

Texas Board of Water Engineers

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ORANGE COUNTY, TEXAS WATER WELLS

By Penn Livingston and G. H. Cromack

PREPARED IN COOPERATION WITH
DEPARTMENT OF THE INTERIOR

MARCH

TEXAS BOARD OF WATER ENGINEERS

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Prepared in cooperation with the United States
Department of the Interior, Geological Survey

March 1942

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I L L U S T R A T I O N

Map of Orange County, Texas, showing locations of wells for
which data were obtained.

WELL DATA, ORANGE COUNTY, TEXAS

By

Penn Livingston and G. H. Cromack

INTRODUCTION

This publication consists of a tabulation of data that were obtained by the writers in a field investigation which was made as part of a State-wide plan for investigations and reports on the ground-water resources of Texas by the Geological Survey, U. S. Department of the Interior, in cooperation with the Texas State Board of Water Engineers. These studies are under the general supervision of O. E. Meinzer and W. N. White of the Geological Survey. The chief immediate purpose of the investigation in Orange County was to obtain information regarding the ground-water resources available for industrial purposes and national defense.

A report is being prepared in which the general geology of the county, the history of ground-water development, the movement of ground water, the quality of ground water, and the occurrence of ground water by areas are briefly discussed. The present publication is expected to serve the immediate needs for the well records and quality of water data.

The field work was begun on February 7, 1941, carried on simultaneously with field work in Jefferson and Chambers Counties, and completed on December 16, 1941. During the field work, 208 water wells were visited and all available information about them recorded. Water samples from 186 wells were collected and analyzed in the laboratory of the Federal Geological Survey at Austin, Texas. The altitude of a measuring point at nearly all of the deep water wells was determined by instrumental leveling. In the level traverses, 60 miles of double circuit levels were run and the altitude of water levels in nearly all the deep water wells and many of the shallow wells was determined.

A limited number of copies of this publication are available for free distribution. They may be obtained by addressing a request to the Federal Geological Survey, or Mr. C. S. Clark, Chairman, Texas State Board of Water Engineers, 502 West 15th Street, Austin, Texas.

Records of wells in Orange County, Texas

All wells are drilled unless otherwise stated under "Remarks"

Well	Distance from post office in Vidor	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
1	8.7 miles northwest	Charlie Lynn	--	Old	--	8	--
2	do.	do.	--	Old	--	6	--
3	8.5 miles northwest	Dr. T. A. Tumbleson	--	1939	800 ⁺	2 $\frac{1}{2}$	Top of casing
4	do.	do.	--	--	100	2	--
5	6.8 miles northwest	Ed & Jerry Stedman	Frank Balcar	Old	460	6	Top of casing
6	do.	do.	do.	Old	460	8	Top of 8-inch tee
7	do.	do.	do.	1919	1,470	6 $\frac{1}{4}$	--
8	do.	do.	--	1902	740	6	--
9	5.3 miles northwest	E. E. Quinn	Republic Oil Co.	1925	600 ⁺	6	Top of casing
10	do.	Cole Thompson	Paul Acheson	1937	167	1 $\frac{1}{4}$	do.
11	8.1 miles north	Frank Williamson	C. C. Corbitt	1940	65	1 $\frac{1}{2}$	--
12	8.5 miles northeast	J. D. Thomas	--	Old	40	33	Top of wooden curb
13	7.8 miles north	Horace Peveto	H. H. Stanton	1940	69	2 $\frac{1}{4}$	Top of casing
14	6.4 miles north	J. B. Eaves	--	1940	79	1	--
15	5.3 miles north	I. C. Herrington	--	1923	160	2	--
16	4.2 miles northwest	G. W. Coppenger	Richard Beaumont	1937	80	1 $\frac{1}{4}$	--
17	2.5 miles north	A. M. Philmon	C. C. Corbitt	1941	102	1 $\frac{1}{4}$	--

a/ Altitudes determined by instrumental leveling from government bench marks and from U. S. Geol. Survey topographic maps with 2 foot contour intervals.

b/ Plus (+) indicates water level above measuring point.

c/ Pump or lift: T, turbine; Cf, centrifugal; Gl, gas lift; A, air lift; C, cylinder; B, rope and bucket. Power: E, electric; S, steam; G, gasoline engine; D, diesel; W, windmill; H, hand. Figure indicates horsepower.

Chemical analyses of water from these wells are shown in a table of analyses

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
1	--	21	+	Mar. 5, 1941	Flows C,E,-	D,S	Estimated flow 5 gallons a minute 2½ feet above ground
2	--	21	+	do.	Flows	D,S	Estimated level. Temp. 73° F. flow 20 gallons a minute 4 feet above ground level. Supplies water for swimming pool. Flow operates hydraulic ram. Temp. 78° F.
3	--	18	--	--	None	N	Oil test.
4	--	18	--	--	C,E,¼	D,S	
5	1.2	18	+ 6.0	Dec. 16, 1941	Flows	D,S	Flow operates hydraulic ram. Estimated flow 20 gallons a minute 1 foot above ground
6	.5	16	2.00	Feb. 15, 1941	None	N	Reported to have had a level. flow when drilled. Located 8 feet northeast of well 5.
7	--	14	+	Sept. 26, 1941	Flows	N	Estimated flow 30 gallons a minute at ground level. Natural gas from well used for domestic purposes. Temp. 97° F.
8	2.0	18	+	do.	Flows	N	Estimated flow 2 gallons a minute 2 feet above ground level. Well 848 in U.S. Geol. Survey Water-Supply Paper 355,
9	1.0	9.19	+12.90	Apr. 6, 1941	Flows	N	Formerly supplied p. 320, 1914. drilling rig. Temp. 73° F.
10	2.0	26.40	9.21	Apr. 4, 1941	C,H	D,S	Screen from 160½ to 167 feet.
			9.40	Apr. 6, 1941			
11	--	28	--	--	C,H	D,S	
12	3.0	36	9.69	Apr. 29, 1941	B	D,S	Dug well. Caved at 17 feet.
13	3.0	31	7.21	do.	C,H	D,S	Sand from 38 to 69 feet.
14	--	29	--	--	C,E,¼	D,S	
15	--	27	--	--	A,E,½	D,S	
16	--	20	--	--	C,H	D,S	
17	--	24	--	--	C,H	S	Screen from 97 to 102 feet.

d/ P, public supply; Ind, industrial; Irr, irrigation; RR, railroad; D, domestic; S, stock; N, none.

e/ Water level reported by driller or owner.

Records of wells in Orange County--Continued

Well	Distance from post office in Vidor	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
18	2.2 miles north	Bill Humberson	Alton Christian	1931	57	1 $\frac{1}{4}$	-
19	2.3 miles northeast	W. C. Robinson	Paul Acheson	1940	64	1 $\frac{1}{4}$	-
20	do.	Johnnie Steelburg	Johnnie Steelburg	1937	18	1 $\frac{1}{4}$	-
21	1.5 miles northeast	H. J. Hebert	Paul Acheson	1940	194	1 $\frac{1}{4}$	-
22	0.8 mile northeast	Anna Wise	do.	1940	143	1 $\frac{1}{4}$	-
23	0.9 mile east	W. M. Sarver	do.	1940	73	1 $\frac{1}{2}$	-
24	0.3 mile northwest	Mrs. R. N. Carter	do.	1940	120	1 $\frac{1}{4}$	-
25	0.6 mile west	Joe Baker	Paul Acheson	1940	151	1 $\frac{1}{4}$	-
26	0.4 mile southwest	H. T. Kilpatrick	do.	1941	144	1 $\frac{1}{4}$	-
27	do.	V. W. Ward	do.	1940	200	1 $\frac{1}{4}$	-
28	2.6 miles southwest	C. T. Bunch	J. B. Jordan	1941	125	2	-
29	3.6 miles southwest	E. McLaughlin	-	1941	30	1 $\frac{1}{4}$	-
30	5.4 miles southwest	City of Beaumont	Layne-Texas Co.	1937	886	-	-
31	2.4 miles southwest	H. B. Fall	-	-	20	1	-
32	1.1 miles southwest	Nellie Mae Alsup	Paul Acheson	1940	105	2	Top of casing
33	1.2 miles southeast	Homer Gaddy	do.	1940	135	1 $\frac{1}{4}$	-
34	2.0 miles southeast	A. F. Yeager	Frank Balcar	1919	640	6	Concrete floor top of casing
35	2.1 miles south	Homer Gaddy	Paul Acheson	1940	128	1 $\frac{1}{4}$	-
36	3.2 miles southeast	G. E. Stephenson	J. B. Jordan	1940	70	1 $\frac{1}{4}$	-
37	5.3 miles south	Pipkin Ranch	Johnnie Pipkin	1920	113	3	Top of casing
38	6.4 miles southeast	W. A. Pevet	J. B. Jordan	1939	130	2	-
39	5.1 miles southeast	do.	do.	1940	112	2	Top of casing
40	5.2 miles southeast	do.	do.	1940	105	3, 2	-

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
18	-	22	-	-	C,H	D,S	
19	-	24	-	-	C,H	D,S	Screen from 50 to 64 feet. Sand from 50 to 64 feet.
20	0	21	e/17	Mar. 26, 1941	C,H	D,S	
21	-	20	-	-	C,E, $\frac{1}{4}$	D	Screen from 190 to 194 feet.
22	-	20	-	-	C,E, $\frac{1}{4}$	D	Screen from 135 to 143 feet.
23	-	20	-	-	C,H	D,S	Drilled to 84 feet; cased to 73 feet.
24	-	21	-	-	C,E, $1\frac{1}{4}$	D	Drilled to 162 feet; cased to 120 feet. Reported no sand
25	-	21	-	-	C,H	D,S	Screen from 120 to 162 feet.
26	-	19	-	-	C,E, $\frac{1}{4}$	D,S	Screen from 147 to 151 feet. Sand from 139 to 151 feet.
27	-	19	-	-	C,E, $\frac{1}{4}$	D	Screen from 136 to 144 feet.
28	-	12	-	-	C,E, $\frac{1}{3}$	P	Screen from 192 to 200 feet.
29	-	9	-	-	C,E, $\frac{1}{4}$	D	Water level in 100-foot well nearby, 4.8 feet below ground level, Mar. 26, 1941. Supplies water for 16 families.
30	-	3	-	-	-	-	Abandoned water test. All water salty below 300 feet.
31	-	6	-	-	C,H	D,S	See log.
32	1.7	13	7.57	Mar. 26, 1941	C,E, $\frac{1}{4}$	D	
33	-	17	-	-	C,E, $\frac{1}{4}$	D	Screen from 127 to 135 feet.
34	1.0	18.88	3.83 3.12 3.95	Mar. 4, 1941 June 10, 1941 Sept. 17, 1941	C,G,2	D,S	Reported to have had a flow when drilled. Supplies water for dairy. Formerly supplied water for sawmill.
35	-	16	-	-	C,E, $\frac{1}{4}$	D	Screen from 120 to 128 feet.
36	-	3	-	-	C,H	D,S	
37	1.3	7	3.92	Apr. 4, 1941	None	N	Screen from 105 to 113 feet.
38	-	3	-	-	C,G, $1\frac{1}{2}$	S	
39	1.0	12	7.84	Apr. 1, 1941	C,G, $1\frac{1}{2}$	D,S	Screen from 108 to 112 feet. Sand from 95 to 112 feet.
40	-	10	-	-	C,W	S	Casing: 20 feet of 3-inch; 85 feet of 2-inch. Sand from 95 to 105 feet.

Records of wells in Orange County--Continued

Well	Distance from post office in Vidor	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
41	5.4 miles southeast	C. K. Akers	-- Peveto	Old	44	48	Top of wooden curb
42	4.2 miles southeast	C. A. Hollis	Cub Clayton	1931	73	2	Top of casing
43	5.5 miles southeast	C. E. Rees	J. B. Jordan	1940	110	2	-
44	6.1 miles southeast	Langham Est.	-	Old	16	36	Top of wooden curb
45	5.5 miles southeast	Lutcher & Moore Lumber Co.	-	-	740	8 $\frac{1}{4}$	Top of 1 x 3 $\frac{1}{2}$ -inch bushing
46	5.3 miles southeast	do.	-- Posey	1923	740	8	Top of casing
47	4.1 miles southeast	M. A. Stephenson	M. A. Stephenson	1937	114	2 $\frac{1}{2}$	dp.
48	3.1 miles southeast	S. C. Clayton	-	Old	19	30	Top of wooden curb
49	6.7 miles southeast	G. W. Fell	Geo. E. Ellis	1937	2,082	9 3/4	-
50	5.4 miles southeast	Southern Pacific Co.	Paul Acheson	1940	138	4	-
51	4.5 miles southeast	Lutcher Stark	Geo. Glidden	1940	102	2	Top of casing
52	4.8 miles east	O. C. Chesson	-	1933	98	1 $\frac{1}{4}$	-
53	3.1 miles east	Kurt R. Nauck	Kurt R. Nauck	1932	65	1 $\frac{1}{4}$	-
54	4.0 miles northeast	J. P. McDonald	J. B. Jordan	1939	105	1 $\frac{1}{4}$	-
55	3.8 miles northeast	E. E. Singleton	do.	1940	105	1 $\frac{1}{4}$	-
56	4.5 miles northeast	J. L. Singleton	do.	1940	172	-	-
57	5.6 miles northeast	G. L. Linscomb	do.	1940	117	1 $\frac{1}{4}$	-
Distance from post office in Mauriceville							
58	4.3 miles northwest	Mrs. Alva Willey	Bob Stanton	1923	80 $\frac{1}{2}$	2	-
59	2.7 miles west	Sid Willey	-	Old	18	30	Top of wooden curb
60	2.8 miles southwest	Irving Brewer	-	Old	14	30	do.

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
41	0.4	6	5.67	Apr. 1, 1941	C,W	S	Dug well. Water turbid.
42	0.4	17	12.55	do.	C,H	D,S	Sand from 53 to 73 feet.
43	-	17	-	-	C,E, $\frac{1}{4}$	D,S	
44	2.5	20	7.57	Apr. 3, 1941	B	D,S	Dug well. Wooden casing to bottom. Water turbid.
45	6.5	24.55	9.29	Apr. 2, 1941	None	N	Formerly used for irrigation.
			9.48	Sept. 17, 1941			
46	.0	17.92	2.90	Feb. 17, 1941	C,E,1	D,S	Do.
			2.66	Apr. 5, 1941			
			2.89	Sept. 17, 1941			
47	1.0	18	13.92	Mar. 28, 1941	C,H	S	Screen: 3-inch from 102 to 114 feet. Sand from 80 to 114
48	.0	18	11.18	do.	B	D,S	Dug well. Wooden casing <u> </u> feet. to bottom.
49	-	6	-	-	-	-	Oil test. Flow reported at 350 feet. Casing pulled and hole
50	-	15	-	-	C,G,2	D,S	Screen from 130 to <u> </u> abandoned. 138 feet.
51	1.7	20	12.16	Mar. 28, 1941	C,H	D,S	Screen from 92 to 102 feet.
52	-	16	-	-	C,H	D,S	
53	-	18	-	-	C,G, $\frac{2}{4}$	D	
54	-	19	-	-	C,H	D,S	
55	-	21	-	-	C,G, $1\frac{1}{2}$	D,S	
56	-	21	-	-	C,G, $1\frac{1}{2}$	D,S	
57	-	25	-	-	C,G,1	D,S	
58	-	27	-	-	C,W	D,S	
59	3.0	25	7.04	Apr. 29, 1941	B	D,S	Dug well. Wooden casing to bottom.
60	3.0	26	6.71	May 1, 1941	B	D,S	Dug well. Weak supply. Caved at 10 feet.

Records of wells in Orange County--Continued

Well	Distance from post office in Mauriceville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
61	2.1 miles west	G. V. Manuel	A. C. Brown	1937	100	2 $\frac{1}{2}$	-
62	2.2 miles northwest	Pevey & Moore	Frank Balcar	Old	300	6	Top of casing
63	In Mauriceville	K. C. & S. Ry.	Geo. Glidden	1937	140	10	-
64	0.8 mile southeast	T. J. Fredrick	do.	-	425	2	Top of casing
65	2.3 miles northeast	Geo. Helm	A. C. Brown	1935	91	1 $\frac{1}{2}$	-
66	2.4 miles northeast	Will Manuel	-- Leslie	1937	113	2 $\frac{1}{2}$	-
67	3.1 miles northeast	W. T. Dunn	W. T. Dunn	-	165	2	-
68	3.5 miles east	C. H. Meriwether	C. H. Meriwether	1940	114	3	Top of casing
69	3.8 miles east	A. L. Hutchins	-	-	102	4	do.
70	3.9 miles east	do.	Joe Hathaway	1918	831	10	-
71	3.9 miles northeast	Powell Lumber Co.	-	1919	710	24	Top of casing
72	6.0 miles east	Tom Teal	Tom Teal	1939	15	36	Top of wooden curb
73	7.3 miles northeast	Abe Sokolski	-	-	75	4	Top of concrete block
74	7.9 miles northeast	Orange Water Co.	W. Adecock	1936	175	3	Top of 3-inch tee
75	8.9 miles east	J. D. Nobles	J. D. Nobles	1941	20	1 $\frac{1}{4}$	-
76	9.7 miles east	J. S. Ellis	J. S. Ellis	1940	20	2	-
77	8.5 miles southeast	Powell Lumber Co.	-	1940	22	1 $\frac{1}{4}$	-
78	7.4 miles east	John Jansen	Geo. Glidden	-	229	2	-
79	6.8 miles southeast	Geo. Glidden	do.	1921	214	4	Top of casing
80	do.	do.	do.	1941	566	2 $\frac{1}{2}$	Top of 2 $\frac{1}{2}$ -inch collar
81	6.7 miles southeast	P. Houseman	do.	1941	135	2	-

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
61	-	23	-	-	C,H	D,S	
62	2.5	32	11.13	Feb. 9, 1941	None	N	Formerly supplied water for sawmill.
63	0.	25	e/12	Apr. 10, 1941	C,S	Ind	Casing: 118 feet of 10-inch. Screen from 118 to 140 feet. Supplies water for railroad.
64	.8	24.00	3.90	do.	C,H	D,S	See log.
			3.50	June 10, 1941			
			3.74	Sept. 17, 1941			
65	0	26	e/ 5	1935	C,H	D,S	Screen from 82 to 91 feet.
66	-	27	-	-	C,H	D,S	
67	-	24	-	-	C,H	S	
68	1.5	22	14.14	Feb. 12, 1941	None	N	Cased to bottom.
69	1.0	23	11.13	do.	C,H	D,S	
70	-	22	-	-	-	-	Drilled for irrigation. Water salty. Casing pulled and hole abandoned. See log.
71	1.0	24.58	3.22	Apr. 10, 1941	T,-,-	Irr	abandoned. See log.
			3.09	Sept. 17, 1941			
72	2.7	27	9.86	May 2, 1941	B	D,S	Dug well. Wooden casing to bottom.
73	1.8	30	15.92	Apr. 10, 1941	C,W	D,S	
74	1.2	27	10.45	May 2, 1941	A,-,-	D,S	Screen from 165 to 175 feet. Fine blue sand from 125 to 160 feet. Coarse sand and gravel
75	0	11	e/12	April 1941	C,H	D,S	Screen from 160 to 175 feet. from 18 to 20 feet. Sand from
76	0	8	e/ 5	1940	C,H	D	Water level 4 to 20 feet. affected by Sabine River.
77	-	16	-	-	C,H	D	Screen from 20 to 22 feet.
78	0.	22	e/ 7	April 1941	C,H	D,S	Screen from 219 to 229 feet.
79	1.0	15	7.90	Apr. 3, 1941	A,E, $\frac{1}{4}$	D,S	Reported to have had a flow of 1 gallon a minute when drilled
80	1.0	12.68	+	Sept. 1941	Flows C,E, $\frac{1}{2}$	D,S	Screen from 556 to 566 feet. See log.
81	C	17	e/11	Feb. 1941	C,H	D,S	Screen from 125 to 135 feet.

Records of wells in Orange County--Continued

Well	Distance from post office in Mauriceville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
82	5.8 miles southeast	Lutcher & Moore Lumber Co.	Layne-Bowler Co.	1908	720	24, 10	Top of 24-inch casing
83	4.6 miles southeast	Robt. Stark	Robt. Stark	1940	108	2	-
84	5.0 miles southeast	John Womack	-	1941	11	36	Top of wooden curb
85	4.4 miles southeast	Acie Noguess	-	-	110	1 1/2	-
86	3.9 miles south	W. H. Stark Est.	Ed. Mott	1921	700±	6	Top of 6-inch tee
87	3.6 miles south	Irving Brewer	Irving Brewer	1930	115	3	Top of casing
88	3.8 miles southwest	Harve Linscomb Est.	-	1903	20	36	Top of wooden curb
	Distance from post office in Orangefield						
89	5.3 miles northwest	Mrs. James Aaron	-- Bieler	1939	85	1 1/4	-
90	4.5 miles northwest	S. O. Peveto	-	-	580	6	Top of casing
91	3.9 miles northwest	American National Bank	-	Old	-	24,	do.
92	3.6 miles northwest	do.	-	Old	800	8	do.
93	3.1 miles northwest	John Bertrand	-	1935	35	4	-
94	1.4 miles northwest	Lon Garrison	-	Old	800	4	Top of casing
95	1.9 miles southwest	E. D. Hollis	-	1918±	16	36	Top of brick curb
96	2.9 miles southwest	Stanolind Oil & Gas Co.	-	1920	14	30	Top of wooden curb
97	3.5 miles west	J. O. Allen	-	1911	17	42	Top of curb

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
82	0.5	20.38	2.10	Feb. 12, 1941	T,-,-	N	Reported to have had a flow when drilled. First irrigation well in Orange County.
			2.45	Apr. 3, 1941			
			1.56	June 10, 1941			
			0.51	Sept. 17, 1941			
83	-	19	-	-	C,H	D,S	
84	2.0	21	6.48	May 2, 1941	B	D	Dug well. Wooden casing to bottom. Water turbid.
85	-	18	-	-	C,H	D,S	
86	.5	18.92	1.29	May 1, 1941	C,W	D,S	Reported to have had a flow until 1926.
87	.5	19	8.79	do.	C,G,3	D,S	Screen from 100 to 115 feet.
88	3.0	26	16.50	do.	B	D,S	Dug well. Wooden casing to bottom.
89	-	17	-	-	C,H	D,S	
90	0.7	17.59	0.95	June 9, 1941	C,G,-	D,S	Nearby abandoned well 340 feet deep reported to have had a flow until 1920.
			1.40	Sept. 19, 1941			
91	.6	18.16	1.81	Sept. 19, 1941	None	N	Drilled for irrigation.
92	1.6	17.34	*	1908	-	-	Obstructed at 5 feet. Well 847 in U.S. Geol. Survey Water-Supply Paper 335, p. 320, 1914.
93	-	16	-	-	C,W	S	Screen from 15 to 35 feet.
94	.2	13.34	0.2	Feb. 19, 1941	None	N	Drilled 1,500 feet for oil test. Plugged back to 800 feet. Well 836 in U.S. Geol. Survey Water-Supply Paper 335, p. 320, 1914.
			0.19	June 28, 1941			
			0.16	Sept. 19, 1941			
95	2.5	17	10.07	Apr. 3, 1941	B	D,S	Dug well. Brick casing to bottom.
96	2.7	13	8.94	do.	B	D,S	Dug well. Wooden casing to bottom. Weak supply.
97	3.0	20	14.56	do.	C,E, $\frac{1}{4}$	D,S	Dug well. Brick casing to bottom.

Records of wells in Orange County--Continued

Well	Distance from post office in Orange-field	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
98	4.3 miles southwest	Lutcher Stark	Geo. Glidden	1929	528	6	Bottom of pump base
99	5.0 miles southwest	do.	The Texas Co.	1933	523	7	Top of pipe flange
100	6.1 miles southwest	C. K. Akers	Pitre Water Well Drilling Co.	1939	362	4	-
101	do.	Lutcher Stark	Luther Patterson	1940	505	4	Top of 4-inch tee
102	do.	J. S. Polk "B"	do.	1940	500	5	-
103	3.8 miles southwest	W. H. Stark Est.	-	-	154	4	Top of casing
104	2.8 miles southwest	The Texas Co. (Hatton No. 1)	-	1909	705	10	Top of ell on discharge pipe
105	do.	The Texas Co. (Hatton No. 2)	-	1925	704	10, 8	do.
106	2.4 miles south	J. R. Davis	Humble Oil & Refg. Co.	Old	700+	5 3/16	Top of cap on casing
107	2.6 miles south	Prairie View School	-	1935	385	2	Top of 1 1/2-inch ell
108	3.7 miles south	Dr. W. E. Crumpler	-- Bettison	1937	480	3	Top of 3/4-inch tee
109	4.1 miles southeast	W. F. Rachal	-	Old	725	2 1/2	-
110	4.2 miles southeast	Ruby Young	-- Young	1928	22	6	Top of 10-gallon drum
111	3.5 miles southeast	H. P. Williams	Tidewater Oil Co.	-	900	10	-
112	3.1 miles southeast	John Richard	Paul Acheson	1940	97	1 1/2	-
113	2.6 miles southeast	H. F. Braeuer	J. B. Jordan	1939	535	2	-

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
98	1.5	10.55	+	Sept. 16, 1941	Flows T, E, 7 $\frac{1}{2}$	P	Screen from 478 to 528 feet. Supplies water for Bessie
99	4.3	5.95	+ 7.82	Apr. 5, 1941	Flows G1	Ind	Casing: 456 feet Heights Camp. of 7-inch. Screen: 66 feet of 7-inch. Test well had flow of salt water between 750 and 850
100	0	2	+	1940	-	-	Reported to [] feet. See log. have had a flow of 25 gallons a minute when drilled. Casing pulled and hole abandoned. See
101	5.0	6.45	+ 7.18	Sept. 16, 1941	Flows	Ind	Supplies water for drill- log. ing rigs on Phillips Petroleum
102	0	2	+	do.	Flows G1	Ind	Screen from 417 to [] Co. lease. 448 feet. Supplies water for drilling rigs on The Texas Co.
103	2.5	10	4.60	Apr. 3, 1941	C, H	D, S	Tile casing to [] lease. See log. bottom. Water turbid.
104	2.5	16.71	5.40	Dec. 16, 1941	T, E, 10	Ind	Formerly used for irrigation. This well and well 105 furnish fresh-water supply for The Texas Co. refinery at Port Arthur. Flowed 400 gallons a minute when drilled. See log.
105	2.2	13.22	4.4	Feb. 18, 1941	Flows T, E, 10	Ind	Screen from 614 to 690 feet. Water level affected by heavy pumping from well 104 nearby. See log.
			1.5	Sept. 17, 1941.			
106	0	10.72	+ 2.35	July 1, 1941	Flows	N	Formerly supplied water for oil company camp. Estimated flow 5 gallons a minute at ground level. Yields some gas.
			+ 2.10	Sept. 20, 1941			
107	0.7	11.23	+ 1.06	June 30, 1941	Flows C, E, $\frac{1}{4}$	P	Supplies water for school. Estimated flow 5 gallons a minute at ground level.
			+ 1.06	Sept. 20, 1941			
108	0.3	6.39	+ 5.62	July 1, 1941	Flows C, E, $\frac{1}{4}$	D, S	Estimated flow 10 gallons a minute at ground level.
			+ 5.80	Sept. 20, 1941			
109	0	10	+	Mar. 1, 1941	Flows Cf, G, 3	D, S	Estimated flow 3 gallons a minute at ground level. Yields
110	1.0	9	6.22	Apr. 3, 1941	C, H	D, S	Reported salty water [] some gas. at 14 feet in test hole 100
111	0	9	+	Mar. 1, 1941	Flows C, E, -	D, S	Drilled 5,000 feet [] yards south. for oil test. Plugged back to 900 feet. Casing perforated at 725 feet. Yields some gas.
112	-	11	-	-	C, E, $\frac{1}{4}$	D	Screen from 93 to 97 feet.
113	0	10	+	Mar. 1, 1941	Flows C, E, $\frac{1}{3}$	D, S	Estimated flow 2 gallons a minute 2 feet above ground level. Supplies water for dairy. Yields some gas.

Records of wells in Orange County--Continued

Well	Distance from post office in Orange-field	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
114	2.9 miles southeast	Joe Bailey	-- Tannahill	1941	560	2	Top of 2 x 3/4-inch reducer
115	2.2 miles southeast	Sam Johnson	J. B. Jordan	1940	103	1 1/4	-
116	1.5 miles south	John Brunette	B. L. Jones	1937	470	2 1/2	-
117	1.4 miles south	Henry Bland	Geo. Glidden	1927	471	3	Top of casing
118	0.8 mile southwest	Mrs. Allie Chesson	-	-	500±	2	-
119	0.5 mile southwest	Emiline LaFleur	Paul Acheson	1940	170	2	Top of casing
120	0.4 mile northwest	Orangefield High School	do.	1940	112	2	-
121	0.6 mile northwest	Orange Petroleum Corp.	-	-	640	6	-
122	0.3 mile northeast	Oscar Chesson	Brady & Smith	1928±	855	6	-
123	0.4 mile east	Wm. Winfree	-	-	700	4	Top of 4-inch tee
124	0.7 mile east	Lee Hager	-	-	600±	6	Top of 6-inch tee
125	0.8 mile east	W. P. McGuire	Jim Sutton	1927	600±	4	Top of 2 1/8-inch tee
126	1.0 mile northeast	Sun Oil Co.	Sun Oil Co.	1923	659	6	Top of 6-inch tee
127	2.3 miles east	Dave Young	Paul Acheson	1940	75	1 1/4	-
128	2.6 miles east	W. H. Harvey Est.	-- Depew	1925	460	4	Top of casing
129	3.0 miles east	Sabine Packing Co.	-	-	584	6	-
130	1.8 miles northeast	Southern Pacific Co.	Joe Hathaway	1910	679	9 5/8	Top of 6-inch discharge pipe
131	2.4 miles northeast	Ed. Worster	-	1934	432	2 1/2	Top of 2 1/2-inch discharge pipe

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
114	1.5	7	+ 6.0	July 1, 1941	Flows C, E, $\frac{1}{4}$	D, S	Estimated flow 2 gallons a minute 2 feet above ground level. Yields some gas.
115	-	12	-	-	C, E	D, S	Screen from 95 to 103 feet.
116	.0	6	+	Mar. 28, 1941	Flows C, E, $\frac{1}{4}$	D, S	Screen from 458 to 470 feet. Estimated flow 2 gallons a minute at ground level. Yields
117	1.0	9	+	do.	Flows C, E, $\frac{1}{4}$	D, S	Measured flow $\frac{3}{4}$ some gas. gallon a minute at ground level.
118	-	13	-	-	C, W	D, S	
119	1.0	17	13.21	Mar. 28, 1941	C, E, $\frac{1}{4}$	D, S	Screen from 164 to 170 feet. Sand from 150 to 170 feet.
120	-	13	-	-	C, E, $\frac{3}{4}$	P	Screen from 104 to 112 feet. No sand found in test hole between depths of 112 and 350
121	.0	11	+	Feb. 17, 1941	Flows C, E, 3	P	Estimated flow 3 gallons a minute at ground level. Supplies water for part of the
122	.0	8	+	do.	Flows	D, Ind	Estimated town of Orangefield. flow 20 gallons a minute at ground level. On Continental
123	1.5	12.09	+ 1.65	July 4, 1941	Flows G1	Ind	Estimated flow Oil Co. lease. 5 gallons a minute at ground level. Supplies water for Orange Petroleum Corp. lease.
			+ 1.60	Sept. 19, 1941			
124	1.0	6.94	+ 7.02	June 28, 1941	Flows	N	Estimated flow 2 gallons a minute 5 feet above ground level. On Gulf Oil Corp. lease.
			+ 6.81	Sept. 19, 1941			
125	1.6	10.12	+ 3.72	June 28, 1941	Flows	N	Estimated flow 2 gallons a minute 2 feet above ground level. Formerly supplied water for drilling rig.
			+ 3.52	Sept. 19, 1941			
126	.7	11.70	+	Feb. 17, 1941	Flows -, E, -	P	Screen from 564 to 651 feet. Supplies water for part of the
127	-	10	-	-	C, E, $\frac{1}{4}$	D, S	Screen town of Orangefield. from 71 to 75 feet. Water tur-
128	1.0	12	+	Apr. 1, 1941	Flows C, E, $\frac{1}{4}$	D, S	Estimated flow 2 gallons a minute at ground level. bid.
129	.0	9	+	Feb. 14, 1941	Flows C, E, 5	Ind	Estimated flow 10 gallons a minute at ground level.
130	3	13.63	e/+11.7	1910	Flows	N	Casing: 628 feet of 9-5/8-inch. Reported flow 60 gallons a minute when drilled. Present estimated flow 15 gallons a minute 3 feet above ground
			+ 1.94	June 21, 1941			
			+ 1.64	Sept. 20, 1941			
131	.0	11.45	+ 2.89	June 30, 1941	Flows C, E, $\frac{1}{4}$	D, S	Estimated flow 6 gallons a minute at ground level.
			+ 3.00	Sept. 18, 1941			

Records of wells in Orange County--Continued

Well	Distance from post office in Orange-field	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
132	2.3 miles northeast	F. J. DeMary	-	-	82	-	-
133	do.	John Seemel	Geo. Glidden	1938	607	2	-
134	3.8 miles northeast	Mrs. J. W. Hilton	do.	1940	107	2	-
135	3.6 miles northeast	F. T. Peveto	do.	1940	610	2 $\frac{1}{2}$	Top of 2 $\frac{1}{2}$ -inch tee
136	3.7 miles northeast	Will Linscomb	Joe Hathaway	1915	630	6	Top of casing
137	3.9 miles north	W. H. Stark Est.	Geo. Glidden	1928	600+	6	do.
138	4.2 miles north	W. L. Burton	Layne-Bowler Co.	1910	782	24, 12	Top of 24-inch casing
139	4.5 miles northeast	Robt. Walea	J. B. Jordan	1940	105	2	-
140	5.0 miles northeast	John Womack	-	1926+	100	2	-
	Distance from post office in Orange						
141	5.0 miles northwest	Stark & Brown	Geo. Glidden	1940	108	2 $\frac{1}{2}$	-
142	4.2 miles north	Southern Pacific Co.	Layne-Bowler Co.	1905	435	8	Top of 4-inch pipe
145	do.	do.	-	1912	797	8, 6	Top of casing

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
132	-	12	-	-	C,W	D,S	
133	0.0	12	+	Feb. 14, 1941	C,H	D,S	Estimated flow 2 gallons a minute.
134	-	14	-	-	C,E,1/6	D	Screen from 95 to 107 feet.
135	0.0	14.27	+ 2.00	June 9, 1941	Flows C,W	D,S	Estimated flow 1 gallon a minute at ground level.
			+ 2.22	Sept. 20, 1941			
136	.4	18.48	4.70	Feb. 14, 1941	Cf, G,-	D,S, Irr	Reported water level 7 to 8 feet above ground level when drilled. Flowed 140 gallons a minute at ground level.
			4.40	Apr. 4, 1941			
			4.06	May 31, 1941			
			4.11	June 25, 1941			
			4.30	Sept. 19, 1941			
137	.0	17.95	0.65	May 31, 1941	None	N	
			0.70	June 29, 1941			
			0.95	Sept. 19, 1941			
138	.0	18.09	1.2	Feb. 14, 1941	Cf, G,-	D,S, Irr	Estimated flow 50 gallons a minute through hole in casing $\frac{1}{2}$ feet below ground to lake below crest of knoll.
			1.04	Sept. 20, 1941			
139	-	16	-	-	C,E, $\frac{1}{4}$	D,S	
140	-	20	-	-	C,E, $\frac{1}{2}$	D,S	Reported no sand from 100 to 450 feet in test well nearby.

141	0	16	e/ 14	1940	C,E, $\frac{1}{4}$	D,S	Screen from 98 to 108 feet.
142	.0	16.21	1.00	Feb. 12, 1941	None	N	See log.
			0.09	June 11, 1941			
			0.15	Sept. 17, 1941			
143	.0	15.24	0.9	Feb. 12, 1941	None	N	Casing: 537 feet of 8-inch-195 feet of 6-inch. Screen: 65 feet of 6-inch. See log.
			0.29	June 11, 1941			
			0.45	Sept. 17, 1941			

Records of wells in Orange County--Continued

Well	Distance from post office in Orange	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
144	4.2 miles north	Southern Pacific Co.	Layne-Texas Co.	1928	419	12, 6	-
145	4.0 miles northwest	L. L. Parker	Geo. Glidden	-	98	2	-
146	3.8 miles northwest	Geo. Willey	do.	1938	1,000	2	Top of concrete around well
147	do.	E. W. Brown Est.	do.	1936	562	3	-
148	3.9 miles northwest	E. R. Odom	W. R. Banker	1932	804	6	Top of casing
149	3.4 miles northwest	H. Davison	Paul Acheson	1940	179	2	-
150	3.3 miles northwest	E. W. Brown, Jr.	-	-	600+	6	Top of casing
151	3.2 miles northwest	do.	-	-	765	6	do.
152	2.9 miles northwest	J. W. Nelson	Paul Acheson	1940	163	2	do.
153	2.8 miles northwest	M. G. Inman	Layne-Louisiana Co.	1935	691	4	Top of 2-inch pipe
154	2.4 miles northwest	Orange Country Club	-	-	662	6, 4	-
155	3.1 miles west	E. W. Brown, Jr.	-	1940	116	2½	-
156	2.8 miles west	Southern Pacific Co.	-	-	10	60	Top of wooden curb
157	3.6 miles west	Tom Lowe	Joe Hathaway	-	790	4	Top of casing

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
144	-	16	-	-	T,D, 25	RR	Casing: 340 feet of 12-inch. Screen: 79 feet of 6-inch. Average daily yield, 100,000
145	-	13	-	-	C,H	D,S	Screen from 95 to 98 feet. See log.
146	0.0	13.67	+ 2.04	Apr. 2, 1941	Flows C,E,1	D,S	Casing: 750 feet of 2-inch. Screen from 750 to 760 feet. Open hole below 760 feet. Supplies water for dairy.
			+ 1.92	Sept. 17, 1941			
147	0.0	15	-	-	C,G,2	D,S	Screen from 550 to 562 feet. Altitude of bench mark near
148	0.5	16.78	1.30	June 26, 1941	C,E,2 Cf,E, 5	D,S	Casing: well, 17.54 feet. 762 feet of 6-inch. Screen from 762 to 804 feet. See log.
			1.43	Sept. 17, 1941			
149	-	15	-	-	C,E, $\frac{1}{4}$	D	Screen from 143 to 149 feet. Water level in nearby 180-foot well, 9.2 feet below ground
150	0.0	15.39	0.28	Feb. 11, 1941	C,E, $\frac{1}{3}$	D,S	Reported level March 27, 1941. to have had a flow when drilled.
			0.04	June 23, 1941			
			0.17	Sept. 17, 1941			
151	1.1	16.07	0.98	Feb. 11, 1941	Flows Cf,E, 1	D,S	Estimated flow 15 gallons a minute through pipe about 2 feet below ground level.
			0.90	Sept. 17, 1941			
152	0.4	12	7.64	Mar. 27, 1941	C,E, $\frac{1}{4}$	P	Screen from 155 to 163 feet. Supplies water for tourist
153	2.3	13.30	+ 1.44	Apr. 7, 1941	Flows C,E, $\frac{1}{2}$	D,S	Casing: 667 feet of 4-inch. Screen from 667 to 687 feet. Estimated flow into swimming pool 2 gallons a min-
			+ 1.49	Sept. 16, 1941			ute. See log.
154	0.0	14	+	Feb. 11, 1941	Flows T,E, 10	D, Irr	Casing and screen: 542 feet of 4-inch inside of 6-inch with lead seal at 120 feet. Estimated flow into fish pond 15 gallons a
155	-	14	-	-	C, $\frac{1}{4}$	S	minute.
156	3.0	19	3.50	Mar. 26, 1941	C,W	S	Dug well. Wooden casing.
157	1.0	17.81	4.04	Feb. 18, 1941	C,E, $\frac{1}{4}$	D,S	Reported to have had a flow until 1920.
			3.60	June 2, 1941			
			3.73	June 17, 1941			
			3.89	Sept. 17, 1941			

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Records of wells in Orange County--Continued

Well	Distance from post office in Orange	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
158	3.4 miles southwest	W. H. Stark Est.	--	--	600+	4, 2	--
159	3.3 miles southwest	do.	--	--	600+	5	--
160	2.5 miles southwest	E. W. Brown Est.	--	--	600+	3	Top of 2½-inch pipe
161	3.0 miles southwest	do.	--	--	700	5	Top of pump base
162	2.7 miles southwest	do.	--	1907	578	6	Top of casing
163	3.2 miles southwest	do.	Chris. Geyer	1907	462	8, 4	do.
164	4.1 miles southwest	W. H. Stark Est.	--	--	356	5	do.
165	4.9 miles southwest	E. W. Brown Est.	--	--	711	--	--
166	5.1 miles southwest	do.	--	Old	600+	2½	Top of casing
167	5.3 miles southwest	do.	--	1932	620	4, 2½	--
168	5.6 miles southwest	do.	Frank Balcar	1936	638	6, 4	Top of 6-inch tee
169	6.9 miles southwest	do.	G. D. Froust	1939	194	4, 2½	--
170	6.3 miles southwest	do.	--	--	630+	6	Top of casing
171	6.1 miles southwest	do.	--	--	600+	4	do.
172	do.	do.	--	--	600+	4	do.
173	4.9 miles southwest	do.	Tidewater Oil Co.	--	694	6	do.
174	4.2 miles southwest	J. H. Foreman	--	--	720	2½	Top of cap on casing
175	3.8 miles southwest	W. H. Stark Est.	--	--	600+	6	--

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	Date of measurement			
158	-	15	-	-	C, E, $\frac{1}{4}$ C, W	D, S	
159	-	15	-	-	C, W	S	
160	0.0	10.80	+ 2.37	June 21, 1941	Flows	D, S	Estimated flow 5 gallons a minute at ground level. Temp. 75° F.
			+ 2.14	Sept. 18, 1941			
161	1.4	14.49	1.46	June 23, 1941	C, W	D, S	Flows intermittently at ground level.
			1.58	Sept. 17, 1941			
162	1.4	16.40	3.45	June 23, 1941	None	D, S	Estimated flow 1 gallon a minute through pipe 4 feet below ground level to house at lower altitude. Well 841 in U.S. Geol. Survey Water-Supply Paper 335, p. 320, 1914.
			3.47	Sept. 19, 1941			
163	0.0	12.46	+ 0.47	Sept. 19, 1941	Flows C, W, G, 5	D, S	Well 840 in 335, p. 320, 1914. U.S. Geol. Survey Water-Supply Paper 335, p. 320, 1914.
164	2.0	9.65	6.50	do.	C, W	D, S	
165	-	8	+	Feb. 19, 1941	Flows	S	Estimated flow 10 gallons a minute at ground level. Temp.
166	-0.5	7.96	+ 5.25	Sept. 18, 1941	Flows	S	Estimated flow 20 gallons a minute at ground level. Temp. 76° F.
167	0.0	6	+	Apr. 2, 1941	Flows C, G, $\frac{1}{2}$	D, S	Measured flow 9 gallons a minute at ground level. Temp. 77° F.
168	1.5	7.27	+ 6.00	June 21, 1941	Flows	S	Screen: 34 feet of 4-inch from 604 to 638 feet. Estimated flow 5 gallons a minute $\frac{1}{2}$ feet above ground level.
			+ 5.97	Sept. 18, 1941			
169	0.0	4.0	-	-	C, W	D, S	Screen: Temp. 76° F. See log. 10 feet of 2 $\frac{1}{2}$ -inch from 184 to
170	3.0	8.31	+	Sept. 18, 1941	Flows	S	Estimated flow 40 gallons a minute through hole in casing 2 feet above water level in marsh. Yields some
171	0.0	4.79	+	do.	Flows	S	Estimated flow 10 gallons a minute at ground level. gas.
172	1.0	5.33	+	do.	Flows	S	Estimated flow 25 gallons a minute 1 foot above ground level. Yields some gas.
173	2.3	6.03	+ 7.19	do.	Flows	S	Oil test. some gas. Temp. 78° F. Estimated flow 5 gallons a minute 2.3 feet above ground
174	0.0	6.61	+ 6.24	do.	Flows	D, S	Estimated level. Temp. 76° F. flow 5 gallons a minute 2 feet
175	0.0	6	+	Apr. 2, 1941	Flows C, W	S	above ground.

Records of wells in Orange County--Continued

Well	Distance from post office in Orange	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
176	4.5 miles southwest	W. H. Stark Est.	Joe Hathaway	-	600+	4	Top of 4-inch collar
177	2.8 miles southwest	do.	-	1938	95	2	-
178	2.4 miles southwest	W. J. Skeeler	-	1940	730	2½	-
179	1.5 miles southwest	Cove School	John Bland	1915	756	3	-
180	1.2 miles southwest	Orange Products Co.	Layne-Texas Co.	1940	715	10, 8	Top of 2-inch discharge pipe
181	1.0 mile southwest	do.	-	Old	650+	6	-
182	0.8 mile west	Orange Pulp & Paper Mills Inc.	-	Old	600+	8	-
183	do.	do.	-	-	600+	6	-
184	do.	do.	-	Old	600+	10	-
185	do.	do.	Layne-Bowler Co.	1911	725	24, 12	-
186	1.0 mile northwest	W. H. Stark Est.	-	Old	686	-	-
187	do.	Gulf States Utilities Co.	Layne-Texas Co.	-	685	16, 8, 6	Concrete floor around well
188	1.4 miles northwest	W. H. Stark Est.	Geo. Glidden	1924	600+	3	-
189	1.7 miles northwest	Geo. Colburn	do.	1939	608	4	Top of 4-inch discharge pipe
190	0.5 mile northwest	Lutcher Stark	-	-	600+	6	Top of 4-inch tee
191	0.4 mile northwest	J. W. Link	-	1904	550+	-	-
192	0.3 mile northwest	F. H. Farwell	-	Old	650+	-	-

Well	Measuring point		Water level		Date of measurement	Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Below measuring point b/ (feet)	c/				
176	3.0	6.92	+ 6.01		Sept. 18, 1941	Flows	D, S	
177	0	8	e/ 9		Apr. 2, 1941	C, W	S	Screen from 85 to 95 feet.
178	0	10	+		Feb. 19, 1941	Flows C, E, -	D, S	Estimated flow 5 gallons a minute through tee at ground level.
179	0	9	+		Sept. 20, 1941	Flows	D	Estimated flow 5 gallons a minute about 2 feet below ground
180	0	8.97	+ 2.42		June 2, 1941	Flows T, E, 20	Ind	Casing: 145 feet of 10-inch level. 513 feet of 8-inch. Screen from 658 to 698 feet. Yield 460 gallons a minute with pumping level 32 feet. Temp. 76° F.
			+ 1.85		Sept. 22, 1941			
181	0	8	+		Feb. 11, 1941	Flows A, -, -	Ind	Estimated flow 10 gallons a minute at ground level. See log.
182	0	5	+		Feb. 8, 1941	Flows	Ind	Estimated Stand-by for well 180. flow 100 gallons a minute at ground level. Temp. 76° F.
183	0	5	+		do.	Flows	Ind	Estimated flow 50 gallons a minute through 6-inch pipe to pond. Temp. 76° F.
184	0	5	+		do.	Flows	Ind	Estimated flow 150 gallons a minute to pond. Temp. 76° F.
185	-	7	-		-	-	-	Reported to have had a flow of 800 gallons a minute through 12-inch screen from 582 to 725 feet when drilled. Abandoned. See log.
186	-	8	+		Feb. 11, 1941	Flows	N	Estimated flow 10 gallons a minute.
187	1.5	9.87	+ 2.57		Mar. 26, 1941	Flows T, E, 20	P	Screens from 326 to 348 and 645 to 685 feet. Estimated flow 30 gallons a minute 1/2 foot above ground level. Pumped 422 gallons a minute with 9-foot draw-down. See log.
			+ 2.79		June 2, 1941			
			+ 2.09		Sept. 22, 1941			
188	0	8	+		Apr. 4, 1941	Flows C, E, 1/4	D, S	Estimated flow 1 gallon a minute 1 foot above ground level.
189	0.3	9.03	+ 5.02		Apr. 2, 1941	Flows	D, S	Screen from 588 to 608 feet. Estimated flow 30 gallons a minute above ground level. Temp. 76° F.
			+ 5.08		Sept. 16, 1941			
190	0.5	9.86	+ 1.46		June 20, 1941	Flows Cf, E, -	-	Estimated flow 5 gallons a minute at ground level. Supplies fish pond and swimming pool. Temp. 76° F.
			+ 1.34		Sept. 22, 1941			
191	0	8	+		Feb. 11, 1941	Flows	N	Well reported by T. U. Taylor, U.S. Geol. Survey Water-Supply Paper 190, p. 33, 1907.
192	-	8	+		do.	Flows	-	Estimated flow 1 gallon a minute. Supplies fish pond and bird bath.

Records of wells in Orange County--Continued

Well	Distance from post office in Orange	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Measuring point Description
193	0.1 mile east	First National Bank	Frank Balcar	-	840	4	Top of 1½ x 4-inch bushing
194	0.1 mile southeast	Gulf States Utilities Co. No. 4	-	-	750	8, 6	Concrete floor of pumphouse
195	do.	Gulf States Utilities Co. No. 3	-	-	650+	8	Top of casing
196	do.	Gulf States Utilities Co. No. 2	-	1924	755	16, 8	Top of concrete block
197	do.	Gulf States Utilities Co. No. 5	Layne-Texas Co.	1941	749	16, 8-5/8	Top of concrete pump base
198	0.5 mile southwest	Curtis School College	-	1904	500+	3	Top of tee
199	0.7 mile south	F. A. Luther Est.	-	Old	650+	4	Top of 4-inch flat plug
200	do.	do.	-	Old	650+	4	Top of flange on ell
201	do.	do.	-	Old	650+	6	Top of 6-inch tee
202	1 mile southeast	Lutcher & Moore Lumber Co.	-	1911	734	12	-
203	do.	do.	-	Old	650+	8	Top of 8-inch ell
204	1.2 miles southeast	do.	-	Old	650+	6	Top of 6-inch flange
205	do.	Texas Creosoting Co.	-	1918	620	6	-
206	1.5 miles southeast	Lutcher & Moore Lumber Co.	Layne-Bowler Co.	1911	750	8	Top of 8-inch ell
207	do.	do.	-	1918	670+	8	do.
208	1.9 miles southeast	City of Orange	-	Old	650+	6	Top of 8-inch casing

a/ Altitudes determined by instrumental leveling from government bench marks and from U. S. Geol. Survey topographic maps with 2 foot contour intervals.
 b/ Plus (+) indicates water level above measuring point.
 c/ Pump or lift: T, turbine; Cf, centrifugal; Gl, gas lift; A, air lift; C, cylinder; B, rope and bucket. Power: E, electric; S, steam; G, gasoline engine; D, diesel; W, windmill; H, hand Figure indicates horsepower.

Well	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground (feet)	Altitude a/ (feet)	Belcw measuring point b/ (feet)	Date of measurement			
193	3.4	12.36	2.90	Sept. 22, 1941	Flows	N	
194	.5	8.14	+ 1.37	Feb. 7, 1941	Flows T, E, 7½	P	Screen from 630 to 750 feet. This well and wells 187, 195, 196 and 197 supply water for City of Orange.
			+ 0.96	June 2, 1941			
195	0	7.77	e/+	Feb. 7, 1941	Flows Cf, E, -	P	
196	.5	9.52	e/+	do.	Flows T, E, -	P	Casing: 99 feet of 16-inch; 181 feet of 10-inch. 392 feet of 8-inch. Screen from 672 to
197	.8	8.20	+ 0.57	Sept. 22, 1941	Flows T, E, 50	P	Casing: 737 feet. See log. 578 feet of 16-inch; 8-5/8-inch from 504 to 734 feet. Screen from 613 to 734 feet. See log.
198	.8	7.45	+ 4.58	Mar. 26, 1941	Flows	N	Estimated flow 5 gallons a minute 0.8 foot above ground level.
199	.6	9.59	+ 1.26	Sept. 22, 1941	Flows	N	Estimated flow 1 gallon a minute 0.6 foot above
200	.6	9.58	+ 1.39	do.	Flows	N	Estimated flow 30 gallons a minute 0.6 foot above
201	.7	9.75	+	do.	Flows C, E, -	D	Es- ground level. Temp. 77° F. Estimated flow 15 gallons a minute 0.7 foot above ground level. Reported to have had a flow of 780 gallons a minute when drilled. Temp. 76° F. See log.
202	-	7	-	-	-	-	Casing: 40 feet of 24-inch; 635 feet of 11-5/8-inch; 59 feet of 9-5/8-inch. Screen from 546 to 659 and 675 to 726
203	3.8	9.17	+	Feb. 10, 1941	Flows	N	Estimated flow 2 gallons a minute 4 feet above ground
204	1.0	7.33	+ 3.94	Sept. 22, 1941	Flows	-	Estimated flow 1 gallon a minute 4 feet above ground level. Used for drinking purposes.
205	.0	6	+	Feb. 10, 1941	Flows A, -	Ind	Estimated flow 5 gallons a minute 5 feet above ground
206	4.5	8.79	+ 2.87	Sept. 22, 1941	Flows	N	Screen from 608 to 743 feet. Estimated flow 2 gallons a minute 3½ feet above ground level. Reported to have had a flow of 490 gallons a minute
207	3.9	8.27	+	do.	Flows	N	Esti- when drilled. See log. mated flow 2 gallons a minute through hole in casing 2 feet
208	.0	4.98	+ 7.68	June 2, 1941	Flows	N	Estimated above ground level. flow 25 gallons a minute 5 feet above ground level. Temp. 76° F.
			+ 7.03	Sept. 16, 1941			

d/ P, public supply; Ind, industrial; Irr, irrigation; RR, railroad; D, domestic; S, stock; N, none

e/ Water level reported by driller or owner.

WELL LOGS

Drillers' logs of wells in Orange County

(Measurement of depth is usually from land surface)

Thickness (feet)		Depth (feet)	Thickness (feet)		Depth (feet)
<u>Well 30</u>			<u>Well 70--Continued</u>		
City of Beaumont test well, 5.4 miles southwest of Vidor post office. (Altitude, 3 feet)					
Coarse-grained sand	53	53	Sand	40	116
Yellow and white clay	23	76	Gumbo	6	122
Fine-grained sand	10	86	Sand and boulders	11	133
Sandy clay	11	97	Gumbo	14	147
Blue clay	232	329	Sand and boulders	86	233
Sand	20	349	Gumbo	78	311
Sandy clay	28	377	Shale and gumbo	20	331
Sand	36	413	Sand	9	340
Clay	27	440	Gumbo	14	354
Sand	36	476	Sand and shale	32	386
Sandy shale	18	494	Sand and boulders	156	542
Tough shale	20	514	Gumbo	38	580
Sand	14	528	Sandy shale	10	590
Shale	100	628	Gumbo and boulders	38	628
Sand	150	778	Sand	78	706
Shale	8	786	Gumbo	19	725
Sand streaks	100	886	Sand and boulders	30	755
TOTAL DEPTH		886	Gumbo	15	770
			Sand, gravel and boulders	56	826
			Gumbo	5	831
			TOTAL DEPTH		831
<u>Well 63</u>			<u>Well 80</u>		
Kansas City & Southern Ry. in Mauriceville. (Altitude, 25 feet)			Geo. Glidden, 6.8 miles southeast of Mauriceville post office. (Altitude, 12 feet)		
Cinders	2	2	Clay	14	14
Yellow clay	24	26	Fine-grained sand	5	19
Fine-grained sand	2	28	Clay	19	38
Blue gumbo	7	35	Fine-grained sand	11	49
Sand	17	52	Blue gumbo	56	105
Blue gumbo	6	58	White sand	34	139
Sand	32	90	Blue gumbo	66	205
Coarse-grained sand	20	110	White sand	9	214
Fine-grained sand	30	140	Blue gumbo	141	355
TOTAL DEPTH		140	Sand and boulders	15	370
			Blue gumbo	129	499
			Hard packsand	8	507
			Pink gumbo	13	520
			White sand	45	565
			Blue gumbo	1	566
			TOTAL DEPTH		566
<u>Well 70</u>					
A. L. Hutchins, 3.9 miles east of Mauriceville post office. (Altitude, 22 feet)					
Top soil	2	2			
Red clay	16	18			
Sand	20	38			
Gumbo	38	76			

Drillers' logs of wells in Orange County--Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Well 99</u>				<u>Well 102--Continued</u>			
W. H. Stark, The Texas Co., 5.0 miles southwest of Orangefield post office. (Altitude, 2 feet)				Surface, marsh 25 25			
Surface		13	13	Mud and sand		35	60
Sand		23	36	Sand		38	98
Clay		7	43	Shale		328	426
Sand		35	78	Sand, water		20	446
Clay		97	175	Shale		54	500
Sand and boulders		30	205	TOTAL DEPTH			500
Clay		17	222	<u>Well 104</u>			
Sand		19	241	The Texas Co., Hatton No. 1, 2.8 miles southwest of Orangefield post office. (Altitude, 14 feet)			
Clay		24	265	Soil		2	2
Sand and boulders		37	302	Clay		16	18
Clay		55	357	Quicksand		42	60
Sand		30	387	Hard sandstone		6	66
Clay		64	451	Sand		24	90
Sand and boulders		72	523	Clay		17	107
TOTAL DEPTH			523	Sand and gravel		20	127
<u>Well 100</u>				Clay		23	150
C. K. Akers, 6.1 miles southwest of Orangefield post office. (Altitude, 2 feet)				Gumbo		50	200
Silt		15	15	Sand and soapstone		15	215
Coarse-grained sand		40	55	Sand		25	240
Soft clay		41	96	Gumbo		166	406
Clay		22	118	Sand and gravel		61	467
Fine-grained sand		13	131	Soft gumbo		79	546
Tough clay		37	168	Sand and gravel		64	610
Fine-grained sand		16	184	Rock		1	611
Medium coarse-grained sand		8	192	Hard gravel		28	639
Clay		5	197	Sand and gravel		52	691
Coarse-grained sand		3	200	Soapstone		5	696
Clay		13	213	Gumbo		9	705
Coarse-grained sand		16	229	TOTAL DEPTH			705
Clay		27	256	<u>Well 105</u>			
Hard sand		13	269	The Texas Co., Hatton No. 2, 2.8 miles southwest of Orangefield post office. (Altitude, 11 feet)			
Soft sand		18	287	Surface soil and clay		12	12
Clay		7	294	Sand		48	60
Soft sand		18	312	Soft blue clay		8	63
Coarse-grained sand		50	362	Sand		35	103
TOTAL DEPTH			362	Soft gumbo		37	140
<u>Well 102</u>				Hard sand		10	150
J. S. Polk, The Texas Co. Polk "B" water well No. 1, 6.1 miles southwest of Orangefield post office. (Altitude, 2 feet)				Gumbo		24	174
				Hard sand		38	212

(Continued on next page)

Drillers' logs of wells in Orange County--Continued

Thickness (feet)		Depth (feet)	Thickness (feet)		Depth (feet)
<u>Well 105--Continued</u>			<u>Well 144</u>		
Gumbo 71 : 283			Southern Pacific Co., 4.2 miles north of Orange post office.		
Shale 24 : 307			(Altitude, 16 feet)		
Gumbo 63 : 370			Clay 16 : 16		
Shale 21 : 391			Sand and clay layers 255 : 271		
Gumbo 24 : 415			Blue clay 30 : 301		
Shale and gravel 25 : 440			Sand 118 : 419		
Gumbo and gravel 172 : 612			TOTAL DEPTH : 419		
Hard packsand 43 : 655					
Coarse-grained sand 35 : 690					
Gumbo 14 : 704			<u>Well 148</u>		
TOTAL DEPTH : 704			E. R. Odom, 3.9 miles northwest of Orange post office.		
			(Altitude, 16 feet)		
<u>Well 142</u>					
Southern Pacific Co., 4.2 miles north of Orange post office.			Surface soil 22 : 22		
(Altitude, 16 feet)			Red sandy clay 33 : 55		
Red clay 76 : 76			Gummy shale 39 : 94		
Sand 34 : 110			Sand 41 : 135		
Blue clay 140 : 250			Soft gumbo 69 : 204		
White sand 26 : 276			Sandy shale 46 : 250		
Sandy clay 16 : 292			Sand 20 : 270		
Blue sand 90 : 382			Hard gumbo 34 : 304		
Blue clay 8 : 390			Hard packsand 114 : 418		
Sand, water 45 : 435			Gumbo 25 : 443		
TOTAL DEPTH : 435			Sand 20 : 463		
			Gumbo 62 : 525		
			Sand 93 : 618		
			Packsand 59 : 677		
<u>Well 143</u>			Gumbo 51 : 728		
Southern Pacific Co., 4.2 miles north of Orange post office.			Sand, water 74 : 802		
(Altitude, 15 feet)			Gumbo 2 : 804		
Red clay 21 : 21			TOTAL DEPTH : 804		
Quicksand 17 : 38					
Blue clay 25 : 63			<u>Well 153</u>		
White fine-grained sand 50 : 113			M. G. Inman, 2.8 miles northwest of Orange post office.		
Blue gumbo 22 : 135			(Altitude, 11 feet)		
Gray coarse-grained sand 18 : 153			Top soil 6 : 6		
White fine-grained sand 23 : 176			Quicksand 5 : 11		
Blue gumbo 17 : 193			Sandy clay 13 : 24		
Blue fine-grained sand 34 : 227			Gumbo 52 : 76		
Blue gumbo 49 : 276			White sand, water 100 : 176		
Gray coarse-grained sand 20 : 296			Hard gumbo 88 : 264		
Hard sand 188 : 484			Shale 36 : 300		
Loose sand 87 : 571			Hard gumbo 94 : 394		
Hard sand 70 : 641			Shale 59 : 453		
Blue gumbo 33 : 674			Black fine-grained sand 164 : 617		
White sand 20 : 694			Sticky shale 28 : 645		
Gumbo 11 : 705			Coarse-grained sand and gravel 44 : 689		
Hard sand 87 : 792			Gumbo 2 : 691		
Blue gumbo 5 : 797			TOTAL DEPTH : 691		
TOTAL DEPTH : 797					

Drillers' logs of wells in Orange County--Continued

			Thickness (feet)	Depth (feet)				Thickness (feet)	Depth (feet)	
<u>Well 168</u>					<u>Well 185--Continued</u>					
E. W. Brown Est., 5.6 miles southwest of Orange post office. (Altitude, 6 feet)										
Yellow clay	50	50	Gumbo	79	120					
Shale	55	105	Sand	42	162					
Clay and shale	75	180	Gumbo	120	282					
Sand	41	221	Sand	20	302					
Clay	119	340	Gumbo	45	347					
Blue shale	120	460	Sand	12	359					
Gumbo and blue shale	120	580	Gumbo	49	408					
Sand	58	638	Sand	37	445					
TOTAL DEPTH		638	Gumbo	120	565					
					Sand	156	721			
					Gumbo	4	725			
					TOTAL DEPTH		725			
<u>Well 180</u>					<u>Well 187</u>					
Orange Products Co., 1.2 miles southwest of Orange post office. (Altitude, 9 feet)					Gulf States Utilities Co., 1.0 mile northwest of Orange post office. (Altitude, 9 feet)					
Soil and clay	42	42	Clay	60	60					
Sand	68	110	Sand	53	113					
Clay	5	115	Clay	3	116					
Fine-grained sand and clay	19	134	Sand	47	163					
Fine to coarse-grained sand	18	152	Coarse-grained sand	7	170					
Fine-grained sand	12	164	Gumbo	154	324					
Soft clay	6	170	Coarse-grained sand	25	349					
Blue clay and gumbo	69	239	Gumbo	91	440					
Clay and sand	7	246	Sandy shale	40	480					
Clay	8	254	Gumbo	50	530					
Hard fine-grained sand and clay	10	264	Hard fine-grained sand	110	640					
Hard sandy clay	27	291	Coarse-grained sand	45	685					
Sandy shale	9	300	TOTAL DEPTH		685					
Soft sticky shale	30	330	<u>Well 196</u>							
Sandy shale	35	365	Gulf States Utilities Co. No. 2, 0.1 mile southeast of Orange post office. (Altitude, 9 feet)							
Gumbo	9	374	Clay	50	50					
Shale	176	550	Sand	35	85					
Sand	150	700	Clay	13	98					
Blue shale	15	715	Sand	85	183					
TOTAL DEPTH		715	Gumbo	220	403					
<u>Well 185</u>					Hard fine-grained sand	32	435			
Orange Pulp & Paper Mills Inc., 0.8 mile west of Orange post office. (Altitude, 7 feet)					Fine-grained sand	10	445			
Soil	1	1	Shale	35	480					
Clay	8	9	Gumbo	60	540					
Quicksand	6	15	Fine-grained sand	61	601					
Clay	26	41	Sand	39	640					
					Sand and some gravel	30	670			
					Gravel	30	700			
					Coarse gravel	55	755			
					TOTAL DEPTH		755			

Drillers' logs of wells in Orange County--Continued

		Thickness (feet)	Depth (feet)			Thickness (feet)	Depth (feet)
<u>Well 197</u>				<u>Well 202--Continued</u>			
Gulf States Utilities Co., No. 5, 0.1 mile southeast of Orange post office. (Altitude, 7 feet)				Gumbo 176 336			
Filled in 10 10				Hard sand 38 374			
Clay 19 29				Gumbo 21 395			
Clay, sand layers 24 53				Hard sand 94 489			
White coarse-grained sand 73 126				Gumbo 60 549			
Sandy shale 20 146				Hard sand 185 734			
White fine-grained sand 33 179				TOTAL DEPTH 734			
Soft shale 144 323				<u>Well 206</u>			
Gumbo 89 412				Lutcher & Moore Lumber Co., 1.5 miles southeast of Orange post office. (Altitude, 4 feet)			
"Salt and pepper" sand 66 478				Shell 3 3			
Soft shale 73 551				Shell and clay 7 10			
Sand, good 196 747				Sand 48 58			
Shale 2 749				Wood 5 63			
TOTAL DEPTH 749				Sand 21 84			
<u>Well 202</u>				Gumbo 107 191			
Lutcher & Moore Lumber Co., 1.0 mile southeast of Orange post office. (Altitude, 7 feet)				Sand 102 293			
Soil 3 3				Gumbo 160 453			
Clay 42 45				Hard packsand 42 495			
Sand 19 64				Gumbo 103 598			
Gumbo 17 81				Hard packsand 109 707			
Sand 79 160				Gravel 40 747			
				Hard gumbo 3 750			
				TOTAL DEPTH 750			

Partial analyses of ground water in Orange County, Texas

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
1	Charlie Lynn	-	Mar. 5, 1941	-	-	-	-	-
2	do.	-	do.	-	-	-	-	-
4	Dr. T. A. Tumbleson	100	do.	-	-	-	-	-
5	Ed & Jerry Stedman	460	Sept. 26, 1941	1,318	19	0.06	13	3.6
6	do.	460	Dec. 16, 1941	1,452	-	-	109	21
7	do.	1,470	Feb. 14, 1941	-	-	-	-	-
8	do.	740	Before 1908	1,335	-	-	17	4.0
8	do.	740	Sept. 26, 1941	1,334	24	.12	16	4.8
9	B. E. Quinn	600 [±]	Apr. 6, 1941	530	-	-	3.6	8.8
10	Cole Thompson	167	Apr. 4, 1941	388	-	-	14	3.9
11	Frank Williamson	65	do.	71	-	-	1.6	7.5
12	J. D. Thomas	40	Apr. 29, 1941	2,500	-	-	113	90
13	Horace Peveto	69	do.	360	-	-	15	5.1
14	J. B. Eaves	79	Apr. 4, 1941	59	-	-	.4	3.9
15	I. C. Herrington	160	Sept. 17, 1941	97	-	-	3.2	3.4
16	G. W. Coppenger	80	Apr. 4, 1941	48	-	-	.4	2.7
17	A. M. Philmon	102	do.	146	-	-	16	2.7
18	Bill Humberson	57	do.	260	-	-	64	7.5
19	W. B. Robinson	64	Mar. 26, 1941	371	-	-	83	10
20	Johnnie Steelburg	18	do.	134	-	-	6.0	5.6
21	H. J. Hebert	194	do.	242	-	-	4.0	4.4
22	Anna Wise	143	do.	249	-	-	22	3.2
23	W. M. Sarver	73	do.	58	-	-	4.0	5.6
24	Mrs. R. N. Carter	120	do.	307	-	-	35	8.0
25	Joe Baker	151	do.	281	-	-	16	6.8
26	H. T. Kilpatrick	144	do.	308	-	-	19	9.2
27	V. W. Ward	200	do.	348	-	-	10	4.4
28	C. T. Bunch	125	do.	62	-	-	1.6	3.2
29	E. McLaughlin	30	do.	52	-	-	4.0	5.6
31	H. B. Fall	20	Mar. 4, 1941	-	-	-	-	-
32	Nellie Mae Alsup	105	Mar. 26, 1941	312	-	-	18	6.8
33	Homer Gaddy	135	do.	296	-	-	13	10
34	A. F. Yeager	640	Mar. 4, 1941	-	-	-	-	-
35	Homer Gaddy	128	Mar. 26, 1941	591	-	-	38	13
36	G. L. Stephenson	70 [±]	Apr. 4, 1941	292	-	-	19	14
37	Pipkin Ranch	113	do.	175	-	-	6.0	1.5
39	W. A. Peveto	112	Apr. 1, 1941	496	-	-	28	15
40	do.	105	do.	85	-	-	7.2	2.0
41	C. K. Akers	44	do.	194	-	-	4.0	5.6
42	C. A. Hollis	73	do.	189	-	-	2.0	4.4
43	C. E. Rees	110	Apr. 3, 1941	420	-	-	21	24
44	Lanham Est.	16	do.	113	-	-	7.2	3.2
46	Litcher & Moore Lumber Co.	740	Sept. 17, 1941	299	37	.34	2.2	.8
48	S. C. Clayton	19	Mar. 28, 1941	72	-	-	4.4	5.4
50	Southern Pacific Co.	138	do.	281	-	-	7.2	9.2

a/ Determined.

b/ Less than 20 parts per million.

Well numbers correspond to numbers in table of well records
Results are in parts per million

Well	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)	Analyst
1	-	460	2	445	-	-	a/ 44	E. W. Lohr
2	-	411	2	88	-	-	a/ 38	do.
4	-	258	2	92	-	-	a/ 94	do.
5	507	450	2	550	1.5	0.0	48	W. W. Hastings
6	414	220	2	798	-	b/	358	do.
7	-	-	2	17,500	-	-	a/ 960	E. W. Lohr
8	-	-	-	527	-	-	-	H. H. Harrington Texas A. & M.
8	506	436	2	565	1.0	.0	60	W. W. Hastings
9	203	342	2	145	-	b/	45	E. W. Lohr
10	141	299	3	79	-	.0	52	do.
11	17	67	2	10	-	b/	35	do.
12	697	6	82	1,410	.5	106	650	do.
13	120	85	8	170	-	b/	58	do.
14	18	37	2	17	-	b/	17	do.
15	32	85	3	13	.2	b/	22	W. W. Hastings
16	14	24	10	9	-	b/	12	E. W. Lohr
17	38	104	10	28	.0	b/	52	do.
18	27	226	18	32	-	b/	190	do.
19	49	293	3	82	-	b/	251	do.
20	35	31	35	37	-	b/	38	do.
21	93	250	1	17	-	b/	28	do.
22	72	134	18	68	-	b/	67	do.
23	11	43	1	15	-	b/	33	do.
24	70	134	49	79	.0	b/	120	do.
25	88	214	17	48	.4	b/	69	do.
26	90	171	23	83	-	b/	86	do.
27	128	262	8	69	-	b/	43	do.
28	19	37	2	18	-	b/	17	do.
29	6.9	12	8	21	.0	b/	33	do.
31	-	9	8	12	-	32	a/ 56	do.
32	94	128	29	101	-	b/	74	do.
33	89	165	29	74	-	b/	76	do.
34	-	300	2	510	-	-	a/ 70	do.
35	155	153	117	170	.0	b/	148	do.
36	74	122	35	90	-	b/	103	do.
37	60	37	8	81	-	.0	21	do.
39	133	153	128	117	.0	b/	134	do.
40	23	55	12	14	-	b/	26	do.
41	63	55	20	74	-	b/	33	do.
42	67	55	3	86	-	b/	23	do.
43	100	122	97	118	-	b/	150	do.
44	29	31	27	30	-	b/	32	do.
46	106	188	2	58	.4	.0	9	W. W. Hastings
48	15	12	7	34	-	b/	33	E. W. Lohr
50	89	153	49	52	-	b/	56	do.

c/ Less than 5 parts per million.

Partial analyses of ground water in Orange County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
51	Lutcher Stark	102	Mar. 28, 1941	200	-	-	6.4	6.8
52	O. C. Chesson	98	Mar. 27, 1941	385	-	-	30	20
53	Kurt R. Nauok	65	Mar. 28, 1941	59	-	-	9/	3.2
54	J. P. McDonald	105	Mar. 27, 1941	111	-	-	6.0	5.6
55	E. E. Singleton	105	do.	157	-	-	14	4.6
56	J. L. Singleton	172	do.	243	-	-	6.0	4.4
57	G. L. Linscomb	117	do.	295	-	-	34	19
58	Mrs. Alva Willey	80+	Sept. 17, 1941	322	-	-	20	8.5
59	Sid Willey	18	Apr. 29, 1941	636	-	-	24	37
60	Irving Brewer	14	May 1, 1941	310	-	-	5.2	6.3
61	G. V. Manuel	100+	do.	452	-	-	29	12
63	K. C. & S. Ry.	140	Apr. 10, 1941	347	-	-	15	10
64	T. J. Fredrick	425	Sept. 17, 1941	180	50	1.0	12	3.6
65	Geo. Helm	91	May 1, 1941	-	-	-	-	-
66	Will Manuel	113	do.	161	-	-	14	3.9
67	W. T. Dunn	165	Sept. 17, 1941	113	-	-	6.8	2.4
68	C. H. Meriwether	114	do.	125	-	-	13	3.6
69	A. L. Hutchins	102	Feb. 12, 1941	-	-	-	-	-
72	Tom Teal	15	May 2, 1941	-	-	-	-	-
73	Abe Sokolski	75	Apr. 10, 1941	334	-	-	26	12
74	Orange Water Co.	175	May 2, 1941	202	-	-	16	7.5
75	J. D. Nobles	20	do.	216	-	-	20	20
76	J. S. Ellis	20	do.	-	-	-	-	-
77	Powell Lumber Co.	22	do.	87	-	-	6.4	2.7
78	John Jansen	229	Apr. 10, 1941	163	-	-	7.2	2.0
79	Geo. Glidden	214	Apr. 1, 1941	713	-	-	47	24
80	do.	566	Dec. 16, 1941	550	15	.28	8.3	3.5
81	P. Houseman	135	Apr. 3, 1941	233	-	-	17	8.0
83	Robt. Stark	108	May 2, 1941	-	-	-	-	-
84	John Womask	11	do.	247	-	-	19	12
85	Acie Noquess	110	Apr. 4, 1941	336	-	-	23	17
86	W. H. Stark Est.	700+	Sept. 17, 1941	586	50	1.1	10	4.4
87	Irvin Brewer	115	May 1, 1941	447	-	-	35	12
88	Harve Linscomb Est.	20	do.	97	-	-	12	2.7
89	Mrs. James Aaron	85	Mar. 27, 1941	301	-	-	2.8	8.0
90	S. O. Peveto	580	Sept. 19, 1941	145	-	-	11	3.6
93	John Bertrand	35	Mar. 28, 1941	914	-	-	131	55
95	E. D. Hollis	16	Apr. 3, 1941	831	-	-	42	34
96	Stanolind Oil & Gas Co.	14	do.	301	-	-	6.4	6.8
97	J. O. Allen	17	do.	321	-	-	20	12
98	Lutcher Stark	528	Sept. 16, 1941	396	-	-	4.8	3.6
99	do.	523	Apr. 5, 1941	244	-	-	5.2	2.0
101	do.	505	Apr. 1, 1941	261	-	-	5/	2.0
102	J. S. Polk "B"	500	Dec. 16, 1941	258	38	6.9	5.8	2.2
103	W. H. Stark Est.	15+	Apr. 3, 1941	434	-	-	16	12
104	The Texas Co. (Hatton No. 1)	705	May 1, 1940	-	37	2.6	3.6	.7
104	do.	705	Sept. 17, 1941	463	38	.0	4.0	1.1
105	The Texas Co. (Hatton No. 2)	704	Feb. 18, 1941	-	-	-	-	-

Well numbers correspond to numbers in table of well records
Results are in parts per million

Well	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)	Analyst
51	63	122	22	42	0.0	b/	44	E. W. Lohr
52	84	171	96	71	-	b/	157	do.
53	19	18	2	26	-	b/	13	do.
54	30	67	8	28	-	b/	38	do.
55	42	104	13	32	-	b/	53	do.
56	91	244	1	20	.5	b/	33	do.
57	56	201	13	74	-	b/	162	do.
58	94	98	12	139	.4	b/	85	W. W. Hastings
59	124	6	23	185	-	240	213	E. W. Lohr
60	96	31	27	108	-	52	39	do.
61	130	146	10	195	-	b/	123	do.
63	107	153	25	115	-	b/	81	do.
64	36	115	2	18	.1	.5	45	W. W. Hastings
65	-	98	2	70	-	b/	-	E. W. Lohr
66	45	110	4	40	-	b/	52	do.
67	35	85	2	22	-	b/	27	W. W. Hastings
68	33	104	2	22	.3	b/	47	do.
69	-	-	2	26	-	-	44	E. W. Lohr
72	-	18	5	82	-	b/	-	do.
73	86	116	13	135	-	b/	112	do.
74	57	195	4	20	.3	1.5	70	do.
75	19	18	2	64	-	82	132	do.
76	-	12	27	87	-	b/	-	do.
77	23	24	4	36	-	2.4	27	do.
78	58	146	3	21	-	b/	26	do.
79	174	232	60	94	.1	b/	215	do.
80	208	348	2	141	.6	.0	35	W. W. Hastings
81	64	177	31	26	-	b/	75	E. W. Lohr
83	-	177	12	42	-	b/	-	do.
84	57	73	31	92	.3	b/	98	do.
85	86	214	29	76	-	b/	125	do.
86	200	207	2	215	.8	.5	43	W. W. Hastings
87	123	134	6	205	-	b/	138	E. W. Lohr
88	19	18	12	38	-	4.0	42	do.
89	108	195	19	67	-	b/	40	do.
90	43	116	2	28	-	b/	42	W. W. Hastings
93	84	153	517	52	-	b/	554	E. W. Lohr
95	204	92	121	295	.1	90	246	do.
96	96	31	17	135	-	25	44	do.
97	79	37	17	134	-	41	97	do.
98	102	195	2	60	.7	b/	27	W. W. Hastings
99	95	232	2	26	-	b/	21	E. W. Lohr
101	108	250	2	26	-	b/	8	do.
102	80	174	2	37	.6	.0	24	W. W. Hastings
103	116	43	39	129	-	101	87	E. W. Lohr
104	-	202	.5	172	-	-	-	The Texas Co.
104	168	202	2	150	.3	.2	14	W. W. Hastings
105	-	-	2	170	-	-	52	E. W. Lohr

Partial analyses of ground water in Orange County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
106	J. R. Davis	700±	July 1, 1941	-	-	-	-	-
107	Prairie View School	385	Feb. 18, 1941	-	-	-	-	-
108	Dr. W. E. Crumpler	480	Sept. 20, 1941	370	19	0.09	5.3	1.5
109	W. F. Rachal	725	do.	-	-	-	-	-
110	Ruby Young	22	Apr. 3, 1941	142	-	-	7.2	6.8
111	H. P. Williams	900	Mar. 1, 1941	-	-	-	-	-
112	John Richard	97	Mar. 28, 1941	353	-	-	134	59
113	H. F. Braeuer	535	Mar. 1, 1941	-	-	-	-	-
114	Joe Bailey	560	Dec. 16, 1941	690	-	-	13	6.3
115	Sam Johnson	103	Mar. 28, 1941	524	-	-	26	18
116	John Brunette	470	do.	256	-	-	3/	4.4
117	Henry Bland	471	do.	243	-	-	.8	.7
118	Mrs. Allie Chesson	500±	do.	310	-	-	2/	2.0
119	Emiline LaFleur	170	do.	418	-	-	6.0	5.6
120	Orangefield High School	112	do.	1,286	-	-	123	70
121	Orange Petroleum Corp.	640	Sept. 19, 1941	460	-	-	15	4.7
122	Oscar Chesson	855	Feb. 17, 1941	-	-	-	-	-
123	Wm. Winfree	700	do.	-	-	-	-	-
124	Lee Hager	600±	do.	-	-	-	-	-
125	W. P. McGuire	600±	do.	-	-	-	-	-
126	Sun Oil Co.	659	Sept. 19, 1941	405	-	-	12	3.6
127	Dave Young	75	Mar. 28, 1941	1,171	-	-	138	86
128	W. H. Harvey Est.	460	Apr. 2, 1941	216	-	-	1.2	2.0
129	Sabine Packing Co.	584	Sept. 17, 1941	227	-	-	27	4.9
130	Southern Pacific Co.	679	Sept. 20, 1941	367	49	.80	8.5	2.8
131	Ed. Worster	432	Apr. 3, 1941	196	-	-	4.4	2.7
132	F. J. DeMary	82	Feb. 14, 1941	-	-	-	-	-
133	John Seemel	607	do.	-	-	-	-	-
134	Mrs. J. W. Hilton	107	Apr. 8, 1941	90	-	-	10	6.8
135	F. T. Peveto	610	Sept. 20, 1941	144	-	-	14	6.1
136	Will Linscomb	630	Sept. 19, 1941	161	-	-	8.8	2.4
138	W. L. Burton	782	Sept. 20, 1941	402	-	-	15	4.9
139	Robt. Walea	105	Apr. 4, 1941	347	-	-	34	19
140	John Womack	100	Apr. 7, 1941	353	-	-	15	10
141	Stark & Brown	108	Apr. 3, 1941	402	-	-	30	20
144	Southern Pacific Co.	419	Sept. 20, 1941	248	50	.01	11	3.6
145	L. L. Parker	98	Apr. 3, 1941	295	-	-	17	10
146	Geo. Willey	1,000	Apr. 2, 1941	762	-	-	19	9.2
147	E. W. Brown Est.	562	do.	217	-	-	18	4.4
148	E. R. Odom	804	June 26, 1941	-	-	-	-	-
149	H. Davison	179	Mar. 27, 1941	391	-	-	19	10
150	E. W. Brown, Jr.	600±	Sept. 17, 1941	216	-	-	6.8	3.6
151	do.	765	Feb. 11, 1941	-	-	-	-	-
152	J. W. Nelson	163	Mar. 27, 1941	359	-	-	25	9.2
153	M. G. Inman	691	Apr. 8, 1941	681	-	-	20	6.8
154	Orange Country Club	662	Feb. 11, 1941	-	-	-	-	-
155	E. W. Brown, Jr.	116	Apr. 3, 1941	313	-	-	17	14
156	Southern Pacific Co.	10	Apr. 2, 1941	618	-	-	62	21
157	Tom Lowe	790	Feb. 18, 1941	-	-	-	-	-

Well numbers correspond to numbers in table of well records
Results are in parts per million

Well	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)	Analyst
106	-	209	2	60	-	0.0	a/ 14	W. W. Hastings
107	-	256	2	32	-	-	a/ 26	E. W. Lohr
108	141	310	2	48	0.8	.0	19	W. W. Hastings
109	-	240	2	75	-	-	a/ 14	E. W. Lohr
110	33	37	18	32	-	27	44	do.
111	-	278	2	915	-	-	a/ 122	do.
112	270	348	369	350	-	b/	576	do.
113	-	214	2	310	-	-	a/ 46	do.
114	256	250	2	290	-	b/	59	W. W. Hastings
115	162	427	25	83	-	b/	141	E. W. Lohr
116	103	250	1	25	-	b/	18	do.
117	102	232	1	24	.6	b/	5	do.
118	125	171	2	97	-	b/	8	do.
119	159	348	22	54	-	.5	38	do.
120	220	305	537	186	.1	b/	593	do.
121	164	195	2	178	-	b/	a/ 57	W. W. Hastings
122	-	226	2	335	-	-	a/ 50	E. W. Lohr
123	-	-	2	170	-	-	a/ 32	do.
124	-	-	2	214	-	-	a/ 24	do.
125	-	-	2	233	-	-	a/ 33	do.
126	147	195	2	144	-	b/	45	W. W. Hastings
127	149	323	389	249	.0	b/	698	E. W. Lohr
128	88	201	2	24	.4	b/	11	do.
129	57	146	2	64	-	b/	88	W. W. Hastings
130	117	164	2	106	.2	.2	38	do.
131	75	195	2	16	-	b/	22	E. W. Lohr
132	-	246	100	70	-	-	a/ 198	do.
133	-	-	2	20	-	-	a/ 42	do.
134	16	85	9	6	-	b/	54	do.
135	37	140	2	16	-	b/	59	W. W. Hastings
136	54	122	2	34	-	b/	32	do.
138	139	134	2	174	1.0	b/	58	do.
139	75	195	23	100	-	b/	162	E. W. Lohr
140	107	165	47	93	-	b/	81	do.
141	85	171	151	32	-	.0	157	do.
144	66	176	2	28	.1	.2	42	W. W. Hastings
145	82	201	61	26	-	b/	86	E. W. Lohr
146	273	232	1	345	.6	b/	86	do.
147	64	153	7	49	-	b/	63	do.
148	-	250	2	475	-	.0	a/ 57	W. W. Hastings
149	124	275	29	73	-	1.0	91	E. W. Lohr
150	64	165	2	58	.5	b/	32	W. W. Hastings
151	-	243	2	265	-	-	a/ 86	E. W. Lohr
152	105	244	37	63	.0	.0	101	do.
153	242	195	2	314	-	b/	79	do.
154	-	-	3	46	-	-	a/ 56	do.
155	83	128	47	89	-	b/	98	do.
156	142	330	117	114	-	b/	243	do.
157	-	-	2	39	-	-	a/ 38	do.

Partial analyses of ground water in Orange County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
158	W. H. Stark Est.	600±	Apr. 2, 1941	352	-	-	5.2	2.0
159	do.	600±	do.	189	-	-	8.0	4.4
160	E. W. Brown Est.	600±	Mar. 1, 1941	-	-	-	-	-
161	do.	700	Feb. 18, 1941	-	-	-	-	-
162	do.	578	Feb. 19, 1941	-	-	-	-	-
163	do.	462	Dec. 16, 1941	277	45	0.12	5.7	2.0
164	W. H. Stark Est.	356	do.	490	20	.13	14	5.7
165	E. W. Brown Est.	711	Feb. 19, 1941	-	-	-	-	-
166	do.	600±	Sept. 18, 1941	359	-	-	6.4	1.2
167	do.	620	Apr. 2, 1941	303	-	-	5.6	3.2
168	do.	638	Sept. 18, 1941	396	-	-	11	4.9
169	do.	194	Feb. 18, 1941	-	-	-	-	-
170	do.	630±	Sept. 18, 1941	1,015	-	.15	18	7.3
171	do.	600±	do.	1,020	-	.20	13	3.6
172	do.	600±	do.	1,247	-	.20	10	7.3
173	do.	694	do.	353	42	.01	3.4	.92
174	J. H. Foreman	720	do.	301	-	-	14	4.7
175	W. H. Stark Est.	600±	Apr. 2, 1941	257	-	-	4.8	.7
176	do.	600±	do.	435	90	.04	4.3	1.9
178	W. J. Skeeler	730	Feb. 19, 1941	-	-	-	-	-
179	Cove School	756	Sept. 20, 1941	275	-	-	13	2.4
180	Orange Products Co.	350	May 20, 1940	1,058.6	30.6	2.4	68	30.8
180	do.	374	June 10, 1940	1,091.9	28.9	.07	61.6	29.5
180	do.	715	Oct. 16, 1940	679.3	45	7.8	19.1	5.0
180	do.	715	Dec. 16, 1941	508	46	.69	14	4.6
181	do.	650±	Feb. 11, 1941	-	-	-	-	-
182	Orange Pulp & Paper Mills Inc.	600±	Dec. 16, 1941	330	45	.54	10	3.4
183	do.	600±	Feb. 8, 1941	-	-	-	-	-
184	do.	600±	do.	-	-	-	-	-
186	W. H. Stark Est.	686	Feb. 11, 1941	-	-	-	-	-
187	Gulf States Utilities Co.	685	Apr. 12, 1941	293	51	.39	9.2	3.0
188	W. H. Stark Est.	600±	Apr. 4, 1941	369	-	-	3.4	2.7
189	Geo. Colburn	608	Sept. 16, 1941	317	47	.48	13	3.6
190	Lutcher Stark	600±	Sept. 22, 1941	239	-	-	18	1.2
192	F. H. Farwell	650±	Feb. 11, 1941	-	-	-	-	-
194	Gulf States Utilities Co., No. 4	750	do.	-	-	-	-	-
195	Gulf States Utilities Co., No. 3	650±	do.	-	-	-	-	-
196	Gulf States Utilities Co., No. 2	755	do.	-	-	-	-	-
197	Gulf States Utilities Co., No. 5	749	Apr. 12, 1941	330	48	.34	8.6	2.0
198	Curtis School College	500±	Feb. 8, 1941	-	-	-	-	-
199	F. A. Lutcher Est.	650±	Feb. 10, 1941	-	-	-	-	-
200	do.	650±	do.	-	-	-	-	-
201	do.	650±	Dec. 16, 1941	266	43	.40	7.1	2.4
203	Lutcher & Moore Lumber Co.	650±	Feb. 10, 1941	-	-	-	-	-

Well numbers correspond to numbers in table of well records
Results are in parts per million

Well	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)	Analyst
158	136	183	2	117	-	b/	21	E. W. Lohr
159	64	159	3	32	-	b/	38	do.
160	-	178	2	47	-	-	a/ 44	do.
161	-	-	2	111	-	-	a/ 56	do.
162	-	224	2	17	-	-	a/ 20	do.
163	88	180	2	45	0.2	0.1	22	W. W. Hastings
164	173	356	2	100	.3	.0	58	do.
165	-	-	2	96	-	-	a/ 44	E. W. Lohr
166	139	201	2	111	-	b/	21	W. W. Hastings
167	115	189	1	85	-	b/	27	E. W. Lohr
168	144	232	2	120	-	b/	48	W. W. Hastings
169	-	360	2	665	-	-	a/ 338	E. W. Lohr
170	363	250	2	465	.8	b/	75	W. W. Hastings
171	377	256	2	462	.7	b/	47	do.
172	462	256	2	600	.5	b/	55	do.
173	124	190	2	87	.4	.0	12	do.
174	105	250	2	52	-	b/	53	do.
175	102	214	1	43	-	b/	15	E. W. Lohr
176	135	206	2	100	.3	.0	18	W. W. Hastings
178	-	-	2	64	-	-	a/ 34	E. W. Lohr
179	98	207	2	58	.3	b/	42	W. W. Hastings
180	212.8	278	224	212	-	-	-	Houston Laboratories
180	220.8	281.8	235.2	183.5	-	-	-	Curtis Laboratories
180	182.5	210	5.4	204	-	-	-	Houston Laboratories
180	166	196	2	178	.3	.0	54	W. W. Hastings
181	-	-	2	152	-	-	a/ 75	E. W. Lohr
182	102	178	2	79	.4	.0	39	W. W. Hastings
183	-	-	2	90	-	-	a/ 56	E. W. Lohr
184	-	178	2	106	-	-	a/ 52	do.
186	-	-	2	42	-	-	a/ 48	do.
187	92	168	2.2	52	-	.4	35	do.
188	141	195	2	120	.5	b/	27	do.
189	92	180	2	70	.1	.0	48	W. W. Hastings
190	78	171	2	56	-	b/	51	do.
192	-	-	2	23	-	b/	32	E. W. Lohr
194	-	-	2	112	-	-	a/ 40	do.
195	-	-	2	52	-	-	a/ 38	do.
196	-	-	2	74	-	-	a/ 38	do.
197	105	198	1.6	67	-	.3	30	do.
198	-	-	2	24	-	-	a/ 34	do.
199	-	-	2	28	-	-	a/ 26	do.
200	-	-	2	76	-	-	a/ 34	do.
201	82	178	2	41	.4	.0	28	W. W. Hastings
203	-	-	2	59	-	-	a/ 32	E. W. Lohr

Partial analyses of ground water in Orange County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
204	Lutcher & Moore Lumber Co.	650±	Dec. 16, 1941	295	40	0.49	4.2	1.4
205	Texas Creosoting Co.	620	Feb. 10, 1941	-	-	-	-	-
206	Lutcher & Mocre Lumber Co.	750	Sept. 22, 1941	262	-	-	8.8	4.9
207	do.	670±	do.	1,115	-	-	52	18
208	City of Orange	650±	Sept. 16, 1941	397	-	-	12	7.3

a/ Determined.

b/ Less than 20 parts per million.

Well numbers correspond to numbers in table of well records
 Results are in parts per million

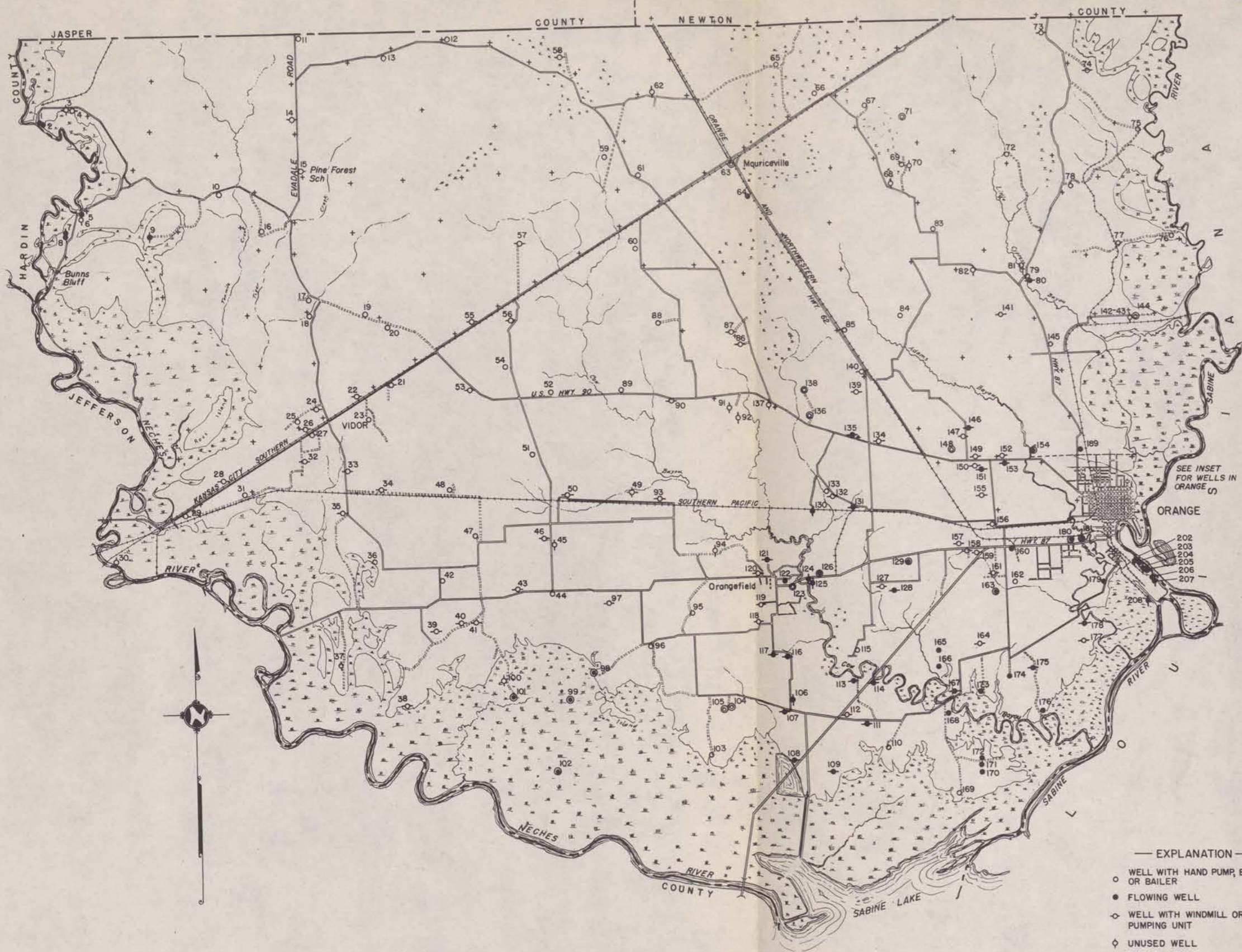
Well	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)	Analyst
204	86	192	2	66	0.4	0.0	16	W. W. Hastings
205	-	196	2	52	-	-	<u>a/</u> 38	E. W. Lohr
206	93	207	2	51	.4	.0	42	W. W. Hastings
207	362	226	2	570	-	<u>r/</u>	203	do.
208	138	183	2	147	.4	<u>r/</u>	60	do.

Less than 5 parts per million.

Partial analyses of ground water in Orange County, Texas

(Well numbers correspond to numbers in table of well records. Results are in equivalents per million.)

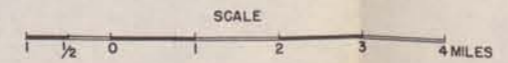
Well	Owner	Depth of well (ft.)	Date of collection	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)
5	Ed & Jerry Stedman	460	Sept. 26, 1941	0.65	0.30	22.06	7.38	0.04	15.51	0.08	0.00	0.95
8	do.	740	do.	.80	.39	21.98	7.15	.04	15.93	.05	.00	1.19
12	J. D. Thomas	40	Apr. 29, 1941	5.64	7.36	30.31	.10	1.70	39.77	.03	1.71	13.00
15	I. C. Herrington	160	Sept. 17, 1941	.16	.23	1.39	1.40	.06	.37	.01	-	.44
24	Mrs. R. N. Carter	120	Mar. 26, 1941	1.74	.66	3.05	2.20	1.02	2.23	0	-	2.40
29	E. McLaughlin	30	do.	.20	.46	.30	.20	.17	.59	0	-	.66
46	Lutcher & Moore Lumber Co.	740	Sept. 17, 1941	.11	.06	4.61	3.08	.04	1.64	.02	.00	.17
58	Mrs. Alva Willey	80±	do.	1.00	.70	4.09	1.60	.25	3.92	.02	-	1.70
64	T. J. Fredrick	425	do.	.60	.30	1.55	1.88	.04	.51	.01	.01	.90
80	Geo. Glidden	566	Dec. 16, 1941	.41	.29	9.05	5.70	.04	3.98	.03	.00	.70
86	W. H. Stark Est.	700±	Sept. 17, 1941	.50	.36	8.68	3.39	.04	6.06	.04	.01	.86
102	J. S. Polk "B"	500	Dec. 16, 1941	.29	.18	3.50	2.85	.04	1.04	.03	.00	.47
104	The Texas Co. Hatton No. 1	705	Sept. 17, 1941	.20	.09	7.31	3.31	.04	4.23	.02	.00	.29
108	Dr. W. E. Crumpler	480	Sept. 20, 1941	.26	.12	6.13	5.08	.04	1.35	.04	.00	.38
117	Henry Bland	471	Mar. 28, 1941	.04	.06	4.43	3.80	.02	.68	.03	-	.10
127	Dave Young	75	do.	6.92	7.04	6.46	5.30	8.10	7.02	0	-	13.96
128	W. H. Harvey Est.	460	Apr. 2, 1941	.06	.16	3.82	3.30	.04	.68	.02	-	.22
130	Southern Pacific Co.	679	Sept. 20, 1941	.42	.23	5.08	2.69	.04	2.99	.01	.00	.65
138	W. L. Burton	782	do.	.76	.40	6.04	2.20	.04	4.91	.05	-	1.16
144	Southern Pacific Co.	419	do.	.55	.30	2.87	2.88	.04	.79	.01	.00	.85
152	J. W. Nelson	163	Mar. 27, 1941	1.26	.76	4.54	4.00	.78	1.78	0	0	2.02
163	E. W. Brown Est.	462	Dec. 16, 1941	.28	.17	3.82	2.95	.04	1.27	.01	.00	.45
164	W. H. Stark Est.	356	do.	.70	.47	7.54	5.83	.04	2.82	.02	.00	1.17
173	E. W. Brown Est.	694	Sept. 18, 1941	.17	.08	5.37	3.11	.04	2.45	.02	.00	.25
176	W. H. Stark Est.	600±	Apr. 2, 1941	.21	.16	5.89	3.38	.04	2.82	.02	.00	.37
180	Orange Products Co.	715	Dec. 16, 1941	.70	.38	7.21	3.21	.04	5.02	.02	.00	1.08
189	Geo. Colburn	608	Sept. 16, 1941	.65	.30	4.02	2.95	.04	1.97	.01	.00	.95
208	City of Orange	650±	do.	.60	.60	6.01	3.00	.04	4.15	.02	-	1.20



BASE COMPILED FROM
U.S. GEOLOGICAL SURVEY TOPOGRAPHIC MAP



MAP OF ORANGE COUNTY, TEXAS SHOWING LOCATION OF WELLS FOR WHICH DATA WERE OBTAINED



- EXPLANATION —
- WELL WITH HAND PUMP, BUCKET OR BAILER
 - FLOWING WELL
 - ◇ WELL WITH WINDMILL OR SMALL PUMPING UNIT
 - ◇ UNUSED WELL
 - ◇ WELL DRILLED TO TEST FOR OIL OR GAS
 - ⊙ WELL WITH PUMPING PLANT— 5 HORSE POWER OR LARGER
 - + EXPLORATORY TEST HOLE 600 TO 1000 FEET DEEP, ELECTRICAL LOG IN CONFIDENTIAL FILES OF FEDERAL GEOLOGICAL SURVEY, AUSTIN, TEXAS.

