURCES OF LYNN COUNTY, TEXAS

By

E. R. Leggat, Geologist  
United States Geological Survey

Prepared cooperatively by the Geological Survey,  
United States Department of the Interior

September 1952

STATE BOARD OF HEALTH

San Francisco, California  
April 1, 1914

REPORT OF THE BOARD OF HEALTH OF THE CITY AND COUNTY OF SAN FRANCISCO

FOR THE YEAR 1913

Published by the State Board of Health  
San Francisco, California

TX DOC  
W700,7  
B936  
no. 5207

## C O N T E N T S

	Page
Abstract .....	1
Introduction .....	2
Purpose and scope of investigation .....	2
Location and general features of the county .....	3
Economic development .....	4
Climate .....	5
Acknowledgments .....	5
General geology .....	5
Geologic formations and their water-bearing properties .....	9
Triassic system .....	9
Dockum group .....	9
Cretaceous system .....	9
Comanche series .....	9
Trinity group .....	13
Fredericksburg group .....	13
Washita group .....	14
Tertiary system .....	14
Pliocene series .....	14
Ogallala formation .....	14
Quaternary system .....	15
Pleistocene series .....	15
Recent series .....	15
Development of ground water .....	16
Northern part of the county .....	17
Central part of the county .....	17
Playa Lake area .....	17
Southern part of the county .....	18
City of Tahoka .....	20
City of O'Donnell .....	21
Fluctuation of water levels .....	23
Quality of water .....	23
Future development .....	24
References .....	25

MEMORANDUM

TO : [Illegible]

FROM : [Illegible]

SUBJECT : [Illegible]

[The following text is extremely faint and illegible due to the quality of the scan. It appears to be a memorandum with several paragraphs of text.]

## ILLUSTRATIONS

	Page
Plate 1. Map of Lynn County, Tex., showing locations of wells and springs as of January 1, 1950 .....	72
2. Geologic cross sections of Lynn County .....	73
Figure 1. Map of Texas showing location of Lynn County .....	4
2. Precipitation and temperature of Tahoka and evaporation at Lubbock, Tex. ..	6
3. Annual precipitation at Tahoka .....	8
4. Log of well F-17, and geologic section in Cooper Canyon, Lynn County .....	11
5. Approximate number of irrigation wells in operation in Lynn County .....	16
6. Schematic geologic section, Tahoka Lake, Lynn County .....	19
7. Pumping test, well H-21, Lynn County .....	22

## TABLES

Table 1. Precipitation at Tahoka and O'Donnell, Tex. ....	7
2. Geologic formations of Lynn County .....	10
3. Pumpage by the city of Tahoka, January 1, 1945, to December 31, 1950 .....	20
4. Chemical analysis of Tahoka public water supply .....	20
5. Chemical analysis of O'Donnell public water supply .....	21
6. Water levels in wells in Lynn County .....	26
7. Records of wells, springs, and lakes in Lynn County .....	28
8. Drillers' logs of wells in Lynn County .....	58
9. Analyses of water from wells, springs, and lakes in Lynn County .....	69

Faint, illegible text covering the page, possibly bleed-through from the reverse side. The text is too light to transcribe accurately.

# GEOLOGY AND GROUND-WATER RESOURCES OF LYNN COUNTY, TEXAS

By

Edward R. Leggat

September 1952

## ABSTRACT

This report describes the geology and ground-water resources of Lynn County in the southeastern part of the southern High Plains of Texas. The county has an area of 900 square miles and in 1950 had a population of 11,030. Farming and ranching are the principal occupations.

Rocks exposed in Lynn County range in age from Triassic to Recent. The Triassic sandstones have not been tested in Lynn County, but evidence in adjacent regions indicates that no important supplies of fresh water can be obtained from them. Only one well, H-21, is known to obtain water from rocks of Cretaceous age. The sand and gravel of the Ogallala formation, of Tertiary age, is the most important water-bearing formation in Lynn County. Irrigation wells drilled into this formation range in depth from 91 to 340 feet and obtain water in quantities ranging from 200 to 1,137 gallons a minute. Pleistocene and Recent deposits yield little or no water to wells in Lynn County.

The saturated part of the Ogallala formation is thickest in the northern and western parts of the county but thins eastward and southward. Static water levels in irrigation wells range in depth below the land surface from 23 feet, northeast of Wilson, to 113 feet in the north-central part of the county. In the shallow-water area northeast of Wilson, wells obtain water locally from silicified caliche of post-Ogallala age.

Approximately 270 wells were used for irrigation in 1949, about 80 percent of which were in the northern part of the county. It is estimated that 25,000 acre-feet of water was pumped from 270 wells in 1949, when precipitation was somewhat above normal, as compared to 20,000 acre-feet from 200 wells in 1948.

The quality of ground water in Lynn County varies widely. In the irrigated area in the northern part of the county the water is suitable for irrigation and for domestic and stock uses. Southward the ground water becomes more mineralized. South and southeast of the large playa lakes it is generally too highly mineralized for stock use.

Further development of the ground-water reservoir for irrigation probably will be limited to the northern part of the county and to a small area east of Tahoka. The thinning of the saturated sands southward and the generally poor quality of the water preclude large-scale irrigation south of Tahoka. Owing to the apparently limited areal extent of the Edwards limestone in Lynn County, it does not appear likely that large-scale irrigation supplies can be developed from this formation.

## INTRODUCTION

## PURPOSE AND SCOPE OF THE INVESTIGATION

As a part of the State-wide program of ground-water studies being carried on cooperatively by the United States Geological Survey and the Texas Board of Water Engineers, an investigation of the water resources in Lynn County was made in 1950-51. The purpose of this investigation was to obtain data relative to the thickness and extent of the water-bearing formations in Lynn County, the occurrence and movement of the ground water, and the quantity, availability, and chemical character of the water.

Water-level information, discharge records, and other well data have been assembled and analyzed. This report includes records of 413 wells, of which 292 are or have been used for irrigation (table 7); drillers' logs of 64 wells (table 8); chemical analyses of water from 78 wells, 1 lake, and 2 springs (table 9); a map showing the locations of wells listed; a stratigraphic section of the geology in Cooper Canyon in southeastern Lynn County; and two cross sections that show the geologic and hydrologic characteristics of the areas involved. The work was done and the report prepared under the direct supervision of W. L. Broadhurst, district geologist in charge of ground-water investigations in Texas, and under the general supervision of A. N. Sayre, chief of the Ground Water Branch of the U. S. Geological Survey.

Well-inventory reports on 32 other counties of the Texas High Plains and seven general progress reports on the principal irrigated region have been released and are listed below.

## COUNTY WELL-INVENTORY REPORTS

County	Year of publication	County	Year of publication
Andrews .....	1937	Hartley .....	1938
Armstrong .....	1940	Hockley .....	1940*
Bailey .....	1937	Howard .....	1937
Briscoe .....	1946	Lamb .....	1938*
Carson .....	1939	Lubbock .....	1937*
Castro .....	1939	Lubbock .....	1945
Dallam .....	1937	Martin .....	1936
Dawson .....	1938	Midland .....	1938
Deaf Smith .....	1938*	Ochiltree .....	1939
Deaf Smith .....	1946	Oldham .....	1938
Donley .....	1942	Parmer .....	1938
Ector .....	1937	Potter .....	1938
Floyd .....	1938*	Randall .....	1938
Floyd .....	1946	Roberts .....	1940
Gaines .....	1946	Swisher .....	1938*
Glasscock .....	1937	Swisher .....	1946
Hale .....	1938*	Terry .....	1944
Hale .....	1946	Yoakum .....	1945
Hansford .....	1936		

\* Out of print.



PROGRESS REPORTS ON THE SOUTHERN HIGH PLAINS

1. White, W. N., Broadhurst, W. L., and Lang, J. W., 1938, Ground water in the High Plains in Texas: Texas Board of Water Engineers (mimeographed rept.) 10 pp., 1 fig.
2. White, W. N., Broadhurst, W. L., and Lang, J. W., 1939, Ground water in the High Plains in Texas: Texas Board of Water Engineers (press release), 2 pp.
3. White, W. N., Broadhurst, W. L., and Lang, J. W., 1940, Ground water in the High Plains in Texas: U. S. Geol. Survey Water-Supply Paper 889-F, 56 pp., 12 figs.
4. Alexander, W. H., Broadhurst, W. L., and White, W. N., 1943, Progress report on ground water in the High Plains in Texas: Texas Board of Water Engineers (mimeographed rept.,) 34 pp., 12 figs.
5. Alexander, W. H., and Lang, J. W., 1945, Ground water in the High Plains of Texas, Progress report No. 5: Texas Board of Water Engineers (mimeographed rept.,) 29 pp., 11 figs.
6. Broadhurst, W. L., 1947, Ground water in the High Plains in Texas, Progress report No. 6: Texas Board of Water Engineers, (mimeographed rept.,) 31 pp., 10 figs.
7. Barnes, J. R., Ellis, W. C., Leggat, E. R., Scalapino, R. A., et al, 1949, Geology and ground water in the irrigated region of the southern High Plains in Texas, Progress report No. 7: Texas Board of Water Engineers, (mimeographed rept.,) 46 pp., 7 pls., 33 figs.

LOCATION AND GENERAL FEATURES OF THE COUNTY

Lynn County is in the southeastern part of the southern High Plains between latitudes  $32^{\circ}57'$  and  $33^{\circ}24'$ , and longitudes  $101^{\circ}33'$  and  $102^{\circ}05'$ . It is bounded on the north by Lubbock County, on the east by Garza County, on the south by Borden and Dawson Counties, and on the west by Terry County. (See fig. 1.) The county has an area of 900 square miles and, according to the United States Bureau of the Census, had a population of 11,030 in 1950. Tahoka, which had a population of 2,831 in 1950, is the county seat and the principal shipping and trading center. The Panhandle and Santa Fe Railway serves Tahoka and the smaller towns of O'Connell and Wilson.

The land surface is level to gently rolling, except in the central part where the general topography is broken by large playa lakes. The altitude ranges from 2,860 to 3,300 feet. The general slope of the land surface is southeastward at a rate of approximately 10 feet per mile.

Drainage in Lynn County is poorly developed. Most of the surface runoff drains into eight large playa lakes and numerous ephemeral lakes which occupy small basins. During periods of heavy rainfall, as in 1941, flood waters drain from Tahoka Lake southeastward into the Double Mountain Fork of the Brazos River. An intermittent stream, which drains the southwest corner of the county, has no visible drainage to the Colorado River.

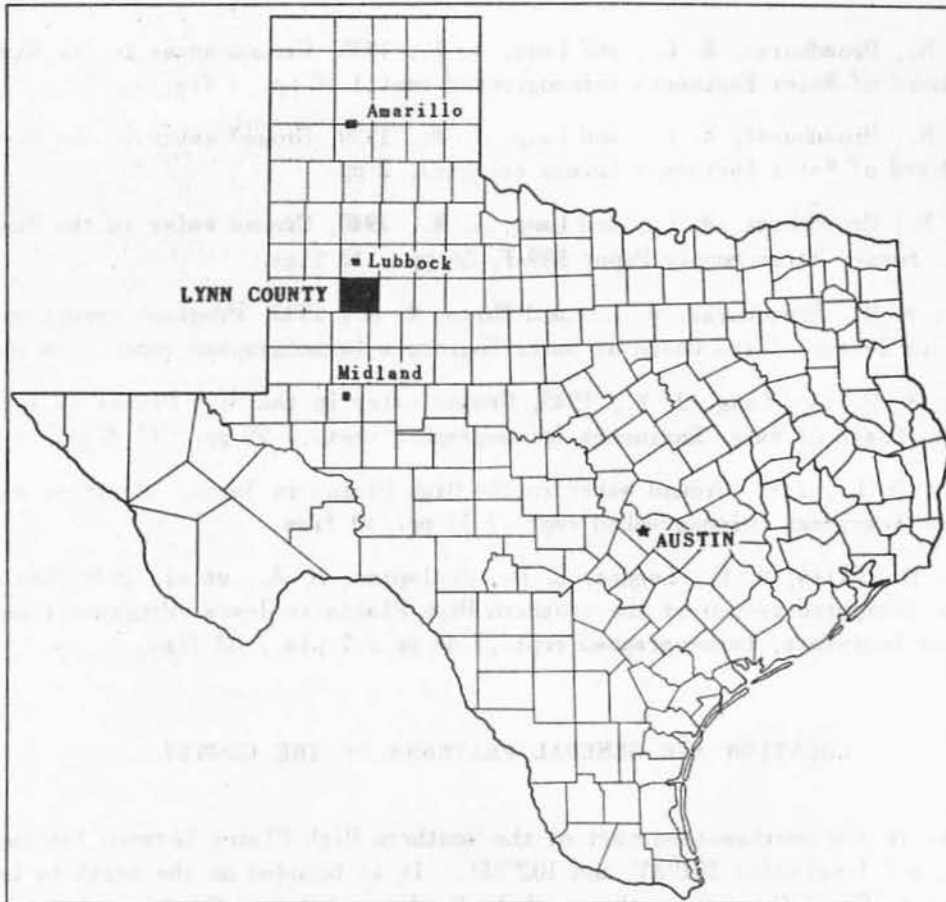


FIGURE 1.- Map of Texas showing location of Lynn County.

#### ECONOMIC DEVELOPMENT

Agriculture is the principal source of income to residents of Lynn County. The county ranked sixth in the State in the production of cotton in 1949, when 185,527 bales was produced. Of the total amount, an estimated 10 percent was grown on land irrigated from wells. Other crops grown under irrigation and dry-farming methods include grain sorghum, corn, wheat, and vegetables. Cattle raising is limited chiefly to the playa-lakes area which covers more than 100 square miles.

The mineral resources of Lynn County include oil, salts, and volcanic ash. Production of oil is limited to a single well in the O'Donnell oil field, 14 miles northeast of O'Donnell. A deposit of glauber salts and epsom salts was mined commercially during World War II from evaporite beds about 8 miles west of O'Donnell. Volcanic ash has been mined from a small Pleistocene deposit 6 miles south of Tahoka.

## CLIMATE

The climate of Lynn County is semiarid and is characterized by low precipitation, high evaporation, and wide range in temperature. The mean annual precipitation is about 19 inches. Most of the precipitation occurs during the growing season when the evapotranspiration rates are highest. The mean annual temperature at Tahoka is about 61° F (fig. 2), and the growing season is about 200 days.

The greatest part of the precipitation in Lynn County is returned to the atmosphere by evapotranspiration. The average annual rate of evaporation from a free-water surface, as recorded and determined by experiments at the Texas Experimental Station at Lubbock, is approximately 62 inches, of which about 73 percent occurs during the 6-month period from April to September, inclusive. Thus, the potential annual evaporation is about 3.5 times greater than the annual precipitation.

Table 1 shows the monthly precipitation at Tahoka and O'Donnell, as recorded by the U. S. Weather Bureau. Figure 3 shows the annual precipitation at Tahoka and the departure from normal. Most of the totals are from the Weather Bureau records, but for those years in which such records were not available, estimates were made with supplemental information from records of the Soil Conservation Service of the United States Department of Agriculture.

## ACKNOWLEDGMENTS

Appreciation is expressed to the residents of Lynn County who supplied information and aided in the collection of field data. Acknowledgment is also made for the information furnished by the various officials of Federal and State agencies, including the Soil Conservation Service, the Production and Marketing Administration of the U. S. Department of Agriculture, and the Extension Service of the Agricultural and Mechanical College of Texas.

## GENERAL GEOLOGY

Sedimentary rocks of continental and marine origin crop out in Lynn County. They range in age from Triassic to Recent and consist of limestone, chalk, shale, clay, sand, gravel, caliche, conglomerate, bentonitic clay, volcanic ash, and silt.

The Dockum group of Triassic age forms the floor of Cooper Canyon in southeastern Lynn County. The sediments of the group, of continental origin, were deposited by streams that flowed probably from the west and northwest. Subsequent erosion removed a part of the Triassic sediments and all overlying Jurassic deposits that may have been present. Marine sediments of Cretaceous age were deposited by a transgressing sea upon an irregular Triassic surface. Post-Cretaceous erosion has resulted in the removal of a considerable, although variable, thickness of the Cretaceous rocks in Lynn County. The Pliocene sediments that overlie this eroded surface are continental and largely fluvial. Pleistocene deposits of sand, silt, clay, volcanic ash, diatomite, and thin-bedded fresh-water limestone partly fill numerous basinlike depressions in the Pliocene sediments. Recent eolian sand and silt mantle most of Lynn County, and these deposits are difficult to distinguish from the Pleistocene sediments.

Texas Board of Water Engineers in cooperation with U. S. Geological Survey

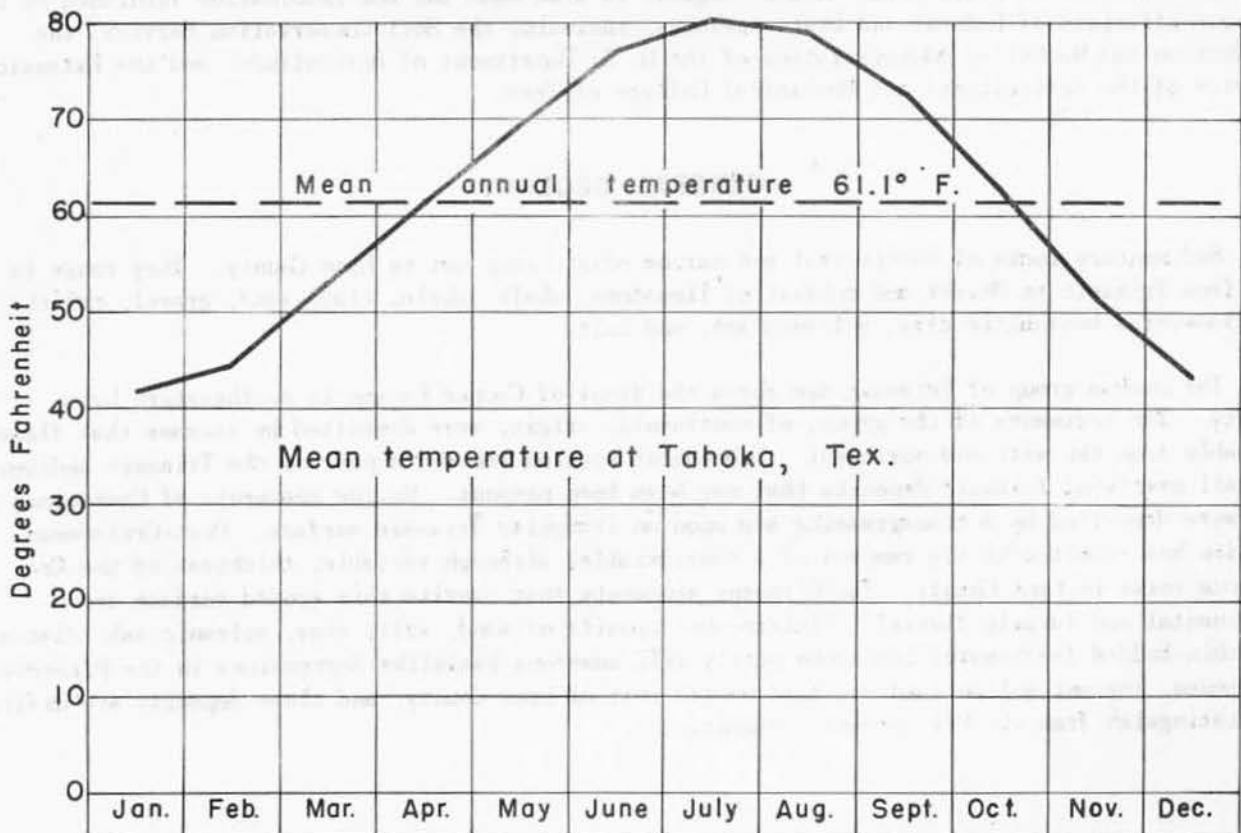
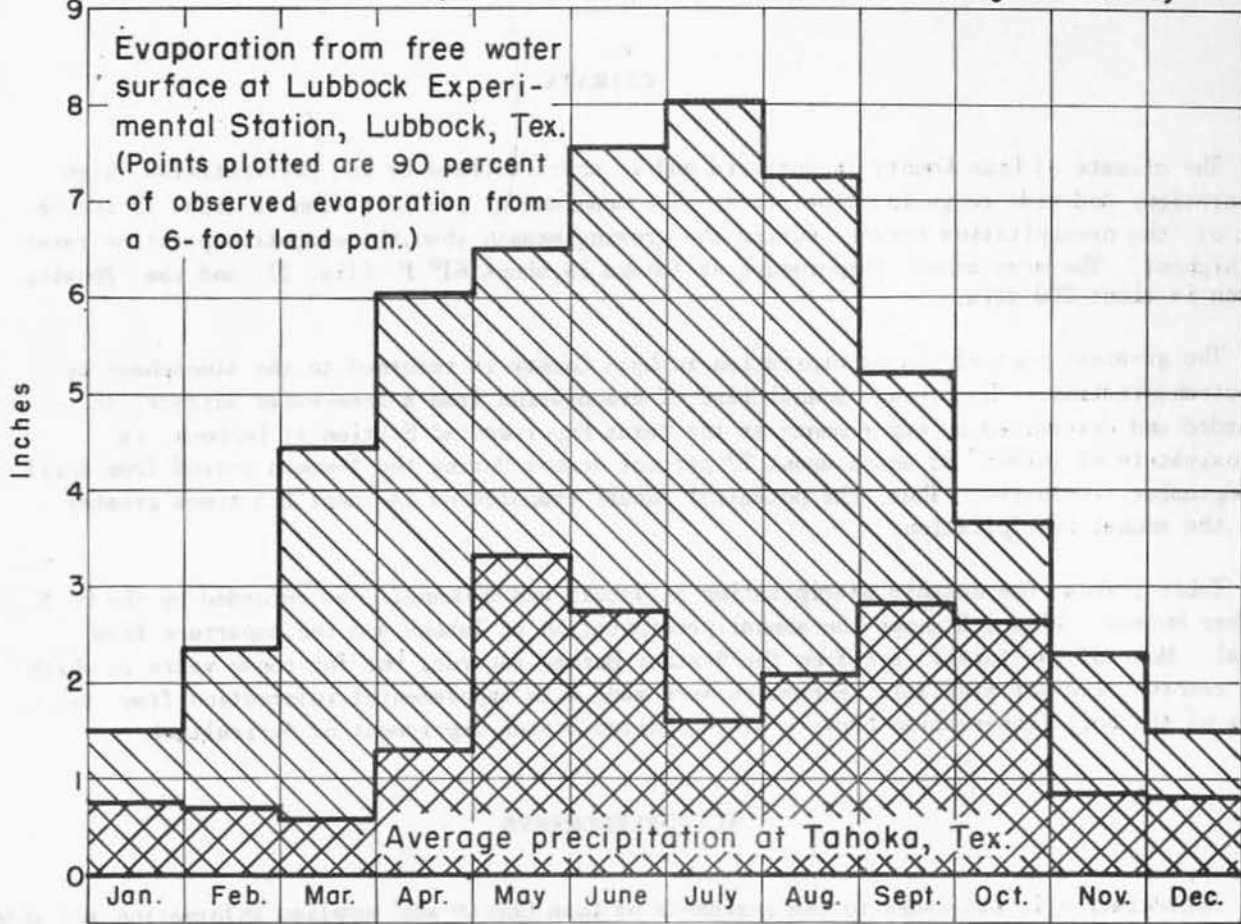


FIGURE 2.- Precipitation and temperature at Tahoka and evaporation at Lubbock, Tex.

Table 1.- Precipitation, in inches, at Tahoka, Tex.  
(United States Weather Bureau)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1913	-	-	1.02	1.86	1.23	10.93	0.53	0.23	4.01	9.85	2.07	1.02	-
1914	0.02	0.37	T	2.06	4.79	2.64	4.24	3.11	1.12	7.12	1.38	1.22	28.07
1915	.05	1.71	1.90	8.16	2.30	5.22	.65	3.70	4.52	2.93	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	.65	.12	-
1917	.51	.10	.02	1.14	10.50	.16	.16	1.48	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	.14	1.97	.68	.36	-
1929	.58	.30	1.16	.26	3.34	2.96	1.29	.50	3.41	2.18	.55	.20	16.73
1930	.55	.00	.15	.29	4.47	2.71	.02	1.08	.68	4.07	.81	1.50	16.33
1931	.87	1.35	1.02	1.78	.81	.35	.33	1.58	.14	3.28	1.51	2.31	15.33
1932	.43	2.70	.11	2.30	2.93	2.51	1.89	3.69	4.81	1.18	.02	2.72	25.29
1933	.04	.88	.00	.05	3.39	1.46	2.59	3.75	1.60	.86	.80	.14	15.56
1934	.02	.33	1.52	.21	2.20	1.63	.31	4.26	.92	.31	-	.00	-
1935	.21	.87	.45	T	4.76	3.91	.83	1.31	3.21	1.08	1.64	.48	18.75
1936	.97	T	.46	.61	2.96	1.15	2.41	.00	13.86	1.42	.76	.29	24.89
1937	.08	.01	-	1.04	-	2.74	1.11	7.24	1.00	1.96	.47	.47	-
1938	.83	1.91	.24	.78	2.18	7.68	2.07	-	-	.50	.37	.00	-
1939	3.02	.14	.21	.23	2.91	.28	2.49	1.42	.08	1.81	.45	.62	13.66
1940	.22	1.30	.04	1.64	.56	3.29	.10	3.24	.26	1.08	2.84	.27	14.84
1941	.56	1.38	2.71	2.63	11.09	4.05	2.60	.45	6.30	8.61	.13	.46	40.98
1942	.25	.08	.83	3.27	1.40	2.34	2.90	3.12	6.84	2.76	.05	2.55	26.39
1943	T	.33	.35	.58	2.89	3.93	2.03	.68	-	-	1.05	1.80	-
1944	1.46	1.20	.10	.77	2.24	.65	5.63	1.27	3.56	1.25	1.56	.68	20.37
1945	.47	.67	.25	.35	.65	.85	1.77	1.02	2.29	2.46	.64	.29	11.71
1946	1.66	.10	.23	.57	1.32	1.25	.16	3.55	.83	3.60	.30	1.01	14.58
1947	.62	T	.84	.37	5.54	1.61	.27	.11	.07	.09	1.26	.65	11.43
1948	.27	1.48	T	.14	2.64	1.21	1.97	.47	.43	1.80	T	.14	10.55
1949	3.94	.25	.48	1.27	2.89	2.79	1.18	2.74	5.61	1.78	.00	-	-
1950	-	T	-	-	-	-	-	-	-	-	-	-	-

T, trace.

O'Donnell, Tex.

1940	-	-	-	-	1.33	2.43	0.19	2.20	0.14	0.63	1.74	0.13	-
1941	0.45	0.43	2.17	3.50	10.31	1.33	2.84	2.36	5.55	6.32	.10	.41	35.77
1942	.22	.66	.07	2.84	2.25	2.31	1.09	5.06	1.65	3.17	.18	2.87	22.37
1943	.10	.20	.20	.88	2.15	3.09	1.80	.08	.23	.26	1.28	1.74	12.01
1944	1.39	1.15	.00	.51	1.45	1.22	4.73	.54	2.63	.88	1.76	1.30	17.56
1945	.70	.54	.30	.66	.20	.48	2.15	.94	2.25	1.92	.35	.43	10.92
1946	1.61	.07	.00	1.76	.37	1.73	.32	1.04	1.14	2.74	.17	.63	11.58
1947	.70	.00	.91	.65	4.93	1.48	.00	.67	.30	.00	.80	.45	10.89
1948	.16	1.15	.00	1.50	2.64	1.85	3.70	.82	.14	1.82	.00	.04	13.82
1949	3.76	.24	.12	1.55	3.70	3.55	.81	2.86	4.76	1.68	.00	.41	23.44
1950	.15	.02	.00	.75	2.70	.45	2.71	.92	4.43	.05	.00	.00	12.18

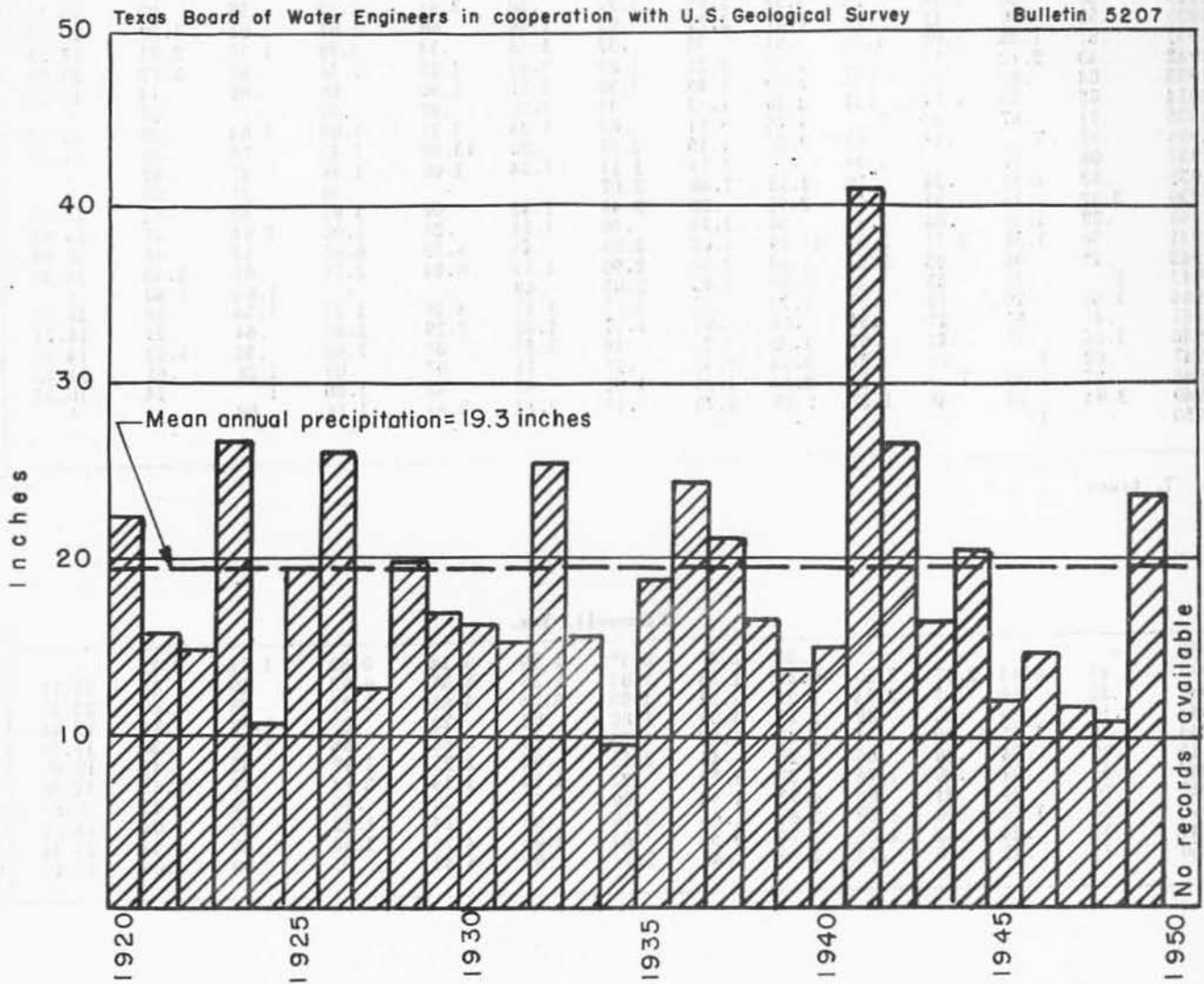


FIGURE 3.-Annual precipitation at Tahoka, Tex.

CFE-8-91

Subdivisions of the geologic formations, with brief descriptions of their characteristics and water-bearing properties, are shown in table 2. A stratigraphic section of the Cretaceous and part of the Triassic rocks that are exposed in Cooper Canyon 2 miles southeast of Grassland, and a driller's log of a well  $1\frac{1}{4}$  miles northwest of Grassland, are shown in figure 4.

## GEOLOGIC FORMATIONS AND THEIR WATER-BEARING PROPERTIES

### TRIASSIC SYSTEM

#### DOCKUM GROUP

Rocks assigned by Cummins (1890, p. 189) to the Dockum group are generally believed by geologists to be of Triassic age and are the only rocks of Triassic age in the county. As nearly as can be determined from well logs, the Triassic rocks underlie all of Lynn County but crop out only in Cooper Canyon (fig. 4). They consist of deep purplish-red shale and clay, lenticular beds of blue sandy clay, conglomerate, and cross-bedded gray and red micaceous sandstone. The top of the Triassic is encountered in wells at depths of about 130 feet in the southeastern part of the county and about 390 feet in the northwestern part of the county. The thickness of the group, as determined from logs of tests for oil and gas, ranges from 1,250 to more than 2,000 feet.

An exploratory well was drilled in 1949 to test the water-bearing sands of the Triassic in the city of Lubbock, north of Lynn County, but the water was too highly mineralized for domestic, stock, or irrigation uses. Salt water has been reported from Triassic rocks at several other localities on the southern High Plains, but, so far as known, no attempt has been made to obtain water from these rocks in Lynn County. The evidence in adjacent regions indicates it is unlikely that much fresh water will be obtained from Triassic rocks in Lynn County.

### CRETACEOUS SYSTEM

Rocks of Cretaceous age, which have an aggregate thickness of more than 200 feet, overlie the eroded surface of Triassic rocks in Lynn County. These rocks consist of shale, clay, limestone, marl, chalk, and sandstone and belong to the Comanche series. They crop out in Cooper Canyon and on the western margins of the larger playa lakes.

#### COMANCHE SERIES

The Comanche series in Lynn County includes rocks of the Trinity, Fredericksburg, and Washita groups. The following is a description of the section that crops out in Cooper Canyon, but the section does not represent the maximum thickness of the Comanche series underlying Lynn County. Erosion has removed the Edwards limestone and Kiamichi formation of the Fredericksburg group, and the Washita group from Cooper Canyon. Fossils from the Comanche series in Cooper Canyon were identified by L. W. Stephenson of the U. S. Geological Survey, except as otherwise indicated.

Table 2.- Geologic formations of Lynn County

System	Series	Subdivision	Thickness (feet)	Physical character	Water supply	Remarks
Quaternary	Recent	--	0 - 75	Eolian sand, playa silt, and clay.	Not a source of water supply.	Sand dunes aid recharge.
	Pleistocene	--	0 - 100	Calcareous and bentonitic clay, sand, gravel, volcanic ash, fresh-water limestone, and caliche.	Not a source of water supply.	Overlies most of Pliocene and occurs in all lake basins. Commercial deposit of volcanic ash 6 miles south of Tahoka.
Tertiary	Pliocene	Ogallala formation	0 - 180	Clay, silt, fine- to coarse-grained sand, gravel, and caliche.	Principal source of water in Lynn County.	Thickest in northern part of county.
Cretaceous	Comanche	Washita group	0 - 3	Dark shale, and light gray sandy limestone.	Not a source of water supply.	Probably represents Duck Creek limestone.
		Fredericksburg group	0 - 160	Limestone, shale, chalk and blue and yellow clay.	In general does not supply water to wells. Believed to be source of water in well H-21.	Kiamichi formation, Edwards limestone, Comanche Peak limestone, and Walnut clay probably represented.
		Trinity group	0 - 30	Sand and gravel, locally indurated, and green and red bentonitic clay.	Not an important source of water supply.	Penetrated by very few wells in Lynn County.
Triassic	--	Dockum group	1,250-2,000	Variegated shale and micaceous cross-bedded sandstone.	Believed to contain only highly mineralized water.	Underlies all of Lynn County but not tested for water supply.



Well F-17  
 1 3/4 miles northwest  
 of Grassland

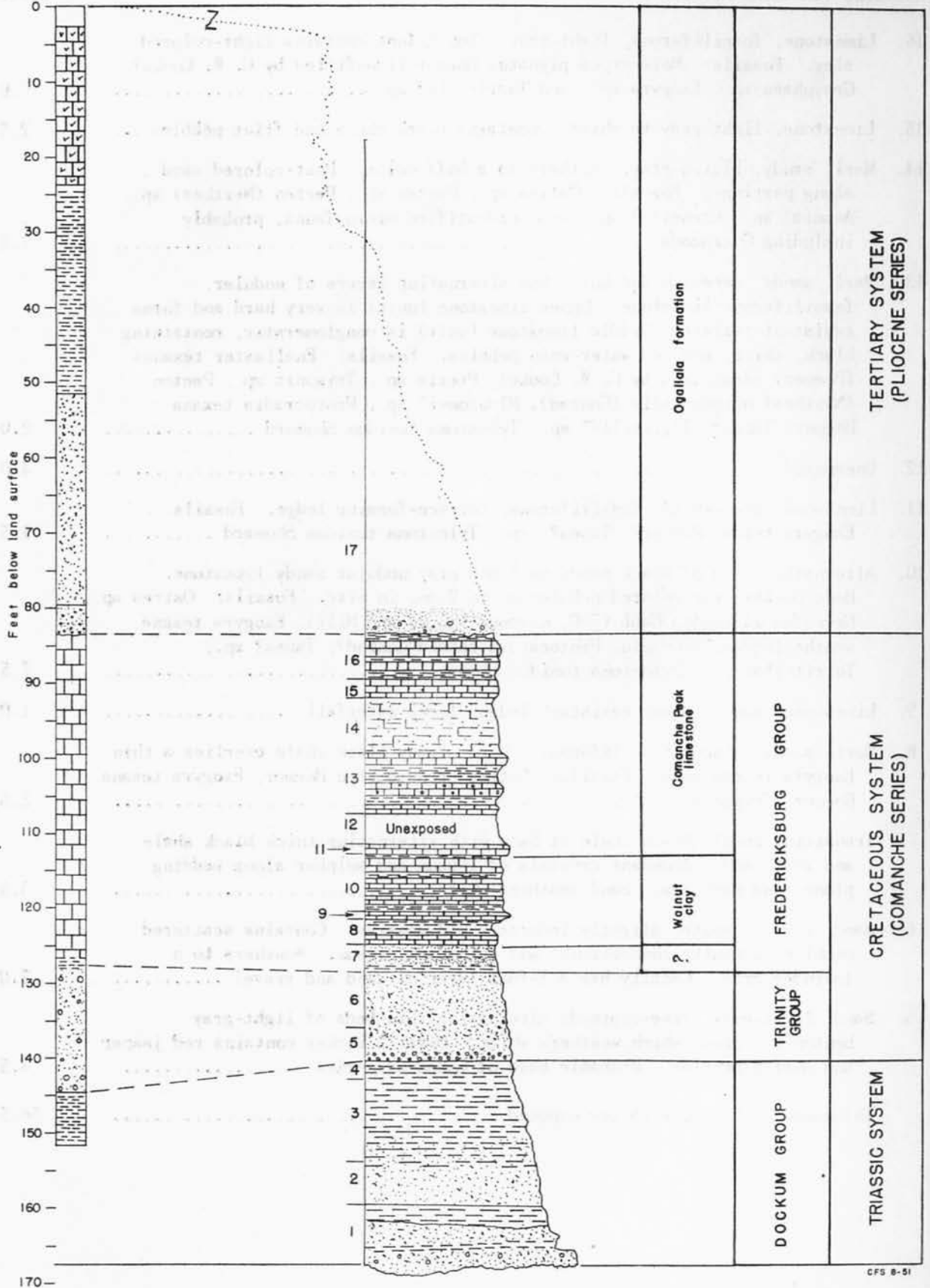


FIGURE 4.-Log of well F-17 and geologic section in Cooper Canyon, Lynn County, Tex.  
 (For description of section see page 12; for description of log see table 8.)

## Section exposed in Cooper Canyon, 2 miles southeast of Grassland

Cretaceous (Comanche River)	Thickness (feet)
16. Limestone, fossiliferous, light-gray. Top 1 foot contains light-colored clay. Fossils: <i>Holotypus planatus</i> Roemer (identified by C. W. Cooke), <i>Grayphaea</i> sp., <i>Exogyra</i> sp., and <i>Turritella?</i> sp. ....	6.0
15. Limestone, light-gray to white. Contains black chert and flint pebbles ...	2.5
14. Marl, sandy, bluish-gray; weathers to a buff color. Rust-colored sand along partings. Fossils: <i>Ostrea</i> sp., <i>Pecten</i> sp., <i>Pecten</i> ( <i>Neithea</i> ) sp., <i>Anomia?</i> sp., <i>Crenella?</i> sp., and unidentified micro fauna, probably including <i>Ostracoda</i> .....	7.5
13. Marl, sandy, greenish and buff, and alternating layers of nodular, fossiliferous limestone. Upper limestone (unit) is very hard and forms resistant terrace. Middle limestone (unit) is conglomeratic, containing black, white, and red water-worn pebbles. Fossils: <i>Enallaster texanus</i> (Roemer) identified by C. W. Cooke), <i>Pteria</i> sp., <i>Trigonia</i> sp., <i>Pecten</i> ( <i>Neithea</i> ) <i>occidentalis</i> (Conrad), <i>Pleuromya?</i> sp., <i>Protocardia texana</i> Roemer, <i>Tapes?</i> , <i>Turritella?</i> sp., <i>Tylostoma tumidum</i> Shumard .....	8.0
12. Unexposed .....	4.0
11. Limestone, gray-white, fossiliferous; terrace-forming ledge. Fossils: <i>Exogyra texana</i> Roemer?, <i>Tapes?</i> sp., <i>Tylostoma tumidum</i> Shumard .....	1.5
10. Alternating beds of black sandy marl and gray nodular sandy limestone. Beds contain varicolored pebbles up to 2 mm. in size. Fossils: <i>Ostrea</i> sp., <i>Gryphaea mucronata</i> Gabb (= <i>G. marcoui</i> Vaughn and Hill), <i>Exogyra texana</i> <i>weatherfordensis</i> Gragin, <i>Protocardia texana</i> Conrad?, <i>Tapes?</i> sp., <i>Turritella</i> sp., <i>Tylostoma tumidum</i> Shumard? .....	7.5
9. Limestone, sandy, gray; resistant ledge; forms waterfall .....	1.0
8. Marl, sandy, black, fossiliferous. Hard, limey black shale overlies a thin <i>Exogyra texana</i> zone. Fossils: <i>Ostrea crenulomargo</i> Roemer, <i>Exogyra texana</i> Roemer, <i>Gryphaea</i> sp. ....	3.5
7. Transition zone? Black shale at base with alternating thick black shale and gray sand. Abundant crystals of gypsum and sulphur along bedding planes and partings. Sand weathers white .....	3.5
6. Sand, grayish-white, slightly indurated and massive. Contains scattered pebbles, limonite concretions, and secondary gypsum. Weathers to a lavender gray. Locally has a 1-foot layer of sand and gravel .....	7.0
5. Sand, light-gray, fine-grained; alternating thin beds of light-gray bentonitic clay, which weathers white. Basal 2 inches contains red jasper and quartz pebbles. Probable base of Comanche series .....	4.5
Thickness of Comanche series exposed .....	56.5

Triassic (Dockum group)	Thickness (feet)
4. Clay, bentonitic, greenish-gray .....	2.5
3. Shale, sandy, grayish-green and red, becoming less sandy toward the top ...	11.0
2. Sandstone, micaceous, grayish-green, massive .....	5.5
1. Sandstone, red and grayish-green, cross-bedded. Contains heavy red conglomeratic sandstone with calcite in interstices. Lenticular sandstone of dark blue greenish-gray. Top 2 feet grades laterally and vertically to grayish-green micaceous sandstone .....	8.0
Total thickness of section measured .....	83.5

L. W. Stephenson (1950, written communication) states that the fossils submitted indicate that zones 11 to 16 are of Comanche Peak age and zones 8 to 10 may be of Walnut age.

*Trinity group.* - Basal sands believed to be of Trinity age lie unconformably on the Triassic shale and crop out in Cooper Canyon. A coarse conglomerate, which consists of tightly cemented red, black, and white pebbles of chert and quartz, occurs at the base of the sand and immediately overlies the Triassic deposits. This bed of conglomerate ranges in thickness from about 2 inches in Cooper Canyon to 3 feet in an eroded gully south of Cooper Canyon. The remainder of the Trinity group is composed of locally indurated moderately fine grained white to gray sandstone and thin beds of red and green bentonitic sandy clay. The thickness of the Trinity group ranges from about 12 feet in Cooper Canyon to approximately 30 feet in well C-100 about 12 miles north of Cooper Canyon. The depth to the Trinity group in wells that encountered the sand ranges from 98 feet in well C-99 in the eastern part of the county to 313 feet in well A-66 in the western part of the county.

Although the basal sands have not been thoroughly tested throughout all parts of the county, available data from wells in which the sands were tested indicate that no large supplies of fresh water are available in the Trinity group. For example, well J-8 penetrated 30 feet of this sand which was reported as non-water-bearing and in wells, A-66, C-99, and C-100, in which the sand and gravel of the Trinity group were encountered, the yields did not exceed the average yield of wells in the area that drew from the Ogallala formation. The absence of seepage or springs in the outcrop and the tightly cemented character of the sand further support the evidence that the sand of the Trinity group is not an important aquifer.

*Fredericksburg group.* - The Fredericksburg group of rocks in Lynn County is represented by the Walnut clay, the Comanche Peak limestone, the Edwards limestone, and the Kiamichi formation. The Walnut clay and the Comanche Peak limestone are described in the Cooper Canyon section. It is not possible, on the basis of available well logs, to determine the presence, absence, or areal extent of any formation of the Fredericksburg group.

At the outcrop in Cooper Canyon, the Walnut clay is approximately 12 feet thick and the Comanche Peak limestone is about 28 feet thick. Neither yields water to wells in Lynn County.

The Edwards limestone, although not exposed in Cooper Canyon, has been reported in the floor of the alkali lake 7 miles west of O'Donnell, in sec. 19, blk. H, EL & RR RR Co. (Sellards, Adkins, and Plummer, 1932 p. 356). It is believed to be present also in well H-21, in which a limestone was encountered at a depth of 3 feet and had a reported thickness of 17 feet. Samples of material obtained from a cut at the well site consisted of hard, dense brown and grayish-green honeycombed limestone. Considerable clear green calcite and detrital shells also were present.

The Edwards limestone generally does not yield water to wells in Lynn County; however, H-21 is believed to be drawing from a localized porous section of the Edwards limestone.

The Kiamichi formation, the youngest formation of the Fredericksburg group in Lynn County, crops out along the western margins of the large playa lakes. Although it is not present in the exposures in Cooper Canyon it is encountered in wells to the west, in which direction the Kiamichi formation thickens. Underlying most of the county, the Kiamichi is composed of yellow and blue clay, dark-gray to bluish-black sandy shale, brown to gray sandstone, and gray to yellowish-brown fossiliferous limestone.

The Kiamichi formation ranges in thickness from a feather edge to about 100 feet and the top is encountered at depths ranging from 19 feet in southern Lynn County to about 200 feet in the northern part.

The yellow and blue clay of the Kiamichi formation is a marker below which further drilling for a fresh water supply is considered not feasible.

*Washita group.*- The Washita group of rocks, the youngest in the Comanche series, is represented in Lynn County by the Duck Creek limestone. Exposures of the Duck Creek have been reported along the western margin of Twin and Double Lakes (Sellards, Adkins, and Plummer, 1932, pp. 356-357); whether it is more widely distributed in Lynn County is not determinable from the available well logs. In the southwest lake of Double Lakes the Duck Creek limestone consists of laminated dark shale and light-gray sandy limestone and is about 2½ feet thick. It is not a source of water supply in Lynn County.

## TERTIARY SYSTEM

### PLIOCENE SERIES

*Ogallala formation.*- The Pliocene series is represented by the Ogallala formation, which lies unconformably on the eroded surface of Cretaceous rocks and underlies most of Lynn County. Although the Ogallala is not well exposed, logs of selected wells show that the character of the material changes both vertically and laterally.

The Ogallala formation in Lynn County consists of fine- to coarse-grained reddish-brown and pinkish-gray sand, yellow and reddish silt and clay, gravel, and caliche. The sediments in general are poorly sorted and unconsolidated, but some cementation has been reported by drillers. The log of well F-17 (fig. 4) is typical of the Ogallala in Lynn County. The basal part of the formation consists of coarse gravel and sand which is intermixed with water-worn Cretaceous fossils and is the most permeable part of the formation. The coarse-grained sand and gravel grade upward into a more massive fine-grained sand. The character of the sand varies vertically and laterally and it grades into clay and silt.

The thickness of the Ogallala is greatest in the northern part of the county and decreases southward. For example, well B-4 penetrated about 180 feet of the Ogallala, whereas well J-13 penetrated only 30 feet of the formation. Erosion has removed these sediments from several large depressions in the southern part of the county; for example, well H-21 failed to encounter the Ogallala.

The Ogallala formation is the principal water-bearing formation in Lynn County. Yields as high as 1,137 gallons a minute have been measured. The water is suitable for irrigation, domestic, stock, and public supplies in the northern part of the county but becomes very highly mineralized in the southern part.

#### QUATERNARY SYSTEM

##### PLEISTOCENE SERIES

Rocks of Pleistocene age crop out in the western margins of all the large playa lakes and in a portion of Cooper Canyon. They lie unconformably on Pliocene, Cretaceous, and Triassic deposits. In general they are bluish-gray and are composed of calcareous, gypsiferous, and bentonitic clay, gray sand, gravel, and volcanic ash. The maximum thickness of the Pleistocene sediments has not been determined, but in an old lake basin 18 miles southwest of Tahoka the thickness is estimated to be approximately 40 feet.

In general, the Pleistocene sediments lie above the water table and do not yield fresh water to wells.

##### RECENT SERIES

Deposits of Recent age occur in Lynn County as sand dunes, playa silt, and sheets of wind-blown material. They range in thickness from a feather edge to approximately 75 feet. Sand dunes are present west and north of Tahoka and on the eastern margins of all the large playa lakes. Saliferous mud and silt are being deposited in the larger playas.

The Recent deposits lie above the water table and are not known to yield water to wells, but the sand dunes serve an important function in collecting recharge for the underlying aquifer in the Ogallala formation.

Caliche, mainly a secondary concentration of calcium carbonate, occurs near the surface in nearly all of Lynn County. It is a resistant and prominent "cap rock" around the margins of most playa lakes and in Cooper Canyon. It probably ranges in age from late Pliocene to Recent. It consists of calcium carbonate, secondary silica, and variable amounts of sand and clay; the total thickness ranges from a feather edge to about 70 feet. The caliche is a soft chalky material except in localized areas where it is a hard, dense mass. The high degree of silicification of the caliche resulted from the solution and redeposition of silica by alkaline waters. A sample of caliche taken from a dug well (no. C-34) northeast of Wilson was analyzed and found to contain less than 20 percent of calcium carbonate.

The caliche is an important fresh-water aquifer in the areas northeast of Wilson and north of Grassland, but throughout most of the county it lies above the water table.

### DEVELOPMENT OF GROUND WATER

The use of ground water for irrigation in Lynn County was first started at Grassland about 1931. Drilling then spread to the northern part of the county, and by December 1946 about 65 wells had been completed. Beginning in 1947, the use of the ground water for irrigation increased steadily. Approximately 160 wells were completed in 1948 and 1949, and about 270 wells were in operation at the end of 1949.

During an average year, irrigation wells in Lynn County withdraw about 100 acre-feet of water per well. On this basis, approximately 20,000 acre-feet of water was withdrawn in 1948. During 1949, however, when precipitation was above normal, approximately 25,000 acre-feet was withdrawn, an increase of only 25 percent. It is estimated that 300 wells were in operation in 1950 and the withdrawal during the year amounted to about 27,000 acre-feet. Figure 5 illustrates the increase in the number of irrigation wells in Lynn County since 1940.

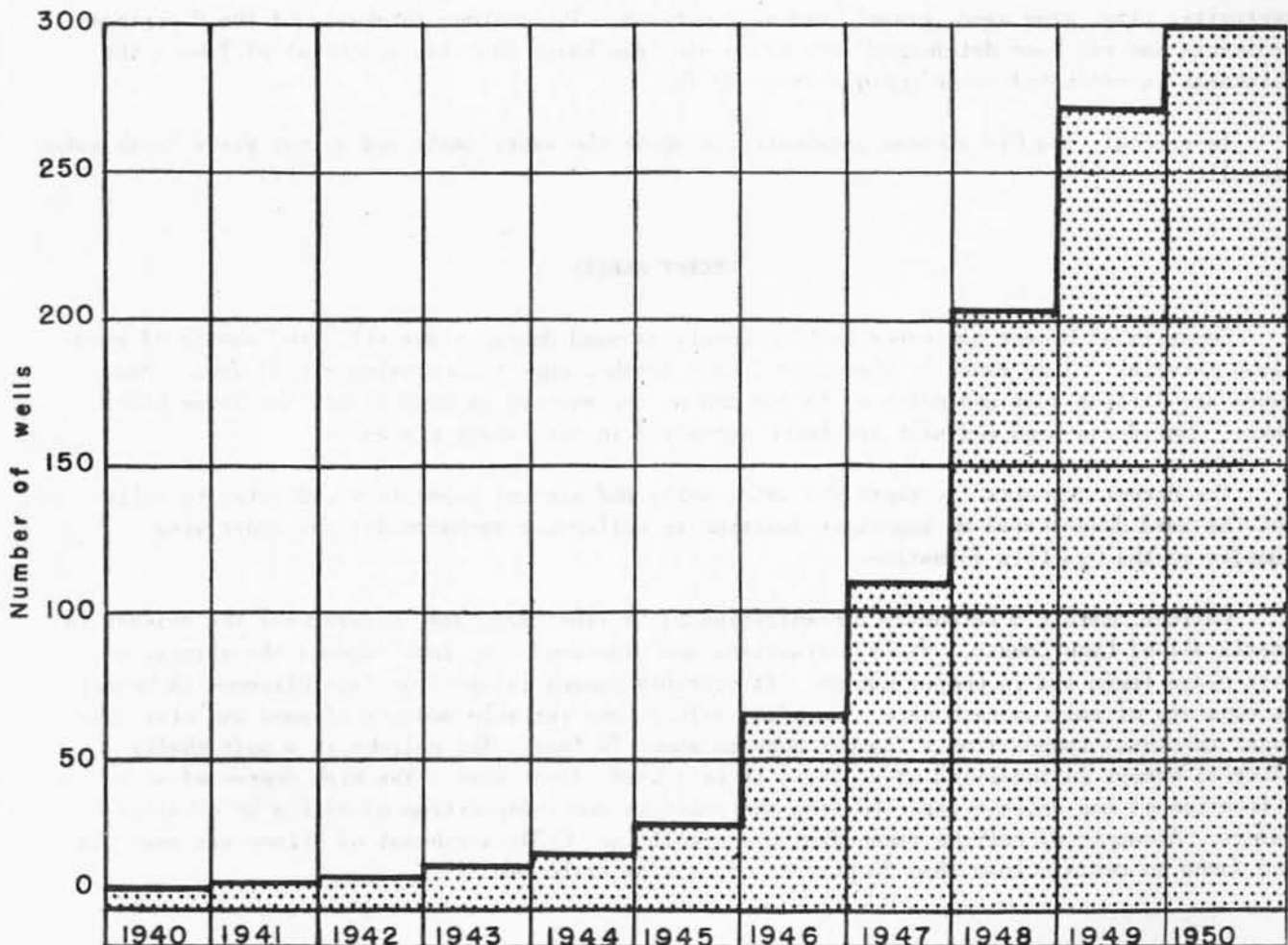


FIGURE 5.- Approximate number of irrigation wells in operation in Lynn County, Tex.

## NORTHERN PART OF THE COUNTY

Approximately 80 percent of the wells used for irrigation in 1949 were in the northern part of the county. (See grids A, B, and C, pl. 1.) The wells in this area draw water from the Ogallala, which is hydrologically continuous with the principal irrigated region of the southern High Plains. The hydraulic slope of the water table and the direction of movement of the ground water are southeastward. The water table slopes at a rate of about 8 feet to the mile and the land surface from 8 to 10 feet to the mile. The saturated thickness of the water-bearing sand in the northwestern part of the county is about 70 feet, but it decreases eastward and southward. Static water levels range from 113 feet below the surface in the central part of the area, in grid B, to 52 feet in the southern part of grid C (pl. 1). The wells yield water in quantities ranging from 200 to 1,137 gallons a minute and have specific capacities ranging from 9 to 45 gallons a minute per foot of drawdown. The water in this area is satisfactory for domestic, stock, and irrigation purposes. The temperature of the water from 18 wells ranged from 64.5° to 66° F. The water contains an average of 700 parts per million of dissolved solids and had a hardness of about 380 parts per million. Chemical analyses of water from 78 wells in Lynn County show that the water becomes more mineralized toward the south and southeast.

About 5 miles northeast of Wilson, in grid C, a group of shallow wells 60 to 90 feet deep draw water from honeycombed silicified caliche. The thickness of the caliche ranges from 23 to 71 feet. The static water levels in this area average about 30 feet beneath the surface and the yields of wells range from 175 to 600 gallons a minute. The very erratic distribution of solution channels in the caliche is indicated by the large number of test holes that failed to encounter channels capable of providing sufficient water for irrigation. The samples of water obtained from two wells drilled into the caliche show an average of 1,045 parts per million of dissolved solids and a hardness of 550 parts per million. The temperature of the water from the caliche aquifer averages 65° F.

## CENTRAL PART OF THE COUNTY

## PLAYA-LAKE AREA

In the central part of the county (grids D, E, and F, pl. 1), ground water is used for irrigation, public supply, domestic purposes, and watering stock.

The playa basins in the central part of the county are large and have been formed principally by the deflationary action of the wind, but also by solution and differential compaction in the Ogallala sediments. The large playas or "saline lakes" are irregular in shape and have steeply sloping walls which expose the caliche cap rock on the western margins. On the east and southeast margins of the basins are ridges of sand that have been built up of material blown from the surface of the basin floors during the dry season, or winter, by the prevailing northwesterly winds. For the most part, however, the large playas are bottomed at or near the water table and contain water except during prolonged periods of drought.

The quality of the ground water in this area is very closely related to the presence of the several large playa lakes. Owing to the absence of surface drainage from these lakes, water is rapidly evaporated, thereby concentrating the mineral content of the basins. For example, an analysis of a sample of water taken from Tahoka Lake (C-107, table 9) showed 34,200 parts per million of dissolved solids, 4,590 parts of sulfate, and 17,000 parts of chloride. During periods of heavy rainfall, the salts that have been precipitated in the basin are redissolved and are carried back into the ground-water reservoir. The quality of the ground water in the central part of the county varies considerably, increasing in mineralization southeast and south of the playa lakes. For example, samples of water from wells D-2 and D-3, which are west of Double Lakes, contained about 900 parts per million of dissolved solids, 200 parts of sulfate, and 100 parts of chloride, whereas samples from wells D-7, D-8, E-26, E-30, F-1, F-5, F-6, and F-8, south and southeast of Double Lakes, Guthrie Lake, and Tahoka Lake, contained an average of 2,830 parts per million of dissolved solids, 706 parts of sulfate, and 819 parts of chloride. Analyses of water samples show that, in general, water of poor quality lies south and southeast of the playa lakes, whereas highly mineralized water does not occur north and northeast of Tahoka Lake and Double Lakes.

A generalized cross section across Tahoka Lake showing the level of the basin floor during several stages of deepening and the present deposition of saliferous silt upon the bedrock is illustrated in figure 6.

In a small area north and east of Tahoka, six irrigation wells (E-15 to E-20) range from 87 to 124 feet in depth and draw water from the Ogallala formation. The wells are reported to yield 300 to 750 gallons a minute, but, in general, they are unable to sustain these yields over an extended period of continuous operation. The water, which is suitable for irrigation, contains an average of 1,200 parts per million of dissolved solids and has a hardness of about 600 parts per million.

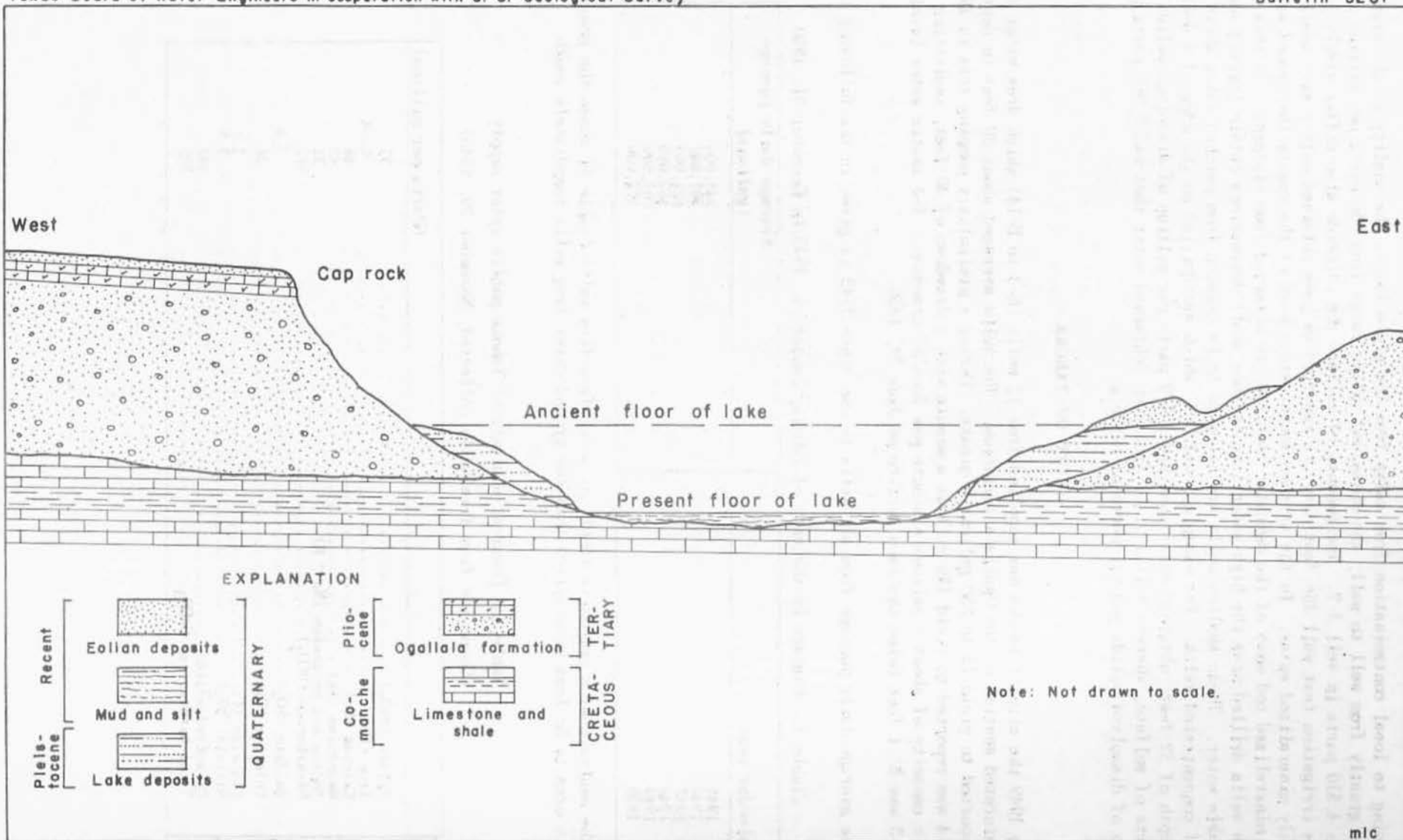
In the vicinity of Grassland, in grid F, 26 irrigation wells obtain water from the Ogallala formation and silicified caliche. The wells range in depth from 38 feet (well F-9) to 156 feet (well F-29) and yield 75 to 1 000 gallons a minute. The water contains 1,180 to 2,430 parts per million of dissolved solids and has a hardness of 562 to 1,160 parts per million; it is most highly mineralized in wells F-9 to F-12, which draw from the caliche. In the shallow caliche aquifer the temperature of the water averaged 67.5° F., as compared to an average of 65° F. in the deeper wells that draw from the sand and gravel of the Ogallala formation.

In much of the southern part of this area little development of the ground water has taken place owing to the generally high mineralization of the water. In some parts of the area the ground-water supply is generally too highly mineralized even for watering stock.

#### SOUTHERN PART OF THE COUNTY

Ground water in the southern part of the county, which includes all of grids G, H, and J, is used for domestic purposes, public supply, and watering stock. Most wells in this area obtain water from the Ogallala formation, but one well, H-21, obtains water from a localized porous zone in the Edwards limestone. Most of the wells that are equipped with windmills were not drilled completely through the saturated part of the Ogallala formation; however, the saturated part of the formation is very thin in this area (see pl. 2).





61

mlc

FIGURE 6.-Schematic geologic section, Tahoka Lake, Lynn County, Tex.

Owing to local contamination from salts from the playa lakes, the quality of the ground water differs greatly from well to well; the dissolved solids range from 656 parts per million in well H-20 to 4,510 parts in well J-2. The amounts of sulfate and chloride also differ widely. Well J-8, an irrigation test well 186 feet deep, is reported to have obtained only a very small amount of highly mineralized water. In the extreme southeastern part of the county the ground water is highly mineralized and most of the domestic supplies are obtained from cisterns. In this area, shallow wells drilled near the high-water line in some small depressions obtain limited supplies of potable water. These shallow wells are believed to be drawing from perched water above the zone of concentrated salts. For example, well H-4, which was drilled on the edge of a depression to a depth of 32 feet, obtained water that had 1,170 parts per million of dissolved solids and 182 parts of sulfate, whereas well J-9, 60 feet deep, obtained water that had 2,960 parts per million of dissolved solids and 917 parts of sulfate.

#### CITY OF TAHOKA

In 1949 the city of Tahoka was supplied from 12 wells (E-3 to E-14) which drew water from a thin saturated section of the Ogallala formation. The wells averaged about 80 feet in depth and were reported to yield 75 to 250 gallons a minute. During a preliminary pumping test in 1946, well E-4 was reported to yield 150 gallons a minute with a drawdown of 40 feet, indicating a specific capacity of about 4 gallons a minute per foot of drawdown. The static water level in well E-3 was 37.1 feet below the land surface on June 29, 1950.

The average daily pumpage from all wells in use since 1945 is given in the following table:

Table 3.- Pumpage by the city of Tahoka, January 1, 1945, to December 31, 1950

Calendar year	Average daily pumpage (gallons)
1945	348,000
1946	397,000
1947	422,000
1948	480,000
1949	565,000
1950	473,000

The analysis of a composite sample of water from five wells (table 4) shows the ground water in this area to be less mineralized than the ground water from wells immediately south.

Table 4.- Chemical analysis of Tahoka public water supply  
(Composite from five wells collected, November 29, 1946)

	(Parts per million)
Silica (SiO <sub>2</sub> )	37
Iron (Fe)	0.04
Calcium (Ca)	48
Magnesium (Mg)	45
Sodium and potassium (Na + K)	31
Bicarbonate (HCO <sub>3</sub> )	372
Sulfate (SO <sub>4</sub> )	5.4
Chloride (Cl)	28
Fluoride (F)	5.6
Nitrate (NO <sub>3</sub> )	3.5
Dissolved solids	387
Total hardness as CaCO <sub>3</sub>	305

## CITY OF O'DONNELL

Prior to August 1949 the city of O'Donnell was supplied from 10 wells (H-22 to H-30, and H-32). The wells, which averaged about 70 feet in depth, drew water from sand and gravel in the Ogallala formation. The saturated sand and gravel averaged about 12 feet in thickness and the yields of the wells ranged from 2 to 50 gallons a minute; the combined yield of all 10 wells was approximately 100 gallons a minute.

A new well, H-21, was completed 4 miles east of O'Donnell in August 1949. The well, which is in a depression, was drilled to a depth of 27 feet and is believed to be drawing water from a localized porous zone in the Edwards limestone. The water level on August 8, 1949, was 7.5 feet below the land surface before pumping began; the water level on March 23, 1951, was 10.8 feet, showing a decline of 3.3 feet. During a short test on July 13, 1950, the well was pumped at the rate of 810 gallons a minute and the drawdown was only 0.69 foot, indicating a specific capacity of 1,175 gallons a minute per foot of drawdown. (See fig. 7.) The average daily consumption by the city of O'Donnell is reported to be approximately 150,000 gallons.

Table 5.- Chemical analysis of O'Donnell public water supply  
(Parts per million)

	Composite from nine wells	Well H-21	
	Nov. 29, 1946	Aug. 9, 1949	May 17, 1950
Silica (SiO <sub>2</sub> )	143	34	25
Iron (Fe)	.17	.04	.10
Calcium (Ca)	116	48	96
Magnesium (Mg)	127	128	142
Sodium and potassium (Na + K)	336	275	368
Bicarbonate (HCO <sub>3</sub> )	392	554	518
Sulfate (SO <sub>4</sub> )	507	436	685
Chloride (Cl)	452	128	222
Fluoride (F)	5.6	18	18
Nitrate (NO <sub>3</sub> )	6.2	38	39
Dissolved solids	1,890	1,380	1,890
Total hardness as CaCO <sub>3</sub>	812	646	824

Although well H-21 is believed to produce water from the Edwards limestone, the quality of water as shown by two analyses is unlike that of water normally obtained from limestone. This suggests that the water may have moved along crevices in the limestone from the Ogallala, Cretaceous rocks, or a bed containing evaporites. The water is particularly high in fluoride and potassium and contains more nitrate than is found in most water in the High Plains.

Potassium salts have been reported in deep wells in the High Plains, and it is possible that the potassium found in this water represents leaching of a small local deposit.

Fluoride has been widely observed in water of the High Plains. However, the usual concentration ranges from 1 to 8 parts per million. The 18 parts per million of fluoride in both samples from this well is near the highest concentration ever reported in the region.

Nitrate is common in beds of evaporites, and the concentration found in water from well H-21 suggests local accumulation.

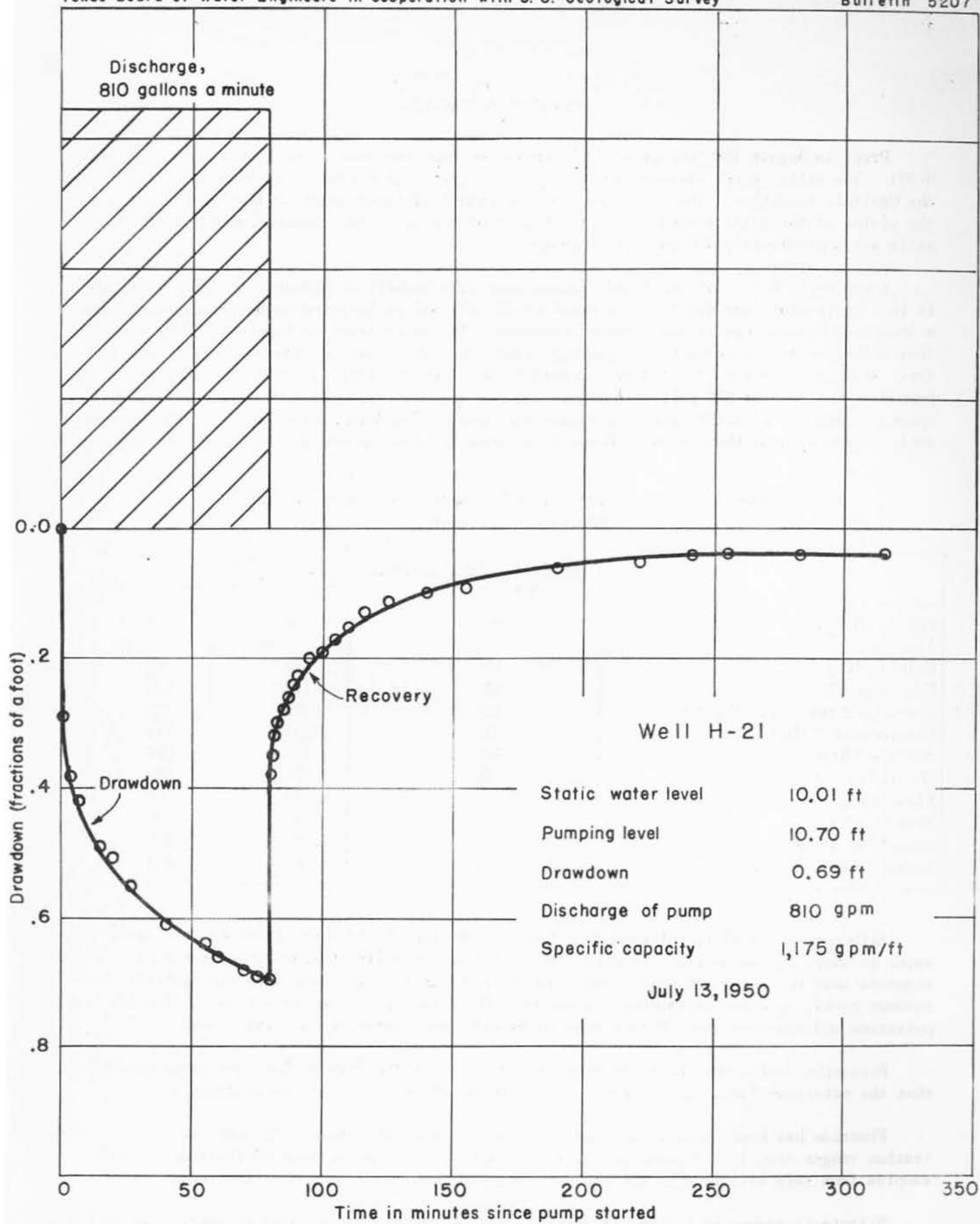


FIGURE 7.- Pumping test of well H-21, Lynn County, Tex.

## FLUCTUATION OF WATER LEVELS

Measurements of the depths to water in wells in Lynn County have been made intermittently since 1937. These measurements are shown in table 6. As these wells are all remote from areas of heavy withdrawals, no attempt should be made to interpret conditions in the irrigated area on the basis of these measurements.

A comparison of the water levels in four domestic wells that were measured in January 1938 and again in February 1952 shows an average net rise of 7.6 feet, of which 90 percent occurred after 1941, indicating that recharge continued for several years as a result of the heavy rainfall in 1941-42.

The wide range in fluctuations of water levels in several wells in the southern part of the county is the result of recharge from the depression ponds in which surface water collects. Wells E-27 and E-28, which were drilled at the edges of depression ponds, showed marked rises in water levels during the period February 19, 1950 to February 7, 1951, as a result of a heavy rainfall in September 1950.

## QUALITY OF WATER

Ground water in Lynn County is being developed primarily for irrigation, public supplies, and stock. It is not possible to define exact limits beyond which water cannot be used for particular purposes. Nevertheless, standards have been established which are widely used in judging the suitability of ground water for irrigation and public supplies.

The following table has been found useful in evaluating irrigation waters (Wilcox, 1948, p. 27).

Permissible limits for electrical conductivity and percentage of sodium in several classes of irrigation water

Rating	Classes of water	Specific conductance (Micromhos at 25° C.)	Sodium percentage
1	Excellent	< 250	< 20
2	Good	250 to 750	20 to 40
3	Permissible	750 to 2,000	40 to 60
4	Doubtful	2,000 to 3,000	60 to 80
5	Unsuitable	> 3,000	> 80

Boron is an element required in very small amounts for plant growth, but it is injurious when present in irrigation water in large amounts. Boron toxicity may be indicated by yellowing and mottling of leaves and, in severe cases, by defoliation of plants. On the basis of a few analyses, it is believed that boron is not a problem in Lynn County.

## Permissible limits for boron in several classes of irrigation water

Rating	Classes of water	Sensitive crops (ppm)	Semitolerant crops (ppm)	Tolerant crops (ppm)
1	Excellent	< 0.33	< 0.67	< 1.00
2	Good	0.33 to 0.67	0.67 to 1.33	1.00 to 2.00
3	Permissible	0.67 to 1.00	1.33 to 2.00	2.00 to 3.00
4	Doubtful	1.00 to 1.25	2.00 to 2.50	3.00 to 3.75
5	Unsuitable	> 1.25	> 2.50	> 3.75

Water used for domestic and municipal supplies, wherever possible, should conform to the standards of the United States Public Health Service (1946). Public Health Standards place the following limits on the more important minerals commonly found in solution.

Magnesium (Mg) should not exceed 125 ppm.

Chloride (Cl) should not exceed 250 ppm.

Sulfate (SO<sub>4</sub>) should not exceed 250 ppm.

Dissolved solids should not exceed 500 ppm for a water of good chemical quality. However, if such water is not available, a dissolved solids content of 1,000 ppm may be permitted.

The quality of water in various parts of Lynn County is discussed briefly in the section "Development of ground water". Analyses of water samples from 78 wells, 2 springs, and 1 lake are given in table 9.

## FUTURE DEVELOPMENT

Additional supplies of ground water for irrigation can be obtained in the northern part of the county. Unquestionably more land could be brought under irrigation and sustained economically for many years in the future with proper spacing of wells and wise management of the use of water. However, further expansion of irrigation in the northern part of the county may result in localized overconcentration of wells. Studies have shown that, when closely spaced wells are pumped, the cones of depression overlap and interference occurs, resulting in a decrease in the discharge or an increase in the depth to the pumping level of each well, or both. The expansion of irrigation east of Tahoka is, in general, limited by the occurrence of ground water not suitable for irrigation. The thinning of the saturated sands and the generally poor quality of the ground water precludes large-scale irrigation south and west of Tahoka. Additional ground water for irrigation probably cannot be obtained from the Edwards limestone in the extreme southern part of the county, owing to the apparently limited areal extent of the formation.

## REFERENCES

- CUMMINS, W. F., 1890, The Permian of Texas and its overlying beds: Texas Geol. Survey Ann. Rept. 1, pp. 183-197.
- SELLARDS, E. H., ADKINS, W. S., and PLUMMER, F. B., 1932, The geology of Texas: Texas Bur. of Econ. Geology Bull. 3232, 1,007 pp., 11 pls., 54 figs.
- WILCOX, L. V., 1948, The quality of water for irrigation use: U. S. Dept. Agr. Tech. Bull. 962, 40 pp., 1 fig.
- PUBLIC HEALTH SERVICE DRINKING WATER STANDARDS, 1946, Public Health Repts., vol. 61, no. 11, pp. 383-384.

Table 6. Water levels in wells in Lynn County, Tex.  
(Feet below land-surface datum)

Date	Water level
------	-------------

## Well B-101

L. King. 8 miles north of Tahoka.

July 15, 1937	64.18
Aug. 8	64.10
Sept. 28	63.97
Jan. 21, 1938	63.82
Apr. 30	63.50
July 22	63.57
Jan. 23, 1939	63.41
Aug. 10	63.38
Mar. 1, 1940	63.26
Aug. 2	63.42
Aug. 7, 1942	60.40
Feb. 16, 1943	58.65
Feb. 24, 1944	54.28
Mar. 28, 1949	52.05
Feb. 7, 1951	51.52
Feb. 2, 1952	49.75

## Well E-21

City of Tahoka. ½ mile northeast of Tahoka.

July 22, 1938	80.26
Jan. 23, 1939	79.72
Aug. 10	79.02
Mar. 1, 1940	78.49
Aug. 2	78.22
Aug. 6, 1942	74.88
Feb. 16, 1943	74.05
Feb. 24, 1944	72.74
Mar. 28, 1949	69.88

## Well E-25

Carl Griffin. Edge of lake, 4½ miles south of Tahoka.

July 12, 1937	13.91
Sept. 23	7.20
Jan. 20, 1938	10.40
Mar. 30, 1949	18.83
Feb. 19, 1950	17.40
Feb. 7, 1951	17.22
Feb. 2, 1952	16.85

Date	Water level
------	-------------

## Well E-27

M. M. Davis. 5½ miles south of Tahoka.

July 12, 1937	3.36
Aug. 7	5.58
Jan. 23, 1938	5.90
Aug. 10, 1939	14.40
Mar. 1, 1940	16.88
Aug. 2	17.95
Mar. 30, 1949	22.42
Feb. 19, 1950	21.43
Feb. 7, 1951	2.92
Feb. 2, 1952	3.90

## Well E-28

--, 5½ miles south of Tahoka.

July 12, 1937	5.39
Aug. 7	15.02
Jan. 23, 1939	5.91
Mar. 1, 1940	14.90
Aug. 2	14.84
Mar. 30, 1949	21.95
Feb. 19, 1950	20.90
Feb. 7, 1951	2.08
Feb. 2, 1952	2.89

## Well H-10

L. Williams. 9½ miles south of Tahoka.

July 12, 1937	84.90
Aug. 7	84.90
Sept. 23	84.92
Jan. 20, 1938	84.82
Apr. 29	84.77
July 22	84.88
Jan. 23, 1939	84.74

## Well H-14

Levi Gray. 10½ miles south of Tahoka.

July 12, 1937	64.38
Jan. 20, 1938	64.20
July 22	64.12
Jan. 23, 1939	64.08
Aug. 10	63.88
Mar. 1, 1940	64.00
Mar. 30, 1949	62.10
Feb. 19, 1950	63.59
Feb. 7, 1951	62.55
Feb. 2, 1952	61.14



Table 6.- Water levels in wells in Lynn County--Continued

Date	Water level
------	-------------

Date	Water level
------	-------------

Well H-18

E. E. Fagg, 11 1/2 miles south of Tahoka.

July 15, 1937	66.35
Aug. 7	66.32
Sept. 24	66.43
Jan. 20, 1938	66.17
Apr. 29	66.16
July 22	66.27
Jan. 23, 1939	66.10
Aug. 10	65.78
Aug. 6, 1942	64.83
Feb. 24, 1944	64.30
Mar. 20, 1949	63.35
Feb. 19, 1950	63.92
Feb. 7, 1951	63.56
Feb. 2, 1952	62.72

Well H-21

C. J. Beach, 14 miles southeast of Tahoka.

Aug. 9, 1949	7.54
Aug. 24	7.74
May 17, 1950	9.21
June 18	9.55
July 13	10.01
Mar. 23, 1951	10.83

Table 7.- Records of wells in Lynn County, Texas

Method of lift: A, air lift; B, bucket; C, cylinder; Cf, centrifugal; E, electric; G, gasoline; H, hand; J, jet; T, turbine; W, windmill.

Number indicates horsepower.

Use of water : D, domestic; Ind, industrial; Irr, irrigation; N, not used; P, public supply; RR, railroad; S, stock.

Well	Distance from Takoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-1	21½ miles northwest	SW¼SW¼ 77	20	HE & WT	F. E. McNabb	--	1946	150	16	84.9	July 29, 1949	T, G, 40	Irr	Discharge reported 500 gpm. Irrigated 79 acres in 1949.
A-2	20½ miles northwest	NE¼SW¼ 77	CB	EL & RR	Mrs. L. K. Moore	T. R. Hall	1948	139	16	--	--	T, G, 125	Irr	Pumping level 96.5 feet after 8 hours' pumping at 400 gpm July 29, 1949. Irrigated 80 acres in 1949.
A-3	do.	NE¼SW¼ 5	CB	EL & RR	E. H. Foester	-- --	1946	--	16	64.9	Aug. 4, 1949	T, G, 100	Irr	Discharge reported 750 gpm.
A-4	20 miles northwest	SW¼SE¼ 5	CB	EL & RR	J. F. Hickman	-- Sparks	1948	145	16	76.6	do.	None	N	
A-5	do.	NE¼NE¼ 8	CO		S. L. Williams	-- Willis	1948	144	16	77.4	Sept. 9, 1949	T, G	Irr	Drawdown measured 55 feet while pumping 550 gpm Aug. 4, 1949
A-6	19½ miles northwest	SW¼NE¼ 164	12	EL & RR	O. W. English	-- Starr	1944	178	16	a/70	Dec. --, 1944	None	N	Casing: 16-inch to 130 feet.
A-7	do.	SW¼NE¼ 164	12	EL & RR	do.	--	1949	130	16	a/70	Mar. --, 1944	T, E, 121	Irr	Discharge reported 700 gpm. Irrigated 100 acres in 1949.
A-8	do.	SW¼SW¼ 66	20	HE & WT	C. R. Roberts	-- Hemmle	1949	128	14	a/95	Apr. --, 1949	T, G, 125	Irr	Discharge reported 750 gpm. Pump set at 118 feet. Irrigated 75 acres in 1949.
A-9	19½ miles northwest	NE¼NE¼ 4	12	D & SE	O. W. English	-- Starr	1944	130	16	88.7	Aug. 18, 1949	T, G	Irr	Discharge reported 1,200 gpm. Irrigated 125 acres in 1949.
A-10	19 miles northwest	SW¼NE¼ 4	12	D & SE	R. L. Williams	T. R. Hall	1947	140	16	a/90	Aug. 28, 1949	T, G, 125	Irr	Pump set at 120 feet.
A-11	do.	NW¼NW¼ 168	12	EL & RR	D. W. Hancock	-- Armstrong	1949	141	16	96.5	July 28, 1949	T, G, 125	Irr	Discharge measured 425 gpm. Pump set at 120 feet. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-12	18½ miles northwest	NE¼NE¼ 168	12	EL & RR	B. G. Millikan	Otto Howard	1948	140	16	89.4	July 28, 1949	T,G, 90	Irr	Drawdown 16.7 feet after 15 days' pumping at 500 gpm Aug. 18, 1949. Irrigated 120 acres in 1949.
A-13	18 miles northwest	NW¼SE¼ 168	12	EL & RR	C. L. Brown	T. R. Hall	1947	146	16	a/100	Oct. 25, 1947	T,G, 125	Irr	Discharge measured 365 gpm. See log.
A-14	18½ miles northwest	NW¼SW¼ 168	12	EL & RR	Willie Neiman	-- Brinkson	1946	139	14	a/ 70	Nov. 8, 1946	T,G, 125	Irr	Discharge measured 425 gpm Nov. 8, 1946.
A-15	19 miles northwest	SE¼SE¼ 4	12	D & SE	O. W. English	F. Denton	1945	155	16	a/ 70	Jan. --, 1946	T,G, 100	Irr	Discharge measured 930 gpm January 1946.
A-16	18 miles northwest	SW¼SW¼ 166	12	EL & RR	Roy Nettles	-- Weir	1949	182	16	86.7	July 29, 1949	T,G, 76	Irr	Discharge reported 1,700 gpm.
A-17	do.	NW¼SE¼ 166	12	EL & RR	Wayne Perry	Barnet & Garrett	1949	164	16	a/ 94	July 28, 1949	T,G	Irr	Discharge reported 900 gpm.
A-18	18½ miles northwest	SW¼NE¼ 166	12	EL & RR	A. C. Fillingim	J. Nordyke	1947	165	16	a/ 80	Jan. --, 1947	T,G, 125	Irr	Discharge reported 1,500 gpm. Irrigated 160 acres in 1949.
A-19	17½ miles northwest	NW¼SW¼ 165	12	EL & RR	do.	do.	1949	165	16	a/ 80	Jan. --, 1949	T,G, 125	Irr	Discharge measured 775 gpm. Temp. 65.5° F. See log.
A-20	17½ miles northwest	SE¼SW¼ 165	12	EL & RR	do.	--	1948	180	16	a/ 80	Mar. --, 1948	T,G, 125	Irr	Pumping level 130.9 feet after 7 days' pumping at 825 gpm. Sept. 1948. Irrigated 160 acres in 1949.
A-21	do.	SW¼SE¼ 165	Y2	EL & RR	do.	J. Nordyke	1949	168	16	a/ 80	Jan. --, 1949	T,G, 165	Irr	Discharge reported 1,200 gpm. Irrigated 160 acres 1949.

a/ Reported by owner or drilled.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-22	17 miles northwest	NE¼NW¼ 132	12	EL & RR	A. C. Fillingim	J. Nordyke	1947	150	16	a/80	Feb. --, 1947	T,G, 125	Irr	Pump set at 145 feet. Temp. 66° F.
A-23	16½ miles northwest	NW¼NW¼ 129	12	EL & RR	A. Schoppa	--	1948	166	16	a/85	Dec. 17, 1948	T,G, 125	Irr	Pumping level 120.5 feet after 6 hours' pumping at 800 gpm July 28, 1948. Pump set at 140 feet. Irrigated 120 acres in 1949.
A-24	do.	NW¼SW¼ 129	12	EL & RR	Lee A. Savage	J. L. Palmour	1948	143	16	87.3	July 22, 1949	T,G, 100	Irr	Pump set at 120 feet. Irrigated 100 acres in 1949.
A-25	16½ miles northwest	NW¼SW¼ 129	12	EL & RR	do.	T. R. Hall	1947	145½	16	89.2	do.	T,G, 100	Irr	Casing perforated 85 to 145 feet. Discharge measured 425 gpm. See log.
A-26	16 miles northwest	NW¼SW¼ 129	12	EL & RR	C. C. Anderson	--	--	145	16	--	--	T,G, 100	Irr	Discharge reported 350 gpm. Irrigated 100 acres in 1949.
A-27	15½ miles northwest	NW¼SW¼ 128	12	EL & RR	J. D. Unfered	--	--	--	--	83.4	July 22, 1949	T,G	Irr	
A-28	15½ miles northwest	NW¼SE¼ 128	12	EL & RR	L. Hancock	-- Mouldin	1949	157	16	87.0	do.	T,G	Irr	Reported pumping level 130 feet while punning 1,100 gpm.
A-29	16½ miles northwest	SE¼SE¼ 130	12	EL & RR	A. L. Pace	--	1948	167	16	85.1	July 27, 1949	T,G, 145	Irr	Discharge reported 1,300 gpm. Irrigated 143 acres in 1949. See log.
A-30	16½ miles northwest	NW¼SE¼ 169	12	EL & RR	C. Peek	--	1949	175	16	a/95	Feb. --, 1949	T,G, 165	Irr	Pumping level 115.6 feet July 27, 1949, after 60 hours' pumping estimated at 1,000 gpm. Pump set at 140 feet. Irrigated 297 acres in 1949.
A-31	do.	SE¼NW¼ 169	12	EL & RR	H. Halemecke	--	1948	179	16	a/90	July 27, 1949	T,G, 165	Irr	Irrigated 160 acres in 1949.
A-32	17 miles northwest	NE¼NE¼ 130	12	EL & RR	-- Lundell	--	--	170	16	--	--	T,G	Irr	Discharge estimated 1,100 gpm, July 1949. Irrigated 153 acres in 1949.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-33	17½ miles northwest	NE¼NW¼ 130	12	EL & RR	R. White	--	1949	--	--	85.1	Sept. 6, 1949	T,G	Irr	
A-34	17 miles northwest	NE¼SW¼ 170	12	EL & RR	Mrs. A. L. Lockwood	W. A. Willis	1947	178	16	91.4	July 27, 1949	T,G, 145	Irr	Discharge measured 805 gpm, July 27, 1949. Irrigated 125 acres in 1949.
A-35	do.	NW¼SE¼ 170	12	EL & RR	L. H. Moore, Sr.	Geo. Anderson	1946	156	16	a/95	Sept. --, 1946	T,G, 85	Irr	Discharge measured 890 gpm, July 27, 1949.
A-36	do.	SW¼NE¼ 170	12	EL & RR	do.	--	--	--	--	a/90	--	T,G	Irr	
A-37	16 miles northwest	NW¼NW¼ 122	12	EL & RR	B. A. Morrow	J. Giblen	1949	158	16	84.3	July 27, 1949	T,G, 133	Irr	Discharge reported 1,400 gpm.
A-38	15½ miles northwest	SW¼NE¼ 122	12	EL & RR	do.	-- Himmle	1945	155	16	a/85	Apr. 29, 1946	T,G, 55	Irr	Discharge measured 835 gpm April 29, 1947. Temp. 64.5° F.
A-39	do.	SW¼NW¼ 121	12	EL & RR	C. G. Eodes	J. L. Palmour	1947	182	16	a/80	Jan. --, 1947	T,G	Irr	Pumping level 120 feet while pumping 1,055 gpm, July 27, 1949. Irrigated 80 acres in 1949.
A-40	15½ miles northwest	NE¼NW¼ 121	12	EL & RR	do.	do.	1948	156	16	87.5	Sept. 6, 1949	T,G	Irr	Drawdown 34.0 feet July 27, 1949 after 3 weeks' pumping at 975 gpm. Irrigated 80 acres in 1949.
A-41	do.	NW¼NE¼ 121	12	EL & RR	Truett Smith	L. Schooler	1946	172	--	a/80	July 27, 1949	T,G	Irr	Uncased. Irrigated 160 acres in 1949. See log.
A-42	15½ miles northwest	SE¼SE¼ 119	12	EL & RR	A. W. Edwards	--	1945	--	--	--	--	T,G	Irr	
A-43	15 miles northwest	SW¼NW¼ 113	12	EL & RR	L. G. Allsup	J. L. Palmour	1948	140	16	72.2	Sept. 6, 1949	T,G	Irr	Drawdown 46.1 feet June 1949 after 230 hours' pumping at 420 gpm. Pump set at 130 feet. Casing: 135 feet of 16-inch. Irrigated 70 acres in 1949.
A-44	14½ miles northwest	NE¼SE¼ 121	12	EL & RR	P. H. Renfro	--	1947	140	16	a/80	1947	T,G, 125	Irr	Discharge measured 820 gpm, July 27, 1949. Pump set at 130 feet. Irrigated 160 acres in 1949.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-45	15 miles northwest	NEMNE $\frac{1}{4}$ 123	12	EL & RR	J. D. Finley	Geo. Anderson	1946	145	14	77.6	July 27, 1949	T,G	Irr	Discharge measured 980 gpm, Aug. 26, 1947. Irrigated 100 acres in 1949.
A-46	do.	SEMNE $\frac{1}{4}$ 123	12	EL & RR	do.	do.	1946	129	14	a/64	June 26, 1946	T,G	Irr	Casing: 14-inch to 110 feet. Discharge measured 315 gpm, June 26, 1946. Irrigated 100 acres in 1949.
A-47	do.	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 123	12	EL & RR	do.	do.	1947	140	16	64.3	July 27, 1949	T,G	Irr	Irrigated 100 acres in 1949.
A-48	do.	NE $\frac{1}{4}$ NW $\frac{1}{4}$ 123	12	EL & RR	do.	do.	1947	140	16	69.1	Sept. 27, 1949	T,G	Irr	Drawdown 39.7 feet after 10 hours' pumping at 415 gallons a minute, July 27, 1949. Irrigated 100 acres in 1949.
A-49	15 $\frac{1}{2}$ miles northwest	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 122	12	EL & RR	B. A. Morrow	J. L. Palmour	1948	155	16	a/85	Mar. --, 1948	T,G	Irr	Discharge reported 1,400 gpm, Mar. 1948.
A-50	17 $\frac{1}{4}$ miles northwest	NEMNW $\frac{1}{4}$ 136	12	EL & RR	F. Speckman	J. Giblen	1949	130	16	a/70	Mar. 18, 1949	T,G, 34	Irr	Casing perforated 70 to 130 feet. Discharge estimated 500 gpm Aug. 18, 1949.
A-51	15 $\frac{1}{4}$ miles northwest	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 134	12	EL & RR	E. L. Powell	H. F. Wilcox	1940	182	13	--	--	None	N	Oil test. See log.
A-52	15 $\frac{1}{4}$ miles northwest	NEMNW $\frac{1}{4}$ 151	9	HE & WT	J. A. Evans	Lusby Bros.	1948	146	16	89.7	Aug. 4, 1949	T,G	Irr	Discharge estimated 250 gpm, Sept. 9, 1949. See log.
A-53	15 miles northwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 152	9	HE & WT	Long Cromer	--	1948	139	16	84.0	July 29, 1949	T,G, 100	Irr	Casing perforated 79 to 139 feet.
A-54	do.	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 152	9	HE & WT	Lee & Long Cromer	Lon P. Wilhoit	1947	138	16	86.3	do.	T,G, 100	Irr	Irrigated 80 acres in 1949.
A-55	14 $\frac{1}{4}$ miles northwest	SEMNW $\frac{1}{4}$ 145	9	GT & RR	H. Coward	-- Kingsley	1948	148	16	95.5	do.	T,G, 100	Irr	Casing perforated 88 to 148 feet. Temp. 65.5° F.
A-56	do.	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 145	9	GT & RR	Lee Cromer	--	1947	160	16	a/90	Apr. --, 1947	T,G, 165	Irr	Discharge measured 720 gpm, July 29, 1949. Irrigated 125 acres in 1949.
A-57	14 $\frac{1}{4}$ miles northwest	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 146	9	GT & RR	Mrs. C. B. Jones	Lusby Bros.	1948	150	16	a/90	July 29, 1949	T,G	Irr	Discharge reported 450 gpm. Pump set at 130 feet. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
A-58	14 miles northwest	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 146	9	GT & RR	O. R. Phiefer	T. R. Hall	1947	160	14	--	--	None	N	
A-59	13 $\frac{1}{2}$ miles northwest	SW $\frac{1}{4}$ NE $\frac{1}{4}$ 146	9	GT & RR	do.	Lusby Bros.	1947	150	16	91.3	July 29, 1949	T, G, 100	Irr	Discharge measured 435 gpm, Sept. 29, 1949. Pump set at 140 feet.
A-60	13 $\frac{1}{2}$ miles northwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 48	9	GT & RR	do.	--	--	--	16	93.8	do.	T, G, 100	Irr	
A-61	14 miles northwest	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 149	9	GT & RR	do.	-- Loveless	1948	156	16	91.8	do.	T, G, 125	Irr	Discharge reported 500 gpm Dec. 1948. Irrigated 75 acres in 1949. See log.
A-62	12 $\frac{1}{2}$ miles northwest	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 160	--	W.T.Petty	Lon Cromer	J. L. Palmour	1948	137	16	a/70	Aug. 15, 1948	T, G, 100	Irr	Casing perforated 87 to 137 feet. Discharge reported 700 gpm. Irrigated 70 acres in 1949.
A-63	11 $\frac{1}{2}$ miles northwest	SE $\frac{1}{4}$ NE $\frac{1}{4}$ 2	--	J. Contis	R. W. Overstreet	--	--	--	16	74.5	Aug. 4, 1949	T, G	Irr	Irrigated 200 acres in 1945.
A-64	do.	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 2		J. Contis	J. W. Lowrey	--	1948	--	16	a/78	July --, 1948	T, G, 100	Irr	Pump set at 130 feet. Irrigated 65 acres in 1949.
A-65	do.	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 158	9	HE & WT	M. C. Edwards	The Texas Co.	1945	7,238	13.5 9.5	--	--	None	N	Oil test. See log.
A-66	11 miles northwest	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 106	9	HE & WT	G. George	J. Giblen	1948	340	16, 14	110.2	July 29, 1949	T, G	Irr	Drawdown 42.4 feet Aug. 4, 1949 after 72 hours' pumping at 775 gpm. Pump set at 263 feet. Irrigated 150 acres in 1949. Temp. 66° F. See log.
B-1	16 $\frac{1}{2}$ miles northwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 28	20	HE & WT	Geo. A. Health	--	1947	153	16	--	--	T, G, 120	Irr	Discharge measured 600 gpm, July 16, 1947.
B-2	16 miles northwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 28	20	HE & WT	do.	--	--	--	--	--	--	T, G	Irr	
B-3	16 $\frac{1}{2}$ miles northwest	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 23	20	HE & WT	R. M. Ernst	L. Schooler	1946	145	16	101.7	July 21, 1949	T, G, 100	Irr	Casing: 16-inch to 140 feet. Discharge measured 540 gpm, July 15, 1947. Irrigated 80 acres in 1949.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoku	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-4	15½ miles northwest	NW¼NW¼ 426	21	HE & WT	M. C. Ball	J. Palmour	1948	182	16	a/86	Nov. --, 1948	T,G	Irr	Pumping level 118.4 feet while pumping 1,200 gpm, July 21, 1949. Irrigated 160 acres in 1949. Temp. 65° F. See log.
B-5	do.	SE¼NE¼ 416	1	D & SE	H. Hunt	--	1948	173	16	101.7	July 21, 1949	T,G, 145	Irr	Discharge reported 600 gpm, Dec. 1948.
B-6	15½ miles northwest	SE¼SW¼ 425	21	HE & WT	B. R. Tate	--	1948	184	16	98.8	do.	T,G, 165	Irr	Discharge reported 1,100 gpm, Oct. 1948. Irrigated 165 acres in 1949.
B-7	do.	NE¼NW¼ 415	1	D & SE	C. Putty	J. Schooler	1946	176	16	96.8	July 20, 1949	T,G, 120	Irr	Casing: 16-inch to 168 feet. Discharge measured 630 gpm, June 4, 1946. See log.
B-8	15 miles northwest	SE¼NE¼ 415	1	D & SE	F. Gass	Starr Drilling Co.	1945	187	16	98.8	do.	T,G, 120	Irr	Casing perforated 87 to 187 feet. Discharge reported 900 gpm.
B-9	do.	SW¼NW¼ 414	1	D & SE	H. C. Crosby	--	--	--	--	94.4	do.	T,G	Irr	Irrigated 129 acres in 1949.
B-10	14½ miles northwest	NW¼SW¼ 414	1	D & SE	Mrs. J. C. Poindexter	T. R. Hall	1948	172	16	94.1	do.	T,G	Irr	Discharge reported 750 gpm, Mar. 1948.
B-11	15 miles northwest	NE¼SW¼ 415	1	D & SE	R. Smith	Geo. Anderson	1945	154	12	a/80	May 28, 1946	T,G, 95	Irr	Discharge measured 405 gpm, May 28, 1946. Pumping level 123.2 feet July 21, 1949. Temp. 65° F. See log.
B-12	14½ miles northwest	NW¼NE¼ 113	12	EL & RR	J. E. Fortenberry	-- Emerson	1947	135	16	--	--	T,G, 125	Irr	Casing perforated 65 to 135 feet. Discharge estimated 1,100 gpm, July 20, 1949. Irrigated 200 acres in 1949.
B-13	14 miles northwest	NE¼NW¼ 413	1	D & SE	A. H. Barnett	do.	1946	160	16	a/90	1946	T,G, 100	Irr	Casing: 16-inch to 148 feet. Discharge reported 300 gpm. Irrigated 70 acres in 1949. Temp. 65° F.
B-14	14½ miles northwest	SW¼SW¼ 424	1	HE & WT	W. B. King	J. L. Palmour	1949	170	16	97.4	July 20, 1949	T,G	Irr	Casing: 15-inch to 160 feet. Irrigated 150 acres in 1949.
B-15	15½ miles northwest	SW¼NW¼ 424	21	HE & WT	do.	Honolulu Oil Co.	1947	10,576	13.5	--	--	None	N	Oil test. See log.

a/ Reported by owner or driller.



Table 7. - Records of wells in Lynn County--Continued

Well	Distance from Tehoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-16	15 miles northwest	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 423	21	HE & WT	-- Wright	--	--	--	--	--	--	T,G, 85	Irr	Discharge measured 525 gpm, July 21, 1949. Temp. 65 <sup>b</sup> F.
B-17	15 miles north	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 422	21	HE & WT	W. P. Martin & Sons	Peerless Pump Co.	1948	160	16	98.8	July 21, 1949	T,G	Irr	Discharge reported 800 gpm. Casing perforated 100 to 160 feet.
B-18	15 $\frac{1}{2}$ miles north	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 12	20	HE & WT	W. P. Martin	Geo. Anderson	1938	145	16	102.9	June 7, 1949	T,G	Irr	Pump set at 135 feet. Casing perforated 100 to 145 feet.
B-19	do.	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 12	20	HE & WT	J. Wharf	-- Emerson	1947	200	16	107.1	June 14, 1949	T,G, 125	Irr	Discharge reported 950 gpm, Nov. 1947. Pump set at 140 feet.
B-20	15 miles north	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 421	21	HE & WT	F. R. Nolte	Geo. Anderson	1949	200	16	109.6	do.	T,G	Irr	Drawdown 25.4 feet Sept. 1, 1949, after 50 hours' pumping at 930 gpm. Pump set at 168 feet. Temp. 65 <sup>b</sup> F.
B-21	14 $\frac{1}{2}$ miles north	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 421	21	HE & WT	T. L. Umlong	-- Emerson	1946	--	--	--	--	T,G, 85	Irr	Discharge measured 405 gpm, July 18, 1947.
B-22	14 $\frac{1}{2}$ miles north	--	21	HE & WT	M. Wuensche	Geo. Anderson	1948	193	14	102.9	June 16, 1949	T,G	Irr	Discharge reported 800 gpm, Jan. 1948. Irrigated 68 acres in 1948.
B-23	14 $\frac{1}{2}$ miles north	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 2	M	EL & RR	Pat Swann	F. Denton	1946	250	16	105.0	June 7, 1949	T,G	Irr	Casing perforated 100 to 250 feet. Pump set at 150 feet. Irrigated 150 acres in 1949.
B-24	15 miles north	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 2	M	EL & RR	do.	-- Stafford	1946	202	16	105	July --, 1946	T,G	Irr	Discharge estimated 1,000 gpm, Sept. 1949. Irrigated 150 acres in 1949.
B-25	14 $\frac{1}{2}$ miles north	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 1	M	EL & RR	F. Bailey	L. Schooler	1947	256	16	92.2	June 14, 1949	T,G, 103	Irr	Pump set at 152 feet. Irrigated 218 acres in 1949.
B-26	do.	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 1	M	EL & RR	O. E. Houchin	Southwest Drilling Co.	1946	201	16	--	--	T,G, 75	Irr	Casing: 16-inch to 185 feet. Discharge measured 930 gpm, May 13, 1946. Irrigated 55 acres in 1949.
B-27	15 $\frac{1}{2}$ miles north	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 1	M	EL & RR	W. F. White	H. Parmalee	1948	183	16	96.7	June 14, 1949	T,G, 156	Irr	Pump set at 120 feet. Discharge reported 1,000 gpm Oct. 1948.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-28	15½ miles north	SW¼NE¼ 5	20	HE & WT	J. B. Patterson	Geo. Anderson	1943	199	16, 14	92.1 94.2 97.6 98.0 100.1	Mar. 10, 1947 Mar. 2, 1948 Mar. 9, 1949 Feb. 15, 1950 Jan. 24, 1951	T,G, 145	Irr	Casing: 16-inch to 150 feet; 14-inch to 199 feet. Pump set at 130 feet.
B-29	15½ miles north	SW¼NE¼ 5	20	HE & WT	E. D. Patterson	--	1947	197	16	a/100	Nov. --, 1947	T,G, 125	Irr	Casing perforated 97 to 197 feet.
B-30	16 miles northeast	SW¼SW¼ 33	24	HE & WT	H. M. White	T. R. Hall	1947	186	16	81.3	June 14, 1949	T,G, 125	Irr	Casing: 16-inch to 175 feet. Discharge reported 900 gpm; April 1947.
B-31	16½ miles northeast	SW¼SW¼ 33	24	HE & WT	O. E. Houchin	A. Black	1949	176	16	82.4	do.	T,G, 156	Irr	Pump set at 140 feet.
B-32	14½ miles northeast	SW¼SW¼ 4	M	EL & RR	Mrs. J. Standefer	Geo. Anderson	1949	177	16	85.4	do.	T,G, 165	Irr	Discharge reported 800 gpm, April 1949. Pump set at 150 feet.
B-33	14½ miles northeast	NW¼NW¼ labor 3	Lge 2	WCSL	Green Estate	-- Kenzie	1949	181	16	a/97	Jan. 5, 1949	T,G, 125	Irr	Discharge reported 900 gpm, Jan. 5, 1949.
B-34	14½ miles north	--	Lge 2	WCSL	S. H. VerCamp	-- Kingsley	1948	184	16	86.8	June 14, 1949	T,G, 165	Irr	Irrigated 180 acres in 1949.
B-35	14½ miles north	NW¼NW¼	Lge_2	WCSL	H. Macker	Eureka Drilling Co.	1948	240	16	a/96	May --, 1948	T,G, 125	Irr	Discharge reported 1,000 gpm, May 1948. Irrigated 90 acres in 1949.
B-36	14 miles north	NW¼NE¼ 3	D-23	PSL	O. Wuensche	Southwest Drilling Co.	1946	148	16	a/89	June --, 1946	T,G	Irr	Discharge reported 600 gpm, June 1946. Irrigated 100 acres in 1949.
B-37	13½ miles north	SW¼SE¼ 3	D-23	PSL	M. Wuensche	--	1947	146	16	93.3	June 14, 1949	T,G	Irr	Discharge measured 375 gpm, Dec. 6, 1947.
B-38	14 miles north	NW¼SW¼ 3	D-23	PSL	M. W. Reynolds	--	1940	180	16	112.8	May 18, 1951	T,G, 85	Irr	Discharge measured 720 gpm, June 21, 1949. Irrigated 90 acres in 1949.
B-39	do.	NW¼NW¼ 3	D-23	PSL	--	--	--	117	5	109.1 109.7 109.0	July 15, 1937 Aug. 8 Sept. 28	C,W	N	
B-40	do.	NE¼NE¼ 419	1	D & SE	--	--	1928	109	6	99.1 99.7 99.5	July 5, 1937 Aug. 8 Jan. 21, 1938	C,W	N	
B-41	13½ miles northwest	SW¼SW¼ 419	1	D & SE	H. D. Dean	T. R. Hall	1947	150	14	110.6	July 21, 1949	T,G	Irr	Discharge reported 300 gpm, Jan. 1947. Irrigated 70 acres in 1949. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-42	13½ miles northwest	NE¼SW¼ 420	1	D & SE	W. A. Armes	-- Emerson	1948	162	16, 14	a/100	1948	T,G, 145	Irr	Casing: 16-inch to 144 feet, 14-inch to 162 feet.
B-43	do.	NW¼SW¼ 420	1	D & SE	E. R. Allen	C. Howell	1943	188	12½	a/103	May --, 1943	T,G, 100	Irr	Temp. 65° F.
B-44	14 miles northwest	SW¼NE¼ 418	1	D & SE	J. F. Wilson	T. R. Hall	1947	180	16	--	--	T,G	Irr	Pumping level 124.1 feet July 20, 1949 after 50 hours' pumping estimated at 900 gpm. Pump set at 130 feet. Irrigated 150 acres in 1949.
B-45	13½ miles northwest	NW¼NE¼ 409	1	D & SE	C. L. Murray	--	--	185	16	104.0	July 21, 1949	T,G, 100	Irr	Irrigated 90 acres in 1949.
B-46	do.	NE¼NE¼ 409	1	D & SE	do.	L. H. Schooler	1945	188	16	110.0	July 22, 1949	T,G, 110	Irr	Casing: 16-inch to 155 feet. Discharge measured 450 gpm, Jan. 25, 1946. See log.
B-47	12½ miles north	SW¼NE¼ 410	1	D & SE	W. B. King	do.	1946	147	16	--	--	T,G, 42	Irr	Casing perforated 87 feet to 147 feet. Pumping level 126.9 feet July 21, 1949. Temp. 65° F.
B-48	do.	NW¼SW¼ 5	D-23	PSL	L. Mears	A. Black	1950	160	16	a/103	Mar. --, 1950	T,G	Irr	Pump: 4-stage No. 10, set at 140 feet. Irrigated 60 acres in 1950.
B-49	do.	NE¼SW¼ 5	D-23	PSL	do.	do.	1948	161	16	107.3	June 15, 1949	T,G, 100	Irr	Irrigated 125 acres in 1950.
B-50	12½ miles north	NW¼SE¼ 5	D-23	PSL	O. Wuensche	Geo. Anderson	1946	142	14	a/99	June --, 1946	T,G, 125	Irr	Discharge measured 405 gpm, June 6, 1946. Irrigated 43 acres in 1949.
B-51	13 miles north	SE¼SE¼ 4	D-23	PSL	M. Wuensche	--	1949	145	14	99.4	June 15, 1949	T,G, 85	Irr	Casing: 14-inch to 130 feet. Discharge measured 375 gpm, Mar. 1949.
B-52	13½ miles north	NW¼NW¼ 4	D-23	PSL	A. A. Teinart	-- Kingsley	1948	135	16	102.2 103.0 102.4 103.2	Mar. 28, 1949 June 14, 1949 Feb. 18, 1950 Feb. 7, 1951	T,G	Irr	Drawdown 15.7 feet Sept. 2, 1949, after 2 hours' pumping at 610 gpm. Irrigated 104 acres in 1949.
B-53	do.	NW¼NE¼ 4	D-23	PSL	M. Wuensche	--	1947	145	16	99.0	June 7, 1949	T,G	Irr	Discharge reported 250 gpm, Dec. 1947.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-54	13½ miles north	NE¼NE¼ 4	D-23	PSL	M. Wuensche	Southwestern Drilling Co.	1946	188	16	a/111	July 21, 1946	None	N	Discharge measured 315 gpm, July 12, 1946. Insufficient water for irrigation. See log.
B-55	13½ miles north	SE¼NE¼ 4	D-23	PSL	A. Wuensche	Geo. Anderson	1946	136	12	90.3	June 15, 1949	T,G	Irr	Pump set at 128 feet. Discharge reported 340 gpm. Irrigated 100 acres in 1949.
B-56	13½ miles north	NW¼	Lge 2	WCSL	O. Wuensche	-- Weir	1948	156	12	86.1 87.0 81.6	Mar. 28, 1949 June 7, 1949 Feb. 7, 1951	T,G	Irr	Discharge reported 650 gpm, June 1948.
B-57	13½ miles north	NW¼	Lge 2	WCSL	A. Hagens	Geo. Anderson	1946	122	14	a/81	Sept. --, 1946	T,G	Irr	Irrigated 50 acres in 1949
B-58	do.	NW¼	Lge 2	WCSL	O. Wuensche	do.	1946	151	16	a/77	Apr. 26, 1946	None	N	Discharge measured 475 gpm, Apr. 26, 1946, insufficient water for irrigation.
B-59	13½ miles north	NW¼	Lge 2	WCSL	do.	A. Black	1949	128	12	a/83	Apr. --, 1949	T,G	Irr	Irrigated 210 acres in 1949.
B-60	13 miles northeast	SW¼	Lge 2	WCSL	L. D. Mueller	Geo. Anderson	1948	112	16	76.4	June 15, 1949	T,G, 90	Irr	Discharge measured 553 gpm, Apr. 16, 1946.
B-61	12½ miles north	SW¼	Lge 2	WCSL	do.	do.	1946	133	16	a/75	1946	T,G, 90	Irr	Discharge reported 640 gpm. Irrigated 120 acres in 1949.
B-62	12½ miles north	SW¼	Lge 2	WCSL	A. Gicklhorn	-- Willis	1948	144	16	a/90	Mar. --, 1948	T,G, 85	Irr	Casing perforated 94 to 144 feet. Reported as weak well.
B-63	do.	SW¼	Lge 2	WCSL	do.	T. R. Hall	1946	155	14	96.2	June 14, 1949	T,G, 110	Irr	Discharge measured 600 gpm, June 4, 1946. See log.
B-64	12½ miles north	SW¼	Lge 2	WCSL	A. W. Ramsey	L. H. Schooler	1946	173	16	97.7	June 15, 1949	T,G, 110	Irr	Discharge measured 425 gpm, Mar. 6, 1946. See log.
B-65	12½ miles north	SW¼	Lge 2	WCSL	L. D. Mueller	Geo. Anderson	1948	120	12	80.2	do.	T,G, 90	Irr	Discharge reported 550 gpm, Jan. 1948.
B-66	12½ miles northeast	SW¼	Lge 2	WCSL	A. Gicklhorn	-- Kingsley	1948	120	16	78.2	do.	T,G, 85	Irr	
B-67	12 miles northeast	NW¼	Lge 2	WCSL	J. P. White	do.	1948	128	16	78.0	do.	T,G, 85	Irr	See log.
B-68	11½ miles north	NW¼	Lge 2	WCSL	do.	-- Earhardt	1947	128	16	79.8	do.	T,G	Irr	Reported weak supply.
B-69	12 miles north	SW¼	Lge 2	WCSL	A. W. Ramsey	W. L. Stafford	1946	153	16	a/75	Nov. 26, 1946	T,G	Irr	Casing perforated 76 to 144 feet.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-70	12 miles north	NW¼SE¼ 6	D-23	PSL	J. Melde	Geo. Anderson	1948	150	16	a/95	Nov. 20, 1948	T,G	Irr	Discharge measured 350 gpm, Sept. 1, 1949. Pump set at 136 feet.
B-71	do.	NW¼NE¼ 407	1	D & SE	O. Echols	J. Giblen	1949	145	16	99.9	July 21, 1949	T,G	Irr	Irrigated 60 acres in 1949.
B-72	11½ miles northwest	NE¼SW¼ 408	1	D & SE	L. Brosch	M. Mosely	1948	164	16	94.5	July 20, 1949	T,G, 165	Irr	Casing: 16-inch to 150 feet. Irrigated 150 acres in 1949.
B-73	11½ miles northwest	NW¼SW¼ 408	1	D & SE	do.	T. R. Hall	1947	164	16	a/100	Oct. 20, 1947	T,G, 165	Irr	Casing: 16-inch to 154 feet. Discharge measured 965 gpm, Nov. 20, 1947. See log.
B-74	12 miles northwest	SE¼NE¼ 18	11	EL & RR	E. Rice	--	1947	151	16	97.9	July 20, 1949	T,G, 100	Irr	Discharge reported 800 gpm.
B-75	do.	SE¼SW¼ 18	11	EL & RR	L. Miller	T. R. Hall	1947	152	14	a/94	Nov. 4, 1947	T,G, 125	Irr	
B-76	12¼ miles northwest	NW¼SW¼ 17	11	EL & RR	W. McClintock	J. L. Palmour	1948	140	16	83.1	July 22, 1949	T,G, 85	Irr	Reported weak supply. Irrigated 70 acres in 1949.
B-77	11½ miles northwest	NE¼NW¼ 13	11	EL & RR	F. Randall	--	1948	130	16	--	--	T,G, 120	Irr	Discharge reported 600 gpm, Oct. 1948.
B-78	11 miles northwest	NE¼SW¼ 13	11	EL & RR	do.	J. Nordyke	1946	150	16	a/90	1946	T,G, 26	Irr	
B-79	10½ miles northwest	NW¼SW¼ 12	11	EL & RR	E. McAllister	D. L. Mauldin	1949	151	16	95.8	Aug. 4, 1949	None	N	Casing perforated 115 to 151 feet. Discharge measured 550 gpm, Aug. 3, 1949. Pump to be installed. See log.
B-80	10¼ miles northwest	NE¼SE¼ 12	11	EL & RR	H. A. Macha	do.	1949	257	12	99.6	do.	T,G, 25	Irr	Casing: 12-inch to 180 feet. Well to be abandoned; insufficient water for irrigation. See log.
B-81	10 miles northwest	SW¼SE¼ 12	11	EL & RR	do.	Geo. Anderson	1943	130	12	--	--	None	N	
B-82	9½ miles northwest	SE¼SE¼ 19	11	EL & RR	G. E. White	Shell Oil Co.	1949	420	--	a/90	June --, 1949	None	N	Seismograph shot hole. Red-bed at 320 feet. See log.
B-83	10 miles northwest	NE¼NE¼ 404	1	D & SE	Wm. McNeely	J. Giblen	1949	153	16	74.6	Aug. 3, 1949	T,G, 74	Irr	Pumping level 101 feet after 15 minutes' pumping estimated at 900 gpm, Aug. 3, 1949.
B-84	10 miles north	NE¼NE¼ 403	1	D & SE	D. Green Estate	--	1927	103	--	82.3 82.2 82.3 82.2	July 15, 1937 Aug. 8, 1937 Sept. 28, 1937 Jan. 21, 1938	None	N	

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-85	10½ miles north	NW¼NW¼ 8	D-23	PSL	Troutwine Estate	F. Kelley	1948	158	--	--	--	None	N	See log.
B-86	do.	NE¼NE¼ 8	D-23	PSL	do.	do.	1948	156	--	--	--	None	N	
B-87	11 miles north	NW¼NE¼ 8	D-23	PSL	do.	T. R. Hall	1947	148	16	74.7	June 7, 1949	T,G	Irr	Discharge reported 750 gpm, Mar. 26, 1947. Pump set at 120 feet.
B-88	10½ miles north	NE¼NE¼ 8	D-23	PSL	do.	P. Wilhoyt	1948	146	16	66.5 67.8	Mar. 28, 1949 June 7, 1949	T,G, 95	Irr	Casing: 16-inch to 140 feet, perforated 75 to 140 feet. Irrigated 95 acres in 1949.
B-89	11 miles north	NW¼	Lge 3	WCSL	W. Schillings	-- Emerson	1948	146	16	72.5	June 15, 1949	T,G, 125	Irr	Originally drilled to 111 feet, in Apr. 1948; deepened to 146 feet May 1948. Irrigated 148 acres in 1949.
B-90	11 miles northeast	NW¼	Lge 3	WCSL	Mrs. Dora Blakney	F. Kelley	1947	136	16	a/56	Mar. --, 1947	T,G, 125	Irr	Casing perforated 76 to 136 feet. Pumping level 73.8 feet after 1 hour of pumping estimated at 500 gpm, July 22, 1949. Temp. 65° F.
B-91	do.	NW¼	Lge 3	WCSL	Green Estate	-- Kingsley	1949	117	16	66.0	June 16, 1949	T,G, 95	Irr	
B-92	10½ miles northeast	SW¼	Lge 3	WCSL	W. G. Boyd	-- Emmons	1946	135	16	a/75	Apr. 26, 1946	T,G, 110	Irr	Discharge measured 820 gpm, Apr. 26, 1946.
B-93	10½ miles northeast	SW¼	Lge 3	WCSL	do.	T. R. Hall	1947	135	14	51.4	June 8, 1949	T,G, 90	Irr	See log.
B-94	10½ miles north	SW¼	Lge 3	WCSL	S. Kirbie	--	--	--	--	--	--	T,G	Irr	Irrigated 40 acres in 1949.
B-95	9½ miles north	SW¼	Lge 3	WCSL	F. J. Schneider	T. R. Hall	1947	148	14	65.8	June 15, 1949	T,G, 100	Irr	Discharge measured 475 gpm, Sept. 10, 1947. Irrigated 120 acres in 1949.
B-96	9½ miles north	SE¼SE¼ 9	D-23	PSL	Trautwine Estate	F. Kelley	1948	138	16	55.6	do.	T,G, 85	Irr	Irrigated 100 acres in 1949. See log.
B-97	do.	SW¼SE¼ 9	D-23	PSL	do.	--	1948	140	--	a/60	Oct. --, 1948	None	N	
B-98	8 miles north	NE¼NW¼ 398	5	TTRR	B. Hatchell	-- Garrett	1951	91	16	42.0	May 17, 1951	T,G	Irr	Pump set at 80 feet. Discharge measured 160 gpm, May 17, 1951. Irrigated 30 acres in 1951.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
B-99	8½ miles north	SW¼SW¼ 11	1	D & SE	W. Lichey	--	1951	110	--	a/43	Feb. --, 1951	T,G, 85	Irr	Uncased. Pump set at 94 feet. Discharge reported 400 gpm in 1951. Irrigated 30 acres in 1951.
B-100	do.	SE¼SE¼ 402	1	D & SE	L. West	-- Emerson	1946	103	16	51.3	May 17, 1950	None	N	Reported weak supply.
B-101	8 miles north	NE¼NE¼ 396	5	TT RR	L. King	--	1930	79	6	64.2	July 15, 1937	C,H	D	See table of water-level measurements. U.S.G.S. well 605 in Water-Supply Paper 840.
B-102	7½ miles northwest	SE¼SE¼ 396	5	TT RR	E. W. Copelin	--	1936	80	6	61.6 61.6 61.4	July 15, 1937 Aug. 8 Sept. 28	C,W	D,S	U.S.G.S. well 604 in Water-Supply Paper 840.
B-103	do.	SE¼SW¼ 396	5	TT RR	E. C. Gilliam	--	1925	81	6	50.4 50.5	July 15, 1937 Aug. 8	C,W	D,S	U.S.G.S. well 603 in Water-Supply Paper 840.
B-104	7 miles northwest	NE¼NW¼ 391	5	TT RR	-- Warren	--	1925	70	6	51.0 51.5 50.9 50.6 39.0	July 15, 1937 Aug. 8 Sept. 28 Jan. 21, 1938 May 17, 1950	C,W	D,S	On northwest slope of lake. U.S.G.S. well 602 in Water-Supply Paper 840.
B-105	8½ miles northwest	SE¼NE¼ 394	5	TT RR	Van Dyke Estate	--	--	--	--	85.6	Dec. 19, 1949	C,W	D	
B-106	6 miles north	NE¼NE¼ 387	5	TT RR	L. West	-- Emerson	1946	110	16	a/50	Sept. --, 1946	None	N	Discharge measured 150 gpm, Sept. 1946.
B-107	9½ miles northwest	NW¼NE¼ 102	9	TT RR	Edwards Estate	--	--	--	6	57.4	Dec. 9, 1949	C,W	S	On slope north of Double Lakes.
C-1	15½ miles northeast	SW¼SE¼ 33	24	HE & WT	J. Joplin	Geo. Anderson	1949	177	16	88.3	Sept. 1, 1949	T,G, 125	Irr	Discharge reported 850 gpm, June 21, 1949.
C-2	15½ miles northeast	NE¼NE¼ 4	M	EL & RR	Mrs. J. Standefer	do.	1946	180	16	90.0	June 15, 1949	T,G, 115	Irr	Drawdown 20 feet after 20 hours' pumping at 783 gpm, Mar. 6, 1946. Pump set at 150 feet. See log.
C-3	do.	NW¼NW¼ 3	M	EL & RR	H. Wuensche	do.	1947	180	16	a/90	Feb. --, 1947	T,G, 85	Irr	Discharge reported 800 gpm, Feb. 1947. Irrigated 120 acres in 1949. Temp. 65.5° F.
C-4	15½ miles northeast	SW¼SW¼ 34	24	HE & WT	J. M. Joplin	J. L. Palmour	1947	176	16	84.8	June 16, 1949	T,G, 175	Irr	Casing perforated 116 to 176 feet. Irrigated 170 acres in 1949.
C-5	do.	NW¼NE¼ 3	M	HE & WT	B. B. Jones	Lusby Bros.	1948	155	16	83.6	do.	T,G, 125	Irr	Irrigated 125 acres in 1949.
C-6	15½ miles northeast	NE¼SW¼ 3	M	HE & WT	J. H. Sander	J. Nordyke	1948	160	16, 12	74.2	do.	T,G, 125	Irr	Casing: 16-inch to 135 feet, 12-inch liner to 160 feet. Irrigated 50 acres in 1949.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoku	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-7	15½ miles northeast	SE¼SE¼ 3	M	HE & WT	J. H. Sander	-- Clark	1944	157	16, 12	75.7	June 16, 1949	T,G, 125	Irr	Casing: 16-inch to 137 feet, 12-inch liner to 157 feet. Discharge measured 1,135 gpm, Aug. 9, 1949. Irrigated 150 acres in 1949. See log.
C-8	do.	SW¼SW¼ 2	M	HE & WT	J. J. Joplin	-- Emerson	1945	165	16	78.3	June 21, 1949	T,G, 115	Irr	Casing: 16-inch to 88 feet. Discharge measured 828 gpm, June 29, 1948.
C-9	15½ miles northeast	SW¼NW¼ 2	M	HE & WT	J. L. Joplin	--	1948	160	16	76.9	June 20, 1949	T,G, 85	Irr	Discharge reported 900 gpm. Irrigated 325 acres in 1949.
C-10	15½ miles northeast	SE¼NW¼ 2	M	HE & WT	J. J. Joplin	-- Stafford	1946	158	16	75.1	do.	T,G, 100	Irr	
C-11	16¼ miles northeast	SE¼SE¼ 32	23	HE & WT	H. C. Hall	Byron Jackson	1948	152	16	73.3	do.	T,G, 55	Irr	Casing perforated 70 to 152 feet.
C-12	16 miles northeast	NE¼NE¼ 2	M	HE & WT	J. J. Joplin	--	1948	138	16	73.2	do.	T,G, 85	Irr	Discharge reported 800 gpm. Irrigated 120 acres in 1949.
C-13	15½ miles northeast	SW¼SW¼ 1	M	HE & WT	C. D. Young	-- Willis	1946	150	18	66.7	do.	T,G, 110	Irr	Casing: 18-inch to 137 feet. Discharge measured 910 gpm, July 2, 1946. Irrigated 250 acres in 1949. See log.
C-14	16 miles northeast	SW¼SW¼ 1	O	D & W	Judge -- Smith	--	--	--	--	58.3	do.	T,G, 55	Irr	
C-15	16¼ miles northeast	NW¼SW¼ 1	O	D & W	do.	-- Wilhoyt	--	--	--	58.6	do.	T,G, 55	Irr	
C-16	17 miles northeast	NW¼NW¼ 4	O	D & W	Dr. Roy Loveless	do.	1948	107	16	54.0	do.	T,G, 100	Irr	Yield reported 700 gpm.
C-17	16½ miles northeast	NW¼SE¼ 4	O	D & W	do.	L. Schooler	1946	98	16	--	--	T,G, 85	Irr	Discharge measured 280 gpm, July 11, 1949.
C-18	16¼ miles northeast	SE¼SE¼ 4	O	D & W	do.	do.	1946	180	16	47.2	June 21, 1949	T,G, 110	Irr	Discharge measured 475 gpm, July 11, 1949.
C-19	17 miles northeast	SE¼NE¼ 4	O	D & W	do.	C. Rutherford	1949	99	16	46.5	do.	T,G, 85	Irr	See log.
C-20	do.	NW¼SE¼ 5	O	D & W	J. B. Kitten	P. Wilhoyt	1949	106	16	41.9	do.	None	N	
C-21	18 miles northeast	NW¼NW¼ 8	O	SA & MG	S. G. Wilson	F. Kelley	1948	126	16	59.6	do.	T,G	Irr	Irrigated 100 acres in 1949.
C-22	do.	NE¼SW¼ 9	O	D & W	A. J. Gully	-- Emerson	1949	99	16	55.9	do.	T,G, 26	Irr	Drawdown 10.3 feet after 10 hours' pumping at 405 gpm, Sept. 1, 1949.
C-23	18½ miles northeast	SW¼NE¼ 9	O	D & W	O. E. Heinrich	do.	1948	170	16	57.2	do.	T,G, 85	Irr	Pump set at 94 feet.

a/ Reported by owner or driller.



Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-24	19 1/2 miles northeast	SW 1/4 NE 1/4 1271	--	AB & M	--	--	--	--	--	102.1	June 22, 1949	T, G	Irr	
C-25	18 1/2 miles northeast	NE 1/4 NW 1/4 12	J	ACH & B	E. L. Brosch	T. R. Hall	1948	273	16	66.1	June 21, 1949	T, G, 137	Irr	Irrigated 80 acres in 1949.
C-26	17 1/2 miles northeast	SE 1/4 SE 1/4 9	J	BS & F	-- Hart	--	--	--	--	49.6 49.6 49.8 49.0	Mar. 28, 1949 June 21, Feb. 18, 1950 Feb. 7, 1951	C, H	D	
C-27	16 1/2 miles northeast	SW 1/4 SW 1/4 7	J	JHG	H. C. Dunn	H. C. Dunn	1947	69	16	26.6	June 21, 1949	T, G, 27	Irr	Discharge reported 250 gpm. Water obtained from caliche.
C-28	16 1/2 miles northeast	NE 1/4 SW 1/4 7	J	JHG	V. Justice	do.	--	82	--	28.3	do.	None	N	Uncased. Water obtained from caliche.
C-29	16 1/2 miles northeast	NW 1/4 SE 1/4 7	J	JHG	do.	do.	1945	60	14	--	--	T, G	Irr	Do.
C-30	do.	SW 1/4 SE 1/4 7	J	JHG	do.	do.	1947	60	--	29.5	June 21, 1949	None	N	
C-31	do.	NE 1/4 NW 1/4 8	J	JHG	B. Hagens	--	--	70	--	a/28	do.	T, G, 25	Irr	Weak supply reported from caliche.
C-32	16 1/2 miles northeast	SW 1/4 NE 1/4 8	J	JHG	W. Sovelle	M. Mosely	1949	65	16	27.6	do.	T, G, 25	Irr	Uncased. Drawdown 11.3 feet after 8 hours' pumping estimated at 650 gpm Sept. 1949.
C-33	16 miles northeast	SE 1/4 NW 1/4 8	J	JHG	B. Hagens	-- Weaver	1949	70	16	25.6 a/26.6	June 21, 1949 Jan. 24, 1950	T, G, 25	Irr	Uncased. Water obtained from caliche.
C-34	16 1/2 miles northeast	NW 1/4 NW 1/4 8	J	JHG	--	--	--	--	--	26.2 26.4 22.9 27.0 a/28.2	Mar. 28, 1949 June 21 Jan. 24, 1950 Feb. 18 Feb. 7, 1951	None	N	
C-35	do.	SE 1/4 NE 1/4 5	J	GWT & P	J. H. Lambright	M. Mosely	1950	72	18	a/30	Jan. 24, 1950	None	N	Uncased. Pump to be installed. Water obtained from caliche. Discharge reported 225 gpm.
C-36	do.	SE 1/4 NE 1/4 5	J	GWT & P	do.	do.	1950	72	18	a/30	do.	None	N	Uncased. Pump to be installed. Water obtained from caliche. Discharge reported 600 gpm.
C-37	16 miles northeast	NW 1/4 NE 1/4 6	J	EL & RR	C. S. Oats	do.	1949	70	16	25.3	June 22, 1949	T, G, 90	Irr	Uncased. Pump set at 50 feet. Water obtained from caliche. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-38	15½ miles northeast	NE¼NW¼ 6	J	EL & RR	C. S. Oats	M. Mosely	1949	70	16	25.0	June 22, 1949	T,G, 17	Irr	Uncased. Pump set at 50 feet. Yield estimated 600 gpm, Sept. 1, 1949. Water obtained from caliche.
C-39	15½ miles northeast	NE¼NW¼ 6	J	EL & RR	F. W. Kahlich	do.	1949	70	16	25.7	Aug. 25, 1949	T,G, 45	Irr	Uncased. Irrigated 65 acres in 1949. Water obtained from caliche.
C-40	15½ miles northeast	NE¼NW¼ 6	J	EL & RR	do.	do.	1949	70	18	27.4 27.2	Aug. 25, 1949 Jan. 24, 1950	T,G, 100	Irr	Uncased. Discharge measured 450 gpm, Aug. 25, 1949. Irrigated 65 acres in 1949. Water obtained from caliche.
C-41	15½ miles northeast	NE¼NE¼ 4	J	EL & RR	R. F. Stegemoeller	--	--	48	16	a/29	June 23, 1949	E,-	D	Uncased. Water obtained from caliche. Temp. 65° F.
C-42	15 miles northeast	SW¼NE¼ 4	J	EL & RR	do.	--	1949	225	--	--	--	None	N	Seismograph shot hole. See log.
C-43	15½ miles northeast	NE¼NE¼ 4	J	EL & RR	do.	J. Childress	1949	60	16	25.8 27.2	June 23, 1949 Jan. 24, 1950	T,G, 25	Irr	Uncased. Discharge reported 500 gpm. Water obtained from caliche.
C-44	15½ miles northeast	NW¼NE¼ 4	J	EL & RR	do.	Geo. Anderson	1947	70	16	33.4 34.3	June 23, 1949 Jan. 24, 1950	T,G, 21	Irr	Casing: 16-inch from 48 to 70 feet. Reported weak supply. Irrigated 40 acres in 1949.
C-45	16 miles northeast	NW¼NW¼ 2	J	GWT & P	J. J. Riney	-- Stafford	1946	105	16	48.5	July 7, 1949	T,G, 125	Irr	Pumping level 60.8 feet after 1 hour of pumping 470 gpm, June 23, 1949. Pump set at 80 feet.
C-46	15½ miles northeast	NE¼NW¼ 1	J	GWT & P	Mrs. E. B. Brinker	-- Emerson	1949	94	16	45.7	June 20, 1949	T,G, 112	Irr	Discharge reported 350 gpm.
C-47	14½ miles northeast	SW¼NE¼ 3	J	EL & RR	A. Krause	M. Mosely	1948	100	16	42.3	July 7, 1949	T,G, 25	Irr	Uncased. Pump set at 70 feet.
C-48	14½ miles northeast	NE¼	Lge 1	WCSL	F. B. Gumm	D. L. Mauldin	1949	110	16	67.2	Sept. 1, 1949	None	N	Well not completed at time of visit.
C-49	14½ miles northeast	NE¼	Lge 1	WCSL	A. Bednarz	--	1949	110	16	56.8	June 20, 1949	T,G, 25	Irr	Discharge reported 600 gpm.
C-50	14½ miles northeast	NE¼	Lge 1	WCSL	Wm. Bruckner	W. Wilhoyt	1949	121	16	64.3	do.	T,G, 90	Irr	Discharge measured 335 gpm, Sept. 1, 1949. Irrigated 50 acres in 1949.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-51	14½ miles northeast	NW¼	Lge 1	WCSL	Green Estate	-- Kingsley	1948	132	16	a/80	Dec. --, 1948	T,G, 90	Irr	Casing: 16-inch to 122 feet; perforated 80 to 132 feet. Discharge reported 400 gpm, Jan. 1949.
C-52	12½ miles northeast	NW¼	Lge 4	WCSL	T. Arhnes	G. Rutherford	1949	113	16	76.5	June 20, 1949	T,G	Irr	See log.
C-53	do.	NW¼	Lge 4	WCSL	J. Heck	F. Kelley	1948	120	16	74.0	July 6, 1949	T,E, 20	Irr	
C-54	12 miles northeast	SW¼SW¼	Lge 4	WCSL	do.	-- Meeks	1946	145	16	--	--	T,E, 15	Irr	Discharge measured 360 gpm, Apr. 17, 1946. Irrigated 50 acres in 1949.
C-55	13½ miles northeast	SW¼SE¼ 19	J	EL & RR	R. T. Moore	-- Wilhoyt	1947	117	16	61.3	Aug. 25, 1949	T,G, 25	Irr	Drawdown 17.2 feet after 5½ hours' pumping at 210 gpm, July 5, 1949. Pump set at 80 feet. Irrigated 50 acres in 1949. Temp. 65° F.
C-56	14 miles northeast	NW¼NW¼ 18	J	EL & RR	S. N. Foster	M. Mosely	1948	80	18	40.5	June 23, 1949	None	N	Reported weak supply.
C-57	14½ miles northeast	NW¼NW¼ 18	J	EL & RR	do.	-- Stafford	1946	90	18	38.6	do.	T,G, 100	Irr	Discharge measured 423 gpm, Sept. 5, 1949. Irrigated 79 acres in 1949.
C-58	15 miles northeast	NE¼SE¼ 17	J	EL & RR	C. C. Swope	M. Mosely	1949	83	16	38.5 37.8	June 23, 1949 Jan. 24, 1950	T,G, 60	Irr	Uncased. Discharge reported 450 gpm.
C-59	14½ miles northeast	SW¼SE¼ 17	J	EL & RR	do.	do.	1948	98	16	38.5 38.6	June 22, 1949 Jan. 24, 1950	T,G, 25	Irr	Uncased. Water obtained from caliche. Irrigated 51 acres in 1949.
C-60	15½ miles northeast	NW¼SW¼ 14	J	GWT & P	W. Maeker	do.	1949	71	16	35.4	June 22, 1949	T,G, 65	Irr	Uncased. Water obtained from caliche. See log.
C-61	do.	SW¼SW¼ 14	J	GWT & P	do.	do.	1948	75	18	38.8	June 22, 1949	T,G, 25	Irr	Uncased. Water obtained from caliche.
C-62	16 miles northeast	NE¼NW¼ 14	J	GWT & P	G. Voight	do.	1948	106	16	68.6	do.	None	N	Uncased.
C-63	16½ miles northeast	NW¼NE¼ 14	J	GWT & P	do.	do.	1949	103	16	68.5	do.	T,G	Irr	Casing: 16-inch to 40 feet. Discharge estimated at 400 gpm, Sept. 1, 1949.
C-64	18½ miles northeast	NE¼NE¼ 1263	1	EL & RR	F. E. Weaver	F. Elton Weaver	1948	114	16	78.6	do.	T,G, 90	Irr	
C-65	16½ miles northeast	NW¼SE¼ 1274	8	EL & RR	S. R. Hutto	--	1949	140	16	65.0	do.	T,G, 85	Irr	Casing: 16-inch to 112 feet. Pump set at 110 feet.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-66	14 miles northeast	SW¼NE¼ 2	L	GWT & P	T. L. Weaver	F. Elton Weaver	1943	105	16	44.2	June 22, 1949	T,G, 100	Irr	Casing: 16-inch from 85 to 105 feet. Reported weak supply.
C-67	14½ miles northeast	NW¼NE¼ 2	L	GWT & P	F. P. Brown	M. Mosely	1948	90	--	42.7	do.	T,G	Irr	Uncased. Pump set at 65 feet. Irrigated 80 acres in 1949.
C-68	14 miles northeast	NW¼NW¼ 2	L	GWT & P	A. W. Cade	do.	1948	100	--	--	++	T,G, 25	Irr	Discharge measured 275 gpm, July 6, 1949.
C-69	13 miles northeast	SE¼SE¼ 1	L	GWT & P	Essie Coleman	do.	1937	95	16	59.4	July 5, 1949	T,G, 60	Irr	Discharge measured 175 gpm, July 7, 1949. Temp. 65° F.
C-70	12 miles northeast	NE¼	Lge 4	WCSL	Wm. Schneider	-- Emerson	1948	116	16	68.0	do.	T,E, 15	Irr	Discharge measured 440 gpm, July 5, 1949. Breaks suction after 3 to 5 minutes' pumping at 440 gpm. Pumping level 80.1 feet. Irrigated 90 acres in 1949.
C-71	11½ miles northeast	SE¼	Lge 4	WCSL	W. G. Lumsden	F. Kelley	1948	119	16	68.3	do.	T,E, 15	Irr	Reported weak supply. Irrigated 50 acres in 1949.
C-72	do.	SE¼	Lge 4	WCSL	do.	do.	1948	142	16	66.6	do.	T,E, 15	Irr	Casing: 16-inch to 120 feet. Discharge reported 250 gpm. See log.
C-73	11¼ miles northeast	NE¼	Lge 3	WCSL	R. J. Maeker	-- Wilhoyt	1947	143	16	75.1	June 16, 1949	T,G	Irr	
C-74	11 miles northeast	NE¼	Lge 3	WCSL	do.	do.	1947	142	16	69.6	do.	T,G	Irr	Discharge reported 600 gpm.
C-75	10½ miles northeast	SE¼	Lge 3	WCSL	W. F. Klos	do.	1947	152	16	64.6	do.	T,G, 125	Irr	Casing: 16-inch to 130 feet. Discharge reported 1,000 gpm.
C-76	11 miles northeast	SW¼	Lge 4	WCSL	R. A. Kahlich	Southwestern Drilling Co.	--	188	16	--	--	T,G, 120	Irr	Casing: 16-inch to 156 feet. Discharge measured 1,057 gpm, July 5, 1949. Temp. 65° F. See log.
C-77	11¼ miles northeast	SE¼	Lge 4	WCSL	H. G. Cook	--	1948	120	16	70.3 70.9 71.3	Mar. 28, 1949 July 5 Feb. 18, 1950	T,E	Irr	Discharge estimated 550 gpm, June 16, 1949.
C-78	11¼ miles northeast	SE¼NW¼ 5	Lge	GWT & P	G. C. Coleman	M. Mosely	1948	118	16	69.9	July 5, 1949	T,G	Irr	Uncased.
C-79	do.	NW¼SE¼ 5	Lge	GWT & P	L. A. Coleman	do.	1948	117	16	70.6	do.	T,G	Irr	Discharge reported 400 gpm.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoke	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-80	12 miles northeast	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 6	Lge	GWT & P	C. C. Coleman	M. Mosely	1948	118	16	62.0	July 5, 1949	T, G, 100	Irr	
C-81	11 $\frac{1}{2}$ miles northeast	NE $\frac{1}{4}$ NW $\frac{1}{4}$ 264	Lge	--	J. F. W. Maeker	L. N. Schooler	1945	133	16	66.1 66.7 66.4 66.8	Mar. 28, 1949 July 5 Feb. 18, 1950 Feb. 7, 1951	T, G, 60	Irr	Discharge measured 223 gpm, Sept. 1, 1949.
C-82	11 $\frac{1}{2}$ miles northeast	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 264	L	--	do.	J. L. Palmour	1948	130	16, 14	63.6	July 5, 1949	T, G, 120	Irr	Casing: 16-inch to 110 feet, 14-inch liner to 130 feet. See log.
C-83	11 $\frac{1}{2}$ miles northeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 263	L	--	E. R. Legg	--	1946	140	16	64.1	do.	T, G	Irr	Irrigated 130 acres in 1949.
C-84	12 miles northeast	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 263	L	--	do.	-- Wilhoyt	1949	123	--	65.9	do.	T, G, 37	Irr	Discharge reported 400 gpm. See log.
C-85	11 $\frac{1}{2}$ miles northeast	SE $\frac{1}{4}$ NW $\frac{1}{4}$ 263	L	--	do.	--	--	--	16	64.8	do.	T, G	Irr	Irrigated 130 acres in 1949. Discharge reported 300 gpm.
C-86	do.	NW $\frac{1}{4}$ SE $\frac{1}{4}$ 263	L	--	do.	--	1945	140	16	57.7	do.	T, G	Irr	Pump set at 90 feet.
C-87	12 miles northeast	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 261	L	--	W. T. Davis	--	1938	--	16	58.3	July 6, 1949	T, G, 100	Irr	Discharge measured 765 gpm, Dec. 19, 1949. Pump set at 85 feet. Temp. 65° F.
C-88	11 $\frac{1}{2}$ miles northeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 15	L	--	B. W. Baker	-- Emeraon	1949	92	16	47.5	July 5, 1949	None	N	Well to be developed.
C-89	12 miles northeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 15	L	--	do.	Wm. Childress	1937	130	16, 12	54.5	July 6, 1949	T, G, 25	Irr	Casing: 16-inch to 90 feet, 12-inch liner to 110 feet. Discharge reported 300 gpm. Irrigated 80 acres in 1949.
C-90	do.	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 15	L	--	do.	M. Mosely	1948	100	16	51.0	do.	None	N	
C-91	15 miles northeast	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 18	L	--	E. N. Millikan	-- Stafford	1947	180	18	37.0	June 23, 1949	T, G, 100	Irr	Uncased. Discharge reported 250 gpm. Irrigated 25 acres in 1949.
C-92	16 $\frac{1}{2}$ miles northeast	NE $\frac{1}{4}$ NW $\frac{1}{4}$ 1	1	EL & RR	W. A. Basinger	C. Basinger	1948	149	16	77.5	do.	T, G, 42	Irr	See log.
C-93	16 $\frac{1}{2}$ miles northeast	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 1	1	EL & RR	Mrs. P. Siewart	do.	1949	129	16	76.5	do.	T, G	Irr	Discharge reported 800 gpm.
C-94	16 $\frac{1}{2}$ miles northeast	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 1	1	EL & RR	S. D. Martin	T. R. Hall	1948	140	16	72.1	do.	T, G, 85	Irr	Irrigated 100 acres in 1949.
C-95	16 miles northeast	NW $\frac{1}{4}$ SE $\frac{1}{4}$ 1251	--	AB & M	H. D. Taylor	do.	1948	142	16	71.3	July 7, 1949	T, G, 85	Irr	

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
C-96	16 miles northeast	NE¼SW¼ 1251	--	AB & M	T. H. Basinger	--	1948	137	16	65.8	July 7, 1949	T, G, 100	Irr	Discharge reported 450 gpm. Pump set at 100 feet.
C-97	do.	NE¼SW¼ 1251	--	AB & B	do.	--	1948	134	16	59.4	do.	T, G, 95	Irr	Casing perforated 50 to 134 feet. Pump set at 120 feet. Temp. 65° F.
C-98	15½ miles northeast	--	--	--	do.	T. R. Hall	1949	144	--	--	--	None	N	
C-99	14½ miles northeast	SW¼NW¼ 1258	1	AB & M	E. Denton	--	1948	128	16	--	--	T, G, 25	Irr	Pumping level 57.4 feet after 3 hours' pumping 425 gpm, July 6, 1949. Temp. 65° F. See log.
C-100	14 miles northeast	SW¼NE¼ 1426	18	EL & RR	N. Wynn	--	1948	153	16	--	--	T, E, 5	Irr	Uncased. Reported weak supply. Pump set at 110 feet. See log.
C-101	13½ miles northeast	SW¼SW¼ 3	8	J. Hays	Gordon Gin	--	1946	100	5	a/35	1946	E, -	D	Quality reported unfit for irrigation.
C-102	8½ miles northeast	NE¼NE¼ 8	7	EL & RR	G. L. Garry	--	--	38	36	a/30	Aug. 8, 1949	C, W	D, S	Dug.
C-103	8½ miles northeast	NE¼NE¼ 8	7	EL & RR	do.	--	--	110	--	a/35	--	None	N	Quality reported unfit for domestic or stock use.
C-104	9½ miles northeast	NW¼SW¼ 15	D-23	PSL	Mrs. W. Tucker	--	1930	60	5	a/58	Aug. 8, 1949	C, W	D, S	Casing: 5-inch to 2 feet. Water in 1945 reported too mineralized for domestic use. Now used for domestic supply.
C-105	do.	NW¼SE¼ 14	D-23	PSL	O. Dube	--	--	--	--	66.9	July 7, 1949	C, W	D, S	Temp. 66° F.
C-106	do.	NE¼NE¼ 18	D-23	PSL	S. A. Cummings	-- Emerson	1945	100	16	42.0	June 8, 1949	T, G, 115	Irr	Weak supply. Irrigated 60 acres in 1949.
C-107	6½ miles northeast	NE¼SE¼ 14	7	EL & RR	Tahoka Lake	--	--	--	--	--	--	--	--	Water highly mineralized.
D-1	16 miles northwest	NE¼SW¼ 0	E	--	Dan Auld	Trinity Oil Co.	1941	5, 202	10	--	--	None	N	Oil test. See log.
D-2	14½ miles northwest	NE¼NE¼ 44	E	EL & RR	I. Stewart	--	1947	75	6	--	--	C, W	D, S	
D-3	14½ miles west	NW¼NW¼ 11	Y	EL & RR	W. N. Flint	B. Perry	1934	101	6	a/100	Mar. --, 1934	C, W	D, S	Casing: 6-inch to 65 feet. At edge of small depression.
D-4	11½ miles northwest	NW¼NW¼ 232	--	EL & RR	C. O. Edwards Estate	Shell Oil Co.	1949	200	--	a/90	June --, 1949	None	N	Seismograph shot hole. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
D-5	10½ miles northwest	SE¼NW¼ 229	--	EL & RR	H. B. Caveness	--	--	153	5	142.4	Sept. 6, 1949	C, W	S	Water reported unfit for domestic use.
D-6	7 miles west	SW¼SE¼ 315	3	GC & SF	J. C. Wells	-- Jones	1926	250	6	a/100	Aug. 15, 1949	C, W	D, S	Reported salty taste.
D-7	9¼ miles west	SE¼SE¼ 227	1	L & SV	G. C. Wells	--	--	143	5	140.0	Sept. 6, 1949	C, W	S	Do.
D-8	11 miles west	SE¼SE¼ 234	1	L & SV	G. F. Jacobs	--	1939	70	5	50	Aug. 15, 1949	E, -, --	D, S	At edge of small depression. Temp. 72° F.
D-9	12¼ miles west	NE¼NW¼ 1	A-1	EL & RR	Miss A. Fortenberry	-- Jones	1921	285	6	a/70	Sept. --, 1948	E, -, 5	D, S	Reported soda taste. Pump set at 265 feet.
D-10	15 miles southwest	SW¼SW¼ 22	A-1	EL & RR	R. F. Draper	Continental Oil Co.	1949	94	--	a/60	1949	None	N	Seismograph shot hole. See log.
D-11	13¼ miles southwest	NE¼SE¼ 35	A-1	EL & RR	E. M. Dorsey	-- Wheeler	1950	117	6	110.9	May --, 1950	C, G	Irr	In sand hills. Casing: 6-inch to 8 feet. Discharge measured 3 gpm, May 17, 1950. Used to irrigate small garden. Reported water unfit for domestic use. Temp. 64.5° F.
D-12	11 miles southwest	SE¼NE¼ 26	--	HE & WT	G. W. Hickerson	--	--	100	5	--	--	E, r, --	D, S	At edge of small depression.
E-1	7½ miles northwest	NE¼NW¼ 2	11	EL & RR	C. O. Edwards Estate	--	Old	30	4	19.8	Dec. 12, 1949	C, W	S	At north edge of Double Lakes.
E-2	5 miles northwest	SE¼SE¼ 383	5	TT RR	do.	Shell Oil Co.	1949	152	--	a/95	Apr. --, 1949	None	N	Seismograph shot hole. Water reported to be mineralized. See log.
E-3	4¼ miles north	NE¼SW¼ 512	1	EL & RR	City of Tahoka	G. C. Paulk	1946	80	10	37.1	June 29, 1950	None	N	
E-4	do.	SW¼SW¼ 512	1	EL & RR	do.	do.	1946	92	10	a/40	do.	T, E, 15	P, S	Pump set at 85 feet. Drawdown reported 40 feet while pumping 150 gpm.
E-5	4¼ miles north	SW¼SW¼ 512	1	EL & RR	do.	do.	1946	90	10	a/40	do.	T, E, 15	P, S	Discharge measured 150 gpm, Sept. 1948.
E-6	3½ miles north	SW¼NW¼ 509	1	EL & RR	do.	L. A. Peoples	1939	80	10	--	--	T, E, 7½	P, S	Pump set at 78 feet.
E-7	do.	NW¼SW¼ 509	1	EL & RR	do.	do.	1939	80	10	a/52	June 29, 1950	T, E, 7½	P, S	Discharge reported 100 gpm, Nov. 29, 1946. See log.
E-8	3 miles north	SW¼SW¼ 509	1	EL & RR	do.	do.	1937	80	10	a/52	do.	T, E, 15	P, S	Discharge reported 150 gpm, Nov. 29, 1946.
E-9	3 miles northeast	SW¼SW¼ 509	1	EL & RR	do.	do.	1937	80	10	a/52	do.	T, E	P, S	

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
E-10	3½ miles northeast	SW¼SE¼ 509	1	EL & RR	City of Tahoka	L. M. Bankson	1946	86	10	--	--	T, E 7½	P, S	
E-11	3¼ miles northeast	SE¼SE¼ 509	1	EL & RR	do.	do.	1946	86	10	a/52	Nov. 29, 1946	T, E, 7½	P, S	
E-12	do.	SE¼SW¼ 509	1	EL & RR	do.	L. A. Peoples	1941	80	10	--	--	T, E, 7½	P, S	Discharge reported 100 gpm, Nov. 29, 1946. Pump set at 78 feet.
E-13	2¼ miles northeast	SW¼NW¼ 503	1	EL & RR	do.	do.	1948	92	10	--	--	T, E, 15	P, S	
E-14	do.	SE¼NW¼ 503	1	EL & RR	do.	do.	1948	90	10	a/48	Sept. ---, 1948	T, E, 15	P, S	Discharge reported 200 gpm, Sept. 1948. Pump set at 85 feet.
E-15	2¼ miles north	SE¼SW¼ 502	1	EL & RR	R. L. Thomas	R. Curry	1948	87	14	a/50	Nov. --, 1948	T, G, 35	Irr	Casing: 14-inch from 47 to 87 feet. Discharge estimated 325 gpm, June 8, 1949.
E-16	1¼ miles north	SW¼NE¼ 501	1	EL & RR	D. W. Gaignat	do.	1948	119	16	67.3	June 8, 1949	T, E, 30	Irr	Discharge reported 725 gpm. Pump set at 105 feet. Irrigated 153 acres in 1949.
E-17	do.	NE¼NE¼ 501	1	EL & RR	do.	do.	1948	99	16	57.0 62.8	June 8, 1949 Aug. 3, 1949	T, E, 30	Irr	Discharge estimated 625 gpm, June 10, 1949.
E-18	1¼ miles north	SW¼NE¼ 501	1	EL & RR	do.	do.	1949	124	16	65.9	June 8, 1949	T, E, 30	Irr	Drawdown 39.1 feet after 6 days' pumping at 573 gpm, Aug. 4, 1949. See log.
E-19	1 mile northeast	NE¼NW¼ 491	1	EL & RR	W. Curry	do.	1948	112	16	a/58	Sept. ---, 1948	T, E, 20	Irr	Discharge estimated 550 gpm, July 7, 1949.
E-20	1¼ miles northeast	NW¼SW¼ 493	1	EL & RR	Mrs. -- Henderson	do.	--	115	16	78.8	July 7, 1949	T, G	Irr	
E-21	½ mile northeast	SE¼NE¼ 492	1	EL & RR	City of Tahoka	--	1938	105	--	80.3	July 22, 1938	None	N	U.S.G.S. well 713-A in Water-Supply Paper 909. See table of water-level records.
E-22	6¼ miles northwest	SW¼SW¼ 313	3	EL & RR	H. B. Crosby	Shell Oil Co.	1949	390	--	--	--	None	N	Seismograph shot hole. Redbeds at 272 feet. See log.
E-23	4¼ miles southwest	SE¼SE¼ 5	2	L & SV	C. O. Edwards	Hart Oil Co.	1927	1,300	15½, 10	--	--	None	N	Oil test. Redbeds at 260 feet. See log.
E-24	2¼ miles southwest	NE¼NE¼ 304	3	EL & RR	do.	Shell Oil Co.	1949	200	--	--	--	None	N	Seismograph shot hole. Redbeds at 148 feet. See log.
E-25	4¼ miles south	NW¼NW¼ 207	4	TTRR Co.	Carl Griffin	--	1924	24	36	13.9	July 12, 1937	C, W	D, S	Dug, in bottom of depression; uncased; water reported hard. U.S.G.S well 711 in Water-Supply Paper 840. See table of water-level records.
E-26	4¼ miles southeast	NW¼NE¼ 204	4	TTRR Co.	C. M. Greer	--	--	25	4	a/20	Aug. 21, 1949	P, E, ¼	S	Dug. Water reported to have gypsum taste. Unfit for domestic use.

a/ Reported by owner or driller.



Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
E-27	5½ miles south	SW¼NE¼ 208	4	TT RR Co.	M. M. Davis	M. M. Davis	1918	24	36	3.4	July 12, 1937	None	N	Dug in bottom of depression. See table of water-level records.
E-28	do.	SE¼NW¼ 208	4	TT RR Co.	--	--	1920	23	36	5.4	do.	C,W	S	Dug in bottom of depression. See table of water-level records.
E-29	6 miles southwest	NW¼SW¼ 2	8	EL & RR	L. Williams	Barnadall Oil Co.	1945	7,509	13¾, 9	--	--	None	N	Oil test. See log.
E-30	8 miles southwest	NE¼NE¼ 38	18	HE & WT	W. W. Hagood	--	--	60	5	46.8	Aug. 16, 1949	C,W	D,S	Bottom of small depression.
F-1	5 miles northeast	SE¼SE¼ 1	--	RT Co.	K. Bingham	--	1920	200	6	29.9	Aug. 17, 1949	C,W	S	Casing: 6-inch to 10 feet. Water reported to have gypsum taste.
F-2	6 miles northeast	SE¼SE¼ 508	1	GC & SF	A. P. Hedrick	--	--	60	--	a/20	July 13, 1949	C,W	D,S	Reported hard water.
F-3	7¼ miles northeast	SE¼NE¼ 507	1	GC & SF	J. W. Kendricks	--	--	125	--	--	--	C,W	D,S	Drilled to 190 feet, plugged back to 125 feet. Water below 125 feet reported unfit for domestic use.
F-4	5½ miles northeast	NE¼NE¼ 2	1	EL & RR	T. B. Mason	--	1947	56	--	32.3	July 8, 1949	E,-, 1	D,S	
F-5	7 miles northeast	NW¼SW¼ 518	1	GC & SF	A. A. Huff	--	--	200	5	a/140	do.	C,W	S	Casing: 5-inch to 160 feet. Pump set at 160 feet. Water reported unfit for domestic use.
F-6	12 miles northeast	NE¼NE¼ 1412	1	EL & RR	R. M. Turner	--	1915	42	--	a/24	July 14, 1949	C,W	D,S	Water reported hard.
F-7	11½ miles northeast	SW¼SW¼ 1414	18	EL & RR	Lee Mason	Cl. Church	1948	150	14	--	--	None	N	Reported to yield insufficient water for irrigation.
F-8	12 miles northeast	NE¼SE¼ 1413	18	EL & RR	L. H. Huddleston	--	1916	135	4	a/35	Dec. 8, 1950	C,W	S	Casing: 4-inch to 10 feet. Water reported unfit for domestic and irrigation uses.
F-9	12½ miles east	NE¼NE¼ 1369	1	BS & F Co.	J. W. Young	P. Walker	1948	56	16	a/35	July 14, 1949	T,G, 25	Irr	Uncased. Discharge reported 600 gpm.
F-10	12 miles east	NW¼NE¼ 1369	1	BS & F Co.	do.	-- Price	1944	47	16	a/30	do.	T,E, 5	Irr	Uncased.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
F-11	11½ miles east	NW¼NW¼ 1369	1	BS & F Co.	R. L. Craig	R. L. Craig	1937	38	16	a/34	July 14, 1949	T,E, 5	Irr, P	Dug, uncased. Used to supply swimming pool. Water obtained from caliche. Discharge estimated 150 gpm, July 14, 1949. Temp. 67.5° F.
F-12	do.	SW¼NW¼ 1369	1	BS & F Co.	do.	P. Walker	1947	45	16	--	--	T,E, 7	Irr	Uncased. Weak supply reported.
F-13	10½ miles east	NW¼NW¼ 1368	1	EL & RR	J. A. Parrish	C. Beard	1940	40	12	a/16	July --, 1940	T,G, 100	Irr	Casing: 12-inch from 3 to 40 feet. Water obtained from caliche. Irrigated 55 acres in 1949.
F-14	10½ miles east	NE¼NE¼ 556	--	T & NO	W. L. Gribble	do.	1948	50	10	a/16	Mar. --, 1948	T,G, 9	Irr	In bottom of depression. Discharge reported 300 gpm.
F-15	10½ miles east	NW¼NE¼ 556	--	T & NO	do.	-- Davis	1949	29	14	--	--	T,G, 30	Irr	In bottom of depression, 150 feet from well F-14.
F-16	do.	NW¼NE¼ 555	--	T & NO	W. R. Greer	P. Walker	1942	152	16	a/38	July 14, 1949	T,G	Irr	Uncased. Irrigated 90 acres in 1949.
F-17	10½ miles southeast	SW¼NE¼ 555	--	T & NO	do.	do.	1936	152	16	--	--	T,G	--	Uncased. Pump set at 140 feet. Driller reported drawdown of 44 feet after 72 hours' pumping at 1,000 gpm. Irrigated 100 acres in 1949. See log.
F-18	10½ miles southeast	SW¼SE¼ 555	--	T & NO	M. C. Richie	do.	1947	93	--	37.7	July 13, 1949	T,G, 100	Irr	Uncased. Pump set at 80 feet. Discharge measured 475 gpm, July 15, 1949. Temp. 65° F.
F-19	11 miles southeast	SW¼SW¼ 554	--	T & NO	B. C. Childs	B. Henderson	1948	120	16	52.0	do.	T,G	--	Uncased.
F-20	do.	SE¼SW¼ 554	--	T & NO	W. H. Aten	do.	1948	156	--	50.8	do.	--	--	Do.
F-21	do.	NE¼SW¼ 554	--	T & NO	do.	do.	1948	120	--	50.3	do.	--	--	Do.
F-22	12 miles southeast	NE¼NW¼ 551	--	TT RR	E. A. Thomas	P. Walker	1944	128	--	a/65	1944	T,G	Irr	Uncased. Irrigated 25 acres in 1949.
F-23	12½ miles southeast	NW¼NE¼ 551	--	TT RR	M. C. Thomas	M. C. Thomas	1931	123	--	a/66	1931	T,G	Irr	Uncased. Discharge reported 400 gpm.
F-24	12½ miles southeast	NE¼NW¼ 551	--	TT RR	E. A. Thomas	E. A. Thomas	1947	128	--	--	--	T,G	Irr	Uncased. Irrigated 25 acres in 1949.
F-25	12½ miles southeast	NW¼NE¼ 551	--	TT RR	M. C. Thomas	M. C. Thomas	--	127	16	--	--	T,G	Irr	Casing: 16-inch from 80 feet. Discharge estimated 450 gpm, Sept. 2, 1948. Temp. 65° F.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
F-26	12½ miles southeast	NE¼NE¼ 551	--	TT RR	M. C. Thomas	M. C. Thomas	1948	120	16	65.9	Sept. 2, 1949	T,G, 75	Irr	Casing: 16-inch from 60 to 120 feet.
F-27	do.	SW¼NE¼ 551	--	TT RR	do.	do.	1942	135	16	--	--	T,G	Irr	Uncased.
F-28	do.	SE¼NW¼ 551	--	TT RR	E. A. Thomas	P. Walker	1941	144	16	66.9	July 13, 1949	T,G, 40	Irr	Irrigated 20 acres in 1949.
F-29	do.	NE¼SW¼ 551	--	TT RR	C. M. Greer	do.	1946	120	18	--	--	T,E, 5	Irr	Uncased. Discharge reported 75 gpm.
F-30	12½ miles southeast	NE¼SW¼ 551	--	TT RR	do.	do.	1945	120	12	a/67	July 13, 1949	T,E, 75	Irr	Weak supply reported.
F-31	12 miles southeast	NW¼NW¼ 551	--	TT RR	LeRoy Davis	LeRoy Davis	1940	135	18	67.7	do.	T,E	Irr	Uncased. Pump set at 110 feet. Irrigated 17 acres in 1949.
F-32	11½ miles southeast	SE¼NE¼ 557	--	T & NO	C. B. King	-- Ward	--	--	--	--	--	T,E, 5	Irr	
F-33	11½ miles southeast	SE¼SW¼ 557	--	T & NO	L. Thomas	--	--	--	--	--	--	T,G	S	In bottom of depression. Supplies water for game preserve.
F-34	do.	NE¼NW¼ 606	2	GC & SF Co.	P. Thomas	P. Thomas	1943	130	16	68.2	July 13, 1949	T,G, 60	Irr	Discharge reported 200 gpm. Pump set at 130 feet. Redbed reported at 130 feet. Temp. 66.5° F.
F-35	13 miles southeast	NW¼NE¼ 560	--	TT RR	Garza Land & Cattle Co.	--	--	Spring	--	--	--	Flows	--	Flow estimated 25 gpm, Aug. 27, 1949.
F-36	7½ miles southeast	SE¼SW¼ 464	1	EL & RR	Calloway-Huffakre	Calloway-Huffakre	1949	765	5	--	--	C,W	S	See log.
F-37	6½ miles southeast	SW¼SW¼ 1	Q	HE & WT	B. O. Bingham	--	--	--	5	67.3	Aug. 11, 1949	C,W	D,S	Discharge measured 2 gpm, Aug. 11, 1949.
F-38	3½ miles southeast	NW¼SW¼ 481	1	EL & RR	T. I. Tippett	--	--	103	5	76.5	Sept. 2, 1949	--, E	D,S	
F-39	3½ miles southeast	NE¼NW¼ 468	1	EL & RR	J. R. Lambert	--	--	65	5	42.8	Aug. 11, 1949	C,W	D,S	Formerly supplied many families.
G-1	16½ miles southwest	SE¼SE¼ 23	b	H & OB	L. T. Stretch	-- Castleberry	1951	158	2	a/106	May 10, 1951	C,W	S	Water reported unfit for domestic use.
G-2	14½ miles southwest	SW¼NW¼ 2	O	H & OB	R. A. Taylor	--	1944	82	6	61.3	Aug. 16, 1949	C,W	D,S	Temp. 68.5° F.
G-3	15 miles southwest	SE¼SE¼-3	O	H & OB	L. T. Stretch	--	1930	87	4	--	--	C,W	D	See log.
G-4	16½ miles southwest	SW¼SW¼ 9	O	H & OB	O. P. Crutcher	-- Whittacre	1947	130	6	a/57	Dec. --, 1947	--, E, ½	D	Casing: 6-inch to 70 feet.
G-5	16½ miles southwest	SW¼SW¼ 5	O	H & OB	Lon Light	Gibson & Gates	1949	100	6	a/80	Aug. 23, 1949	C,W	D	
G-6	12½ miles southwest	SE¼SE¼ 38	H	EL & RR	Wells Farmers Corp.	-- Gibson	1950	84	4	a/18	Aug. --, 1950	C,W,E	D, Ind	Discharge measured 7 gpm, Aug. 1950.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
G-7	16 miles southwest	SW $\frac{1}{4}$ NE $\frac{1}{4}$ 19	H	EL & RR	T. L. Higginbotham		--	180	5	159.0	Aug. 25, 1949	C,W	S	Water reported unfit for domestic use.
G-8	18 miles southwest	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 6	H	EL & RR	Arizona Chemical Co.	F. Buchanan	1937	200	--	a/20	July 29, 1938	None	N	Reported highly mineralized water. Commercial production of glauber and epsom salts from crystalline gypsum layer. See log.
G-9	16 miles southwest	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 18	H	EL & RR	--	--	-- Spring	--	--	--	--	Flows	--	At south side of lake. Water highly mineralized. Estimated flow 1 to 2 gpm.
G-10	17 miles southwest	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 4	H	EL & RR	W. P. Moore	C. Miller	1932	206	5	--	July 29, 1938	C,W	S	Reported salty taste.
H-1	9 $\frac{1}{2}$ miles southwest	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 36	18	HE & WT	B. Phipps	--	1943	130	5	93.0	Sept. 6, 1949	C,W	D,S	
H-2	7 $\frac{1}{2}$ miles southwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 7	8	EL & RR	E. A. Pork	--	--	67	8	34.0	July 12, 1937	C,W	D,S	In bottom of small depression. See table of water-level records.
H-3	7 miles south	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 9	8	EL & RR	--	--	--	23 $\frac{1}{2}$	36	16.9	do.	C,W	N	Dug, uncased. Water reported mineralized.
H-4	7 miles southeast	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 214	4	--	R. L. Littlepage	R. L. Littlepage	1930	35	36	31.7	Aug. 11, 1949	C,W	D,S	Dug in bottom of small depression.
H-5	8 miles south	NE $\frac{1}{4}$ SW $\frac{1}{4}$ 10	8	EL & RR	C. A. McAuley	--	1937	13.5	36	9.4 11.2 9.9	July 12, 1937 Aug. 7, 1937 Sept. 28, 1937	None	N	Dug at edge of lake. U.S.G.S. well 706 in Water-Supply Paper 840. See table of water-level records.
H-6	8 $\frac{1}{2}$ miles south	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 10	8	EL & RR	C. Harper	--	--	26	36	12.1 16.0 15.9 17.9 15.6	Mar. 30, 1949 Sept. 19, 1949 Feb. 19, 1950 May 17, 1950 Feb. 7, 1951	B,H	D	Dug. To be used for domestic purposes.
H-7	do.	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 20	8	EL & RR	Mary L. McAfee Shoe	Guthrie Lake Oil Co.	1940	802	8	--	--	None	N	Oil test. See log.
H-8	9 miles southeast	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 19	8	EL & RR	Mrs. H. Warren	--	1930	75	5	37.3	Aug. 9, 1949	C,W	S	
H-9	9 miles south	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 20	8	EL & RR	C. L. Brock	--	--	75	5	61.7	Aug. 10, 1949	C,W	S	Temp. 67.5° F.
H-10	9 $\frac{1}{2}$ miles south	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 29	8	EL & RR	L. Williams	--	1937	95	5	84.9	July 12, 1937	C,W	S	Water reported unfit for domestic use. U.S.G.S. well 705 in Water-Supply Paper 840. See table of water-level records.
H-11	10 miles southwest	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 26	8	EL & RR	I. C. Dorman	--	1940	84	--	a/76	May 17, 1949	C,W	D	At edge of lake. Uncased.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoke	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
H-12	10½ miles southwest	SW¼SW¼ 26	8	EL & RR	I. C. Dorman	--	1917	98	--	87.2	May 17, 1950	C, W	S	Uncased. Water reported too highly mineralized for domestic use.
H-13	13½ miles southwest	SE¼SE¼ 26	--	EL & RR	L. M. Mires	--	--	82	5	--	--	C, W	D, S	
H-14	10½ miles south	NE¼SE¼ 34	8	EL & RR	Levi Gray	--	Old	75	6	64.4	July 12, 1937	C, W	D, S	U.S.G.S. well 703 in Water-Supply Paper 840. See table of water-level records.
H-15	11 miles south	SE¼SE¼ 34	8	EL & RR	do.	--	1924	62	6	50.8 50.9	July 12, 1937 Jan. 20, 1938	C, W	D, S	In bottom of small depression. U.S.G.S. well 702 in Water-Supply Paper 840.
H-16	10½ miles south	NW¼SE¼ 33	8	EL & RR	do.	--	Old	57	14	50.8 50.7	July 12, 1937 Jan. 20, 1938	C, W	D, S	At edge of lake. U.S.G.S. well 794 in Water-Supply Paper 840.
H-17	11 miles south	SW¼SE¼ 33	8	EL & RR	R. C. Carroll	S. R. Schooler	1943	34	6	32.7	May 18, 1950	C, W	D, S	
H-18	11½ miles south	SW¼NE¼ 41	8	EL & RR	E. E. Fagg	--	Old	72	6	66.4	July 15, 1937	C, W	N	Water unfit for domestic use. U.S.G.S. well 701 in Water-Supply Paper 840. See table of water-level records.
H-19	12 miles south	SW¼SE¼ 41	8	EL & RR	J. G. Hale	--	--	40	5	--	--	C, W	S	Used for stock only.
H-20	13½ miles southeast	SW¼SE¼ 44	8	EL & RR	C. C. Schooler	H. Gibson	1948	42	--	a/30	July --, 1948	-, E	D	Uncased.
H-21	14½ miles southeast	NW¼NE¼ 63	8	EL & RR	C. J. Beach	--	1949	27	16	7.5	Aug. 9, 1949	T, E	P	In bottom of large depression. Casing: 16-inch to 15 feet. Drawdown 0.7 foot after 80 minutes' pumping at 810 gpm, July 13, 1950. Supplies city of O'Donnell. See water-level records for Dawson County. See log.
H-22	13½ miles south	SE¼SE¼ 53	8	EL & RR	City of O'Donnell	--	--	82	--	--	--	C, E, ¼	P	Uncased. For emergency use. Discharge reported 5 gpm Nov. 1946.
H-23	do.	SE¼NE¼ 53	8	EL & RR	do.	--	--	82	--	a/70	Nov. --, 1946	C, E, ¼	P	Uncased. Weak supply reported. Pump set at 80 feet.
H-24	14 miles south	NE¼SE¼ 53	8	EL & RR	do.	--	--	81	--	76.3 77.8	July 15, 1937 Aug. 7, 1937	C, E, ¼	P	Uncased. For emergency use. Yield reported 3 gpm, Nov. 29, 1946.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
H-25	14 miles south	NE $\frac{1}{4}$ SE $\frac{1}{4}$ 53	8	EL & RR	City of O'Donnell	--	--	82	--	--	--	C, E, $\frac{1}{2}$	P	Uncased. Weak supply reported.
H-26	14 miles southwest	NW $\frac{1}{4}$ SE $\frac{1}{4}$ 53	8	EL & RR	do.	--	--	90	--	--	--	C, E, $\frac{1}{2}$	P	Uncased. Pump set at 84 feet.
H-27	do.	SW $\frac{1}{4}$ NE $\frac{1}{4}$ 53	8	EL & RR	do.	--	1936	92	--	73.2 73.3 73.7	July 15, 1937 Aug. 7, 1937 Sept. 24, 1937	None	N	Uncased. Drilled to 205 feet, plugged back to 92 feet. Redbeds at 205 feet.
H-28	13 $\frac{1}{2}$ miles southwest	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 48	8	EL & RR	do.	--	1938	62	--	a/52	Nov. 29, 1946	C, E, 2	P	Uncased. For emergency use.
H-29	do.	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 48	8	EL & RR	do.	--	1945	64	--	a/52	Nov. 29, 1938	T, E, 3	P	Uncased. For emergency use. Discharge reported 25 gpm, Nov. 29, 1946.
H-30	13 $\frac{1}{2}$ miles southwest	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 53	8	EL & RR	do.	--	1945	62	--	--	--	T, E, 3	P	Uncased. For emergency use. Cylinder set at 60 feet.
H-31	14 miles southwest	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 53	8	EL & RR	-- Parker	--	--	77	6	39.2 39.1 39.0 38.8	July 15, 1937 Aug. 7, 1937 Sept. 24, 1937 Jan. 20, 1938	C, W	S	Reported unfit for domestic use. U.S.G.S. well 806 in Water-Supply Paper 840.
H-32	15 miles southwest	NE $\frac{1}{4}$ SW $\frac{1}{4}$ 52	8	EL & RR	City of O'Donnell	C. Nannally	1934	67	5	a/22	Nov. --, 1946	C, E, 3	P	For emergency use. Discharge reported 50 gpm, Nov. 1946. Pump set at 55 feet.
H-33	15 $\frac{1}{2}$ miles southwest	NE $\frac{1}{4}$ NE $\frac{1}{4}$ 69	8	EL & RR	do.	--	1936	82	--	51.6 54.1	Sept. 24, 1937 Jan. 23, 1939	None	N	Weak supply reported. Abandoned.
J-1	7 miles southeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 217	4	TT RR Co.	J. Donaldson	--	Old	60	--	30.2	May 18, 1950	C, W	S	Uncased. Reported unfit for domestic use. Discharge measured 2 gpm, May 18, 1950.
J-2	8 miles southeast	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 211	4	TT RR Co.	do.	--	Old	60	5	28.6	do.	C, W	D, S	
J-3	8 $\frac{1}{2}$ miles southeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 104	--	EL & RR	C. C. Coffee	--	--	25	5	7.0	Aug. 11, 1949	C, W	S	Reported gypsum taste.
J-4	10 $\frac{1}{2}$ miles southeast	SE $\frac{1}{4}$ NE $\frac{1}{4}$ 102	--	D & W	P. Thomas	--	1937	58	5	46.4	Aug. 10, 1949	C, W	S	Water reported unfit for domestic use.
J-5	13 miles southeast	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 440	3	EL & RR	H. M. Patterson	--	--	60	--	33.1	Aug. 11, 1949	C, W	D, S	Uncased. Temp. 66° F.
J-6	do.	NE $\frac{1}{4}$ NW $\frac{1}{4}$ 425	9	EL & RR	W. W. Caswell	--	1944	40	5	36.3	Aug. 9, 1949	C, W	S	Water reported unfit for domestic use. Temp. 67° F.
J-7	11 miles southeast	NW $\frac{1}{4}$ NW $\frac{1}{4}$ 408	2	HE & WT	J. H. Stalcup	--	--	50	5	27.4	Aug. 10, 1949	C, W	D, S	
J-8	do.	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 418	9	EL & RR	Dr. J. F. Campbell	-- Wallace	1948	186	16	29.4	Aug. 9, 1949	T, G	N	Water reported unfit for domestic use and irrigation. Abandoned. See log.

a/ Reported by owner or driller.

Table 7.- Records of wells in Lynn County--Continued

Well	Distance from Tahoka	Section	Block	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water level		Method of lift	Use of water	Remarks
										Below land surface (ft.)	Date of measurement			
J-9	12 miles southeast	SE $\frac{1}{4}$ NE $\frac{1}{4}$ 417	9	EL & RR	H. B. Brewer	L. Nordyke	1924	60	5	25.8	Aug. 9, 1949	C, W	S	Water reported unfit for domestic use.
J-10	12 $\frac{1}{2}$ miles southeast	NE $\frac{1}{4}$ SE $\frac{1}{4}$ 417	9	EL & RR	do.	do.	1924	55	5	21.6	do.	C, W	S	
J-11	15 $\frac{1}{2}$ miles southeast	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 40	32	TT RR	H. D. Cook	--	1945	39	5	29.9	Aug. 10, 1949	C, W	D, S	
J-12	16 miles southeast	SW $\frac{1}{4}$ SW $\frac{1}{4}$ 35	32	TT RR	L. B. Jones	S. Schooler	1934	38	5	32.6	do.	C, W	D, S	Reported gypsum taste.
J-13	17 miles southeast	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 7	10	EL & RR	L. W. Sanford	Magnolia Petroleum Co.	1949	150	--	a/28	Aug. --, 1949	None	N	Seismograph shot hole. Redbeds at 145 feet. See log.

a/ Reported by owner or driller.

Table 8.- Drillers' logs of wells in Lynn County, Tex.

Thickness (feet)		Depth (feet)		Thickness (feet)		Depth (feet)	
<u>Well A-11</u>							
D. W. Hancock, 19 miles northwest of Tahoka. Driller: -- Armstrong.							
Surface .....	6	6	Sand and gravel .....	4	139		
Caliche and clay .....	26	32	Clay, yellow .....	1	140		
Clay, sandy, and sand .....	103	135	Clay, blue .....	1	141		
<u>Well A-13</u>							
C. L. Brown, 18 miles northwest of Tahoka. Driller: T. R. Hall.							
Surface .....	2	2	Sand, gray, dry .....	15	127		
Clay .....	12	14	Clay .....	2	129		
Caliche .....	14	28	Sand, gravel, and shells .....	16	145		
Sand, light-brown, and clay .....	42	70	Clay, yellow and blue .....	1	146		
Sand and gravel .....	30	100					
Clay, red .....	12	112					
<u>Well A-19</u>							
A. C. Fillingim, 17½ miles northwest of Tahoka. Driller: J. Nordyke.							
Surface and clay .....	10	10	Sand, water, and gravel .....	10	120		
Caliche .....	50	60	Clay, brown .....	12	132		
Limestone, hard .....	20	80	Sand and gravel .....	32	164		
Sand, water .....	10	90	Clay, blue .....	1	165		
Sand and clay, red .....	20	110					
<u>Well A-25</u>							
L. A. Savage, 16¼ miles northwest of Tahoka. Driller: T. R. Hall.							
Surface .....	3	3	Sand, water and gravel .....	5	121		
Clay .....	25	28	Clay, brown .....	9	130		
Limestone .....	12	40	Sand and gravel and shells .....	8	138		
Sand, light-brown .....	60	100	Clay, yellow .....	5	143		
Sand, water .....	13	113	Clay, blue .....	2½	145½		
Clay, red .....	3	116					
<u>Well A-29</u>							
A. L. Pace, 16½ miles northwest of Tahoka.							
Surface .....	3	3	Sand and gravel .....	10	115		
Caliche, sandy .....	22	25	Clay, red, and sand .....	12	127		
Sand, clay, and sandy clay .....	60	85	Sand, gravel, and shells .....	38	165		
Sand and gravel .....	10	95	Clay, blue .....	2	167		
Clay, red .....	10	105					
<u>Well A-41</u>							
T. Smith, 15¼ miles northwest of Tahoka. Driller: L. Schooler.							
Surface .....	7	7	Sand .....	15	115		
Caliche .....	25	32	Sand and gravel .....	22	137		
Sand and clay .....	65	97	Clay, yellow and blue .....	34	171		
Sand, water .....	3	100	Clay, blue .....	1	172		



Table 8.- Drillers' logs of wells in Lynn County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well A-51, partial log</u>					
E. L. Powell, 15½ miles northwest of Tahoka. Driller: H. F. Wilcox.					
Caliche .....	28	28	Shale .....	34	434
Sand .....	22	50	Shale and shells .....	30	464
Caliche and sand .....	35	85	Shale and redbeds .....	91	555
Sand .....	65	150	Sand and redbeds .....	25	580
Sand and shale .....	15	165	Shale .....	5	585
Shale, sand, and shells .....	95	260	Sand and redbeds .....	165	750
Limestone, shale, and shells .....	70	330	Redbeds .....	725	1,475
Shale, sandy .....	50	380	Redbeds and shells .....	180	1,655
Shale and sand .....	20	400	Anhydrite, red beds .....	65	1,720
			TOTAL DEPTH .....		5,182

<u>Well A-52</u>					
J. A. Evans, 15¼ miles northwest of Tahoka. Driller: Lusby Bros.					
Surface .....	3	3	Rock, hard .....	2	129
Caliche .....	22	25	Limestone and conglomerate .....	5	134
Clay, sandy .....	30	55	Clay, yellow .....	3	137
Sand, dry .....	35	90	Gravel .....	5	142
Sand, water .....	34	124	Clay, blue .....	4	146

<u>Well A-57</u>					
Mrs. C. B. Jones, 14¼ miles northwest of Tahoka. Driller: Lusby Bros.					
Surface, clay, and caliche .....	25	25	Sand, rock .....	2	126
Sand and sandy clay .....	65	90	Sand, water .....	21	147
Sand, dry .....	20	110	Shale, blue .....	3	150
Sand, red, water .....	14	124			

<u>Well A-61</u>					
O. R. Phiefer, 14 miles northwest of Tahoka. Driller: -- Loveless.					
Surface .....	6	6	Rock .....	4	102
Caliche .....	20	26	Sand and gravel .....	53	155
Clay, joint .....	64	90	Clay, blue .....	1	156
Sand, water .....	8	98			

<u>Well A-65, partial log</u>					
M. C. Edwards, 11½ miles northwest of Tahoka. Driller: The Texas Co.					
Surface, caliche, and shale .....	382	382	Rock, red, shale, and lime .....	206	2,070
Rock, red, and redbeds .....	690	1,072	Anhydrite and red rock .....	159	2,229
Rock, red, shale, and shells .....	354	1,426	TOTAL DEPTH .....		7,238

<u>Well A-66</u>					
G. George, 11 miles northwest of Tahoka. Driller: J. Giblen.					
Surface .....	6	6	Lime rock .....	49	313
Caliche .....	19	25	Sand, white, gravel and shell ..	19	332
Clay, sandy .....	45	70	Clay, red .....	2	334
Sand, dry .....	43	113	Sand and blue gravel .....	6	340
Sand and gravel, water .....	57	170			
Clay, blue .....	94	264			

Table 8.- Drillers' logs of wells in Lynn County--Continued

Thickness (feet)		Depth (feet)	Thickness (feet)		Depth (feet)
---------------------	--	-----------------	---------------------	--	-----------------

## Well B-4

M. C. Ball, 15½ miles northwest of Tahoka. Driller: J. Palmour.

Surface .....	6	6	Clay, yellow .....	2	148
Caliche and clay .....	82	88	Sand and gravel, water .....	32	180
Sand, dry .....	8	96	Clay, blue .....	2	182
Sand and gravel, water .....	50	146			

## Well B-7

C. Putty, 15¼ miles northwest of Tahoka. Driller: L. Schooler.

Surface .....	4	4	Sand and gravel, water .....	35	165
Caliche .....	36	40	Sand, rock .....	9	174
Rock .....	15	55	Shale, blue .....	2	176
Shale, yellow .....	35	90			
Sand .....	20	110			
Clay, yellow .....	20	130			

## Well B-11

R. Smith, 15 miles northwest of Tahoka. Driller: Geo. Anderson.

Surface .....	4	4	Sand, water .....	12	92
Caliche .....	26	30	Sand, yellow .....	38	130
Clay .....	30	60	Sand, water .....	20	150
Rock .....	10	70	Clay, blue .....	4	154
Sand, dry .....	10	80			

## Well B-15, partial log

W. B. King, 15¼ miles northwest of Tahoka. Driller: Honolulu Oil Co.

Caliche and sand .....	90	90	Sand, red .....	210	670
Sand, water .....	90	180	Shale, red .....	200	870
Limestone .....	140	320	TOTAL DEPTH .....		10, 576
Shale, red .....	140	460			

## Well B-41

H. D. Dean, 13½ miles northwest of Tahoka. Driller: T. R. Hall.

Surface .....	4	4	Sand, water .....	20	130
Caliche .....	8	12	Sand and gravel .....	18	148
Clay, sandy .....	8	20	Clay, yellow .....	2	150
Sand, dry .....	90	110			

## Well B-46

C. L. Murray, 13¼ miles northwest of Tahoka. Driller: L. H. Schooler.

Surface .....	5	5	Sand .....	75	155
Caliche .....	15	20	Clay, yellow .....	31	186
Clay, red .....	60	80	Shale, blue .....	2	188

Table 8.- Drillers' logs of wells in Lynn County-- Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Well B-54</u>							
Martin Wuensche, 13½ miles north of Tahoka. Driller: Southwestern Drilling Co.							
Surface .....	8	8	Shale, yellow .....	16	132		
Caliche .....	10	18	Sand and gravel .....	18	150		
Clay, yellow .....	38	56	Clay, yellow .....	24	174		
Sand and gravel .....	60	116	Shale, blue .....	14	188		
<u>Well B-63</u>							
A. Gickhorn, 12½ miles north of Tahoka. Driller: T. R. Hall							
Surface .....	8	8	Lime .....	5	130		
Caliche .....	27	35	Clay, yellow with sand and gravel streaks .....	21	151		
Sand, dry .....	55	90	Shale .....	4	155		
Sand and gravel, water .....	35	125					
<u>Well B-64</u>							
A. W. Ramsey, 12¼ miles north of Tahoka. Driller: L. H. Schooler.							
Surface .....	5	5	Sand, red, dry .....	50	105		
Caliche .....	10	15	Sand, water .....	20	125		
Shale .....	25	40	Clay, yellow .....	35	160		
Lime, rock .....	5	45	Shale, blue .....	13	173		
Shale, red .....	10	55					
<u>Well B-67</u>							
J. P. White, 12 miles northeast of Tahoka. Driller: -- Kingsley.							
Surface .....	3	3	Sand, water .....	33	105		
Shale, red .....	5	8	Sand and gravel .....	5	110		
Caliche .....	22	30	Clay, sandy .....	2	112		
Lime, rock .....	2	32	Clay, yellow .....	13	125		
Caliche .....	7	39	Clay, blue .....	3	128		
Sand, dry .....	33	72					
<u>Well B-73</u>							
L. Brosch, 11¼ miles northwest of Tahoka. Driller: T. R. Hall.							
Surface .....	4	4	Sand, water .....	25	140		
Clay, red .....	10	14	Sand and gravel .....	12	152		
Sand .....	21	35	Clay, yellow .....	8	160		
Lime .....	10	45	Clay, blue .....	4	164		
Sand and sand rock .....	70	115					
<u>Well B-79</u>							
E. McAllister, 10½ miles northwest of Tahoka. Driller: D. L. Mauldin.							
Surface .....	3	3	Sand, caving, and water .....	12	127		
Caliche .....	7	10	Clay, brownish-red, and clay balls .....	5	132		
Clay, sandy, yellow .....	25	35	Sand and gravel .....	18	150		
Clay, sandy, red .....	13	48	Clay, yellow and blue .....	1	151		
Rock .....	2	50					
Sand rock .....	20	70					
Clay, sandy, brown .....	45	115					

Table 8.- Drillers' logs of wells in Lynn County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
--	---------------------	-----------------	--	---------------------	-----------------

## Well B-80

H. A. Macha, 10¼ miles northwest of Tahoka. Driller: D. L. Mauldin.

Surface .....	10	10	Rock, black .....	65	240
Rock .....	100	110	Limestone, pink .....	2	242
Sand and gravel, water .....	15	125	Sand, gravel and shells .....	10	252
Clay, sandy, red .....	20	145	Shale, blue .....	5	257
Rock, blue and yellow .....	25	170			
Sand, gravel and shells, water .....	5	175			

## Well B-82

G. E. White, 9½ miles northwest of Tahoka. Driller: Shell Oil Co.

Clay, sandy and caliche .....	28	28	Shale, gray .....	10	275
Limestone .....	7	35	Sandstone or sand .....	13	288
Clay, sandy .....	110	145	Shale, blue .....	14	302
Gravel .....	3	148	Shale, sandy, gray .....	18	320
Clay, yellow .....	14	162	Shale, red (rebeds) .....	100	420
Clay, blue .....	66	228			
Limestone and shale .....	37	265			

## Well B-86

Trautwine Estate, 10¼ miles north of Tahoka. Driller: F. Kelley.

Surface .....	6	6	Sand and gravel, water .....	19	108
Caliche .....	9	15	Packsand .....	25	133
Clay and soapstone .....	12	27	Clay, yellow .....	12	145
Rock .....	17	44	Clay, blue .....	13	158
Sand .....	41	85			
Sand rock .....	4	89			

## Well B-93

W. G. Boyd, 10¼ miles northeast of Tahoka. Driller: T. R. Hall.

Surface .....	5	5	Sand and clay .....	15	115
Caliche and clay .....	51	56	Clay .....	2	117
Sand .....	19	75	Gravel .....	4	121
Sand and clay .....	5	80	Clay, yellow .....	12	133
Sand and gravel .....	20	100	Clay, blue .....	2	135

## Well B-96

Trautwine Estate, 9¼ miles north of Tahoka. Driller: F. Kelley.

Surface .....	4	4	Sand, tight and few gravel seams ..	13	107
Clay, red .....	13	17	Clay and sand .....	8	115
Rock .....	24	41	Clay, yellow .....	12	127
Sand .....	31	72	Clay, blue .....	11	138
Sand, tight, water .....	17	89			
Clay, brown .....	5	94			

Table 8.- Drillers' logs of wells in Lynn County--Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Well C-2</u>							
Mrs. J. Standifer, 15½ miles northeast of Tahoka. Driller: G. Anderson.							
Surface .....	5	5	Sand and gravel .....	30	140		
Caliche .....	10	15	Clay, sandy, yellow .....	15	155		
Clay, red .....	10	25	Sand and gravel .....	24	179		
Sandstone .....	35	60	Caliche, rock, white .....	1	180		
Clay, sandy, gray .....	20	80					
Sand, water .....	20	100					
Clay, sandy, yellow .....	10	110					
<u>Well C-7</u>							
J. H. Sander, 15¼ miles northeast of Tahoka. Driller: -- Clark.							
Surface .....	3	3	Clay .....	8	80		
Caliche .....	5	8	Sand and gravel .....	20	100		
Clay .....	22	30	Clay .....	4	104		
Caliche .....	28	58	Sand and gravel .....	50	154		
Limestone .....	6	64	Clay, yellow .....	3	157		
Sand, water .....	8	72					
<u>Well C-13</u>							
C. D. Young, 15½ miles northeast of Tahoka. Driller: -- Willis.							
Surface .....	8	8	Sand, coarse and gravel .....	25	127		
Shale, red .....	22	30	Shale, yellow .....	5	132		
Caliche .....	50	80	Shale, blue .....	13	145		
Sand, fine-grained .....	10	90	Lime .....	5	150		
Sand and gravel .....	8	98					
Shale, red .....	4	102					
<u>Well C-19</u>							
Dr. Roy Loveless, 17 miles northeast of Tahoka. Driller: C. Rutherford.							
Surface .....	3	3	Sand and gravel .....	44	97		
Caliche .....	28	31	Clay, yellow .....	1	98		
Clay and rock .....	22	53	Clay, blue .....	1	99		
<u>Well C-37</u>							
C. S. Oats, 16 miles northeast of Tahoka. Driller: M. Mosely.							
Surface .....	3	3	Rock, honeycombed .....	16	48		
Caliche .....	29	32	Clay, blue .....	22	70		
<u>Well C-42</u>							
R. F. Stegemoeller, 15 miles northeast of Tahoka.							
Surface .....	6	6	Clay, blue .....	10	105		
Caliche .....	22	28	Lime rock .....	45	150		
Clay, sandy .....	37	65	Shale, blue .....	35	185		
Sand and gravel .....	15	80	Shale, red and blue .....	20	205		
Clay, yellow .....	15	95	Redbeds .....	20	225		

Table 8.- Drillers' logs of wells in Lynn County--Continued

Thickness (feet)		Depth (feet)		Thickness (feet)		Depth (feet)	
<u>Well C-52</u>							
T. Arhnes, 12¼ miles northeast of Tahoka. Driller: C. Rutherford.							
Surface .....	3	3	Gravel, water .....	3	82		
Caliche .....	2	5	Sand .....	25	107		
Rock .....	20	25	Clay, sandy .....	5	112		
Sand, hard .....	35	60	Clay, yellow and blue .....	1	113		
Sand, dry .....	19	79					
<u>Well C-60</u>							
W. Maeker, 15¼ miles northeast of Tahoka. Driller: M. Mosely.							
Surface .....	5	5	Rock, hard, gray .....	6	60		
Caliche .....	26	31	Clay, yellow .....	10	70		
Rock, yellow .....	6	37	Clay, blue .....	1	71		
Rock, honeycombed .....	17	54					
<u>Well C-72</u>							
W. G. Lumsden, 11½ miles northeast of Tahoka. Driller: F. Kelley.							
Surface .....	3	3	Sand, coarse-grained, grayish-white, and gravel and shells .....	6	116		
Caliche .....	9	12	Clay, yellow .....	12	128		
Sand, reddish-brown .....	8	20	Clay and shale, blue .....	14	142		
Silt and clay, red .....	15	35					
Sand and gravel .....	60	95					
Clay and silt .....	15	110					
<u>Well C-76</u>							
R. A. Kahlich, 11 miles northeast of Tahoka. Driller: Southwestern Drilling Co.							
Surface .....	8	8	Gravel .....	18	150		
Caliche .....	50	58	Shale, blue .....	12	162		
Sand and gravel .....	52	110	Limestone .....	16	178		
Shale, red .....	22	132	Shale, blue .....	10	188		
<u>Well C-82</u>							
J. F. W. Maeker, 11¼ miles northeast of Tahoka. Driller: J. L. Palmour.							
Surface .....	4	4	Clay, brown .....	19	114		
Caliche .....	36	40	Sand and gravel .....	9	123		
Sand, brown .....	30	70	Clay .....	7	130		
Sand and gravel .....	25	95					
<u>Well C-84</u>							
E. R. Legg, 12 miles northeast of Tahoka. Driller: -- Wilhoyt.							
Surface .....	4	4	Clay, reddish-brown .....	5	110		
Caliche .....	56	60	Sand, gravel and shells .....	10	120		
Sand, dry .....	15	75	Shale, blue .....	3	123		
Sand and gravel .....	30	105					

Table 8.- Drillers' logs of wells in Lynn County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well C-92</u>					
W. A. Basinger, 16½ miles northeast of Tahoka. Driller: C. Basinger.					
Surface .....	5	5	Limestone, hard .....	7	127
Caliche .....	45	50	Clay, dark blue .....	2	129
Clay, sandy .....	25	75	Sand and gravel .....	17	146
Sand and gravel .....	45	120	Clay, red .....	3	149
<u>Well C-99</u>					
E. Denton, 14½ miles northeast of Tahoka.					
Surface, clay and caliche .....	45	45	Sand and gravel .....	27	125
Sand and gravel .....	5	50	Clay, red .....	3	128
Shale, blue .....	48	98			
<u>Well C-100</u>					
N. Wynn, 14 miles northeast of Tahoka.					
No record .....	42	42	Sand, tight .....	10	108
Sand .....	18	60	Sand; water .....	10	118
Lime rock .....	7	67	Shale, blue .....	4	122
Sand .....	13	80	Sand, white .....	27	149
Rock and shale .....	10	90	Sand and gravel .....	3	152
Shale; caving .....	8	98	Clay, red .....	1	153
<u>Well D-1, partial log</u>					
Dan Auld, 16 miles northwest of Tahoka. Driller: Trinity Oil Co.					
Sand and caliche .....	120	120	Redbeds .....	1,539	2,199
Shale, blue, and shells .....	70	190	Anhydrite .....	28	2,227
Sand, hard .....	70	260	TOTAL DEPTH .....		5,202
Shale, redbeds, and shells .....	400	660			
<u>Well D-4</u>					
C. O. Edwards Estate, 11½ miles northwest of Tahoka. Driller: Shell Oil Co.					
Surface .....	5	5	Gravel .....	6	150
Clay, sandy .....	71	76	Clay, yellow .....	12	162
Rock .....	6	82	Clay, blue .....	38	200
Clay, sandy .....	62	144			
<u>Well D-10</u>					
R. F. Draper, 15 miles southwest of Tahoka. Driller: Continental Oil Co.					
Surface (sand dunes) .....	40	40	Shale and clay, blue and yellow with some limestone lenses .....	30	94
Caliche .....	12	52			
Sand with shale streaks .....	12	64			

Table 8.- Drillers' logs of wells in Lynn County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
--	---------------------	-----------------	--	---------------------	-----------------

## Well E-2

C. O. Edwards Estate, 5 miles northwest of Tahoka. Driller: Shell Oil Co.

Surface and clay, sandy, and caliche .....	90	90	Limestone, fossiliferous .....	3	131
Sand, light gray .....	20	110	Shale, blue with sandstone and limestone streaks .....	21	152
Shale and clay, blue and yellow .....	18	128			

## Well E-7

City of Tahoka, 3/4 miles north of Tahoka. Driller: L. A. Peoples.

Surface .....	6	6	Sand and gravel water .....	20	79
Caliche .....	40	46	Clay, yellow .....	1	80
Sand rock .....	3	49			
Hard rock .....	10	59			

## Well E-18

D. W. Gagnat, 1/2 miles north of Tahoka. Driller: R. Curry.

Surface .....	7	7	Rock, porous .....	12	109
Caliche .....	18	25	Sand .....	14	123
Sand and clay .....	65	90	Clay, yellow .....	1	124
Sand, fine-grained .....	7	97			

## Well E-22

H. B. Crosby, 6/8 miles northwest of Tahoka. Driller: Shell Oil Co.

Surface .....	10	10	Shale and clay with limestone streaks .....	36	272
Caliche .....	10	20	Shale, red, with argillaceous gray sand .....	118	390
Clay, sandy .....	60	80			
Clay, dark gray, and shale, blue .....	120	200			
Limestone, silty, light gray .....	4	204			
Shale, calcareous, light gray .....	32	236			

## Well E-23, partial log

C. O. Edwards, 4/8 miles southwest of Tahoka. Driller: Hart Oil Co.

Surface .....	5	5	Clay, blue .....	61	175
Rock, gyp, pink .....	25	30	Lime, shelly, white .....	15	190
Flint, brown .....	6	36	Lime, white .....	35	225
Clay, yellow .....	52	88	Sand, water .....	35	260
Clay, blue .....	22	110	Clay, red .....	15	275
Limestone, blue .....	4	114	TOTAL DEPTH .....		1,300

## Well E-24

C. O. Edwards, 2/2 miles southwest of Tahoka. Driller: Shell Oil Co.

Surface .....	25	25	Shale, blue, and limestone .....	12	148
Clay, blue .....	20	45	Redbeds .....	52	200
Limestone .....	91	136			



Table 8.- Drillers' logs of wells in Lynn County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well E-29, partial log</u>					
L. Williams, 6 miles southwest of Tahoka. Driller: Barnsdall Oil Co.					
Shale and shells .....	91	91	Redbeds .....	367	959
Shale .....	93	184	Redbeds and shells .....	476	1,435
Redbeds .....	242	426	Anhydrite and shells .....	165	1,600
Redbeds and shells .....	166	592	TOTAL DEPTH .....		7,509
<u>Well F-17</u>					
W. R. Greer, 10¼ miles southeast of Tahoka. Driller: P. Walker.					
Surface .....	3	3	Lime rock or caliche .....	43	127
Caliche .....	21	24	Clay, red .....	2	129
Clay, sandy .....	28	52	Sand and gravel .....	16	145
Sand, fine-grained .....	28	80	Redbeds .....	7	152
Sand, coarse-grained, gravel and shells ..	4	84			
<u>Well F-36</u>					
Calloway-Huffakre, 7½ miles southeast of Tahoka. Driller: Calloway-Huffakre.					
Surface .....	25	25	Clay, blue and limestone .....	60	165
Clay, yellow .....	25	50			
Limestone .....	55	105			
<u>Well G-3</u>					
L. T. Stretch, 15 miles southwest of Tahoka.					
Surface (sand dunes) .....	16	16	Gravel .....	5	60
Sand .....	5	21	Clay, blue and yellow, and shale ...	27	87
Caliche .....	9	30			
Sand .....	25	55			
<u>Well G-8</u>					
Arizona Chemical Co., 18 miles southwest of Tahoka. Driller: F. Buchanan.					
Surface .....	1	1	Clay, blue .....	21	115
Clay, white, and sand .....	4	5	Lime .....	9	124
Clay, grayish-white .....	11	16	Shale, blue .....	24	148
Sand .....	3	19	Sand, white, water and red gravel ..	15	163
Clay, bluish-gray, soft .....	11	30	Clay, green, sandy .....	14	177
Gypsum, crystalline .....	15	45	Clay, red, tough .....	7	184
Lime, hard .....	25	70	Clay, green .....	6	190
Clay, blue with selenite .....	5	75	Clay, red .....	10	200
Rock, hard .....	4	79			
Lime, hard .....	15	94			
<u>Well H-7, partial log</u>					
Mary L. McAfee Shoe, 8¼ miles south of Tahoka. Driller: Guthrie Lake Oil Co.					
Caliche .....	15	15	Shale, blue, soft .....	47½	157
Clay, yellow, soft .....	35	50	Shale, brown, sandy .....	6	163
Shale, blue .....	8	58	Redbeds .....	20	183
Lime, gray, hard .....	51½	109½	TOTAL DEPTH .....		802

Table 8.- Drillers' logs of wells in Lynn County--Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Well H-21</u>							
C. J. Beach, 14½ miles southeast of Tahoka.							
Surface .....		3	3	Sand and gravel .....		5	25
Rock .....		17	20	Clay, blue .....		2	27
<u>Well J-8</u>							
Dr. J. F. Campbell, 11 miles southeast of Tahoka. Driller: -- Wallace.							
Surface .....		3	3	Shale, blue .....		5	85
Caliche .....		31	34	Lime, soft .....		10	95
Lime .....		4	38	Gumbo, blue .....		7	102
Gravel .....		10	48	Clay, sandy, yellow .....		6	108
Clay, yellow with sand and gravel, gyp water .....		32	80	Shale, blue .....		39	147
				Sand, white, fine-grained, dry .....		30	177
				Shale, red .....		9	186
<u>Well J-13</u>							
L. W. Sanford, 17 miles southeast of Tahoka. Driller: Magnolia Petroleum Co.							
Surface .....		3	3	Clay, blue with limestone and sand- stone streaks .....		115	145
Caliche .....		15	18	Shale and clay, red .....		5	150
Clay, sandy .....		12	30				

Table 9.- Analyses of water from wells and springs in Lynn County, Tex.

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO <sub>2</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Boron (B)	Dissolved solids	Total hardness as CaCO <sub>3</sub>	Percent sodium
A-10	R. L. Williams	140	July 28, 1949	1,100	8.05	43	33	47	132	396	123	77	2.5	-	653	276	51
A-22	A. C. Fillingim	150	do.	931	8.2	48	32	44	104	392	89	50	1.8	-	562	261	46
A-38	B. A. Morrow	155	July 27, 1949	872	7.8	47	28	48	86	402	74	32	2.5	-	516	268	41
A-55	H. Cowart	148	July 29, 1949	955	7.95	38	22	45	120	439	91	32	1.8	.70	566	240	52
A-66	G. George	340	Aug. 4, 1949	1,030	8.15	41	29	34	146	381	123	61	4.7	-	626	212	60
B-13	A. H. Barnett	160	July 20, 1949	890	7.85	50	28	39	109	412	82	31	.5	-	542	230	51
B-20	F. R. Nolte	200	Sept. 1, 1949	805	7.6	47	29	31	101	363	76	29	2.2	-	494	200	52
B-47	W. B. King	147	July 21, 1949	983	8.05	52	28	44	126	429	117	36	1.5	-	616	251	52
B-52	A. A. Teinart	135	Sept. 2, 1949	893	7.65	54	31	35	112	371	104	36	1.2	-	556	222	52
B-70	J. Melde	150	do.	988	7.7	50	31	41	128	408	135	34	2.0	-	622	246	53
B-90	Mrs. Dora Blakney	136	July 22, 1949	1,010	7.55	34	42	51	100	381	128	58	5.2	.62	609	314	41
C-3	H. Wuensche	180	Sept. 1, 1949	919	7.6	46	34	32	113	383	98	32	1.8	.95	554	216	53
C-22	A. J. Gully	99	do.	834	7.65	62	38	48	65	339	84	47	2.8	-	516	292	33
C-40	F. W. Kahlich	70	Aug. 25, 1949	1,620	8.4	58	45	86	156	284	270	181	28	-	970	466	42
C-41	R. F. Stegemoeller	48	June 23, 1949	1,780	7.7	68	72	110	143	375	309	205	31	-	1,120	632	33
C-45	J. Riney	105	July 28, 1949	852	8.35	54	40	43	80	354	97	41	1.8	-	531	277	39
C-55	R. T. Moore	117	do.	2,480	8.1	48	129	151	200	311	672	278	38	-	1,670	943	32
C-69	E. Coleman	95	do.	924	7.65	38	42	43	92	381	104	44	2.0	.82	550	282	41
C-70	Wm. Schneider	116	July 5, 1949	908	7.9	50	44	40	103	368	118	49	5.6	-	594	274	45
C-87	W. T. Davis	-	July 28, 1949	852	7.8	37	38	36	94	345	106	37	1.8	.66	520	243	46
C-97	T. H. Basinger	134	July 7, 1949	1,150	7.75	47	49	67	82	306	126	134	7.5	.59	664	398	31
C-99	E. Denton	128	July 6, 1949	2,210	8.0	60	98	104	222	314	418	320	13	-	1,390	672	42
C-100	N. Wynn	153	July 7, 1949	1,420	7.65	57	52	57	162	329	181	181	4.3	.92	856	364	49
C-101	Gordon Gin	100	Dec. 8, 1950	3,340	7.7	-	-	-	-	372	1,040	322	19	-	-	720	-
C-102	G. L. Garry	38	Aug. 18, 1949	1,440	8.0	77	58	79	132	406	241	112	20	-	919	470	38
C-104	Mrs. W. A. Tucker	60	do.	2,070	7.9	70	100	102	192	407	342	275	12	-	1,290	669	38
C-105	O. Dube	-	July 7, 1949	1,820	8.1	61	100	85	167	322	331	245	8.5	-	1,160	599	38
C-107	Tahoka Lake	-	Aug. 5, 1949	47,600	7.0	3.4	957	742	10,800	96	4,590	17,100	-	-	34,200	5,440	81
D-2	I. Stewart	75	Aug. 18, 1949	1,800	8.05	50	22	43	321	569	268	129	2.0	-	1,100	232	75
D-3	Wm. Flint	101	Aug. 15, 1949	1,180	7.8	52	69	45	117	382	136	78	58	-	743	357	42
D-4	C. O. Edwards Estate	200	Sept. 6, 1949	4,100	7.7	10	16	13	930	356	538	840	1.5	-	2,500	94	96
D-6	J. Wells	250	Aug. -- 1949	6,620	7.7	9.0	31	29	1,380	356	723	1,520	3.0	-	3,870	196	94
D-7	G. Wells	143	Sept. 6, 1949	5,930	7.7	10	31	21	1,270	367	756	1,300	4.0	-	3,570	164	94
D-8	G. Jacobs	70	do.	2,630	7.5	66	80	148	286	391	616	290	74	-	1,750	808	43
D-9	Miss A. Fortenberry	285	Aug. 15, 1949	5,620	7.45	10	29	24	1,190	358	736	1,200	3.5	-	3,370	171	94
D-11	E. M. Dorsey	117	May 17, 1950	21,600	7.6	26	727	1,520	3,090	276	5,970	5,920	-	-	17,400	8,060	45
D-12	G. Hickerson	100	Aug. 16, 1949	3,160	7.6	60	198	148	257	230	594	575	54	-	2,000	1,100	34
E-17	D. W. Gagnat	99	Aug. 3, 1949	3,040	7.9	65	118	142	288	178	543	555	15	1.3	1,820	878	42
E-19	W. Curry	112	July 28, 1949	1,060	7.45	66	70	43	85	297	132	110	1.0	.6	649	352	35

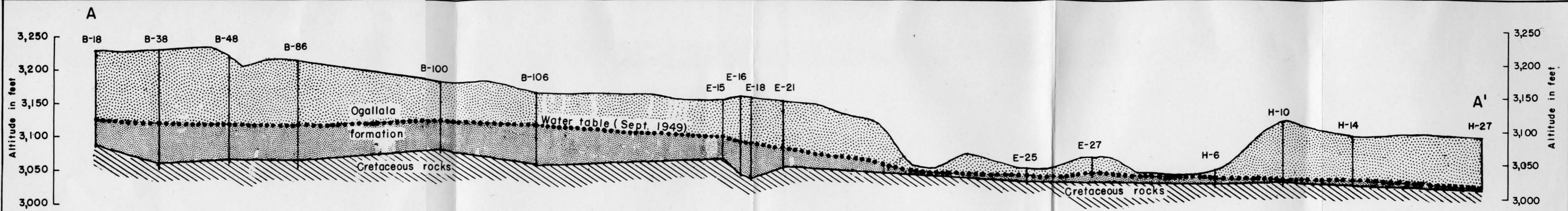
Table 9.- Analyses of water from wells and springs in Lynn County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO <sub>2</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Boron (B)	Dissolved solids	Total hardness as CaCO <sub>3</sub>	Percent sodium
E-26	C. M. Greer	25	Aug. 11, 1949	2,470	7.25	67	606	29	49	262	1,430	5.0	35	-	2,350	1,630	6
E-30	W. Hagood	60	Aug. 16, 1949	1,760	8.0	50	75	84	168	424	183	238	29	-	1,040	532	41
*F-1	K. Bingham	200	Aug. 17, 1949	4,970	7.5	26	109	237	672	264	1,270	820	15	-	3,280	1,250	59
F-2	A. P. Hedrick	60	July 28, 1949	3,070	8.15	19	30	125	469	570	598	352	27	-	1,900	589	63
F-3	J. W. Kendricks	125	do.	1,440	7.8	80	92	80	84	394	111	195	34	-	876	550	25
F-4	T. B. Mason	56	Aug. 24, 1949	2,070	8.3	52	83	127	183	535	360	188	61	-	1,320	729	35
F-5	A. A. Huff	200	July 28, 1949	7,780	7.8	9	69	52	1,590	314	667	2,050	1.2	-	4,590	386	90
F-6	R. M. Turner	42	July 19, 1949	2,870	7.9	52	115	172	252	358	579	450	14	-	1,810	994	36
F-8	J. H. Huddleston	135	Dec. 8, 1950	6,360	7.9	-	-	-	-	397	1,150	1,400	100	-	-	1,860	-
F-11	R. L. Craig	38	July 19, 1949	3,830	7.3	50	226	145	396	274	706	720	56	-	2,430	1,160	43
F-18	M. Richie	93	July 28, 1949	2,340	8.0	50	98	122	214	332	407	350	28	-	1,430	746	38
F-25	M. C. Thomas	127	Sept. 2, 1949	2,450	7.6	52	84	76	333	317	298	462	29	-	1,490	522	58
F-34	P. Thomas	130	July 13, 1949	2,110	7.85	56	121	113	141	331	265	352	37	-	1,250	766	29
F-35	Garza Land & Cattle Co.	Spring	Sept. 2, 1949	1,960	8.15	53	110	70	196	333	288	280	24	-	1,180	562	43
F-37	B. O. Bingham	-	Aug. 11, 1949	1,180	-	60	45	61	108	348	165	97	5.9	-	713	364	39
F-38	T. I. Tippett	103	Sept. 2, 1949	1,140	8.2	57	69	50	94	312	138	127	5.4	-	694	378	35
F-39	J. R. Lambert	65	Aug. 11, 1949	1,000	8.2	54	44	66	59	401	74	54	35	-	583	382	24
G-2	R. A. Taylor	82	Aug. 16, 1949	4,170	7.25	52	194	165	595	272	1,560	400	56	-	3,160	1,160	53
G-4	O. P. Crutcher	130	do.	1,750	7.9	56	59	88	169	300	288	225	15	-	1,050	509	42
G-5	L. Light	100	Sept. 6, 1949	1,910	7.2	63	98	102	172	267	420	228	2.0	-	1,220	664	36
G-7	T. Higginbotham	180	Aug. 23, 1949	6,700	7.6	10	94	78	1,330	360	966	1,520	4.0	-	4,180	555	84
*G-8	Arizona Chemical Co.	200	July 29, 1938	-	-	-	118	118	2,320	659	3,812	815	125	-	7,650	782	-
G-9	--	Spring	May 17, 1950	36,700	8.3	16	710	1,620	8,130	233	10,400	10,700	-	-	31,700	8,430	68
*G-10	W. P. Moore	206	July 29, 1938	-	-	-	318	179	589	226	923	3,320	-	-	5,450	1,530	-
H-1	B. Phipps	130	Sept. 6, 1949	1,200	7.6	25	64	56	99	248	182	142	14	-	724	39	35
H-4	R. Littlepage	35	Aug. 11, 1949	1,900	8.55	21	21	114	236	775	182	64	146	-	1,170	521	50
H-6	C. Harper	26	Sept. 19, 1949	4,350	7.6	22	183	181	621	572	1,360	465	13	-	3,130	1,200	53
H-8	Mrs. H. Warren	75	Aug. 8, 1949	4,460	8.1	50	352	201	298	150	658	1,060	62	-	2,750	1,700	28
H-9	C. L. Brock	75	Aug. 10, 1949	2,010	7.75	47	120	65	170	160	269	370	5.0	-	1,120	567	39
H-13	L. M. Mires	82	Aug. 16, 1949	3,240	7.55	50	168	204	248	253	798	480	103	-	2,180	1,260	30
H-19	J. G. Hale	40	Aug. 10, 1949	3,360	-	48	206	200	299	217	743	620	11	-	2,160	1,340	27
H-20	C. Schooler	42	do.	1,100	8.5	36	38	55	111	353	126	80	36	-	656	321	43
*H-21	C. Beach	27	May 17, 1950	2,060	8.1	34	48	128	275	554	436	128	38	1.5	1,380	646	45

Well F-1, Iron 27. Well G-8, Fluoride 22. Well G-10, Fluoride 0.9. Well H-21, Iron 0.04; fluoride 18.

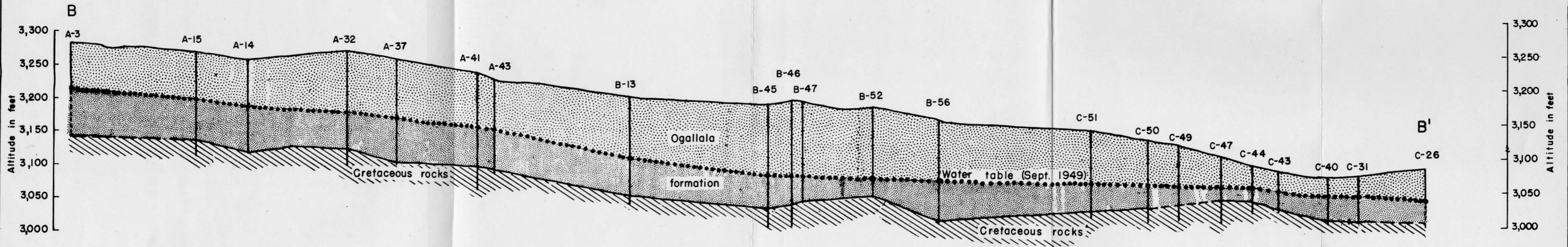
Table 9.- Analyses of water from wells and springs in Lynn County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO <sub>2</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Boron (B)	Dissolved solids	Total hardness as CaCO <sub>3</sub>	Percent sodium
J-3	C. Coffee	25	Aug. 11, 1949	3,960	7.6	67	530	299	156	195	2,490	86	23	-	3,750	2,550	12
J-4	P. Thomas	58	Aug. 10, 1949	6,540	8.2	44	292	381	708	353	1,490	1,400	24	-	4,510	2,300	40
J-5	H. Patterson	60	Aug. 11, 1949	3,080	7.7	57	203	79	346	318	420	605	40	-	1,910	832	47
J-6	W. Caswell	40	Aug. 9, 1949	4,920	7.8	65	264	301	368	277	910	1,070	15	-	3,130	1,900	30
J-7	J. Stalcup	50	Aug. 10, 1949	1,750	8.0	66	86	116	104	444	215	228	10	-	1,040	692	25
J-9	H. B. Brewer	60	Aug. 9, 1949	4,670	7.3	28	208	271	423	230	917	1,000	1.0	-	2,960	1,630	36
J-10	do.	55	do.	1,390	7.7	44	32	86	132	502	119	79	92	-	831	434	40
J-11	H. D. Cook	39	Aug. 10, 1949	1,470	8.0	48	100	50	129	172	198	258	29	-	897	455	38
J-12	L. B. Jones	38	do.	3,790	7.6	60	174	152	439	324	619	730	92	-	2,430	1,060	47



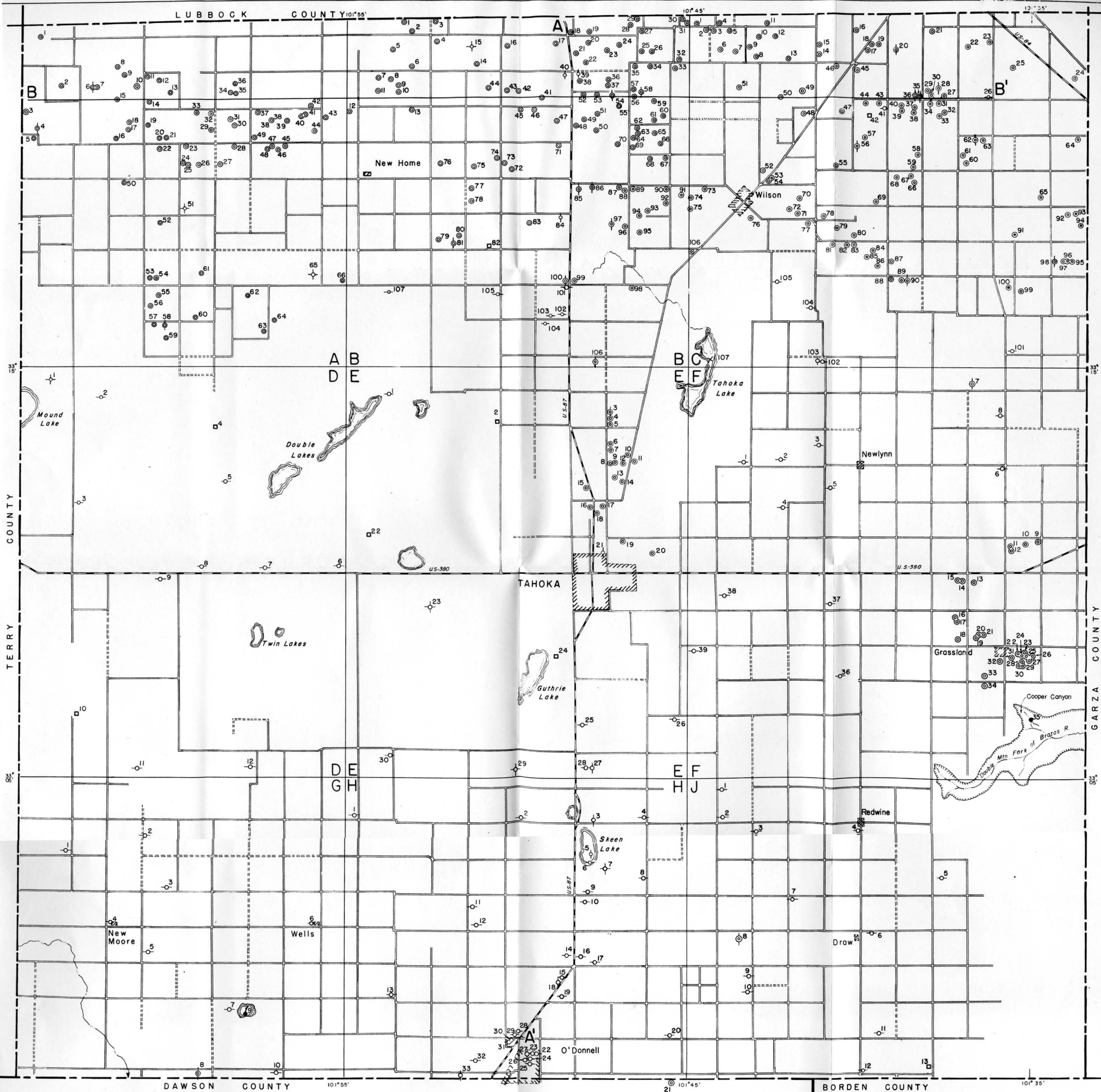
A. NORTH-SOUTH SECTION ALONG U. S. HIGHWAY 87.

Note: Altitudes of wells determined by Aneroid barometer and hand level from profile by the Texas State Highway Department.



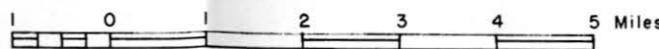
B. WEST-EAST SECTION ALONG LINE B-B'





EXPLANATION

- Well with pumping plant, 5-horsepower or larger
- Well with hand pump, windmill, or small power pump
- Unused well
- Spring
- Oil test
- Seismograph shot hole
- Sampling point in lake



MAP OF LYNN COUNTY, TEXAS  
 SHOWING LOCATION OF WELLS AND SPRINGS AS OF JANUARY 1, 1950

Base compiled from State Highway  
 Planning Survey map and field notes