TEXAS BOARD OF WATER ENGINEERS

H. A. Beckwith, Chairman
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BULLETIN 5411

GROUND-WATER RESOURCES OF TOM GREEN COUNTY, TEXAS

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

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ABSTRACT

This report presents the results of a study of the ground-water resources of Tom Green County, including information on the geology as it pertains to ground water, and the available data relating to the occurrence of ground water. The report contains records of 648 wells and 11 springs, 235 analyses of water samples, and 41 well logs.

The principal water-bearing rocks in the plains and stream valleys of the county are layers of gravel and creviced conglomerate in the Leona formation of Pleistocene age, Recent stream gravels, and a few of the dolomitic limestone layers in the underlying Permian rocks, particularly the Vale formation. In most of the hilly areas water supplies for domestic and livestock use may be obtained from the Comanche Peak limestone in the Fredericksburg group and layers of sand in the Trinity group. The area immediately west and southwest of San Angelo contains few water wells; most of these wells yield only small amounts of highly mineralized water, from the San Angelo sandstone and the Blaine gypsum of Permian age.

The Leona formation and the Bullwagon dolomite member of the Vale formation supply all the ground water used for irrigation. The maximum reported yields are 500 gallons a minute for the Leona and 1,000 gallons a minute for the Bullwagon. Lowered water levels with corresponding decreases in yields indicate partial depletion of the reservoirs and suggest that large-scale ground-water irrigation is not feasible in Tom Green County.

INTRODUCTION

PURPOSE AND SCOPE

The purpose of this report on the ground-water resources of Tom Green County, Tex., is to present the results of the investigation relating to the occurrence of ground water in the county and to give a brief description of the geology as it pertains to ground water. The investigation of the ground-water resources of the county was made possible through cooperation between the Texas State Board of Water Engineers and the United States Geological Survey. Field data were gathered from September 1948 through January 1949, from February 1950 through January 1951, and in January 1952. The report contains records of 648 wells, 41 drillers' logs, 235 chemical analyses of water samples, cross sections showing water-bearing rocks, climatological data, and maps showing locations of wells and springs and the areal extent of geologic formations. (See pl. 1.)

The study was made under the general supervision of A. N. Sayre, Chief, Ground Water Branch, United States Geological Survey, and under the direct supervision of R. W. Sundstrom, District Engineer, Austin, Tex.

LOCATION AND EXTENT OF THE COUNTY

Tom Green County is slightly west of the central part of the State. (See fig. 1.) The intersection of latitude 31°25' north and longtitude 100°25' west is in the central part of the county. The county has an area of 1,829 square miles and, according to the United States Census, it had a population of 58,929 in 1950. San Angelo, the county seat, is the largest city and had a population of 51,889 in 1950. Other towns or communities in the county are: Carlsbad, Christoval, Harriett, Knickerbocker, Mereta, Sanatorium, Tankersley, Vancourt, Veribest, Wall, and Water Valley. See plate 1.

PREVIOUS WORK

An inventory of wells and springs in Tom Green County was made in 1940-41, as a project of the Work Projects Administration in cooperation with the Texas Board of Water Engineers under the technical supervision of the U. S. Geological Survey. The records, including analyses of water samples, were published in mimeographed form by the Texas Board of Water Engineers in September 1941. Some of the data from that release are included in this publication.

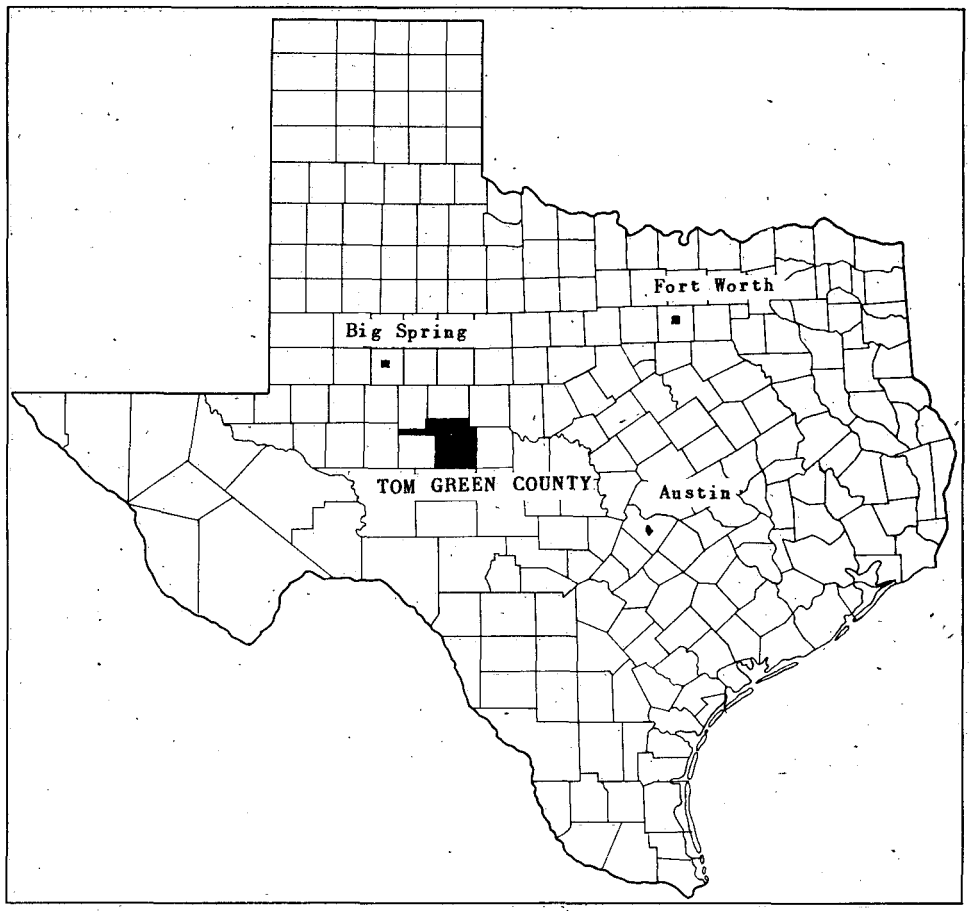

FIGURE 1.- Map of Texas showing location of Tom Green County.

George G. Henderson (1928) made a study of the geology of Tom Green County, and a report on this study was published by the Bureau of Economic Geology of the University of Texas.

ACKNOWLEDGMENTS

The author expresses appreciation for the cooperation and assistance of oil companies, well drillers, and well owners in obtaining field data and to the city of San Angelo for furnishing office space during part of the time that field work was in progress. Thicknesses of some geologic units and descriptions of some of the lithology were obtained from the published report by Henderson (1928).

TOPOGRAPHY

RELIEF

Hilly areas, plains, and river valleys are the three types of topography present in Tom Green County. Hilly remnants of a northward extension of the Edwards Plateau cover much of the northern, western, and southern parts of the county. Plains lie east of San Angelo from the northern boundary of the county southward to the base of the hills of the Edwards Plateau. That portion of the plains south of the Concho River is known as Lipan Flat. (See pl. 1.) River-valley flats lie along the Concho River and its main tributaries, the North, Middle, and South Concho Rivers. The highest point in the county is near the southwest corner where the altitude is approximately 2,550 feet. The lowest point is in the bed of the Concho River at the Tom Green-Concho County line, where the altitude is approximately 1,650 feet.

DRAINAGE

The principal streams in the county are the Concho River and its main tributaries, the North Concho, Middle Concho, and South Concho Rivers. The Concho River is formed by the confluence of these main tributaries in San Angelo. Several tributaries of the Middle Concho and the South Concho Rivers in the southwestern and southern parts of the county are fed by springs that flow from crevices in Cretaceous limestone. The yields of these springs decrease in droughts and increase after rainy seasons. Much of the water from the springs sinks into gravel along the streams, and some of the water is retained in small reservoirs for livestock use. Most of the tributaries of the rivers are dry during the greater part of the year.

Lake Nasworthy is the reservoir for the municipal water supply of San Angelo. The lake is at the confluence of the Middle and South Concho Rivers about 3 miles south of the city limits of San Angelo. The nominal initial capacity of the lake was 14,040 acre-feet. The Soil Conservation Service, in 1938, estimated that the average loss of storage from siltation for a period of 8.2 years was 1.26 percent per year. On this basis about a quarter percent of the reservoir was filled with silt between 1930 and 1950.

San Angelo Dam across the North Concho River was constructed for flood control and conservation of water. The dam, which lies along the northwestern edge of San Angelo was completed in 1951. The reservoir behind the dam has a capacity of 277,000 acre-feet in the flood-control pool, 80,400 acre-feet in the conservation pool, and 33,900 acre-feet in the dead-storage pool. The total temporary capacity of the reservoir is 391,500 acre-feet. A part of the water in the conservation pool will be used as a supplementary supply for municipal and industrial use in San Angelo.

CLIMATE

The climate of Tom Green County is semiarid to subhumid. Precipitation records of the United States Weather Bureau from the station at San Angelo for the period 1908-50 are given in table 1 and figures 2 and 3. The average annual precipitation is 20.78 inches, and about 85 percent of the precipitation falls between mid-March and mid-November. On the average, rain or snow falls during all or parts of 42 days a year. Freezing temperatures occur at intervals between mid-November and mid-March.

Table 1.- Monthly precipitation at San Angelo, Tom Green County, Texas
(From U. S. Weather Bureau records except for 1941 which is an unofficial record)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1908	0.28	0.32	1.23	6.54	1.59	1.33	2.64	3.53	1.65	1.20	2.32	T	22.63
1909	.10	.02	.11	.10	2.90	1.80	2.46	.92	1.80	2.84	1.62	1.15	15.82
1910	.60	.15	1.18	2.00	.82	.94	.08	T	2.19	1.88	T	.40	10.24
1911	.17	3.63	.83	3.08	.04	.97	4.80	7.31	2.15	1.06	.63	5.96	30.63
1912	T	2.06	.40	1.49	1.12	1.62	.28	2.90	T	.92	2.02	2.07	14.88
1913	.44	.80	.30	1.65	5.67	4.60	.60	1.75	1.57	3.19	7.02	1.95	29.54
1914	T	.01	.17	1.20	5.56	1.84	2.69	7.69	.20	4.50	3.34	.21	27.41
1915	1.32	.95	.30	6.40	2.43	.47	1.60	1.34	8.27	0	T	.40	23.48
1916	.31	0	T	3.62	1.60	2.82	1.04	1.06	2.56	1.33	.03	.04	14.41
1917	.50	.10	.22	.55	2.81	.90	.90	.41	1.90	T	T	T	8.29
1918	.46	.41	.25	T	3.88	.35	.10	.25	.80	4.74	1.48	2.55	15.27
1919	5.41	.68	2.41	1.85	3.87	6.13	3.32	2.83	6.57	4.89	2.28	.64	40.88
1920	2.43	.35	.26	0	1.96	4.28	.59	6.29	1.65	1.74	.83	.13	20.51
1921	.33	.77	2.66	.62	2.20	3.89	.17	.82	.70	T	T	.15	12.31
1922	.41	.10	.12	6.07	5.33	2.13	3.40	.03	1.69	2.08	1.28	T	22.64
1923	2.64	3.97	1.41	2.44	1.61	.55	1.08	2.04	1.67	2.78	2.99	.81	23.99
1924	.12	2.07	1.33	.25	4.50	T	T	.23	1.68	1.09	0	2.23	13.50
1925	.10	.24	T	4.14	4.06	2.23	3.23	6.34	3.28	1.87	1.55	.05	27.09
1926	2.62	0	3.75	4.57	2.14	2.07	2.69	3.18	1.30	3.42	0	5.45	31.19
1927	.34	2.72	1.27	.18	2.28	1.84	.76	1.44	3.32	5.98	T	1.06	21.19
1928	.82	1.42	.68	.91	3.65	3.55	2.02	1.81	4.08	1.22	1.15	1.38	22.69
1929	.35	.66	2.41	1.97	3.43	.96	.57	.54	1.99	2.99	.06	.70	15.56
1930	.44	T	.34	2.50	1.64	1.40	.15	1.05	.76	7.77	2.15	1.01	19.21
1931	1.79	2.09	.39	2.50	.91	.33	1.63	.40	.67	2.08	1.88	1.29	15.96
1932	1.05	2.86	.49	1.97	7.09	3.70	1.48	2.26	8.57	.36	.33	2.41	32.57
1933	.30	.72	.24	.20	2.09	T	.50	1.62	.37	1.11	.95	.47	8.57
1934	.98	.20	2.76	3.68	.22	.92	T	2.44	.08	.28	4.72	.12	16.40
1935	.07	2.24	.08	1.41	4.87	4.27	4.76	1.88	5.35	1.44	.86	.68	27.91
1936	.18	T	.33	.59	3.86	.11	3.56	.08	27.65	2.26	.59	1.25	40.40
1937	.39	.40	1.39	.64	4.60	3.49	2.14	.80	4.60	1.93	.89	2.90	24.17
1938	1.82	.36	.78	4.95	2.27	1.17	3.71	T	.13	.63	.73	.87	17.42
1939	1.56	.10	.41	1.56	2.83	.68	1.89	2.89	.55	1.55	2.55	.88	17.45
1940	.38	1.61	.67	2.50	3.05	6.75	.75	.95	1.58	3.31	3.11	.55	25.21
1941	1.79	.59	2.20	3.55	5.94	4.54	1.18	3.01	3.25	5.45	.26	.91	32.67
1942	-	-	-	3.62	3.82	1.95	.90	6.05	2.08	5.25	.15	2.00	25.82
1943	.27	.14	1.13	.37	3.08	.66	1.07	.28	2.79	.43	2.68	1.71	14.61
1944	2.70	.49	.05	.32	4.38	.17	T	3.39	4.25	1.20	.77	1.79	19.51
1945	.43	1.39	.95	3.43	.78	1.31	4.11	1.16	1.86	3.12	.14	.29	18.97
1946	2.01	T	.38	.96	.12	.97	.10	.17	2.45	1.39	.80	1.49	10.84
1947	1.96	.16	1.37	1.92	3.06	1.78	.11	.30	0	1.15	.89	.76	13.46
1948	.21	.87	.02	1.07	1.77	1.82	3.44	.16	1.10	1.42	.49	.14	12.51
1949	2.21	1.77	1.02	4.42	2.42	2.73	.78	1.52	2.37	3.75	0	1.52	24.51
1950	.37	.34	.05	1.89	3.70	1.28	.84	2.44	4.30	.06	0	T	15.27
Average	.97	.90	.87	2.18	2.93	1.98	1.58	1.99	2.93	1.99	1.25	1.17	20.78

T, trace.

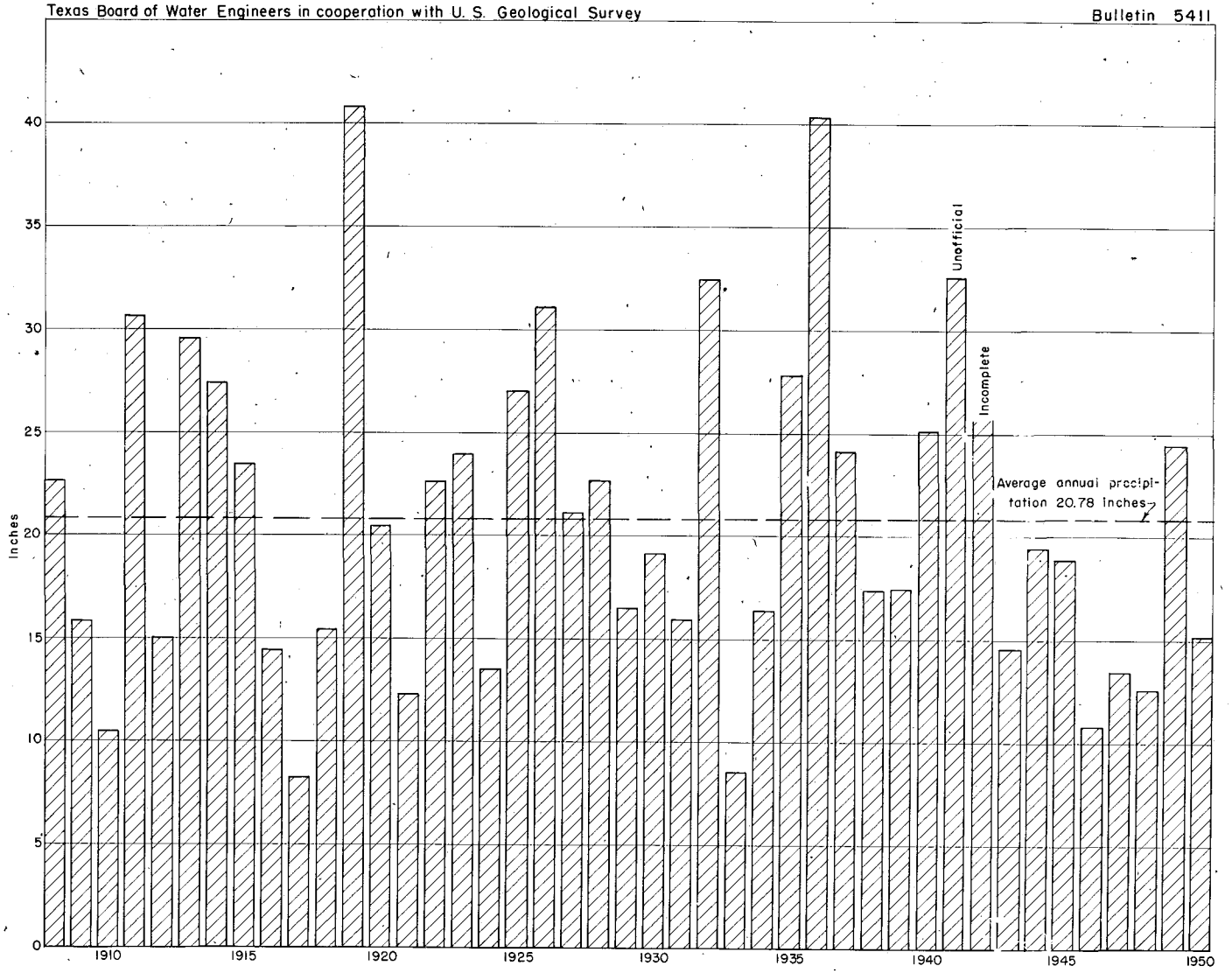

FIGURE 2.—Annual precipitation at San Angelo, 1908–50.

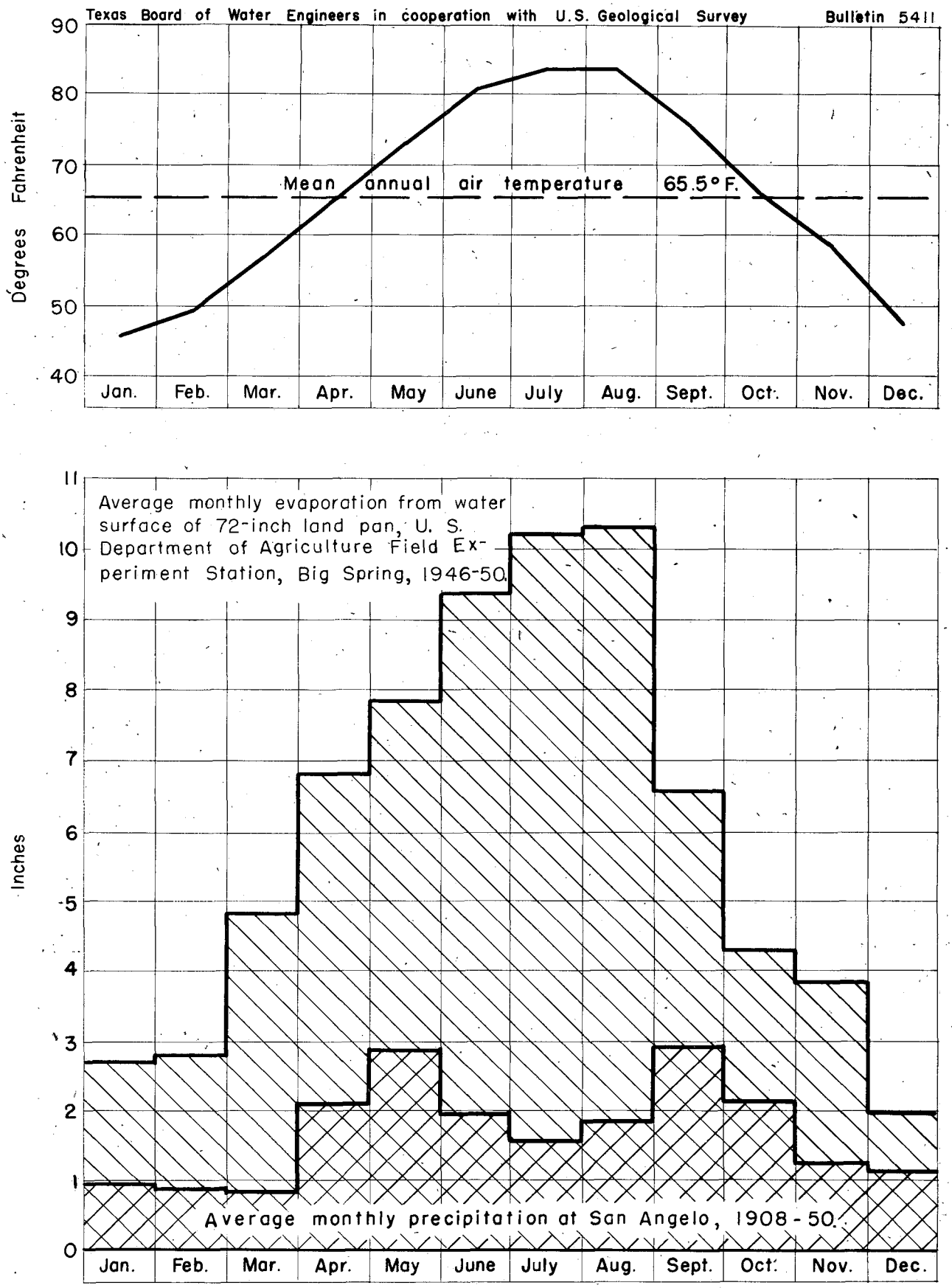

FIGURE 3.— Average monthly precipitation and temperature at San Angelo and average monthly evaporation near Big Spring, Tex.

The records show that May and September are the months in which the largest amounts of precipitation fall; however, even though the greater part of the precipitation falls during the crop-growing season, many individual rains are small. The loss of soil moisture by evaporation and transpiration of plants is rapid in the summer, especially when there are hot, dry southwesterly winds. As a result of these conditions, supplemental irrigation is desirable. Figure 3 shows the average monthly precipitation and temperature at San Angelo and the average monthly rate of evaporation from a 72-inch land pan at the U. S. Department of Agriculture's Experiment Station near Big Spring, Tex., which is about 80 miles northwest of San Angelo. The average annual evaporation from the pan is 71.5 inches.

The maximum, average, and minimum monthly precipitation is shown in figure 4, and the cumulative departure from average precipitation is shown in figure 5.

GEOLOGY

Rock formations exposed in Tom Green County are of sedimentary origin. The oldest of these belong to the Permian system and are exposed in some parts of the plains and river-valley areas of the county. The regional dip of the Permian rocks is westward approximately 50 feet to the mile. The hilly remnants of the Edwards Plateau are composed of rocks in the Cretaceous system, which dip southeastward at a very low angle. Older Quaternary alluvium (the Leona formation) covers the Permian rocks in most of the plains area, and younger Quaternary alluvium is present in the stream valleys.

Rocks in the county older than those exposed are not known to contain potable water. No water wells in the county penetrate these older rocks.

Geologic formations, together with their chief characteristics and water-bearing properties, are shown in table 2. The outcrops of geologic formations in Tom Green County are shown on plate 1, and cross sections of these formations along lines X-X', Y-Y', and Z-Z' are shown on plate 2.

PERMIAN SYSTEM

CLEAR FORK GROUP

Arroyo formation.- The basal unit of the Clear Fork group is the Arroyo formation. According to Sellards (in Sellards, Adkins, and Plummer, 1932) the thickness of the Arroyo formation is 260 feet at its type locality near Ballinger in Runnels County. The formation consists chiefly of light-to dark-gray and black shale, but it also contains beds of light-to dark-gray limestone, generally 1 foot to 3 feet in thickness. The upper 15 feet of the formation is the Standpipe limestone member, a yellowish and light-gray marly limestone which it covered along most of its outcrop.

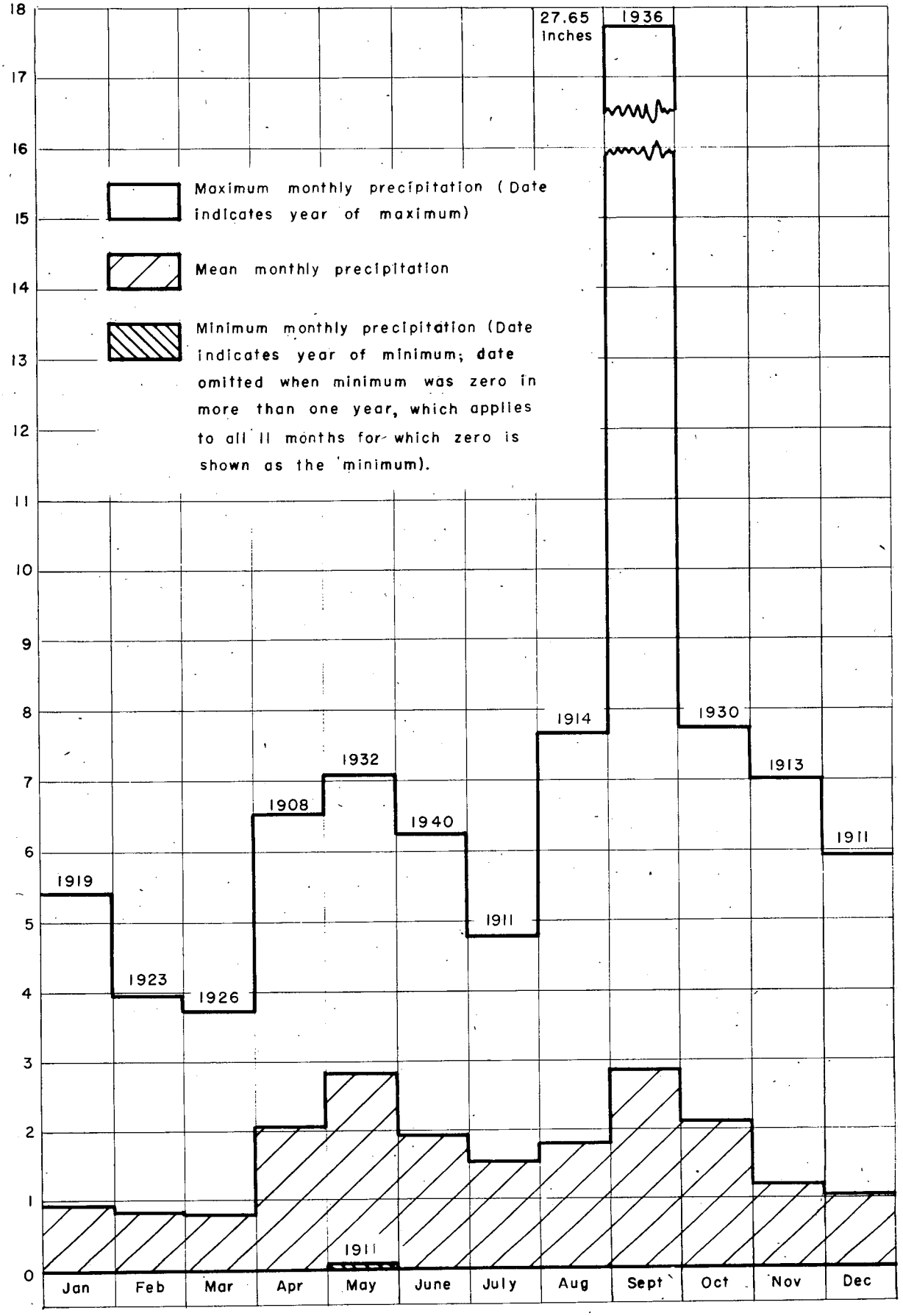

FIGURE 4.- Maximum, average, and minimum monthly precipitation at San Angelo, Tex.

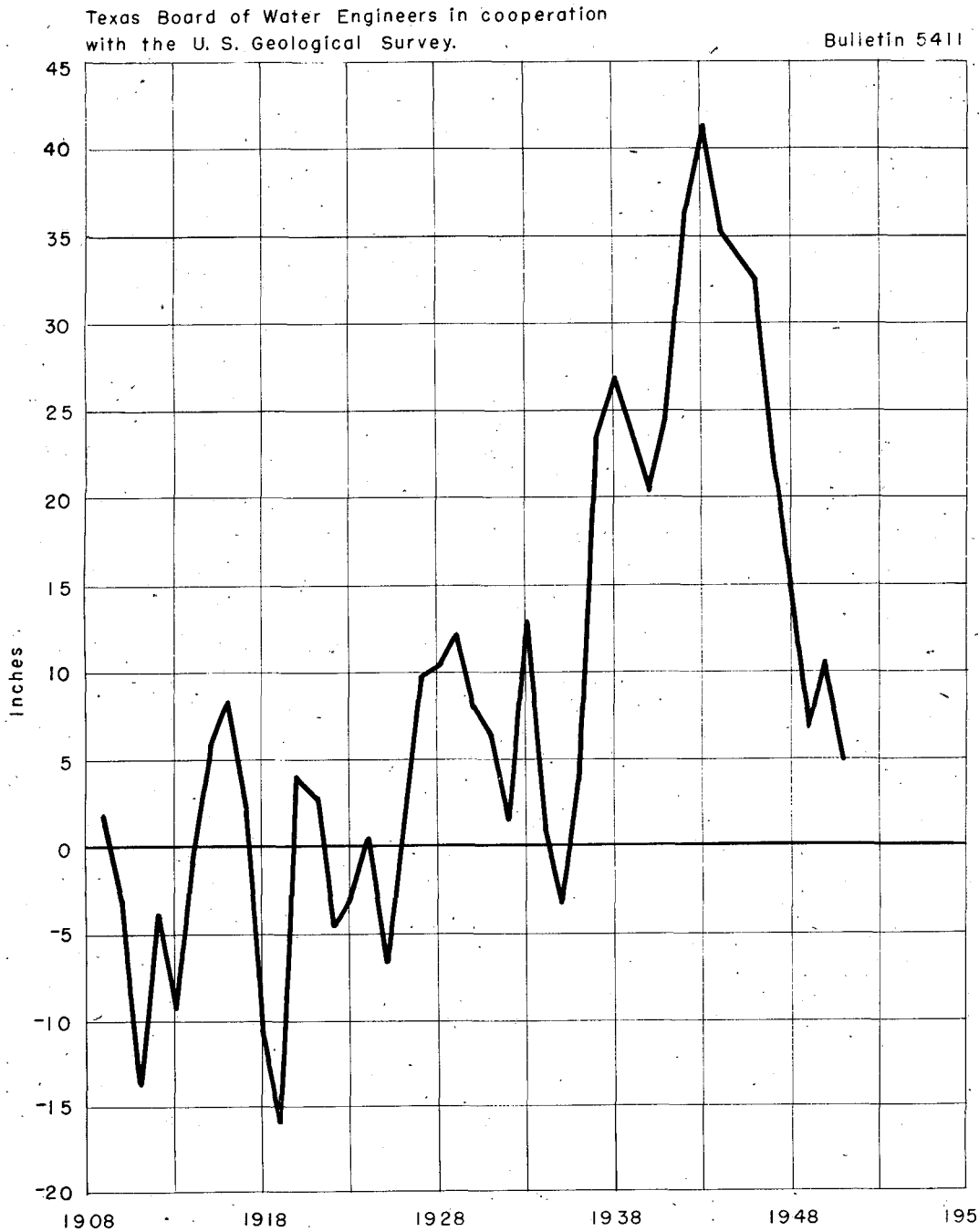

FIGURE 5.- Cumulative departure from average precipitation at San Angelo, Tex.

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Table 2.- Geologic formations in Tom Green County, Tex.

System	Series and group		Formation	Thickness in feet	Description of rocks	Topographic expression	Water-bearing characteristics
Quaternary	Recent		Alluvium	0- 40	Stream-channel deposits of clay, silt sand, gravel and caliche	Terraces and sand and gravel bars in creek and river channels.	Yields small quantities of potable water for domestic and stock use.
			Unconformity				
	Pleistocene		Leona formation	0-125	Gravel and creviced conglomerate of limestone and flint fragments cemented with sandy lime or caliche and some layers of clay.	Extensive flat terrace.	Yields potable water in sufficient quantities for irrigation where there are suitable saturated thicknesses of permeable material.
			Unconformity				
Cretaceous	Comanche series	Washita group	Undifferentiated	20+	Argillaceous limestone and a few porous chalky layers.	Caps of highest hills and divides.	No water supply.
		Fredericksburg group	Edwards limestone	50-200	Massive, resistant limestone and a few porous chalky layers. Contains numerous flint nodules.	Caps of hills and divides.	No water supply.
			Comanche Peak limestone	100	Massive resistant limestone. A few soft chalky and sandy layers.	Steep slopes of hills.	Yields potable water in wells in the hilly area in the southern part of the county. Source of water for major springs in the hilly area.
			Walnut clay	5- 15	Yellowish-sandy marl and clay.	Gentle slopes of hills.	No water supply.
		Trinity group	Undifferentiated	20-103	Unconsolidated sands, concretionary sandstones, and clays. Conglomeratic at base.	Lower slopes of hills generally covered by alluvium and slump from overlying rocks.	Yields small amounts of potable water in the southwest, northwest, and north-central parts of the county.
			Unconformity				
Permian	Pease River group		Blaine gypsum	80-300	Red, brown, and cream-colored sandstone, somewhat limy, gypsiferous, and pyritic; and red, maroon, blue, and green sandy clay.	Weathered slopes in many places covered by alluvium and slump from overlying Cretaceous rocks.	Yields small amounts of highly mineralized water.

Table 2.- Geologic formations in Tom Green County--Continued

System	Series and group	Formation	Thickness in feet	Description of rocks	Topographic expression	Water-bearing characteristics
Permian	Pease River group	San Angelo sandstone	250	Brick-red sandstone clay. Some thin white sandstone seams, some gypsum, little or no mica, and one thin fossiliferous dolomite. Conglomeratic at base.	Low hills and slopes of hills in north-central part of the county.	Yields small amounts of highly mineralized water.
		Unconformity				
	Clear Fork group	Choza formation	625	Gray dolomitic limestone fossiliferous in places, red, green, blue and yellow clay. Some silty clay layers.	Plain covered by Leona formation south of the Concho River. Low hills north of the Concho River.	Yields small amounts of highly mineralized water from layers of dolomitic limestone. Source of water for a few small irrigation wells.
		Bullwagon dolomite member	75	Massive yellowish to gray dolomitic limestone, and green and red shale layers. Two of the dolomitic limestone layers about 10 feet thick are separated by about 3 feet of green shale. Lower layer of dolomitic limestone is an artesian aquifer.	Low ridge trending north-south across Lipan Flat.	Yields potable water in amounts from 100 to 1,000 gpm for irrigation in a narrow area west of its outcrop.
		Vale formation	140	About 8 feet of greenish shale at the top. Red, sandy, and gypsiferous shale and thin streaks of green shale.	Plain covered by soil and alluvium.	No water supply.
		Standpipe limestone member	15(?)	Yellowish to light-gray marly limestone.	Plain generally covered by soil and alluvium	Yields small amounts of potable water near its outcrop.
		Arroyo formation	60+	Alternating light to dark-gray and black layers of shale and fossiliferous limestone.	Plain covered by soil and alluvium.	Yields small amounts of moderately to highly mineralized water from layers of limestone.

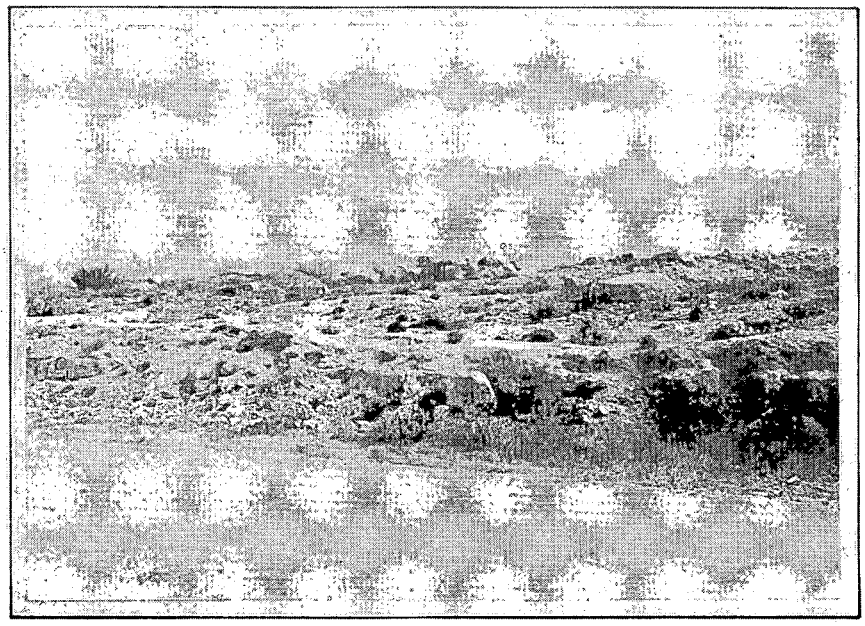
The Arroyo formation crops out in eastern Tom Green County and in western Concho County. About 60 feet of the upper part of the formation crops out in Tom Green County. The outcrop is covered by alluvium and soil except in the Concho River valley and in a few creek valleys.

Limestone beds of the Arroyo formation yield meager supplies of moderately to highly mineralized water to wells. No irrigation wells draw water from the formation, and the taste of the water makes it generally undesirable for drinking. (See J-64, and N-31, table 5.)

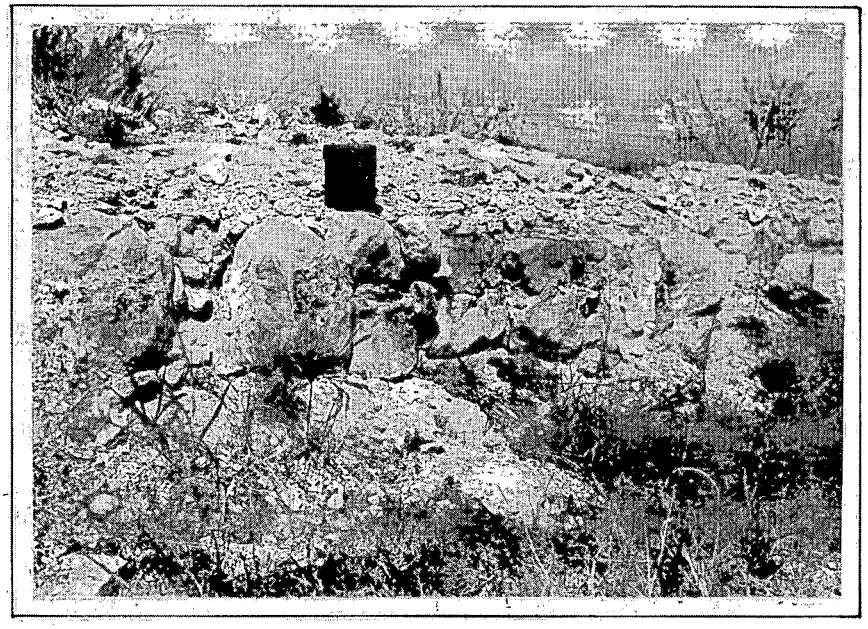
Vale formation.- The Vale formation lies conformably on the Arroyo formation. The thickness of the formation in Tom Green County is about 215 feet. The formation consists of two parts, about 140 feet of red shale, red sandy shale, and greenish shale in the lower part, and about 75 feet of dolomitic limestone and thin layers of green shale in the upper part. The outcrop of the formation trends north-south in a belt about 3 miles to 5 miles in width in the eastern part of the county. Soil and alluvium cover the shaly portion of the Vale formation along its outcrop, and wells that penetrate this shale yield meager supplies of water.

The upper part of the Vale formation is the Bullwagon dolomite member. (See fig. 6, A and B.) Many domestic and irrigation wells draw water from the Bullwagon near the outcrop. A few miles northeast of Veribest there is an area approxinately 1½ miles wide and 6 miles long in which water in the lower 15 to 20 feet of the member is under artesian pressure. Irrigation wells that penetrate the artesian portion of the Bullwagon dolomite member were yielding from 100 to 1,000 gallons a minute in the early part of 1951. Little is known about the water-bearing properties of the Bullwagon down dip from the outcrop at distances greater than 3 or 4 miles. Analyses of water from irrigation wells that penetrate the Bullwagon show that the quality of the water near the outcrop is satisfactory for irrigation, domestic, and livestock use.

Choza formation.- The Choza formation is the uppermost unit of the Clear Fork group. It is about 625 feet thick and is composed of red, green, blue, and yellow shale and silty clay and beds of gray dolomitic limestone. The shale and clay layers make up most of the formation. Most of the dolomitic limestone beds range from a few inches to about 2 feet in thickness. Beds 5 to 15 feet thick, however, occur about 30 to 50 feet below the top and also near the base of the formation. Most of the outcrop of the Choza formation is covered by the Leona formation or younger alluvium; therefore, it has not been studied in detail. The Choza formation trends north-south in a belt 10 to 14 miles wide in the eastern part of the county. A few of the irrigation wells southeast of San Angelo yield 100 to 200 gallons of water a minute from the dolomitic limestone beds, but the formation as a whole yields small quantities of moderately to highly mineralized water to domestic and livestock wells. It was reported that flowing water was encountered in dolomite of the Choza formation in an oil-test well (K-12) about 2 miles south of Tankersley. The flow was reported to be 400 barrels in 45 minutes. (373 gpm.) The water contained hydrogen sulfide gas and 45,000 parts per million of chloride.



A.- Road cut in the Bullwagon.



B.- Massive bedding in the Bullwagon.

FIGURE 6.- Bullwagon dolomite member of the Vale formation, 3½ miles west of Mereta.

PEASE RIVER GROUP

San Angelo sandstone.- The San Angelo sandstone is the basal formation in the Pease River group and lies unconformably on rocks in the Clear Fork group. (See fig. 7 A and B.) The formation is about 250 feet thick in Tom Green County. The formation is composed of reddish-brown conglomerate at the base, brick-red sandstone, a few thin beds of white sandstone, red clay, and gypsum interbedded with layers of clay.

The San Angelo sandstone is exposed in a belt half a mile to 4 miles wide extending north-south through San Angelo, and the type locality (Cummings and Lerch, 1891) of the formation is the area adjacent to the southwestern part of San Angelo. (See pl. 1.)

Ground water in the sandy beds of the San Angelo sandstone generally is highly mineralized. However, on the outcrop of the formation, or in places where the outcrop is covered by several feet of alluvium, a few wells yield water that is suitable for livestock.

Blaine gypsum.- The Blaine gypsum is the only other unit of the Pease River group exposed in Tom Green County. Unconformities separate the Blaine from the underlying San Angelo sandstone and overlying younger rocks. The formation ranges in thickness from 80 to 300 feet and is composed of red, brown, and cream-colored limy, gypsiferous, and pyritic sandstone beds, and layers of red, maroon, blue, and green sandy clay. The formation is exposed northwest of Lake Nasworthy, at Monument Mountain south of Water Valley, and in small draws along the south bank of the North Concho River (see pl. 1). Elsewhere in Tom Green County the Blaine gypsum is covered by younger rocks or is obscured by soil and vegetation. Wells that penetrate the Blaine gypsum yield small quantities of highly mineralized water.

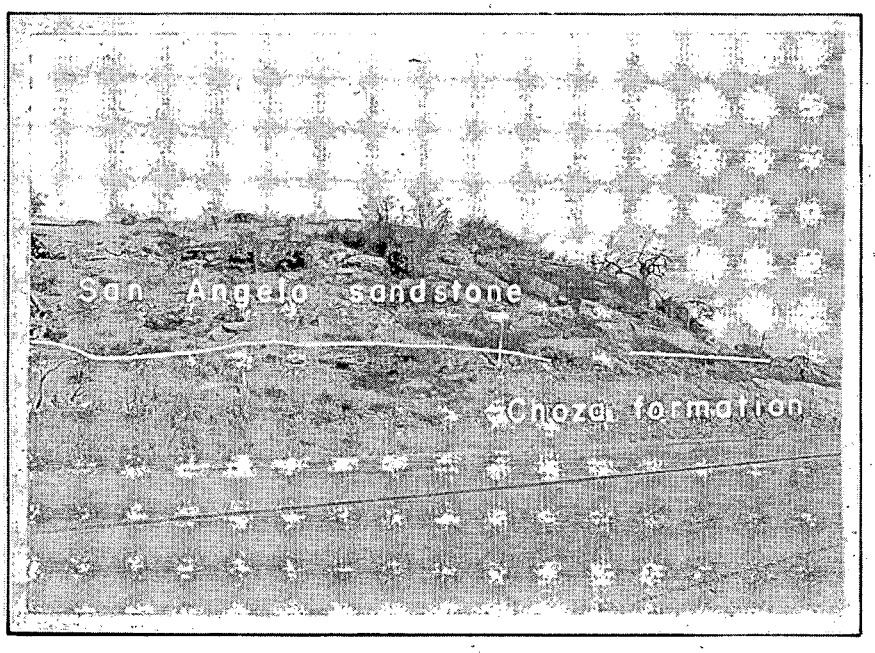
CRETACEOUS SYSTEM

COMANCHE SERIES

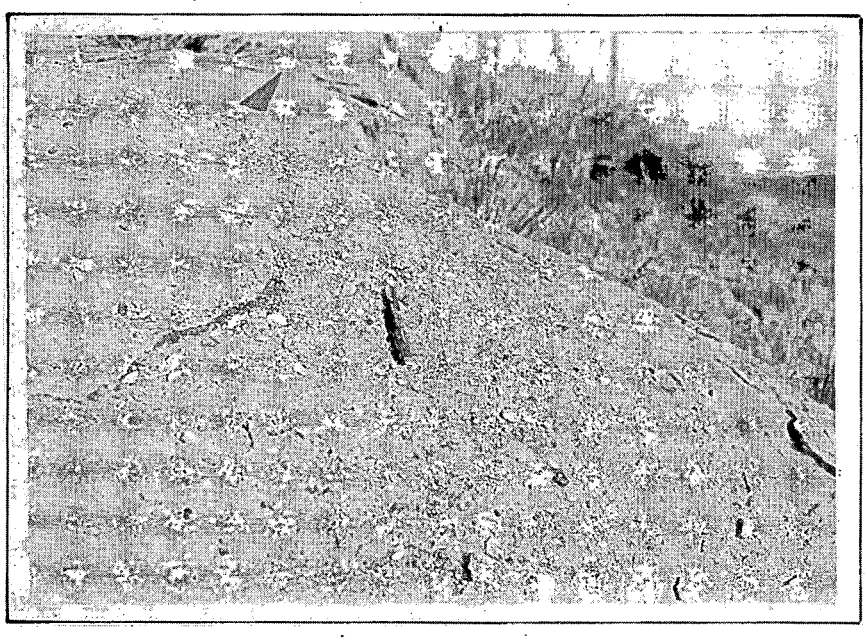
The Comanche series is the provincial series of Lower and Upper Cretaceous rocks of marine origin present in the Southwestern States. The series consists of the Trinity, Fredericksburg, and Washita groups.

TRINITY GROUP

The Trinity group in central Texas includes the Travis Peak formation, the Glen Rose limestone, and the Paluxy sand. The rocks in the Trinity group in Tom Green County, however are not divisible into separate units. Henderson (1928, p. 23-26) referred to the rocks in the Trinity group as the Trinity division.



A.- San Angelo sandstone resting on Choza formation.



B.- Conglomerate near base of San Angelo sandstone.

FIGURE 7.- San Angelo sandstone, west side of State Highway 70, 7 miles north of San Angelo.

Rocks in the Trinity group lie unconformably on Permian rocks and underlie rocks in the Fredericksburg group. From 20 to 103 feet of basal conglomerate, poorly consolidated sand, concretionary sandstone, and clay crop out on the lower slopes of the hilly areas in the county. The outcrop is covered by alluvium and soil in many places, making it difficult to trace. An exposure of sand, clay, and conglomerate about 2½ miles southeast of the point where State Highway 277 crosses Pecan Creek, between San Angelo and Christoval was described as the Trinity division by Henderson (1928, p. 24). The present writer found no other exposures in Tom Green County east of this point. Drillers' logs of wells P-14 and Q-13 show 3 and 35 feet of sand, respectively, at depth where rocks in the Trinity group should be present. Drillers' logs of wells R-1 and R-4, however, show no sand at these depths.

Rocks in the Trinity group yield water of good quality to domestic and livestock wells throughout the hilly areas in the western part of the county. Adequate supplies of water for domestic and livestock purposes are obtained from the rocks above the Trinity group in the southern part of the county.

FREDERICKSBURG GROUP

Walnut clay.- The Walnut clay is the basal formation of the Fredericksburg group, and in Tom Green County it consists of 5 to 15 feet of yellowish sandy marl and clay. Poor exposures of the Walnut clay are present on the lower slopes of the hilly areas in road cuts and in the narrow valleys of small draws. The formation yields no water.

Comanche Peak limestone.- The Comanche Peak limestone, which lies above the Walnut clay, is about 100 feet thick and is composed of soft yellowish chalky and sandy limestone in the lower part and massive, more resistant beds of limestone in the upper part. The more resistant beds of limestone form the peaks of the lower hills in the hilly areas of the county. The chalky layers in the lower part of the formation and the underlying Walnut clay retard the downward movement of ground water. The springs in the southern part of the county are contact springs that flow from crevices in the massive beds of limestone above the chalky beds. Many of the wells in the hilly areas draw water from the massive beds of limestone.

Water from the Comanche Peak limestone contains less dissolved solids than the water from any of the other water-bearing strata in the county.

Edwards limestone.- The Edwards limestone is the uppermost unit of the Fredericksburg group. The formation ranges from about 50 feet to 200 feet in thickness and consists of massive, resistant grayish limestone and a few beds of porous, chalky limestone. The beds of limestone contain numerous flint nodules, and some of the beds weather into irregularly shaped honeycomb rocks. The Edwards limestone forms the caps and divides of many of the higher parts of the hilly areas. Its topographic position is high, and it has no impervious rocks at its base to prevent the downward movement of water through its crevices and

joints into the Comanche Peak limestone; therefore, the Edwards limestone and the Comanche Peak limestone are one hydrologic unit. The Edwards is porous and permeable, and therefore, aids in recharging the underlying ground-water reservoir, but is itself of little importance as a water-bearing rock in Tom Green County.

WASHITA GROUP

Rock strata in the Washita group consist of argillaceous limestone, chalky limestone, and marl. Thin remnants of these strata cap the highest hills and divides in the southern part of the county. The Washita group does not contain water-bearing strata in Tom Green County.

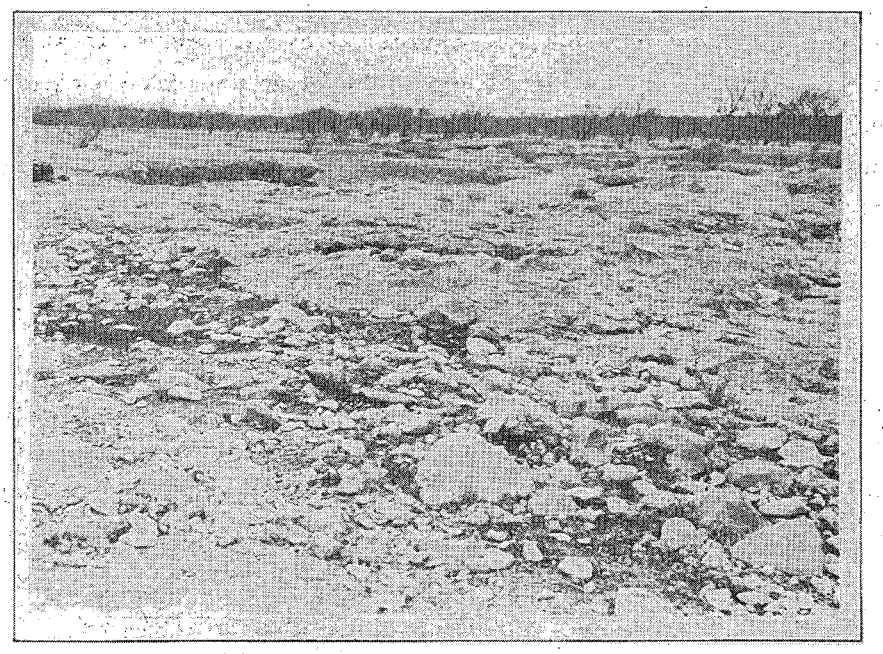
QUATERNARY SYSTEM

PLEISTOCENE SERIES

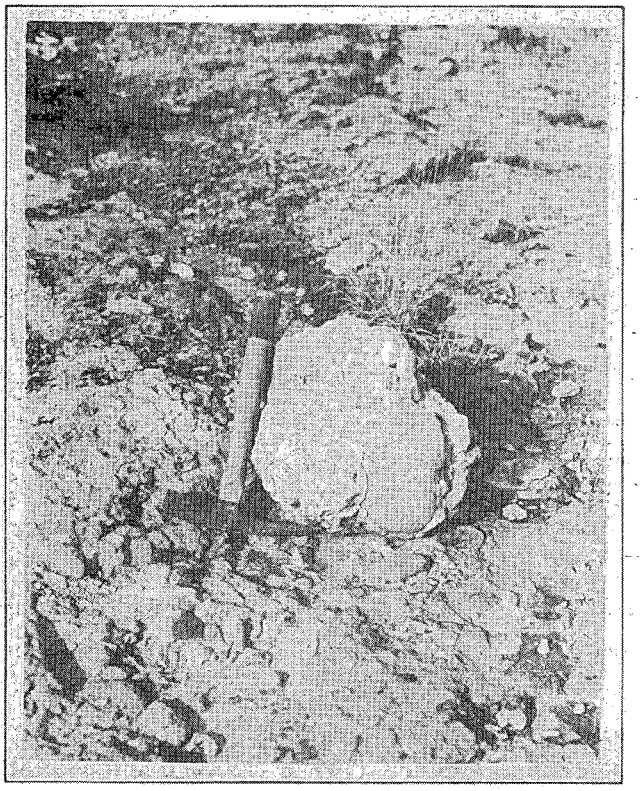
Leona formation. - The conglomerate along the Concho River and its tributaries was classified as Pleistocene by Henderson (1928, p. 32-33). The Pleistocene alluvium in Tom Green County consists of rock materials derived principally from the Cretaceous rocks of the Edwards Plateau. The alluvium was deposited on the eroded surfaces of the Permian rocks over about 400 square miles in the plains areas of the county. The thickness of the alluvium ranges from a few feet to about 125 feet. The alluvium is composed of discontinuous beds of poorly sorted, rounded to subangular gravel, conglomerate, sand, silty clay, and caliche. The particles of gravel are composed of limestone and flint, some of which contain fragments of Cretaceous fossils.

The deposits of Pleistocene alluvium in Tom Green County are similar in origin, composition, and topographic position to the Leona formation of Hill and Vaughn (1898, Part II, p. 253-254, 275-276), which is of Pleistocene age. The type locality of the Leona formation is along the Leona River in Uvalde and Zavala Counties in the southern part of Texas. According to Plummer (in Sellards, Adkins, and Plummer, 1932, p. 796), the Leona formation is present in terrace deposits along the principal streams of Texas. The name Leona formation is here considered to apply to the alluvium of Pleistocene age in Tom Green County.

The more prominent exposures of the Leona formation in Tom Green County are along the northern edge of Lipan Flat on the south bank of the Concho River and along the banks of the North Concho River in San Angelo. (See fig. 8, A and B.) In these places the formation is a conglomerate forming a terrace 5 to 50 feet above the younger deposits in the river channels.



A.- Leona formation, north side of State Highway 380, 6 miles east of San Angelo.



B.- Gravel and boulders in Leona formation at U. S. Geological Survey stream-gaging station on Concho River near Bell Street Bridge.

FIGURE 8.- Leona formation in and near San Angelo.

Most of the irrigation wells in the vicinity of Wall and Veribest and in the Lakeview area draw water from the more permeable layers of gravel and creviced conglomerate. Yields of irrigation wells in the vicinity of Wall and Veribest range from about 100 to 700 gallons a minute, and in the Lakeview area the yields range from about 50 to 200 gallons a minute. The quality of the water is satisfactory for most purposes.

RECENT SERIES

The channels of rivers and creeks in the county contain deposits of unconsolidated sand and gravel that have been deposited in Recent geologic time and, to a certain extent, are still being transported and redeposited by each flood. The thickness of these deposits ranges from a few feet to about 20 feet. Domestic and livestock wells on the edges of these channels yield potable water.

OCCURRENCE OF GROUND WATER

The fundamental hydrologic principles relating to underground water have been presented in numerous papers of the U. S. Geological Survey, by Meinzer (1923a, 1923b, 1931, 1942) and many others. The following discussion pertains to the source, and occurrence, recharge, and discharge of water in the important water-bearing strata in Tom Green County.

SOURCE AND OCCURRENCE

Ground water is derived from precipitation on the land surface. Records show that a large part of the precipitation at San Angelo falls in rainstorms of short duration from May through September. A part of the rainfall runs off in streams, a part returns to the atmosphere by evaporation and transpiration through plants, and a relatively small part moves downward through the soil and the openings in the rocks to become ground water, which is eventually discharged by evapotranspiration or by seeping into streams. When the period of rainfall lasts for several days, and the total amount is several inches, conditions are more favorable for recharge to the ground water reservoir. For example, several wells in Lipan Flat had a slight rise or very little decline in water levels after the wet spring of 1949. (See wells J-35, and J-75, fig. 9.)

Nearly all rocks that make up the outer crust of the earth contain some openings through which water will pass. The beds of limestone and beds of conglomerate contain water in fractures, in spaces between beds, and in solutional channels. Beds of sand and gravel contain water between the particles of rock.

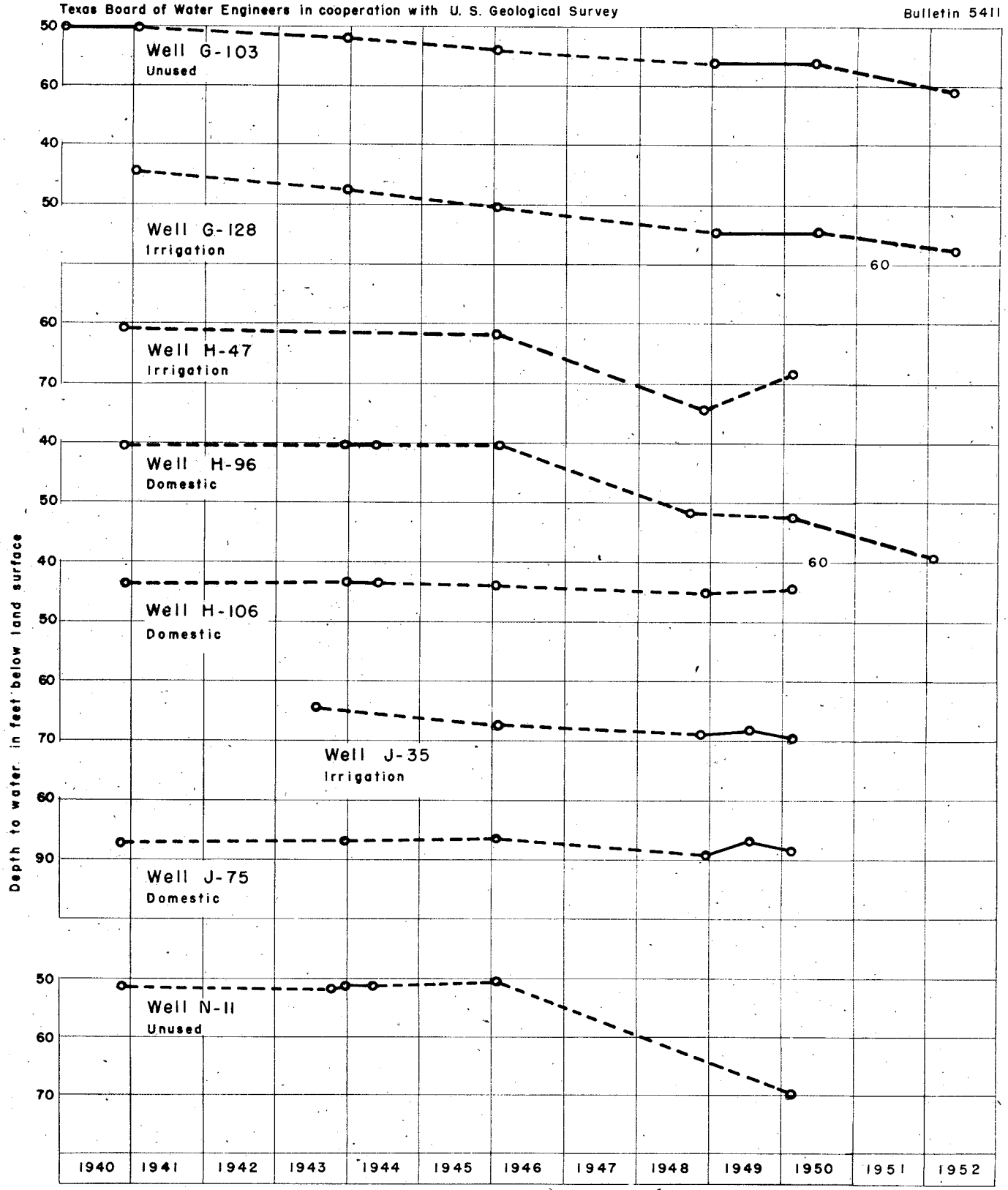


FIGURE 9.- Hydrographs of observation wells in Tom Green County, Tex.

RECHARGE

Recharge of ground water is the process by which water is absorbed and added to the zone of saturation. Most of the water-bearing rocks in the county receive recharge from local precipitation after periods of above-normal rainfall. Water penetrates the soil and porous beds of rock exposed on the surface and in the channels of streams.

DISCHARGE

Water in the zone of saturation flows under the influence of gravity to some place of discharge at a lower altitude, a spring, a seep, a flowing well, or an area where the water can evaporate or be drawn out by plants, or a pumped well. Over a long period of time the amount of water that enters the zone of saturation is balanced by the amount that is discharged from it. Artificial withdrawal of ground water diverts water that otherwise would discharge naturally. Under certain conditions the withdrawal from wells may provide an opportunity for increased replenishment as well as decreased natural discharge. To be permanent, however, any artificial withdrawal eventually must be balanced by decreased natural discharge, increased recharge, or a combination of the two.

Natural discharge takes place by evaporation and transpiration where the water table is near the surface. Where the land surface intersects the water table, water is discharged through springs and seeps.

Water is withdrawn from wells in nearly all parts of the county; however, irrigation wells in the Lakeview area and in Lipan Flat account for most of the pumpage from the ground-water reservoirs of Tom Green County. In general, the greater declines in water levels have occurred in the irrigated areas.

QUALITY OF WATER

Chemical analyses of water from 228 wells and 7 springs in Tom Green County are given in table 5. Analyses of ground water are made to determine the dissolved mineral content so that the users may determine whether the water is suitable for specific purposes.

Ground water for municipal supplies is commonly rated in accordance with the limits set by the United States Public Health Service for water used by common carriers in interstate commerce. The average individual can become adjusted to drinking water considerably higher in concentration than set by these standards, although temporary physiological disturbances may result when such water is first used. In many parts of western Texas water that meets all these suggested limits cannot be obtained, and many communities use ground water that contains certain minerals far in excess of the suggested standards. The suggested limits of the more important minerals commonly found in solution are as follows:

Iron (Fe) and Manganese (Mn) together should not exceed 0.3 part per million.

Magnesium (Mg) should not exceed 125 parts per million.

Chloride (Cl) should not exceed 250 parts per million.

Sulfate (SO_4) should not exceed 250 parts per million.

Fluoride (F) should not exceed 1.5 parts per million.

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

Analyses of ground water from the county show that all the water may be classified as hard. The following table (Babbit and Doland, 1929) gives the relative hardness of water as classified for municipal use.

Relative hardness	Very soft	Soft	Moderately soft	Moderately hard	Hard	Very hard	Excessively hard
Parts per million hardness	30	45	90	110	130	170	230

In considering the chemical quality of water for irrigation, the following table from Magistad and Christiansen (1944) may be useful; however, other factors including climatic conditions, soil and subsoil, and quantity of water used may be equally significant.

Standards for irrigation waters

Water class	Conductance (micromhos at at 25° C.)	Salt content (Parts per million)	Salt content (Tons per acre-foot)	Sodium (percent)	Boron (parts per million)
Class 1[a]	1,000	700	1	60	0.5
Class 2[b]	1,000 -3,000	700-2,000	1-3	60-75	.5-2.0
Class 3[c]	3,000	2,000	3	75	2.0

a Excellent to good, suitable for most plants under most conditions.

b Good to injurious, the higher concentrations probably harmful to the more sensitive crops.

c Injurious to unsatisfactory, probably harmful to most crops and unsatisfactory for all but the most tolerant. If a water falls in class c on any basis, conductance, salt content, percentage of sodium, or boron content, it should be classed as unsuitable under most conditions. Should the salts present be largely sulfates, the values for salt content in each class can be raised 50 percent.

Water from the dolomitic limestone beds in the outcrop areas of the formations of the Clear Fork group contains dissolved solids ranging from 300 to 3,900 parts per million. The principal ions present in the water are calcium, bicarbonate, and sulfate, and in general the water is excessively hard.

The outcrop areas of formations in the Pease River group contain water that ranges from 800 to about 52,000 parts per million in dissolved solids. In general, the water in the formations of the Pease River group is highly mineralized.

Water in the formations of the Trinity and Fredericksburg groups contains dissolved solids ranging from 200 to 300 parts per million. The water is hard, but in general it is better in quality than other ground water in the county.

The Leona formation contains water that ranges from 500 to 1,400 parts per million in dissolved solids. The predominant ions in the water are calcium and bicarbonate, and in general the water is excessively hard.

The water in the stream-channel deposits of Recent age contains approximately 200 to 300 parts per million of dissolved solids.

The percentage of sodium is low in most of the ground-water samples in Tom Green County for which it was calculated. Eleven analyses of water from the principal aquifers show a range of 0.18 to 0.77 part per million of boron, which is not excessive for most crops. Analyses for fluoride were made on 67 samples of water and the fluoride content ranges from 0.1 to 3.1 parts per million; however, most of the samples of potable water contain less than 1 part per million of fluoride.

DEVELOPMENT OF GROUND WATER

The first settlers in the territory that comprises the present-day Tom Green County obtained water from springs, creeks, and rivers. In places where there were no springs and where the streams were dry several months of the year, wells were dug by hand into the unconsolidated sand and gravel deposits in the stream valleys. In later years cable-tool drilling rigs that could drill wells faster and deeper were used to drill wells in areas remote from shallow water supplies. Water was obtained from these early wells by bailing or by the use of hand-operated pumps. Windmills also were used at an early date and are still being used to supply power to pump water for domestic and livestock use on many ranches and farms.

About 1924 the Lakeview area north and northwest of San Angelo was developed into small farms and truck gardens. Several irrigation wells were drilled into alluvium in this area and equipped with 4-inch or 6-inch cylinder pumps powered by internal-combustion engines of different types. Some of these wells were drilled in pairs, and the pumps were connected by a line shaft operated by a single engine. (See fig. 10.) Several of these wells were still in operation in 1952, but some of them were powered with small electric motors.

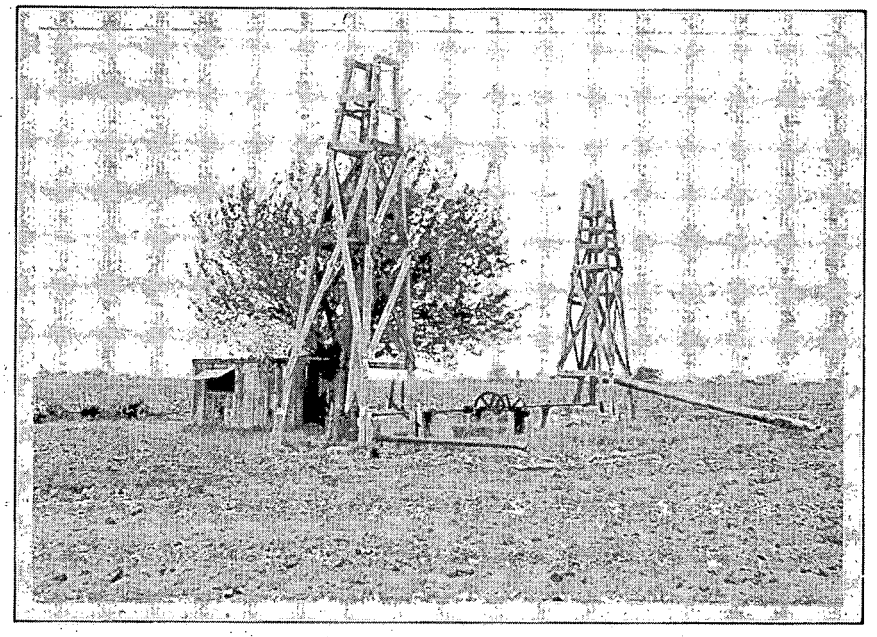
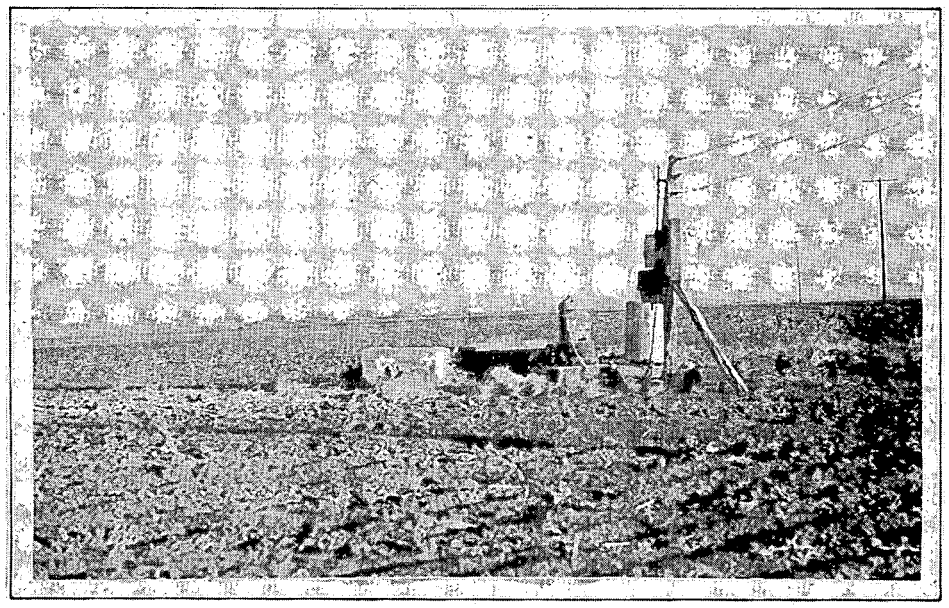


FIGURE 10.- "Twin wells" H-79 and H-80.

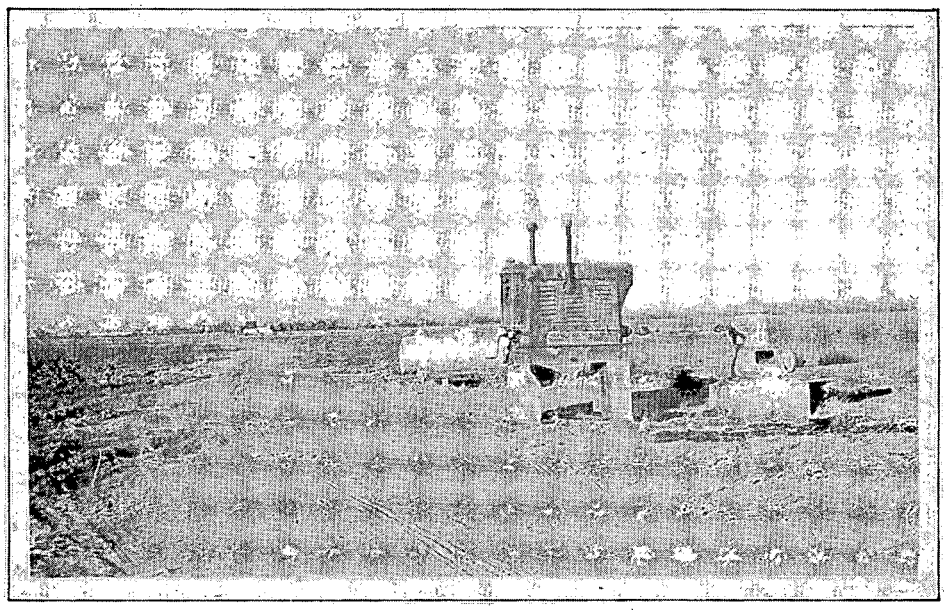
In 1940 about 120 irrigation wells were being used to irrigate approximately 800 acres. The wells ranged in depth from about 50 feet to 100 feet, and the average yield per well was about 100 gallons a minute. About 1942 high-speed turbine pumps powered by internal combustion engines or electric motors were installed in many of the old wells. (See fig. 11, A and B.)

Slightly more than 330 wells had been drilled for irrigation by the end of 1950; however, only about 120 wells were used to irrigate approximately 3,700 acres in 1950, an average of about 30 acres per well. Some of the wells that were drilled for irrigation did not yield sufficient water and were abandoned; many other wells of small yield were abandoned after being used for only a few years. The irrigation wells that were in use in 1950 ranged in yield from about 100 to about 700 gallons a minute. Most of the wells had yields of less than 500 gallons a minute. The average specific capacity of the irrigation wells in 1950 was 16 gallons a minute per foot of drawdown. It is estimated that approximately 4,000 acre-feet of water, or a little more than 1 foot per acre, was used in 1950.

In November and December 1950 and in the early months of 1951, about 25 irrigation wells were drilled to the base of the Bullwagon dolomite member of the Vale formation, in an area a few miles northeast of Veribest. The lower 15 to 20 feet of the Bullwagon is an artesian aquifer in this area. In the early spring of 1951, the irrigation wells that had been drilled around the edges of the area had yields ranging from about 100 to 200 gallons a minute, and those that had been drilled near the center of the area had yields ranging from about 300 to 1,000 gallons a minute. (See fig. 12.) Water-level measurements made when the wells were not



A.- Turbine pump equipped with electric motor.
Typical Lipan Flat topography.



B.- Turbine pump equipped with internal-combustion engine.

FIGURE 11.- Irrigation wells.

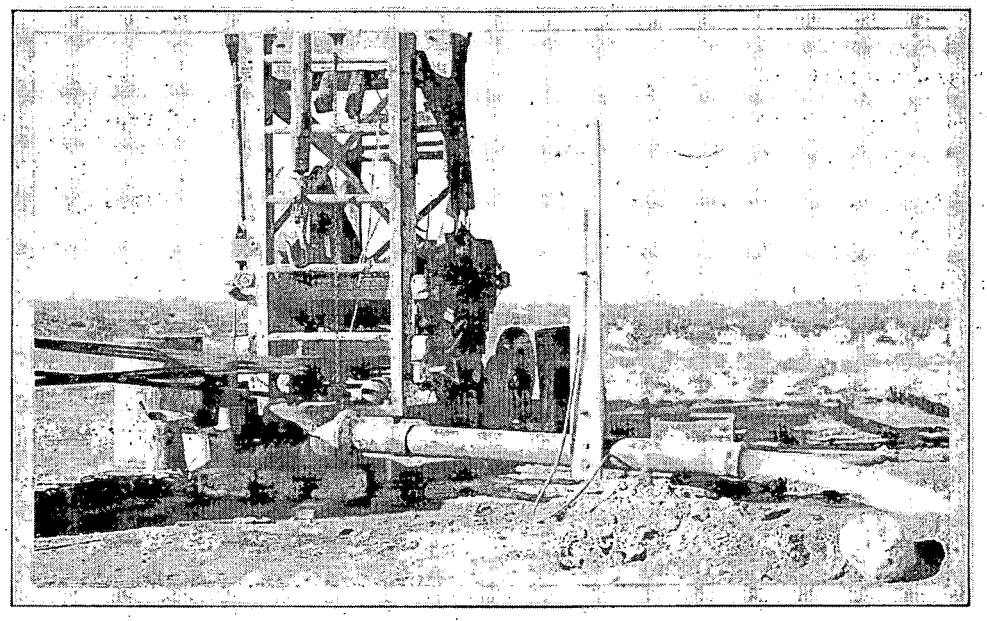


FIGURE 12.- Well J-22 during development test.
Yield 770 gallons a minute.

being pumped showed that the decline of water levels from January through June 1951 in these irrigation wells ranged from about 6 to 21 feet. In May 1951 the decline of the pumping levels in several wells was so great that they were not able to pump when other nearby wells were pumping. It was reported that pumping levels and yields of wells declined further in the summer of 1951. Static-water-level measurements made in January 1952 showed that water levels in the irrigation wells ranged from about 3 to 19 feet lower than the static water levels measured in the early months of 1951. The greatest declines were near the center of the area of heaviest pumping.

SUMMARY

The principal fresh-water-bearing rocks in Tom Green County, in the order of their importance, are the Leona formation, the Bullwagon dolomite member of the Vale formation, and the Comanche Peak limestone.

The area underlain by the Leona formation is the part of the county most suitable for the cultivation of crops, and most of the irrigation wells in the county draw water from the formation. Water-level measurements made in wells in the Leona formation at different times since 1940 show a general decline of the water table. (See fig. 9.) The decline has been sufficiently persistent to indicate that withdrawals of ground water from storage exceed the recharge, and it is doubtful if irrigation from wells in the Leona formation can become much more widespread in the county, owing to the decrease of supply in storage. In general the supply of water in the formation will remain adequate for domestic and livestock wells.

The Bullwagon dolomite member of the Vale formation yields water to several irrigation wells of relatively large capacity in the area 1½ to 6 miles northeast of Veribest. Water levels in these wells have declined appreciably since the early part of 1951. Records of existing wells, test holes, and geologic data indicate the possibility of extending the area in which wells can be developed to include most of the area from 1 to 3 miles west of the outcrop of the Bullwagon in Tom Green County. The data do not indicate, however, that large-capacity wells may be expected in the area west of the outcrop.

The Comanche Peak limestone yields water to domestic and livestock wells throughout the hilly areas of the county. The springs on the lower slopes of the hilly area in the southern part of the county flow from the limestone. These springs are a source of water for domestic and livestock use, and Anson Springs south of Christoval sustain a large part of the low flow of the South Concho River. The terrain in the hilly areas is not suitable for the cultivation of crops and irrigation; therefore no large-capacity wells draw water from the Comanche Peak limestone in the county.

Ground water suitable for domestic and stock uses may be obtained throughout most of the county except in the eastern part where the Arroyo formation crops out and in the plains area west and southwest of San Angelo where the San Angelo sandstone and the Blaine gypsum crop out.

In general, the ground-water reservoirs of Tom Green County are inadequate for sustained large-scale irrigation, but will continue to supply water for domestic and stock use and for supplementary irrigation.

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Table 3.- Records of wells in Tom Green County, Texas
All wells are drilled unless otherwise noted in remarks column

Method of lift: C, cylinder; D, Diesel or oil; E, electric; G, gasoline; H, hand; Ng, natural gas; T, turbine; W, windmill. Number indicates horsepower.
Use of water: D, domestic; Irr, irrigation; N, not used; P, public supply; S, stock.

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
A-1	George Weddell	--	--	88	6	Trinity group[a]	41.9	July 27, 1950	C,W	S	
A-2	do.	--	--	103	6	do.	78.2	do.	C,W	S	
*A-3	do.	--	1922	116	6	do.	80	do.	C,W	S	Temp. 69° F.
A-4	J. O. Berry	--	--	180	6	do.	146.5	July 6, 1950	C,W	S	
*A-5	J. E. Hall	--	--	65	6	do.	61.6	July 20, 1950	C,W	S	
A-6	George Weddell	--	--	127	6	do.	76	July 21, 1950	C,W	S	
A-7	J. T. Johnson Estate	--	1940	160	6	do.	47.7	July 25, 1950	C,W	S	
A-8	W. C. Weddell	--	1900	104	6	do.	65.3	July 20, 1950	C,W	D,S	
A-9	J. E. Hall	--	--	80	6	do.	142	July 7, 1950	C,W	S	
*A-10	Barbara Turner & Beatrice Allday	Park Holt	1946	165	6	do.	60.3	July 20, 1950	C,W	S	
*A-11	J. E. Hall	--	1918	72	6	do.	60.3	do.	C,W	S	
A-12	W. C. Weddell	--	--	87	6	do.	59.3	July 21, 1950	C,W	S	
*A-13	E. V. Hall	--	--	125	6	do.	97.6	July 25, 1950	C,W	D,S	
A-14	do.	Park Holt	1946	140	6	do.	110.7	do.	C,W	S	Steel casing.
*A-15	W. C. Weddell	--	1949	209	6	do.	121.9	July 21, 1950	C,W	S	
A-16	Barbara Turner & Beatrice Allday	Park Holt	1949	148	6	do.	99.8	July 20, 1950	C,W	S	
A-17	do.	Robert E. Penn	1926	125	6	do.	89.7	July 7, 1950	C,W	S	Steel casing to 125 feet. Originally drilled to 3,401 feet to test for oil, plugged back for water well. See log.

a/ Sand at the base of the Trinity group.
b/ Bullwagon dolomite member of the Vale formation.
c/ Standpipe limestone member of the Arroyo formation.
* For chemical analyses, see table 5.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
A-18	Barbara Turner & Beatrice Allday	--	1905	70	6	Trinity group [a]	44	July 5, 1950	C,W	S	Temp. 70° F.
*A-19	do.	Park Holt	1948	150	6	do.	109.7	do.	C,W	S	
A-20	W. C. Weddell	--	1922	143	6	do.	112	July 21, 1950	C,W	S	
B-1	Jake Z. Harper	--	Old	102	6	do.	80.2	June 21, 1950	C,W	S	
B-2	William B. Wilson	--	Old	80	6	do.	39.3	June 16, 1950	C,W	D,S	
B-3	do.	--	--	134	6	do.	40.7 48.1	Dec. 3, 1940 June 16, 1950	C,W	S	
B-4	Jake Z. Harper & William B. Wilson	--	1935	105	6	do.	59.7 83.4	Dec. 4, 1940 June 23, 1950	C,W	S	
*B-5	Jake Z. Harper	--	1915	79	6	do.	54 54.2	Sept. 12, 1940 June 27, 1950	C,W	S	
*B-6	Alvin Mathus	--	1900	70	6	Leona formation	46.7 49.5	Sept. 12, 1940 June 27, 1950	C,W	D	Galvanized iron casing to 20 feet.
*B-7	J. O. Berry	-- McCullough	1948	160	6	Trinity group [a]	66.7	July 20, 1950	C,W	D,S	Temp. 70° F.
B-8	W. H. Harris	J. T. Goode	1937	66	6	Leona formation	42.9	June 27, 1950	C,W	D,Irr	Galvanized iron casing to 66 feet. Irrigates small garden.
*B-9	Julia Kennemer	--	--	74	6	Trinity group [a]	69.2 57	Nov. 29, 1940 June 22, 1950	C,W	S	
*B-10	do.	--	1925	163	6	Blaine gypsum	124.5 104.9	Nov. 29, 1940 June 23, 1950	C,W	D,S	
B-11	do.	--	1909	84	6	Leona formation	57.6 63.9	Dec. 2, 1940 June 20, 1950	C,W	D,S	
B-12	H. C. Moreland	--	--	76	6	do.	56.1	June 20, 1950	C,W	S	
*B-13	First Presbyterian Church of Carlsbad	--	1939	57	6	do.	46	June 27, 1950	C,W	D	Temp. 70° F.
*B-14	Barbara Turner & Beatrice Allday	W. P. Holt	1949	178	6	Blaine gypsum	152.3	July 6, 1950	C,W	S	Galvanized iron casing to 178 feet. Temp. 70° F.
B-15	Maxwell Turner	--	1915	29	6	Leona formation	24.3	July 7, 1950	C,W	D,S	
B-16	State Tuberculosis Sanatorium	--	1938	71	240	do.	--		T,E, 40	P	Concrete casing to 20 feet. Reported weak supply. Used as standby well.
*B-17	do.	--	1938	72	240	do.	35.1	July 7, 1950	T,E, 40	P	Supplies hospital. Concrete casing to 22 feet. Reported strong supply. See log.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*B-18	Homer G. Nickel	D. L. Holliday	1935	53	6	Blaine gypsum	47.1 34.8	Sept. 10, 1940 June 23, 1950	C,W	D	Galvanized iron casing to 53 feet.
B-19	Julia Kennemer	--	--	90	6	do.	48.6	June 23, 1950	C,W	S	
*B-20	H. T. Allard	--	1928	80	6	Leona formation	46.7 55.3	Apr. 7, 1939 June 22, 1950	C,W	D,S	Galvanized iron casing to 55 feet.
B-21	H. C. Moreland	--	--	60	6	do.	52.8 47	Dec. 4, 1940 June 20, 1950	C,W	D,S	
B-22	J. D. Tullus	--	--	100	6	do.	50.0 51.6	Dec. 4, 1940 June 22, 1950	C,W	D,S	Irrigates small garden.
B-23	Jack Jones	Earl Scott	1946	216	8	Leona formation and Blaine gypsum	34.8	June 22, 1950	None	N	Steel casing to 40 feet. Originally drilled for irrigation well, tested 100 gpm when drilled.
B-24	Odie Alexander	do.	1949	91	6	Leona formation	42.8	do.	C,W	D,S	Galvanized iron casing to 91 feet.
B-25	William Turner Estate	--	Old	73	6	Leona formation and Trinity group [a]	50.4	June 30, 1950	C,W	D,S	
B-26	Maxwell Turner	--	1912	80	6	do.	43.7	July 6, 1950	C,W	S	
*B-27	Barbara Turner and Beatrice Allday	Ross Whittmire	1920	120	6	Trinity group [a]	82.3	June 28, 1950	C,W	D	Galvanized iron casing to 120 feet. Temp. 69° F.
C-1	A. March	--	--	80	6	do.	56 52.7	Dec. 3, 1940 June 16, 1950	C,W	S	Galvanized iron casing to 80 feet.
*C-2	J. F. Sutton	Oliver Bros.	--	187	6	do.	141.6	June 15, 1950	C,W	D,S	
*C-3	J. Y. Rust, Sr. Estate	--	--	68	5	Leona formation and Trinity group [a]	14.6	June 16, 1950	C,W	D,S	
*C-4	W. L. Matthews	Oliver Bros.	1928	63	6	do.	48.6 32.2	Nov. 28, 1940 June 15, 1950	C,W	D,S	
C-5	A. March	--	1938	81	6	Trinity group [a]	73.6 55.9	Dec. 4, 1940 June 20, 1950	C,W	D,S	Reported weak supply.
*C-6	do.	Park Holt	1949	150	6	Trinity group [a] and Blaine gypsum	126.6	June 20, 1950	C,W	S	Galvanized iron casing to 150 feet.
*C-7	Molly Mayes	--	1900	67	6	Leona formation	46.1	do.	C,W	S	
C-8	F. J. Von Rosenburg	R. Medlock	1940	125	6	Trinity group [a]	93.3	June 16, 1950	C,W	D,S	
*C-9	J. Y. Rust, Sr., Estate	--	--	117	6	Blaine gypsum	63.5 79.2	Nov. 28, 1940 June 16, 1950	C,W	S	Reported weak supply.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*C-10	J. Y. Rust, Sr., Estate	--	1933	69	6	Trinity group [a]	44.8 39.6	Nov. 29, 1940 June 16, 1950	C,W	S	West well of pair.
C-11	do.	--	1941	223	6	Blaine gypsum	104.3	June 16, 1950	None	N	Well caved in around 2-inch pipe at 111 feet. Measured through 2-inch pipe.
*C-12	Mrs. Fred Baker Estate	--	1920	77	6	Trinity group [a]	56	May 2, 1950	C,W	D,S	Temp. 68° F.
*C-13	J. Y. Rust, Sr., Estate	--	1928	75	8	do.	36 39.9	Sept. 30, 1940 May 2, 1950	C,W	S	Reported weak supply.
*C-14	Roy Harris	Park Holt	1945	200	6	do.	180.2	June 20, 1950	C,W	D,S	Do.
C-15	I. J. Curtsinger	--	--	111	6	Blaine gypsum	83.1 94.7	Nov. 28, 1940 June 16, 1950	C,W	D,S	
*C-16	Florence Womach	H. Holt	1938	198	6	Trinity group [a] and Blaine gypsum	162.2 108.9	Oct. 1, 1940 June 27, 1950	C,W	D,S	Galvanized iron casing to 198 feet. Reported weak supply.
C-17	F. S. Sanders	E. Oliver	1927	88	8	Leona formation	54.3	June 21, 1950	None	N	Galvanized iron casing to 88 feet. Formerly used for irrigation. East well of pair.
C-18	do.	do.	1927	80	8	do.	--	--	--	N	Galvanized iron casing to 80 feet. Formerly used for irrigation. West well of pair.
C-19	do.	Grosshans Bros.	1950	102	8	do.	--	--	T,G	Irr	Irrigated 25 acres in 1950. Reported yield, 622 gpm in summer of 1950.
C-20	O. B. Brokaw	--	1926	42	8	do.	28.9 30.3	Dec. 5, 1940 June 21, 1950	None	N	Originally 60 feet deep; 100 feet north of C-21.
C-21	do.	--	1927	--	--	--	--	--	None	N	Formerly used for irrigation.
C-22	Ernest Groff	--	1908	83	6	Leona formation	63.1 62.5	Dec. 5, 1940 June 21, 1950	C,W	D,S	Galvanized iron casing to 83 feet. Irrigates garden.
*D-1	Oscar Brown	--	1945	175	6	Trinity group [a]	57.3	Mar. 21, 1950	C,W	S	Galvanized iron casing to 175 feet.
*D-2	E. M. Allen	--	1920	57	6	San Angelo sandstone	45.8 40.3	Sept. 30, 1940 Mar. 21, 1950	C,W	S	Galvanized iron casing
*D-3	Leon Kincade	--	1938	158	6	Choza formation	106.1 143.9	Jan. 28, 1949 Feb. 21, 1950	C,W	D,S	

Table 3.--Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*D-4	A. S. Harris	Bill Burlison	1942	132	5	Choza formation	87.6 88.1	Oct. 7, 1948 July 29, 1950	C,W	D,S	Galvanized iron casing to 132 feet. Altitude of land surface, 1,937 feet.
*D-5	Edgar McGuire	--	Old	140	5	do.	58.8	Oct. 7, 1948	C,W	D,S	
*D-6	do.	J. O. Donaldson	Old	82	5	do.	30 58.3 57.6	Feb. 14, 1941 Oct. 7, 1948 Feb. 21, 1950	C,W	S	Altitude of land surface, 1,947 feet.
*D-7	Mrs. J. S. Holland	Tom Donaldson	1920	120	6	do.	92.3 94.3	Feb. 14, 1941 Feb. 21, 1950	C,W	D,S	Galvanized iron casing to 120 feet.
*D-8	W. S. Holland	-- Obletree	Old	79	5	do.	49.4	Oct. 6, 1948	C,W	D,S	Altitude of land surface, 1,928 feet.
*D-9	Roy Holland	Dan Cockburn	1948	79	10	do.	58.8 64.4	Oct. 6, 1948 July 28, 1950	T,E, 10	Irr	Not cased. Irrigates 40 acres. Reported yield 200 gpm in 1950. Altitude of land surface, 1,922 feet.
D-10	Mrs. -- Nord	-- Donaldson	1930	70	6	do.	54.5 64.8	Feb. 14, 1941 Feb. 21, 1950	C,W	D,S	Galvanized iron casing to 70 feet.
*D-11	Wallace Ramsey	--	--	83	5	do.	42.8 38.9	Oct. 7, 1948 July 28, 1950	C,W	D,S	Altitude of land surface, 1,918 feet.
D-12	L. M. Keeling	Dan Coberlin	1948	111	6	do.	89.7	Dec. 15, 1950	C,W	D,S	
*D-13	Oscar Brown	--	1925	110	6	do.	75.2 87.4 75.8	Mar. 27, 1939 Sept. 30, 1940 Jan. 28, 1949	C,W	D,P	Galvanized iron casing to 80 feet. Reported weak supply.
D-14	W. I. Marschall	--	--	148	6	San Angelo sandstone	127.5	Mar. 21, 1950	C,W	S	
D-15	do.	--	Old	109	6	Trinity group [a]	94	do.	C,W	D,S	
D-16	do.	--	--	93	6	do.	57.5	do.	C,W	D	
*D-17	do.	--	--	135	6	San Angelo sandstone	108.2	do.	C,W	S	
D-18	L. E. Davis	--	1907	125	6	do.	65.3	do.	C,W	D,S	
*D-19	C. Cotton	--	1930	75	6	Choza formation	67.9 61.9	Jan. 28, 1940 Oct. 2, 1940	C,W	D,S	
D-20	Albert Klattenhoff	Dan Cockburn	1948	92	12	do.	47.4 46.2	Oct. 6, 1948 Feb. 21, 1950	None	N	Not cased. Drilled for irrigation and tested 40 gpm.
*D-21	do.	do.	Old	89	6	do.	48 48.6	Oct. 6, 1948 July 28, 1950	C,E, ¾	D,S	Galvanized iron casing to 89 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*D-22	C. Klattenhoff	J. O. Donaldson	1928	116	6	Choza formation	59.8 62.2	Feb. 14, 1941 Oct. 7, 1948	C,W	D,S	
*D-23	L. M. McGuire	--	Old	100	6	do.	55.9	Jan. 24, 1949	J,E	D,S	
*D-24	Carl Urbantke	--	--	80	6	do.	58.3 63.3 60.4	Oct. 2, 1940 Jan. 24, 1949 Feb. 21, 1950	C,W	D,S	Reported weak supply.
*D-25	E. Kiesling	O. G. Donaldson	1908	104	6	do.	53.9	Oct. 7, 1950	C,W	D,S	Galvanized iron casing to 100 feet. Reported weak supply.
*D-26	S. E. Parmer	--	Old	57	6	do.	45.9 45.6	Oct. 6, 1948 Feb. 21, 1950	C,W	D,S	
*D-27	M. S. Winston	--	1900	90	6	do.	69.8 67.9	Oct. 2, 1940 Dec. 15, 1950	C,W	D,S	Galvanized iron casing to 20 feet.
D-28	T. M. Boykin	Garmon Bros.	1947	105	8	do.	64	Dec. 15, 1950	T,E, 7½	Irr	Iron casing to 100 feet. Irrigates 10 acres.
*D-29	-- Liestman Estate	--	1919	45	5	do.	29.9	Oct. 6, 1948	C,W	D,S	
D-30	O. N. Dodson	--	1938	88	6	do.	42.2 41.9	Oct. 7, 1948 Feb. 21, 1950	C,W	D,S	Galvanized iron casing to 88 feet.
D-31	B. F. Perry	D. Oliver	1925	98	10	do.	59.2	Dec. 15, 1950	C,G	Irr	Galvanized iron casing to 100 feet. East well of two that irrigate 25 acres.
D-32	Walter Schumm	do.	1925	95	10	Leona and Choza formations	24.8	do.	None	N	Formerly used for irrigation.
E-1	Ike Funk Estate	--	Old	178	6	Trinity group [a]	153.5	July 27, 1950	C,W	S	
E-2	Barbara Turner and Beatrice Allday	--	Old	145	6	do.	116.3	July 5, 1950	C,W	S	
E-3	Percy Turner	--	Old	60	6	do.	20.8	do.	C,W	S	
*E-4	do.	--	Old	80	6	do.	65.5	do.	C,W	S	
*E-5	Ike Funk Estate	--	--	148	6	do.	109.5	July 27, 1950	C,W	S	
E-6	do.	Mays & Sims	1935	1,452	--	--	--	--	None	N	Oil test. See log.
E-7	do.	B. C. Mann	1940	1,562	--	--	--	--	None	N	Oil test. Altitude of land surface, 2,417 feet. See log.

Table 3.--Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
E-8	J. R. Mims	--	--	165	6	Trinity group [a]	129.2	July 27, 1950	C,W	S	
E-9	do.	--	1947	133	6	do.	103.5	do.	C,W	S	Galvanized iron casing to 133 feet.
E-10	do.	--	--	100	6	do.	59.7	do.	C,W	S	
E-11	Ted Harris	C. Smith	1935	33	6	Leona formation	18.4	July 25, 1950	C,W	D,S	
*E-12	Leasel Harris	Park Holt	1946	135	6	Trinity group [a]	71.8	do.	C,W	D,S	Galvanized iron casing to 135 feet. Temp. 70° F.
*E-13	J. R. Mims	do.	1943	72	6	do.	37.5	July 27, 1950	C,W	D,S	Galvanized iron casing to 72 feet. Temp. 69° F.
F-1	Maxwell Turner	--	1935	70	6	Leona formation and Trinity group [a]	49.6	July 6, 1950	C,W	S	
*F-2	Conley Estate	--	--	82	6	Leona formation and Blaine gypsum	53.3 42	Dec. 5, 1940 June 28, 1950	C,W	S	
*F-3	do.	--	--	60	5	Leona formation	54.5 53.4	Dec. 6, 1940 Dec. 28, 1950	C,W	S	
*F-4	W. R. Berry	--	1919	41	5	do.	25.6 24.8	Dec. 6, 1940 June 28, 1950	C,W	D,S	
F-5	Harold Gibbs	--	1949	53	6	do.	33.3	June 28, 1950	C,W	S	
*F-6	R. V. Blevins	--	--	96	6	Leona formation and Blaine gypsum	66.7 63.1	Oct. 1, 1940 June 28, 1950	C,W	D,S	Galvanized iron casing to 50 feet.
F-7	Robert Turner	--	--	72	6	Blaine gypsum	39.3 56.4	Dec. 5, 1940 June 30, 1950	C,W	S	
F-8	Percy Turner	Park Holt	1947	173	6	Trinity group [a]	81.8	July 5, 1950	C,W	S	
*F-9	do.	Noble Oliver	1922	48	6	Leona formation and Trinity group [a]	28.5	June 30, 1950	C,W	D,S	Galvanized iron casing to 48 feet. Temp. 70° F.
*F-10	do.	Park Holt	1943	106	6	Trinity group [a]	74.5	July 5, 1950	C,W	S	Temp. 70° F.
*F-11	do.	--	--	80	6	do.	38.8	do.	C,W	S	Do.
*F-12	do.	Park Holt	1947	160	6	do.	109.5	do.	C,W	S	
F-13	Robert Turner	--	--	100	6	do.	37.6	July 11, 1950	C,W	D,S	
*F-14	do.	B. M. Mundell	1949	201	8	Blaine gypsum	114.5	do.	C,W	S	Originally drilled to 290 feet. Reported weak supply.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
F-15	Robert Turner	Curtis Drilling Co.	1950	150	8	Trinity group a/	63	July 11, 1950	None	N	Drilled to supply rotary drilling rig. Tested 6 gpm when drilled. See log.
*F-16	do.	--	--	115	6	do.	77.6	do.	C,W	S	Temp. 70° F.
F-17	H. R. Wardlaw	--	--	165	6	do.	103.8	do.	C,W	S	
F-18	do.	--	--	94	6	do.	77.9	do.	C,W	S	
F-19	do.	--	--	102	6	do.	92	July 12, 1950	C,W	S	
*F-20	do.	--	1940	205	6	do.	155.7	July 11, 1950	C,W	D,S	
F-21	Pulliam Estate	World Oil Co.	1928	908	--	--	--	--	None	N	Oil test. See log.
F-22	do.	do.	1926	4,039	--	--	--	--	None	N	Oil test.
F-23	H. R. Wardlaw	--	--	125	6	Trinity group a/	105.1	July 12, 1950	C,W	S	
F-24	do.	--	--	51	6	do.	13.5	do.	C,W	S	
F-25	do.	R. F. Shank	1950	77	8	Leona formation	28.1	do.	C,W	D,S	Steel casing to 60 feet.
*F-26	Mrs. G. L. Lewis	--	1925	51	6	do.	19.4 20.1	Aug. 27, 1940 Sept. 15, 1950	C,W	D,S	Galvanized iron casing to 51 feet. Temp. 69° F.
F-27	Henry Feil	Tom Holmsley	1933	69	6	Leona formation and Trinity group a/	43.9 44.5	Feb. 11, 1940 July 12, 1950	C,W	D,S	Galvanized iron casing to 69 feet.
F-28	do.	--	--	55	6	Leona formation	38.2	July 12, 1950	C,W	D,S	Galvanized iron casing to 55 feet.
*F-29	Homer Byrd	--	1915	100	6	Leona formation and Trinity group a/	56.6 62.3	Feb. 10, 1941 July 12, 1950	C,W	D,S	Galvanized iron casing to 100 feet.
*F-30	T. N. Robbins	--	1920	88	6	Trinity group a/ and Blaine gypsum	96 82.6	Aug. 26, 1940 July 12, 1950	None	N	Not cased. West well of two; originally 120 feet deep. Reported weak supply.
G-1	J. K. Walpole	-- Wesley	1925	70	6	Leona formation	43	June 22, 1950	C,W	D,S	
*G-2	C. E. Clark	--	Old	70	6	do.	52.6 54.1	Dec. 5, 1940 June 22, 1950	C,W	D,S	
*G-3	A. F. Michalewicz	--	--	98	6	do.	81.5 85.3	Oct. 1, 1940 June 27, 1950	C,W	D,S	Reported weak supply.
*G-4	R. O. Sheffield	R. P. Cagle	1926	90	14	do.	50.8	June 15, 1950	T,G	Irr	Galvanized iron casing to 23 feet. Irrigates about 45 acres. Reported yield, 650 gpm when drilled. Temp. 69° F.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
G-5	Homer G. Nickel	Murdock Bros.	1950	75	8	Leona formation	44.6	June 21, 1950	J,E	D	Galvanized iron casing to 175 feet. Reported yield, 5 gpm when drilled.
G-6	C. S. Berry	--	1920	57	8	do.	33.2 36.7 35.6	Feb. 17, 1938 Sept. 12, 1940 Dec. 14, 1950	None	N	Galvanized iron casing to 57 feet. North well of two, formerly used for irrigation.
*G-7	Wilbur Brown	D. Oliver	1946	58	6	do.	37.4	June 22, 1950	C,W	S	Galvanized iron casing to 58 feet.
*G-8	Lewis Hersey	--	1900	55	6	do.	38.6 37.7 38	Oct. 1, 1940 Oct. 15, 1943 June 15, 1950	C,W	D,S	Galvanized iron casing to 42 feet.
G-9	C. T. Mahler	Murdock Bros.	--	54	10	do.	31.2	Dec. 14, 1950	None	N	Not cased. Formerly used for irrigation.
G-10	Frank Book	Bonnie Mundel	1943	108	6	San Angelo sandstone	81.5	do.	C,W	S	Galvanized iron casing to 108 feet. Water has hydrogen sulfide odor, and taste of salt and gypsum.
*G-11	E. F. Machann	Roy Baker	1946	99	6	do.	54.8	May 2, 1950	C,W	S	Galvanized iron casing to 80 feet.
*G-12	J. M. Rape	--	--	105	5½	do.	85.8	do.	C,W	S	Galvanized iron casing to 105 feet.
G-13	D. F. Burleson	--	--	88	5½	do.	82.7	do.	C,W	D,S	Galvanized iron casing to 88 feet.
G-14	Logan Bros.	--	--	60	8	Leona formation	56.1	June 15, 1950	None	N	West well of two, formerly equipped with 6-inch cylinder pumps on a line shaft, and used for irrigation.
G-15	J. H. Monk	J. C. Snow	Old	80	8	do.	54.3	do.	None	N	East well of four formerly equipped with 4-inch cylinder pumps on a line shaft and used for irrigation. West well has cylinder pump and 15 horsepower electric motor.
G-16	W. R. Probst	D. Oliver	1924	67	8	do.	62.6	do.	C,G	N	South well of two formerly used for irrigation.
G-17	H. M. Roark	H. M. Roark	1917	71	8	do.	56.7	do.	C,G	Irr	Not cased. Irrigates small garden.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*G-18	Roy Wiegman	--	1948	135	8	Choza formation	69	Oct. 11, 1948	C,W	S	Steel casing to 60 feet.
*G-19	J. M. Brandon	--	1936	63	6	do.	52.4 56.6 58.1	Sept. 4, 1940 Oct. 11, 1948 Mar. 20, 1950	C,H	D	Galvanized iron casing to 63 feet. Altitude of land surface, 1,859 feet.
G-20	Otis M. Holiman	--	--	54	6	Leona formation	44.4	Sept. 15, 1950	C,W	S	
*G-21	C. R. Nasworthy	Shorty Cleveland	1940	40	6	San Angelo sandstone	31.2	do.	C,W	D,S	
*G-22	--	Plymouth Oil Co.	1934	714	10	San Angelo sandstone and Choza formation	+	--	Flows	N	Oil test. See log.
G-23	Cland Lee	--	Old	--	--	--	73.9	Feb. 19, 1941	None	N	Caved to depth of 26 feet.
*G-24	Homer G. Nickel	--	--	29	6	San Angelo sandstone	18.9	Sept. 14, 1950	C,W	D,S	Temp. 69° F.
G-101	P. S. Nickel	D. Oliver	1932	75	8	Leona formation	59.8	June 9, 1950	T,E, 3	Irr	Galvanized iron casing to 75 feet. Irrigates 10 acres.
G-102	B. B. Bledsoe	Park Holt	1947	76	8	do.	56.5	June 8, 1950	T,E, 10	Irr	Galvanized iron casing to 15 feet. Irrigates 30 acres.
G-103	do.	D. Oliver	1923	75	8	do.	51.8 54 56.5	Sept. 10, 1943 Jan. 23, 1946 Jan. 17, 1949	T,E, 10	N	Galvanized iron casing to 75 feet. South well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. North well has turbine pump.
G-104	R. R. Lowrance	do.	1927	76	8	do.	48.5 55.8	Jan. 20, 1941 June 8, 1950	T,E, 5	Irr	Galvanized iron casing to 10 feet. Irrigates 20 acres and supplies swimming pool. Formerly equipped with 6-inch cylinder pumps. West well has turbine pump.
G-105	Clara Woolworth	--	1939	80	6	do.	56.3	June 9, 1950	C,W	Irr	Steel casing to 70 feet. Irrigates about one-half acre. Formerly equipped with turbine pump.
G-106	Clark Bros.	--	1925	100	8	do.	56.9	do.	T,E, 3	N	Not cased. West well of two formerly equipped with 6-inch cylinder pumps and used for irrigation.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
G-107	Clark Bros.	--	1925	80	8	Leona formation	47.1 50.6 53.5	Jan. 9, 1941 Dec. 16, 1943 Jan. 16, 1946	C,G	D	Not cased. East well of two.
G-108	T. D. Rusk	--	1925	80	8	do.	--	--	C,E, 5	Irr	Not cased. West well of two formerly equipped with 6-inch cylinder pumps.
G-109	do.	--	1925	80	8	do.	46.5 50.1 56	Jan. 9, 1941 Oct. 12, 1943 June 9, 1950	C,W	D	Not cased. East well of two.
*G-110	Mrs. Lee Irving	D. Oliver	1925	75	8	do.	47.1 50.5 56.3	Jan. 9, 1941 Oct. 12, 1943 June 9, 1950	C,E, 2	D,Irr	Not cased. Irrigates about 1½ acres.
G-111	O. C. Roberson	--	1925	69	8	do.	46.5 50.2 56.5	Jan. 9, 1941 Jan. 16, 1946 June 9, 1950	C,E, 3	Irr	Not cased. North well of two. Irrigates about one-half acre.
G-112	do.	--	1925	70	8	do.	--	--	J,E	D	Not cased. South well of two formerly equipped with 6-inch cylinder pumps.
G-113	O'Neal Dendy	D. Oliver	1927	80	8	do.	--	--	T,E, 5	N	Galvanized iron casing to 10 feet. North well filled. South well of two formerly equipped with 6-inch cylinder pumps and used for irrigation.
G-114	S. R. Boyd	R. F. Shank	1948	85	8	do.	56.7	June 9, 1950	C,E, 3	Irr	Not cased. Irrigates 1¾ acres.
G-115	Clara Woolworth	--	1925	80	8	do.	46.5	Jan. 9, 1941	T,E, 3	N	North well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. North well not used in 1950. South well filled.
G-116	A. W. Olsen	--	1921	74	8	do.	49.1 53.4 56.2	Jan. 20, 1941 Jan. 16, 1946 June 8, 1950	C,E, 7½	Irr	Galvanized iron casing to 74 feet. East well of two. West well not used.
G-117	V. Harris	D. Oliver	--	58	8	do.	46.2	June 8, 1950	None	N	Galvanized iron casing to 58 feet. Two wells formerly equipped with 6-inch cylinder pumps and used for irrigation.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
G-118	M. W. Carter	D. Oliver	1927	64	10	Leona formation	--	--	J,E	D	Galvanized iron casing to 64 feet. North well of two formerly equipped with a 6-inch cylinder pump and used for irrigation.
G-119	do.	do.	1927	64	10	do.	42.4 45.1 48.4	Jan. 22, 1941 Oct. 11, 1943 June 7, 1950	C,E, 10	Irr	Galvanized iron casing to 64 feet. Irrigates one-fourth acre. South well of two.
G-120	Grady Brown	Fred Scott	1947	88	6	do.	54.5	June 8, 1950	None	N	Steel casing to 10 feet. Formerly used for irrigation. Reported yield was 300 gpm.
G-121	do.	Roy Baker	1949	87	8	do.	54	do.	T,E, 10	Irr	Irrigates three acres. Reported yield, 300 gpm when drilled.
*G-122	Edgar Harris	D. Oliver	1925	80	8	do.	44.3 50.7 55.8	Jan. 9, 1941 Jan. 16, 1946 June 9, 1950	C,E, 10	N	Not cased. Two wells formerly used for irrigation.
G-123	O. R. Furgason	--	1927	70	10	do.	44.2 47.4 55.5	Jan. 21, 1941 Oct. 12, 1943 June 9, 1950	C,E	D	Galvanized iron casing to 70 feet. Three wells originally equipped with 4-inch cylinder pumps and used for irrigation. South well only one used.
G-124	do.	--	1927	70	8	do.	43.7 47.2 55.1	Jan. 21, 1941 Oct. 12, 1943 June 9, 1950	C,G	Irr	Not cased. Irrigates garden.
G-125	A. J. Harper	--	1927	75	8	do.	44.3 49.7 54.8	Jan. 21, 1941 Jan. 16, 1946 June 9, 1950	C,E, 10	Irr	Not cased. Irrigates 4½ acres. Deepened from 65 to 75 feet in 1947 by Roy Baker.
G-126	H. W. Kennedy	--	1927	72	8	do.	44.3 47.7 57.1	Jan. 21, 1941 Oct. 11, 1943 June 8, 1950	C,E, 5	N	Galvanized iron casing to 70 feet. Two wells formerly used for irrigation.
G-127	W. O. Gordon	F. W. Grothe	1948	90	12	do.	56	June 9, 1950	T,E	D,Irr	Not cased. Not used in summer of 1950.
G-128	E. W. Wilson	D. Oliver	1927	79	8	do.	44.7 50.3 52.8	Jan. 20, 1941 Jan. 16, 1946 June 8, 1950	C,E, 7½	Irr	Galvanized iron casing to 10 feet. East well of two. West well filled. Not used in summer of 1950.
G-129	Emil Grosshans	--	Old	63	8	do.	39.6 43.8 49	Jan. 21, 1941 Oct. 11, 1943 June 2, 1950	J,E, ½	D	Galvanized iron casing to 63 feet. Formerly equipped with 3-inch cylinder pump and used for irrigation.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
G-130	U. L. Chumbley	D. Oliver	--	70	10	Leona formation	41.6 44.6 49.6	Jan. 21, 1941 Oct. 11, 1943 June 7, 1950	C,E, 10	N	Galvanized iron casing to 70 feet. Two wells formerly used for irrigation.
G-131	do.	--	--	60	10	do.	47.3	June 9, 1950	C,E, 5	N	Dug well, 4 by 5 feet to 29 feet, and 10-inch hole drilled in bottom. Formerly used for irrigation. Pump set 26 feet below surface.
G-132	Joe H. Tupman	--	Old	60	8	do.	43.3 42.4	Oct. 11, 1943 June 8, 1950	C,E	D,Irr	Galvanized iron casing to 10 feet. Irrigates one-half acre.
*G-133	J. C. Snow	J. C. Snow	1926	75	6	do.	42.4 44.3 46.5	Oct. 11, 1943 Jan. 23, 1946 June 8, 1950	T,E, 5	N	Steel casing to 75 feet. Formerly used to fill swimming pool and irrigates 15 acres. Reported yield, 200 gpm in 1940.
G-134	U. L. Chumbley	--	1928	60	10	do.	38.4 43.7 47.9	Jan. 21, 1941 Jan. 16, 1946 June 8, 1950	C,E, 10	N	Galvanized iron casing to 60 feet. Two wells formerly used for irrigation.
G-135	Mrs. M. C. Jones	D. Oliver	1927	60	10	do.	46.5	June 8, 1950	C, -	N	Do.
G-136	Corps of Engineers U. S. Army	R. F. Shank	1949	--	--	do.	47.9	June 2, 1950	T,D	Irr	Water used for construction on North Concho Dam. Pumping level, 50.1 feet June 7, 1950, after 4 hours pumping.
G-137	do.	do.	1949	--	--	do.	48.1	do.	T,D	Irr	Water used for construction on North Concho Dam. Pumping level 54.8 feet, June 7, 1950, after 4½ hours pumping.
G-138	do.	do.	1949	--	--	do.	48.9	do.	T,D	Irr	Water used for construction on North Concho Dam. Pumping level, 61 feet, June 7, 1950, after 4½ hours pumping. Wells G-136, 137, and 138 together yield about 500 gpm.
G-139	do.	do.	1949	--	--	do.	--	--	T,D	Irr	Water used for construction on North Concho River.
G-140	W. Isenbach	Garmon Bros.	1943	76	8	do.	52.7	June 9, 1950	C,E, 5	Irr	Galvanized iron casing to 10 feet. Irrigates 4½ acres. Reported yield 125 gpm in summer 1950.
G-141	H. B. McCoury	--	1948	70	8	do.	51.3	do.	C,E, 5	Irr	Irrigates one acre.
G-142	M. L. Leddy	--	--	--	--	do.	54	June 14, 1950	T,E, 20	Irr	Irrigates about two acres.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
G-143	O. E. Ferguson	Doyle Rogers	1947	84	8	Leona formation	53.9	June 14, 1950	C,E, 3	Irr	Not cased. Two wells irrigate about 2 acres.
G-144	B. M. Jordan	do.	--	88	8	do.	54.6	June 19, 1950	T,E, 3	Irr	Not cased. Irrigates 5½ acres. Reported yield, 70 gpm in summer of 1950; pumping level, 61 feet, June 13, 1950.
G-145	O'Neal Dendy	---	--	76	8	do.	53.5	June 13, 1950	None	N	Formerly used for irrigation.
G-146	F. W. Kreidel	--	1927	75	10	do.	43.9 46.8 56	Jan. 21, 1941 Oct. 11, 1943 June 13, 1950	C,E, 7½	Irr	Galvanized iron casing to 75 feet. Two wells irrigate about 5 acres.
G-147	H. Obercampf	J. C. Snow	1914	72	8	do.	55.1	June 13, 1950	None	N	North well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. South well of the two was drilled by H. Duckworth in 1925. Wells not used for about 13 years.
G-148	Mary E. Rogers	D. Oliver	--	70	8	do.	42.4 46.3 49.6	Jan. 9, 1941 Dec. 16, 1943 Dec. 24, 1946	J,E	D	Not cased. North well of two formerly equipped with 6-inch cylinder pumps and used for irrigation.
G-149	do.	do.	--	80	8	do.	--	--	C,E,	Irr	Not cased. Irrigates yard. South well of two.
G-150	S. L. Knight	Robert Rogers	1920	80	8	do.	42.6 45.3 55.2	Jan. 9, 1941 Oct. 13, 1943 June 13, 1950	J,E	D	Not cased. East well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. West well filled.
G-151	H. Obercampf	--	--	83	10	do.	56.2	June 13, 1950	T,E, 15	Irr	
G-152	do.	D. Oliver	1926	80	8	do.	56.6	do.	None	N	Not cased. Two wells formerly equipped with 6-inch cylinder pumps and used for irrigation.
G-153	T. B. Ellison	--	1925	80	8	do.	42.1 55.9	Jan. 9, 1941 June 13, 1950	J,E, ½	D,S	Formerly used for irrigation.
G-154	H. Obercampf	--	--	80	8	do.	57.6	June 13, 1950	T,E, 5	Irr	

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
G-155	H. Obercampf	--	1920	71	8	Leona formation	42.5 45.6 55.2	Jan. 9, 1941 Oct. 13, 1943 June 13, 1950	J,E	D	Galvanized iron casing to 20 feet. North well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. South well has jet pump.
G-156	F. W. Grothe	F. W. Grothe	1946	75	8	do.	51.9	June 13, 1950	C,E, --	Irr	Not cased. Irrigates 7 acres.
G-157	do.	--	--	100	8	do.	42.7 49.1 56.1	Jan. 20, 1941 Jan. 23, 1946 June 13, 1950	C,E, 10	N	Galvanized iron casing to 100 feet. West well of two formerly used for irrigation.
G-158	do.	F. W. Grothe	1950	73	8	do.	56.6	June 13, 1950	C,E, 5	Irr	Irrigates 6 acres.
G-159	C. B. Lanham	D. Oliver	1930	74	8	do.	42.9 46.3 57.7	Jan. 20, 1941 Oct. 12, 1943 June 13, 1950	C,E, 5	Irr	Galvanized iron casing to 74 feet. Two wells irrigate 4 acres. Cleaned and deepened from 65 to 74 feet in 1949.
G-160	W. O. Meeks	--	--	100	8	do.	--	--	C,E, 5	Irr	Two wells irrigate 4 acres. Pumping level 58.3 feet, June 14, 1950.
G-161	J. C. Houston	--	--	100	8	do.	57.4	June 14, 1950	C,G	N	Formerly used for irrigation.
G-162	J. O. Shadden	F. W. Grothe	1946	108	8	do.	57.6	do.	C,E, 5	N	Do.
G-163	Walter A. Ford	D. Oliver	--	82	10	do.	42.1 45.5 53.7	Jan. 20, 1941 Oct. 12, 1943 June 14, 1950	None	N	Galvanized iron casing to 82 feet. Two wells formerly used for irrigation.
G-164	O. K. Morris	do.	1927	--	8	do.	42 45.4 52.6	Jan. 20, 1941 Oct. 12, 1943 June 13, 1950	C,E, 5	Irr	Irrigates one acre. Estimated yield, 80 gpm; pumping level 62.4 feet, June 14, 1950.
G-165	Monty Brown	Roy Baker	1948	96	8	do.	54.1 56.4	Jan. 19, 1949 June 13, 1950	None	N	Galvanized iron casing to 96 feet. Drilled for irrigation well and not used.
G-166	do.	Garmon Bros.	1943	75	8	do.	--	--	C,E, 15	Irr	Galvanized iron casing to 10 feet. Two wells irrigate 23 acres with wells G-167 and G-170.
G-167	do.	Roy Baker	1947	94	8	do.	54	June 13, 1950	T,E, 5	Irr	Not cased. Irrigates 23 acres with wells G-166 and G-170.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
G-168	A. E. Latson	F. W. Grothe	1946	80	8	Leona formation	55.9	June 14, 1950	C,E, 5	Irr	Irrigates one acre.
G-169	do.	do.	1941	80	6	do.	--	--	J,E	D	Galvanized iron casing to 10 feet. Formerly equipped with a 4-inch cylinder pump and used for irrigation.
G-170	Monty Brown	Roy Baker	1949	90	--	do.	--	--	C,E	Irr	Irrigates 23 acres with wells G-166 and G-167.
G-171	Lonnie Reed	D. Oliver	--	75	8	do.	40.8 47.4 55.9	Jan. 20, 1941 Jan. 23, 1946 June 14, 1950	C,E, 3	D,Irr	Galvanized iron casing to 75 feet. Irrigates one-half acre.
G-172	Cecil Hasty	do.	1946	--	--	--	54.5	Dec. 14, 1950	C,G	Irr	Irrigates one-fourth acre.
G-173	do.	do.	1942	68	8	Leona formation	54.5	June 14, 1950	C,E, 1	D	Galvanized iron casing to 68 feet. Formerly used for irrigation.
G-174	W. O. Edginton	do.	1942	67	8	do.	55	do.	J,E	D	Galvanized iron casing to 5 feet. Formerly used for irrigation.
G-175	do.	Roy Baker	1949	85	8	do.	55	do.	C,E, 3	Irr	Not cased. Irrigates 2½ acres.
G-176	J. A. Simpson	Park Holt	--	93	8	do.	--	--	C,E, 5	Irr	Irrigates 2 acres.
G-177	W. E. Addison	A. F. Grothe	--	75	8	do.	55	June 13, 1950	C,E, 3	Irr	Not cased. Irrigates one acre.
G-178	T. V. Sanders	do.	1947	79	6	do.	53.3	do.	C,E, 5	Irr	Not cased. Irrigates 1½ acres.
G-179	S. L. Knight	Doyle Rogers	1947	80	8	do.	55.1	do.	T,E, 5	N	Not cased. Formerly used for irrigation.
G-180	Jim B. Bradford	Earl Scott	1948	85	6	do.	54.4	Jan. 19, 1949	T,E, 5	Irr	Steel casing to 83 feet. Irrigates one acre. Reported yield, 100 gpm in 1950.
*G-181	Henry Howard	D. Oliver	1920	60	8	do.	41.4 44.2 55.4	Jan. 9, 1941 Oct. 13, 1943 June 13, 1950	None	N	Not cased. Two wells formerly equipped with 6-inch cylinder pumps and used for irrigation. Original depth, 80 feet.
G-182	City of San Angelo Fair Grounds Assn.	J. C. Snow	1947	96	6	do.	31 40.9 55.4	Feb. 17, 1937 Oct. 1, 1940 Jan. 19, 1949	J,E, 1½	D,S, P	Steel casing. Well on Fair Grounds. Thirty feet south of well used before 1947.
G-183	Wilbur Jennings	--	1920	80	8	do.	--	--	T,E, 5	Irr	East well of three formerly equipped with 6-inch cylinder pumps and used for irrigation. Center well filled.
G-184	do.	--	1920	80	8	do.	--	--	J,E	D	West well of three.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*G-185	J. A. Terrill	J. C. Snow	1912	76	12	Leona formation	39.7	Jan. 9, 1941	None	N	Not cased. West well of four formerly equipped with 6-inch cylinder pumps and used for irrigation. Well's original depth, 80 feet.
G-186	J. H. Hulsey	Fred Scott	1948	79	6	do.	45	June 2, 1950	J, E, 2	D, Irr	Steel casing to 79 feet. Irrigates 4½ acres with well G-187.
G-187	do.	do.	1948	81	6	do.	44.3 43.8	June 2, 1950 June 2, 1950	J, E, 1½	D, Irr	Galvanized iron casing to 81 feet. Irrigates 4½ acres with well G-186.
G-188	Mrs. J. F. Bailey	D. Oliver	1934	60	6	do.	34.4 38.9 42.8	Jan. 22, 1941 Jan. 16, 1946 June 2, 1950	None	N	Galvanized iron casing to 60 feet. Two wells formerly used for irrigation.
G-189	A. F. Walters	do.	1942	60	6	do.	42	June 2, 1950	J, E, 1	D	Galvanized iron casing to 60 feet. Formerly irrigated one acre. Reported weak supply.
G-190	C. F. Wynne	--	1943	60	6	do.	42	do.	J, E, 1	D	Do.
*H-1	J. Y. Rust, Sr., Estate	--	--	60	6	San Angelo sandstone	20.3	May 3, 1950	C, W	S	Southwest well of three.
H-2	J. W. Harris	Fannin Oil Co.	1914	3,375	--	--	--	--	None	N	Oil test. See log.
H-3	H. C. Eggemeyer	Werner Lange	1947	114	6	San Angelo sandstone	82.3	Dec. 14, 1950	C, W	S	Galvanized iron casing to 114 feet.
H-4	T. H. Garner	Jack Dickson	Old	218	6	do.	102.2	do.	C, E	S	Water has salty taste.
*H-5	E. M. Johnson	R. F. Shank	1947	40	7	Leona formation	18.6	Mar. 21, 1950	C, H	D	Steel casing to 40 feet.
H-6	A. W. Pusteka	--	--	50	6	do.	36.8 36.5	Jan. 22, 1941 Feb. 21, 1950	C, W	D, S	Galvanized iron casing to 50 feet.
*H-7	Stella Fowler	--	--	60	6	Choza formation	42.9 14.3	Oct. 2, 1940 Feb 21, 1950	C, W	D, S	Galvanized iron casing to 60 feet.
*H-8	Cecil Montgomery	--	1943	85	6	do.	29.7 28	Jan. 28, 1949 Feb. 21, 1950	C, W	D, S	Galvanized iron casing to 85 feet.
*H-9	John Book	J. Donaldson	1939	98	6	do.	48.1 47.9	Oct. 6, 1948 July 28, 1950	C, W	D, S	Galvanized iron casing to 98 feet. Altitude of land surface, 1,831 feet.
*H-10	R. C. Johnson	--	--	80	6	do.	36.5 33.5 32.	Oct. 1, 1940 Oct. 1, 1948 Feb. 20, 1950	C, W	D, S	Altitude of land surface, 1,817 feet.
H-11	C. J. Horner	--	--	61	6	do.	49.2	Aug. 1, 1950	C, W	D, S	Galvanized iron casing to 61 feet. Altitude of land surface, 1,776 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
H-12	G. F. Socha	--	1947	62	10	Choza formation	31	Feb. 22, 1950	T,G	Irr	Irrigates about 10 acres.
H-13	W. M. Motl	--	--	118	6	do.	76.8	Dec. 14, 1950	C,W	S	
H-14	Curran Jones	--	--	83	6	San Angelo sandstone	57.5	do.	C,W	D,S	Galvanized iron casing to 83 feet.
*H-15	A. Strake	--	1930	70	6	Choza formation	25.4 28.9 29.3	Feb. 17, 1938 Sept. 30, 1940 Mar. 21, 1950	C,W	S	Galvanized iron casing to 70 feet.
H-16	J. W. Johnson, Jr.	Shell Oil Co.	1950	5,000+	--	--	--	--	--	--	Oil and gas well. Reported altitude of land surface, 1,830 feet. See log.
*H-17	D. P. Miers	--	1927	65	6	Choza formation	53.8 53.4	Jan. 22, 1941 Feb. 21, 1950	C,W	S	
*H-18	Henry Mazier	--	1925	50	6	do.	27.4 27.6	Jan. 22, 1941 Feb. 21, 1950	C,W	D,S	Galvanized iron casing to 50 feet.
*H-19	County Park Precinct 2	--	--	42	5	do.	22.8 24.9	Sept. 24, 1948 Aug. 2, 1950	C,H	P	Galvanized iron casing to 42 feet. Altitude of land surface, 1,731 feet.
*H-20	-- Clark	--	1925	57	6	do.	39.3 38.3	Aug. 13, 1943 Sept. 24, 1948	C,W	D,S	Altitude of land surface, 1,753 feet.
*H-21	J. R. Brooks	--	--	87	6	do.	55.7 52.5 56.3	Aug. 13, 1943 Sept. 27, 1948 Aug. 24, 1949	C,W	D,S	Galvanized iron casing to 86 feet. Altitude of land surface, 1,767 feet.
H-22	W. D. Swift	--	1948	122	6	do.	103.2	Feb. 24, 1950	C,E	D,S	
H-23	J. B. Williams	Henry Holt	--	84	8	do.	70	Dec. 15, 1950	C,G	D,Irr	Irrigates about one-fourth acre garden.
H-24	Morris Coward	do.	1938	96	8	do.	70	do.	C,E, 1½	Irr	Irrigates about one-half acre garden.
H-25	Lenard Grantham	do.	--	85	8	do.	69.7	Dec. 15, 1950	T,G	Irr	Irrigates about 2 acres.
H-26	J. L. Reed	--	1890	50	6	do.	45.7	Sept. 24, 1948	C,W	D,S	Not cased.
H-27	Marion Balch	--	--	75	6	do.	41.6 41.8	Jan. 22, 1941 Feb. 21, 1950	C,W	D,S	Galvanized iron casing to 75 feet.
H-28	E. H. Schuch	--	--	82	6	do.	51.8 53 60.3	Oct. 29, 1940 May 23, 1944 Apr. 18, 1949	None	N	Originally drilled to 120 feet for irrigation. Filled to 82 feet. Reported weak supply. Altitude of land surface, 1,810 feet.
H-29	J. F. Johnson	R. Medlock	1928	110	8	Leona and Choza formations	--	--	C,W	D,S	Not cased. North well of two originally equipped with 6-inch cylinder pumps and used for irrigation.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*H-30	J. F. Johnson	R. Medlock	1928	110	8	Leona and Choza formations	64.6 59.8 59.1	Sept. 24, 1948 July 2, 1949 Feb. 9, 1950	T.E. 10	Irr	Not cased. South well of two. Not used in 1950. Reported weak supply.
H-31	H. E. Halfmann	do.	1928	100	8	do.	62.4	Nov. 5, 1948	None	N	Not cased. Originally equipped with 6-inch cylinder pump and used for irrigation.
*H-32	do.	Garmon Bros.	1947	79	12	do.	56.5 51.8 55.5	Nov. 26, 1948 July 2, 1949 Mar. 31, 1950	T,G	Irr	Not cased. Irrigates 40 acres. Original depth, 84 feet. Measured yield, 151 gpm and pumping level, 74 feet August 22, 1950.
H-33	Mrs. Matt Johnson	R. Medlock	1928	85	8	do.	61.8 68.6	Aug. 3, 1943 Sept. 24, 1948	C,W	S	Not cased. West well of two originally equipped with 5-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,814 feet.
H-34	do.	do.	1928	85	8	do.	68.6	Sept. 24, 1948	None	N	East well of two.
H-35	do.	Garmon Bros.	1944	167	8	do.	69.5 65.9	Nov. 5, 1948 Feb. 9, 1950	J,E	D	Originally equipped with turbine pump and used for irrigation. Reported weak supply.
*H-36	J. B. Bitner	H. Flippens	1943	112	12	do.	57.4 64 68.2	Jan. 19, 1946 May 1947 Nov. 5, 1948	T.	N	Galvanized iron casing to 15 feet. Formerly used for irrigation. Reported weak supply. Altitude of land surface, 1,818 feet.
*H-37	Mrs. Matt Johnson	Garmon Bros.	1943	167	12	do.	70.2 71.1	Nov. 5, 1948 July 2, 1949	T.E. 7½	Irr	Galvanized iron casing to 25 feet. Irrigates 15 acres. Deepened from 90 to 167 feet in 1950. Measured yield, 141 gpm August 22, 1950. Altitude of land surface, 1,818 feet.
H-38	J. B. Bitner	--	1933	92	6	do.	67	Nov. 5, 1948	None	N	Galvanized iron casing to 10 feet. North well of two originally equipped with 4-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,815 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
H-39	J. B. Bitner	--	1933	82	6	Leona and Choza formations	67	Nov. 5, 1948	None	N	Galvanized iron casing to 10 feet. South well of two. Original depth of H-38 and H-39, 100 feet.
*H-40	A. F. Schumm	--	1928	125	8	do.	73 73.2 65.2	Aug. 10, 1943 Sept. 24, 1948 Apr. 18, 1949	None	N	Galvanized iron casing to 125 feet. Formerly used for irrigation. Reported weak supply. Altitude of land surface, 1,817 feet.
*H-41	Tom Green County	--	--	--	--	-- dry at	81.7 80.9 85	Oct. 29, 1940 Dec. 18, 1943 Sept. 24, 1948	None	N	Formerly used for Veribest School. Reported weak supply. Filled in 1949. Altitude of land surface, 1,816 feet.
*H-42	W. J. Sullivan	J. C. Snow	1928	100	6	Leona and Choza formations	72 88.9 79.7	Jan. 23, 1941 Sept. 24, 1948 July 2, 1949	C,W	D,S	Galvanized iron casing to 100 feet. Reported weak supply. Altitude of land surface, 1,815 feet.
H-43	I. M. Fox	--	1932	--	--	--	70.1	Aug. 11, 1943	None	N	Originally drilled to 75 feet for irrigation. Reported yield, 40 gpm when drilled. Well filled. Altitude of land surface, 1,815 feet.
H-44	A. E. Johnson	Garmon Bros.	1946	100	12	Leona and Choza formations	77	Sept. 2, 1950	T,E, 5	Irr	Not cased. Irrigates 15 acres. Estimated yield, 30 gpm September 2, 1950.
*H-45	C. A. Roberson	do.	1931	120	5	Choza formation	89.5 85.6	Sept. 27, 1948 Aug. 22, 1950	C,E	D	Galvanized iron casing to 120 feet. Deepened from 100 to 120 feet in 1950. Altitude of land surface, 1,816 feet.
*H-46	W. H. Lane	--	1900	84	6	Leona and Choza formations	67.3 72.5 71.3	Aug. 19, 1943 Sept. 27, 1948 Feb. 24, 1950	C,W	D,S	Altitude of land surface, 1,819 feet.

Table 3.--Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*H-47	Mrs. Julius Miller	--	Old	110	8	Leona formation	60.8 74.2 68.1	Nov. 19, 1940 Nov. 3, 1948 Feb. 9, 1950	T.E. 15	Irr	Steel casing to 110 feet. Irrigates 20 acres. West well of two originally equipped with 6-inch cylinder pumps. Measured yield, 266 gpm and pumping level, 73.3 feet September 16, 1943. Reported yield, about 325 gpm in 1948. Estimated yield, about 100 gpm August 23, 1950. Altitude of land surface, 1,822 feet.
H-48	do.	--	Old	110	8	do.	74.5	Nov. 3, 1948	None	N	Not cased. East well of two.
*H-49	Hope Clark	--	1928	105	8	Leona and Choza formations	60 74.2	Aug. 1943 Oct. 18, 1948	C,W	D,S	South well of two originally equipped with 6-inch cylinder pumps and used for irrigation.
H-50	do.	--	1928	143	8	do.	59.7 74.2	Nov. 19, 1940 Oct. 18, 1948	T.E. 15	Irr	Not cased. Irrigates about 20 acres. North well of two. Deepened from 114 to 143 feet in 1947. Reported yield, 250 gpm. Altitude of land surface, 1,821 feet.
H-51	do.	--	1928	91	6	Leona formation	58 69.7	Nov. 19, 1940 Oct. 27, 1948	None	N	Galvanized iron casing to 10 feet. Two wells originally equipped with 6-inch cylinder pumps and used for irrigation. North well filled. Altitude of land surface, 1,819 feet.
H-52	Mrs. A. F. Schumm	Garmon Bros.	--	125	12	Leona and Choza formations	68.6 79.2	Aug. 9, 1943 Oct. 18, 1948	T.E. 10	Irr	Irrigates 26 acres. Measured yield, 247 gpm September 14, 1943 and 216 gpm August 22, 1950. Altitude of land surface, 1,817 feet.
H-53	Otis Lane	--	1928	79	10	Leona formation	55.2 66.5 70.1	Nov. 19, 1940 Oct. 18, 1948 Aug. 22, 1950	None	N	West well of two originally equipped with 6-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,817 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*H-54	Otis Lane	--	1928	126	10	Leona and Choza formations	--	--	T,E, 10	Irr	Irrigates about 30 acres. East well of two. Deepened from 90 to 126 feet in 1946. Reported yield, 180 gpm in 1948.
H-55	do.	--	1928	94	8	Leona formation	67.6	Oct. 26, 1948	None	N	Galvanized iron casing to 10 feet. East well of two originally equipped with 6-inch cylinder pumps and used for irrigation. West well filled. Altitude of land surface, 1,819 feet.
H-56	W. H. Lane	E. E. Kinsey	1928	73	8	do.	55.7 63.5	Nov. 19, 1940 Oct. 26, 1948	None	N	Not cased. East well of two originally equipped with 6-inch cylinder pumps and used for irrigation. Original depth, 90 feet. Altitude of land surface, 1,816 feet.
H-57	do.	do.	1928	100	10	do.	57.9 57.3 63.7	Nov. 19, 1940 Oct. 14, 1943 Oct. 26, 1948	None	N	Galvanized iron casing to 10 feet. Northeast well of two originally equipped with 6-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,816 feet.
H-58	do.	Garmon Bros.	1945	142	12	Leona and Choza formations	54.6	Jan. 19, 1946	T,E, 25	Irr	Not cased. Irrigates 65 acres. Measured yield, 348 gpm August 22, 1950. Altitude of land surface, 1,816 feet.
*H-59	Otis Lane	do.	1946	150	12	do.	71.4	Oct. 27, 1948	T,E, 7½	Irr	Galvanized iron casing to 100 feet. Irrigates about 30 acres. Measured yield, 168 gpm; pumping level, 100 feet August 24, 1950.
H-60	do.	do.	1943	70	8	Leona formation	57.1 dry	Jan. 9, 1946 Aug. 22, 1950	None	N	Formerly used for irrigation. Original depth, 93 feet.
H-61	Hope Clark	--	--	120	8	Leona and Choza formations	62.7	Oct. 26, 1948	None	N	Not cased. North well of three originally equipped with 6-inch cylinder pumps and used for irrigation.
H-62	do.	--	--	135	8	do.	53.2 62.8	Nov. 19, 1940 Oct. 26, 1948	None	N	Not cased. Middle well of three formerly used for irrigation. Deepened from 121 to 135 feet in 1949. Reported yield after deepening, 308 gpm.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
H-63	Hope Clark	--	--	114	8	Leona and Choza formations	62.8	Oct. 26, 1948	None	N	Not cased. South well of three.
H-64	Robert Vidler	--	1924	--	--	--	53.5	Nov. 11, 1940	None	N	North well of two originally equipped with 6-inch cylinder pumps and used for irrigation. Well filled.
*H-65	do.	--	1924	114	10	Leona and Choza formations	62.5 62.2	Oct. 18, 1948 Feb. 9, 1950	T,E, 15	Irr	Not cased. Irrigates about 40 acres. South well of two. Measured yield, 145 gpm August 22, 1950.
H-66	do.	Robert Vidler	1948	154	12	do.	67.8	Oct. 26, 1948	T,E, 15	Irr	Not cased. Irrigates about 60 acres. Reported yield, 250 gpm in October 1948. See log.
*H-67	do.	E. H. McCullough	1947	177	12	do.	62.9 62.7	Oct. 18, 1948 July 2, 1949	None	N	Not cased. Formerly used for irrigation. Reported weak supply.
*H-68	E. H. Schuch	--	1932	102	6	do.	69.2 69.8 77.5	Oct. 29, 1940 Dec. 17, 1943 Sept. 24, 1948	C,W	D,S	Galvanized iron casing to 100 feet.
*H-69	W. E. Phillips	J. C. Snow	1945	73	6	Choza formation	34.6 33.6	Oct. 12, 1948 Mar. 6, 1950	C,G, 1½	D	Galvanized iron casing to 73 feet.
*H-70	J. W. Nelson	C. E. Clark	1948	80	6	do.	57.6	Oct. 18, 1948	J,E	D	Galvanized iron casing to 80 feet. See log.
*H-71	B. H. Gilbert	--	--	70	6	Leona formation	60 60.4 60.6	Dec. 23, 1948 July 2, 1949 Feb. 20, 1950	C,W	D,S	
H-72	Tom Green County	H. Duckworth	--	65	5	do.	64.1	Apr. 16, 1949	C,H	N	Formerly used by rural school.
H-73	Albin Mika	Garmon Bros.	1946	106	12	Leona and Choza formations	67.1 65.5	Dec. 23, 1948 Feb. 17, 1950	T,E, 7½	Irr	Galvanized iron casing to 15 feet. Irrigates 60 acres. Reported yield, 250 gpm in 1946. Pumping level, 80 feet July 2, 1949.
H-74	do.	E. H. McCullough	1948	121	12	Leona formation	66.6	Dec. 23, 1948	None	N	Galvanized iron casing to 15 feet. Drilled for irrigation.
*H-75	M. D. Parmer	--	1924	96	6	do.	56.2 44.9	Aug. 17, 1943 Dec. 8, 1948	J,E	D	Galvanized iron casing to 96 feet. Altitude of land surface, 1,829 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
H-76	M. D. Palmer	--	--	--	--		--	--	None	N	Formerly equipped with cylinder pump and used for irrigation. Well filled.
H-77	N. E. Lester	R. Medlock	1925	86	8	Leona formation	--	--	J,E, 1	D	West well of two formerly equipped with 6-inch cylinder pumps and used for irrigation.
*H-78	do.	do.	1925	87	8	do.	71.6 72.4 70	Aug. 11, 1943 Oct. 27, 1948 July 2, 1949	T,G	Irr	Galvanized iron casing to 16 feet. Irrigates 60 acres. East well of two. Reported yield, about 200 gpm in 1948.
*H-79	C. S. Bubenik	--	1928	90	8	Leona and Choza formations	63.9	Nov. 19, 1940	C,G, 10	N	Galvanized iron casing to 9 feet. North well of two formerly used for irrigation.
H-80	do.	--	1928	90	8	do.	71	Nov. 3, 1948	C,G, 10	N	Galvanized iron casing to 9 feet. South well of two.
H-81	Otto Bubenik	Garmon Bros.	1946	100	10	do.	70.2	Oct. 27, 1948	T,E, 10	Irr	Not cased. Irrigates about 15 acres. Reported yield, 100 gpm in 1948.
*H-82	do.	do.	1946	100	10	do.	69.6	do.	None	N	Not cased. Formerly used for irrigation. Reported weak supply.
*H-83	do.	--	1924	119	8	do.	69.2	Nov. 3, 1948	C,W	D	North well of two originally equipped with 6-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,822 feet.
H-84	do.	--	1924	--	--	--	--	--	None	N	South well of two. Well filled.
H-85	H. Mazier	Fred Scott	1950	120	8	Leona formation	66.5	May 1, 1950	T,G	Irr	Galvanized iron casing to 16 feet. Irrigates about 20 acres. Reported yield, 100 gpm in 1950.
H-86	do.	Garmon Bros.	--	80	8	do.	57.7 55.1 65.1	Nov. 18, 1940 July 27, 1943 Nov. 9, 1948	None	N	Galvanized iron casing to 20 feet. Two wells originally equipped with 6-inch cylinder pumps and used for irrigation. Altitude of land surface, 1,818 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*H-87	W. J. Drgac	--	Old	60	5	Leona formation	50.9 51.8 51	Oct. 31, 1940 Aug. 17, 1943 Jan. 18, 1946	J, E, 1	D, S	Galvanized iron casing to 60 feet. Altitude of land surface, 1,818 feet.
*H-88	do.	Garmon Bros.	1948	100	8	do.	58.8 45.4	Nov. 3, 1948 Feb. 16, 1950	T, E, 15	Irr	Galvanized iron casing to 10 feet. Irrigates 50 acres. Reported yield when tested, 750 gpm, March 1948. Measured yield, 334 gpm, August 3, 1950. Altitude of land surface, 1,811 feet.
H-89	Wylie Pate	do.	1943	--	--	--	48.1	Aug. 2, 1943	None	N	Yield reported insufficient for irrigation. Well filled.
*H-90	do.	do.	1943	116	--	--	48.6	do.	None	N	Measured yield, 42 gpm; pumping level, 986 feet after one hour test. Well filled. See log.
H-91	W. H. Lane	do.	1943	177	--	--	58.9	do.	None	N	Measured yield, 88 gpm; pumping level 153 feet after 38-hour test. Well filled. See log.
H-92	Victor Mika	Grosshans Bros.	1948	90	12	Leona formation	43.5	Nov. 3, 1948	T, G, 38	Irr	Galvanized iron casing to 28 feet. Irrigates 40 acres. Reported yield, 350 gpm when drilled. Yield decreased after use.
H-93	do.	R. Medlock	Old	98	--	--	30.5 30.6	Nov. 18, 1940 Aug. 5, 1943	None	N	Two wells originally equipped with 6-inch cylinder pumps and used for irrigation. Wells filled. Altitude of land surface, 1,798 feet.
H-94	do.	Garmon Bros.	1947	88	10	Leona formation	38.6	Nov. 3, 1948	None	N	Galvanized iron casing to 62 feet. Drilled for irrigation. Reported yield, 360 gpm when drilled.
*H-95	C. H. Feist	Ben Eggemeyer	1923	84	6	do.	48.2	Sept. 27, 1948	C, W	D, S	Galvanized iron casing to 84 feet. Deepened from 52 to 84 feet in November 1948. Altitude of land surface, 1,811 feet.
*H-96	V. L. Pfluger	--	--	70	5	do.	40.2 40.2 52.5	Nov. 1, 1940 Dec. 18, 1943 Feb. 16, 1950	C, W	D, S	Galvanized iron casing to 70 feet. Altitude of land surface, 1,821 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
H-97	C. H. Feist	Walter Hester	1948	100	12	Leona formation	52.3	Nov. 10, 1948	T,G	Irr	Irrigates about 80 acres. Reported yield, 230 gpm when drilled.
H-98	F. A. Braden	Garmon Bros.	1947	67	12	do.	45.5 40.5 42.7	Nov. 27, 1948 July 1, 1949 Feb. 16, 1950	T,G, 16	Irr	Galvanized iron casing to 24 feet. Irrigates 40 acres. Reported yield, 350 gpm when drilled. Altitude of land surface, 1,818 feet.
H-99	Emmitt Lehr	--	1923	65	6	do.	42.7 42.9	Aug. 26, 1943 Aug. 4, 1950	C,W	D,S	Galvanized iron casing to 65 feet. Altitude of land surface, 1,823 feet.
*H-100	Tom Green County	--	--	70	5	do.	51.4 51.2 51.4	Nov. 1, 1940 Dec. 18, 1943 Jan. 19, 1946	C,W	S	Galvanized iron casing to 70 feet. Formerly used by rural school.
H-101	Mary Hasenak	--	1909	73	5	do.	58.1 57.7	Dec. 22, 1948 Aug. 9, 1950	C,W	D,S	Altitude of land surface, 1,830 feet.
H-102	K. H. Weiss	Ernest Higgins	1948	--	--	do.	60.9	Mar. 6, 1950	T,E, 10	Irr	Irrigates about 40 acres. Altitude of land surface, 1,834 feet.
H-103	W. R. Schwartz	Garmon Bros.	1935	85	5	do.	48.5 49.5 59.5	Nov. 1, 1940 Dec. 18, 1943 July 1, 1949	C,W	D,S	Galvanized iron casing to 85 feet.
H-104	-- Pfluger	--	1933	82	6	do.	66.8	Dec. 23, 1948	C,W	S	
H-105	N. C. Butt	--	1904	81	5	do.	59.5 58.8	Jan. 1, 1949 Aug. 9, 1950	C,W	S	Altitude of land surface, 1,846 feet.
*H-106	Viola Korenek	R. Olsak	1930	80	5	do.	43.8 43.1 45.1	Nov. 1, 1940 Dec. 18, 1943 Dec. 31, 1948	C,W	S	Galvanized iron casing to 80 feet.
H-107	do.	V. E. Psencik	1948	106	10	Leona and Choza formations	46.6 46 45.8	Dec. 31, 1948 July 1, 1949 Feb. 20, 1950	C,G	Irr,S	Galvanized iron casing to 8 feet. Irrigates about 10 acres. Estimated yield, 100 gpm; pumping level, 65 feet March 31, 1950. Altitude of land surface, 1,851 feet.
*H-108	Jewel Brandon	--	Old	80	6	Choza formation	50.1	Oct. 12, 1948	C,W	S	Galvanized iron casing to 80 feet.

Table 3.--Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*H-109	Mrs. E. C. Adkinson	--	1927	112	6	Choza formation	87.0 81.0 76.6	Mar. 29, 1939 Jan. 3, 1949 Feb. 20, 1950	C,W	D,S	Galvanized iron casing to 112 feet.
J-1	A. L. Douglas	E. M. McCullough	1950	300	12	Bullwagon dolomite member b/	48.6	Jan. 3, 1951	T,E	Irr	Reported yield, 300 gpm when drilled.
*J-2	do.	Joe Donelson	1938	85	6	Choza formation	41.5	Feb. 20, 1950	C,W	D,S	
J-3	L. J. Jeschke	--	--	85	6	Bullwagon dolomite member b/	56.2 72	Jan. 29, 1941 Jan. 3, 1951	J,E	D,S	Galvanized iron casing to 85 feet. Reported weak supply.
J-4	Mrs. S. E. Parmer	--	--	70	6	Vale formation	48.2	Feb. 28, 1950	C,W	D,S	
J-5	Richard Wendland	--	--	50	5½	Standpipe limestone member c/	45 42.3	Jan. 29, 1941 Feb. 24, 1950	C,W	D,S	Galvanized iron casing to 50 feet.
J-6	Henry Moeller	--	1915	70	6	Vale formation	58.1	Feb. 24, 1950	C,W	D,S	Galvanized iron casing to 70 feet.
J-7	Jackson & Broome	--	Old	50	6	Leona formation	37.2 40.9	Jan. 29, 1941 Feb. 24, 1950	C,W	D,S	Galvanized iron casing to 50 feet.
J-8	Milburn Wright	Joe Dušek	1948	71	12	Bullwagon dolomite member b/	52.8 59.6	May 1, 1950 June 6, 1951	T,E, 10	Irr	Irrigates about 20 acres. Reported yield, 600 gpm when drilled.
J-9	L. D. Richert	R. F. Garmon	1949	76	12	do.	50	Dec. 1949	None	N	Drilled for irrigation. Reported yield when drilled, 918 gpm; pumping level, 62 feet. See log.
*J-10	H. J. Perry	E. H. McCullough	1950	180	12	do.	67.1 78.1	Jan. 3, 1951 June 6, 1951	T,G	Irr	Galvanized iron casing to 40 feet. Irrigates about 80 acres. Measured yield, 963 gpm; pumping level, 85.4 feet April 18, 1951.
*J-11	Tom Green County	--	--	60	6	Choza formation	30.9 32	Jan. 16, 1941 Feb. 24, 1950	C,H	N	Galvanized iron casing to 60 feet. Formerly used for rural school.
*J-12	Alf Smith	R. F. Garmon	1949	218	12	Bullwagon dolomite member b/	97.7	Feb. 24, 1950	T,G	Irr	Galvanized iron casing to 170 feet. Irrigates about 80 acres. Measured yield, 642 gpm; pumping level, 141 feet August 24, 1950.
J-13	do.	F. P. Grosshans	1950	300	--	--	--	--	None	N	Reported yield insufficient for irrigation. Well filled.
J-14	J. G. Harris	Henry Hudek	1950	202	12	Bullwagon dolomite member b/	49	May 1, 1950	T,G	Irr	Steel casing to 84 feet. Not used for irrigation in 1950.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
J-15	Carson Miles	--	--	Spring	--	Bullwagon dolomite member b/	+	--	Flows	N	Spring in Concho River. Reported never dry; flow decreases during drought.
J-16	W. A. Stroman	Joe Donaldson	1936	130	--	Vale formation	109.1	Jan. 15, 1941	None	N	Reported yield insufficient for stock. Well filled.
J-17	M. W. Ray	--	1946	61	7	Arroyo formation	42.6	Feb. 24, 1950	C,W	S	Steel casing to 40 feet.
J-18	B. H. Helwig	--	--	Spring	--	Leona formation	+	--	Flows	D,S	Helwig Spring. Water flows from creviced conglomerate. Reported yield, 10 gpm. Yield decreases during drought. Temp. 71° F.
J-19	do.	--	1922	32	5½	do.	10	Jan. 15, 1941	C,W	D,S	Galvanized iron casing to 32 feet.
J-20	E. W. Hardgrave	R. F. Garmon	1951	130	12	Leona formation and Bullwagon dolomite member b/	91.5 103.4	Jan. 10, 1951 Jan. 15, 1952	T,G	Irr	Reported yield when drilled, 1,000 gpm; pumping level, 99.5 feet.
J-21	do.	do.	1950	76	12	Bullwagon dolomite member b/	40.9 54.1	Jan. 2, 1951 Jan. 15, 1952	T,G	Irr	Galvanized iron casing to 49 feet. Reported yield when drilled, 950 gpm; pumping level 43 feet.
*J-22	do.	do.	1951	153	8	Leona formation and Bullwagon dolomite member b/	96.2 109.2	Jan. 2, 1951 Jan. 15, 1952	T,G	Irr	Galvanized iron casing to 128 feet. Measured yield, 770 gpm; pumping level, 104 feet Jan. 2, 1951.
*J-23	-- Ford	--	--	Spring	--	Leona formation	+	--	Flows	D,S	Indian Springs. Water flows from creviced conglomerate. Measured yield, 300 gpm in 1943; estimated yield, 50 gpm in 1948; almost dry in 1950. Altitude of springs, 1,719 feet. Temp. 71° F.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
J-24	Tom Williams	--	--	Spring	--	Leona formation	+	--	Flows	S	Williams' Spring. Water flows from creviced conglomerate. Reported yield, 100 gpm in 1943; almost dry in 1950. Altitude of spring, 1,727 feet. Temp. 71° F.
J-25	E. P. Dickson	--	Old	28	48	do.	17.8 19.6 23.4	Jan. 23, 1941 Dec. 17, 1943 Dec. 9, 1948	J, E	D, S	Dug. Concrete casing to 20 feet. Originally 35 feet deep, filled to 28 feet. Altitude of land surface, 1,738 feet.
J-26	J. W. Tunnell	--	--	66	8	do.	48.8 49.7	Dec. 22, 1948 July 3, 1949	T, E, 10	Irr	Not cased. Not used in 1950. Reported yield, 75 gpm in summer 1948.
J-27	do.	--	--	76	8	do.	51.7	Dec. 22, 1948	None	N	Two wells formerly equipped with 6-inch cylinder pumps and used for irrigation.
J-28	Otto Strube	--	Old	72	6	do.	62.2	do.	J, E	D, S	Galvanized iron casing to 72 feet.
J-29	Milburn Wright	--	Old	162	6	Bullwagon dolomite member b/	135.2	May 31, 1950	C, W	S	
*J-30	C. O. Meadors	--	--	78	6	Vale formation	50.7	do.	C, W	D, S	Galvanized iron casing to 78 feet.
J-31	Frank Hurt	--	--	92	6	Bullwagon dolomite member b/	39.9	do.	C, W	D, S	
J-32	E. F. Holik	--	--	101	6	Leona formation	92.6	Feb. 27, 1950	C, W	D, S	Well formerly used for rural school.
J-33	Carl Byrd	--	--	182	8	Leona and Choza formations	61	May 31, 1950	C, W	D, S	
*J-34	L. J. Sidel	R. F. Garmon	1943	182	8	Bullwagon dolomite member b/	71.4 121.9 136.3	Nov. 10, 1948 Feb. 31, 1950 July 15, 1952	T, E, 10	Irr	Galvanized iron casing to 170 feet. Irrigates 50 acres. Deepened from 80 to 182 feet in 1949. Measured yield, 431 gpm; pumping level, 132 feet August 24, 1950. Altitude of land surface, 1,809 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*J-35	J. S. Johnson	R. F. Garmon	1943	195	12	Bullwagon dolomite member b/	64.5 69.3 100.8	July 25, 1943 Nov. 10, 1948 Sept. --, 1949	T, E, 20	Irr	Irrigates 50 acres. Deepened from 80 to 195 feet in 1949. Measured yield, 327 gpm August 24, 1950. Altitude of land surface, 1,804 feet.
J-36	do.	do.	1943	187	12	Leona formation	69.2 137.1 138.5	Feb. 9, 1950 June 5, 1951 Jan. 15, 1952	T, E, 10	Irr	Galvanized iron casing to 20 feet. Formerly used for irrigation. Estimated yield, 250 gpm in 1943. Yield decreased in 1948. Deepened from 80 to 187 feet in April 1951.
J-37	do.	do.	1943	80	12	do.	--	--	None	N	Galvanized iron casing to 20 feet. Drilled for irrigation. Reported yield, 60 gpm in 1943.
J-38	do.	do.	1943	82	12	do.	67.3	Nov. 10, 1948	None	N	Do.
J-39	P. J. Standefer	do.	1944	100	12	do.	77.6	Dec. 9, 1948	T, E, 10	Irr	Galvanized iron casing to 10 feet. Reported yield, 200 gpm in 1946, 190 gpm in 1948; estimated yield, 70 gpm, pumping level, 80 feet August 24, 1950.
*J-40	do.	do.	1943	100	12	do.	77.5 75.2 75.8	Dec. 9, 1948 July 2, 1949 Feb. 9, 1950	T, E, 10	Irr	Galvanized iron casing to 10 feet. Irrigates 70 acres with well J-39. Estimated yield, 275 gpm in 1943; reported yield 180 gpm in 1949; measured yield, 163 gpm; pumping level, 86 feet August 24, 1950. Altitude of land surface, 1,816 feet. See log.
J-41	B. R. Weatherford	do.	1950	191	12	Leona formation and Bullwagon dolomite member b/	120 140.4 136.8	Nov. --, 1950 June 5, 1951 Jan. 15, 1952	T, E, 30	Irr	Galvanized iron casing to 160 feet. Not used in 1950. Reported yield, 500 gpm; pumping level, 150 feet after 2-hour test.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
J-42	B. R. Weatherford	R. F. Garmon	1950	191	12	Leona formation and Bullwagon dolomite member b/	120 140.4 136.8	Nov. --, 1950 June 5, 1951 Jan. 15, 1952	T,E, 30	Irr	Galvanized iron casing to 160 feet. Not used in 1950. Reported yield, 500 gpm; pumping level, 150 feet after 2-hour test.
J-43	W. H. Lane	do.	1950	182	12	do.	120	June --, 1950	T,E, 40	Irr	Galvanized iron casing from 90 to 182 feet. Irrigates about 80 acres. Reported yield, 680 gpm; pumping level, 172 feet after 2-hour test.
J-44	B. R. Weatherford	do.	1949	146	12	do.	120.7 123.8	Apr. 18, 1951 Jan. 15, 1952	None	N	Galvanized iron casing to 130 feet. Irrigated about 80 acres in 1950. North well of two formerly equipped with 6-inch cylinder pumps. Redrilled in 1949. Measured yield, 515 gpm August 23, 1950.
*J-45	J. H. Sims	do.	1947	101	12	Leona formation	73.4 75.1 74.4	Nov. 9, 1948 July 3, 1949 Mar. 1, 1950	T,E, 25	Irr	Galvanized iron casing to 6 feet. Irrigated 165 acres with well J-48 in 1950. Reported yield, 800 gpm in 1947; measured yield, 532 gpm; pumping level, 92 feet August 24, 1950.
*J-46	H. I. Sims	do.	1950	155	12	Bullwagon dolomite member b/	112 137.5 131.4	Nov. --, 1950 May 31, 1951 Jan. 15, 1952	T,E, 25	Irr	Steel casing cemented from 63 to 128 feet. Not used in 1950. Reported yield, 850 gpm; pumping level, 117 feet after 2-hour test.
*J-47	J. H. Sims	R. Medlock	1926	90	10	Leona formation	63.1 71.3	Aug. 12, 1943 Nov. 9, 1948	None	N	Two wells formerly equipped with 6-inch cylinder pumps and used for irrigation. North well equipped with turbine pump from 1943-1948. Measured yield, from north well, 282 gpm Sept. 14, 1953.
J-48	H. I. Sims	R. F. Garmon	1943	97	10	do.	63.2 72 72.3	Aug. 18, 1943 Nov. 9, 1948 Mar. 1, 1950	T,E, 15	Irr	Irrigates with well H-45. Reported yield, 325 gpm in 1943, and 250 gpm in 1948. Altitude of land surface, 1,804 feet. See log.
J-49	do.	R. Medlock	1926	155	12	do.	60 68.9	Aug. 12, 1943 Nov. 9, 1948	None	N	Drilled for irrigation. Reported yield insufficient for irrigation.
J-50	J. H. Sims	R. F. Garmon	1946	92	8	do.	68.1	Nov. 9, 1948	T,E, 6½	Irr	Galvanized iron casing to 6 feet. Irrigates about 5 acres. Reported yield, 150 gpm in 1948.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*J-51	R. W. Whitfield	J. W. Bennett & Son	1906	87	6	Bullwagon dolomite member b/	86.7 81.2 80.7	Oct. 29, 1940 Sept. 28, 1948 Mar. 1, 1950	C,W	D,S	Galvanized iron casing to 87 feet. Altitude of land surface, 1,785 feet.
J-52	Henry Smith	--	Old	78	6	Vale formation	61.7	Mar. 1, 1950	J,E	D,S	Galvanized iron casing to 78 feet. Altitude of land surface, 1,766 feet.
*J-53	J. S. Webb	J. C. Snow	1945	67	5	Arroyo formation	35.6 34.3	Sept. 28, 1948 Aug. 3, 1950	C,W	D,S	Galvanized iron casing to 67 feet. Altitude of land surface, 1,736 feet.
J-54	R. E. McCullough	R. F. Garmon	1944	101	10	Leona formation	59.7 70.8 76.6	Jan. 17, 1946 Sept. 27, 1948 Apr. 18, 1949	T,E 7½	Irr	Galvanized iron casing to 14 feet. Irrigates with well J-55. Reported yield, 175 gpm in 1948 and 100 gpm in 1950.
*J-55	do.	do.	1946	103	12	do.	69.1 67.1 80.2	Nov. 5, 1948 Feb. 9, 1950 Jan. 29, 1952	T,E, 25	Irr	Galvanized iron casing to 18 feet. Irrigates 160 acres with well J-54. Reported yield, 750 gpm when drilled. Measured yield, 662 gpm; pumping level, 75 feet August 22, 1950. Altitude of land surface, 1,809 feet.
J-56	A. F. Schumm	do.	1949	100	10	Leona and Choza formations	71.2	May 1, 1950	T,E, 7½	Irr	Galvanized iron casing to 20 feet. Irrigates 6 acres. Measured yield, 137 gpm on Aug. 22, 1950.
J-57	do.	do.	1943	--	--	--	58.6	Aug. 2, 1943	None	N	Drilled for irrigation. Measured yield, 92 gpm July 1943. Well filled.
J-58	do.	do.	1948	93	12	Leona and Choza formations	63.5 56.1 60.4	Nov. 5, 1948 July 4, 1949 Feb. 16, 1950	T,G, 37	Irr	Galvanized iron casing to 12 feet. Irrigates 40 acres. Reported yield, 400 gpm in 1948. Measured yield, 353 gpm; pumping level, 83 feet, Aug. 22 1950.
*J-59	Amel Timms	J. C. Snow	1920	150	6	Leona formation and Bullwagon dolomite member b/	71.5 64.6 87.7	Dec. 22, 1948 July 4, 1949 Feb. 27, 1950	C,W	D,S	Altitude of land surface, 1,809 feet. See log.
*J-60	M. T. Cotten	M. T. Cotten	1938	25	60	Standpipe limestone member	24.1 22.3	Dec. 8, 1948 Feb. 27, 1950	B,H	D	Dug. Reported dry in summer, 1948.
J-61	Ed Wannerick	F. P. Grosshans	1948	162	--	--	39.3	Dec. 8, 1948	None	N	Drilled to 162 feet for irrigation. Reported yield, 60 gpm in bailer test. Well filled. See log.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*J-62	Ed Wannerick	Tom Holmsley	1927	38	5	Standpipe limestone member	28.1	Oct. 29, 1940	J,E	D,S	Galvanized iron casing to 38 feet.
*J-63	O. M. Droll	--	--	67	5	do.	44.2 41.5	Dec. 8, 1948 Feb. 27, 1950	C,W	D	
*J-64	Mrs. O. L. Frasure	R. F. Shank	1948	103	6	do.	36.9 35.5	Nov. 3, 1948 Feb. 27, 1950	C,W	S	Galvanized iron casing to 103 feet. Reported weak supply. See log.
J-65	J. P. Johnson	--	Old	74	6	Choza formation	53.6 47.7 52.5	Dec. 22, 1948 July 4, 1949 Feb. 27, 1950	C,W	D,S	Galvanized iron casing to 74 feet. Altitude of land surface, 1,783 feet.
J-66	Jeff Johnson	R. F. Garmon	1946	80	12	Leona formation	57.4	May 31, 1950	T,E, 10	Irr	Galvanized iron casing to 10 feet. Irrigates about 40 acres with wells J-67 and J-68. Reported weak supply.
J-67	do.	do.	1946	81	12	do.	56.9	do.	T,E, 10	Irr	Galvanized iron casing to 10 feet. Reported weak supply.
J-68	do.	do.	1946	80	12	do.	56.7	do.	T,E, 10	Irr	Do.
J-69	Wylie Pate	do.	1947	116	12	Leona and Choza formations	59.2	Nov. 5, 1948	T,G, 45	Irr	Irrigates about 45 acres with well J-70. Estimated yield, 100 gpm August 24, 1950.
*J-70	do.	do.	1943	140	14, 6	do.	49.1	Aug. 2, 1943	T,G, 80	Irr	Steel casing to 20 feet. Diameter of well, 14 inches to depth of 116 feet, 12 inches from depth of 116 to 123 feet, and 6 inches from depth of 123 feet to 140 feet. Measured yield, 450 gpm; pumping level, 54 feet July 22, 1943. Reported yield, 79 gpm Aug. 24, 1950. Altitude of land surface, 1,808 feet. See log.
*J-71	do.	do.	1943	117	14	do.	46.3 56.3 54.9	Aug. 2, 1943 Sept. 27, 1948 Feb. 16, 1950	T,G, 80	N	Steel casing to 20 feet. Drilled for irrigation. Measured yield, 450 gpm; pumping level, 53 feet July 26, 1943. Reported yield, insufficient for irrigation after 1948. Altitude of land surface, 1,806 feet. See log.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
J-72	Wylie Pate	R. F. Garmon	1946	80	12	Leona formation	56.7	Nov. 5, 1948	T,G, 38	N	Not cased. Drilled for irrigation. Reported yield insufficient for irrigation.
*J-73	C. E. Mayes Estate	E. E. Kinsey	1924	55	--	--	30.2	Nov. 18, 1940	None	N	North well of two formerly equipped with 6-inch cylinder pumps and used for irrigation. South well drilled in 1928. Both wells sealed and not used since 1942.
J-74	do.	do.	1924	62	8	Leona formation	29.2 35.7 30.7	Aug. 5, 1943 Dec. 10, 1948 July 4, 1949	C,W	D,S	Steel casing to 20 feet. Altitude of land surface, 1,799 feet.
*J-75	J. S. Powell	--	--	81	5	Bullwagon dolomite member b/	67.1 69.2 68.4	Nov. 1, 1940 Dec. 22, 1948 Feb. 27, 1950	J,E	D,S	Galvanized iron casing to 81 feet. Altitude of land surface, 1,819 feet.
*J-76	W. L. Griffith	--	--	48	4	Leona and Vale formations	24.3	Oct. 31, 1940	C,W	D,S	Galvanized iron casing to 48 feet.
J-77	Carson Miles	R. F. Garmon	1951	129	12	Leona formation and Bullwagon dolomite member b/	91.5 103.1	Apr. 18, 1951 Jan. 15, 1952	T,G	Irr	
J-78	R. R. Hoelscher	do.	1951	141	12	do.	106.9 109.5	June 21, 1951 Jan. 15, 1952	T,G	Irr	Galvanized iron casing to 130 feet.
J-79	Otto Strube	do.	1951	166	12	Bullwagon dolomite member b/	119.5	May 1, 1951	T,G	Irr	Steel casing to 121 feet.
J-80	do.	do.	1951	177	12	do.	117.1 123.9	Apr. 19, 1951 Jan. 15, 1952	T,G	Irr	Steel casing to 150 feet.
J-81	John Balch	do.	1951	179	12	Leona formation and Bullwagon dolomite member b/	122 127.1	Apr. 19, 1951 Jan. 15, 1952	T,G	Irr	
J-82	W. B. & G. L. Weatherford	do.	1951	186	12	do.	136.6 136.1	June 5, 1951 Jan. 15, 1952	T,G	Irr	
J-83	J. W. Clark	Curtis Drilling Co.	1951	170	12	do.	134.3 130.9	June 6, 1951 Jan. 15, 1952	None	N	Drilled for irrigation.
J-84	Pete Clark	F. P. Grosshans	1951	--	12	do.	--	--	T,G	Irr	
J-85	B. R. Weatherford	--	1951	148	12	do.	115.9	Jan. 15, 1952	T,G	Irr	Reported weak supply in 1951.
J-86	Carl Byrd	--	1951	130	12	do.	111.3 111.2	June 21, 1951 Jan. 15, 1952	T,G	Irr	Do.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
J-87	L. J. Sidel	R. F. Garmon	1951	176	12	Leona formation and Bullwagon dolomite member b/	125.4 128	Apr. 19, 1951 Jan. 15, 1952	T,E	D,S, Irr	Temp. 70° F.
J-88	Bud Neeley	do.	1951	176	12	do.	132.7	Apr. 18, 1951	T,E, 30	Irr	Reported yield, 600 gpm and 25 foot drawdown in 2-hour test; weak supply in summer 1951.
J-89	G. L. Weatherford	--	1951	200	12	do.	--	--	T,G	Irr	
*K-1	W. O. Miller	--	Old	73	6	Leona formation	56.3	Sept. 14, 1950	C,W	D,S	
*K-2	-- Gunter	--	1920	66	8	do.	58.8	do.	C,W	S	
*K-3	R. F. Halbert Estate	--	Old	110	8	do.	60.4 60.1	Aug. 22, 1940 Sept. 14, 1950	C,W	S	Galvanized iron casing to 110 feet.
*K-4	R. F. Gandy	--	--	30	36	do.	18.8 27.2	Aug. 22, 1940 Sept. 21, 1950	C,W	D,S	Dug. Not cased.
K-5	Homer Byrd	--	-- Spring		--	do	+	--	Flows	S	Byrd Spring. Seeps from gravel in bed of Middle Concho River. Flow varies with amount of water in the river. Temp. 73° F.
K-6	W. A. Crowder	Ben Smith	1950	40	8	do.	22.5	Sept. 14, 1950	T,G	D,Irr	Drilled for irrigation and not used in 1950.
K-7	Mrs. G. L. Lewis	--	--	150	6	Trinity group	79.2	Sept. 15, 1950	C,W	S	
*K-8	R. C. Boggs	--	1928	37	12	Leona formation	34.7 36.8 36.9	Feb. 21, 1938 Jan. 28, 1941 Sept. 15, 1950	None	N	Galvanized iron casing to 38 feet. Formerly used for irrigation. Not used since 1939.
*K-9	James A. Stanford	--	1920	65	8	do.	18 20.8	Aug. 23, 1940 Sept. 15, 1950	C,W	D,S	Galvanized iron casing to 40 feet. Reported weak supply.
*K-10	West Texas Boys' Ranch	--	--	85	8	do.	33.2	Aug. 23, 1940	C,W	D	Galvanized iron casing to 85 feet.
K-11	M. D. Bryant	--	Old	26	6	do.	12.5	Sept. 21, 1950	C,W	D,S	
K-12	do.	Ohio Oil Co.	1950	--	--	--	--	--	--	--	Oil well. M. D. Bryant No. 1. Reported all water encountered in drilling was salty.
*K-13	E. H. Jones	E. E. Kinsey	1930	82	6	Leona formation	54.6	Dec. 13, 1950	C,W	S	Galvanized iron casing to 82 feet. Reported weak supply.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*K-14	J. W. Evans	--	1937	47	6	Leona formation	--	--	J,E	D,S	
K-15	E. E. Foster & Sons	--	Old	34	36	do.	32.4	Dec. 13, 1950	C,W	D,S	Dug. Reported weak supply.
K-16	M. D. Bryant	R. F. Shank	1938	165	6	Trinity group and Blaine gypsum	92.3	Sept. 21, 1950	C,W	N	Reported weak supply. Water has hydrogen sulfide odor.
*K-17	W. E. Schulkey	--	-- Spring		--	Leona formation	+	--	Flows	S	Spring flows from crevices and pore-spaces in conglomerate and gravel. Amount of flow varies with amount of water in Dove Creek. Temp. 70° F.
*K-18	Tom Green County Knickerbocker School	Park Holt	Old	65	8	do.	25.8	Aug. 21, 1940	J,E	D,P	Steel casing to 65 feet. Well on school grounds.
K-19	Lupe Garcia	--	Old	43	6	Comanche Peak limestone	32	Sept. 21, 1950	C,W	D	Well on ground of old Latin-American school.
K-20	Jacobo Bejil	--	Old	22	48	do.	19.4	Dec. 13, 1950	C,W	D,S	Dug.
*K-21	Bud & Bart Abbott	--	1920	60	8	do.	40 46.8	Aug. 21, 1940 Sept. 21, 1950	C,W	D,S	Galvanized iron casing to 60 feet.
L-1	Homer G. Nickel	--	Old	45	8	Leona formation	22.7 20.1 38.1	Feb. 18, 1938 Aug. 22, 1940 Sept. 14, 1950	C,W	D,S	Dug. Steel casing.
*L-2	C. H. Barnes	Ernest Higgins	1948	122	8	San Angelo sandstone	71	Oct. 8, 1948	None	N	Drilled for domestic use. Water contained hydrogen sulfide gas. Well filled. See log.
L-3	H. M. Boykin	--	--	100	6	Leona and Choza formations	46.2	Mar. 20, 1950	C,W	D,S	Water has salty taste.
*L-4	A. L. Bucek	--	1928	90	6	Choza formation	55.8	do.	C,W	D,S	Galvanized iron casing to 90 feet.
*L-5	Thelma Snodgrass	--	1928	76	6	do.	58.9 56.4	Sept. 4, 1940 Dec. 12, 1950	C,W	D,S	Galvanized iron casing to 76 feet. Water has salty taste.
L-6	Ray Ratliff	--	--	51	6	Leona formation	37.8	Dec. 12, 1950	C,W	D,S	
*L-7	George R. Staha	--	Old	30	36	San Angelo sandstone	9.3 9.3	Aug. 21, 1940 Sept. 15, 1950	C,G	D,S	Dug. Steel casing to 30 feet. Water has salty taste.
*L-8	Henry Motl	Henry Motl	1938	29	36	Leona formation	27.6 27.1	Aug. 23, 1940 Sept. 15, 1950	J,E	D,S	Dug. Reported weak supply.
*L-9	Joe Sawyer	A. B. McCleery	1932	37	72	do.	35.6 34.5	Aug. 23, 1940 Sept. 15, 1950	C,W	S	Dug. Wooden casing to 30 feet. Reported weak supply.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*L-10	W. C. Hoelscher	--	1907	90	8	San Angelo sandstone	77.7 75.8	Sept. 4, 1940 Dec. 12, 1950	C,W	D,S	
*L-11	John A. Debus	--	1934	100	8	do.	22.5 25.3	Sept. 4, 1940 Dec. 12, 1950	C,W	D,S	Galvanized iron casing to 100 feet.
L-12	George D. Morgan	W. P. Holt	1949	66	6	Leona formation	32.2	Dec. 12, 1950	C,W	S	
L-13	Truett Smith	Roy Baker	1950	25	8	do.	11	Mar. 20, 1950	J,E	D,S	Steel casing to 25 feet. Well on bank of Pecan Creek.
L-14	E. H. Jones	--	--	60	6	Comanche Peak limestone	30.6	Dec. 13, 1950	C,W	D,S	
M-1	Emmitt Cox	Ernest Higgins	1950	89	12	Choza formation	50.0	Jan. 5, 1951	T,E, 7½	Irr	Galvanized iron casing to 89 feet. Irrigates 14 acres. Reported yield, 150 gpm when drilled.
M-2	Lawnhaven Memorial Park Inc.	R. F. Shank	1950	95	8	do.	48.7	Mar. 31, 1950	None	N	Galvanized iron casing to 95 feet. Drilled for irrigation. Reported limited yield.
M-3	do.	do.	1950	95	12	do.	45.8	do.	None	N	Do.
M-4	do.	do.	1950	94	8	do.	50.3	do.	T,E	Irr	Galvanized iron casing to 94 feet. Irrigates about 20 acres. Altitude of land surface, 1,864 feet.
*M-5	do.	Earl Scott	1948	100	8	do.	49.8	Nov. 12, 1948	None	N	Galvanized iron casing to 100 feet. Irrigated about 15 acres in 1949. Reported yield, 15 gpm in Dec. 1949. See log.
*M-6	Ben Book	Garmon Bros.	1946	87	12	Leona and Choza formations	49.6 48.6	Nov. 12, 1948 June 30, 1949	T,E, 15	Irr	Galvanized iron casing to 87 feet. Irrigates 80 acres with wells M-7 and M-8. Reported yield, 200 gpm in 1948. Measured yield, 360 gpm; pumping level, 60 feet Aug. 30, 1950. Altitude of land surface, 1,862 feet.
M-7	do.	do.	1946	93	12	do.	50.5	Nov. 12, 1948	T,E, 7½	Irr	Galvanized iron casing to 93 feet. Irrigates 80 acres with wells M-6 and M-8. Reported yield, 200 gpm in 1948-50.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
M-8	Ben Book	Garmon Bros.	1949	107	12	Leona and Choza formations	49.2	Apr. 15, 1949	T, E, 10	Irr	Galvanized iron casing to 90 feet. Irrigates 80 acres with wells M-6 and M-7. Reported yield, 200 gpm Jan. 4, 1949. Altitude of land surface, 1,862 feet. See log.
M-9	F. A. Braden	F. P. Grosshans	1948	98	10	Leona formation	71 68.1 66.5	Nov. 18, 1948 July 1, 1949 Feb. 16, 1950	T, G, 54	Irr	Galvanized iron casing to 22 feet. Irrigates 100 acres. Reported yield, 500 gpm in Feb. 1948, and 400 gpm in 1950. Altitude of land surface, 1,845 feet.
M-10	do.	Sun Oil Co.	1950	--	--	--	--	--	None	N	Oil test. Altitude of land surface, 1,840 feet.
M-11	do.	F. P. Grosshans	1948	104	10	Leona formation	68.2	Nov. 26, 1948	T, E, 10	Irr	Galvanized iron casing to 20 feet. Irrigates 60 acres. Reported yield, 300 gpm in 1948.
M-12	do.	do.	1948	106	12	do.	65.9 62.7 62.2	Nov. 26, 1948 July 1, 1949 Feb. 15, 1950	T, E, 10	Irr	Galvanized iron casing to 30 feet. Irrigates 35 acres. Reported yield, 270 gpm in 1948. Measured yield, 253 gpm; pumping level, 90 feet Aug. 18, 1950. Altitude of land surface, 1,840 feet.
M-13	Sally Feist	Earl Scott	1948	135	--	--	62.5	Dec. 31, 1948	None	N	Drilled for irrigation. Reported yield, 70 gpm when drilled. See log.
M-14	D. F. Benton	Garmon Bros.	1946	88	12	Leona formation	56 55.4 53.5	Dec. 22, 1948 July 1, 1949 Feb. 15, 1950	T, E, 5	Irr	Galvanized iron casing to 14 feet. Irrigates about 5 acres. Estimated yield, 70 gpm Aug. 7, 1950. Altitude of land surface, 1,839 feet.
*M-15	Frank Wilde	--	--	78	5	do.	63.7	Sept. 27, 1948	C, W	D, S	
M-16	Emmitt Lehr	F. P. Grosshans	1948	105	12	do.	66.9	Nov. 16, 1948	T, G, 19	Irr	Galvanized iron casing to 40 feet. Irrigates 40 acres. Reported yield, 250 gpm in 1948.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
M-17	Alfred Werner	R. F. Garmon	1950	181	7	Leona and Choza formations	57.1	Jan. 4, 1951	T,G	Irr	Galvanized iron casing to 145 feet. Irrigates 50 acres. Reported yield, 200 gpm when drilled.
M-18	J. A. Debus	--	--	87	5	Leona formation	53.9	Jan. 3, 1949	C,W	D,S	
M-19	R. F. Brown	Fred Scott	1950	120	10	Leona and Choza formations	48.4	Jan. 4, 1951	T,E, 10	Irr	Irrigates 25 acres. Reported yield, 200 gpm in 1950.
M-20	R. E. Stanford	J. C. Snow	1947	82	10	Choza formation	52.3 44.6 45.7	Nov. 30, 1948 June 30, 1949 Feb. 20, 1950	T,E, 10	Irr	Galvanized iron casing to 81 feet. Irrigated 15 acres in 1948. Reported yield, 250 gpm in 1948. Not used in 1950.
M-21	C. L. Boykin	Doyle Rogers	1947	96	8	do.	54.2	Dec. 1, 1948	T,G, 10	Irr	Irrigated 25 acres in 1948. Reported yield, 250 gpm in 1948.
M-22	do.	do.	1947	98	8	do.	55.2	do.	T,E, 5	N	Not cased. Not used since 1948. Reported yield, 100 gpm in 1948.
*M-23	Arnold Brenik	Henry Hudek	1947	100	13	Leona and Choza formations	54.2 52.5 52.8	Dec. 1, 1948 June 30, 1949 Mar. 20, 1950	T,G	Irr	Galvanized iron casing to 20 feet. Irrigates 69 acres. Reported yield, 300 gpm in 1948-50.
M-24	W. F. Stanford	J. C. Snow	1941	75	8	do.	--	--	T,E, 5	Irr	Irrigates 6 acres. Reported yield, 75 gpm Jan. 1, 1949.
*M-25	do.	A. Brenik	1949	92	12	do.	64.4 68.6	Apr. 15, 1949 Aug. 28, 1950	T,G	Irr	Galvanized iron casing to 15 feet. Irrigates about 60 acres. Measured yield, 460 gpm; pumping level, 72 feet Aug. 28, 1950. Temp. 69° F.
*M-26	R. W. Taylor	J. C. Snow	1940	75	8	do.	50	Feb. 20, 1950	T,E, 7½	D,Irr	Irrigates about 12 acres. Reported yield, 250 gpm when drilled.
M-27	Mrs. -- Halfmann	F. P. Grosshans	1947	68	8	do.	49.3	Nov. 30, 1948	J,E	D	Reported weak supply.
M-28	do.	do.	1947	69	8	do.	49.3	do.	None	N	Drilled for irrigation. Reported yield insufficient for irrigation.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
M-29	Mrs. -- Halfmann	F. P. Grosshans	1947	100	8	Leona and Choza formations	48.4	Nov. 30, 1948	None	N	Drilled for irrigation. Reported yield insufficient for irrigation.
M-30	B. O. Broadnax	--	--	100	8	do.	56.1	Nov. 12, 1948	T, E, 10	Irr	Irrigates about 10 acres.
M-31	Emmitt Lehr	R. F. Garmon	1950	134	8	do.	67.1	Jan. 5, 1951	T, G	Irr	Galvanized iron casing to 98 feet. Not used in 1950. Reported yield, 200 gpm when drilled.
M-32	do.	F. P. Grosshans	1947	114	12	Leona formation	72.5 69 67.1	Nov. 16, 1948 Apr. 16, 1949 Feb. 15, 1950	T, E, 20	Irr	Galvanized iron casing to 65 feet. Irrigates 120 acres. Reported yield, 550 gpm when drilled. Measured yield, 344 gpm; pumping level 95 feet, Aug. 18, 1950. Altitude of land surface, 1,852 feet. Temp. 69° F.
*M-33	Vince C. Motl	C. T. DeWitt	1948	110	8	do.	73 68.3	Dec. 16, 1948 Apr. 16, 1949	T, E, 10	Irr	Irrigates about 60 acres. Reported yield, 400 gpm; pumping level, 79 feet when drilled.
*M-34	H. F. Backhaus Estate	Garmon Bros.	1925	103	5	Leona and Choza formations	61.4 64.6	Nov. 6, 1940 Sept. 22, 1948	C, W	D, S	Galvanized iron casing to 100 feet.
M-35	Henry Hedden	do.	1943	100	16	do.	56.8 61.5 58.6	Jan. 17, 1946 Nov. 26, 1948 Feb. 15, 1950	T, E, 10	Irr	Galvanized iron casing to 100 feet. Irrigates 20 acres. Reported yield, 325 gpm in 1946, 200 gpm in 1948 and 1950. Altitude of land surface, 1,849 feet. Temp. 69° F.
*M-36	Melvin Moeller	do.	1949	140	12	do.	77.9	Jan. 5, 1951	T, G	Irr	Irrigates about 60 acres. Measured yield, 280 gpm, pumping level, 98 feet Aug. 31, 1950. Altitude of land surface, 1,863 feet. Temp. 69° F.
M-37	A. W. Strube	do.	1946	120	8	Leona formation	73.3	Nov. 10, 1948	T, E, 10	Irr	Steel casing to 83 feet. Irrigates 230 acres with M-38, M-39, M-40, and M-42. Reported yield, 300 gpm in 1948.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
M-38	A. W. Strube	Garmon Bros.	1946	120	8	Leona formation	73.9	Nov. 10, 1948	T, E, 15	Irr	Steel casing to 83 feet. Measured yield, 455 gpm; pumping level, 115 feet Aug. 29, 1950.
M-39	do.	do.	1945	124	8	do.	69 77.6 71.9	Jan. 16, 1946 Nov. 10, 1948 Feb. 16, 1950	T, E, 15	Irr	Steel casing to 120 feet. Reported yield, 335 gpm in 1948. Altitude of land surface, 1,868 feet. Temp. 70° F.
M-40	do.	do.	1945	122	8	do.	68.9 78.4	Jan. 16, 1946 Nov. 10, 1948	T, E, 20	Irr	Steel casing to 120 feet. Reported yield, 515 gpm in 1948. Measured yield, 477 gpm; pumping level, 93 feet Aug. 29, 1950.
M-41	do.	do.	1946	120	8	do.	78.5	Nov. 10, 1948	T, E, 15	N	Steel casing to 72 feet. Reported yield, 300 gpm in 1948. Not used in 1949-50.
M-42	do.	F. P. Grosshans	1949	130	12	do.	66.6	Apr. 18, 1949	T, E, 10	Irr	Galvanized iron casing to 53 feet. Measured yield, 243 gpm; pumping level, 95 feet Aug. 29, 1950.
M-43	E. S. Kubela	--	1948	105	12	do.	70.3	Nov. 19, 1948	T, E, 10	Irr	Irrigates 140 acres with well M-44. Measured yield, 260 gpm; pumping level, 94 feet Aug. 28, 1950.
M-44	do.	--	1948	103	12	do.	71.3 72.5	Nov. 19, 1948 Aug. 4, 1950	T, E, 10	Irr	Irrigates 140 acres with well M-43. Measured yield, 463 gpm; pumping level, 92 feet Aug. 29, 1950. Altitude of land surface, 1,863 feet.
*M-45	C. L. Bean	Garmon Bros.	1946	117	10	do.	68.9 63.2	Nov. 19, 1948 Feb. 16, 1950	T, E	Irr	Galvanized iron casing to 117 feet. Irrigates 50 acres. Reported yield, 350 gpm in Mar. 1948. Measured yield, 281 gpm; pumping level 100 feet Aug. 28, 1950. Altitude of land surface, 1,861 feet. Temp. 68° F.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
M-46	E. G. Kocich	--	1922	88	6	Choza formation	62.4	Mar. 20, 1950	C,W	D,S	
M-47	W. E. Mikulik	Garmon Bros.	1945	80	10	Leona formation	56 64.6 59.4	Jan. 17, 1946 Dec. 3, 1948 Mar. 10, 1950	None	N	Galvanized iron casing to 20 feet. Formerly used for irrigation. Reported yield, 720 gpm when drilled. Yield insufficient for irrigation in 1946.
M-48	do.	Henry Hudec	1948	89	10	do.	65.4	Dec. 3, 1948	None	N	Not cased. Drilled for irrigation. Reported yield insufficient for irrigation.
*M-49	W. W. Janek	--	Old	98	6	do.	57.2 64.8	Oct. 17, 1940 Jan. 28, 1949	C,W	D,S	
M-50	E. J. Wilde	Garmon Bros.	1946	120	6	Leona and Choza formations	62.3 65.1 58.3	Dec. 23, 1948 June 30, 1949 Feb. 20, 1950	C,W	D,S	Galvanized iron casing to 120 feet.
M-51	do.	J. M. West Drilling Co.	1949	--	--	--	--	--	None	N	Oil test.
*M-52	Mrs. -- Gates	--	--	90	6	Leona formation	65.9 68.2	Oct. 22, 1940 Feb. 20, 1950	C,W	D,S	Galvanized iron casing to 90 feet.
M-53	R. S. Crouch	The Texas Co.	1945	--	--	--	--	--	None	N	Oil test.
M-54	do.	F. P. Grosshans	1947	150	10	Leona and Choza formations	81 79.3 76.9	Nov. 24, 1948 June 30, 1949 Mar. 31, 1950	T,G	Irr	Steel casing to 126 feet. Irrigates 54 acres. Reported yield, 450 gpm when drilled.
*M-55	William Ripple	-- Kennedy	1928	95	6	Leona formation	89.3 83.6	Oct. 22, 1940 Dec. 9, 1948	C,W	D,S	
M-56	Ripple Bros.	Henry Ripple	1949	260	12	Bullwagon dolomite member b/	--	--	T,G	Irr	Galvanized iron casing to 125 feet. Irrigates 75 acres. Reported yield, 300 gpm when drilled.
M-57	do.	do.	1949	240	12	do.	--	--	T,G	Irr	Galvanized iron casing to 120 feet. Irrigates 90 acres with well M-58. Reported yield, 250 gpm when drilled.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*M-58	Ripple Bros.	Henry Ripple	1949	214	12	Bullwagon dolomite member b/	106 99.7	Apr. 16, 1949 June 30, 1949	T,G	Irr	Galvanized iron casing to 114 feet. Reported yield, 250 gpm when drilled. See log.
*M-59	Henry H. Ripple	Garmon Bros.	1941	95	6	Choza formation	74.4 85.8	Sept. 22, 1948 Aug. 7, 1950	C,E	D,S	Galvanized iron casing to 95 feet. Reported yield, 40 gpm when drilled. Altitude of land surface, 1,867 feet.
*M-60	do.	Henry Ripple	1948	207	12	Bullwagon dolomite member b/	91 88.9	Dec. 23, 1948 Apr. 16, 1949	T,G	Irr	Irrigates 50 acres. Measured yield, 220 gpm; pumping level, 147 feet, Nov. 29, 1948. Altitude of land surface, 1,880 feet. See log.
*M-61	J. J. Schiller	Garmon Bros.	1937	118	5	Choza formation	82.5 82.7 93.5	Nov. 14, 1940 Sept. 27, 1948 Aug. 8, 1950	C,W	D,S	Galvanized iron casing to 95 feet. Altitude of land surface, 1,894 feet.
M-62	Louis Wilde	F. P. Grosshans	1949	148	8	Bullwagon dolomite member b/	103 99.3 99.9	Apr. 15, 1949 June 30, 1949 Mar. 10, 1950	T,E, 10	Irr	Galvanized iron casing to 134 feet. Irrigates 20 acres. Reported yield, 160 gpm when drilled. Measured yield, 103 gpm Aug. 30, 1950. Altitude of land surface, 1,911 feet. See log.
*M-63	Viola Donovan	--	Old	117	5	Choza formation	100.5 99 95.8	Nov. 14, 1940 Sept. 27, 1948 Aug. 7, 1950	C,W	S	Galvanized iron casing to 117 feet. Altitude of land surface, 1,920 feet.
*M-64	Luther Wood	--	1920	104	6	do.	59.4 89.2	Oct. 22, 1940 Mar. 31, 1950	C,W	D,S	Galvanized iron casing to 148 feet.
*M-65	R. V. Allison	Garmon Bros.	1946	128	12	Leona formation	91.4 90.3 86	Nov. 23, 1948 Apr. 16, 1949 Mar. 31, 1950	T,G	Irr	Steel casing to 100 feet. Irrigates 60 acres. Measured yield, 466 gpm Aug. 28, 1950. Temp. 70° F.
*M-66	R. L. Olsovsky	--	~~1890~~	107	6	do.	65.3 66.6	Oct. 17, 1940 Feb. 20, 1950	C,W	D,S	
M-67	A. Prospichal	--	--	109	6	Choza formation	69.8 73.4	Dec. 3, 1948 Mar. 10, 1950	C,W	D,S	
M-68	R. Walling	--	--	--	6	do.	102	Mar. 10, 1950	C,W	S	
M-69	Otto Noack	--	Old	128	6	do.	97.3 90.6	Dec. 3, 1948 Mar. 10, 1950	C,W	D,S	

Table 3.--Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
M-70	R. W. Glass	-- Davis	1946	100	6	Choza formation	87.6	Mar. 10, 1950	C,W	D,S	Galvanized iron casing to 100 feet.
M-71	R. V. Allison	Garmon Bros.	--	112	8	Leona and Choza formations	98.4	Nov. 23, 1948	None	N	Steel casing to 100 feet. Drilled for irrigation. Reported yield insufficient for irrigation.
M-72	John Edwards	F. P. Grosshans	1948	105	6	Choza formation	95.1	do.	C,W	D	Galvanized iron casing to 105 feet. Reported weak supply.
M-73	L. W. Kent	Garmon Bros.	--	46	8	Leona formation	26.9 15.7	Nov. 22, 1948 Mar. 6, 1950	C,W	S	Steel casing to 46 feet. Reported yield, 40 gpm when drilled.
*M-74	H. Upton	D. Oliver	--	126	6	Choza formation	102.8 114 105.9	Feb. 22, 1938 Oct. 15, 1940 Mar. 10, 1950	C,W	D,S	Galvanized iron casing to 126 feet.
M-75	W. Hendricks	--	--	138	6	do.	123.1 115.8	Oct. 15, 1940 Mar. 10, 1950	C,W	D,S	
M-76	Jeff Scherz	--	Old	20	48	Leona formation	2.3	Mar. 20, 1950	C,G	D,S	Dug.
M-77	J. W. Green	Plymouth Oil Co.	1948	--	--	--	--	--	--	--	Oil well. Altitude of land surface, 2,112 feet.
*M-78	R. S. Waring	--	-- Spring		--	Comanche Peak limestone	+--	--	Flows	D,S	Lipan Spring. Measured flow 135 gpm on May 9, 1950. Reported never dry, but yield decreases during drought. Altitude of land surface, 2,048 feet. Temp. 68° F.
M-79	Arnold Brenik	Cities Service Oil Co.	1952	--	--	--	--	--	--	--	Oil test. Altitude of land surface, 1,873 feet.
N-1	Ed Cervenka	Garmon Bros.	1948	86	12	Leona and Choza formations	47.6	Dec. 22, 1948	T,E	Irr	Irrigates about 40 acres with well N-2. Reported yield, 150 gpm when drilled. Measured yield, 115 gpm Aug. 18, 1950.
N-2	do.	do.	1948	74	12	do.	46.8 45.7	Dec. 22, 1948 Feb. 15, 1950	T,E	Irr	Measured yield, 120 gpm; pumping level, 64 feet Aug. 18, 1950.
N-3	do.	do.	1948	75	12	do.	46.6	Dec. 22, 1948	None	N	Drilled for irrigation. Reported yield, 150 gpm when drilled. Not used in 1949-50.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
N-4	Albert Lehr	F. P. Grosshans	1948	129	12	Leona and Choza formations	55.6	Dec. 10, 1948	T,G	Irr	Irrigates about 60 acres. Reported yield, 300 gpm in 1948.
N-5	P. P. Ewalt	do.	1948	100	--	--	50.7	do.	None	N	Drilled for irrigation. Reported yield insufficient for irrigation. Well filled.
N-6	Alfons Holubec	Garmon Bros.	1931	150	12	Leona formation and Bullwagon dolomite member b/	67.5 62.2 69.1	Dec. 10, 1948 July 1, 1949 Feb. 15, 1950	T,G, 24	Irr	Irrigates 80 acres. Dug to 62 feet and 4 wells drilled in bottom. Reported yield, 400 gpm in 1948. Altitude of land surface, 1,834 feet.
N-7	R. F. Garmon	The Texas Co.	1944	5,505	--	--	--	--	None	N	Oil test. Altitude of land surface, 1,824 feet. See log.
N-8	do.	Garmon Bros.	1944	124	12	Bullwagon dolomite member b/	89.6	Apr. 18, 1949	T,E	Irr	Drilled for irrigation. Reported yield, 270 gpm when drilled, 40 gpm in 1950.
N-9	do.	do.	1946	133	12	do.	84.8	Dec. 10, 1948	C,W	S	Steel casing to 98 feet.
N-10	A. Keisling	do.	1948	114	6	do.	71.2 72.4	Dec. 17, 1948 Aug. 4, 1950	C,W	N	Reported yield insufficient for domestic supply. Altitude of land surface, 1,849 feet. See log.
N-11	R. S. Whitfield	--	1935	70	10	do.	51.3 51.2 71	Nov. 11, 1940 May 23, 1944 Feb. 27, 1950	None	N	Galvanized iron casing to 70 feet. North well of two originally equipped with 6-inch cylinder pumps and used for irrigation. South well filled.
N-12	Paul Gray	Garmon Bros.	1948	99	--	--	37.6	Dec. 8, 1948	None	N	Drilled for irrigation. Reported yield insufficient for irrigation. Altitude of land surface, 1,810 feet. See log.
*N-13	Roy Scott	--	1916	75	5	Leona formation	43.8 32.5	Oct. 31, 1940 Feb. 27, 1950	C,W	D,S	Galvanized iron casing to 75 feet. Altitude of land surface, 1,809 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
N-14	J. F. Schriever	Tom Green Oil Co.	1939	2,042	--	--	--	--	None	N	Oil test. Formerly flowed small amount of sulfur water. Well filled. Reported altitude of land surface, 1,811 feet. See log.
*N-15	W. L. Kadlacek	--	1933	65	6	Arroyo formation	43.0 51.6 34.8	Oct. 31, 1940 Dec. 8, 1948 Feb. 28, 1950	C, W	D, S	Galvanized iron casing to 65 feet. Altitude of land surface, 1,808 feet.
*N-16	A. L. Bucek	--	--	62	6	do.	38.9 26.9	Dec. 8, 1948 Feb. 28, 1950	C, W	S	
*N-17	R. G. Fuessel	--	1938	60	5	do.	43.4 43.1	Nov. 15, 1940 Apr. 17, 1950	C, W	S	Galvanized iron casing to 20 feet.
*N-18	R. C. Bednar	Emmett Jones	1940	68	5	do.	49.8 51.4	Nov. 15, 1940 Apr. 17, 1950	C, W	D, S	Galvanized iron casing to 68 feet.
*N-19	Annie Willis	Garmon Bros.	1916	70	5	do.	53.9 57.4	Nov. 11, 1940 Apr. 17, 1950	C, W	D, S	Galvanized iron casing to 70 feet.
*N-20	G. H. Buchanan	--	--	84	5	Leona formation	37.1 54.4 29.8	Nov. 11, 1940 Dec. 7, 1948 Feb. 28, 1950	C, W	D, S	Galvanized iron casing to 50 feet.
N-21	J. I. Garmon	Garmon Bros.	1946	128	12	Bullwagon dolomite member b/	87.7 71.4 89.4	Dec. 17, 1948 July 1, 1949 Feb. 15, 1950	T, G, 35	Irr	Steel casing to 93 feet. Reported yield, 200 gpm when drilled.
N-22	Gilbert & Otto Strube	do.	1948	115	12	do.	101.6	Dec. 9, 1948	None	N	Galvanized iron casing to 115 feet. Drilled for irrigation. Reported yield insufficient for irrigation.
N-23	do.	do.	1948	119	12	do.	101.8	do.	None	N	Galvanized iron casing to 119 feet. Drilled for irrigation. Reported yield insufficient for irrigation.
N-24	do.	do.	1948	122	12	do.	92.3 90.6 93.7	Dec. 9 1948 July 1, 1949 Feb. 16, 1950	T, G	Irr	Galvanized iron casing to 100 feet. Irrigates about 30 acres. Measured yield, 132 gpm; pumping level, 97 feet Aug. 30, 1950. Altitude of land surface, 1,859 feet.
N-25	do.	do.	1949	125	12	do.	91	Apr. 18, 1949	None	N	Drilled for irrigation. Reported yield, 100 gpm when drilled.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level: Below land surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*N-26	R. D. Barron	R. Medlock	1923	125	--	--	60.7 59.8	Feb. 15, 1938 Oct. 3, 1940	None	N	Two wells originally used for irrigation. Wells filled.
*N-27	do.	do.	1926	--	--		60.3 59.6	Feb. 15, 1938 Oct. 3, 1940	None	N	Formerly used for irrigation.
N-28	do.	Garmon Bros.	1949	140	12	Bullwagon dolomite member b/	88.7	Apr. 18, 1949	T,G	Irr	Galvanized iron casing to 107 feet. Irrigates 40 acres. Measured yield, 246 gpm Aug. 30, 1950.
N-29	C. S. Callahan	do.	1915	29	36	Leona formation and Bullwagon dolomite member b/	16.6 21.3 16.8	Nov. 14, 1940 Dec. 7, 1948 Feb. 28, 1950	C,W	D,S	Reported weak supply.
*N-30	Tom Green County	--	--	77	6	Leona formation	45.2 53.5 39.2	Feb. 15, 1938 Dec. 7, 1948 Feb. 28, 1950	C,W	N	Formerly used for Vancourt School.
*N-31	J. S. Powell	Tom Holmsley	1926	78	6	Arroyo formation	60.1 59.7 53	Nov. 15, 1940 Dec. 7, 1948 Feb. 28, 1950	C,W	S	Galvanized iron casing to 78 feet.
*N-32	do.	--	--	80	5	do.	51.8 39	Nov. 15, 1940 Apr. 17, 1950	C,W	S	
*N-34	Mary Wilde	--	--	98	5	Standpipe limestone member c/	80.5 66.7	Dec. 7, 1948 Feb. 28, 1950	C,W	D,S	
N-36	E. J. Untermeyer	Garmon Bros.	1937	70	6	Bullwagon dolomite member b/	45.1 45.7	Nov. 19, 1948 Mar. 10, 1950	C,W	D,S	Galvanized iron casing to 70 feet.
N-37	L. W. Kent	do.	--	118	6	do.	72.2 71.6	Nov. 22, 1948 Mar. 6, 1950	C,W	S	
N-38	Albert Kotrla	Tom Holmsley	1936	91	6	Leona formation	52.2 46.7	Nov. 14, 1940 Mar. 13, 1950	C,W	D,S	Galvanized iron casing to 80 feet.
N-39	J. Y. Rust, Sr. Estate	Garmon Bros.	1933	80	5	Standpipe limestone member c/	54.1 51.5	Jan. 20, 1949 Feb. 28, 1950	C,W	S	Supplied by a recharge well on the bank of Snake Creek.
*O-1	A. F. Joslin	Roy Baker	1948	60	6	Trinity group a/	40.2	Sept. 21, 1950	C,W	D	Galvanized iron casing to 60 feet.
*O-2	A. M. Tweedy Estate	--	1910	25	8	Leona formation	21.6 19.2	Aug. 27, 1940 Sept. 21, 1950	C,W	D,S	Steel casing to 25 feet.
O-3	Charles Atkinson	--	Old	52	6	Trinity group a/	32.8 37.5	Aug. 21 1940 Sept. 21, 1950	C,W	S	Not cased.
O-4	E. H. Jones	B. M. Mundell	1949	73	6	do.	8.8	Dec. 13, 1950	C,W	S	
*O-5	C. D. & C. L. Atkins	--	1933	177	6	do.	127.9	May 19, 1950	C,W	S	Galvanized iron casing to 33 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
*O-6	W. Jemeyson Estate	--	Old	270	6	Trinity group a/ and San Angelo sandstone	206.9	Oct. 14, 1940	C,W	D,S	Water has slight hydrogen sulfide odor.
*P-1	C. D. & C. L. Atkins	--	Old	148	6	Trinity group a/	106.8	May 19, 1950	C,W	S	Do.
P-2	E. H. Jones	--	Old	108	6	do.	45.7	Dec. 13, 1915	C,W	S	Do.
P-3	do.	--	Old	54	6	Comanche Peak limestone	31.5	do.	C,W	S	
*P-4	J. H. DeLong	--	1905	46	30	Trinity group	39.6 36.8 38.5	Feb. 16, 1938 Oct. 20, 1940 Dec. 13, 1950	C,W	D,S	Dug.
P-5	do.	J. F. Jacobs	1935	525	--	--	--	--	None	N	Oil test. See log.
P-6	do.	Dave Elder et al.	1939	555	--	--	--	--	None	N	Do.
*P-7	T. D. & S. V. Easterwood	--	Old	60	6	Trinity group	25	May 18, 1950	C,W	D,S	Temp. 69° F.
*P-8	R. W. Rawls	--	1920	387	8	San Angelo sandstone	20	Dec. 3, 1948	C,W,G	P	Well at clinic. Water has hydrogen sulfide odor and salty taste. Reported temp. 75° F.
P-9	Mrs. S. J. Pugh	L. D. Gibson	1939	405	--	--	--	--	None	N	Oil test. See log.
*P-10	J. D. Robertson	Wiley Jameson	1912	700	--	--	+	--	Flows	N	Oil test. Flows salty water heavily charged with hydrogen sulfide gas. Measured flow, 45 gpm May 18, 1950.
P-11	Wylie Jemeyson Estate	--	Old	41	6	Comanche Peak limestone	30.6	May 18, 1950	C,W	S	
*P-12	do.	Jack Dickson	1940	57	6	do.	44.5	do.	C,W	S	Temp. 69° F.
*P-13	do.	--	Old	160	6	do.	133.1	do.	C,W	S	
P-14	L. N. Nickey Estate	T. E. Jacobs et al	1927	381	--	--	--	--	None	N	Oil test. See log.
P-15	Wilbur Brown, Jr.	Doyle Rogers	1946	33	6	Comanche Peak limestone	21.1	Dec. 3, 1948	None	N	Not cased.
P-16	J. M. Lea	--	--	50	5	do.	40.3 40.9	Dec. 2, 1948 May 16, 1950	C,W	S	
*P-17	Edwin Brown	--	1922	140	6	do.	119.7	Oct. 20, 1940	C,W	D,S	Not cased.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
P-18	Mrs. W. Anson	--	Old	270	6	Comanche Peak limestone	242.5 241.2	Dec. 2, 1948 May 16, 1950	C,W	S	
P-19	W. C. Jones	--	-- Spring		--	do.	+	--	Flows	S	Cave Spring. Water flows from crevices and small cave. Dry May 9, 1950.
P-20	--	--	-- Spring		--	do.	+	--	Flows	D,S	McCarthy Spring. Water seeps from crevices in limestone. Dry May 9, 1950.
*P-21	Ford Boulware	--	-- Spring		--	do.	+	--	Flows	D,S	Anson Springs. Water flows from many crevices in limestone. Reported never dry. Measured yield, 4,040 gpm May 8, 1950. Altitude of springs about 2,050 feet. Temp. 68° F.
*P-22	Wylie Jemeyson Estate	Roy Baker	1950	259	6	Trinity group	220.1	May 18, 1950	C,W	S	Reported weak supply.
*P-23	H. K. Hinde Estate	--	1944	210	6	do.	161.2	May 17, 1950	C,W	S	Water has slight hydrogen sulfide odor. Temp. 70° F.
P-24	do.	--	Old	201	6	do.	137.1	do.	C,W	S	
*P-25	do.	--	Old	121	6	do.	109.9 108.5	Oct. 14, 1940 May 17, 1950	C,W	D,S	
P-26	H. C. Williams	Robert Fields	1926	3,010	--	--	--	--	--	-	Oil test. See log.
P-27	Kayton Jacobs	--	--	91	6	Comanche Peak limestone	71.8	May 17, 1950	C,W	S	
*P-28	H. C. Williams	--	1898	120	15	do.	43.1 45.6 59.5	Feb. 17, 1938 Oct. 3, 1940 May 17, 1950	C,W	S	Galvanized iron casing to 15 feet.
*Q-1	J. W. Johnson, Jr.	--	-- Spring		--	do.	+	--	Flows	D,S	Pecan Springs. Water flows from crevices in limestone. Dry in summer of 1948. Measured yield, 139 gpm May 9, 1950. Altitude of springs, about 2,048 feet. Temp. 68° F.
Q-2	do.	--	1944	70	6	do.	41.5	Mar. 20, 1950	C,W	S	

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
Q-3	J. D. Robertson	Plymouth Oil Co.	1949	--	--	--	--	--	None	N	Oil well.
Q-4	W. G. Currie	Hiawatha Oil & Gas Co.	1950	--	--	--	--	--	None	N	Do.
Q-5	J. W. Johnson, Jr.	--	1920	128	6	Comanche Peak limestone	87.1 73.3	Oct. 10, 1940 Mar. 20, 1950	C,W	D,S	Steel casing to 86 feet.
*Q-6	W. A. West	--	1920	200	6	do.	150	Mar. 20, 1950	C,W	S	
Q-7	do.	--	1920	144	6	do.	129.9	do.	C,W	D,S	
Q-8	do.	--	1945	214	6	do.	199.4	do.	C,W	S	
Q-9	Ed S. Hobbs	--	--	280	5	do.	221 235.7	Dec. 2, 1948 May 16, 1950	C,W	D,S	Temp. 69° F.
Q-10	do.	--	Old	228	6	do.	196.1 164.7	Dec. 2, 1948 May 16, 1950	C,W	S	Do.
Q-11	W. C. Jones	C. L. Norsworthy	1949	--	--	--	--	--	None	N	Oil test. Altitude of land surface, 2,243 feet.
Q-12	R. L. Stansberry	--	--	292	6	Comanche Peak limestone	231.1 275.3	Dec. 2, 1948 May 16, 1950	C,W	D,S	
Q-13	T. J. Clegg	San Diego & Texas Oil Co.	1921	3,630	--	--	--	--	None	N	Oil test. See log.
R-1	R. C. Lawson et al	Mintex Oil Co.	1930	1,994	--	--	--	--	None	N	Do.
*R-2	J. Y. Rust, Sr., Estate	--	--	Spring	--	Comanche Peak limestone	+	--	Flows	D	Rust Spring. Seeps from gravel and crevices in limestone. Estimated yield, 10 gpm Jan. 20, 1949. Altitude of spring about 2,048 feet. Temp. 68° F.
*R-3	do.	--	Old	55	6	do.	18.6 18.7	Oct. 18, 1940 Jan. 20, 1949	C,W	D,S	Steel casing to 50 feet.

Table 3.- Records of wells in Tom Green County--Continued

Well	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Aquifer	Water level		Method of lift	Use of water	Remarks
							Below land surface datum (ft.)	Date of measurement			
R-4	-- Upton	Southern Cross Oil Co.	1939	5,637	--	--	--	--	None	N	Oil test. See log.
R-5	L. H. Lock	--	1916	200	6	Comanche Peak limestone	150	Jan. 5, 1951	C,W	S	
*R-6	Arthur Henderson	--	--	Spring	--	do.	+	--	Flows	D,S	Kickapoo Spring. Flows from crevices in limestone. Measured yield, 462 gpm May 9, 1950. Altitude of spring, 2,048 feet. Temp. 69° F.

a/ Sand at the base of the Trinity group.
b/ Bullwagon dolomite member of the Vale formation.
c/ Standpipe limestone member of the Arroyo formation.
* For chemical analyses, see table 5.

Table 4.- Drillers' logs of wells in Tom Green County, Tex.

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well A-17, partial log.					
Owner: Barbara Turner and Beatrice Allday.					
Limestone	60	60	Shale, blue	25	310
Rock, red	10	70	Limestone, white	10	320
Limestone	50	120	Limestone, light-colored	15	335
Limestone, hole full of water	20	140	Shale, white	110	445
Clay, yellow	40	180	Shale interbedded with thin layers of limestone	70	515
Rock, red	25	205	Total depth		3,401
Limestone, sandy, white	45	250			
Shale, light-colored	35	285			
Well B-17					
Owner: State Tuberculosis Sanatorium.					
Soil	12	12	Conglomerate, water at 40 feet	46	68
Gravel, water	10	22	Clay, yellow	4	72
Well E-6, partial log					
Owner: Ike Funk Estate.					
Soil and loose rock	11	11	Sand, fresh water	30	310
Clay	9	20	Shale	30	340
Limestone	9	29	Limestone	10	350
Shale	46	75	Shale	30	380
Limestone	12	87	Anhydrite	47	427
Shale	63	150	Shale	38	465
Sand, fresh water	22	172	Shale, sandy	10	475
Shale	8	180	Sand, unconsolidated	10	485
Sand, fresh water	30	210	Shale, sandy	25	510
Shale	70	280	Total depth		1,452
Well E-7, partial log					
Owner: Ike Funk Estate.					
Soil and loose rock	2	2	Sand	20	300
Limestone	13	15	Limestone	10	310
Limestone, broken, water	175	190	Shale, blue	5	315
Limestone	20	210	Shale	45	360
Sand	10	220	Sand	15	375
Shale, blue	17	237	Limestone	10	385
Rock, red	11	248	Shale, blue	80	465
Shale, blue	2	250	Limestone	20	485
Shale, red	20	270	Limestone, broken	10	495
Shale, blue	10	280	Limestone	20	515
			Total depth		1,562

Table 4.--Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well F-15					
Owner: Robert Turner.					
Soil	1	1	Clay, red	32	91
Sandstone, yellow	17	18	Sandstone, yellow	5	96
Gravel, small	7	25	Gravel and sand, water	9	105
Sandstone, yellow	10	35	Clay, purple	15	120
Clay, red	18	53	Sand, yellow	13	133
Sandstone, yellow	6	59	Limestone, soft	17	150
Well F-21, partial log					
Owner: Pulliam Estate.					
Soil	7	7	Shale, sandy	50	316
Shale, red	28	35	Rock, red, water at 378 feet	94	410
Limestone, sandy	55	90	Limestone, white	6	416
Shale, sandy	65	155	Rock, red	6	422
Sand	10	165	Limestone	4	426
Shale, sandy	10	175	Shale, white	4	430
Shale, blue	5	180	Limestone	4	434
Shale, gray	20	200	Rock, red	6	440
Limestone, gray	3	203	Shale, red	30	470
Sand	23	226	Shale, blue	30	500
Shale, sandy	10	236	Total depth		908
Shale, blue	30	266			
Well F-22, partial log					
Owner: Pulliam Estate.					
Soil	5	5	Limestone, sandy, gray	65	330
Limestone, gray	5	10	Shale, light-colored	5	335
Clay, red	15	25	Shale, some gypsum	35	370
Limestone	5	30	Rock, red	90	460
Clay, red, some gypsum	75	105	Limestone, white	6	466
Limestone, sandy, blue	130	235	Rock, red	18	484
Limestone, sandy	5	240	Limestone, gray	2	486
Pyrite	10	250	Rock, red	14	500
Limestone, gray	5	255	Total depth		4,039
Limestone, sandy	10	265			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well G-22					
Owner: Unknown.					
Soil and loose rock	10	10	Limestone, hard	3	510
Caliche	20	30	Shale, gray	19	529
Rock, red	15	45	Limestone	3	532
Shale, red	35	80	Shale, gray	8	540
Limestone, gray	30	110	Shale, blue	10	550
Shale, blue	60	170	Limestone	8	558
Sand, water	10	180	Limestone, sandy, water	5	563
Shale	30	210	Limestone	5	568
Shale, green	20	230	Limestone, sandy, water	27	595
Limestone, broken	5	235	Shale, blue	12	607
Shale, blue	3	238	Shale, blue, and thin layers of limestone	18	625
Rock, red	157	395	Limestone, gray, water	10	635
Shale, gray	40	435	Shale, blue, and thin layers of limestone	8	643
Limestone, sandy, gray	5	440	Limestone, brown, water	17	660
Sand, water	3	443	Limestone, gray	54	714
Limestone, broken, gray	12	455			
Shale, soft, gray	25	480			
Limestone, sandy	27	507			
Well H-2, partial log					
Owner: J. W. Harris.					
Soil	2	2	Rock, red	45	255
Conglomerate	80	82	Shale, dark-colored	35	290
Shale, red	13	95	Limestone	8	298
Shale, hard	5	100	Shale, blue	42	340
Shale, blue	18	118	Shale, light-colored	20	360
Sand, fresh water	5	123	Shale, blue	68	428
Shale, blue	47	170	Limestone, white	18	446
Clay	20	190	Limestone, hard, white	6	452
Sand, salty water	12	202	Shale, hard, white	12	464
Shale, blue	3	205	Shale, blue	36	500
Shale, white	5	210	Total depth		3,375
Well H-16, partial log					
Owner: J. W. Johnson, Jr.					
Gravel and clay	90	90	Shale, red and brown, thin layers of dolomite	100	660
Clay and dolomite	400	490	Total depth		5,000
Dolomite with thin shale partings, (Bullwagon dolomite member)	70	560			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well H-66					
Owner: Robert Vidler.					
Soil and caliche	18	18	Shale, calcareous, blue	2	120
Gravel, loose	12	30	Shale, black	2	122
Conglomerate	8	38	Shale, pale green to white, interbedded with thin layers of limestone	32	154
Shale, gray, some gypsum	37	75			
Shale, red	22	97			
Shale, black	21	118			
Well H-70					
Owner: J. W. Nelson.					
Soil	2	2	Shale, yellow, interbedded with thin layers of dolomite	4	60
Caliche and gravel	33	35	Dolomite, light gray	1	61
Dolomite, yellow to light gray	2	37	Shale, red, blue, and yellow interbedded with thin layers of dolomite	11	72
Clay, yellow	6	43	Dolomite, light gray, water	4	76
Shale, calcareous, gray	7	50	Shale, yellow	4	80
Shale, gray, interbedded with thin layers of dolomite	4	54			
Shale, blue	2	56			
Well H-90					
Owner: Wylie Pate.					
Soil	2	2	Conglomerate, hard	2	84
Clay, pink, and caliche	23	25	Clay, pink and gray	2	86
Conglomerate and gravel	25	50	Gravel and clay	4	90
Conglomerate and clay	5	55	Gravel, coarse and clay	3	93
Conglomerate and gravel	4	59	Conglomerate and gravel	2	95
Conglomerate, porous water	3	62	Limestone, hard, brown	4	99
Clay, layers of conglomerate, and gravel	13	75	Shale, blue	4	103
Gravel and clay	7	82	Limestone hard	4	107
			Shale, blue	6	113
			Shale, brown	3	116

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well H-91					
Owner: W. H. Lane.					
Soil	2	2	Shale, sandy	2	115
Clay	43	45	Shale, blue	3	118
Clay interbedded with caliche	10	55	Shale, brown	2	120
Conglomerate and gravel	7	62	Limestone, soft	6	126
Shale, red	1	63	Shale	3	129
Shale	5	68	Limestone, dark gray	4	133
Limestone, water	2	70	Limestone, light gray	4	137
Shale, brown and blue	6	76	Shale, blue	2	139
Limestone, pink	4	80	Shale, brown	8	147
Limestone, dark gray	3	83	Shale, blue	3	150
Limestone, interbedded with thin layers of blue shale	9	92	Shale, brown	1	151
Shale, blue	2	94	Limestone, black	2	153
Limestone, light blue	2	96	Limestone, yellow, water	7	160
Shale, brown, interbedded with thin layers of limestone	7	103	Shale, blue	2	162
Shale, blue	3	106	Limestone, sandy, black	2	164
Shale, blue, interbedded with thin layers of limestone	7	113	Limestone, gray	3	167
			Shale, blue	3	170
			Limestone interbedded with layers of shale	7	177
Well J-9					
Owner: L. D. Richert.					
Soil	10	10	Shale and lime, blue	18	50
Shale, sandy	22	32	Lime, bluish-yellow	26	76
Well J-40					
Owner: P. J. Standefer.					
Soil	4	4	Limestone, water	4	72
Caliche and clay, red	56	60	Limestone, sandy	27	99
Conglomerate	8	68	Shale, blue	1	100
Well J-48					
Owner: H. I. Sims.					
Soil	3	3	Gravel and clay, yellow, water	5	85
Caliche, reddish-brown	32	35	Conglomerate, water	9	94
Gravel and clay	10	45	Shale, blue	3	97
Conglomerate, water	35	80			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well J-59					
Owner: Amel Timms.					
Soil	1	1	Shale, blue	7	54
Caliche	24	25	Limestone, porous, white, shale, blue, water	90	150
Clay, yellow	22	47			
Well J-61					
Owner: Ed Wannerick.					
Soil	4	4	Shale, blue, interbedded with thin layers of limestone, bluish-gray	100	162
Clay, yellow	34	38			
Gravel and clay, yellow	24	62			
Well J-64					
Owner: Mrs. O. L. Frasure.					
Soil	1	1	Shale, red, interbedded with thin layers of dolomite	49	96
Conglomerate	24	25	Limestone, yellow, water	4	100
Shale, red	8	33	Shale, blue	3	103
Shale, sandy, yellow	14	47			
Well J-70					
Owner: Wylie Pate.					
Soil	2	2	Gravel and clay	5	82
Clay	33	35	Conglomerate, hard	9	91
Conglomerate	20	55	Limestone, yellow	3	94
Gravel, water	2	57	Shale, yellowish-blue	4	98
Conglomerate	1	58	Shale, blue	5	103
Gravel, water	2	60	Limestone, blue	3	106
Conglomerate	2	62	Limestone and shale, blue	7	113
Gravel, water	2	64	Limestone, yellow sand, and shale	3	116
Gravel and clay	3	67	Shale, bluish-yellow, interbedded with thin layers of limestone	24	140
Clay	4	71			
Gravel and clay	3	74			
Gravel, large, loose, water	3	77			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well J-71					
Owner: Wylie Pate.					
Soil	2	2	Conglomerate	1	76
Caliche, pinkish-yellow	38	40	Gravel, coarse-grained	4	80
Gravel	3	43	Marl, greenish-yellow	5	85
Conglomerate	11	54	Marl, gray	10	95
Caliche, gray	4	58	Marl, yellow, and shale, blue	11	106
Caliche, pink	9	67	Shale, dark gray	3	109
Conglomerate	4	71	Shale, blue	8	117
Gravel, coarse-grained	4	75			
Well L-2					
Owner: C. H. Barnes.					
Sand, sandstone, and conglomerate interbedded with thin layers of shale	80	80	Dolomite, gray, interbedded with thin layers of shale, red and blue	32	122
Shale, red and blue	10	90			
Well M-5					
Owner: Lawnhaven Memorial Park, Inc.					
Soil and caliche	3	3	Dolomite, water	5	59
Clay, yellowish-white	9	12	Dolomite, gray, and shale, water in dolomite at 70 feet	41	100
Clay, hard, yellow	42	54			
Well M-8					
Owner: Ben Book.					
Soil	2	2	Limestone, blue, and shale, water	36	97
Clay, white	44	46	Limestone and shale, purple, water	10	107
Gravel, large, water	4	50			
Clay, grayish-green	6	56			
Gravel, large	5	61			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well M-13					
Owner: Sally Feist.					
Soil	4	4	Shale, brown, interbedded with thin layers of limestone	4	90
Clay, yellow	36	40	Shale, dark gray	10	100
Conglomerate and gravel	7	47	Shale, reddish-gray	1	101
Conglomerate, hard, brown	13	60	Shale, dark gray, interbedded with thin layers of limestone	34	135
Clay, yellow	3	63			
Gravel and conglomerate, water	21	84			
Shale, gray, interbedded with thin layers of limestone	2	86			
Well M-58					
Owner: Ripple Brothers.					
Soil	6	6	Limestone, brown, interbedded with layers of shale	7	103
Gravel	44	50	Shale, blue	14	117
Conglomerate	1	51	Limestone, water, interbedded with layers of shale, dark gray	97	214
Gravel	7	58			
Limestone	6	64			
Limestone, hard, yellow	2	66			
Shale, yellow	10	76			
Limestone	16	92			
Shale, brown	4	96			
Well M-60					
Owner: Henry H. Ripple.					
Soil	4	4	Shale, blue	24	139
Clay, white	21	25	Limestone, gray, water	11	150
Gravel, yellow	30	55	Shale, dark gray	5	155
Clay, yellowish-red	35	90	Limestone, dark gray	2	157
Limestone, gray, interbedded with thin layers of shale, water	10	100	Shale, black, interbedded with layers of limestone, dark gray	50	207
Limestone, yellow, interbedded with thin layers of shale, water	15	115			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well M-62					
Owner: Louis Wilde.					
Soil	2	2	Shale, blue	22	137
Gravel and clay, yellow	34	36	Limestone, gray, water, interbedded with layers of shale, gray	11	148
Limestone, yellow	17	53			
Shale, red	19	72			
Shale, yellow	30	102			
Limestone and shale, yellow, water	13	115			
Well N-7, partial log					
Owner: R. F. Garmon.					
Gravel and clay	45	45	Limestone and shale	516	1,310
Shale and limestone	145	190	Shale and limestone	140	1,450
Shale, red	40	230	Limestone	203	1,653
Limestone and shale	70	300	Limestone, porous, sulfur water	177	1,830
Limestone	90	390	Shale and limestone	191	2,021
Limestone and shale	220	610	Total depth		5,505
Limestone	184	794			
Well N-10					
Owner: A. Keisling.					
Soil	2	2	Limestone, hard, yellow	5	75
Caliche	8	10	Shale, blue interbedded with thin layers of limestone	39	114
Limestone, hard	35	45			
Shale, yellow, interbedded with thin layers of limestone, water	25	70			
Well N-12					
Owner: Paul Gray.					
Soil	4	4	Shale, red	3	84
Caliche and clay, sandy	20	24	Limestone, yellow, water	6	90
Shale, blue	56	80	Shale, gray	9	99
Limestone, yellow, water	1	81			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well N-14, partial log					
Owner: J. F. Schriever.					
Soil	4	4	Anhydrite	24	258
Caliche and clay	23	27	Shale, blue	22	280
Limestone, white	13	40	Anhydrite and shale	18	298
Shale, blue	22	62	Shale, blue	29	327
Sand, water	2	64	Anhydrite	6	333
Shale, blue	6	70	Anhydrite and shale, gray	9	342
Sand, water	2	72	Shale, gray	28	370
Shale, blue	78	150	Shale, gray, anhydrite, and limestone	20	390
Anhydrite	10	160	Limestone, gray	120	510
Shale, blue	30	190	Total depth		2,042
Shale, blue, anhydrite and limestone	30	220			
Shale, blue	14	234			
Well P-5					
Owner: J. H. DeLong.					
Limestone, white	80	80	Limestone	64	310
Shale, blue	90	170	Shale, blue	90	400
Limestone, gray	20	190	Limestone, white	40	440
Limestone, white, sulfur water	15	205	Limestone, gray	5	445
Shale, blue	25	230	Shale, blue	7	452
Limestone, brown	10	240	Limestone, white	24	476
Shale, blue	6	246	Limestone, sandy, brown	39	515
			Limestone, brown	10	525
Well P-6					
Owner: J. H. DeLong.					
Soil, caliche, and dolomite	115	115	Dolomite, cream-colored	9	403
Dolomite, shaly, gray	4	119	Dolomite, cream-colored, and shale, gray	2	405
Limestone, gray, anhydrite and pyrite	14	163	Dolomite, brown	17	422
Dolomite, cream-colored	7	170	Dolomite, gray	8	430
Dolomite, brown	9	179	Dolomite, brown, and shale	5	435
Dolomite, gray	10	189	Dolomite, white and shale	10	445
Dolomite, gray, shale, gray	4	193	Dolomite, brown and shale	5	450
Dolomite, gray	38	231	Dolomite	11	461
Dolomite, brown	19	250	Dolomite, brown, and shale	5	466
Dolomite, gray	13	263	Dolomite, gray	8	474
Dolomite, shale, gray	5	268	Dolomite, white	12	486
Dolomite, gray	7	275	Dolomite, gray, and shale	12	498
Dolomite, brown	20	295	Dolomite, gray	5	503
Dolomite, gray	15	310	Dolomite, brown	2	505
Shale, gray	15	325	Dolomite, gray	13	518
Dolomite, cream-colored and shale, gray	35	360	Dolomite, gray, water	4	522
Dolomite, gray and shale	28	388	Dolomite, gray	3	525
Shale, gray	6	394	Dolomite, brown	5	530
			Dolomite, gray	5	535
			Dolomite, brown and shale	12	547
			Dolomite, brown	8	555

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well P-9					
Owner: S. J. Pugh.					
Limestone, hard, white	38	38	Shale	1	253
Limestone, hard, yellow	6	44	Limestone, hard gray	4	257
Limestone, hard, white	3	47	Shale, gray	7	264
Limestone, hard, blue	9	56	Limestone, sandy, gray	14	278
Shale, blue	1	57	Limestone, black	4	282
Limestone, hard, blue	11	68	Limestone, gray	3	285
Shale, blue	2	70	Limestone, soft, black and gray	5	290
Limestone, gray	4	74	Shale, sandy blue	12	302
Limestone, thin layers of shale, blue	5	79	Limestone, gray	1	303
Shale, blue	59	138	Shale, sandy, gray	6	309
Shale, chalky, blue	17	155	Limestone, gray	3	312
Shale, blue	13	168	Limestone, thin layers, and shale, sandy	8	320
Limestone, broken	6	174	Limestone, hard black	3	323
Limestone, gray	2	176	Shale, gray, and limestone, thin layers	9	332
Limestone, hard	4	180	Limestone, hard brown	4	336
Sand	1	181	Shale	9	345
Limestone	20	201	Limestone, gray	6	351
Gravel, limestone pebbles, blue, black, white, and green	8	209	Shale, blue	9	360
Limestone, white	2	211	Shale	2	362
Shale, blue	3	214	Sandstone, hard brown	8	370
Limestone, gray	10	224	Shale	18	388
Sandstone, black	1	225	Limestone, sandy	2	390
Shale, blue	3	228	Shale	15	405
Shale, carbonaceous, hard	2	230			
Limestone	8	238			
Sand, water	2	240			
Limestone, sandy, hard, brown	12	252			
Well P-14					
Owner: L. N. Nickey Estate.					
Limestone, gray	16	16	Limestone, sandy, sulfur water	2	264
Sand, coarse-grained	4	20	Limestone	9	273
Limestone	85	105	Sand	2	275
Sand, fresh water	3	108	Limestone	35	310
Shale	50	158	Shale	13	323
Limestone	3	161	Limestone	12	335
Shale	25	186	Shale, sandy	10	345
Limestone, sandy	14	200	Limestone, hard	15	360
Shale, sandy	45	245	Shale, sandy	21	381
Limestone	17	262			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well P-26, partial log					
Owner: H. C. Williams.					
Limestone	228	228	Shale, gray	5	555
Shale, white	42	270	Limestone, brown	10	565
Sand, water	3	273	Shale, white	30	595
Sand, white	13	286	Shale, blue	5	600
Limestone	4	290	Limestone	5	605
Shale, white	30	320	Shale, white	90	695
Limestone, hole full of water	96	416	Limestone, white	450	1,145
Limestone, brown	8	424	Sand, hole full of water	10	1,155
Limestone	101	525	Limestone, gray	485	1,640
Shale, green	25	550	Shale, hard	10	1,650
			Total depth		3,010
Well Q-13, partial log					
Owner: T. J. Clegg.					
Sand and gravel	30	30	Shale, hard blue	50	430
Sandstone	35	65	Shale, hard brown	173	603
Shale, hard, water at 200 feet	200	265	Limestone, sandy	30	633
Limestone, sandy	10	275	Shale, hard blue	5	638
Shale, blue	60	335	Limestone, sandy	4	642
Gypsum	5	340	Rock, red	10	652
Shale, sandy, hard and limestone, broken, salt water at 350 feet	40	380	Sand	2	654
			Total depth		3,630
Well R-1, partial log					
Owner: R. C. Lawson et al.					
Soil	6	6	Shale, gray	22	242
Clay, yellow	29	35	Shale, blue	6	248
Shale, blue	48	83	Limestone, gray, water	7	255
Limestone, gray	2	85	Shale, blue	45	300
Shale, brown	5	90	Limestone	50	350
Limestone, gray	3	93	Shale, blue	15	365
Shale, brown	7	100	Limestone	60	425
Limestone	15	115	Shale, blue	40	465
Limestone, blue	8	123	Shale, blue, anhydrite	10	475
Shale, dark-colored	34	157	Limestone, blue, shale and anhydrite	20	495
Shale, green	8	165	Total depth		1,994
Limestone	20	185			
Shale, red	10	195			
Shale, blue	3	198			
Shale, brown	22	220			

Table 4.- Drillers' logs of wells in Tom Green County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
Well R-4, partial log					
Owner: -- Upton.					
Gravel and soil	15	15	Limestone	25	360
Limestone	60	75	Shale, blue	30	390
Cavern	7	82	Limestone	60	450
Limestone	28	110	Shale, blue	15	465
Limestone, broken	35	145	Rock, red	5	470
Shale	30	175	Shale	15	485
Limestone, broken	85	260	Shale, brown	30	515
Limestone	14	274	Total depth		5,637
Limestone, soft, water	11	285			
Limestone, broken, water at 330 feet	50	335			

Table 5.- Analyses of water from wells in Tom Green County, Texas

(Analyses given are in parts per million except specific conductance, pH, and percent sodium)

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
A-3	George Weddell	116	July 21, 1950	937	8.0	28	75	54	23	371	55	63	6.1	-	-	a500	403	11
A-5	J. E. Hall	65	July 20, 1950	598	8.2	19	68	36	7.0	366	9.4	11	6.6	-	-	336	318	5
A-10	Barbara Turner and Beatrice Allday	165	July 7, 1950	549	8.3	-	-	-	-	b302	49	14	-	-	-	-	258	-
A-11	J. E. Hall	72	July 20, 1950	713	8.1	23	50	47	19	334	20	26	26	-	-	375	318	12
A-13	E. V. Hall	125	July 25, 1950	531	7.8	14	62	24	17	277	39	12	6.1	-	-	a311	253	13
A-15	W. C. Weddell	209	July 21, 1950	1,160	8.1	14	150	63	26	277	421	17	.5	-	-	a854	634	8
A-19	Barbara Turner and Beatrice Allday	150	July 5, 1950	451	8.1	-	-	-	-	242	37	16	-	-	-	-	212	-
B-5	Jake Z. Harper	79	Sept. 12, 1940	-	-	-	67	42	6.0	378	39	33	c	-	-	373	340	-
B-6	Alvin Mathus	70	do.	-	-	-	98	62	52	421	89	120	c	-	.6	629	498	-
B-7	J. O. Berry	160	July 20, 1950	783	8.1	25	60	45	18	362	24	36	.0	-	-	386	334	10
B-9	Mrs. Julia Kennemer	74	Nov. 29, 1940	-	-	-	46	40	6.0	305	27	11	c	-	-	300	280	-
B-10	do.	163	do.	-	-	-	120	72	153	336	421	150	c	-	.6	1,080	594	-
B-13	First Presbyterian Church of Carlsbad	57	June 27, 1950	774	-	-	-	-	-	-	51	21	4.2	-		-	-	-
B-14	Barbara Turner and Beatrice Allday	178	July 6, 1950	3,170	7.7	22	384	231	140	191	1,770	151	.0	-	-	2,790	1,910	14
B-17	State Tuberculosis Sanatorium	72	Aug. 19, 1947	942	7.2	20	90	52	42	390	100	68	3.3	-	.6	568	438	-
B-17	do.	72	July 7, 1950	926	8.0	26	82	52	43	378	104	64	4.0	-	.7	a577	418	19
B-18	Homer G. Nickel	53	Sept. 10, 1940	-	-	-	334	134	480	506	698	905	c	-	.6	2,800	1,380	-
B-20	H. T. Allard	80	Oct. 1, 1940	-	-	-	85	44	41	488	27	38	c	-	-	475	392	-
B-27	Barbara Turner and Beatrice Allday	120	June 28, 1950	558	7.9	16	64	31	15	302	34	13	3.2	-	-	325	287	10
C-2	J. F. Sutton	187	Nov. 23, 1940	-	-	-	80	24	37	354	50	26	c	-	1.0	392	300	-
C-3	J. Y. Rust, Sr. Estate	68	Nov. 29, 1940	-	-	-	88	49	166	329	383	64	c	-	.9	913	402	-
C-4	W. L. Matthews	63	Nov. 28, 1940	-	-	-	d10	38	2.0	323	29	46	96	-	.2	480	434	-
C-6	A. March	150	June 20, 1950	1,690	7.8	16	82	52	215	331	329	192	1.2	-	-	1,050	418	53
C-7	Miss Molly Mayes	67	Dec. 2, 1940	-	-	-	76	40	25	329	50	45	28	-	.5	426	355	-
C-9	J. Y. Rust, Sr. Estate	117	Nov. 28, 1940	-	-	-	59	105	3,390	482	499	4,990	c	-	1.6	9,280	580	-
C-10	do.	69	Nov. 29, 1940	-	-	-	74	28	4.4	323	12	24	c	-	-	301	302	-
C-12	Mrs. Fred Baker Estate	77	May 2, 1950	1,070	7.3	12	56	53	101	424	144	56	.5	-	-	a647	358	38
C-13	J. Y. Rust, Sr. Estate	75	Sept. 30, 1940	-	-	-	60	43	46	390	50	36	c	-	.8	428	326	-
C-14	Roy Harris	200	June 20, 1950	1,690	7.9	15	60	73	211	354	377	159	1.5	-	-	1,070	450	50
C-16	Florence Womach	198	Oct. 1, 1940	-	-	-	82	103	487	470	461	580	c	-	1.4	1,940	629	-
D-1	Oscar Brown	175	Mar. 21, 1950	1,190	7.4	16	86	67	43	360	74	140	18	-	-	a630	490	16
D-2	E. M. Allen	57	Sept. 30, 1940	-	-	-	373	271	105	494	1,380	310	c	-	.2	2,680	2,940	-
D-3	Leon Kincade	158	Jan. 28, 1949	1,760	-	14	201	81	96	180	780	55	7.2	-	-	1,320	834	20
D-4	A. S. Harris	132	Oct. 7, 1948	767	-	20	65	48	13	284	37	75	12	-	-	a434	360	7
D-5	Edgar McGuire	140	do.	822	-	19	73	45	25	294	32	78	45	-	-	a472	367	13
D-6	do.	82	do.	581	-	17	34	39	20	184	31	67	16	-	-	a324	246	15
D-7	Mrs. J. S. Holland	120	Jan. 28, 1949	864	-	21	76	41	46	370	45	50	45	-	-	a522	358	22
D-8	W. S. Holland	79	Oct. 7, 1948	731	-	17	63	40	26	322	36	40	25	-	-	a421	322	15

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
D-9	Roy Holland	79	Oct. 7, 1948	782	-	20	84	30	37	322	32	50	56	-	-	a491	333	19
D-11	Wallace Ramsey	83	do.	1,120	-	19	88	51	71	380	60	130	33	-	-	a673	429	27
D-13	Oscar Brown	110	Sept. 30, 1940	-	-	-	107	78	83	421	101	225	c	-	.3	801	588	-
D-17	W. I. Marschall	135	Mar. 21, 1950	1,150	-	-	-	-	-	-	206	86	-	-	-	-	-	-
D-19	C. Cotton	75	Oct. 2, 1940	-	-	-	-	-	-	268	97	164	c	-	-	-	-	-
D-21	Albert Klattenhoff	89	Oct. 7, 1948	800	-	22	76	41	37	358	31	71	16	-	-	a482	358	18
D-22	C. Klattenhoff	116	do.	612	-	32	58	38	13	320	19	28	8.0	-	-	a355	300	8
D-23	L. M. McGuire	100	Jan. 24, 1949	815	-	20	62	49	30	326	38	76	9.5	-	-	a482	356	15
D-24	Carl Urbantke	80	Oct. 2, 1940	-	-	-	-	-	-	329	101	190	c	-	-	-	-	-
D-25	E. Kiesling	104	Oct. 7, 1948	944	-	22	87	40	63	436	56	71	2.2	.34	-	a560	382	26
D-26	S. E. Parmer	57	do.	868	-	20	77	46	37	368	37	81	9.0	-	-	a499	381	17
D-27	M. S. Winston	90	Oct. 2, 1940	-	-	-	61	36	60	305	49	94	c	-	-	450	303	-
D-29	Liestman Estate	45	Oct. 7, 1948	1,120	-	19	98	60	52	272	242	85	12	.78	-	a742	491	19
E-4	Percy Turner	80	July 5, 1950	540	7.6	-	-	-	-	268	47	21	-	-	-	-	254	-
E-5	Ike Funk Estate	148	July 27, 1950	595	8.2	12	41	36	25	242	81	16	.0	-	-	a334	250	18
E-12	Leasel Harris	135	July 25, 1950	502	8.3	14	48	29	12	b256	23	18	7.2	-	-	277	239	10
E-13	J. R. Mims	72	July 27, 1950	568	8.1	19	76	26	9.4	347	12	12	4.8	-	-	330	296	6
F-2	Conley Estate	82	Dec. 5, 1940	-	-	-	87	37	7.4	427	d	18	c	-	-	-	368	-
F-3	do.	60	Dec. 6, 1940	-	-	-	88	40	14	464	12	17	c	-	-	399	385	-
F-4	W. R. Berry	41	Dec. 5, 1940	-	-	-	94	67	93	317	123	220	c	-	.6	754	511	-
F-6	R. V. Blevins	96	Oct. 1, 1940	-	-	-	89	54	85	458	31	156	c	-	-	640	443	-
F-9	Percy Turner	48	July 7, 1950	625	7.8	18	84	29	10	382	16	12	5.0	-	-	a364	328	6
F-10	do.	106	July 5, 1950	544	7.6	-	-	-	-	296	58	12	-	-	-	-	250	-
F-11	do.	80	do.	307	7.9	-	-	-	-	192	31	8.0	-	-	-	-	170	-
F-12	do.	160	do.	501	8.1	-	-	-	-	292	27	10	-	-	-	-	242	-
F-14	Robert Turner	201	July 11, 1950	14,600	6.9	-	-	-	-	348	449	4,880	-	-	-	-	1,730	-
F-16	do.	115	do.	837	7.6	-	-	-	-	336	105	58	-	-	-	-	246	-
F-20	H. R. Wardlaw	205	do.	641	8.0	16	68	38	19	392	19	13	.2	-	-	a377	326	11
F-26	Mrs. G. L. Lewis	51	Sept. 15, 1950	899	8.2	37	24	54	59	346	46	51	3.5	-	1.2	a452	282	31
F-29	Homer Byrd	100	Aug. 26, 1940	-	-	-	62	39	25	354	10	28	33	-	.9	372	314	-
F-30	T. N. Robbins	88	do.	-	-	-	134	91	270	244	230	570	66	-	-	1,480	711	-
G-2	C. E. Clark	70	Dec. 5, 1940	-	-	-	42	36	15	287	10	22	c	-	.2	266	252	-
G-3	A. F. Michalewicz	98	Oct. 1, 1940	-	-	-	89	36	54	390	21	96	c	-	.4	488	373	-
G-4	R. O. Sheffield	90	June 15, 1950	849	7.8	21	88	39	37	400	28	66	8.5	.28	-	a512	380	17
G-7	Wilbur Brown	58	June 22, 1950	1,030	7.4	-	-	-	-	422	97	102	-	-	-	-	426	-

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
G-8	Lewis Hersey	55	Apr. 5, 1939	-	-	-	97	38	19	415	24	53	c	-	-	435	398	-
G-11	E. F. Machann	99	May 2, 1950	2,940	7.1	22	156	118	265	285	137	750	20	-	-	1,610	874	40
G-12	J. M. Rape	105	Jan. 12, 1941	-	-	-	425	246	1,710	451	962	3,130	c	-	.8	6,700	2,070	-
G-18	Roy Wiegman	135	Oct. 11, 1948	7,810	-	11	904	340	431	308	1,470	1,990	3.5	-	-	5,300	3,650	20
G-19	J. M. Brandon	63	do.	1,280	-	19	93	57	80	364	98	152	32	-	-	a772	466	27
G-21	C. R. Nasworthy	40	Sept. 15, 1950	7,600	-	-	-	-	-	-	1,100	1,900	-	-	-	-	-	-
G-22	--	714	Aug. 22, 1940	-	-	-	2,880	880	37,500	427	4,160	62,200	-	-	-	108,000	10,800	-
G-24	Homer G. Nickel	29	Sept. 14, 1950	2,150	8.2	34	32	158	195	482	472	160	45	-	1.6	1,330	730	37
G-110	Mrs. Lee Irving	75	Jan. 9, 1941	-	-	-	116	43	55	360	30	176	c	-	.4	610	466	-
G-122	Edgar Harris	80	do.	-	-	-	103	48	24	366	42	116	c	-	-	513	455	-
G-133	J. C. Snow	75	Sept. 11, 1940	-	-	-	109	51	71	433	43	160	c	-	.5	648	481	-
G-181	Henry Howard	60	Jan. 9, 1941	-	-	-	95	45	37	317	42	142	c	-	-	517	423	-
G-185	J. A. Terrill	76	do.	-	-	-	94	39	25	366	25	82	c	-	.2	445	394	-
H-1	J. Y. Pust, Sr. Estate	60	May 3, 1950	682	7.5	19	54	41	29	370	29	17	12	-	-	a393	303	17
H-5	E. M. Johnson	40	Mar. 21, 1950	788	7.5	19	50	52	40	375	52	27	34	-	-	a476	339	21
H-7	Mrs. Stella Fowler	60	Oct. 2, 1940	-	-	-	431	146	154	207	1,670	74	c	-	.2	2,580	1,678	-
H-8	Cecil Montgomery	85	Jan. 28, 1949	694	-	18	52	35	39	300	20	65	1.2	-	-	a382	274	24
H-9	John Book	98	Oct. 7, 1948	3,070	-	13	614	108	73	188	1,680	152	22	-	-	2,750	1,980	7.4
H-10	R. C. Johnson	80	Oct. 2, 1940	-	-	-	212	83	153	299	240	480	39	-	.3	1,350	871	-
H-15	A. Strake	70	Sept. 30, 1940	-	-	-	72	39	25	360	23	48	c	-	.6	385	339	-
H-17	D. P. Miers	65	Jan. 22, 1941	-	-	-	498	180	60	214	1,550	230	c	-	1.2	2,620	1,980	-
H-18	Henry Mazier	50	do.	-	-	-	65	38	12	348	23	18	c	-	-	327	318	-
H-19	Tom Green County	42	Sept. 24, 1948	2,100	-	17	212	113	106	250	662	232	2.2	-	-	1,470	994	19
H-20	-- Clark	57	Aug. 13, 1943	-	-	-	150	67	136	259	170	365	53	-	-	1,070	650	-
H-21	J. R. Brooks	87	do.	-	-	-	-	-	-	244	542	297	-	-	-	-	-	-
H-30	J. F. Johnson	110	Aug. 18, 1943	-	-	-	177	67	116	303	151	378	38	-	-	1,080	717	-
H-32	H. E. Halfmann	79	Apr. 6, 1948	2,430	-	27	220	97	117	287	181	525	47	-	-	1,360	948	21
H-36	J. B. Bitner	112	Aug. 18, 1943	-	-	-	-	-	-	262	1,860	422	-	-	-	-	-	-
H-37	Mrs. Matt Johnson	167	Aug. 3, 1943	-	-	-	156	68	126	278	160	377	20	-	-	1,040	669	-
H-40	A. F. Schumm	125	Sept. 8, 1941	-	-	-	266	105	146	251	686	345	c	-	-	1,680	1,100	-
H-41	County Park Precinct 2	42	Oct. 29, 1940	-	-	-	185	89	106	250	576	180	c	-	.6	1,260	830	-
H-42	W. J. Sullivan	100	Aug. 19, 1943	-	-	-	-	-	-	204	1,170	223	-	-	-	-	-	-

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium ($Na + K$)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
H-45	C. A. Roberson	120	Sept. 27, 1948	3,170	-	13	386	164	160	158	1,340	325	3.8	-	-	2,470	1,640	18
H-46	W. H. Lane	84	Aug. 19, 1943	-	-	-	114	47	97	264	88	260	18	-	-	a883	478	-
H-47	Mrs. Julius Miller	110	Oct. 27, 1948	1,450	-	24	108	52	107	277	129	245	12	.77	-	a870	484	33
H-49	Hope Clark	105	Aug. 18, 1943	-	-	-	-	-	-	288	195	572	-	-	-	-	-	-
H-54	Otis Lane	126	Sept. 8, 1941	-	-	-	152	59	106	262	138	340	19	-	-	943	622	-
H-59	do.	150	Nov. 3, 1948	2,560	-	24	234	103	126	240	281	545	30	-	-	1,460	1,010	21
H-65	Robert Vidler	114	Oct. 26, 1948	1,520	-	22	138	52	90	240	111	288	46	-	-	a934	558	26
H-67	do.	177	do.	1,470	-	22	146	59	49	256	112	252	39	-	-	a855	607	15
H-68	E. H. Schuch	102	Oct. 30, 1940	-	-	-	468	155	435	171	1,970	400	c	-	.2	3,510	1,800	-
H-69	W. E. Phillips	73	Oct. 12, 1948	2,630	-	32	194	110	186	314	263	560	24	-	-	1,520	936	30
H-70	J. W. Nelson	80	Oct. 16, 1948	3,030	-	16	228	158	121	90	217	830	13	-	-	1,630	1,220	18
H-71	B. H. Gilbert	70	Jan. 20, 1949	934	-	24	96	34	35	256	34	134	26	-	-	a595	380	17
H-75	M. D. Parmer	96	do.	1,380	-	24	106	44	106	258	86	255	18	.42	-	a825	446	34
H-78	N. E. Lester	87	Sept. 8, 1941	-	-	-	102	41	86	282	88	200	8.0	-	-	664	423	-
H-79	C. S. Bubenik	90	July 27, 1943	-	-	-	96	41	88	258	94	206	-	-	-	652	408	-
H-82	Otto Bubenik	100	Oct. 27, 1948	1,270	-	24	84	46	90	196	86	230	24	-	-	a723	398	33
H-83	do.	119	Nov. 3, 1948	3,350	-	9.5	448	193	147	198	1,730	190	.0	-	-	2,820	1,910	14
H-87	W. J. Drgac	60	Oct. 31, 1940	-	-	-	-	-	-	268	105	196	c	-	-	-	-	-
H-88	do.	100	Nov. 3, 1948	1,230	-	24	100	45	71	260	81	198	15	-	-	a731	434	26
H-90	Wylie Pate	116	Dec. 1, 1942	-	-	-	105	42	99	260	99	228	14	-	-	a805	434	-
H-95	C. H. Feist	84	Aug. 9, 1943	-	-	-	-	-	-	281	99	180	-	-	-	-	-	-
H-96	V. L. Pfluger	70	Nov. 1, 1940	-	-	-	148	53	113	262	154	320	c	-	-	917	588	-
H-100	Tom Green County	70	do.	-	-	-	110	46	109	238	100	280	c	-	.2	762	463	-
H-106	Viola Korenek	80	do.	-	-	-	163	66	239	256	127	600	c	-	-	1,320	681	-
H-108	Jewel Brandon	80	Oct. 12, 1948	3,210	-	4.8	308	138	210	64	912	560	2.5	-	-	2,170	1,340	26
H-109	Mrs. E. C. Adkinson	112	Oct. 3, 1940	-	-	-	536	167	265	244	1,880	314	c	-	-	3,280	2,020	-
J-2	A. L. Douglas	85	Oct. 2, 1940	-	-	-	283	126	228	171	1,360	120	c	-	-	2,200	1,220	-
J-10	H. J. Perry	180	Apr. 19, 1951	2,470	8.0	23	254	101	189	237	1,060	126	1.8	.65	-	1,870	1,050	28
J-11	Tom Green County	60	Jan. 16, 1941	-	-	-	127	68	76	336	108	260	c	-	-	804	597	-
J-12	Alf Smith	218	Aug. 1, 1950	3,460	7.8	21	454	162	246	258	1,760	185	-	-	-	2,960	1,800	23
J-22	E. W. Hardgrave	153	Jan. 4, 1951	1,430	7.3	22	130	54	96	265	216	201	23	.36	-	a926	546	28
J-23	-- Ford	Spring	Jan. 15, 1941	-	-	-	126	46	92	262	94	270	c	-	.5	769	504	-
J-30	C. O. Meadors	78	do.	-	-	-	146	63	83	232	72	380	c	-	-	858	624	-
J-34	L. J. Sidel	80	Aug. 18, 1943	-	-	-	117	43	82	268	101	221	14	-	-	710	469	-
J-34	do.	182	Apr. 19, 1951	1,460	7.6	-	-	-	-	269	160	230	-	-	-	-	538	-
J-35	J. S. Johnson	195	July 23, 1943	-	-	-	-	-	-	270	106	280	-	-	-	-	-	-
J-40	P. J. Standefer	100	Aug. 8, 1943	-	-	-	-	-	-	268	149	286	-	-	-	-	-	-

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium ($Na^+ K$)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
J-45	J. H. Sims	101	Apr. 19, 1951	1,320	7.5	26	108	42	88	265	102	220	19	0.34	-	a781	442	30
J-46	H. I. Sims	155	Jan. 30, 1951	1,320	7.2	20	112	43	86	267	114	204	24	.48	-	a796	456	29
J-47	J. H. Sims	90	Aug. 18, 1943	-	-	-	114	41	83	281	104	199	16	-	-	695	453	-
J-51	R. W. Whitfield	87	Oct. 29, 1940	-	-	-	-	-	-	299	70	370	28	-	-	a960	-	-
J-53	J. S. Webb	67	Sept. 27, 1948	1,600	-	31	148	75	74	424	153	205	53	-	-	948	678	19
J-55	R. E. McCullough	103	Nov. 5, 1948	1,210	-	20	98	46	84	274	112	184	19	-	-	a727	434	30
J-59	Amel Timms	150	Aug. 19, 1943	-	-	-	162	75	81	291	222	285	21	-	-	989	713	-
J-60	M. T. Cotten	25	Jan. 20, 1949	1,280	-	15	114	35	101	232	150	175	68	-	-	a801	428	34
J-62	Ed Wannerick	38	Oct. 29, 1940	-	-	-	130	46	179	275	211	290	60	-	-	1,050	513	-
J-63	O. M. Droll	67	Jan. 20, 1949	2,350	-	29	199	73	192	288	297	400	129	-	-	1,460	192	34
J-64	Mrs. O. L. Frasure	103	do.	3,480	-	5.2	408	192	205	100	1,930	185	.0	-	-	3,020	1,810	23
J-70	Wylie Pate	140	July 23, 1943	-	-	-	100	39	90	268	93	191	24	-	-	669	410	-
J-71	do.	117	do.	-	-	12	96	38	98	264	94	196	19	-	.5	684	396	-
J-73	C. E. Mayes Estate	55	Nov. 18, 1940	-	-	-	87	45	16	256	69	106	c	-	.4	449	403	-
J-75	J. S. Powell	81	Nov. 1, 1940	-	-	-	102	20	103	348	104	110	c	-	-	610	337	-
J-76	W. L. Griffith	48	Oct. 31, 1940	-	-	-	118	53	62	354	125	150	c	-	-	682	513	-
K-1	W. O. Miller	73	Sept. 14, 1950	835	7.5	19	66	40	46	348	20	84	4.5	-	-	a455	329	23
K-2	-- Gunter	66	Aug. 26, 1940	-	-	-	65	51	115	378	33	192	c	-	.6	643	371	-
K-3	R. F. Halbert Estate	110	Aug. 22, 1940	-	-	-	66	52	163	421	66	220	c	-	.8	775	377	-
K-4	R. F. Gandy	30	do.	-	-	-	52	43	100	397	113	47	c	-	.8	551	307	-
K-8	R. C. Boggs	37	Feb. 21, 1938	-	-	-	66	70	621	403	478	678	20	-	.7	2,130	453	-
K-9	James A. Stanford	65	Aug. 23, 1940	-	-	-	162	69	324	378	272	560	c	-	.8	1,570	687	-
K-10	West Texas Boys Ranch	85	do.	-	-	-	77	42	116	409	140	92	c	-	.9	669	366	-
K-13	E. H. Jones	82	Aug. 21, 1940	-	-	-	74	7.0	22	275	d	20	c	-	.1	-	214	-
K-14	J. W. Evans	47	do.	-	-	-	137	59	193	360	229	320	23	-	.6	1,140	586	-
K-17	W. E. Schulkey	Spring	Aug. 27, 1940	-	-	-	74	24	35	354	28	28	c	-	.6	364	285	-
K-18	Tom Green County Knickerbocker School	65	Aug. 21, 1940	-	-	-	116	24	15	409	26	37	c	-	.2	419	390	-
K-21	Bud and Bart Abbott	60	do.	-	-	-	91	27	36	415	22	32	c	-	.3	412	338	-
L-2	C. H. Barnes	122	Oct. 8, 1948	69,600	-	8.6	2,460	1,050	16,000	405	3,180	29,500	-	-	-	52,400	10,500	77
L-4	A. L. Bucek	90	Sept. 4, 1940	-	-	-	190	74	208	256	70	670	c	-	-	1,340	781	-
L-5	Thelma Snodgrass	75	do.	-	-	-	187	68	249	329	121	630	c	-	-	1,420	747	-
L-7	George R. Staha	30	Aug. 21, 1940	-	-	-	137	48	226	342	334	280	c	-	.8	1,190	540	-
L-8	Henry Motl	29	Aug. 23, 1940	-	-	-	116	52	188	403	187	270	c	-	.4	1,010	502	-

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium ($Na+K$)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
L-9	Joe Sawyer	37	Aug. 23, 1949	-	-	-	123	49	288	409	295	345	c	-	0.8	1,300	510	-
L-10	W. C. Hoelscher	90	Sept. 4, 1940	-	-	-	203	59	194	317	47	600	24	-	-	1,280	752	-
L-11	John A. Debus	100	do.	-	-	-	130	37	92	348	51	230	29	-	-	740	478	-
M-5	Lawnhaven Memorial Park, Inc.	100	Nov. 12, 1948	5,540	-	25	382	189	457	242	246	1,600	15	-	-	3,030	1,730	36
M-6	Ben Book	87	do.	5,910	-	32	390	179	541	244	178	1,760	23	-	-	3,220	1,710	41
M-15	Frank Wilde	78	Sept. 27, 1948	1,450	-	17	121	53	93	282	116	258	8.7	-	-	a875	520	28
M-23	Arnold Brenik	100	Apr. 9, 1948	6,780	-	23	454	193	700	254	425	1,970	24	-	-	3,910	1,930	44
M-25	W. F. Stanford	92	Aug. 28, 1950	2,280	7.3	24	174	65	195	332	100	530	30	.37	.4	1,280	702	38
M-26	R. W. Taylor	75	Oct. 22, 1940	-	-	-	128	52	149	317	97	345	c	-	-	927	532	-
M-33	Vince C. Motl	110	Dec. 16, 1948	1,290	-	23	103	44	90	275	93	215	9.0	-	-	a793	438	31
M-34	H. F. Backhaus Estate	103	Nov. 6, 1940	-	-	-	308	123	158	201	1,100	220	c	-	.1	2,010	1,276	-
M-36	Melvin Moeller	140	Aug. 30, 1950	2,010	7.7	22	247	72	98	299	464	267	2.5	-	-	1,320	912	19
M-45	C. L. Bean	117	Aug. 28, 1950	1,420	7.5	23	108	44	120	290	96	253	9.0	.18	-	a839	450	37
M-49	W. W. Janek	98	Oct. 17, 1940	-	-	-	127	51	150	287	105	360	c	-	-	934	526	-
M-52	Mrs. -- Gates	90	Oct. 22, 1940	-	-	-	106	30	104	305	101	180	c	-	-	671	389	-
M-55	William Ripple	95	do.	-	-	-	271	97	215	305	791	330	c	-	.7	1,850	1,075	-
M-58	Ripple Brothers	214	Jan. 3, 1949	2,410	-	15	302	118	66	240	914	165	1.2	-	-	1,700	1,240	10
M-59	Henry H. Ripple	95	Sept. 22, 1948	1,100	-	15	112	47	58	326	203	85	.0	-	-	a713	473	21
M-60	do.	207	Dec. 23, 1948	1,460	-	18	179	69	45	275	440	100	3.5	.53	-	991	730	12
M-61	J. J. Schiller	118	Nov. 14, 1940	-	-	-	360	179	90	293	1,170	240	41	-	-	2,220	1,614	-
M-63	Viola Donovan	117	do.	-	-	-	131	65	58	299	369	64	c	-	.7	835	595	-
M-64	Luther Wood	104	Oct. 22, 1940	-	-	-	284	63	188	305	714	270	c	-	.9	1,670	969	-
M-65	R. V. Allison	128	Aug. 28, 1950	1,550	7.5	25	124	41	136	292	134	276	6.3	-	-	a917	478	38
M-66	R. L. Olsovsky	107	Oct. 17, 1940	-	-	-	92	30	83	305	87	134	c	-	-	576	353	-
M-74	H. Upton	126	Oct. 15, 1940	-	-	-	104	27	54	378	47	90	c	-	-	508	372	-
M-78	R. S. Waring	Spring	do.	-	-	-	80	20	13	293	31	28	c	-	.1	316	283	-
N-13	Roy Scott	75	Oct. 31, 1940	-	-	-	83	58	90	378	197	90	c	-	-	704	446	-
N-15	W. L. Kadlacek	65	do.	-	-	-	171	75	98	329	217	310	c	-	-	1,030	736	-
N-16	A. L. Bucek	62	Dec. 8, 1948	3,540	-	10	544	228	124	244	2,140	98	.0	-	-	3,260	2,300	11
N-17	R. G. Fuessel	60	Nov. 15, 1940	-	-	-	102	53	27	317	169	68	c	-	-	575	473	-
N-18	R. C. Bednar	68	do.	-	-	-	100	38	6.0	79	315	20	c	-	.2	518	409	-
N-19	Annie Willis	70	Nov. 11, 1940	-	-	-	-	-	-	372	192	148	c	-	-	-	-	-
N-20	G. H. Buchanan	84	do.	-	-	-	123	59	72	409	169	140	c	-	-	764	551	-
N-26	R. D. Barron	125	Feb. 15, 1938	-	-	-	59	66	56	226	79	195	.2	-	.1	566	421	-

Table 5.- Analyses of water from wells in Tom Green County--Continued

Well	Owner	Depth of well (ft.)	Date of collection	Specific conductance (Micromhos at 25° C.)	pH	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Boron (B)	Fluoride (F)	Dissolved solids (sum)	Total hardness as $CaCO_3$	Percent sodium
N-27	R. D. Barron	125	Feb. 15, 1938	-	-	-	70	55	50	329	24	154	.2	-	.2	515	404	-
N-30	Tom Green County	77	do.	-	-	-	140	77	61	329	312	141	3.8	-	1.1	898	668	-
N-31	J. S. Powell	78	Jan. 27, 1949	3,750	-	10	530	243	151	242	2,200	115	.0	-	-	3,370	2,320	12
N-32	do.	80	Nov. 15, 1940	-	-	-	-	-	-	275	1,920	148	a	-	-	-	-	-
N-34	Mary Wilde	98	Jan. 20, 1949	1,490	-	8.5	112	82	84	318	263	188	.0	-	-	a972	616	23
O-1	A. F. Joslin	60	Sept. 21, 1950	1,850	7.9	11	66	34	289	308	307	252	2.0	-	1.8	1,110	304	67
O-2	A. M. Tweedy Estate	25	Aug. 27, 1940	-	-	-	69	41	58	427	58	32	c	-	.6	469	340	-
O-5	C. D. and C. L. Atkins	177	May 19, 1950	559	8.0	20	67	25	14	308	16	19	4.8	-	-	a321	270	10
O-6	W. J. Jameyson Estate	270	May 17, 1950	3,870	7.5	-	-	-	-	320	566	760	-	-	-	-	306	-
P-1	C. D. and C. L. Atkins	148	May 19, 1950	3,320	7.4	10	52	33	613	343	528	540	6.9	-	-	1,950	265	83
P-4	J. H. DeLong	46	Oct. 21, 1940	-	-	-	99	18	22	372	18	30	c	-	.3	370	321	-
P-7	T. D. and S. V. Easterwood	60	May 18, 1950	917	7.9	23	90	26	71	378	75	62	14	-	-	a554	332	32
P-8	R. W. Rawls	387	Feb. 17, 1938	-	-	-	71	45	1,640	952	707	1,700	.5	-	-	4,640	360	-
P-10	J. D. Robertson	700	Oct. 3, 1940	-	-	-	229	101	3,780	878	892	3,350	c	-	3.1	10,800	987	-
P-12	Wylie Jameyson Estate	57	May 18, 1950	578	7.8	16	78	21	10	310	14	16	13	-	-	a328	281	7
P-13	do.	160	do.	637	7.5	-	-	-	-	336	33	22	-	-	-	-	316	-
P-17	Edwin Brown	140	Oct. 21, 1940	-	-	-	80	14	12	293	10	21	c	-	-	281	259	-
P-21	Ford Boulware	Spring	Aug. 20, 1940	-	-	-	60	17	31	287	d	27	c	-	.4	-	220	-
P-22	Wylie Jemeyson Estate	259	May 18, 1950	529	-	-	-	-	-	-	22	28	-	-	-	-	-	-
P-23	H. K. Hinde Estate	210	May 17, 1950	1,920	7.7	-	-	-	-	296	271	308	-	-	-	-	264	-
P-25	do.	121	Oct. 14, 1940	-	-	-	69	16	15	275	17	15	5.3	-	.2	272	235	-
P-28	H. C. Williams	120	Oct. 3, 1940	-	-	-	38	16	24	195	d	30	c	-	-	-	160	-
Q-1	J. W. Johnson, Jr.	Spring	Oct. 10, 1940	-	-	-	78	17	32	329	14	31	c	-	.2	334	266	-
Q-6	W. A. West	200	do.	645	-	-	-	-	-	-	28	60	-	-	-	-	-	-
R-2	J. Y. Rust, Sr. Estate	Spring	Oct. 18, 1940	-	-	-	-	-	-	348	20	23	c	-	-	-	-	-
R-3	do.	55	do.	-	-	-	84	29	23	378	24	27	c	-	-	373	328	-
R-6	Arthur Henderson	Spring	do.	-	-	-	76	22	23	299	d	21	c	-	.1	-	278	-

a - Residue on evaporation at 180° C.
b - Includes carbonate as bicarbonate.
c - Nitrate less than 20 parts per million.
d - Sulfate less than 10 parts per million.