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BRAZORIA COUNTY, TEXAS
(East of the Brazos River)

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

* * *

by

Samuel F. Turner and Penn Livingston

Mimeographed by
WORKS PROGRESS ADMINISTRATION
PROJECT 10443

* * *

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

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Austin, Texas
April 10, 1939

BRAZORIA COUNTY, TEXAS
(East of the Brazos River)

* * *

Introduction

by

Samuel F. Turner
Associate Hydraulic Engineer
United States Department of the Interior
Geological Survey

This pamphlet contains records of wells in the eastern part of Brazoria County, Texas, with tables of wells logs, well water analyses, and a map which shows all the wells described, each well having a number on the map corresponding to the number assigned to it in the well tables.

The records were obtained in the course of an investigation which was undertaken as part of a statewide study of the underground water resources of Texas. The investigation was made by the State Board of Water Engineers, in cooperation with the United States Department of the Interior, Geological Survey. The field work was carried out by Samuel F. Turner and Penn Livingston of the Geological Survey. The analyses were made in the laboratory of the Geological Survey at Washington by Margaret D. Foster. The field tests were made in Houston by Samuel F. Turner.

The well records serve as a guide to land owners and well drillers who may need information regarding wells and pumping plants, the depth to ground water in different parts of the county and the quantity and quality of water yielded by wells. They afford a basis for the more intensive investigation which is now being made.

These records were typed and mimeographed by employees of Works Progress Administration Project 10443, which is sponsored by the Texas Board of Water Engineers in cooperation with the Geological Survey.

Records of wells in Brazoria County, Texas
 (All wells are drilled unless otherwise noted in "Remarks" column.)
 (Principal water-bearing beds are sand or gravel.)

No.	Distance from Pearland	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
1	6½ miles west southwest	--	--	--	80±	2	--	--
d/ 2	4 miles west	Frank Doherty	Pete Rogers	--	80	2	--	--
3	do.	John Doherty	do.	1931	54	2	--	--
4	4 miles west southwest	do.	do.	1924	25	2	--	--
5	3½ miles west southwest	do.	do.	1926	65	2	--	--
6	3 miles west	Joe Benes	do.	1928	40	2	32	8
7	2½ miles west	Brazoria County	do.	1932	37	1½	--	--
8	2 miles west	T. P. Mahaney	--	--	20	2	--	--
9	¼ mile west	C. W. Massey	--	--	140	12	--	--
10	At Pearland	Gulf Coast & Santa Fe R. R.	F. Standard	1916	507	8	461	46
11	2¾ miles west southwest	C. T. Densen	--	--	96	3	--	--
d/ 12	3½ miles southwest	C. W. Massey	--	--	100	6	--	--
13	4¾ miles southwest	-- Baldwin	--	--	30	1½	--	--
14	4½ miles southwest	H. Richards	H. Richards	--	25	6	--	--
15	4¼ miles southwest	C. W. Massey	--	--	13	4	--	--
16	4¼ miles south southwest	do.	--	--	30±	2	--	--
d/ 17	3½ miles south southwest	do.	--	--	30±	3	--	--
18	3¼ miles south	Berry Miller	--	--	40±	1½	--	--
19	5¼ miles southwest	Willis Patterson	--	--	40±	1¼	--	--
20	6 miles southwest	do.	--	--	40±	1¼	--	--
d/ 21	5¾ miles southwest	C. Natali	--	--	60	2	--	--
22	5¼ miles southwest	The Texas Co.	-- Patterson	--	300	6	--	--
23	6½ miles southwest	Victor Del Bello	Loran Davis	--	50	1¼	--	--

a/ Bench mark is point from which water-level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.
 b/ T, turbine; A, air or steam; F, artesian flow; J, jack or pitcher; B, bucket; O, oil; G, gasoline; W, windmill; H, hand.

Records obtained by Penn Livingston and Samuel F. Turner
 (See "Table of field tests" for tests of hardness, chloride and sulphate.)

No.	Height of bench mark above (+) ground (ft.) <u>a/</u>	Water level		Pump and kind and amount of power <u>b/</u>	Use of water <u>c/</u>	Remarks
		Below bench mark (ft.)	Date of measurement			
1	--	--	--	J,W	S	
2	--	--	--	J,W	D,S	
3	--	--	--	J,G, 1 $\frac{1}{2}$	D,S	
4	--	--	--	J,H	S	
5	--	--	--	J,W	S	
6	--	--	--	J,W	D,S	
7	--	--	--	J,W	S	
8	--	--	--	J,H	D,S	
9	--	--	--	J,H	D,S	
10	0	50.0	Apr. 16, 1931	J,-	RR	Casing; 477 feet of 8-inch and 30 feet of 6-inch. Stancliff screen set from 477 to 507 feet. See driller's log.
11	--	--	--	J,H	D,S	
12	--	--	--	J,W	S	
13	--	--	--	J,H	S	
14	--	--	--	J,H	D,S	
15	--	--	--	J,W	S	
16	--	--	--	J,W	S	
17	--	--	--	J,H	D,S	
18	--	--	--	J,W	S	
19	--	--	--	J,H	D,S	
20	--	--	--	J,H	D,S	
21	--	--	--	J,H	D,S	
22	--	--	--	A,S	Ind	
23	--	--	--	J,H	D,S	

c/ P, Public; I, irrigation; RR, railroad; Ind, industrial; D, domestic; S, stock; N, not used,

d/ See analysis table for analysis of water from this well.

e/ No field tests made on water from this well.

Records of wells in Brazoria County--Continued

No.	Distance from Pearland	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
24	6 $\frac{1}{2}$ miles southwest	C. Natali	Loran Davis	--	60	1 $\frac{1}{4}$	--	--
25	6 $\frac{1}{2}$ miles southwest	S. Scopel	--	--	45	--	--	--
26	6 $\frac{3}{4}$ miles southwest	Joe Croce	--	--	54	1 $\frac{1}{2}$	--	--
27	6 $\frac{1}{2}$ miles southwest	Mrs. C. Marasckin	--	--	20	1	--	--
28	do.	do.	--	1932	52	1	--	--
29	7 $\frac{3}{4}$ miles southwest	J. W. Lewis	--	--	27	2	--	--
30	8 $\frac{1}{4}$ miles south southwest	M. Pavlovich	--	--	65	--	--	--
31	7 $\frac{1}{4}$ miles south southwest	L. O. Callihan	Loran Davis	--	62	1 $\frac{1}{4}$	--	--
32	7 miles south southwest	do.	do.	--	35	1 $\frac{1}{2}$	--	--
33	7 $\frac{1}{2}$ miles south southwest	A. J. Hicks	-- McColley	--	80 \pm	2	50	30
34	do.	A. Huopper	--	--	18	1 $\frac{1}{4}$	--	--
35	6 $\frac{1}{2}$ miles south southwest	do.	--	--	40 \pm	2	--	--
36	6 $\frac{1}{4}$ miles south southwest	F. A. Goedecke	--	--	18	1 $\frac{1}{4}$	--	--
d/ 37	do.	do.	--	--	37	1 $\frac{1}{4}$	--	--
38	5 $\frac{1}{2}$ miles south	Frank Cisco	--	--	20	5	--	--
39	5 $\frac{3}{4}$ miles south	W. A. Idoux	--	--	20	3	--	--
40	9 $\frac{1}{2}$ miles south southeast	Gulf States Utilities Co.	--	1922	158	10	--	--
41	do.	do.	--	1909	750	10	--	--

No.	Distance from Angleton	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
70	18 $\frac{1}{2}$ miles north northwest	H. F. Hamilton Est.	--	--	510 \pm	5	--	--
e/ 71	do.	do.	--	--	220	4	--	--
e/ 72	18 miles north	House & Brown	--	--	300 \pm	1 $\frac{1}{2}$	--	--
73	17 $\frac{1}{2}$ miles north northwest	Judge Tignor	--	--	40	1 $\frac{1}{4}$	--	--

a/ Bench mark is point from which water-level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, turbine; A, air or steam; F, artesian flow; J, jack or pitcher; B, bucket; D, oil; G, gasoline; W, windmill; H, hand.

Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
24	--	--	--	J,H	D,S	
25	--	--	--	J,E	D,S	
26	--	--	--	J,W	D,S	
27	--	--	--	J,H	D,S	
28	--	--	--	J,W	D,S	
29	--	--	--	J,H	D,S	
30	--	--	--	J,G	D,S	
31	--	--	--	J,H	D,S	
32	--	--	--	J,H	D,S	
33	0	7.0	Aug. 17, 1932	J,H	D,S	
34	--	--	--	J,H	D,S	
35	--	--	--	J,W	S	
36	--	--	--	J,H	D,S	
37	--	--	--	J,H	D,S	
38	--	--	--	J,H	D,S	
39	--	--	--	J,H	D,S	
40	1½	27.9	Apr. 16, 1931	A,-	P,RR	Supplies town of Alvin.
41	2	42.6	do.	A,-	P	Do.

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
70	0	15.4	Apr. 10, 1931	J,H	D,S	
71	½	8.1	do.	J,W	S	
72	2½	19.9	do.	J,W	D,S	
73	--	--	--	J,H	D,S	

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

d/ See analysis table for analysis of water from this well.

e/ No field tests made on water from this well.

Records of wells in Brazoria County--Continued

No.	Distance from Angleton	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/ 74	17 $\frac{1}{2}$ miles north northwest	State of Texas	--	1918?	700+	2	--	--
e/ 75	17 miles north northwest	do.	--	--	1,700	8	--	--
e/ 76	16 $\frac{1}{2}$ miles north	J. A. Fite	J. D. Roberts	1923	906	26	361 506 858	65 55 46
e/ 77	16 miles north	H. L. Trammel	-- Patterson	--	300	2	--	--
e/ 78	15 miles north northwest	Otto Sims Club	do.	1925	792+	2	--	--
79	do.	Public School	Frank Turner	1927?	420	2	--	--
e/ 80	13 miles north northwest	-- Wallace	--	--	650+	6	--	--
81	10 miles north northwest	State of Texas	--	--	--	4	--	--
e/ 82	9 $\frac{1}{2}$ miles north	J. A. Fite	Layne-Texas Co.	1926	923	24	239 327 563	77 113 35
91	16 miles north northeast	W. H. Booth	-- Patterson	1930	1,118	4	761 806	23 36
92	17 $\frac{1}{2}$ miles northeast	T. Berthelsen	do.	1930	843	2	864	55
93	16 miles northeast	Houston Farm Development Co.	-- Benson	1920	1,300+	8	--	--
94	14 miles northeast	do.	do.	1920	1,380+	8	--	--
e/101	4 $\frac{1}{4}$ miles northwest	International & Great Northern R.R.	--	--	635	2	--	--
e/102	5 $\frac{3}{4}$ miles west	J. W. Sparks Well 1	Zionville Oil Co.	--	3,160	12	--	--
103	At Angleton	Texas-Louisiana Power Co.	Luther Patterson	1923	336	6	--	--
e/104	6 $\frac{1}{2}$ miles east northeast	Rapid City Development Co.	Rycade-Amerada	--	6,284	--	--	--
e/105	19 miles east	-- Sweet Well 1	The Texas Co.	1926	1,387	--	--	--
e/106	7 miles south	Cochran & McClure Well 1	do.	1920	2,335	6	--	--
121	15 miles south southeast	Houston Light & Power Co.	--	--	--	8	--	--
e/122	14 $\frac{1}{2}$ miles south southeast	Missouri Pacific lines	--	--	267	6	244	23
123	15 miles south southeast	--	--	--	--	--	--	--
124	16 $\frac{1}{2}$ miles south southeast	E. D. Dorchester	--	--	1,100+	10	--	--

a/ Bench mark is point from which water-level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, turbine; A, air or steam; F, artesian flow; J, jack or pitcher; B, bucket; O, oil; G, gasoline; W, windmill; H, hand.

Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) <u>a/</u>	Water level		Pump and kind and amount of power <u>b/</u>	Use of water <u>c/</u>	Remarks
		Below bench mark (ft.)	Date of measurement			
74	1 $\frac{1}{2}$	4.8	Apr. 14, 1931	J,H	S	Ceased flowing in 1929. Darrington State Farm.
75	1 $\frac{1}{2}$	4.9	do.	J,H	S	Do.
76	0	7.9	Apr. 10, 1931	T,O, --	I	Casing; 97 feet of 26-inch, 11 $\frac{1}{2}$ feet of 16-inch to bottom. Screens set at 364 to 425, 521 to 560, and 860 to 901 feet.
77	1	15.7	Apr. 13, 1931	A,E, $\frac{1}{2}$	D, Ind	At Sandy Point.
78	1 $\frac{1}{2}$	10.2	do.	None	N	
79	$\frac{1}{2}$	3.0	do.	J,H	F	Ceased flowing in 1929.
80	1 $\frac{1}{2}$	5.0	do.	J,H	D,S	
81	--	+	--	F	S	Ramsey Farm. Estimated discharge at 4 gallons a minute. April 13, 1931
82	1 $\frac{1}{2}$	4.1	Apr. 13, 1931	T,-	S, I	Casing; 98 feet of 24-inch, 10 feet of 16-inch and 10-inch set at 523 feet. Well deepened in 1928 and 8-inch casing
91	0	8.0	Apr. 16, 1931	F	D,S	Temperature 79° F. set at 523 feet. Flowing 4.2 gallons a minute. April 16, 1931
92	--	--	--	J,W	D,S	
93	--	+	--	F	S	
94	--	+	--	F	D,S	Flows into tank 12 feet above ground level.
101	2	2.6	Apr. 14, 1931	J,H	D,S	Well ceased flowing in 1929.
102	--	+	--	F	--	
103	1 $\frac{1}{2}$	17.5	Apr. 14, 1931	A,-	P	
104	--	--	--	--	--	Oil test, see driller's log.
105	--	--	--	--	--	Core test, see driller's log.
106	--	--	--	--	--	Oil test, see driller's log.
121	16	43.2	Apr. 14, 1931	A,-	P	At Freeport.
122	--	--	--	A,-	RR	See driller's log. At Velasco.
123	--	+	--	F	N	At Velasco.
124	--	+	--	F	N	Flow estimated at 300 gallons a minute, April 14, 1931. Temperature, 84° F.

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

d/ See analysis table for analysis of water from this well.

e/ No field tests made on water from this well.

Records of field tests of samples from wells in Brazoria County, Texas
 (Analyzed by Samuel F. Turner. Parts per million. For records
 of wells see corresponding numbers in well tables.)

University of Texas
 Austin, Texas

Well No.	Owner	Date of collection	Depth of well (ft.)	Hardness as CaCO ₃ a/	Chloride (Cl)	Sulphate (SO ₄) b/
1	--	--	80±	350	50	5
2	Frank Doherty	--	80	320	30	5
3	John Doherty	--	54	340	270	15
4	do.	--	25	330	60	10
5	do.	--	65	650	500	120
6	Joe Benes	--	40	390	55	5
7	Brazoria County	--	37	350	20	5
8	T. P. Mahaney	--	20	400	35	5
9	C. W. Massey	--	140	360	40	15
10	Gulf Coast & Santa Fe RR.	Apr. 16, 1931	507	90	35	2
11	C. T. Densen	--	96	550	750	40
12	C. W. Massey	--	100	900	1,000	50
13	-- Baldwin	--	30	490	70	5
14	H. Richards	--	25	360	150	15
15	C. W. Massey	--	13	340	75	5
16	do.	--	30±	350	100	10
17	do.	--	30±	470	550	40
18	Berry Miller	--	40±	210	45	20
19	Willis Patterson	--	40±	340	30	5
20	do.	--	40±	300	75	5
21	C. Natali	--	60	340	30	5
22	The Texas Co.	--	300	150	95	40
23	Victor Del Bello	--	50	270	130	10
24	C. Natali	--	60	280	140	5
25	S. Scopel	--	45	240	40	5
26	Joe Croce	--	54	300	70	10
27	Mrs. C. Marasokin	--	20	300	85	15
28	do.	--	52	290	110	25
29	J. W. Lewis	--	27	310	140	5
30	M. Pavlovich	--	65	220	140	5
31	L. O. Callihan	--	62	300	70	1
32	do.	--	35	320	30	2
33	A. J. Hicks	Aug. 17, 1932	80±	250	140	5
34	A. Huepper	--	18	280	20	2
35	do.	--	40±	340	35	15
36	F. A. Goedecke	--	18	260	140	25
37	do.	--	37	280	140	10
38	Frank Cisco	--	20	220	85	10
39	W. A. Idoux	--	20	330	55	2
40	Gulf State Utilities Co.	Apr. 16, 1931	158	260	100	10
41	do.	do.	750	75	270	5
70	H. F. Hamilton Est.	Apr. 10, 1931	510±	180	120	2
73	Judge Tignor	--	40	2,000	1,600	30
79	Public School	Apr. 13, 1931	420	140	70	5
81	State of Texas	--	--	140	150	2
91	W. H. Booth	Apr. 16, 1931	1,118	60	290	25
92	T. Berthelsen	--	843	75	290	5
93	Houston Farm Dev. Co.	--	1,300±	130	1,300	--
94	do.	--	1,380±	80	420	--
103	Texas-Louisiana Power Co.	Apr. 14, 1931	336	300	75	5
121	Houston Light & Power Co.	do.	--	160	220	2
123	--	--	--	600	3,000	2
124	E. D. Dorchester	--	1,100±	600	3,500	3

a/ Hardness as calcium carbonate by the soap method.

b/ Sulphate by turbidity method and may be as much as 25 per cent in error.

Analyses of water from wells in Brazoria County, Texas

Well No.	Owner	Date of collection	Depth of well (ft.)	Total dissolved solids (calc.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
2	Frank Doherty	Aug. 19, 1932	80	2/ 427	--	0.93	101	22
12	C. W. Massey	do.	100	2/ 833	--	13	161	120
17	do.	July 22, 1933	30	2/ 424	--	4.6	94	61
21	C. Natali	do.	60	2/ 329	--	0.67	102	12
37	F. A. Goedecke	do.	37	2/ 771	--	0.5	58	35

1/ Combined figures for sodium and potassium were not determined, but were calculated as sodium.

(Parts per million. Well numbers correspond to numbers in table of records of wells.)

Well No.	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Total hardness as CaCO ₃	Analyst
2	38		414	6	56	0	343	Margaret D. Foster
12	380		328	115	945	0.1	894	Do.
17	372		511	72	560	13	485	Do.
21	11		358	5.3	19	3.5	304	Do.
37	206		626	17	146	0.62	288	Do.

2/ Sum of constituents reported.

Table of Drillers' Logs, Brazoria County, Texas

		Thickness	Depth			Thickness	Depth
		(feet)	(feet)			(feet)	(feet)
<u>Driller's log of well 10</u>				<u>Driller's log of well 82--Continued</u>			
Gulf Coast and Santa Fe Railroad, owners				Sand - - - - 14 619			
Soil	-	-	12	Shale	-	-	19 637
Fine sand	-	-	8 20	Gumbo	-	-	58 695
Yellow clay	-	-	60 80	Sand	-	-	8 703
Fine sand	-	-	12 92	Gumbo	-	-	58 761
Red clay	-	-	70 162	sand	-	-	25 794
Blue clay	-	-	40 202	Gumbo	-	-	22 806
Fine sand	-	-	4 206	sand	-	-	36 842
Blue clay	-	-	130 356	Gumbo	-	-	22 864
Joint clay	-	-	20 356	sand	-	-	19 883
Coarse sand	-	-	15 371	Gumbo	-	-	3 886
Blue clay	-	-	90 461	sand	-	-	33 919
Artesian sand	-	-	46 507	Gumbo	-	-	4 923

		Thickness	Depth
<u>Driller's log of well 76</u>			
J. A. Fite, owner.			
Clay	-	-	115 115
Sand	-	-	29 144
Clay	-	-	217 361
Coarse sand	-	-	65 426
Clay	-	-	4 450
Sand	-	-	33 463
Clay	-	-	43 506
Good sand	-	-	55 561
Clay	-	-	156 717
Sand	-	-	22 739
Gumbo	-	-	72 811
Sand	-	-	11 822
Gumbo	-	-	36 858
Good sand	-	-	46 904
Gumbo	-	-	2 906

		Thickness	Depth
<u>Driller's log of well 102</u>			
Zionville Oil Company's F. W. Sparks Number 1.			
Surface soil	-	-	10 10
Red clay	-	-	50 60
Sand and gravel	-	-	140 200
Gumbo	-	-	10 210
Gravel	-	-	15 225
Blue shale	-	-	65 290
Sandy gumbo	-	-	100 390
Blue shale and gumbo	-	-	25 415
Sandy gumbo	-	-	10 425
Gumbo	-	-	60 485
Red gumbo	-	-	43 528
Lime rock	-	-	12 540
Gumbo and lime	-	-	50 590
Sandy gumbo	-	-	33 623
Sandy blue shale	-	-	33 656
Gumbo and lime	-	-	59 715
Artesian water sand	-	-	60 775
Gumbo and lime	-	-	20 795
Blue sandy lime	-	-	35 830
Brown shale	-	-	24 874
Hard lime	-	-	14 888
Gumbo and boulders	-	-	20 908
Red gumbo	-	-	10 918
Lime rock	-	-	6 924
Gumbo	-	-	5 929
Water sand	-	-	136 1065
Gumbo	-	-	8 1073
Sand and boulders	-	-	7 1080
Gumbo and boulders	-	-	8 1088
Hard sand	-	-	27 1115
Sandy gumbo	-	-	29 1144
Rock	-	-	6 1150
sand and boulders	-	-	56 1206
Hard sandy lime	-	-	31 1237
Gumbo	-	-	6 1243
Sand	-	-	11 1254

		Thickness	Depth
<u>Driller's log of well 82</u>			
J. A. Fite, owner.			
Rotary to ground	-	-	4 4
Clay	-	-	25 29
Sand	-	-	2 31
Clay	-	-	12 43
Sand	-	-	74 117
Clay	-	-	122 239
Sand	-	-	77 316
Clay	-	-	11 327
Gray water sand	-	-	113 440
Gumbo	-	-	16 456
Coarse sand	-	-	30 486
Gumbo	-	-	12 498
Sand	-	-	14 512
Gumbo	-	-	16 528
Well deepened in February, 1928			
Rotary to bottom of 10-inch well	-	-	529
Clay	-	-	34 563
Sand	-	-	35 598
Clay	-	-	6 604

(Continued on next page)

Table of Drillers' Logs, Brazoria County--Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 102--Continued</u>		
Hard sand and boulders	- - 31	1285
Gumbo and boulders	- - - 30	1315
Sand and boulders	- - - 33	1348
Gumbo	- - - 3	1351
Sandy lime and boulders	- - 44	1395
Gumbo	- - - 6	1401
Salty sand	- - - 19	1420
Gumbo	- - - 18	1438
TOTAL DEPTH	- - - -	3160

<u>Driller's log of well 104</u>		
Rycade Amerada's Rapid City Development Company Number 1.		
Surface clay	- - - 23	23
Soft water sand	- - - 28	51
Clay	- - - 244	245
Red gumbo	- - - 30	325
Sand and gravel	- - - 27	352
Hard gumbo	- - - 125	477
Sand	- - - 45	522
Gumbo	- - - 78	600
Sand and boulders	- - - 37	637
Gumbo	- - - 15	652
Sand and boulders	- - - 41	693
Gumbo	- - - 58	751
Hard packed sand	- - - 150	901
Gumbo	- - - 59	960
Sand and boulders	- - - 34	994
Tough gumbo	- - - 28	1022
Hard sand	- - - 12	1034
Gumbo	- - - 160	1194
Sand	- - - 3	1197
Gummy shale	- - - 46	1243
Sand	- - - 3	1246
Gumbo	- - - 17	1263
TOTAL DEPTH	- - - -	6284

<u>Driller's log of well 105</u>		
The Texas Company's Sweet Number 1.		
Soft brown soil	- - - 1	1
Stiff yellow clay and lime soil, sand and clay with salt water	- 13	14
Blue clay and shell	- - 68	94
Gray sand, shell and gravel with fresh water	- - 32	126
Soft blue gumbo	- - - 81	207
Sand, gravel and clay	- - 34	241
Brown and blue gumbo	- - 140	381
Soft gumbo and shell	- - 88	469
Blue-gray-brown gumbo	- - 258	727

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 105--Continued</u>		
Blue shale and shell	- - 24	751
Tough gumbo	- - - 11	762
Sand, shell and sticky shale	- - - 129	891
Blue sandy shale	- - - 56	947
Shale, sand, gravel and shell	- - - 77	1024
Gray sand and shell	- - 41	1065
Shale	- - - 77	1142
Brown sandy gumbo	- - - 67	1209
Shale, sand and gravel	- - 58	1247
Gumbo	- - - 14	1261
Blue-gray sand shale	- - 126	1387

<u>Driller's log of well 106</u>		
The Texas Company's Cochran and McClure Number 1.		
Brown clay	- - - 20	20
White sand	- - - 7	27
Brown clay	- - - 33	60
Dark sand	- - - 15	75
Dark clay	- - - 55	130
White sand	- - - 16	146
Brown clay	- - - 26	172
Sand	- - - 14	186
Clay	- - - 59	245
White and black sand	- - 21	266
Red clay	- - - 119	385
Sand and boulders	- - 33	418
Pink gumbo	- - - 22	440
Chalk rock	- - - 72	512
Sand and boulders	- - - 144	656
Blue gumbo	- - - 49	705
Sticky shale	- - - 23	728
Packed sand	- - - 36	764
Blue gumbo	- - - 154	918
Packed sand	- - - 22	940
Brown clay and gumbo	- - 176	1116
Red sand	- - - 21	1137
Pink gumbo	- - - 34	1171
Blue gumbo and shale	- - 177	1348
TOTAL DEPTH	- - - -	2335

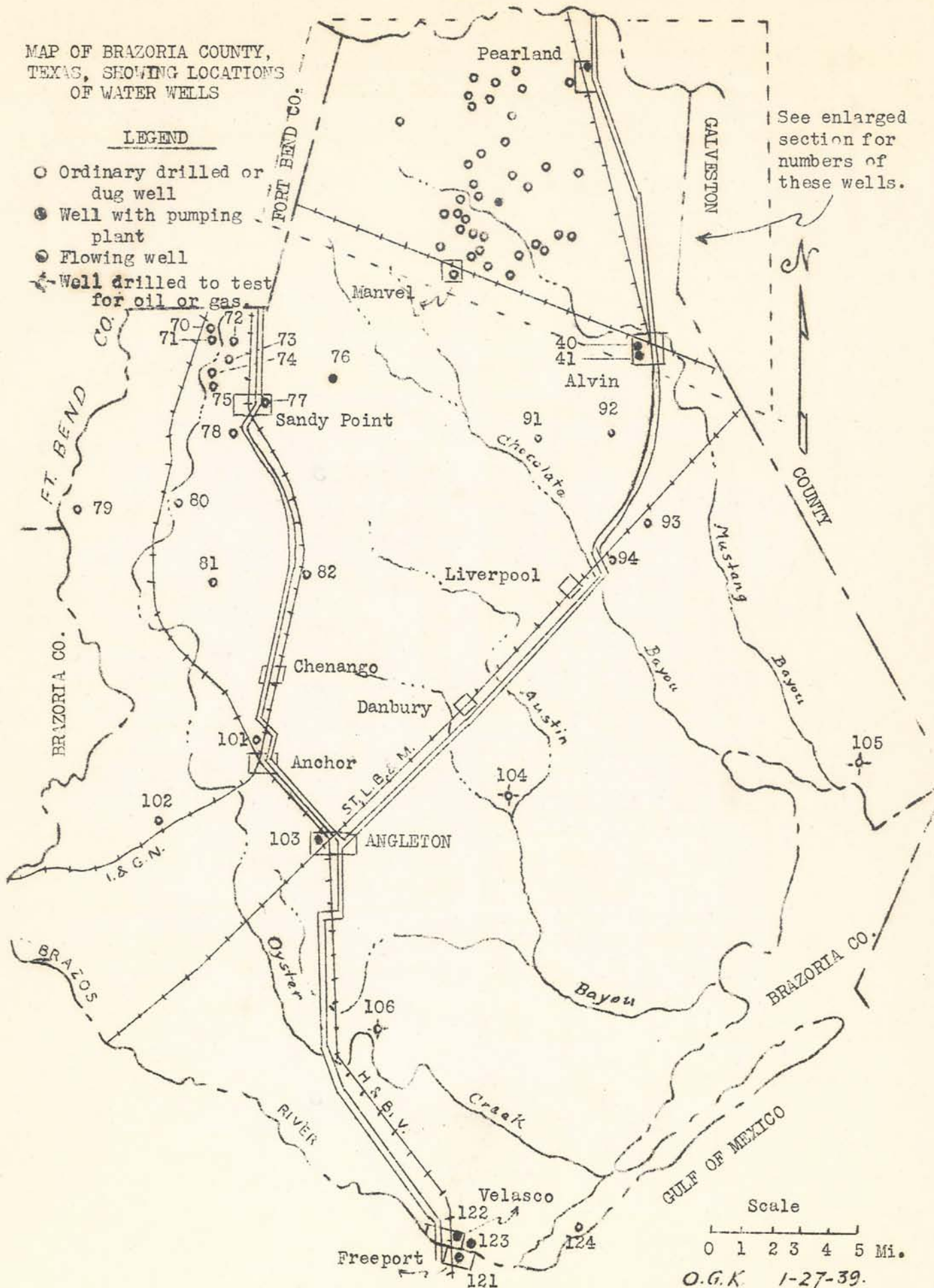
<u>Driller's log of well 122</u>		
Missouri Pacific Lines, owner.		
Sub-soil	- - - 16	16
Red clay	- - - 24	40
Fine sand	- - - 30	70
Blue clay	- - - 40	110
Sand and shell	- - - 25	135
Blue clay and shell	- - 42	177
Sand	- - - 8	185
Gumbo	- - - 59	244
Coarse sand	- - - 23	267

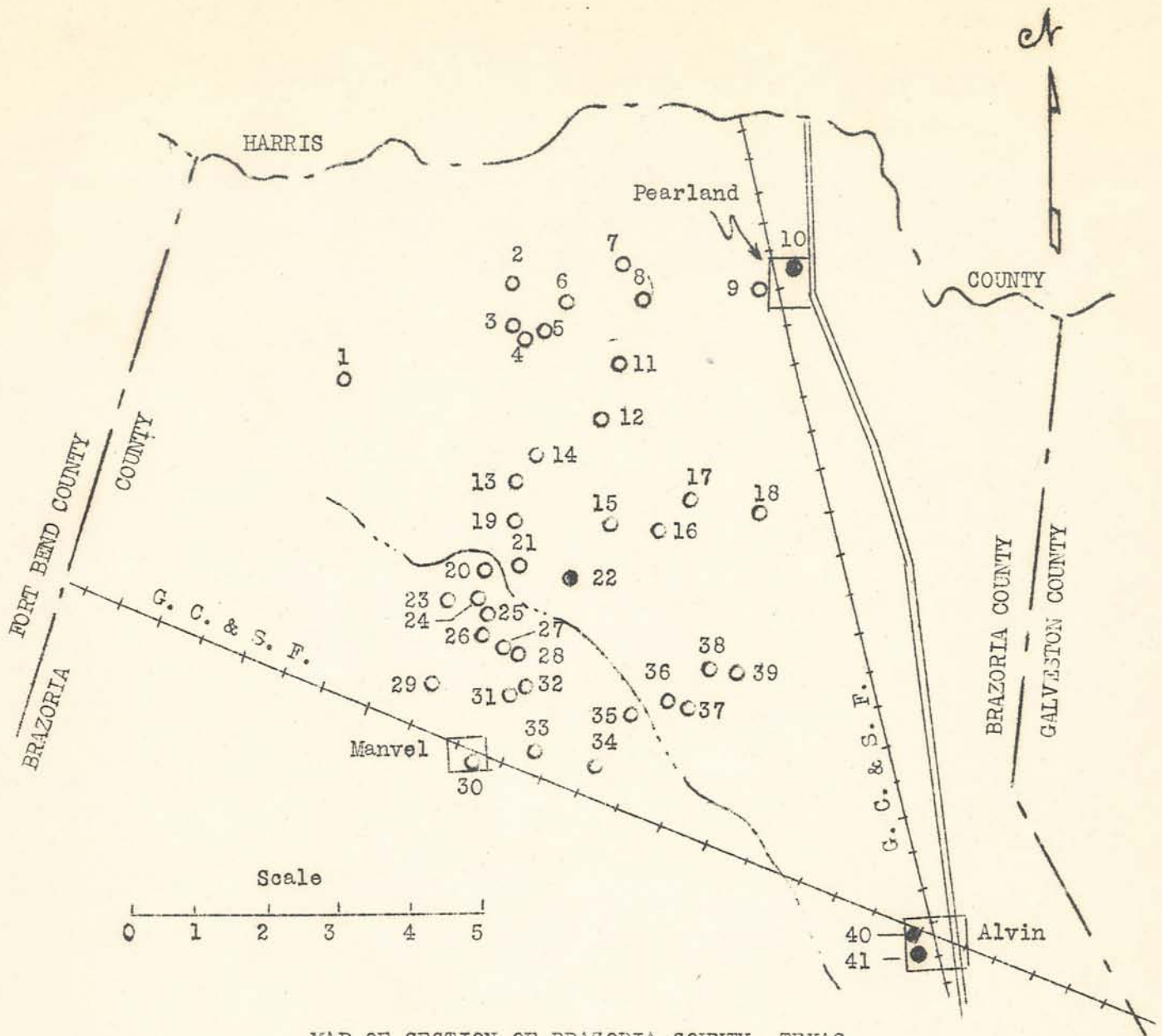
MAP OF BRAZORIA COUNTY,
TEXAS, SHOWING LOCATIONS
OF WATER WELLS

LEGEND

- Ordinary drilled or dug well
- Well with pumping plant
- ⊙ Flowing well
- ⊕ Well drilled to test for oil or gas

See enlarged section for numbers of these wells.





MAP OF SECTION OF BRAZORIA COUNTY, TEXAS,
SHOWING LOCATION OF WATER WELLS

LEGEND

- Ordinary drilled or dug well
- Well with pumping plant