TEXAS WATER COMMISSION

Joe D. Carter, Chairman O. F. Dent, Commissioner H. A. Beckwith, Commissioner

BULLETIN 6214

VOLUME I

GEOLOGY AND GROUND-WATER RESOURCES

OF REEVES COUNTY, TEXAS

Includes Records of Wells RADIATION CONTROL LIBRARY COPY By

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Prepared in cooperation with the U. S. Geological Survey, the City of Pecos, and Reeves County

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FOREWORD

Volume I

GEOLOGY AND GROUND-WATER RESOURCES OF REEVES COUNTY, TEXAS

This report is the first of a two-volume publication on the geology and ground-water resources of Reeves County, located in the Trans-Pecos region of Texas. The Texas Water Commission [formerly the Texas Board of Water Engineers] and the U. S. Geological Survey have prepared the report in cooperation with the city of Pecos and the Reeves County Commissioners Court, under the joint authorship of Mr. J. B. Wesselman of the T.W.C. and Mr. William Ogilbee of the U.S.G.S.

In this volume is a textual presentation of the geology and ground-water resources of the County; graphic aides, such as maps, geologic sections, charts, and graphs, which illustrate the results of the study; and tabular records of some 1,800 wells and springs.

The second volume is composed of six tables: drillers' logs of wells (Tables 8 and 9), data on water levels in wells (Table 10), and chemical analyses of water (Tables 11, 12, and 13). Locations of wells listed in these tables may be found on Plate 1 at the end of this volume.

TEXAS WATER COMMISSION

/John J. Vandertulip, Chief Engineer

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GEOLOGY AND GROUND-WATER RESOURCES OF REEVES COUNTY, TEXAS

ABSTRACT

Reeves County, in the trans-Pecos region of Texas, has a climate characterized by wide daily range in temperature, low precipitation, and high evaporation. The economy of the county is based largely on cattle ranching, irrigated cotton farming, and associated industries.

Alluvium of Cenozoic age is the principal source of ground-water supplies in Reeves County. The alluvium underlies a little more than 80 percent of the county and fills a large slumpage trough, whose deepest part is in the central and northcentral parts of the county. The alluvium consists of unconsolidated and semiconsolidated gravel, sand, silt, and clay, and is as much as 1,550 feet thick in the deepest part of the trough. The main sources of recharge to the alluvium are the runoff from the mountains bordering the western and southern parts of the county, subsurface inflow from truncated bedrock formations, and seepage from irrigation. Most of the 926 irrigation wells in the county obtain all or nearly all their water from the alluvium. The 350,000 acre-feet of water pumped from the alluvium in 1959 was at least three times the estimated annual rate of natural discharge before irrigation from wells was begun. Because annual withdrawals during the 1950's have greatly exceeded the average annual rate of recharge, the ground-water levels have declined as much as 200 feet in the central part of the county where irrigation wells are densely concentrated.

The water in the alluvium ranges widely in mineral content. It contains less than 1,000 ppm (parts per million) dissolved solids in the eastern and southern parts of the county, 2,000 to 4,000 ppm in the central part, and more than 5,000 ppm in the northwestern part. In areas of shallow water table along the Pecos River, which borders the county on the northeast, and around Toyah Lake, which is about 7 miles southeast of the city of Pecos, the dissolved-solids content of the water exceeds 10,000 ppm. For the most part, the water is very hard. Although the water is of questionable quality for irrigation according to widely accepted standards, the water has been used with apparent success to the present time. Because withdrawals for irrigation have caused the ground water to move faster and in a somewhat different direction than it did formerly, the chemical quality of the water is changing perceptibly in some parts of the county, particularly in the older part of the Pecos.

The exposed consolidated rocks in Reeves County are volcanic rocks of Tertiary age and sedimentary rocks of Cretaceous, Triassic, and Permian age. Rocks of Cretaceous age underlie the alluvium in the southwestern half of the county, and rocks of Triassic and Permian age underlie the alluvium in the northeastern half of the county. The formations of the Comanche series of Cretaceous age supply water to a few of the irrigation wells and many livestock wells; the Santa Rosa sandstone of Triassic age supplies water to the Pecos city wells and livestock wells; and the Rustler formation supplies water to a few irrigation and livestock wells.

As nearly all the irrigable land in the county has already been developed for irrigation, irrigation is unlikely to be extended much beyond its present limits. However, it is quite possible that withdrawals within the currently irrigated area may increase beyond the 1959 rate. In order to conserve the supply, irrigation methods that will insure maximum production from minimum applications of water should be practiced rigorously.

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GEOLOGY AND GROUND-WATER RESOURCES

OF REEVES COUNTY, TEXAS

INTRODUCTION

Purpose and Scope of Investigation

The increased use of water in Reeves County for both municipal supply and irrigation has heightened interest in the quantity and quality of ground water available from the various aquifers that underlie the county. Even though the city of Pecos has drilled several additional wells in an effort to meet the increased needs for water, the supply still is barely enough for the peak summer demand, and a search is underway for other sites where wells would yield water of a quality suitable for public supply. For at least 10 years, the annual withdrawal of ground water for irrigation has been several times the annual recharge to the aquifers and as a result the water level has declined as much as 200 feet in the central part of the county. The decline in the water level is causing highly mineralized water to move into some areas where the water now is or was of better quality. Concern about depletion of the present reserves and local deterioration of the quality of the ground water has prompted the preparation of this report, which includes not only a reevaluation of the known information but also an estimate of the amount of water currently available for withdrawal.

The area described in the report includes all of Reeves County and part of adjacent Ward County. The fieldwork was begun in July 1958 and finished in January 1960. The investigation is part of a cooperative program of study of the groundwater resources of Texas by the U. S. Geological Survey and the Texas Water Commission [formerly the Texas Board of Water Engineers] and was done in cooperation with the city of Pecos and the Reeves County Commissioners Court.

The study was made under the administrative direction of P. E. LaMoreaux, chief of the Ground Water Branch, U. S. Geological Survey, and under the direct supervision of R. W. Sundstrom, district engineer in charge of ground-water investigations in Texas.

Location of Area

Reeves County is in the trans-Pecos region of Texas. It is bordered on the northeast by Loving and Ward Counties, on the southeast by Pecos County, on the southwest by Jeff Davis County, on the west by Culberson County, and on the north by New Mexico (Figure 1). The area of the county is 2,600 square miles and the population in 1960 was 17,644. Pecos, the county seat, is the principal city and had a population in 1960 of 12,728; other important towns are Balmorhea, population 604, and Saragosa, population 380. Smaller towns are Toyah, Toyahvale, and Orla. The average number of persons per square mile is 6.8, which is a large increase over the 3.1 persons per square mile in 1940 and the 4.5 persons per square mile in 1950.



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Reeves County is served by the Texas and Pacific, Panhandle and Santa Fe, and Pecos Valley Southern Railroads, Greyhound Bus Lines, and Trans-Texas Airlines. U. S. Highways 80, 285, and 290, and several paved State highways and farm-tomarket roads connect the various communities, farms, and ranches to each other and to adjacent counties.

Economic Development

Although small areas in Reeves County had been irrigated with water from the Pecos River and from the springs at Balmorhea since 1853, large areas of cropland were irrigated with water from wells for the first time in the late 1940's. Of the 80,000 acres of cropland under irrigation in 1959, the 54,000 acres planted to cotton yielded more than 100,000 bales. Other important crops included grain sorghums, oats, barley, alfalfa, broomcorn, and vegetables. Reeves County is noted for the excellent quality of its cantaloupes. Ranching, which formerly was the source of nearly all the income in the county, still is a major factor in the local economy. The principal industries are the cotton gins and cottonseed oil mills. Gravel, oil, and gas also are produced in the county.

Previous Investigations

The geology of Reeves County has been studied for many years by those searching for oil and gas or for water. Of the reports pertaining principally to the water resources, the earliest was that of White (1933), who aided the city of Pecos in locating an additional source of water supply for municipal use. When again the city of Pecos needed to increase its water supply, Sayre (1942) made a report on sites for additional wells. Studies of the geology and ground-water resources of the Balmorhea area in the southern part of the county were made by White and others (1941) and of the Toyah area in the west-central part of the county by Lang (1943). Much information on the ground-water resources of Reeves County is contained in a report on water problems in the Pecos River basin, which was prepared jointly by several Federal agencies (U. S. National Resources Planning Board, 1942). The first report describing the geology and ground-water resources of the county as a unit was that of Knowles and Lang (1947). Ground-water development in the county during the 5-year period following the completion of that study was summarized by Hood and Knowles (1952). A survey, by Broadhurst and others (1951), of the public-water supplies in the western part of Texas contains data on the water supply for the city of Pecos.

Methods of Investigation

During the present study, data for 1,800 wells and springs were collected (Tables 6 and 7), including 326 drillers' logs (Tables 8 and 9), 238 electric and radioactivity logs of water wells and oil tests, records of casing and screen settings, use of water, well yields, and depth to water (Table 10). The locations of scheduled wells in Reeves and southwestern Ward County are shown on Plate 1. Fourteen aquifer tests were made to determine the hydraulic characteristics of the principal water-bearing formations in the area. Chemical analyses were made of water samples from 105 wells (Tables 11 and 13). As samples from 40 of these wells had been analyzed previously, the quality of the water at different times could be compared. The results of previous sampling programs were also evaluated. Data on irrigated acreages and fuel consumption, together with the results of power-efficiency tests, were used in computing withdrawals. A water-surface map was constructed from static water levels that were measured in the irrigated areas in the

winter of 1958-59 while withdrawals from wells were at a minimum. Water levels in the ranching areas of the county where only small fluctuations are observed were also used even though not measured during the winter of 1958-59. Of the 1,800 wells and springs scheduled, 1,103 are used or have been used for irrigation in Reeves County. Maps showing the location of wells, the configuration of subsurface formations, the thickness of the saturated alluvium, and change in water levels in the principal aquifer were constructed by using data from the well schedules and water-level records. Some of the information obtained during previous investigations was integrated into this report.

Well-Numbering System

Plate 1 is a map showing the location of wells and springs in Reeves County and southwestern Ward County. The map is divided by 10-minute lines of latitude and longitude into areas, most of which are quadrangles but some of which have an irregular outline because they fall along the county boundary. In Reeves County, these areas are identified by letters from A to Y (excluding I and O), starting at the northwest corner of the county. Only quadrangles A, F, G, and H are identified in Ward County. The wells generally are numbered consecutively within each area beginning in the northwest corner and proceeding in a west to east and north to south order.

Many of the wells for which data are given in this report (Tables 6 and 7) are the same wells for which data are given in earlier reports. The corresponding numbers assigned to these wells in this and the earlier reports are listed in Table 1. Many of the well records included in the earlier reports are omitted in this report because the wells were not visited, or could not be located, during the present investigation.

Acknowledgments

ers (1941) and of the Toyah area in the west-control part of the cousts

Appreciation is expressed to the many people who contributed information for inclusion in this report. Earl Fisher, Lowery Walker, C & H Drilling Co., and other well-drilling contractors furnished well logs and well-construction data. Many industrial establishments--particularly the Pecos Growers Gas Co., West Texas Utilities Co., Western Cotton Oil Co., and Community Public Service Co.--supplied other valuable data pertinent to the use of water in the area. Well owners and operators not only supplied information about their wells but also allowed waterlevel and other measurements to be made.

Officials of the city of Pecos and of the U. S. Soil Conservation Service, the U. S. Weather Bureau, the Texas A. & M. Experimental Stations, and the Texas State Department of Health also were helpful.

<u>Climate</u>

The climate of Reeves County is characterized by a wide range in temperature, scant precipitation, and a high rate of evaporation. The mean annual temperature at Pecos is about 64°F and at Balmorhea is about 65°F. The mean monthly temperatures at Pecos range from about 46°F in January to about 82°F in July; the highest and lowest temperatures recorded are 113°F and -5°F. The average growing season is 231 days.

Table 1.--Index of previously published well numbers and corresponding number in this report

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This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954
A- 13	:	B- 2	:	G- 17	R-312	D- 22	;	J-119	R- 99	E- 83	E- 83
A- 34	:	B- 5	1	G- 21	R-314	C- 2	;	J-120	R-109	E- 30	1
B- 4	;	B- 7	1	G- 23	R-311	D- 23	:	J-121	;	E- 46	E- 46
B- 9	R- 9	B- 6	;	G- 24	R-310	D- 24	;	J-122	R-106	E- 32	1
B- 17	R- 13	B- 8	B- 8	H- 16	;	:	D- 80	J-123	R-155	E- 37	E- 37
B- 27	;	A- 1	:	H- 21	R- 85	D- 31	:	J-124	1	E- 68	1
C- 1	R- 15	B- 9	;	H- 22	;	:	D- 31a	J-125	R-167	E- 38	E- 38
c- 13	R- 27	B- 15	;	H- 25	R- 88	D- 33	D- 33	J-127	R-239	E- 40	E- 40
C- 14	R- 18	в- 12	1	H- 36	;	:	D- 91	J-128	!	:	E-214
D- 6	R- 38	D- 4	D- 4	H- 41	R- 86	D- 30	D- 30	J-129	R-285	E- 65	:
D- 7	R- 44	D- 5	:	H- 46	R-300	D- 26	D- 26	J-140	;	E- 69	:
D- 9	R- 43	D- 3	;	H- 48	R-296	D- 29	;	J-141	;	E- 71	:
D- 12	R- 39	D- 1	1	H- 57	R- 89	D- 34	;	J-142	R-100	E- 70	E- 70
D- 16	R- 42a	C- 1	1	J- 15	;	E- 17	;	J-1 48	;	E- 73	E- 73
D- 19	R- 73	D- 16	D- 16	J-16	R- 58	E- 18	;	J-1 50	;	E- 74	;
E- 2	R- 82	B- 14	B- 14	J-17	R- 65	E- 27	;	J-151	R-102	E- 75	E- 75
E- 11	:	D- 6	:	J-18	R-114	E- 52	E- 52	J-159	:	1	E-235
E- 13	R- 45	D- 7	;	J-19	R-115	E- 51	;	J-1/8	;	;	E-221
E- 17	R- 46	D- 9	D- 9	J- 23	;	;	E-144	J-195	1	E- 63	E- 63
E- 21	;	;	D- 54	J- 27	;	E- 10	E- 10	J-200	R-384	E-104	E-104
F- 8	R- 30	!	1	J- 34	1	E- 95	;	J-206	;	1	E-280
F- 11	R- 31	E- 3	E- 3	J- 35	;	E- 94	;	J-216	;	1	E-266
F- 14	R- 34	E- 1	E- 1	J-37	R- 66a	E- 93	E- 93	J-226	;	1	E-244
F- 26	R- 49	E- 6	E- 6	J- 38	;	E- 92	;	J-242	;	1	E-250
F- 30	;	E- 5	1	J- 39	!	E- 91	;	J-2 45	;	E- 99	E- 99
F- 36	1	E- 14	1	J- 42	R- 93	E- 86	E- 87	J-310	1	E-100	E-100
F- 37	:	E- 15	1	J- 43	;	E- 88	1	J-315	:	;	E-163
F- 38	1	E- 16	E- 16	J- 72	1	;	E- 96	J- 316	1	:	D- 75
F- 39	R- 54	E- 12	E- 12	J- 97	1	1	E-173	J-317	1	E- 78	E- 78
F- 48	R- 47	E- 8	1	J-108	1	E- 77	;	J-318	R-101	E- 80	E- 80
G- 8	R- 72	D- 15	1	J-110	1	E- 78	E- 78	J-319	R-288	E- 72	E- 72
G- 11	R- 83	D- 13	D- 13	J-111	1	E- 79	;	J- 320	;	E-102	E-102
G- 14	R-312c	D- 19	1	J-112	1	E- 81	E- 81	J-321	R-292	E- 97	E- 97
G- 15	R-312b	D- 20	;	J-116	1	E- 85	1	J-322	R-283	E- 64	E- 64
G- 16	R-312a	D- 21	1	J-117	:	E- 84	1	J-323	;	:	E-249

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This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954
J-324		100.00	E-303	N- 3	R-317	722.04		Q-160	R-373	I- 27	I- 27
J-325	R-289	E-103	E-103	N- 5	R-313	G- 1		Q-162	R- 11	I- 24	
J-326			E-247	N- 6	R-308	H- 2		Q-164	R-370	I- 25	I- 25
к- 1		122-1	A- 40	N- 7	R-309	H- 1	A	Q-168	R-368	1	
K- 2		12200	A- 40a	N- 10		D- 25	a	Q-169	R-367	I- 50	I- 50
к- 3	2-3		A- 5a	N- 12	R-303	н- 6		Q-172	6	I- 28	
K- 4			A- 56	N- 13		н- 7		Q-175	0	I- 29	
K- 5	02-94	912-2	A- 58	N- 17	R-321	н- 5		Q-181		()	I-190a
к- 6			A- 60	N- 30	R-480	H- 27		Q-203		1	I-258
K- 7	1. Jan 1.		A- 93	N- 31	R-478	102-16		Q-205		0.000	I-260
K- 8	1		A-108a	P- 1	R-352	н- 15	1	Q-220	R-460	I- 51	I- 51
K- 10	1.1		A-109	P- 3	R-347	H- 17		Q-222	20	I- 49	
K- 12		002-3	A-104	P- 4		2 (f	н- 46	Q-236		1.00	I-266
K- 14			A- 74b	P- 5	R-338	H- 16	H- 16	Q-257			I-283a
K- 15	1		A- 74a	P- 6	1	D- 28		Q-267	R-470	I- 36	
K- 16	S	546.8	A- 74	P- 9	R-297	H- 19		Q-283	R-465	I- 47	
K- 17		E- 49		P- 10	R-295	H- 20	H- 20	Q-287	R-463	I- 46	I- 46
K- 19	R-140	E- 44	E- 44	P- 25	R-325	H- 11		Q-288		I- 45	
к- 20	R-253	E- 41	E- 41	P- 34	R-355	H- 21	(L)	Q-297	0	I- 52	I- 52
K- 22	R-395	E-114	00	P- 86	R-474	H- 24		Q-322		I- 44	
K- 23	R-397	E-116	E-116	Q- 7		I- 2	I- 2	Q-335		I- 37	
к- 28	R-401	E-118		Q- 10		I- 98	I- 98	Q-336		I- 38	
к- 31		E-125	(C)	Q- 20	E	I-108		Q-338		I- 31	I- 31
K- 32	R-419	E-121		Q- 39	1		I-120	Q-339	R-359	I- 33	I- 33
к- 33	R-418	E-120	E-120	Q- 45	R-407	I- 15	I- 15	Q-340			I-283
K- 34		E-119	1 ·	Q- 61	7	· · · · ·	I-100	R- 1	R-406	I- 14	I- 14
K- 38	R-393	E-105		Q- 99	3 3	I- 20		R- 2		I- 7	
K- 39	R-273	E- 55		Q-100		I- 19		R- 7	R-445	I- 8	
L- 23		F- 1		Q-104	R-381	I- 18	I- 18	R- 20	R-414	I- 10	I- 10
L- 24	R-429	F- 2		Q-105	·	I- 17		R- 21	R-411	I- 13	
L- 57		E-124	5	Q-112	802	I- 22	I- 22	R- 22	R-409	I- 16	
L- 58	R-421	E-123		Q-114	R-378	I- 21	I- 21	R- 23	R-410	I- 12	I- 12
L- 59	R-420	E-122		Q-129		I- 32)	R- 26	R-456	I- 54	I- 54
M- 15	R-433	F- 4	1	Q-153	· · · ·		I-202	R- 27	R-459	I- 53	
M- 17	R-432	F- 3		Q-159		I- 26		R- 42	R-511	I- 67	1

Table 1.--Index of previously published well numbers and corresponding number in this report--Continued

(Continued on next page)

This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954	This report	U.S.N. R.P.B.*, 1942	Knowles and Lang, 1947	Follett, 1954
S- 5	R-427	J- 1		U- 72	R-490	H- 36	H- 36	W- 69	R-513	I- 58	
S- 10	R-430	J- 2	1	U- 73	R-491	H- 37	H- 37	W- 89	R-499	I- 73	I- 73
S- 14	R-437	J- 3		V- 4		I- 40	I- 40	W- 93		I- 74	
S- 24	R-439	J- 4		V- 5	1.0001.3	I- 39	I- 39	W- 97	R-502	I- 71	
S- 27	R-440	J- 5	000 0	V- 51	10.000	I- 41		W- 99	R-504	I- 70	
S- 30		J- 13		V- 97	R-497	I- 76	·	W-102	u0	J- 23	
S- 34		J- 6		V- 99	R-535	I- 89		W-103	R-527	I- 94	
S- 35		J- 7		V-119	R-545	H- 40	9 1223	W-107	R-528		2020
S- 46		J- 10		V-121	R-543	I- 83	I- 83	W-108	R-529	I- 93	
S- 47	R-454	J- 11		V-122	R-546	I- 84		W-114	R-531	I- 91	
S- 48		J- 12		V-132	R-538	I- 87	I- 87	W-121	R-530	I- 92	
S- 73		J- 18		V-150	R-537	I- 88		W-123	R-519	J- 16	J- 16
S- 74	R-520	J- 17	1	V-160	a	I- 86	I- 86	W-124	R-534		1-328
S- 82		J- 15		V-168	R-493a	I- 43	I- 43	X- 6	R-562	K- 4	
S- 83	R-514	J- 14		V-169	R-492	I- 42	I- 42	X- 8		K- 7	
T- 5		G- 2		V-170	R-540	I- 81	I- 81	X- 9	R-564	K- 8	
T- 10	R-484	G- 3		W- 1	R-501	I- 72		X- 10	R-565	K- 6	
T- 18	R-580	H- 28	<u>-</u> -	W- 3	R-503	I- 69	da ()	X- 13	R-554	к- 5	
T- 19	R-579	H- 29		W- 8	R-522	1.1		X- 21	R-567	к- З	
T- 20	R-578		a	W- 10	R-508	I- 60		X- 22	R-566	K- 2	
U- 1			H- 61	W- 12	R-507	I- 62	201 11	X- 25		K- 1	
U- 9	R-489	н- 35	н- 35	W- 19	R-512	I- 59		Y- 27			L- 12
U- 12			H- 68	W- 22	R-514	I- 56		Y- 33	R-550	L- 2	
U- 55			H- 62	W- 52	R-523	J- 20		Y- 34	R-532		
U- 58	R-1008	н- 32	9 00	W- 59	R-522	J- 19		Y- 42		L- 1	d
U- 66			K- 16	W- 60	R-525	J- 22		Y- 50			L- 8
U- 68			K- 73	W- 61	R-524	J- 21	1 / 1 / 1		neole	11 mail	

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Precipitation is somewhat greater in and near the mountainous area than it is at lower altitudes. At the Mount Locke Observatory in the Davis Mountains in Jeff Davis County, the average annual precipitation for the period 1936-46, 1947-58 was 19.05 inches, and at Balmorhea, for the period 1916-58, it was 12.59 inches, whereas at Pecos, for the period 1935-58, it was 9.04 inches. Annual precipitation and cumulative departure from average precipitation at Pecos and Balmorhea are shown in Figure 2; the maximum, minimum, and average monthly precipitation at both stations are shown in Figure 3.

Precipitation at Balmorhea was exceptionally high in 1932 and 1941, exceeding 25 inches in both years, and was less than 4 inches in 1917, 1934, and 1956. During the 15-year dry period 1943-57, the precipitation at Pecos was above average for only 2 years. During this same period the precipitation at Balmorhea was above average for 6 years (Figure 2).

Records from an evaporation pan at the Texas Agricultural Experiment Station at Balmorhea indicate that the annual evaporation from a free water surface averages about 68 inches, which is more than five times the average annual precipitation (Figure 3).

Physical Subdivisions

The Rustler Hills, the Barilla and Davis Mountains, and the Apache Mountains are present along the western and southern boundaries of Reeves County (Figure 1). All of the remainder of Reeves County lies within the Toyah Basin of the Pecos Valley section of the Great Plains physiographic province (Fenneman, 1931, p. 48).

The Toyah Basin is drained by the Pecos River; the great thickness of the alluvium within the basin and the narrowness of the bedrock canyon along the lower Pecos River suggest that the Toyah Basin formerly was without any surface outlet (Hill, 1900, p. 7-8). In Reeves County the floor of the basin slopes 15 to 18 feet per mile toward the Pecos River. Near the mountains in the southern part of the county and near the Rustler Hills in western Reeves County, the terrain is uneven and rock outcrops are common; however, much of the basin is nearly flat and is characterized by deep soils.

The Rustler Hills are a series of low-lying hills formed by the surface exposure of resistant beds of dolomite, sandstone, and conglomerate of Permian age. The hills constitute a narrow belt on the east flank of the Delaware Mountains, from the Apache Mountains north into New Mexico and roughly parallel with the Reeves-Culberson county line.

The Barilla Mountains, structurally a part of the Davis Mountains, are composed mainly of volcanic rocks of Tertiary age and are separated from the Davis Mountains by the headwaters of Toyah and Limpia Creeks. The Barilla and Davis Mountains consist of a gentle south-southwestward dipping lava-capped cuesta, in which volcanic rocks lie upon sediments of Cretaceous age. The northern and eastern limits of the Barilla and Davis Mountains are the edges of the volcanic rocks. The mountains range in altitude from 3,500 to 8,382 feet. The streams draining the mountains are ephemeral and flow in steep-walled valleys. Most of the runoff from the northern part of the mountainous area enters Reeves County and constitutes a large part of the recharge to the underground reservoir.

The Apache Mountains are composed principally of Paleozoic strata with rocks of Cretaceous age flanking the south and east margins. The Apache Mountains are

Figure 2







Figure 3



FIGURE 3.- Precipitation at Pecos and precipitation, temperature, and evaporation at Balmorhea

(Pecos data from U.S. Weather Bureau, Balmorhea data from Texas Agricultural Experiment Station)

principally in Culberson County; however, they extend into Reeves County for a short distance near the Reeves-Culberson-Jeff Davis county lines.

Topography and Drainage

The land surface of Reeves County ranges from a gently sloping plain in the eastern and central parts of the county to rolling and broken hills and low mountains in the southern and western parts; the land slopes generally to the northeast toward the Pecos River. The altitude ranges from 2,450 feet near the Pecos River to about 5,000 feet in the foothills of the Davis Mountains, providing a total relief of 2,550 feet.

The county is drained by the Pecos River and numerous ephemeral streams between the mountains and the Pecos River. The principal ephemeral streams are Toyah Creek, Barilla Draw (Limpia Creek), Salt Draw, Ninemile Draw, San Martine Creek, and Cottonwood Draw (Figure 4). Most of the time flows in these streams never reach the Pecos River because they sink into the channel beds. Other drainage features include Toyah Lake and several playa lakes that do not have an outlet into the Pecos River except during periods of exceptionally heavy precipitation; in fact, drainage empties into these lakes only after periods of heavy rainfall. Toyah Lake is a water-table lake.

PRINCIPLES OF GROUND-WATER OCCURRENCE AND DEFINITION OF TERMS

All fresh ground water is derived from precipitation. When precipitation falls on the earth's surface, a part is returned to the air by evaporation, a part runs off into streams, a part is stored near the surface as soil moisture which may later be evaporated or transpired by plants, and a part percolates downward to the zone of saturation. The water in the saturated zone is ground water.

Ground water moves under the influence of gravity from areas of recharge to areas of discharge. Other conditions being equal, the rate of ground-water movement varies directly in proportion to the hydraulic gradient. Owing to frictional resistance, the rate of movement of ground water generally is slow compared to the flow of water in streams. Ordinarily, the rate of flow is measured in feet, or fractions of a foot, per day.

Permeability is the capacity of rocks to transmit water under pressure. Wellcemented sandstone and conglomerate, dense limestone, and fine-grained materials such as silt, clay, and shale, have low permeabilities; whereas, cavernous limestone, well-sorted sand, and gravel generally have high permeabilities. Beds of sand and gravel and permeable zones in limestone and lava act as conduits through which ground water moves and as reservoirs in which water is stored. A formation, a group of formations, or a part of a formation that yields water is called an aquifer.

The coefficient of transmissibility is a measure of the capacity of an aquifer to act as a conduit. It is the number of gallons of water that will move in 1 day, at the prevailing temperature, through a vertical cross section of the aquifer 1 foot wide, under a hydraulic gradient of 100 percent (i.e., 1 foot per foot).

The coefficient of permeability is the rate of flow in gallons per day through a cross section of 1 square foot under a hydraulic gradient of 100 percent. The field coefficient of permeability is stated at the prevailing water temperature.

Texas Water Commission in cooperation with the U.S. Geological Survey, the city of Pecos, and Reeves County





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Thus, the field coefficient of permeability is equal to the coefficient of transmissibility divided by the thickness of the aquifer, in feet.

The coefficient of storage is the volume of water released from or taken into storage per unit surface area of the aquifer per unit change in the component of head normal to that surface. Under water-table conditions the coefficient of storage is practically equal to the specific yield, which is the volume of water involved in gravity drainage divided by the volume of the material drained.

Ground water occurs under both water-table and artesian conditions in Reeves County. In the outcrop of an aquifer, the water is under water-table conditions-that is, it is unconfined--and the level at which the water stands in wells is the level at which water was encountered in drilling. The upper surface of the zone of saturation is called the water table. In areas where extensive layers of material of low permeability underlie a water-bearing bed and the bed is separated from the main aquifer by an unsaturated zone, the upper water-bearing bed is said to be perched. Downdip where the aquifer is overlain by relatively impermeable beds, the water is confined and is under artesian conditions--that is, it will rise above the level at which it is first encountered in wells. Wells that tap an artesian aquifer are artesian wells whether they flow or not. If the water rises above the top of the casing, the well is a flowing artesian well.

The surface that everywhere coincides with the static level of the water in an aquifer is the piezometric surface of the water in that aquifer. The static level is the level to which water will rise in a well when it is not being pumped. The water level in a well fluctuates principally in response to changes in recharge to and discharge from the aquifer, including the effect of pumping from other wells. When water is withdrawn from a well, the water level in and around the well is lowered and the piezometric surface takes the form of an inverted cone which has its center at the well; this inverted cone is called the cone of depression. The water level in the well when the well is being pumped is the pumping level. The amount of water-level decline in a well being pumped is determined by the hydraulic properties of the aquifer, by the physical features of the well, and by the rate and duration of pumping. Drawdown is the difference between the static level and the pumping level. If the rate of withdrawal from a well is constant, the decline in water level is rapid at first but gradually decreases. So long as pumping continues, the water level is lowered at distances farther and farther from the well.

The specific capacity of a well is computed by dividing the rate of pumping by the drawdown in the well. Because, generally, the drawdown is measured in feet and the pumping rate in gallons per minute, the specific capacity is expressed as gallons per minute per foot of drawdown. The specific capacity of a well varies with the condition of the well and the rate and duration of pumping.

Pumping from a well diverts water from its normal path of movement in the aquifer and may, under some circumstances, cause water of different chemical quality to move toward the well. The water-level decline caused by pumping is serious only if it results in a decrease in the yield of wells, or in such an increase in pumping lift that continued withdrawal is uneconomical, or in the intrusion of water of less desirable chemical quality. When pumping is stopped the water level in the well rises at a decreasing rate until the water level approaches the static level.

In Reeves County, the amount of water in transient storage--that is, moving slowly from areas of recharge toward areas of discharge--is very large. However, because the aquifers have physical limits in thickness and extent, the total amount of water in storage has finite limits. Under natural conditions over a long period of time, the rate of discharge from an aquifer approximately equals the rate of recharge. When equilibrium exists, the amount of water in storage remains essentially the same and water-level fluctuations are not pronounced. As a result of pumping, the natural discharge is decreased, the recharge is increased, or water is withdrawn from storage. If ground-water withdrawal plus natural discharge does not exceed the recharge to an aquifer, the water levels will approach equilibrium. If they exceed the recharge, the excess will be withdrawn from storage. When water is taken from storage, the water level declines and it will continue to decline as long as water is taken from storage.

GENERAL GEOLOGY AND STRUCTURE

The oldest known rocks in Reeves County are sedimentary rocks of Ordovician age. At least three oil tests have been drilled to a formation of Ellenburger age in southern and western Reeves County. The shallowest depth for the top of the Ordovician rocks is 9,800 feet below land surface in an oil test (well X-16) in southern Reeves County. An oil test (well W-62) drilled in east-central Reeves County to a depth of 18,600 feet below land surface failed to reach rocks of Ellenburger age. Overlying the Ordovician rocks, in ascending order, are sedimentary rocks of Silurian, Denovian, Mississippian, Pennsylvanian, Permian, Triassic, Cretaceous, and Cenozoic ages. No sediments of Jurassic age have been recognized, and available data indicate that none are present in the county.

The oldest rocks that are a source of water supply in Reeves County are of Late Permian age. The stratigraphic position, thickness, physical characteristics, and importance as a source of water supply of each of the recognized rock units of Permian and younger age are summarized in Table 2. The outcrops of the several systems to which these rock units belong are shown in Figure 4. The water-bearing rock units are discussed in the section on geologic formations and their waterbearing properties. Information concerning the quantity and quality of the water in beds older than Late Permian is scant.

A southward-trending structural high, to which Cartwright (1930, p. 970) gave the name Central Basin Platform, divided the Permian sea of West Texas into two basins--the Delaware Basin on the west and the Midland Basin on the east (Figure 5). Reeves County overlies much of the Delaware Basin, and the only Permian rocks present in Reeves County were deposited in that basin. The last normal marine deposition in this basin is recorded by the lime, shale, and sandstone of the Delaware Mountain group of the Guadalupe series.

Following the deposition of the Delaware Mountain group, the Castile formation, a sequence of evaporites and calcite, was deposited in the Delaware Basin. This formation occurs only in the Delaware Basin and is the lowest of the evaporite formations that make up the Ochoa series of Permian age in West Texas.

The striking lithologic change that occurs where the normal marine beds of the Delaware Mountain group are overlain by the evaporites of early Ochoa age is an easily distinguishable contact on electric, radioactivity, and drillers' logs; the configuration of the top of the Delaware Mountain group is shown by the contour lines in Plate 2.

Following the deposition of the Castile formation in the Delaware Basin, the evaporitic Salado and Rustler formations and the Dewey Lake red beds, all of the Ochoa series, were laid down throughout the Permian Basin. In northern Reeves County, where it is overlain by Cenozoic alluvium and has undergone considerable



FIGURE 5.- Map of West Texas and southeastern New Mexico showing the structural features in Permian time Table 2.--Permian and younger stratigraphic units and their water-bearing properties in Reeves County

Era	System	S	eries or group	Stratigraphic units	Maximum observed thickness (feet)	Character of rocks	Water-bearing properties	
XICO RUCO	Quaternary and Tertiary, undifferen- tiated			Alluvium	1,550	Unconsolidated sand, gravel, silt, gypsum, clay, caliche, boulders, and conglomerate.	Yields range from a few gpm to more than 1,500 gpm of fresh to mod- erately saline water.	
Cenozoic	Tertiary	5010.007		McCutcheon vol- canic series of Eifler (1951)	1,500-1,700	White tuff, ash, lava, breccia, with some sandstone, conglom- erate and fresh-water limestone.	Yields small supplies of fresh water to springs in southern Reeves County.	
metern			Gulf series	Rocks of younger Cretaceous age, undifferentiated	450±	Clay, shale, marl, and limestone.	Not known to yield water to wells in Reeves County.	
				Boquillas flags	150 <u>+</u>	Thin-bedded, platy limestone with interbedded shale.	Do.	
			Washita	Buda limestone	160	Limestone; locally contains a basal sand or conglomerate.		
Mesozoic	Cretaceous	es	group	Boracho limestone of Brand and DeFord (1958)	410	Limestone, marl, shale and some sandstone.		
		comanche seri	Fredericks- burg group	Finlay limestone	40	Sandstone, arenaceous limestone, and coarse-grained massive limestone.	Rocks of the Comanche series yield 400 to 600 gpm of slightly saline water to irrigation wells and supply many livestock wells.	
		5	CO	- <u>? ? ? ?</u>	Cox sandstone	170	Sandstone, conglomerate, lime- stone, and silty marl.	
			Trinity group	Yearwood formation of Brand and DeFord (1958)	180	Limestone, basal conglomerate.		

(Continued on next page)

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Era	System	Series or group	Stratigraphic units	Maximum observed thickness (feet)	Character of rocks	Water-bearing properties
Mesozoic	Triassic	Dockum group	Santa Rosa sandstone	350	Reddish-brown and gray, medium to coarse, crossbedded, arkosic, micaceous, and conglomeratic sandstone, cemented with calcite and silica and interbedded with red and green shale and silt- stone	Yields small to moderate quantities of fresh water to city of Pecos wells and livestock wells in eastern Peeves County.
			Tecovas formation	70	Red shale, siltstone, and very fine-grained sandstone.	Not known to yield water to wells in Reeves County.
Faleozoic	: Permian	Ochoa series	Dewey Lake red beds	525	Red siltstone cemented with gypsum and calcite.	Not known to yield water to wells in Reeves County.
			Rustler formation	520	Dolomite, anhydrite, sandstone, conglomerate, and variegated shale. Locally contains halite and limestone.	Yields slightly to moderately saline water to irrigation and livestock wells.
			Salado formation	3,900	Mostly halite with subordinate amounts of anhydrite, and small amounts of sylvite, orange poly- halite, dolomite, and magnesite.	Not known to yield water to wells in Reeves County.
			Castile formation		Mostly calcareous anhydrite, some beds of halite and asso- ciated salts.	Dc.
		Guaialupe Delaware series Mountain group		Not messured	Sandstone, limestone, and shale	Do.

Table 2. -- Permian and younger stratigraphic units and their water-bearing properties in Reeves County--Continued

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solution, the Rustler has lost much of its evaporite content and may be difficult to recognize where penetrated in drilling. The configuration of the top of the Rustler is shown by the contour lines in Plate 3.

According to King (1942, p. 763) a long interval of nondeposition followed Ochoa time in West Texas, and the region was probably above sea level. Deposition did not begin again until late Triassic time when the Dockum group was laid down.

The Dockum group of Late Triassic age is represented in Reeves County by the terrestrial sediments of the Tecovas formation and the Santa Rosa sandstone. Rocks of the Chinle formation equivalent, which are part of the Dockum group and overlie these formations in Winkler County (Garza and Wesselman, 1959, p. 18), are not present in Reeves County.

Rocks of Cretaceous age were deposited unconformably on rocks of either the Dockum group or, where the Dockum group was missing, on the Dewey Lake red beds. Sand, shale, and limestone of the Comanche series are present in much of the southwestern half of the county but are absent in most of the northeastern half, and limestone, marl, and shale of the Gulf series overlie the Comanche rocks in the southern and western parts of the county. The approximate northeastern limit of the Cretaceous rocks, except for outliers, is shown on Plate 4. Cretaceous rocks are present below the water table south and west of this line but no known waterbearing Cretaceous rocks are present north and east of it in Reeves County.

Volcanic rocks of early Tertiary age unconformably overlie Cretaceous rocks in the Barilla and Davis Mountains in the southern part of the county and in Jeff Davis County (Figure 4).

The youngest stratigraphic unit in Reeves County is the alluvium of Cenozic age. The alluvium is at the surface in most of Reeves County and unconformably overlies rocks ranging from the Rustler formation of the Ochoa series of Permian age to rocks of the Gulf series of Cretaceous age. The altitude of the base of the Cenozoic alluvium is shown by the contour lines in Plate 4.

The sharp lithologic break at the contact of the anhydrite bed at the top of the Rustler formation with the overlying Dewey Lake red beds is evident in electric and radioactivity logs and drillers' logs except where the Dewey Lake is absent in northern Reeves County and the Rustler is overlain by Cenozoic alluvium and has undergone considerable solution, losing much of its evaporite content.

The structural relationships of the water-bearing rocks of Reeves County are shown by the geologic sections in Plates 5, 6, and 7. The approximate altitude of the water table in 1959 is also shown on the sections. Other structural features are shown by the configurations of the tops of the Delaware Mountain group (Plate 2) and the Rustler formation (Plate 3), and the base of the Cenozoic alluvium (Plate 4). Comparison of the two surfaces depicted by contour lines in Plates 2 and 3 reveals little structural similarity. The top of the Delaware Mountain group slopes from the west toward the east fairly consistently in western and central Reeves County, but the slope is less in the eastern part of the county. Although the top of the Rustler formation is higher along the Culberson county line than along the Pecos county line, the top of the Rustler slopes toward the center of the county from both directions. Most of the sag in the surface of the Rustler is probably the result of solution by ground water of the evaporites that constitute the majority of the beds between the top of the Rustler formation and the top of the Delaware Mountain group. The solution resulted in subsidence of the Rustler formation and younger rocks, forming a trough that was filled with Cenozoic alluvium. The area where the trough is more than 500 feet deep is from 12 to 22 miles wide and

about 60 miles long (Plate 4). The depression extends northwest from Pecos to a point north of Orla and south from Pecos to a point east of Balmorhea. Measured from its eastern rim in the vicinity of Barstow in Ward County to its western rim near Toyah the trough is about 30 miles wide, and measured from north of Orla to east of Balmorhea it is about 75 miles long. A smaller trough containing about 400 feet of alluvium branches off the large trough and extends through southeastern Reeves County into Pecos County.

The geologic sections and the contour maps on the top of the Delaware Mountain group, the top of the Rustler formation, and the base of the Cenozoic alluvium were constructed from data obtained primarily from radioactivity or electric logs because precise contacts are much easier to determine from the radioactivity and electric logs than from most drillers' logs. The "correlation" lines between wells on the geologic sections are drawn as straight lines without interpreting the structure between wells.

The slumpage trough in central Reeves County has a complex structural history that may possibly have begun in Triassic time. Adams and Frenzel (1950, p. 301) state: "Post-Permian movements along the buried Capitan ridge at the east edge of the Delaware Basin fractured the overlying late Permian cover. These fractures opened up channels for circulating unsaturated waters to attack the soluble salts."

In a discussion of the trough in Reeves County, Adams (1944, p. 1624) stated "***Much of the solution developing such a deep trough must have taken place below the spillway over which the saturated water escaped across the Edwards Plateau toward the southeast. This would imply that the sinking trough was filled with sediments as rapidly as it formed, and that solution occurred in a sealed hydrostatic system."

Inspection of the geologic sections A-A', B-B', and C-C' (Plates 5, 6, and 7) and of the logs collected in this investigation reveal that the red bed interval (the Triassic Dockum group and Permian Dewey Lake red beds, undifferentiated) thins progressively to the south and west of the center of Reeves County. The thinning is evidence of either removal by erosion before Cretaceous time or the absence of deposition of a part of the red bed sequence. The older Cretaceous beds were deposited only in lower parts of the eroded red bed surface, which had several hundred feet of relief.

Although the Cretaceous and older rocks in Reeves County are cut by many faults, the trace of most of them is obscured by the mantling Cenozoic alluvium. The bedrock surface in areas where no alluvium is present is characterized by the traces of many faults, some of which are due to slumpage resulting from solution of the underlying beds. Because the mapping of fault traces was beyond the scope of this report, faults are not shown on the geologic sections and structural maps, which portray only the broad aspects of present regional structure.

STRATIGRAPHIC UNITS AND THEIR WATER-BEARING PROPERTIES

Paleozoic Era

Permian System

Guadalupe Series

The Delaware Mountain group of the Guadalupe series is a normal marine sequence that was deposited in the Delaware Basin prior to the deposition of evaporites. Limestone and sandstone beds in the group are reported to yield saline water if penetrated in the drilling of oil tests, but identification of the horizons or determination of the quantity or quality of the water were beyond the scope of this report. No water wells are known to draw from rocks in the Guadalupe series in Reeves County. The contact between rocks of Guadalupe age and the overlying rocks of Ochoa age, which is marked by the change from normal marine deposition to evaporite deposition, is easily detected on electrical and radioactivity logs and drillers' logs of oil wells.

Ochoa Series

In the order of their deposition, the Ochoa series consists of the Castile formation, the Salado formation, the Rustler formation, and the Dewey Lake red beds. Although deposition of the Castile was limited to the Delaware Basin, the other three formations are coextensive throughout much or all of the Permian Basin in Texas. Both the Castile and Salado are almost entirely evaporitic and do not yield water; their combined thickness ranges from 2,000 to 3,900 feet.

Castile Formation

The Castile formation is present everywhere in the subsurface in Reeves County and crops out in Culberson County between the Reeves County line and the Delaware Mountains. The evaporites of the Castile consist largely of calcareous anhydrite with some fairly widespread beds of halite (common table salt) and associated salts. The Castile formation is not known to yield water to any wells in Reeves County.

Salado Formation

The Salado formation overlies the Castile formation in Reeves County and is composed principally of halite with subordinate amounts of anhydrite and small amounts of dolomite, magnesite, sylvite, and polyhalite. The presence in the Salado of the potash minerals sylvite and polyhalite is a distinguishing characteristic. The Salado formation does not yield water to wells in Reeves County.

Rustler Formation

Deposition of the Rustler formation was preceded by a period of uplift and erosion (Richardson, 1904, p. 44). Present throughout Reeves County, the Rustler unconformably overlies the Salado formation and ranges in thickness from 280 to 520 feet. Its basal part consists of sand, conglomerate, and variegated shale but the remainder of the formation consists largely of dolomite and anhydrite. Locally, the Rustler contains minor amounts of halite and limestone. The dolomite and limestone beds are characterized by many small openings (vugs); in some places the dolomite and limestone beds are reported to be cavernous. The altitude of the top of the Rustler is shown by the contour lines in Plate 3.

Occurrence of Ground Water in the Rustler Formation

The basal beds of the Rustler contain very saline water (more than 10,000 parts per million dissolved solids) and therefore generally are not tapped by water wells drilled into the formation. However, the upper part of the formation yields slightly to moderately saline water (1,000 to 4,000 parts per million dissolved solids) to about 30 irrigation wells in eastern Reeves County, nearly all of them east of Toyah Creek (Plate 1). The yields of the wells range from 500 to 1,000 gpm (gallons per minute). The upper part of the Rustler has not been tested in other parts of the county.

Many attempts to obtain water from the Rustler formation were unsuccessful before the practice of acidizing wells drilled into the Rustler became common in 1955; the practice has almost eliminated "dry" holes.

In the eastern part of quadrangle V, the northern part of quadrangle Y, and quadrangle W, most wells that draw from the Rustler are about 1,500 feet deep and yield 650 to 1,700 gpm. In 1959, the pumping levels in many wells were reported to be more than 500 feet below the land surface. Comparison of static water-level measurements made in January 1960 with those made in January 1959 in 4 wells (R-39, S-81, V-146, and W-120) that draw from the Rustler formation shows that the decline ranged from 57 to 91 feet.

No aquifer tests were made in wells that draw from the Rustler because the pumping levels in many of the wells are below 500 feet, the limit of conventional measuring equipment.

The Rustler formation is recharged by precipitation and by seepage from streams in its outcrop area in the Rustler Hills and by inflow from adjacent formations. Also, water entering equivalent formations which crop out in the Glass Mountains in Brewster and Pecos Counties may eventually percolate into the Rustler.

The chemical quality of water from the Rustler formation is discussed in the section "Quality of Water" (p. 46).

Dewey Lake Red Beds

The Dewey Lake red beds (Page and Adams, 1940, p. 62-63) range from 0 to 525 feet in thickness in Reeves County. The individual beds are uniformly thin and consist of red siltstone cemented with gypsum and calcite. The contact between this formation and the underlying Rustler is sharply defined by the marked difference in lithology between the red beds and the anhydrite member at the top of the Rustler. The contact between the Dewey Lake and the overlying Tecovas formation or the Cenozoic alluvium is less distinct. The Dewey Lake red beds generally have less natural radioactivity than the Tecovas formation but more than the Cenozoic alluvium as measured by gamma-ray logs of oil tests. Except where they are missing in some areas in the northern part of the county, the Dewey Lake red beds underlie all of Reeves County. They crop out in northern Reeves County and in a small area along the Pecos River about 14 miles east of Pecos.

The Dewey Lake red beds are not known to yield water to any wells in Reeves County.

Mesozoic Era

Triassic System

Dockum Group

In Reeves County the Dockum group is exposed in scattered small outcrops in the Pecos River Valley and is represented by two formations--a lower red shale,

siltstone, and very fine grained sandstone called the Tecovas formation and an upper reddish-brown and gray sandstone called the Santa Rosa sandstone.

Tecovas Formation

The Tecovas formation, ranging in thickness from 0 to 70 feet where measured in Reeves County, is the older formation of the Dockum group. It was laid down on the eroded surface of the Dewey Lake red beds and consists of red shale, silt, and very fine grained sandstone. The Tecovas is readily recognized in radioactivity logs by its high degree of natural radioactivity, as measured by the gamma-ray logger. On electric logs it is interpreted as a dense shale section below the more permeable Santa Rosa sandstone. The Tecovas formation underlies most of the eastern half of Reeves County but is absent in most of the western half. The Tecovas formation is not known to yield water to wells in Reeves County.

Santa Rosa Sandstone

The Santa Rosa sandstone has a maximum thickness of 350 feet where it is overlain by basal Cretaceous beds (Plate 6) in eastern Reeves County. In the southern part of Ward County, the Santa Rosa is absent in a small area of the Pecos River flood plain about 14 miles east of Pecos where a structural high brings the Dewey Lake red beds to the surface. The Santa Rosa thins to the south and west in Reeves County and, like the underlying Tecovas formation, is absent in the western part of the county. Except where it is at the land surface, it is overlain by either Cretaceous rocks or Cenozoic alluvium. The Santa Rosa sandstone consists of reddish-brown and gray, medium to coarse, subangular, arkosic, micaceous, and conglomeratic sandstone cemented with calcite and some silica. The beds of sandstone are typically crossbedded and are interbedded with soft red and green shale and siltstone.

Occurrence of Ground Water in the Santa Rosa Sandstone

The Santa Rosa sandstone is important as an aquifer in Reeves County because it is the source of water for the city of Pecos and for many livestock wells in eastern Reeves County.

As a result of an investigation in 1933, a test well (K-32) was drilled to a depth of 187 feet about 10 miles southeast of Pecos (Plate 1). The well, which penetrated three water-bearing beds in the Santa Rosa sandstone, pumped an average of about 500,000 gallons per day for about a week. The water was of satisfactory quality for public supply, and a pipeline was constructed to carry the water to the city. In 1935 two wells were drilled east of the first well to supply the increased demands of the city of Pecos, and in 1942 two more wells were drilled in the same vicinity to provide an additional 500,000 gallons per day for a proposed Basic Training School of the U. S. Army Air Corps. By 1952 three other wells, or a total of eight, had been drilled to supply the growing population of Pecos.

Between 1952 and 1959, the city drilled several wells about 2 miles southeast of the original well field. Some wells were not developed beyond the testing stage because of low yields, whereas others were pumped for a year or two and then abandoned. In 1959 the two well fields had a total of 17 operational wells, 7 in the original well field and 10 in the new well field. All the Pecos city wells draw from the Santa Rosa sandstone, although some of them also are screened in the overlying alluvium. Because the alluvium is thin in the vicinity of the city well fields, it contributes only a small part of the water discharged from the wells. Structural deformation, which uplifted and fractured the dense and competent Santa Rosa sandstone in this part of Reeves County, has locally increased the permeability of the formation; the city wells initially yielded about 200 to 700 gpm whereas wells that draw from the Santa Rosa sandstone where it is not fractured have much lower yields.

The water in the alluvium and in the Santa Rosa sandstone about 1 mile northwest of the city wells is chemically unsuitable for human consumption because of the high sulfate and chloride content. Water of similarly poor chemical quality is present in these aquifers to the north and to the west and southwest of the city wells; whereas, the water in the aquifers south of the city wells is of good chemical quality. In Ward County also, the Santa Rosa sandstone contains water of poor quality wherever it is overlain by alluvium that contains water of poor quality.

Before 1933 the water table sloped toward the Pecos River and water moved from the south to the north through the well field. Samples collected from the city of Pecos well 1 (K-32) between 1933 and 1940 (Sayre and Lang, 1942, p. 1-2) showed a considerable fluctuation in mineralization. Further sampling revealed that the increases in mineralization were related to increases in either, or both, pumping rate or the length of the period of pumping. Sayre and Lang (1942, p. 2) suggested that the existing wells should not be pumped at capacity for prolonged periods and Sayre (1942, p. 5) suggested that new wells should be spaced at least half a mile from the existing wells to minimize interference between wells. Because the heavy withdrawals from closely spaced wells in the well field had caused a local lowering of the water level and thus had caused a reversal in the hydraulic gradient, water moved toward the well field from all directions. During periods of prolonged pumping the wells on the west and northwest sides of the well field were yielding water that was of poorer quality than the other wells. However, during periods of smaller withdrawals, when the water level was higher and the gradient was more nearly the same as it was originally, the water withdrawn from the wells was of better quality and is presumed to have moved into the well field from the south.

Withdrawals for municipal use increased from approximately 45 million gallons per year in 1933 to about 760 million gallons in 1958. Peak monthly withdrawals increased from 70 million gallons in July 1951 to more than 110 million gallons in July 1958 (Figure 6) and were approaching the maximum capacity of the wells.

Cretaceous System

Both the Gulf and Comanche series of Cretaceous rocks are present in Reeves County. The thickness of the rocks of Gulf age in Reeves County has not been measured but was estimated by White, Gale, and Nye (1941, p. 92-93) to be about 600 feet. The combined thickness is about 1,550 feet. In this report the thicknesses, names, and detailed descriptions of the formations that constitute the Comanche series are based largely on those of Brand and DeFord (1958, p. 374). The northeastern limit of continuous Cretaceous rocks is shown on Plate 4.

The subsurface Cretaceous formations are not differentiated in this report; most drillers and owners of water wells that draw from Cretaceous rocks in Reeves County report that the wells were drilled into lime or sand, and some report that drilling was stopped when red beds were penetrated. The quantity and quality of the water in individual formations of the Comanche series remain to be determined



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by detailed investigations; therefore, in this report the water-bearing properties of these formations are not described individually.

Comanche Series

Yearwood Formation of Brand and DeFord (1958)

The Yearwood formation is the lowermost formation of Cretaceous age in Reeves County and probably is equivalent to at least a part of the Trinity group of central Texas (Brand and DeFord, 1958, p. 374). In its type locality (Yearwood quadrangle, southeastern Culberson County) it consists of a basal conglomerate of quartz pebbles overlain by limestone. Although the basal conglomerate is as much as 55 feet thick in the type locality, it consists in some places of only scattered pebbles in the basal few feet of limestone or is entirely absent. Where the Yearwood is absent, it probably was never deposited. The thickness of the Yearwood formation in its type locality is estimated to be 180 feet (Brand and DeFord, 1958, p. 374). In Reeves County the Yearwood unconformably overlies the Dewey Lake red beds or rocks of the Dockum group.

Cox Sandstone

The Cox sandstone consists of 170 feet of massive beds of quartz-pebble conglomerate and fine- to medium-grained sandstone interbedded with a few thin silty marl beds (Brand and DeFord, 1958, p. 377). It disconformably overlies either the Yearwood formation of Brand and DeFord (1958) or red beds of Triassic or Permian age in Reeves County. The Cox sandstone is equivalent to part of the Trinity group and possibly part of the Fredericksburg group of central Texas. An oxidized zone and limonite concretions at its top, together with evidence of channels having been cut into its upper surface, indicate that the Cox was exposed to subaerial erosion before it was buried by subsequent deposition.

Finlay Limestone

The Finlay limestone consists of sandstone, sandy limestone, and coarsegrained massive limestone; it is approximately 40 feet thick. It disconformably overlies the Cox sandstone (Brand and DeFord, 1958, p. 378). Faunal studies by Brand and DeFord (1958, p. 378) indicate that the Finlay limestone is probably equivalent in age to part of the Fredericksburg group of central Texas.

Boracho Limestone of Brand and DeFord (1958)

The Boracho limestone unconformably overlies the Finlay limestone. It consists mostly of homogeneous limestone and marl although the lower part is dominantly shaly with some thin sandstone beds. It is about 410 feet thick, and contains fossils of both the upper part of the Fredericksburg group and the lower part of the Washita group of central Texas (Brand and DeFord, 1958, p. 379-385).

Buda Limestone

The Buda limestone is exposed in discontinuous outcrops although it was formerly a single continuous body of rock (Brand and DeFord, 1958, p. 385). The Buda limestone is as much as 160 feet thick. The lower part of the Buda consists of clastic limestone which locally is crossbedded. In some places a distinct basal conglomerate containing quartz pebbles, phosphatic nodules, and abraded sharks' teeth is present; in other places, the basal part of the Buda is hard, fine- to medium-grained quartzitic sandstone. Above the basal layers the Buda consists of slightly argillaceous limestone. The upper part of the Buda consists of thinbedded to massive, hard, light-gray limestone. Locally the Buda contains nodules of hard gray chert. The Buda limestone is the youngest formation in the Washita group and the Comanche series.

Occurrence of Ground Water in the Rocks of the Comanche Series

Many of the livestock wells and several irrigation wells in southeastern, southern, and western Reeves County draw from rocks of the Comanche series. Phantom Lake Spring, just south of the Jeff Davis County line, issues from a crevice in limestone of Comanche age; the other large springs that rise from gravel deposits in the Balmorhea area also originate in fractured and cavernous limestone of Comanche age (White, Gale, and Nye, 1941, p. 98). The Buda limestone is generally above the water table, but may yield water to wells in western Reeves County.

Irrigation from Springs

Irrigation farming in Reeves County was first practiced about 1853 near Balmorhea in the southern part of the county. The water for irrigation was obtained from three springs that issue from limestone of Comanche age. Irrigation development progressed slowly until 1914 when a reservoir was constructed near Balmorhea to store the winter flow of springs and the flood runoff of Toyah Creek. The Reeves County Water Control and Improvement District No. 1, which includes 12,184 acres, was organized in 1915 and, according to a water-service report submitted by the district to the Texas Board of Water Engineers [now the Texas Water Commission], 5,065 acres of this land was irrigated in 1959; many farmers in the district supplement the water received from the district canals with water from wells.

Natural Discharge

The water from Phantom Lake Spring now flows through a cement-lined diversion canal to the storage reservoir near Balmorhea; originally it flowed into a pond called Phantom Lake, and thence into Toyah Creek or irrigation canals. San Solomon (X-21) and Giffin Springs (X-22) issue from limestone of Comanche age and rise through gravel deposits in the floor of the valley near Toyahvale. Originally the water from these two springs formed a large swamp which drained into Toyah Creek, but the springs have been cleaned out and the water has been diverted into Balmorhea storage reservoir.

The combined average annual flow from Phantom Lake, Giffin, and San Solomon Springs for the period of record, 1932-57, was 35,910 acre-feet per year.

Knowles and Lang (1947, p. 30) described several springs west of Toyah. Each flowed less than 50 gpm at the time Knowles and Lang visited them, but by 1959 all but two of the springs (G-24, N-7) had ceased to flow. The springs probably are artesian and the water is believed to issue from rocks of Comanche age.

Recharge

Phantom Lake, San Solomon, and Giffin Springs have flowed continuously even during periods of prolonged drought. Although the continuous flow would seem to indicate that the springs are fed from a large ground-water reservoir, evidence presented by White, Gale, and Nye (1941, p. 100) shows that much of the flow following periods of heavy precipitation is derived from precipitation and runoff entering the aquifer at no great distance from the springs. The discharge of both Phantom Lake and San Solomon Springs increases in response to heavy rains, and the mineral content of the water decreases when the flow increases.

Normally the Comanche series is recharged in the areas of outcrop along the western and southern boundaries of Reeves County and in Culberson, Pecos, and Jeff Davis Counties. According to White, Gale, and Nye (1941, p. 112), "***the principal area of intake or replenishment for the large springs at Balmorhea is within a large narrow anticlinal valley that parallels the eastern escarpment of the Davis Mountains west, northwest, and southwest of the springs. In this valley the beveled edges of the Lower Cretaceous limestones appear at the surface or lie beneath a mantle of stream and terrace gravel not far below the surface, and their honeycombed and cavernous members absorb and store a large part of the local rainfall and mountain runoff. The length of this intake area is not exactly known. It is believed, however, that the limestones may take in water along the anticline all the way from Big Aguja Canyon (southwest of Toyahvale in Jeff Davis County) northwestward to the vicinity of San Martine in Reeves County, a distance of about 35 miles.

"The creeks from Big Aguja, Little Aguja, Madera, and Cherry Canyons lose heavily between the mouths of their canyons and the downward stream boundaries of the anticline. The Lower Cretaceous rocks take in considerable water, also, in an area of outcrop along Limpia Creek in Pecos County about 20 miles southeast of Balmorhea. Practically all the discharge of Limpia Creek disappears during moderate and low stages in that locality."

Before diversion for irrigation began, the discharge of the springs flowed down the stream valley and either recharged the alluvium or was evaporated or transpired by vegetation.

Utilization and Characteristics of Wells

Many wells in southwestern Reeves County draw from rocks of Comanche age; some are reported to have discharged 300-400 gpm when drilled. Several irrigation wells in and near the town of Toyah flowed when drilled; however, the static level in 1959 was about 30-40 feet below the land surface.

The terrain in southwestern Reeves County is rough, but small tracts of flat land that might be suitable for irrigation are present within the larger drainage basins. Wells drilled in the low-lying areas near the stream valleys probably would flow.

A small area about 2 miles south of Toyah is irrigated with water pumped from rocks of Comanche age and Cenozoic alluvium. The wells are 530-1,040 feet deep and are reported to yield 400-500 gpm.

An aquifer test was made about 3 miles south of Toyah. The well (P-32) is 1,040 feet deep and draws from rocks of Comanche age. The coefficient of transmissibility was computed from the test data to be about 2,700 gallons per day per
foot. The well yielded 460 gpm and the drawdown, computed from a water level measured 100 minutes after shutdown, was about 140 feet. The specific capacity of the well was 3.3 gallons per minute per foot of drawdown.

Gulf Series

Boquillas Flags

The Boquillas flags, the lowermost formation of the Gulf series in Reeves County, unconformably overlies the Buda limestone. Consisting of thin-bedded, flaggy, and hard platy limestone at the base and of more thinly stratified and shaly limestone higher in the section, the formation is easily recognized in the field. Chalky white when freshly broken, the rocks weather rusty red and yellow on exposures. The thickness of the Boquillas flags is estimated to be 150 feet.

No wells in Reeves County are believed to draw from this formation because known occurrences of the Boquillas flags are above the water table.

Rocks of Younger Cretaceous Age, Undifferentiated

Overlying the Boquillas flags are rocks, also of Late Cretaceous age, which consist mostly of marl and shale and some limestone. These rocks, which are about 450 feet thick, are poorly exposed and, in this report, are not differentiated into formations. They are present in Reeves County in the Barilla and Davis Mountain fronts and in a few isolated areas in western Reeves County.

Like the Boquillas flags, they are mostly or wholly above the water table and are not known to yield water to any wells in Reeves County.

Cenozoic Era

Tertiary System

McCutcheon Volcanic Series of Eifler (1951)

The McCutcheon volcanic series of Eifler (1951) comprises 1,500-1,700 feet of interbedded volcanic and sedimentary rocks. The volcanic rocks consist of white tuff, ash beds, lava, and breccia, and the sedimentary rocks consist of sandstone, conglomerate, and fresh-water limestone (Eifler, 1951, p. 342). They are present only in the southwestern part of the county, and are most extensively exposed in the Barilla Mountains. Although some drillers' logs of wells in central Reeves County report "volcanic rocks" and "volcanic ash," and describe other beds in the Cenozoic alluvium with terms that could indicate in situ McCutcheon volcanic series of Eifler (1951), the interpretation in this report is that the beds are sand, gravel, and boulders derived from the McCutcheon volcanic series.

In the Barilla Mountains, the beds of fractured or slaggy lava and porous sandstone absorb much of the water that falls on them (White, Gale, and Nye, 1941, p. 93). They discharge the water at lower elevations to streambeds, alluvial deposits, or to the underlying Cretaceous rocks. Two springs (T-2 and T-3), which issue from the base of a lava bed on the side of a hill capped by volcanic rock. supply the Stocks Ranch in southwestern Reeves County and were the only perennial springs in Reeves County in the McCutcheon volcanic series of Eifler (1951) at the time of this investigation. The water from the springs is of excellent quality. Many small springs that were considered to be perennial ceased flowing in 1957 because the precipitation (Figure 2) in the area was less than average from 1947 through 1957, except in 1950 and 1955. The McCutcheon volcanic series is not known to yield water to wells in Reeves County.

Tertiary and Quaternary Systems, Undifferentiated

Cenozoic Alluvium

In Reeves County stream-deposited alluvium of Tertiary and Quaternary age unconformably overlies the sedimentary rocks of Permian, Triassic and Cretaceous age and the volcanic rocks of Tertiary age. For ease of discussion, it is referred to as Cenozoic alluvium. The Cenozoic alluvium in the north-south slumpage trough that extends through central Reeves County locally is more than 1,520 feet thick (Plate 7). Thinner deposits of the alluvium fill the minor structural troughs and erosional valleys that are associated with the large slumpage trough.

The Cenozoic alluvium consists of unconsolidated to partially consolidated sand, silt, gravel, boulders, clay, gypsum, and caliche. The lithic character and thickness of the beds differ widely within short distances. In general, the beds in the southern part of the county near the mountains consist of coarse material such as bouldery sand and gravel whereas the beds in the northern part of the county consist principally of fine-grained sediments such as shale, silt, and sand and gravel. The color of the Cenozoic alluvium differs widely both laterally and vertically, and individual beds are not readily distinguished from the underlying black or blue shale of Cretaceous age or the red beds of Triassic or Permian age. However, the base of the alluvium generally can be identified on the gamma-ray curve of radioactivity logs because the alluvium is less radioactive than the older beds. Some of the altitudes of the base of the alluvium, which were used as control points for the contour lines in Plate 4, were computed from identification of the base of the alluvium in radioactivity or electric logs and some were computed from drillers' logs.

Occurrence of Ground Water

The Cenozoic alluvium is the principal aquifer in Reeves County. For the most part the water is under water-table conditions, but locally it is confined beneath a layer of clay and exhibits artesian characteristics.

Movement

Before the development of irrigation from wells in Reeves County, ground water moved in a downstream direction toward the Pecos River. As a result of the development, the direction of ground-water flow in a large part of the county now is toward the central part of the county, where the concentration of irrigation wells is the greatest. The general direction of movement and the hydraulic gradient of the ground water in 1959 may be determined from Plate 8, on which the approximate altitude of the water surface is shown by contour lines. Because water moves in the direction of steepest hydraulic gradient, the lines of flow intersect the contour lines at right angles. The depression in the water table, which is centered about 10 miles southwest of the city of Pecos, is due to the large withdrawals of ground water for irrigation. Water moves toward the depression from all directions.

Natural Recharge

The principal areas of recharge to the alluvium are believed to be along the western and southern boundaries of the Toyah Basin, where stormwater runoff from Cottonwood Draw, Salt Draw, Ninemile Draw, Cherry Canyon Creek, Toyah Creek, Limpia Creek (Barilla Draw), and numerous other subsidiary streams enter the alluvial valley. These streams, which head in the Delaware and Apache Mountains to the west and the Davis and Barilla Mountains in the south, have well-defined channels until they reach the alluvial plain in west and south-central Reeves County. Upon reaching this plain the water spreads over the alluvium and much of it sinks downward to the water table. The alluvium also is recharged by direct infiltration of local precipitation and by subsurface inflow from the truncated or eroded surfaces of Cretaceous formations along the western and southern boundaries of the large slumpage trough in central Reeves County. Before the development of irrigation from the large springs issuing from rocks of Cretaceous age near Balmorhea, a considerable amount of recharge was contributed to the alluvium by the springs. However, this source of recharge has been greatly curtailed since the diversion of the water for irrigation and the construction of a storage reservoir at Balmorhea to capture the winter flow of the springs.

Plate 8 indicates that the alluvium may be receiving recharge from the Pecos River in the vicinity of the city of Pecos where a large depression in the water surface has locally reversed the gradient of the water table. The recharge is not wholly desirable because most of the time the water in the Pecos River is of poorer quality than the ground water.

Before the development of irrigation wells, when the ground water in the alluvium was in a state of approximate equilibrium, the average annual amount of recharge probably equalled the average annual amount of discharge, or 50,000-100,000 acre-feet a year.

Artificial Recharge

Because irrigation water is applied in considerable excess of the requirements of the crop being grown, some of the water infiltrates the soil and reaches the water table. Tailwater from irrigated fields also reenters the ground. In many places the infiltrating water accumulates above a layer of clay, thus forming a perched ground-water body. Perched ground water moves laterally until it spills over the edge of the supporting layer and thus can continue its descent to the main zone of saturation. Where wells are open to both a perched ground-water body and the main zone of saturation, the perched water may drain into the well and fall to the level of the water table.

In some areas clay lenses above the water table are so extensive that perched ground-water bodies may be several square miles in extent. One such perched ground-water body underlies an area about 10 to 13 miles south of Pecos, in the Q quadrangle, and supplies several wells. Hydrographs of five of these wells, each about 150 feet deep, near Salt Draw are shown in Figure 7. The surface of the perched water is near the land surface in the low areas along Salt Draw. Water levels declined until 1953 or 1954, and slowly rose from 1955 to 1960 after many of the wells that draw from the perched-water body were abandoned and accretions to the perched-water body increased because of the expansion of irrigation. The quality of the perched water has deteriorated because the infiltrating irrigation water, the principal source of recharge, has been concentrated by evapotranspiration and has leached salts from the soil and fertilizer; the chloride content of well Q-153 increased from about 1,100 ppm (parts per million) to 5,960 ppm between September 1948 and July 1959.

Terraces and levees have been constructed on several ranches to capture runoff and spread it over wide areas of grass land. Undoubtedly some of the water infiltrates to the zone of saturation. The Soil Conservation Service of the U. S. Department of Agriculture is encouraging the water-spreading practice.

Natural Discharge

Prior to heavy pumping for irrigation, ground water was discharged from the Cenozoic alluvium in Reeves County by evaporation and transpiration and through seeps and springs along the Pecos River and in other localities in the county. During this period the ground water is believed to have been in a state of dynamic equilibrium; that is, the average rate of discharge was equal to the average rate of recharge. Seepage studies conducted in 1918 (Grover, Gray, and Ellsworth, 1922, p. 103) indicated that the flow of the Pecos River increased about 50 cubic feet per second (35,000 acre-feet per year) while crossing Reeves County during periods of little or no rainfall. Because most of the gain probably was from the Reeves County side of the river, discharge into the Pecos River by underflow and seepage from the alluvium is believed to have been in the order of 30,000 acre-feet per year. The amount of additional water lost by evaporation and transpiration in the areas along the river, bordering Toyah Lake, and elsewhere in the county when the water table was within a few feet of the land surface probably amounted to several tens of thousands of acre-feet per year. Salt grass, tule, meadow grass, salt cedar, mesquite, and other salt-tolerant plants--all of which are notorious consumers of water -- were and still are abundant in those areas. Mesquite and salt cedar are known to have roots extending to the water table even where it is as much as 50 feet below the land surface. The total natural discharge from the alluvium is estimated to have been between 50,000 and 100,000 acre-feet per year.

As shown by the water-table contours in Plate 8, little or no ground water now discharges from the Reeves County side into the stretch of the Pecos River extending from a point about 15 miles north-northwest of Pecos to a point about 7 miles east of Pecos. Along this stretch, the water table slopes away from, rather than toward, the river. Because the water table has been lowered in much of the central part of the county owing to the withdrawals of ground water for irrigation, the amount of ground water that is evaporated or transpired now probably is somewhat less than formerly. No figures are available on the quantity of water discharged by evapotranspiration in Reeves County in 1959, but undoubtedly the discharge still was in the order of several thousand acre-feet per year.

Prior to heavy pumping for irrigation, numerous gravity, or water-table, springs from the alluvium flowed into Toyah Creek near Balmorhea and Saragosa and near Toyah Lake as well as several points in between. Saragosa (X-6), West Sandia (X-12), and East Sandia Springs (X-13) along Toyah Creek near Balmorhea were still flowing in early 1959, but at greatly decreased rates; West Sandia Spring had no visible flow on September 22, 1959. The springs that formerly flowed into Toyah Creek north of the Balmorhea area were not flowing in 1959. Irving and Buck Springs near Toyah Lake were reported by Knowles and Lang (1947, p. 42) to be flowing in 1947; however, these springs also have ceased to flow.

Utilization

Irrigation from wells in Reeves County is believed to have started about 1890, when flowing wells near Pecos were used to irrigate gardens and small farms. From 1910 to 1930 development was gradually extended to areas of nonflowing wells west and southeast of Pecos. In 1941 there were fewer than 40 irrigation wells in the county (Knowles and Lang, 1947, p. 15). The number of wells increased to about 60 by 1946 and to 82 by April 1947. Most of these wells were drilled to relatively shallow depths, generally less than 300 feet deep and have since been abandoned.

In 1941, 200 or more flowing wells, 100 to 300 feet deep and yielding 50 to 150 gallons per minute each, were reported in and near Pecos; however, they ceased to flow when concentrated pumping for irrigation farming began west and south of the city and were soon abandoned. The water from these wells was used mostly for domestic supplies, livestock, and irrigation of yards or small gardens.

The number of irrigation wells in Reeves County increased from about 60 in 1946 to 926 in 1959 (Table 3). The amount of water pumped for irrigation increased from about 14,500 acre-feet in 1946 to a peak of 525,000 acre-feet in 1953, and then dropped to about 395,000 acre-feet in 1954 when control of cotton acreage was begun. The annual withdrawal of ground water was about 350,000 acre-feet from 1955 to 1959. In 1958, when the precipitation was above normal, an average 3.5 feet of water was applied to 80,000 acres, whereas in 1959, a dry year, an average of 4.6 feet of water was applied to 77,000 acres.

The annual use of ground water for domestic, industrial, and public supply from all aquifers in Reeves County, approximately 3,000 acre-feet, represents less than 1 percent of the total withdrawal in the county in 1959.

Year Number of wells		Cotton (acres)	Other crops (acres)	Withdrawals (acre-feet)	Duty of water (feet/acre)
1946	60	4,2	200	14,500	3.5
1951	520	77,900	6,680	325,000	3.8
1952	720	96,500	2,654	425,000	4.3
1953	740	102,253	o be degagere at	525,000	5.1
1954	700	63,023	31,749	395,000	4.2
1955	750	56,694	27,800	350,000	4.1
1956	790	53,797	30,000	345,000	4.1
1957	800	54,908	35,500	360,000	4.0
1958	900	54,512	25,000	280,000	3.5
1959	926	53,847	23,500	350,000	4.5

Table 3. --Withdrawals of ground water for irrigation in Reeves County

For purposes of discussion the county has been divided into four sections based principally upon ground-water development and topography. The northern section is north of an east-west line through the junction of U. S. Highway 285 and State Highway 302 and contains quadrangles A, B, and C. The western section is south of the northern section and west of a north-south line running through the town of Toyah. The eastern section is east of a north-south line through the city of Pecos. The central section, which contains most of the irrigation wells, is between the eastern and the western sections.

Northern Section. -- The terrain in the northern section is gently rolling to rough and is used primarily for ranchland. The shallow ground water generally is unsuitable for domestic supply but is used for livestock. The wells range from about 50 to as much as 320 feet deep, and the depth to water ranges from 10 feet to 150 feet below land surface. The depths of the wells and the depths to water tend to be less near the Pecos River.

The thickness of the saturated alluvium ranges from less than 100 feet to a little more than 500 feet (Plate 9). Because so few water wells in the northern section have been drilled to the base of the saturated alluvium, the data for the map are based primarily upon interpretation of electric and radioactivity logs of oil tests. Because, in places, a large fraction of the total thickness of saturated alluvium consists of fine-grained materials that will not yield water readily to wells, the thickness of the saturated alluvium is not necessarily an index to the amount of water that a well drawing from the full thickness will yield.

The water in the alluvium appears to be less mineralized in the southern part of the section; for example, water from well B-9 at Orla contained 6,280 ppm of dissolved solids whereas water from well C-14, which is about 15 miles to the southeast, contained 2,110 ppm of dissolved solids. Although less mineralized, the water from well C-14 is unsuitable for many uses. Wells formerly supplied drinking water for the residents of Orla and surrounding ranches, but now water for that use is hauled by truck from Pecos, Texas, and Carlsbad, New Mexico.

<u>Western Section</u>.--The western section of Reeves County is devoted largely to ranching, and water for the cattle and for domestic use is obtained from wells equipped principally with windmills. In the northern part of the section (quadrangle D and part of E), the alluvium ranges in thickness from less than 100 to more than 900 feet. In the remainder of the section the thickness of the alluvium ranges from zero, where the Cretaceous rocks are exposed, to more than 600 feet, but generally it is less than 200 feet. Although the water in this area is similar in chemical quality to that used for irrigation in other sections of the county, it is not used for that purpose because the terrain is, for the most part, too rough for cultivation.

<u>Central Section</u>.--Approximately 90 percent of the wells used for irrigation in 1959 in Reeves County are in the central section. In 1946, 4,200 acres in this section was irrigated with water from 60 wells (Hood and Knowles, 1952, p. 3), and in 1959, 70,000 acres was irrigated with water from about 830 wells. In 1959, an average of 85 acres was irrigated by each well. The saturated thickness of the alluvium increases toward the center of the north-south trending trough, the axis of which is about 6 miles west of the city of Pecos (Plate 4). In the center of the trough west of Pecos, the saturated thickness is more than 1,300 feet (Plate 9).

In the central and eastern parts of quadrangle H and in quadrangle J the depth of irrigation wells generally ranges from about 300 feet to more than 1,250 feet; most of the wells, however, do not extend to the base of the alluvium. Reportedly, the test hole for well J-106 was drilled to 1,520 feet without reaching the base of the alluvium; the test hole was plugged back and the well was completed at 867 feet. When the irrigation development began in this area, most of the wells were drilled to a depth of about 300 feet; as the water level began to decline, these wells were deepened or abandoned, and replaced by deeper wells. The wells in the central and eastern parts of quadrangle J reportedly are not drilled to depths greater than 600 to 800 feet because the deeper strata contain water that is too mineralized for irrigation use; the extent of the strata that contain the water of poor quality is not known. However, many wells in the western part of quadrangle J and the eastern part of quadrangle H have been drilled to depths of 1,200 to 1,300 feet and have obtained water that has been used successfully for irrigation. In 1959 the saturated thickness within quadrangles H and J in the central section ranged from less than 200 to more than 1,300 feet and in most of quadrangles H and J averaged more than 1,000 feet. Measurements of the depth to water in the winter of 1959-60 ranged from 125 feet in the northeastern part of quadrangle J to 315 feet in southeastern part of quadrangle H. Measured discharges from 48 wells in quadrangles H and J ranged from about 400 to 1,800 gpm and averaged 750 gpm; most were between 500 and 1,000 gpm. Pumping levels ranged from 180 feet below land surface in the eastern part of quadrangle J to more than 500 feet below land surface in quadrangle H.

In the central and eastern parts of quadrangle P and in quadrangle Q the active irrigation wells range in depth from 150 feet to 1,554 feet, the shallow wells being in the eastern part near State Highway 17. Many of the wells drilled since 1957 in the southwestern part of quadrangle Q have reached limestone of Cretaceous age at a depth of 1,200 to 1,400 feet. Well P-58, which is 1,420 feet deep, reached limestone at 1,005 feet, and is drawing water from both the alluvium and rocks of Cretaceous age. In 1959 the thickness of saturated alluvium in quadrangles P and Q ranged from 300 feet to 1,300 feet. The static water level ranged from 20 to 365 feet below land surface in January 1960; the maximum depth to water was observed in well P-77. Wells in an area about 12 miles south of Pecos near Highway 17 have shallower water levels (Figure 7). Most of these wells were drilled in the late 1940's and although they have not been deepened the water they yield now is more highly mineralized than in 1947. Measured discharges of 30 wells in quadrangles P and Q ranged from about 500 to 1,900 gpm and averaged about 900 gpm. Pumping levels ranged from 150 feet to 450 feet below land surface.

In the central and eastern parts of quadrangle U and in quadrangles V and Y the saturated thickness of alluvium ranges from 0 to 800 feet and the irrigation wells range in depth from 110 to 1,670 feet; however, the wells more than 900 feet deep may draw from either rocks of Cretaceous age or the Rustler formation, or both.

Static water levels range from 12 to 345 feet below land surface. Measured yields of 48 wells in quadrangles U, V, and Y averaged 950 gpm.

A few wells along the western and southern perimeter of this area extend through the alluvium and into the underlying Cretaceous rocks and draw from both aquifers. Eastern Section. -- Approximately 10 percent of the irrigation wells in the county are in the eastern section. They are grouped in several small areas of development, the largest of which is about 3 miles wide and extends from the northeastern part of quadrangle V eastward for 10 miles to the north-central part of quadrangle W. Much of the irrigated land is in the indistinct drainage known as Barilla Draw. Most of the wells in this area are drilled in alluvium to the red beds and average about 400 feet in depth; the saturated thickness averages about 300 feet. The measured discharges from 16 wells averaged about 600 gpm. This area was developed between 1956 and 1959, and by the end of 1959 the decline of water levels had caused yields to diminish. Some of the farmers in this area are supplementing the water from the alluvium with water from the Rustler formation.

An area of about 4,000 acres, known locally as Flattop, has been developed along U. S. Highway 285 in northeastern W quadrangle and southwestern S quadrangle. The first wells completed draw from the shallow alluvium and the Santa Rosa(?) sandstone. The wells are reported to average about 200 feet in depth and yield from 300 to 500 gpm. In 1958 and 1959 several Rustler wells were drilled to supplement the wells in the alluvium. The static water level in the irrigation wells that draw from the alluvium and the Santa Rosa(?) sandstone ranges from 94 to 120 feet below land surface.

There are three other small areas of developed land in the area, each consisting of less than 1,000 acres; two of them are in Barilla Draw and the other is near the Pecos County line in Hackberry Draw.

Hydraulic Properties

Aquifer tests to determine the coefficient of transmissibility were conducted in 14 irrigation wells that had been pumping for prolonged periods (Table 4). Of the wells used in making the aquifer tests, 10 drew only from the Cenozoic alluvium and 3 drew from the alluvium and rocks of Cretaceous age. In each well the pumping rate was measured before the pump was turned off, and then the recovery of water level was measured at intervals throughout a period of 100 minutes. The coefficients of transmissibility were computed by means of an equation developed by Theis (1935, p. 522). Because field conditions at the test sites were not always ideal, the coefficients of transmissibility determined from the tests should be used with caution. Tests conducted in similar material near Amarillo, Texas (Moulder and Frazor, 1957, p. 12) and elsewhere on the High Plains of Texas suggest that short-duration tests such as those made in Reeves County may give apparent coefficients of transmissibility much higher than the true values.

The coefficient of transmissibility of the Cenozoic alluvium, as computed from the data obtained from eight of the tests, ranged from 24,000 in well J-14 to 86,000 gpd (gallons per day) per foot in well Q-11 (Table 4) and averaged about 40,000 gpd per foot. Transmissibility values of about 150,000 gpd per foot were obtained in two other alluvium wells, but it is believed that these values are not representative of a large area.

In the three wells that penetrated both the alluvium and Cretaceous rocks, the coefficients of transmissibility obtained ranged from 8,000 in well V-138 to

Table 4. -- Aquifer tests in Reeves County

Well Owner Date feet below land in feet below land surface coefficient of transmissibility in gpd per foot	based on water level 100 minutes after pumping stopped, gpm per foot of drawdown	Approximate number of days pumped before recovery test	Yield in gallons per minute	Pumping level in feet below land surface
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H-7	Hubert Nunn	8/59	1,005	450 - 1,005	31,000	22.5	14	880	360
J-14	Charlie Fitzgerald	8/59	650	100 - 650	24,000	24.5	2	380	179
J-94	Ernest Epley	8/59	1,045	300 - 782	40,000	28.4	10	618	496
J-152	Alfred Gore	8/59	560	100 [±] - 560	31,000	19.7	10	780	365
J-207	J. F. Hightower	8/59	545	300 - 545	150,000	57.0	(?)	1,300	287
Q-11	S. M. Twilley	9/59	600	300 - 600	86,000	45.3	7	940	3-0
Q-161	J. T. McKinney	8/59	1,080	437 - 1,080	38,000	36.1	14	735	274
0-223	Fred P. Armstrong	9/59	600	200 - 600	35,000	28.4	7	830	254
V-76	Roy Carlisle	9/59	600	200± - 600	48,000	45.2	2	1,470	303
V-108	do	9/59	450	200 - 450	160,000	44.3	2	920	259
					and the second				a state of the second state of

Cenozoic alluvium

Cenozoic alluvium and rocks of Cretaceous age

U-20	V. Cook et al.	8/59	800	250 [±] - 800	18,000	9.8	1	910	310
V-138	The Chandler Co.	8/59	408	220 - 408	8,000	12.8	10	635	358
¥-28	W. G. Locker	9/59	615	100 [±] - 540 (Open hole 540-615)	10,000	8.4	7	540	440

Rocks of Cretaceous age

P-32	Joe Dorado	9/59	1,040	(Open hole ?-1,040)	2,700	3.3	9	460	272

18,000 gpd per foot in well U-20. The coefficient of transmissibility of well P-32, which drew from rocks of Cretaceous age, was 2,700 gpd per foot.

Coefficients of storage were not determined from the aquifer tests in Reeves County during this investigation as they cannot be calculated from data obtained only in a pumped well; none of the 14 tests made use of observation wells. However, the specific yield, which is an indication of the amount of water available to wells, is essentially equal to the coefficient of storage under water-table conditions.

The specific capacity of a well is dependent not only on the hydraulic properties of the aquifer but also on the construction and degree of development of the well. Specific capacity is the rate of yield of the well in gallons per minute per foot of drawdown. In Table 4 the term "specific capacity" is applied to a ratio between the rate of discharge and a short-period recovery water level. "Specific capacities," as used in this report, are comparable only if they are calculated from data taken at similar times; that is, the static level and the pumping level used to compute "specific capacities" should be measured after the same length of shutdown and the same length of pumping either when comparing different wells or when comparing the performance of a well at one time with its performance at another time. The "specific capacity" becomes smaller as the time of pumping becomes longer so that the long-term yield of a well cannot be estimated accurately from a short-period "specific capacity."

"Specific capacities" in wells drawing from the alluvium that were computed after 100 minutes of recovery (Table 4) ranged from 19.7 gpm per foot of drawdown in well J-152 to 57.0 in well J-207. In wells that draw from both Cenozoic alluvium and rocks of Cretaceous age (Y-28, U-20, and V-138), the "specific capacity" ranged from 8.4 to 12.8 gpm per foot of drawdown. Well P-32, which draws only from rocks of Cretaceous age, had a "specific capacity" of 3.3 gpm per foot of drawdown.

Fluctuation of Water Levels

Water in the alluvium in Reeves County was approximately in a state of equilibrium prior to extensive withdrawals for irrigation. Before these withdrawals began, fluctuation of water levels was due largely to changes in rate of natural recharge; the water levels would rise slightly following periods of heavy rainfall and fall slightly during dry periods. However, continued withdrawals, particularly in large quantities necessary for irrigation, remove water from storage and result in long-term water-level declines. Since 1940 water levels have declined rapidly; the rate of decline has increased as the rate of withdrawal for irrigation has increased.

Water-level measurements in wells in Reeves County have been made at various times since 1930, and since 1947 measurements have been made in selected wells at intervals ranging from a month to a year (Table 10). Most of the observation wells were slotted opposite the alluvium and few records of water levels in other formations are available. Water levels in Reeves County have been reported by Meinzer, Wenzel, and others (1943; 1944) and Follett (1954).

Little or no change in water levels occurred from 1930 to 1940; the withdrawals for irrigation from 1940 to 1947 caused a slight decline of the water level in the irrigated areas. The maximum recorded decline in the irrigated areas in 1947 was 4 feet (Hood, 1951, p. 2). In the nonirrigated areas, little or no change in water levels had occurred through 1947 and locally water levels in wells were higher in 1942 than in 1941 owing to the large amount of precipitation during 1941.

Large fluctuations of water levels occur in the irrigated areas of Reeves County during the period from April through September. During the irrigation season, the water level in each well in these areas varies in proportion to the amount of water pumped from the well, the condition of the well, the length of time the well is pumped, and the amount of interference due to other pumped wells. From October to April, during the period of minimum withdrawals, water levels generally rise; therefore, the trend in water levels and the changes in ground-water storage is determined from comparisons of water levels measured at the same time each winter in successive years.

During the period 1946 to 1951, the number of irrigation wells increased from 60 to 520 and the withdrawals increased from about 14,500 to about 325,000 acrefeet per year (Table 3). The maximum observed decline of the static water level was 49.8 feet from March 1947 to February 1951 (Plate 10).

By 1958 there were approximately 900 wells irrigating nearly 80,000 acres of cropland (Table 3). Plate 11 shows the approximate decline in water levels between 1951 and 1959, based on water-level measurements made in 1951 and in the winter of 1958-59. In the period 1951 to 1958-59 the maximum decline in the central irrigation section was 173 feet (Plate 11), and the average decline was about 120 feet. In quadrangles H and J the decline in 36 observation wells ranged from 4 to 169 feet and averaged about 110 feet. In quadrangles P and Q the decline in 23 wells ranged from 9 feet in well P-4 to 173 feet in well Q-77, and averaged 114.4 feet. In the southern part of the central irrigation section (quadrangles U, V, and Y), the decline in 15 wells ranged from 2 feet in well U-65 to an estimated 167 feet in well U-39, and averaged 97.9 feet. The decline in water levels caused the yield of many pumps to be less than when the well was constructed because of the greater lift required and the reduction in available drawdown.

Plate 12 shows the decline of water level between the winter of 1958-59 and the winter of 1959-60.

Hydrographs of five shallow wells, 137 to 152 feet deep indicate rising water levels in an area about 13 miles south of Pecos (Figure 7). Wells that draw from the alluvium in this area at depths of less than 200 feet reportedly produce large quantities (1,000 to 2,000 gpm) of moderately mineralized water. The area appears to trend east and west between Salt Draw and Toyah Creek. The available records show a decline from 1949 to 1954 and rising water levels from 1954 to 1959. This rise in water level probably is due to at least two factors, namely: the reduction in the amount of withdrawal from the water-bearing beds in the upper part of the alluvium and recharge from excess irrigation water (see p. 32).

Hydrographs of seven observation wells in the northern and central parts of the central irrigation area (Figure 8) show a consistent decline of water levels. The declines ranged from 110 feet in well H-16 to 200 feet in well Q-10 from 1949-60; the yearly decline averaged about 15 feet.

Figure 9 contains hydrographs of seven observation wells in the southern part of the central irrigation section and the western part of the eastern section. The net decline ranged from 35 feet in well W-116 to about 150 feet in well Q-258 from 1949-59. The decline in the seven wells averaged about 10 feet per year.

Figure 10, a hydrograph of well K-20 in the city of Pecos, illustrates the monthly and seasonal fluctuations resulting from the heavy withdrawals in the irrigation area west and southwest of town. A net decline in water level of nearly 140 feet occurred between 1947 and 1959. The annual fluctuation in 1958 and 1959 was less than in earlier years because withdrawals from the upper zone have decreased.

Most of the irrigation wells in the eastern section of the county have been drilled since 1956, and no long-term records of water level are available. In the irrigation area along Barilla Draw, in quadrangle W, the measured water-level decline ranged from 1 foot to 26 feet from the winter of 1958-59 to the winter of 1959-60 (Plate 12). In this area about 30,000 acres of land has been cleared for cultivation and 31 irrigation wells have been drilled since 1956.

In the other smaller irrigation areas in the eastern section, the water level declined about 5 feet or less from January 1959 to January 1960.

Storage

Reeves County has an area of approximately 1.6 million acres, of which more than 80 percent is underlain by water-bearing Cenozoic alluvium. The volume of saturated alluvium in Reeves County, as computed from Plate 9, was approximately 580 million acre-feet at the end of 1958. However, it is impossible to pump out all the water in storage because some adheres to the surfaces of the individual grains or is held in the interstices between the grains by capillary attraction. Water stored in silt and clay moves very slowly and may take years to drain into the more permeable material. Therefore, the specific yield, which is a measure of the amount of water available to wells, is less than the porosity in all aquifers. The higher the percentage of fine-grained sediments, such as clay, in an aquifer, the lower its specific yield. Also as the saturated thickness of the alluvium at any particular well diminishes appreciably, the yield of the well declines and pumping costs increase.

Plate 12 is a water-level decline map constructed from measurements made during the winters of 1958-59 and 1959-60. The volume of alluvium that was dewatered in Reeves County between the winters of 1958-59 and 1959-60 was estimated from Plate 12 to be 3,600,000 acre-feet. The quantity of water withdrawn from the alluvium during the same period was about 350,000 acre-feet. If no recharge or other discharge are assumed to have occurred during that period, the specific yield, or ratio of the quantity of water withdrawn to the volume of dewatered alluvium, is computed to be about 10 percent. However, if the sum of the recharge and the return of excess irrigation water during the period is assumed to have been as much as 100,000 acre-feet, the withdrawal from storage would have been only about 250,000 acre-feet and the specific yield is computed to have been about 7 percent. If the specific yield of 7 percent is valid, in 1959 the alluvium contained approximately 40 million acre-feet of water that theoretically was available to wells. Assuming the specific yield is uniform throughout the thickness of the aquifer, between 20 and 30 million acre-feet was within 600 feet of the land surface.

However, most of the land underlain by alluvium is not suitable for irrigation from wells because the terrain is too rough or the saturated thickness of the alluvium is not great enough.

The central irrigation area, located principally in quadrangles J, Q, U, and V, contains wells averaging 600 feet or more in depth. If, again, the specific





FIGURE 7. — Hydrographs of shallow wells in central Reeves County

Figure 7



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Texas Water Commission in cooperation with the U.S. Geological Survey, the city of Pecos, and Reeves County

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8.- Hydrographs of wells in north-central and central Reeves County FIGURE



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aical Survey, the city of Pecos, and Reeves County

Figure IO

- 45 -

FIGURE 10.- Hydrograph of Reeves County well K-20, 1947-59

(Measurements made by Soil Conservation Service, Department of Agriculture)

yield is assumed to be 7 percent, this area contained about 8 million acre-feet of water within 600 feet of the land surface, in 1959. Obviously, withdrawals to depths of 600 feet will be limited to the areas of thickest alluvium, principally in quadrangles J and Q (Plate 4).

As the water levels in the central irrigation area decline, the ground-water gradient will steepen, thus somewhat increasing the rate of ground-water inflow from the outlying areas. As the water levels decline, the yields of individual wells will decline until it may no longer be feasible to pump water for irrigation unless larger pumps and more horsepower are used to lift the water.

Well Construction

Since World War II, most of the municipal, industrial, and irrigation wells that draw from the alluvium in Reeves County have been drilled by the rotary method, and the percussion or cable-tool methods have been largely replaced. Generally, a hole 20 to 24 inches in diameter is drilled, cased with 16-inch pipe, and then the annular space between the casing and wall of the hole is filled with gravel. Many of the older wells have been deepened two or three times and smaller diameter casing than that at the top has been installed in the bottom of the well, precluding the lowering of large diameter pumps; many wells have been abandoned as the water level declined.

The wells are generally cased with torch-slotted pipe from the water table to the bottom of the well, but in the more recently drilled wells the upper 250 to 400 feet has been cased with solid pipe and only the lower section has been cased with slotted pipe. The widths of the slots are generally much greater than the sand particles. Large quantities of sand are pumped from most wells that draw from the alluvium, resulting in excessive wear on pumps and, in some instances where large voids have been formed, the strata have caved, collapsing the casing and ruining the well. The use of screen and gravel of a proper size for the sand encountered in the well would stabilize the water-bearing material around the well. Although more difficult and costly to construct and develop, such a well will pump little or no sand and have a much longer life.

In 1959, most of the pumps in use were high-speed turbines driven by internal combustion engines using natural gas or butane as fuel; about 10 to 15 percent of the pumps were driven by electric motors.

QUALITY OF WATER

By Burdge Irelan

Pure water is a relative term, because absolutely pure water does not exist. The instant a drop of water condenses from the air, it begins to dissolve measurable quantities of atmospheric gases, and as water moves through the air or on or beneath the land surface, it dissolves increasing quantities of organic matter and rock and soil minerals, absorbs heat, and transports small particles in suspension. The dissolved and suspended substances and the absorbed heat give individual masses of water different physical and chemical properties which are inclusively described in the term "quality of water."

Generally, water temperature is of minor importance for public or irrigation supplies, and the movement of ground water through an aquifer almost eliminates suspended sediment. Hence, in this report "quality of water" refers only to the nature and quantities of dissolved minerals and to the physical properties resulting from them.

Special Quality-of-Water Considerations in Ground-Water Studies

Most of the minerals dissolved in either ground or surface waters originate from the weathering of rocks. Where weathering is slow or where precipitation is abundant and the exposed rocks are highly permeable, water may remove the products of weathering nearly as fast as they are formed. In such areas the water is low in dissolved solids and generally is suitable for most uses. However, where precipitation is light, as in Reeves County, soluble products tend to accumulate in the soil and in rocks exposed to weathering, and when, on rare occasion, the precipitation is heavy, the accumulations of soluble minerals are leached out by the infiltrating water. If, in places, some of the water is evaporated or taken up by vegetation, the concentration of dissolved solids in the remaining water is increased.

The water in any aquifer may be considered to have been derived from a very large number of small increments which have moved into the aquifer along a multitude of paths. Successive increments arriving on the same path may differ in concentration of dissolved solids, and increments arriving concurrently on different paths may differ similarly. And once the water has entered the aquifer its chemical quality may be changed through the processes of precipitation, oxidation and reduction, and ion exchange. Consequently, the kinds and quantities of dissolved minerals present in water pumped from a well, or an aquifer, are dependent on the past history of the water. In some aquifers the quality of water may be nearly uniform, just as the rocks may be uniform, whereas in other aquifers the quality of the water may differ with depth, with distance from the source of recharge or pollution, or with length of contact with various soluble minerals.

The quality of the water yielded by a given well may change with time if the new hydraulic gradients established through pumping result in the inflow of water of different chemical character or of water that is less or more highly mineralized. A well that furnished water of satisfactory quality when first developed may, after being pumped for days, months, or years, produce water whose quality is no longer satisfactory or perhaps even harmful. However, changes usually occur very gradually over a long period of time; the quality generally is nearly constant for many years.

In Reeves County the quality of the ground water differs not only from aquifer to aquifer but with location and depth in the same aquifer and may vary with the rise or decline of the water level. The quality of the water being discharged by a well may be related not only to the pumping history of that particular well but also to the pumping history of nearby wells.

Quality-of-Water Requirements for Specific Uses

Water is used in Reeves County for domestic, farm and ranch, livestock, irrigation, and public supplies. Water is also used in the drilling of oil wells and, in the future, probably will be needed by the petroleum industry for secondary recovery of oil. Water-quality requirements for the various purposes differ.

Water for secondary recovery may be quite highly mineralized if it is compatible with the water already in the oil-yielding formation. Water for oil-field camp use must, of course, be palatable. Ranchers require water that is palatable to livestock. Studies made in Oklahoma (Smith, Dott, and Warkentin, 1942, p. 15) indicate that 10,000 ppm (parts per million) dissolved solids is near the upper limit at which livestock will maintain good rates of growth and reproduction. However, where alternate sources of water are available, highly mineralized water is avoided by livestock in favor of water of lower mineral concentration. Many windmill wells in Reeves County yield water containing more than 5,000 ppm dissolved solids; a few yield water containing as much as 10,000 ppm. Although in much of Reeves County growth of grass and other food plants limits the quantity of livestock carried by the land, it is quite possible that the palatability of the available water controls the grazing pattern to some extent. The availability of some ranch headquarters.

By far the largest amount of ground water used in Reeves County is for irrigation. The length of time that a given plot of land may be irrigated successfully with water of a given chemical quality depends on the interaction of the soil and the minerals present in the water. In Reeves County, water of questionable quality for irrigation, according to widely accepted standards, has been used for many years. Continuous successful use of this mineralized water is probably due to the relatively high permeability and to the gypsum content of the soil and to the kind of minerals dissolved in the water.

Withdrawals of large quantities of water from wells inevitably result in a lowering of the water table. Where the water table is lowered, patterns of water movement are changed and salt water may move toward a well discharging fresh water. Salt-water encroachment is a threat to the continued operation of irrigated farms in a few localities in Reeves County.

Standards of quality for public water supplies are generally higher than for other purposes, although the standards for some industries may be even higher. According to the standards of the U. S. Public Health Service (1946), water used on interstate carriers may contain no more than 1,000 ppm of dissolved solids and 250 ppm of chloride and of sulfate. In only a few areas in Reeves County does the ground water meet these standards.

Previous Quality-of-Water Studies

Although some chemical analyses of water in Reeves County were made prior to 1930, available records indicate that the first evaluation of the quality of water supplies in Reeves County began in 1930 in the study of the Balmorhea area by White, Gale, and Nye (1941). During the period 1930-33, a small number of analyses were made in connection with the location of the present well field of the city of Pecos. Only a few analyses were obtained during the period 1934-39. The Pecos River Joint Investigation (U. S. National Resources Planning Board, 1942) included a rather detailed study of the chemical quality of both ground and surface waters in the entire Pecos River Valley in Texas and New Mexico. The U. S. Geological Survey operated a water quality chemical laboratory at Pecos, Texas, in 1939-41 and several hundred samples from Reeves County were collected and analyzed; only some of the analytical results were published. However, the various sections of the Joint Investigation contain detailed discussions of water quality in Reeves County.

During World War II, ground-water studies in Reeves County included analyses of water samples (Lang, 1941, 1942, 1943; Sayre, 1942; and Sayre and Lang, 1942). Another sampling survey was made in Reeves County in 1946-47 and selected analyses

and a discussion of ground-water quality were included in the report by Knowles and Lang (1947).

A continuing program of ground-water appraisal was begun in Reeves County in 1947. This program included collection of samples, particularly from newly installed irrigation wells, for chemical analysis by the Geological Survey.

During the late 1940's and the 1950's, the city of Pecos expanded its well field by drilling test wells and new supply wells. Analyses of samples collected from many of these wells were made by the Texas State Department of Health at Austin.

Representative analyses of water from wells and springs in Reeves and Ward Counties, and from Phantom Lake Spring in Jeff Davis County, are given in Tables 11-13.

Reporting of Water Analyses

With the exception of silica the substances commonly reported in water analyses are ionic. In this report the concentrations of the individual ionized constituents, the silica, and the dissolved solids are reported in parts per million (ppm). A part per million is a unit weight of a constituent per million weights of water. The hardness, a property of water dependent essentially on calcium and magnesium, is reported in parts per million as an amount of calcium carbonate equivalent to the sum of the concentrations of calcium and magnesium as ions.

Physical properties such as pH, specific conductance, and temperature are expressed in appropriate units.

Quality of Water in Reeves County in 1959

Hundreds of analyses have been made of samples of ground water from Reeves County since the first ground-water survey began. Study of the analyses reveal that ground waters in Reeves County can be divided into six types. The types are generalized designations of water quality based on either absolute concentrations or the relative proportions of important constituents, or both. When the types are identified by symbol on a map (Plate 13), a pattern of water quality is evident. The pattern greatly simplifies the problem of summarizing the quality-ofwater data for Reeves County. It makes possible the demarcation of areas where water suitable for municipal supply is most likely to occur and it indicates where continued pumping may result in changes in water quality.

Representative analyses of the six types of ground water in Reeves County are listed in Table 5.

Three of the six water types may be considered primary in that they are broadly characteristic of largely continuous major areas in Reeves County. These types are termed type A water, type B water, and type C water. Two of the types termed type Al water and type BC water are found mostly in intermediate areas and appear to be blends of the primary waters. The sixth type is perhaps an arbitrary grouping of concentrated waters with variable proportions of chloride to sulfate. It is termed the type D water and is found mostly in areas where the water table is near the surface, and appears to be the end product of either localized evapotranspiration or infiltration of river water. None of the different types of

Table 5 .-- Representative analyses of the six types of ground water in Reeves County

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

Water-bearing unit: A, Alluvium; C, Cretaceous rocks; R, Rustler formation; S, Santa Rosa sandstone; T, Tertiary volcanios.

Well	Owner	Depth of well (ft.)	Date of collec- tion	Water- bear- ing unit	Silica (SiO ₂)	Iron (Fe)	Manga- nese (Mn)	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and potassium (Na + K)	Bicar- bonate (HCO_)	Sul- fate (SO_)	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO) 3	Boron (B)	Dis- solved solids	Hard- ness as CaCO3	Per- cent so- dium	Specific conductance (micromhos at 25°C)	pĦ
	Type A																				
K-32	City of Pecos	187	Jan. 16, 1941	S	29	0.03	-	93	24	75 5.6	201	197	86	1.4	9.8	0.07	620	331	34	979	-
L-25	S. E. Ligon	160	Mar. 6, 1959	S	32	-	÷ĝ	70	20	70	222	138	50	1.3	12	- 5	516	256	37	797	7.5
s-83	Bess R. Hardin	-	Mar. 23, 1959	-	-	7.0	a	82	24	72 -	272	140	77	1.2	1.8	- 2	456	303	34	760	7.5
T-3	Joe Stocks	Spring	June 30, 1959	т	40	2		31	3.3	23	116	23	9.0	1.1	7.0	- 8	210	91	35	327	7.2
¥-37	B. S. Estes	-	Mar. 6, 1959	A & S	30	-	-	108	30	81 4.5	207	206	120	2.6	29	.16	761	393	31	1,140	7.5
¥-55	Popham Land & Cattle Co.	-	Sept. 1, 1959	с	45	.05	-	46	4.3	10	165	70	6.0	.4	3.8	- 2	204	132	15	306	6.3
									3	Type A-1											
K-34	W. H. Holcombe et al.	-	Mar. 23, 1959	S	-	0.34	a	120	46	159 -	206	355	232	1.8	7.1	-	1,040	488	41	1,740	7.5
S-18	J. C. Trees Estate	-	Sept. 9, 1957	-	-	.02	8-2	166	37	222 -	182	550	185	.9	6.2		1,230	566	46	2,050	7.3
T-15	W. D. Johnson Estate	Spring	June 30, 1959	с	19	-	3-	222	54	245	262	593	338	-	.2	-	1,600	776	41	2,370	7.4
V-99	L. A. Weinacht	-	Apr. 18, 1940	C?	-	-	-	188	40	206	247	374	346	-	1.5	- 19	1,230	634	41	2,140	
W-91	Alan Hoefs	480?	Aug. 17, 1959	A & S	22	-	-	190	53	170 9.4	228	395	326	.8	.5	1.4	1,280	692	34	1,990	6.7
Y-10	Eula Baker	400?	Aug. 14, 1959	A	48	1.0		109	37	317 11	279	337	370	1.9	3.5	.21	1,370	424	61	2,170	6.8

Type B

385 15

194

5.7

670

-

912

.37

2,530 1,180

91

325

a Manganese (Mn) less than 0.05 ppm.

443 Aug. 28, A 1959 A

30

-

-

J-139 C. K. Hutchins

- 50 -

41 -

3,520

6.7

Well	Owner	Depth of well (ft.)	Date of collec- tion	Water- bear- ing unit	Silica (SiO ₂)	Iron (Fe)	Manga- nese (Mn)	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and potassium (Na + K)	Bicar- bonate (HCO)	Sul- fate (SO _{l4})	Chlo- ride (C1)	Fluo- ride (F)	Ni- trate (NO3)	Boron (B)	Dis- solved solids	Hard- ness as CaCO ₃	Per- cent so- dium	Specific conductance (micromhos at 25°C)	pĦ
									Type	BContinued											
К-19	H. L. Teaney	215	Aug. 18, 1959	A	33	-	-	295	82	411	222	790	680	1.2	1.5	-	2,400	1,070	45	3,510	6.9
K-38	Balmorhea Ranches, Inc.		Jan. 22, 1941	-	35	0.06	-	308	99	485 21	282	844	800	.4	.8	0.15	2,730	1,180	48	4,080	-
U-38	W. E. Moore	687	Aug. 14, 1959	A	30	-	-	235	97	535 22	272	800	790	1.7	4.0	-29	2,650	986	53	3,930	7.0
V-58	J. F. Browder	575	Aug. 17, 1959	A	28	-	-	212	88	485 20	276	723	690	1.5	1.5	-24	2,390	891	54	3,620	6.9
X-21	Reeves County Water Improvement District No. 1	Spring	Jan. 30, 1941	с	23	.05	-	184	78	405 18	284	612	570	•5	1.0	-15	2,030	780	54	3,120	-
			-		-					Туре С											
B-9	Hall Olds	320	June 29, 1959	A	10	-	-	460	226	1,220	135	3,900	395	-	0.0	-	6,280	2,080	56	6,960	7.0
B-47	J. M. Cooksey	50	Aug. 25, 1959	A	32	-	-	600	73	119	248	1,690	57	-	17	-	2,710	1,800	13	2,850	7.1
D-19	Kirk and Miller	255	Aug. 7, 1959	A	38	-	-	420	65	326	222	1,550	162		.0	-	2,670	1,320	35	3,110	7.3
*R-21	Billie Prewit	1,360	June 7, 1940	R	-	-	-	595	227	170	77	2,480	99	-	.8	-	3,610	2,420	13	3,870	-
S-14	J. C. Trees Estate	1,400	July 24, 1940	R	-	-	-	627	259	208	114	2,510	266	-	.2	-	3,930	2,630	15	4,410	-
V-146	The Chandler Co.	1,500	Aug. 14, 1959	, R	16	-	-	530	186	53 12	165	1,930	1414	2.7	.0	-44	2,860	2,090	5	2,980	6.8
									1	ype BC											
F-26	T. S. Ingle	77	Feb. 12	, A	-	-	-	487	140	371	142	1,550	615	-	-	-	3,240	1,790	31	4,260	-
G-29	Warren Wright	-	Aug. 13	, A	32	-	-	510	209	505	268	2,000	610	2.5	77	-	4,080	2,130	34	4,870	7.0

Table 5.--Representative analyses of the six types of ground water in Reeves County--Continued

* Sampled while 1,360 feet deep before plugging back to 300(?) feet.

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Table 5.--Representative analyses of the six types of ground water in Reeves County--Continued

Well	Owner	Depth of well (ft.)	Date of collec- tion	Water- bear- ing unit	Silica (SiO) 2	Iron (Fe)	Manga- nese (Mn)	Cal- cium (Ca)	Magne- sium (Mg)	Sodium an potassium (Na + K)	Bicar- bonate (ECO)	Sul- fate (SO)	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO) 3	Boron (B)	Dis- solved solids	Hard- ness as CaCO ₃	Per- cent so- dium	Specific conductance (micromhos at 25°C)	pĦ
	Type BCContinued																				
H-7	Hubert Nunn	1,315	July 28, 1959	A	34	-	-	460	175	438 19	125	1,930	540	1.7	1.5	0.60	3,660	1,870	33	4,420	6.8
J-4	Cecil Cothrun	600	Aug. 26, 1959	A	28	-	-	370	101	580 13	129	1,680	522	-	86	.94	3,440	1,340	48	4,310	7.0
J-18	Arthur Schmid	308	Aug. 7, 1959	A	29	-	-	328	82	803 17	133	1,620	810	-	ш	.88	3,770	1,160	60	4,960	6.9
Q-135	Macha & Sons	1,508	Aug. 28, 1959	A & C	35	-	-	365	95	365 19	182	1,310	450	-	1.2	.40	2,730	1,300	37	3,430	6.7
										Type D	- 598	- Pe				•					
A-8	Middie E. Davis	147	June 18, 1940	-	-	-	-	750	308	1,440	153	2,410	2,570	-	12	-	7,570	3,140	50	10,600	-
A-30	Jack Camp	100	June 29, 1959	A	17	-	-	655	222	1,200	87	2,820	1,520	-	-5	-	6,480	2,550	51	8,120	6.9
F-5	C. W. Ivey	147	Sept. 9, 1949	A	22	-	-	822	348	2,040 -	304	2,630	3,430	-	-	0.90	9,440	3,480	56	12,700	7.1
F-10	Faustino Lara	50	Aug. 13, 1959	A	ш	-	-	452	155	1,210 37	128	1,610	1,920.	-	1.0	-39	5,460	1,760	59	7,740	7.3
F-44	C. J. Anderson	643	Aug. 26, 1959	A	34	-	-	172	57	1,480	142	1,750	1,370	-	.8	-	4,930	664	83	6,890	7.1
R-15	Howard Maserang	150	Feb. 20, 1959	A & S?	-	0.76	8.	1,150	462	1,410	155	1,880	4,360	1.8	29	-	10,100	4,770	39	16,800	7.2

a Manganese (Mn) less than 0.05 ppm.

water are limited to any particular aquifer; however, an aquifer or adjacent aquifers in any area generally contain water of the same types.

Type A Water

Many but not all of the wells in a large area east and southeast of Toyah Lake yield water that meets the minimum standards for public water supplies and is termed type A water. Except near the large springs in southern Reeves County, the area where type A ground water occurs extends along the southeastern boundary of Reeves County to the southernmost part of the county (Plate 13). Water satisfactory for public supply also occurs in some areas in southwestern Reeves County but apparently does not occur, except perhaps very locally, in most of the central, western, and northwestern parts of the county. Table 5 contains six representative analyses of type A water.

Several different aquifers in Reeves County contain type A water, at least in some places. In the order of their importance as a source of type A water these aquifers are the Santa Rosa sandstone of Triassic age, the limestone and sandstone of Cretaceous age, the Cenozoic alluvium, and the McCutcheon volcanic series of Eifler (1951) of Tertiary age.

After water of good quality was developed in the Pecos city well field from the Santa Rosa sandstone, any water in the area which was low in dissolved solids, chloride, and sulfate was referred to as "Triassic water." Geologic studies show that some of the wells producing "Triassic water" probably obtain at least a part of their water from the overlying alluvium. Several miles south of the Pecos well field, water of good quality is obtained from wells that draw from, principally, the Santa Rosa sandstone but which also may draw from the Cretaceous rocks overlying the Santa Rosa. In the southern and southeastern parts of the county some of the wells that draw only from Cretaceous rocks or only Cenozoic alluvium also yield type A water. Near the Jeff Davis County line the McCutcheon volcanic series of Eifler (1951) yields type A water to two springs (T-2 and T-3).

Although the areas in which type A water can be obtained from wells are subdividable into sections according to the geologic source of the water, the areas are grouped together to simplify the summary map. The type A waters contain less than 1,000 ppm dissolved solids and not more than 250 ppm either chloride or sulfate.

Type Al Water

Between the area of type A water and the area in which most wells yield type B water is a rather narrow zone (Plate 13) in which many wells yield water that is more mineralized than the type A water and less mineralized than the type B water. The water in this narrow zone appears to be a mixture of the two. This intermediate water commonly contains from 1,000 to 1,800 ppm dissolved solids, and between 250 and 500 ppm each of chloride and sulfate. Because the water in which the dissolved solids, chloride, and sulfate concentrations are within these ranges has been used for domestic purposes at many locations, water of this type is referred to as type Al water even though it is not recommended for public supply.

Scattered wells in the area of type A water yield type Al water. The higher concentrations of dissolved solids in the water may be due either to evapotranspiration where the water table is near the land surface or to the presence of more than ordinary amounts of gypsum in the rocks through which the water moves to the wells. Type Al water has been found also in a few wells in the western part of Reeves County; some of the wells are near small areas in which wells yield type A water. The type Al water occurs in the same aquifers as the type A water.

Type B Water

Analyses of samples collected over a period of many years from the springs at Balmorhea, the wells between Balmorhea and Pecos, Irving Springs near Toyah Lake, and the shallow flowing wells that formerly supplied the city of Pecos are strikingly similar. The pattern of water quality is designated the type B. Type B water is the predominant type in the large area of thick Cenozoic alluvium in the vicinity of and south of the city of Pecos. Although most of the water of this type occurs in the Cenozoic alluvium, some of the water from Cretaceous and Triassic rocks also falls into this type. The principal use of the type B water is for irrigation.

The concentration of dissolved solids in the type B water ranges from a little less than 2,000 ppm to about 4,000 ppm. The distinguishing characteristics are nearly equal concentrations of chloride and sulfate, much lower bicarbonate and a ratio of calcium to magnesium of about 3 to 1. Typically, wells in the alluvium yield water containing 700 to 800 ppm each of sulfate and chloride, nearly 300 ppm of calcium, and a little less than 100 ppm of magnesium. However, in places where water is close to the land surface, such as along reaches of Toyah Creek and Salt Draw, the sulfate and chloride content is 1,000-1,100 ppm each, the calcium content is 320 to 350 ppm, and the magnesium content is 100 to 120 ppm. Water from some of the shallow wells may contain 20 to 30 ppm nitrate, although typically the nitrate content of the Cenozoic alluvium water is usually about 5 ppm or less.

Around the southern margin of the alluvial trough is water in which the sulfate and chloride content is only 500 to 600 ppm each and the other constituents are proportionately lower. The lower mineral content indicates that in this area the water is nearer to the area of recharge and has not yet achieved equilibrium with the soluble minerals in the aquifer.

Type C Water

Analyses of water obtained from wells that draw from the Rustler formation in southeastern Reeves County, and from wells and springs that yield water from either the Rustler formation or the Cenozoic alluvium or both in a large part of western and northern Reeves County, have a general similarity that is designated type C water (Plate 13). The type C water is used chiefly for watering stock and for irrigation.

The mineralization of the type C water differs from place to place, ranging from a little less than 2,000 ppm to about 6,000 ppm dissolved solids. The identifying characteristics of type C water are low bicarbonate (generally less than 200 ppm although in some places as much as 300 ppm), a high ratio of sulfate to chloride concentration, and a high calcium content (often 500 to 600 ppm). Commonly, type C water has about 2,000 ppm sulfate and not more than 200 to 300 ppm chloride. In many analyses the chloride concentration was less than 100 ppm. As calcium and sulfate are the predominant cation and anion, type C water is a true "gyp" water, resulting from the solution of gypsum or anhydrite. The Delaware River, which drains portions of the Rustler Hills and flows into the Pecos River just north of the Texas-New Mexico line, normally contains type C water as does also the water yielded by nearly all wells that draw from the Rustler formation in Reeves County. However, a type C pattern is not positive indication that a well draws from the Rustler formation because water that has entered the alluvium from the Rustler commonly retains its characteristic chemical pattern. Furthermore, some of the wells that, according to the report of the Pecos River Joint Investigation (U. S. National Resources Planning Board, 1942), draw from Cretaceous rocks yield type C water.

In southern and southeastern Reeves County, a number of deep wells draw from the Rustler formation; some were drilled as oil tests and subsequently completed as water wells. They yield water having a sulfate content of slightly more than 2,000 ppm and less than 100 ppm chloride. These wells appear as isolated spots on Plate 13.

Type BC Water

Between the area in which type C water predominates and the area in which the type B water is most prevalent is a strip of varying width in which the water is intermediate in chemical composition between these two (Plate 13). Because this water appears to be a blend or mixture of the two types, it is designated type BC water. In water of this type the concentration of sulfate is several times greater at that of chloride but not as many times greater as is true of the Rustler-type water. Commonly, the sulfate content ranges from about 1,000 to 2,000 ppm and the chloride content is one-third to two-thirds that amount. Type BC water is yielded by almost all wells in the extreme northern part of the irrigated area whereas a short distance south some wells yield the typical type B water. The type BC water occurs along the west margin of the main irrigated area and in a northeast-southwest trending strip north of the town of Toyah. Water of this type is yielded by a few wells near the Pecos River east of Pecos but, except near the river, it apparently is not present in the eastern part of Reeves County. The type BC water is used chiefly for irrigation and for watering stock.

Type D Water

Water containing from about 5,000 to about 12,000 ppm dissolved solids is yielded by a relatively small number of wells in Reeves County in a strip 2-3 miles wide along the Pecos River, near Toyah Lake, and along Toyah Lake outlet (Plate 13). This water is generally not very satisfactory for irrigation or livestock use although it is used when better water is not available. It is designated type D water.

At some locations where type D water occurs, the chloride and sulfate concentrations are nearly equal although more commonly one considerably exceeds the other. Sodium is usually the principal cation although, occasionally, water in this concentration range contains more calcium than sodium.

The Pecos River bordering Reeves County usually contains 5,000 to 8,000 ppm dissolved solids and has somewhat more chloride than sulfate. Chemical similarities suggest that at least part of the water pumped from wells near the Pecos River has infiltrated from the river. Salty water may be flowing from the vicinity of Toyah Lake into the area where the water table has been lowered by pumping.

Changes in Water Quality in the City of Pecos Well Field

Records indicate that changes in chemical composition have occurred in some wells in the Pecos city well field. During 1942 it was noted that the chloride content of water obtained from well K-32, the oldest well in the city field, increased following periods of heavy pumping. The chemical character of the water produced from this well has changed slowly since it was drilled. When last sampled in 1957 the concentrations of chloride and sulfate were each about 50 percent higher than when the well was first drilled and the bicarbonate had decreased about 10 percent. Changes in chloride and sulfate concentrations in samples from wells K-30, K-31, L-56, and L-57, also owned by the city of Pecos, show that the more mineralized water north and west of the well field is slowly moving into the city well field.

Changes in Water Quality in the Central Irrigation Section

The water quality appears to have changed in some parts of the principal irrigated areas south and west of Pecos. That a change has occurred cannot be demonstrated because none of the wells in the irrigated area has been sampled repeatedly since irrigation from wells first began. Many more deep wells were being pumped in 1959 than in 1939 and a much smaller number of wells were sampled in 1939. However, it appears from a study of the records that there is a trend toward higher salinity of the water in the area south and southwest of Toyah Lake. It also appears that the zone in which type BC water is produced has been extended south into a small part of the area formerly yielding type B water. Fortunately, the observed changes in water quality have not been great enough to indicate an early salinity hazard in most of the irrigated sections of Reeves County. Periodic reappraisals of water quality by means of a continuing sampling program at carefully selected wells would serve to warn of impending encroachment of salt water.

POTENTIAL DEVELOPMENT OF GROUND WATER

Irrigation Supplies

An increase in the amount of water pumped from the Cenozoic alluvium underlying the areas that were irrigated in Reeves County in 1959 does not appear to be desirable because the rate of withdrawal in 1959 was several times the sum of the rate of recharge and the rate of underflow into the irrigated areas. Because much of the land of the Toyah Basin is not suitable for irrigation, the expansion of irrigation into the Toyah Basin and consequent wider distribution of withdrawals are unlikely.

During the periods of peak seasonal demand for irrigation water, the yields of wells near the center of the heavy withdrawals (quadrangles J and Q) reportedly have declined considerably and the pumping levels in some of the wells have been more than 500 feet below land surface. Further expansion of irrigation in this area, where the number of wells per square mile averaged about 4.5 in 1959, would accelerate decreases in well yields.

A possible area for future development of irrigation is north and northwest of the present irrigation area. The thickness of saturated alluvium in parts of quadrangles E, F, and H is believed to be more than 1,400 feet and throughout much of quadrangles E, F, and H is known to be more than 1,000 feet (Plate 9).

Possibly, however, the deeper part of the trough in quadrangles D, E, F, and H is filled with alluvium that is predominantly clay. The data on the thickness of the alluvium in this area were obtained from electric and radioactivity logs of oil tests. Although a few irrigation wells have been drilled in the southern part of quadrangle F and the eastern part of quadrangle H, none was drilled to the base of the alluvium. The depth to water in these wells and other wells, the deepest of which is about 350 feet, ranged from 100 to 250 feet. Chemical analyses of water from livestock wells in the area show the water to be similar to that which is being successfully used for irrigation but is not suitable for domestic use. The quality of water below a depth of 350 feet is not known. If the specific yield is assumed to be 7 percent, the amount of water theoretically available as of 1959 from the total thickness of the alluvium in this area is estimated to be 15 million acre-feet. Although much of the land is rolling, about 10 percent is relatively flat and could be prepared for irrigation with land-leveling machines. Information concerning the hydrologic characteristics of the alluvium in this area is not available, but possibly they are similar to those of the alluvium in the central irrigation section; if fewer water-bearing beds are present, the specific yield and coefficient of transmissibility will be smaller. Before constructing an irrigation well in this area, the amount and quality of water that might be obtained from such a well should be determined by drilling and testing.

Another possible area of future development is in the northeastern part of quadrangle T where exploratory drilling for oil has indicated the probability of the occurrence of water-bearing limestone of Cretaceous age. The hydraulic coefficients of the rocks in the vicinity are not known. However, wells in and near the town of Toyah are reported to have been flowing since the early 1900's. These wells reportedly are 800 to 900 feet deep and draw from limestone and sandstone of Cretaceous age. The wells are said to have stopped flowing during the summer of 1959 when water was pumped from wells that draw from rocks of Cretaceous age about 2 miles south of Toyah. Aquifer-test data on well P-32, drilled into the Cretaceous rocks, indicate a coefficient of transmissibility of 2,700 gpd per foot. The well pumped 460 gpm and had a specific capacity, at the time of the test, of 3.3 gpm per foot of drawdown, based on a static level obtained 100 minutes after pumping stopped. The number and yield of wells in an aquifer which has a coefficient of transmissibility of only 2,700 gpd per foot would be limited by the large drawdowns in each well and the interference between wells. However, the likelihood of extensive irrigation development in this part of the county is small because the terrain, for the most part, is rolling to rough and only small tracts are level enough for cultivation.

Another area of possible irrigation development borders the west side of the central section. It is several miles wide and is underlain by 300 to 500 feet of saturated alluvium that overlies Cretaceous rocks. More water than could be obtained from the alluvium alone could be obtained by drawing from the Cretaceous rocks also, as do wells P-58, U-20, and a few others. However, wells should be widely spaced to minimize interference. The relatively high specific capacities of the wells in this part of the county indicate that the transmissibility of the alluvium here is greater than in the northern part of the basin.

The life of irrigation developments in Reeves County will be extended and the ground-water resources will be utilized more fully and beneficially if:

- Soil-moisture losses, runoff, and evaporation are minimized through conservation practices;
- The method and timing of irrigation applications are improved so as to minimize waste of water;

- Irrigation water is conducted from pump to the fields through pipes or lined ditches so as to reduce seepage and evaporation losses;
- Wells are so constructed and developed that well-entrance losses and pumping of sand are minimized;
- Wells are cleaned and inspected periodically to minimize unnecessary reductions in yield;
- Enough and only enough irrigation water is applied to obtain maximum crop growth and to flush salts from the soil;
- 7. The water-distribution systems are designed and the fields are laid out in such a way that the length of the rows accords with the type of soil.

Public Supplies

Analyses of the available information, principally data on the quality of the water, indicate that additional exploration for water suitable for public supply should be limited to the eastern and southern parts of Reeves County and adjacent parts of Pecos County. The area, bounded on the north by the terraces along the Pecos River, on the west by Barilla Draw, on the south by U. S. Highway 290, and on the east by Coyanosa Draw in Pecos County, encompasses approximately 500 square miles. It is underlain not only by Cenozoic alluvium but also by rocks of Cretaceous and Triassic age that contain potable water.

In 1959 the depth to water in wells in this area ranged from about 50 to 150 feet below the land surface, the deeper water levels characterizing both the irrigated and the topographically higher parts of the area. The hydraulic gradient of the water table in this area is generally to the north toward the Pecos River, at about 12 feet per mile (Plate 8). Recharge to the ground-water reservoir underlying the area results from the direct infiltration of precipitation, underflow from the south, and runoff from the mountainous terrain to the south.

The alluvium, which probably offers the most promising prospects for additional supplies of water suitable for public supply, ranges in thickness from 0 to more than 400 feet in this part of Reeves County and adjacent parts of Pecos County. However, further detailed studies are needed to outline the areas where the alluvium is thickest. Yields of 500 to 1,000 gpm of potable water have been reported where the alluvium is 200 to 400 feet thick. The mineral content of the water in the alluvium is relatively low, averaging about 400 to 600 ppm of dissolved solids; however, near areas of irrigation the mineralization may increase due to recirculation of irrigation water.

The water-bearing properties of the Cretaceous rocks underlying the Cenozoic alluvium in the southern part of this area have not been determined. However, the Cretaceous rocks here may yield as much as they do 5 to 12 miles east of Balmorhea, where wells drawing from these rocks produce 500 to 1,000 gpm. The limited number of water analyses available from livestock wells drilled into the Cretaceous rocks indicate that the water from these rocks has a slightly higher concentration of dissolved solids than does the water in the alluvium, but no higher than the maximum limit recommended by the U. S. Public Health Service. The Cretaceous rocks are absent, or are relatively thin, in the northern part of the area but appear to thicken toward the south and east.

The part of the area that is considered to be the most promising for municipal supplies is along the Reeves-Pecos county line between U. S. Highways 285 and 290. It extends about 3 to 5 miles west into Reeves County and about 10 miles east into Pecos County. It is located south and east of the known irrigation developments in Reeves County and may not be suitable for irrigation development because of topography; also, test wells have yielded only a few hundred gallons per minute and were not deemed large enough for irrigation although adequate for municipal supply. Although 25 to 35 miles from the city of Pecos, several advantages may be enumerated for restricting exploration to the southern part of this area. The southern part of the area is up the hydraulic gradient from the irrigated areas in Reeves County, thereby eliminating some of the possibilities of contamination and depletion from these sources; it is near or in rough terrain where the possibility of irrigation development is less; water analyses indicate that the chemical quality of the water is of similar quality or better than that of the present city of Pecos supply; and the area lies at a considerably higher altitude than the city of Pecos, which would aid the transport of water from the area to the city.

Before any production wells are installed, several test holes should be drilled to determine where the largest supply of potable water could be obtained. The materials penetrated in drilling should be logged accurately and the hydraulic properties of the aquifer should be tested by appropriate methods so that the production wells can be designed and situated to best advantage. Where Cretaceous rocks underlie the Cenozoic alluvium, their water-bearing characteristics should be determined also.

Another area of possible development lies between FM 1450 and U. S. Highway 285, along the Pecos County line. Although this area is 10 to 15 miles southeast of the present city well field and the water is of suitable quality, it is a second-choice site for exploration because water-levels are expected to decline considerably owing to the nearby irrigation developments in Reeves and Pecos Counties.

The only wells in Reeves County that are known to draw from the Santa Rosa sandstone are those in or near the city of Pecos well field. There the Santa Rosa is structurally high and is fractured. Although additional water supplies possibly might be obtained from this formation in and near the well field, recent exploratory test drilling has failed to reveal the presence of fractures such as those that convey water to the present city wells. The water-bearing characteristics of the Santa Rosa sandstone in other parts of Reeves County are not known, but it is thought likely that the formation in other places would yield only small quantities of water to wells.

Throughout most of its extent in Ward County the Santa Rosa sandstone is above the water table and, therefore, dry. However, water similar in quality to that pumped in the city of Pecos well field has been obtained in Ward County from the Santa Rosa sandstone where it is below the water table. The wells are reported to yield less than 100 gpm. The city of Barstow wells (G-2, G-3, and G-4) draw from a part of the Santa Rosa where it is hydraulically connected with alluvium that contains water of poor quality. The quality of the water yielded by these wells has steadily deteriorated over a period of several years, indicating that the water of poor quality in the alluvium is moving toward the wells.

The areas which can be definitely eliminated from consideration as possible locations for public-supply wells are the irrigation area west and south of Pecos and the area near the river. In both these areas the water is of unsuitable quality for public supplies. The rocks of Cretaceous age in western and southwestern Reeves County can also be eliminated as potential sources of supply because the water from them contains relatively large amounts of sulfate and, in places, smells strongly of hydrogen sulfide.

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* Name of agency changed to Texas Water Commission January 30, 1962.

TABLE 6

RECORDS OF WELLS

IN

REEVES COUNTY

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Table 6.- Records of wells and springs in Reeves County

All wells are drilled unless otherwise noted in Remarks. Water level : Reported water levels given in feet; measured water levels given in feet and tenths. Meter levels given in reet, measured water level

								Water level				
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
A-l	Red Bluff Water & Power Control District	Zapata Drilling Co.	1957	2,917			2,881			N	N	Oil test. $\underline{1}/$
A-2	do	R. C. Slack, et al.	1956	2,768			2,846	-		N	N	do
A-3	G. E. Ramsey, Jr.			50	6	Alluvium		46.8	June 22, 1959	C,W	s	Bruce Lake well.
A-4	G. E. Ramsey, et al.	Continental Oil Co.	1957	2,745	-	-	2,907	-		N	N	Oil test. 1/
A5	do	Ford Chapman, et al.	1956	2,643			2,907	-		N	N	do
A-6	G. E. Ramsey, Jr.			80?	5					C,W	S	
A-7	M. E. Davis, et al.	Ford Chapman, et al.	1955	2,722	-		2,884			N	ы	Oil test. 1/
*A-8	Middie E. Davis, et al.			147		-			-	N	N	Abandoned.
A-12	Jack Camp	-		150	5	Alluvium	2,876	106.7	June 17, 1959	c,w	S	
A-13	do	Clyde Simmons	1933	85	5	do	2,890	69.0	do	C,W	S	
A-14	F. P. Hubbard	American Trading & Production Company	1956	2,890	-		2,919		-	N	N	Oil test. 1/
A-15	Davis Heirs	Reaves & Doolin	1958	2,918			2,889			N	N	do
A-16	G. E. Ramsey, Jr.	Ford Chapman	1955	2,751			2,920			N	N	do
A-17	J. Meeker	do	1957	2,750			2,976	-		N	N	do

See footnotes at end of table.
								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
A-18	Continental Oil Co.	energien niemet	1.958	260	7	Rustler formation	2,970	59.6	June 25, 1959	N	N	Reported weak supply. Supplied water for oil-well drilling rig.
A-21	G. E. Ramsey				8	Rustler formation(?)	3,047	149.2	đo	C,W	N	Old well.
A-23	TXL Oil Corp.	Continental Oil Co.	1957	2,768			2,975			N	N	Oil test. 1/
A-24	J. W. McMillen	Ford Chapman	1958	2,710			2,890			N	N	do
A-25	Ruth Bell	do	1957	3,095			2,828			N	N	do
A-26	Tunstill Oil & Land Co.	Ray Smith Drill- ing Co.	1959	3,187			2,826			N	N	do
A-27	Jack Camp	Co1			6	Alluvium(?)	2,792	55.1	July 28, 1959	C,W	S	
A-28	N. B. Bumin	Yancey & Harris	1948	4,200		and the second	2,775			N	N	Oil test. Drilled to 3,246 ft., deepened to 4,200 ft. 1
A-29	TXL Oil Corp.	Phillips Petro- leum Co.	1948	3,305			2,799			N	N	011 test. 1/
*A-30	Jack Camp			100	6	Alluvium	2,777	26.4	June 19, 1959	C,W	S	
A-31	Hill & Hill Oil Co.	Super-Details a			6					C,W,E,	D	Supplies water for lawn at oil field camp.
A-32	Jack Camp			80	6	Alluvium	2,745	18.3	June 19, 1959	C,W	S	
A-33	O. O. McCamey	Louis Crouch	1951	3,520			2,792			N	N	Oil test. 1/
A-34	TXL Oil Corp.	General Crude Oil Co•	1937	3,590		Atom	2,750			N	N	011 test. 1/2/
A-35	C. H. Brown	Trico Exploration Co.	1954	3,542	-		2,795	-		N	N	Oil test. 1/
A-36	J. V. Daughetee	Cameron Oil Co.	1957	3,276			2,841		as interestioners	N	N	do
A-37	Ralph Lowe	Ford Chapman, et al.	1958	3,230	-		2,837		10. <u>1947</u> 480 540	N	N	do
A-38	Jack Camp			100	5	Alluvium	2,844	25.4	June 17, 1959	C,W	S	

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
A-39	W. D. Thorn	W. D. Thorn	1958	3,036			2,855			N	N	Oil test. 1/
A-40				245?	10	Alluvium(?)	2,868	61.4	June 23, 1959	N	N	
A-41	T. Q. Williams et al.	F. W. Holbrook	1957	2,960			2,924			N	N	Oil test. 1/
A-42	Valena P. Olsen	Jay Simmons	1956	2,767			2,890			N	N	do
A-43	TXL Oil Corp.	McDaniel & Beecherl	1957	2,750			2,934			N	Ν	đo
A-44	J. M. Cooksey	Simmons	1948	83	6	Alluvium	2,960	70.5	June 16, 1959	c,w	S	Headquarters well.
A-45	L. H. Alexander	McKinney & Leonard	1958	2,705			3,010			N	N	Oil test. 1/
B-2	J. M. Cooksey			80	.8	Alluvium	2,940	70.6	June 16, 1959	c,w	S	Cased to 20 ft. East Mill well. Old well.
B-3	TXL Oil Corp.	Brown & Scarber & W. D. Thorn	1958	2,908			2,946			N	N	Oil test. 1/
B-14	T. & P. Lands Trust	Grisham-Hunter Oil Co.	1936	3,350			3,020			N	N	2/
B-5	A. T. Randolph, et al.	Argo Oil Co.	1958	3,050			2,992			N	N	Oil test. 1/
в-6	Jack Camp				7	Alluvium	2,913	108.7	July 28, 1959	C,W	S	Old well.
B-7	H. C. Peck	Hill & Meeker	1958	3,082			2,912			N	N	Oil test. 1/
в-8	Hall Olds	Lang Buchanan	1948	2001	5	Alluvium	2,870			J,E, 1	D	Supplies water for cleaning purposes. Water reported at 90, 150, and 200 ft.
*B-9	do	Simmons	1954	320	7	do	2,870	75.0	June 25, 1959	Т,Е,	D	Pump set at 160 ft. Supplies water for filling station.
B-10	A. B. Eberley	Raymond Lamb, et al.	1955	3,072			2,867			N	N	Oil test. 1/
B-11	P. G. Northrup, et al.	Carper Drilling Co.	1954	3,267			2,843			N	N	do
B-12	Jack Camp			120	6	Alluvium	2,818	46.0	June 18, 1959	C,W	S	

- 105	and a cited and a					and the state of the	The sect	Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
B-13	P. G. Northrup	Great Western Drilling Co.	1953	3,270			2,806			N	N	Oil test. 1/
B-14	TXL Oil Corp.	Trico Exploration Co.	1955	3,294			2,800			N	N	do
B-15	P. G. Northrup	do	1954	3,470			2,835			N	N	do
B-16	TXL 011 Corp.	F. R. Jackson	1958	3,400			2,846			N	N	do
*B-17	Jack Camp			160	6	Alluvium	2,851	110.5 98.7	May 11, 1941 June 22, 1959	c,w	S	Old well. <u>3</u> /
B-18	do	Simmons		145	6	do	2,856	49.7	June 18, 1959	C,W	S	
B-19	Regan & Northrup	Luse & Ice	1954	3,258			2,863			N	N	Oil test. 1/
B-20	TXL 011 Corp.	Winterrowd, et al.	1959	3,212			2,904			N	N	do
B-21	Jack Camp			80	6	Alluvium	2,885	67.7	June 18, 1959	C,W	S	Reported strong supply.
B-22	A. T. Randolph	Sabre Drilling Co.	1959	2,953			3,020			N	N	011 test. 上/
*B-23	J. M. Cooksey			175	6	Alluvium	3,026	151.3	June 23, 1959	C,W	S	Salt Mill well.
B-24	A. T. Randolph	White Eagle Oil Co.	1958	2,920			2,980			N	N	011 test. 1/
B-25	Wilson & Antone	Burk Royalty Co.	1958	2,710			3,040			N	N	đo
B-27	R. L. Biggs	World Oil Co.	1928	3,006			3,068			N	N	2/
B-28	P. Fortune	Ohio Oil Co.	1958	3,069			3,095			N	N	Oil test. 1/
B-29	TXL Oil Corp.	Haynes & V. T. Drilling Co.	1958	3,045		and the second se	3,115		1 (199 <u>-1</u> 0) (1993)	N	N	đo
B-30	Pearl Fortune	Burford Sams & Ray Smith	1959	3,102	1		3,045	1000		N	N	do
B-31	TXL Oil Corp.	F. A. Davis & Gulf Oil Corp.	1958	3,175			3,080		all monthly ag	N	N	do
*B-32	Jimmy Cooksey	T. & P. RR. Co.	1936	170	6	Alluvium	2,973	138.5	June 18, 1959	C,W	S	Cased to 40 ft. Ranch Head- quarters well.

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								Water	level				
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks	
B-33	TXL 011 Corp.	Tubb & Gann	1952	3,103			2,950			N	N	Oil test. $\underline{l}/$	
B-34	J. D. Stock	do	1952	3,347			2,996			N	N	do	
B - 35	M. Madera				7		2,914			c,w	S	Orla Mill well.	
B-36	H. K. Dudley	Sabre Drilling Co.	1959	3,411			2,860			N	N	011 test. <u>1</u> /	
B 37	Herman Lindley	Buffalo Oil Co.	1953	3,563			2,834			N	N	do	
B- 38	A. W. Norcop	M. E. Daniel	1958	3,362			2,840			N	N	do	
B-39	M. T. Ritchey	Lawless Drilling Co.	1956	3,466			2,898			N	N	đo	
B-40	Allar	Neville G. Pen- rose, Inc.	1954	3,524			2,890			N	N	do	
B-41	R. M. Bolinger	Ken Regan, et al.	1954	3,370			2,877			N	N	do	
B-42	M. Madera		1949	60	6	Alluvium				c,w	S		
B-43	TXL 0il Corp.	Odessa Natural Gas Co.	1958	3,204			3,017			N	N	Oil test. 1/	
B-44	John Fallwell	McDaniel & Beecherl	1956	3,146			3,022			N	N	do	
B-45	State of Texas	do	1957	3,300			3,175			N	N	do	
B-46	T. F. Keasler	Goal Tullous & Co.	1955	3,026			3,065			N	N	đo	
*B-47	J. M. Cooksey			50	8	Alluvium	3,038	10.0	June 23, 1959	C,W	S	Cased to bottom. In	ncline well.
*B-48	do			50	8	do	3,065	18.5	do	c,w	S	Cased to bottom. Ro well.	obertson
B-49	TXL Oil Corp.	O. B. Oil Co. & Gulf Oil Corp.	1958	3,156			3,090			N	N	011 test. <u>1</u> /	
B-50	State of Texas	Jack Reaves	1958	3,199			2,986			N	N	do	
B51	R. P. Hicks	W. C. Faulkner & Whiteside Bros	1956	3,358			2,950			N	N	do	

See footnotes at end of table.

					1			Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*B-52	M, Madera	1	-1234	180	7	Alluvium	2,999	102.9	July 15, 1959	C,W	S	Old well.
*C-1	TXL Oil Corp.			105								Abandoned.
C-3	J. M. Pace Estate	Chas. F. Garlitz, Inc.	1954	3,923		-	2,703		1.000 TSP 1383	N	N	011 test. 1/
C-4	L. E. Patterson, Jr. et al.	Ray Smith & Am- bassador Oil Co.	1958	3,673			2,809			N	N	do
C-5	0. Dale Smith	Buffalo Oíl Co.	1955	3,478			2,820			N	N	do
C-6	M. Madera	sepremier a	1.	90	7	Alluvium	2,859	80.6	July 16, 1959	C,W	N	New Mill well. Old well.
C-7	Alfred Thompson	Ray Smith Drill- ing Co.	1959	3,670			2,830			N	N	Oil test. 1/
C-8	R. F. Kelton	Lang Buchanan		2,580	6	Alluvium(?)	2,830	87.2	Aug. 25, 1959	C,W	S	North Mill well.
C-9	Wray & Monroe	C. & B. 011 Co.	1947	3,862			2,770			N	N	Oil test. 1/
*C-10	R. F. Kelton	ACCESS AND AND A		70	6	Alluvium	2,705	30.0	July 20, 1959	c,w	S	Headquarters well.
C-11	R. A. Porter	Buffalo Oil Co.	1953	3,961			2,690			N	N	Oil test. 1/
C-12	R. S. Brennand, Jr.	Rutter & Will- banks Bros.	1956	4,075			2,722			N	N	do
*C-13	R. F. Kelton	satura ort ort		60	6	Alluvium	2,718	51.1	July 20, 1959	C,W,G	S	Helen "S" Mill well.
*C-14	M. Madera			177	6	do	2,935	130.4	June 26, 1959	c,w	S	Bumgardner Mill well.
D-1	do	Sive Prints		401		do	22%0			N	N	Water reported salty. Cox Mill well. Old well.
D-2	Beel & Garland	Aldridge & Stroud	1958	3,300.			3,034			N	N	Oil test. 1/
*D-3	M. Madera	eries gina		180	7	Alluvium	3,136	173.5	July 16, 1959	C,W	N	and seed and seed of the
D-4	TXL Oil Corp.	E. R. Manning	1958	3,601			3,023			N	N	Oil test. 1/
D-5	M. Madera			250	6	Alluvium	3,135	119.5	June 26, 1959	C,W	N	
*D-6	do		1900	300	6	do	S	165.4	Mar. 13, 1940	C,W	S	Headquarters well. 3/
*D7	H. R. Burden			350	6	do	3,206	310.2	June 26, 1959	C,W	S	Pump set at 322 ft. Old well.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
D-8	H. R. Burden		1947	350?	6	Alluvium	3,319	329.4	July 14, 1959	c,w	N	
*D-9	do			268	4	do	3,252	228.5	do	C,W	S	Reported weak supply. Oscar Mill well.
D-10	P. B. Wilson	F. K. Campbell	1953	3,854			3,230			N	N	Oil test. 1/
D-11	H. R. Burden	J. R. Meeker	1958	3,555			3,244			N	N	đo
*D-12	do			113	36	Alluvium	3,216	56.8 24.8	Mar. 14, 1940 July 15, 1959	C,W	S	Carouthers Mill well. Old well.
D-13	Reed & Kirk	Continental Oil Co.	1956	3,050			3,264			N	N	Oil test. $\underline{l}/$
*D-14	A. T. Kirk			60	6		3,277	48.5	July 29, 1959	c,w	S	
D-15	Jack Henderson Estate	F. R. Jackson	1958	3,014			3,330			N	N	Oil test. 1/
*D-16	Shelby Brooks			68	6	Alluvium(?)	3,242	59.6 55.7	Oct. 5, 1939 July 29, 1959	c,w	S	
D-17	R. L. Umbenhour	F. K. Campbell	1953	3,627			3,267			N	N	Oil test. 1/
*D-18	Radford Grocery Co.		1936	3001	8		3,169	124.5	July 14, 1959	c,w	S	Drilled as oil test to 3,162 ft., plugged back to 300 ft. and completed as water well.
*D-19	Kirk & Miller			255	7	Alluvium	3,130	241.3 236.8	Mar. 14, 1940 July 31, 1959	c,w	S	3/
D-20	do	T. M. Evans	1958	3,923			3,133			N	N	Oil test. 1/
*D-21	M. Madera	Earl Fisher-		240	7	Alluvium		170.6	Nov. 22, 1948	C,W	S	
E1	TXL 011 Corp.	Bickerstaff & Tibbits, et al.	1958	3,802			2,911			N	N	Oil test. 1/
*E-2	R. F. Kelton			60	4	Alluvium		26.0	July 20, 1959	c,w	S	Big John D. Mill well. Old well. 3/
E-3	D. C. Aylesworth	Corpus Christi Refining Co.	1953	4,160			2,853			N	N	Oil test. 1/
E-4	R. F. Kelton				8	Alluvium(?)	2,843	101.7	July 21, 1959	C,W	S	Simmons well.
E-5	State of Texas	TXL Oil Corp.	1958	4,247			2,808			N	N	011 test. <u>1</u> /

See footnotes at end of table.

and the second		- AND AND AND A						Water	level			
Well	Owner	Driller	Date com~ plet~ ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
E-6	W. A. Halamiecik, Jr., et al.	Pete McHalffey	1958	200?	7	Alluvium	2,823	180.7	July 17, 1959	N	N	Road well.
*E-7	do			287	5	Alluvium(?)	2,891	251.8	đo	C,W	S	Division well.
E-8	M. E. Schreiber	Hamm & O'Brien, & Cody Oil Co.	1953	3,805			2,885		and (1994)	N	N	Oil test. 1/
E-9	TXL 011 Corp.	Fred A. Davis	1958	4,137			2,880			N	N	do
E-10	M. Madera			154	6	Alluvium	3,056	146.5	July 14, 1959	C,W	S	Smith Mill well.
E-11	W. A. Halamiecik, Jr., et al.			170	5	do				c,w	S	Headquarters well.
*E-12	đo				5					c,w	S	
*E-13	do			333	7	Alluvium	2,979	271.4	July 22, 1959	c,w	S	Reported strong supply. Draw Mill well. Old well.
E-14	TXL 011 Corp.	Wilson Explora- tion Co.	1.958	4,259			2,807			N	N	011 test. 1/
E-15	đo	Gulf Oil Corp.	1956	4,115			2,775			N	N	do
E-16	đo	Texland Produc- tion Corp.	1956	8,006	-		2,764			N	N	do
*E-17	W. A. Halamiecik, Jr., et al.			231	7	Alluvium	2,856	213.36	Mar. 3, 1950	C,W	S	Strong supply reported. Pump at 213 ft. 3/
E-18	do			324	7	do	2,950	279.0	July 22, 1959	C,W	S	Pump set at 311 ft. South well.
E-19	TXL Oil Corp.	Fred A. Davis	1959	4,030			2,933			N	N	Oil test. 1/
E-20	W. A. Halamiecik, Jr., et al.				6	Alluvium	3,027	147.5	July 22, 1959	C,W	S	High Lonesome Mill well.
*E-21	đo			2361	6		3,387	235.1	Feb. 10, 1959	C,W	S	3/
F-1	W. E. Beil	Haynes & V. T. Drilling Co:	1959	4,225			2,713			N	N	011 test. 1/
F-2	A. C. Seivers	Buffalo Oil Co. & Delta Gulf Drilling Co.	1955	4,505		A CONTRACTOR	2,721		and an and a second sec	N	N	do
*F-3	R. F. Kelton			200	7	Alluvium	2,750	137.9	July 21, 1959	C,W	S	Pump set at 180 ft. in 1959. Hash Knife Mill well.

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							1 1 1 1 2	Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
F-4	Mary Dougherty, et al.			130	6	Alluvium	2,686	45.7	July 10, 1959	c,w	N	
* F- 5	C. W. Ivey		1948	147	18	đo	2,630	9.1	đo	т,-	N	Cased to bottom. Perforated below 30 ft. Water reported. too salty for irrigation.
F-6	do	2 m	1949	300	18	do	2,630	7.0	do	N	N	Formerly used for irrigation. Water reported too salty.
*F-7	do	Rayford Guffey	1949	335	18	do	2,630	10.1	do	N	N	Water reported salty. Not used since 1953.
*F-8	Nov Lara			40	7	do	2,630	10.8	July 9, 1959	C,W	S	Old well.
F-9	J. E. Couch	J. E. Jones	1959				2,629		10 884° 3 ° 58580	N	N	Oil test.
*F-10	Faustino Lara	Layne		50	6	Alluvium	2,635	5.4	July 8, 1959	c,w	N	Formerly supplied water for stock.
*F-11	D. O. Lara		1950	125	6	do .	2,650	26.7	do	c,w	N	Cased to bottom. $3/$
F-12	State of Texas	Ohio Oil Co.	1959	4,750			2,262			N	N	Oil test. 1/
F-13	A. L. Rawlins	Sun Oil Co.	1958	4,594			2,700			N	N	do
*F-14	R. F. Kelton			200	8	Alluvium	2,801	187.4	July 20, 1959	c,w	S	Pump set at 180 ft. in 1959. Railroad well. 3
*F-15	W. A. Halamiecik, Jr., et al.	and the start of			7	Alluvium(?)	2,748	148.6	July 21, 1959	C,W	S	Steel Mill well.
F-16	Clarence Pearce		1952	1,042	16	Alluvium	2,714	116.4	do	T,G, 110	Irr	Cased to bottom. Perforated from 500 ft. to bottom.
F-17	do		1952	904	16	do	2,709	111.9	đo	N	N	Formerly supplied water for irrigation.
F-18	M. M. Knight	Continental Oil Co.	1958	4,402			2,661			N	N	Oil test. 1/
F-19	State of Texas	Pan American Petroleum Co.	1956	4,821			2,707			N	N	do
F-20	do	Jesse W. Wright, Jr.	1958	4,675	20 	production and the	2,645			N	N	do

See footnotes at end of table.

Table 6 .- Records of wells and springs in Reeves County -- Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*F-21	Faustino Lara	Tom Simmons	1959	80	8	Alluvium	2,630			N	N	Cased to 40 ft. Drilled as test well for irrigating gar- den, and to supply water for stock.
F-22	B. E. Quinn	Day Oil Co.	1955	4,803			2,635			N	N	0il test. <u>1</u> /
F-23	H. C. Mandell	DeKalb Agricul- tural Associa- tion Inc	1954	4,827		4777- 2007	2,614			N	N	đo
12212		tion me.				TTTAL ME	122.00	1997		2.8	12	state with another the
F-24	M. H. Gilchrist		1950	36	6	Alluvium	2,608	21.2	July 9, 1959	C,W	S	Water reported salty.
F-25	F. W. Heinrich, Estate	Ralph Lowe	1954	2,685			2,648		noth and the a	N	N	Oil test. 1/
*F-26	T. S. Ingle			77		Alluvium		42.0	May 11, 1941	N	N	Abandoned. Old well. 3/
F-27	B. & M. Moran	William & A. P. Fuller	1956	4,226			2,701			N	N	Oil test. 1/
F-28	Regan & Northrup	McRae Oil & Gas Corp.	1957	4,390		TANKT OF	2,630		ion Trank	N	N	do
F-29	J. L. Lovelace	Lowery Walker	1952	519	16	Alluvium	2,660	128.1	Nov. 3, 1958	T,Ng	Irr	Cased to bottom. Slotted from 95 ft. to bottom. Pump set at 440 ft.
F-30	H. H. Johnson	Dunnigan Bros. & Brahney Oil Co.	1933	4,688			2,610	-		N	N	011 test. 1/ 2/
F-31	E. C. Schwalbe	Lowery Walker	1955	303	16	Alluvium	2,624	51.4 50.3	Nov. 3, 1958 Jan. 6, 1960	T,Ng	Irr	Cased to bottom. Perforated from 207 ft. to bottom. Pump set at 260 ft. 2/
F-32	do	Jobe Bros.	1957	545	16	do	2,624	101.4 95.3	Nov. 3, 1958 Jan. 6, 1960	T,Ng	Irr	Cased to bottom. Perforated from 420 ft. to bottom. Pump set at 240 ft.
F-33	do			60	7	do	2,619	39.7	July 9, 1959	C,W	N	Old well.
F-34	C. H. Brown	Tom Simmons	1954	177	16, 14	do	2,606	26.3	do	т,G, 70	Irr	Casing: 16-in. to 105 ft., 14-in. to bottom. Perforated from 105 ft. to bottom. Pump set at 120 ft. in 1959.
*F-35	Cecil Lee					đo	2,612	18.5	July 10, 1959	C,W	S	

See footnotes at end of table.

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					· 0			Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
F-36	J. E. Couch	Tom Simmons	1946	250	12	Alluvium	2,597	20.7	July 13, 1959	N	N	
F-37	do	do	1946	150	12	do	2,597	16.5	Nov. 4, 1946	т,-	N	2/
F-38	do	do	1946	145	12	do	2,596	15.3 23.0	Jan. 29, 1947 July 13, 1959	N	N	2/ 3/
*F-39	Marvin Clark			51		do	2,614	15.7	July 9, 1959	C,W	N	Old well. 3/
F-40	Charlie Fitzgerald	Earl Fisher	1952	300	14	do	2,624	50.8	Aug. 11, 1958	T,Ng, 160	Irr	Cased to bottom. Slotted from 100 ft. to bottom. Pump set at 200 ft. Temp. 76°F.
F-41	do	do	1957	609	16	đo	2,624	91.1	Nov. 3, 1958	T,Ng, 110	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Gravel- walled. Pump set at 240 ft. Discharge measured 425 gpm
									1	0.18	199	Aug. 11, 1990. <u>9</u>
F-42	do	do	1951	550	16	do	2,634			T,Ng, 250	Irr	Cased to bottom. Slotted from 100 ft. to bottom. Gravel- walled.
F-43	C. J. Anderson	C. & H. Drilling Co.		450	16	đo	2,651	104.7	Nov. 3, 1958	T,Ng, 105	Irr	Cased to bottom. Pump set at 300 ft.
*F-44	do	do	1953	643	16	do	2,651	149.2	do	T,Ng, 135	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 280 ft.
F-45	Jesse W. Bush		1951	628	18, 14	đo	2,651	152.4	Nov. 4, 1958	T,Ng	Irr	Casing: 18-in. to 300 ft., 14-in. to bottom. Pump set at 300 ft.
F-46	do .	Wilson Explora- tion Co.	1957	4,531			2,639			N	N	Oil test. 1/
F-47	Regan & Northrup	McElroy Ranch Co.	1958	4,206			2,650			N	N	do
*F-48	J. M. Hickey	Exploration Oil Co.	1937	2,900				124	Sept. 1940	N	N	Drilled as oil test, completed as water well.
G-1	Grisham-Hunter	MacCurdy, Knox & Cobb	1958	2,820			3,167			N	N	Oil test. 1/
G-2	State of Texas	Toyah Oil Corp.	1957	2,274			3,125			N	N	do
*G-3	Shelby Brooks				6	Alluvium(?)	3,120	26.0	Aug. 3, 1959	C,W	S	Colson Mill well.

See footnotes at end of table.

Table 6 .- Records of wells and springs in Reeves County -- Continued

							1.0.730	Water	level			President Automatical Contraction
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
G-4	Buck Miller				5	Alluvium	3,113	39.6	Aug. 3, 1959	C,W	S	and the second property and the second
G-5	do	and an			5	đo	3,084	30.0	do	C,W	S	
G-6	State of Texas	Hunt Oil Co.	1948	3,703			3,035			N	N	Oil test. 1/
G-7	do	The Ibex Oil Co.	1955	3,541			3,137			N	N	do
*G-8	J. A. Burchard, et al.			200?	6	Alluvlum(?)	3,054	146.5	Aug. 4, 1959	C,W	S	the set of second set and the second
G-9	đo				6	Alluvium & Cretaceous	3,045	115.4	July 28, 1959	C,W	S	The second second second
			1800	1. 1973		(?) rocks	1200	1.259.3	10	- 200		1/
G-10	T. B. Fite	Hunt Oil Co.	1948	3,330			3,003			N	N	Oil test. ±/
*G-11	J. A. Burchard, et al.			75		Alluvium(?)	2,967	63.7	July 31, 1959	C,W	S	Johnson Mill well. Old well. 3/
G-12	Continental Oil Co.									N	N	Oil test.
G-13	do		1959	110		Cretaceous (?) rocks		20	July 1959	C,E	Ind	ART TT TOT A
*G-14	Grover C. Smith			Spring		đo				N	N	Formerly flowed. Dry when visited Sept. 3, 1959. Johnson Spring.
*G-15	State of Texas	terr speak		Spring		đo				N	N	Formerly flowed. Almost dry when visited Sept. 3, 1959. Twin Spring.
*G-16	Tri-State Credit Mens Association			Spring		đo				N	N	Formerly flowed. Dry when visited Sept. 3, 1959. Canyon Spring.
*0.17	W W Rogenfeld			Spring		do				N	N	Flow estimated 25 gpm in 1947,
*G-11	w. n. Kosenielu	sin ermon i s		oprine					and and again			reported no flow in 1959. Burnt Spring.
G-18	A. B. Tinnin			260	6	Cretaceous rocks	(1977)	83.5	July 23, 1959	C,W	S	Pump set at 140 ft. in 1959. New Mill well.
G-19	do	CATTER		250		do				C,W	S	Pump set at 80 ft. in 1959. Garden Mill well.
G-20	do				6			22.8	July 23, 1959	C,W	S	

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*G-21	A. B. Tinnin							22.8	July 23, 1959	c,w	S	
G-22	Guy C. Caldwell	W. B. Yarborough	1959	3,690			3,175			N	N	Oil test. 1/
*0-23	B. R. Parker			Spring		Cretaceous (?) rocks				N	N	Flow estimated 2 gpm in 1947. Not flowing when visited Sept. 3, 1959. Torez Spring.
*G-24	do			Spring		đo		(+)	e: 10	Flows	S	Flow estimated 35 gpm in 1947. Flow estimated 25 gpm Sept. 3, 1959. Petican Spring.
*G-25	Gulf Oil Corp.	Gulf Oil Corp.	1959	56		Alluvium & Cretaceous (?) rocks		7.5	Sept. 16, 1959	T,G	Ind	Sand reported from 6 to 26 ft. Drawdown reported 0.3 ft. after pumping several hours at 53 gpm. Pump set at 15 ft. in 1959.
G-26	do	do	1959							N	N	Oil test.
G-27										N	N	ào
G-28	Warren Wright	Continental Oil Co.	1951	13,007			2,982			N	N	Oil test. 1/
*G-29	do						2,955	30.4	Aug. 13, 1959	c,w	S	
*G 30	J. Van Gieson						2,968	20.8	do	c,w	S	
*G-31					6		2,975	20.0	đo	N	N	Abandoned.
G-32	Grisham & Hunter	Standard Oil Co. of Texas				Cretaceous rocks						đo
H-1	Frank Huntress, et al.	Warren-Bradshaw Exploration Co.	1955	3,916			2,966			N	N	Oil test. 1/
H-2	State of Texas	F. R. Jackson	1958	4,023			2,891			N	N	đo
Н-3	Earl Evans	E. Pearce	1953	965	1.6	Alluvium	2,783	211.0	Nov. 21, 1958	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 370 ft. in 1958. Dis- charge measured 790 gpm on July 23, 1959.
H-4	James L. Sears	Lowery Walker	1958	1,019	16	do	2,784	230.1	do	T,Ng	Irr	Cased to bottom. Perforated from 356 ft. to bottom. Pump set at 360 ft. 2/

See footnotes at end of table.

								Water	level	1.5%	-32	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
H-5	James L. Sears	C. Pearce		865	16, 10	Alluvium	2,784	228.6	Nov. 21, 1958	N	N	Casing: 16-in. to 300 ft., 10-in. to bottom. Perforated from 200 ft. to bottom.
н-б	do	Lowery Walker	1958	1,053	16	đo	2,783		-	T,Ng	Irr	Cased to bottom. Perforated from 344 ft. to bqttom. Pump set at 360 ft. 2/
*H-7	Hubert Nunn	Earl Fisher	1958	1,315	16	đo	2,786	244.0 251.6	Nov. 25, 1958 Jan. 7, 1960	T,Ng	Irr	Cased to 1,005 ft. Perforated from 457 ft. to 1,005 ft. Test hole to 1,315 ft. Discharge measured 1,275 gpm on July 23, 1959 and 880 in Aug. 1959. Aquifer test. <u>1</u> / <u>2</u> /
H-8	F. A. Fishburn, et al.	L. C. Wahlenmaier	1953	4,065			2,782			N	N	Oil test. 1/
H-9	G. Montgomery			950	16	Alluvium	2,786	255.4	Jan. 7, 1960	T,Ng	Irr	Cased to bottom. Pump set at 380 ft. in 1958. <u>3</u> /
H-10	do	Phillips Petro- leum Co.	1953	4,083			2,771		-	N	N	Oil test. 1/
H-11	do	G. Montgomery		800	16, 12	Alluvium	2,776		-	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Pump set at 370 ft. in 1958.
*H-12	do	do		8007	16, 12	đo	2,774			T,Ng	Irr	Cased to bottom. Pump set at 390 ft. in 1958. Originally 300 ft. deep. Sampled before deepening.
H-13	do	Montgomery & Tone	·	860	16, 12	đo	2,787	274.0	Nov. 21, 1958	T,Ng	Irr	Cased to bottom. Pump set at 410 ft.
H-14	Tom Bell	Stafford	1948	660	14, 12	do	2,801	261.1	đo	T,Ng	Irr	Cased to 378 ft. Perforated from 125 to 378 ft. Pump set at 360 ft.
H-15	do	do	1948	480	16, 14	đo	2,801	263.4 255.2	Nov. 28, 1958 Feb. 10, 1959	T,Ng	Ind	Casing: 16-in. to 330 ft., 14-in. to bottom. Slotted from 125 ft. to bottom.
*H-16	Tom Bell	Stafford	1948	780	16	Alluvium	2,802	264.2	Feb. 10, 1959	T,Ng	Irr	Cased to 330 ft. Perforated from 125 to 330 ft. Pump set at 320 ft. <u>3</u> /
									1			

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		Water level										
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Uae of water	Remarks
H-17	Tom Bell	Stafford	1948	380	16	Alluvium	2,303	245.8 243.3	Nov. 21, 1958 Feb. 10, 1959	T,Ng	Irr	Cased to 330 ft. Perforated from 125 to 330 ft. Pump set at 310 ft.
H-18	do	do	1948	400	16	do	2,803		,	N	N	
H-19	State of Texas	Gulf Oil Corp. & Phillips Petroleum Co.	1955	12,826			2,831			N	N	Oil test. 1/
*H-20	J. A. Burchard, et al.			603	6	Alluvium(?)	2,922	41.2	Aug. 4, 1959	c,w	S	Headquarters well.
*H-21	W. A. Halamiecik, Jr., et al.				7	Alluvium	2,861	38.9	Aug. 5, 1959	c,w	S	Buggs Mill well.
H- 22	do			1,200	12	Cretaceous (?) rocks		42.9	Jan. 7, 1960	T,Ng	Irr	Cased to bottom. 3/
H-23	do			5003	12	Alluvium	2,883	204.3	May 18, 1959	N	N	Cased to bottom.
H-24	T. T. Downs	Gulf Oil Corp.	1955	2,600			2,823			N	N	Oil test. 1/
*H-25	W. A. Halamiecik, Jr., et al.				7	Alluvium(?)	2,819	209.6 209.3 211.2	May 18, 1959 July 29, 1959 Jan. 7, 1960	c,w	S	<u>3</u> /
H-26	G. Montgomery	Huckabee & Wright		1,010	16	Alluvium	2,801	283.3	Nov. 25, 1958	T,Ng	Irr	Cased to bottom. Slotted from 350 ft. to bottom.
H-27	C. J. Whigham	Lowery Walker	1956	955	16, 12	do	2,795	270.8	do	T,Ng	Irr	Casing: 16-in. to 450 ft., 12-in. to bottom. Slotted from 262 ft. to bottom. 2/
H-28	Annie Slack, et al.	Gulf Oil Corp. & Phillips Petroleum Co.	1955	12,925			2,798			N	N	Oil test. 1/
H-29	Ben R. Barbee		1951	505	16	Alluvium	2,800	309.4	Nov. 25, 1958	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 350 ft. in 1957.
H-30	đo		1951	520	16	do	2,796	307.8	do	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 400 ft. in 1957.
H-31	L. G. Lemons		1950	510	16	do	2,786	285.3	do	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
н- 35	Grisham & Hawkins	Lowery Walker		1,175	16, 12	Alluvium(?) and Creta- ceous(?) rocks	2,784		-	T,Ng	Irr	Casing: 16-in. to 510 ft., 12-in. to bottom. Perforated from 100 ft. to bottom. 2/
H-33	E. M. Turner			357	12	Alluvium	2,776	253.8	Nov. 26, 1958	N	N	Cased to bottom. Perforated from 250 ft. to bottom.
H-34	B. V. Shaw	Lowery Walker	1956	1,215	16, 12	Alluvium & Cretaceous (?) rocks	2,771	314.5	Dec. 1, 1958	T,Ng	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Perforated from 380 ft. to bottom. 2
H-35	đo	do	1955	1,253	16	Alluvium & Cretaceous rocks	2,780	308.9	do	T,Ng	Irr	Cased to bottom. Perforated from 386 ft. to bottom. 1/2/
н-36	Glenn Estes			900	16, 12	Alluvium	2,780	274.8 305.1 316.6	Feb. 5, 1958 Dec. 1, 1958 Jan. 8, 1960	T,Ng	Irr	Casing: 16-in. to 700 ft., 12-in. to bottom. Pump set at 480 ft. Discharge measured
												680 gpm on July 21, 1959.
н-37	B. V. & H. W. Shaw	Earl Fisher	1956	1,014	16, 12	Alluvium & Cretaceous (?) rocks	2,790	299.6	Nov. 25, 1958	T,Ng	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Perforated from 274 ft. to bottom. 2/
H-38	J. L. Harper	Lowery Walker	1957	1,096	16, 12	đo	2,789	306.7 309.8	Nov. 25, 1958 Feb. 11, 1959	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 250 ft. to bottom. Dis- charge measured 960 gpm on July 23, 1959.
*H- 39	đo	đo	1957	1,205	16, 12	đo	2,786	298.2 310.1	Nov. 25, 1958 Jan. 7, 1960	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. from 600 to 1,130 ft. Perforated from 300 to 1,130 ft. Pump set at 380 ft. Dis- charge measured 975 gpm on July 23, 1959. <u>1</u> / <u>2</u> /
H-40	J. F. Keasler	Standard Oil Co. of Texas	1944	8,905			2,828			N	N	011 test. 1/
*H-41	Warren Wright							54.78	Jan. 25, 1955	C,W	S	3/
H-42					8		2,926	42.7	Aug. 13, 1959	N	N .	Abandoned.
H-43	Bamsey	Arthur & Grissom	1954	3,974		1 2	2,932		and the second second	N	N	011 test. <u>1</u> /
*H-44	Cary W. Hosie		1954				2,932			C,W	Irr	Supplies water for cemetery and lawn. Con Tucker well.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
H-45	N. H. Weiss		1952		8	Alluvium(?)	2,910	22.3	Aug. 13, 1959	C,W	S	J. Smith well.
*н-46	Holcombe & McNeil			120	6	Alluvium	2,894	23.7	July 28, 1959	c,w	S	3/
*H-47	R. Von Trotha				6		2,873	19.8	July 27, 1959	c,w ·	N	Abandoned.
*H-48	W. H. Groves Estate	May & Bitten Oil Co.		4,133			2,827		a). ++	N	N	0il test. Sampled in 1930 and 1932 before drilling completed. Water from Rustler formation when well was 1,440 ft. deep. 2/
H-49	W. L. Todd Estate	Gulf Oil Corp.	1959	13,160			2,795			N	Ν	Oil test. 1/
H-50	Ord Gary	Earl Fisher	1956	1,2001	18, 14	Alluvium & Cretaceous (?) rocks	2,780	284.6	Dec. 1, 1958	T,Ng	Irr	Casing: 18-in. to 400 ft., 14-in. to bottom. Pump set at 460 ft. Discharge measured 490 gpm on July 21, 1959.
H-51	do	do	1958	1,205	16	đo	2,776	141.7 296.0	Oct. 12, 1948 Dec. 1, 1958	T,Ng	Irr	Cased to bottom. Perforated from 499 ft. to bottom. Dis- charge measured 735 gpm on July 21, 1959. 2/
H-52	do	do		1,130	16, 14	do	2,776	247.0	Dec. 1, 1958	T,Ng	Irr	Casing: 16-in. to 300 ft., 14-in. to bottom. Pump set at 500 ft.
H - 53	do	Cass & Fisher	1955	1,236	18, 14	do	2,770			T,Ng	Irr	Casing: 18-in. to 418 ft., 14-in. to 1,232 ft. Perforated from 100 ft. to 1,232 ft. 2/
H- 5 ¹ 4	Ord Gary	Earl Fisher	1958	1,220	16	Alluvium & Cretaceous (?) rocks	2,777	277.7 289.3	Dec. 1, 1958 Jan. 8, 1960	T,Ng	Irr	Cased to bottom. Perforated from 500 ft. to bottom.
H-55	W. A. Halamiecik, Jr., et al.							187.2	Jan. 11, 1955			3/
H-56	Glen Estes							316.6	Jan. 8, 1960			3/
*H-57	B. R. Barbee			156								Abandoned.
J-1	T. A. Kirk	Continental Oil Co.	1958	4,300			2,674					Oil test. 1/
J-2	0. 0. Suddath	Earl Fisher	1953	700	16	Alluvium	2,677	140.7	Nov. 6, 1958	T,Ng	Irr	Pump set at 260 ft. in 1958.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-3	Cecil Cothrun	Pearce	1951	600	16, 12	Alluvium	2,673	139.0 137.9	Nov. 6, 1958 Feb. 9, 1959	T,Ng 140	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Slotted from 125 ft. to bottom.
*J-4	do	do	1951	600	16, 12	đo	2,663	23	-	T,Ng, 106	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Slotted from 105 ft. to bottom. Discharge measured 470 gpm on July 22, 1959.
J-5	John W. Fernandes	R. Pearce	1952	600	16, 12	do	2,670	145.8	Nov. 6, 1958	T,Ng, 150	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Pump set at 300 ft. in 1958.
J-6	đo	đo	1952	600	16, 12	do	2,665	149.1	đo	T,Ng, 150	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Slotted from 200 ft. to bottom. Pump set at 400 ft. in 1958. Reported irri- gated 110 acres of cotton with 2 wells.
J-7	D. C. Suddath	Dean & Dingler	1953	593	16	do	2,660	165.0	Nov. 4, 1958	T,Ng, 180	Irr	Discharge measured 707 gpm on July 7, 1959. Pump set at 330 ft. in 1958.
J-8	J. R. Fanning	Lowery Walker		604	16	do	2,660	193.0	do	T,Ng	Irr	Pump set at 360 ft. in 1958.
J-9	do	đo		600	16	do	2,655	160.1	do	T,Ng		Pump set at 320 ft. in 1958.
J-10	Biggs Estate	Fernandes Bros.	1952	700	16	do	2,654	123.5 115.9	Nov. 4, 1958 Feb. 9, 1959	-	N	
J-11	do	R. Pearce	1952	700	16	đo	2,650	160.4	Nov. 4, 1958	T,Ng, 150	Irr	Discharge measured 780 gpm on July 1, 1959. Pump set at 350 ft. in 1958.
J-12	T. L. Brooks		1953	500	18	do	2,658		100	N	N	Abandoned.
J-13	C. J. Anderson	Pearce Drilling Co.	1955	950	14	do	2,644	128.2	Nov. 3, 1958	T,Ng, 165	Irr	Cased to bottom. Slotted from 300 ft. to bottom. Pump set at 320 ft. in 1958. 1/
J-14	Charlie Fitzgerald	Earl Fisher	1952	650	16, 14	do	2,625	132.1	đo	T,G 140	Irr	Cased to bottom. Slotted from 100 ft. to bottom. Pump set at 220 ft. in 1958. Discharge measured 380 gpm on Aug. 21, 1959.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*J-15	Paul Armstrong	T. Simmons	1946	135	10	Alluvium	2,600	16.9	Nov. 4, 1946	N	N	Abandoned. <u>2</u> /
* J- 16	E. C. Schwalbe	L. F. Buchanan	1928	96	6	do	2,580	11.6 22.8	May 14, 1941 July 10, 1959	c,w	D,S	
*J-17	do	do	1940	76	8	do	2,608	21.3	Nov. 5, 1947	N	N	Abandoned. 2/
*J18	Arthur Schmid	Tom Simmons	1938	308	6	do		4.1	Feb. 8, 1949	т,Е, 5	S	Pump set at 60 ft. Supplies water for irrigating lawn. 3/
*J-19	do		1902	89	5	do		9.8	May 14, 1941	N	N	Caved and abandoned.
J-20	Hartford-American	Hill & Hill	1953	4,543			2,642					011 test. 1/
J-21	T. S. Flock	Frazier-Hendon	1959	4,482			2,642					do
J-22	O. H. Beauchamp	Ted Lindemann	1948	580	16, 12	Alluvium	2,662			T,Ng, 160	Irr	Casing: 16-in. to 260 ft., 12-in. to bottom. Pump set at 260 ft. in 1958. Deepened from 260 ft to 580 ft in 1954
*J-23	đo	T. Simmons	1948	590	16, 12	do	2,662	89.2	Nov. 10, 1958	T,Ng, 140	Irr	Casing: 16-in. to 270 ft., 12-in. to bottom. Deepened from 270 ft. to 590 ft. in 1958 Pump set at 240 ft. in 1958. 3/
*J-24	T. J. Wilson		1949	484	18, 16	do	2,662	171.0 162.7	do Jan. 6, 1960	T,Ng, 180	Irr	Casing: 18-in. to 300 ft., 16-in. to bottom. Perforated from 250 ft. to bottom. 3/
* J- 25	W. B. Waters		1947	615	16	do	2,670	179.9	Nov. 11, 1958	T,Ng	Irr	Cased to bottom. Pump set at 320 ft. in 1958.
J-26	. do		1947	615	16	do	2,672	194.7	do	T,Ng	Irr	Cased to bottom. Pump set at 350 ft. in 1958.
J-27	C. M. Eddins		1912	500	12, 5	do	2,676	66.7 135.0 154.5	Feb. 8, 1949 Feb. 9, 1959 Jan. 6, 1960	N	N	Abandoned. 3/
J-28	Chamblee-Tudor Estate	Lawless Drilling Co.	1953	4,060			2,753			N	N	Oil test. 1/
J-29	S. T. Baucom	Greathouse					2,714			N	N	do
	CARDON .	0011164 		041.ep						Jane 200		

			1	-				Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-30	Marcus Dingler	Earl Fisher	1957	615	16	Alluvium	2,705	227.6 231.1	Nov. 11, 1958 Jan. 6, 1960	T,Ng, 180	Irr	Cased to bottom. Slotted from 300 ft. to bottom. Discharge measured 920 gpm on July 22, 1959. Pump set at 330 ft. in 1958. 2/
J-31	J. W. Waldie	do	1951	804	16, 12	do	2,693			T,Ng	102	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated
			200			40	316123	123	and a const	2728		from 300 ft. to bottom. Dis- charge measured 745 gpm on July 22, 1959.
J-32	đo	do	1956	605	16, 12	do	2,691			T,Ng	Irr	Casing: 16-in. to 490 ft., 12-in. to bottom. Perforated from 245 ft. to bottom. Pump set at 320 ft. in 1956. Dis- charge measured 430 gpm on July 2, 1950. 27
1.000		CT. Statesta (S.)	1.1.1.1	1.005	1.00		2.6.2.1	70'9	days to sold	1. 3 A. S.	1.1.1	July 22, 1939. 5
J-33	do	do	1949	670	16, 14	do	2,692			T,Ng		Casing: 16-in. to 440 ft., 14-in. to bottom. Perforated from 110 ft. to bottom. Dis- charge measured 620 gpm on
2-35		Lange Andrewson	2.326	1.05								July 22, 1999.
J-34	E. M. Brown	Sid Richardson	1938	4,640			2,680					Oil test.
J-35	Russell Smith	Pearce Bros.	1949	623	16, 10	Alluvium	2,689	244.1	Nov. 11, 1958	T,Ng	Irr	Casing: 16-in. to 285 ft., 10-in. to bottom. Perforated from 270 ft. to bottom. Pump set at 450 ft. in 1958. 2/
* J -36	Jack Williams	Ted Lindemann	1949	300	15	do	2,682			T,Ng	Irr	Cased to bottom. Perforated from 120 ft. to bottom. Pump set at 160 ft. in 1949. 2/
*J-37	do	Lang Buchanan	1940	170	15, 12	đo	2,684	71.7 195.9	Jan. 28, 1947 Feb. 9, 1959	N	N	Abandoned. Cased to bottom. Perforated from 70 ft. to bot- tom. 3/
*J 38	do	Ted Lindemann	1943	625	16, 12	do	2,683	203.8 206.6	Feb. 9, 1959 Jan. 6, 1960	T,Ng	Irr	Pump set at 290 ft. in 1952. 3/
*J-39	do	Earl Fisher	1947	632	18	do	2,669	209.5 209.9	Nov. 11, 1958 Jan. 6, 1960	т,Е, 150	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 250 ft. in 1952. 2/
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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-40	Jack Williams	Tom Simmons	1948	308	16	Alluvium	2,668	179.2	Nov. 11, 1958	Τ,-	Irr	Cased to bottom. Perforated from 90 ft. to bottom. Pump set at 140 ft. in 1949.
*J-41	H. P. Bryan			400	16	do	2,659	177.2	Nov. 12, 1958	T,Ng	Irr	Cased to bottom. Discharge measured 785 gpm on July 22, 1959. 3/
J-42	Mrs. H. C. Bryan	Lang Buchanan	1945	170		do	2,644	181.0 171.7	do Jan. 7, 1960	T,Ng	Irr	2/ 3/
J-43	H. H. Bryan	do	1945	512	16	do	2,647	44.5	Nov 6, 1946	T,Ng	Irr	Cased to bottom. Pump set at 220 ft. $\underline{2}/$
J-44	Paul Armstrong	C. Pearce	1956	500	16	do '	2,636	198.2	Nov. 12, 1958	T,Ng, 145	Irr	Cased to bottom. Perforated from 120 ft. to bottom. Pump set at 400 ft. in 1958.
J-45	do		1948	500	16, 12	do	2,638	169.8	do	T,Ng, 80	Irr	Casing: 16-in. to 280 ft., 12-in. to bottom. Pump set at 400 ft. in 1958.
J-46	H. H. Bryan			480	16	đo	2,645	193.4	do	T,Ng	Irr	Cased to bottom. Pump set at 220 ft. in 1958. Caved to 320 ft.
J-47	Leo Schneider	Earl Fisher	1953	400	16	do	2,657	208.6	do	τ , Ε, 75	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 260 ft. in 1958.
J-48	do	Pearce	1954	600	16	đo	2,660	206.3	do	T,E, 125	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 350 ft. in 1958. Dis- charge measured 575 gpm on July 22, 1959.
*J-49	do	do	1950	400	16, 14, 12	do	2,658	196.2	do	T,E	S	Casing: 16-in. to 200 ft., 14 and 12-in. to bottom. Per- forated from 90 ft. to bottom. 3/
J-50	B. S. Estes					do	2,664	236.3	Dec. 3, 1958	T,Ng	Irr	
J-51	do					do	2,673	233.9	do	T,Ng	Irr	
J-52	do	20170				do	2,672	237.7	do	T,Ng	Irr	100000
J-53	S. M. Twilley	C. Huckabee	1953	600	16	do	2,671	240.1	Nov. 13, 1958	T,Ng, 180	Irr	Discharge measured 835 gpm on July 22, 1959.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-54	Ray Hendricks	E. Pearce		500	16	Alluvium	2,673	257.9	Nov. 13, 1958	T,Ng	Irr	Cased to bottom. Pump set at 490 ft. in 1958.
J- 55	do		1949	600	16, 10	đo	2,677	244.0	đo	T,Ng	Irr	Casing: 16-in. to 500 ft., 10-in. to bottom. Pump set at 460 ft. in 1958.
J- 56	Russell Smith	Pearce Bros.	1953	787	16, 14	do	2,686	229.3	Nov. 11, 1958	T,Ng	Irr	Casing: 16-in. to 645 ft., 14-in. to bottom. Pump set at 450 ft. in 1958.
J- 57	J. W. Lumpkin	ALL STREET	1949	560	16, 10	do	2,684			N	N	Abandoned.
*J-58	do	Lowery Walker	1955	645	16,	do	2,691			T,Ng	Irr	Casing: 16-in. to 550 ft.,
2000	Se de Comence					-10	1197 	0919 	10	1228-14 1228-14	THE	from 250 ft. to bottom. Pump set at 480 ft. in 1958. Drilled to 570 ft. in 1949, deepened to 645 ft. in 1955. 2/
J-59	đo	R. Pearce	1953	575	16	do	2,689	249.6	Nov. 13, 1958	T,Ng	Irr	Cased to bottom. Slotted from 200 ft. to bottom. Pump set at 480 ft. in 1958.
J-60	Doyle Jayroe	C Sector		600	16, 12	do	2,690	239.1	do	N 	N	Cased to bottom. Perforated from 100 ft. to bottom.
J-61	do		1954	600	16	đo	2,689	263.1	do	T,G	Irr	Cased to bottom. Pump set at 400 ft. in 1958.
J-62	Coy Nichols	R. Pearce	1954	750	16	do	2,705	271.4	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 470 ft. in 1958.
J-63	đo	do	1953	580	16	do	2,707	274.9	Nov. 14, 1958	T,Ng	Irr	Cased to bottom. Pump set at 500 ft. in 1958.
J-64	do	do	1952	580	16, 14	do	2,708	253.4	do	T,Ng	Irr	Casing: 16-in. to 460 ft., 14-in. to bottom. Slotted from 175 ft. to bottom.
J-65	P. McKinney	J. W. Stover	1952	650	16	do	2,716	270.4	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 350 ft. in 1953.
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See footnotes at end of table.

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			Γ					Water	level			
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J66	P. McKinney	J. W. Stover	1950	679	16	Alluvium	2,720	157.1	Nov. 14, 1958	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 380 ft. in 1953.
J-67	do	do	1952	585	18	do	2,728	249.1 269.2	Feb. 10, 1959 Jan. 7, 1960	T,Ng	Irr	Casing perforated from 200 ft. to bottom. Pump set at 350 ft. in 1953. 3/
J-68	đo	do	1952	650	16	do	2,730	271.8	Nov. 14, 1958	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 380 ft. in 1953. Dis- charge measured 490 gpm on July 22, 1959.
J-69	T. R. Chenoweth			700	16	do	2,722	256.2	do	T,Ng	Irr	Cased to bottom. Pump set at 420 ft. in 1958. Discharge measured 790 gpm on July 22, 1959.
*J-70	do			410	16, 12	do	2,722	183.9	do	N	N	Casing: 16-in. to 260 ft., 12-in. to bottom. Perforated from 130 ft. to bottom.
J-71	E. D. Godbey, Jr.	Dean & Dingler	1953	617	16	do	2,733	260.8	Nov. 17, 1958	T,Ng, 180	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 330 ft. in 1958.
J-72	đo	do	1949	360	16, 12	do	2,732	109.4 174.3 179.3	Apr. 30, 1947 Feb. 10, 1959 Jan. 7, 1960	T,Ng	Irr	Cased to bottom. Pump set at 360 ft. in 1958. Drilled to 285 ft., deepened to 360 ft. $2/3/$
J-73	A. C. Hudspeth		1958			do	2,732	266.9	Nov. 17, 1958	T,Ng	Irr	
J-74	do	Tom Simmons	1948	570	16, 10	do	2,732	272.0	Nov. 14, 1958	т,Ng, 660	Irr	Casing: 16-in. to 400 ft., 10-in. to bottom. Pump set at 470 ft. in 1958.
J- 75	John Gallagher	Lowery Walker	1951	700	16, 14	do	2,745			т,-	Irr	Casing: 16-in. to 280 ft., 14-in. to bottom. Pump set at 350 ft. in 1958.
J- 76	do	do	1951	505	16	do	2,749	287.8	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Pump set at 340 ft. in 1958. Discharge measured 464 gpm on July 23, 1959.

able	6	Records	of	wells	and	springs	in	Reeves	CountyContinued
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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-77	John Gallagher	E. Pearce	1953	960	16, 14, 12	Alluvium	2,749	284.5	Nov. 26, 1958	T,Ng	Irr	Casing: 16-in. to 400 ft., 14 and 12-in. to bottom. Pump set at 390 ft. in 1958. Dis- charge measured 615 gpm on July 23, 1959.
J-78	Zena Trimble	Lawless Drilling Co.	1955	5,133						N	N	011 test. <u>1</u> /
J-79	R. E. Duggan	Earl Fisher		550	16	Alluvium	2,764	281.1	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Pump set at 400 ft. in 1958. 3
J-80	do			700	18	do	2,756	276.8 264.2	do Feb. 10, 1959	T,Ng		Cased to bottom. Pump set at 400 ft. in 1958.
J-81	Roy Blahosky	Lowery Walker	1950	550	16	do	2,754	2019		T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1958.
J-82	do	Earl Fisher	1952	550	18	đo	2,764	291.2	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Slotted from 150 ft. to bottom. Pump set at 380 ft. in 1958. Discharge measured 770 gpm on July 23, 1959.
*J-83	Texas Cotton In- dustries	Lowery Walker	1959	1,015	16	đo	2,729			T,Ng	Irr	Casing: 16-in. to 945 ft. Perforated from 269 to 945 ft. <u>1/ 2/</u>
J-84	J. L. Harper			350	16	do	2,731	197.3	Dec. 3, 1958	N	N	Abandoned.
J-85	Texas Cotton In- dustries	Lowery Walker	1957	1,120	16	do	2,732	268.8	Nov. 26, 1958	N	N	Water reported salty. Abandoned.
J-86	do	do	1953	720	16	do	2,732	287.6	do	T,Ng	Irr	Pump set at 540 ft. in 1958.
J-87	đo	do	1956	1,000	16, 12	do	2,720	286.1	do	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 540 ft. in 1958. 2/
J-88	do	do	1958	1,273	16	Alluvium & Cretaceous (?) rocks	2,719		-	T,Ng	Irr	Cased to 1,256 ft. Perforated from 300 ft. to 1,256 ft. Pump set at 540 ft. in 1958. $\frac{1}{2}$
J-89	W. H. Weaver	T. Lindemann	1949	347	16	Alluvium	2,716	135.4 131.6 287.4 283.6	Jan. 14, 1950 Feb. 27, 1950 Nov. 17, 1958 Jan. 7, 1960	N	N	Abandoned.

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See footnotes at end of table.

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								Water	level			,
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J- 90	Coy Nichols	Earl Fisher	1958	885	16	Alluvium	2,709	265.5 258.3	Nov. 17, 1958 Jan. 7, 1960	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 500 ft. Discharge measured 700 gpm on July 22, 1959.
*J-91	do			500	16	do	2,709	268.4	May 18, 1954	N	N	Abandoned.
J-92	Allan Bacon	Doc Coleman	1947	520	16, 12	do	2,704	299.7	Nov. 17, 1958	N	N	
J-93.	do	C. C. & H. Drilling Co.	1957	747	18 do 16 do		2,702	290.2	đo	T,Ng	Irr	Cased to bottom. Perforated from 407 ft. to bottom. Pump set at 440 ft. in 1958. 2/
J-94	Ernest Epley	Lowery & Fisher	1958	1,045	16	do	2,695	270.9	do	T,Ng		Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 480 ft. in 1958. Dis- charge measured 510 gpm on July 22, 1959. 2/
J-95	Harold Grant		1959	600	16	do				T,Ng	Irr	Discharge measured 855 gpm on July 22, 1959.
*J-96	C. Sargent			600	16, 8	do	2,696			T,Ng	Irr	Casing: 16-in. to 530 ft., 8-in. to bottom. Pump set at 450 ft. in 1958.
J-97	do			500	16, 8	do	2,695	93.1 254.3	Feb. 17, 1949 Feb. 10, 1959	T,Ng	Irr	Casing: 16-in. to 450 ft., 8-in. to bottom. Pump set at 430 ft. in 1958. 3
J-98	Clyde Goodpasture		1950	600	16	do	2,694	272.8	Nov. 17, 1958	T,Ng	Irr	Cased to bottom. Pump set at 420 ft. in 1958.
J-99	do		1950	580	16	do	2,687			T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1958.
J-100	Harold Grant					đo	2,689	181.8	Nov. 17, 1958	T,E, 150	Irr	Discharge measured 510 gpm on July 22, 1959.
J-101	Bill Mattox	Schooler	1951	960	16, 14, 8	đo	2,678	258.9	đo	T,Ng	Irr	Casing: 16-in. to 300 ft., 14-in. to 570 ft., 8-in. to bottom. Pump set at 220 ft. in 1951.

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-102	Bill Mattox	Lowery Walker	1954	508	16, 12	Alluvium	2,677	00		T,Ng	Irr	Casing: 16-in. to 268 ft., 12-in. to bottom. Perforated from 228 ft. to bottom. Pump set at 250 ft. in 1954.
J-103	Joe S. Bradley	Earl Fisher	1950	450	16	do	2,680	257.4	Nov. 17, 1958	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 270 ft. in 1958. Dis- charge measured 500 gpm on July 22, 1959.
J-104	do			530	16	đo	2,681	201.3	do	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 400 ft. in 1958. Dis-
1	A. Barpers				28	80	5,696			2.14	1222	charge measured 470 gpm on July 22, 1959.
J-105	Bill Mattox		1953	445	18	do	2,673	251.3	do	T,E, 150	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 250 ft. in 1953.
J-106	đo	Earl Fisher	1956	867	16	đo	2,670	238.9	do	T,E	Irr	Cased to 867 ft. Pump set at 430 ft. in 1958. Test hole to 1.520 ft. in 1958. 1/2/
				100			0 659	015 7	Nov. 18, 1058	III No	T	Continge 16-in to 585 ft
3-107	R. H. Brown	Lowery Walker	1951	005	10,	do	2,000	212.1	NOV. 10, 1990	1,118	111	l2-in. to bottom, Perforated from 485 ft. to bottom. Pump set at 370 ft. in 1958.
J-108	do do	C. C. & H. Drilling Co.	1947	575	16, 12, 10, 8	đo	2,657	57.0	Apr. 11, 1947	N	N	Drilled to 228 ft., deepened to 575 ft. 2/
J-109	đo		1956	585	16	đo	2,657	212.9	Nov. 18, 1958	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 360 ft. in 1958.
*J-110	do	C. C. & H. Drilling Co.	1947	215	20, 12	do	2,663	201.8 212.8	Feb. 5, 1958 Feb. 9, 1959	N	N	2/
J-111	Jack Wendt				16	do	2,654	157.9	Dec. 3, 1958	T,Ng	Irr	3/
*J-112	R. J. Yarbrough	p0%4	1909	217	9	do	2,654	39.0 84.0	Jan. 28, 1947 Nov. 18, 1958	N	N	Abandoned. 3/

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-113	R. J. Yarbrough		1953	552	16	Alluvium	2,651	206.5	Nov. 18, 1958	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 400 ft. in 1958.
J-114	do	T. Lindemann	1949	550	16 do 2,645 T,Ng Irr Cas fro set		Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 430 ft. in 1958.					
J-115	C. K. Hutchins	Earl Fisher	1956	550	16	đo	2,648	196.0	Nov. 18, 1958	T,Ng	Irr	Cased to 545 ft. Perforated from 300 ft. to 545 ft. Pump set at 340 ft. in 1958. $2/$
*J-116	do	Pearce & Baker	1943	700		do	2,646	2,646 37.0 Nov. 6, 1946 N N Deepend ft. in Salty.		Deepened from 217 ft. to 700 ft. in 1955. Water reported salty. Abandoned. 2/		
J-117	G. G. Wilm	Tom Simmons	1940	217	8	do	2,636	9.4	Dec. 5, 1958	N	N	and the second second second
*J-118	Howard Arnold	S. Stafford	1950	560	16, 12	do	2,635	194.0	Nov. 19, 1958	T,Ng	Irr	Casing: 16-in. to 205 ft., 12-in. to bottom. Reported not used in 1958.
*J-119	do	Lang Buchanan	1949	330	16	đo	2,637	29.7 17.1	Jan. 28, 1947 Nov. 19, 1958		N	Casing: 16-in. to 120 ft., 12-in. to bottom. Deepened in 1949 from 180 ft. to 330 ft. Abandoned. <u>2/</u> <u>3</u> /
*J-120	Ronald Roberson		1915	135	4		2,595	5.9	Apr. 29, 1947		N	Abandoned.
*J-121	W. H. Boyd	T. Simmons	1945	210	8, 7	Alluvium	2,580	7.5	Apr. 26, 1947		N	Abandoned. <u>3</u> /
*J-122	M. E. Clark	S. B. Honeycutt	1925	165	6	do	2,594	3.4	Feb. 28, 1942	N	N	Abandoned.
J-123	J. M. Moore					do	2,589	.5	Apr. 29, 1947	N	N	Abandoned. 3/
J-124	Marcus Dingler	Lang Buchanan		318	16	do	2,599	8.5	Apr. 12, 1947	т,Е, 75	Irr	Cased to bottom. Pump set at 200 ft. 2/
J-125	Ed Otto	N. Yarbrough		385	12	do	2,590	31.9	Jan. 30, 1952	N	N	Cased to bottom. Perforated from 285 ft. to bottom. Aban- doned. 3/
J-126	Pecos Country Club	Earl Fisher	1956	1,000	16	do	2,594			T,E	Irr	Cased to bottom. $2/$
*J-127	B. T. Biggs			285	8	do	2,602	69.5	Jan. 24, 1957	N	N	Abandoned. <u>3</u> /

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diame eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-128	J. H. Newman		1948	520	16, 12	Alluvium	2,631	194.0 196.7	Dec. 10, 1958 Jan. 8, 1960	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 225 ft. in 1958. <u>3</u> /
*J-129	David Hess	Lang Buchanan	1936	319	16, 12	do	2,627	23.8	Nov. 4, 1946	T,Ng	Irr	Casing: 16-in. to 50 ft., 12-in. to bottom. Pump set at 260 ft. in 1958.
J-130	do			450	16, 12	do	2,628	64.0	Dec. 10, 1958	T,Ng	Irr	Cased to bottom. Pump set at 260 ft.
*J-131	J. R. Davis	Earl Fisher	1959	420	16	do	2,623		the second	T,Ng	Irr	Drilled to 325 ft. in 1949, deepened to 420 ft. in 1959. 1/
J-132	F. M. Reeves	Dean & Dingler	1951	605	16, 12	do	2,623			T,Ng, 180	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 220 ft. in 1958.
J-133	do	đo	1947	405	16, 12	đo	2,613			T,E, 125	Irr	Casing: 16-in. to 200 ft., 12-in. to bottom. Pump set at 195 ft. in 1958.
J-134	J. M. Hudgens			4,00	16	đo	2,608			т,Е, 40	Irr	Cased to bottom. Perforated from 80 ft. to bottom. Pump set at 220 ft. in 1958.
J-135	B. B. Slack	and a provide	-			do	2,603	162.0	Dec. 10, 1958	T,Ng	Irr	Discharge measured 710 gpm on July 18, 1959.
J-136	Ferguson Bros.	Earl Fisher	1957	1,205	16	do	2,611	208.9	Dec. 3, 1958	T,Ng	Irr	Cased to 570 ft. Perforated from 325 to 570 ft. <u>1</u> / <u>2</u> /
J-137	do	Schooler		350	16, 14, 12	đo	2,615			T,Ng	Irr	Casing: 16-in. to 204 ft., 14-in. to 304 ft., 12-in. to bottom. Pump set at 220 ft. in 1953.
J-138	do	đo	1948	350	16, 14, 12	do	2,614		 898 10 10 10	T,Ng	Irr	Casing: 16-in. to 203 ft., 14-in. to 303 ft., 12-in. to bottom. Pump set at 220 ft. in 1953.
*J-139	C. K. Hutchins	S. Stafford	1953	443	16, 12	do	2,635	196.6 193.4	Nov. 19, 1958 Jan. 7, 1960	T,Ng	Irr	Casing: 16-in. to 200 ft., 12-in. to bottom. Pump set at 240 ft. in 1958. Discharge measured 550 gpm on July 22, 1959.
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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-140	Hood Wise	C. C. & H. Drilling Co.	1953	500	16	Alluvium	2,629	37.6 183.8	Apr. 11, 1947 Nov. 19, 1958	T,G	Irr	Casing: 16-in. to 207 ft., 12-in. to bottom. Slotted from 85 ft. to 212 ft. Fump set at 270 ft. in 1956. Deepened from 207 ft. to 500 ft. in 1953. 2/
*J-141	Mrs. L. Brooks	đo	1947	225	16, 12	do	2,639	60.3 60.1 69.9 203.1	Jan. 13, 1950 Feb. 27, 1950 Feb. 12, 1951 Nov. 19, 1958	T,Ng	Irr	Casing: 16-in. to 106 ft., 12-in. to 212 ft. <u>2</u> /
*J-142	L. Brooks	Capps	1912	185	9	do	2,639	33.7 46.4	Jan. 28, 1949 Feb. 5, 1949	N	N	Caved and abandoned. <u>3</u> /
J-143	C. S. Hess Estate	Earl Fisher	1951	530	16	do	2,633			T,Ng	Irr	Cased to bottom. Perforated from 50 ft. to bottom. Pump set at 300 ft. in 1958.
J-1 ¹⁴⁴	do	do	1957	710	16	do	2,638	205.7	Dec. 10, 1958	T,Ng	Irr	Cased to 210 ft. Perforated from 215 ft. to bottom. Pump set at 320 ft. in 1958. 2/
J-145	do	Schooler	1949	530	16, 12	do	2,640	280.6	do	T,Ng	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Pump set at 300 ft. in 1958.
*J-146	do	do	1948	315	16	do	2,645			T,Ng	Irr	Cased to bottom. Perforated from 50 ft. to bottom. Pump set at 290 ft. in 1958.
J-147	do	Lowery Walker	1957	1,030	16	do	2,651	220.3 220.1	Dec. 12, 1958 Jan. 8, 1960	T,Ng	Irr	Cased to 720 ft. Perforated from 272 to 720 ft. Fump set at 320 ft. in 1958. Discharge measured 1,110 gpm on July 18, 1959. 1/2/
*J-148	P. McKinney	Jones	1947	500	16	do	2,644	206.6 154.8 203.4	Nov. 18, 1958 Dec. 3, 1958 Jan. 7, 1960	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Deep- ened from 220 to 500 ft. in 1947. Pump set at 250 ft. in 1958. 3/
*J-149	do	Earl Fisher	1952	655	16	do	2,647	208.0	Nov. 19, 1958	T,Ng	Irr	Pump set at 200 ft. in 1953. Drilled to 220 ft. in 1947, deepened to 655 ft. in 1952.
*J-150	P. J. McKinney	Hardaway	1946	228	12, 10, 8	do	2,646	36.4	Nov. 6, 1949	N	N	Abandoned. 2/

See footnotes at end of table.

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	Carlos Sandar 1							Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-151	R. H. Brown	C. C. & H. Drilling Co.	1951	685	16	Alluvium	2,660	217.4 214.2	Nov. 18, 1958 Jan. 6, 1960	T,Ng	Irr	Cased to bottom. Perforated from 385 ft. to bottom. Pump set at 340 ft. $2/3/$
J-152	A. Gore		1949?	560	18	đo	2,666	251.4 240.6	Nov. 20, 1958 Jan. 8, 1960	T,Ng, 180	Irr	Cased to bottom. Pump set at 360 ft. in 1958. Discharge measured 890 gpm on July 21, 1959.
J-153	Charles Spence		1953	450	16	đo	2,668		201_20_2000	T,E, 100	Irr	Cased to bottom. Pump set at 400 ft. in 1958.
J-154	do		1953	450	16	đo	2,675			T,E, 100	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 380 ft. in 1958.
J-155	T. R. Chenoweth	Earl Fisher	1951	440	16	do	2,671	259.1	Nov. 20, 1958	T,Ng, 180	Irr	Cased to bottom. Slotted from 180 ft. to bottom. Pump set at 300 ft. in 1958.
J-156	do	Lowery Walker	1957	608	18	do	2,667	252.2	Oct. 20, 1958	T,Ng, 210	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 350 ft. in 1958. 2/
J-157	C. W. Pearson	1000 (1700)		430	16	do	2,688	248.5	Nov. 20, 1958	T,Ng		Casing perforated from 150 ft. to bottom. Pump set at 350 ft. in 1958.
J-158	J. E. Propp	Earl Fisher	1953	600	16	do	2,688	285.4	do	т,Ng, 140	Irr	Pump set at 360 ft. in 1958. Discharge measured 690 gpm on July 21, 1959.
J-159	C. W. Pearson		1950	519	16, 12	do	2,689	282.9	do	T,Ng	Irr	Casing: 16-in. to 419 ft., 12-in. to bottom. Pump set at 380 ft. in 1958. <u>3</u> /
J-160	E. Epley	Earl Fisher	1951	760	16, 12	do	2,691	144.5 210.2	Jan. 30, 1952 Jan. 22, 1954	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 370 ft. in 1958.
J-161	C. E. Orr	Huckabee	1952	600	16	đo	2,694			T,Ng, 144	Irr	Pump set at 480 ft. in 1958.
J-162	do		1948	565	16	đo	2,700	289.9	Nov. 20, 1958	T,Ng, 144	Irr	Pump set at 470 ft. in 1958.
J-163	đo		1948	650	16	do	2,700			T,Ng, 144	Irr	Pump set at 520 ft. in 1958.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-164	C. E. Orr		1948	420	16	Alluvium	2,705	288.5	Nov. 20, 1958	N	N	Abandoned.
J-165	do	Huckabee	1952	650	16, 14	do	2,704			т,Ng, 144		Casing: 16-in. to 550 ft., 14-in. to bottom. Fump set at 545 ft.
J-1.66	Kesey Bros.	Lowery Walker		815	16	do	2,714	282.8	Dec. 2, 1958	T,Ng		Cased to bottom. Perforated from 295 ft. to bottom. 2/ 3/
J-167	Claude Collins, Jr.	Pearce & Doyle	1953	650	16, 12	do	2,689	286.3	Jan. 8, 1960	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 380 ft.
J-168	do			400	16	do	2,685	233.0	Feb. 11, 1959	N	N	Abandoned.
J-169	do	R. Pearce	1953	650	16	đo	2,678			T,Ng	Irr	Cased to bottom. Pump set at 380 ft. in 1958.
J-170	do		1949	500	16	do	2,676			T,Ng	Irr	Cased to bottom. Pump set at 360 ft. in 1958.
J-171	do	Doyle	1955	650	16, 12	do	2,673			T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 380 ft. in 1958.
J-172	M. J. Mills	C. C. & H. Drilling Co.	1955	500	16	do	2,670	253.0	Dec. 12, 1958	T,Ng	Irr	Cased to bottom, Perforated from 300 ft. to bottom, Pump set at 290 ft. in 1958.
J-173	do	Lowery Walker	1956	609	16	do	2,668	242.3 240.1	do Jan. 8, 1960	T,Ng	Irr	Cased to bottom. Perforated from 280 ft. to bottom. Pump set at 290 ft. <u>2</u> /
J-174	do			460	16	do	2,667	245.9	Dec. 12, 1958	T,Ng	Irr	
J-175	do		-	450	16	do	2,663	241.3	do	T,Ng	Irr	Cased to bottom. Pump set at 310 ft. in 1958.
J-176	L. B. Johnson	C. C. & H. Drilling Co.	1954	508	16	do	2,654			T,Ng		Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 300 ft. in 1958.
J-177	do	T. C. Slack	1950	506	16	do	2,654			T,Ng	Irr	Cased to bottom. Perforated from 110 ft. to bottom. Pump
												Set at 300 it. in 1930.

								Water	level		in the second	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-178	L. A. Achtschin	and a second	1950	500	16	Alluvium	2,654	237.6	Dec. 13, 1958	т,Е, 150	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 250 ft. in 1958.
J-179	đo		1946	500	16, 12	đo	2,664	43.3	Feb. 8, 1958	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Pump set at 160 ft. in 1958. 3/
*J-180	David Davis	Pearce Bros.	1949	324	16	đo	.2,665	30.8	Dec. 13, 1958	T,Ng	Irr	Cased to bottom. Perforated from 70 ft. to bottom. Pump set at 180 ft. in 1958.
J-181	do	C. Pearce	1951	500	16	do	2,663	-		T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 280 ft. in 1958.
J-182	đo	Huckabee & Coleman	1957	605	16	do	2,665	231.4	Dec. 13, 1958	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 280 ft. in 1958. 2/
J-183	Claude Collins			385	18	đo	2,647	91.5	Dec. 17, 1958	1.774	D	Cased to bottom. Perforated from 100 ft. to bottom.
J-184	Claude Collins, Jr.	R. Pearce	1955	585	16	đo	2,648	198.7	đo	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 270 ft. in 1958.
J-18 5	do	do	1955	600	18	do	2,648	249.8	do	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 320 ft. in 1958.
J-186	do	đo		300	16	do	2,650	24.6	đo	T,Ng	Irr	Cased to bottom. Perforated from 50 ft. to bottom. Pump set at 280 ft. in 1958.
J-187	do	W. L. Brock	1951	585	16	do	2,647	154.4	do	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 310 ft. in 1958.
J-188	Ted Johnston	S. Stafford	1950	385	16, 14	do	2,644	-	2017 <u>2</u> 7645	N	N	Abandoned.
J-189	do	đo	1950	385	16, 14	đo	2,650	44.2	Dec. 12, 1958	T,Ng	Irr	Casing: 16-in. to 285 ft., 14-in. to bottom. Pump set at 170 ft. in 1958. Discharge measured 580 gpm on July 18, 1959.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-190	Ted Johnston	Earl Fisher	1957	612	16	Alluvium	2,649	218.7	Dec. 12, 1958	T,Ng	Irr	Cased to bottom. Perforated from 285 ft. to bottom. Pump set at 300 ft. in 1958. 2/
*J-191	do	S. Stafford	1950	385	16, 14	do	2,648	34.6	do	T,Ng	Irr	Casing: 16-in. to 230 ft., 14-in. to bottom. Pump set at 170 ft. in 1958.
J-192	do	Blackstock	1953	610	16	do	2,640	204.2	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 270 ft. in 1958.
J-193	A. Gore			400	16	do	2,634	200.0	do	T,Ng	Irr	Pump set at 320 ft. in 1958.
J-194	E. E. Crow, Jr.			550	16	do	2,624			T,Ng	Irr	Pump set at 280 ft. in 1958.
J-195	do	C. C. & H. Drilling Co.		550	16	do	2,627	210.4 183.6	Dec. 12, 1958 Jan. 8, 1960	T,Ng	Irr	Pump set at 280 ft. in 1958. Deepened from 213 ft. in 1947 to 550 ft. 3/
J-196	Howell & Wesson		1949	500	16	do	2,631	196.2	Dec. 12, 1958	T,Ng	Irr	Cased to bottom. Pump set at 270 ft. in 1958.
J-197	đo		1947	500	18, 12	do	2,634	49.8	do	T,G	Irr	Pump set at 270 ft. in 1958.
J-198	Walker Means			496	16	do	2,640	206.9 208.4	Dec. 17, 1958 Jan. 9, 1960	T,Ng	Irr	Pump set at 270 ft. in 1958. Discharge measured 1,290 gpm on July 18, 1959.
J-199	Balmorhea Ranches, Inc.	Humble Oil & Refining Co.		4,916			2,629					Oil test. $\underline{1}/$
*J-200	do			96	? 12	Alluvium	2,623	20.0 104.3	May 14, 1941 Apr. 10, 1959	C,W	S	Well deepened sometime between 1941 and 1959. 3/
J-201	Claude Collins, Jr.	Pearce		500	18	do	2,641	23.2	Dec. 29, 1958	N	N	Abandoned.
J-202	do	R. Pearce	1951	600		do	2,642	203.6	٥Ď	T,Ng	Irr	Pump set at 330 ft. in 1958.
J-203	Tommy Wheelis	Earl Fisher	1951	650	16	do	2,649			N	N	Abandoned.
J-204	Glen Hendricks		1954	602	18	do	2,650			T,Ng	Irr	Cased to bottom. Pump set at 280 ft. in 1958.
J-205	do			375	16	do	2,650			T,Ng	Irr	Cased to bottom. Pump set at 270 ft. in 1958.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-206	Tommy Wheelis		1948	600	16	Alluvium	2,657	217.4	Dec. 29, 1958	T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1958. 3/
*J-207	J. F. Hightower	Doc Coleman	1952	545	16	do	2,661	226.6 218.5	do Feb. 11, 1959	T,Ng	Irr	Cased to bottom. Slotted from 300 ft. to bottom. Pump set at 300 ft. in 1958. Discharge measured 1,240 gpm on July 18, 1959.
J-208	do		1948	500	16, 12	do	2,661	28.8	Dec. 29, 1958	N	N	Casing: 16-in. to 300 ft., 12-in. to bottom. Perforated from 50 ft. to bottom. Aban- doned.
J-209	L. B. Johnson		1951	600	16	do	2,665	228.9	đo	т,Е, 75	Irr	Casing perforated from 200 ft. to bottom. Pump set at 250 ft. in 1952.
J-210	do				16	do	2,665	30.1	do	N	N	Old well. Abandoned.
J-211	đo		1951	600	16	đo	2,661			N	N	Cased to bottom. Perforated from 200 ft. to bottom. Aban- doned.
J-212	M. B. Butts		1949	930	16	do	2,676	258.4 295.9	Dec. 29, 1958 Jan. 8, 1960	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 360 ft. in 1958.
J-213	R. S. Miller		1951	530	18	do	2,673			T,Ng	Irr	Cased to bottom. Perforated from 140 ft. to bottom. Pump set at 300 ft. in 1956.
J-214	do		1948	513	16, 12	đo	2,680	263.6	Dec. 29, 1958	T,Ng	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Pump set at 290 ft. in 1956.
J-215	do		1952	660	16	do	2,684	269.8	do	T,Ng	Irr	Cased to bottom. Perforated from 180 ft. to bottom. Pump set at 320 ft. in 1956.
J-216	M. B. Butts		1948	680	16, 12	do	2,682			T,Ng	Irr	Casing: 16-in. to 470 ft., 12-in. to bottom. Pump set at 490 ft. in 1958. <u>3</u> /
*J-217	M. C. Dixon			504	16	do	2,686	287.5	Dec. 3, 1958	T,Ng	Irr	Cased to bottom. Pump set at 450 ft. Discharge measured 520 gpm on July 18, 1959.
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								Water	level			
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J218	M. C. Dixon			560	16	Alluvium	2,699			T,Ng	Irr	Cased to bottom.
J-219	W. W. Watkins	Lowery Walker		1,191	16, 14, 12	do	2,703			N	N	Abandoned. <u>2</u> /
J-220	Claude Collins, Sr.	S. Stafford	1949	500	16, 12, 7	do	2,710	273.3 276.6	Dec. 2, 1958 Jan. 8, 1960	N	N	Casing: 16-in. to 300 ft., 12-in. to 400 ft., 7-in. to bottom. Abandoned.
J-221	do	Pearce	1953	600	16	do	2,719		、	T,Ng	Irr	Cased to bottom. Pump set at 460 ft.
J-222	đo	do .	1951	1,025	16, 10	Cretaceous rocks	2,721			T,Ng, 125	Irr	Casing: 16-in. to 300 ft., 10-in. to bottom. Pump set at 460 ft. in 1958.
J-223	do	L. L. Pate	1949	515	16	Alluvium	2,718			T,Ng	Irr	Cased to 320 ft. Pump set at 350 ft. in 1958. Not used in 1958.
J-224	W. T. Lattner				16	do	2,720	275.9	Dec. 3, 1958	N	N	Abandoned.
J-225	Kesey Bros.	Lowery Walker		1,142	16, 12	do	2,728			T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. <u>2</u> /
J-226	do			320	16	do	2,733	285.0 282.7	Dec. 1, 1958 Feb. 11, 1959	T,Ng	Irr	Cased to 315 ft. 3/
J-227	Glen Estes	Lowery Walker	1955	1,042	16	do	2,731	285.2	Nov. 28, 1958	T,Ng	Irr	Cased to bottom. Perforated from 440 ft. to bottom. Pump set at 480 ft. in 1958. 2/
J-228	do	jes en	1952	600	16	do	2,735			T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 400 ft. in 1958.
J-229	L. G. Lemons	Lowery Walker	1956 -	1,161	16	do	2,749	279.2	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Perforated from 416 ft. to bottom. Pump set at 400 ft. in 1956. 2/
J-230	W. T. Lattner			550	16	do	2,655			N	N	Abandoned.
J-231	Travis Lattner	Lowery Walker	1957	1,176	16	do	2,764	290.4	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Pump set at 430 ft. in 1957. 2/

fable	6	Records	of	wells	and	springs	in	Reeves	County	Continued
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See footnotes at end of table.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit		Water level				
							Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-232	W. T. Lattner, Jr.	Lowery Walker	1958	1,405	16	Alluvium	2,764	300.5	Nov. 26, 1958	T,Ng	Irr	Cased to bottom. Perforated from 432 ft. to bottom. Pump set at 440 ft. in 1958. $\underline{1}/$
J-233	do			450	16	đo	2,762	264.2	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 360 ft. in 1958.
J-234	Travis Lattner, Jr.	Guffey	1951	505	16	đo	2,762		 100 761 7008	T,Ng	N	Cased to bottom. Pump set at 270 ft. in 1953. Formerly used for irrigation. Caved to 200 ft.
J-235	do	do	1951	440	16	do	2,765	258.1	Nov. 26, 1958	N	N	Cased to bottom. Perforated from 150 ft. to bottom. Dis- charge measured 650 gpm in August 1954.
J-236	W. T. Lattner, Jr.	Lowery Walker	1952	1,100	16, 12	đo	2,740	5 5	0940 1 (50)	T,Ng	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Perforated from 350 ft. to bottom. Pump set at 420 ft. in 1958.
J-237	do	do	1957	1,150	16, 12	đo	2,747	280.8	Dec. 2, 1958	T,Ng	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Perforated from 350 ft. to bottom. Pump set at 420 ft. in 1958. 1/ 2/
J-238	do	đo	1956	1,170	16	đo	2,745			T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 420 ft. in 1958. 2/
J-239	B. A. Hughes	E. Peance	1952	536	16	do	2,762	296.2	Dec. 1, 1958	T,Ng	Irr	Cased to bottom. Slotted from 130 ft. to bottom. Pump set at 320 ft. in 1956. Discharge measured 540 gpm on July 21, 1959.
J-240	do		1953	400	16	do	2,764			N	N	
J-241	Duke & Shaw	C. & H. Drilling Co.	1957	1,300	16, 12	Alluvium & Cretaceous (?) rocks	2,752	297.0	May 7, 1957	N	N	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 400 ft. to bottom. Aban- doned.
J-242	Ord Gary	Cass		1,200	16, 12	do	2,752	175.7	Jan. 30, 1952	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 500 ft. in 1958. <u>3</u> /

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-243	Ord Gary	Earl Fisher	1957	1,300	16, 12	Alluvium & Cretaceous (?) rocks	2,752	218.3 288.0 293.1	Jan. 9, 1956 Dec. 1, 1958 Jan. 8, 1960	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 445 ft. to bottom. Pump set at 500 ft. in 1958. 2/
J-244	Duke & Shaw	Cass	1955	1,235	18, 12	đo	2,742			T,Ng	Irr	Casing: 18-in. to 400 ft., 12-in. to bottom. Perforated from 100 ft. to bottom. Pump set at 480 ft. in 1958.
*J-245	do	J. O. Jarman	1945	190	16, 12	Alluvium	2,730	117.8 153.2	Feb. 3, 1947 Feb. 9, 1951	N	N	Casing: 16-in. to 98 ft., 12-in. to bottom. Discharge measured 662 gpm on Apr. 17, 1947. 2/3/
*J-246	T. Lattner	L. L. Pate	1948	475	16, 8	do	2,729			T,Ng	Irr	Casing: 16-in. to 300 ft., 8-in. to bottom. Pump set at 270 ft. in 1953.
J-247	do	T. Lindemann	1950	515	16	do	2,724	284.6 286.1	Dec. 30, 1958 Jan. 8, 1960	T,Ng	Irr	Cased to bottom. Slotted from 215 ft. to bottom. Pump set at 270 ft. in 1953.
J-248	W. T. Lattner, Jr.	do	1950	500	16	do	2,722	249.8	Dec. 30, 1958	N	N	Cased to bottom. Perforated from 250 ft. to bottom. Aban- doned.
J-249	W. J. Worsham well 2	Lowery Walker	1956	1,175	16	do	2,716			T,Ng	Irr	Cased to bottom. Slotted from 417 ft. to bottom. Pump set at 320 ft. in 1956. 2/
J-250	W. J. Worsham well l	do	1956	1,188	16	do	2,720	298.7	Dec. 29, 1958	T,Ng	Irr	Cased to bottom. Perforated from 322 ft. to bottom. Pump set at 450 ft. in 1956. Dis- charge measured 1,000 gpm on July 9, 1957. 2/
J-251	do	T. Lindemann	1949	520	16, 12	do	2,719	299.0	Dec. 13, 1958	N	N	Casing: 16-in. to 320 ft., 12-in. to bottom. Perforated from 160 ft. to bottom. Aban- doned.
J-252	R. R. Butler						2,714	297.8	Jan. 8, 1960	N	N	Abandoned.
J-253	do	Earl Fisher		1,160	16	Alluvium	2.713	280.8	Dec. 30, 1958	T,Ng	Irr	Casing: 16-in. to 1,150 ft. Perforated from 347 ft. to 1,150 ft. <u>2</u> /

See footnotes at end of table.
								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-254	R. Butler	Schooler	1949	525	16	Alluvium	2,709	277.6	Dec. 30, 1958	T,Ng	Irr	Cased to bottom. Slotted from 200 ft. to bottom. Pump set at 320 ft. in 1954.
J-255	W. P. Mattox	Earl Fisher	1956	1,190	16	do	2,700			T,Ng	Irr	Cased to bottom. Slotted from 350 ft. to bottom. Pump set at 380 ft. in 1957. Drilled to 1,394 ft., cemented back to
J- 256	do	đo		782	16	do	2,702	276.4	Dec. 30, 1958	T,E, 150	Irr	<u>2/</u>
J-257	do	đo	1951	525	16	do	2,702			T,E, 150	Irr	Cased to bottom. Perforated from 210 ft. to bottom. Pump set at 310 ft. in 1954.
J-258	I. R. Titus	đo	1951	564	18	do	2,690	265.8	Dec. 30, 1958	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 340 ft. in 1958. <u>2</u> /
J-259	do	do	1951	504	18	do	2,695	270.0	do	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 390 ft. in 1958. Dis-
		The state	Tope	1			81436			2128		charge measured 670 gpm on July 18, 1959. 2/
J-260	do	đo	1951	514	18	do	2,686	254.3 246.2	do Feb. 11, 1959	N	N	Cased to bottom. Perforated from 250 ft. to bottom. Abandoned. $\frac{2}{2}$
J261	Paul Davidson	dol	1958	1,293	16	do	2,677	255.6	do	T,Ng	Irr	Cased to 1,186 ft. Perforated from 400 ft. to 1,186 ft. Pump set at 350 ft. in 1958. $\frac{1}{2}$
J-262	do	L. Pearce	1952	528	16, 14	do	2,675	234.6	đo	T,Ng	Irr	Casing: 16-in. to 220 ft., 14-in. to bottom. Pump set at 350 ft. in 1958.
J-263	Tommy Wheelis	L. L. Pate	1948	804	16, 12	do	2,673	236.0	do	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 340 ft. in 1958.
J-264	đo	T. Lindemann	1950	824	16, 12	đo	2,669	234.5	do	T,Ng	Irr ·	Casing: 16-in. to 500 ft., 12-in. to bottom. Pump set at 300 ft. in 1958.
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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-265	Tommy Wheelis	Earl Fisher	1957	1,253	16	Alluvium	2,665			T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 300 ft. in 1958. 2/
J-266	Paul Davidson	T. Lindemann	1949	350	16	do	2,671	223.0 218.1	Dec. 31, 1958 Jan. 8, 1960	N	N	Water reported salty. Aban- doned. $3/$
J-267	R. W. Winterrowd	do	1950	521	16	do	2,664	217.9	Dec. 30, 1958	T,Ng	Irr	Cased to bottom. Perforated from 220 ft. to bottom.
J-268	do		1951	600	16	do	2,664	220.2	do	N	N	Abandoned.
J-269	do	T. Lindemann	1949	485	16	do	2,658	219.1	do	T,Ng	Irr	
J-270	Howard Estate		1951	489	16	do	2,645	192.5	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 300 ft. in 1958.
J-271	R. W. Winterrowd		1950	400	16	do	2,645	185.2	Dec. 31, 1958	T,Ng	Irr	Cased to bottom. Pump set at 240 ft. in 1953.
J-272	do	Coleman	1953	590	16	do	2,642	194.4	đo	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 230 ft. in 1953. Dis- charge measured 810 gpm on July 18, 1959.
J-273	Mrs. H. H. Davis	C. & H. Drilling Co.	1952	600	16	do	2,647	196.9	do	T,Ng	Irr	Cased to bottom. Perforated from 220 ft. to bottom. Pump set at 300 ft. in 1958.
J-274	J. B. Kirklin	Earl Fisher	1951	540	16	do	2,649	181.4	đo	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Fump set at 210 ft. in 1955. Dis- charge measured 1,760 gpm on August 1955.
J-275	do		1951	830	16, 12	do	2,641	163.0	do	N	N	Abandoned.
J-276	do	Earl Fisher	1955	835	16, 12	do	2,639	162.4	Feb. 11, 1959	N	N	do
J-277	Balmorhea Ranches, Inc.	-			6	do	2,619	151.9	Feb. 27, 1959	c,w	S	Windmill rod broken when visited.
J-278	do	Quinco Oil Co.	1953	4,926			2,620			N	N	011 test. <u>1</u> /

Table 6 .- Records of wells and springs in Reeves County -- Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*J-279	J. B. Kirklin	Earl Fisher	1956	828	16, 12	Alluvium	2,639	184.1	Dec. 31, 1958	T,Ng	Irr	Casing: 16-in. to 394 ft., 12-in. to bottom. Perforated from 400 ft. to bottom. Pump set at 280 ft. in 1958. 2/
J-280	Jack & J. L. Davis	C. & H. Drilling Co.	1957	700	16	do	2,646	204.0	Dec. 8, 1958	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 300 ft. in 1958. 3/
J-281	Paul Davidson	Pearce	1954	550	16	do	2,657	224.7	do	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 370 ft. in 1958.
J-282	Paul Davidson well 2	Coleman	1951	600	16	đo	2,659			T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 350 ft. in 1958.
J-283	Paul Davidson well l	do		600	16	do	2,665	224.8	Dec. 8, 1958	T,Ng	Irr	Cased to bottom. Pump set at 350 ft. in 1958.
J-284	J. T. McKinney	Lowery Walker	1956	1,036	18	do	2,670	225.6	Dec. 6, 1958	T,Ng	Irr	Casing perforated from 526 ft. to bottom. Pump set at 360 ft. in 1958. <u>2</u> /
J-285	do	do	1955	815	18	đo	2,672	244.3	do	T,Ng	Irr	Cased to bottom. Perforated from 330 ft. to bottom. Pump set at 300 ft. in 1958. 2/
J-286	do					đo	2,673	188.0 161.7	Dec. 6, 1958 Jan. 11, 1960	N	N	Old well. Abandoned.
J-287	J. W. Waldie	Ted Lindemann	1948	600	16, 12	do	2,677			T,Ng	Irr	Casing: 16-in. to 395 ft., 12-in. to bottom. Perforated from 120 ft. to bottom.
J-288	do	Contract Contract		600	16	do	2,677			T,Ng	Irr	and the set of a constant
J-289	do			6003	16, 12	do	2,677			T,Ng	Irr	Casing perforated from 131 ft. to bottom.
J-290	Austin & King	Earl Fisher	1952	600	16, 14	do	2,692	251.6	Dec. 5, 1958	T,Ng	Irr	Casing: 16-in. to 300 ft., 14-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 330 ft. in 1958.
J-291	Farms, Inc.	Schooler	1948	619	16, 12	do	2,707			T,Ng	Irr	Casing: 16-in. to 330 ft., 12-in. to bottom. Pump set at 320 ft. in 1958.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J292	Farms, Inc.	Schooler	1949	772	16, 10	Alluvium	2,685			T,Ng	Irr	Casing: 16-in. to 330 ft., 10-in. to bottom. Pump set at 320 ft. in 1958.
*J-293	do	do	1949	800	16, 12	do	2,696	271.7 277.3 275.7	Dec. 6, 1958 Jan. 8, 1960 Jan. 9, 1960	T,Ng	Irr	Casing: 16-in. to 405 ft., 12-ih. to bottom. Pump set at 360 ft. in 1958.
J-294	Reeves County Land Co.		1948	805	16, 12	do	2,696			T,Ng, 240	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Pump set at 320 ft. in 1958.
J-295	H. R. Hudson, Jr.	R. Pearce	1951	600	16	đo	2,706	278.5	Dec. 5, 1958	T,Ng	Irr	Cased to bottom. Perforated from 210 ft. to bottom. Pump set at 340 ft. in 1958.
J-296	Reeves County Land Co.	Schooler	1948	772	16, 10	do	2,699			T,Ng	Irr	Casing: 16-in. to 320 ft., 10-in. to bottom. Pump set at 340 ft. in 1958.
J-297	do	Lowery Walker	1956	1,361	18, 12	do	2,699			T,Ng, 240	Irr	Cased to 1,361 ft.; 18-in. to 550 ft., 12-in. to bottom. Perforated from 388 ft. to bottom. Test hole to 1,486 ft. $\underline{1}/\underline{2}/$
J-298	Sage & Hill			700	16, 12	do	2,713	291.8	Dec. 5, 1958	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 420 ft. in 1958.
J- 299	do			700	16	do	2,714	283.2	đo	T,Ng	Irr	Cased to bottom. Pump set at 450 ft. in 1958.
J-300	do			700	16, 12	do	2,714	289.0	do	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 420 ft. in 1958.
J-301	Anthon Woods	R. Guffey	1951	525	16	do	2,716			T,Ng	Irr	Cased to bottom. Perforated from 190 ft. to bottom. Pump set at 400 ft. in 1958. 2/
J-302	R. C. Slack	do	1951	525	16	đo	2,718	295.7	Dec. 5, 1958	T,Ng	Irr	Cased to bottom. Pump set at 380 ft. in 1958.
J-303	Austin & King	do	1951	600	16	do	2,728	303.2	Dec. 3, 1958	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 340 ft. in 1958.
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Table 6.- Records of wells and springs in Reeves County -- Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-304	Anthon Woods		1949	350	16	Alluvium	2,727			N	N	Abandoned.
J-305	do	Lowery Walker	1953	546	16	đo	2,728	311.1	Dec. 2, 1958	T,Ng	Irr	Cased to bottom. Perforated from 204 ft. to bottom. Pump set at 380 ft. in 1958. Dis- charge measured 785 gpm on July 18, 1959. 2/
J-306	Tom Segulis	do	1957	1,295	18, 12	do	2,735	309.5	Dec. 3, 1958	T,Ng	Irr	Casing: 18-in. to 700 ft., 12-in to bottom. Perforated from 395 ft. to bottom. Dis- charge measured 810 gpm on July 18, 1959. <u>2</u> /
J-307	H. C. Tanner	Earl Fisher	1958	595	16	do	2,741	316.7	Dec. 2, 1958	T,Ng	Irr	Cased to bottom. Perforated from 280 ft. to bottom. Pump set at 410 ft. in 1958. 2/
*J-308	do	Low - Josephere	1948	532	16, 12	do	2,740	314.3 323.9	Dec. 2, 1958 Jan. 11, 1960	N	N	Casing: 16-in. to 318 ft., 12-in. to bottom. Perforated from 100 ft. to bottom. Aban- doned. <u>3</u> /
J-309	Worsham & Evans		1950				2,749			T,Ng	Irr	Pump set at 270 ft. in 1954. Discharge measured 1,020 gpm on July 21, 1959.
*J-310	do	Austin Jones	1949	267	16	Alluvium	2,751	290.3	Dec. 2, 1958	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 270 ft. in 1954. 3/
J-311	do	Earl Fisher	1957	1,284	16, 12	Alluvium & Cretaceous (?) rocks	2,755	299.3	do	T,Ng	Irr	Casing: 16-in. to 611 ft., 12-in. to bottom. Slotted from 380 ft. to 1,273 ft. Pump set at 400 ft. in 1957. <u>2</u> /
J-312	Ord Gary	Pearce & Cass	1952	1,200	18, 12	Alluvium	2,760	286.3	Dec. 1, 1958	T,Ng	Irr	Casing: 18-in. to 400 ft., 12-in. to bottom. Pump set at 450 ft. in 1958.
J-313	Worsham & Evans		1953	400	16	do	2,759	290.4	Dec. 2, 1958	т,-	Irr	Cased to bottom. Pump set at 280 ft. in 1954.
J-314	Douglas Hart		1952	600	16	do	2,746	318.8	do	T,Ng	Irr	Cased to bottom. Pump set at 320 ft. in 1958.
*J-315	P. McKinney			400	16			192.0	Feb. 5, 1953	N	N	3/

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
J-316	R. E. Dugan							186.3	Feb. 5, 1953	N	N	3/
*J-317	R. H. Brown	Doc Coleman	1956	685	16, 12	Alluvium	2,663	231.9 231.2	Nov. 18, 1958 May 18, 1959	T,Ng, 160	N	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 420 ft. in 1958. 2/3/
J-318	R. J. Yarbrough			217	15, 12, 10			21.9	Feb. 5, 1949	N	N	3/
J 319	P. McKinney	Austin Jones		220				36.1	Mar. 3, 1948	N	N	2/ 3/
J-320	E. Epley							152.4	Jan. 30, 1952	N	N	3/
J-321	Kesey Bros.			153		,		94.2	Dec. 30, 1942	N	N	<u>3</u> /
*J-322	E. E. Crow	C. & H. Drilling Co.		360	16			25.9	Mar. 3, 1948	N	N	2/ 3/
*J323	Ord Gary	Guffey Drilling Co.	1948	1,314	8			224.6	Jan. 23, 1954	N	N	Abandoned. <u>3</u> /
J-324	Farms, Inc.			330	16			277.3	Jan. 8, 1960	N	N	3/
J-325	A. Gore			226	16			251.4	Nov. 20, 1958	N	N	3/
*J-326	Birdie B. Slack			179						N	N	Abandoned.
K-17		Lang Buchanan	1942	200	7	Alluvium	2,577	110.0	July 13, 1959	N	N	Formerly flowed. Drilled to supply water for irrigation.
*к-18	Gross Bros.	Tom Simmons	1947	4003	16	do	2,577			т,-	Irr	Pump set at 140 ft. in 1959. Discharge reported 1,100 gpm in 1959.
*K-19	H. L. Teaney	do	1933	215		do	2,579	12.3 125.4	Nov. 20, 1939 July 13, 1959	т,Е, 7 1	Irr	Pump set at 146 ft. Supplies water for swimming pool. $3/$
K-20	Mrs. M. D. Cowan	Lang Buchanan	1936	210	6	do	2,580	3.2 116.0 132.7	Apr. 29, 1947 Jan. 14, 1959 Oct. 1, 1959		N	3/
K-21	City of Pecos					do	2,581					Dean Memorial Park well.
*K-22	Bertha Haenel		1930	80	8	do	2,559	.8	Feb. 16, 1941	N	N	Formerly supplied water for stock. Abandoned.
*K-23	Louis Roberson			60	6	do	2,582	34.4 37.2	Oct. 10, 1939 Apr. 10, 1959	C,W	S	Dug. China Bear well. 3/

Table 6 .- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
K-24	T. J. Beckham	Texas Crude Oil Co.		5,107			2,549			N	N	Oil test. 1/
K-25	H. L. Perkins	Continental Oil Co.	(6.0	5,018		-70	2,540			N	N	do
K- 26	J. A. Worsham	Adams & Miller	1954	5,100			2,550			N	N	do
*K-27	do	The Strength			6	Alluvium(?)	2,568	39.3	Sept. 22, 1950	C,W	S	Punpenet and Day In. in 1960, 15
*K-28	đo	Tom Simmons .	1935	140	16	Alluvium	2,573	31.8 42.0	Jan. 28, 1947 Feb. 17, 1959	T,G	Irr	Newsey Classes, Statistical and a supply weight for the particular
K-29	đo				16	đo	2,575	43.3 45.0 41.2	Nov. 22, 1958 Feb. 17, 1959 Jan. 23, 1960	T,G	Irr	2) • besteriet
*K- 30	City of Pecos well 8		1952	198	12	Alluvium(?) & Santa Rosa sandstone	2,631	103	May 1952	T,E, 225	P	Cased to 198 ft. Perforated from 130 ft. to 198 ft. Test hole drilled to 260 ft. Pump set at 178 ft. in 1952. Drav- down measured 54 ft. after pumping 7 hours at 200 gpm.
*K-31	City of Pecos well 5	D. M. Bassett	1942	170	12	Santa Rosa sandstone	2,633	102 110	1942 Feb. 1959	т,Е, 25	P	Discharge reported 280 gpm. 2/
*K-32	do	Tom Simmons	1933	187	10	đo	2,642	123	1935	T,E, 22½	Ρ	Cased to bottom. Perforated from 84 ft. to 103 ft., and 134 ft. to bottom. Pump set at 170 ft. in 1951. Discharge reported 220 gpm. 2/
*K-33	J. A. Worsham	do	1937	125	6	do	2,658	75.9 91.9	Mar. 5, 1940 Nov. 26, 1958	C,W	S	<u>3</u> /
*K-34	W. H. Holcombe, et al.	por la manei				do	2,613	63.0	Oct. 26, 1940	с,w .	S	inami ni hutumi Pertemani. Ana 30.11, 14 forma, nar
*K-35	Bertha Graebner Estate			140		Alluvium				N	N	Abandoned.
K-36	do	White Eagle Oil Co.	1957	5,022			2,577	-		N	N .	Oil test. 1/
K-37	Day Monroe				6	Alluvium	2,579	57.8	Apr. 10, 1959	C,W	S	postas.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
K 38	Balmorhea Ranches, Inc.			Spring								Irving Springs.
*K-39	Minnie McCall, et al.									N	N	Abandoned.
L-17	Worsham Bros.	Earl Fisher	1957	1,225		Rustler formation	2,555				Irr	011 test. <u>1/ 2</u> /
L-19	State of Texas	Gulf Oil Corp.	1957	4,968			2,571			N	N	Oil test. 1/
*L-20	J. A. Worsham				6	Alluvium(?)	2,557	29.4	Feb. 17, 1959	C,W	S	
*L-21	do				6	Alluvium	2,543	37.7	do	c,W	S	
L-22	Joe Worsham	Jay Simmons	1957	5,040			2,556			N	N	Oil test. 1/
*L-23	H. Anthony, Jr.	Earl Fisher	1939	80	6	Alluvium	2,554	39.1 41.7	Apr. 9, 1941 Feb. 25, 1959	C,W	S	<u>2/</u>
*L24	Ralph Burkholder			60		Santa Rosa (?) sand- stone				C,W	D,S	 Sector Sciences Sec
*L-25	S. E. Ligon			160	6	Santa Rosa sandstone	2,508	9.4	Feb. 26, 1959		S	Cased to 60 ft. Old well.
*1,-26	do			200		Alluvium & Santa Rosa (?) sand- stone	2,559	38.2	Mar. 10, 1959	T,G	Irr	Discharge reported 400 gpm.
L-27	R. I. McKeller	Monsanto Chemical Co.	1957	4,985			2,588			N	N	011 test. <u>1</u> /
L-28	State of Texas	Gulf Oil Corp.	1957	4,974			2,584			N	N	do
L-29	C. H. Strain	Curtis Inman	1958	5,690			2,584			N	N	do
*L-30	D. W. Bozeman	City of Pecos	1958	230		Alluvium & Santa Rosa sandstone	2,583			N	N	Test hole for city of Pecos. $\frac{2}{}$
L-31	do	do	1958	146		do				N	N	Test hole for city of Pecos.
*L-32	do	ob	1958	247		do				N	N	do
L-33	A. M. Clayton	Gulf Oil Corp.	1957	5,040			2,640			N	N	Oil test. $\underline{l}/$

Table 6 .- Records of wells and springs in Reeves County -- Continued

Table 6 .- Records of wells and springs in Reeves County -- Continued

1		10000 072 CORST 1	1990	19.040	1.1.1	1	and the second	Water	level			Sector Sector Sector
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
L-34	L. W. Zeek	Gulf Oil Corp.	1957	4,955		133 tuo h	2,605			N	N	Oil test. 1/
L-35	R. Rudman, et al.	do	1957	4,925			2,586			N	N	do
L-36	Gulf Oil Corp.	delt e n jour		140?	10	Alluvium & Santa Rosa sandstone	2,586	77.3	Feb. 25, 1959	N	N	Drilled to supply water for oil- well drilling rigs.
L-37	N. T. Evans	Pure Oil Co.	1957	4,990			2,568			N	N	011 test. 1/
L-38	R. Cleveland	Gulf Oil Corp.	1957	5,070			2,658			N	N	đo
*L-39	City of Pecos	City of Pecos		245		Alluvium & Santa Rosa sandstone	2,658		900 - 1999	N	N	Test hole for city of Pecos. $\underline{2}/$
*L-40	City of Pecos well 9	Goforth	1958	223	14, 12	do	2,657	112	Feb. 1959	T,E	P	Cased to bottom. Perforated from 100 ft. to bottom. Dis- charge reported 650 gpm. Re-
-258						destre Rome				0.8	2,5	placement for old well 9 drilled in 1952.
*L-41	City of Pecos well 10	do		252	12	đo	2,666	107 112	July 1958 Jan. 1959	T,E	P	Cased to bottom. Perforated from 100 ft. to bottom. Drav- down reported 33 ft. after pumping 100 hours at 690 gpm.
						V. Balda	100.00	-75	10	COM 1		Replacement for old well 10 drilled in 1952. 2/
L-42	J. A. Worsham	Gulf Oil Corp.	1956	8,500			2,678			N	N	Oil test. 1/
*L-43	City of Pecos well 16	R. T. Mullican	1956	250	10	Alluvium(?) & Santa Rosa sandstone	2,663	108 117	Apr. 1957 Jan. 1959	T,E, 20	P	Cased to bottom. Perforated from 124 ft. to bottom. Pump set at 170 ft. in 1957. Gravel- walled. Discharge reported 250 gpm. 2/
*L-111	City of Pecos. well 15	do	1956	250	10	Santa Rosa sandstone	2,665	118	Jan. 1959	T,E, 20	P	Cased to bottom. Perforated from 142 ft. to bottom. Gravel- walled. Discharge reported 200 gpm Aug. 1, 1958. 2/
L-45	T. F. Keasler	Gulf Oil Corp.	1957	5,035			2,650			N	N	Oil test. 1/
*L-46	City of Pecos well 13	C. & H. Drilling Co.	1953	160		Santa Rosa sandstone	2,636	85 88	Jan. 1953 Jan. 1959	т,Е, 25	P	Pump set at 140 ft. in 1958. Drawdown measured 4 ft. after pumping 4 hours at 455 gpm. 2/

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								Water	level			
Well	Cwner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
L-47	City of Pecos well 19	R. T. Mullican	1956	208	12	Santa Rosa sandstone	2,650	105 109	Apr. 1957 Jan. 1959	т,Е, 40	P	Cased to bottom. Pump set at 160 ft. in 1958. Drawdown measured 7 ft. after pumping 12 hours at 425 gpm. 2/
*L-48	City of Pecos well 17	C. & H. Drilling Co.	1954	173	12	đo	2,638	89	Jan. 1959	т,Е, 40	Ρ	Cased to bottom. Perforated from 93 ft. to bottom. Draw- down measured 14 ft. after pumping 19 ¹ / ₂ hours from 633 to 490 gpm. 2/
*L-49	City of Pecos well 18	do	1954	180	12	do	2,642	95	May 1954	N	N	Cased to bottom. Perforated from 60 ft. to 100 ft. Pump set at 150 ft. in 1956. Dis- charge reported 325 gpm Dec. 18, 1956. <u>2</u> /
*L-50	City of Pecos well 20	đo	1954	160	12	đo	2,630	59 82	May 1954 Dec. 1958	т,Е, 40	Р	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 190 ft. in 1958. 2/
L-51	C. M. Bell	Pure Oil Co.	1957	5,100			2,646			N	N	Oil test. 1/
*L-52	City of Pecos well 12	C. & H. Drilling Co.	1953	160		Santa Rosa sandstone	2,635	90 86	Jan. 1953 Feb. 1959	T,E, 25	Р	Discharge reported 410 gpm. 2/
*L-53	City of Pecos well 14	do	1953	176		đo	2,654	76 102	Apr. 1953 Dec. 1958	T,E, 20	P	Cased to bottom. Pump set at 150 ft. in 1958. Drawdown measured 11 ft. after pumping 2 hours at 310 gpm. 2/
*I-54	City of Pecos well 11		1952	150	12	do	2,652			N	N	Cased to bottom. Perforated from 90 ft. to bottom. Abandoned. $\underline{2}/$
*I~55	City of Pecos well 7	· · · · · · · · · · · · · · · · · · ·	1951	214	10	do	2,629	110	Feb. 1959	т,Е, 40	Ρ	Cased to 211 ft. Pump set at 190 ft. in 1951. Discharge measured 350 gpm in 1951. <u>2</u> /
*L-56	City of Pecos well 6	Wilhite & McDonald	1950	200		Alluvium(?) & Santa Ross sandstone	2,624	90 97	Feb. 1950 Feb. 1959	т,Е,	Ρ	Pump set at 150 ft. in 1955. Discharge measured 260 gpm. 2/
*L-57	City of Pecos well 4	D. M. Bassett	1942	191	12	Santa Rosa sandstone	2,625	105 103	1942 Feb. 1959	т,Е, 30	P	Discharge measured 442 gpm July 14, 1950. 2/
*L-58	City of Pecos well 3	T. Simmons	1935	300		do	2,628	123	1935	N	N	Abandoned after discharge diminished to 65 gpm. $\underline{2}/$

Table 6 - Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

			1.					Water	level	1.2		The second second states and second second second
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*L-59	City of Pecos well 2	T. Simmons	1935	211		Santa Rosa sandstone	2,638	125 122	Sept. 1935 Jan. 1959	т,е, 20	P	Pump set at 150 ft. in 1951. Discharge measured 180 gpm. <u>2</u> /
L-60	J. A. Worsham	Gulf Oil Corp.	1957	5,348	·		2,668		1.00 1.00 -	N	N	Oil test. 1/
L-61	do	do	1957	5,120			2,675			N	N	do
*M-12	Jim Deakins					Alluvium(?)	2,505	41.3	Mar. 4, 1959	C,W	D,S	Constant of the second second second
M-13	do					do	2,500	27.8	do	c,w	S	o roma a como taxo de como de
*M-14	do				6	Santa Rosa (?) sand- stone	2, 514	30.1	do	c,w	S	and a second provide the second s
*M-15	do	of a substituted	1913	44		do	2,514	27.1	Apr. 9, 1940	N	N	Abandoned.
M-16	S. E. Ligon	niter car former		100	6	do	2,525	37.9	Nov. 12, 1958	C,G	D,S	Cased to 40 ft.
*M-17	do	S. E. Ligon		180		Santa Rosa (?) sand-	2,525	-		C,W	D,S	Cased to bottom. 2/
						do	2 642	32.3	Mar 6 1959	CW	s	
*M-10	do					40	2,045	59.8	Sent 11, 1959	C.W	s	
N-1	J. M. Crews							ho 7	do.	C.W	s	
*N-2	TAL OIL Corp.							-9.1			s	
*N-3	do									C.W	N	Abandoned
N-4	do						2.063	20.1	Tuly 22 1050	C W	s	
*N-5	A. B. Tinnin						3,205	20.4	July 23, 1999	N	N	011 test 2/
*N-6 *N-7	Guy C. Caldwell	The Texas Co.		Spring		Cretaceous (?) rocks	-	(+)	1880	Flows	N	Flow estimated 10 gpm in 1947, 3 gpm in 1959. Liege Spring.
N-8	do	4-			5	do	3,152	48.5	Sept. 11, 1959	N	N	Abandoned.
*N-9	do					do	3,087	68.5	Aug. 27, 1959	C,W	S	
N-10	J. R. O'Connor	Clyde Simmons	1940	88		Cretaceous rocks	3,090	71.6 69.4	Sept. 20, 1940 Aug. 27, 1959	N	N	2/
N-11					12	Alluvium(?)	3,004	33.6	Aug. 13, 1959	C,W	S	

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*N-12	Guy C. Caldwell	,				Cretaceous rocks	3,031	63.1 63.8	Sept. 26, 1940 Sept. 15, 1959	c,w	S	Old well.
N-13	do			110	6	do	3,029	87.7	Sept. 20, 1940	C,W		Humphrey Mill well. Old well.
N-14	do					Cretaceous rocks (?)	3,102	196.0	Sept. 15, 1959	N	N	Abandoned.
N-15	J. M. Gooch					Cretaceous rocks	3,180	82.7	đo	c,w	S	Cowan Mill well.
*N-16	Guy C. Caldwell					do	3,167	83.3	do	c,w	S	
*N-17	do			106		Alluvium(?)	3,169	83.6 89.9	Sept. 20, 1940 Sept. 15, 1959	c,w	S	Headquarters well.
N-18	do									c,w	S	
N-19	do						3,270	119.1	Sept. 16, 1959	C,W	S	
N-20	TXL 011 Corp.						3,295	188.5	do	c,w	S	
N-21	do				6					c,w	D,S	
N-22	J. M. Crews					Cretaceous rocks		160.1	Sept. 17, 1959	c,w	S	
N-23	J. M. Crews, et al.					Cretaceous (?) rocks		119.4	do	c,w	S	
N-24	J. M. Crews				14	Alluvium(?)		17.5	đo		D,S	
N-25	J. M. Crews, et al.					Cretaceous (?) rocks		80.8	do	c,w	S	
N-26	do					Cretaceous rocks		236.0	do	c,w	S	
N-27	do					do		267.7	đo	c,w	S	
N-28	TXL Oil Corp.	TXL Oil Corp.	1959		6							Oil test.
N-29	W. D. Johnson Estate									C,W	S	
*N-30	do			188	6	Alluvium	3,405	140.5	June 24, 1954	C,W	S	
*N-31	do		1955	205	8	do	3,106	148.6	June 17, 1959	C,W	S	Nine-mile well.

Table 6.- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*P-1	W. M. Wright	Rita Oil Co.	1933	3,767			2,961	v		N	N	Oil test. Sampled while drilling at 1,045 ft. <u>2</u> /
P-2	Percy Jones Estate					gesteente	2,928	27.0	July 28, 1959	N	N	Abandoned.
*P-3	T. & P. RR Co.		1882	832	6	Cretaceous rocks		73	Dec. 1939	N	N	Formerly flowed. Abandoned.
P-4	Percy Jones Estate					(1)	2,914	22.5	July 8, 1959	C,W	S	Old well. 3/
*P-5	Toyah High School	Ross	1908	813	10	Cretaceous rocks		44.5	Apr. 28, 1947	N	N	Reported quit flowing about May 1959. Abandoned. <u>3</u> /
P-6	R. V. Trotha	Grisham & Hunter Oil Co.		4,065		n aa n gaar a gaag	2,891		100 TO 1000	N	N	011 test. <u>2</u> /
P-7	R. Von Trotha		1942				2,873	16.7	Aug. 4, 1959	c,w	S	
P-8	H. J. Strief	Grisham & Hunter Oil Co.	1955	4,113			2,901			N	N	011 test. <u>1</u> /
*P-9	A. R. Britt						2,900			N	N	Dug. Abandoned.
*P-10	Billie Prewit			130	6	Alluvium		142.4	Feb. 16, 1951	N	N	Abandoned. <u>3</u> /
P-11	Earl Martin	John Sullivan	1951	303	16	do	2,766	264.1	Jan. 2, 1959	T,Ng	Irr	Cased to bottom. Perforated from 80 ft. to bottom. Pump set at 180 ft. in 1953.
P-12	do	Earl Fisher	1958	1,200	16	do	2,762	255.4 263.7	do Feb. 11, 1959	T,Ng	Irr	Cased to bottom. Perforated from 370 ft. to bottom. Pump set at 440 ft.
P-13	do	Lowery Walker	1956	590	16	do	2,769	238.3	Jan. 2, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 360 ft. in 1956. Dis- charge measured 530 gpm on July 18, 1959.
P-14	S. L. Lane	S. L. Lane	1953	700	16, 12	do	2,785	238.6 255.9	do Jan. 11, 1960	T,Ng	Irr	Casing: 16-in. to 424 ft., 12-in. to bottom. Perforated from 110 ft. to bottom. Pump set at 330 ft. in 1958. Dis-
-				2					Sector Contract -			July 18, 1959.
*P-15	N. H. Rogers						2,882	71.8	Aug. 4, 1959	C,W	S	Water level measured while pumping an estimated 2 gpm.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
P-16	Atwood & McDonald			911		Alluvium & Cretaceous rocks	2,946	64.8	July 8, 1959	T,G	Irr	
P-17	do		1950	200	8	Alluvium	2,944	64.4	July 9, 1959	c,w	S	
P-18	do	Clarence Pearce	1958	1,018	18, 16	Alluvium & Cretaceous rocks	2,954	104.0	do	T,G	Irr	
P-19	do			530		Alluvium	2,951	58.6	do	T,G	Irr	
P-20	Guy Caldwell									N	N .	Abandoned.
P-21	Griffin Estate				8		2,970	26.0	June 19, 1959	c,w	S	
P-22	· · · · · ·				6		2,990	79.2	do	c,w	S	Tucker well.
P-23	A. M. Atwood	Smith Drilling Co. & A. Black	1958	4,008			2,967			N	N	Oil test. 1/
P-24	Kenneth Scott			100	12	Alluvium	2,970	56.2	July 8, 1959	N	N	Abandoned. Old well.
*P-25	M. J. Marion				8		2,924	23.2	July 10, 1959	c,w	S	
P-26	R. Hill					Alluvium & Cretaceous rocks	2,941			T,G	Irr	
P-27	do					do	2,945			T,G	Irr	
P-28	do						2,871			c,w	S	
P-29	do	Earl Fisher		920		Alluvium & Cretaceous rocks	2,721			T,G	Irr	Pump set at 160 ft. in 1959.
P-30	do	H. Hill		540	14	Alluvium	2,920	52.7	July 10, 1959	c,w	D	
P-31	J. M. Reynolds	Ken Regan	1957	4,131			2,942			N	N	Oil test. 1/
*P-32	Joe Dorado	Ray Austin	1957	1,040		Alluvium & Cretaceous rocks	2,923	98.6		T,G	Irr	Discharge measured at 460 gpm on August 6, 1959. 2/
P-33	J. Stafford				8		2,723			C,W	S	
*P-34	S. M. Prewit	Clyde Simmons	1940	120		Alluvium	2,776	107.7	Sept. 14, 1940	N	N	

Table 6 .- Records of wells and springs in Reeves County -- Continued

Table 6.- Records of wells and springs in Reeves County--Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
P-35	A. B. Allen	Lowery Walker	1953	740	16	Alluvium	2,821	292.2	Jan. 12, 1959	T,Ng	Irr	Cased to bottom. Pump set at 300 ft.
P-36	do	do	1953	740	16, 12	do	2,804	281.0	đo	T,Ng	Ind	Casing: 16-in. to 325 ft., 12-in. to bottom. Perforated from 240 ft. to bottom.
P-37	do	do	1953	740	16	do	2,800	271.7	đo	T,Ng	Irr	Cased to bottom.
P-38	Coy Fraley	Earl Fisher	1958	1,010	16	do	2,775	262.9	do	T,Ng	Irr	Cased to bottom. Perforated from 400 ft. to bottom. Pump set at 360 ft. in 1958. 2/
P-39	do					do	2,788	272.2	do	T,Ng	Irr	
P-40	đo	R. Pearce	1953	815	16	do	2,890			T,Ng	Irr	Cased to bottom. Perforated from 240 ft. to bottom. Pump set at 260 ft. in 1953.
P-41	do	do	1953	816	16	do	2,884			T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 310 ft. in 1953.
P-42	Frank J. Bounds	Blackstock	1951	621	16	đo	2,804	275.9	Jan. 14, 1959	T,Ng	Irr	Cased to bottom. Perforated from 110 ft. to bottom.
P-43	do	do	1951	617	16	do				N	N	
P-44	do	Earl Fisher	1952	817	16, 12	do	2,795	274.6	Jan. 14, 1959	т,-	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 350 ft.
P-45	do	đo	1952	821	16, 12	do	2,813			T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated from 100 ft. to bottom.
P-46	C. K. McDonald		1952	490	16	do	2,810	267.6	Jan. 15, 1959	N	N	Cased to bottom.
P-47	-					do	2,820	270.0 291.7	do Jan. 14, 1960	T,Ng	Irr	
P-48							2,838			N	N	
P-49	C. K. McDonald		1953	505	16	Alluvium	2,830			T,G	Irr	Cased to bottom.
P-50	Mrs. S. M. Reed	Rich			16		2,832			N	N	

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
P-51	Mrs. S. M. Reed	Rich	1951	733	16	Alluvium	2,838	312.3	Jan. 15, 1959	T,G	Irr	Cased to bottom. Perforated from 180 ft. to bottom. Pump set at 350 ft. in 1958.
P-52	do	Earl Fisher	1953	700	16	do	2,859	328.8	do	T,G	Irr	Cased to bottom. Perforated from 180 ft. to bottom. Pump set at 350 ft. in 1958.
P-53	đo	Rich	1951	505	16	do	2,849	322.6 344.9	do Jan. 14, 1960	т,-	Irr	Cased to bottom. Pump set at 350 ft. in 1958.
P-54	K. Rountree				6		3,026	101.1	July 13, 1959	c,w	N	
P-55	J. McDonald	Black	1953	600	16	Alluvium	2,895			T,Ng	Irr	Cased to bottom. Perforated from 225 ft. to bottom. Pump set at 320 ft. in 1956. Dis- charge measured 930 gpm on July 15, 1959.
*P-56	Jerry Jenkins			720	16, 12	do	2,873			T,Ng	Irr	Casing: 16-in. to 340 ft., 12-in. to bottom. Perforated from 250 ft. to bottom.
P-57	do			720	16, 12	đo	2,871			T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottam. Perforated from 200 ft. to bottom.
P-58	do	Earl Fisher	1958	1,420	16, 12	Alluvium & Cretaceous rocks	2,869	163.6 211.5	Jan. 15, 1959 Jan. 14, 1960	T,Ng	Irr	Casing: 16-in. to 750 ft., 12-in. to 1,318 ft. Slotted from 350 to 1,318 ft. <u>2</u> /
P-59	J. B. Hopkins	do	1958	801	16	Alluvium	2,860	352.6	Jan. 15, 1959	T,Ng	Irr	Cased to 745 ft. Perforated from 240 to 745 ft. 2/
P-60	do	dq	1958	805	16	do	2,850	329.9	do	T,Ng	Irr	Cased to bottom. Perforated from 240 ft. to bottom. $\frac{2}{2}$
P-61	Stella Baker									T,E	Irr	
P-62	do									T,E	Irr	
P-63	Loy Kilgore	Martin & Sulli- van & Earl Fisher	1958	823	16, 12	Alluvium	2,830	293.9	Jan. 16, 1959	т,Е, 150	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Deepened from 500 ft. to 823 ft. in 1958. Slotted from 230 ft. to bottom.
							216.049					2/

Table 6.- Records of wells and springs in Reeves County--Continued

Table	6	Records	of	wells	and	springs	in	Reeves	CountyContinued	
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	-							Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
P-64	Loy Kilgore	Pearce Bros.	1956	816	16	Alluvium	2,832	295.5	Jan. 17, 1959	T,E	Irr	Cased to bottom. Perforated from 300 ft. to bottom.
P-65	Ted Lindemann			490	16	do	2,833			T,Ng	Irr	Cased to bottom. Pump set at 330 ft. Discharge measured 1,060 gpm on July 15, 1959.
P-66	Artie Baker									T,E	Irr	the second states
P-67	đo					a constants				T,E	Irr	care a police producer
P-68	do									T,E	Irr	
P-69	đo					- Constanting	100			T,E	Irr	Control of the second second
P-70	đo			· '						T,E	Irr	Louis 200 To the test line
P-71	Joe Clark	Earl Fisher	1955	650	16		2,813			T,Ng	Irr	Cased to bottom. Slotted from 300 ft. to bottom. Pump set at 330 ft.
P-72	do	do	1955	680	16		2,830	288.6 304.8	Jan. 5, 1959 Jan. 14, 1960	T,Ng	Irr	Cased to bottom. Slotted from 350 ft. to bottom.
P-73	đo	Julian	1952	1,000	16	Alluvium	2,844			T,Ng	Irr	Cased to bottom. Pump set at 350 ft. in 1958.
P-74	do	do	1952	700	16	do				T,Ng	Irr	do
P-75	đo	do	1952	650	16, 12	đo	2,865	332.4	Dec. 31, 1958	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom.
P-76	do	do	1952	1,000	16	do	2,864	325.9	Jan. 6, 1959	T,Ng	Irr	Cased to bottom.
P-77	Loy Kilgore	264 21044	1951	650	16, 12	do	2,875	344.6 364.6	Dec. 31, 1958 Jan. 14, 1960	T,Ng	Irr	Casing: 16-in. to 450 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Dis- charge reported 1,000 gpm.
P-78	do	Earl Fisher	1957	816	16	do	2,875	351.7	Jan. 2, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Dis- charge reported 1,000 gpm.
P-79	do		1951	650	16	do	2,880	348.7	Jan. 6, 1959	T,Ng	Irr	do
P-80	Reed Farms	1				and the second	2,894		entrational and a second se	N	N	Contrast of the second

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			[[[Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
P-81	Reed Farms					Alluvium(?)	2,898	360.1	Dec. 31, 1958	N	N	Abandoned.
P-82	R. F. Goddard	Stafford & Fisher		600		do	2,950	281.7	July 13, 1958	c,w	S	
P-83	Earl Vest	Walling & Chand- ler	1955	4,785			3,082			N	N	Oil test. 1/
P-84	TXL 011 Corp.	T. Simmons		230		Alluvium	2,844	108.6	Feb. 27, 1959	C,W	S	
P-85	Barilla Farms	K. Slack	1953	700	16	do	2,830	194.9 215.1	Jan. 6, 1959 Jan. 14, 1960	T,Ng	Irr	Cased to bottom. Slotted from 200 ft. to bottom.
P-86	Billie Prewit							225.1	Feb. 6, 1953	N	N	3/
Q-1.	Ivey Bros.	Lowery Walker		1,192	16	Alluvium	2,752	308.9	Jan. 5, 1959	T,Ng	Irr	Cased to bottom. Perforated from $39^{l_{\rm H}}$ ft. to bottom. Pump set at 420 ft. $2/$
Q-2	do	đo		600	16	do	2,745	310.6	do	T,Ng	Irr	Pump set at 370 ft. in 1958. Perforated from 200 ft. to bottom. 2/
ର- 3	do			600	16	do	2,742			T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 370 ft. in 1958.
Q-4	do			600	16	do	2,732			T,Ng	Irr	Cased to 400 ft. Perforated from 150 ft. to 400 ft. Pump set at 370 ft. in 1958.
Q5	do			1,235	16	do	2,736	300.5	Jan. 5, 1959	T,Ng	Irr	Casing perforated from 300 ft. to bottom. Pump set at 400 ft.
Q-6	B. A. Hughes	Pearce	1955	558	16	do	2,729	290.0	do	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 400 ft. in 1956. Dis- charge measured 945 gpm on July 14, 1959.
*Q-7	B. H. Merjil			575	16	do	2,727	300.1 315.2	do Jan. 11, 1960	T,Ng	Irr	Cased to 350 ft. Pump set at 350 ft. $\underline{3}/$
Q-8	do	Earl Fisher	1957	1,293	16	do	2,725			T,Ng	Irr	Cased to bottom. Perforated from 364 ft. to bottom. Pump set at 320 ft. in 1957. 2/

Table 6.- Records of wells and springs in Reeves County -- Continued

								Water	level			
Well	Owner	Driller.	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-9	T. Seguida	Ivey & Oliver	-	505	18	Alluvium	2,731	310.0 304.8 300.9 319.6	Dec. 3, 1958 Jan. 2, 1959 Feb. 11, 1959 Feb. 11, 1960	N	N	Cased to 350 ft.
Q-10	S. M. Twilley	C. & H. Drilling Co.	1948	509	16, 12	do	2,721	289.2	Jan. 2, 1959	N	N	Casing: 16-in. to 350 ft., 12-in. to bottom. Perforated from 88 ft. to bottom. <u>3</u> /
*Q-11	do	Huckabee		600	16	đo	2,720	288.0	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Dis- charge measured 995 gpm on July 14, 1959. Temp. 75°F.
Q-12	Cruz R. Acosta	Earl Fisher	1949	804	16, 12	do	2,719	284.5	do	T,Ng	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Perforated
3.3				1000	10		1205		-	1228		from 350 ft. to bottom. Pump set at 360 ft. in 1958. 2/
Q-13	do	Brock	1953	590	16	do	2,716	283.0	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 360 ft.
Q-14	Kesey Bros.					do	2,700	262.7	do	T,Ng	Irr	MARK ING LC. TO
Q-15	B. H. Merjil		1947	632	16, 12	do	2,712	272.4	do	N	N	Casing: 16-in. to 422 ft., 12-in. from 422 ft. to bottom. Perforated from 150 ft. to bottom.
Q-16	Kesey Bros.	C. C. & H. Drilling Co.	1947	507		đo	2,705	98.6 103.4 94.1 264.8	Feb. 23, 1949 Jan. 16, 1950 Feb. 28, 1950 Jan. 7, 1959	T,G	Irr	Casing perforated from 60 ft. to bottom.
Q-17	do	Earl Fisher	1957	1,269	16	đo	2,705	269.0	do	T,Ng	Irr	Cased to bottom. Perforated from 485 ft. to bottom. Pump set at 380 ft. 2/
Q-18	H. R. Hudson, Jr.	R. Pearce	1951	600	16	do	2,708	275.3	Dec. 5, 1958	T,Ng	Irr	Cased to bottom. Perforated from 210 ft. to bottom. Pump set at 340 ft.
Q-19	Reeves County Land Co.	Lowery Walker	1957	1,380	16, 12	do _	2,700	270.0	đo	T,Ng, 240	Irr	Casing: 16-in. to 550 ft., 12-in. from 550 ft. to bottom. Perforated from 450 ft. to bottom. Pump set at 400 ft. in 1958. 1/

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-20	J. B. Hopkins	Earl Fisher		576	16, 12	Alluvium	2,698	256.1 267.8	Jan. 7, 1959 Jan. 11, 1960	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Pump set at 350 ft. in 1958. <u>2</u> / <u>3</u> /
Q-21	do	Earl Pearce	1955	600	16	do	2,693	250.5	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Perforated from 185 ft. to bottom. Pump set at 350 ft. in 1958.
Q22	do	Earl Fisher	1952	500	16	do	2,689			T,Ng	Irr	Cased to bottom. Perforated from 185 ft. to bottom. Pump set at 350 ft. in 1958.
Q-23	Austin & King	do	1958	1,005	16	do	2,700	266.0	Dec. 5, 1958	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 340 ft. in 1958. 2/
Q-24	Aldon Woods	Charlie Spence	1951	450	16	do	2,689	248.8	Dec. 9, 1958	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 330 ft. in 1958.
Q-25	do			425	16	do	2,686	107.0	do	N	N	Cased to bottom.
Q-26	do					do	2,685	181.2	do	N	N	
Q-27	John Sargent			600	16	do	2,680	231.3	do	T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1958.
Q -28	Austin & King		1949	400	16	do	2,680	196.0	Dec. 5, 1958	N	N	Cased to bottom. Perforated from 100 ft. to bottom. Water reported salty since about 1954.
0.00	U B Evens	Pageras & Pata	1050	860	18	do	0 672	020 1	Dec 0 1058	TT No	Tum	Cogod to 250 ft Dump got at
4-29	W. D. Evans	rearce & rate	1994	000	10, 10, 8, 6	40	2,013	232.1	Dec. 9, 1990	1, Ng	III	350 ft. in 1958. Drilled to 350 ft. in 1948, deepened to 860 ft. in 195 ⁴ .
Q-30	do	B. Huckabee	1952	865	18	do	2,666			т,Е, 200	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 330 ft. in 1958.
*Q-31	do	Pearce & Hucka- bee	1954	865	18, 12	do	2,665	42.5 71.6	Feb. 26, 1940 Jan. 22, 1950	Т,Е, 200	Irr	Casing: 18-in. to 360 ft., 12-in. from 360 ft. to bottom. Perforated from 100 ft. to bot-
- 1927	5 di			2		Martin alman land ang ta			- Parga At.		64. 699	tom. Drilled in 1948, deepened to 865 ft. in 1954. Pump set at 350 ft. in 1958. 3/
L							1					

Table 6.- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-32	W. B. Evans	C. & H. Drilling Co. & Huck- abee	1958	995	16	Alluvium	2,665			T,Ng	Irr	Cased to bottom. Perforated from 400 ft. to bottom. Pump set at 350 ft. in 1958.
Q-33	Paul Davidson	Earl Fisher	1956	1,169	16	đo	2,663	223.2	Dec. 8, 1958	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 350 ft. in 1958. 2/
Q-34	đo	Coleman	1953	642	16	do	2,658	202.5	Dec. 9, 1958	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 350 ft. in 1958.
Q-35	Hubert Nunn	R. Pearce	1952	500	16	do	2,652			T,Ng	N	Cased to bottom. Perforated from 200 ft. to bottom.
*Q-36	Pecos Farms Inc.	Lowery Walker		1,150	16	đo	2,647	151.8	Dec. 9, 1958	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. 2/
Q-37	Hubert Nunn	Earl Fisher	1957	1,150	16, 14	đo	2,645	152.0	Mar. 3, 1958	T,Ng	Irr	Casing: 16-in. to 600 ft., 14-in. from 600 to 988 ft. Perforated from 360 to 988 ft. Pump set at 300 ft. in 1958. Discharge reported 1,400 gpm on Mar. 3, 1958. 1/2/
Q-38	Jack & J. L. Davis	C. & H. Drilling Co.	1948	600	16, 14	do	2,647	206.7	Dec. 8, 1958	T,Ng	Irr	Casing: 16-in. to 260 ft., 14-in. from 260 ft. to bottom. Pump set at 300 ft. in 1958.
Q-39	Paul Davidson		1951	627	16	do	2,640	193.0 178.9 183.9	do Feb. 11, 1959 Jan. 11, 1960	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 350 ft. in 1958. 3/
Q-40	J. B. Kirklin	Earl Fisher	1949	526	16, 12	do	2,641	181.6	Dec. 31, 1958	T,Ng	Irr	Casing: 16-in. to 140 ft., 12-in. from 140 ft. to bottom. Perforated from 100 ft. to bottom. Pump set at 280 ft. in 1958. Discharge reported 1,250 gpm in 1954.
*Q-41	do	do	1949	551	20, 16, 12	do	2,639	175.6	do	T,Ng	Irr	Casing: 20-in. to 140 ft., 16-in. and 12-in. to bottom. Perforated from 200 ft. to bot- tom. Discharge reported 1,300 gpm in 1955.
Q-42	do	" do	1949	506	20, 16, 10	do	2,630			N	N	Discharge reported 1,250 gpm in 1956.

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		1			1			Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarka
Q=43	J. B. Kirklin	Earl Fisher	1951	540	16	Alluvium	2,628	172.4	Dec. 31, 1958	N	N	Cased to bottom. Perforated from 275 ft. to bottom. Dis- charge reported 1,520 gpm in 1955.
Q-44	Billie Prewit	Tom Simmons		300?		do	2,623	114.6	Feb. 27, 1959	с,₩	N	Water reported salty.
*Q-45	do	do		300	8	do	2,614	15.0 28.2	Apr. 2, 1941 Jan. 13, 1950	с,w	S	3/
Q-46	Paul Durckel	Lowery Walker	1955	545	16	đo	2,652	136.8	Dec. 9, 1958	т, Ng, 140	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Dis- charge reported 800 gpm in 1957. Pump set at 320 ft. in 1958.
*Q-47	đo	Earl Fisher	1957	1,230	16	đo	2,652	185.5	Dec. 9, 1957	T,Ng, 150	Irr	Cased to 635 ft. Perforated from 350 to 635 ft. Pump aet at 320 ft. in 1958. Discharge reported 1,200 gpm in 1957. Drilled as test hole to 1,230 ft., completed at 635 ft. <u>1</u> / <u>2</u> /
Q-48	do	đo	1957	1,215	16	đo	2,652	183.4	do	T,Ng, 150	Irr	Cased to 685 ft. Perforated from 380 to 685 ft. Pump set at 320 ft. in 1958. Discharge reported 1,200 gpm in 1957. Drilled as test hole to 1,215 ft., completed at 685 ft. <u>1</u> / <u>2</u> /
Q-49	L. D. McNeil	** **	1948	315	16	đo	2,670	51.9	Dec. 9, 1958	т,Е, 150	Irr	Casing perforated from 80 ft. to bottom. Pump set at 240 ft. in 1958.
Q 50	do	Earl Fisher	1956	1,170	16, 14	do	2,669			T,Ng	Irr	Casing: 16-in. to 570 ft., 14-in. to bottom. Perforated from 700 ft. to bottom. Pump set at 390 ft. in 1958. 2/
Q-51	do	đo		1,265	16, 12	do	2,673	296.1	Dec. 9, 1958	N	N	Casing: 16-in. to 500 ft., 12-in. to bottom. Deepened to present depth in 1957. 2/
Q 52	J. B. Hopkins	do	1955	648	18	do	•2,682	231.4 231.3	do Jan. 11, 1960	T,Ng	Irr	Cased to bottom. Perforated from 260 ft. to bottom. Pump set at 400 ft. in 1958. 2/
Q-53	L. D. McNeil	L. L. Pate		700	16, 14	do	2,679	233.3	Dec. 9, 1958	T,Ng	Irr	Casing: 16-in. to 340 ft., 14- in. to bottom. Perforated from 100 ft. to bottom. Pump set at 300 ft. in 1958. 3/

Table 6 .- Records of wells and springs in Reeves County -- Continued

See footnotes at end of table.

								Water	level			and the second
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-54	L. D. McNeil	Earl Fisher	1957	1,215	14, 12	Alluvium	2,684	244.2	Jan. 7, 1959	T,Ng	Irr	Casing: 14-in. to 450 ft., 12-in. to bottom. Perforated from 450 ft. to bottom. Pump set at 310 ft. in 1958. 2/
Q-55	Floyd McNeil	do	1948	560	16, 10	do	2,688	223.4	đo	т,Е, 150	Irr	Casing: 16-in. to 325 ft., 10-in. to bottom. Perforated from 90 ft. to bottom. Pump set at 310 ft. in 1958.
Q- 56	Kesey Bros.	do	1951	800	16	do	2,695	248.2	đo	T,Ng	Irr	Cased to bottom. Perforated from 275 ft. to bottom. Pump set at 250 ft. in 1953.
Q-57	đo		1950	785	16	do	2,695	253.1	do	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom.
Q-58	W. J. Worsham	Guffey	1951	1,303	16, 12	do	2,698	251.8	Jan. 6, 1959	T,Ng	Irr	Casing: 16-in. to 628 ft., 12-in. to bottom. Perforated from 180 ft. to bottom. Deep- ened to 1,303 ft. in 1956. 2/
Q-59	do	Earl Fisher	1956	1,342	16, 12	đo	2,700		2 1961 - 1971	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated from 400 ft. to bottom. Pump set at 300 ft. in 1956. 2/
Q-60	J. V. Navaretta	-	1954	600	16	do	2,704	271.7	Jan. 6, 1959	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 370 ft. in 1958.
Q-61	do		1948	450	18, 12	đo	2,715	271.6	do	T,Ng	Irr	Cased to bottom. Pump set at 360 ft. in 1958. 3/
Q-62	do	100 00 000000	1949	450	14	đo	2,719		400° 75° 1848	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 370 ft. in 1958.
Q-63	W. J. Worsham		1953	500	16	do	2,718		un anter	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 240 ft. in 1953.
Q-64	do					do	2,715	282.3 298.4	Jan. 5, 1959 Jan. 11, 1960	T,Ng	Irr	
Q-65	do					do	2,723	276.1	Jan. 5, 1959	T,Ng	Irr	STREET.
Q-66	do					do	2,725	278.5	do	T,Ng	Irr	

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								Water	level			
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q67	W. J. Worsham	Earl Fisher	1958	1,460	16, 12	Alluvium	2,726	284.8	Jan. 5, 1959	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Pump set at 340 ft. in 1958. <u>2</u> /
Q-68	do	do		1,170	16	do	2,733	293.0 309.4	do Jan. 11, 1960	T,Ng	Irr	Cased to bottom. Perforated from 425 ft. to bottom. Pump set at 350 ft. in 1958. 2/
ହ- 69	do			930	16	do	2,738	286.6	Jan. 5, 1959	T,Ng	Irr	Cased to bottom. Perforated from 280 ft. to bottom.
Q70	Paul Ivey	Earl Fisher		800	16	do	2,750	287.1	do	T,Ng	Irr	Cased to bottom. Discharge measured 900 grm on July 18, 1959.
Q-71	G. B. Scull			550	16	đo	2,750	302.1	do	T,Ng	Irr	Cased to bottom. Pump set at 370 ft.
Q-72	do			550		do	2,750	298.5	do	T,Ng	Irr	Pump set at 320 ft.
Q-73	do		1955	700	16	do	2,752	278.5 296.9	Jan. 8, 1958 Jan. 13, 1960	T,G	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 310 ft. in 1956.
Q-74	do	Coleman	1949	368	20, 16	do	2,753	278.9	đo	T,Ng	Irr	Casing: 20-in. to 150 ft., 16-in. to bottom. Pump set at 280 ft. in 1956.
Q- 75	do	do	1949	650	20	do	2,739	279.9	Jan. 8, 1959	T,Ng	Irr	Cased to 150 ft. Pump set at 400 ft. in 1958.
Q- 76	đo	Rich	1951	749	16	do	2,724	268.3	đo	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 320 ft. in 1956.
Q-77	do	do	1951	756	16	do	2,729	273.0	đo	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 320 ft. in 1956. 3/
Q-78	E. S. Butler	do	1951	595	16	do	2,716	262.6 281.0	Jan. 7, 1959 Jan. 13, 1960	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 320 ft. in 1956. Dis- charge reported 907 gpm in 1954.
Q-79	do	do	1951	755	16	do	2,717	260.2	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 320 ft. in 1956. Dis- charge reported 840 gpm in 1954.

Table 6 .- Records of wells and springs in Reeves County -- Continued

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
* Q- 80	W. J. Worsham	W. O. Meeks	1948	278	16, 12	Alluvium	2,707	206.7	Jan. 6, 1959	N	N	Casing: 16-in. to 200 ft., 12-in. to bottom. Perforated from 90 ft. to bottom.
Q-81	đo	Earl Fisher		703	16, 12	do	2,707	254.0	do	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Discharge measured 770 gpm on July 18, 1959. Drilled to 1,303 ft.,
			7842				1.15	1.169.13		2.45	1.00	plugged back to 703 ft.
* Q- 82	do	Ted Lindemann	1948	327	16	đo	2,705	207.6	do	T,Ng	Irr	Cased to bottom. Perforated from 90 ft. to bottom. Pump set at 220 ft. in 1953.
Q-83	Oscar Mayfield	đo	1948	450	16	đo	2,708	235.7	Jan. 7, 1959	N	N	Cased to bottom. Perforated from 150 ft. to bottom.
Q-84	do	C. C. & H. Drilling Co.	1951	475	16	đo	2,698	221.7	do	N	N	Cased to bottom.
Q-85	Earl Fisher	Earl Fisher	1956	1,016	16, 12	do	2,689	237.2	do	T,Ng	Irr	Casing: 16-in. to 485 ft., 12-in. to bottom. Perforated from 485 ft. to bottom. 2/
Q-86	do						2,790	198.7	do	N	N	chards an electronic point and age of
Q-87	Randell Butler	Earl Fisher	1956	1,409	16	Alluvium	2,692	241.3	do	T,Ng	Irr	Cased to bottom. Pump set at 310 ft. in 1956. Discharge measured 790 gpm on July 14,
												1959. 2/
Q-88	do	do	1956	1,406	16	đo	2,694	242.9	do	T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1956. Discharge measured 940 gpm on July 14, 1959. 2/
*Q-89	Earl Fisher	do	1956	1,000	16, 12	do	2,683	213.4	do	T,Ng	Irr	Cased to bottom. 2/
Q-90	do	đo	1956	995	16	do	2,687	230.5	do	T,Ng	Irr	Cased to bottom. Pump set at 350 ft. in 1958. 2/
Q-91	B. B. Young	do	1956	1,008	16	do	2,674	222.2 234.3	Jan. 9, 1959 Jan. 11, 1960	T,Ng	Irr	Cased to bottom. Perforated from 400 ft. to bottom. Pump set at 340 ft. in 1958. 2/
Q-92	do			585	16	đo	2,676	216.8	Jan. 9, 1959	T,Ng	Irr	Pump set at 300 ft. in 1958.

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[]								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-93	Weldon Armstrong	Earl Fisher	1957	804	16	Alluvium	2,672	192.3	Jan. 9, 1959	N	N	Cased to bottom. $2/$
Q- 95	Roy Pearce				16		2,556	82.8 81.6	Dec. 9, 1958 Jan. 15, 1960	N	N	
Q-96	đo				16		2,653	68.8	Dec. 9, 1958	N	N	Abandoned.
Q-9 7	do				16	Alluvium	2,652	53.6	do	N	N	do
Q-9 8	Douglas Fernandes	Pate & Lindemann	1950	500	16, 10	đo	2,655	37.3	do	T,Ng, 80	Irr	Casing: 16-in. to 300 ft., 10-in. to bottom. Pump set at 220 ft. in 1958.
*Q-99	J. E. Scott	Ted Lindemann	1949	240	16	do	2,656	39.3 36.6	Dec. 8, 1958 Jan. 15, 1960	N	N	
Q-100	do	Earl Fisher		500	16, 14, 12	do	2,654	123.3 136.7	Dec. 8, 1958 Jan. 15, 1960	T,Ng	Irr	Casing: 16-in. to 332 ft., 14-in. from 332 to 397 ft., 12-in. to bottom. Perforated from 273 ft. to 499 ft. Pump set at 220 ft. in 1956.
Q-101	do	Ted Lindemann	1949	230	16	do	2,649	34.2	Dec. 8, 1958	т,Ng, 76	Irr	Cased to bottom. Pump set at 110 ft. in 1953.
Q-102	Billie Prewit	R. Pearce	1955		16	do	2,649	157.7	Dec. 9, 1958	T,Ng, 200	Irr	Pump set at 350 ft. Discharge measured 1,300 gpm on July 21, 1959.
*Q-103	do	Tom Simmons		3001	6	do	2,637			C,W	S	
*Q-104	đo			125	7	do	2,643	7.1 75.1 38.1	Mar. 3, 1942 Feb. 26, 1959 Jan. 15, 1960	C,W	S	Dug and drilled. Old well. 3/
Q-105	do	Earl Fisher	1940	300?	6	do	2,639	86.0	Feb. 27, 1959	C,W	S	<u>2</u> /
Q-106	Glen Alexander	B. S. Estes	1955	700	16	do	2,649	121.0	Jan. 5, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 350 ft.
Q-107	do				16	do	2,649	27.6	Dec. 10, 1958	N	N	
Q-108	do				16	do	2,650	26.4	do	N	N	Abandoned.
Q-109	Billie Pre vi t	Ken Reagan		4,935			2,648			N	N	011 test. <u>1</u> /

Table 6 .- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-110	L. D. McNeil, Jr.					Alluvium	2,656	33.5	Dec. 10, 1958	T,Ng	S,Irr	
Q-111	do				16	do	2,658	34.9	do	T,Ng	Irr	mined to to the galaxies of
*Q-112	Gail Jones	J. H. Hardaway		150	16	đo	2,664	20.9 40.5 37.6	Apr. 25, 1947 Dec. 10, 1958 Jan. 15, 1960	T,Ng	Irr	Pump set at 110 ft. in 1958. 2/ 3/
Q-113	L. L. Pate	Watts & Pate		265	16, 10	do	2,660	42.0 39.7 36.4	Feb. 6, 1958 Dec. 10, 1958 Jan. 15, 1960	T,Ng	Irr	Casing: 16-in. to 165 ft., 10-in. to bottom. Perforated from 165 ft. to bottom. Pump set at 150 ft.
*Q-114	đo	John Wendt	1918	195		do	2,658	13.9 33.0	Jan. 27, 1947 Dec. 10, 1958	N	N	Formerly supplied water for irrigation. $2/3/$
Q-115	F. A. Schluter	L. L. Pate	1957	610	16	do	2,659	48.1	Dec. 9, 1958	N	N	Cased to bottom. Abandoned.
Q-116	Western Cotton Oil Co.			80	6	do	2,657	31.6	đo	J,E, 2	Ind	Supplies water for irrigating lawn.
Q-117	F. A. Schluter	Lowery Walker	1952	1,080	18, 16, 12	do	2,660	148.1	đo	N	N	Casing: 18-in. to 400 ft., 16-in. from 400 to 700 ft., 12-in. to bottom. Perforated from 200 ft. to bottom. For- merly supplied water for irri-
Q-118	R. E. Talley		1951	700	16, 12	đo	2,668	146.4	do	T,Ng	Irr	Casing: 16-in. to 205 ft., 12-in. to bottom. Perforated from 205 ft. to bottom. Pump set at 260 ft. in 1953.
Q-119	do	Lowery Walker		990	16, 12	đo	2,670	150.2	do	T,Ng	Irr	Casing: 16-in. to 424 ft., 12-in. to bottom. Perforated from 400 ft. to bottom. <u>2</u> /
Q-120	do ·	do	1953	850	16, 12	do	2,668	147.4	đo	N	N	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 300 ft. to bottom.
Q-121	F. A. Schluter		1956	1,487	16	do	2,660			T,Ng	Irr	1/
Q-122	A. E. Babcock	Pearce Bros.	1949	500	16, 14	do	2,667	55.4	Jan. 9, 1959	N	N	
Q-123	do	Lowery Walker	1955	800	16	đo	2,670	272.9	do	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Fump set at 350 ft. 2/

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-124	A. E. Babcock	Earl Fisher	1956	1,119	16	Alluvium	2,676	271.7	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Pump set at 350 ft. <u>2</u> /
Q-125	Bailey Guess	Lowery Walker	1958	1,050	16	do	2,680	202.5	do	T,Ng	Irr	Cased to 1,050 ft. Perforated from 380 to 1,050 ft. Test hole to 1,400 ft. Pump set at 430 ft. Discharge measured 990 gpm on July 15, 1959. <u>1</u> / <u>2</u> /
Q-126	Marvie Shortes	Earl Fisher	1958	1,055	16, 12	do	2,691	228.0	Jan. 8, 1959	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 420 ft. to bottom. Dis- charge measured 785 gpm on July 14, 1959. 2/
Q-127	do					do	2,691	184.8	do	N	N	
Q-128	Trans-Pecos Experi- ment Station	Earl Fisher		1,022	16, 12	do	2,687	189.3 193.1	do Jan. 13, 1960	T,Ng, 180	Irr	Casing: 16-in. to 805 ft., 12-in. to 1,022 ft. Perforated from 215 to 1,022 ft. Test hole to 1,556. Pump set at 350 ft. Discharge measured 1,070 gpm on July 15, 1959. 2/
Q-129	Otto Barkowsky	Tom Simmons	1949	650	16, 12	do	2,695	205.8	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Pump set at 310 ft. in 1958. <u>2</u> /
Q-130	Macha & Sons		1948	700	16, 14, 12	do	2,702	204.6	Jan. 8, 1959	T,Ng	N	Cased to bottom.
Q-131	do	Ted Lindemann	1948	836	16	do	2,711	253.5	do	T,Ng	Irr	Pump set at 350 ft. in 1958.
Q-132	do	Guffey & Pate	1951	882	16, 12	đo	2,712	238.2	đo	T,Ng	Irr	Casing: 16-in. to 550 ft., 12-in. to 800 ft. Perforated from 550 to 800 ft. Pump set at 390 ft. in 1958.
Q-133	do	Ted Lindemann	1948	845	16, 10	đo	2,716	181.9	do	T,Ng	N	Casing: 16-in. to 403 ft., 10-in. to bottom. Perforated from 90 ft. to bottom.
*Q-134	do	Lowery Walker	1957	800	16	do	2,756	240.7	do	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 275 ft. in 1958. 2/

Table 6 .- Records of wells and springs in Reeves County -- Continued

								Water	level		1	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Q-135	Macha & Sons	Lowery Walker	1957	1,508	16, 12	Alluvium & Cretaceous rocks	2,763	198.2	Jan. 8, 1959	T,Ng	Irr	Casing: 16-in. to 800 ft., 12-in. to bottom. Perforated from 250 ft. to bottom. Temp. 83°F. <u>2</u> /
Q-136	Kesey Bros.	do	1955	1,140	16	Alluvium	2,752	259.7	Dec. 23, 1958	T,Ng	Irr	Cased to bottom. Pump set at 320 ft. in 1956.
Q-137	do	R. Pearce	1952	475	16	do	2,759			T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 400 ft. in 1958.
Q-138	do	Lowery Walker	1955	1,054	16	do	2,762	257.6	Dec. 23, 1958	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 450 ft. in 1958.
Q-139	do	do	1956	1,056	16	đo	2,763	262.6	Dec. 23, 1959	T,Ng	Irr	Cased to bottom. Perforated from 430 ft. to bottom. Pump set at 320 ft. in 1956.
Q-140	do	R. Pearce	1952	820	16	đo	2,750	255.3 269.7	Dec. 23, 1958 Jan. 13, 1960	T,Ng, 180	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 450 ft. in 1958.
Q-141	đo	S. Stafford	1952	450	16	do	2,740	246.2	Dec. 23, 1958	N	N	Cased to bottom. Perforated from 200 ft. to bottom.
Q-142	M. & S. Farms						2,729	215.0	do	N	N	the second second second
Q-143	do	And Window					2,729	113.0	do	N	N	CONTRACT DESCENT OF ADD LOT OF
Q-144	do	Earl Fisher	1956	1,150	16	Alluvium	2,737	228.6	do	N	N	2/
Q-145	Texas Cotton In- dustries		1951	1,217	16, 10	do	2,719			N	N	<u>1</u> /
Q-146	đo	Simmons & Fisher	1951	1,100	16, 12	đo	2,716	219.0 222.3	Jan. 7, 1959 Jan. 13, 1960	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated
19-12-6		Service Service	194	i Vila e			Strainer,		1997 St. 18633	1	- 1.4	set at 350 ft. 2/
Q-147	do	Lowery Walker	1956	1,163	16	do	2,710	226.1 239.4	Jan. 7, 1959 Jan. 13, 1960	T,Ng	Irr	Cased to bottom. Perforated from 373 ft. to bottom. Pump set at 400 ft. in 1958. 2/
Q-148	đo	do	1957	1,229	16	do	2,703			T,Ng	Irr	Cased to bottom. Perforated from 376 ft. to bottom. Pump set at 470 ft. in 1958. 2/

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								Water	level			topological sector and the sector of the sec
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-149	Bowers, Kelley & McCutcheon	Ted Lindemann	1950	750	16, 12	Alluvium	2,693	187.1	Jan. 9, 1959	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 320 ft. in 1958.
Q-150	J. E. Scott	Earl Fisher	1959	1,282	16	đo	2,701			T,Ng	Irr	Discharge measured 685 gpm on July 18, 1959. <u>1</u> /
Q-151	J. A. McAnally	Lowery Walker	1953	830	18, 16, 12	do	2,675			T,Ng	Irr	Casing: 18-in. to 256 ft., 16-in. from 256 to 296 ft., 12-in. to bottom. Perforated from 332 ft. to bottom. 2/
*Q-152	W. P. Mattox	Earl Fisher	1957	1,270	16	đo	2,687	172.8	Jan. 9, 1959	T,Ng, 180	Irr	Cased to bottom. Slotted from 299 ft. to bottom. Pump set at 400 ft. in 1958. Discharge measured 1,800 gpm Mar. 10, 1958. 2/
*Q-153	do			151		đo	2,689	38.0 36.0	Feb. 24, 1949 Jan. 27, 1957	T,Ng	Irr	Test hole to 216 ft., cased to 151 ft. $3/$
Q-154	do	Earl Fisher	1957	1,354	16	đo	2,688	164.2 170.4 188.4 173.3	Feb. 4, 1958 Jan. 9, 1959 May 20, 1959 Jan. 13, 1960	T,Ng, 180	Irr	Cased to bottom. Slotted from 295 ft. to bottom. Pump set at 450 ft. in 1959. <u>1/2/</u>
*Q-155	do					do	2,680			T,Ng	Irr	
Q-156	Bailey Guess	Lowery Walker		864	12	do	2,674			T,Ng	Irr	Cased to bottom. 2/
Q-157	do	do	1956	1,105	16	do	2,676	155.9	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Perforated from 349 ft. to bottom. Fump set at 320 ft. in 1956. Dis- charge reported 1,017 gpm in 1956. <u>2</u> /
Q-158	F. M. Reeves	đo	1954	1,015	18	do	2,689	191.3	Dec. 11, 1958	T,Ng	Irr	Cased to bottom. Perforated from 460 ft. to bottom. Pump set at 410 ft. in 1958. 2/ 3/
*Q-159	Marvin Frazier	J. H. Hardaway	1945	153	16	do	2,676	17.9 39.7	Nov. 6, 1946 Dec. 11, 1958	T,Ng	Irr	Cased to bottom. Pump set at 110 ft. in 1958. 2/
*Q-160	do	Tom Simmons	1940	137	16	do	2,678	19.6 41.1 34.0	Nov. 8, 1946 Dec. 11, 1958 Jan. 15, 1960	T,Ng	Irr	Pump set at 110 ft. in 1958. 2/ 3/

Table 6.- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Q-161	J. T. McKinney	Lowery Walker	1959	1,080	16.	Alluvium	2,666		-	T,Ng	Irr	Cased to bottom. Perforated from 437 ft. to bottom. Dis- charge measured 975 gpm on July 15, 1959. 2/
Q-162	do	Valley Drilling	1951	600	18	do	2,670	58.9	Dec. 10, 1958	T,Ng	Irr	Cased to bottom. Perforated
			2008. 	12.2			114.4				141	set at 300 ft. in 1958. Dis- charge measured 1,000 gpm on July 15, 1959.
Q-163	Marvin Frazier		1959	1,000		do	2,672			T,G	Irr	1/
*Q164	Loring Box			152	16	do	2,673	16.2 39.7 35.6	Jan. 27, 1947 Dec. 9, 1958 Jan. 15, 1960	T,Ng	N	Pump set at 80 ft. in 1958. 3/
Q-165	do			400	16	do	2,675	38.6	Dec. 10, 1958	T,Ng	Irr	Pump set at 80 ft. in 1958.
Q-166	Billie Prewit	Tom Simmons		300?	8	do	2,653	25.2	Feb. 27, 1959	c,W	S	and and make an and and
Q-167	Carrie Eisenwine	Ken Reagan	1955	5,015			2,668			N	N	011 test. <u>1</u> /
*Q168	Billie Prewit	Tom Simmons	1939	300	8	Alluvium	2,668			c,w	S	Cased to bottom. Headquarters well.
Q-169	do	Earl Fisher	1958	516	16	do	2,666	89.4 93.2	Jan. 23, 1959 Jan. 15, 1960	T,Ng	N	Cased to bottom. Perforated from about 200 ft. to bottom. Pump set at 200 ft. Deepened from 400 ft. to 516 ft. in 1955. 2/ 3/
Q-170	Earl Fisher & Joe Boswell	do	1.958	1,400	16	do	2,677			T,Ng	Irr	Discharge measured 870 gpm on July 15, 1959. $\underline{1}/\underline{2}/$
Q-171	do				16		2,679	40.7	Jan. 5, 1959	T,G	N	and the second second
Q-172	H. Hankins	Coleman		300	16, 12	Alluvium	2,680	42.1	Dec. 11, 1958	T,Ng	Irr	Casing: 16-in. to 148 ft., 12-in. to bottom. Pump set at 120 ft. <u>2</u> /
*Q-173	R. C. Weaver	Ted Lindemann	1948	227	14	do	2,680	47.7	do	N	N	Cased to bottom. Perforated from 60 ft. to bottom.
Q-174	do	Earl Fisher	1953	604	12	do	2,689	52.4	do	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 210 ft.
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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Q-175	A. Gardner	J. H. Hardaway	1949	155	14	Alluvium	2,692	28.1 43.0	Jan. 28, 1947 Dec. 11, 1958	N	N	Drilled to 155 ft., plugged back to 140 ft. 2/
Q-176	F. M. Reeves	Pearce	1953	700	16	do	2,692			T,Ng	Irr	Cased to bottom. Pump set at 400 ft. in 1958.
Q-177	do	Lowery Walker	1959	1,398	22, 16	do	2,692			T,Ng	Irr	Casing: 22-in. to 370 ft., 16-in. to 1,299 ft. Perforated from 392 to 1,299 ft. <u>1</u> / <u>2</u> /
Q-178	J. Lumpkin	Ted Lindemann		190	18	do	2,700	29.0	Jan. 9, 1959	N	N	Cased to bottom.
Q-179	do	do		190	18	do	2,700	28.2	do	N	N	
Q-180	do	do		190	18	do	2,705	34.6	do	T,Ng	N	Cased to bottom. Perforated from 50 ft. to bottom.
Q-181	W. W. Clem			150		do	2,711	54.2 36.8 30.2	Jan. 30, 1952 Jan. 9, 1959 Jan. 13, 1960	N	N	Abandoned. <u>3</u> /
Q-182	do					do	2,712	141.4	Jan. 9, 1959	T,Ng	Irr	
*Q-183	do			1,100	16		2,714	72.8 184.0 196.3	Jan. 30, 1952 Jan. 9, 1959 Jan. 13, 1960	T,Ng	Irr	3/
Q-184	J. H. Reed			400	16	Alluvium	2,719	159.7	Jan. 7, 1959	N	N	
Q-185	do				16		2,718			N	N	
Q-186	dò			400	16	Alluvium	2,719			T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 270 ft.
Q-187	do	Earl Fisher	1958	1,070	16	do	2,727			T,Ng	Irr	Cased to 1,070 ft. Perforated from 500 ft. to 1,070 ft. Pump set at 450 ft. Test hole to 1,728 ft. $\underline{1}/2$
Q-188	do	Lowery Walker	1958	793	16	đo	2,730	171.0	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Pump set at 350 ft. $2/$
Q-189	M. & S. Farms						2,736	116.5	Jan. 8, 1959	N	N	
Q-190	do	Earl Fisher	1955	1,150	16	Alluvium	2,748	249.4 262.5	do Jan. 13, 1960	N	N	Cased to bottom. Slotted from 400 ft. to bottom. $\underline{2}/$

Table 6.- Records of wells and springs in Reeves County--Continued

See footnotes at end of table.

								Water	level			the state of the second state of the
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-191	M. & S. Farms			450?		Alluvium	2,759	204.0	Jan. 8, 1959	N	N	
Q-192	O. & E. P. Watson	Guy Walker		600	16	đo	2,752	259.9	Jan. 12, 1959	T,Ng	Irr	Cased to bottom. Perforated
0-702	19 AN	and the second	20.2			40	124			5725	144	set at 380 ft. in 1958. Dis- charge measured 880 gpm on July 15, 1959.
*Q-193	Swain Thomas	Earl Fisher	1950	800	16	do	2,785	264.6	do	T,Ng	Irr	Casing: 16-in. to 500 ft.,
9-782	10-			-	72		1.38			2		from 200 ft. to bottom. Pump
1-750 -	11 8° 2001		-			N. Talak	1.00	2312				charge measured 650 gpm on July 15, 1959.
Q-194	F. T. Fuqua	-	-	450	16	do	2,790	258.3	do	T,Ng	Irr	Cased to bottom. Pump set at 350 ft.
Q-19 5	.Stella Baker					·	2,794		1997 Calab	T,E	Irr	
Q-196	F. T. Fuqua		1950	400	16	Alluvium	2,775	253.9	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Pump set at 390 ft.
Q-197	C. T. Fugua	Walker		1,007	16, 12	do	2,782			T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 400 ft. 2/
*Q-198	M. & S. Farms		1949	400	16	do	2,770	133.4	Jan. 8, 1959	N	N	Abandoned.
Q-199	do			860	16	đo	2,765	140.0	do	N	N	Standby well for use during emergencies.
Q-200	do		1954	970	16	do	2,754	232.0	do	N	N	
Q-201	J. J. Muirhead						2,755			T,Ng	N	
Q-202	Jewel B. Logan	Lowery Walker	1957	1,400	16, 12	Alluvium	2,736	-	-	T,Ng	Irr	Casing: 16-in. to 800 ft., 12-in. to bottom. Perforated from 400 ft. to bottom. Pump set at 380 ft.
*Q-203	do		1950	1,000	16, 12	đo	2,738	85.0 182.8 183.8	Jan. 30, 1952 Jan. 7, 1959 Jan. 14, 1960	T,Ng	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated from 250 ft. to bottom. Pump set at 380 ft. 3/
Q-204	Mrs. J. D. Passmore		1947	300?	16	do	2,738	-		N	N	Abandoned.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q- 205	Mrs. J. D. Passmore	Ted Lindemann			16, 12, 10		2,742	32.7 201.9 206.2	Feb. 7, 1949 Jan. 7, 1959 Jan. 14, 1960	T,Ng	Irr	Casing: 16-in. to 370 ft., 12-in. from 370 to 460 ft., 10-in. to bottom. Perforated from 100 ft. to bottom. Pump set at 400 ft. 3/
ହ- 206	đo	Earl Fisher	1951	967	16, 12, 10	Alluvium	2,724	193.3	Jan. 7, 1959	T,Ng	Irr	Casing: 16-in. to 330 ft., 12-in. to 430 ft., 10-in. to bottom. Perforated from 100 ft. to bottom.
*Q-207	Arnold Gardner	Wright	1958	1,410	16	do	2,711	192.8	Dec. 11, 1958	T,Ng	Irr	Cased to bottom. Pump set at 400 ft. Discharge measured 940 gpm on July 15, 1959. <u>1</u> / <u>2</u> /
Q-208	do	Pearce	1952	1,045	16, 12	đo	2,711	199.7 208.1	do Jan. 15, 1960	T,Ng	Irr	Casing: 16-in. to 645 ft., 12-in. to bottom. Fump set at 400 ft. Discharge measured 625 gpm on July 15, 1959.
ର-20 9	do	Ted Lindemann	1951	400	14	do	2,708	92.1	Dec. 11, 1958	N	N	Formerly supplied water for irrigation. Abandoned.
Q-210	do	C. & H. Drilling Co.		700	16		2,702			N	N	Drilled as test hole for irri- gation. Abandoned.
Q-211	do	Pearce		1,045	16		2,702	162.5	Dec. 12, 1958	N	N	do
Q-212	do			225	16		2,700	51.7	do	T,Ng	Irr	Reported not used in 1958.
Q-213	J. W. Mayo, et al.						2,688	108.3	Dec. 17, 1958	T,Ng	Irr	Pump set at 300 ft.
*Q-214	C. E. Carlson	an 160		500 ?	16		2,692	144.0 147.1	do Jan. 15, 1960	T,Ng	Irr	Discharges measured 910 gpm on July 15, 1959.
Q-215	S. B. Hunt	Lowery Walker	1953	640	12	Alluvium	2,703	86.5	Jan. 6, 1959	T,Ng	N	Cased to bottom. Perforated from 190 ft. to bottom.
Q-216	do	W. Jobe	1958	450	16	do	2,705	86.3	do	T,Ng	N	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 300 ft.
Q-217	do	Lowery Walker		6501	16	do	2,709	90.1	Jan. 6, 1959	N	N	Cased to bottom. Perforated from 100 ft. to bottom. Aban- doned.
Q-218	do	do		6501	16	do	2,708	70.0	do	T,Ng	N	Cased to bottom. Pump set at 350 ft.

Table 6 .- Records of wells and springs in Reeves County -- Continued

See footnotes at end of table.

Table 6 .- Records of wells and springs in Reeves County -- Continued

		Τ						Water	level			
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-219	S. B. Hunt	Lowery Walker	-	650?	16	Alluvium	2,712	67.4	Jan. 6, 1959	N	N	Cased to bottom.
Q-220	Carrie Eisenwine	-		60 ?	8, 6	do	2,698	15.5 79.7	Aug. 7, 1933 Jan. 24, 1957	C,W	S	3/
Q-221	Jerry Jenkins			490	16	do	2,695			N	N	Cased to bottom.
*Q-222	H. T. Collier	Tom Simmons	1938	. 80		do	2,700	15.3	Nov. 12, 1946	N	N	Pump set at 60 ft. in 1946. Discharge measured 1,150 gpm on April 18, 1947.
Q-223	Fred P. Armstrong	Derice	-	600	16	do	2,707	97.4 98.5	Jan. 7, 1959 Jan. 15, 1960	T,Ng	Irr	Casing slotted from 200 ft. to bottom. Discharge measured 900 gpm on July 15, 1959.
Q-224	J. F. Crews	Lowery Walker	1953	620	16	do	2,707	100.8	Jan. 5, 1959	T,Ng	Irr	Cased to bottom. Pump set at 300 ft.
Q-225	do	do		540	16	do	2,701	103.4	Jan. 9, 1959	T,Ng	Irr	do
Q-226	do	do	1953	625	16	đo	2,712	107.6	Jan. 5, 1959	N	N	Cased to bottom.
Q-227	do	Rich	1951	700	16	do	2,715	117.3	do	N	N	and the proceeding advantage of
Q-228	W. W. Hill	Lowery Walker	1958	1,445	16, 12	Alluvium & Cretaceous rocks	2,721	190.2	Dec. 12, 1958	T,Ng	Irr	Cased to bottom. 2/
Q-229	do		1951	600	16	do	2,718	91.9	do	N	N	Abandoned.
Q- 230	do		1952	1,000	18, 12	Alluvium	2,723	181.8	đo	T,Ng	Irr	Casing: 18-in. to 400 ft., 12-in. to bottom. Perforated from 400 ft. to bottom.
Q-231	đo		1957	700	16	do	2,724	191.1	do	T,Ng	Irr	Cased to bottom. Perforated from 425 ft. to bottom. Fump set at 420 ft. in 1959. Dis- charge reported 1,740 gpm in 1957.
Q-232	do				16		2,726	190.7	đo	T,Ng	Irr	
Q-233	T. Passmore	Earl Fisher	1955	1,100	16, 12	Alluvium & Cretaceous (?) rocks	2,736	196.6	Jan. 7, 1959	T,Ng	Irr	Casing: 16-in. to 600 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 380 ft.
						AND COMPANY AND			1000	TT. N.C.	Two	Costing: 16-in to 360 ft
Q-234	do	do		900	1.6,	Alluvium				T,Ng	IFF	10-in. to bottom.

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								Water level				
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-235	Garvin Passmore	Schooler	1947	391	16	Alluvium	2,745	197.9	Jan. 7, 1959	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 280 ft. in 1953.
Q-236	do	do	1947	350	16	do	2,748	128.8 161.2	Jan. 23, 1954 Jan. 27, 1957	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. 3/
Q-237	Texas Cotton In- dustries	Hayvanor Drilling Co.	1952	918	16	do	2,759	133.4	Jan. 8, 1959	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. from 300 ft. to 918 ft. Perforated from 120 ft. to 918 ft. Test hole to 1,005 ft. Pump set at 240 ft. <u>2</u> /
Q-238	do	do	1952	1,003	16, 12, 10	do	2,762	219.7	Jan. 9, 1959	T,Ng	Irr	Casing: 16-in. to 500 ft., 12-in. and 10-in. perforated casing from 500 ft. to bottom. Pump set at 360 ft. <u>2</u> /
Q- 239	đo	Lowery Walker		1,465	16, 12	Alluvium & Cretaceous rocks	2,755	207.2	Jan. 8, 1959	T,Ng	Irr	Casing: 16-in. to 749 ft., 12-in. to bottom. Perforated from 462 ft. to bottom. Pump set at 530 ft. <u>2</u> /
Q-240	Texas Cotton In- dustries	Hayvanor Drilling Co.	1952	1,003	16, 12	Alluvium	2,762	208.3	do	T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 440 ft. 2/
Q-241	do	Lowery Walker		1,470	16, 12	Alluvium & Cretaceous rocks	2,766	142.9	do	T,Ng	Irr	Casing: 16-in. to 870 ft., 12-in. to bottom. 2/
Q-242	do	Armstrong Bros.		282		Alluvium	2,775	218.6	do	N	N	2/
Q-243	do	Lowery Walker		1,067	16	do	2,773	223.6 230.6	do Jan. 14, 1960	T,Ng	Irr	Cased to bottom. Perforated from 271 ft. to bottom. Pump set at 420 ft. in 1959. 2/
*Q-244	do	Armstrong Bros.	1948	268		do	2,772	221.7	Jan. 8, 1959	N	N	
Q-245	do	Lowery Walker		803	16	do	2,772			T,Ng	Irr	Cased to 799 ft. Perforated from 283 to 799 ft. Pump set at 430 ft. in 1958. <u>2</u> /
Q-246	do	Armstrong Bros.	1950	412	16	do	2,771	218.1	Jan. 9, 1959	T,Ng	Irr	Cased to bottcm. Pump set at 380 ft. Drilled to 392 ft., deepened to 412 ft.

Table 6 .- Records of wells and springs in Reeves County --- Continued

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-247	Theo Thompson	Earl Fisher	1956	1,375	16, 12	Alluvium & Cretaceous rocks	2,790	140.9	Jan. 12, 1959	T,E	Irr	Casing: 16-in. to 500 ft., 12-in. to bottom. Perforated from 350 ft. to bottom. Pump set at 400 ft. in 1956. 2/
Q-248	do						2,806	264.3	do	T,E	Irr	
Q-249	do						2,807	253.7	do	T,E	Irr	
Q-250	do	Earl Fisher	1956	1,432	16, 12	Alluvium & Cretaceous rocks	2,804			т,Е, 150	Irr	Casing: 16-in. to 500 ft., 12- in. to bottom. Perforated from 350 ft. to bottom. Pump set at 400 ft. in 1957. 2/
Q-251	McDonald		1952	632	16	Alluvium	2,804	268.0	Jan. 12, 1959	T,E, 125	Irr	Cased to bottom. Perforated from 282 ft. to bottom. Pump set at 230 ft. in 1953.
Q- 252	do	C. Pearce	1955	800	16	đo	2,805	270.0	Jan. 15, 1959	T,E, 125	Irr	Cased to 750 ft. Perforated from 350 ft. to 750 ft. Pump set at 300 ft. in 1955.
Q-253	Artie Baker						2,802			T,E	N	
Q-254							2,807	221.8	Jan. 5, 1959	т,-	N	and the second second
Q-255							2,808	342.1	đo	т,-	Irr	
*Q-256	Swain Thomas	Lowery Walker	1959	1,4007	16	Alluvium & Cretaceous rocks	2,790	213.6 216.6 234.4	Feb. 5, 1958 Jan. 5, 1959 Jan. 14, 1960	T,E	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 420 ft. Discharge mea- sured 565 gpm on July 15, 1959.
Q-257	đo	-		640	16, 14	Alluvium	2,790	213.6 216.6	Feb. 5, 1958 Jan. 5, 1959	T,E	Irr	Casing: 16-in. to 300 ft., 14- in. to bottom. Discharge mea- sured 715 gpm on July 15, 1959. Pump set at 290 ft.
Q-258	D. H. Armstrong	E. Pearce	1954	600	16	do	2,790	215.5 217.0	do Jan. 14, 1960	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 400 ft.
Q-259	do	do	1956	1,200	16	Alluvium & Cretaceous (?) rocks	2,791	201.6	Jan. 5, 1959	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 400 ft.
Q-260	Tom Passmore			600	16	Alluvium	2,778	195.3	Jan. 2, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 360 ft.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diame eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-261	Tom Passmore	Lowery Walker	1958	795	16	Alluvium	2,780	203.8	Jan. 2, 1959	T,Ng	Irr	Cased to bottom. Perforated from 324 ft. to bottom. Pump set at 400 ft. 2/
Q-262	ob						2,770	185.7	do	N	N	
Q-263	do						2,773	178.0	do	T,Ng	Irr	
Q-264	G. Passmore	Lowery Walker	1957	1,554	16, 12	Alluvium & Cretaceous rocks	2,762			T,Ng	Irr	Casing: 16-in. to 750 ft., 12-in. to bottom. Perforated from 300 ft. to bottom. Pump set at 360 ft. in 1957. <u>1/2</u> /
Q-265	Garvin Passmore	Earl Fisher	1955	1,195	16, 12	Alluvium	2,766	178.2	Dec. 31, 1958	T,Ng	Irr	Casing: 16-in. to 800 ft., 12-in. to bottom. Perforated from 350 ft. to bottom. 2/
Q-266	J. G. Pfluger	do	1957	655	16	do	2,757	146.1 158.5	do Jan. 14, 1960	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. 2/
*Q-267	Carrie Eisenwine			100	8	do	2,749	28.8	May 15, 1941	C,W	S	Old well.
Q-268	J. G. Pfluger	Earl Fisher	1958	780	16	do	2,757	149.1	Dec. 31, 1958	T,Ng	Irr	Cased to bottom. Perforated from 272 ft. to bottom. $\underline{2}/$
Q-269	do	do	1958	1,394	16	Alluvium & Cretaceous rocks	2,749	161.0	do	T,Ng	Irr	Cased to 1,140 ft. Perforated from 260 ft. to 1,140 ft. $\frac{1}{2}$
Q-270	Armstrong	M. D. Bryant		5,000			2,734			N	N	Oil test. 1/
Q-271	E. E. West						2,744	66.2	Jan. 7, 1959	Т,Е, 1	D	Formerly supplied water for irrigation.
Q-272	do						2,738	130.2	do	N	N	Abandoned.
Q-273	do	Earl Fisher	1957	1,210	16	Alluvium	2,734			т,Е, 150	Irr	Cased to bottom. Perforated from 430 ft. to bottom. Pump set at 475 ft. 2/
Q-274	đo			680	16, 12	do	2,738	115.6	Jan. 7, 1959	т,Е, 125	Irr	Casing: 16-in. to 300 ft., 12- in. to bottom. Perforated from 150 ft. to bottom. Pump set at 370 ft.
Q-275	do						2,730	105.7	do	N	N	Abandoned.
Q-276	do			680	16	Alluvium	2,730			т,Е, 150	Irr	Cased to bottom. Pump set at 375 ft.

See footnotes at end of table.

Sec.39					100	CONTRACTOR OF A		Water	level	1.23	in the second	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-277	J. F. Crews	Calvert & Rich	1951	625	16, 14	Alluvium	2,731	107.7 111.3	Jan. 7, 1959 Jan. 15, 1960	T,Ng	Irr	Cased to 540 ft. Pump set at 350 ft.
Q-278	do	Earl Fisher	1957	2,177		Rustler formation	2,728			N	N	Drilled as test hole. Not completed when visited. $\frac{1}{2}$
Q-279	do	do	1958	1,130	16	Alluvium	2,726			T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at 380 ft. in 1959. 2/
Q-280	đo	Lowery Walker	1953	643	16	do	2,723	100.1	Jan. 7, 1959	N	N	2/
Q-281	do	Calvert & Rich	1952	620	16	đo	2,721	88.6	do	T,Ng	Irr	Cased to bottom. Pump set at 240 ft. in 1959.
Q-282	đo	C. Coleman	1953	590	16	do	2,719	96.5	Jan. 9, 1959	T,Ng	Irr	Cased to 525 ft. Pump set at 300 ft. in 1959.
*Q-283	L. M. Prater	A. R. Eppenauer	1936	2,000	16	do	2,715	89.2	do	N	N	Drilled to supply water for
	Carrier Standard						C. Lest	59.9	and all and	-		to 2,000 ft. Plugged back to 500 ft. Abandoned. 2/
*Q-284	đo	R. Pearce		590	16	do	2,723	85.1	do	N	N	Cased to bottom. Perforated from 100 ft. to bottom.
Q-285	đo				6		2,713	68.1	do	N	N	Abandoned.
*Q-286	do			580	16	Alluvium	2,715	88.7 86.8 80.5	Feb. 4, 1958 Jan. 9, 1959 Jan. 15, 1960	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Pump set at 120 ft. Discharge mea- sured 1,900 gpm on July 17, 1959.
*Q-287	do	L. Buchanan		210	16	do	2,713	19.9 88.5	Jan. 27, 1947 Feb. 4, 1958	т,0, 40	D	01d well. 3/
*Q-288	do		1940	218	14	do	2,710			N	N	Abandoned.
Q-289	Graham & Gallemore	Lowery Walker	1957	956	16	Alluvium & Cretaceous rocks	2,714	103.6	Jan. 14, 1959	T,Ng	Irr	Cased to 486 ft. Perforated from 345 ft. to 486 ft. Pump set at 300 ft. Discharge mea- sured 1,230 gpm on July 17, 1959. 1/2/
Q-290	do		1951	360	16	Alluvium	2,710	62.8	do	T,Ng	N	Cased to bottom. Perforated from 100 ft, to bottom.
Q-291	J. R. Hall				16		2,707	54.4	do	N	N	

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-292	J. R. Hall			600?	16	Alluvium	2,710			T,Ng	Irr	Cased to bottom. Pump set at 200 ft.
Q-293	do				16		2,716	74.0	Jan. 14, 1959	N	N	Abandoned.
Q-294	do			6001	16	Alluvium	2,721	111.0	do	T,Ng	Irr	Cased to bottom. Pump set at 270 ft.
Q-295	A. R. Eppenauer					-0-0	2,719			T,Ng	N	
Q-296	do						2,720			T,Ng	N	
*Q~297	do	J. H. Hardaway	1946	319	14		2,717	110.3 107.1	Jan. 15, 1959 Jan. 15, 1960	N	N	2/ 3/
Q-298	do					~~	2,714			T,Ng	N	
Q-299	C. S. Compton	J. B. Jobe	1958	402	16	Alluvium	2,723	103.8	Jan. 15, 1959	N	N	
Q-300	do						2,725	106.4	do	N	N	
Q-301	do				14		2,727	108.4	do	N	N	
Q-302	do				16		2,725	111.9	do	N	N	
Q-303	do	E. Pearce	1954	430	16	Alluvium	2,728	174.5	đo	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Fump set at 220 ft. Discharge mea- sured 460 gpm on July 21, 1959.
Q-304	do				1.6		2,728	141.4	do	N	N	
Q-305	Mattie L. Compton	E 2 40			16		2,736	182.6 191.4	do Jan. 15, 1960	T,Ng	Irr	
Q-306	H. T. Collier Ranch		1950	446	16	Alluvium & Cretaceous (?) rocks	2,742	208.0	Jan. 15, 1959	T,Ng	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 320 ft.
*Q-307	đo			570	16, 8	Alluvium(?) & Creta- ceous rocks	2,741	86.3	do	N	N	
Q- 308	do	Pearce	1956	400	16	Alluvium & Cretaceous (?) rocks	2,735	195.6	do	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Fump set at 350 ft.
Q 309	H. T. Collier, Jr.	Lowery Walker	1958	732	12	Alluvium(?) & Creta- ceous rocks	2,728	90.7	Mar. 5, 1959	c,w	S	1/2/

Table	6	Records	of	wells	and	springs	in	Reeves	CountyCo	ontinued
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Table 6.- Records of wells and springs in Reeves County--Continued

	New Strengthered Strength	1 CARLES DATE	1.000			C. C. S. S. S. S.	12	Water	level	1.008		
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Q-310	A. R. Eppenauer						2,720	129.9	Jan. 15, 1959	т,-	N	
Q-311	F. S. Stanton		1953	600	16	Alluvium & Cretaceous rocks	2,729	115.8	Jan. 14, 1959	T,Ng	Irr	Cased to bottom. Slotted from 35 ft. to bottom. Pump set at about 300 ft.
Q-312	do		1952	600?	16	do	2,730	122.6	do	T,Ng	Irr	do
Q-313	do	Lowery Walker	1955	1,175	16, 10	Rustler formation, Alluvium, Cretaceous rocks, and Santa Rosa (1) sand- stone	2,732	126.0	do	T,Ng	Irr	Casing: 16-in. to 470 ft., 10-in. to bottom. Perforated from 35 ft. to bottom. 2/
Q-314	do				18		2,733	131.8	do	N	N	
Q-315	Jim McCormick	Earl Fisher	1951	500?	18	Alluvium & Cretaceous (?) rocks	2,730	32.5	Jan. 9, 1959	N	N	
Q-316	do	Lowery Walker	1955	800	16	Alluvium, Cretaceous (?) rocks, & Santa Rosa sandstone	2,730	129.9 144.5	do Jan. 16, 1960	T,E, 100	Irr	Cased to bottom. Perforated from 181 ft. to bottom. Pump set at 280 ft. 2/
Q-317	do	Earl Fisher	1951	500?	16, 12	Alluvium	2,730			T,E, 100	Irr	Cased to bottom. Perforated from 95 ft. to bottom. Pump set at 220 ft.
Q-318	ob	R. Pearce	1951	465	18	do	2,730	41.0	Jan. 9, 1959	N	N	800 00
Q-319	do	Lowery Walker	1954	801	16	do	2,724	91.5	do	T,E, 150	Irr	Cased to bottom. Perforated from 185 ft. to bottom. Pump set at 260 ft. $2/$
Q-320	do	R. Pearce	1952	525	18	đo	2,741	104.4	Jan. 14, 1959	T,E, 100	Irr	Cased to bottom. Perforated from 95 ft. to bottom. Pump set at 240 ft.
Q-321	do	Lowery Walker	1956	800	16	Alluvium & Cretaceous rocks	2,745	128.9	do	T,E, 150	Irr	Cased to bottom. Perforated from 273 ft. to 560 ft., and 635 ft. to bottom. Pump set at 360 ft. $2/$

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								Water	level		-	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Q-322	F. M. Reeves & Sons	Tom Simmons	1942	200	16		2,746				N	Drilled to 200 ft. in 1942 to supply water for washing gravel.
Q-323	L. M. Prater	R. Pearce		690	16	Alluvium	2,731	96.7	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Pump set at 250 ft.
Q- 324	do	Earl Fisher	1958	1,075	16	Alluvium & Cretaceous rocks	2,731	112.0 109.3	do Jan. 16, 1960	T,Ng	Irr	Pump set at 250 ft. <u>1/ 2</u> /
Q-325	do	R. Pearce		385	18	Alluvium	2,734	55.2	Jan. 9, 1959	T,Ng	Irr	Cased to bottom. Pump set at 140 ft.
Q - 326	do	Earl Fisher	1958	2,071	16, 12	Rustler formation	2,735	99.2 157.5	do May 19, 1959	T,Ng	Irr	Cased to 1,960 ft. Pump set at 400 ft. $\underline{1}/$
*Q-327	Scott Armstrong	Emmett Harrell	1948	194	16	Alluvium	2,735	103.2	Jan. 13, 1959	T,Ng	Irr	Cased to bottom. Perforated from 50 ft. to bottom. Pump set at 180 ft. 3/
Q 328	Cole & Armstrong	Earl Fisher	1958	805	16	đo	2,736	127.0	Jan. 12, 1959	T,Ng	Irr	Cased to bottom. Perforated from 450 ft. to bottom. Pump set at 350 ft. $\underline{2}/$
Q-329	Scott Armstrong	Emmett Harrell	1949	480	16, 8	do	2,744	115.0	Jan. 13, 1959	T,Ng	Irr	Casing: 16-in. to 200 ft., 8-in. to bottom. Perforated from 50 ft. to bottom. Pump set at 200 ft.
ର 330	Jake Broyles		1958	840	16	do	2,761	125.5 142.6	Jan. 14, 1959 Jan. 16, 1960	T,Ng	Irr	Cased to bottom. Pump set at 450 ft. Discharge reported 1,200 gpm in 1958.
Q-331	do		1953	600	16		2,759			T,Ng	Irr	Cased to bottom. Pump set at 320 ft. Discharge reported 2,000 gpm in 1958.
Q-332	Graham & Gallemore	Lowery Walker	1954	627	16	Alluvium	2,767	143.0	Jan. 12, 1959	T,Ng	Irr	Cased to bottom. Perforated from 320 ft. to bottom. Pump set at 300 ft. $\frac{2}{}$
Q-333	do		1951	595	18	do	2,776	140.8 141.2	do Jan. 16, 1960	T,Ng	Irr .	Cased to bottom. Perforated from 130 ft. to bottom. Dis- charge reported 900 gpm in 1957. Pump set at 300 ft.
Q-334	W. W. Hill			600	18	do	2,777	144.4	Jan. 12, 1959	T,E, 100	Irr	Cased to bottom. Perforated from 135 ft. to bottom. Pump set at 330 ft. in 1956.

See footnotes at end of table.

Table 6 .- Records of wells and springs in Reeves County--Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Q-335	Sage & Hill	Lowery Walker		700	16	Alluvium	2,779			T,E, 125	Irr	Cased to bottom. Pump set at 280 ft.
Q-336	W. W. Hill	Tom Simmons	1948	21.4	16	do	2,798			T,E, 100	Irr	Cased to bottom. $\underline{2}/$
Q-337	do	Lowery Walker	1953	800	16	đo	2,800	149.7	Jan. 12, 1959	т,е, 125	Irr	Cased to bottom. Perforated from 120 ft. to bottom. Pump set at 280 ft. in 1954.
Q-338	F. M. Reeves	J. H. Hardaway	1946	142	12					N	N	alegant na analaganga tananan ale
*Q-339	G. B. Scull			82				65.9 84.1	Oct. 3, 1939 Mar. 1, 1950	N	N	3/
Q-340	Swain Thomas			285	16			66.6 213.6	Mar. 1, 1949 Feb. 5, 1958	N	N	3/
*Q-341	Carrie Eisenwine		1946	57	7	Alluvium		29.9	Dec. 9, 1948	C,W	S	The off in the second works
*R-1	Billie Prewit	Earl Fisher	1940	168	6	do	2,608	25.9 83.4	Mar. 3, 1942 Mar. 3, 1959	c,w	S	Cased to bottom. $2/3/$
R-2	R. M. Johnson	and a second second second		149	8	do	2,594	46.6	May 29, 1940	c,w	S	Old well.
*R-3	Atlantic Oil & Refining Co.	City of Pecos	1959	185		Santa Rosa sandstone			20-1-1-1886. 1	N	N	Drilled as test hole for city of Pecos. $\underline{2}/$
*R-4	do	do	1959	205		do	2,678	88.7	May 1, 1959	N	.N	Drilled as test hole for city of Pecos.
*R-5	TXL Oil Corp.					Santa Rosa (?) sand- stone			 345 (1.55) (366) 65	c,w	S	
R-6	W. H. Holcombe, et al.	American Trading & Producing Co.	1955	5,710	10		2,608	-	-	N	N	Oil test. $\underline{1}/$
*R-7	W. H. Holcombe					Alluvium(?)	2,615	64.9	Mar. 16, 1959	C,W	S	and the streng the strength homes
R-8	do			60	6	Alluvium	2,615	37.9	Apr. 2, 1941	C,W	S	
R-9	M. A. Briggs, Jr.	Earl Fisher	1950	140	10		2,605	57.4	Jan. 30, 1959	T,G	Irr	Cased to bottom. Pump set at 120 ft. Discharge reported 2,500 gpm.
R-10	Loy Collier	Ted Lindemann	1949	160	16		2,603	46.3 45.9	do Jan. 23, 1960	T,G	Irr	Cased to bottom.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method ' of lift	Use of water	Remarks
R-11	Loy Collier	Ted Lindemann	1949	131	16	Alluvium & Santa Rosa sandstone	2,606	58.6	Jan. 30, 1959	N	N	Cased to bottom. 2/
*R-12	do	do	1949	160	16	Alluvium & Santa Rosa (?) sand- stone	2,606			T,G	Irr	Cased to bottom.
R-13	M. A. Briggs, Jr.	Earl Fisher	1948	150	16, 8	do	2,609	57.4 57.7	Jan. 30, 1959 Jan. 23, 1960	T,G	Irr	Cased to 145 ft. Perforated from 50 to 140 ft. Pump set at 120 ft.
R-14	Howard Maserang			150	16	do	2,614	62.8 41.1	Jan. 30, 1959 Jan. 23, 1960	T,G	Irr	
*R-15	do			150	16	do	2,614	61.8	Jan. 30, 1959	c,w	S	
R-16	do			150	16	đo	2,615	65.3	do	T,G	Irr	and starts a period gall to pay of the distance of
*R-17	do			150	16	do	2,619			T,G	Irr	
R-18	do			185	16	do	2,616	64.9	Jan. 30, 1959	T,G	Irr	and the fi
R-19	W. H. Holcombe	L. L. Pate	1952	276	16	đo	2,616	61.7 69.1	Feb. 6, 1958 Jan. 23, 1960	T,G	Irr	
*R-20	đo		1913	180	20	do	2,622	30.3 67.4	Jan. 24, 1947 Jan. 23, 1960	N	N	Formerly supplied water for irrigation. Abandoned. $3/$
*R-21	Billie Prewit	Forest Develop- ment Co.	1939	3001	6	Alluvium	2,600	29.2	Mar. 3, 1959	C,W	S	Drilled to 1,360 ft. as test hole, plugged back to 300? ft. Sampled while flowing from Rustler formation before plug- sing back. 2/
					-		0.606	1.2	Nov 20 1040	сч	q	2/
*R-22	do	Tom Simmons		3001		do	2,626	1.2	May 20, 1940	.,"		<u></u>
*R-23	do			1,200	8		2,618	8.4 53.7	Nov. 22, 1940 Mar. 3, 1959	N	N	
R24	do	Hill		300	6	Alluvium & Santa Rosa sandstone	2,616	49.3	Feb. 27, 1959	с,₩	S	Old well.
*R-25	TXL Oil Corp.	2 18		265	5	Santa Rosa sandstone	2,761			C,W	S	Pump set at 185 ft.

See footnotes at end of table.

						and because		Water	level		Section 1	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum	Date of measurement	Method of lift	Use of water	Remarks
					(in.)		1.0	(ft.)			8	
R-26	TXL Oil Corp.	-		83	8	Santa Rosa sandstone	2,683	59.1 61.9 62.2	Mar. 28, 1942 Mar. 17, 1959 May 21, 1959	C,W	S	Draw well. 3/
		Serve of the owner of the				39		02.2		1.6.1		
*R-27	W. H. Holcombe	Tom Simmons		151		Alluvium	2,655	59.0	Mar. 1, 1941	C,W	S	Old well. Z
R-28	W. W. Douglas	H. T. Collier	1955	400?	16	Alluvium & Santa Rosa (?) sand- stone	2,744	173.6	Apr. 13, 1959	N	N	Cased to bottom. Formerly supplied water for irrigation.
R-29	TXT. 011 Com				7		2 748	06.2	do	CW	S	The Property of the Property o
1-29	THE OIL COLP.		1 10		1	19	2,140	90.2	uu	0,1	5	Jacobic and litely we set that a
R-30	Winterrowd Bros.	Lowery Walker	1958	293	16	Alluvium & Santa Rosa sandstone	2,704	95.2	Jan. 29, 1959	T,Ng	Irr	Cased to bottom. Perforated from 66 ft. to bottom. Pump set at 180 ft. Discharge re- ported 400 gpm. <u>2</u> /
R-31	đo	đo	1958	267	16	đo	2,713	92.8	Jan. 28, 1959	N	N	Cased to bottom. Perforated from 62 ft. to bottom. Dis- charge reported 250 gpm when drilled. <u>2</u> /
R-32	đo	Earl Fisher	1958	1,495	16, 12	Rustler formation	2,717	131.0	do	T,Ng, 210	Irr	Cased to 1,190 ft. Pump set at 400 ft. Discharge reported 1,000 gpm.
R-33	do	Lowery Walker	1958	1,475	12	đo	2,717	115.9	do	T,Ng, 210	Irr	Cased to 1,190 ft. Pump set at 400 ft. Discharge reported 1,200 gpm. 2/
R-34	đo	do	1957	304	16	Alluvium & Santa Rosa sandstone	2,707			T,Ng	Irr	Cased to bottom. Perforated from 53 ft. to bottom. Fump set at 290 ft. Discharge re- ported 650 gpm. 2/
R-35	Winterrowd Bros.	Lowery Walker	1958	224	16	Alluvium & Santa Rosa sandstone	2,704	83.0	Jan. 28, 1959	N	N	Cased to bottom. Perforated from 42 ft. to bottom. Abandoned. $\underline{2}/$
R-36	đo	do	1958	306	16	do	2,700	79.9 83.7	do Jan. 22, 1960	T,Ng	Irr	Cased to bottom. Perforated from 48 ft. to bottom. Pump set at 280 ft. Discharge reported 450 gpm. $2/$
R-37	do	do	1958	1,576	12	Rustler formation	2,742	-		T,Ng, 210	Irr	Cased to 1,292 ft. Pump set at 300 ft. Discharge reported 1,500 gpm. 2/

See footnotes at end of table.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*R-38	Winterrowd Bros.	Winterrowd	1958	398	16	Alluvium & Santa Rosa sandstone	2,738	105.7	Jan. 28, 1959	T,Ng	Irr	Discharge reported about 2,000 gpm.
R-39	do	Lowery Walker	1958	1,470	12	Rustler formation	2,717	138.6 229.8	do Jan. 22, 1960	T,Ng	Irr	Cased to 1,192 ft. Pump set at 300 ft. Temp. 83°F. <u>2</u> /
R-40	TXL Oil Corp.	Gulf Oil Corp.	1950	5,297			2,713			N	N	Oil test. 1/
*R-41	do						2,770	94.1	Mar. 17, 1959	с,₩	s	
*R-42	do			110	6	Alluvium	2,728	58.9	Mar. 1, 1941	C,W	s	401 (MAR)
R-43	H. T. Collier	Curtice	1959		6		2,760	87.3	Apr. 13, 1959	N	N	
*S-1	Atlantic Oil & Refining Co.	City of Pecos	1959	197		Santa Rosa sandstone	2,672	92.8	May 1, 1959	N	N	Drilled as test hole for city of Pecos.
*S-2	do	do	1959	302		do	2,681	99.8	do	N	N	Drilled as test hole for city of Pecos. $\frac{2}{}$
*S-3	do	do	1959	191		do	2,686	97.8	do	N	N	The second s
S-4	J. A. Worsham	Gulf Oil Corp.	1957	5,163			2,686			N	N	Oil test. 1/
*S-5	City of Pecos		1956	86	6	Santa Rosa sandstone	2,676	122.9	May 1, 1959	C,W	S	billion and an arrange
*s-6	do	City of Pecos	1959	182		do	2,655	86	1959	N	N	Drilled as test hole for city of Pecos.
S-7	H. F. Anthony & J. B. Tubb	Jay Simmons	1955	5,240			2,651			N	N	011 test. <u>1</u> /
*S-8	do				8		2,660	95.9	Mar. 20, 1959	c,w	D,S	
S-9	G. C. Westervelt	Gulf Oil Corp.	1957	5,070	8		2,631			N	N	Oil test. 1/
*S-10	S. E. Ligon			101		Santa Rosa sandstone	2,605	76.6 78.0	July 23, 1940 Feb. 19, 1959	C,W	S	
S-11	do	Tom Simmons		105		do	2,608			C,W	S	
S-12	do			85		do	2,582	55.4	Mar. 10, 1959	T,G	Irr	Cased to 40 ft. Drilled to 300 ft., filled to 85 ft.
S-13	do		1933		6		2,555	28.2	do	C,W	S	
*S-14	J. C. Trees Estate			1,400		Rustler formation				N	N	Originally flowed. Caved and abandoned.

See footnotes at end of table.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
S-15	Gulf Oil Corp.	Gulf Oil Corp.	1958		7		2,571	51.1 50.1	Aug. 12, 1958 Feb. 18, 1959	N	N	Formerly supplied water for oil-well drilling rig.
S-16	J. C. Trees Estate	do	1958	5,100			2,570			N	N	011 test. <u>1</u> /
S-17	do				6		2,540	47.0	Mar. 10, 1959	N	N	Oll teat, M
*S-18	do .			-	16		2,547	21.8	đo	N	N	Drilled as test hole for irri- gation. Abandoned.
S-19	do	Earl Fisher	1957	900		Alluvium	2,547			N	N	1/
S-20	C. T. & C. J. Wilson	Clarence Pearce	1953	320	16	Alluvium & Santa Rosa sandstone		77.9	Feb. 18, 1959	T,Ng	Irr	Cased to bottom. Discharge measured 250 gpm on Aug. 12, 1958.
S-21	do	do	1953	320	16	do		70.4	do	T,Ng	Irr	Cased to bottom.
S-22	Jack Frost	Gulf Oil Corp.	1958	5,550		-	2,559			N	N	Oil test. 1/
S-23	Gulf 011 Corp. & J. Frost		1958		9, 7		2,559	47.6 47.9	Aug. 12, 1958 Feb. 18, 1959	N	N	Drilled to supply water for oil-well drilling rig.
*S-24	H. F. Anthony, Jr., et al.	L. F. Buchanan		86	6	Alluvium	2,588	127.7	Feb. 18, 1959	C,W	S	2/
S-25	J. Marvin Rape	The Texas Co.	1959	5,028			2,570		2012	N	N	Oil test. 1/
S-26	J. M. Rape Estate	do	1959				2,605	79.9	Mar. 20, 1959	N	N	Drilled as test hole.
*S-27	J. M. Rape, et al.			120	-	Alluvium & Santa Rosa sandstone	2,608	111.6 88.2	July 24, 1940 Mar. 20, 1959	C,W	S	Old well.
*S28	J. Marvin Rape				4		2,653		-	C,W	D,S	oil tout, W
*S-29	J. B. Young	realizedpart			6		2,695	103.2	Mar. 13, 1959	C,W	S	Ganes to 1,172 Pt., Europ and all
S-30	do		-	151	4	Santa Rosa sandstone	2,695	95.6 103.3	Sept. 19, 1940 Mar. 19, 1959	N	N	
*S-31	J. M. Rape				8		2,695	97.1	do	C,W	S	Stephense htpotted about 2 2020
S-32	đo					-	2,674		-	C,W	S	
*S-33	Mary Rape						2,627	146.0	Mar. 20, 1959	C,W	S	
*S-34	J. M. Rape			98	6	Alluvium	2,614	66.4	Mar. 7, 1940	C,W	S	

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*S-35	J. M. Rape			96	8	Alluvium	2,642	70.8 81.7	Mar. 7, 1940 Mar. 20, 1959	c,w	S	
S-38	T. Thompson	Earl Fisher	1958	367	16	Alluvium & Santa Rosa sandstone	2,651		-	T,Ng	Irr	Cased to 200 ft. <u>2</u> /
S-39	do		1951	1,632	8	Rustler formation	2,651	330.7 420.2	Jan. 30, 1959 May 22, 1959	N	N	
S-40	do	Earl Fisher	1958	1,490	16	do	2,651	336.7	Jan. 30, 1959	T,Ng	Irr	Cased to bottom. Pump set at 500 ft.
S-41	do		1951	200	16	Alluvium & Santa Rosa (?) sand- stone	2,651	95.1	do	T,Ng	Irr	
S-42	do		1951	180	16	do	2,650	94.0 108.7	do May 22, 1959	T,Ng	Irr	Cased to bottom. Pump set at 170 ft.
S-43	do		1951	200	16	đoʻ	2,653	93.4	Jan. 30, 1959	T,Ng	D,Irr	
*S-44	Elijah Hall				8		2,694	131.1	Mar. 19, 1959	c,w	S	
*S-45	J. M. Rape				8	-	2,679	115.6	đo	C,W	S	
S-46	Lynn Eddins, well l	Earl Brooks	1930	5,658			2,719			N	N	011 test. 2/
*S-47	J. M. Rape Estate			145	6	Santa Rosa (?) sand- stone	2,714	109.7 112.7	May 13, 1941 Mar. 19, 1959	C,W	S	
s-48	W. P. Shannon			124	-	do	2,665	96.3	Aug. 29, 1942	c,w	N	Old well.
S-49	do	_	1957	200	8	Alluvium & Santa Rosa (?) sand- stone	2,726		-	T,Ng	Irr	Cased to bottom.
*S-50	do	an 105	1956	200	8	do	2,726	123.1	Jan. 29, 1959	T,Ng	Irr	Cased to bottom. Pump set at 180 ft.
S-51	do	Earl Fisher	1957	1,366	16	Rustler formation	2,726	257.0	do	T,Ng	Irr	Cased to bottom. Pump set at 470 ft. 2/
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See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
S52	W. P. Shannon	-	1953	200	8	Alluvium & Santa Rosa (?) sand- stone	2,726	72.2	Jan. 29, 1959	T,Ng	Irr	Cased to bottom. Pump set at 180 ft.
S-53	do		1952	200	8	do	2,726	121.6	do	T,Ng	Irr	đo
S-54	do		1952	200	16	đo	2,726	120.9 125.3	do Jan. 22, 1960	T,Ng	Irr	do
S-55	do		1958	290	16	Alluvium & Santa Rosa sandstone	2,724	124.4 128.4	Jan. 29, 1959 Jan. 22, 1960	N	N	Cased to bottom.
S-56	do	Millican	1958	280	16	do	2,726	123.5	Jan. 29, 1959	N	N	do
S-57	do	do					2,734	128.8	do	N	N	
S- 58	do	-		220	16	Alluvium & Santa Rosa sandstone	2,738	134.8 138.9	do Jan. 22, 1960	N	N	1.10.14
*S-59	Bess R. Hardin						2,747			C,W	S	and the state and the second of the second
S-60	J. Marvin Rape	Magnolia Petro- Leum Co.	1953	11,259			2,742		-	N	N	011 test. <u>1</u> /
S-61	Ray Hendricks				-					N	N	
S-62	đo	Earl Fisher	1957	1,335	12	Rustler formation	2,732	314.8 262.0	Nov. 11, 1958 Jan. 28, 1959	T,Ng	Irr	Casing: 12-in. to 1,100 ft., no casing from 1,100 ft. to bottom. Pump set at 540 ft.
S-63	do				7	Rustler(?) formation		258.1	Jan. 29, 1959	N	N	2/
S-64	do	E. E. Doyal	1958	260	12	Alluvium & Santa Rosa sandstone	2,732	104.6 106.7	do Jan. 22, 1960	T,Ng	Irr	Cased to bottom. Pump set at 250 ft.
S-65	do	Earl Fisher	1958	455	16	do	2,731	100.3 126.6	Jan. 29, 1959 May 21, 1959	-	N	2/
S-66	do	đo	1958	1,500	12	Rustler formation	2,730	312.5 260.0	Nov. 11, 1958 Jan. 29, 1959	T,Ng	Irr	Cased to 1,242 ft. Pump set at 450 ft. Discharge measured 745 gpm on June 26, 1959. 2/
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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
S-67	Elijah Hall, et al.	Salt Dome Pro- duction Co.	1956	5,605			2,715			N	N	Oil test. $\underline{1}/$
s-68	W. G. Locker	Henry Curtis	1953	335	12	Alluvium & Santa Rosa sandstone	2,656	97.7	Jan. 30, 1953	T,Ng	Irr	Cased to 150 ft. Deepened from 160 to 335 ft. in 1954.
*S-73	TXL 011 Corp.			102	6	Alluvium	2,715	95.8	Mar. 1, 1940	C,W	S	
*S-74	Phillip Yange, et al.			98			2,736	70.4	Mar. 24, 1959	с,₩	N	
S-75							2,738	66.6	Jan. 30, 1959	T,G	N	
S-76				273		Alluvium & Santa Rosa sandstone	2,738	66.8	do	T,G	N	
S-77							2,738	68.0	do	T,G	N	
S-78							2,737	66.7	do	T,G	N	
S-79	B. S. Estes						2,767	94.5	Jan. 26, 1959	T,Ng	Irr	
S-80	do						2,768	94.3	do	N	N	
S-81	do					Rustler formation	2,866	239.4 295.0	do Jan. 22, 1960	T,Ng	Irr	
*s-82	Betty Hargrove	Grisham Hunter, & Meredith	1934	3,928			2,766			N	N	Reynolds No. 1 oil test. 2/
*s-83	Bess R. Hardin				8		2,766	74.9 85.9	May 13, 1941 Mar. 18, 1959	c,w	S	
T-1	Joe Stocks					Cretaceous rocks		328.7	June 29, 1959	c,w	S	
T-2	do			Spring		McCutcheon volcanic series of Eifler (1951)		(+)	do	Flows	S	Flow measured $\frac{1}{4}$ gpm from open- ings in base of volcanic rocks.
*T-3	do			Spring	s	do		(+)	do	Flows	D	Flow measured $\frac{1}{4}$ gpm from open- ings in base of volcanic rocks.
T-4	do					Cretaceous rocks				C,W	S	Canyon Mill well.

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See footnotes at end of table.

								Water	level			
Well	Owner	briller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
т-5	Giffin Estate	Ligon Bros.	1938	530		Cretaceous rocks		-	-	c,w	s ·	The product of the case of the
* T -6	K. Alexander			500		do		474.5	June 29, 1959	C,G	D	Old well.
т-7	Joe Stocks				-	đo		311.5	do	C,W	S	Pump set at 350 ft. in 1959. Red Mill well. Old well.
T-8	đo	- 1. Topper				đo				c,w	S	Pump set at 250 ft. in 1959. Harwell Mill well.
T-9	do				9	do		105.3	June 29, 1959	C,W	S	Pump set at 147 ft. in 1959. Blackhead Mill well.
*T-10	Giffin Estate	Ligon Bros.	1937	700		do		300	Aug. 1959		N	Abandoned.
T-11	do					do				c,w	S	Headquarters well.
T-12	do				6	do		229.3	Aug. 4, 1959	C,W	S	
*T-13	State of Texas	TXL Oil Corp.	1958	11,715			3,219			N	N	Oil test. Sampled while being drilled at 450 feet. $\frac{1}{2}$
T-14				Spring		Cretaceous rocks	3,255	(+)	June 23, 1959	Flows		Located at VH Ranch head- quarters.
*T-15	W. D. Johnson Es- tate		-	Spring		do	3,547	(+)	June 15, 1959	Flows	Irr	Reported irrigated about 30 acres in 1958.
T-16	do	Ray S. Humphries		100	12	Cretaceous (?) rocks	2,357	60.4	do	c,w	S	
*T-17	do	đo	1927	380	6	Cretaceous rocks	3,315	33.6	June 12, 1959	C,W	D,S	Pump set at 100 ft. in 1959. North well.
*T-18	do	Tom Simmons	1927	380	6	do	3, 315	33.2	do	C,W	S	Pump set at 200 ft. in 1959. South well.
*T-19	do	-		Spring						N	N	Formerly flowed. Reported dry in 1958 and 1959.
*T-20	do			12			3,405	9.9	June 15, 1959	C,W	S	Dug.
T-21	Joe Rounsaville			108	7	Cretaceous (?) rocks	3,700	67.7	June 25, 1959	C,W	S	
T-22	do						3,675		(10.00) (10.00)	C,W		Drilled to supply water for oil- well drilling rig. Canyon Mill well.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diem- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
т-23	Joe Rounsaville			200		Cretaceous rocks	3,517			C,W	S	Lonhena Mill well.
T-24	do			340	9	do	3,707	216.2	June 26, 1959	C,W	S	Oil Mill well.
T-25	do			312	8	do	3,766	296.4	June 29, 1959	c,w	S	Five Sections Mill well.
·T-26	TXL Oil Corp.							101.3	June 30, 1959	c,w	S	<u>1</u> /
U-1	do						2,935	356.8	July 13, 1959	·c,w	S	3/
U-2	Ben Powell, Jr.	Lowery Walker	1958	1,062	16	Alluvium & Cretaceous rocks, and Santa Rosa sandstone	2,858	205.8	Jan. 9, 1959	T,Ng	Irr	Cased to 1,062 ft. Perforated from 352 to 1,062 ft. Test hole to 1,572 ft. $\underline{1}/\underline{2}/$
U- 3	do		1952		16		2,844	197.6 201.6	do Jan. 18, 1960	T,Ng	Irr	Discharge reported 1,000 gpm in 1959.
U-4	L. C. Moore						2,870	199.0	Jan. 9, 1959	T,E	Irr	[1] [1] [2] [2] [2] [2] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4
U- 5	E. Fisher			630	16	Alluvium	2,877			T,E, 125	Irr	Cased to bottom. Pump set at 320 ft.
U-6	do			506	16	do	2,883	210.1	Jan. 20, 1959	T,E, 125	Irr	Pump set at 300 ft.
U-7	do			500	16	do	2,885	215.1	do	T,E, 125	Irr	Cased to bottom. Pump set at 320 ft. Discharge measured 1,420 gpm on July 16, 1959.
U- 8	L. C. Moore		1953	607	16	do	2,907	214.6 235.4 245.6	Jan. 25, 1957 Jan. 19, 1959 Jan. 18, 1960	T,Ng	Irr	Cased to bottom. Pump set at 200 ft. in 1953.
*U-9	W. D. Johnson Estate			43		do		23.0	Nov. 21, 1950	N	N	01d well. <u>3</u> /
U-10	Willis Winters	Earl Fisher	1952	530	16	do	2,950	280.3	Jan. 21, 1959	T,E, 125	Irr	Cased to bottom. Perforated from 225 ft. to bottom. Pump set at 300 ft. in 1958. Dis- charge measured 1,670 gpm on July 16, 1959.
U-11	do	do	1952	540	16	do	2,938	264.3	Jan. 20, 1959	т,Е, 125	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 300 ft. in 1958.

See footnotes at end of table.

Table 6 .- Records of wells and springs in Reeves County -- Continued

			1213					Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
U-12	L. A. Weinacht	-	1956	600	16	Alluvium	2,903	235.4 247.3	Jan. 15, 1959 Jan. 18, 1960	T,G	Irr	Cased to bottom. Slotted from 540 ft. to bottom. 3/
U-13	L. C. Parks		1954	663	16	do	2,881			T,E	Irr	Cased to bottom. Perforated from 273 ft. to bottom. Dis- charge measured 1,225 gpm on July 16, 1959. 2/
U-14	C. E. Davis		1949		16		2,893	217.3	Jan. 15, 1959	T,Ng	Irr	Pump set at 290 ft.
U-15	J. Browder	Lowery Walker	1955	647	16	Alluvium	2,920	242.0	do	T,Ng	Irr	Cased to bottom. Slotted from 300 ft. to bottom. Discharge measured 1,000 gpm on July 16, 1959. 2/
U-16	Willis Winters	Earl Fisher	1953	598	16	do	2,933	254.6	Jan. 21, 1959	т,Е, 150	Irr	Cased to bottom. Perforated from 225 ft. to bottom. Pump set at 260 ft. in 1958. Dis- charge reported 2.000 gpm in
	C. Noore						51840 1	16010- 1900319	741. 10, 196 740. 9, 195			1958. Discharge measured 1,150 gpm on July 16, 1959.
U-17	R. A. Moore, et al.	Mullican	1954	500	16, 14	do	2,967	294.5 308.7	do Jan. 18, 1960	T,Ng	· Irr	Cased to bottom. Perforated from 300 ft. to bottom.
*U-18	Willis Winters	Earl,Fisher	1952	507	16	đo	2,991			T,E, 150	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 330 ft. in 1958.
U-19	do	Jobe	1958	589	16	do	2,997	289.1	Jan. 20, 1959	T,E, 150	Irr	Cased to bottom. Perforated from 350 to bottom. Pump set at 330 ft. in 1958.
* U- 20	V. Cook, et al.	Slack	1953	800	16	Alluvium & Cretaceous rocks	3,028	149.1 152.1	Jan. 21, 1959 Jan. 18, 1960	T,Ng	Irr	Cased to bottom. Pump set at 300 ft. Discharge measured 710 gpm August 1959. Perfo-
												rated from 2501 ft. to bottom.
U-21	Johnson Estate	==			12	clair scotte	3,105	66.3	June 17, 1959	C,W	S	Florinza well.
U-22	J. T. Moore	C. & H. Drilling Co.	1952	610	16, 13	Alluvium & Cretaceous (?) rocks	3,034	123.9 127.5	Jan. 20, 1959 Feb. 9, 1959	T,E, 150	Irr	Cased to bottom. Perforated from 227 ft. to bottom.
U-23	do	do	1952	51.2	16	Alluvium	3,040	223.6	Jan. 20, 1959	T,E, 150	Irr	Cased to bottom. Perforated from 250 ft. to bottom.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
U-24	J. T. Moore	Earl Fisher	1952	600	20	Alluvium	3,002	289.6 288.2 300.6	Jan. 20, 1959 Feb. 9, 1959 Jan. 18, 1960	T,E, 150	Irr	Cased to bottom. Perforated from 250 ft. to bottom.
U-25	Willis Winters		1953	590	20	do	2,933	260.3 274.0	Jan. 20, 1959 Jan. 18, 1960	T,E, 150	Irr	Cased to bottom. Perforated from 225 ft. to bottom. Pump set at 260 ft. in 1958. Dis- charge reported 2,000 gpm in 1958. Discharge measured 1,140 gpm on July 16, 1959.
U-26	J. B. Toone						2,932	249.9	Jan. 15, 1959	T,E	Irr	
U-27	do						2,922	244.2	do	T,E	Irr	contraction derivation
U- 28	C. E. Davis		1949		16		2,907	228.6	do	T,Ng, 150	Irr	Bar ministration and a state
U-29	Eddie Carpenter	Blackstock	1951	450	16	Alluvium	2,920	244.3	Jan. 19, 1959	N	N	dell'internet proposition
U-30	do	do	1951	600	16	đo	2,934	252.6 262.9	do Jan. 19, 1960	T,E, 100	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 240 ft. in 1954.
U-31	do	do	1951	450	16	đo	2,932	248.6	Jan. 19, 1959	T,E, 100	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 250 ft. in 1954.
U-32	W. E. Moore	Earl Fisher	1953	610	16	do	2,957	272.7	do	T,Ng	Irr	Pump set at 320 ft.
U-33	do	Lowery Walker	1953	617	16	do	2,965	275.2	do	T,Ng	Irr	Cased to bottom. Pump set at 320 ft. $\frac{2}{}$
U-3 4	Paul Ivey		1952	600	16	do	2,972	281.5 289.1	do Jan. 19, 1960	T,Ng	Irr	Cased to bottom.
U 35	W. E. Moore		1953	635	16	đo	2,979	288.2	Jan. 19, 1959	T,Ng	Irr	Pump set at 330 ft.
U- 36	Buchanan & Sons	C. Pearce	1954	628	16	do	2,977	275.4	do	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Pump set at about 340 ft. in 1958. Discharge measured 080 grm on
			19	(547)			(141)	Garcon -				July 17, 1959.
U-37	W. E. Moore	Earl Fisher	1953	618	16	do	2,986	288.6	do	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom.

Table 6.- Records of wells and springs in Reeves County--Continued

							Water	le	vel				
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	D mea	ate of surement	Method of lift	Use of water	Remarks
• U- 38	W. E. Moore	Earl Fisher	1953	687	1.6	Alluvium	2,987	296.3 293.6	Jan. Feb.	19, 1959 9, 1959	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. Temp. 68°F. $\frac{1}{2}$
v 39	do	Lowery Walker	1954	635	16	do	2,997	308.9 315.6	Jan. Jan.	19, 1959 19, 1960	T,Ng	Irr	Cased to bottom. Perforated from 290 ft. to bottom. Pump set at 340 ft. in 1958. Dis- charge measured 1,410 gpm on July 16, 1959. 2/
U-40	Dorothy Harding	do	1	653	16	Alluvium & Cretaceous rocks	3,006	287.8	Jan.	20, 1959	T,Ng	Irr	Cased to bottom. Slotted from 320 ft. to bottom. Discharge measured 575 gpm on July 16, 1959. 2/
U-41	do	đo	1958	598	16	do	3,010	287.2 303.5	Jan.	do 19, 1960	T,Ng	Irr	Cased to bottom. Slotted from 320 ft. to bottom. Discharge measured 640 gpm on July 16, 1959. 2/
U-42	Eddie Carpenter		1953	820	18	đo	3,050	237.7 235.2	Jan. Feb.	21, 1959 9, 1959	T,E, 150	Irr	Cased to bottom. Perforated from 200 ft. to bottom.
U-43	do		1953	650	18	do	3,025	226.9 235.3	Jan. Jan.	21, 1959 19, 1960	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 320 ft. in 1953.
U-44	do		1953	620	16	do	3,039	230.1	Jan.	21, 1959	т,Е, 150	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 250 ft. in 1953.
Ū−45	do		1953	620	18	do	3,054	262.0 257.6	Feb.	do 9, 1959	T,E, 150	Irr	do
U-46	W. D. Johnson Estate				7		3,094	91.6	June	23, 1959	c,w	S	
*U-47								121.8	Nov.	2, 1948	c,w	S	
*U-48	J. T. Moore	Lowery Walker	1958	696	16	Alluvium & Cretaceous rocks	3,062	235.7	Jan.	22, 1955	T,E, 125	Irr	Cased to 610 ft. Perforated from 348 to 610 ft. Discharge measured 840 gpm on July 16, 1959. Temp. 80°F. 2/
U-49	The Chandler Co.	Earl Fisher	1954	690	16	Alluvium & Cretaceous (?) rocks	3,031	315.3 326.1	Jan. Jan.	20, 1959 19, 1960	7,Ng	Irr	Cased to bottom. Discharge reported 450 gpm.

See footnotes at end of table.

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								Water	level			-
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
U 50	The Chandler Co.	Williams	1954	693	16	Alluvium & Cretaceous (?) rocks	3,010	322.7	Jan. 22, 1959	T,Ng	Irr	Cased to bottom. Discharge re- ported 1,300 gpm in August 1958.
U-51	đo	do	1954	690	16	do	3,021			T,Ng	Irr	Cased to bottom. Discharge re- ported 1,250 gpm in August 1958. Pump set at 350 ft. in 1958.
U-52	Amon W. Hamilton	Pearce & Doyle	1955	600	16	Alluvium	2,991	284.5	Jan. 20, 1959	T,Ng	Irr	Cased to bottom. Slotted from 300 to 568 ft. Discharge mea- sured 1,780 gpm on July 17, 1959.
U-53	Metz Rowe	C. & H. Drilling Co.	1950	464	16, 12	do	3,008	173.7	Nov. 20, 1958	т,Е, 150	Irr	Casing: 16-in. to 364 ft., 12-in. to bottom. Slotted from 200.ft. to bottom.
U- 54	Ralph Merkle	Calvert & McIntyre	1958	505	12	do	3,027			T,Ng	Irr	Cased to bottom. Slotted from 205 ft. to bottom, Pump set at 400 ft. in 1958. Discharge reported 900 gpm in 1958.
U- 55	The Chandler Co.	Fisher & Williams		383	16	do ·	3,050	222.5 226.9	Jan. 20, 1959 Jan. 19, 1960	N	N	3/
U- 56	do		1952	650	18, 16	Alluvium & Cretaceous (?) rocks	3,059	263.2	Jan. 20, 1959	т,Е, 100	Irr	Cased to bottom. Discharge re- ported 1,050 gpm in 1958.
U- 57	L. Weinacht			140			3,230	47.8	June 22, 1959	c,w	S	
* U- 58	William Gould	Norfleet		58	6	Alluvium		33.5	Sept. 11, 1940			2/
U-59	R. C. Slack	Calvert & McIntyre		112		Alluvium & Cretaceous (?) rocks	3,182	20.9 22.2	Jan. 24, 1959 May 16, 1959	т,Е, 20	Irr	2/
U-60	Warner Backus	Jack Smith	1948	110	12	do	3,164	12.0	Jan. 24, 1959	т,Е, 25	Irr	Cased to 92 ft. Slotted from 0 to 92 ft.
U-61	do	O. B. Buck	1948	65	7	Alluvium	3,163			J,E	D	Cased to 50 ft. Slotted from 30 to 50 ft.
*U-62	Dorothy Harding			260	16	Alluvium & Cretaceous	3,160			N	N	Sampled in 1948 when well was 39 ft. in depth.
29-10 1						(?) rocks						

See footnotes at end of table.

199								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	- Use of water	Remarks
U-6 3	W. E. Moore						3,124	52.2	July 14, 1959	T,E, 1	Irr	
U-64	A. B. Carrasco						3,110			C,W		
*U-65	Buford Rowe	and a second second				Contractor of	3,102	62.9	July 14, 1959	C,E, 1	D,S	
U-66	P. M. Vejil					1000	3,102	68.8	Feb. 12, 1959	c,w	D,S	3/
U-67	R. A. Moore	W. W. Hollis	1940	157		Alluvium	3,072		1999 1, 1998 1, 1998	N	N	Reported caved and abandoned in 1940. 2/
V-68	Texas A. & M. Ex- perimental Station No. 9	L. W. Stratton	1956	306	16, 8	do	3,068	257.0 262.2	Feb. 6, 1958 July 14, 1959	• T,E, 1	D,S	2/3/
U-69	Frank Magee	Hughes	1940	212		do	3,060	192.7	Sept. 25, 1940	c,w	D,S	<u>2</u> /
U- 70	Rudolf Hoefs	Calvert & McIntyre	1956	900	16	Alluvium(?) & Creta- ceous rocks	3,056	248.9	Jan. 22, 1959	т,е, 100	Irr	tentioniles se die originalise er mon to la lage graamster Storen en hoorde graat er
U-71	do	Mullican Drilling Co.	1954	987	16	do	3,047	235.6	do	T,E, 125	Irr	Cased to 600 ft. Pump set at 400 ft.
*U-72	J. T. Moore	11 1 1		158	7			177.2	Feb. 6, 1953	C,W	S	3/
*U-73	W. E. Moore							141.6	Feb. 15, 1951	N	N	3/
*U-74	TXL 011 Corp.			201	7					c,w	S	
*U-75	Rudolf Hoefs			197	7					C,W	S	test out to be an in the second
V-1	Ben Powell	80	1952		18		2,832		-	T,Ng	Irr	Discharge reported 1,500 gpm in 1959.
V-2	do		1952		16		2,830	177.0 181.6	Jan. 9, 1959 Jan. 18, 1960	T,Ng	Irr	Discharge reported 1,500 gpm in 1959. Pump set at 440 ft. in 1957.
V-3	W. W. Hill	Lowery Walker	1951	600	18	Alluvium	2,814	137.2 143.4	Jan. 12, 1959 Jan. 16, 1960	T,E, 100	Irr	Cased to bottom. Perforated from 130 ft. to bottom. Pump set at 260 ft. in 1953.
*V-14	Hill & Sage						2,811	64.7	Jan. 12, 1959	N	N	Abandoned.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V- 5	W. W. Hill	Lowery Walker	1950	587	14,	Alluvium	2,802	42.8 44.8 50.2 47.6	Mar. 10, 1948 Mar. 2, 1949 Mar. 5, 1950 Feb. 18, 1951	т,Е, 100	Irr	Casing: 14-in. to 400 ft., 10-in. to bottom. Perforated from 200 ft. to bottom.
V-6	Sage & Hill	do		700	16	do	2,800			т,Е, 150	Irr	Cased to bottom. Pump set at 280 ft.
V-7	W. W. Hill	do	1952	800	16, 14	do	2,790	122.7	Jan. 12, 1959	N	N	<u>2</u> /
*v-8	Jake Broyles		1948	550	16	do	2,765	136.7	do	T,Ng	Irr	Cased to bottom.
V-9	Oscar Mayfield	Earl Fisher	1958	753	16	Alluvium & Cretaceous rocks	2,773	149.0 156.2	Jan. 15, 1959 Jan. 18, 1960	T,Ng	Irr	Cased to bottom. Perforated from 300 ft. to bottom. 2/
V-10	do	do	1951	600	18	Alluvium	2,778			т,Е, 200	Irr	Cased to bottom. Perforated from 240 ft. to bottom.
V-11	do	Lowery Walker	1955	792	16	Alluvium & Cretaceous rocks	2,779		-	T,E	Irr	Cased to bottom. Perforated from 251 ft. to bottom. 2/
V-12	do	Earl Fisher	1951	600	16	Alluvium	2,780	160.6	Jan. 15, 1959	T,E, 100	Irr	Cased to bottom. Perforated from 250 ft. to bottom.
V-13	do	do	1951	580	18	do	2,784	175.8 189.0	do Jan. 18, 1960	T,E	Irr	
V-14	Jim McCarmac	R. Pearce		465	18	do	2,750	113.9	Jan. 14, 1959	N	N	
V-15	đo	do	1952	560	18	Alluvium & Cretaceous (?) rocks	2,766	167.5 178.0	do Jan. 16, 1960	N	N	Used as standby well.
V-16	McAnally Bros.	Blackstock	1953	470	14, 12	do	2,762			T,Ng	Irr	Casing: 14-in. to 280 ft., 12-in. to bottom. Discharge measured 620 gpm on July 21, 1959.
V-17	do	W. B. Jobe	1957	580	16, 14	do	2,769	193.2 202.6	Jan. 23, 1959 Jan. 22, 1960	T,Ng	Irr	Casing: 16-in. to 446 ft., 14-in. to bottom. Slotted from 90 ft. to bottom. Discharge measured 370 gpm on July 21, 1050

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
v-18	Alan Hoefs	Mullican	1952	1,480	22, 20	Rustler formation	2,779	128.0	Jan. 26, 1959	T,Ng	Irr	Pump set at 420 ft. in 1958. Discharge measured 590 gpm on July 21, 1959.
V-19	đo	do	1952	5001	9	Alluvium & Cretaceous (?) rocks	2,779	41.2	do	T,E	Irr	
V-20	do	do	1952	5001	16	do	2,780	128.6	do	T,Ng	Irr	Discharge measured 540 gpm on July 21, 1959.
V-21	do	do	1952	4601	16	do	2,802	143.4	do	T,Ng	Irr	Pump set at 320 ft.
V-22	đo	do	1957	1,460	12	Rustler formation	2,825	182.3	đo	T,Ng	Irr	Pump set at 440 ft. Discharge reported 1,697 gpm.
V23	đo	do	1952	5001	16	Alluvium & Cretaceous (?) rocks	2,803	138.0 131.8 148.8	do Feb. 12, 1959 Jan. 23, 1960	T,Ng	Irr	from 25 the second of the
V-24	Rudolf Hoefs	do	1952	490	16	do	2,808	133.7 128.3 157.0	Jan. 26, 1959 Feb. 12, 1959 Jan. 21, 1960	N	N	Charles of the second s
V- 25	do	đo	1952	1,670	20, 16	Rustler formation	2,797	128.9	Jan. 26, 1959	T,Ng	Irr	Discharge reported 1,350 gpm. Pump set at 370 ft. Discharge measured 6,000 gpm on July 21, 1959.
V26	L. C. Moore		-	485	16	Alluvium & Cretaceous (?) rocks	2,777	136.7 157.1	Jan. 16, 1959 Jan. 21, 1960	N	N	· ·
V-27	do				16	do	2,782	132.9	Jan. 16, 1959	N	N	No. of Contract of
V-28	B. J. Allen			600	16	Alluvium(?) & Creta- ceous rocks	2,814	160.0 200.0	do Jan. 20, 1960	T,Ng	Irr	Cased to bottom. Pump set at 360 ft.
V-29	A. J. Orr				-		2,814	159.8	Jan. 16, 1959	T,Ng	Irr	Pump set at 420 ft. Discharge measured 960 gpm on July 17, 1959.
V-30	do						2,814	161.8	đo	T,Ng	Irr	Pump set at 420 ft. Discharge measured 740 gpm on July 17, 1959.
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See footnotes at end of table.

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Well	Owner	Driller	Date	Denth								
			com- plet- ed	of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-31	J. B. Kirklin	Earl Fisher	1953	658	16, 12	Alluvium & Cretaceous rocks	2,817	174.6	Jan. 16, 1959	т,Е, 150	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Pump set at 400 ft.
V-32	do	do	1951	560	18	Alluvium & Cretaceous (?) rocks	2,819	170.2 202.7	do Jan. 19, 1960	T,E, 200	Irr	Cased to bottom. Pump set at 400 ft. 3/
V-33	do	do	1955	570	16	đo	2,819			T,E, 150	Irr	Cased to bottom.
V 34	do	Lowery Walker	1955	593	16	Alluvium & Cretaceous rocks	2,810	177.1	Jan. 16, 1959	т,Е, 150	Irr	Cased to bottom. Pump set at 260 ft. 2/
V-35	Toone & Sample	Ted Lindemann		6003	16	đo	2,803	162.2 203.9	do Jan. 18, 1960	N	N	Abandoned.
v-36	H. G. Bradley	Roy Pearce	1955	972	16, 12	Alluvium(?) & Creta- ceous rocks	2,800	158.4 194.5	Jan. 16, 1959 Jan. 18, 1960	T,Ng	Irr	Casing: 16-in. to 510 ft., 12-in. to bottom. Discharge reported 800 gpm.
V-37	do		1949	560	16	Alluvium & Cretaceous rocks	2,800			T,Ng	Irr	Cased to bottom. Discharge reported 3,000 gpm. Pump set at 240 ft.
v-38	A. F. Buchanan, Jr.		1946	300	20, 16	Alluvium	2,805	172.1 188.8	Jan. 14, 1959 Jan. 18, 1960	N	N	
V-39	do	Jobe Bros.	1957	628	16	Alluvium & Cretaceous (?) rocks	2,807	169.7	Jan. 14, 1959	T,Ng	Irr	Cased to bottom. Pump set at 220 ft. Discharge measured 670 gpm on July 17, 1959.
V-40	do		1946	400	16, 8	Alluvium	2,792	165.2	do	T,G	Irr	Cased to bottom. Standby well.
V-41	do	Earl Fisher	1958	647	16	Alluvium & Cretaceous (?) rocks	2,806	156.1	do	T,Ng	Irr	Pump set at 280 ft.
V-42	do	đo	1955	654	16	do	2,810	160.9	do	T,Ng	Irr	Cased to bottom. Slotted from 350 ft. to bottom.
V-43	Graham & Gallemore	do	1954	300	8	Alluvium	2,808			T,E	Irr	Cased to bottom. Perforated from 160 ft. to bottom.

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of wall (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-44	S. & Cole Armstrong			480	16,	Alluvium	2,819	177.8	Jan. 14, 1959	T,Ng	Irr	Casing: 16-in. to 350 ft.,
1.1		Sarth Without	100	194		NY TRAINERS	- state			1.146		measured 930 gpm on July 17, 1959.
V-45	C. E. Neff		0	580	16	do	2,823	184.9	đo	T,Ng	Irr	Pump set at 240 ft. Discharge measured 1,230 gpm on July 17, 1959.
V-46	Jack Bradley	1000		350		do	2,829		277 J. 702	T,Ng	Irr	Pump set at 270 ft.
v-47	Graham & Gallemore	Earl Fisher	1951	600	16	đo	2,812	65.9 163.5 159.1	Feb. 6, 1953 Jan. 14, 1959 Jan. 16, 1960	T,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Dis- charge measured 750 gpm on July 17, 1959. <u>3</u> /
v- 48	Н. G. Евру						2,813			T,E	Irr	Discharge measured 890 gpm on July 17, 1959.
v-49	do						2,818	148.3	Jan. 14, 1959	T,E	N	The Part of Souther Stream and
V- 50	Sage & Hill	Lowery Walker		400?	16	Alluvium	2,807	134.6	Jan. 12, 1959	T,E, 125	Irr	
*V-51	do	do	1953	700	16	do	2,810			T,E, 125	Irr	
V-52	do	đo		700	16	do	2,822	157.0 166.1	Jan. 12, 1959 Jan. 16, 1960	т,е, 125	Irr	Cased to bottom. Pump set at 300 ft.
V-53							2,824	92.0	Jan. 12, 1959	N	N	Abandoned.
V- 54	Graham & Gallemore	Lowery Walker	1953	590	16	Alluvium	2,842	143.6 176.1	Jan. 14, 1959 Jan. 19, 1960	T,Ng	Irr	Cased to bottom. Perforated from 270 ft. to bottom. $\underline{2}/$
V- 55	do	do	1953	610	16	do	2,847	169.6	Jan. 14, 1959	T,Ng	Irr	Cased to bottom. Perforated from 240 ft. to bottom. $2/$
V-56	do	do	1953	600	16	đo	2,850	172.7	do	T,Ng	Irr	Cased to bottom. Perforated from 280 ft. to bottom. 2/
V-57	do	do	1953	651	16	do	2,844	166.4	đo	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom.
* v- 58	J. F. Browder	C. & H. Drilling Co.	1953	575	16	đo	2,839	164.0 176.9	Jan. 19, 1959 Jan. 18, 1960	T,Ng	Irr	Cased to bottom. Perforated from 100 ft. to bottom. Temp. 69°F.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-59	L. C. Moore			585	16	Alluvium	2,850	178.0	Jan. 19, 1959	T,Ng, 180	Irr	Cased to bottom. Discharge reported 1,000 gpm in 1957.
V-60	P. Robertson	Walker & Stanton	1959	648	16	đo	2,865	189.3 200.3	Jan. 14, 1959 Jan. 19, 1960	т,Е, 150	Irr	Cased to bottom. Perforated from 350 ft. to bottom. Dis- charge measured 1,130 gpm on July 16, 1959. 2/
V-61	đo	Jobe Bros.	1958	658	16	do	2,865	196.3	Jan. 14, 1959	T,Ng	Irr	Cased to bottom. Perforated from 400 ft. to bottom. Dis- charge measured 720 gpm on July 16, 1959.
V62	Joe McMahon	Blackstock	1952	614	20	do	2,874			т,Е, 350	Irr	Cased to bottom. Slotted from 250 ft. to bottom.
V63	do	do	1952	600	20	đo	2,872	94.0	Jan. 15, 1959	т,е, 350	Irr	Cased to bottom. Perforated from 200 ft. to bottom.
V-6 4	C. E. Davis		1952		16		2,903	222.9 220.7	do Jan. 19, 1960	T,Ng, 150	Irr	
V-65	J. F. Crews	Crane	1951	632	16, 14	Alluvium	2,986			T,E	Irr	Pump set at 290 ft.
V-66	do		1951	622	16	do	2,901	212.9	Jan. 15, 1959	T,E	Irr	Pump set at 300 ft.
V-67	do	Earl Fisher	1954	618	16	đo	2,891	215.0 225.9	do Jan. 19, 1960	T,E	Irr	Cased to bottom.
V-68	B. S. Estes	Blackstock	1952	558	16	do	2,889	204.8	Jan. 15, 1959	T,Ng, 230	Irr	Cased to bottom. Perforated from 197 ft. to bottom. Pump set at 300 ft. in 1953.
V-69	đo	Rich	1952	520	16	do	2,886	203.1	do	T,Ng, 230	Irr	Cased to bottom. Pump set at 320 ft. in 1958.
V-70	do	Hawthorne	1953	564	18, 14	do	2,880			T,Ng, 230	Irr	Casing: 18-in. to 380 ft., 14-in. to bottom.
V-71	do		1952	700	16	Alluvium & Cretaceous (?) rocks	2,872	198.7	Jan. 15, 1959	T,Ng, 230	Irr	Cased to bottom. Perforated from 280 ft. to bottom.
*V-72	do			700	16	do	2,870	194.0 207.8	do Jan. 19, 1960			Pump set at 320 ft. Temp. 69°F.

See footnotes at end of table.

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Table 6 .- Records of wells and springs in Reeves County -- Continued

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-73	J. T. Duke		1953	600?	20	Alluvium	2,868			T,E, 200	Irr	Casing perforated from 100 ft. to bottom. Discharge measured 1,780 gpm on July 16, 1959.
V-74	R. P. Neff	Lowery Walker	1957	598	16	do	2,864			T,Ng	Irr	Casing perforated from 300 ft. to bottom. 2/
V- 75	do	do	1957	600	16	do	2,860	188.1	Jan. 15, 1959	T,Ng	Irr	Pump set at 310 ft.
V-76	Roy Carlisle	Earl Fisher		600	16	đo	2,874	189.2 201.7	do Jan. 19, 1960	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 290 ft. Discharge mea- sured 1,330 gpm on July 17, 1959.
V-77	W. A. Jobe	W. A. Jobe	1953	600	16	Alluvium & Cretaceous (?) rocks	2,860	80.7 110.9 130.9 145.2	Feb. 6, 1953 Jan. 21, 1954 Jan. 2, 1955 Jan. 1, 1956	T,Ng	Irr	Cased to bottom. Pump set at 300 ft. in 1958.
V-78	đo	đo	1952	387	16	Alluvium	2,854	174.7 190.0	Jan. 20, 1959 Jan. 20, 1960	T,G	Irr	Cased to bottom. Pump set at 250 ft. in 1958.
V-79	W. W. Jobe	Pearce	1951	403	16	do	2,850	184.1	do	T,Ng	Irr	Cased to bottom. Discharge meas- ured 715 gpm on July 17, 1959.
v-80	W. D. Jobe	Black	1952	367	16	do	2,845			T,Ng	Irr	Cased to bottom. Pump set at 220 ft.
v-81	H. G. Bradley	Earl Fisher	1955	604	16	Alluvium & Cretaceous (?) rocks	2,832	177.2	Jan. 19, 1959	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 400 ft. Discharge meas- ured 880 gpm on July 17, 1959.
V-82	Robt. D. Bradley	Schooler	1951	520	16, 12	Alluvium	2,828	174.0	do	T,Ng	Irr	Casing: 16-in. to 380 ft., 12-in. to bottom. Slotted from about 250 ft. to bottom. Dis- charge reported 1,200 gpm in 1959.
V-83	do	Fisher & Pate	1952	978	14, 10, 8	Alluvium & Cretaceous rocks	2,831	181.5	do	T,Ng	Irr	Casing: 14-in. to 500 ft., 10-in. from 500 ft. to 750 ft., 8-in. to bottom. Slotted from 250 ft. to bottom. Discharge reported 1,400 gpm.
V-84	đo	Pearce & Pate	1955	628	16, 12	do	2,821			T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Pump set at 420 ft. 2/

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diame eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
v- 85	F. F. Bradley	L. L. Pate	1951	600	16, 14	Alluvium & Cretacecus rocks	2,815	167.3	Jan. 19, 1959	T,E	Irr	Cased to bottom. Perforated from 150 ft. to bottom. Pump set at 430 ft.
v-86	do	Fisher & Rich	1952	426	16	Alluvium	2,818	165.5	do	N	N	Cased to 270 ft.
v-87	do	L. L. Pate	1958	600	14	Alluvium & Cretaceous rocks	2,821	170.2	đo	T,Ng	Irr	Cased to bottom. Perforated from 270 ft. to bottom. Pump set at 420 ft.
v-88	do	Rich	1951	575	16, 12	đo	2,823			T,Ng	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Perforated from 100 ft. to bottom.
v-89	do	Rich & Pate	1951	720	16, 12	do	2,828	171.2 264.8	Jan. 19, 1959 May 19, 1959	T,Ng	Irr	do
*V-90	đo	Pate & Fisher	1957	1,625	16, 12	Alluvium(?), Cretaceous rocks, & Rustler formation	2,816	172.1 248.0	Jan. 19, 1959 May 19, 1959	T,Ng	Irr	Casing: 16-in. to 503 ft., 12-in. to 1,585 ft. Perfora- tions from 503 to 658 ft. and 1,330 to 1,585 ft. <u>1</u> / <u>2</u> /
V-91	đo	L. L. Pate	1955	543	20, 16	Alluvium(?) & Creta- ceous rocks	2,820	166.1	Jan. 19, 1959	T,Ng	Irr	Casing: 20-in. to 375 ft., 16-in. to bottom. Perforated from 250 to bottom. Pump set at 410 ft.
V-92	do	do	1956	601	16, 12	do	2,823	168.6	do	T,Ng	Irr	Casing: 16-in. to 330 ft., 12-in. to bottom. Perforated from 250 ft. to bottom.
V-93	Paul Armstrong	A. Baker	1958	647	1.6	đo	2,831	174.9	do	T,E, 125	Irr	Cased to bottom. Perforated from 400 ft. to bottom.
V-94	do	đo	1955	600	16, 12	đo	2,840			T,E, 125	Irr	Casing: 16-in. to 450 ft., 12-in. to bottom.
V- 95	J. J. Bush Estate		1912	370	8	Cretaceous rocks	2,821	43.6	Apr. 14, 1959	c,w	S	Cased to 243 ft. <u>2</u> /
v- 96	do		1956	444	8	do	2,803	132.7	do	c,w	s	Cased to 325 ft. 2/
* v- 97	L. A. Weinacht				6		2,847	100.7	đo	c,w	S	.3/
V-98	Dora Roberts	Argo Oil Co.	1946	14,057			2,876			N	N	Oil test. 1/
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See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
* v- 99	L. A. Weinacht				6	Cretaceous (?) rocks	2,907	101.2 99.4 173.5	May 8, 1940 Dec. 3, 1940 Apr. 14, 1959	C,W	S	Sampled in 1940 before well was deepened from 128 ft. to ?,
V-100	J. J. Bush Estate	Argo Oil Co.	1948	11,250			2,918			N	N	Oil test. 1/
V-101	W. C. Ikins	E. E. Doyle	1958	715	1.6	Cretaceous rocks & Alluvium(?)	2,866	165.5	Jan. 20, 1959	T,G	Irr	Cased to bottom.
V-102	E. E. Doyle	Doyle & Irwin	1954	565	16	Alluvium & Cretaceous rocks	2,868	159.2 192.1	do Jan. 20, 1960	N	N	and the process of the second s
V-103	W. C. Kerley	Lowery Walker	1955	590	12	do	2,915	211.6	Jan, 20, 1959	T,Ng	Irr	Cased to bottom. Slotted from 266 ft. to bottom. $\underline{2}/$
V-104	Toone & Samples	<u> </u>	1952	575	16	Alluvium & Cretaceous (?) rocks	2,890			T,E, 125	Irr	Cased to bottom. Slotted from 300 ft. to bottom.
V-105	do	Lowery Walker	1953	640	16	Alluvium & Cretaceous rocks	2,896	205.8	Jan. 16, 1959	T,E, 125	Irr	Cased to bottom. Slotted from 280 ft. to bottom. $\underline{2}/$
V-106	đo	do	1.953	594	16	do	2,889	204.2 210.3	do Jan. 19, 1960	T,E, 125	Irr	Cased to bottom. Slotted from 344 ft. to bottom. $2/$
V-107	đo	do	1952	622	16	Alluvium	2,884	201.7	Jan. 16, 1959	T,E, 125	Irr	Cased to bottom. Slotted from 287 ft. to bottom. Discharge measured 890 gpm on July 17, 1959. 2/
V-108	Roy Carlisle	and <u>see</u> r	1959		-	do	2,868	10.000		T,Ng	Irr	Cased to bottom. Slotted from 200 ft. to bottom. Discharge measured 920 gpm on July 17, 1959.
V-109	M. G. Singh	California West- ern Pump Co.	1952	500	18	do	2,902	221.3	Jan. 16, 1959	T,E, 125	Irr	Cased to bottom. Pump set at 375 ft.
V-110	đo	Lowery Walker	1952	507	16	do	2,907	213.1	đo	T,E, 125	Irr	Cased to bottom. 2/
V-111	đo		1952	500	18	do	2,913			T,E, 125	Irr	Cased to bottom. Pump set at 400 ft.
V-112	do		1952	500	18	do	2,905	221.8	Jan. 16, 1959	т,Е, 125	Irr	Cased to bottom. Pump set at 375 ft.

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See footnotes at end of table.

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						_		Water	level			
Well.	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-113	W. F. Wofford	Lowery Walker	1954	705	16	Alluvium & Cretaceous (?) rocks	2,920	223.5 230.6	Jan. 16, 1959 Jan. 19, 1960	T,Ng, 180	Irr	Pump set at 300 ft.
V-114	Storey Estate	do	1951	600	16	Alluvium	2,920		· _	T,Ng	Irr	Cased to bottom. Pump set at 340 ft.
V-115	do	· do	1951	640	16	do	2,924			T,Ng	Irr	Pump set at 380 ft.
V-116	do	do	1951	545	18, 14, 10	do	2,928	214.6 217.1	Jan. 19, 1959 Jan. 19, 1960	N	N	
V-117	W. E. Moore	Earl Fisher	1953	628	16	do	2,948	278.7 282.8	Jan. 19, 1959 Jan. 19, 1960	T,Ng	Irr	Cased to bottom. Pump set at 350 ft.
V-118	Buchanan & Sons	Jobe Bros.	1954	620	16	do	2,965	282.6 302.2	Jan. 19, 1959 Jan. 20, 1960	T,Ng	Irr	Cased to bottom. Perforated from 330 ft. to bottom.
*V-119	Saragosa School District		1952	160?			2,975	158.3 183.6 200.6 239.3	Feb. 6, 1953 Jan. 21, 1954 Jan. 12, 1955 Jan. 24, 1957	T,E	D	Sampled in 1930 and 1940 before well was deepened from 160 ft. to ?. $\underline{3}/$
*V-120	Sol Mayer Estate						2,967	255.9 260.2	Jan. 20, 1959 Jan. 20, 1960	N	N	Abandoned.
*V-121	do				-940		2,962	130.6	Feb. 15, 1951	N	N	Abandoned. 3/
*V-122	H. R. Honaker	L. W. Pulley	1940	108	6	Alluvium	2,941	88.3	May 17, 1941	c,w	S	<u>2</u> /
V-123	Ed Williams	Lowery Walker		610		Alluvium & Cretaceous rocks	2,927	187.9	Jan. 21, 1959	T,Ng	Irr	Pump set at 260 ft. Discharge measured 1,110 gpm on July 20, 1959.
V-124	M. J. Brijulba	Calvert & McIntyre	1953	520	16, 12	Alluvium & Cretaceous (?) rocks	2,924	195.6	Jan. 22, 1959	T,Ng	Irr	Cased to 400 ft. Pump set at 280 ft. Discharge measured 830 gpm on July 20, 1959.
V-125	J. Oates	do	1951	585	16, 12	Alluvium & Cretaceous rocks	2,910	147.5	Jan. 22, 1959	T,Ng	Irr	Pump set at 240 ft.
*V-126	Ed Williams	Lowery Walker		420	16	Alluvium & Cretaceous (?) rocks	2,913	184.9 191.4	Jan. 21, 1959 Jan. 20, 1960	T,E, 100	Irr	Discharge measured 600 gpm on July 20, 1959. Temp. 70°F.
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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-127	Rudolf Hoefs	Calvert & McIntyre	1950	600	16, 12	Alluvium & Cretaceous rocks	2,907	163.2	Jan. 22, 1959	T,E, 125	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Slotted from 200 ft. to bottom. Deepened from 350 ft. to 600 ft. in 1956. Discharge meas- ured 1,340 gpm on July 21, 1959.
V-128	do	do	1950	450	16, 12	Alluvium & Cretaceous (?) rocks	2,900	102.1	do	T,E, 125	Irr	Casing: 16-in. to 300 ft., 12-in. to bottom. Deepened from 300 ft. to 450 ft. in 1957. Discharge measured 1,300 gpm on July 20, 1959.
V-129	Ross & Collins	C. & H. Drilling Co. & Calvert & McIntyre	1953	350?	16, 12	đo	2,892		-	т,Ng, 85	Irr	Cased to bottom. Slotted from 240 ft. to bottom. Fump set at 280 ft. Discharge measured 940 gpm on July 20, 1959.
V-130	Woodrow Reilly	Lowery Walker	1954	376	18	do	2,894	97.6	Jan. 21, 1959	т,Е, 100	Irr	Cased to bottom. Pump set at 300 ft.
V-131	Ross & Collins	C. & H. Drilling Có. & Calvert & McIntyre	1952	700	20, 16, 12	Alluvium & Cretaceous rocks	2,880	176.8 180.3	do Jan. 20, 1960	T,Ng, 85	Irr	Cased to bottom. Slotted from 400 ft. to bottom. Pump set at 450 ft.
*V-132	L. A. Weinacht	1945 1.1944	1940	119	6	Cretaceous rocks	2,913	71.6 148.0	May 17, 1941 Jan. 21, 1959	C,W	S	3/
V-133	Ed Armstrong		1955	418	16	Alluvium(?) & Creta- ceous rocks	2,894	128.3	Jan. 23, 1959	T,Ng	Irr	Cased to bottom. Pump set at 250 ft. in 1956.
V-134	do		1955	618	16, 12	do	2,892	154.0 164.2	do Jan. 20, 1960	T,G	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Pump set at 250 ft.
V-135	C. P. Yadon	Keljikan Commer- cial Co.	1958	5,083			2,895	-		N	N	Oil test. 1/
V-136	J. L. Davis		1959	4001		Cretaceous rocks	2,901			T,Ng	Irr	Discharge measured 1,030 gpm on July 17, 1959.
V-137	L. R. Rampy	Ikins & Keljikan	1956	5,265			2,900			N	N	011 test. 1/
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See footnotes at end of table.

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								Water	lev	el			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Da meas	te of urement	Method of lift	Use of water	Remarks
*V-138	The Chandler Co.	Sam Parker	1958	408	14	Alluvium & Cretaceous rocks	2,906	228.5 320.9	Jan. Aug.	23, 1959 6, 1959	T,Ng, 170	Irr	Cased to 403 ft. Slotted from 220 to 408 ft. Pump set at 370 ft. in 1959. Discharge reported 1,050 gpm Aug. 10, 1958. Discharge measured 635 gpm on Aug. 8, 1959.
V-139	do	Clawson	1953	355	14, 12	do	2,917	234.9	Jan.	23, 1959	T,Ng, 85	Irr	Casing: 14-in to 275 ft, 12- in. from 275 ft. to bottom. Discharge reported 450 gpm. Pump set at 325 ft. in 1958.
V-140	do					do	2,934	237.9		do	N	N	
V-141	do					do	2,933	222.6		do	N	N	
V-142	do					Cretaceous rocks & Santa Rosa Sandstone	2,936	226.6		do	N	N	
V-143	do	Clawson	1953	350	14	do	2,930	221.2		do	т,Е, 5	D	Cased to bottom.
V-144	do	do	1953	350	14	do	2,935	222.0		do	N	N	Abandoned.
V-1 45	do	do	1953	350	14	do	2,943	228.9 238.4	Jan.	do 20, 1960	N	N	do
*V-146	do	Russ Williams	1954	1,500	12	Rustler formation	2,947	273.0 345.4	Jan. Jan.	23, 1959 20, 1960	T,Ng, 170	Irr	Discharge reported 650 gpm. Pump set at 470 ft. in 1958. Temp. 83°F. <u>1</u> / <u>2</u> /
V-147	do	do	1954	1,450	16	do	2,949	_439.2	Aug.	6, 1959	T,Ng	Irr	Cased to bottom. Discharge reported 750 gpm in 1958. Pump set at 450 ft. Discharge measured 750 gpm on July 1959. <u>1</u> / <u>2</u> /
*v-148	Rudolf Hoefs				6	Cretaceous rocks	2,991	203.4	Mar.	26, 1959	C,W	S	
V-149	The Chandler Co.	Russ Williams	1954	1,500	14, 8, 6	Rustler formation	2,930	152.3 190.7	Jan. Jan.	23, 1959 20, 1960	T,Ng, 170	Irr	Casing: 14-in. to 405 ft., 8- in. from 405 to 1,050 ft., 6- in. slotted from 1,050 ft. to bottom. Discharge reported 1,100 gpm in 1958. 1/ 2/

See footnotes at end of table.

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								Water	le	vel			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	D mea	ate of surement	Method of lift	Use of water	Remarks
*V-150	L. A. Weinacht			1.41	6	Alluvium & Cretaceous (?) rocks	2,930	108.6	July	30, 1940	C,W	S	Old well.
V-151	Rudolf Hoefs	Calvert & McIntyre	1953	400	20, 16	Alluvium & Cretaceous rocks	2,915	119.5	Jan.	22, 1959	T,E, 100	Irr	Cased to bottom.
V-152	do	do	1950	600	16, 12	do	2,920	179.2	Jun - Jun -	do	T,E, 125	Irr	Cased to bottom. Deepened from 300 to 600 ft. in 1956.
V-153	do	C. & H. Drilling Co.	1958	611	16	do	2,921	185.6 193.5	Jan.	do 20, 1960	T,E, 125	Irr	Cased to bottom. Perforated from 300 ft. to bottom.
V-154	do		1950	500	16	do	2,924	124.7 132.8	Jan. May	22, 1959 20, 1959	N	N	Deepened from 300 ft. to 500 ft. in 1955. Reported filled 280 ft. with gravel.
V-155	L. E. Boyd		1955	300	6	do	2,926				C,G, 4	D	Cased to 289 ft. Pump set at 180 ft. 2/
V-156	Thomas E. Perry	Calvert & McIntyre	1951	600	16, 14, 12	Alluvium & Cretaceous (?) rocks	2,947	211.9	Nov.	19, 1958	T,E, 100	Irr	Pump set at 260 ft.
V-157	do	do	1951	600	16, 14, 12	do	2,953	230.1 238.0	Jan.	do 20, 1960	т,е, 100	Irr	do
V-158	L. A. Weinacht	do	1954	400	16	Alluvium	2,938		-		T,Ng	Irr	Cased to bottom. Perforated from 325 ft. to bottom. Pump set at 220 ft.
V-159	May T. Bell	do	1952	500	12	do	2,958	225.1	Nov.	20, 1958	T,E, 100	Irr	Cased to bottom. Slotted from 200 ft. to bottom. Deepened from 300 to 500 ft. in 1956.
*V-160	R. V. Turnbough	do	1952	600	16, 14, 12	do	2,970	246.1	Nov.	19, 1958	T,E, 125	Irr	Deepened from 200 ft. to 600 ft. in 1952. Discharge measured 680 gpm on July 20, 1959. <u>2</u> / <u>3</u> /
V-161	Garland Rowe	do	1953	600	16, 14, 12	Alluvium & Cretaceous rocks	2,973	250.6		do	T,E, 200	Irr	Pump set at 260 ft. Discharge measured 1,030 gpm on July 20, 1959. 2/

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
V-162	Balmorhea Ranches, Inc.	C. & H. Drilling Co.	1953	613	20, 16	Alluvium	2,973	257.8	Nov. 13, 1958	T,E, 100	Irr	Cased to bottom. Pump set at 300 ft. in 1958. Deepened from 350 to 613 ft. in 1956. 2/
V-163	do	do	1953	704	16, 12	Alluvium & Cretaceous rocks	2,987	241.1	do	T,E, 100	Irr	Casing: 16-in. to 400 ft., 12-in. to bottom. Perforated from 160 ft. to bottom. Deepened from 400 ft. to 704 ft. in 1956. <u>2</u> /
V-164	L. A. Weinacht		1951	400	16	Alluvium	3,000			T,Ng	Irr	Cased to bottom. Slotted from 300 ft. to bottom.
V-165	H. H. Toone	Calvert & McIntyre	1959	850	20	Alluvium & Cretaceous rocks	3,030	230.2	Jan. 22, 1959		Irr	
V-166	Roy Brey	Blount Bros.	1954	350	10	Alluvium	2,989	238.4	Nov. 20, 1958	T,Ng	D,Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 310 ft.
V-167	J. F. Crews						2,984	254.4 259.0	do Jan. 20, 1960	T,E, 125	N	
V-168	Graham & Gallemore			350	24, 12			39.7	Jan. 17, 1950	N	N	3/
V-169	N. E. Mayer		1910	187	24			66.9	Jan. 28, 1952	N	N	3/
*V-170	Texas & Pacific R.R. Co.	J. Portervant		200	14			130.1	Jan. 24, 1957	N	N	3/
*V-171	L. A. Weinacht		1948	200	16					N	N	
*W-1	H. T. Collier				8	Alluvium (?)	2,776	26.4 73.3	Aug. 20, 1940 Mar. 5, 1959	C,W	S	Pump set at 130 ft. Eclipse well.
W-2	Paul Davidson	Earl Fisher	1959			Alluvium	2,806	82.4 96.2	Feb. 12, 1959 May 21, 1959	J,E	D	
* W- 3	H. T. Collier	Clyde Simmons	1939	115	6	do	2,806	67.9 84.3	Aug. 21, 1940 Mar. 5, 1959	C,W	S	Pump set at 140 ft. 2/
W-4	Paul Davidson	Earl Fisher	1959			Alluvium & Santa Rosa sandstone	2,806	96.7 96.2	Jan. 28, 1959 Feb. 12, 1959	T,G	Irr	Discharge measured 1,260 gpm in 1959.

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See footnotes at end of table.

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								Water	level		-	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in,)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
W-5	Paul Davidson	Earl Fisher	1959		16	Alluvium & Santa Rosa sandstone	2,801	82.9 124.4	Jan. 28, 1959 Jan. 22, 1960	,G	Irr	Discharge measured 915 gpm in 1959.
W-6	do	do	1959			do	2,792	80.5	Jan. 28, 1959	T,G	Irr	Compression for the antibal
W7	do	do	1959			do	2,797	72.7	do	T,G	Irr	
w-8	W. H. Holcombe	Joseph Land		127		Alluvium	2,794	63.0 64.3	Jan. 29, 1959 Mar. 5, 1959	C,G	S	<u>2</u> /
W-9	Barilla Farms	Jobe Bros	1958	440	16	Alluvium & Santa Rosa sandstone	2,797	71.4 72.3	Jan. 28, 1959 Jan. 22, 1960	,Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 280 ft.
*W-10	do			1,405	12	Rustler formation	2,790			T,Ng	Irr	Cased to bottom. Pump set at 240 ft.
W-11	do			637	12	Alluvium & Santa Rosa sandstone	2,788	80.6	Jan. 29, 1959	9 T,Ng	Irr	Cased to bottom. Pump set at 200 ft.
*W-12	do	R. P. Morrison		1,400	8	Rustler formation	2,788	152.9	do	N	N	Cased to bottom. Pump set at 210 ft. Drilled as oil test and completed as water well. $\underline{1}/\underline{2}/$
W-1.3	do	S. Stafford	1958	280	16	Alluvium	2,779	74.3	do	T,Ng	Irr	Cased to bottom. Pump set at 260 ft. in 1958.
W-14	T. Wheelis	Earl Fisher	1958	410	16	Alluvium & Santa Rosa sandstone	2,790	101.1	đo	T,Ng	Irr	Discharge reported 1,100 gpm. $\underline{2}/$
W-15	do	do	1958	322	16	do	2,793	102.6	do	T,Ng	Irr	Discharge reported 650 gpm. 2/
W-16	do	do	1958	285	16	do	2,792	101.9	do	T,Ng	Irr	Discharge reported 690 gpm. 2/
W-17	G. C. Fraser	Gulf Oil Corp. & Jack Frost	1950	5,300			2,793	57.	200 Tr 10	N	N	Oil test. 1/
W-18	R. J. Yarbrough	Earl Fisher	1958	467	16	Alluvium & Santa Rosa sandstone	2,794	101.3 127.4	Jan. 29, 195 Jan. 22, 196	9 T,Ng	Irr	Discharge reported 1,200 gpm. 2/
*W-19	H. F. Woods			87	6	Alluvium	2,793	71.7	Mar. 1, 194	L C,W	S	guerra

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		Driller	T	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Water level				
Well	Owner		Date com- plet- ed					Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
₩-20	R. J. Yarbrough	Earl Fisher	1958	358	16	Alluvium & Santa Rosa sandstone	2,796	104.9	Jan. 29, 1959	T,Ng	Irr	Discharge reported 750 gpm. 2/
W-21	do	do	1958	350	16	do	2,795	106.3 do		T,Ng	Irr	Discharge reported 800 gpm. 2/
*W-22	Betty Hargrove			153?	6	Santa Rosa sandstone	2,791	91.2 110.4	Mar. 1, 1941 Mar. 17, 1959	с,₩	S	
W-23	B. S. Estes					Alluvium & Santa Rosa (?) sand- stone	2,770	103.5	Jan. 26, 1959	T,Ng	Irr	
W-24	do				12	do	2,670	107.2	do	N	N	
W-25	do				12	do	2,670	108.2	Jan. 29, 1959		Irr	
W-26	do						2,670			T,Ng	Irr	
W-27	do				16	Alluvium & Santa Rosa (?) sand- stone	2,870	111.4 115.5	Jan. 26, 1959 Jan. 22, 1960	N	N	
W-28	do					do	2,770	111.5	Jan. 28, 1959	T,Ng	Irr	
W-29	do						2,774			T,Ng	Irr	
W-30	đo				16	Alluvium & Santa Rosa (?) sand- stone	2,773	110.7	Jan. 26, 1959	T,Ng	Irr	
W-31	do				12	do	2,773	111.1	do	T,Ng	Irr	
W-32	do				16	do	2,772	109.4 109.8	do Jan. 22, 1960	T,Ng	Irr	
W-33	do				16	do	2,774	112.8	Jan. 26, 1959	T,Ng	Irr	
W-34	do						2,775			T,Ng	Irr	
W-35	đo					Alluvium & Santa Rosa (?) sand- stone	2,776	113.5	Jan. 26, 1959	T,Ng	Irr	

Table 6 Records	of	wells	and	springs	in	Reeves	CountyContinued						
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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Da meas	ate of surement	Method of lift	Use of water	Remarks
W-36	B. S. Estes				16	Alluvium & Santa Rosa (?) sand- stone	2,776	114.6	Jan.	26, 1959	T,Ng	Irr	
*W-37	do					do	2,775	114.7		do	T,Ng	Irr	
W-38	do				12	do	2,776	102.5 109.2	Jan. Jan.	28, 1959 22, 1960	N	N	
W-39	do .				18	do	2,773	113.4		do	T,Ng	Irr	
W-40	do				16	do	2,774	117.4	Jan.	28, 1959	T,Ng	Irr	
W-41	đo				16	do	2,771	96.9		do	T,Ng	Irr	Discharge measured 245 gpm on June 26, 1959.
W-42	do				16	do	2,772	99.7	1981	do	T,Ng	Irr	Discharge measured 405 gpm on June 26, 1959.
W-43	do				16	do	2,774	110.2		do	T,Ng	Irr	Discharge measured 780 gpm on June 26, 1959.
W-44	do				16	do	2,779	108.4		do	T,Ng	Irr	
W-45	do				16		2,779				T,Ng	Irr	
W-46	do					Alluvium & Santa Rosa (?) sand- stone	2,780	114.7	Jan.	28, 1959	T,Ng	Irr	
W-47	do				16	do	2,781	120.1		do	T,Ng	Irr	
W-48	do				16	do	2,777	118.4		do	T,Ng	Irr	algebracke portaant ake kor (b)
W-49	do					do	2,779	119.2		do	T,Ng	Irr	
W-50	an in apparent						2,779		1		T,Ng	Irr	and the second states of the
W-51	C. A. Kinnear	Gulf Oil Corp.	1950	5,452							N	N	Oil test. 1/
*W-52	J. R. Wilson			130	4	Alluvium	2,789	88.0	Sept.	1940	C,W	N	2/
W-53	B. S. Estes					Rustler (?) formation	2,785	252.1	Jan.	28, 1959	T,Ng	Irr	

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
W-54	B. S. Estes				16	Alluvium & Santa Rosa (?) sand- stone	2,783	117.9	Jan. 28, 1959	T,Ng	Irr	
W-55	do					do	2,782	84.1	do	N	N	
W-56	do					do	2,784	113.9	do	T,Ng	Irr	
W-57	do				16	do	2,783	108.1 110.1	Jan. 29, 1959 Jan. 29, 1960	T,Ng	Irr	
W-58	do				16	do	2,782	36.8	Jan. 28, 1959	N	N	
*W-59	TXL Oil Corp.			119	4	Alluvium	2,776	90.8 110.1	Sept. 5, 1940 Jan. 22, 1960	C,W	S	
*W-60	E. G. Bowles	Penn Oil Co.		5,612	12	Rustler (?) formation	2,796	229.1	Mar. 18, 1959	N	N	Drilled as oil test, completed as water well. $\underline{2}/$
*W-61	do			117	6	Alluvium	2,805	105.0	Sept. 4, 1940	C,W	S	Old well.
W-62	P. G. Northrup Well 1	Gulf Oil Corp.	1954	12,014						N	N	011 test. <u>1</u> /
*w-63	Gulf Oil Corp.	do		200	8	Alluvium	2,813	118.3	Mar. 10, 1959	N	N	Drilled to supply water for oil-well drilling rig.
W-64	H. T. Collier			200	6	do	2,820	119.3	do	C,W	S	
W-65	P. G. Northrup, et al.	Gulf Oil Corp.	1950	5,367			2,832			N	N	0il test. <u>1/ 2</u> /
W-66	Minnie McCarter, et al.			400	16	Alluvium & Santa Rosa sandstone	2,827	124.5	Jan. 29, 1959	T,G	Irr	Cased to bottom. Pump set at 235 ft. Discharge measured 695 gpm in 1959. Temp. 74°F.
W-67	do			550	16	do	2,827	126.3 142.4	do Jan. 22, 1960	T,Ng	Irr	Cased to 400 ft. Pump set at 235 ft. Discharge measured 665 gpm in 1959.
W-68	do			400	16.	do	2,827	126.0	Jan. 29, 1959	T,Ng	Irr	Cased to bottom. Pump set at 235 ft. Discharge measured 345 gpm in 1959.
*W-69	do			106		Alluvium		97.3	Mar. 1, 1941	C,W	S	Old well.
W-70	R. F. Pearce						2,725	128.5	Jan. 28, 1959	T,Ng	Irr	

See footnotes at end of table.

								Water	level				
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date measure	of ment	Method of lift	Use of water	Remarks
W-71	R. F. Pearce		1958	300		Alluvium	2,825				T,Ng	Irr	
W-72	do		1958	300		do	2,818	125.5 148.2	Jan. 28, Jan. 22,	1959 1960	T,Ng	Irr	
W-73	Jim Deakins	C. G. Stafford	1957	390	16	Alluvium & Santa Rosa (?) sand- stone	2,815	118.0	Jan. 28,	1959	T,Ng	Irr	Cased to bottom. Pump set at 230 ft. Discharge reported 800 gpm.
W-74	do	Ralph Winterrowd	1958	375	16	Alluvium	2,811	80.7	do		T,Ng	Irr	Cased to bottom. Pump set at 230 ft.
W-75	do	C. G. Stafford	1955	375	16	đo	2,808	110.2	Jan. 29,	1959	T,Ng	Irr	do
W-76	do		1950 .	377	18	do	2,812				T,Ng	Irr	do
W-77	Schnack					Alluvium & Santa Rosa (?) sand- stone	2,814	113.7	Jan. 28,	1959	T,Ng	Irr	Discharge measured 380 gpm in summer of 1959.
*w-78	do	Jobe Bros.				do	2,810	1.05.7	do		T,Ng	Irr	Discharge measured 330 gpm in summer of 1959.
W-79	Ellison					do	2,812	114.7	do		T,Ng	Irr	Discharge measured 245 gpm in summer of 1959.
w-80	do			350	16	Alluvium	2,815	111.2 258.4	do May 21,	1959	T,Ng, 425	Irr	Cased to bottom. Fump set at 260 ft. Discharge reported 800 gpm.
W-81	do	Lowery Walker	1958	1,390	16	Rustler formation	2,814	166.4	Feb. 12,	1959	T,Ng	Irr	Casing: 16-in. to 552 ft., 12-in. from 552 to 1,242 ft. Discharge reported 1,200 gpm. 2/
W-82	đo		1949	350	16	Alluvium	2,814	102.8 122.9	Jan. 28, Jan. 22,	1959 1960	T,Ng, 605	Irr	Cased to bottom. Pump set at 210 ft. Discharge reported 800 gpm.
W-83	R. F. Pearce			-		Alluvium & Santa Rosa (?) sand- stone	2,825	119.5	Jan. 28,	1959	T,Ng	Irr	
W-84	do					do	2,826	118.0	do		T,Ng	Irr	

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See footnotes at end of table.

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			Γ					Water	10	evel			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	I mea	Date of asurement	Method of lift	Use of water	Remarks
w-85	Paul Davidson	Earl Fisher	1959		16	Alluvium & Santa Rosa (?) sand- stone	2,822				T,Ng	Irr	
W86	do	do	1959		16	do	2,810		5	- 24	T,G	Irr	Discharge measured 965 gpm in summer of 1959.
w-87	do	do	1959	459	1.6	Alluvium & Santa Rosa sandstone	2,826	115.0 159.3	Jan. Jan.	29, 1959 22, 1960	T,G	Irr	2/
w-88	H. T. Collier	Gulf Oil Corp.	1950	5,307			2,825				N	N	Oil test. 1/
*w89	do				8		2,822	112.3 114.3 125.1	Jan. Mar. Jan.	26, 1959 10, 1959 22, 1960	c,w	S	Old well. Coats well. 3/
₩-90	Alan Hoefs	Mullican	1952	520	16	Alluvium & Santa Rosa (?) sand- stone	2,811	108.2	Jan.	26, 1959	T,Ng	Irr	Pump set at 360 ft.
*W-91	do	do	1953	480?	16	do	2,829	126.7 148.8	Jan.	do 20, 1960	T,Ng	Irr	Pump set at 360 ft. Temp. 72°F.
W-92	do	do	1952	380		Alluvium & Cretaceous rocks	2,836	134.1	Jan.	26, 1959	T,Ng	Irr	Pump set at 280 ft. Discharge measured 440 gpm on July 21, 1959.
W-93	Charlie Hoefs			100?		Alluvium		71.8	Aug.	20, 1940	c,w	s	Old well.
W-94	do	Mullican	1952	263	20	do	2,844	128.9	Jan.	26, 1959	N	N	
₩-95	do	do	1955	470	16	Alluvium & Santa Rosa sandstone	2,850	144.0		do	T,Ng	Irr	Pump set at 420 ft. Discharge measured 700 gpm on July 1, 1959.
W-96	Joe Boswell	Earl Fisher	1957	1,294	16, 12	Rustler formation	2,864	220.7 212.0 339.7	Feb. May	do 12, 1959 21, 1959	T,Ng	Irr	Drilled to 1,294 ft., plugged back to 1,140 ft. Casing: 16-in. to 602 ft., 12-in to 1.140 ft. Perforated from
													1,013 ft. to 1,140 ft. Dis- charge measured 720 gpm on July 21, 1959. <u>2</u> /
*W-97	H. T. Collier, Jr.			128	. 8	Alluvium	2,845	86.4 121.6	Aug. Mar.	20, 1940 10, 1959	C,W	S	Drilled to 107 ft., deepened to 128 ft. 3/

See footnotes at end of table.

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Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
w-98	H. T. Collier			195	6	Alluvium & Cretaceous (?) rocks	2,871	143.9	Mar. 11, 1959	C,W	S	Cased to bottom.
*w-99	H. T. Collier, Jr.		1956	280	10	do	2,840	112.8	Mar. 5, 1959	C,W	S	Cased to bottom. Pump set at 170 ft. Drilled to 110 ft., deepened to 280 ft. in 1956. New Moore well.
*W-1.00	đo	Curtice	1956	309	8	Alluvium	2,846	141.4	Mar. 6, 1959	C,W	S	Cased to bottom. Pump set at 180 ft. New well.
W-101	do	do	1955	154		do	2,841	121.4	Mar. 10, 1959	C,W	S	Cased to 144 ft. Cormac well.
W-102	W. P. Mendell Estate		1000				2,842	116.9	Sept. 5, 1940	N	N	Old well.
*W-103	Ida P. Criswell		1938	160	8	Alluvium	2,854	113.0 114.2	do Mar. 13, 1959	C,W	S	
W-104	B. S. Estes									N	N	Drilled as test hole for irrigation.
W-105	H. T. Collier, Jr.	Humble Oil & Refining Co.	1946	5,277						N	N	Oil test. 1/
*W-106	H. T. Collier	onon cab		260	8	Alluvium	2,870	129.4	Mar. 10, 1959	C,W	S	Cased to bottom. Pump set at 220 ft. East well.
*W-107	H. T. Collier, Jr.	Curtice	1955	158	6	do	2,884	130.3	do	C,W	S	Cased to bottom. Drilled to 130 ft., deepened to 158 ft. in 1955. Saunders Mill Well.
*W-108	Balmorhea Ranches, Inc.				6		2,877	128.2	Mar. 26, 1959	C,W	S	Discharge second of a grant and
W-109	do	Sun Oil Co.	1954	5,491		1	2,895			N	N	Oil test. 1/
*W-11.0	Popham Land & Cattle Co.	1995 Tento			7	Alluvium & Cretaceous (?) rocks	2,920	160.1	Mar. 24, 1959	C,W	S	
W-111	Balmorhea Ranches, Inc.	Sun Oil Co.	1955	5,500			2,917			N	N	011 test. 1/
W-112	do	J. B. Walling	1955	5,498						N	N	Oil test.
*W-113	L. A. Weinacht				7		2,888	125.1	Apr. 14, 1959	C,W	S	3/

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*W-114	Balmorhea Ranches, Inc.	C. & H. Drilling Co.	1956	410	7	Cretaceous rocks	2,947	184.4	Mar. 26, 1959	c,w	S	Cased to bottom. Drilled to 181 ft., deepened to 410 ft. in 1956. 2/
W-115	ob	Quince Oil Co.	1953	5,360			2,958			N	N	Oil test. 1/
*W-116	Rudolf Hoefs	L. F. Buchanan	1940	310	6	Cretaceous rocks	3,003	201.0	Mar. 26, 1959	C,E, 1 ¹ /2	D,S	2/
W-117	do			1,500		Rustler formation		334.1 420.9	Feb. 10, 1959 Jan. 21, 1960	N	N	
W-118						Cretaceous (?) rocks				c,w	S	
W-119	Rudolf Hoefs	Morris & Scherch	1950	5,368						N	N	Oil test. 1/
W-120	do		1959	1,500?	16	Rustler formation	2,991	329.8 415.2	Feb. 10, 1959 Jan. 21, 1960	N	N	Drilled as test hole for irrigation.
*W-121	Popham Land & Cattle Co.						2,954	160.4	Mar. 25, 1959	C,W	S	
W-123	B. S. Estes			81	8			68.2	Jan. 25, 1957	N	N	3/
W-124	R. Hoefs			299	6			185.8	Jan. 21, 1954	N	N	3/
W-125	J. R. Wilson			81?	8	Cretaceous (?) rocks		79.3	Jan. 17, 1940	N	N	3/
X-1	Joe Kingston	50 KT		180?	6	Cretaceous rocks	3,589	129.8	June 12, 1959	C,W	D,S	Old well.
X-2	Cora Moore				8	Cretaceous (?) rocks	3,498	67.2	June 17, 1959	c,w	S	do
X-3	do			33			3,386	28.2	June 15, 1959	C,W	D,S	
X-4	do			115	8		3,338	105.0	June 17, 1959	C,W	S	
X-5	do						3,287	32.2	June 22, 1959	C,W	N	
*x-6	R. A. Moore			Spring		Alluvium	2,328	(+)		Flows	Irr	Saragosa Springs.
*x-7	C. Pye					Alluvium (?)	3,238	10.2	Sept. 22, 1959	C,W	D,S, Irr	Dug.

See footnotes at end of table.

								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
x-8	A. L. Weddle			41		Alluvium & Cretaceous rocks	3,244	13.9	Sept. 22, 1959	N	N	<u>e/</u>
*x-9	Fred Stroade, Jr.		1940	34		do	3,235	14.4 15.7	Nov. 2, 1940 Sept. 22, 1959	N	N	2/
*X-10	M. C. Clifton		1940	54		do	3,234	9.6 13.9	Sept. 11, 1940 Sept. 22, 1959	C,W	D	<u>2/</u>
X-11	H. A. Jones	Buck	1946	46	-	Alluvium & Cretaceous (?) rocks	3,232	15.4	do	C,W	S	·
X-12				Spring		Alluvium	3,193					Formerly flowed.
*X-13	Reeves County Water Improvement Dis- trict No. 1			Spring		đo	3,172	(+)		Flows		Discharge reported small.
X-14	H. H. Toone	Calvert & McIntyre	1951	550	16	Alluvium & Cretaceous rocks	3,030	231.8 232.1	Nov. 7, 1958 Jan. 21, 1960	T,Ng	Irr	Cased to 350 ft. Deepened from 350 ft. to 550 ft. in 1952.
X-15	do	Mullican	1958	1,010	16, 10	do	3,034	250.9 236.4 245.5	Nov. 7, 1958 Jan. 22, 1959 Jan. 21, 1960	N	N	Drilled as test hole for irrigation. $\underline{2}/$
X-16	Balmorhea Ranches, Inc.	Standard Oil Co. of Texas	1957	10,250		Column Cole	3,197			N	N	011 test. 1/
X-17	do	C. & H. Drilling Co.	1956	900?	6	Cretaceous rocks	3,298	71.9	Feb. 10, 1959	т,е, 5	Irr	8
X-18	do	do	1951	800?		do	3,298			N	N	Filled and abandoned.
X-19	do	Miami Operations Co., Inc.	1951	12,925			3,319			N	N	011 test. <u>1</u> /
*X20	H. Weinacht					Cretaceous rocks	3,380	79.5	Sept. 21, 1959	C,W	S	Contractions and the contraction of the
*X-21	Reeves County Water Improvement Dis- trict No. 1			Spring		do	3,300	(+)		Flows	Irr	San Soloman Springs.
*X-22				Spring		do	3,300	(+)		Flows	Irr	Giffin Springs.

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See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
X- 23	Cora Moore	Nelson Lethco	1958	29	6	Alluvium(?)	3,322	17.4	June 8, 1959	T,E, 1	D,Irr	Supplies water for watering lawn.
X-24	Mary Kingston									N	N	Reported dry. Abandoned.
* x- 26	Joe Kingston	Lewis Lee Oliver	1957	200?	6	Cretaceous rocks	3,373	75.3	June 4, 1959	c,w	S	
X-27	do	do	1957	200?	6	do	3,386			C,W	S	
X- 28	Popham Land & Cattle Co.	Ohio Oil Co.	1939	5,985						N	N	Oil test. Flowed sulfur water when drilled.
Y-1	H. H. Toone	Calvert & McIntyre	1951	420	16, 12	Alluvium	3,018	252.0	Nov. 7, 1958	T,Ng	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Deepened from 350 ft. to 420 ft. in 1958.
¥-2	Balmorhea Ranches, Inc.	C. & H. Drilling Co.	1949	547	20, 16, 12	Alluvium & Cretaceous rocks	2,993	243.2 237.7 251.0	Nov. 12, 1958 Feb. 12, 1959 Jan. 21, 1960	T,E, 100	Irr	Cased to bottom. Slotted from 130 ft. to bottom. Deepened from 250 ft. to 350 ft. in 1950. Sampled before and after deepen- ing. Deepened from 350 ft. to 547 ft. in 1955.
*Y-3	do	do	1949	343	20, 16, 12	do	2,985	234.3	Nov. 12, 1958	T,E, 100	Irr	Cased to bottom. Perforated from 120 ft. to bottom. Pump set at 300 ft. in 1958. Deep- ened from 250 ft. to 343 ft. in 1950. <u>2</u> /
*Y_4	do	do	1949	611	20, 14, 10	do	2,983	245.2	Nov. 13, 1958	T,E, 100	Irr	Cased to 540 ft. Slotted from 353 ft. to 540 ft. Pump set at 320 ft. in 1958. Deepened from 342 to 611 ft. in 1956. 2/
¥-5	do	đo	1950	604	16, 12	do	2,976	241.3	Nov. 14, 1958	T,E, 100	Irr	Casing: 16-in. to 350 ft., 12-in. to bottom. Pump set at 320 ft. in 1958. Deepened from 350 ft. to 604 ft. in 1958. 2/
¥-6	L. D. McNeil		1954	500	14	do	3,002	231.6	Nov. 7, 1958	T,Ng	Irr	Cased to bottom. Pump set at 320 ft. Discharge measured 840 gpm on July 20, 1959.
¥-7	do		1956	510	16	do	3,011	237.8	do	T,Ng	Irr	Cased to bottom. Pump set at 400 ft.
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See footnotes at end of table.

Table 6.- Records of wells and springs in Reeves County--Continued

			18.00	1				Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Y-8	Balmorhea Ranches, Inc.	C. & H. Drilling Co.		790	20, 16, 12, 10	Alluvium & Cretaceous rocks	2,989	225.2	Nov. 7, 1958	T,E, 100	Irr	Cased to bottom. Pump set at 300 ft. in 1958. 2/
¥-9	do	do	1957	1,000	14	do	2,998	232.1	đo	T,E, 125	Irr	Cased to 648 ft. Slotted from 447 to 647 ft. Pump set at 400 ft. in 1958. <u>2</u> /
*Y-10	Eula Baker	Calvert & McIntyre	1952	400?		Alluvium	3,024	254.0 265.0	Nov. 6, 1958 Jan. 21, 1960	T,Ng	Irr	Temp. 74°F. Discharge measured 665 gpm on July 20, 1959.
Y-11	Western Seed Farms	Doc Coleman	1953	350	16	do	3,014	237.6	Nov. 6, 1958	T,Ng	Irr	Cased to bottom. Slotted from 200 ft. to bottom. Discharge reported 1,500 gpm. Discharge measured 930 gpm on July 20, 1959.
Y-12	do		1952	350	16	do	2,983	201.7 209.1	do Jan. 21, 1960	T,G	Irr	Cased to bottom. Discharge meas- ured 630 gpm on July 20, 1959.
Y-13	Balmorhea Ranches, Inc.	C. & H. Drilling Co.	1950	600	16, 12	Alluvium & Cretaceous rocks	2,971	231.4	Nov. 14, 1958	T,E, 100	Irr	Cased to bottom. Pump set at 300 ft. in 1958. Deepened from 306 to 699 ft. in 1955. 2/
Y-14	đo	do	1951	703	20, 16, 12, 10	Alluvium	2,962	226.3	do	T,E, 100	Irr	Cased to bottom. Slotted from 112 ft. to bottom. Deepened from 350 ft. to 703 ft. in 1956. 2/
Y-15	Weinacht		1952	280	16	do	2,952	161.5	đo	T,Ng	Irr	Cased to bottom. Slotted from 230 ft. to bottom. Discharge measured 690 gpm on July 20, 1959.
¥-16	L. E. Boyd	J. Blount	1954	403	16	do	2,938	182.4	do	T,Ng	Irr	Cased to bottom. Perforated from 250 ft. to bottom. Dis- charge measured 1,130 gpm in October 1958.
*Y-17	do	Hayvanor Drilling Co.	1952	350	16	do	2,945	181.0 176.5 185.7	Nov. 14, 1958 Feb. 11, 1959 Jan. 1, 1960	T, Ng	Irr	Cased to bottom. Perforated from 200 ft. to bottom. Pump set at 220 ft. in 1958. Temp. 70°F. <u>2/</u>
Y-18	L. A. Greene	S. A. Winfree	1952	5,344		4. (10.100 P.) 28	2,938			N	N	0il test. 1/
Y-19	L. A. Weinacht								in the cr	C,W	S	

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
Y-20	Howard Davis	C. C. Calvert	1955	930	16, 14	Alluvium & Cretaceous rocks	2,980	328.6	Nóv. 4, 1958	T,Ng	Irr	Casing: 16-in. to 512 ft., 14-in. to bottom.
¥-21	J. Oates	Calvert & McIntyre	1954	580	16	do	2,976	305.9	Nov. 5, 1958	T,Ng	Irr	Cased to 480 ft. Pump set at 450 ft.
¥-22	do	do	1954	564	16	do	2,975	311.6	do	T, Ng	Irr	Cased to 480 ft. Pump set at 450 ft. $2/$
¥23	đo	do	1954	580	16	do	2,974	308.3	đo	T,Ng	Irr	Cased to 480 ft. Pump set at 450 ft.
*Y24	do	do	1953	498	16	Cretaceous rocks	2,950	288.7	do	T,Ng	Irr	Cased to 497 ft. Temp. 75°F. 2/
¥-25	Oscar Graef	E. James	1954	680	16	do	2,955	299.3	Nov. 3, 1958	T,Ng	D,Irr	Cased to 500 ft. Perforated from 380 ft. to 500 ft. Pump set at 460 ft.
¥-26	Royce Hemmerline	Royce Hemmerline	1954	536	16	do	2,964	307.7	do	T,Ng	Irr	Cased to 428 ft. Perforated from 328 to 384 ft. Pump set at 430 ft. Discharge measured 670 gpm on July 20, 1959.
¥-27	Popham Land & Cattle Co.					do	2,963	86.3 88.2	Feb. 11, 1959 Jan. 21, 1960	c,w	S	3/
*Y-28	W. G. Locker	L. W. Stratton		615	16, 12	Alluvium & Cretaceous rocks	2,979	268.2 289.8	Nov. 3, 1958 Jan. 21, 1960	T, Ng	Irr	Cased to 540 ft. Perforated from 100± ft. to 540 ft.; open hole below 540 ft. Discharge measured 540 gpm on Sept. 14, 1959. 2/
¥-29	do	do	1955	1,381	16, 10, 8	Rustler formation		291.6 246.7 271.1	Nov. 3, 1958 Feb. 11, 1959 Jan. 16, 1960	T,Ng	Irr	Cased to 1,271 ft. 2/
Y30	Oscar Graef					Cretaceous rocks				C,W	S	
*Y-31	Rudolf Hoefs				8	do	3,040	233.1	Mar. 26, 1959	C,W	S	
*Y32	Popham Land & Cattle Co.					do	3,125			C,W	S	
*Y33	Carl Hoefs	L. E. Buchanan	1940	200	6	do	3,038			c,w	S	2/

See footnotes at end of table.

Table 6 Records of wells and springs in	Reeves County Continued
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			T			and the second second		Water	level		1	
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
*Y 34	Richard R. Hoefs			200		Cretaceous rocks	2,995			C,W	S	
¥-35	Popham Land & Cattle Co.					do	3,025	193.1	Mar. 24, 1959	C,W	S	emperato rista cr. 31
*Y-36	H. Willbanks					do	3,170	266.0	Mar. 25, 1959	C,W	S	1000
¥-37	Ed Horshenson	L. O. White	1934	5,044						N	N	Oil test. 2/
¥-38	Graef Bros.	The States			8	Cretaceous rocks	3,142	264.2	Mar. 27, 1959	C,W	S	Survey to paperty, for the grant
*Y-39	do					do	3,149			C,W,G	D,S	
Y-40	do						3,169			C,W	S	and the structure of party
Y-41	Popham Land & Cattle Co.	police generative		140?	19	Alluvium	3,065	86.7 87.1 88.2	Nov. 6, 1948 Jan. 10, 1950 Sept. 14, 1959	C,W	S	Reported strong supply.
*Y42	đo	Forest Develop- ment Co.	1938	1,434			2,967			N	N	Oil test.
Y-43	do			140?	6	Alluvium	2,993	82.5	Sept. 14, 1959	c,w	S	
Y-44	Eula Baker	Calvert & McIntyre	1954	4001		Alluvium(?)	2,992	187.2 187.0	Nov. 5, 1958 Feb. 11, 1959	T,Ng	Irr	Pump set at about 280 ft. Dis- charge measured 625 gpm on July 20. 1959.
¥-45	Western Seed Farms	Calvert	1953			do	3,003	204.4 214.6	Nov. 5, 1958 Jan. 21, 1960	T,Ng	Irr	Drilled to 840 ft., deepened in 1959.
Y-46	do		1952	360	16	do	3,007	203.3	do	T,Ng	Irr	
¥-47	do	Contraction of the	1952	380	16	do	3,025	227.7	đo	T,Ng	Irr	Pump set at 250 ft.
Y-48	Popham Land & Cattle Co.			285		Cretaceous rocks	3,074	71.9	May 13, 1959	c,w	S	The part of the property of the local
*Y-49	do				6		3,360	135.0	Mar. 27, 1959	C,W	S	
¥-50	do		-		6	Cretaceous rocks	3,197			с, w	S	
*Y-51	do				6	do	3,300	239.1	Sept. 1, 1959	C,W	D,S	Theorem Contraction
¥-52	do			300?		do	3,350			C,W	S	

See footnotes at end of table.

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								Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (1n.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
* Y- 53	Popham Land & Cattle Co.					Cretaceous rocks				C,W	S	
Y- 54	do			400?		do				c,w	s'	
*Y-55	do					do				c,w	S	
Y-56	đo			115	6			92.4 92.7 97.0	Nov. 5, 1948 Feb. 7, 1949 Mar. 21, 1950	c,w	S	
¥-57	L. A. Weinacht							67.6 70.8	Nov. 9, 1948 Mar. 21, 1950	c,w	S	
Y-58	do			199	6			167.2 172.6 175.9	Nov. 4, 1948 Jan. 9, 1950 Mar. 26, 1951	C,W	S	
Y-59	Floyd H. Scott	Forest Develop- ment Co.	1939	5,336			3,005				N	Oil test.

1/ Electric logs or radioactivity logs in files of Texas Water Commission. 2/ See Table 8 for drillers' logs of wells in Reeves County. 3/ See Table 10 for water levels in wells in Reeves County. * See Table 11 for analyses of water from wells and springs in Reeves County.

TABLE 7

RECORDS OF WELLS

AND SPRINGS

IN

SOUTHWESTERN WARD COUNTY

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Table 7 .- Records of wells and springs in southwestern Ward County

All wells are drilled unless otherwise noted in Remarks. Water level

: Reported water levels given in feet; measured water levels given in feet and tenths.

Method of lift and type of power : C, cylindar; E, electric; G, gasoline, butane, or Diesel engine; N, none; T, turbine; W, windmill. Number indicates horsepower.

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Use of water

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: D, domestic; Irr, irrigation; N, none; P, public supply; S, stock.

								Water level				
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
A-l	Ward County Irri- gation District			186		Alluvium		13.7 18.5	Sept. 30, 1946 Feb. 12, 1959	т,Е	Irr	
A-2	đo					do		19.7 17.6	Feb. 3, 1958 Feb. 12, 1959	T,E	Irr	
F-3	do				14	do		15.1 15.9	Feb. 3, 1958 Feb. 12, 1959	т,Е	Irr	
F-4	đo			97		do	2,600	9.5 15.2	Sept. 30, 1946 Feb. 12, 1959	T,E	Irr	
F-5	do			71		do	2,595	10.9 17.9	Sept. 30, 1946 Feb. 12, 1959	T,E	Irr	
F-6	do			71		do	2,587	14.7 20.0	Dec. 4, 1946 Feb. 12, 1959	T,E	Irr	
F-7	H. A. Collins			110		do	2,574	13.8 17.8	Oct. 28, 1946 Feb. 12, 1959	T,E	Irr	
F-8	W. L. Foley					do	2,570	20.7 21.4	Feb. 3, 1958 Feb. 12, 1959	T,E	Irr	
F-9	R. M. Pyle	Rutter & Wilbanks	1956	5,198			2,643			N	N	Oil test. 1/
F-10						Santa Rosa sandstone	2,657	101.2	Feb. 12, 1959	c,w	S	
F-11	L. Monroe	Continental Oil		5,686			2,552			N	N	011 test. <u>1</u> /
F-12	Texas Highway Department			155		Alluvium	2,565	10.8 11.6	Aug. 19, 1949 Feb. 12, 1959		N	
F-13	W. H. Echols	Geochemical Surveys	1950	4,685			2,565			N	N	011 test. <u>1</u> /
F-14	Patrick & Sullivan					Alluvium	2,572	13.9 12.7	Feb. 3, 1958 Feb. 12, 1959		N	Drilled to supply water for irrigation.

See footnotes at end of table.

Table 7 .- Records of wells and springs in southwestern Ward County -- Continued

	Owner	Driller				Water-bearing unit	Altitude of land surface (ft.)	Water level				a sharrah katalari sana gara a	
Well			Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)			Below land- surface datum (ft.)	D: mea.	ate of surement	Method of lift	Use of water	Remarks
F-15	Patrick & Sullivan	607220-107-017				Alluvium	2,571	15.8 14.8	Feb. Feb.	3, 1958 12, 1959	T,G	N	Drilled to supply water for irrigation.
F-16	A. J. Carpenter				6	do	2,570	19.8	1 2.42	do	N	N	do
G-1.	Byrd-Frost		1934	5,155			2,763				N	N	Oil test.
G-2	City of Barstow well 1	James Miles	1930	137	8	Santa Rosa sandstone	2,653	95.7	Aug.	9, 1940	Τ,Ε, 7 <u>1</u>	P	Discharge reported 55 gpm in 1940. Deepened 20 ft. in 1955.
*G-3	City of Barstow well 2	C. & H. Drilling Co.	1948	120	8	do	2,654				T,E, 10	P	Discharge reported 72 gpm.
G-4	City of Barstow well 3	do	1955		12	do	2,653	103.7	Apr.	1, 1959	N	N	
G-5				3,104			2,710		1		N	N	Oil test.
G-6	G. Q. Avary		1959			Alluvium (?) & Santa Rosa sandstone	2,645	92.6	Apr.	1, 1959	C,W	S	
*G-7	do	Bill Huckabee	1958	165		Santa Rosa sandstone	2,661	104.3	Mar.	31, 1959	N	N	Discharge reported 50 gpm. 2/
G-8	do				8	Alluvium & Santa Rosa sandstone	2,615	68.8		đo	C,W	S	
*G-9	do			360		Alluvium	2,605	62.2		do	C,W	S	
G-10	Chas H. Miller			157		Santa Rosa (?) sand- stone	2,629	89.8	Apr.	1, 1959	C,W	S	
G-11	Feldman	W. A. Moncrief		6,192			2,668				N	N	Oil test. 1/
G-12	M. B. Pitzer	do		8,400			2,660				N	N	do
G-13	J. E. Cooper, et al.	C. H. Murphy		5,126			2,665				N	N	do
G-14	Alva Talley			100		Santa Rosa (?) sand- stone	2,561	18.7 21.4	Jan. Feb.	23, 1950 12, 1959	N	N	
										5.00			

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See footnotes at end of table.

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[1	l				Water	level			
Well	Owner	Driller	Date com- plet- ed	Depth of well (ft.)	Diam- eter of well (in.)	Water-bearing unit	Altitude of land surface (ft.)	Below land- surface ,datum (ft.)	Date of measurement	Method of lift	Use of water	Remarks
G-15	F. M. Scott	Continental Oil Co.		5,710			2,536			N	N	Oil test. $\underline{1}/$
G-16	Stumpf	do		5,048			2,534			N	N	do
G-18	W. F. Means					Santa Rosa (?) sand- stone	2,559	51.1	Apr. 1, 1959			
H-1	C. V. Shuford				16	Alluvium	2,576	50.1	Apr. 2, 1959		D	
H-2	do				16	do	2,560	50.2	do		N	
*H-3	Buford Thornton					do				C,W	s	
H-4	Mollie Spencer	Pan American Petroleum Co.	1946	2,933			2,628			N	N	Oil test. $\underline{1}/$
*H-5	Buford Thornton					Alluvium					S	
н-6	S. T. Christy	Standard Oil Co. of Texas	1952	4,000			2,556			N	N	Oil test. 1/
*H-7	W. H. Jackson				8	Santa Rosa (?) sand- stone	2,553	51.4	Apr. 2, 1959	C,W	S	
н-8	Mrs. H. P. Belo					do	2,587	75.6	Apr. 1, 1959	C,W	S	
*н-9	Troy Eiland	Bill Tipton	1948	1,125	13	Rustler formation	2,498	(+)		Flows, T,G	Irr	Flow reported 150 gpm. Dis- charge reported with pump 700 gpm. Pump set at 300 ft.
Н-10	do	R. F. Owen	1931	5,500	6	do	2,491	(+)		Flows, T,E	Irr	Water reported from 1,025 to 1,100 ft. Flow reported 40 gpm. Discharge reported with pump 125 gpm. Originally drilled to 5,500 ft., cleaned out to 1,100 ft. in 1947. 2/
H-11	do	Bill Tipton	1948	1,080	16	do	2,492	(+)		Flows, T,G	Irr	Cased to 31 ft. Flow report- ed 150 gpm. Pump set at 150 ft. 2/

Table 7 .- Records of wells and springs in southwestern Ward County -- Continued

1/ Electric logs or radioactivity logs in files of Texas Water Commission. 2/ See Table 9 for drillers' logs of wells in southwestern Ward County. * See Table 13 for analyses of water from wells and springs in southwestern Ward County.