

TEXAS BOARD OF WATER ENGINEERS

**C. S. Clark, Chairman
A. H. Dunlap, Member
J. W. Pritchett, Member**



KENDALL COUNTY, TEXAS

**Records of wells, drillers' logs, water analyses,
and map showing locations of wells**

**PREPARED IN COOPERATION WITH THE UNITED STATES
DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY**

AUGUST 1940

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Records of wells and springs, drillers' logs, water analyses,
and map showing locations of wells and springs

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Work Projects Administration Project 14739

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Analyses made and report mimeographed by

WORK PROJECTS ADMINISTRATION

Project 10443

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Sponsored by the State Board of Water Engineers with the United States Department of the Interior, Geological Survey, and the Bureau of Industrial Chemistry of The University of Texas cooperating.

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Austin, Texas
October 15, 1940

KENDALL COUNTY, TEXAS

Introduction

By

William O. George
Assistant Geologist

United States Geological Survey

This publication contains records of 286 wells, and 32 springs, drillers' logs of 11 wells, logs of 92 test wells, and 191 chemical analyses of water obtained from water wells and springs in Kendall County, Texas.

On January 2, 1940, the Work Projects Administration started an inventory of the water resources of the county with a project sponsored by the State Board of Water Engineers in cooperation with the Federal Geological Survey, with J. M. Frazier, Jr., as project superintendent. In addition to the inventory a number of test holes were put down by WPA labor and the work was completed April 15, 1940.

The analyses were made by chemists employed on Work Projects Administration Project 10443 under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry of The University of Texas, and E. W. Lohr, Chemist of the Quality of Water Division of the Geological Survey; the Bureau of Industrial Chemistry furnished laboratory space and equipment. This release was typed by typists employed on that project.

The records serve as a guide to land owners, well drillers, and others who need information regarding wells and springs, the depth to ground water in different parts of the county, and the quantity and chemical character of the water yielded by wells and springs. They afford a basis for the more intensive investigation that is now being carried on by the State Board of Water Engineers in cooperation with the Geological Survey. The purpose of this investigation is to determine the distribution and extent of available ground-water supplies and the safe yield of the underground reservoirs. Use has already been made of some of the data in this publication in connection with a study by the State Board of Water Engineers of a dam and reservoir site on Cibolo Creek in Boerne, Texas.

These projects are a part of a State-wide investigation of the underground water resources of Texas, and are sponsored by the Texas State Board of Water Engineers in cooperation with the United States Department of the Interior, Geological Survey. Acknowledgment of their cordial interest and cooperation is due the 10th field office of the Work Projects Administration and the commissioners of Kendall County.

Records of wells and springs in Kendall County, Texas
 (All wells are drilled unless otherwise noted in "Remarks" column.)
 (See "Logs of W. P. A. test wells" for all records of test wells.)

No.	In Boerne See City Map	Owner	Driller	Topo- graphic situa- tion	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
1	--	Mrs. S. Warren	--	Flat	--	35	8	1.0
d/ 2	--	Claud Smith	--	do.	1934	35	8	0.5
d/ 3	--	C. Bowman	--	do.	--	40	8	0.5
i/ 4	--	P. Hernandez	--	do.	Old	--	--	0.5
d/ 5	--	B. Bowman	B. Leonard	do.	1930	40	8	1.0
d/ 6	--	A. Rusch	--	do.	Old	40	8	0.3
d/ 7	--	V. Vosquez	-- Birkman	do.	1937	40	6	0.8
8	--	Minnie Davis	--	do.	1905	43	8	1.0
d/ 9	--	F. Roberts	--	do.	1934	41	8	1.0
10	--	B. Ebensberger	--	do.	1931	40	8	0.5
d/ 11	--	A. Voges	--	do.	1904	33	8	0.3
12	--	City of Boerne	--	do.	1928	40	12	1.0
d/ 13	--	Pauline Voigt	--	do.	1900	27	--	1.0
14	--	Joe Dienger	Joe Dienger	do.	1884	30	36	0.5
15	--	J. E. Sill	-- Swartz	do.	Old	228	8	1.0
d/ 16	--	B. D. Wilkins	--	do.	Old	150	8	0
d/ 17	--	Kendall County	--	do.	Old	250	8	0.5
d/ 18	--	Max Hofheinz	--	do.	--	512	--	1.0
19	--	Joe Phillips	--	do.	1910	188	6	0.5
20	--	Mrs. E. Richter	--	do.	1890	210	8	0.5
d/ 21	--	Mrs. F. Tucker	--	do.	--	30	6	0
d/ 22	--	B. Ebensburger	--	do.	1905	50	8	0.5
d/ 23	--	H. Fabra	--	do.	Old	20	8	0.5

a/ Measuring point was usually top of casing, top of well curb or top of pipe clamp; it was above ground level unless indicated by (-) sign for below ground level.
 b/ B, bucket; C, cylinder; W, windmill; T, turbine; G, gasoline; E, electric; H, hand; number indicates horsepower.

(Chemical analysis from these wells and springs are in the table of analysis.)

No.	Water level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
1	30.3	Apr. 1, 1940	B,H	D	Reported weak supply. Galvanized casing to bottom.
2	29.9	do.	B,H	D	Reported weak supply. Galvanized casing.
3	27.5	do.	B,H	D	Reported strong supply of soft water. Five feet of galvanized casing at top.
4	29.5	do.	--	None	
5	23.4	do.	B,H	D	Reported strong supply. Twenty feet of galvanized casing at top.
6	23.8	do.	C,W	D	Do.
7	26.6	Apr. 10, 1940	B,H	D,S	Reported strong supply. Galvanized casing.
8	27.7	Mar. 20, 1940	B,H	D	Reported strong supply. Fifteen feet of galvanized casing at top.
9	25.1	do.	B,H	D	Reported strong supply. Twenty feet of galvanized casing at top.
10	25.9	do.	C,H	D	Reported strong supply. Fifteen feet of galvanized casing at top.
11	26.6	do.	B,H	D,S	Reported strong supply. Twenty feet of galvanized casing at top.
12	29.0	do.	T,E, 15	F	Reported yield, 300 gallons a minute. Twenty-nine feet of iron casing at top.
13	25.4	Mar. 18, 1940	C,W	None	Reported strong supply of water.
14	29.3	do.	B,H	D,S	Reported strong supply. Dug well. Ten feet of rock casing at top.
15	26.9	e/	C,T	D,S	Reported strong supply. Galvanized casing.
16	135.8	Mar. 29, 1940	--	None	Upper 75 feet cased.
17	133.9	do.	--	None	Upper 20 feet cased with galvanized casing.
18	134.2	Mar. 25, 1940	--	None	
19	153.6	Mar. 18, 1940	C,W	D,S	Reported weak supply. Thirty-four feet of iron casing at top.
20	163.7	Mar. 21, 1940	C,W	D,S	Reported strong supply. Forty feet of galvanized casing at top.
21	9.1	Mar. 25, 1940	--	--	Fifteen feet of galvanized casing at top. This well is now used for a sewage disposal.
22	20.0	Mar. 29, 1940	--	--	Upper fifteen feet cased with galvanized casing.
23	21.6	Apr. 1, 1940	C,E	I	Reported strong supply. Fifteen feet of galvanized casing at top.

c/ D, domestic; S, stock; I, irrigation; P, public; N, not used.

d/ No water sample collected for analysis.

e/ Water level reported.

Records of wells and springs in Kendall County--Continued

No.	In Boerne see City Map	Owner	Driller	Topo- graphic situa- tion	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.) <u>a/</u>
d/ 24	--	W. J. Wilke	--	Flat	Old	150	--	0.8
d/ 25	--	E. Ebensberger	--	do.	Old	45	36	0.7
26	--	A. Wendler	--	do.	Old	35	36	3.0
27	--	Joe Sotelo	--	do.	1934	25	8	0.7
d/ 28	--	M. Davis	B. Leonard	do.	1926	41	8	2.0
d/ 29	--	F. W. Krauser	--	do.	1910	35	8	0.6
d/ 30	--	H. Richter	--	do.	--	30	2	0
31	--	Mrs. W. Zoeller	--	do.	1925	34	6	2.0
d/ 32	--	Gus Bower	--	do.	1910	70	8	0.3
d/ 33	--	Mrs. -- Weiss	--	do.	Old	35	--	3.0
d/ 34	--	C. Reinhard	--	do.	Old	52	8	1.5
d/ 35	--	Boerne Turnverein	A. Swartz	do.	1922	33	8	0.5
36	--	Paul Waeber	--	do.	--	60	--	1.0
37	--	A. Hartz	--	do.	1930	35	8	0.5
38	--	D. Knebbe	--	do.	1950	23	8	1.6
39	--	Chas. Bergmann	A. Swartz	do.	1910	232	8	2.0
d/ 40	--	L. B. Clegg	--	do.	Old	60	36	3.0
d/ 41	--	E. Schwetheim	E. Schwetheim	do.	1917	35	36	0.5
d/ 42	--	J. Prokop	B. Leonard	do.	1923	310	8	1.5
43	--	P. Holekamp	C. Swartz	Hilltop	1903	130	8	1.0
44	--	Eva Smith	--	Flat	--	200	8	0.5
45	--	J. W. Lawhon	A. Swartz	do.	1905	275	--	0.2
d/ 46	--	F. Leal	--	do.	Old	200	8	0.5
d/ 47	--	A. Raymond	--	do.	1930	--	8	0.3
48	--	Erich Poehnert	L. Bergman	Hilltop	1939	269	8	0.3
d/ 49	--	C. Schrader	--	Flat	1915	50	8	2.0

No.	Water level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
24	22.8	Mar. 2, 1940	--	--	Reported weak supply of water.
25	24.3	Mar. 25, 1940	C,G	D	Reported strong supply. Dug well. Rock casing.
26	27.2	do.	B,H	I	Reported strong supply. Dug well. Rock casing to bottom.
27	18.4	Mar. 21, 1940	B,H	D,S	Reported strong supply. Fifteen feet of galvanized casing at top.
28	18.1	do.	B,H	D	Reported strong supply. Eighteen feet of galvanized casing at top.
29	24.2	Mar. 25, 1940	--	None	
30	24.0	do.	C,E, $\frac{1}{2}$	Ind	Reported strong supply. Fifteen feet of galvanized casing at top.
31	25.3	do.	C,E	D	Reported strong supply. Twenty feet of iron casing at top.
32	23.1	Mar. 29, 1940	C,W	None	Upper twenty feet cased with galvanized casing.
33	25.6	Mar. 25, 1940	--	None	Dug well.
34	19.4	Mar. 21, 1940	C,W, G,2	D,S	Reported strong supply. Twenty feet of galvanized casing at top.
35	20.7	Mar. 25, 1940	C,G,2	D	Reported strong supply. Fifteen feet of galvanized casing at top.
36	18.1	Mar. 18, 1940	C,W	L,S	Reported strong supply.
37	19.6	Mar. 25, 1940	C,T	D	Reported strong supply. Fifteen feet of galvanized casing at top.
38	12.3	Mar. 21, 1940	B,H	D,S	Reported weak supply. Fifteen feet of galvanized casing at top.
39	13.0	Mar. 19, 1940	B,H	S	Reported strong supply. Sixteen feet of galvanized casing at top.
40	34.8	Apr. 3, 1940	--	None	Dug well. Rock casing top to bottom.
41	32.0	do.	C,G, $\frac{1}{2}$	D,I	Reported strong supply. Dug well. Rock casing.
42	186.5	do.	C,W	D,S	Reported strong supply. Forty feet of galvanized casing at top.
43	31.4	Mar. 25, 1940	C,W	D,S	Reported strong supply. Twenty feet of galvanized casing at top.
44	17.4	do.	C,W	D	Reported strong supply. Fifteen feet of galvanized casing at top.
45	35.5	Mar. 21, 1940	C,W	D,S	Do.
46	23.6	Apr. 1, 1940	--	None	Upper twenty feet cased with tile casing.
47	155.4	Apr. 3, 1940	B,H	None	Galvanized casing.
48	184.4	Mar. 25, 1940	C,W	D,S	Reported strong supply. Twenty feet of galvanized casing at top.
49	16.1	do.	C,T	D,S	Reported strong supply. Ten feet of galvanized casing at top.

Records of wells and springs in Kendall County--Continued

No.	In Boerne see City Map	Owner	Driller	Topo- graphic situa- tion	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.) <u>a/</u>
50	--	A. Schultz	B. Leonard	Flat	1929	350	8	1.3
<u>d/</u> 51	--	Dr. John Herff	--	Hilltop	1900	325	--	0.5
<u>d/</u> 52	--	Charley Schultz	--	Flat	Old	40	36	0.5
53	--	Mrs. R. Thomas	B. Leonard	do.	1927	50	10	2.5
54	--	Mrs. E. Vogt	--	do.	1924	180	--	1.0
<u>d/</u> 55	--	C. O. Ebensbarzer	L. Bergmann	Hill- side	1925	157	--	--
<u>d/</u> 56	--	W. S. Bryant	--	Flat	Old	40	36	0
<u>d/</u> 57	--	Leslie Boswell	--	do.	Old	50	36	0.5
58	--	San Antonio Public Service Co.	--	do.	1910	24	48	0.5
<u>d/</u> 59	--	A. Werner	--	do.	--	40	36	0.5
<u>d/</u> 60	--	Mrs. -- Meyers	--	do.	Old	50	36	2.0
<u>d/</u> 61	--	Otto Vogt	A. Swartz	do.	1909	260	6	0.0
<u>d/</u> 62	--	A. Zoeller	--	do.	Old	50	8	0.5
<u>d/</u> 63	--	W. C. Ammann	--	do.	1910	40	8	1.0
64	--	Ernest Vorges	--	do.	--	40	--	1.0
<u>d/</u> 65	--	A. Vogt	--	do.	1920	400	8	1.5
66	--	A. B. Vogt	B. Linertz	Hill- side	1925	50	8	1.0
67	--	Mrs. A. Graham	--	Hilltop	Old	30	--	0.4
68	--	Miss L. Dienger	--	Flat	1854	20	36	3.0
<u>d/</u> 69	--	Mrs. M. Wesley	--	do.	1880	125	8	1.0
<u>d/</u> 70	--	-- Hatway	A. Swartz	do.	--	150	8	0
71	--	H. Graham	--	Hill- side	Old	60	6	0.8
<u>d/</u> 72	--	J. F. Callaway	--	Flat	Old	83	8	1.0
<u>d/</u> 73	--	City of Boerne	--	do.	--	50	36	1.5
<u>d/</u> 74	--	A. Dienger	--	do.	Old	40	48	1.0
<u>d/</u> 75	--	W. Swartz	--	do.	Old	50	36	1.8

No.	Water level		Pump and power	Use of water	Remarks
	Depth below measuring point (ft.)	Date of measurement			
50	71.8	Mar. 25, 1940	C,E, 2½	D,S	Reported strong supply. Sixty feet of galvanized casing at top.
51	112.1	do.	C,W	D,S	Reported strong supply.
52	16.8	Mar. 23, 1940	C,W	D,S	Reported strong supply. Dug well. Concrete casing to bottom.
53	23.4	Mar. 25, 1940	B,H	D,S	Reported strong supply. Ten feet of galvanized casing at top.
54	115.6	Mar. 29, 1940	C,G, 1½	I	Reported weak supply.
55	109.8	do.	--	D,S	Do.
56	25.4	Mar. 19, 1940	C,W	None	Dug well. Rock casing.
57	26.2	Mar. 23, 1940	C,H	None	Dug well. Rock casing to bottom.
58	21.7	Mar. 28, 1940	C,E, 3	Ind	Dug well. Reported strong supply. Rock casing to bottom.
59	19.9	do.	B,H	None	Dug well. Rock casing to bottom.
60	16.4	do.	B,H	None	Do.
61	85.9	Mar. 29, 1940	--	None	Upper twenty feet cased with galvanized casing.
62	17.2	do.	--	None	Upper fifteen feet cased with galvanized casing.
63	18.2	do.	C,E, ½	Ind	Fifteen feet of galvanized casing at top. Water is used by filling station.
64	20.2	Mar. 25, 1940	C,H	D	Reported strong supply.
65	73.4	Mar. 29, 1940	C,G, 3	S	Reported strong supply. Galvanized casing.
66	29.2	Mar. 28, 1940	C,W	--	Reported strong supply. Fifteen feet of galvanized casing at top.
67	35.7	Apr. 2, 1940	C,W	S	
68	17.6	Mar. 25, 1940	B,H	D	Reported strong supply. Dug well. Rock casing to bottom.
69	36.5	Apr. 1, 1940	C,W	D	Reported strong supply. Galvanized casing.
70	39.4	do.	C,W	D	Reported weak supply. Twenty feet of galvanized casing.
71	46.2	Apr. 2, 1940	C,H	None	Reported weak supply of water. Fifty feet of iron casing at top.
72	42.7	Apr. 1, 1940	C,H	None	Reported weak supply. Thirty feet of galvanized casing at top.
73	47.3	do.	--	None	Dug well. Rock casing.
74	16.7	do.	B,H	None	Reported weak supply of water. Dug well. Rock casing to bottom.
75	15.1	do.	B,H	None	Dug well. Rock casing to bottom.

Records of wells and springs in Kendall County--Continued

No.	In Boerne see City Map	Owner	Driller	Topo- graphic situa- tion	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.) a/
d/ 76	--	A. Maywold	-- Knibbe	Hill- side	--	--	8	0.5
d/ 77	--	City of Boerne	Dingmann Drilling Co.	Hilltop	1928	938	8	0
d/ 78	--	do.	--	Flat	--	60	8	1.0
79	--	do.	--	Creek bottom	--- Spring		--	--
80	--	do.	--	--	--	--	--	--
81	--	do.	--	--	--	--	--	--
No.	Distance from Boerne	Owner	Driller	Topo- graphic situa- tion	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.) a/
d/101	1 $\frac{1}{4}$ miles west	H. Zoeller	E. Vogt	Flat	1923	85	4	--
102	$\frac{3}{4}$ mile southwest	do.	--	Hill- side	1910	320	--	--
103	1 $\frac{3}{4}$ miles southwest	J. A. Taren	--	Flat	Old	180	4	1.6
105	1 $\frac{1}{4}$ miles south	L. A. Lamm	A. Werner	Hill- side	1914	100	4	--
106	$\frac{1}{2}$ mile south	M. A. Shumard	--	do.	1933	35	8	1
107	1 mile southeast	Judge M. J. Lehmann	L. Bergmann	Hilltop	1935	100	6	--
112	3 $\frac{1}{4}$ miles south	Paul Sultenfuss	--	do.	1925	135	4	--
114	4 $\frac{1}{2}$ miles south	A. Wendler	--	Flat	1900	90	6	0.2
115	3 $\frac{1}{2}$ miles south	R. Swartz	--	do.	Old	370	6	--
d/117	do.	Joe Phillips	--	do.	1910	188	6	0.5
d/119	4 $\frac{1}{4}$ miles southeast	Kendall County	--	do.	--	70	8	--
120	3 $\frac{1}{2}$ miles southeast	Mrs. J. A. Stevenson	--	do.	1926	300	8	0
121	4 $\frac{1}{4}$ miles southeast	R. G. Goll	--	do.	--	60	36	5.0
123	3 $\frac{1}{2}$ miles southeast	J. L. Adam	--	do.	1915	600	--	0
124	do.	C. E. Reed	--	do.	Old	500	6	0.5
127	2 $\frac{1}{2}$ miles southeast	J. Blank	L. Bergmann	do.	1940	91	8	--

a/ Measuring point was usually top of casing, top of well curb or top of pipe clamp, it was above ground level unless indicated by (-) sign for below ground level.

b/ B, bucket; C, cylinder; W, windmill; T, turbine; G, gasoline; E, electric; H, hand; number indicates horsepower.

No.	Water level		Pump and power <u>b/</u>	Use of water <u>c/</u>	Remarks
	Depth below measuring point (ft.)	Date of measurement			
76	78.6	Apr. 1, 1940	C,H	None	Reported weak supply of hard water. Galvanized casing.
77	187.8	Apr. 2, 1940	F,E, 15	None	Reported weak supply of hard water. 464 feet of iron casing at top. Well plugged at 464 feet. See log.
78	50.1	Mar. 29, 1940	--	None	Upper 15 feet cased with galvanized casing.
79	Flows	Mar. 18, 1940	--	--	Measured flow, 70 gallons a minute from 3 openings. Temperature 69° F.
80	Flows	Mar. 25, 1940	--	--	Sample from Cibolo Creek at highway bridge.
81	Flows	do.	--	--	Sample from Cibolo Creek near city well number 12.

No.	Water level		Pump and power <u>b/</u>	Use of water <u>c/</u>	Remarks
	Depth below measuring point (ft.)	Date of measurement			
101	65	<u>e/</u>	C,G, 1 $\frac{1}{2}$	I	Reported strong supply of hard water. Twenty feet of casing at top.
102	267	<u>e/</u>	C,W	D,S	Reported strong supply. No casing used.
103	132.4	Jan. 9, 1940	C,W	S	Reported strong supply. Iron casing at top.
105	82	<u>e/</u>	C,W	D,S	Reported strong supply. Ten feet of iron casing at top.
106	35.1	Apr. 8, 1940	C,W	D,S	Reported weak supply. Twenty feet of galvanized casing at top.
107	45	<u>e/</u>	C,E	D,S	Reported strong supply. Iron casing to bottom.
112	80	<u>e/</u>	C,W	D,S	Upper 20 feet cased with iron casing.
114	71.0	Jan. 9, 1940	C,W	D,S	Reported strong supply. Iron casing.
115	190	<u>e/</u>	C,W	D,S	Reported weak supply. Forty feet of iron casing at top.
117	155.6	Mar. 16, 1940	C,W	D,S	Reported weak supply of hard water. Thirty-four feet of iron casing at top.
119	40	<u>e/</u>	C,H	D,F	Reported strong supply of soft water. Galvanized casing.
120	219.1	Apr. 9, 1940	C,G, 1 $\frac{1}{2}$	None	Reported weak supply. Galvanized casing.
121	37.3	do.	C,W	D,S	Reported weak supply. Rock casing to bottom.
123	178.7	do.	C,W	D,S	Reported strong supply of hard water from aquifer at 395 feet.
124	164.4	do.	C,W,G	D,S, Ind	Reported strong supply from aquifers at 350 and 495 feet. 60 feet of iron casing at top. Used by filling station.
127	--	--	C,E, 1 $\frac{1}{2}$	D,S, Ind	Reported strong supply. 20 feet of galvanized casing at top.

e/ D, domestic; S, stock; I, irrigation; P, public; N, not used.

d/ No water sample collected for analysis.

e/ Water level reported.

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
129	1 $\frac{1}{4}$ miles east	Kendall County Fair Assn.	--	Flat	--	75	8	--
130	3 $\frac{1}{2}$ miles east	F. Sultenfuss	-- Shearwood	do.	1900	200	8	--
132	4 $\frac{1}{2}$ miles east	E. H. Richter	B. Leonard	do.	1924	282	8	--
134	4 miles east	Joe Ammann	--	do.	--	90	8	1.0
d/135	5 $\frac{1}{2}$ miles east	do.	--	--	1880	20	--	--
136	6 miles east	do.	Rust & Swartz	--	1914	285	--	--
137	7 $\frac{1}{2}$ miles east	R. Kunz	--	Flat	--	290	--	--
d/138	7 miles east	M. Kunz	W. Nichols	do.	1902	720	--	--
d/139	6 $\frac{1}{2}$ miles east	Lena Kunz	Harrison Oil Co.	--	1930	2,450	--	--
141	6 $\frac{1}{2}$ miles east	Kendall County	--	Hilltop	1928	240	--	1.0
142	5 miles east	Chas. H. Rust	--	Flat	--	250	8	1.0
143	4 miles east	A. Heileckmann	B. Leonard	do.	1924	75	8	--
144	3 $\frac{1}{2}$ miles northeast	C. D. Wolford	--	--	--	200	--	1.0
146	1 $\frac{1}{2}$ miles northeast	E. Ebensberger	--	Flat	--	200	8	--
147	1 mile north	A. Heileckmann	--	do.	1927	286	--	--
148	1 mile northeast	F. Schwobe	-- Foot	do.	1910	247	8	3.0
151	2 $\frac{1}{2}$ miles northwest	J. Wegman	--	do.	1923	200	6	--
152	3 $\frac{1}{2}$ miles northwest	L. E. Eckert	W. Rust	do.	1934	85	6	--
154	4 miles northwest	S. E. Bonnel	--	do.	--	350	4	--
156	3 $\frac{1}{2}$ miles northwest	L. Bergmann	L. Bergmann	do.	1930	240	8	1.0
158	3 miles northwest	R. Theis	A. Swartz	do.	1920	199	8	--
d/159	2 $\frac{1}{2}$ miles west	G. Ogey	--	Hilltop	1924	150	--	1.0
160	3 miles southwest	C. C. McFarland	--	Flat	1890	40	60	--
163	3 $\frac{1}{2}$ miles southwest	H. C. Jordt	--	Hill-side	1910	100	4	1.0
164	4 miles west	do.	--	Creek bottom	Old	50	38	0.1
d/165	4 $\frac{1}{2}$ miles southwest	T. N. Smith	--	Hill-side	1910	270	4	--

No.	Water level		Pump and power b/	Use of water e/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
129	40	e/	C,W	D,S,I	Reported strong supply. 40 feet of galvanized casing at top.
130	40	e/	C,W	D,S	Do.
132	220	e/	C,W, G,1/2	D,S	Reported strong supply. 20 feet of galvanized casing at top.
134	46.6	Apr. 3, 1940	C,G	D,S	Reported strong supply. Galvanized casing.
135	13	e/	N	None	
136	200	e/	C,W	D,S	Reported strong supply.
137	265	e/	C,W	D,S	Reported strong supply. No casing used.
138	265	e/	C,W	D,S	Do.
139	--	--	--	--	Oil test. See log.
141	214.7	Apr. 3, 1940	C,H	P	Reported weak supply.
142	152.7	do.	C,W	D,S	Reported strong supply of water. 30 feet of galvanized casing at top.
143	41.8	do.	C,W	S	Reported strong supply. 10 feet of galvanized casing at top.
144	48.7	Feb. 28, 1940	C,W	D,S	Do.
146	65	e/	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
147	200	e/	C,W	D,S	Reported weak supply.
148	206.9	Feb. 28, 1940	C,W	D,S	Reported strong supply. 7 feet of galvanized casing at top.
151	25	e/	C,W,G	D,S	Reported strong supply of soft water. 20 feet of galvanized casing at top.
152	15	e/	C,H, G,5/8	D,F	Reported strong supply. Used by filling station. Iron casing.
154	220	e/	C,W	D,S	Reported weak supply. Iron casing.
156	107.0	Apr. 15, 1940	C,W, E,1/2	D,S	Reported strong supply. 50 feet of galvanized casing; at top.
158	60	e/	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
159	120.4	Jan. 10, 1940	C,G, 1/2	D,S	Reported weak supply of hard water.
160	39.2	Jan. 9, 1940	C,W	S	Reported weak supply. Dug well. Rock casing.
163	34.5	do.	C,W	D,S	Reported strong supply. Iron casing.
164	3.6	do.	--	None	Reported strong supply. Dug well. Rock casing.
165	150	e/	C,	D,S	Reported weak supply of hard water. Iron casing.

Records of wells and springs in Kendall County--Continued

No	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
168	3 $\frac{1}{4}$ miles west	J. Gombert	--	Flat	1900	145	--	--
d/170	4 $\frac{1}{2}$ miles west	Joe Johns	--	Hill-side	--	75	--	--
d/171	5 miles west	W. W. McDaniel	--	Flat	1920	180	8	1.0
173	5 $\frac{1}{4}$ miles west	do.	--	Hill-side	-- Spring		--	--
174	6 $\frac{1}{4}$ miles northwest	W. M. McCampbell	--	do.	Old	235	8	--
175	6 $\frac{1}{2}$ miles northwest	O. Davis	--	Creek bottom	-- Spring		--	--
176	6 miles northwest	J. B. Ethridge	--	Flat	1895	400	8	--
d/177	7 miles northwest	E. J. Whitworth	--	Hill-side	1900	200	8	0.3
d/179	7 $\frac{1}{4}$ miles west	T. B. Whitworth	A. Swartz	do.	1915	135	8	0
180	7 $\frac{1}{4}$ miles west	Dr. B. F. Smith	--	do.	-- Spring		--	--
181	8 $\frac{1}{2}$ miles west	G. Hall	--	do.	-- Spring		--	--
182	12 miles northwest	Mrs. K. Ingenhutt	S. S. Edge	do.	1937	100	8	--
183	11 $\frac{1}{2}$ miles northwest	Edwin Lindner	--	do.	1933	230	8	0.5
184	11 $\frac{1}{4}$ miles northwest	R. Lindner	W. Rust	do.	1930	105	8	1.0
d/185	11 miles northwest	H. Homealis	--	Flat	1920	510	8	--
187	12 $\frac{1}{2}$ miles northwest	C. E. Murff	--	Hill-side	1929	225	8	1.0
188	13 $\frac{1}{4}$ miles northwest	R. Lindner	--	do.	1890	196	6	1.0
189	14 miles northwest	do.	W. Rust	do.	1928	118	8	1.5
191	12 $\frac{1}{2}$ miles northwest	H. Lindner	--	Flat	1910	21	36	2.0
d/192	11 $\frac{1}{2}$ miles northwest	W. Lindner	A. Herbits	do.	1909	225	--	--
194	10 $\frac{1}{2}$ miles northwest	O. Rust	W. Rust	do.	1919	200	6	--
195	9 $\frac{1}{4}$ miles northwest	B. C. Baldwin	do.	Hill-side	1925	130	8	--
d/196	9 miles northwest	do.	S. Edge	do.	1938	80	8	0.8
d/201	7 miles northwest	Edwin Houston	--	do.	--	325	6	0.3
202	do.	do.	H. W. Martin	do.	1934	1,982	8 $\frac{1}{4}$	--
204	7 $\frac{1}{2}$ miles northwest	D. Bergmann	B. Rust	do.	1933	100	6	--

No.	Water level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
168	115	e/	C,W	D,S	Reported weak supply. Iron casing.
170	25	e/	C,G	D,S	Reported strong supply of hard water. No casing used.
171	81.4	Apr. 10, 1940	C,W	None	Reported strong supply of hard water. 40 feet of galvanized casing at top.
173	Flows	--	--	D,S,I	Reported flow, 10 gallons a minute from crevice in limestone. Water is piped to house. Temperature 66° F.
174	85	e/	C,W	D,S	Reported weak supply. 160 feet of galvanized casing at top.
175	Flows	Jan. 17, 1940	--	S	Measured yield, 50 gallons a minute from many openings. Known as "Cibola Creek Spring."
176	90	e/	C,W,G	D,S	Reported strong supply. Galvanized casing.
177	92.5	Apr. 10, 1940	--	None	Upper 130 feet cased with galvanized casing.
179	13.4	do.	C,W	D,S	Reported weak supply of hard water which tastes salty. 40 feet of galvanized casing at top.
180	Flows	do.	--	D,S	Measured flow, 6 gallons a minute from 3 openings. Temperature 66° F.
181	Flows	--	--	D,S	Reported flow, 15 gallons a minute from limestone. Known as the "Hall Ranch Spring." Temperature 66° F.
182	--	--	C,W	D,S	Reported strong supply from limestone at 90 to 100 feet. 50 feet of galvanized casing at top.
183	124.9	Apr. 10, 1940	C,W	D,S	Reported weak supply. 212 feet of galvanized casing at top.
184	87.2	Apr. 11, 1940	C,W	D,S	Reported strong supply. 40 feet of galvanized casing at top.
185	164.5	do.	C,W	None	Upper 40 feet cased with galvanized casing.
187	69.0	Mar. 27, 1940	C,W	D,S	Reported strong supply. 60 feet of galvanized casing at top.
188	150	e/	C,W	D,S	Reported strong supply. 40 feet of iron casing at top.
189	98.5	Mar. 27, 1940	C,W	S	Reported strong supply. 100 feet of galvanized casing at top.
191	10.5	do.	C,H	S	Reported strong supply. Dry well. Rock casing to bottom.
192	196	e/	C,W, C,1 1/2	D,S	Reported strong supply of soft water.
194	28	e/	C,W, C,1 1/2	D,S	Reported strong supply. 50 feet of iron casing at top.
195	143.1	Feb. 22, 1940	C,W	S	Reported weak supply. 50 feet of galvanized casing at top.
196	62.6	do.	C,W	D,S	Reported weak supply of hard water. 50 feet of galvanized casing at top.
201	136.6	Feb. 8, 1940	C,W	D,S	Reported strong supply of water which tastes salty. Iron casing.
202	--	--	C,W	D,S	Oil test. Plugged at 675 feet and used for water well. Reported strong supply of hard water from Trinity sand at 567 feet. 675 feet of iron casing at top.
204	65	e/	C,W	D,S	Iron casing to bottom. [See loc.]

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
205	7 $\frac{1}{2}$ miles northwest	A. Bottles	--	Creek bottom	-- Spring	--	--	--
206	8 miles northwest	F. Sultenfuss	--	do.	-- Spring	--	--	--
d/207	do.	A. Poehnert	--	do.	-- Spring	--	--	--
208	8 $\frac{1}{4}$ miles northwest	H. Poehnert	--	Flat	1890	200	6	--
210	9 miles northwest	P. J. Laas	--	Creek bank	-- Spring	--	--	--
211	9 miles north	Mrs. E. Sultenfuss	--	Hillside	1890	272	--	1.4
212	8 $\frac{1}{2}$ miles north	A. Herbst	A. Rust	Hilltop	1905	220	8	0.2
215	5 miles north	Mrs. E. B. Whiteman	--	Creek bottom	-- Spring	--	--	--
216	4 $\frac{1}{4}$ miles north	do.	--	Hillside	-- Spring	--	--	--
217	do.	C. G. Stern	--	Creek bed	-- Spring	--	--	--
218	4 $\frac{1}{2}$ miles north	do.	--	Hillside	-- Spring	--	--	--
220	3 $\frac{1}{2}$ miles northeast	C. G. Gross	--	Flat	1819	95	8	--
222	5 $\frac{1}{2}$ miles northeast	A. C. Flores	--	do.	1910	200	8	1.4
224	6 $\frac{1}{4}$ miles northeast	Max Preiffer	--	do.	1916	15	36	3.0
225	8 $\frac{1}{4}$ miles northeast	A. S. Bird	--	do.	1923	290	--	1.2
227	9 $\frac{1}{4}$ miles northeast	McNeil & Bennet	--	do.	--	200	--	0.5
229	9 $\frac{1}{2}$ miles northeast	Horne ranch Inc.	--	Cave	-- Spring	--	--	--
d/230	do.	do.	L. Bergermann	Hillside	1909	214	--	--
231	do.	J. L. Horro	--	do.	1900	130	4	--
232	8 miles northeast	-- Dupai	--	Creek bed	-- Spring	--	--	--
233	do.	Dr. Joe Kopecky	--	Canyon bed	-- Spring	--	--	--
d/234	9 $\frac{1}{4}$ miles northeast	do.	--	Creek	-- Spring	--	--	--
d/235	10 $\frac{1}{4}$ miles northeast	Brown Estate	--	Flat	--	100	36	0.5
d/236	10 $\frac{1}{2}$ miles northeast	do.	--	Hillside	-- Spring	--	--	--
237	do.	do.	--	do.	-- Spring	--	--	--
238	10 miles northeast	do.	--	Creek bottom	-- Spring	--	--	--

No.	Water level		Pump and power	Use of water	Remarks
	Depth below measuring point (ft.)	Date of measurement			
205	Flows	Apr. 9, 1940	--	D,S	measured flow, 8 gallons a minute from gravel. Empties into Little Joshua Creek. Temperature 66° F.
206	Flows	--	--	D,S	Reported flow, 25 gallons a minute from crevice in limestone. Hydraulic ram pumps water to house.
207	Flows	--	--	D,S	Reported flow, 25 gallons a minute from crevice in limestone. Temperature 65° F.
208	65	e/	C,W	D,S	Reported weak supply. 40 feet of iron casing at top.
210	Flows	Apr. 9, 1940	--	S	measured flow, 46 gallons a minute from base of gravel hill. Water runs into Little Joshua Creek. Temperature 66° F.
211	86.1	Jan. 30, 1940	C,W	D,S	Reported strong supply. Reported that well flowed 50 years ago. No casing used.
212	29.9	Feb. 16, 1940	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
215	Flows	Jan. 5, 1940	--	D	Measured flow, 2 gallons a minute from a crevice in limestone. Supplies water for summer camp. Known as
216	Flows	do.	--	D,S	Measured flow, 0.5 gallons a minute from a crevice in limestone. Used to cool rock house. "Walnut Spring."
217	Flows	do.	--	S	Measured flow, 1 gallon a minute from limestone. Known as "Walnut Grove Spring."
218	Flows	do.	--	D	Measured flow, 0.1 gallon a minute from 2 seeps in clay. Known as "Inspiration Spring."
220	65	e/	C,W	D,S	Reported strong supply. 40 feet of galvanized casing at top.
222	106.4	Feb. 29, 1940	C,W	D,S	Reported strong supply. 15 feet of galvanized casing at top.
224	6.1	do.	C,G, 2	D,S	Reported strong supply. Dug well. Rock casing.
225	142.2	do.	C,E	D,S	Reported strong supply.
227	98.1	do.	C,W	D,S	Do.
229	Flows	--	--	--	Reported flow, 30 gallons a minute in floor of "Cave Without A Name." Temperature 68° F.
230	150	e/	C,E, 3	D,S	Reported strong supply of hard water. Located at entrance to "Cave Without A Name."
231	125	e/	C, G, 1 1/2	D,S	Reported weak supply. Iron casing.
232	Flows	Feb. 21, 1940	--	S	Measured flow, 42 gallons a minute from mouth of cave. Temperature 66° F.
233	Flows	do.	--	D,S	measured flow, 3.5 gallons a minute from a crevice in limestone. Reported goes dry in droughts. Temperature
234	Flows	do.	--	D,S	measured flow, 35 gallons a minute from 5 openings in limestone. Temperature 67° F.
235	66.0	Apr. 5, 1940	--	None	Reported unfit for domestic use. Dug well. Rock casing to bottom.
236	Flows	do.	--	D,S	Measured flow, 4 gallons a minute from limestone. Temperature 68° F. Reported never goes dry.
237	Flows	--	--	D,S	Reported flow, 10 gallons a minute from crevice in limestone. Known as "Sultenfuss Spring." Temperature
238	Flows	Apr. 3, 1940	--	S	Measured flow, 50 gallons a minute from 3 openings in limestone. Known as "Swede Creek Spring." Temperature 66° F.

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
240	8½ miles east	B. P. Laubach	H. T. Sche	Hill-side	1938	409	8	--
241	9½ miles east	Alfred Engel	A. Swartz	Flat	1900	385	8	--
242	10¼ miles east	R. H. Kunz	W. Leonard	do.	1925	310	8	--
243	9½ miles east	Mrs. C. Lucking	T. Rust	do.	1928	365	6	--
244	10¼ miles northeast	C. K. Lucking	--	Hill-side	1930	250	8	1.0
246	13½ miles northeast	Brown Estate	--	Flat	1890	105	8	1.3
247	12¾ miles northeast	do.	--	do.	1925	100	8	1.0
249	11 miles northeast	W. Herbst	--	Creek bank	--	Spring	--	--
250	14¼ miles northeast	do.	--	Gentle slope	--	Spring	--	--
252	15¼ miles northeast	A. A. Harwell	--	Side of canyon	--	Spring	--	--
d/253	15¾ miles northeast	do.	--	do.	--	Spring	--	--
d/254	do.	do.	--	do.	--	Spring	--	--
255	15½ miles northeast	do.	--	do.	--	Spring	--	--
256	16½ miles northeast	O. Short	--	Flat	--	100	8	0.5
258	15½ miles northeast	J. D. Meyer	--	Creek bottom	--	Spring	--	--
d/259	do.	do.	--	do.	--	Spring	--	--
d/260	do.	do.	--	do.	--	Spring	--	--
261	16 miles northeast	A. Kneupper	--	Flat	--	35	36	3.0
262	do.	do.	B. Edge	Hill-side	1979	119	8	--
263	17 miles northeast	W. E. Rudolf	--	Flat	--	200	--	--
d/265	20½ miles northeast	H. P. Cox	--	do.	1901	270	--	--
d/266	15 miles northeast	do.	--	do.	Old	45	36	--
268	17¼ miles northeast	G. L. Gourley	A. Meckel	do.	1909	160	8	--
269	18 miles northeast	G. J. Bechtold	do.	do.	1932	172	8	--
d/270	16½ miles northeast	J. Lawhorn	--	do.	Old	92	8	--
d/271	16 miles northeast	do.	Perkins & Gibson	do.	1971	550	--	--

No.	Water level		Lump and power b/	Use of water c/	Remarks
	Depth below measur- ing point (ft.)	Date of measur- ment			
240	330	e/	C,W	--	Reported strong supply. 6 feet of galvanized casing at top.
241	350	e/	C,W,G	D,S,F Ind	Reported weak supply. 18 feet of galvanized casing at top. Supplies water for store, 2 houses, mill and
242	304	e/	C,W, G,2	T,S	Reported strong supply. 12 feet of galvanized casing at top. gin.
243	260	e/	C,G, 2	D,S	Reported strong supply. 40 feet of iron casing at top.
244	177.9	Apr. 3, 1940	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
246	50.5	do.	C,W	D,S	Reported strong supply. 40 feet of galvanized casing at top.
247	73.7	do.	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
249	Flows	Apr. 12, 1940	--	S	Measured flow, 69 gallons a minute from crevice in limestone. Temperature 65° F.
250	Flows	do.	--	S	Measured flow, 4 gallons a minute from crevice in limestone. Known as "Herbst Spring." Temperature
252	Flows	Apr. 8, 1940	--	S	Measured flow, 20 gallons a minute from crevice in limestone. Known as "Spring No. 4." Temperature 63° F.
253	Flows	do.	--	S	Measured flow, 25 gallons a minute from crevice in limestone. Known as "Spring No. 3." Temperature 66° F.
254	Flows	do.	--	S	Measured flow, 11 gallons a minute from crevice in limestone. Known as "Spring No. 2." Temperature 66° F.
255	Flows	do.	--	S	Measured flow, 256 gallons a minute from crevice in limestone. Known as "Edge Falls Spring." Temperature 66° F.
256	67.5	Apr. 12, 1940	C,H	D,S	Reported strong supply of hard water. 20 feet of galvanized casing at top.
258	Flows	Apr. 3, 1940	--	S	Measured flow, 20 gallons a minute from sand and gravel. Temperature 62° F.
259	Flows	do.	--	S	Measured flow, 15 gallons a minute from sand and gravel. Temperature 63° F.
260	Flows	do.	--	S	Measured yield, 130 gallons a minute from sand. Temperature 68° F.
261	20.0	Apr. 12, 1940	T,H	S	Reported weak supply. Dug well. 12 feet of rock casing at top.
262	70	e/	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
263	30	e/	C,W	D,S	Reported strong supply.
265	60	e/	C,W	D,S	Reported strong supply of hard water. Galvanized casing.
266	35	e/	C,W	D,S	Reported strong supply of hard water. Dug well. Rock casing.
269	147	e/	C,H	D,S	Reported weak supply. 20 feet of galvanized casing at top.
269	65	e/	C,L, 2,6	D,S,I	Reported strong supply. 15 feet of galvanized casing at top.
270	35	e/	C,L	D,S	Reported strong supply of hard water. 20 feet of galvanized casing at top.
271	19	e/	--	--	Oil test.

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
273	15 miles northeast	F. Acker	W. Ludolph	Flat	--	180	8	1.3
274	14 $\frac{1}{4}$ miles northeast	W. Young	--	do.	--	300	8	--
275	14 miles northeast	Tom Smith	H. Swoap	do.	1904	312	8	--
279	15 $\frac{1}{2}$ miles northeast	Mrs. L. Haag	--	do.	1906	120	3	--
280	do.	B. Davis	--	do.	--	50	8	1.5
282	16 $\frac{1}{2}$ miles northeast	Kendall County	--	Hill-side	--	100	--	0.6
d/233	17 $\frac{1}{2}$ miles northeast	Paul Kneupper	--	Flat	--	80	8	--
285	18 $\frac{1}{2}$ miles northeast	A. C. Kneupper	A. C. Kneupper	Hill-side	1909	304	--	--
287	19 $\frac{1}{2}$ miles northeast	R. Newton	--	do.	1933	250	--	--
233	20 $\frac{1}{2}$ miles northeast	J. J. Edmondson	Tom Cox	Hilltop	1900	134	--	--
239	22 miles northeast	H. C. Schoch	--	Flat	1900	90	--	--
291	23 miles northeast	J. W. Walsmith	--	Hill-side	1917	125	--	0.2
d/292	23 $\frac{1}{2}$ miles northeast	F. J. Kuebel	--	Flat	1905	265	--	--
294	24 miles north	J. S. Moore	Bob Page	do.	1915	103	8	0.5
295	24 miles north	P. Weier	--	Hill-side	1911	300	--	--
297	24 miles north	E. P. Dechart	Bob Page	do.	1925	00	8	--
298	24 miles north	A. Stetler	A. M. Cunningham	Flat	1919	130	--	0.5
300	25 miles north	E. Ellebracht	--	Hill-side	1922	120	--	1.5
d/301	25 miles north	do.	--	Flat	1909	310	--	--
d/302	25 miles north	Clara Menchaca	--	Creek bottom	--	Spring	--	--
304	25 miles north	R. W. Whitworth	-- Meckel	do.	1908	233	6	--
306	25 miles north	W. L. Whitworth	--	Flat	1897	250	36	1.0
308	27 miles north	W. L. Askey	--	Hilltop	1837	350	--	1.5
d/309	28 miles north	do.	Seacoast Oil Co.	Flat	1930	1,010	--	--
d/310	18 $\frac{1}{2}$ miles north	W. G. Verner	Southwestern Development Syn.	do.	1935	972	--	--

a/ Measuring point was usually top of casing, top of well curb or top of pipe clamp; it was above ground level unless indicated by (-) sign for below ground level.

b/ B, bucket; C, cylinder; W, windmill; T, turbine; G, gasoline; E, electric; H, hand; number indicates horsepower.

No.	Water level		Pump and power	Use of water	Remarks
	Depth below measuring point (ft.)	Date of measurement			
273	72.0	Apr. 12, 1940	C,W	D,S	Reported weak supply. Galvanized casing.
274	255	e/	C,G, I	D,S	Reported weak supply. 20 feet of galvanized casing at top.
275	197	e/	C,W	D,S	Reported strong supply. 5 feet of galvanized casing at top.
279	40	e/	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
280	23.8	Mar. 12, 1940	B,H	D,S	Reported weak supply. Galvanized casing to bottom.
282	50.3	Feb. 28, 1940	C,H	D,S	Reported weak supply. No casing used.
283	40	e/	C,W	D,S	Reported strong supply of hard water. 20 feet of galvanized casing at top.
285	150	e/	C,W	D,S	Reported strong supply. No casing used.
287	95.1	Mar. 4, 1940	C,W	D,S	Do.
288	130	e/	C,W	D,S	Reported weak supply. No casing used.
289	65	e/	C,W	D,S	Do.
291	--	Mar. 4, 1940	C,W	D,S	Reported strong supply.
292	--	--	--	Line	
294	90.0	Mar. 4, 1940	C,W	D,S	Reported strong supply. 20 feet of galvanized casing at top.
295	200	e/	C,W	D,S	Reported strong supply. No casing used.
297	45	e/	C,W	D,S	Reported strong supply. Galvanized casing to bottom. Reported water level at surface when drilled.
298	75.7	Mar. 4, 1940	C,W	D,S	Reported strong supply.
299	278.6	Feb. 18, 1940	C,W, I, 1 1/2	D,S	Reported strong supply. No casing used.
301	245	e/	C,W	D,S	Reported hard water. No casing used.
303	Flows	--	--	D,S	Reported flow, 10 gallons a minute from limestone. Known as "Menchaca Spring." Temperature 65° F.
304	16	e/	C,H, G, 1 1/2	D,S	Reported strong supply. 40 feet of galvanized casing at top.
306	23.3	Feb. 19, 1940	C,W	D,S	Reported strong supply. Well dug to 50 feet; drilled 50 to 250 feet. 50 feet rock casing at top.
308	44.3	do.	C,W	D,S	Reported strong supply.
309	--	--	--	--	Oil test. See log.
310	--	--	--	--	Do.

c/ D, domestic; S, stock; I, irrigation; e, public; W, not used.

d/ No water sample collected for analysis.

e/ Water level reported.

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
<u>d/311</u>	15 miles north	W. G. Werner	Pierce & Garvey	Flat	1933	992	--	--
<u>d/312</u>	14 $\frac{1}{2}$ miles north	do.	Walter Bradley Co.	do.	1934	862	--	--
<u>d/313</u>	do.	do.	P. B. Sterling	do.	1930	925	10	--
314	do.	Kendall County	-- Haag	Hilltop	1917	100	--	--
317	13 miles north	Ida Schoenewolf	--	Flat	1890	110	48	2.0
319	12 $\frac{1}{2}$ miles north	F. Ebell	A. Swartz	do.	1900	120	6	--
<u>1/320</u>	11 $\frac{1}{2}$ miles north	Otmar Behr	Dixon Oil Co.	do.	1932	2,762	--	--
322	10 $\frac{1}{2}$ miles north	do.	--	do.	1914	100	--	--
323	10 miles north	do.	--	Hilltop	1927	210	--	1.0
325	10 $\frac{1}{2}$ miles north	Dr. L. Zoeller	--	Creek bottom	-- Spring		--	--
326	12 miles north	Chas. Zoeller	W. Leonard	Flat	1896	170	8	--
327	do.	Mrs. M. Zoeller	I. Brown	do.	1894	200	--	0.5
328	14 miles north	A. Zoeller	A. Meckel	do.	1902	190	8	--
329	12 miles north	F. M. Treiber	--	Hilltop	1910	87	8	0.5
330	do.	do.	--	do.	1920	221	8	1.0
332	12 $\frac{1}{4}$ miles north	O. Rechenthin	O. Rechenthin	River bottom	1912	125	6	2.0
<u>d/334</u>	11 $\frac{1}{4}$ miles northwest	J. M. Flanagan	--	Hilltop	1926	385	--	--
335	13 $\frac{1}{8}$ miles northwest	Mrs. H. Drought	--	do.	1910	300	8	0.5
336	13 miles northwest	A. C. Dowdy	--	Flat	1915	285	6	--
337	14 $\frac{1}{4}$ miles northwest	Mrs. R. Kusch	--	do.	1904	120	36	1.0
338	14 miles northwest	R. T. Henry	G. Fago	--	1939	65	6	0.5
341	do.	F. Kott	--	Flat	1900	200	8	--
342	14 $\frac{1}{8}$ miles northwest	Gus Piermann	--	Hilltop	1930	275	--	2.0
<u>d/343</u>	14 $\frac{3}{8}$ miles northwest	L. Faust	L. Bergmann	Flat	1940	200	--	--
<u>d/344</u>	15 miles northwest	R. C. Knoepfli	--	do.	--	200	8	--
<u>d/347</u>	In Comfort	H. Below	--	do.	1931	35	--	3.0

No.	Water level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
311	--	--	--	--	Oil test. See log.
312	--	--	--	--	Do.
313	--	--	--	--	Do.
314	25	e/	C,H	D,F	Reported strong supply. No casing used.
317	27.3	Feb. 14, 1940	C,W	D,S,F	Reported strong supply. Dug and drilled well. Rock casing at top.
318	50	e/	C,W	D,S	Reported strong supply. 30 feet of galvanized casing at top.
320	--	--	--	--	Oil test. See log.
322	60	e/	C,W	D,S	Reported strong supply. No casing used.
323	146.9	Feb. 19, 1940	C,W	S	Do.
325	Flows	Apr. 9, 1940	--	D,S	Measured flow, 143 gallons a minute from crevice in limestone. Temperature 66° F.
326	25	e/	C,W	D,S	Reported strong supply. 40 feet of galvanized casing at top.
327	37.3	Feb. 22, 1940	C,W	D,S	Reported strong supply.
328	125	e/	C,W	D,S	Do.
329	43.6	Feb. 22, 1940	C,H	None	Reported weak supply. Galvanized casing to bottom.
330	39.3	do.	C,W	F,S	Reported strong supply. 100 feet of galvanized casing at top.
332	47.0	Jan. 30, 1940	C,W	D,S	Reported strong supply from sands at 125 and 250 feet. 22 feet of galvanized casing at top.
334	246	e/	C,W	D,S	Reported strong supply of hard water. No casing used.
335	105.3	Feb. 22, 1940	C,W, C,L	D,S	Reported strong supply. 40 feet of galvanized casing at top.
336	55	e/	C,W	F,S	Reported strong supply. 100 feet of iron casing at top.
337	33.6	Feb. 22, 1940	C,W	F,S	Reported strong supply. Well dug to 50 feet; drilled 50 to 120 feet. 80 feet of rock casing at top.
338	79.5	Jan. 30, 1940	C,W	D,S,F	Reported strong supply. Galvanized casing to bottom.
341	65	e/	C,W	D,S	Reported strong supply. 30 feet of galvanized casing at top.
342	120.3	Feb. 7, 1940	C,W	F,S	Reported strong supply.
343	60	e/	--	D,S	Water from limestone at 15 to 195 feet.
344	50	e/	C,W	D,S	Reported strong supply of hard water. 20 feet of galvanized casing at top.
347	27.1	Apr. 11, 1940	C,W	D,S	Reported strong supply of hard water. Dug well.

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) <u>a/</u>
348	In Comfort	A. Faltin	--	Flat	--	50	36	3.0
<u>d/349</u>	do.	M. Oppert	--	do.	1912	60	36	--
350	do.	City of Comfort	--	do.	1912	200	8	--
351	do.	Emil Spenrath	O. Spenrath	do.	1906	205	8	--
352	do.	A. F. Spenrath	--	do.	Old	45	--	3.0
353	do.	Dr. O. F. Hartzke	--	do.	1905	260	8	--
<u>d/354</u>	do.	E. O. Hodgson	--	do.	--	200	--	1.5
356	do.	Mrs. L. Biermann	--	do.	1890	365	6	1.0
357	do.	D. Below	--	do.	1895	150	--	3.0
359	15 miles northwest	J. Klinemann	--	do.	1932	170	4	--
360	do.	L. Drees	-- Page	Hilltop	1920	228	6	--
<u>d/361</u>	do.	C. & P. Seidenstich	--	Flat	1940	1,000	12	1.0
362	do.	C. Volt	--	Hillside	1886	150	36	--
363	15½ miles northwest	Mrs. K. Hunnan	--	Flat	1925	100	8	0.5
364	15½ miles northwest	Fitzgibbon & Phair	--	do.	1900	300	8	1.0
365	14½ miles north	E. Weidenfeld	-- Page	Hilltop	1922	225	--	1.0
367	15¾ miles north	I. V. Clift & Son	--	Flat	1925	250	6	1.0
369	17 miles northwest	E. Marquart	J. Gibbs	do.	1827	156	6	--
370	17¼ miles north	Mrs. F. Barch	--	do.	1908	180	6	1.0
371	18¼ miles north	C. Moldenheuer	--	do.	1929	190	6	0.5
375	23½ miles north	Ernest Felier	--	do.	1900	80	8	1.0
376	do.	O. Cowan	--	Hilltop	1919	407	--	--
377	24½ miles north	H. Ebers	--	Flat	1926	371	8	1.0
379	do.	W. Klinksiek	W. Fester	Hillside	1914	433	--	1.0
381	25½ miles northwest	E. Herbert	--	Creek bottom	1380	29	6	3.0
384	22½ miles northwest	John James	--	Ravine	-- Spring		--	--

No.	Water level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (ft.)	Date of measurement			
348	39.4	Apr. 11, 1940	B,H	D,S	Reported strong supply. Dug well. Rock casing to bottom.
349	25.9	do.	C,W	D,S	Reported strong supply of hard water. Dug well. Rock casing to bottom.
350	52.7	do.	C,E, 1 $\frac{1}{2}$	F	Reported strong supply. 40 feet of galvanized casing at top.
351	55	e/	C,W	D,S	Reported strong supply. Galvanized casing.
352	41.9	Apr. 11, 1940	C,W	--	Reported strong supply. Dug well.
353	85	e/	C,G, 4	D,S	Reported strong supply. 40 feet of galvanized casing at top.
354	41.4	Apr. 11, 1940	C,W	None	Do.
356	40.0	Feb. 7, 1940	C,W, G,1 $\frac{1}{2}$	D,S	Reported strong supply. Iron casing to bottom.
357	39.6	Feb. 22, 1940	E,H	D,S	Reported strong supply. Rock and iron casing.
359	65	e/	C,H, G,1 $\frac{1}{2}$	D,S,F	Reported weak supply. Iron casing.
360	55	e/	C,W, G,2	D,	Reported strong supply. 50 feet of iron casing; at top.
361	47.9	Jan. 13, 1940	--	--	Oil test. 12 and 8-inch iron casing to bottom, perforated. Sand reported at 170 to 280 feet.
362	40	e/	C,W, G,1 $\frac{1}{2}$	D,S	Reported strong supply. Well flowed about 40 years ago. Dug and drilled well. 50 feet of rock casing at top.
363	49.2	Feb. 22, 1940	C,W	D,S	Reported strong supply. Galvanized casing.
364	50.1	do.	C,	D,S	Reported strong supply. 40 feet of galvanized casing at top.
365	172.2	Feb. 21, 1940	C,W, G, $\frac{1}{2}$	D,S	Reported strong supply.
367	173.6	do.	C,G	D,S,P	Reported strong supply. Iron casing.
369	15.9	do.	C,W	D,S	Reported strong supply. No casing used.
370	25.8	do.	C,W	--	Reported strong supply. 40 feet of galvanized casing at top.
371	34.0	do.	C,W,G	D,S	Do.
375	32.0	do.	E,H	D	Reported weak supply. Galvanized casing.
376	265	e/	C,W	D,S	Reported strong supply from limestone.
377	133.6	Feb. 21, 1940	C,W	D,S	Reported strong supply. Casing record: 8-inch iron from 0 to 200 feet, 6-inch iron from 200 to 371 feet.
379	290.8	do.	C,I	D,S	Reported strong supply. No casing used.
381	20.1	Feb. 7, 1940	E,H	D,S,I	Reported strong supply. Used by service station. Galvanized casing to bottom.
384	Flows	--	--	D,S	Report a flow, 2 gallons a minute from a crevice in the stone. Spring is dammed and water is piped to house. Known as "Turkey Spring."

Records of wells and springs in Kendall County--Continued

No.	Distance from Boerne	Owner	Driller	Topographic situation	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) <u>a/</u>
386	22 $\frac{3}{4}$ miles northwest	Fritz Stieler	---	Canyon	---	Spring	---	---
<u>a/</u> 387	21 miles northwest	Walter Stieler	--	Flat	1895	315	8	--
388	19 $\frac{1}{2}$ miles northwest	Heinen & Shafer	--	do.	--	--	36	--
390	18 $\frac{3}{8}$ miles northwest	Paul Dreiss	--	Hill-side	1909	350	6	---
391	18 $\frac{1}{4}$ miles northwest	E. W. Wiedenfeld	--	Flat	1890	265	6	0.0
<u>d/</u> 393	18 miles northwest	Theo. Strohecker	--	do.	1904	204	--	0
394	17 miles northwest	Mrs. G. Stein	--	Hill-side	1900	260	8	1.0
395	In Comfort	A. Schnelle	--	Flat	1914	200	6	1.2

a/ Measuring point was usually top of casing, top of well curb or top of pipe clamp; it was above ground level unless indicated by (-) sign for below ground level.

b/ B, bucket; C, cylinder; W, windmill; T, turbine; G, gasoline; E, electric; H, hand; number indicates horsepower.

No.	Water level		Pump and power	Use of water	Remarks
	Depth below measuring point (ft.)	Date of measurement			
386	Flows	--	--	D,S	Reported flow, 20 gallons a minute. Spring is dammed and piped 2 miles to houses. Known as "Head Spring of
387	90	<u>e/</u>	C,W	None	Reported strong supply of hard water from sand at 295 to 315 feet. 200 feet of iron casing
388	--	<u>e/</u>	C,W	S	Reported strong supply. Dug well. Rock casing. at top.
390	95	<u>e/</u>	C,W, G, <u>1 1/2</u>	D,S	Reported strong supply. 40 feet of iron casing at top.
391	69.7	Feb. 7, 1940	C,W,G	D,S	Reported strong supply from sand at 220 to 226 feet. 15 feet iron casing at top.
392	63.4	do.	C,W, G, <u>1 1/2</u>	S	Reported strong supply of hard salty water. unfit for domestic use. Filled up to 70 feet.
394	97.8	Feb. 22, 1940	C,W	D,S	Reported strong supply. 40 feet of galvanized casing at top.
395	43.7	Feb. 7, 1940	C,W	D,S	Reported strong supply. Iron casing.

c/ D, domestic; S, stock; I, irrigation; P, public; F, not used.

d/ No water sample collected for analysis.

e/ Water level reported.

Table of Drillers' Logs, Kendall County, Texas

		Thickness	Depth			Thickness	Depth
		(feet)	(feet)			(feet)	(feet)
<u>Driller's log of well 77</u>				<u>Driller's log of well 77--Continued</u>			
City of Boerne well, Dingmann Drilling Company, driller, in Boerne.				Sandy brown lime - - - - - 7 604			
Soil - - - - -		1	1	White lime - - - - -		2	606
Sandy yellow lime - - -		27	28	Brown lime - - - - -		39	645
Hard blue shale - - -		8	36	Porous brown lime - - -		10	655
Hard white shale - - -		24	60	Black soapstone - - -		5	660
Hard blue shale - - -		30	90	Gray gumbo - - - - -		22	682
Yellow lime - - - - -		10	100	Brown lime and shell - - -		8	690
Gray lime and water - - -		3	103	Black shale - - - - -		10	700
Rock - - - - -		2	110	Chalky shale - - - - -		126	826
Blue shale - - - - -		11	121	Creamy lime - - - - -		2	828
Gray lime - - - - -		9	130	Hard gray lime - - - - -		2	830
Soft blue shale - - -		29	159	Chalky lime - - - - -		53	883
White lime - - - - -		30	189	Gray limestone - - - - -		12	895
White gumbo - - - - -		2	191	Limestone - - - - -		10	905
White lime - - - - -		12	203	Red clay - - - - -		15	920
Hard lime - - - - -		5	208	Flinty black formation - -		10	930
Soft lime - - - - -		12	220	Black shale - - - - -		8	938
Hard glass rock - - - - -		4	224	TOTAL DEPTH - - - - -			938
Gray lime - - - - -		16	240	Plugged at 464 feet.			
Hard gray rock - - - - -		5	245	<u>Driller's log of well 139</u>			
White gumbo - - - - -		2	247	Lena Kunz and Joe Michel tract, Harrison Oil Company, driller, $\frac{6\frac{1}{2}}$ miles east of Boerne.			
Hard gray rock - - - - -		7	254	Clay - - - - -		7	7
Hard blue rock and water		6	260	Shale - - - - -		693	700
Gray lime - - - - -		34	294	Red clay - - - - -		200	900
Bluish-gray lime - - -		8	302	Lime - - - - -		500	1400
Gray shale - - - - -		3	305	Pennsylvania shale - - -		852	2252
Bluish-gray shale - - -		18	323	TOTAL DEPTH - - - - -			2450
Gray lime - - - - -		10	342	CASING RECORD: 750 feet of 8-inch, and 2,050 feet of 6-5/8-inch casing.			
Brown sandstone - - - -		8	350	<u>Driller's log of well 202</u>			
Gray sandstone - - - -		4	354	Edwin Houston tract, E. W. Martin, driller, $\frac{7\frac{1}{2}}$ miles northwest of Boerne.			
Hard gray sandstone - - -		2	356	Caliche - - - - -		18	18
Hard gray lime - - - - -		4	360	(Water at 95 feet.)			
Hard bluish-gray rock - -		4	364	Bluish-gray shale - - -		158	176
Hard brown rock - - - -		4	368	Hard gray lime - - - - -		8	184
Hard white lime - - - -		19	387	Bluish-gray shale - - -		56	240
Hard brown sandstone - -		6	393	Coarse sandy lime (hole full of water) - - - - -		22	262
Hard rock - - - - -		1	394	Blue shale - - - - -		38	300
Hard gray rock - - - - -		4	398	Light-gray lime - - - - -		150	450
Lignite or coal - - - -		3	401	Blue shale - - - - -		5	455
Sandy gray rock and water		20	421	Broken gray lime - - - -		40	495
Light-blue shale - - - -		14	435	Gray lime - - - - -		36	531
Hard black shale - - - -		27	462	(Continued on next page)			
Hard gray lime - - - - -		2	464				
Porous lime and hard shale with water - - - - -		20	484				
Brown lime - - - - -		21	505				
Gumbo - - - - -		55	560				
Black shale - - - - -		33	593				
Hard rock and white shell		4	597				

Table of Drillers' Logs, Kendall County--Continued

	Thickness (feet)	Depth (feet)
Driller's log of well 202--Continued		
Soft blue shale - - -	1	35
Sandy gray lime - - -	1	41
Sandy blue lime - - -	5	53
Hard gray lime - - -	2	57
White water sand (hole full of water) - - -	5	562
Hard white lime - - -	27	590
Sandy gray lime - - -	30	620
Blue shale - - -	58	678
Gray shale - - -	5	684
Gray lime - - -	24	708
Blue shale - - -	4	712
Broken sandy lime - - -	13	725
Red rock - - -	2	727
Broken lime - - -	33	760
Red rock and lime - - -	65	825
Lime - - -	25	850
Lime and red beds - - -	10	860
Broken lime - - -	90	950
Red beds - - -	40	990
Blue shale - - -	15	1005
Red beds and blue shale - - -	23	1028
Black sandy slate - - -	114	1142
Red and purple mud - - -	1	1143
Sandy blue shale - - -	15	1172
Purple shale (cavey) - - -	23	1195
Red rock - - -	23	1218
Light-gray shale - - -	23	1240
Black shale - - -	115	1355
Red sandy shale - - -	10	1365
Black shale - - -	205	1570
Red and green shale - - -	20	1590
Black lime and shale - - -	392	1982
TOTAL DEPTH - - -		1982
CASING RECORD: 905 feet of 3 1/2-inch, and 1,005 feet of 6 5/8-inch casing. PL 70 at 675 feet.		

Driller's log of well 300		
W. H. Askey tract, Seaboard Oil and Gas Company, driller, 16 1/2 miles north of Boerne.		
Yellow clay - - -	23	23
Gray lime - - -	22	45
Gray shale - - -	120	165
Sandy lime - - -	15	180
Brown shale - - -	10	190
Water sand - - -	40	230
Broken lime - - -	10	240

	Thickness (feet)	Depth (feet)
Driller's log of well 309--Continued		
Blue shale - - -	10	250
Gray shale - - -	30	280
Gray lime - - -	35	315
Blue shale - - -	10	325
Gray shale - - -	30	355
Brown shale - - -	5	360
Gray shale - - -	25	385
Broken shale - - -	71	406
Gray lime - - -	24	430
Blue shale - - -	15	445
Red rock - - -	35	480
Gray lime - - -	20	500
White lime - - -	10	510
Red beds - - -	25	535
Blue shale - - -	50	585
Gray shale - - -	50	635
Black shale - - -	65	700
Gray shale - - -	125	825
Black shale - - -	105	930
Gray sand - - -	40	970
Sandy gray lime - - -	20	990
Black shale - - -	15	1005
TOTAL DEPTH - - -		1010
CASING RECORD: 600 feet of 10-inch casing.		

Driller's log of well 310		
W. G. Werner tract, Southwestern Develop- ment Syndicate, driller, 15 1/2 miles north of Boerne.		
Surface soil - - -	2	2
Hard white lime - - -	93	95
Blue shale - - -	30	125
Hard white lime - - -	15	140
Blue shale - - -	10	150
Sandy gray lime, fresh water - - -	10	160
Gray lime - - -	10	170
Light-gray lime - - -	20	190
Gray lime - - -	30	220
Sandy gray lime, fresh water - - -	10	230
Soft lime - - -	7	237
Sandy lime - - -	18	255
Lime and shale - - -	27	282
Blue shale - - -	53	335

(Continued on next page)

Table of Drillers' Logs, Kendall County--Continued

Thickness (feet)		Depth (feet)	Thickness (feet)		Depth (feet)
<u>Driller's log of well 310--Continued</u>			<u>Driller's log of well 310--Continued</u>		
Red shale - - - - -	13	348	Gray lime and black shale	9	939
White and gray lime - -	22	370	Hard gray lime - - - -	3	942
Green and blue shale - -	5	375	Brownish-gray lime - -	3	945
Blue streaks of shale - -	7	382	Brown lime and black shale	8	953
Gray lime - - - - -	3	385	Hard brownish-gray lime -	7	960
Gray lime and red shale -	23	408	Hard brown lime - - - -	3	963
Red shale - - - - -	12	420	Brownish-gray lime - -	7	970
Red shale and lime conglomerate - - - - -	20	440	Hard brownish-gray lime -	2	972
Hard white lime - - - -	30	470	TOTAL DEPTH - - - - -		972
Broken white lime and red shale - - - - -	35	505	CASING RECORD: 385 feet of 10-inch; 585 feet of 8-inch; 600 feet of 6-5/8-inch, and 801 feet of 5-3/16-inch casing.		
Hard white lime - - - -	5	510	<u>Driller's log of well 311</u>		
Hard sand and lime - - -	15	525	Willie Werner tract, Fierce and Garvey, drillers, 15 miles north of Boerne.		
Sticky gray shale - - - -	50	575	Yellow shale - - - - -	34	34
Blue and gray shale - - -	10	585	Gray lime - - - - -	12	46
Hard white lime - - - -	13	598	Gray shale - - - - -	133	134
Hard blue shale - - - -	36	634	Sand, fresh water - - - -	14	198
Lime shells - - - - -	6	640	Blue shale - - - - -	10	208
Sticky shale - - - - -	6	646	Gray lime - - - - -	9	217
Blue shale and lime shells	13	659	Gray shale - - - - -	3	225
Gray shale - - - - -	6	670	Gray lime - - - - -	5	230
Bluish-gray shale - - - -	17	687	Sand, fresh water - - - -	8	238
Sandy blue shale - - - -	18	705	Gray lime - - - - -	12	250
Blue shale and lime - - -	23	728	Sandy lime - - - - -	20	270
Blue shale - - - - -	17	745	Sand, water - - - - -	8	278
Hard blue lime and shale	5	750	Lime - - - - -	22	300
Sticky blue shale - - - -	15	765	Shale - - - - -	38	338
Hard blue shale - - - -	5	770	Blue shale - - - - -	58	396
Sticky blue shale - - - -	15	785	Lime - - - - -	5	401
Black shale - - - - -	6	791	Blue gumbo - - - - -	24	425
Black shale and gray lime	24	815	Red rock - - - - -	110	535
Sticky gray shale - - - -	25	840	Gravel, fresh water - - -	15	550
Hard blue lime and shale	10	850	Red shale - - - - -	40	590
Sandy black shale - - - -	8	858	Blue gumbo - - - - -	35	625
Gray shale - - - - -	17	875	Sandy lime - - - - -	10	635
Black shale - - - - -	4	879	Blue shale - - - - -	18	653
Hard gray lime - - - - -	17	896	Gray lime - - - - -	5	658
White lime - - - - -	6	902	Blue shale - - - - -	9	667
Brown lime - - - - -	7	909	Hard sand - - - - -	7	674
Hard brownish-gray lime -	3	912	Sandy lime - - - - -	24	698
Hard gray lime - - - - -	15	927	Grayish-blue shale - - -	77	775
Black shale - - - - -	3	930	Sand and water - - - - -	9	784

(Continued on next page)

Table of Drillers' Logs, Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 311--Continued</u>		
Gray shale - - - - -	51	835
Sand and water - - - - -	30	865
Brown lime - - - - -	25	891
Sandy lime - - - - -	3	894
Brown lime - - - - -	8	902
Black lime - - - - -	5	907
Gray lime - - - - -	8	915
Brown lime - - - - -	21	936
Gray lime - - - - -	8	944
Brown lime - - - - -	11	955
Black lime - - - - -	14	969
Sandy gray lime - - - - -	1	970
Sandy brown lime - - - - -	10	980
Sandy black lime - - - - -	5	985
Sandy gray lime - - - - -	7	992
TOTAL DEPTH - - - - -		992
CASING RECORD: 500 feet of 10-inch, and 605 feet of 8-inch casing.		

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 312</u>		
Willie Werner tract, Walter Bradley Company, driller, 15 miles north of Boerne.		
Yellow lime - - - - -	30	30
Blue gumbo - - - - -	29	59
Gray lime - - - - -	14	73
Sandy lime and water - - - - -	2	75
Blue gumbo - - - - -	10	85
Sandy lime - - - - -	7	92
Shale - - - - -	56	148
Blue gumbo - - - - -	29	177
Brown shale and gravel - - - - -	17	194
Blue shale - - - - -	31	225
Sand and fresh water - - - - -	40	265
White shale - - - - -	15	300
Sand and water - - - - -	40	340
Blue gumbo - - - - -	76	416
Sandy gray lime - - - - -	3	419
Red mud and shale - - - - -	18	437
Blue shale - - - - -	3	440
Red shale - - - - -	34	474
Sand and fresh water - - - - -	25	499
Gravel and shale - - - - -	4	503
Sand - - - - -	6	509
Blue gumbo - - - - -	5	514
Red shale - - - - -	20	534
Blue gumbo - - - - -	12	546
Blue shale - - - - -	112	658
Lime - - - - -	3	661
Shale and blue slate - - - - -	65	726

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 312--Continued</u>		
Gray lime - - - - -	5	794
Brown shale - - - - -	11	805
Gray shale - - - - -	14	819
Sandy gray lime - - - - -	13	832
TOTAL DEPTH - - - - -		862
CASING RECORD: 462 feet of 10-inch, and 628 feet of 8-inch casing.		

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 313</u>		
Willie Werner tract, P. B. Sterling, driller, 15 miles north of Boerne.		
Surface soil - - - - -	8	8
Gray shale - - - - -	47	55
Lime - - - - -	10	65
Shale - - - - -	25	90
Lime - - - - -	10	100
Gray shale - - - - -	15	115
Lime shells - - - - -	20	135
Sandy shale - - - - -	10	145
Lime - - - - -	5	150
Black shale - - - - -	10	160
Lime, fresh water - - - - -	30	190
Shale - - - - -	141	331
Sandy grayish-blue shale - - - - -	9	340
Lime - - - - -	20	360
Shale - - - - -	45	405
White lime - - - - -	5	410
Gray shale - - - - -	15	425
Lime - - - - -	4	429
Brown shale - - - - -	3	432
Lime - - - - -	6	438
Red rock - - - - -	27	465
White lime - - - - -	47	512
Sand and water - - - - -	4	516
Blue shale - - - - -	5	521
Red rock - - - - -	27	548
Black shale - - - - -	24	572
Gray shale - - - - -	33	605
Lime - - - - -	2	607
Gray shale - - - - -	59	666
Black shale - - - - -	10	676
Sand - - - - -	14	690
Lime - - - - -	6	696
Shale - - - - -	4	700
Sand - - - - -	138	838
Sandy lime - - - - -	25	863
TOTAL DEPTH - - - - -		925
CASING RECORD: 600 feet of 10-inch casing.		

Table of Drillers' Logs, Kendall County--Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Driller's log of well 320</u>				<u>Driller's log of well 320--Continued</u>			
Otmar Behr tract, Dixon Oil Company, driller, 11½ miles north of Boerne.							
Soil	-	-	10	Gray shale	-	82	680
Clay	-	-	20	Lime	-	30	710
Lime	-	-	30	Black shale	-	50	760
Water	-	-	7	Sand and water	-	14	774
Gray shale	-	-	53	Broken sand and shale	-	223	997
Black lime and water	-	-	30	Sandy gray lime	-	3	1000
Blue shale	-	-	65	Black lime	-	14	1014
Limestone	-	-	67	Gray shale and lime	-	214	1223
Red rock	-	-	31	Black shale	-	16	1244
Lime	-	-	20	Shale and lime	-	400	1644
Red shale	-	-	15	White lime	-	223	1867
Sandy lime	-	-	50	Brown and gray lime	-	895	2762
White shale	-	-	2	TOTAL DEPTH	-	-	2762
Blue and brown shale	-	-	35	CASING RECORD: 243 feet of 12½-inch;			
Black shale	-	-	123	517 feet of 10-inch, and 1,145 feet of			
				8½-inch casing.			

Logs of test wells drilled by T. P. A. labor in Kendall County, Texas

	Thickness (feet)	Depth (feet)
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Well 100

Flat, R. Bower tract, 1 mile west of Boerne.		
Clay and gravel - - - -	6	6
January 10, 1940.		

Well 104

Arroyo, G. Wheatstone tract, 1 1/4 miles south of Boerne on east side of upper Balconies Road.		
Surface soil - - - -	1	1
Clay - - - -	2	3
Clay, sand and gravel - -	1	4
Clay and gravel - - - -	2	6
January 3, 1940.		

Well 108

Arroyo, --- Shone tract, 1 mile southeast of Boerne on west side of old San Antonio Road.		
Surface soil - - - -	2	2
Caliche and rock - - -	1	3
Yellow caliche - - - -	2	5
January 26, 1940.		

Well 109

Flat, M. A. Shumard tract, 1 1/2 miles southeast of Boerne on east side of Highway 87.		
Black surface soil - - -	1	1
Soil and caliche - - -	1	2
Caliche - - - -	2	4
Caliche and chalk - - -	1	5
Caliche and clay - - -	6	11
Caliche and sand - - -	1	12
Damp yellow clay - - -	1	13
Rock - - - -		15
April 9, 1940.		

Well 110

Arroyo, Allen Howard tract, 1 1/2 miles southeast of Boerne on west side of old San Antonio Road.		
Surface clay and gravel - -	2	2
Gravel - - - -	2	4
Clay - - - -	2	6
Caliche and chalk - - -	2	8
Rock - - - -		8
January 26, 1940.		

Well 111

Arroyo, Fritz Sulzenfuss tract, 3 1/4 miles south of Boerne on west side of upper		
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	Thickness (feet)	Depth (feet)
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Well 111--Continued

Balconies Road.		
Surface soil - - - -	1	1
Clay and chalk - - - -	3	4
Rock - - - -	1	5
January 3, 1940.		

Well 113

Arroyo, A. Wendol tract, 1/4 miles south of Boerne on the upper Balconies Road.		
Surface soil - - - -	1	1
Clay and rock - - - -	2	3
Clay, sand and rock - -	2	5
January 8, 1940.		

Well 116

Flat, Morris Stein tract, 3 3/4 miles south of Boerne.		
Surface soil - - - -	1	1
Caliche and sand - - -	5	6
Rock - - - -		6
March 25, 1940.		

Well 118

Flat, M. H. Mitchell tract, 3 1/2 miles south of Boerne.		
Surface soil - - - -	1	1
Gray dirt - - - -	2	3
Gravel and clay - - -	2	5
Brown shale - - - -	1	6
Rock - - - -		6
March 25, 1940.		

Well 122

Hillside, -- Dennenburg tract, 4 miles southeast of Boerne on south side of Highway 87.		
Surface clay - - - -	1	1
Clay and sand - - - -	2	3
Caliche and clay - - -	2	5
Rock - - - -		5
January 23, 1940.		

Well 125

Hillside, R. Minn tract, 3 1/2 miles southeast of Boerne.		
Soil and rock - - - -	1	1
Soil, rock and sand - -	1	2
Soil, rock and caliche -	2	4
Caliche - - - -	2	6
Clay - - - -	2	8
Rock - - - -		8
January 24, 1940.		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 126</u>		
Flat, -- Freeman tract, 3 miles south-east of Boerne.		
Surface soil - - - - -	3	3
Caliche - - - - -	2	5
Yellow caliche and sand -	2	7
Rock - - - - -	1	8
January 24, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 128</u>		
Flat, Allen Howard tract, 2½ miles south-east of Boerne on east side of Highway 87.		
Surface soil - - - - -	3	3
Clay - - - - -	1	4
Rock and caliche - - - -	1	5
January 23, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 131</u>		
Arroyo, J. I. Wyndel's tract, 3½ miles east of Boerne on Cibolo Creek.		
Clay - - - - -	1	1
Clay and caliche - - - -	2	3
Caliche and rock - - - -	3	6
Rock - - - - -		6
January 4, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 133</u>		
E. O. Gallat tract, 4½ miles east of Boerne on Post Oak Creek.		
Clay - - - - -	3	3
Clay and gravel - - - - -	2	5
Gravel - - - - -	2	7
Rock - - - - -		7
January 4, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 140</u>		
Arroyo, E. Whitworth tract, 6½ miles east of Boerne on Bergheim Road.		
Caliche - - - - -	1	1
Caliche and rock - - - -	1	2
Clay and rock - - - - -	1	3
Clay and gravel - - - - -	2	5
Rock - - - - -		5
March 8, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 145</u>		
Flat, -- Herff estate, 2 miles northeast of Boerne on Blanco road.		
Surface soil - - - - -	1	1
Caliche and rock - - - -	5	6
February 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 149</u>		
Arroyo, N. Lohmann tract, 2 miles north of Boerne on east side of Sisterdale Road.		
Surface soil - - - - -	3	3
Clay - - - - -	3	6
Clay and rock - - - - -	2	8
February 10, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 150</u>		
Flat, Southern Pacific R. R. tract, 1½ miles northwest of Boerne on Highway 87.		
Surface soil - - - - -	2	2
Clay and rock - - - - -	3	5
Clay - - - - -	1	6
Clay and chalk - - - - -	4	10
Rock - - - - -		10
January 29, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 153</u>		
Flat, B. F. Davis tract, 3½ miles northwest of Boerne on Highway 87.		
Surface soil - - - - -	1	1
Gravel - - - - -	1	2
Gravel and clay - - - - -	1	3
Rock - - - - -		3
January 29, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 155</u>		
Hillside, L. Bergmann tract, 4¼ miles northwest of Boerne on upper Cibolo Road.		
Surface soil - - - - -	1	1
Caliche - - - - -	1	2
Caliche and clay - - - -	1	3
Clay and chalk - - - - -	5	8
Rock - - - - -		8
January 17, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 157</u>		
Flat, Otto Bergmann tract, 3¾ miles northwest of Boerne on Ranger Creek Road.		
Surface soil - - - - -	3	3
Gravel - - - - -	1	4
Caliche - - - - -	5	9
January 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 161</u>		
Arroyo, Charles McFarlen tract, 3 miles southwest of Boerne on Bandera Road.		
Surface clay - - - - -	1	1
Clay and rock - - - - -	4	5
(Continued on next page)		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 161--Continued</u>		
Clay, rock and chalk - - -	5	10
Clay, rock and sand - - -	2	12
Clay - - - - -	5	17
January 9, 1940		

	Thickness (feet)	Depth (feet)
<u>Well 162</u>		
Arroyo, H. C. Jordt tract, 3 $\frac{1}{2}$ miles west of Boerne on south side of Bandera Road.		
Surface soil - - - - -	1	1
Sand and rock - - - - -	2	3
Sand, rock and clay - - -	2	5
Gravel and clay - - - - -	3	8
Rock - - - - -		8
January 9, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 166</u>		
Flat, G. Borer tract, 3 miles west of Boerne.		
Surface soil - - - - -	1	1
Soil and clay - - - - -	1	2
Clay and gravel - - - - -	6	8
January 10, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 167</u>		
Flat, J. Gombert tract, 3 $\frac{1}{2}$ miles west of Boerne.		
Surface soil - - - - -	1	1
Clay and rock - - - - -	4	5
Brown clay and rock - - -	4	9
Caliche - - - - -	5	14
Rock - - - - -		14
January 11, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 169</u>		
Flat, Joe Johns tract, 4 miles west of Boerne.		
Surface soil - - - - -	1	1
Clay and gravel - - - - -	1	2
Clay - - - - -	4	6
Clay and chert - - - - -	7	13
Rock - - - - -		15
January 11, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 172</u>		
Flat, W. W. McDaniel tract, 5 miles west of Boerne on Renner Creek Road.		
Surface soil - - - - -	1	1
Soil and rock - - - - -	1	2
Clay and rock - - - - -	4	6
January 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 178</u>		
Creek bottom, D. Davis tract, 6 $\frac{1}{2}$ miles northwest of Boerne on upper Cibolo Creek at dam.		
Surface soil - - - - -	2	2
Soil and gravel - - - - -	1	3
Gravel - - - - -	2	5
Rock - - - - -		5
January 17, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 186</u>		
Flat, Hubert Lindner tract, 11 $\frac{1}{2}$ miles northwest of Boerne on the Holiday Road 5 miles southeast of Comfort.		
Black soil - - - - -	3	3
Clay and gravel - - - - -	8	11
March 28, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 190</u>		
Flat, Hubert Lindner tract, 12 $\frac{1}{2}$ miles northwest of Boerne on Holiday Road 4 miles southeast of Comfort.		
Soil and gravel - - - - -	2	2
Soil and sand - - - - -	1	3
Soil, sand and rock - - -	5	8
Clay and rock - - - - -	2	10
Struck water at 10 feet. Water level, 10 feet below ground level, 1 hour after hole completed. March 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 193</u>		
Flat, Alvin Rust tract, 11 $\frac{1}{2}$ miles northwest of Boerne on the Holiday Road 7 miles southeast of Comfort.		
Surface soil - - - - -	1	1
Caliche - - - - -	3	9
March 28, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 197</u>		
Hillside, Max Rust tract, 8 $\frac{1}{2}$ miles northwest of Boerne on north side of Highway 87.		
Surface soil - - - - -	1	1
Soil and chalk - - - - -	2	3
Yellow clay - - - - -	1	4
Pink clay - - - - -	2	6
Caliche and chalk - - - - -	7	13
Rock - - - - -	1	14
January 30, 1940.		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 198</u>		
Flat, Charles Grayey tract, 7 ¹ / ₂ miles northwest of Boerne on old San Antonio Road.		
Surface soil - - - -	1	1
Sandy clay - - - -	3	4
Sandy clay and gravel -	1	5
Yellow clay and gravel -	8	13
Rock - - - - -		13
March 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 199</u>		
Hillside, Robert Allen tract, 6 ³ / ₄ miles northwest of Boerne, 1 mile west of Highway 97.		
Black soil - - - - -	2	2
Soil and sand - - - - -	4	6
Soil, sand and shell - -	2	8
Sand and gravel - - - -	6	14
Rock - - - - -		14
March 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 200</u>		
Arroyo, G. P. Edwards tract, 5 ³ / ₄ miles northwest of Boerne on Highway 87.		
Surface soil - - - - -	1	1
Rock and soil - - - - -	2	3
Soil - - - - -	3	6
Clay and rock - - - - -	6	12
Rock - - - - -	1	13
January 29, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 205</u>		
Arroyo, George Belsley tract, 7 ¹ / ₂ miles northwest of Boerne on north side of Highway 87.		
Surface soil - - - - -	2	2
Soil fill - - - - -	5	7
Rock - - - - -		7
January 30, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 209</u>		
Flat, H. E. Poehnert tract, 8 ¹ / ₂ miles north of Boerne on Welfare Road at railroad crossing.		
Surface soil and rock -	1	1
Caliche - - - - -	1	2
Caliche and clay - - -	2	4
Rock - - - - -	3	7
February 20, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 213</u>		
Arroyo, Herbst estate, 3 ¹ / ₂ miles north of Boerne on the Sisterdale Road.		
Surface soil - - - - -	2	2

	Thickness (feet)	Depth (feet)
<u>Well 213--Continued</u>		
Clay - - - - -	3	5
Clay and rock - - - - -	1	6
Clay and sand - - - - -	8	14
Rock - - - - -		14
February 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 214</u>		
Hillside, 6 ¹ / ₂ miles north of Boerne on the Sisterdale Road.		
Surface rock and clay - -	3	3
Caliche - - - - -	4	7
Caliche and rock - - -	1	8
February 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 219</u>		
Arroyo, 4 ¹ / ₂ miles north of Boerne on the Sisterdale Road.		
Surface soil - - - - -	2	2
Clay and rock - - - - -	3	5
February 10, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 221</u>		
Flat, Tom Crow tract, 4 ¹ / ₂ miles northeast of Boerne on the Blanco Road.		
Surface clay - - - - -	1	1
Clay and rock - - - - -	5	6
February 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 223</u>		
Hillside, Otto Pfeiffer tract, 5 ³ / ₄ miles northeast of Boerne on the Blanco Road.		
Surface rock - - - - -	2	2
Caliche and clay rock - -	2	4
February 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 226</u>		
Flat, Gombert Brothers tract, 8 ³ / ₄ miles northeast of Boerne at Guadalupe River crossing on the Blanco Road.		
Surface soil - - - - -	2	2
Soil and sand - - - - -	5	7
Sand - - - - -	3	10
Sand and clay - - - - -	2	12
Sand - - - - -	4	16
Sand and clay - - - - -	12	28
Rock - - - - -		28
February 28, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 228</u>		
Flat, Mrs. -- Kuippe tract, 3 ¹ / ₂ miles northeast of Boerne on the Cave Road.		
Surface soil - - - - -	1	1
Clay and rock - - - - -	3	4
February 29, 1940.		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 239</u>		
Arroyo, Alfred Engel tract, 9 miles east of Boerne in Bergheim, 200 yards west of Post Office.		
Surface soil - - - -	2	2
Soil and clay - - - -	3	5
Caliche and clay - - -	4	9
Caliche and rock - - -	2	11
March 8, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 245</u>		
Flat, Sam Kirkendall tract, 11 miles northeast of Boerne, and 2 $\frac{1}{2}$ miles northeast of Bergheim on the Kendalia Road.		
Surface soil - - - -	1	1
Rock - - - - - - - -	2	3
March 11, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 24C</u>		
Flat, Brown estate, 12 $\frac{1}{2}$ miles northeast of Boerne, and 4 $\frac{3}{4}$ miles north of Bergheim on the Kendalia Road.		
Black loam - - - - -	1	1
Gray sand - - - - -	3	4
River sand - - - - -	4	8
Yellow sand - - - - -	12	20
Yellow sand and gravel -	3	23
Rock - - - - - - - -		23
March 11, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 251</u>		
Flat, A. A. Harvell tract, 15 $\frac{1}{2}$ miles northeast of Boerne, and 8 miles northeast of Bergheim at edge of falls.		
Clay and rock - - - -	3	3
Clay - - - - - - - -	3	6
Gravel - - - - - - -	1	7
Rock - - - - - - - -		7
April 2, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 257</u>		
Flat, J. D. Meyer tract, 15 $\frac{1}{4}$ miles northeast of Boerne, and 11 miles northeast of Bergheim on Curry Creek.		
Surface soil - - - -	1	1
Clay and rock - - - -	5	6
Clay and water - - - -	2	8
Clay and gravel - - - -	1	9
Struck water at 9 feet. Water level, 8.9 feet below ground level, 1 hour after hole completed. April 3, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 264</u>		
Flat, Martin P. Lux tract, 19 $\frac{3}{4}$ miles northeast of Boerne, and 3 miles east of Kendalia on the Twin Sister Road.		
Surface soil - - - - -	1	1
Soil and clay - - - - -	1	2
Clay - - - - - - - -	1	3
Rock - - - - - - - -		3
March 13, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 267</u>		
Flat, John Krauser tract, 18 $\frac{1}{2}$ miles northeast of Boerne, 1 $\frac{1}{2}$ miles east of Kendalia on the Twin Sister Road.		
Surface soil - - - - -	3	3
Surface clay and rock -	3	6
March 13, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 272</u>		
Creek bottom, E. E. Heidrich tract, 15 miles northeast of Boerne, and 1 $\frac{1}{2}$ miles southwest of Kendalia.		
Surface soil - - - - -	2	2
Sand - - - - - - - -	3	5
Sand and rock - - - - -	1	6
Clay - - - - - - - -	1	7
Rock - - - - - - - -		7
March 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 276</u>		
Flat, Wilbur Young tract, 13 $\frac{1}{2}$ miles northeast of Boerne, and 4 $\frac{1}{2}$ miles southwest of Kendalia on the Bergheim Road.		
Surface soil - - - - -	1	1
Caliche - - - - - - -	5	6
Caliche and rock - - -	2	8
March 12, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 277</u>		
Flat, Gus Heiligmann tract, 11 $\frac{1}{2}$ miles northeast of Boerne on the Blanco Road.		
Caliche - - - - - - -	3	3
Chalk - - - - - - - -	5	8
Rock - - - - - - - -		8
March 4, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 278</u>		
Hilltop, F. Fanzau tract, 14 $\frac{1}{2}$ miles north of Boerne on the Blanco Road.		
Surface soil - - - - -	1	1
(Continued on next page)		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
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Well 273--Continued

Clay and rock - - - -	2	3
Caliche - - - - -	4	7
Rock - - - - -		7
March 4, 1940.		

Well 281

Flat, H. Gass tract, 10 $\frac{1}{2}$ miles northeast of Boerne at the Sheppard Creek school.

Surface soil - - - -	3	3
Clay and gravel - - - -	2	5
Rock - - - - -		5
March 5, 1940.		

Well 284

Flat, Paul Kneuper tract, 18 miles northeast of Boerne, and 3 miles north of Kondalia.

Surface soil - - - -	2	2
Soil and sand - - - -	3	5
Clay and rock - - - -	2	7
March 5, 1940.		

Well 286

Hilltop, J. I. Kneuper tract, 13 miles northeast of Boerne, and 2 $\frac{1}{2}$ miles north of Kondalia on the Grabapple Road.

Surface soil - - - -	4	4
Clay and rock - - - -	2	6
Clay and gravel - - - -	7	13
Rock - - - - -		13
March 6, 1940.		

Well 290

Hillside, E. C. Schock tract, 22 miles northeast of Boerne at Grabapple.

Surface clay - - - -	1	1
Clay and gravel - - - -	2	3
Clay - - - - -	4	7
Blue clay - - - - -	1	8
Yellow clay - - - - -	2	10
Rock - - - - -		10
March 6, 1940.		

Well 293

Flat, E. Weber tract, 23 $\frac{1}{2}$ miles northeast of Boerne on the Luchenbach Road.

Surface soil - - - -	1	1
Caliche - - - - -	3	4
Caliche and clay - - - -	2	6
Rock - - - - -		6
March 7, 1940.		

	Thickness (feet)	Depth (feet)
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Well 296

Hillside, Ed Winkel tract, 22 $\frac{1}{2}$ miles north of Boerne on the Luchenbach Road.

Surface soil - - - -	1	1
Clay - - - - -	3	4
White clay - - - - -	2	6
Yellow clay - - - - -	8	14
Rock - - - - -		14
March 7, 1940.		

Well 299

Hillside, E. Ellebrach tract, 24 miles north of Boerne on the Luchenbach Road.

Surface soil - - - -	1	1
Caliche - - - - -	4	5
Rock - - - - -		5
February 19, 1940.		

Well 302

Hillside, J. Jung tract, 20 $\frac{1}{2}$ miles north of Boerne on the Luchenbach Road.

Surface soil - - - -	2	2
Clay and caliche - - - -	5	7
Rock - - - - -		7
February 19, 1940.		

Well 305

Flat, Kendall County tract, 18 miles north of Boerne, and 4 $\frac{1}{2}$ miles north of Sisterdale on the Luchenbach Road.

Surface soil - - - -	1	1
Clay and rock - - - -	2	3
Clay, rock and sand - - - -	6	9
Clay - - - - -	5	14
Rock - - - - -		14
February 15, 1940.		

Well 307

Hillside, A. Bauch tract, 16 $\frac{1}{2}$ miles north of Boerne, and 2 $\frac{1}{2}$ miles north of Sisterdale on the Luchenbach Road.

Surface clay - - - -	1	1
Clay - - - - -	3	4
Clay and caliche - - - -	3	7
Rock - - - - -		7
February 15, 1940.		

Well 315

Flat, D. A. Schoenewolf tract, 13 $\frac{3}{4}$ miles north of Boerne, and $\frac{1}{2}$ mile north of Sisterdale on Sister Creek.

(Continued on next page)

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 315--Continued</u>		
Surface soil - - - - -	1	1
Clay and sandy gravel - - - - -	18	19
Blue clay - - - - -	3	22
Struck water at 26 feet. Water level, 13 feet below ground level, 24 hours after hole completed. February 14, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 316</u>		
Flat, Henry Marquart tract, 13 miles north of Boerne in Sisterdale.		
Surface soil - - - - -	1	1
Sand - - - - -	3	7
Sand and clay - - - - -	3	10
Rock - - - - -	2	12
February 14, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 319</u>		
River bottom, County Road, 12 miles north of Boerne on the Sisterdale Road at Guadalupe River crossing.		
Surface sand - - - - -	5	5
Sand and gravel - - - - -	1	6
Sand - - - - -	2	8
Clay, sand and rock - - - - -	7	15
February 15, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 321</u>		
Flat, O. E. Rohr tract, 11 miles north of Boerne on the Sisterdale Road.		
Surface soil - - - - -	1	1
Clay and rock - - - - -	3	4
Caliche and rock - - - - -	3	7
Sand - - - - -	8	15
Sand and clay - - - - -	10	25
Rock - - - - -		25
February 13, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 324</u>		
Flat, Knoppfli estate, 10 miles north of Boerne, and 1 1/2 miles north of Waring on the Waring Road.		
Surface soil - - - - -	1	1
Clay - - - - -	2	3
Clay and gravel - - - - -	2	5
Clay and rock - - - - -	6	11
February 20, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 331</u>		
Flat, J. H. Flanagan tract, 11 1/2 miles north of Boerne, and 1 1/2 miles southeast of Waring on the Welfare Road.		
Surface soil - - - - -	1	1
Clay - - - - -	2	3
Caliche - - - - -	1	4

	Thickness (feet)	Depth (feet)
<u>Well 331--Continued</u>		
Gravel - - - - -	1	5
Rock - - - - -	1	6
February 21, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 333</u>		
Flat, D. W. Krohn tract, 12 1/2 miles north of Boerne, and 1 mile north of Waring on the old Friedrichsburg Road.		
Surface soil - - - - -	2	2
Soil and clay - - - - -	2	4
Soil and gravel - - - - -	1	5
Clay - - - - -	4	9
Rock - - - - -		9
February 21, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 339</u>		
Arroyo, Gus Biemann tract, 13 1/2 miles northwest of Boerne on Highway 87, and 4 miles south of Comfort.		
Soil and gravel - - - - -	2	2
Clay and gravel - - - - -	5	7
Gravel - - - - -	1	8
Gravel and clay - - - - -	1	9
January 31, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 340</u>		
Hillside, State Highway Department tract, 1 1/2 miles northwest of Boerne on the Holiday Road.		
Surface soil - - - - -	1	1
Caliche - - - - -	6	7
Rock - - - - -		7
March 27, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 345</u>		
Flat, A. Sanger tract, in Comfort on north side of Highway 27.		
Surface clay - - - - -	1	1
Clay and gravel - - - - -	1	2
Clay and chalk - - - - -	6	8
Clay - - - - -	11	19
Chalk - - - - -	1	20
Gravel - - - - -	4	24
Gravel and sand - - - - -	2	26
February 1, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 346</u>		
Flat, Ernest Stoller tract, in Comfort on east side of creek.		
Surface sand - - - - -	1	1
Sand and clay - - - - -	3	4
Clay - - - - -	5	9
Sand - - - - -	10	19
February 1, 1940.		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 355</u>		
Flat, R. W. Kuettnor tract, in Comfort at the intersection of highways 87 and 27.		
Surface soil and sand - - - - -	2	2
Sand - - - - -	7	9
Sand and gravel - - - - -	5	14
Rock - - - - -		14
January 31, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 358</u>		
Flat, Charles Gass tract, in south Comfort.		
Surface soil - - - - -	1	1
Soil and caliche - - - - -	1	2
Caliche - - - - -	2	4
Rock - - - - -	2	6
January 31, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 366</u>		
Hillside, -- Weidenfeldt tract, 14½ miles north of Boerne at Clift Store, 4 miles north of Waring.		
Surface soil - - - - -	1	1
Clay and gravel - - - - -	5	6
Rock - - - - -		6
February 22, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 368</u>		
Flat, Ernest Marquart tract, 16½ miles north of Boerne on Black Creek.		
Surface soil - - - - -	3	3
Clay and gravel - - - - -	4	7
Rock - - - - -		7
February 22, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 372</u>		
Flat, O. Barth tract, 19½ miles north of Boerne on Highway 9.		
Gravel - - - - -	4	4
Rock - - - - -		4
February 23, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 373</u>		
Flat, Charles Seidensticker tract, 20½ miles north of Boerne on Highway 9.		
Surface soil - - - - -	1	1
Clay - - - - -	4	5
Clay and rock - - - - -	5	10
Clay, rock and sand - - - - -	4	14
Rock - - - - -		14
February 23, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 374</u>		
Arroyo, Otto Kowan tract, 22½ miles north of Boerne, 2 miles south of county line on Highway 9.		
Surface soil - - - - -	4	4
Clay and rock - - - - -	7	11
Clay, gravel and sand - - - - -	3	14
Rock - - - - -		14
February 26, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 378</u>		
Flat, Ernest Feller tract, 24 miles north of Boerne, ½ mile west of Highway 9, and 1 mile south of county line.		
Surface clay - - - - -	4	4
Caliche and rock - - - - -	1	5
Boulders, sand - - - - -	2	7
Rock - - - - -		7
February 26, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 380</u>		
Flat, Peter Inguenhett tract, 26 miles northwest of Boerne on east side of Highway 87 at county line.		
Surface soil and rock - - - - -	1	1
Clay - - - - -	1	2
Clay and gravel - - - - -	1	3
Clay - - - - -	2	5
Rock - - - - -		5
February 26, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 382</u>		
Arroyo, E. L. Herbert tract, 25½ miles northwest of Boerne at creek crossing the west side bank on Highway 87, 11 miles north of Comfort.		
Surface soil - - - - -	3	3
Rock - - - - -	1	4
February 26, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 383</u>		
Flat, A. Stieler tract, 24½ miles northwest of Boerne on Highway 87, 9½ miles north of Comfort.		
Surface soil - - - - -	2	2
Clay - - - - -	1	3
Clay and gravel - - - - -	3	6
Clay and rock - - - - -	2	8
February 7, 1940.		

Logs of W. P. A. test wells in Kendall County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 385</u>		
Arroyo, Fritz Steiler tract, 22 $\frac{1}{4}$ miles northwest of Boerne on Highway 87, 7 miles north of Comfort.		
Surface soil and gravel -	3	3
Clay and gravel - - -	3	6
Rock - - - - -		6
February 7, 1940.		

<u>Well 389</u>		
Hillside, Louis Weidenfeidt tract, 19 $\frac{3}{4}$ miles northwest of Boerne on west side of Highway 87, 4 $\frac{1}{2}$ miles north of Comfort.		
Surface clay - - - -	1	1
Clay and rock - - - -	1	2
Clay - - - - -	8	10
Rock - - - - -		10
February 6, 1940.		

	Thickness (feet)	Depth (feet)
<u>Well 392</u>		
Hillside, --, 18 $\frac{1}{4}$ miles northwest of Boerne on west side of Highway 87, 2 $\frac{1}{2}$ miles north of Comfort.		
Surface clay - - - -	1	1
Clay - - - - -	1	2
Clay and caliche - - -	2	4
Caliche - - - - -	10	14
February 6, 1940.		

Partial analyses of water from wells and springs in Kendall County, Texas

(Analyzed at The University of Texas under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry, and E. W. Lohr, Chemist, U. S. Department of the Interior, Geological Survey; by D. F. Riddell, and H. T. Davidson, Chemists; and Martin Wieland, Jack Ramsey and J. H. Raby, Assistant Chemists. Nitrate and fluoride determined by E. W. Lohr. Results are in parts per million. Well numbers correspond to numbers in table of well records.)

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
c/ 1	S. Warren	35	Apr. 3, 1940	798	169	61	8	329	380	18	b/	0.3	673
8	Minnie Davis	43	Mar. 25, 1940	412	-	-	-	293	106	14	b/	-	-
10	B. Ebensberger	40	do.	429	-	-	-	311	102	19	b/	-	-
12	City of Boerne	40	Feb. 7, 1940	315	60	13	22	275	47	18	b/	-	253
14	Joe Dienger	30	Feb. 18, 1940	585	154	15	34	409	28	59	94	-	449
15	J. E. Sill	228	do.	352	102	15	8	317	32	20	b/	0.1	319
19	Joe Phillips	188	do.	-	-	-	-	-	39	18	b/	-	-
20	Mrs. E. Richter	210	Mar. 25, 1940	703	132	74	12	476	232	15	b/	3.6	636
c/ 26	A. Wendler	35	do.	518	122	15	39	305	136	27	29	0.2	369
27	Joe Sotelo	25	do.	323	80	20	6	201	100	18	b/	0.1	282
31	Mrs. W. Zoeller	34	do.	306	63	22	15	195	91	19	b/	-	249
36	Paul Waeber	60	Mar. 18, 1940	460	117	18	21	323	45	34	66	-	366
37	A. Hartz	35	Mar. 25, 1940	397	-	-	-	287	89	23	b/	-	-
38	D. Knebbe	23	do.	397	112	20	8	336	67	25	b/	-	362
39	Chas. Bergmann	232	Mar. 19, 1940	-	-	-	-	-	43	21	b/	-	-
43	P. Holekamp	130	Mar. 21, 1940	341	98	12	18	336	28	20	b/	0.1	292
44	Eva Smith	200	Mar. 25, 1940	320	90	13	12	263	55	18	b/	-	278
45	J. W. Lawhorn	275	Mar. 21, 1940	294	90	12	6	287	28	16	b/	0.2	272
c/ 48	Erich Poehnert	269	Mar. 25, 1940	433	98	35	11	329	96	30	b/	1.3	392
50	A. Schultz	350	do.	443	90	35	25	366	91	22	b/	-	372
53	Mrs. R. Thomas	50	do.	382	97	25	5	275	93	20	b/	0.2	345
54	Mrs. E. Vogt	180	do.	293	53	21	30	256	43	20	b/	-	218
58	San Antonio Public Service Co.	24	do.	449	93	31	24	299	138	16	b/	-	359
64	Ernest Vorges	40	do.	347	88	19	10	232	98	18	b/	-	297
66	A. B. Vogt	50	do.	341	-	-	-	256	75	16	b/	-	-
67	Mrs. A. Graham	30	do.	636	128	57	19	323	266	36	b/	1.1	555

a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

Partial analyses of water from wells and springs in Kendall County--Continued

Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
68	Miss L. Dienger	20	Mar. 25, 1940	613	149	9	69	409	95	90	b/	-	411
71	H. Graham	60	Apr. 3, 1940	565	137	62	8	415	224	28	b/	1.3	593
c/ 79	City of Boerne	Spring	Mar. 25, 1940	381	98	21	10	281	99	15	b/	0.1	333
80	do.	Creek	do.	229	46	15	18	183	43	17	b/	0.2	179
81	do.	Creek	do.	246	46	15	40	195	34	15	b/	-	179
c/102	H. Zoeller	320	Jan. 9, 1940	1,199	199	125	4	335	685	18	b/	2.7	1,012
103	J. A. Haren	180	do.	2,768	599	136	49	293	1,815	25	b/	-	2,058
105	L. A. Lamm	100	do.	885	202	49	19	505	434	27	b/	1.4	705
106	M. A. Shumard	35	Apr. 8, 1940	396	122	20	-	397	15	15	2c	-	387
107	Judge M. J. Lehrann	100	do.	377	124	14	2	397	26	16	b/	0.2	369
112	Paul Sultenfuss	135	Jan. 9, 1940	423	89	45	5	384	80	15	b/	-	408
114	A. Wendler	90	do.	430	111	20	24	366	26	43	26	-	357
115	R. Swartz	370	Apr. 9, 1940	494	104	43	13	354	146	13	b/	1.4	436
120	Mrs. J. A. Stevenson	300	do.	483	103	26	43	421	52	22	b/	-	366
121	R. G. Goll	60	do.	465	128	23	15	397	25	53	26	-	414
c/123	J. L. Adam	600	do.	448	100	40	4	366	34	23	66	0.9	415
124	C. E. Reed	500	do.	449	90	51	-	366	109	14	b/	1.9	437
127	J. Blank	91	do.	293	55	8	54	329	a/	8	b/	-	170
129	Kendall County Fair Assn.	75	Apr. 8, 1940	389	130	15	2	409	34	16	b/	-	389
130	F. Sultenfuss	200	Mar. 7, 1940	520	140	12	22	329	21	36	127	-	397
132	E. H. Richter	282	do.	325	68	35	10	366	16	16	b/	-	317
134	Joe Armann	90	Apr. 8, 1940	428	118	27	2	384	73	15	b/	-	407
136	do.	285	Mar. 7, 1940	307	82	14	10	256	18	18	39	-	264
137	R. Kunz	290	do.	357	97	17	16	354	12	14	27	-	310
141	Kendall County	240	Apr. 8, 1940	487	119	35	16	458	77	15	b/	-	441
142	Chas. H. Rust	250	do.	303	73	25	6	281	47	12	b/	0.2	285
143	A. Heileckmann	75	do.	215	67	10	2	226	13	12	b/	-	211
c/144	C. D. Wolford	200	Feb. 28, 1940	242	60	14	9	201	18	20	22	0.1	209
146	H. Ebensberger	200	do.	463	102	42	5	342	112	22	-	-	426
c/147	A. Heileckmann	286	do.	532	94	66	3	384	161	16	b/	2.6	506

a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 46.

Partial analyses of water from wells and springs in Kendall County--Continued
Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Cal-cium (Ca)	Magne-sium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicar-bonate (HCO ₃)	Sul-phate (SO ₄)	Chlo-ride (Cl)	Ni-trate (NO ₃)	Fluor-ide (F)	Total hardness as CaCO ₃ (calc.)
148	F. Schwope	247	Feb. 28, 1940	463	18	43	98	354	110	20	b/	-	221
151	J. Wegman	200	Apr. 9, 1940	317	102	13	5	336	16	16	b/	-	302
152	L. E. Eckert	85	Feb. 8, 1940	385	121	11	17	427	a/	19	b/	-	347
154	S. E. Bonnel	350	Jan. 29, 1940	546	120	47	4	336	191	16	b/	1.2	494
156	L. Bergmann	240	Apr. 10, 1940	385	82	27	25	342	37	14	b/	-	317
158	R. Theis	199	Apr. 9, 1940	1,260	197	146	-	415	628	21	b/	2.7	1,035
c/160	C. C. McFarland	40?	Jan. 9, 1940	554	124	32	17	317	128	36	a/	0.1	440
163	F. C. Jordt	100	do.	389	82	32	12	311	95	13	b/	0.1	346
164	do.	30	do.	253	71	20	3	237	10	12	b/	-	237
168	J. Gombert	145	Jan. 10, 1940	1,023	130	93	2	348	538	12	a/	2.4	372
173	W. W. McDaniels	Spring	Apr. 10, 1940	298	-	-	-	322	a/	13	b/	-	-
c/174	W. M. Campbell	235	do.	1,330	195	115	20	342	780	19	b/	1.3	1,035
175	O. Davis	Spring	Jan. 17, 1940	175	37	13	c	171	16	15	b/	-	183
176	J. B. Ethridge	400	Apr. 10, 1940	3,032	539	237	43	305	2,035	24	b/	4.1	2,320
180	Dr. B. F. Smith	Spring	do.	429	105	24	3	267	15	18	132	-	350
181	G. Hall	Spring	do.	256	-	-	-	201	a/	14	b/	-	-
182	Mrs. K. Ingenhutt	100	do.	445	108	15	18	238	17	38	132	-	334
183	Edwin Lindner	230	do.	2,143	439	147	6	293	1,383	31	b/	-	1,700
184	R. Lindner	105	Apr. 11, 1940	2,176	529	177	16	207	1,472	17	-	2.7	1,700
187	C. E. Purff	225	Mar. 27, 1940	711	186	29	5	256	347	17	b/	-	583
188	R. Lindner	196	do.	695	135	70	2	378	274	14	-	1.0	623
c/189	do.	113	do.	2,613	499	187	27	281	1,744	16	b/	2.4	2,016
191	H. Lindner	21	do.	393	105	21	10	366	32	11	b/	0.1	380
c/194	O. Rust	200	Feb. 8, 1940	392	106	22	12	384	17	16	30	0.2	355
195	B. C. Baldwin	180	Feb. 22, 1940	2,394	447	199	11	393	1,560	20	b/	2.6	1,296
202	Edwin Houston	1,982	Feb. 8, 1940	1,206	205	120	9	342	688	12	b/	3.1	1,004
204	D. Bergmann	100	Jan. 30, 1940	354	99	18	9	330	14	19	30	-	321
205	A. Bottles	Spring	Apr. 9, 1940	329	92	25	3	372	15	11	b/	-	330
206	F. Sultenfuss	Spring	Feb. 21, 1940	254	52	24	10	232	30	16	b/	0.2	230
208	H. Poehnert	200	Jan. 30, 1940	317	14	43	13	299	47	20	b/	-	287
210	P. J. Laas	Spring	Apr. 9, 1940	433	116	28	8	415	59	17	b/	0.2	407
c/211	Mrs. E. Sultenfuss	272	Jan. 30, 1940	957	92	82	118	281	396	119	b/	2.1	536
212	A. Herbst	220	Feb. 19, 1940	499	79	72	4	427	91	40	b/	-	494

a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

Partial analyses of water from wells and springs in Kendall County--Continued

Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
215	Mrs. E. B. Whiteman	Spring	Jan. 5, 1940	244	56	16	19	268	10	11	b/	-	205
216	do.	Spring	do.	180	51	11	3	183	15	10	b/	-	172
217	C. G. Sterne	Spring	do.	203	46	18	8	220	10	13	b/	-	191
218	do.	Spring	do.	267	52	32	7	291	20	12	b/	0.7	260
c/220	C. G. Groos	95	Feb. 28, 1940	2,045	370	125	87	305	1,299	13	b/	1.1	1,436
222	A. C. Flores	200	do.	336	117	9	14	354	22	14	b/	-	331
224	Max Pfeiffer	15	Feb. 28, 1940	333	117	8	2	343	13	25	b/	0.2	325
225	H. S. Bird	290	do.	579	94	50	47	403	150	37	b/	1.3	441
227	McNeil & Bennet	200	do.	398	-	-	-	394	45	15	b/	-	-
229	Horne Ranch Inc.	Spring	Jan. 17, 1940	336	93	18	15	372	12	15	b/	-	306
c/231	J. L. Horne	130	do.	488	93	43	16	390	59	29	50	0.7	430
232	-- Depui	Spring	Feb. 29, 1940	225	66	12	6	232	10	17	b/	0.2	212
233	Dr. Joe Kopecky	Spring	do.	235	63	17	18	275	13	16	b/	-	225
237	Brown Estate	Spring	Apr. 8, 1940	281	96	6	7	311	a/	10	b/	-	263
238	do.	Spring	do.	169	45	8	12	201	a/	4	b/	-	145
240	B. F. Laubach	409	Mar. 7, 1940	573	83	54	44	311	190	48	b/	2.0	428
c/241	Alfred Engel	385	Mar. 8, 1940	364	84	23	12	268	20	22	71	0.2	304
242	R. H. Kunz	310	do.	285	74	18	13	317	12	12	b/	-	261
243	Mrs. C. Lucking	365	do.	644	83	55	72	378	197	19	b/	2.2	434
244	C. K. Lucking	250	do.	250	108	13	13	317	a/	21	66	-	323
246	Brown Estate	105	Apr. 8, 1940	321	87	23	8	372	a/	17	b/	-	314
247	do.	100	do.	359	95	18	22	320	12	14	b/	-	311
249	W. Herbst	Spring	Apr. 12, 1940	294	86	13	11	305	20	14	b/	-	268
250	do.	Spring	do.	445	136	56	16	439	a/	16	b/	-	363
252	A. A. Harwell	Spring	Apr. 2, 1940	270	82	13	4	275	25	11	b/	0.2	258
c/255	do.	Spring	do.	299	76	13	22	292	28	16	b/	0.2	243
256	O. Short	100	Apr. 12, 1940	406	54	44	40	360	51	40	b/	-	317
257	W. P. A. Test	9	Apr. 3, 1940	370	92	23	19	378	32	15	27	-	324
258	J. D. Meyer	Spring	do.	356	107	18	7	384	20	15	b/	-	341
261	A. Kneupper	35	Apr. 12, 1940	399	129	18	2	415	14	32	b/	-	396
262	do.	119	do.	428	72	42	32	366	65	37	b/	-	351
263	W. E. Ludolf	200	Mar. 11, 1940	374	88	25	18	317	68	19	b/	0.4	320

a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

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Partial analyses of water from wells and springs in Kendall County--Continued
Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
c/268	G. I. Gourley	160	Apr. 12, 1940	352	103	17	7	342	12	17	28	0.2	335
269	C. J. Bechtold	172	Mar. 5, 1940	323	99	18	17	342	12	17	52	-	321
273	P. Acker	180	Apr. 12, 1940	407	113	26	11	452	14	13	b/	-	391
274	W. Young	300	do.	451	86	44	18	342	93	42	b/	-	397
275	Tom Smith	312	do.	376	81	39	7	372	34	18	b/	-	364
279	Mrs. L. Haag	120	Feb. 28, 1940	420	89	45	-	342	92	19	b/	-	408
280	B. Davis	50	Mar. 12, 1940	375	77	32	14	372	45	13	b/	0.4	343
282	Kendall County	100	Feb. 28, 1940	338	86	20	11	299	59	13	b/	0.3	302
285	A. C. Kneuper	304	do.	554	114	60	4	464	126	20	b/	-	532
287	N. Newton	250	Mar. 4, 1940	1,560	299	81	75	292	945	13	b/	1.2	1,030
288	J. J. Edmondson	184	do.	733	110	84	29	476	256	20	b/	-	622
c/289	H. G. Schock	90	do.	352	78	34	4	292	75	32	26	0.0	353
291	J. W. Smith	125	do.	523	133	25	46	305	103	73	245	-	560
294	J. S. Stone	105	do.	447	99	37	-	267	134	9	35	-	392
295	A. F. Weber	500	do.	1,967	334	170	41	403	1,121	40	b/	2.3	1,534
297	E. D. Dehart	300	do.	645	103	75	17	409	224	25	b/	-	566
298	A. Decker	180	do.	615	129	61	5	452	177	21	b/	-	577
c/300	E. Edmondson	420	Feb. 19, 1940	666	94	73	42	390	193	70	b/	2.3	535
304	R. W. Edmondson	232	do.	528	73	42	57	363	104	57	b/	1.1	379
306	W. E. Edmondson	250	do.	517	77	45	52	543	102	70	b/	-	378
308	J. H. Askey	330	do.	544	71	46	64	329	130	70	b/	1.1	368
314	Kendall County	100	do.	639	112	66	34	403	193	66	b/	-	551
315	W. P. A. Test	22	Feb. 14, 1940	346	95	24	4	329	39	22	b/	0.5	336
317	Ida Schoenewolf	110	Feb. 19, 1940	543	-	-	-	354	98	72	b/	1.5	-
318	F. Zell	120	do.	535	60	40	103	372	122	76	b/	-	315
322	Othmar Behr	100	do.	756	84	53	120	372	175	142	b/	-	427
323	do.	210	do.	368	75	30	25	354	30	34	-	0.3	314
325	Dr. L. Zoeller	Spring	Apr. 9, 1940	296	76	21	0	275	43	12	b/	0.2	278
326	Chas. Zoeller	170	Feb. 22, 1940	547	71	39	82	353	79	96	b/	-	339
c/327	Mrs. M. Zoeller	200	do.	575	91	39	63	372	110	62	b/	1.4	382
328	A. Zoeller	193	do.	419	121	10	15	342	12	18	75	-	346
329	F. M. Treiber	87	do.	427	39	38	72	262	43	106	b/	-	253

a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

Partial analyses of water from wells and springs in Kendall County--Continued

Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
330	F. M. Treiber	221	Feb. 22, 1940	582	71	38	98	372	79	113	b/	-	333
332	O. Rodonchin	125	Jan. 30, 1940	781	86	56	126	415	154	154	b/	-	444
c/335	Mrs. A. Drought	300	Feb. 22, 1940	607	82	51	75	390	94	111	b/	1.6	417
336	A. C. Duddy	285	do.	433	82	40	20	299	94	50	b/	-	370
337	Mrs. R. Busch	120	do.	414	109	29	4	378	47	19	20	-	393
338	R. T. Peery	65	Jan. 30, 1940	430	107	41	-	372	73	14	b/	-	435
341	P. Kott	200	Apr. 11, 1940	486	115	37	6	354	67	35	b/	-	438
342	Gus Biermann	275	Feb. 7, 1940	431	98	37	9	366	91	16	b/	-	398
345	W. E. A. Test	26	Apr. 11, 1940	380	70	51	5	403	28	28	b/	-	387
348	A. Faitin	50	do.	308	66	30	12	311	22	25	b/	-	288
350	City of Comfort	200	do.	861	112	60	115	372	215	176	b/	-	527
351	Emil Sperrath	205	do.	832	109	61	106	360	203	176	b/	-	523
352	A. F. Sperrath	45	do.	446	106	36	14	409	47	42	b/	-	412
353	Dr. O. F. Harzke	260	do.	793	101	64	97	354	185	172	b/	-	514
c/356	Mrs. L. Biermann	365	Feb. 7, 1940	675	157	36	22	372	113	56	108	0.4	540
357	D. Below	150	Feb. 22, 1940	757	112	65	72	336	161	180	b/	1.6	545
359	J. Klinemann	170	Feb. 8, 1940	656	75	75	50	348	219	66	-	-	496
360	L. Drees	228	Feb. 22, 1940	389	104	14	16	305	13	27	65	-	319
362	C. Voigt	150	do.	564	82	50	58	354	98	102	b/	-	411
363	Mrs. K. Hunnan	100	do.	529	87	46	47	363	75	94	b/	-	409
364	Fitzgibbons & Phair	300	do.	447	60	43	46	275	75	89	b/	-	326
365	E. Weidenfeld	225	Feb. 21, 1940	476	45	45	72	336	79	70	b/	-	298
367	I.V. Clift & Son	250	do.	685	110	57	56	384	197	73	b/	1.6	510
369	E. Marquart	156	do.	482	64	42	58	305	83	85	b/	-	331
370	Mrs. F. Barth	180	do.	536	73	48	60	360	102	76	b/	-	379
371	C. Moldenhaur	190	do.	341	62	33	23	317	43	24	b/	0.1	290
c/375	Ernst Feller	80	do.	510	126	23	31	416	52	44	50	0.1	409
376	O. Cowan	407	do.	729	118	77	29	372	236	83	b/	2.6	612
377	H. E. Ebers	371	do.	823	129	84	38	421	299	66	b/	-	657
379	W. Klinksiek	433	do.	663	108	65	31	372	252	24	b/	-	535
381	E. Herbert	29	Feb. 7, 1940	336	58	40	13	329	a/	26	30	-	309
384	John James	Spring	do.	335	85	26	11	378	10	17	b/	-	321

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a/ Sulphate less than 10 parts per million.

b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

Partial analyses of water from wells and springs in Kendall County--Continued
Results are in parts per million.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (calc.)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Total hardness as CaCO ₃ (calc.)
386	Fritz Stieler	Spring	Feb. 7, 1940	347	86	29	12	403	a/	14	b/	-	333
388	Heinen & Shafer	-	do.	939	153	65	88	482	306	90	b/	-	650
c/390	Paul Dreiss	350	Feb. 22, 1940	757	136	50	63	372	224	99	b/	1.5	546
391	T. W. Wredenfeld	265	Feb. 7, 1940	631	99	49	64	378	119	106	b/	-	450
391	W. Stein	260	Feb. 22, 1940	529	109	48	19	427	114	29	b/	-	469
c/39b	A. Schmelie	200	Feb. 7, 1940	859	138	56	91	372	162	185	43	1.0	574

a/ Sulfate less than 10 parts per million.

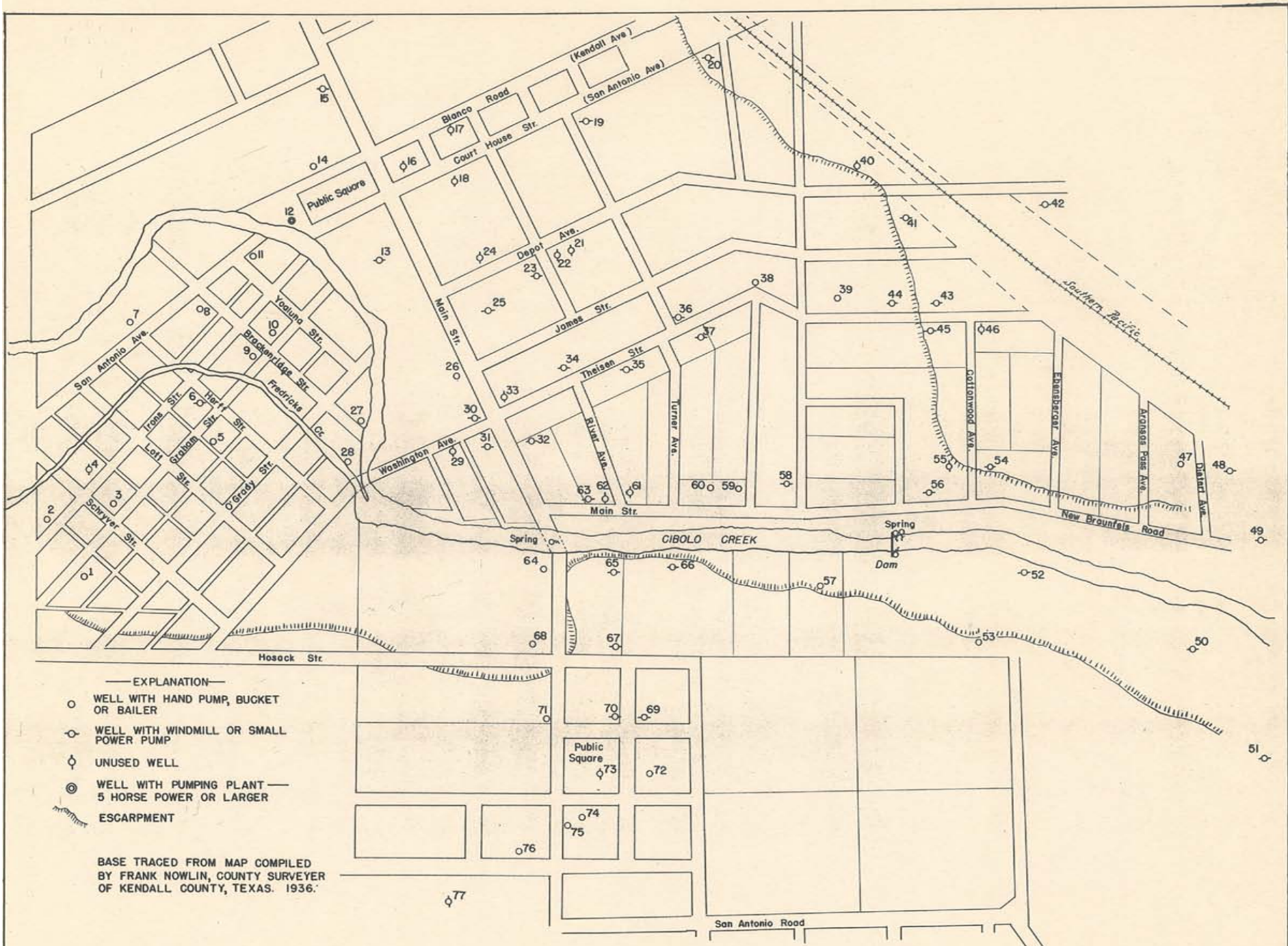
b/ Nitrate less than 20 parts per million.

c/ Analyses of selected wells are given in milligrams equivalents per liter on page 48.

Chemical analyses--Continued

Results are in milligrams equivalents per liter

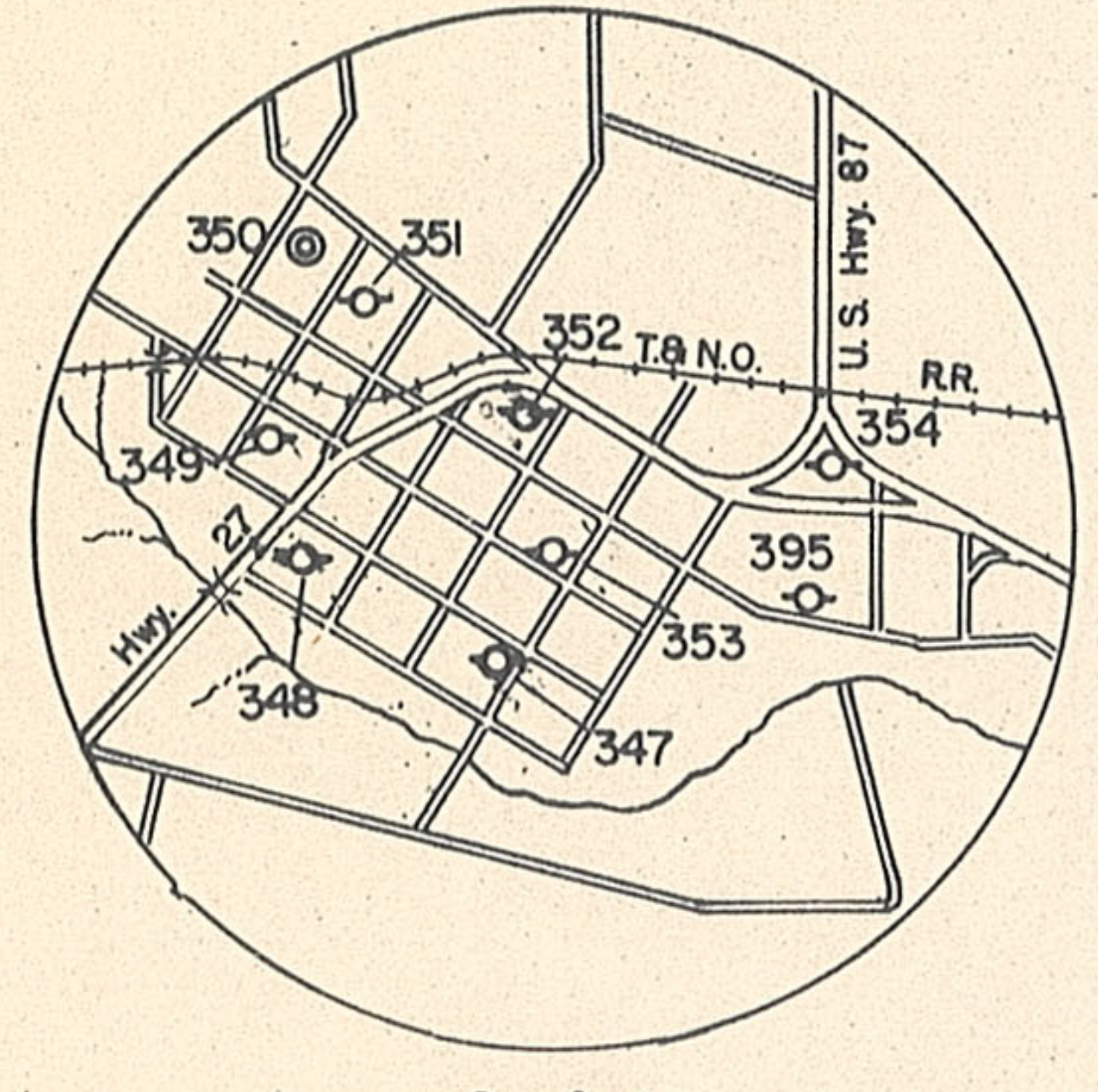
Well	Owner	Depth of well (ft.)	Date of collection	Total hardness as CaCO ₃ (calc.)	Cal-cium (Ca)	Magne-sium (Mg)	Sodium and Potassium (Na / K) (calc.)	Bicar-bonate (HCO ₃)	Sul-phate (SO ₄)	Chlo-ride (Cl)	Fluor-ide (F)	Ni-trate (NO ₃)	Total dissolved solids (calc.)
1	S. Warren	35	Apr. 3, 1940	13.46	8.44	5.02	0.36	5.40	7.91	0.51	0.01	-	27.64
26	A. Wendler	35	Mar. 25, 1940	7.38	6.12	1.26	1.68	5.00	2.82	0.76	0.01	0.47	18.12
48	Erich Poehnert	269	do.	7.84	4.92	2.92	0.49	5.40	2.00	0.85	0.87	-	16.66
79	City of Boerne	Spring	do.	6.66	4.90	1.76	0.43	4.60	2.07	0.42	0.005	-	14.18
102	H. Zoeller	320	Jan. 9, 1940	20.24	9.94	10.30	0.19	5.50	14.27	0.51	0.14	-	40.86
123	J. L. Adam	600	Apr. 9, 1940	8.30	4.98	3.32	0.16	6.00	0.69	0.65	0.05	1.06	16.92
144	C. D. Wolford	200	Feb. 28, 1940	4.18	3.02	1.16	0.40	3.30	0.37	0.56	0.005	-	9.16
147	A. Helectmann	286	do.	10.12	4.70	5.42	0.13	6.30	3.36	0.45	0.14	-	10.50
160	C.C.McFarland	40	Jan. 9, 1940	8.80	6.20	2.60	0.74	5.20	2.65	1.02	0.005	0.66	19.08
174	W. M. Campbell	235	Apr. 10, 1940	21.70	9.76	11.94	0.88	5.60	16.23	0.51	0.23	-	44.70
189	R. Lindner	118	Mar. 27, 1940	40.32	24.96	15.36	1.19	4.60	36.32	0.45	0.13	-	82.02
194	O. Rust	200	Feb. 8, 1940	7.06	5.28	1.78	0.52	6.30	0.35	0.45	0.01	-	15.16
211	Mrs. E. Sultenfuss	272	Jan. 30, 1940	11.32	4.58	6.74	5.15	4.60	8.24	3.36	0.11	0.16	32.94
220	C. G. Groos	95	Feb. 28, 1940	28.72	18.48	10.24	3.77	5.00	27.06	0.37	0.06	-	64.98
231	J. L. Horne	130	Jan. 17, 1940	8.60	4.64	3.96	0.71	6.40	1.23	0.82	0.04	0.81	18.62
241	Alfred Engel	385	Mar. 8, 1940	6.08	4.22	1.86	0.51	4.40	0.42	0.62	0.01	1.15	12.18
255	A. A. Harwell	Spring	Apr. 2, 1940	4.86	3.80	1.06	0.97	4.80	0.58	0.45	0.01	-	11.62
268	George L. Gourley	160	Apr. 12, 1940	6.50	5.14	1.36	0.29	5.60	0.25	0.48	0.01	0.43	13.58
289	H. C. Schoch	90	Mar. 4, 1940	6.72	3.90	2.82	0.17	4.80	0.73	0.90	0.03	0.42	13.72
300	E. Ellebracht	420	Feb. 19, 1940	10.70	4.72	5.98	1.81	6.40	4.01	1.97	0.12	-	25.02
327	Mrs. M. Zoeller	200	Feb. 22, 1940	7.78	4.56	3.22	3.00	6.10	2.29	2.31	0.07	-	21.56
335	Mrs. H. Drought	300	do.	8.34	4.12	4.22	3.24	6.40	1.96	3.13	0.08	-	23.16
352	Mrs. L. Biemann	365	Apr. 11, 1940	10.80	7.88	2.92	0.97	6.10	2.34	1.58	0.02	1.74	23.54
375	Ernst Feller	80	Feb. 21, 1940	8.18	6.32	1.86	1.34	6.80	0.67	1.24	0.005	0.81	19.04
390	Paul Dreiss	350	Feb. 22, 1940	10.92	6.80	4.12	2.72	6.10	4.67	2.79	0.08	-	27.28
395	A. Schnelle	200	Feb. 7, 1940	11.48	6.92	4.56	3.96	6.10	3.37	5.22	0.05	0.32	20.62



a.g.k.
7-25-40.

BASE COMPILED FROM
STATE HIGHWAY PLANNING SURVEY
COUNTY ROAD MAP

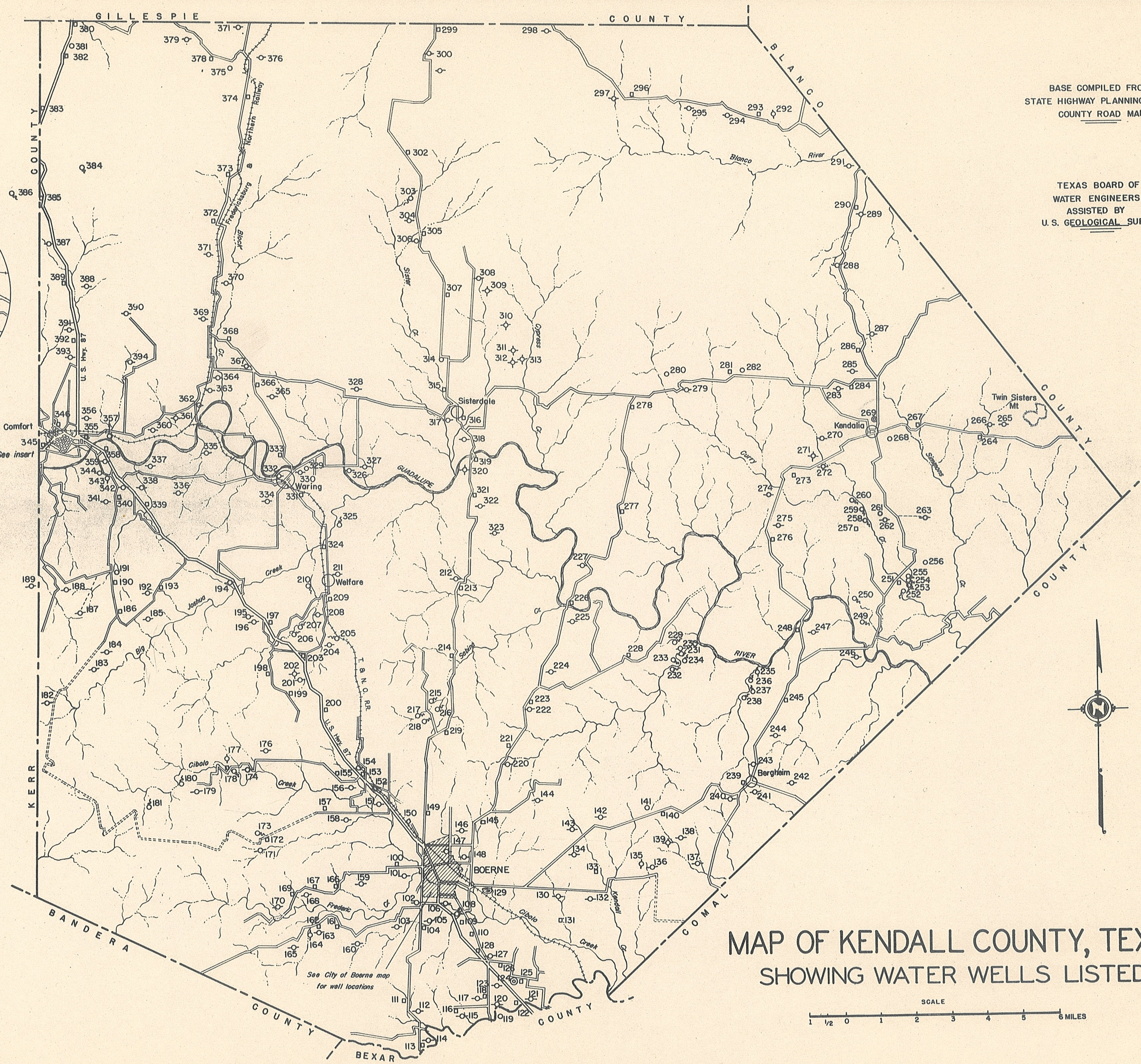
TEXAS BOARD OF
WATER ENGINEERS
ASSISTED BY
U. S. GEOLOGICAL SURVEY



Comfort
Scale: 4" = 1 mile

- EXPLANATION —
- WELL WITH HAND PUMP, BUCKET OR BAILER
 - ◌ WELL WITH WINDMILL OR SMALL POWER PUMP
 - ⊙ WELL WITH PUMPING PLANT — 5 HORSE POWER OR LARGER
 - ⊕ WELL DRILLED TO TEST FOR OIL OR GAS
 - ◇ UNUSED WELL
 - ▣ TEST WELL DRILLED BY W.P.A. LABOR
 - ⊕ SPRING
 - ⊕ EARTHEN TANK OR RESERVOIR

FIELD WORK BY
J. M. FRAZIER Jr.
W. P. A. PROJECT 14739



MAP OF KENDALL COUNTY, TEXAS SHOWING WATER WELLS LISTED

