

TEXAS WATER DEVELOPMENT BOARD

REPORT 167

**GROUND-WATER RESOURCES OF HALL AND
EASTERN BRISCOE COUNTIES, TEXAS**

By

B. P. Popkin
United States Geological Survey

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under cooperative agreement with the
Texas Water Development Board

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ABSTRACT

Hall and eastern Briscoe Counties are in the southeastern part of the Texas Panhandle. Nearly all the water used in the area is from wells and springs. Most of the water for irrigation and all water for public supply in Hall County is from alluvial deposits. In eastern Briscoe County, most of the water for irrigation and public supply is pumped from aquifers in the Ochoa Series of Permian age. The total ground-water withdrawal in 1968 is estimated at 28,700 acre-feet. About 65 percent of this amount was from the alluvial deposits and nearly 20 percent was from the Ochoa Series.

Few records are available from which definite trends of water levels can be determined. Water levels in

most of the irrigation areas declined during the period 1960-69 from less than 1.0 to 29.0 feet.

Water from the Permian units generally is of the calcium sulfate type and has a dissolved-solids content that ranges from less than 1,000 to more than 10,000 milligrams per liter. The quality of water from the Quaternary alluvium and terrace deposits varies widely, depending upon the source of recharge. Where the alluvium is recharged from Permian rocks, the water usually contains calcium and sulfate as the major constituents. Where the recharge is mostly from direct infiltration of rainfall, the water contains calcium and bicarbonate as the major constituents.

GROUND-WATER RESOURCES OF HALL AND EASTERN BRISCOE COUNTIES, TEXAS

INTRODUCTION

Purpose and Scope of the Investigation

The investigation of the ground-water resources of Hall and eastern Briscoe Counties began in August 1968 in cooperation with the Texas Water Development Board. The purpose of the investigation was to obtain data on the occurrence, location, and quality of ground water in the two-county area. The needs for future, more detailed work to better delineate the quantity and quality of the ground-water resources are discussed in the final section of this report.

Basic data were obtained by an inventory of 56 springs and more than 800 wells and by the compilation of 310 chemical analyses of water samples, most of which were made during this and previous investigations by the U.S. Geological Survey. Data were also obtained from the Texas Water Development Board, other State and Federal agencies, municipalities, oil companies, drilling contractors, and many individuals contacted during the investigation.

Acknowledgments

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Location and Extent of the Study Area

Hall and eastern Briscoe Counties are in the southeastern part of the Texas Panhandle (Figure 1). The area is bordered on the north by Armstrong, Donley, and Collingsworth Counties; on the east by Childress County; on the south by Floyd, Motley, and Cottle Counties; and on the west by Swisher County. The study area includes all of the 896 square miles in Hall County and about 500 square miles east of the High

Plains Escarpment in Briscoe County. A few wells on the High Plains were inventoried for supplemental water-level and geologic control.



Figure 1.—Location of Hall and Eastern Briscoe Counties

Economic Development

The economy of the area is based on agriculture, with most of the acreage devoted to ranching. Cotton, small grains, and alfalfa are the most important crops that contribute to the farm income. Peanuts, vegetables, and some fruits are grown, but the income derived from these crops is fairly small. Most of the industrial development is related to agriculture and to a lesser extent to the production of sand and gravel.

Silverton, the Briscoe county seat, had an estimated 1969 population of 1,050. Quitaque, the largest town in the eastern Briscoe County area, has a population of 516. Memphis, the Hall county seat, had an estimated 1969 population of 3,961. Other towns in Hall County with small populations include Estelline, Lakeview, Newlin, and Turkey.

Climate

The climate in the study area is characterized by a wide range of humidity, precipitation, and temperature, and by frequent dust, hail, and windstorms. Hailstorms occur most frequently during the spring; wind and duststorms may occur anytime during the year.

For the period 1955-69, the annual precipitation at Memphis ranged from 12.65 to 36.69 inches; at Silverton, the precipitation ranged from 13.83 to 28.15 inches (Figure 2). The average annual precipitation of 21.60 inches for Memphis is slightly greater than the average of 20.30 inches for Silverton. Most of the precipitation occurs during the growing season, with May and June being the wettest months. However, the amount and distribution of rainfall is often inadequate to insure good crop yields for the entire area.

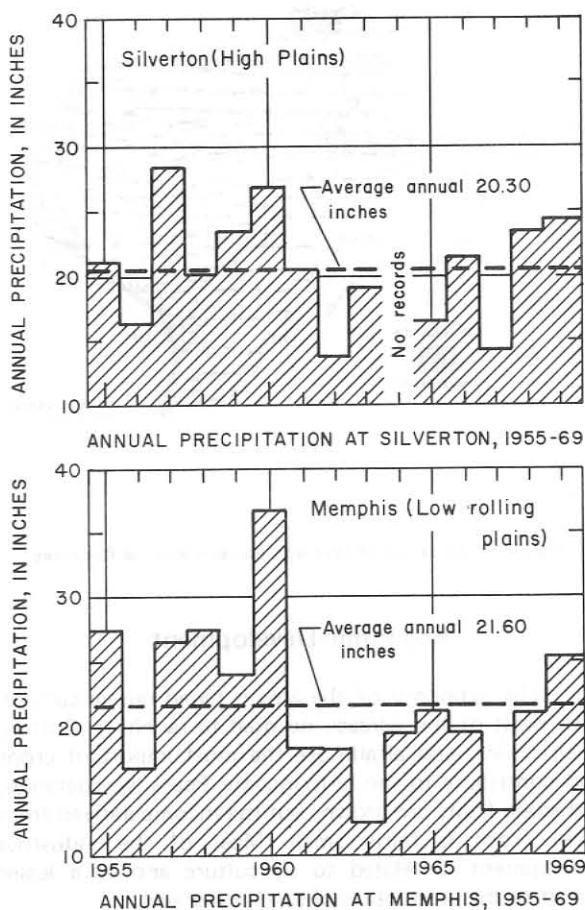


Figure 2.—Annual Precipitation at Memphis and Silverton, 1955-69

The mean annual temperature at Silverton for the period 1963-69 was 57.1°F (13.9°C); at Memphis, the mean annual temperature was 61.1°F (16.2°C) for the

period 1955-68. The range in temperature for both stations is nearly the same, from 5°F to 102°F (-15.0 to 38.9°C). The average length of the growing season is about 213 days.

Physiography and Drainage

Hall and eastern Briscoe Counties are located along the eastern margin of the Southern High Plains and the western margin of the Osage Plains. The "caprock" at the top of the escarpment along the edge of the High Plains forms the western boundary of the study area. The "breaks area" east of the caprock is characterized by rugged topography.

Further east on the Osage Plains, the topography becomes more rolling. In eastern Briscoe and southern Hall Counties, the topography varies from rolling to rugged. A sand-dune area has developed in southeastern Briscoe County and along many reaches of the Prairie Dog Town Fork Red River and some of its larger tributaries in Hall County.

The altitude ranges from about 3,300 feet above sea level in northwestern Briscoe County to about 1,750 feet along the Prairie Dog Town Fork Red River at the eastern edge of Hall County.

The area is drained by the Prairie Dog Town Fork Red River and its tributaries and tributaries to the Pease River (Figure 8). Some of the larger tributaries in the Prairie Dog Town Fork drainage basin are Tule Creek, Mulberry Creek, Little Red River, and Indian Creek. During most of the year, the streams are dry or have very low flow; but after periods of heavy precipitation, streamflow may increase to several thousand cubic feet per second.

Streamflow data for U.S. Geological Survey gaging stations (Table 1) show that peak flows of more than 45,000 cfs (cubic feet per second) have been recorded on Mulberry Creek and at three sites on the Prairie Dog Town Fork Red River.

Previous Investigations

Many studies have been made of the ground-water resources of the High Plains; some of the studies related to the present investigation include those of Baker and others (1963), Barnes and others (1949), Cronin (1961), Lang (1943), Leggat (1951, 1954), Popkin (1972), and Smith (1972). Basic data on the quantity and quality of surface waters in the area have been published by the U.S. Geological Survey and the Texas Water Development Board.

Table 1.—Streamflow Records at Gaging Stations in Hall and Eastern Briscoe Counties

| GAGING STATION | PERIOD OF RECORD | FLOW IN CUBIC FEET PER SECOND | | |
|---|-------------------------------|-------------------------------|-------------------------|---------|
| | | MEAN | MAXIMUM | MINIMUM |
| 07-2982 Tule Creek near Silverton | 1964-69 | 13.9 | 9,900 June 11, 1965 | No flow |
| 07-2985 Prairie Dog Town Fork Red River near Brice | 1939-44 1949-51 1959-63 | 85.0 | 49,000 June 7, 1960 | No flow |
| 07-2990 Mulberry Creek near Brice | 1949-51 | 29.3 | 50,700 July 16, 1950 | No flow |
| 07-2992 Prairie Dog Town Fork Red River near Lakeview | 1963-69 | 82.0 | 51,000 Aug. 29, 1968 | No flow |
| 07-2993 Little Red River near Turkey | 1968-69 | 7.7 | 3,570 Aug. 29, 1968 | No flow |
| 07-2995 Prairie Dog Town Red River near Estelline | 1924-25 1938-47 | 153.0 | 56,000 June 9, 1941 | No flow |

Well-Numbering System

The numbers assigned to wells and springs in this report conform to the statewide system used by the Texas Water Development Board. The system is based on the division of the State into 1-degree quadrangles and repeated division of these quadrangles into smaller units. Each 1-degree quadrangle is given a number consisting of two digits, which are shown on Figure 8 as bold numbers 11 and 12.

Each 1-degree quadrangle is divided into 7½-minute quadrangles and assigned numbers from 01 to 64. These numbers are the third and fourth digits of the well number and are shown in the upper left-hand corner of each 7½-minute quadrangle.

Each 7½-minute quadrangle is subdivided into 2½-minute quadrangles given numbers from 1 to 9. The fifth digit of the well number is used to identify the 2½-minute quadrangle, and the last two digits designate the order in which the well or spring was inventoried within the 2½-minute quadrangle. The last three digits are used to designate the well or spring location on Figure 8.

In addition to the 7-digit well number, a two letter prefix is used to identify the county; the prefix for Briscoe County is BL and the prefix for Hall County is KZ.

GEOLOGY AS RELATED TO GROUND WATER

The geologic units discussed in this report range in age from Permian to Quaternary. The Permian rocks that crop out in the area are from oldest to youngest: The Pease River Group, the Artesia Group, and the Ochoa

Series. Only the Artesia Group and Ochoa Series are important water-bearing units. Triassic and Tertiary rocks are sources of water where they crop out along the High Plains Escarpment. East of the escarpment, all water is derived from Permian and Quaternary rocks.

The areal extent of the geologic units is shown on Figure 3. The physical and water-bearing characteristics of the units are discussed in the following paragraphs and are summarized in Table 2. The subsurface relationships of the units are shown on Figure 4.

The contacts of the geologic units (Figure 4) are based on interpretations of geophysical logs, chiefly gamma-neutron and gamma-electric logs. Thus, the thicknesses assigned to the units are only approximate and may differ from those assigned by other authors.

The most prominent geologic structure in the area is the Palo Duro Basin, the axis of which trends southeastward through Castro, Swisher, and Floyd Counties. The gentle dip of the rocks to the southwest toward the central part of the basin has little effect on the occurrence of water in the Permian rocks that crop out in the report area.

In the description of the water-bearing characteristics of the geologic units, the yields of wells are described according to the following rating:

| DESCRIPTION | YIELD (GALLONS PER MINUTE) |
|-------------|----------------------------|
| Small | Less than 50 |
| Moderate | 50 to 500 |
| Large | More than 500 |

Table 2.—Geologic Units and Their Water-Bearing Characteristics

| ERA | SYSTEM | SERIES | GROUP | STRATIGRAPHIC UNITS | APPROXIMATE MAXIMUM THICKNESS (FT) | CHARACTER OF ROCKS | WATER-BEARING CHARACTERISTICS |
|-----------|------------|--|----------------|---|--|--|---|
| Cenozoic | Quaternary | Holocene and Pleistocene (undifferentiated) | | Alluvium and terrace deposits | 400 + | Gravel, sand, clay, and silt. Mostly poorly stratified and sorted to poorly sorted deposits. | Yields small to large quantities of fresh to moderately saline water to wells located in the larger stream valleys and in the northern part of Hall County. |
| | | | | Windblown sand and sand dunes | 25 | Sand and silt, stratified to poorly stratified deposits. | May yield small quantities of water to stockwells in areas of sand dunes. Mostly the deposits form areas of recharge. |
| | Tertiary | Pliocene | | Ogallala Formation | 350 | Sand, silt, clay, gravel, and caliche. Partly cemented with calcite and silica, caliche beds mostly near top and gravel near base. Weathers gray to pink. | Yields small to large quantities of fresh to slightly saline water to wells in southwestern Briscoe County. |
| Mesozoic | Triassic | | Dockum | | 450 | Sandstone, clay, shale, and conglomerate. Sandstone fine to coarse grained, fair to poor- ly cemented, micaceous, reddish, massive bedded. Vari- colored shale at base. | Yields small quantities of fresh to slightly saline water to wells in southwestern Briscoe County. |
| Paleozoic | Permian | Ochoa | | | 500 | Siltstone and shale, brick red, with interbedded sandstone, gypsum, and dolomite. Sand- stone fine to medium grained, gypsum and dolomite beds discontinuous. | Yields small to large quantities of fresh to slightly saline water to wells in the eastern part of Briscoe County and southwestern Hall County. |
| | | Ochoa | | | | | |
| | | Guadalupe | Artesia | | 700 | Shale, siltstone, sandstone, gypsum, and dolomite inter- bedded. Sandstone, and silt- stone thin to massive bedded. Some gypsum beds 20 feet thick. | Yields small to large quantities of fresh to very saline water to wells in northeastern Briscoe County and most of Hall County. |
| | | | Pease River | Blaine Formation (includes part of the Flower- pot shale and all or part of the Dog Creek shale) | 1,200 | Shale, sandstone, gypsum, and dolomite beds 10-30 feet thick, fairly continuous. Less than 100 feet is exposed in the study area. | Yields small quantities of moder- ately to very saline water to two stock wells; large quantities are discharged from several springs. |

In general, the chemical quality of water is classified according to the dissolved-solids content (Winslow and Kister, 1956), as follows:

| DESCRIPTION | DISSOLVED-SOLIDS CONTENT (MILLIGRAMS PER LITER) |
|-------------------|--|
| Fresh | Less than 1,000 |
| Slightly saline | 1,000 to 3,000 |
| Moderately saline | 3,000 to 10,000 |
| Very saline | 10,000 to 35,000 |
| Brine | More than 35,000 |

Permian System

The Pease River Group includes from oldest to youngest: The San Angelo Sandstone, the Flowerpot Shale, the Blaine Formation, and the Dog Creek Shale. In this area, the Blaine Formation conforms closely to the Blaine as described by Sellards and others (1933) and as mapped by the Texas Bureau of Economic Geology (1968); it includes part of the underlying Flowerpot Shale and part or all of the overlying Dog Creek Shale (Table 2).

Less than 100 feet of the Blaine is exposed in Hall County, but the thickness in the subsurface ranges from 600 to 1,200 feet. The formation is composed of shale, sandstone, gypsum, dolomite, and anhydrite. The beds of gypsum and dolomite range from 10 to 30 feet in thickness and are fairly continuous.

Only two wells are known to obtain water solely from the Blaine. Both wells are used for stock watering and yield small quantities of moderately to very saline water. Another well (KZ-12-29-510), which was formerly used for irrigation, taps both the Blaine and the alluvium. The water from this well increased in mineralization from 16,000 ppm (parts per million) of dissolved solids to 32,000 ppm after 24 hours pumping at 900 gpm (gallons per minute). The increase in salinity can probably be attributed to an increase in the amount of water being contributed by the Blaine Formation.

Large quantities of water are discharged from the Blaine Formation through springs. The largest of these was Estelline Springs (KZ-12-29-505), which issued from a large vent in the flood plain of the Prairie Dog Town Fork Red River. A flow of 1,800 gpm was measured Oct. 27, 1960. In 1964, however, the flow of water from the opening was stopped by the U.S. Army Corps of Engineers in an effort to reduce the salt load of the river.

The Artesia Group overlies the Blaine Formation and crops out in most of Hall County and along the Prairie Dog Town Fork Red River in Briscoe County. Because of the similarity in lithology of the Artesia Group and the overlying Salado Formation, the two

units have not been differentiated on the geologic map (Figure 3) and are discussed together as the Artesia Group.

The unit is composed of sandstone, shale, siltstone, gypsum, and dolomite, and has a thickness that ranges from 350 to 700 feet. It yields small to large quantities of fresh to very saline water, most of which is obtained from beds of sandstone and siltstone and to a lesser extent from beds of cavernous gypsum.

It is not unusual for wells in the Artesia Group to pump considerable quantities of silt and sand, and many wells have caved in and been abandoned. In other wells, the yields have been reduced to decrease or eliminate the pumping of sand. Larger yields probably could be obtained from the Artesia Group if methods were developed to keep the fine-grained materials from entering the wells.

The Ochoa Series crops out in the southwestern part of Hall County and in most of the study area in Briscoe County (Figure 3). It is composed of siltstone and shale interbedded with sandstone, gypsum, and dolomite. The thickness of the formation ranges from 300 to 500 feet.

Wells tapping the Ochoa yield fresh to slightly saline water. Most of the wells used for irrigation are on a flat to rolling surface in southeastern Briscoe and southwestern Hall Counties. Because of the fairly rough topography in most of the other outcrop areas, additional development of the Ochoa for irrigation probably will be limited to the areas now under cultivation.

Triassic System

The Dockum Group of Triassic age, which unconformably overlies the Permian rocks, crops out in an irregular band along the face of the High Plains Escarpment. The upper part of the Dockum Group is composed mostly of crossbedded sandstone, shale, clay, and conglomerate. The lower part is mostly varicolored shale. The thickness of the Dockum ranges from 300 to 450 feet.

Small quantities of fresh to slightly saline water are obtained from wells for stock and domestic use; moderate quantities are discharged from a few springs. Additional moderate and possibly large supplies of water could be developed for irrigation from wells tapping some of the sandstone and conglomerate beds; however, the rough terrain of the "breaks" area limits the amount of land suitable for irrigation.

Tertiary System

The Ogallala Formation of Pliocene age unconformably overlies Triassic rocks in Briscoe County

and Permian rocks in Hall County. Caliche beds near the upper part of the Ogallala form the "caprock" of the High Plains Escarpment.

The Ogallala Formation is composed of sand, silt, clay, gravel, and caliche. The gravel beds are mostly near the base of the formation. The maximum thickness of the Ogallala in the study area is about 350 feet.

Small to large quantities of fresh to slightly saline water are obtained from wells and springs principally for irrigation in the southwestern part of Briscoe County. Along the western margin of the study area, wells commonly are completed in both the Ogallala Formation and the Dockum Group in order to obtain an adequate supply of water.

Quaternary System

The alluvial and windblown deposits of Quaternary age, the youngest rocks exposed in the report area, are fairly widespread but only those deposits that are hydrologically significant are shown on the geologic map (Figure 3). The alluvial sediments include channel and flood-plain deposits and the older, higher level terrace deposits.

The alluvium consists of interbedded sand, gravel, silt, and clay. The sediments in the higher terraces are generally coarser than those near the channels. The thickness of the alluvium ranges over wide limits, depending upon the topography of the underlying bedrock.

The thickest deposits of alluvium are in the depressions or sinkholes caused by the removal of salt, gypsum, and anhydrite from the underlying Permian beds by circulating ground waters. One such sinkhole, about 4 miles south of Estelline where the city of Childress (in Childress County) formerly obtained part of its water supply, is filled with gravel and sand to a depth of 443 feet. Where the alluvium has been developed as a source of water, a thickness of 100 to 150 feet is commonly penetrated by most of the wells. Where the alluvium consists of significantly thick deposits of saturated sand and gravel, it yields large quantities of fresh to moderately saline water, which is used principally for irrigation.

The windblown materials generally are finer grained and more uniform in size than the alluvium. These deposits are thin except where sand dunes have developed. In these areas, the windblown sediments may reach a thickness of about 25 feet. Although no wells are known that obtain water from these deposits, they are hydrologically significant in that they serve as a recharge facility to the underlying formations.

GROUND-WATER HYDROLOGY

Source and Occurrence of Ground Water

Ground water in Hall and eastern Briscoe Counties is derived from precipitation on the outcrops of the water-bearing formations and by subsurface inflow. Of the approximately 21 inches of precipitation that is received annually, only a small amount reaches the water table; most of the precipitation leaves the area as runoff or is lost by evapotranspiration.

In the report area, ground water occurs under both water-table (unconfined) and artesian (confined) conditions. Ground water in most of the aquifers is unconfined and does not rise in a well above the level at which it is encountered. Where an aquifer is overlain by a relatively impermeable bed, the water is confined under hydrostatic pressure and will rise in a well to some level above the top of the aquifer.

Artesian conditions occur locally in the Quaternary deposits and in the downdip parts of the Artesia and Pease River Groups. In the east-central part of Hall County near Plaska, ground water is under sufficient pressure to cause some wells to flow.

Water in the Quaternary deposits and the Ogallala Formation is unconfined and locally, the water table may be perched. In these areas, small bodies of water are separated from the main saturated interval of the water-bearing bed by unsaturated strata.

Recharge, Movement, and Discharge of Ground Water

Recharge to the aquifers in the report area occurs principally from infiltration of precipitation. Additional recharge is derived from subsurface inflow from other areas. Some recharge to the alluvium on the flood plains occurs by seepage from streams during periods of high flow.

The available data are not sufficient to determine the quantity and extent of recharge derived from precipitation. Nevertheless, it seems reasonable to assume that at least some, probably less than 10 percent, of the precipitation on the highly porous and permeable surficial alluvial and windblown deposits infiltrates to the water table. The amount of recharge to the Permian rocks from precipitation is unknown, but probably it is only a fraction of the amount recharged to the alluvium.

Ground water moves into the report area mostly from the west and then moves toward the major drainageways. This pattern is indicated by the contours on Figure 5, which shows the approximate altitude of water levels during the period 1968-69. North of the

ground-water ridge near Turkey and Quitaque, water moves toward the Prairie Dog Town Fork Red River; south of this ridge the water moves toward the Pease River (Figure 5). In eastern Briscoe County, the slope of the water surface toward the Prairie Dog Town Fork Red River is in contrast to the southwest dip of the Permian rocks.

The rate of ground-water movement, which is rarely uniform in space and time, is in proportion to the hydraulic gradient and to the permeability of the rocks through which it moves. In the Ogallala Formation, Dockum Group, Ochoa rocks, and Quaternary deposits, water moves slowly, on the order of a few hundred feet per year; in the cavernous beds of gypsum in the Artesia and Pease River Groups, the water moves more rapidly. In the downdip part of these aquifers, the beds are less permeable and the rate of movement is sharply reduced.

Ground water is naturally discharged through seeps and springs into the streams. The discharge of springs inventoried in the study area during this and previous investigations ranged from less than 3 gpm to 1,800 gpm. Records of the U.S. Geological Survey indicate that during the winter months of 1968, the average base flow (that part of the flow of a stream that is sustained by ground-water discharge) for the Prairie Dog Town Fork Red River near Lakeview and the Little Red River near Turkey was about 2.0 cfs, or 1,400 acre-feet per year. Most, if not all, of this base flow represents the discharge of ground water from the Permian rocks. During the summer months, the discharge from many of the springs and seeps and much or all of the base flow of the streams is consumed by evapotranspiration.

Changes in Water Levels

Water levels in an aquifer respond to changes in the recharge-discharge relationship. The discharge from wells and recharge from precipitation are the most important factors controlling the changes in water levels. The magnitude of the changes depends mainly on the proximity of the observation or measured well to an area of discharge or recharge.

Few records are available from which definite long-term trends of water levels can be determined (Table 6). Water levels in most of the irrigated areas declined during the period 1960-69 even though rainfall for the period was about normal. Water-level declines in the irrigated areas between Quitaque and Turkey ranged from at least 3.0 feet to 29.0 feet, and in the large irrigated area in the northern part of Hall County, the declines ranged from less than 1.0 foot to 16.5 feet.

Water levels in the Childress well field, which is in an alluvium-filled sink about 4 miles south of Estelline, were reported to have declined more than 200 feet since 1934. The large decline is attributed to the fact that the

area of effective recharge is small and very little water, in proportion to withdrawals, is being added to the ground-water reservoir. Elsewhere in the report area, water levels have declined to a lesser extent.

Well Yields and Specific Capacities

Because of a lack of suitable wells and interference with pumping schedules, tests could not be made to determine the ability of the aquifers to transmit and store water. In the absence of such tests, however, the yields and specific capacities of wells provide a general index of the ability of an aquifer to transmit water.

The yields of wells screened in the sand aquifers depend largely on the thickness and permeability of the material screened, the efficiencies of the wells, and the allowable drawdown. The yields of wells that obtain water from gypsum and dolomite beds depend on the size and number of solution openings penetrated by the well. The yields of closely-spaced wells may range over wide limits because of the erratic distribution of the solution openings.

The yields and specific capacities for a selected number of wells obtaining water from the various geologic units are given in Table 3, and the data available on yields of other wells are given in Table 6. Many of the small-yield wells listed in Table 3 are used principally for livestock and domestic supply and commonly are not pumped at their maximum capacity. In such wells, the yield is not an indication of the potential of the aquifer at that well site.

The average yield (both reported and measured) of the wells used for irrigation ranges between 500 and 600 gpm; however, the actual yield of at least some of the wells probably is considerably less than the reported yield. In general, the largest yields (as much as 1,400 gpm) have been reported for wells in the alluvial deposits (Table 3).

Specific capacities of the irrigation wells in the alluvium ranged from 12.5 to 60.0 gpm per foot of drawdown. Many of these wells were completed with slotted or perforated pipe and then pumped at a high rate of discharge to remove the fine sand, thereby forming a natural gravel pack. The specific capacity of 60 gpm per foot of drawdown in well KZ-12-17-909 was obtained by this method of completion. However, after a few years of operation, the specific capacity of the well decreased to 21.0 gpm per foot of drawdown, probably because of sand entering the well. The specific capacity of the well could be increased, perhaps to the original value, by removing the sand.

Large yields are obtained also from wells in the Ogallala Formation, the Ochoa Series, and the Artesia Group. The specific capacities of wells tapping these units ranged from 12.3 to 47.6 gpm per foot of drawdown.

Table 3.--Summary of Pumping Tests

WELL COMPLETION: G-gravel, P-perforated or slotted, S-screened
 AQUIFER : Qa1, alluvium and fluvial terrace deposits;
 To, Ogallala Formation; Pa, Artesia Group.

| WELL NUMBERS | DEPTH OF INTERVALS SCREENED (FT) | AQUIFER | DATE OF TEST | YIELD (GPM) | SPECIFIC CAPACITY (GPM/FT) | PUMPING TIME (HRS) | WELL COMPLETION | REMARKS |
|--------------|----------------------------------|---------|-------------------------------|-------------|----------------------------|--------------------|-----------------|----------------------|
| Hall County | | | | | | | | |
| KZ-12-17-304 | 110 | Qa1 | Aug. 7, 1961 | 294 | 10.9 | -- | -- | Reported |
| 508 | 147 | Qa1 | 1954 | 780 | 26.0 | -- | G | Reported |
| 605 | 48-120 | Qa1 | Nov. 8, 1968 | 230 | 11.2 | 8 | P | Reported |
| 607 | -- | Qa1 | July 14, 1969 | 350 | 2.0 | 8 | -- | Measured |
| 612 | 76-275 | Qa1 | Nov. 7, 1968 | 700 | 39.6 | 80 | S | Reported |
| 803 | 16-88 | Qa1 | July 2, 1969 | 605 | 34.0 | 12 | G | Measured |
| 812 | 25-75 | Qa1 | do. | 705 | 27.6 | 12 | P | Measured |
| 901 | 55-131 | Qa1 | Aug. 11, 1955 Aug. 7, 1961 | 750 796 | 37.5 51.4 | 30 | S | Reported |
| 909 | 125-173 | Qa1 | Aug. 9, 1955 Aug. 7, 1961 | 600 473 | 60.0 21.9 | 21 | P | Reported Measured |
| 18-705 | 144-272 | Qa1 | July 2, 1969 | 240 | 6.7 | 9 | S | Measured |
| 707 | 200 | Pa | 1968 | 1,000 | 20.0 | -- | G | Reported |
| 709 | -- | Qa1 | July 2, 1969 | 300 | 6.8 | 9 | -- | Measured |
| 901 | 70-100 | Qa1 | June 3, 1956 Aug. 7, 1961 | 290 152 | 4.5 4.0 | 24 | P | Reported |
| 19-401 | 21-129 | Qa1 | June 17, 1955 | 550 | 22.9 | 51 | G | Reported |
| 502 | 70 | Qa1 | July 2, 1969 | 40 | 3.7 | 4 | G | Measured |
| 901 | 30-90 | Qa1 | Aug. 7, 1961 | 340 | 12.6 | -- | P | Reported |
| 902 | 30-88 | Qa1 | Mar. 1, 1956 | 600 | 12.5 | 75 | -- | Reported |
| 903 | 21-41 | Qa1 | June 30, 1956 | 200 | 50.0 | 34 | G | Reported |
| 905 | 40 | Qa1 | July 2, 1969 | 175 | 8.0 | 5 | G | Measured |
| 20-213 | 30 | Qa1 | May 18, 1943 | 45 | 4.8 | 5 | G | Reported |
| 27-901 | 30-170 | Qa1 | Aug. 7, 1961 | 222 | 3.5 | -- | G | Reported |
| 29-405 | 118-138 | Qa1 | May 6, 1968 | 250 | 2.6 | 2 | G | Reported |
| 406 | 110 | Qa1 | May 9, 1968 | 300 | 3.2 | 2 | G-S | Reported |
| 36-102 | 185 | Pa | Mar. 22, 1967 | 20 | 1.0 | 5 | G-S | Reported |
| 37-203 | 308-448 | Qa1 | Oct. 12, 1942 | 240 | 3.3 | -- | G | Reported |
| 41-211 | 90-130 | Qa1 | Jan. 12, 1967 | 185 | 4.6 | 2 | G-S | Reported |
| 212 | 82-124 | Qa1 | Jan. 18, 1968 | 200 | 4.4 | 8 | G-S | Reported |
| 221 | 120-202 | Qa1 | Feb. 9, 1967 | 1,400 | 15.6 | 6 | G-S | Reported |
| 302 | 90-147 | Qa1 | Mar. 20, 1968 | 170 | 1.9 | 1 | G-S | Reported |
| 503 | 135-180 | Pa | Apr. 19, 1967 | 800 | .213 | 10 | G-S | Reported |
| 505 | 100-165 | Qa1 | Apr. 20, 1968 | 800 | 20.0 | 10 | G-S | Reported |

Table 3.--Summary of Pumping Tests--Continued

| WELL NUMBERS | DEPTH OF INTERVALS SCREENED (FT) | AQUIFER | DATE OF TEST | YIELD (GPM) | SPECIFIC CAPACITY (GPM/FT) | PUMPING TIME | WELL COMPLETIONS | REMARKS |
|-------------------------------|----------------------------------|---------|---------------|-------------|----------------------------|--------------|------------------|----------|
| <u>Hall County</u> | | | | | | | | |
| KZ-12-42-401 | 85-140 | Pa | Apr. 1, 1968 | 400 | 5.7 | 4 | G-S | Reported |
| 44-602 | 197-212 | Pa | Aug. 16, 1967 | 15 | .2 | 4 | G-S | Reported |
| <u>Eastern Briscoe County</u> | | | | | | | | |
| BL-11-39-701 | 210 | To | Jan. 14, 1946 | 1,000 | 47.6 | -- | -- | -- |
| 40-102 | 190-257 | To | Sept. 2, 1964 | 170 | 3.5 | 24 | G | Reported |
| 801 | 100 | Pa | Sept. 2, 1946 | 200 | 10.0 | -- | G | Reported |
| 802 | 100 | Pa | do. | 200 | 10.0 | 8 | G | Reported |
| 12-17-801 | 27-77 | Qa1 | June 10, 1956 | 550 | 13.8 | -- | P | Reported |
| 25-101 | 201 | Qa1 | Jan. 24, 1961 | 600 | 30.0 | -- | -- | Reported |
| 103 | 225 | Qa1 | July 1, 1969 | 180 | 8.5 | 8 | -- | Measured |
| 104 | 60-180 | Qa1 | do. | 40 | 8 | 8 | -- | Measured |
| 41-220 | 115-100 | Pa | Jan. 29, 1968 | 800 | 40.0 | 4 | G | Reported |

Use of Ground Water

The use of ground water for irrigation, public supply, and domestic and livestock supply in 1968 is summarized in Table 4. Water for industrial use was obtained from public supplies. Of the water pumped during 1968, about 65 percent was from the alluvium and about 20 percent was from the Ochoa Series.

In 1968, about 21,000 acre-feet of ground water was pumped for irrigation in Hall County. Of this quantity, 76 percent was from the alluvial deposits, 16

percent was from the Artesia Group, and 8 percent was from the Ochoa Series. Although an estimated 330 wells were available for use, only about one-half of these were actually pumped during 1968.

In eastern Briscoe County, an estimated 56 wells of a total of 114 available irrigation wells were used in 1968 to pump 7,100 acre-feet of water. Of the total amount pumped, 52 percent was from the Ochoa Series, 37 percent was from the alluvial deposits, 7 percent was from the Ogallala Formation, and 4 percent was from the Artesia Group.

Table 4.—Estimated Use of Ground Water in Hall and Eastern Briscoe Counties, 1968

| USE | <u>Hall County</u> | | | | | TOTAL AC-FT | TOTAL (MGD) |
|-----------------------------|-------------------------------|-----------------------|-----------------|------------------|--|----------------|----------------|
| | Pumpage in acre-feet | | | | | | |
| | ALLUVIUM | OGALLALA FORMATION | OCHOA SERIES | ARTESIA GROUP | | | |
| Irrigation | 16,000 | 0 | 1,800 | 3,400 | | 21,000 | 18.70 |
| Public supply ^{1/} | 213 | 0 | 0 | 0 | | 213 | .19 |
| Domestic-stock | — | — | — | — | | 210 | .19 |
| TOTALS^{2/} | 16,213 | 0 | 1,800 | 3,400 | | 21,400 | 19.00 |
| | <u>Eastern Briscoe County</u> | | | | | | |
| Irrigation | 2,600 | 500 | 3,700 | 300 | | 7,100 | 6.33 |
| Public supply ^{1/} | 113 | 0 | 0 | 0 | | 113 | .10 |
| Domestic-stock | — | — | — | — | | 70 | .07 |
| TOTALS^{2/} | 2,713 | 500 | 3,700 | 300 | | 7,280 | 6.00 |

^{1/} Data from files of the Texas Water Development Board.

^{2/} Amounts are approximate because some of the pumpage is estimated. Total pumpage in acre-feet is rounded to three significant figures.

Most of the water for public supply is pumped from wells tapping the alluvial deposits. During 1968, Childress, Estelline, Lakeview, and Turkey pumped 213 acre-feet of water from the alluvial deposits; and Quitaque, in eastern Briscoe County, pumped 113 acre-feet of water from the Ochoa Series. The following table summarizes the use of ground water in 1968 by the various cities:

| CITY | MILLION GALLONS ^{1/} | ACRE-FEET |
|-----------|-------------------------------|-----------|
| | <u>Hall County</u> | |
| Childress | 35.00 | 108 |
| Estelline | 6.67 | 20 |
| Lakeview | 12.30 | 38 |
| Turkey | 15.36 | 47 |
| Total | 69.33 | 213 |
| | <u>Eastern Briscoe County</u> | |
| Quitaque | 36.80 | 113 |

^{1/} Data from files of the Texas Water Development Board.

CHEMICAL QUALITY OF GROUND WATER

The chemical quality of the ground water is shown by 220 analyses of water from Hall County and 90 analyses of water from eastern Briscoe County. In addition to the regular chemical analyses, four samples were collected in Hall County and one sample was collected in eastern Briscoe County for pesticide analyses. No significant concentrations of pesticides was observed in any of the five samples.

There is no oil or gas development in the study area. Hence there are no problems of ground-water contamination related to oil or gas development.

The locations of the wells and springs sampled during 1968-69 are shown on Figure 8, and the results of the chemical analyses are given in Table 7. The dissolved-solids content, chloride and sulfate content, and hardness of the water from selected wells and springs are shown in Figure 6.

The chemical quality of the water generally reflects the chemical composition of rocks with which the water comes in contact. The amount and kinds of minerals dissolved from the rocks depends on several factors including the temperature of the water, the length of time the water is in contact with the rocks, the rate of movement of water through the rocks, and the solubility of the rocks. The source and significance of dissolved-mineral constituents and some properties of water are summarized in Table 5.

The specific conductance, which was determined both in the field and in the laboratory, can be used to estimate the dissolved-solids content of water. Although no exact relation exists between conductance and dissolved solids in natural water, the conductivity multiplied by the constant 0.7 is a close approximation of the dissolved solids in milligrams per liter.

Water in the Ogallala Formation has calcium and bicarbonate as the major dissolved constituents and the dissolved-solids content is generally less than 500 mg/l. As the water moves through the Permian units containing gypsum and anhydrite, the major dissolved constituents become calcium and sulfate.

The dissolved-solids content for most of the water from the Ochoa Series generally ranges between 1,000 to 4,000 mg/l, and in water from the Artesia Group, the range is generally between 2,500 to 3,500 mg/l. Water from some shallow wells in the outcrop areas of the Ochoa Series and the Artesia Group may contain less than 1,000 mg/l of dissolved solids, and for other wells, the concentration of dissolved solids in the Artesia Group may exceed 7,000 mg/l.

Water from the Blaine Formation is highly mineralized, contains sodium and chloride as the major dissolved constituents, and except for some withdrawals for stock needs, generally is not used as a source of water supply.

The chemical quality of water from the Quaternary alluvium and terrace deposits varies widely, depending on the source of recharge. Where the alluvium overlies or adjoins Permian rocks, or is recharged at least in part by streamflow, the water usually contains calcium and sulfate as the major constituents. Where the alluvium is recharged principally from direct infiltration of rainfall, as in the dune sand areas, the water is generally low in dissolved-solids content and contains calcium and bicarbonate as the major constituents. The dissolved solids in the water from the alluvium ranges from less than 500 to more than 5,000 mg/l.

Ground water in the report area is used for irrigation, public supply, and domestic and livestock supply. Hardness and the concentration of dissolved solids are of concern where the water is to be used for public supply. Salinity, the sodium hazard, boron content, and other factors are important where water is used for irrigation.

Most state and municipal authorities have adopted the standards set by the U.S. Public Health Service (1962) for drinking water used on common carriers in interstate commerce. According to the standards, the chemical constituents in a public-water supply should not be present in excess of the concentrations shown in the following table.

| <u>SUBSTANCE</u> | <u>CONCENTRATION (MG/L)</u> |
|------------------|---------------------------------|
| Chloride | 250 |
| Fluoride | 1.0 ^{1/} |
| Iron | .3 |
| Nitrate | 45 |
| Sulfate | 250 |
| Dissolved solids | 500 |

^{1/}Based on the average of maximum daily air temperature of 75.1°F at Memphis. The minimum concentration should be 0.7 mg/l.

In general, water from the Ogallala Formation meets most of the chemical standards established by the U.S. Public Health Service for drinking water. Water from some wells in the Quaternary alluvium, the Dockum Group, the Ochoa Series, and the Artesia Group also meet most of the standards, although concentrations of fluoride, nitrate, or dissolved solids in water from some wells may exceed or fail to reach the recommended limits.

Water from most of the geologic units has been used for irrigation for many years. The SAR (sodium adsorption ratio) and the RSC (residual sodium carbonate) are factors used in assessing the quality of water for irrigation. Figure 7, which is a diagram for the classification of irrigation water (U.S. Salinity Laboratory Staff, 1954), indicates that water from the Ogallala Formation is suitable for irrigation on sandy well-drained soils. The water has a low sodium hazard and medium to high salinity hazard.

Much of the water from the other aquifers has been used for irrigation although the salinity hazard may be very high. In some places, the water from the alluvium, Ochoa Series, and Artesia Group may be too mineralized for irrigation regardless of the soils, type of crops grown, or the drainage conditions. Because of the variation in the quality of water from the different aquifers and from different wells, water from newly drilled wells should be analyzed prior to its use for irrigation.

The temperature of the water, which is an important property in the consideration of water for cooling, ranges from about 15°C to 20°C (59°F to 68°F).

Table 5.—Source and Significance of Dissolved-Mineral Constituents and Properties of Water

| CONSTITUENT OR PROPERTY | SOURCE OR CAUSE | SIGNIFICANCE |
|--|---|---|
| Silica (SiO ₂) | Dissolved from practically all rocks and soils, commonly less than 30 mg/l. High concentrations, as much as 100 mg/l, generally occur in highly alkaline waters. | Forms hard scale in pipes and boilers. Carried over in steam of high pressure boilers to form deposits on blades of turbines. Inhibits deterioration of zeolite-type water softeners. |
| Iron (Fe) | Dissolved from practically all rocks and soils. May also be derived from iron pipes, pumps, and other equipment. More than 1 or 2 mg/l of iron in surface waters generally indicates acid wastes from mine drainage or other sources. | On exposure to air, iron in ground water oxidizes to reddish-brown precipitate. More than about 0.3 mg/l stains laundry and utensils reddish-brown. Objectionable for food processing, textile processing, beverages, ice manufacture, brewing, and other processes. U.S. Public Health Service (1962) drinking-water standards state that iron should not exceed 0.3 mg/l. Larger quantities cause unpleasant taste and favor growth of iron bacteria. |
| Calcium (Ca) and magnesium (Mg) | Dissolved from practically all soils and rocks, but especially from limestone, dolomite, and gypsum. Calcium and magnesium are found in large quantities in some brines. Magnesium is present in large quantities in sea water. | Cause most of the hardness and scale-forming properties of water; soap consuming (see hardness). Waters low in calcium and magnesium desired in electroplating, tanning, dyeing, and in textile manufacturing. |
| Sodium (Na) and potassium (K) | Dissolved from practically all rocks and soils. Found also in ancient brines, sea water, industrial brines, and sewage. | Large amounts, in combination with chloride, give a salty taste. Moderate quantities have little effect on the usefulness of water for most purposes. Sodium salts may cause foaming in steam boilers and a high sodium content may limit the use of water for irrigation. |
| Bicarbonate (HCO ₃) and carbonate (CO ₃) | Action of carbon dioxide in water on carbonate rocks such as limestone and dolomite. | Bicarbonate and carbonate produce alkalinity. Bicarbonates of calcium and magnesium decompose in steam boilers and hot water facilities to form scale and release corrosive carbon dioxide gas. In combination with calcium and magnesium, cause carbonate hardness. |
| Sulfate (SO ₄) | Dissolved from rocks and soils containing gypsum, iron sulfides, and other sulfur compounds. Commonly present in mine waters and in some industrial wastes. | Sulfate in water containing calcium forms hard scale in steam boilers. In large amounts, sulfate in combination with other ions gives bitter taste to water. Some calcium sulfate is considered beneficial in the brewing process. U.S. Public Health Service (1962) drinking-water standards recommend that the sulfate content should not exceed 250 mg/l. |
| Chloride (Cl) | Dissolved from rocks and soils. Present in sewage and found in large amounts in ancient brines, sea water, and industrial brines. | In large amounts in combination with sodium, gives salty taste to drinking water. In large quantities, increases the corrosiveness of water. U.S. Public Health Service (1962) drinking-water standards recommend that the chloride content should not exceed 250 mg/l. |
| Fluoride (F) | Dissolved in small to minute quantities from most rocks and soils. Added to many waters by fluoridation of municipal supplies. | Fluoride in drinking water reduces the incidence of tooth decay when the water is consumed during the period of enamel calcification. However, it may cause mottling of the teeth, depending on the concentration of fluoride, the age of the child, amount of drinking water consumed, and susceptibility of the individual. (Maier, 1950) |
| Nitrate (NO ₃) | Decaying organic matter, sewage, fertilizers, and nitrates in soil. | Concentration much greater than the local average may suggest pollution. U.S. Public Health Service (1962) drinking-water standards suggest a limit of 45 mg/l. Waters of high nitrate content have been reported to be the cause of methemoglobinemia (an often fatal disease in infants) and therefore should not be used in infant feeding. Nitrate has been shown to be helpful in reducing inter-crystalline cracking of boiler steel. It encourages growth of algae and other organisms which produce undesirable tastes and odors. |
| Dissolved solids | Chiefly mineral constituents dissolved from rocks and soils. Includes some water of crystallization. | U.S. Public Health Service (1962) drinking-water standards recommend that waters containing more than 500 mg/l dissolved solids not be used if other less mineralized supplies are available. Waters containing more than 1000 mg/l dissolved solids are unsuitable for many purposes. |
| Hardness as CaCO ₃ | In most waters nearly all the hardness is due to calcium and magnesium. All the metallic cations other than the alkali metals also cause hardness. | Consumes soap before a lather will form. Deposits soap curd on bathtubs. Hard water forms scale in boilers, water heaters, and pipes. Hardness equivalent to the bicarbonate and carbonate is called carbonate hardness. Any hardness in excess of this is called non-carbonate hardness. Waters of hardness as much as 60 ppm are considered soft; 61 to 120 mg/l, moderately hard; 121 to 180 mg/l, hard; more than 180 mg/l, very hard. |
| Specific conductance (micromhos at 25°C) | Mineral content of the water. | Indicates degree of mineralization. Specific conductance is a measure of the capacity of the water to conduct an electric current. Varies with concentration and degree of ionization of the constituents. |
| Hydrogen ion concentration (pH) | Acids, acid-generating salts, and free carbon dioxide lower the pH. Carbonates, bicarbonates, hydroxides, and phosphates, silicates, and borates raise the pH. | A pH of 7.0 indicates neutrality of a solution. Values higher than 7.0 denote increasing alkalinity; values lower than 7.0 indicate increasing acidity. pH is a measure of the activity of the hydrogen ions. Corrosiveness of water generally increases with decreasing pH. However, excessively alkaline waters may also attack metals. |

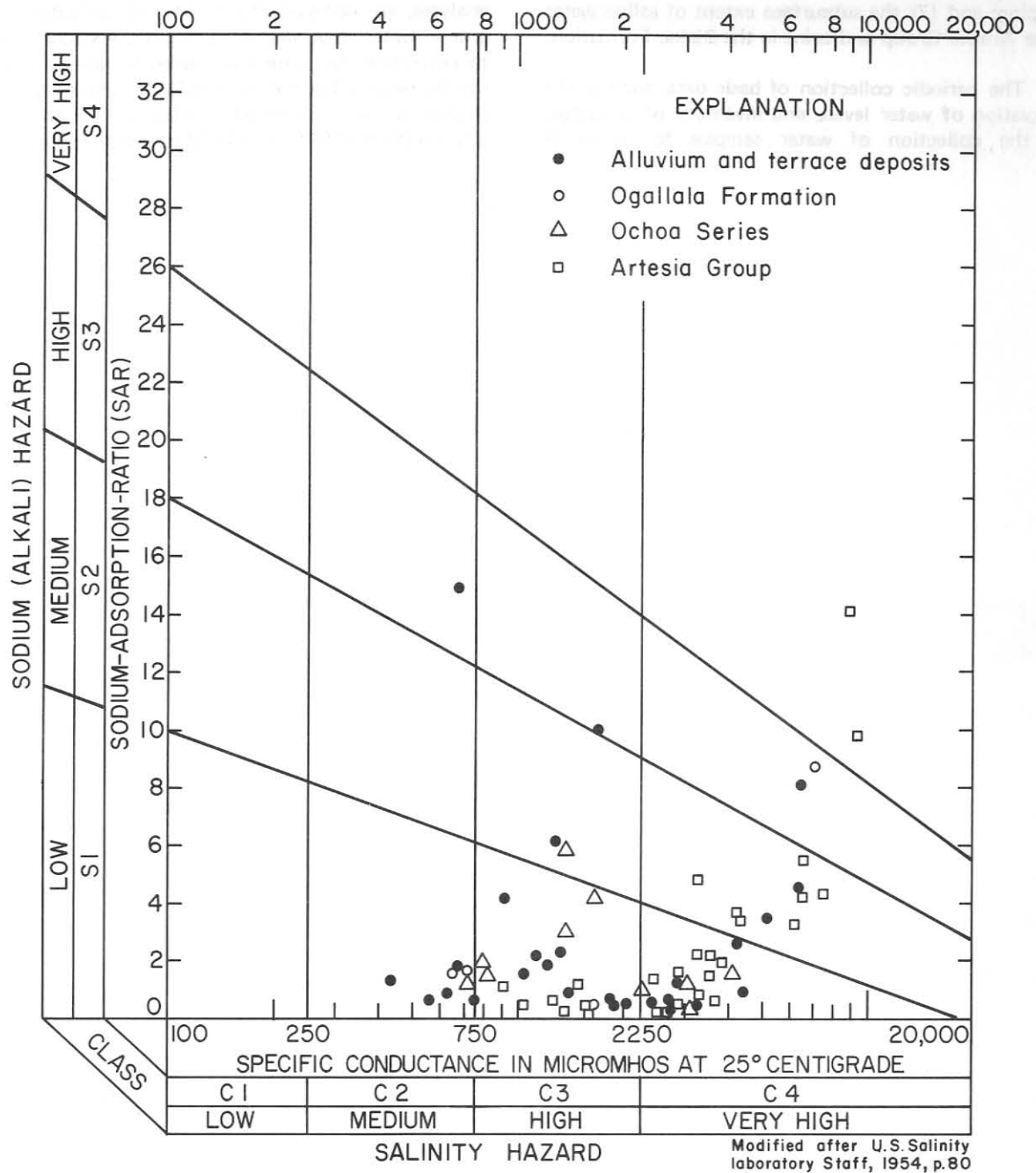


Figure 7.—Classification of Water for Irrigation From Selected Wells, 1968-69

NEEDS FOR FURTHER STUDIES

The present (1968) water needs of Hall and eastern Briscoe Counties are supplied largely from ground-water resources. The data collected during this study were inadequate for an accurate evaluation of the potentials of the aquifers. It seems likely, however, that the 1968 rate of ground-water withdrawals can be sustained for many years without further depleting the ground-water resources of the area. Whether the

available supplies are adequate to meet new demands for water for public supply, irrigation, or industrial use was not determined.

More detailed studies should be related to: (1) The hydrologic properties of the aquifers; (2) the sources and rates of natural recharge and discharge; (3) the effect of pumping on the regional water table; (4) the hydraulic relationships of the aquifers; (5) the quantity of water in storage; (6) the changes in chemical quality due to

pumping; and (7) the subsurface extent of saline water in the Artesia Group and brine in the Blaine Formation.

The periodic collection of basic data, such as the observation of water levels, and inventory of pumpage, and the collection of water samples for chemical

analyses, are necessary for a detailed evaluation of the ground-water resources of the county. A study is needed to determine the natural discharge of ground water to the Prairie Dog Town Fork Red River, and more detailed geologic mapping is needed to determine the areal extent and thickness of the alluvial and terrace deposits.

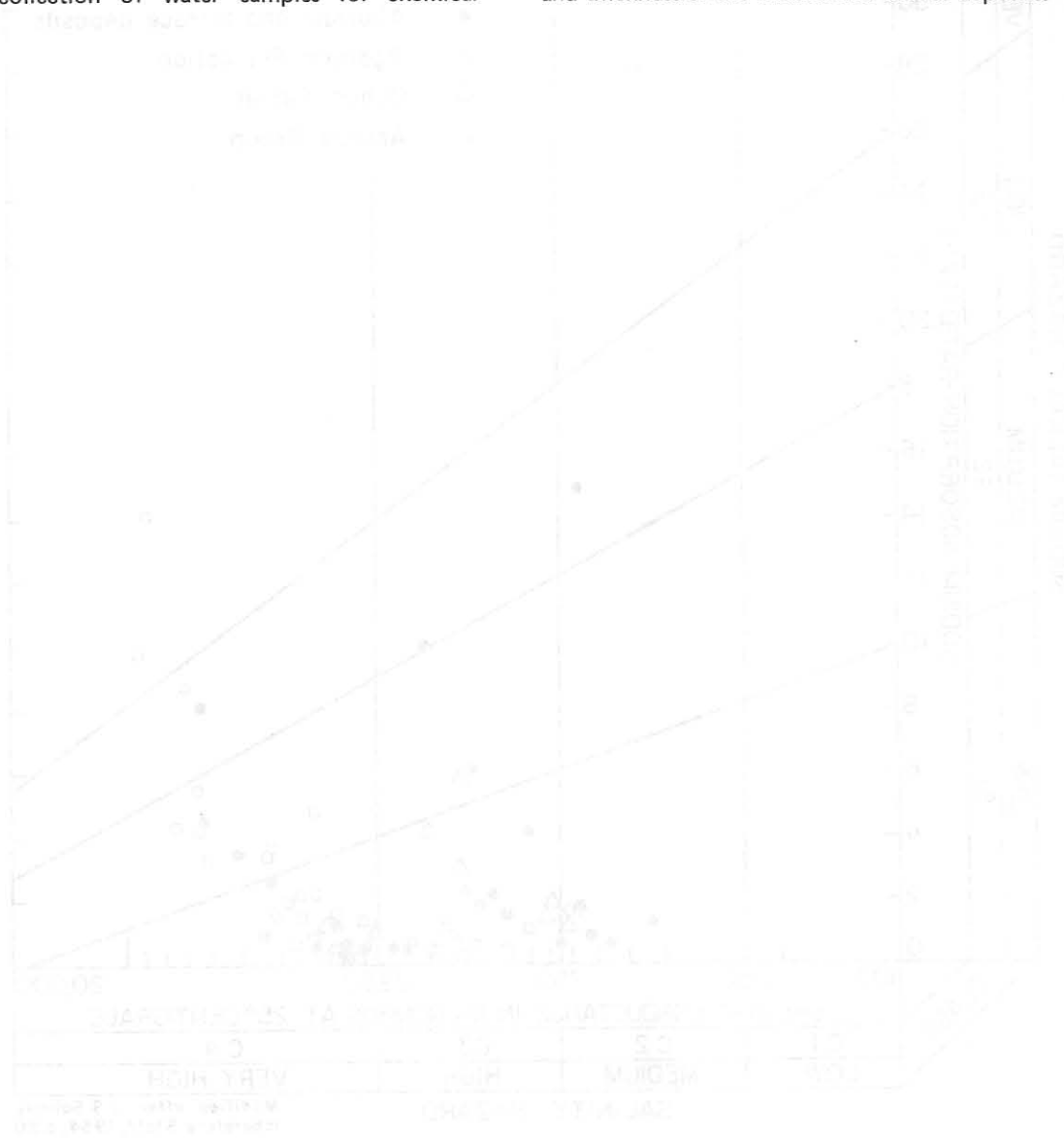


Figure 3—Correlation of Water Level and Salinity in the Artesia Group

and (7) the subsurface extent of saline water in the Artesia Group and brine in the Blaine Formation.

The periodic collection of basic data, such as the observation of water levels, and inventory of pumpage, and the collection of water samples for chemical

NEEDS FOR FURTHER STUDIES

analyses, are necessary for a detailed evaluation of the ground-water resources of the county. A study is needed to determine the natural discharge of ground water to the Prairie Dog Town Fork Red River, and more detailed geologic mapping is needed to determine the areal extent and thickness of the alluvial and terrace deposits.

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Table 6.--Records of Wells and Springs

All wells are drilled unless otherwise noted in remarks column.

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

Method of lift and type of power: B, bucket; C, centrifugal; J, jet; N, none; P, piston; S, submersible; T, turbine; E, electric; G, gas, natural or liquid petroleum; H, hand; W, windmill. Number indicates horsepower.

Use of water : D, domestic; Ind, industrial; Irr, irrigation; U, unused; P, public supply; S, livestock.

Water-bearing unit (aquifer) : Qal, alluvium and fluvial terrace deposits; To, Ogallala Formation; Trd, Dockum Group; Po, Ochoa Series; Pa, Artesia Group; Pp, Pease River Group.

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|----------------------|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| Briscoe County | | | | | | | | | | | | | |
| BL-11-21-201 | -- | -- | -- | 205 | 16 | -- | To | 3,332 | 128.90 139.10 | Jan. 9, 1959 Jan. 17, 1969 | T,G | -- | 1/ |
| * 301 | Hylsey Ranch | -- | -- | Spring | -- | -- | Trd | 3,170 | + | -- | Flows | S | Line of seeps. Estimated flow 75 gpm, Sept. 9, 1946. |
| * 302 | do. | -- | -- | Spring | -- | -- | Trd | 2,180 | + | -- | Flows | S | Line of seeps. Estimated flow 100 gpm, Sept. 9, 1946. |
| * 303 | do. | -- | -- | Spring | -- | -- | Trd | 3,150 | + | -- | Flows | S | Line of seeps. Estimated flow 80 gpm, Sept. 9, 1946. |
| 304 | do. | -- | -- | Spring | -- | -- | Trd | 3,050 | + | -- | Flows | U | Line of seeps. Reported flow 50 gpm, Sept. 10, 1946. |
| 305 | do. | -- | -- | Spring | -- | -- | Trd | 2,050 | + | -- | Flows | S | Line of seeps. Reported flow 200 gpm, Sept. 10, 1946. |
| 306 | do. | -- | -- | Spring | -- | -- | Trd | 3,040 | + | -- | Flows | S | Do. |
| 307 | do. | Davis Drilling & Well Service | 1967 | 216 | 6 | -- | To | 3,319 | -- | -- | P,W | D | Red bed at 217 feet. 2/ |
| 308 | do. | -- | -- | Spring | -- | -- | Trd | 3,040 | + | -- | Flows | S | Line of seeps. Reported flow 250 gpm, Sept. 10, 1946. |
| * 309 | do. | -- | -- | 212 | 5 | -- | To | 3,319 | 173 | Sept. 11, 1946 | N | U | |
| 801 | -- | -- | -- | 215 | 16 | -- | To | 3,338 | 95.7 105.22 | Sept. 9, 1946 Jan. 9, 1968 | T,G | Irr | 1/ |
| * 901 | Cobb Ranch | J.F. Davis | 1945 | 111 | 8 | -- | To | 3,289 | 98.0 | Sept. 10, 1946 | P,W | S | Uncased. |
| 902 | do. | -- | -- | Spring | -- | -- | To | 3,258 | + | -- | Flows | S | Line of seeps. |
| * 22-401 | Morris and Matney | Sears | 1917 | 260 | 6 | -- | To | 3,272 | 235 | Sept. 9, 1946 | P,W | S | Uncased. |
| * 402 | do. | J.F. Davis | -- | 170 | 8 | -- | To | 3,278 | 130 | do. | P,W | S | |
| 501 | C.Adair Estate | Humble Oil & Ref. Co. | 1932 | 4,010 | 16,12 | -- | -- | 2,620 | -- | -- | N | U | Oil test. 2/ |
| * 23-101 | Gales Adams | -- | -- | 120 | 8 | -- | Po | 2,584 | 116.3 | Aug. 1, 1969 | P,W | S | Water reported salty; field conductance 10,000 micromhos, Aug. 1, 1969. |
| * 201 | do. | -- | -- | 176 | 8 | -- | Po | 2,628 | 149.8 | do. | P,W | S | Field conductance 3,600 micromhos, Aug. 1, 1969. |
| * 301 | do. | -- | -- | 148 | 8 | -- | Trd | 2,708 | 112.2 | July 31, 1969 | P,W | S | Field conductance 2,800 micromhos, July 21, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|----------------------------------|----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|------------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * BL-11-23-401 | Gales Adams | -- | -- | 58 | 8 | -- | Pa | 2,270 | 54.2 | Aug. 1, 1969 | P,W | S | Field conductance 2,600 micromhos, Aug. 1, 1969. |
| * 402 | -- | -- | -- | -- | -- | -- | Pa | 2,262 | -- | -- | P,W | S | |
| * 501 | Gales Adams | -- | -- | 178 | 8 | -- | Po | 2,522 | 168.9 | Aug. 1, 1969 | P,W | S | Field conductance 3,100 micromhos, Aug. 1, 1969. |
| 502 | do. | -- | -- | 102 | 8 | -- | Po | 2,550 | 97.6 | do. | P,W | S | Field conductance 5,100 micromhos, Aug. 1, 1969. |
| * 601 | Morris Stevens-- Howard Ranch | L.P. Moore Drilling Co. | 1968 | 273 | 8 | -- | To | 2,703 | 215.5 | July 31, 1969 | S,E 1 | D | Water used for local ranchers for domestic needs; field conductance 1,400 micromhos, July 31, 1969. |
| * 24-101 | Gales Adams | -- | -- | 200 | 8 | -- | Qal | 2,582 | -- | -- | P,W | S | Field conductance 1,500 micromhos, July 31, 1969. |
| * 201 | Brant Edwards Ranch | -- | -- | 148 | 8 | -- | Po | 2,438 | 80.0 | July 30, 1969 | P,W | S | Field conductance 3,100 micromhos, July 30, 1969. |
| * 301 | do. | -- | 1964 | 122 | 7 | -- | Pa | 2,322 | 89.9 | do. | P,W | S | Field conductance 3,200 micromhos, July 30, 1969. |
| * 501 | do. | -- | -- | 90 | 12 | -- | Pa | 2,401 | 79.9 | do. | P,W | S | Owner reported some cattle will not drink water, but horses will. Field conductance 5,200 micromhos, July 30, 1969. |
| * 601 | do. | -- | -- | 100 | 8 | -- | Pa | 2,318 | 79.6 | do. | P,W | S | Reported best well on ranch. Field conductance 3,100 micromhos, July 30, 1969. |
| * 801 | do. | -- | -- | 163 | 8 | -- | Pa | 2,318 | 156.9 | do. | P,W | S | Field conductance 6,000 micromhos, July 30, 1969. |
| * 901 | do. | -- | -- | Spring | -- | -- | Pa | 2,180 | + | do. | Flows | S | Line of seeps. Water gyp. Field conductance 2,600 micromhos, July 30, 1969. |
| * 29-401 | S.M. Rogers | -- | -- | 70 | 6 | -- | To | 3,283 | 45.0 | Sept. 4, 1946 | P,W | D | |
| 501 | C.M. Flowers | -- | -- | Spring | -- | -- | To | 3,180 | + | Sept. 10, 1946 | Flows | S | Line of seeps. |
| * 502 | do. | -- | -- | Spring | -- | -- | To | 3,180 | + | do. | Flows | S | Do. |
| 503 | do. | -- | -- | Spring | -- | -- | Trd, Po | 3,050 | + | do. | Flows | S | Do. |
| * 601 | Wright B. May | J.F. Davis | 1933 | 110 | 9 | -- | To | 3,271 | 82.8 | do. | P,W | S | Reported yield 2 gpm, Sept. 10, 1969. Red beds at 110 ft. |
| * 602 | C.M. Flowers | Frank Hunt | 1945 | 250 | 8 | -- | To | 3,096 | 140 | do. | P,W | S | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------|---|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-29-603 | C.M. Flowers | -- | -- | Spring | -- | -- | To | 3,230 | + | Sept. 10, 1946 | Flows | S | Line of seeps. Reported yield 150 gpm, Sept. 10, 1946. |
| * 701 | Asbel Cross | Jim Watson | 1906 | 83 | 8 | -- | To | 3,199 | 36.6 | Sept. 2, 1946 | N | U | Line of seeps. Uncased, well caved. |
| 801 | G.B. Mayfield | -- | -- | Spring | -- | -- | To | 2,140 | + | Sept. 10, 1946 | Flows | S | Line of seeps. Estimated yield 200 gpm, Sept. 10, 1946. |
| 30-201 | McMurtry Ranch | J.F. Davis | 1942 | 250 | 8 | -- | Trd | 3,281 | 215 | Sept. 16, 1946 | N | U | Red bed at 200 feet. |
| * 501 | do. | -- | 1906 | 137 | 5 | 80- 137 | To | 3,262 | 123 | do. | P,W | S | Red bed at 117 feet. |
| 502 | do. | -- | -- | Spring | -- | -- | To | 3,120 | + | do. | Flows | S | Line of seeps in Ross Canyon. Reported yield 3-4 gpm, Sept. 16, 1946. |
| 601 | do. | -- | -- | Spring | -- | -- | To | 2,980 | + | do. | Flows | S | Line of seeps. Reported yield greater than 10 gpm, Sept. 16, 1969; flows inter- mittently. |
| * 901 | H.R. Brown | -- | -- | 165 | 8 | -- | To | 3,294 | 158.9 | do. | P,W | S | |
| 31-401 | Dewey Beavers | Dave Lufboro | 1931 | 350 | 6 | -- | To | 3,271 | 198.0 | do. | P,W | S | |
| 501 | Pascal Garrison | Zugler Drilling Co. | 1965 | 180 | -- | -- | To | 3,127 | -- | -- | N | U | Test hole. Reported yield 4 gpm. <u>2/</u> |
| * 701 | Burleson Ranch | -- | 1912 | 170 | 6 | 10- 170 | To | 3,243 | 138.4 | Sept. 16, 1946 | N | U | |
| 32-201 | Bryant Edwards Ranch | -- | -- | 92 | 8 | -- | Pa | 2,197 | 58.4 | July 30, 1969 | N | U | |
| 202 | Howard Ranch | Silverton Drilling & Pump Service | 1965 | 160 | 7 | 150- 160 | Qa1 | 2,113 | -- | -- | P,W | S | Gravel-packed. <u>2/</u> |
| * 301 | -- | -- | -- | 45 | 6 | -- | Pa | 2,134 | 40.2 | Mar. 21, 1969 | P,W | S | Field conductance 1,400 micromhos, Mar. 21, 1969. |
| * 501 | Cherokee Camp | -- | -- | 33 | 6 | -- | Pa | 2,381 | 27.0 | do. | P,W | S | Field conductance 3,300 micromhos, Mar. 21, 1969. |
| 601 | -- | -- | 1965 | 120 | 6 | -- | Pa | 2,320 | 108.1 | do. | P,W | S | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--|---|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| LB-11-32-602 | Johnnie Burson | Silverton Drilling & Pump Service | 1967 | 53 | 7 | -- | Qa1 | 2,218 | -- | -- | P,W | S | 2/ |
| * 801 | -- | -- | -- | 48 | 6 | -- | Po | 2,422 | 42.3 | Mar. 21, 1969 | P,W | S | Field conductance 2,300 micromhos, Mar. 21, 1969. |
| 802 | True Burson | do. | 1963 | 271 | 7 | 230- 271 | Po | 2,435 | 175 | July 1963 | P,E 1 | S | Reported drawdown 42 feet after 24 hours pumping 6 gpm, July 1963. 2/ |
| * 901 | Burson Lakes | -- | -- | Spring | -- | -- | Pa | 2,310 | + | Feb. 28, 1969 | Flows | S,R | Line of seeps. Water impounded by earthen dam. Field conductance 1,400 micromhos, Feb. 28, 1969. |
| 37-101 | George Martin | Silverton Drilling & Pump Service | 1966 | 130 | 9 | 7- 130 | To | 3,282 | -- | -- | P,W | S | 2/ |
| 201 | W.H. Fitzgerald | -- | -- | 180 | 16 | -- | To | 3,302 | 77.05 122.38 | Jan. 6, 1956 Jan. 17, 1969 | T,G | Irr | |
| * 301 | G.B. Mayfield | Ed Davis | 1946 | 216 | 21 | -- | To | 3,303 | 103.6 | Sept. 11, 1946 | N | U | Red bed at 194 feet. Destroyed irrigation well; reported yield 100 gpm. |
| 39-201 | -- | -- | -- | 225 | 16 | -- | To | 3,217 | 175.41 201.36 | Jan. 6, 1956 Jan. 18, 1969 | T,G | Irr | 1/ |
| 301 | -- | -- | -- | 230 | 6 | -- | To | 3,201 | 226.3 | Mar. 21, 1969 | P,W | S | |
| 302 | Dud Walters | Davis Drilling & Pump Service | 1966 | 260 | 6 | 220- 260 | To | 3,202 | 221 | Sept. 24, 1966 | P,W | S | Red bed at 248 feet. 2/ |
| 303 | Jack Kastman | Silverton Drilling & Pump Service | 1965 | 216 | 7 | 198- 216 | To | 3,212 | 197 | Jan. 1965 | S,E 1 | D | 2/ |
| * 304 | Guy McWilliams | -- | -- | 210 | 6 | -- | To | 3,209 | 195 | -- | P,W | S | |
| 501 | Jim Brooks | Jeff Davis | 1953 | 200 | 16 | -- | To | 3,214 | 176.7 | Dec. 19, 1960 | T,G | -- | Red bed at 200 feet. |
| 502 | Raymond Teeple | Davis Drilling & Pump Service | 1967 | 218 | 14 | 178- 218 | To | 3,207 | -- | -- | T,G | Irr | Red bed at 215 feet. 2 |
| * 601 | South Plains BSA Council Haynes Camp | -- | -- | Spring | -- | -- | Po | 2,760 | + | Mar. 21, 1969 | Flows | D | Field conductance 800 micromhos; yield 40 gpm, Mar. 21, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COMPLETED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-----------------------------|-----------------------------------|----------------|--------------------|---------------|--------------------|---------|-------------------------------|-------------------------------|------------------------------|----------------|--------------|---|
| | | | | | DIAMETER (IN) | INTERVALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-39-701 | Joe Mercer | Jeff Davis | 1945 | 210 | 9 | -- | To | 3,209 | 103.10 168.70 | July 8, 1946 Jan. 8, 1969 | T,G, 140 | Irr | Drawdown 21 feet after several hours pumping 10,000 gpm, June 14, 1946. 1/ |
| * 702 | R.L.O. Kiddell #2 | do. | 1957 | 205 | 16 | -- | To | 3,217 | 110.0 | Dec. 19, 1960 | T,G | Irr | Red bed at 205 feet. |
| * 703 | J.M. Lemons | -- | -- | Spring | -- | -- | To | 2,980 | + | Oct. 24, 1938 | Flows | S | Estimated yield 10 gpm, Oct. 24, 1938. |
| 901 | Texas Highway Dept. Test #1 | Jameson Machinery Co, Inc. | 1967 | 520 | 6 | -- | To, Trd | 3,154 | -- | -- | N | U | Open hole. Test hole. Bailing test of section between 390 and 398 feet yield 3 gpm. Insufficient water for use. |
| 902 | Saul and Evans | Davis Drilling & Pump Service | 1967 | 218 | 6 | 188-218 | To | 3,197 | -- | -- | P,W | S | 2/ |
| * 903 | Clete Miller | J.F. Davis | 1925 | 209 | 5 | -- | To | 3,191 | 194 | Sept. 1946 | N | U | Field conductance 700 micromhos, Mar 21, 1969. 2/ |
| * 40-101 | J.K. Farm | Silverton Drilling & Pump Service | 1964 | 186 | 6 | -- | To | 3,191 | 180 | May 1964 | P,W | S | Drawdown reported 48 feet after 24 hours, pumping 170 gpm, Sept. 2, 1964. 1/ |
| 102 | W.M. Walters | do. | 1964 | 257 | 14 | 190-257 | To | 3,170 | 192 | Sept. 2, 1964 | T,G | Irr | Red bed at 247 ft. |
| 103 | Dud Walters | Davis Drilling & Pump Service | 1967 | 260 | 6 | 220-260 | To | 3,181 | 227 | Sept. 1967 | P,W | S | Reported best quality water in area. Field conductance 1,150 micromhos, Feb. 28, 1969. |
| * 201 | Tulia Feed Lot | -- | 1967 | 200 | 10 | -- | Po | 2,505 | 61.0 | Feb. 28, 1969 | P,E, 1 1/2 | D | Field conductance 3,100 micromhos, Feb. 28, 1969. |
| 202 | Schott Ranch | Silverton Drilling & Pump Service | 1965 | 65 | 7 | 45-65 | Po | 2,601 | -- | -- | P,W | S | 2/ |
| * 301 | Tulia Feed Lot | -- | -- | 200 | 8 | -- | Po | 2,460 | 63.1 | Feb. 28, 1969 | P,W | S | Field conductance 4,900 micromhos, Feb. 28, 1969. |
| 302 | do. | -- | -- | 200 | 8 | -- | Po | 2,386 | 48.9 | do. | P,W | S | Drawdown reported 42 feet after 10 hours pumping 5 gpm, July 10, 1963. 2/ |
| 303 | True Burson | Silverton Drilling & Pump Service | 1963 | 262 | 7 | 220-262 | Po | 2,456 | 178 | July 10, 1963 | P,W | S | Line of seeps, total flow measured 107 gpm, Apr. 21, 1969; field conductance 3,000 micromhos. |
| * 501 | Geisler Estate Gyp Spring | -- | -- | Spring | -- | -- | Pa | 2,420 | + | Apr. 21, 1969 | N | S | |
| 502 | Geisler Estate | -- | -- | 14 | 6 | -- | Pa | 2,274 | 9.0 | do. | P,W | S | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|---------------------|-----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-40-601 | Geisler Estate | -- | -- | 12 | 8 | -- | Qa1 | 2,219 | 9.6 | Apr. 21, 1969 | P,W | S | Field conductance 2,900 micromhos, Apr. 21, 1969. |
| 701 | do. | -- | -- | 86 | 10 | -- | Po | 2,740 | 71.4 | do. | P,W | S | |
| 702 | Lem Weaver | Green Machinery Co. Inc. | 1960 | 200 | 16 | -- | Pa | 2,680 | 32.2 37.8 | Dec. 20, 1960 Apr. 23, 1969 | T,G 30 | Irr | Pump tested for several days at a reported 600 gpm, December 1960. |
| * 801 | City of Quitaque #1 | --Edwards | 1928 | 100 | 14 | -- | Po | 2,523 | 52 60 | Sept. 2, 1946 Oct. 20, 1920 | T,E 15 | P | Drawdown reported 20 ft while pumping 200 gpm, Sept. 2, 1946. Estimated yield 150 gpm, Oct. 20, 1960. Field conductance 1,400 micromhos, Apr. 18, 1969. |
| * 802 | City of Quitaque #2 | do. | 1928 | 100 | 14 | -- | Po | 2,522 | 51.0 58.6 | Sept. 2, 1946 Apr. 18, 1969 | T,E, 15 | P | Drawdown reported 20 feet after pumping 200 gpm, Sept. 2, 1946. |
| * 803 | City of Quitaque #3 | -- | 1955 | 100 | 14 | -- | Po | 2,521 | -- | -- | T,E 15 | P | |
| 804 | Clayton Johnson | -- | -- | -- | 16 | -- | Po | 2,530 | -- | -- | T,G | Irr | |
| 805 | do. | -- | -- | -- | 16 | -- | Po | 2,530 | -- | -- | T,G | Irr | |
| 806 | do. | -- | -- | -- | 16 | -- | Po | 2,532 | -- | -- | T,E 30 | Irr | |
| 807 | do. | -- | -- | -- | 16 | -- | Po | 2,534 | -- | -- | T,G 15 | Irr | Unused in 1968. |
| 808 | Barrett | -- | -- | -- | 16 | -- | Po | 2,557 | 80 | -- | T,G 15 | Irr | |
| 809 | J.F. Bailey | -- | -- | -- | 16 | -- | Po | 2,542 | -- | -- | T,E | Irr | Irrigated 80 acres, 1968. |
| 810 | Leroy Hamilton | -- | -- | -- | 8 | -- | Po | 2,548 | -- | -- | S,E 3 | Irr | Irrigated 60 acres, 1968. |
| 811 | do. | -- | -- | -- | 16 | -- | Po | 2,549 | -- | -- | S,E 3 | Irr | Do. |
| 812 | Bud Bailey | -- | -- | 80 | 16 | -- | Po | 2,557 | 68.6 | Apr. 22, 1969 | T,G 15 | Irr | Irrigated 150 acres, 1968. |
| 813 | do. | -- | -- | -- | 16 | -- | Po | 2,558 | -- | -- | S,E | Irr | Do. |
| 814 | Jack Chittum | -- | -- | -- | 10 | -- | Po | 2,551 | -- | -- | S,E 1 1/2 | Irr | |
| 815 | do. | -- | -- | 35 | 12 | -- | Po | 2,551 | 31.8 | Apr. 23, 1969 | S,E 7 1/2 | Irr | |
| 816 | C.F. Tate | Silverton Drilling & Pump Service | 1967 | 55 | 16 | -- | Po | 2,570 | -- | -- | P,W | S | Open hole. 2/ |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|----------------|---------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-40-901 | D.E. Bronson | -- | -- | -- | 8 | -- | Po | 2,510 | -- | -- | S,E 5 | Irr | Irrigated 20 acres, 1968. |
| 902 | do. | -- | -- | -- | 16 | -- | Po | 2,509 | -- | -- | T,G 50 | Irr | Do. |
| 903 | do. | -- | -- | -- | 16 | -- | Po | 2,508 | 55.8 | Apr. 18, 1969 | T,G 50 | Irr | Do. |
| 904 | R.H. Hamilton | -- | -- | 110 | 16 | -- | Po | 2,538 | 59.4 | Apr. 21, 1969 | T,E 10 | Irr | Irrigated 40 acres, 1968. |
| 905 | do. | -- | -- | 100 | 16 | -- | Po | 2,534 | -- | -- | S,E 7 1/2 | Irr | Do. |
| 906 | Myers | -- | -- | -- | 16 | -- | Po | 2,529 | -- | -- | T,G 20 | Irr | Irrigated 150 acres, 1968. |
| 907 | do. | -- | -- | -- | 16 | -- | Po | 2,528 | -- | -- | T,G 20 | Irr | Do. |
| 908 | do. | -- | -- | -- | 16 | -- | Po | 2,527 | -- | -- | T,G 20 | Irr | Do. |
| 909 | do. | -- | -- | -- | 16 | -- | Po | 2,526 | -- | -- | T,G 15 | Irr | Do. |
| 910 | Patrick | -- | -- | -- | 16 | -- | Po | 2,512 | 43.6 | Apr. 22, 1969 | S,E | Irr | Do. |
| 911 | do. | -- | -- | -- | 16 | -- | Po | 2,511 | -- | -- | S,E | Irr | Do. |
| 912 | do. | -- | -- | -- | 16 | -- | Po | 2,508 | -- | -- | S,E | Irr | Do. |
| 913 | do. | -- | -- | -- | 16 | -- | Po | 2,508 | -- | -- | T,E | Irr | Do. |
| 914 | Blankenship | -- | -- | -- | 16 | -- | Po | 2,490 | -- | -- | T,E | Irr | Irrigated 300 acres, 1968. |
| 915 | do. | -- | -- | -- | 16 | -- | Po | 2,485 | -- | -- | S,E 5 | Irr | Do. |
| 916 | do. | -- | -- | -- | 16 | -- | Po | 2,484 | -- | -- | S,E 5 | Irr | Do. |
| 917 | Charles Gowens | -- | -- | 50 | 10 | -- | Po | 2,457 | -- | -- | S,E 5 | Irr | |
| 918 | Tom Barbee | -- | -- | 64 | 6 | -- | Po | 2,517 | 57.8 | July 1, 1969 | P,W | S | Field conductance 1,200 micromhos, July 1, 1969. |
| * 47-101 | -- | -- | -- | Spring | -- | -- | To | 3,040 | + | -- | Flows | S | Line of seeps. Estimated yield 10 gpm, Oct. 24, 1938. |
| 102 | -- | -- | -- | Spring | -- | -- | To | 3,010 | + | Oct. 19, 1969 | Flows | S | Estimated yield 100 gpm, Oct. 14, 1967. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------|---------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-40-103 | Fred Lemons | -- | -- | Spring | -- | -- | To | 2,973 | + | Sept. 16, 1946 | Flows | S | Line of seeps; yield reported 10 gpm, Sept. 17, 1946. |
| 47-104 | do. | -- | -- | Spring | -- | -- | To | 2,000 | + | Oct. 19, 1967 | Flows | S | Reportedly flowed 10 gpm, 1946. |
| 105 | T.D. Wallace | -- | -- | 140 | 8 | -- | To | 2,195 | 122.4 124.4 | Dec. 1, 1938 Sept. 16, 1946 | P,W | S | |
| * 106 | Mrs. Elmira Davis | -- | -- | 250 | 5 | -- | To | 3,205 | 200 | 1946 | N | U | |
| 201 | Lingos Falls | -- | -- | Spring | -- | -- | Trd | 2,770 | + | -- | Flows | S | Estimated yield 10 gpm, Oct. 24, 1938; 300 gpm, Oct. 19, 1967. |
| * 301 | Gerald L. Smith | -- | 1925 | 135 | 10 | -- | Po | 2,682 | 33.9 | Apr. 23, 1969 | P,E 3/4 | S | Field conductance 1,400 micromhos, Apr. 23, 1969. |
| * 302 | J.R. Stroup | -- | -- | Spring | -- | -- | Trd | 2,705 | + | do. | Flows | Irr | Spring flow estimated 3 gpm, Apr. 23, 1969; water flows into pond from which owner irrigates. Field conductance 1,850 micromhos Apr. 23, 1969. |
| * 501 | T.D. Wallace | -- | -- | Spring | -- | -- | Trd | 2,855 | + | Oct. 24, 1938 | Flows | S | Estimated 3 gpm, Oct. 23, 1968. |
| 502 | do. | -- | -- | Spring | -- | -- | Trd | 2,800 | + | Oct. 19, 1969 | Flows | S | Yield 83 gpm, Nov. 22, 1938; estimated yield 90 gpm, Oct. 19, 1967. Cypy taste. |
| * 601 | J. Ronald Taylor | -- | -- | Spring | -- | -- | Trd | 2,610 | + | Nov. 23, 1968 | N | S | Line of seeps. Flow 122 gpm measured at junction of North and South Pole Creeks, Nov. 23, 1968. |
| * 48-101 | Gerald L. Smith | -- | -- | 100 | 8 | -- | Po | 2,652 | 50.0 | Apr. 23, 1969 | P,W | S | Field conductance 1,400 micromhos, Apr. 23, 1969. |
| 201 | Baylor | -- | -- | -- | 16 | -- | Po | 2,575 | 41.7 | Apr. 18, 1969 | S,E 7 1/2 | Irr | |
| 302 | J.B. Tiffin | -- | -- | 130 | 16 | -- | Po | 2,498 | 81.2 | Apr. 18, 1969 | T,G 30 | Irr | |
| 303 | D.E. Bronson | -- | -- | 42 | 16 | -- | Po | 2,438 | 25.3 | do. | S,E 3 | Irr | |
| 304 | Charles Gowens | -- | -- | 50 | 16 | -- | Po | 2,452 | -- | -- | T,G 30 | Irr | Not used in 1968. |
| 305 | do. | -- | -- | 50 | 16 | -- | Po | 2,440 | -- | -- | T,G 30 | Irr | Gravel-packed; casing perforated. |
| 306 | J.C. Hamilton | -- | -- | 50 | 16 | -- | Po | 2,448 | -- | -- | S,E 7 1/2 | Irr | Do. |
| 307 | do. | -- | -- | 50 | 16 | -- | Po | 2,445 | -- | -- | S,E 7 1/2 | Irr | Do. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--------------------------|------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|----------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-11-48-308 | Charles Gowens | Johnson Drilling Co. | 1955 | 50 | 14 | -- | Po | 2,453 | 30.5 | Dec. 20, 1960 | T,G | U | Gravel-packed; casing perforated. Well sanded up, unable to use in 1969. Red bed at 50 feet. |
| 309 | M.E. Morrison #1 | do. | 1966 | 95 | 4 | -- | Po | 2,495 | -- | -- | N | U | Test hole. Red bed at 80 feet. Open hole. 2/ |
| 501 | M.E. Loving #2 | do. | 1965 | 100 | 13 | -- | Qa1 | 2,496 | 46 47.7 | Mar. 1965 Apr. 18, 1969 | T,E 7 1/2 | Irr | Red bed at 95 feet. |
| 502 | M.E. Loving #1 | do. | 1965 | 123 | 13 | 97- 123 | Qa1 | 2,492 | 46 | Mar. 2, 1965 | T,E 7 1/2 | Irr | Red bed at 121 feet. |
| 503 | Walter Graham | do. | 1966 | 87 | 7 | 50- 87 | Qa1 | 2,537 | 37 | Oct. 8, 1966 | P,W | S | Reported yield 75 gpm, Oct. 1966. Red bed at 85 feet. 2/ |
| 601 | J. Case | -- | -- | -- | 12 | -- | Qa1 | 2,446 | 39.2 | June 21, 1968 | T,E 15 | Irr | Gravel-packed, casing perforated. |
| 602 | do. | -- | -- | -- | 12 | -- | Qa1 | 2,461 | 45.1 | do. | T,E 10 | Irr | Do. |
| 603 | D.J. Anderson | Johnson Drilling Co. | 1956 | 130 | 14 | -- | Qa1 | 2,471 | 32.4 | do. | T,G 50 | Irr | Irrigated 100 acres, 1968. |
| 604 | J.B. Tiffin | -- | -- | 80 | 16 | -- | Qa1 | 2,501 | -- | -- | T,E 5 | Irr | |
| 605 | do. | -- | -- | 80 | 16 | -- | Qa1 | 2,497 | 47.1 | Apr. 18, 1969 | T,E 5 | Irr | Irrigated 60 acres, 1968. |
| 12-17-101 | James A. McAnear, Sr. | Green Machinery Co., Inc. | -- | 120 | 16 | -- | Qa1 | 2,171 | 11.3 | Nov. 22, 1968 | T,G 75 | Irr | |
| 202 | do. | do. | -- | 95 | 16 | -- | Qa1 | 2,162 | 11.5 | do. | T,G 75 | Irr | |
| * 203 | Grady Ranch | -- | -- | -- | 6 | -- | Pa | 2,350 | 35.6 | do. | P,W | S | Field conductance 2,800 micromhos. |
| * 401 | Aubrey L. Martin | -- | -- | Spring | -- | -- | Pa | 2,178 | + | Jan. 22, 1969 | Flows | U | Water unsuitable for stock. Flow is intermittent. Estimated yield 15 gpm, Jan. 22, 1969. Field conductance 12,500 micromhos. |
| 516 | Mrs. Bray Cook Well 2 | Green Machinery Co., Inc. | 1957 | 124 | 16 | 14- 124 | Qa1 | 2,155 | 5.9 | Nov. 22, 1968 | T,G 70 | Irr | Shatter screen 16-inch from 14 to 124 feet. |
| 517 | Mrs. Bray Cook Well 3 | do. | 1965 | 126 | 16 | 30- 126 | Qa1 | 2,154 | 4.8 | do. | T,G 75 | Irr | Red bed at 124 feet. 2/ |
| 518 | Mrs. Bray Cook Well 1 | do. | 1956 | 120 | 16 | 24- 120 | Qa1 | 2,153 | 4.0 | do. | N | U | |
| * 701 | Grady Ranch Well #2 | -- | -- | 102 | 6 | -- | Pa | 2,182 | 85.9 | Nov. 20, 1968 | P,W | S | Field conductance 3,110 micromhos |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|----------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|---|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * BL-12-17-801 | Aubrey L. Martin Well 1 | E.M. Crenshaw | 1956 | 77 | 16 | 27- 77 | Qa1 | 2,098 | 18 5.3 12.0 | June 10, 1956 June 23, 1961 Nov. 20, 1968 | N | U | Unused irrigation well. Red bed at 75 feet. Reported yield 550 gpm with 40 foot drawdown, June 10, 1956. |
| * 802 | Aubrey L. Martin Well 2 | Green Machinery Co, Inc. | 1962 | 35 | 16 | -- | Qa1 | 2,100 | 15.5 | do. | T,G | Irr | Red bed at 30 feet. 2/ |
| 806 | Aubrey L. Martin Well 3 | A & A Drilling Co. | 1968 | 130 | 16 | -- | Qa1 | 2,105 | 14.9 | do. | T,G 75 | Irr | |
| 807 | Mrs. John Mannock | -- | -- | 66 | 16 | -- | Qa1 | 2,095 | 17.1 | do. | T,G 30 | Irr | |
| 808 | do. | -- | -- | 41 | 16 | -- | Qa1 | 2,081 | 16.5 | do. | T,G 30 | Irr | |
| 809 | do. | -- | -- | 73 | 16 | -- | Qa1 | 2,080 | 17.3 | do. | T,G 30 | Irr | |
| 810 | Alexander & Weaver | Green Machinery Co, Inc. | 1960 | 140 | 16 | -- | Qa1 | 2,081 | 19.6 | do. | T,G 60 | Irr | |
| 25-101 | Bill Thornberry | E.M. Crenshaw | 1966 | 201 | 14 | -- | Qa1 | 2,205 | 88.2 95.8 | Jan. 24, 1961 Nov. 19, 1968 | T,G | Irr | Reported yield 600 gpm and drawdown 20 feet. Yield 250 gpm, field conductance 2,000 micromhos, July 1, 1969. Red bed at 201 feet. |
| 102 | do. | -- | -- | 137 | 16 | -- | Qa1 | 2,207 | 91.4 | do. | T,G | Irr | Antelope Well 1. Drawdown 21 feet after 8 hours pumping 180 gpm, July 1, 1968. |
| * 103 | Benson Brothers | E.M. Crenshaw | 1954 | 225 | 16 | -- | Qa1 | 2,200 | 90 98 102.0 | 1966 Feb. 1, 1967 Nov. 19, 1968 | T,G | Irr | Field conductance 1,600 micromhos. 3/ |
| 104 | do. | Green Machinery Co, Inc. | 1961 | 180 | 14 | 60- 180 | Qa1 | 2,178 | 78.7 | Nov. 19, 1968 | T,G | Irr | Antelope Well 4. Drawdown 5 feet after 8 hours pumping 40 gpm, July 1, 1969. Field conductance 1,500 micromhos, July 1, 1969. 2/ |
| * 105 | do. | do. | 1962 | 149 | 16 | 53- 149 | Qa1 | 2,176 | 73.2 | do. | T,G 52 | Irr | Antelope Well 2. 2/ |
| 106 | do. | do. | -- | 150 | 16 | -- | Qa1 | 2,178 | 78 78 79.3 | Feb. 1, 1967 July 12, 1968 Nov. 19, 1968 | T,G 50 | Irr | Antelope Well 3. Reported pumping level 110 feet after pumping 1,800 gpm, 1966. |
| 107 | Wayne Stephens Well 3 | do. | 1964 | 252 | 16 | -- | Qa1 | 2,222 | 124.4 | Nov. 7, 1968 | T,G 90 | Irr | Irrigated 170 acres, 1968. |
| * 108 | Wayne Stephens Well 1 | E.M. Crenshaw | 1954 | 165 | 16 | -- | Qa1 | 2,212 | 107.0 | do. | T,G 50 | Irr | Irrigated 100 acres, 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-12-25-109 | Wayne Stephens Well 2 | E.M. Crenshaw | 1955 | 170 | 16 | -- | Qa1 | 2,210 | 107.3 | Nov. 19, 1968 | T,G 55 | Irr | Irrigated 59 acres, 1968. |
| 110 | G.W. Selmon | Green Machinery Co, Inc. | 1968 | 151 | 14 | 60- 154 | Qa1 | 2,180 | 43.3 | do. | T,G 30 | Irr | 2/ |
| * 111 | W.S. "Bill" Montgomery | -- | -- | 130 | 16 | -- | Qa1 | 2,171 | 60.9 | do. | J,E 1 | D | Drilled for irrigation, converted to domestic because of low yield. Field conductance 1,800 micromhos. |
| 112 | W.S. "Bill" Montgomery #2 | Green Machinery Co, Inc. | 1959 | 92 | 14 | 44- 92 | Qa1 | 2,151 | 66.4 | do. | T,G 15 | Irr | Gravel-packed shutter screen. Reported water suitable for drinking. Red bed at 90 feet. 2/ |
| 113 | W.S. "Bill" Montgomery | do. | 1963 | 143 | 12 | -- | Qa1 | 2,165 | -- | -- | T,G 75 | Irr | 2/ |
| 114 | do. | do. | -- | 125 | 16 | -- | Qa1 | 2,162 | 69.8 | Nov. 19, 1968 | T,G 75 | Irr | Reported yield 650 gpm. |
| 115 | do. | do. | -- | 115 | 16 | -- | Qa1 | 2,165 | 99.2 | do. | T,G 30 | Irr | |
| 116 | W.S. "Bill" Montgomery #1 | do. | 1957 | 214 | 14 | 94- 214 | Qa1 | 2,196 | -- | -- | T,G 75 | Irr | Shutter-screen. 2/ |
| 201 | Shoe Bar Ranch | -- | -- | 80 | 8 | -- | Pa | 2,162 | 75.0 | Jan. 22, 1969 | S,E 3/4 | S | Field conductance 2,400 micromhos, Jan. 22, 1969; 1,900 micromhos July 2, 1969. |
| * 202 | do. | -- | -- | 15 | 8 | -- | Qa1 | 2,094 | 12.8 | do. | P,W | S | Field conductance 1,450 micromhos. |
| * 401 | Roland L. Salmon | -- | -- | 120 | 6 | -- | Qa1 | 2,279 | 107.8 | Nov. 19, 1968 | P,W | S | Field conductance 2,900 micromhos. |
| 402 | Lazy U Ranch | -- | -- | 120 | 8 | -- | Po | 2,442 | 107.3 | Jan. 17, 1969 | P,W | S | Reported gyp water. |
| 403 | do. | -- | -- | Spring | -- | -- | Pa | 2,370 | + | -- | Flows | S | |
| 501 | do. | -- | -- | 227 | 8 | -- | Pa | 2,300 | 91.3 | Jan. 22, 1969 | P,W | S | Field conductance 5,500 micromhos. |
| * 701 | do. | -- | -- | 125 | 8 | -- | Pa | 2,190 | 121.8 | Jan. 21, 1969 | P,W | S | Field conductance 3,800 micromhos. |
| 702 | do. | -- | -- | Spring | -- | -- | Pa | 2,335 | + | do. | Flows | S | Reported gyp water. |
| * 33-101 | Burson Lakes | -- | -- | Spring | -- | -- | Pa | 2,176 | + | Jan. 10, 1969 | Flows | D | Many seeps form recreational pond, held by earthen dam. Field conductance 1,800 micromhos. |
| 102 | Tony Burson Ranch | -- | -- | 10 | 10 | -- | Po | 2,089 | 6.7 | Feb. 28, 1969 | P,G | S | Field conductance 5,300 micromhos. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|---------------------------------|---|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * BL-12-33-201 | Tony Burson Ranch | -- | -- | 10 | 10 | -- | Qa1 | 2,077 | 5.7 | Feb. 28, 1968 | P,W | S | Field conductance 7,300 micromhos. |
| 202 | Doc Bell Ranch | -- | -- | 24 | 8 | -- | Pa | 2,117 | 19.2 | July 14, 1969 | P,W | S | Field conductance 3,000 micromhos. |
| * 203 | do. | -- | -- | Spring | -- | -- | Pa | 2,095 | -- | -- | Flows | N | Field conductance 45,000 micromhos. Estimated yield 25 gpm. Reported winter yield 100 gpm. |
| 204 | do. | Wallace Johnson | 1963 | 30 | 8 | -- | Pa | 2,110 | 12.2 | July 14, 1969 | T,G 5 | Irr | Reported gypy water. |
| 205 | do. | do. | 1963 | 30 | 8 | -- | Pa | 2,105 | 15 | -- | T,G 5 | Irr | Do. |
| 206 | do. | do. | 1963 | 30 | 8 | -- | Pa | 2,104 | 15 | -- | T,G 5 | Irr | Do. |
| 401 | do. | -- | -- | 168 | 6 | -- | Po | 2,452 | 164.0 | July 1, 1969 | N | U | |
| * 402 | do. | -- | -- | 65 | 6 | -- | Po | 2,395 | 57.1 | do. | P,W | S | Field conductance 2,900 micromhos. |
| 403 | do. | -- | -- | Spring | -- | -- | Pa | 2,200 | + | July 14, 1969 | Flows | S | Reported gypy water. Yield 5 gpm. |
| 404 | do. | -- | -- | 84 | 8 | -- | Pa | 2,168 | 70.2 | do. | P,W | S | Field conductance 2,900 micromhos. |
| * 502 | do. | -- | -- | Spring | -- | -- | Pa | 2,300 | + | do. | Flows | S | Many seeps. Estimated yield 9 gpm; field conductance 3,100 micromhos. |
| * 701 | E.J. Hamilton | -- | -- | 42 | 7 | -- | Po | 2,465 | 31.4 | Apr. 22, 1969 | P,W | D | Field conductance 900 micromhos. |
| 702 | do. | -- | 1962 | 184 | 16 | -- | Po | 2,499 | 87.8 | do. | T,G 50 | Irr | Irrigated 80 acres, 1968. |
| 703 | Tom Barbee | -- | 1962 | 56 | 10 | -- | Po | 2,490 | 27.7 | July 1, 1969 | S,E 5 | Irr | |
| 41-101 | B.J. Ham | Johnson Drilling Co. | 1960 | 245 | 16 | -- | Po | 2,429 | 69.2 76.2 | Dec. 20, 1960 Apr. 18, 1969 | T,E 70 | Irr | Red bed at 245 feet. Reported yield 750 gpm. |
| 102 | D.R. Stark | Ed Jameson | 1955 | 165 | 14 | -- | Pa | 2,425 | 60.4 | Dec. 20, 1960 | T,G | Irr | Red bed at 165 feet. Reported yield 450 gpm. |
| * 103 | B.J. Ham - Drive Inn Theatre | Johnston Drilling Co. | 1966 | 145 | 7 | 123- 145 | Po | 2,442 | 55 77.1 | Mar. 1966 Apr. 18, 1969 | S,E 1/2 | Irr | Field specific conductance 800 micromhos. |
| 104 | D.E. Bronson | Silverton Drilling & Pump Service | 1965 | 128 | 10 | 102- 128 | Po | 2,418 | 16.4 | do. | S,E 3 | Irr | Irrigated 60 acres, 1968. 2/ |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|---------------------------|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| BL-12-41-105 | D.E. Bronson | -- | -- | -- | 12 | -- | Po | 2,425 | -- | -- | T,E 7 1/2 | Irr | Gravel-packed, casing perforated. Irrigated 60 acres, 1968. |
| 106 | do. | -- | -- | -- | 12 | -- | Po | 2,435 | -- | -- | T,E 7 1/2 | Irr | Do. |
| 107 | do. | -- | -- | -- | 16 | -- | Po | 2,424 | -- | -- | T,G | Irr | |
| 108 | -- | -- | -- | -- | 16 | -- | Po | 2,411 | -- | -- | T,G | Irr | |
| 109 | -- | -- | -- | -- | 16 | -- | Po | 2,404 | -- | -- | T,G | Irr | |
| 110 | -- | -- | -- | -- | 16 | -- | Po | 2,411 | -- | -- | T,G | Irr | |
| 111 | -- | -- | -- | -- | 16 | -- | Po | 2,431 | -- | -- | T,G | Irr | |
| 112 | -- | -- | -- | -- | 16 | -- | Po | 2,390 | -- | -- | T,G | Irr | |
| 113 | -- | -- | -- | -- | 16 | -- | Po | 2,383 | -- | -- | T,G | Irr | |
| 114 | -- | -- | -- | -- | 16 | -- | Po | 2,391 | -- | -- | T,G | Irr | |
| 115 | -- | -- | -- | -- | 16 | -- | Po | 2,425 | -- | -- | T,G | Irr | |
| * 201 | City of Turkey #2 | S.H. Kimball | 1928 | 100 | 24, 12 | -- | Qa1 | 2,361 | 40 | Oct. 20, 1960 | T,E 15 | P | Used as standby only. Estimated yield 150 gpm, Oct. 20, 1960. |
| * 202 | City of Turkey #1 | do. | 1928 | 100 | 12 | -- | Qa1 | 2,359 | 40 | March 28, 1947 | T,E 30 | P | Reported yield 200 gpm, March 28, 1947. |
| 219 | Mrs. Ruby Turner & Son | Jameson Machinery Co, Inc. | 1968 | 157 | 7 | 145- 155 | Po | 2,381 | 77 | Apr. 8, 1968 | S,E 3/4 | D | Driller reported drawdown 20 feet after 8 hours bailing at 20 gpm, April 1968. <u>2/</u> |
| 220 | do. | do. | 1968 | 175 | 16 | 115- 125 | Po | 2,387 | 63 | Jan. 29, 1968 | T,G 250 | Irr | Drawdown reported 20 feet after 4 hours pumping 800 gpm, Jan. 1968. <u>2/</u> |
| 223 | -- | -- | -- | -- | 16 | -- | Po | 2,378 | -- | -- | T,G | Irr | |
| 224 | -- | -- | -- | -- | 16 | -- | Po | 2,397 | -- | -- | T,G | Irr | |
| 225 | -- | -- | -- | -- | 16 | -- | Po | 2,392 | -- | -- | T,G | Irr | |
| 401 | E. Dean Dyer | Green Machinery Co. | 1955 | 160 | 4 | -- | Qa1 | 2,451 | 25 | 1955 | N | U | Test hole. <u>2/</u> |
| 402 | W.E. Helms | Jameson Drilling Co. | 1965 | 158 | 12 | 128- 158 | Qa1 | 2,465 | -- | -- | -- | Irr | |
| 403 | Isom F. Reed | do. | 1962 | 139 | 12 | 50- 125 | Qa1 | 2,401 | 41 | Jan. 1962 | I,G 70 | Irr | Estimated yield 644 gpm, Oct. 25, 1968. Irrigated 160 acres in Motley County, 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|-----------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * BL-12-41-404 | Isom F. Reed | Ottis Mullin | 1968 | 157 | 12 | 108- 157 | Qal | 2,396 | 65.8 | Jan. 1962 | T,G 42 | Irr | Yield 460 gpm, Oct. 25, 1968. Irrigated 80 acres, 1968. |
| 405 | W.E. Helm | Johnston Drilling Co. | 1956 | 156 | 12 | -- | Qal | 2,441 | 50 | 1956 | T,G 30 | Irr, D,S | Irrigated 15 acres, 1968. Estimated yield 80 gpm, Oct. 25, 1968. Red bed at 154 feet. |
| 406 | B. & B. McWilliams | do. | 1965 | 157 | 16 | 118- 157 | Qal | 2,414 | 40 | Jan. 1965 | T,G | Irr | Reported yield 600 gpm. Red bed at 155 feet. <u>2/</u> |
| 407 | -- | -- | -- | -- | 16 | -- | Qal | 2,469 | -- | -- | T,G | Irr | |
| 408 | -- | -- | -- | -- | 16 | -- | Qal | 2,459 | -- | -- | T,G | Irr | |
| 409 | -- | -- | -- | -- | 16 | -- | Qal | 2,457 | -- | -- | T,G | Irr | |
| 410 | -- | -- | -- | -- | 16 | -- | Qal | 2,454 | -- | -- | T,G | Irr | |
| 411 | -- | -- | -- | -- | 16 | -- | Qal | 2,428 | -- | -- | T,G | Irr | |

Hall County

| | | | | | | | | | | | | | |
|--------------|-----------------------------|-----------------------------|------|-----|----|------------|-----|-------|--------------|---------------------------------|------------|-----|--|
| KZ-12-17-201 | James Alvin McAnear, Jr. | -- | 1964 | 174 | 16 | -- | Qal | 2,218 | 70 82.4 | 1964 Sept. 13, 1968 | T,G 70 | Irr | Reported yield 650 gpm. |
| 301 | Dr. O.R. Goodall | Green Machinery Co, Inc. | 1957 | 100 | 16 | 28- 100 | Qal | 2,299 | -- | -- | T,G | Irr | Red bed at 98 feet. <u>2/</u> |
| 302 | James Alvin McAnear, Jr. | do. | 1957 | 124 | 16 | 28- 124 | Qal | 2,221 | 14 | Jan. 1, 1957 | T,G 75 | Irr | <u>2/</u> |
| * 303 | Joe Woods | do. | 1967 | 118 | 16 | 54- 118 | Qal | 2,298 | 73.5 | Sept. 13, 1968 | S,E 2 | S | Originally drilled for irrigation. Reported yield 25 gpm. Field conductance 2,200 micromhos. Water for domestic needs supplied by Brice-Lesley Water Supply Corporation. <u>2/</u> |
| 304 | Davenport Estate | E.M. Crenshaw | 1956 | 110 | 14 | -- | Qal | 2,296 | 68.3 75.3 | Jan. 23, 1961 Sept. 13, 1968 | T,G 50 | Irr | Drawdown 27 feet after several days pumping 294 gpm, Aug. 7, 1961. Red bed at 110 feet. |
| 305 | do. | -- | -- | 127 | 16 | -- | Qal | 2,296 | 75.0 | do. | N | U | |
| 306 | Smithee & Tunnel | Green Machinery Co, Inc. | 1966 | 300 | 16 | -- | Qal | 2,630 | -- | -- | T,G | Irr | |
| * 307 | Hightower, Sr. | -- | -- | 42 | 6 | -- | Qal | 2,218 | 32.5 | Nov. 11, 1968 | P,E 3/4 | S | Field conductance 800 micromhos, Nov. 22, 1968. |
| 501 | George Craft | Carter Drilling Co. | 1955 | 120 | 16 | -- | Qal | 2,162 | -- | -- | T,G | Irr | Irrigated 150 acres, 1968, from 3 wells. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-17-502 | George Craft | Carter Drilling Co. | 1955 | 116 | 16 | -- | Qal | 2,162 | 60 56.0 | Nov. 11, 1955 1968 | T,G 40 | Irr | |
| 503 | do. | do. | 1956 | 50 | 16 | -- | Qal | 2,113 | 9.3 | do. | T,G | Irr | Field conductance 3,000 micromhos, Nov. 8, 1968. |
| 504 | Ralph Grady | E.M. Crenshaw | -- | 70 | 16 | -- | Qal | 2,119 | 8.6 | do. | T,G | Irr | |
| 505 | do. | do. | -- | 70 | 16 | -- | Qal | 2,110 | -- | -- | T,G | Irr | |
| 506 | do. | do. | -- | 70 | 16 | -- | Qal | 2,122 | -- | -- | T,G | Irr | |
| 507 | do. | Green Machinery Co, Inc. | 1963 | 84 | 16 | 20- 84 | Qal | 2,127 | 11.4 | Nov. 11, 1968 | T,G 75 | Irr | Red bed at 80 feet. <u>2/</u> |
| 508 | Clyde Flowler | Carter Drilling Co. | 1954 | 147 | 14 | -- | Qal | 2,160 | 51.7 61.3 | Jan. 23, 1961 Nov. 21, 1968 | T,G 65 | Irr | Drawdown reported 30 ft. when pump- ing 780 gpm, 1954. Discharge 280 gpm, Aug. 7, 1961. Pumps sand, gravel added frequently. Red bed at 147 ft. Temperature 66 °F, 19 °C. |
| 509 | do. | do. | 1963 | 180 | 16 | 46- 180 | Qal | 2,170 | 73.1 | do. | T,G 55 | Irr | <u>2/</u> |
| 510 | do. | do. | -- | 55 | 16 | -- | Qal | 2,159 | 48.0 | so. | T,G | Irr | |
| 511 | do. | do. | -- | 140 | 16 | -- | Qal | 2,158 | -- | -- | T,G 50 | Irr | |
| 512 | do. | do. | -- | 140 | 16 | -- | Qal | 2,162 | 65.8 | Nov. 21, 1968 | T,G 55 | Irr | |
| 513 | Grover Moss #2 | Green Machinery Co, Inc. | 1964 | 72 | 16 | 12- 72 | Qal | 2,097 | -- | -- | T,G | Irr | |
| 514 | James Alvin McAnear, Sr. | do. | 1962 | 96 | 16 | 24- 96 | Qal | 2,151 | 5 7.0 | Nov. 22, 1962 1968 | T,G 75 | Irr | |
| * 515 | do. | Carter Drilling Co. | 1962 | 44 | 7 | 20- 44 | Qal | 2,154 | 14 9.6 | do. | J,E 3/4 | S | Field conductance 1,800 micromhos, Oct. 22, 1968. |
| 519 | do. | Green Machinery Co, Inc. | 1959 | 95 | 16 | 5- 95 | Qal | 2,147 | 12.9 | do. | T,G 75 | Irr | |
| * 520 | George Craft | A & A Drilling Co. | 1969 | 180 | 8 | -- | Qal | 2,160 | -- | Oct. 1, 1969 | J,E 1 | S | Field conductance 2,100 micromhos, Oct. 1, 1969. |
| 601 | Smithee & Tunnel | do. | 1966 | 90 | 16 | -- | Qal | 2,203 | 83.0 | Oct. 1, 1968 | T,G 75 | Irr | Originally drilled to 300 ft, sanded up. Reported yield 1,200 gpm. |
| 602 | do. | do. | 1966 | 300 | 16 | -- | Qal | 2,199 | -- | -- | T,G | Irr | Reported yield 700 gpm, pumps red sand. |
| 603 | do. | do. | 1966 | 174 | 16 | -- | Qal | 2,181 | 95.3 | Oct. 1, 1968 | T,G 90 | Irr | Originally more than 300 feet deep; well filled with sand to 174 feet. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-----------------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|---|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-17-604 | Smithee & Tunnel | A & A Drilling Co. | 1966 | 330 | 16 | 74-330 | Qa1 | 2,202 | 115.3 | Oct. 1, 1968 | T,G 90 | Irr | 2/ |
| * 605 | Benson Brothers #4, Johnson Lease | do. | 1963 | 120 | 16 | 48-120 | Qa1 | 2,203 | 45 47 48.2 | Feb. 14, 1967 July 12, 1968 Nov. 19, 1968 | T,G 75 | Irr | Pumping level 66.7 feet after several days pumping 230 gpm, Nov. 7, 1968. 2/ 3/ |
| 606 | Smithee & Tunnel | A & A Drilling Co. | 1966 | 352 | 16 | 96-352 | Qa1 | 2,203 | 58.2 | Oct. 1, 1968 | T,G 75 | Irr | 2/ |
| 607 | James Alvin McAnear, Sr. | do. | -- | -- | 16 | -- | Qa1 | 2,205 | 49.8 | Nov. 6, 1968 | T,G 75 | Irr | Pumping level 225.7 feet while pumping 350 gpm, July 14, 1969. Field conductance 3,200 micromhos, July 14, 1969. |
| 608 | Merle LeMans | do. | 1963 | 190 | 16 | 62-190 | Qa1 | 2,180 | -- | -- | N | U | Unused irrigation well. 2/ |
| 609 | Benson Brothers #1 | Harris & Gertus | 1954 | 247 | 14 | -- | Qa1 | 2,170 | 77 78.7 | Feb. 14, 1967 | T,G 50 | Irr | |
| * 610 | Benson Brothers #2 | Green Machinery Co, Inc. | 1957 | 310 | 14 | 94-310 | Qa1 | 2,162 | 77 79.70 | 1966 Nov. 7, 1968 | T,G 75 | Irr | 2/ |
| 611 | Benson Brothers #3, Johnson Lease | do. | 1962 | 128 | 14 | 56-128 | Qa1 | 2,216 | 65 65 66.6 | Jan. 8, 1965 Feb. 14, 1967 Nov. 9, 1968 | T,G 30 | Irr | Reported yield 750 gpm. 2/ |
| 612 | Benson Brothers #5, Johnson lease | do. | 1967 | 275 | 16 | 76-275 | Qa1 | 2,219 | 69 72 74.0 | Feb. 14, 1967 July 12, 1968 Nov. 19, 1968 | T,G 30 | Irr | Drawdown reported 18 feet after 80 hours pumping 700 gpm, Nov. 7, 1968. Field conductance 2,400 micromhos. |
| * 613 | Brice Cotton Gin | E.M. Crenshaw | 1952 | 130 | 6 | -- | Qa1 | 2,175 | 83.4 | Nov. 7, 1968 | S,E | D | Field conductance 3,100 micromhos, Nov. 7, 1968. |
| * 614 | J.C. Johnson #1 | Green Machinery Co, Inc. | 1962 | 291 | 16 | 131-291 | Qa1 | 2,222 | 121.8 | do. | T,G 75 | Irr | Reported yield 900 gpm. Irrigated 140 acres, 1968. Red bed at 288 feet. 2/ |
| 615 | J.C. Johnson #2 | do. | 1965 | 312 | 16 | 152-312 | Qa1 | 2,221 | 100.3 | do. | T,G 75 | Irr | Reported yield 700 gpm. 2/ |
| 616 | Bill Salmon | do. | 1963 | 172 | 16 | 76-172 | Qa1 | 2,118 | 83.5 | Nov. 27, 1968 | T,G 90 | Irr | Red bed at 169 feet. 2/ |
| 617 | do. | E.M. Crenshaw | 1955 | 180 | 16 | -- | Qa1 | 2,142 | -- | -- | N | U | Unused irrigation well. |
| 618 | do. | Green Machinery Co, Inc. | 1964 | 87 | 16 | 15-87 | Qa1 | 2,137 | 32.2 | Nov. 27, 1968 | T,G 30 | Irr | 2/ |
| 619 | do. | do. | 1964 | 72 | 16 | 32-72 | Qa1 | 2,138 | 32.4 | do. | T,G 30 | Irr | 2/ |
| 620 | do. | E.M. Crenshaw | 1954 | 76 | 16 | -- | Qa1 | 2,136 | 20 37.9 | Nov. 27, 1954 1968 | T,G 75 | Irr | Reported yield 1,160 gpm, 1954. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|---|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-17-621 | Bill Salmon | Green Machinery Co, Inc. | 1963 | 84 | 16 | 24- 84 | Qa1 | 2,129 | 30.7 | Nov. 17, 1968 | N | U | Unused irrigation well. <u>2/</u> |
| 622 | Gardenhire | E.M. Crenshaw | -- | 90 | 16 | -- | Qa1 | 2,140 | -- | -- | T,G 50 | Irr | |
| 623 | do. | do. | -- | 90 | 16 | -- | Qa1 | 2,135 | -- | -- | T,G 30 | Irr | |
| 624 | Brice Baptist Church | Green Machinery Co, Inc. | 1963 | 101 | 7 | 10- 30 | Qa1 | 2,201 | -- | -- | S,E 1/3 | D | Open hole, 30-101 feet. |
| * 803 | Alexander & Weaver | do. | 1962 | 88 | 16 | 16- 88 | Qa1 | 2,075 | 20.0 -- | Nov. 20, 1968 July 2, 1969 | T,G | Irr | Drawdown 18 feet after 12 hours pumping 605 gpm, July 2, 1969. Red bed at 92 feet. Field conductance 6,500 micromhos, Nov. 7, 1968, 7,500 micromhos, July 2, 1968. <u>2/ 3/</u> |
| 804 | W.S. Bill Montgomery | Green Machinery Co, Inc. | 1967 | 194 | 16 | 98- 194 | Qa1 | 2,079 | -- | -- | T,G 50 | Irr | Red bed at 194 feet. <u>2/</u> |
| 805 | Alexander & Weaver | do. | 1963 | 106 | 14 | 42- 106 | Qa1 | 2,139 | -- | -- | T,G 50 | Irr | <u>2/</u> |
| 811 | Alexander & Weaver #1 | do. | 1949 | 118 | 16 | -- | Qa1 | 2,095 | 32 31.2 | Sept. 7, 1949 Nov. 20, 1968 | T,G 30 | Irr | <u>2/</u> |
| 812 | Alexander & Weaver | do. | 1968 | 102 | 14 | 25- 75 | Qa1 | 2,080 | 25.0 -- | do. July 2, 1969 | T,G | Irr | Drawdown 26 feet after 12 hours pumping 750 gpm, July 2, 1969. Field conductance 4,500 micromhos. <u>2/</u> |
| 813 | do. | do. | 1963 | 108 | 14 | 20- 108 | Qa1 | 2,071 | -- | -- | N | U | Drilled for irrigation; well pumped salty water; destroyed. |
| * 901 | David H. Hudgins | E.M. Crenshaw | 1955 | 131 | 16 | 55- 131 | Qa1 | 2,096 | 30 12.5 20.8 | Aug. 11, 1955 Jan. 23, 1961 Nov. 27, 1968 | T,G | Irr | Drawdown reported 20 feet after 30 hours pumping 750 gpm, Aug. 11, 1955; drawdown measured 15 feet while pumping 796 gpm, Aug. 7, 1961. <u>2/</u> |
| 902 | Grover Moss | -- | -- | 105 | 16 | -- | Qa1 | 2,062 | 13.5 | Nov. 27, 1968 | T,G | Irr | |
| 903 | Joe Montgomery #3 | Green Machinery Co, Inc. | 1961 | 55 | 10 | -- | Qa1 | 2,082 | 43.6 | Nov. 26, 1968 | T,G | Irr | <u>2/</u> |
| 904 | Joe Montgomery | do. | 1961 | 104 | 16 | 37- 104 | Qa1 | 2,078 | 54.3 | do. | T,G 75 | Irr | Gravel-packed, casing perforated. |
| 905 | do. | do. | 1958 | 156 | 16 | 76- 156 | Qa1 | 2,080 | -- | -- | T,G | Irr | <u>2/</u> |
| 906 | Joe Montgomery #2 | do. | 1959 | 171 | 166 | 152- 171 | Qa1 | 2,081 | 67.4 | Nov. 26, 1968 | T,G 75 | Irr | Casing cemented from surface to 152 feet to present collapse of well. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-17-907 | Joe Montgomery | Green Machinery Co, Inc. | -- | -- | 16 | -- | Qa1 | 2,102 | -- | July 2, 1969 | T,G 75 | Irr | Yield 260 gpm; field conductance 2,600 micromhos, July 2, 1969. |
| 908 | do. | do. | -- | -- | 16 | -- | Qa1 | 2,059 | -- | -- | T,G | Irr | |
| 909 | Roland L. Salmon #1 | E.M. Crenshaw | 1955 | 173 | 16 | 125- 173 | Qa1 | 2,119 | 55 22.7 | Aug. 9, 1955 Jan. 23, 1961 | T,G | Irr | Drawdown reported 10 feet after 21 hours pumping 600 gpm, Aug. 9, 1955. Drawdown 22 feet while pumping 473 gpm, Aug. 7, 1961. Red bed at 170 feet. Irrigated 160 acres, 1968. |
| 910 | Roland L. Salmon #2 | Green Machinery Co, Inc. | 1965 | 184 | 16 | 74- 184 | Qa1 | 2,113 | 34.2 | Nov. 27, 1968 | T,G 50 | Irr | Reported yield 550 gpm. Irrigated 160 acres, 1968. Red bed at 182 feet. <u>2/</u> |
| 911 | Davis Brothers | E.M. Crenshaw | -- | 120 | 16 | -- | Qa1 | 2,097 | 44.7 | do. | T,G | Irr | |
| 912 | do. | -- | -- | 120 | 16 | -- | Qa1 | 2,110 | 47.7 | do. | T,G 50 | Irr | |
| 913 | do. | Green Machinery Co, Inc. | 1969 | 160 | 16 | -- | Qa1 | 2,110 | 34.6 | May 26, 1969 | T,G | Irr | |
| * 18-101 | Bitter Creek Ranch | do. | 1965 | 32 | 7 | 20- 40 | Qa1 | 2,360 | 21.0 | Aug. 26, 1968 | P,W | S | Original depth 40 feet. Field conductance 1,800 micromhos, Aug. 26, 1968. Red bed at 38 feet. <u>2/</u> |
| 102 | do. | do. | 1963 | 246 | 7 | 226- 246 | Pa | 2,265 | -- | do. | P,W | S | Water reported gyp. Field conductance 2,700 micromhos, Aug. 26, 1968. <u>2/</u> |
| 103 | do. | do. | 1965 | 72 | 7 | -- | Qa1 | 2,240 | 70.2 | Aug. 26, 1968 | P,W | S | Field conductance 2,000 micromhos, Aug. 26, 1968. |
| 104 | T.H. Gattis | E.M. Crenshaw | 1943 | -- | 16 | -- | Qa1 | 2,212 | -- | -- | T,G 26 | Irr | |
| * 105 | do. | do. | 1943 | 41 | 16 | -- | Qa1 | 2,211 | 29.6 | Nov. 6, 1968 | T,G 52 | Irr | |
| * 106 | do. | A.H. Moore Drilling Co. | 1948 | 94 | 16 | -- | Qa1 | 2,214 | 19.1 21.0 | July 19, 1949 Nov. 6, 1968 | T,G 50 | Irr | Estimated yield 600 gpm. <u>2/</u> |
| * 107 | do. | Green Machinery Co, Inc. | 1963 | 49 | 10 | 42- 72 | Qa1 | 2,217 | 12.1 | do. | C,G | Irr, S | Irrigated 60 acres, 1968. Field conductance 2,400 micromhos, Nov. 6, 1968. <u>2/</u> |
| 108 | Foxhall & Deavers | E.M. Crenshaw | -- | 95 | 16 | -- | Qa1 | 2,225 | -- | -- | T,G | Irr | |
| 109 | do. | -- | -- | 95 | 16 | -- | Qa1 | 2,223 | -- | -- | T,G | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|---|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-18-110 | T.H. Gattis | Green Machinery Co, Inc. | 1964 | 80 | 12 | -- | Qa1 | 2,202 | -- | -- | N | Irr | Not used in 1968. |
| 111 | do. | L.P. Moore Drilling Co. | 1969 | 485 | 16 | -- | Pa | 2,238 | 43.2 | May 26, 1969 | T,G | Irr | |
| 201 | Bitter Creek Ranch | -- | -- | 60 | 6 | -- | Pa | 2,272 | 27.8 | Sept. 30, 1968 | P,W | S | Field conductance 3,000 micromhos, Sept. 30, 1968. |
| * 301 | do. | -- | -- | 129 | 6 | -- | Pa | 2,340 | 100.9 | do. | P,W | S | Field conductance 3,100 micromhos, Sept. 30, 1968. |
| 302 | do. | -- | -- | 207 | 4 | -- | Po | 2,540 | 137.5 | do. | P,W | S | Field conductance 2,800 micromhos, Sept. 30, 1968. |
| 303 | J.B. Byars | A & A Drilling Co. | 1968 | 79 | 12 | 40- 79 | Qa1 | 2,323 | 50 48.9 | Jan. 23, 1968 Dec. 12, 1968 | S,E 1 1/2 | Irr | Reported yield 40 gpm, January 1968. <u>2/</u> |
| 304 | do. | do. | 1968 | 65 | 14 | -- | Qa1 | 2,321 | -- | -- | S,E 1 1/2 | Irr | |
| 305 | do. | H.L. Fronterhouse | -- | 80 | 14 | -- | Qa1 | 2,270 | 47.0 | Dec. 12, 1968 | T,G | Irr | |
| 401 | Williams, Hollingsworth, & Caradine | -- | -- | 100 | 16 | -- | Qa1 | 2,167 | -- | -- | T,G | Irr | Reported yield 1,000 gpm. |
| 402 | do. | -- | -- | 82 | 16 | -- | Qa1 | 2,152 | -- | Dec. 12, 1968 | T,G | Irr | Do. |
| * 403 | do. | Green Machinery Co, Inc. | 1963 | 143 | 16 | 59- 143 | Qa1 | 2,162 | -- | Oct. 1, 1968 | T,G 90 | Irr | Field conductance 1,850 micromhos. <u>2/</u> |
| 404 | T.H. Gattis | do. | 1962 | 80 | 16 | 29- 77 | Qa1 | 2,205 | 15 | Mar. 1962 | T,G 52 | Irr | Irrigated 60 acres, 1968. <u>2/</u> |
| 405 | Barry & Smith | A & A Drilling Co. | -- | 120 | 16 | -- | Qa1 | 2,172 | -- | -- | T,G 66 | Irr | Irrigated 45 acres, 1968. |
| 406 | Foxhall | E.M. Crenshaw | 1953 | 100 | 16 | -- | Qa1 | 2,175 | 22.5 | Jan. 1, 1961 | T,G | Irr | Yield 504 gpm, Aug. 7, 1961. Irrigation through sprinklers. |
| 407 | do. | do. | -- | 100 | 16 | -- | Qa1 | 2,163 | -- | -- | T,G | Irr | |
| 408 | J.B. Adams | -- | -- | 109 | 16 | -- | Qa1 | 2,165 | 57.1 | Nov. 6, 1968 | T,G 50 | Irr | Irrigates 70 acres with two wells. |
| 409 | do. | -- | -- | 105 | 16 | -- | Qa1 | 2,175 | 70.6 | do. | S,E | Irr | |
| 410 | J.W. Hatley | E.M. Crenshaw | 1955 | 166 | 16 | -- | Qa1 | 2,196 | 90.0 | do. | T,G | Irr | Irrigated 90 acres, 1968. |
| 411 | Williams, Hollingsworth & Caradine | Green Machinery Co, Inc. | 1969 | -- | 16 | -- | Qa1 | 2,200 | 37.4 | May 26, 1969 | T,G | Irr | Unused in 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued.

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|----------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-18-501 | George Ferris | A & A Drilling Co. | 1967 | 206 | 16 | 164- 176 | Po | 2,165 | 67.8 | Aug. 22, 1968 | N | U | Drilled for irrigation. Sand- packed. Pumped sand; well collapsed. Reportedly yielded 400 gpm on test. |
| 502 | do. | do. | 1968 | 275 | 16 | -- | Po | 2,165 | 67.6 | do. | T,G 50 | Irr | |
| 503 | Jim Vallance | Ariola & Fronterhouse | -- | 95 | 16 | -- | Po | 2,241 | 88.6 | Oct. 1, 1968 | T,G 30 | Irr | |
| 504 | do. | do. | -- | 60 | 16 | -- | Pa | 2,241 | -- | -- | T,G | Irr | |
| 505 | J.W. Driver | Carter Drilling Co. | 1953 | 59 | 16 | -- | Pa | 2,177 | 57.6 | Oct. 1, 1968 | T,G 55 | Irr | |
| 506 | Mrs. Montgomery | Green Machinery Co, Inc. | -- | 195 | 16 | -- | Pa | 2,152 | 46.5 | Nov. 26, 1968 | T,G 90 | Irr | Reported yield 650 gpm, pumps red sand. |
| 507 | Lon Montgomery | A.H. Moore Drilling Co. | -- | 150 | 16 | -- | Pa | 2,140 | -- | -- | T,G 90 | Irr | |
| * 508 | Mrs. Carl Smith | A & A Drilling Co. | 1967 | 95 | 6 | 90- 95 | Pa | 2,078 | -- | Dec. 12, 1968 | P,W | S | Field conductance 2,900 micromhos, Dec. 12, 1968. 2/ |
| 601 | V.B. Byars | do. | 1962 | 125 | 16 | -- | Qa1 | 2,261 | 34.7 | Oct. 1, 1968 | T,G 20 | Irr | |
| 602 | do. | do. | 1963 | 120 | 16 | -- | Qa1 | 2,261 | 35.0 | do. | T,G | Irr | |
| 603 | Skinner Estate | H.L. Fronterhouse | -- | 90 | 16 | -- | Qa1 | 2,181 | -- | -- | T,G | Irr | |
| 604 | Doyle Miller | A & A Drilling Co. | 1959 | 60 | 16 | -- | Qa1 | 2,181 | 45.9 | Oct. 1, 1968 | T,G | Irr | |
| 605 | Ken Hawkins | Green Machinery Co, Inc. | -- | 90 | 16 | -- | Qa1 | 2,195 | 47.8 | do. | T,G 75 | Irr | |
| 606 | do. | -- | -- | 135 | 16 | -- | Qa1 | 2,202 | -- | -- | T,G | Irr | |
| 607 | J.B. Byars | H.L. Fronterhouse | -- | 103 | 14 | -- | Qa1 | 2,265 | -- | -- | T,G 15 | Irr | |
| 608 | Fowler & Proffitt | do. | -- | 96 | 14 | -- | Qa1 | 2,261 | 49.7 53.4 | Jan. 23, 1961 Dec. 12, 1968 | T,G | Irr | |
| 600 | do. | -- | -- | 124 | 16 | -- | Qa1 | 2,258 | 50.0 | do. | T,G | Irr | |
| * 610 | -- | -- | -- | 25 | 36 | -- | Qa1 | 2,220 | 9.6 | Dec. 13, 1968 | B,H | D | Field conductance 650 micromhos, Dec. 13, 1968. |
| 611 | Doyle Miller | Ariola & Fronterhouse | -- | 60 | 16 | -- | Qa1 | 2,182 | -- | -- | T,G | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-18-701 | Paul Montgomery | Green Machinery Co, Inc. | 1962 | 205 | 16 | 61- 205 | Qa1 | 2,080 | -- | -- | T,G 75 | Irr | Red bed at 203 feet. Irrigated 30 acres from 5 wells. |
| 702 | do. | do. | 1968 | 228 | 16 | 70- 228 | Qa1 | 2,110 | 62 | Apr. 18, 1968 | T,G 75 | Irr | 2/ |
| 703 | do. | do. | 1962 | 220 | 16 | 125- 220 | Qa1 | 2,121 | -- | -- | T,G 75 | Irr | 2/ |
| 704 | do. | do. | 1959 | 310 | 16 | 163- 310 | Qa1 | 2,115 | 81.4 | Nov. 26, 1968 | T,G 75 | Irr | |
| 705 | do. | do. | 1957 | 272 | 16 | 144- 272 | Qa1 | 2,082 | 30 | Mar. 7, 1957 | T,G 52 | Irr | Drawdown 36 feet after 9 hours pumping 240 gpm, July 2, 1969. Field conductance 2,600 micromhos. |
| 706 | Joe Montgomery | do | 1962 | 176 | 16 | 96- 176 | Qa1 | 2,101 | 82.2 | Nov. 26, 1968 | T,G 65 | Irr | |
| 707 | J. Leon "Doc" Fowler | Carter Drilling Co. | 1955 | 200 | 16 | -- | Pa | 2,103 | 75 | 1955 | T,G 75 | Irr | Drawdown reported 50 feet after pumping 1,000 gpm. Irrigated 130 acres, 1968. |
| * 708 | do. | -- | -- | 100 | 6 | -- | Pa | 2,102 | 75 | Nov. 26, 1968 | P,W | D | Field inductance 4,000 micromhos, Nov. 26, 1968. |
| 709 | W.M. Hughes Estate | -- | -- | -- | 16 | -- | Qa1 | 2,125 | 50 | Sept. 9, 1968 | T,G | Irr | Drawdown 44 feet after 9 hours pumping 300 gpm, July 2, 1969. Field conductance 2,500 micromhos. |
| 710 | T.U. Hughes | A & A Drilling Co. | 1965 | 50 | 16 | -- | Pa | 2,055 | -- | -- | T,G 15 | Irr | |
| 711 | George Ferris | do. | 1968 | 152 | 16 | 112- 152 | Pa | 2,070 | 22 | Jan. 15, 1968 | N | U | Unused irrigation well. 2/ |
| 712 | W.M. Hughes Estate | Green Machinery Co, Inc. | 1968 | 125 | 16 | 61- 125 | Qa1 | 2,130 | -- | -- | T,G | Irr | 2/ |
| 801 | John P. Fowler | Carter Drilling Co. | -- | 50 | 16 | -- | Pa | 2,095 | -- | -- | T,G 30 | Irr | |
| 802 | Kelley Gable | do. | -- | 60 | 16 | -- | Pa | 2,108 | 41.7 | Nov. 20, 1968 | S,E 7 1/2 | Irr | |
| 803 | do. | A & A Drilling Co. | -- | 149 | 16 | -- | Pa | 2,096 | -- | -- | T,G 50 | Irr | |
| 804 | Sherman Clemmons | -- | -- | 64 | 14 | -- | Qa1 | 2,075 | 52.8 | Nov. 29, 1968 | T,G 75 | Irr | |
| 805 | Oren Jones | Ariola & Fronterhouse | -- | 135 | 16 | -- | Qa1 | 2,069 | 54.9 | do. | T,G 50 | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|----------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-18-806 | Oren Jones | Ariola & Fronterhouse | -- | 140 | 16 | -- | Qa1 | 2,068 | -- | -- | T,G 30 | Irr | |
| 807 | Stargel & Norman | do. | -- | 145 | 16 | -- | Qa1 | 2,059 | 51.7 | Nov. 29, 1968 | T,G 50 | Irr | |
| 808 | do. | H.L. Fronterhouse | -- | 150 | 16 | -- | Qa1 | 2,056 | -- | -- | T,G 55 | Irr | |
| 809 | M.L. Coffey | do. | -- | 145 | 16 | -- | Qa1 | 2,055 | -- | -- | T,G | Irr | |
| 810 | do. | Ariola & Fronterhouse | -- | 130 | 16 | -- | Qa1 | 2,058 | -- | -- | T,G | Irr | |
| 811 | do. | A & A Drilling Co. | 1967 | 174 | 16 | -- | Qa1 | 2,041 | -- | -- | T,G | Irr | |
| * 812 | Perry Lambert | -- | -- | 110 | 6 | -- | Qa1 | 2,081 | 70 67.1 | Nov. 29, 1968 | P,W -- | S -- | Field conductance 6,500 micromhos. |
| 901 | Thomas U. Hughes | H.L. Fronterhouse | 1956 | 100 | 16 | 70- 100 | Qa1 | 2,107 | 21 14.8 31.3 | June 3, 1956 Jan. 23, 1961 Dec. 12, 1968 | T,G 30 | Irr | Pumping level 54.2 feet after 23 hours pumping 153 gpm, Aug. 7, 1961. 2/ |
| 902 | A.A. Smith | -- | -- | 130 | 16 | -- | Pa | 2,049 | 21.0 | Dec. 11, 1968 | T,G 50 | Irr | |
| * 903 | do. | -- | -- | 95 | 6 | -- | Pa | 2,081 | 19.1 | do. | J,E | S | Field conductance 2,800 micromhos, Dec. 11, 1968. |
| 904 | George Ferris | -- | -- | 50 | 16 | -- | Qa1 | 2,050 | 10.7 | Dec. 12, 1968 | T,G | Irr | |
| 905 | do. | -- | -- | 60 | 16 | -- | Qa1 | 2,046 | -- | -- | T,G | Irr | |
| 906 | R.S. Wasnley | -- | -- | -- | 16 | -- | Qa1 | 2,035 | -- | -- | T,G 20 | Irr | |
| 907 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,021 | 17.6 | Dec. 12, 1968 | T,G 50 | Irr | |
| 908 | George Ferris | -- | -- | 50 | 16 | -- | Qa1 | 2,050 | -- | -- | T,G | Irr | Gravel-packed, casing perforated. |
| 909 | Oren Jones | Carter Drilling Co. | -- | 65 | 16 | -- | Pa | 2,099 | 69.8 | Dec. 12, 1968 | T,G 30 | Irr | Do. |
| 910 | R.D. Revell & Son | do. | -- | 130 | 16 | -- | Qa1 | 2,138 | -- | -- | T,G 30 | Irr | |
| 911 | do. | do. | -- | 60 | 16 | -- | Qa1 | 2,119 | 28.8 | Dec. 12, 1968 | T,G 30 | Irr | |
| 19-101 | H. & R. Martin | H.L. Fronterhouse | 1959 | 130 | 16 | -- | Pa | 2,299 | 53.2 | Dec. 13, 1968 | T,G 15 | Irr | Irrigated 80 acres, 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-19-102 | Kay McMurry | -- | -- | 300 | 36 | -- | Pa | 2,421 | 101.2 | Dec. 13, 1968 | P,W | S | Reported gyp water. Field conductance 1,050 micromhos, Dec. 31, 1968. |
| 103 | Loyd J. Roberson | H.L. Fronterhouse | 1959 | 70 | 16 | -- | Pa | 2,258 | -- | -- | T,G 30 | Irr | Gravel-packed, casing perforated. |
| * 201 | Ira David | -- | -- | 140 | 36 | -- | Pa | 2,241 | 26.1 | Dec. 13, 1968 | P,E 1/4 | S | Open hole. Field conductance 3,200 micromhos, Dec. 13, 1968. |
| 202 | Robert Sexhauer | H.L. Fronterhouse | -- | 72 | 16 | -- | Qa1 | 2,279 | 12.1 | do. | T,G 50 | Irr | |
| 203 | do. | do. | -- | 75 | 16 | -- | Qa1 | 2,278 | 8.2 | Dec. 13, 1968 | T,G 50 | Irr | |
| 204 | W.G. Young #1 | Ariola & Fronterhouse | 1958 | 50 | 16 | -- | Qa1 | 2,202 | 4 1/4 6.4 | 1958 Dec. 14, 1968 | T,G | U | Unused irrigation well. Reported to pump dry when nearby manifold system is operating. |
| 204 | W.G. Young #2 | E.M. Crenshaw | 1962 | 50 | 4 | -- | Qa1 | 2,201 | 4 1/2 | 1962 | C,G | U | One of 7 sand points in a manifold system. Total discharge of system reportedly 1,500 gpm. Unused. |
| 206 | Lester Babiane | Carter Drilling Co. | 1965 | 100 | 7 | -- | Pa | 2,232 | 61 | Aug. 30, 1965 | N | U | Open hole, 64 to 100 feet. 2/ |
| * 301 | -- | -- | -- | 60 | 5 | -- | Qa1 | 2,240 | 46.1 | Jan. 8, 1969 | P,W | S | Field conductance 850 micromhos Jan. 8, 1969. |
| 302 | -- | -- | -- | Spring | -- | -- | Pa | 2,242 | + | Jan. 8, 1969 | Flows | S | Estimated yield less than 1 gpm. Field conductance 3,800 micromhos, Jan. 8, 1969. |
| 303 | -- | -- | -- | Spring | -- | -- | Qa1 | 2,200 | + | do. | Flows | S | Yield 18 gpm, Jan. 8, 1968. Field conductance 800 micromhos. |
| 402 | Paul Thompson #2 | Green Machinery Co, Inc. | 1962 | 86 | 16 | -- | Qa1 | 2,181 | 45.9 | Dec. 13, 1968 | T,G 75 | Irr | Reported fresh water. |
| 403 | Paul Thompson #1 | E.M. Crenshaw | 1956 | 70 | 16 | -- | Qa1 | 2,172 | 48.0 | do. | T,G | Irr | Reported gyp water. |
| 404 | Glen Verden | do. | -- | 95 | 16 | -- | Qa1 | 2,132 | -- | -- | T,G | Irr | |
| 405 | J.W. Longshore | do. | -- | 90 | 16 | -- | Qa1 | 2,128 | -- | -- | T,G | Irr | |
| 406 | W.W. Barclay | H.L. Fronterhouse | 1959 | 80 | -- | -- | Qa1 | 2,236 | 31 | Sept. 10, 1968 | T,G 20 | U | Unused since 1963. |
| * 407 | Joe D. Durham | Ariola & Fronterhouse | -- | 140 | 16 | -- | Qa1 | 2,205 | -- | -- | T,G | Irr | Reported fresh water. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--------------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-19-408 | Miss Nelson | A & A Drilling Co. | 1966 | 130 | 16 | -- | Qa1 | 2,167 | 34.0 | Dec. 17, 1968 | T,G 50 | Irr | |
| 409 | do. | E.M. Crenshaw | -- | 100 | 16 | -- | Qa1 | 2,179 | -- | -- | T,G | Irr | |
| 410 | Herbert D. Payne | do. | -- | 120 | 16 | -- | Qa1 | 2,198 | -- | -- | T,G | Irr | |
| 411 | Leem Roberson | do. | -- | 70 | 16 | -- | Qa1 | 2,203 | -- | -- | T,G 15 | Irr | |
| 412 | Paul Montgomery | Green Machinery Co, Inc. | 1966 | 104 | 16 | 40- 104 | Qa1 | 2,208 | 41.6 | Dec. 17, 1968 | T,G 30 | Irr | Red bed at 100 feet. July 25, 1966. <u>2/</u> |
| 413 | do. | do. | 1962 | 126 | 16 | 30- 126 | Qa1 | 2,219 | 54.3 | do. | T,G 75 | Irr | Red bed at 123 feet. <u>2/</u> |
| * 414 | Lakeview Water Supply Corp. | A & A Drilling Co. | 1962 | 70 | 16 | -- | Qa1 | 2,241 | 35 | 1962 | T,E 75 | P | Reported yield 150 gpm; field conductance 1,400 micromhos, Dec. 17, 1968. |
| * 415 | John Capps | E.M. Crenshaw | -- | 120 | 16 | -- | Qa1 | 2,155 | -- | -- | T,G | Irr | |
| 501 | Salmon & Monroe | H.L. Fronterhouse | 1957 | 123 | 16 | -- | Qa1 | 2,135 | 19.0 | Jan. 23, 1961 | T,G 55 | Irr | Reported water suitable for drinking. Red bed at 123 feet. |
| * 502 | Raymond Whitten | -- | -- | 70 | 16 | -- | Qa1 | 2,208 | 35.0 | Dec. 13, 1968 | T,G | Irr | Reported water gyp. Drawdown 11 feet after 4 hours pumping 40 gpm, July 2, 1969. Field conductance 3,100 micromhos. |
| 503 | Mrs. Ethel Barbee | -- | -- | 57 | 16 | -- | Qa1 | 2,162 | 29.9 | do. | T,G | Irr | |
| 504 | Deaver Spring | -- | -- | Spring | -- | -- | Qa1 | 2,142 | -- | -- | U | U | Formerly flowed fresh water. No flow since 1965. |
| 505 | W.G. Young #3 | Ariola & Fronterhouse | 1963 | 80 | 16 | -- | Qa1 | 2,197 | 12 19.2 | Dec. 14, 1968 | T,G | Irr | Not used in 1968. |
| 506 | W.G. Young #4 | do. | 1966 | 50 | 16 | -- | Qa1 | 2,196 | 12 11.3 | Dec. 14, 1968 | T,G | Irr | |
| 507 | Mrs. Ethel Barbee | -- | -- | 60 | 16 | -- | Qa1 | 2,190 | -- | -- | T,G | Irr | |
| 508 | H.J. Duvall | Ariola & Fronterhouse | -- | 70 | 16 | -- | Qa1 | 2,125 | 44.7 | Dec. 17, 1968 | S,E | Irr | |
| 509 | Davenport Estate | -- | -- | 90 | 16 | -- | Qa1 | 2,133 | -- | -- | T,G | Irr | |
| * 510 | Bell Wells | E.M. Crenshaw | -- | 140 | 16 | -- | Qa1 | 2,140 | -- | -- | T,G | Irr | |
| 511 | Mrs. David H. Davenport | Ariola & Fronterhouse | 1961 | 70 | 16 | -- | Qa1 | 2,142 | -- | -- | T,G | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-19-512 | J.P. Johnson | A & A Drilling Co. | -- | 90 | 16 | -- | Qa1 | 2,106 | 28.6 | Jan. 6, 1969 | T,G 30 | Irr | Reported gypy water. |
| * 601 | -- | -- | -- | 28 | 6 | -- | Qa1 | 2,119 | 14.4 | Dec. 17, 1968 | P,W | S | Field conductance 2,500 micromhos, Dec. 17, 1968. |
| 602 | W.S. Wansley | -- | -- | -- | 16 | -- | Qa1 | 2,096 | 33.1 | Jan. 6, 1969 | T,G 15 | Irr | |
| 603 | M. Paul Smith, N Well | H.L. Fronterhouse | -- | 75 | 16 | -- | Qa1 | 2,075 | 48.8 | do. | T,G 40 | Irr | |
| 604 | M. Paul Smith, middle well | do. | -- | -- | 16 | -- | Qa1 | 2,070 | -- | -- | T,G | Irr | |
| 605 | M. Paul Smith, S Well | E.M. Crenshaw | -- | -- | 16 | -- | Qa1 | 2,075 | -- | -- | T,G | Irr | |
| * 606 | Spring Creek | -- | -- | Spring | -- | -- | Pa | 2,040 | + | Jan. 6, 1968 | Flows | S | Yield 63 gpm, Jan. 6, 1969. Field conductance 3,700 micromhos. |
| 701 | Glen Verden | Ariola & Fronterhouse | -- | 133 | 16 | -- | Qa1 | 2,121 | 19.5 | Dec. 11, 1968 | T,G 50 | Irr | |
| 702 | McMurry | E.M. Crenshaw | -- | 105 | 16 | -- | Qa1 | 2,114 | 17.9 | do. | T,G | Irr | |
| 703 | do. | do. | -- | 95 | 16 | -- | Qa1 | 2,114 | -- | -- | T,G | Irr | |
| 704 | Mrs. Lola Duvall | -- | -- | -- | 16 | -- | Qa1 | 2,055 | -- | -- | T,G 55 | Irr | |
| 801 | Salmon & Monroe | A & A Drilling Co. | 1967 | 67 | 16 | -- | Qa1 | 2,100 | 24.5 | Dec. 17, 1968 | T,G 50 | Irr | |
| * 802 | Larry Lewis | -- | -- | 57 | 6 | -- | Qa1 | 2,040 | 11.6 | Jan. 8, 1969 | J,E 3/4 | S | Reported gypy water. Field conductance 2,700 micromhos, Jan. 8, 1969. |
| 901 | Clyde J. Reed | E.M. Crenshaw | 1956 | 90 | 16 | 30- 90 | Qa1 | 2,067 | 12.6 | Jan. 23, 1961 | T,G | Irr | Pumping level 40 feet while pumping 340 gpm, Aug. 7, 1961. Irrigated 160 acres, 1968. |
| 902 | Weldon A. Gable | do. | 1956 | 88 | 16 | 30- 88 | Qa1 | 2,049 | 22 10.5 | Mar. 1, 1956 Jan. 23, 1961 | T,G | Irr | Draw lown 48 feet after 75 hours pumping 600 gpm, Mar. 1, 1956. Yield 297 gpm, Aug. 7, 1961. 2/ |
| 903 | Marvin B. Smith | Hall & Skinner | 1956 | 41 | 12 | 21- 241 | Qa1 | 2,036 | 13 | June 30, 1956 | T,G 15 | Irr | Reported drawdown 4 feet after 34 hours pumping 250 gpm. |
| 904 | Ross Gentry | -- | -- | -- | 16 | -- | Qa1 | 2,026 | -- | -- | T,G 30 | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|--|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-19-905 | Oren & Oattie Jones | -- | -- | 40 | 16 | -- | Qal | 2,035 | 19.2 | Jan. 7, 1969 | T,G 15 | Irr | Drawdown 22 feet after 5 hours pumping 175 gpm, July 2, 1969. Field conductance 1,600 micromhos. Irrigated 54 acres, 1968, from 2 wells. |
| 906 | do. | -- | -- | 50 | 16 | -- | Qal | 2,022 | -- | -- | T,G 30 | Irr | |
| * 20-101 | J.J. MacDaniels | A & A Drilling Co. | 1967 | 125 | 6 | -- | Pa | 2,142 | 46.5 | Jan. 8, 1969 | S,E 1/3 | S | Field conductance 950 micromhos, Jan. 8, 1969. |
| 102 | do. | -- | -- | -- | 16 | -- | Pa | 2,141 | -- | -- | T,E 10 | Irr | |
| 103 | do. | -- | -- | -- | 16 | -- | Pa | 2,143 | 45.1 | Jan. 8, 1969 | T,E 15 | Irr | |
| 104 | do. | -- | -- | -- | 16 | -- | Pa | 2,150 | 47.4 | Jan. 8, 1969 | T,E 10 | Irr | |
| * 105 | Mrs. R.T. McElreath | -- | -- | 98 | 41 | -- | Pa | 2,180 | 80.5 | Oct. 15, 1943 | P,W | S | Open hole. Originally 125 feet deep. Reported good quality water. |
| * 201 | Jack I. Davis | A & A Drilling Co. | 1965 | 60 | 8 | 40- 60 | Pa | 2,045 | 20.7 | Aug. 22, 1968 | S,E 1 | D | Reported gyp water. Field conductance 2,800 micromhos, Aug. 22, 1968 |
| 202 | Memphis Compress Co. #1 | Carter Drilling Co. | 1954 | 185 | 14 | 41- 185 | Pa | 2,090 | 62.6 | do. | T,G | U | Well deepened from 105 feet in 1958. Reported gyp water. Unused since 1966. 2/ |
| * 203 | Hall County Hospital, South Well | A & A Drilling Co. | -- | 100 | 8 | -- | Pa | 2,116 | -- | do. | S,E 1 | D | Reported gyp water. Field conductance 1,500 micromhos, Aug. 22, 1968. |
| 204 | Hall County Hospital, North Well | do. | -- | 175 | 8 | -- | Pa | 2,117 | -- | -- | S,E 1/2 | D | Reported gyp water. |
| 205 | Gordon Maddox | H.L. Fronterhouse | 1956 | 89 | 12 | -- | Pa | 2,102 | 26.0 26.1 | Jan. 23, 1961 Jan. 8, 1969 | T,G 10 | Irr | Red bed at 89 feet. |
| * 206 | Memphis High School #1 | A & A Drilling Co. | 1966 | 96 | 6 | -- | Pa | 2,097 | 46.3 | Sept. 27, 1968 | S,E 1 1/2 | Irr | Yield 24 gpm, Sept. 27, 1968. Field conductance 1,450 micromhos. Gyp water. |
| 207 | Memphis High School #2 | do. | 1967 | 120 | 16 | -- | Pa | 2,096 | 42.8 | do. | S,E 7 1/2 | Irr | Reported water gyp. |
| 208 | Mac Tarver | Ariola & Fronterhouse | -- | 50 | 16 | -- | Qal | 2,045 | -- | -- | T,G 20 | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|------------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-20-209 | West & Gillenwater | Ariola & Fronterhouse | -- | 73 | 16 | -- | Qa1 | 2,070 | 40.2 | Nov. 1, 1968 | T,G 25 | Irr | Unused since 1965. Reported yield 95 gpm. Field conductance 950 micromhos, July 2, 1969. |
| 210 | C.S. Compton | -- | -- | -- | 16 | -- | Qa1 | 2,103 | -- | -- | T,G 15 | Irr | |
| 211 | Milam | -- | -- | -- | 16 | -- | Qa1 | 2,104 | -- | -- | S,E | Irr | |
| 212 | -- | -- | -- | -- | 16 | -- | Qa1 | 2,096 | -- | -- | T,G | Irr | |
| * 213 | Community Public Service Co. #2 | Layne-Texas Co. Inc. | 1941 | 30 | 12 | -- | Qa1 | 2,079 | 10.2 | May 18, 1943 | N | U | Formerly used for public supply. Drawdown 9.3 feet after 5 hours pumping 45 gpm, May 18, 1943. |
| 214 | Brown | -- | -- | 58 | 5 | -- | Qa1 | 2,124 | 48.5 | Oct. 6, 1943 | N | U | |
| * 215 | T.J. Hampton | -- | 1895 | 65 | 40 | -- | Pa | 2,142 | 46.5 | Oct. 12, 1943 | N | U | Dug well. |
| * 216 | Seth Thomason | -- | 1906 | 52 | 40 | -- | Pa | 2,137 | 48.7 | Oct. 13, 1943 | N | U | Dug well. |
| * 217 | Arthur Whaley | Arthur Whaley | 1927 | 44 | 40 | -- | Qa1 | 2,119 | 38.8 35.6 | May 21, 1943 Oct. 25, 1960 | N | U | Dug well. |
| * 218 | A.G. Rasco | -- | 1930 | 64 | 4 | -- | Qa1 | 2,081 | 47.5 39.3 | May 25, 1943 Oct. 27, 1960 | N | U | Destroyed. |
| * 219 | J.C. Wilson | -- | 1937 | 25 | 60 | -- | Qa1 | 2,041 | 11.5 | May 22, 1943 | N | U | Dug well. Destroyed well, formerly supplied swimming pool. |
| * 220 | Kendrick Estate | -- | 1930 | 56 | 40 | -- | Qa1, Pa | 2,146 | 49.7 | Oct. 14, 1943 | N | U | Dug well. Gypy water. |
| * 221 | T.J. Hampton | -- | -- | 48 | 36 | -- | Pa | 2,141 | 39.7 | Oct. 13, 1943 | N | U | Dug well. |
| * 222 | Burl Smith | -- | -- | 67 | 4 | -- | Qa1 | 2,141 | 40.3 | do. | N | U | Reported good quality water. |
| * 223 | E. Prater | -- | 1920 | 60 | 40 | -- | Qa1 | 2,121 | 39.0 | Oct. 15, 1943 | N | U | Dug well. Reported fresh water. |
| * 224 | C.S. Compton | -- | -- | 58 | 4 | -- | Qa1 | 2,103 | 34.8 29.3 | Oct. 13, 1943 Oct. 26, 1960 | N | U | |
| 225 | Milam | -- | -- | Spring | -- | -- | Qa1, Pa | 2,072 | + | -- | Flows | U | Reported gypy water, dry in summer; estimated yield 25 gpm, Oct. 8, 1943. |
| 226 | Milam Test #4 | Layne-Texas Co, Inc. | 1941 | 87 | 8 | -- | Qa1 | 2,104 | 21 | 1941 | N | U | Test hole. Water reported too mineralized for public supply use. Red bed at 51 feet. |
| * 227 | C.T. Palmer | -- | -- | 38 | 40 | -- | Qa1 | 2,101 | 30.6 | Oct. 13, 1943 | N | U | |
| * 228 | Mrs. Sanderson | -- | -- | 48 | 4 | -- | Qa1 | 2,099 | 35.0 | do. | N | U | Reportedly used to supply water to City of Memphis in early 1900's. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--------------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-20-229 | Grover Moss | -- | 1943 | 42 | 40 | -- | Qa1 | 2,125 | 36.5 | Oct. 7, 1943 | N | U | Dug well. |
| * 230 | I.W. Thomason | -- | -- | 55 | 36 | -- | Qa1 | 2,119 | 45.3 | Oct. 8, 1943 | N | U | Dug well. Reported fresh water. |
| * 231 | Albert Gerlach | Arnold | -- | 48 | 4 | -- | Pa | 2,070 | 33.5 | Oct. 15, 1943 | N | U | Formerly used for stock. Water unfit for drinking because of hydrogen sulfide odor. |
| * 232 | City of Memphis Test B | Layne-Texas Co, Inc. | 1943 | 131 | 4 | -- | Qa1 | 2,116 | 44 | 1943 | N | U | Test hole. <u>2/</u> |
| * 233 | City of Memphis Test C | do. | 1943 | 120 | 4 | -- | Qa1 | 2,142 | 45 | 1943 | N | U | Test hole. <u>2/</u> |
| * 234 | City of Memphis Test G | do. | 1943 | 139 | 4 | -- | Qa1 | 2,127 | 48 | 1943 | N | U | Test hole. <u>2/</u> |
| * 235 | City of Memphis Test H | do. | 1943 | 105 | 4 | -- | Qa1 | 2,139 | 37 | 1943 | N | U | Test hole. <u>2/</u> |
| * 301 | City of Memphis, Park South | | 1936 | 16 | 96 | -- | Pa | 1,985 | 9.4 | May 21, 1943 | N | U | Destroyed well. Reported water gyp. Formerly used to irrigate City Park. |
| * 302 | G.W. Lockhart | -- | -- | -- | 4 | -- | Pa | 2,038 | -- | -- | P,E 3/4 | S | Field conductance 3,500 micromhos, Nov. 12, 1968. |
| 303 | -- | -- | -- | 71 | 6 | -- | Pa | 2,060 | 49.6 | Nov. 13, 1968 | P,W | S | Field conductance 3,600 micromhos, Nov. 13, 1968. |
| 401 | -- | -- | -- | 90 | 36 | -- | Pa | 2,110 | 43.7 | Jan. 9, 1969 | P,W | S | |
| 402 | Oscar Maddox, Jr. | -- | -- | 300 | 16 | -- | Pa | 2,045 | 101.9 | do. | T,G 30 | Irr | |
| * 403 | T.B. Johnson | -- | -- | 77 | 6 | -- | Pa | 2,024 | 45.6 | do. | P,W | S | Field conductance 3,600 micromhos, Jan. 9, 1969. |
| 404 | -- | -- | -- | -- | 24 | -- | Qa1 | 2,060 | 4.8 | do. | J,E 1 1/2 | Irr | One of six holes of manifold system. |
| 501 | Jake C. Roberts | Green Machinery Co, Inc. | 1956 | 85 | 16 | 37- 85 | Qa1 | 2,060 | 25 | Sept. 1956 | T,G 75 | Irr | Red bed at 83 feet. |
| 502 | do. | H.L. Fronterhouse | -- | 87 | 16 | -- | Qa1 | 2,057 | -- | -- | T,G 75 | Irr | |
| 503 | Robert J. Hanvey, Jr. | A & A Drilling Co. | 1968 | 199 | 16 | 149- 199 | Qa1 | 2,060 | 19 44.0 | Feb. 4, 1968 Nov. 1, 1968 | T,G 50 | Irr | Reported yield 700 gpm, Feb. 1968. <u>2/</u> |
| 504 | Cecil Stargel | do. | -- | 110 | 16 | 0- 110 | Qa1 | 2,058 | 31.1 | do. | T,G 50 | D | |
| 505 | Jake C. Roberts | do. | 1967 | 170 | 16 | 115- 160 | Qa1 | 2,099 | 62 26.4 | July 10, 1967 Nov. 1, 1968 | T,G 70 | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|--------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-20-506 | J.C. Wilson | -- | -- | 66 | 6 | -- | Qa1 | 2,082 | 28 | 1942 | N | U | |
| * 601 | P.E. Cook | -- | -- | 111 | 4 | -- | Pa | 2,005 | 75.7 | Nov. 13, 1968 | P,W | S | Field conductance 3,400 micromhos, Nov. 13, 1968. |
| 602 | Vera Dickey | -- | -- | 65 | 8 | -- | Pa | 1,980 | 46.9 | Jan. 23, 1969 | P,W | S | Field conductance 3,400 micromhos, Jan. 23, 1969. |
| * 701 | Allen Manzingo | H.L. Fronterhouse | 1956 | 110 | 18 | -- | Qa1 | 1,950 | 28 14.3 16.3 | 1956 Jan. 23, 1961 Dec. 26, 1968 | T,G 50 | Irr | Yield 438 gpm, Aug. 7, 1961. Field conductance 1,800 micromhos, July 2, 1959. |
| * 702 | Humble Oil & Rfg. Co. | -- | 1940 | 305 | -- | -- | Pa | 1,959 | -- | -- | N | U | Formerly used to supply water for drilling oil well. |
| 703 | T.J. Spry #2 | A & A Drilling Co. | 1964 | 50 | 16 | -- | Qa1 | 1,950 | 36.1 | Oct. 31, 1968 | T,G 55 | Irr | Irrigated 180 acres, 1968. |
| 704 | Allen Monzingo | -- | -- | -- | 16 | -- | Qa1 | 1,963 | -- | -- | T,G | Irr | |
| 705 | Mrs. D.L.C. Kinard | J.B. Thrush Drilling Co. | 1959 | 180 | 14 | -- | Pa | 1,980 | 63.0 | Dec. 26, 1968 | T,G 75 | Irr | Reported well completed in gyp cavity. Irrigated 108 acres, 1968. |
| 706 | Frank Foxhall | -- | -- | -- | 16 | -- | Qa1 | 1,921 | 21.0 | do. | T,G | Irr | |
| 707 | Cecil Stargel | -- | -- | -- | 16 | -- | Pa | 1,996 | -- | -- | T,G 50 | Irr | Field conductance 1,250 micromhos, Jan. 9, 1969. |
| 708 | do. | -- | -- | -- | 16 | -- | Pa | 1,990 | -- | -- | T,G 55 | Irr | |
| 709 | Gayle Monzingo | -- | -- | -- | 16 | -- | Pa | 1,984 | -- | -- | T,G | Irr | |
| 710 | do. | -- | -- | -- | 16 | -- | Pa | 1,983 | -- | -- | T,G | Irr | |
| 711 | do. | -- | -- | -- | 16 | -- | Pa | 1,976 | 30.6 | Jan. 9, 1969 | T,G 75 | Irr | |
| 712 | do. | -- | -- | -- | 16 | -- | Pa | 1,976 | -- | -- | T,G | Irr | |
| 713 | do. | -- | -- | -- | 16 | -- | Pa | 1,976 | -- | -- | T,G | Irr | |
| 714 | do. | -- | -- | -- | 16 | -- | Pa | 1,972 | 36.6 | Jan. 9, 1969 | T,G 70 | Irr | |
| * 801 | W.A Ward | A & A Drilling Co. | 1966 | 158 | 6 | -- | Qa1 | 2,042 | 65.3 | Nov. 1, 1968 | S,E 3/4 | S | Originally 172 feet deep. Reported soft water. Field conductance 850 micromhos, Nov. 1, 1968. |
| 802 | Leo L. Koeninger | -- | -- | -- | 16 | -- | Pa | 2,022 | 62.7 | Jan. 9, 1969 | T,G 55 | Irr | |
| * 901 | Vera Dickey | -- | -- | 193 | 6 | -- | Pp | 1,875 | 82.1 | Nov. 13, 1968 | P,W | S | Field conductance 8,000 micromhos, Nov. 12, 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------|---------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-50-902 | Vera Dickey | -- | 1915 | 86 | 10 | -- | Pa | 1,915 | -- | -- | P,W | S | Field conductance 3,500 micromhos, Jan. 23, 1969. |
| 21-101 | -- | -- | -- | 57 | 4 | -- | Pa | 2,044 | 51.8 | Jan. 23, 1969 | P,W | S | Field conductance 1,500 micromhos, Jan. 23, 1969. |
| 102 | H.D. Ranch | -- | -- | 33 | 8 | -- | Pa | 2,070 | 20.5 | do. | P,W | S | Field conductance 3,800 micromhos, Jan. 34, 1968. |
| 201 | Gayle Monzingo | -- | -- | 33 | 8 | -- | Pa | 2,000 | 23.8 | do. | P,E < 1 | S | Field conductance 4,000 micromhos. |
| * 202 | do. | -- | -- | 71 | 4 | -- | Pa | 2,019 | 62.4 | do. | P,E 1/2 | S | Field conductance 2,700 micromhos, Jan. 23, 1969. |
| 203 | do. | -- | -- | Spring | -- | -- | Pa | 1,955 | + | do. | Flows | S | Estimated yield 3 gpm. Field conductance 2,900 micromhos, Jan. 23, 1969. Flow decreases in summer. |
| * 401 | Wayne Hutcherson | -- | -- | 25 | 48 | -- | Pa | 1,957 | 16.0 | do. | J,E < 1 | S | Gypy water. Owner hauls water for drinking. Field conductance 3,500 micromhos, Jan. 23, 1969. |
| 402 | Thurman Ellerd | -- | -- | 56 | 8 | -- | Pa | 2,001 | 51.2 | do. | P,E < 1 | S | Reported gypy water. Field conductance 3,700 micromhos, Jan. 23, 1969. |
| * 501 | Clifton Phillips | -- | -- | 55 | 8 | -- | Pa | 1,985 | 53.1 | do. | P,E < 1 | S | Field conductance 7,000 micromhos, Jan. 23, 1969. |
| 502 | -- | -- | -- | 22 | 10 | -- | Pa | 1,978 | 18.5 | do. | P,W | S | Field conductance 3,400 micromhos, Jan. 23, 1969. |
| * 701 | Vera Dickey | -- | -- | 80 | 6 | -- | Pa | 1,900 | 39.0 | Nov. 4, 1969 | P,W | S | Field conductance 3,600 micromhos, Nov. 4, 1968. |
| 702 | Ernest Lee | -- | -- | 42 | 8 | -- | Pa | 1,931 | 24.2 | Jan. 23, 1969 | J,E 1/2 | S | Owner trucks water in for drinking. Field conductance 4,000 micromhos Jan. 23, 1969. |
| * 801 | W.C. Prater | -- | -- | 87 | 8 | -- | Pa | 1,938 | 74.7 | Jan. 23, 1969 | P,W | S | Do. |
| 802 | James Beck | -- | -- | 97 | 8 | -- | Pa | 1,960 | 51.5 | do. | P,W | S | |
| * 25-301 | Shoe Bar Ranch | -- | -- | 255 | 8 | -- | Pa | 2,281 | 248.2 | Jan. 22, 1969 | P,W | S | Field conductance 3,200 micromhos, Jan. 22, 1969. |
| 302 | do. | -- | -- | 185 | 8 | -- | Pa | 2,191 | 176.2 | do. | P,W | S | Field conductance 3,100 micromhos, Jan. 22, 1969. |
| * 601 | Lazy U Ranch | -- | -- | 52 | 8 | -- | Pa | 2,099 | 47.5 | Jan. 17, 1969 | P,W | S | Field conductance 3,300 micromhos, Jan. 17, 1969. |
| 602 | Shoe Bar Ranch | -- | -- | 280 | 10 | -- | Pa | 2,250 | 258.3 | Jan. 22, 1969 | P,W | S | Field conductance 3,400 micromhos, Jan. 22, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|-------------------|-----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-21-801 | Lazy U Ranch | -- | -- | 55 | 8 | -- | Pa | 2,100 | 51.2 | Jan. 17, 1969 | P,W | S | Field conductance 9,500 micromhos, Jan. 17, 1969. |
| 802 | do. | -- | -- | 92 | 8 | -- | Pa | 2,265 | 87.7 | do. | P,W | S | |
| 803 | Tony Burson Ranch | -- | -- | 47 | 6 | -- | Pa | 2,060 | 37.7 | Apr. 9, 1969 | P,W | S | |
| * 901 | Lazy U Ranch | -- | -- | Spring | -- | -- | Pp | 2,040 | + | -- | Flows | U | Water reported too salty for stock use. Spring issues from small sinkhole. Estimated yield 5 gpm; field conductance 26,000 micromhos, Jan. 17, 1969. |
| 902 | Shoe Bar Ranch | -- | -- | 82 | 8 | -- | Pa | 2,090 | 76.0 | Jan. 21, 1969 | P,W | S | Field conductance 5,900 micromhos, Jan. 21, 1969. |
| * 26-101 | do. | -- | -- | 91 | 8 | -- | Qa1 | 2,081 | 86.6 | Jan. 22, 1969 | P,W | S | Field conductance 3,400 micromhos, Jan. 22, 1969. |
| 102 | do. | -- | -- | 45 | 8 | -- | Qa1 | 2,025 | 40.4 | do. | P,W | S | |
| 201 | Don Hillis | H.L. Fronterhouse | 1957 | 136 | 12 | -- | Qa1 | 2,037 | 44.0 | Jan. 23, 1961 | T,G 55 | Irr | Red bed at 136 feet. |
| 202 | Gene Hughes | -- | -- | 89 | 16 | -- | Qa1 | 2,044 | 50.5 | Nov. 29, 1968 | T,G | Irr | |
| 203 | do. | -- | -- | 68 | 16 | -- | Qa1 | 2,045 | 53.0 | do. | T,G | Irr | |
| 204 | do. | -- | -- | 131 | 16 | -- | Qa1 | 2,043 | 52.3 | do. | T,G | Irr | |
| 205 | do. | -- | -- | 72 | 16 | -- | Qa1 | 2,044 | 55.0 | do. | T,G | Irr | |
| 206 | Coleman Duke | A & A Drilling Co. | -- | 183 | 16 | -- | Qa1 | 2,021 | 42.1 | Dec. 12, 1968 | T,G 50 | Irr | |
| * 301 | -- | -- | -- | 95 | 6 | -- | Pa | 2,015 | 47.1 | Dec. 11, 1968 | J,E 3/4 | S | Field conductance 700 micromhos, Dec. 11, 1968. |
| 302 | -- | -- | -- | 130 | 6 | -- | Pa | 2,030 | 104.3 | do. | P,W | S | Field conductance 3,900 micromhos, Dec. 11, 1968. |
| 303 | E.R. Orcutt | A & A Drilling Co. | -- | 90 | 16 | -- | Pa | 2,038 | -- | -- | T,G 50 | Irr | |
| 304 | do. | H.L. Fronterhouse | -- | 120 | 16 | -- | Pa | 2,016 | 15.9 | Dec. 11, 1968 | T,G 30 | Irr | |
| 305 | Cope | Ariola & Fronterhouse | -- | 120 | 16 | -- | Pa | 2,015 | -- | -- | T,G 50 | Irr | |
| 306 | do. | A & A Drilling Co. | -- | 120 | 16 | -- | Pa | 2,017 | -- | -- | T,G | Irr | |
| 507 | J.R. Moore | do. | -- | 135 | 16 | -- | Pa | 2,043 | -- | -- | T,G | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------------|-----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-26-308 | J.R. Moore | A & A Drilling Co. | -- | 147 | 16 | -- | Pa | 2,038 | -- | -- | T, G | Irr | |
| * 309 | Deep Lake | -- | -- | Spring | -- | -- | Pa | 2,015 | -- | -- | N | U | Lake formerly spring fed, springs dry, Dec. 12, 1968. |
| 310 | Coleman Duke | A & A Drilling Co. | -- | 60 | 16 | -- | Pa | 1,999 | -- | -- | S, E | Irr | |
| * 401 | Shoe Bar Ranch | -- | -- | Spring | -- | -- | Pa | 1,980 | + | Jan. 22, 1969 | Flows | U | Line of seeps, water flows into small pond. Field conductance more than 40,000 micromhos, Jan. 22, 1969. |
| 402 | do. | -- | -- | 81 | 10 | -- | Pa | 2,058 | 76.0 | do. | P, W | S | Field conductance 3,800 micromhos. |
| * 501 | do. | -- | -- | 74 | 8 | -- | Pa | 2,010 | 67.7 | Jan. 21, 1969 | P, W | S | Do. |
| 502 | do. | -- | -- | 58 | 8 | -- | Pa | 2,003 | 52.5 | Jan. 22, 1969 | P, W | S | Field conductance 4,000 micromhos. |
| * 601 | Chester T. Weatherly | -- | -- | 93 | 8 | -- | Pa | 2,005 | 57.6 | Jan. 13, 1969 | P, W | S | Field conductance 7,000 micromhos. |
| 602 | Garner | -- | -- | 18 | 8 | -- | Qa1 | 2,940 | 8.5 | Jan. 14, 1969 | P, E 10 | S | Originally 60 feet deep. Reported salty water, originally drilled for irrigation. |
| * 701 | Shoe Bar Ranch | -- | -- | Spring | -- | -- | Pa | 2,040 | + | Jan. 21, 1969 | Flows | S | Line of seeps. Field of conduct- ance 850 micromhos. |
| 702 | do. | -- | -- | 24 | 8 | -- | Pa | 2,047 | 21.2 | do. | P, W | S | Field conductance 3,100 micromhos. |
| * 801 | do. | -- | -- | 16 | 10 | -- | Qa1 | 1,978 | 10.3 | do. | P, W | S | Field conductance 4,200 micromhos. |
| 802 | do. | -- | -- | 18 | 8 | -- | Qa1 | 2,013 | 15.2 | do. | P, W | S | Field conductance 3,600 micromhos. |
| * 901 | Lee Scrivner Ranch | -- | -- | 90 | 8 | -- | Pa | 2,065 | -- | -- | P, W | S | Field conductance 7,200 micromhos. |
| 902 | Shoe Bar Ranch- Oxbow Camp | -- | -- | 78 | 8 | -- | Pa | 2,003 | 74.0 | Jan. 21, 1969 | P | U | |
| * 27-101 | Leory Pate | -- | 1950 | 75 | 6 | -- | Pa | 2,056 | 60 | 1960 | P, E 1/2 | S | Originally drilled 100 feet deep. Reported gyp water. Field con- ductance 3,600 micromhos, Dec. 26, 1968. |
| 201 | Allen Monzingo | A & A Drilling Co. | 1967 | 200 | 13 | -- | Pa | 1,950 | 10.4 | Aug. 22, 1968 | N | U | Test hole, acidized. Field con- ductance 1,000 micromhos. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-----------------------------------|-----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-27-202 | Allen Monzingo | A & A Drilling Co. | 1967 | 200 | 16 | 135- 145 | Pa | 1,950 | 10.7 | Aug. 23, 1968 | N | U | Test hole. Well acidized with 14 percent HCl. |
| * 203 | A.W. Molloy | -- | -- | 48 | 8 | -- | Qa1 | 1,939 | 15.3 | Dec. 26, 1968 | J,E | S | Field conductance 5,000 micromhos. |
| * 204 | R.D. Hall | -- | -- | 15 | 36 | -- | Pa | 1,961 | 4.2 | Jan. 7, 1969 | J,E | S | Dug well. Field conductance 6,000 micromhos, Jan. 7, 1969. |
| * 205 | do. | John Plank | 1948 | 55 | 12 | -- | Pa | 1,962 | 21.0 | Nov. 29, 1949 | T,E 5 | U | Water too mineralized, well unused. Well unused. Yield 150 gpm, Nov. 29, 1949. 2/ |
| 301 | Dunbar S. Posey, North Well #1 | H.L. Frunkerhouse | 1957 | 125 | 16 | -- | Qa1 | 1,970 | 29.7 | Dec. 26, 1968 | T,G | Irr | Irrigated 450 acres, 1968. |
| 302 | Sylvester A. Ellis | -- | -- | -- | 16 | -- | Qa1 | 1,921 | -- | -- | T,E 5 | Irr | Field conductance 3,000 micromhos, July 2, 1959. |
| 303 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,925 | 36.4 | Dec. 26, 1968 | T,E 5 | Irr | Field conductance 3,400 micromhos, July 2, 1969. |
| 304 | do. | H.L. Fronterhouse | 1956 | 90 | 16 | -- | Qa1 | 1,929 | 27.2 34.8 | Jan. 23, 1961 Dec. 26, 1968 | T,G 20 | Irr | |
| 305 | C.R. Foster | -- | -- | -- | 16 | -- | Qa1 | 1,936 | -- | July 2, 1969 | T,G 50 | Irr | Yield 280 gpm; field conductance 3,200 micromhos, July 2, 1969. |
| 306 | -- | -- | -- | -- | 16 | -- | Qa1 | 1,938 | 32.4 | Dec. 26, 1968 | T,G 70 | Irr | |
| 307 | Dunbar S. Posey Well 2 | H.L. Fronterhouse | 1961 | 108 | 16 | -- | Qa1 | 1,961 | 26.3 | Dec. 26, 1968 | T,G 50 | Irr | Unused in 1968. |
| * 308 | J.J. Mac Daniels | -- | -- | 76 | 16 | -- | Qa1 | 1,896 | 31.6 30.6 | Jan. 7, 1969 May 28, 1969 | T,G | Irr | Yield 765 gpm; field conductance 4,500 micromhos, May 28, 1969. Irrigates 70 acres, 1968. 3/ |
| * 401 | Jack Hancock | -- | -- | 120 | 6 | -- | Qa1 | 2,003 | 81.2 | Dec. 11, 1968 | P,W | S | Field conductance 3,200 micromhos. |
| 402 | Garner | -- | -- | 12 | 24 | -- | Qa1 | 1,942 | 8.5 | Jan. 14, 1969 | P,W | S | Field conductance 6,000 micromhos, Jan. 14, 1969. |
| 403 | Texas Highway Dept. | -- | -- | 15 | 15 feet | -- | Qa1 | 1,935 | 6.3 | Jan. 21, 1969 | N | U | Open hole. Field conductance 5,600 micromhos, Jan. 21, 1969. |
| 501 | John Lindley | -- | -- | 106 | 16 | -- | Qa1 | 1,833 | 16.2 | Dec. 26, 1968 | S,E 7 1/2 | Irr | |
| 502 | W.J. Lewis, Jr. | -- | -- | 10 | 48 | -- | Qa1 | 1,896 | 3.5 | Jan. 14, 1969 | P,W | S | Aluminum casing. Field conductance 9,500 micromhos. |
| 601 | Henry S. Foster | A & A Drilling Co. | 1967 | 110 | 16 | 60- 110 | Qa1 | 1,903 | 38 | Oct. 1, 1967 | T,G 50 | Irr | Yield 100 gpm, Oct. 1, 1967. 2/ |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|--------------------------|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INVER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-27-602 | Robert J. Harvey, Jr. | A & A Drilling Co. | -- | -- | 16 | -- | Qa1 | 1,905 | -- | -- | T, G 30 | Irr | |
| 603 | Webster | do. | -- | -- | 16 | -- | Qa1 | 1,907 | 47.0 | Dec. 26, 1968 | T, G | Irr | |
| 604 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,905 | -- | -- | T, G | Irr | |
| 605 | J. J. MacDaniels | -- | -- | -- | 16 | -- | Qa1 | 1,890 | -- | -- | T, G | Irr | |
| 606 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,887 | 25.9 | Jan. 7, 1969 | T, G | Irr | |
| 607 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,879 | -- | -- | T, G 50 | Irr | |
| 608 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,882 | 26.2 | Jan. 7, 1969 | T, G 50 | Irr | |
| 701 | Chester T. Weatherly | -- | -- | 146 | 8 | -- | Pa | 2,040 | 135.1 | Jan. 13, 1969 | P, W | S | Field conductance 3,100 micromhos, Jan. 13, 1969. |
| * 702 | Carl Hill | -- | -- | 47 | 8 | -- | Pa | 1,938 | 39.9 | do. | P, W | S | Field conductance 5,400 micromhos. |
| 801 | -- | -- | -- | 63 | 7 | -- | Pa | 1,963 | 62.4 | do. | P | U | |
| 802 | -- | -- | -- | 102 | 24 | -- | Pa | 2,061 | 81.6 | do. | P, W | S | |
| * 803 | Crump Ferrel | -- | -- | 178 | 6 | -- | Pa | 2,090 | 174.2 | July 1, 1969 | P, W | S | Field conductance 3,100 micromhos, July 1, 1969. |
| * 901 | Lotus Parge Winn | Jameson Machinery Co, Inc. | 1955 | 170 | 12 | 30- 170 | Qa1 | 1,916 | 30.3 33.4 | June 23, 1961 Jan. 13, 1969 | T, G 55 | Irr | Pumping level 97.5 feet while pumping 222 gpm, Aug. 7, 1961. Red bed at 170 feet. |
| * 902 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,914 | -- | -- | T, G 30 | Irr | Reported yield 500 gpm. Field conductance 3,100 micromhos, July 1, 1969. |
| 903 | -- | -- | -- | Spring | -- | -- | Pp | 1,875 | + | -- | Flows | U | "Two salt holes." Water salty. |
| 904 | Lotus Paige Winn | -- | -- | 18 | 36 | -- | Pa | 1,930 | 13.8 | July 1, 1969 | N | U | Dug well, open hole. Water reported suitable for drinking. Well sanded in to present depth. |
| 28-101 | Dr. O.R. Goodall #1 | Green Machinery Co, Inc. | 1964 | 92 | 16 | 42- 92 | Qa1 | 1,885 | 45.8 | Oct. 31, 1968 | T, G 3 | Irr | Irrigates 50 acres, 1968, from 2 wells. |
| 102 | Dr. O.R. Goodall #2 | do. | 1967 | 134 | 16 | 80- 134 | Qa1 | 1,860 | 22.1 | do. | T, G 90 | Irr | Red bed at 130 feet. 2/ |
| * 103 | Dr. O.R. Goodall #3 | do. | 1968 | 140 | 16 | -- | Qa1 | 1,860 | 27.0 | Oct. 31, 1968 | T, G 90 | Irr | Yield 525 gpm; field conductance 1,800 micromhos. Red bed at 135 feet. 2/ |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------|--------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-28-104 | Dr. O.R. Goodall | -- | 1950 | 8 | 6 | -- | Qa1 | 1,838 | 3.6 | Oct. 31, 1968 | P,H | S | Field conductance 3,500 micromhos. Originally 19 feet deep. |
| 105 | Oren Jones | -- | -- | 65 | 16 | -- | Qa1 | 1,939 | 52.6 | do. | T,G 50 | Irr | |
| 106 | T.J. Spry #1 | A & S Drilling Co. | 1957 | 60 | 16 | -- | Qa1 | 1,952 | 54.2 | do. | T,G 55 | Irr | Irrigated 180 acres 1968 from 2 wells. |
| 107 | Allen Monzingo | -- | -- | -- | 16 | -- | Qa1 | 1,940 | -- | -- | T,G 50 | Irr | |
| 108 | do. | H.L. Fronterhouse | -- | -- | 16 | -- | Qa1 | 1,922 | 30 | Dec. 26, 1968 | T,G | Irr | |
| 109 | Guy Smith | -- | -- | -- | 16 | -- | Qa1 | -- | -- | -- | T,G | Irr | |
| 110 | Lary Lewis | -- | -- | -- | 16 | -- | Qa1 | 1,880 | -- | -- | T,G | Irr | |
| 111 | do. | -- | -- | -- | 16 | -- | Qa1 | 1,878 | -- | -- | T,G | Irr | |
| 112 | Dr. Griss | -- | -- | -- | 16 | -- | Qa1 | 1,880 | 26.6 | May 28, 1969 | T,G | Irr | |
| * 201 | Dr. O.R. Goodall | -- | 1956 | 8 | 48 | -- | Qa1 | 1,830 | 6.5 | Oct. 31, 1968 | N | U | Open hole. Field conductance 4,500 micromhos, Oct. 31, 1968. |
| 202 | do. | -- | 1965 | 32 | 6 | -- | Qa1 | 1,830 | 6.6 | Oct. 31, 1968 | P,E 1 1/2 | S | Originally soft deep. Yield 3 gpm. Field conductance 3,400 micromhos, Oct. 31, 1968. |
| * 301 | Vera Dickey | -- | -- | 45 | 6 | -- | Qa1 | 1,818 | 30.0 | Nov. 13, 1968 | P,W | S | Field conductance 1,050 micromhos, Nov. 13, 1968. |
| * 302 | do. | -- | -- | 95 | 6 | -- | Qa1 | 1,860 | 71.6 | do. | P,W | S | Field conductance 4,100 micromhos, Nov. 13, 1968. |
| 401 | Leo Kennedy | -- | -- | 41 | 16 | -- | Qa1 | 1,880 | 25.6 | Jan. 7, 1969 | T,G | Irr | |
| 402 | J.J. MacDaniels | -- | -- | -- | 16 | -- | Qa1 | 1,862 | 26.4 | do. | T,G | Irr | |
| * 403 | R.C. Edwards | -- | 1963 | 100 | 8 | -- | Qa1 | 1,862 | + | May 28, 1969 | Flows | S,R | Flow measured 330 gpm, May 28, 1969. Reported water salty. Field conductance 12,000 micromhos. |
| 501 | J.L. Webb | -- | -- | 40 | 16 | -- | Qa1 | 1,830 | 5.6 | Jan. 27, 1969 | S,E 15 | Irr | |
| * 502 | do. | -- | -- | 45 | 16 | -- | Qa1 | 1,830 | 5.4 | do. | S,E 10 | Irr | Not used in 1968. Field conductance 1,000 micromhos, Jan. 27, 1969. |
| 503 | do. | -- | -- | 45 | 16 | -- | Qa1 | 1,819 | 6.4 | do. | S,E 7 1/2 | Irr | Not used in 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------------------|---------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-28-601 | J.L. Webb | -- | -- | 45 | 16 | -- | Qa1 | 1,875 | 24.7 | Jan. 27, 1969 | S,E 7 1/2 | U | Not used in 1968. |
| 602 | do. | -- | -- | 45 | 12 | -- | Qa1 | 1,836 | 19.8 | do. | S,E 7 1/2 | U | |
| * 603 | Fort Worth & Denver City R.R. | -- | -- | 41 | 24 feet | -- | Qa1 | 1,842 | 14.4 | Sept. 17, 1945 | N | U | Dug well, open hole. Reported yield 100 gpm, Sept. 17, 1945. |
| 701 | -- | -- | -- | -- | 24 | -- | Qa1 | 1,940 | 44.6 | Jan. 13, 1969 | J,E 1/2 | S | Field conductance 1,050 micromhos. |
| * 702 | Crump Ferrel | -- | -- | -- | 8 | -- | Pa | 2,022 | 116.8 | do. | J,E 3/4 | S | Water reported gypy. Field conductance 3,200 micromhos. |
| 801 | Bill Eddins | -- | -- | 101 | 8 | -- | Pa | 2,015 | 79.5 | Jan. 15, 1969 | P,W | S | Water reported gypy. |
| * 802 | Harold Burk | -- | -- | 38 | 6 | -- | Pa | 1,959 | 34.2 | July 1, 1969 | J,E 3/4 | D | Field conductance 3,400 micromhos, July 1, 1969. |
| * 901 | W.B. Davidson | -- | 1964 | 66 | 8 | -- | Pa | 1,949 | 59.0 | Jan. 15, 1969 | P,E | S | Field conductance 3,600 micromhos, Jan. 15, 1969. |
| 902 | Mrs. D.T. Eddins | -- | -- | 46 | 8 | -- | Pa | 1,899 | 28.4 | Jan. 15, 1969 | P,E 1/4 | S | Water not used for drinking. |
| 903 | J.W. Morrison | -- | 1952 | 100 | 12 | -- | Pa | 1,939 | 56.1 | June 10, 1969 | P,W | S | Field conductance 3,500 micromhos, June 10, 1969. |
| * 904 | Gene Dunlap | -- | -- | 22 | 8 | -- | Pa | 1,877 | 10 | June 1967 | P,W | S | |
| * 29-101 | Vera Dickey | -- | -- | 239 | 6 | -- | Pa | 1,894 | 104.0 | Nov. 13, 1968 | P,W | S | Field conductance 6,250 micromhos, Nov. 13, 1968. |
| 102 | J.B. Moore | -- | -- | 105 | 8 | -- | Pa | 1,894 | 19.8 | Jan. 23, 1969 | P,W | S | Field conductance 9,000 micromhos. |
| * 201 | Mrs. Henry | -- | 1918 | 31 | 36 | -- | Qa1 | 1,798 | 28.0 29.4 | Aug. 9, 1967 Nov. 1, 1968 | B,H | U | Formerly supplied water for domestic use. Mineralization of water increased, well abandoned. Field conductance 4,400 micromhos, Nov. 1, 1968. |
| * 202 | Mrs. J.L. Hamilton | -- | -- | 33 | 6 | -- | Qa1 | 1,799 | 31.0 | do. | J,E | D | Water unsuitable for drinking. Field conductance 4,200 micromhos, Nov. 1, 1968. |
| * 203 | O.B. Hoover | -- | 1956 | 30 | 6 | -- | Qa1 | 1,797 | 28.4 | do. | J,E 1/2 | D | Originally 47 feet deep. Water unsuitable for drinking. |
| * 204 | do. | -- | 1965 | 85 | 16 | -- | Qa1 | 1,795 | 37.3 | do. | N | U | Water too highly mineralized for irrigation. Well use discontinued. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|---------------------|----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-29-205 | Mrs. Clyde Sexton | -- | -- | 30 | 6 | -- | Qa1 | 1,796 | 30.0 | Nov. 1, 1968 | J,E 1/3 | U | Dug well. |
| * 206 | Mrs. W.C. Stewart | -- | -- | 30 | 36 | -- | Qa1 | 1,797 | 29.5 | do. | B,H | U | Owner reports well formerly yielded good-quality water. Salinity increases in recent years. Field conductance 1,800 micromhos, Nov. 1, 1968. |
| * 207 | T.W. Tippet | -- | 1918 | 205 | 6 | -- | Pa | 1,860 | 95.4 | Oct. 25, 1968 | P,W | S | Field conductance 7,500 micromhos, Nov. 1, 1968. Owner reports cattle do poorly on water from well. |
| 401 | Lawrence H. Price | -- | 1946 | 80 | 6 | -- | Qa1 | 1,862 | 69.4 | Oct. 29, 1968 | P,W | D | Field conductance 1,800 micromhos, Oct. 29, 1968. |
| * 402 | -- | -- | -- | 32 | 6 | -- | Qa1 | 1,796 | 8.5 | do. | S,E 1/3 | S | Field conductance 1,100 micromhos. |
| * 403 | John C. Chandoin #1 | Jameson Drilling Co. | 1950 | 100 | 16 | 61- 100 | Qa1 | 1,820 | 21.3 | Oct. 29, 1968 | T,G 50 | Irr | Field conductance 1,250 micromhos, Oct. 29, 1968. Irrigated 100 acres from 2 wells, 1968. |
| 404 | John C. Chandoin #2 | do. | 1968 | 120 | 18 | -- | Qa1 | 1,823 | 23.8 | do. | T,G 30 | Irr | |
| 405 | John C. Chandoin #6 | do. | 1968 | 138 | 18 | 118- 138 | Qa1 | 1,818 | 28 | May 6, 1968 | T,G 50 | Irr | Drawdown reported 95 feet after 2 hours pumping 250 gpm, May 1968. Water reported fresh. Irrigated 50 acres in 1968. 2/ |
| 406 | John C. Chandoin #3 | do. | 1968 | 110 | 18 | -- | Qa1 | 1,816 | 26 22.9 | May 9, 1968 Oct. 29, 1968 | T,G 50 | Irr | Originally 140 feet deep, filled with sand to present depth. Drawdown 95 feet after 2 hours pumping 300 gpm, May 9, 1968. Irrigated 40 acres 1968. Water reported fresh. 2/ |
| 407 | John C. Chandoin #4 | do. | 1968 | 80 | 18 | -- | Qa1 | 1,819 | 17.7 | do. | T,G 50 | Irr | Reported yield 1,200 gpm. Irrigated 70 acres July 9, 1968 from 2 wells. |
| 408 | John C. Chandoin #5 | do. | 1968 | 60 | 18 | -- | Qa1 | 1,816 | 23.5 | do. | T,G 50 | Irr | |
| * 409 | John C. Chandoin | -- | -- | 12 | 8 | -- | Qa1 | 1,782 | 6.0 | Oct. 13, 1945 | N | U | Dug well. Water reported salty. Well destroyed. |
| * 410 | Lawrence H. Price | -- | 1945 | 71 | 30 | 64- 71 | Qa1 | 1,862 | 60.7 | Sept. 14, 1945 | N | U | Dug well. |
| 411 | S.E. Wimble | -- | -- | 12 | 30 | -- | Qa1 | 1,799 | 10.2 | Sept. 18, 1845 | N | U | Dug well. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|---------------------|---------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-29-513 | Holland & Eddleman | -- | -- | -- | 16 | -- | Qa1 | 1,760 | -- | -- | T, E 10 | Irr | Field conductance 6,300 micromhos, June 10, 1969. |
| * 514 | -- | -- | -- | 33 | -- | -- | Qa1 | 1,825 | 31.5 | Oct. 13, 1945 | N | U | Dug well. |
| * 515 | Red River Authority | -- | -- | 56 | 6 | -- | Qa1 | 1,835 | 45.5 | June 10, 1969 | -- | -- | |
| 701 | -- | -- | -- | 40 | 36 | -- | Pa | 1,878 | 6.7 | Jan. 15, 1969 | P, E 1 | U | Field conductance 2,700 micromhos, Jan. 15, 1969. |
| 702 | Leon Phillips | -- | -- | 37 | 36 | -- | Pa | 1,882 | 18.9 | Jan. 27, 1969 | P | U | |
| 703 | -- | -- | -- | 49 | 8 | -- | Pa | 1,880 | 35.7 | June 17, 1969 | P, W | S | |
| 801 | Don Leary | -- | -- | 180 | 8 | -- | Pp | 1,830 | 110.5 | do. | P, W | S | Field conductance 15,000 micromhos, June 17, 1969. |
| * 802 | Tom Collins | -- | -- | 17 | 6 | -- | Pa | 1,838 | 12.7 | do. | P, W | D | Field conductance 5,000 micromhos, June 17, 1969. |
| * 33-301 | T.W. Bell Ranch | -- | -- | 38 | 4 | -- | Pa | 2,075 | 27.3 | July 14, 1969 | P, W | S | Field conductance 3,400 micromhos, July 14, 1969. |
| 302 | do. | -- | -- | 68 | 8 | -- | Pa | 2,115 | 53.2 | do. | P, W | S | Field conductance 3,900 micromhos. |
| 303 | do. | -- | -- | 92 | 8 | -- | Pa | 2,145 | 78.2 | do. | P | U | |
| 501 | -- | -- | -- | 125 | 6 | -- | Pa | 2,300 | 75.4 | Apr. 10, 1969 | P, W | S | |
| * 601 | Ronald Eudy | -- | 1954 | 160 | 6 | -- | Po | 2,421 | 65 | do. | S, E 3/4 | D | Water passes through softner before use. Field conductance 2,900 micromhos, Mar. 10, 1979. |
| 602 | T.W. Bell Ranch | -- | -- | 44 | 8 | -- | Pa | 2,190 | 31.4 | July 14, 1969 | P, W | S | Field conductance 3,200 micromhos, July 14, 1969. |
| 801 | Bruce O. Gibson | -- | 1938 | 238 | 5 | -- | Po | 2,386 | 115.8 | Apr. 18, 1969 | N | U | Water reported gyp and a carbonate hardness of 1,600 mg/l not suitable for stock. |
| * 802 | George R. Colvin | -- | -- | Spring | -- | -- | Po | 2,350 | + | do. | Flows | S | Spring issues from sinkhole. Flow 14 gpm, Apr. 18, 1969. Field conductance 4,000 micromhos. |
| 803 | -- | -- | -- | 40 | 12 | -- | Po | 2,379 | 10.1 | do. | N | U | |
| 901 | Ronald Eudy | -- | 1954 | 140 | 16 | -- | Po | 2,430 | 68.5 | Apr. 10, 1969 | P, E 1/3 | S | |
| * 902 | Bob Russell | -- | -- | 250 | 10 | -- | Po | 2,328 | -- | -- | P, W | D | Irrigates small garden. Field conductance 3,000 micromhos, July 1, 1969. |
| * 34-101 | Jake Chamberlain | -- | 1957 | 135 | 6 | -- | Po | 2,278 | 101.9 | Feb. 26, 1969 | P, W | S | Water reported gyp, kills garden plants. Field conductance 3,400 micromhos, Feb. 26, 1969. |
| 102 | Mark Lane | -- | -- | 65 | 4 | -- | Pa | 2,062 | 63.4 | do. | P, W | S | Field conductance 3,000 micromhos. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|---------------------------|--------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-34-103 | T.W. Bell Ranch | Odis Mullins | 1965 | 365 | 8 | -- | Pa | 2,299 | 181.0 | July 14, 1969 | S,E 1 1/2 | S | Water reported unfit for drinking. Field conductance 5,500 micromhos, July 14, 1969. |
| 201 | Robert Proctor | -- | -- | 60 | 36 | -- | Pa | 2,273 | 51.5 | Feb. 26, 1969 | S,E 3/4 | S | Water reported unfit for drinking. Field conductance 4,000 micromhos, Feb. 26, 1969. |
| * 202 | -- | -- | -- | 84 | 10 | -- | Pa | 2,276 | 50.0 | July 1, 1969 | P,W | S | Field conductance 2,800 micromhos, July 1, 1969. |
| 301 | Leonard Farms #82 | -- | -- | >300 | 8 | -- | Pa | 2,245 | 295.4 | Feb. 25, 1969 | P,W | S | Field conductance 3,700 micromhos, Feb. 25, 1969. |
| 401 | A.L. McKay | -- | -- | 121 | 6 | -- | Pa | 2,279 | 111.3 | July 1, 1969 | P,E 1/2 | S | Reported gyp water. |
| * 402 | -- | -- | -- | 50 | 36 | -- | Pa | 2,220 | 21.3 | do. | P,W | S | Open hole. Dug well. Field conductance 3,000 micromhos, July 1, 1969. |
| * 501 | E.D. King | -- | -- | 148 | 6 | -- | Pa | 2,283 | 145.4 | Feb. 26, 1969 | P,W | S | Water reported gyp and not suitable for drinking. |
| 502 | -- | -- | -- | 61 | 10 | -- | Pa | 2,197 | 46.8 | July 1, 1969 | P,W | S | Field conductance 1,900 micromhos, July 1, 1969. |
| 601 | -- | -- | -- | >300 | 8 | -- | Pa | 2,254 | 296.5 | Feb. 26, 1969 | P,W | S | Field conductance 3,400 micromhos. |
| * 602 | Leonard Farms #611 & #187 | -- | -- | 115 | 6 | -- | Pa | 2,203 | 97.0 | do. | P,W | S | Field conductance 3,200 micromhos, Feb. 26, 1969. |
| * 701 | R.V. Johnson | -- | 1943 | 200 | 8 | -- | Pa | 2,312 | 131.2 | do. | P,E 1/2 | S | Owner hauls water from Turkey for drinking. Field conductance 3,200 micromhos, Feb. 26, 1969. |
| * 702 | R.R. Twillia | -- | -- | 200 | 7 | -- | Pa | 2,322 | 60 | Oct 1969 | P,W | S | Field conductance 3,400 micromhos, Oct. 1, 1969. |
| * 801 | Jack Barnhill | -- | 1968 | 102 | 8 | -- | Pa | 2,201 | 90.0 | Feb. 26, 1969 | P,W | S | Field conductance 3,000 micromhos, Feb. 26, 1969. |
| 802 | -- | -- | -- | 160 | 4 | -- | Pa | 2,252 | 158.5 | do. | P,W | S | Field conductance 3,400 micromhos, Feb. 26, 1969. |
| 901 | Leonard Farms #91 | -- | -- | 50 | 4 | -- | Pa | 2,041 | 43.3 | do. | P,W | S | Field conductance 3,600 micromhos, Feb. 26, 1969. |
| * 902 | Leonard Farms #95 | -- | -- | 140 | 8 | -- | Pa | 2,230 | 130.0 | do. | P,W | S | Field conductance 3,200 micromhos, Feb. 26, 1969. |
| 35-101 | J.A. Adams | -- | -- | Spring | -- | -- | Pa | 2,176 | + | -- | Flows | S | Numerous seeps, water reported gyp. Field conductance 3,900 micromhos, Jan. 16, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-36-102 | Crump Ferrel | Jameson Machinery Co. | 1967 | 185 | 8 | -- | Pa | 2,116 | 170 173.4 | Mar. 22, 1967 Jan. 16, 1969 | P,W | S | Drawdown on test reported 20 feet after 5 hours boiling, 20 gpm, May 6, 1967. Field conductance 3,000 micromhos, Jan. 16, 1969. 2/ |
| * 201 | do. | -- | -- | 246 | 8 | -- | Pa | 2,132 | 228.5 | Jan. 15, 1969 | P,W | S | Field conductance 2,900 micromhos. |
| 202 | do. | -- | -- | 84 | 8 | -- | Pa | 2,017 | 64.5 | Jan. 16, 1969 | P,W | S | Field conductance 2,800 micromhos. |
| 301 | W.B. Davidson | -- | -- | 108 | 8 | -- | Pa | 2,031 | 87.8 | Jan. 15, 1969 | P,W | S | |
| * 302 | W.T. Collier | -- | -- | 153 | 8 | -- | Pa | 2,002 | 139.2 | June 10, 1969 | P,W | S | Field conductance 3,700 micromhos. |
| 401 | Jack Boney, Sr. | -- | -- | 185 | 8 | -- | Pa | 2,139 | 174.2 | Jan. 15, 1969 | P,W | S | |
| * 402 | Crump Ferrel | -- | -- | 218 | 8 | -- | Pa | 2,163 | 206.9 | do. | P,W | S | Field conductance 3,500 micromhos. |
| * 501 | do. | -- | -- | 126 | 8 | -- | Pa | 2,059 | 118.1 | do. | P,W | S | Field conductance 2,900 micromhos. |
| 502 | do. | -- | -- | 69 | 8 | -- | Pa | 2,116 | 56.8 | do. | P,W | S | Field conductance 2,300 micromhos. |
| 601 | do. | -- | -- | 230 | 8 | -- | Pa | 2,168 | 207.4 | do. | P,W | S | Field conductance 3,100 micromhos. |
| 602 | do. | -- | -- | 177 | 8 | -- | Pa | 2,106 | 166.2 | do. | P,W | S | |
| * 603 | Annebell Collier Estate | -- | -- | 80 | 8 | -- | Pa | 1,992 | 75.3 | June 10, 1969 | P,E 1/3 | S | Field conductance 1,500 micromhos. |
| * 701 | Crump Ferrel | -- | -- | 243 | 8 | -- | Pa | 2,178 | 233.5 | Jan. 15, 1969 | P,W | S | Field conductance 3,100 micromhos. |
| 702 | do. | -- | -- | 224 | 8 | -- | Pa | 2,129 | 219.6 | Jan. 16, 1969 | P,W | S | Field conductance 3,200 micromhos. |
| * 801 | do. | -- | -- | 163 | 8 | -- | Pa | 2,057 | 131.5 | do. | P,W | S | Field conductance 3,300 micromhos. |
| 802 | A.W. Johnson | -- | -- | 90 | 8 | -- | Pa | 1,948 | 86.8 | June 12, 1969 | P,W | S | Field conductance 3,900 micromhos. |
| 901 | Clifton Smith | -- | -- | 110 | 8 | -- | Pa | 2,023 | 104.6 | do. | P,W | S | |
| * 902 | -- | -- | -- | 200 | 8 | -- | Pa | 2,130 | 193.8 | do. | P,W | S | Field conductance 3,000 micromhos. |
| 903 | Clifton Smith | -- | -- | 148 | 8 | -- | Pa | 2,050 | 145.2 | do. | P,W | S | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|-------------------------|-----------------------|--------------------------|-----------------------------|-----------------------|---------------------------|------------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCEENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-29-412 | A. F. Mabry | Bud Loots | 1925 | 50 | 36 | -- | Qal | 1,844 | 42.5 | Sept. 18, 1845 | P,W | U | Dug well. |
| * 413 | Dick Whaley | -- | -- | 35 | 4 | -- | Qal | 1,838 | 24.7 | Sept. 14, 1945 | P,W | U | |
| 501 | City of Estelline #1 | Patterson & Green | 1929 | 47 | 96 | -- | Qal | 1,839 | 37.8 | Mar. 28, 1947 | T,E 5 | P | Reported yield 40 gpm. Brick- lined bottom on red beds. |
| * 502 | City of Estelline #2 | Arnold | 1928 | 58 | 16 | 22- 58 | Qal | 1,841 | 35 | do. | T,E 5 | P | Reported yield 45 gpm. Well on standby. |
| * 503 | City of Estelline #3 | E. M. Crenshaw | 1955 | 62 | 22,16 | -- | Qal | 1,845 | 34 42 | Oct. 12, 1960 June 10, 1969 | T,E 5 | P | Reported yield 150 gpm. Well on standby. |
| * 504 | City of Estelline #4 | do. | 1953 | 60 | 22,16 | -- | Qal | 1,835 | 38 42 | Oct. 12, 1960 June 10, 1969 | T,E 5 | P | Reported yield 40 gpm. Field con- ductance 1,000 micromhos, June 10, 1969. |
| * 505 | Estelline Springs | -- | -- | Spring | -- | -- | Pp | 1,740 | + | -- | Flows | U | Springs issues from cavern in flood- plain. Flow measured 935 gpm, May 26, 1943; estimated 1,000 gpm, Sept. 18, 1945; 1,400 gpm, Jan. 11, 1954; measured 1,800 gpm, Oct. 27, 1960. Flow contained with dam constructed by Corps of Engineers, 1964. Con- ductance 75,000 micromhos, Oct. 29, 1968. |
| * 506 | Estelline Coop Gin | Odis Mullin | 1963 | 60 | 16 | -- | Qal | 1,840 | 51.7 | Oct. 29, 1968 | S,E 15 | D | Originally 85 feet deep. Reported yield 1,000 gpm. Field conductance 1,400 micromhos, Oct. 29, 1968. |
| * 507 | J.C. Longbine | -- | -- | Spring | -- | -- | Pp | 1,745 | + | -- | Flows | S | Spring issues from mud-filled sinkhole. Water sometimes used for stock. Field conductance 55,000 micromhos, Oct. 29, 1968. |
| * 508 | do. | -- | -- | Spring | -- | -- | Pp | 1,757 | + | -- | Flows | S | Spring issues from mud-filled sinkhole. Field conductance 42,500 micromhos, Oct. 29, 1968. |
| 509 | Abram & Russel | A & A Drilling Co. | 1967 | 60 | 6 | -- | Qal | 1,819 | 16.1 | Oct. 29, 1968 | S,E 5 | Irr | Field conductance 1,750 micromhos, Oct. 29, 1968. Irri- gated 40 acres, 1968. |
| 510 | do. | Wayne Bradford | 1965 | 119 | 6 | -- | Qal, Pp | 1,839 | 42.7 | do. | N | U | Unused irrigation well reported salty water. Salinity reported in- creased from 16,000 ppm dissolved solids to 32,000 ppm after 24 hours pumping 900 gpm. |
| 511 | do. | A & A Drilling Co. | 1965 | 70 | 6 | -- | Qal | 1,840 | -- | -- | S,E | Irr | |
| * 512 | -- | -- | -- | 45 | 6 | -- | Qal | 1,785 | 35.5 | Nov. 1, 1968 | P,W | S | Field conductance 1,800 micromhos, Nov. 10, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------|--------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-35-201 | -- | -- | -- | 264 | 8 | -- | Pa | 2,216 | 261.9 | Jan. 16, 1969 | N | U | |
| 202 | Leonard Farms | -- | -- | 226 | 8 | -- | Pa | 2,240 | 224.2 | Feb. 25, 1969 | P,W | S | Field conductance 3,300 micromhos. |
| * 203 | Crump Ferrel | -- | -- | Spring | -- | -- | Pa | 2,138 | + | -- | Flows | S | Line of seeps, water flows into stock pond. Field conductance 850 micromhos. |
| * 301 | Frank Hedrick | -- | -- | 197 | 8 | -- | Pa | 2,162 | 193.7 | June 19, 1969 | P,W | S | Field conductance 3,000 micromhos. |
| 302 | do. | -- | -- | 190 | 8 | -- | Pa | 2,105 | 180.7 | June 20, 1969 | P,W | S | Field conductance 3,100 micromhos June 20, 1969. |
| * 401 | Crump Ferrel | -- | -- | -- | 7 | -- | Pa | 2,242 | 262.7 | Jan. 16, 1969 | P,W | S | |
| 402 | Leonard Farms | -- | -- | >300 | 8 | -- | Pa | 2,263 | 295.0 | Feb. 25, 1969 | P,W | S | Field conductance 3,800 micromhos, Feb. 25, 1969. |
| * 501 | Leonard Farms #71 | -- | -- | 42 | 8 | -- | Pa | 2,201 | 39.2 | do. | P,W | S | Field conductance 3,300 micromhos, Feb. 25, 1969. |
| 502 | Leonard Farms | -- | -- | 156 | 8 | -- | Pa | 2,182 | 154.5 | do. | P,W | S | Field conductance 3,400 micromhos, Feb. 25, 1965. |
| * 601 | Camp Ferrell #65 | -- | -- | 120 | 8 | -- | Pa | 2,071 | 116.6 | Jan. 15, 1969 | P,W | S | Field conductance 3,200 micromhos, Jan. 15, 1969. |
| 602 | Crump Ferrel #69 | -- | -- | 275 | 8 | -- | Pa | 2,222 | 266.4 | Jan. 16, 1969 | P,W | S | Field conductance 3,100 micromhos, Feb. 16, 1969. |
| * 701 | Leonard Farms #90 | -- | -- | 68 | 8 | -- | Pa | 2,010 | 62.0 | Feb. 25, 1969 | P,W | S | Field conductance 3,500 micromhos, Feb. 25, 1969. |
| 702 | Leonard Farms #89 or 68 | -- | -- | 132 | 8 | -- | Pa | 2,091 | 125.6 | do. | P,W | S | Field conductance 3,200 micromhos, Feb. 25, 1969. |
| * 801 | Crump Ferrel | -- | -- | 37 | 4 | -- | Qa1 | 1,963 | 30.6 | Jan. 16, 1969 | P,W | S | Field conductance 3,100 micromhos. |
| 802 | do. | -- | -- | 246 | 4 | -- | Pa | 2,166 | 233.4 | do. | P,W | S | Field conductance 2,900 micromhos. |
| 901 | do. | -- | -- | 192 | 6 | -- | Pa | 2,110 | 177.2 | do. | P,W | S | |
| * 902 | do. | -- | -- | 189 | 8 | -- | Pa | 2,121 | 186.2 | do. | P,W | S | Field conductance 3,200 micromhos. |
| 903 | Leonard Farms #100 | J.K. McCarty | 1949 | 182 | 6 | 142-182 | Pa | 2,050 | -- | -- | P,W | S | Reported yield 11 gpm, Mar. 28, 1949. |
| * 36-101 | Jack Boney, Sr. | -- | -- | 220 | 8 | -- | Pa | 2,142 | 214.1 | Jan. 15, 1969 | P,E,W 1/2 | S | Field conductance 3,100 micromhos. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|------------------------------|----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-37-101 | -- | -- | -- | 67 | 8 | -- | Pa | 1,955 | 52.8 | June 11, 1969 | N | U | |
| * 102 | -- | -- | -- | Spring | -- | -- | Pa | 1,838 | + | -- | Flows | S | Water from seep flows to shallow pond; Field conductance 2,000 micromhos, June 11, 1969. |
| * 201 | L.A. Tucker | -- | -- | 95 | 8 | -- | Pa | 1,942 | 77.7 | June 11, 1969 | S,E 1/3 | S | |
| 202 | L.J. Halford | -- | -- | 78 | 8 | -- | Pa | 1,943 | 73.5 | do. | P,W | S | Field conductance 3,000 micromhos. |
| * 203 | City of Childress #4 | Layne-Texas Co, Inc. | 1942 | 410 | 16 | 308-448 | Qal | 1,870 | 181 315 315 | Oct. 12, 1942 1960 June 12, 1969 | S,E 30 | P | Originally 440 feet deep. Drawdown on test reported 72 feet while pumping 240 gpm, Oct. 12, 1942. Field conductance 2,900 micromhos, June 17, 1909. 2/ |
| * 204 | City of Childress #3 | do. | 1934 | 332 | 16 | -- | Qal | 1,890 | 79 200 | Sept. 1934 Jan. 1942 | N | U | Reported maximum yield 480 gpm. Formerly used for public supply. Well dry, June 17, 1969. |
| 205 | City of Childress #2 | Kelley Wells | -- | 120 | 16 | -- | Qal | 1,860 | Dry | June 17, 1969 | N | U | Well dry, June 17, 1969. |
| 206 | City of Childress #1 | do. | -- | 80 | 16 | -- | Qal | 1,855 | -- | -- | N | U | |
| 401 | Annebell Collier Estate | -- | -- | 114 | 8 | -- | Pa | 2,004 | 100.3 | June 10, 1969 | P,W | S | |
| 402 | L.J. Halford | -- | -- | 24 | 8 | -- | Pa | 1,905 | 22.4 | do. | N | U | |
| * 501 | do. | -- | -- | 27 | 8 | -- | Pa | 1,945 | 24.7 | June 11, 1969 | P,W | S | Field conductance 4,600 micromhos, June 11, 1969. |
| 502 | Earnest Rea | -- | 1967 | 60 | 8 | -- | Pa | 1,896 | 29.1 | do. | P,W | S | Field conductance 4,300 micromhos, June 11, 1969. |
| 701 | -- | -- | -- | 57 | 8 | -- | Pa | 1,952 | 51.5 | do. | P,E 1/3 | S | Field conductance 3,200 micromhos. |
| * 702 | -- | -- | -- | 58 | 8 | -- | Pa | 1,930 | 52.0 | do. | P,W | S | Field conductance 3,200 micromhos June 11, 1969 |
| * 801 | J.W. Bryant | -- | -- | 71 | 8 | -- | Pa | 1,948 | 48.3 | do. | P,E 1/3 | S | Field conductance 3,300 micromhos. |
| 802 | -- | -- | -- | 104 | 8 | -- | Pa | 1,962 | 70.3 | do. | N | U | |
| * 41-203 | City of Turkey, West Well #3 | Odus Mullins | 1959 | 133 | 16 | -- | Qal | 2,403 | 95.6 | Apr. 9, 1969 | S,E 7 1/2 | P | Originally drilled for irrigation. Reported yield 150 gpm; field conductance 1,300 micromhos, Apr. 9, 1969. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|-----------------------|--------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-41-204 | City of Turkey, #4 | Odiss Mullins | 1964 | 130 | 16 | -- | Qa1 | 2,399 | 83.7 | Apr. 9, 1969 | S,E 7 1/2 | P | Used as a standby well. |
| 205 | L. Wayne Turner | -- | -- | -- | 12 | -- | Po | 2,422 | -- | -- | T,G 20 | Irr | |
| 206 | Hubert Price | Odiss Mullins | 1962 | 112 | 16 | -- | Qa1 | 2,382 | 56.5 | Apr. 9, 1969 | S,E 5 | Irr | Reported yield 55 gpm; irrigated 50 acres, 1968. |
| 207 | do. | do. | 1962 | 135 | 16 | -- | Qa1 | 2,378 | -- | -- | T,G 20 | Irr | Reported yield 180 gpm; irrigated 50 acres, 1968. |
| 208 | Algie Turner | -- | -- | 120 | 16 | -- | Qa1 | 2,388 | -- | -- | T,G 15 | Irr | Irrigated 120 acres, 1968, from several wells. |
| 209 | do. | -- | 1963 | 120 | 16 | -- | Qa1 | 2,390 | -- | -- | T,E 7 1/2 | Irr | Well acidized; reported no sign present increase in yield. |
| 210 | do. | -- | -- | 110 | 16 | -- | Qa1 | 2,386 | -- | -- | T,G 7 1/2 | Irr | Well acidized, reported yield increased and quantity of sand pumped decreased. |
| 211 | do. | Jameson Machinery Co. | 1967 | 130 | 13 | 90- 130 | Qa1 | 2,390 | 86 53.9 | Jan. 12, 1967 Apr. 9, 1969 | T,G 60 | Irr | Drawdown in test reported 140 feet after 2 hours pumping 185 gpm, Jan. 12, 1967. Owner reported yield increased and sand content of water decreased after acidizing well. |
| 212 | do. | do. | 1968 | 124 | 13 | 82- 124 | Qa1 | 2,395 | 55 | Jan. 18, 1968 | T,G 30 | Irr | Drawdown on test reported 45 feet after 8 hours pumping 200 gpm, Jan. 18, 1968. Owner reported yield increased and sand content of water decreased after acidizing well. |
| 213 | J.T. Mullins | -- | -- | 120 | 16 | -- | Qa1 | 2,382 | -- | -- | T,G 50 | Irr | |
| 214 | do. | -- | -- | 125 | 16 | -- | Qa1 | 2,373 | 59.2 | Apr. 9, 1969 | T,G 30 | Irr | |
| 215 | W.W. George | -- | -- | 60 | 16 | -- | Qa1 | 2,321 | -- | -- | T,G 50 | Irr | |
| 216 | do. | -- | -- | 57 | 16 | -- | Qa1 | 2,318 | 21.4 | Apr. 9, 1969 | T,G 30 | Irr | |
| 217 | Lynn Davis | -- | 1954 | 71 | 16 | -- | Qa1 | 2,312 | -- | -- | T,G 50 | Irr | Irrigated 140 acres, 1968. |
| 218 | do. | -- | 1959 | 117 | 16 | -- | Qa1 | 2,308 | -- | -- | T,G 50 | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLING | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-----------------------|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|--------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-41-221 | Ed Jameson | Jameson Machinery Co. | 1967 | 202 | 16 | 120- 202 | Qa1 | 2,358 | 106 | Feb. 9, 1967 | T,G 160 | Irr | Drawdown test reported 90 feet after 6 hours pumping 1,400 gpm, Feb. 9, 1967. Water reported fresh. <u>2/</u> |
| 222 | Billy Fueston | -- | -- | -- | 16 | -- | Qa1 | 2,359 | -- | -- | T,G 7 1/2 | Irr | |
| 301 | W.B. Mullin | W.B. Mullin | 1955 | 78 | 14 | -- | Qa1 | 2,295 | 15.0 | Dec. 20, 1960 | T,G | Irr | Red bed at 78 feet. <u>2/</u> |
| 302 | Mrs. Hazle Fueston | Jameson Machinery Co. | 1968 | 152 | 13 | 90- 147 | Qa1 | 2,361 | 51 | Mar. 20, 1968 | T,G 100 | Irr | Drawdown on test reported 90 feet after 1 hour pumping 170 gpm, Mar. 20, 1968. |
| 303 | do. | do. | 1968 | 90 | 7 | 73- 90 | Qa1 | 2,359 | 42 | Feb. 2, 1968 | S,E 3/4 | Irr | |
| 304 | Billy Fueston | -- | -- | -- | 16 | -- | Qa1 | 2,355 | -- | -- | T,E 7 1/2 | Irr | |
| 305 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,355 | -- | -- | T,E 5 | Irr | Reported yield 60 gpm. |
| 306 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,321 | -- | -- | T,E 5 | Irr | |
| 307 | -- | -- | -- | -- | 16 | -- | Po | 2,325 | -- | -- | T,G | Irr | |
| 308 | -- | -- | -- | -- | 16 | -- | Po | 2,320 | -- | -- | T,G | Irr | |
| 309 | -- | -- | -- | -- | 16 | -- | Po | 2,319 | -- | -- | T,G | Irr | |
| 310 | -- | -- | -- | -- | 16 | -- | Po | 2,278 | -- | -- | T,G | Irr | |
| 311 | -- | -- | -- | -- | 16 | -- | Po | 2,275 | -- | -- | T,G | Irr | |
| 312 | Billy Fueston | -- | -- | -- | 16 | -- | Po | 2,269 | -- | -- | T,G | Irr | |
| 501 | Pat Veazey | Jameson Machinery Co, Inc. | 1957 | 160 | 12 | -- | Qa1 | 2,356 | 48.6 61.0 | Dec. 20, 1960 June 13, 1968 | T,G 150 | Irr | Yield 314 gpm, Oct. 10, 1960. Irrigated 100 acres, 1968. Red bed at 160 feet. |
| 502 | W.W. George | -- | -- | -- | 16 | -- | Qa1 | 2,357 | -- | -- | T,G 30 | Irr | |
| 503 | Lewis Ferguson | Jameson Machinery Co, Inc. | 1967 | 180 | 13 | 135- 180 | Po | 2,339 | 90 55.8 | Apr. 19, 1967 Apr. 9, 1969 | T,G 50 | Irr | Drawdown reported 65 feet after 10 hours pumping 800 gpm, Apr. 19, 1967. Irrigated 150 acres, 1968. <u>2/</u> |
| 504 | Joe I. Clay | Ottis Mullin | 1963 | 225 | 14 | -- | Qa1 | 2,361 | -- | -- | T,G | Irr | Irrigated 80 acres, 1968. |
| 505 | James Fueston | Jameson Drilling Co, Inc. | 1968 | 170 | 13 | 100- 165 | Qa1 | 2,373 | 65 | Apr. 20, 1968 | T,G 150 | Irr | Drawdown reported 40 feet after 10 hours pumping 800 gpm, Mar. 20, 1968. Red bed at 178 feet. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|----------------------------|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-41-506 | -- | -- | -- | -- | 16 | -- | Qa1 | 2,367 | -- | -- | T,G | Irr | |
| 601 | Bill Lane | -- | 1963 | 21 | 24 | -- | Qa1 | 2,260 | 13.9 | July 15, 1969 | S,E 5 | Irr | Field conductance 3,400 micromhos, July 15, 1969. Irrigated 300 acres, 1968 from several wells. |
| 602 | do. | -- | 1969 | 30 | 24 | -- | Qa1 | 2,245 | -- | -- | S,E | Irr | |
| 603 | do. | -- | 1965 | 30 | 24 | -- | Qa1 | 2,287 | -- | -- | S,E 5 | Irr | |
| 42-101 | Lynn Davis | -- | -- | 64 | 16 | -- | Po | 2,238 | -- | -- | S,E 5 | Irr | Irrigated 200 acres, 1968, from several wells. |
| 102 | do. | -- | -- | 40 | 16 | -- | Po | 2,236 | 11.6 | Apr. 9, 1969 | S,E 5 | Irr | |
| 103 | Jo. | -- | -- | Spring | -- | -- | Po | 2,224 | + | -- | Flows | S | Water issues from 20-foot deep sinkhole. Field conductance 3,400 micromhos. |
| 104 | do. | -- | -- | 40 | 16 | -- | Po | 2,232 | -- | -- | S,E 5 | Irr | |
| 105 | do. | -- | -- | 40 | 16 | -- | Po | 2,231 | 10.8 | Dec. 20, 1960 | S,E 5 | Irr | Yield 45 gpm. Red bed (Pa) at 40 feet. |
| 106 | Turkey Farmers Coop Gin | -- | -- | 60 | 6 | -- | Po | 2,267 | 54.5 | Apr. 10, 1969 | S,E 1/2 | D | Field conductance 2,300 micromhos, Oct. 1, 1969. |
| 107 | Mark Lane | -- | -- | -- | 16 | -- | Po | 2,195 | -- | -- | T,G | Irr | |
| 108 | do. | -- | -- | -- | 16 | -- | Po | 2,221 | -- | -- | T,G | Irr | |
| 109 | do. | -- | -- | -- | 16 | -- | Po | 2,208 | -- | -- | T,G | Irr | |
| * 201 | Jack Barnhill | -- | -- | 40 | 8 | -- | Pa | 2,073 | 34.5 | Feb. 26, 1969 | P,W | S | Field conductance 3,500 micromhos. |
| 202 | Lewis Endy | Odus Mullin | 1969 | 216 | 16 | -- | Pa | 2,218 | 50.7 | Apr. 10, 1969 | S,E 7 1/2 | Irr | Reported yield 90 gpm. |
| * 203 | do. | do. | 1965 | 100 | 16 | -- | Pa | 2,180 | 23 | do. | T,G 50 | Irr | Yield 475 gpm; field conductance 3,000 micromhos, July 15, 1969. Watered 120 acres, 1968. |
| * 301 | E.L. Geisler | -- | -- | -- | 8 | -- | Po | 2,205 | -- | -- | P,W | S | Field conductance 3,000 micromhos. |
| * 401 | Setill | Jameson Machinery Co, Inc. | 1968 | 130 | 16 | 85- 140 | Po | 2,253 | 65 55.0 | Apr. 1, 1968 Apr. 10, 1969 | T,G 40 | Irr | Drawdown 70 feet after 4 hours pumping 400 gpm, Apr. 1, 1968. Irrigated 60 acres, 1968. Field conductance 2,600 micromhos, Apr. 10, 1968. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|----------------------|--------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|-------------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-42-402 | Don House | -- | -- | 75 | 12 | -- | Qa1 | 2,235 | -- | -- | T,E 5 | Irr | Reported yield 50 gpm. Well not used in 1968. |
| 403 | do. | -- | -- | 75 | 12 | -- | Qa1 | 2,237 | -- | -- | T,E 5 | Irr | Do. |
| 404 | do. | Johnston | 1968 | 75 | 11 | -- | Qa1 | 2,238 | 50 48.4 | Mar. 8, 1968 Apr. 10, 1969 | T,G 15 | Irr | Reported yield 250 gpm. Mar. 8, 1968; red bed at 77 feet. Irrigated 37 acres, 1968. <u>2</u> |
| 405 | Billy Fueston | -- | 1943 | 75 | 12 | -- | Qa1 | 2,243 | -- | -- | S,E 5 | Irr | Reported yield 50 gpm. Irrigated 50 acres, 1968 |
| 406 | do. | -- | -- | 75 | 12 | -- | Qa1 | 2,242 | -- | -- | S,E 5 | Irr | Reported yield 50 gpm. |
| 407 | do. | -- | -- | 75 | 12 | -- | Qa1 | 2,242 | -- | -- | S,E 5 | Irr | Reported yield 50 gpm. Irrigated 50 acres, 1968. |
| 408 | do. | -- | 1969 | 75 | 12 | -- | Qa1 | 2,241 | -- | -- | N | Irr | Reported yield 50 gpm. |
| 409 | do. | -- | -- | 65 | 12 | -- | Qa1 | 2,241 | -- | -- | S,E 5 | Irr | Irrigated 50 acres, 1968. |
| 410 | Cooper | -- | -- | -- | 16 | -- | Qa1 | 2,191 | -- | -- | T,G 55 | Irr | |
| 411 | do. | -- | -- | -- | 12 | -- | Qa1 | 2,213 | -- | -- | T,G 50 | Irr | |
| 412 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,241 | 53.7 | Apr. 10, 1969 | T,G 55 | Irr | |
| 413 | F.D. Barnhill | -- | -- | -- | 12 | -- | Po | 2,254 | -- | -- | T,G 30 | Irr | Field conductance 1,200 micromhos, July 15, 1969. |
| 414 | do. | -- | -- | -- | 12 | -- | Qa1 | 2,232 | -- | -- | T,G 30 | Irr | |
| 415 | Mark Lane | -- | -- | -- | 16 | -- | Po | 2,261 | -- | -- | T,G | Irr | Yield 148 gpm; field conductance 1,300 micromhos, July 15, 1969. |
| 416 | Harold Lang Lease | -- | -- | -- | 16 | -- | Qa1 | 2,172 | -- | -- | T,E | Irr | |
| 417 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,185 | -- | -- | T,E | Irr | |
| 501 | Lewis Endy | Odin Mullins | 1967 | 160 | 16 | -- | Po | 2,163 | 9.2 | Apr. 10, 1969 | T,G 30 | Irr | Reported yield 225 gpm. Irrigated 120 acres, 1968. |
| 502 | Frank Barnhill | -- | -- | -- | 16 | -- | Qa1 | 2,165 | -- | -- | T,G | Irr | |
| 503 | do. | -- | -- | -- | 16 | -- | Qa1 | 2,168 | -- | -- | T,E | Irr | |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLER | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|--------------|-------------------------------------|----------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|---------------------------------|----------------------|--------------------|---|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| KZ-12-42-504 | Lewis Ferguson | -- | -- | -- | 16 | -- | Qal | 2,159 | -- | -- | T,E | Irr | |
| * 505 | Jack Casey | -- | -- | 92 | 16 | -- | Qal | 2,161 | -- | -- | T,G 30 | Irr | Yield 275 gpm. Field conductance 2,400 micromhos, July 15, 1969. |
| 506 | do. | -- | -- | 75 | 16 | -- | Qal | 2,149 | -- | -- | T,G 30 | Irr | Yield 250 gpm. Field conductance 1,800 micromhos, July 15, 1969. |
| 507 | Lewis Ferguson | -- | -- | -- | 16 | -- | Qal | 2,158 | -- | -- | T,E | Irr | |
| 508 | Clyde Johnson | -- | -- | -- | 16 | -- | Qal | 2,191 | -- | -- | T,G | Irr | |
| 509 | do. | -- | -- | -- | 16 | -- | Qal | 2,198 | -- | -- | T,G | Irr | |
| * 43-101 | Leonard Farms #111, Bridlebit Camp | -- | -- | 155 | 6 | -- | Pa | 2,065 | 150.5 | Feb. 25, 1969 | P,W | S | Field conductance 3,500 micromhos, Feb. 28, 1969. |
| 102 | Leonard Farms #107 | -- | -- | 165 | 6 | -- | Pa | 2,101 | 162.3 | Feb. 25, 1969 | P,W | S | Field conductance 3,100 micromhos. |
| 103 | Leonard Farms | -- | -- | Spring | -- | -- | Pa | 1,930 | + | do. | Flows | S | Numerous seeps. Reported no flow in summer. Estimated yield 9 gpm; field conductance 21,000 micromhos, Feb. 25, 1969. Reported salty water. |
| * 201 | Leonard Farms #105, Cottonwood Camp | Johnson Drilling Co. | 1964 | 25 | 6 | -- | Qal | 1,928 | 20 17.0 | Sept. 18, 1964 Feb. 25, 1969 | P,W | S | Originally 50 feet deep. Field conductance 5,000 micromhos, Feb. 25, 1969. |
| 202 | Leonard Farms | E.F. Troxell | 1953 | 74 | 8 | -- | Pa | 1,968 | 72.6 | do. | P | U | Originally 150 feet deep. Drilled for irrigation. Bailed at 15 gpm. ^{2/} |
| 301 | Leonard Farms #122 | -- | -- | 15 | 8 | -- | Qal | 1,892 | 14.0 | do. | P,W | S | Field conductance 4,100 micromhos, Feb. 25, 1969. |
| 302 | W.E. Timmons #120 | -- | -- | 168 | 4 | -- | Pa | 2,046 | 165.0 | do. | P,W | S | |
| * 401 | J.C. Mullin | -- | -- | 175 | 6 | -- | Pa | 2,159 | 170.6 | do. | P,W | S | Field conductance 3,000 micromhos, Oct. 1, 1969. |
| 501 | Leonard Farms #110 | E.F. Troxell | 1949 | 207 | 4 | -- | Pa | 2,141 | 186.4 | July 16, 1968 | P,W | S | Drawdown 6 feet after 6 hours pumping 3 gpm, July 6, 1968. Field conductance 2,700 micromhos. Temperature 65°F (18°C). |
| 502 | Leonard Farms #145 | -- | -- | 153 | 8 | -- | Pa | 2,029 | 149.2 | Feb. 25, 1969 | P,W | S | Field conductance 3,000 micromhos. |

See footnotes at end of table.

Table 6.--Records of Wells and Springs--Continued

| WELL | OWNER | DRILLED | DATE COM- PLET- ED | DEPTH OF WELL (FT) | CASING | | AQUIFER | ALTITUDE OF LAND SURFACE (FT) | WATER LEVEL | | METHOD OF LIFT | USE OF WATER | REMARKS |
|----------------|---|----------------------------------|--------------------------|-----------------------------|-----------------------|----------------------------|---------|--|-------------------------------------|------------------------|----------------------|--------------------|--|
| | | | | | DIAM- ETER (IN) | INTER- VALS SCREENED | | | BELOW LAND SURFACE DATUM (FT) | DATE OF MEASUREMENT | | | |
| * KZ-12-43-601 | W.E. Timmons #109, Cedar Top Camp | -- | -- | 170 | 8 | -- | Pa | 2,021 | 151.2 | Feb. 25, 1969 | P,W | S | Field conductance 3,400 micromhos. |
| 602 | W.E. Timmons #104 | -- | -- | 114 | 8 | -- | Pa | 1,950 | 104.5 | do. | P,W | S | |
| * 44-101 | Leonard Farms #52 | -- | -- | 190 | 8 | -- | Pa | 2,038 | 185.3 | June 19, 1969 | P,W | S | Field conductance 2,900 micromhos. |
| 201 | P.A. Simpson | Jameson Machinery Co, Inc. | 1964 | 208 | 8 | -- | Pa | 1,916 | 97.4 | June 11, 1969 | P,W | S | Field conductance 4,300 micromhos. |
| * 202 | -- | -- | -- | 48 | 4 | -- | Pa | 1,868 | 44.8 | June 12, 1969 | P,W | S | Field conductance 3,200 micromhos. |
| * 301 | Clifton Smith | -- | -- | 211 | 8 | -- | Pa | 2,075 | 205.9 | June 11, 1969 | P,W | S | Field conductance 2,800 micromhos. |
| 302 | do. | -- | -- | 158 | 8 | -- | Pa | 1,956 | 134.7 | June 11, 1969 | P,W | S | Field conductance 2,900 micromhos. |
| 401 | Mrs. Dorothy Johnson | -- | -- | 8 | 30 | -- | Qa1 | 1,843 | 3.4 | July 11, 1968 | P,W | S | Field conductance 2,650 micromhos, July 11, 1968. |
| * 501 | P.A. Simpson | -- | -- | 210 | 8 | -- | Pa | 1,931 | 173.0 | June 11, 1969 | P,W | S | Field conductance 2,900 micromhos, June 11, 1969 |
| * 601 | Mrs. N.B. Vaughn | -- | -- | 198 | 8 | -- | Pa | 1,918 | 132.4 | do. | P,W | S | Field conductance 2,900 micromhos, June 11, 1969. |
| 602 | P.A. Simpson | Jameson Machinery Co, Inc. | 1967 | 212 | 7 | 197- 212 | Pa | 1,898 | 115 | Aug. 16, 1967 | P,E 1/3 | D | Drawdown reported 80 feet after 4 hours bailing 15 gpm, May 16, 1967. Reported water gpy. ^{2/} |
| * 45-101 | W.H. Tippitt | -- | -- | 80 | 8 | -- | Pa | 1,882 | 77.7 | June 12, 1969 | P,W | S | Field conductance 2,900 micromhos. |
| 102 | L.D. Garrison | -- | -- | 112 | 8 | -- | Pa | 1,919 | 109.9 | do. | P,W | S | Field conductance 2,900 micromhos, June 12, 1969. |
| * 201 | Donald Ferrel | -- | -- | 130 | 8 | -- | Pa | 1,890 | 85.1 | do. | P,W | S | Field conductance 3,100 micromhos. |
| 202 | -- | -- | -- | 106 | 4 | -- | Pa | 1,931 | 57.4 | do. | P,W | S | |
| * 401 | -- | -- | -- | 130 | 8 | -- | Pa | 1,880 | 121.7 | do. | P,W | S | Field conductance 2,800 micromhos, June 12, 1969. |
| 501 | -- | -- | -- | 101 | 6 | -- | Pa | 1,861 | 85.7 | June 17, 1969 | P,W | S | |

* Chemical analyses of water given in Table 7.

1/ Additional water levels in files of Texas Water Development Board.

2/ Log in files of Texas Water Development Board.

3/ Pesticide analyses in files of U.S. Geological Survey.

Table 7. --Chemical Analyses of Water From Selected Wells and Springs
(Analyses given are in milligrams per liter except specific conductance, pH, SAR, RSC, temperature, and percent sodium)

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BITARTRATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SULFATION (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMOHMS AT 25 C) | pH | TEMPERATURE °F | |
|----------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|--------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-------------------------|---------------------------------|---|-----|----------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | |
| * Bl-11-21-301 | Spring | Sept. 9, 1946 | Trd | -- | -- | -- | 40 | 26 | 43 | 270 | 55 | 15 | -- | 0.0 | -- | -- | -- | 351 | 207 | -- | -- | -- | -- | -- | -- |
| 309 | 193-212 | Sept. 11, 1946 | To | -- | -- | -- | 41 | 36 | 35 | 281 | 63 | 21 | -- | .4 | -- | -- | -- | 383 | 250 | -- | -- | -- | -- | -- | -- |
| 901 | 111 | Sept. 10, 1946 | To | -- | -- | -- | 40 | 39 | 28 | 270 | 35 | 44 | -- | 1.2 | -- | -- | -- | 383 | 260 | -- | -- | -- | -- | -- | -- |
| 22-401 | 260 | Sept. 9, 1946 | To | -- | -- | -- | 45 | 24 | 19 | 221 | 34 | 26 | -- | .2 | -- | -- | -- | 317 | 211 | -- | -- | -- | -- | -- | -- |
| 402 | 170 | do. | To | -- | -- | -- | 49 | 20 | 18 | 229 | 12 | 31 | -- | .2 | -- | -- | -- | 309 | 204 | -- | -- | -- | -- | -- | -- |
| 23-101 | 120 | Aug. 1, 1969 | Po | -- | -- | -- | 595 | 735 | 1,520 | 86 | 6,410 | 760 | -- | -- | -- | -- | -- | 11,600 | 4,510 | -- | -- | 10,500 | 7.9 | -- | -- |
| 201 | 176 | do. | Po | -- | -- | -- | 530 | 206 | 251 | 104 | 2,440 | 65 | -- | -- | -- | -- | -- | 3,540 | 2,170 | -- | -- | 3,700 | 7.1 | -- | -- |
| 301 | 148 | July 31, 1969 | Trd | -- | -- | -- | 570 | 9.2 | 51 | 198 | 1,660 | 15 | -- | -- | -- | -- | -- | 2,490 | 1,800 | -- | 0.00 | 2,650 | 7.1 | -- | -- |
| 401 | 58 | Aug. 1, 1969 | Pa | -- | -- | -- | 590 | 76 | 58 | 104 | 1,710 | 32 | -- | -- | -- | -- | -- | 2,520 | 1,780 | -- | -- | 2,660 | 7.0 | -- | -- |
| 402 | -- | Jan. 11, 1951 | Pa | -- | -- | -- | 391 | 115 | 993 | 203 | 1,610 | 1,250 | -- | 2.0 | -- | -- | -- | 4,800 | 1,450 | 60 | -- | 6,440 | -- | -- | -- |
| 501 | 178 | Aug. 1, 1969 | Po | -- | -- | -- | 575 | 165 | 77 | 144 | 2,030 | 35 | -- | -- | -- | -- | -- | 2,950 | 2,110 | -- | -- | 3,070 | 7.1 | -- | -- |
| 601 | 273 | July 31, 1969 | To | 23 | -- | -- | 302 | 57 | 60 | 218 | 842 | 40 | 0.6 | 5.4 | -- | -- | -- | 1,440 | 998 | 12 | .00 | 1,750 | 7.1 | -- | -- |
| 24-101 | 200 | do. | Qa1 | -- | -- | -- | 254 | 62 | 32 | 183 | 760 | 11 | -- | -- | -- | -- | -- | 1,210 | 888 | -- | .00 | 1,510 | 7.4 | -- | -- |
| 201 | 148 | July 30, 1969 | Po | -- | -- | -- | 38 | 215 | 107 | 59 | 2,260 | 42 | -- | -- | -- | -- | -- | 3,190 | 2,230 | -- | -- | 3,220 | 7.0 | -- | -- |
| 301 | 122 | do. | Pa | -- | -- | -- | 518 | 308 | 153 | 66 | 2,700 | 19 | -- | -- | -- | -- | -- | 3,730 | 2,560 | -- | .00 | 3,610 | 7.2 | -- | -- |
| 501 | 90 | do. | Pa | -- | -- | -- | 445 | 590 | 320 | 90 | 3,870 | 93 | -- | -- | -- | -- | -- | 5,360 | 3,540 | -- | .00 | 5,390 | 7.2 | -- | -- |
| 601 | 100 | do. | Pa | -- | -- | -- | 560 | 199 | 132 | 174 | 2,220 | 34 | -- | -- | -- | -- | -- | 3,230 | 2,220 | -- | .00 | 3,130 | 7.1 | -- | -- |
| 801 | 163 | do. | Pa | -- | -- | -- | 475 | 590 | 539 | 180 | 4,340 | 125 | -- | -- | -- | -- | -- | 6,120 | 3,610 | -- | .00 | 6,120 | 7.2 | -- | -- |
| 901 | Spring | do. | Pa | -- | -- | -- | 628 | 77 | 54 | 132 | 1,800 | 14 | -- | -- | -- | -- | -- | 2,640 | 1,880 | -- | .00 | 2,680 | 7.2 | -- | -- |
| 29-401 | 70 | Sept. 4, 1946 | To | -- | -- | -- | 31 | 36 | 56 | 267 | 52 | 22 | -- | .2 | -- | -- | -- | 419 | 226 | -- | -- | -- | -- | -- | -- |
| 502 | Spring | Sept. 10, 1946 | To | -- | -- | -- | 28 | 40 | 49 | 249 | 60 | 28 | -- | .2 | -- | -- | -- | 420 | 234 | -- | -- | -- | -- | -- | -- |
| 601 | 110 | do. | To | -- | -- | -- | 36 | 30 | 39 | 238 | 59 | 28 | -- | .4 | -- | -- | -- | 368 | 214 | -- | -- | -- | -- | -- | -- |
| 602 | 250 | do. | To | -- | -- | -- | 34 | 32 | 145 | 350 | 171 | 48 | -- | .0 | -- | -- | -- | 621 | 216 | -- | -- | -- | -- | -- | -- |
| 701 | 83 | Sept. 2, 1946 | To | -- | -- | -- | 40 | 36 | 37 | 262 | 37 | 26 | -- | .2 | -- | -- | -- | 412 | 248 | -- | -- | -- | -- | -- | -- |
| 30-501 | 80-137 | Sept. 16, 1946 | To | -- | -- | -- | 61 | 42 | 30 | 391 | 28 | 22 | -- | 11 | -- | -- | -- | 486 | 324 | -- | -- | -- | -- | -- | -- |
| 901 | 165 | do. | To | -- | -- | -- | 42 | 31 | 19 | 228 | 18 | 48 | -- | .5 | -- | -- | -- | 375 | 232 | -- | -- | -- | -- | -- | -- |
| 31-701 | 10-170 | do. | To | -- | -- | -- | 53 | 24 | 16 | 247 | 20 | 29 | -- | 2.2 | -- | -- | -- | 367 | 231 | -- | -- | -- | -- | -- | -- |
| 32-301 | 45 | Mar. 21, 1969 | Pa | 18 | -- | -- | 248 | 59 | 14 | 110 | 758 | 6.3 | .5 | 1.9 | -- | -- | -- | 1,160 | 862 | 3 | .2 | 1,430 | 7.1 | -- | -- |
| 501 | 33 | do. | Pa | 53 | 0.05 | -- | 610 | 176 | 92 | 382 | 1,990 | 42 | -- | 2.9 | -- | -- | -- | 3,150 | 2,252 | 8 | .8 | 3,300 | 7.2 | -- | -- |
| 801 | 48 | do. | Po | 30 | -- | -- | 400 | 94 | 77 | 234 | 1,190 | 76 | 1.0 | 15 | -- | -- | -- | 2,000 | 1,380 | 11 | .9 | 2,280 | 7.1 | -- | -- |
| 901 | Spring | Feb. 28, 1969 | Pa | .4 | -- | -- | 250 | 18 | 22 | 87 | 628 | 14 | .3 | .1 | -- | -- | -- | 976 | 698 | 6 | .4 | 1,220 | 7.3 | -- | -- |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SODIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | pH | TEMPERATURE °F | |
|----------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-------|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|----------------|-------------------------------|---------------------------------|---|-------|----------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | | |
| Briscoe County | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BL-11-37-301 | 216 | Sept. 11, 1946 | To | -- | -- | -- | 28 | 35 | 47 | | 278 | 28 | 13 | -- | 0.2 | -- | -- | 338 | 173 | -- | -- | -- | -- | -- | -- | -- |
| 39-304 | 210 | Sept. 17, 1946 | To | -- | -- | -- | 43 | 27 | 21 | | 247 | 20 | 28 | -- | 1.8 | -- | -- | 367 | 218 | -- | -- | -- | -- | -- | -- | -- |
| d/ | 601 | Spring | May 27, 1955 | Po | 75 | 0.2 | 0.00 | 42 | 35 | 48 | 9.9 | 360 | 37 | 15 | 4.6 | 4.1 | -- | 0.00 | 446 | 249 | -- | -- | -- | 646 | 8.2 | 73 |
| | 601 | Spring | Mar. 24, 1938 | Po | 59 | -- | -- | 53 | 34 | 58 | | 358 | 54 | 22 | 4.6 | 6.9 | -- | -- | 468 | 272 | 32 | 1.5 | 0.43 | 706 | 7.9 | -- |
| | 703 | Spring | Oct. 24, 1938 | To | -- | -- | -- | -- | -- | -- | | 293 | 14 | 6.0 | -- | -- | -- | -- | 269 | -- | -- | -- | -- | -- | -- | -- |
| | 903 | 209 | Sept. 17, 1946 | To | -- | -- | -- | 51 | 41 | 25 | | 304 | 50 | 35 | -- | .2 | -- | -- | 444 | 296 | -- | -- | -- | -- | -- | -- |
| 40-101 | 186 | Mar. 21, 1969 | To | 84 | -- | -- | 48 | 28 | 54 | | 368 | 21 | 8.6 | 1.8 | 14 | -- | -- | 440 | 236 | 33 | 1.5 | 1.33 | 635 | 7.9 | -- | |
| | 201 | 200 | Feb. 28, 1969 | Po | 30 | -- | -- | 62 | 32 | 73 | | 400 | 65 | 32 | 1.3 | 1.1 | -- | -- | 493 | 286 | 36 | 1.9 | .84 | 796 | 7.6 | -- |
| | 301 | 200 | do. | Po | 36 | -- | -- | 612 | 106 | 116 | | 382 | 1,740 | 57 | .6 | 12 | -- | -- | 2,870 | 1,960 | 11 | 1.1 | .00 | 3,000 | 7.2 | -- |
| | 501 | Spring | Mar. 21, 1969 | Pa | 47 | -- | -- | 608 | 56 | 141 | | 252 | 1,670 | 69 | 3.7 | 2.1 | -- | -- | 2,720 | 1,750 | 15 | 1.5 | .00 | 2,930 | 7.3 | -- |
| | 601 | 12 | Apr. 21, 1969 | Qal | 27 | -- | -- | 575 | 79 | 115 | | 124 | 1,760 | 51 | 1.4 | 1.2 | -- | -- | 2,670 | 1,760 | 12 | 1.2 | .00 | 2,840 | 7.4 | -- |
| | 801 | 100 | Oct. 20, 1960 | Po | 26 | .01 | -- | 87 | 97 | 282 | 3.2 | 380 | 412 | 292 | 4.7 | 84 | -- | -- | 1,470 | 616 | 50 | 4.9 | .00 | 2,290 | 7.2 | -- |
| d/ | 801 | 100 | May 23, 1966 | Po | -- | .60 | -- | 118 | 117 | 307 | | 351 | 494 | 379 | 4.8 | 176 | -- | -- | 1,950 | 780 | -- | -- | -- | 3,444 | 7.4 | -- |
| d/ | 801 | 100 | Feb. 1, 1968 | Po | -- | .68 | -- | 124 | 147 | 373 | | 348 | 540 | 491 | 5.3 | 168 | -- | -- | 2,200 | 920 | -- | -- | -- | 4,082 | 7.6 | -- |
| | 801 | 100 | Apr. 18, 1969 | Po | 29 | .04 | .00 | 90 | 62 | 205 | 2.0 | 360 | 300 | 198 | 3.1 | 54 | 0.49 | .07 | 1,120 | 480 | 48 | 4.1 | .00 | 1,760 | 7.6 | -- |
| | 802 | 100 | Sept. 2, 1946 | Po | -- | -- | -- | 65 | 54 | 211 | | 428 | 243 | 146 | 4.8 | 9.2 | -- | -- | 962 | 284 | -- | -- | -- | -- | -- | -- |
| | 802 | 100 | Sept. 17, 1946 | Po | 30 | .15 | -- | 68 | 46 | 169 | 16 | 416 | 197 | 128 | 3.6 | 13 | -- | -- | 852 | 358 | -- | -- | -- | 137 | 7.5 | -- |
| d/ | 802 | 100 | May 23, 1966 | Po | -- | -- | -- | -- | -- | 206 | | 359 | 302 | 216 | 3.6 | 52 | -- | -- | 1,300 | 510 | -- | -- | -- | 2,145 | 7.7 | -- |
| d/ | 802 | 100 | Feb. 1, 1968 | Po | -- | .06 | -- | 96 | 81 | 236 | | 348 | 326 | 259 | 3.8 | 70 | -- | -- | 1,420 | 570 | -- | -- | -- | 2,444 | 7.6 | -- |
| d/ | 803 | 100 | Mar. 1958 | Po | -- | .12 | -- | 78 | 64 | 180 | | 322 | 233 | 193 | 4.0 | 31 | -- | -- | 1,185 | 460 | -- | -- | -- | 1,975 | 7.1 | -- |
| d/ | 803 | 100 | May 1964 | Po | -- | .04 | -- | 88 | 59 | 189 | | 300 | 293 | 185 | 3.4 | 38 | -- | -- | 1,220 | 462 | -- | -- | -- | 2,013 | 7.5 | -- |
| d/ | 803 | 100 | May 23, 1966 | Po | -- | .32 | -- | 81 | 59 | 175 | | 376 | 246 | 101 | 3.6 | 38 | -- | -- | 1,140 | 446 | -- | -- | -- | 1,804 | 7.6 | -- |
| d/ | 803 | 100 | Feb. 1, 1968 | Po | -- | .42 | -- | 88 | 65 | 205 | | 361 | 279 | 200 | 3.2 | 53 | -- | -- | 1,250 | 487 | -- | -- | -- | 2,057 | 7.7 | -- |
| | 918 | 64 | July 1, 1969 | Po | -- | -- | -- | 120 | 26 | 61 | | 176 | 180 | 147 | -- | -- | -- | -- | 650 | 406 | -- | -- | -- | 1,160 | 7.6 | -- |
| 47-101 | Spring | Oct. 24, 1938 | To | -- | -- | -- | 68 | 28 | 33 | | 366 | 28 | 16 | 2.8 | -- | -- | -- | -- | 356 | 288 | -- | -- | -- | -- | -- | -- |
| | 106 | 250 | Aug. 25, 1946 | To | -- | -- | -- | 34 | 43 | | 9.2 | 200 | 17 | 13 | -- | .2 | -- | -- | 320 | 263 | -- | -- | -- | -- | -- | -- |
| | 301 | 135 | Apr. 23, 1969 | Po | 26 | -- | -- | 50 | 35 | 217 | | 436 | 157 | 149 | 3.9 | .4 | -- | -- | 852 | 269 | 64 | 5.8 | 1.77 | 1,390 | 7.6 | -- |
| | 302 | Spring | do. | Trd | 36 | .14 | -- | 60 | 39 | 297 | | 608 | 113 | 232 | 4.2 | 3.0 | -- | -- | 1,080 | 210 | 68 | 7.3 | 3.77 | 1,850 | -- | -- |
| | 501 | Spring | Oct. 24, 1938 | Trd | -- | -- | -- | 42 | 25 | 91 | | 372 | 65 | 22 | -- | -- | -- | -- | 428 | 205 | -- | -- | -- | -- | -- | -- |
| | 601 | Spring | Nov. 23, 1968 | Trd | -- | -- | -- | 36 | 24 | 114 | | 322 | 78 | 64 | -- | -- | -- | -- | 500 | 188 | -- | -- | 1.51 | 836 | 8.2 | -- |
| 48-101 | 100 | Apr. 23, 1969 | Po | 32 | -- | -- | 94 | 47 | 138 | | 284 | 170 | 208 | 2.4 | 23 | -- | -- | 854 | 428 | 41 | 2.9 | .00 | 1,400 | 7.6 | -- | |
| 12-17-203 | -- | Nov. 22, 1968 | Pa | 16 | -- | -- | 575 | 112 | 34 | 4.7 | | 39 | 1,870 | 15 | .2 | .6 | -- | -- | 2,650 | 1,900 | 4 | .3 | .00 | 2,700 | 7.6 | -- |
| a/ | 401 | Spring | Apr. 29, 1963 | Pa | -- | -- | -- | 549 | 1,166 | 1,847 | 462 | 362 | 7,396 | 3,426 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9,100 | 7.9 | -- |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SO-DIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | pH | TEMPERATURE °F |
|----------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-----------------|-------------------------------|---------------------------------|---|-----|----------------|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | |
| Briscoe County | | | | | | | | | | | | | | | | | | | | | | | | | |
| BL-12-17-401 | Spring | Jan. 22, 1969 | Pa | 28 | -- | -- | 550 | 1,170 | 1,220 | 16 | 526 | 5,080 | 2,180 | 0.8 | -- | -- | -- | 10,500 | 6,180 | 30 | -- | 0.00 | 12,300 | 8.0 | -- |
| | 701 | 102 | Nov. 20, 1968 | Pa | 31 | -- | 600 | 141 | 42 | 4.5 | 72 | 1,820 | 170 | .9 | 3.9 | -- | -- | 2,850 | 2,080 | 4 | 0.4 | .00 | 3,050 | 7.3 | -- |
| a/ | 801 | 27-77 | Aug. 20, 1963 | Qa1 | -- | -- | 450 | 145 | 60 | 36 | 393 | 1,302 | 155 | -- | -- | -- | -- | 2,789 | -- | -- | .63 | -- | 2,400 | 6.9 | -- |
| a/ | 802 | 35 | Nov. 4, 1963 | Qa1 | -- | -- | 264 | 102 | 40 | 9 | 154 | 972 | 28 | -- | -- | -- | -- | 1,729 | -- | -- | .56 | -- | 2,025 | 7.1 | -- |
| † b/ | 25-103 | 225 | Aug. 19, 1961 | Qa1 | -- | -- | 200 | 95 | 66 | 6 | 160 | 915 | 22 | -- | -- | -- | -- | 1,489 | -- | -- | -- | -- | 1,603 | 7.4 | -- |
| | 103 | 225 | July 1, 1969 | Qa1 | -- | -- | 190 | 84 | 225 | | 164 | 748 | 65 | -- | -- | -- | -- | 1,400 | 825 | -- | -- | .00 | 1,560 | 7.5 | -- |
| b/ | 105 | 53-149 | Aug. 19, 1961 | Qa1 | -- | -- | 180 | 100 | 76 | 6 | 210 | 791 | 56 | -- | -- | -- | -- | 1,433 | -- | -- | -- | .04 | 1,200 | 7.8 | -- |
| a/ | 108 | 165 | Apr. 1, 1964 | Qa1 | -- | -- | 143 | 57 | 23 | 11 | 130 | 494 | 26 | -- | -- | -- | -- | 1,215 | -- | -- | -- | .04 | 1,200 | 7.8 | -- |
| | 111 | 130 | Nov. 19, 1968 | Qa1 | 30 | -- | 48 | 14 | 314 | 1.1 | 312 | 280 | 158 | .9 | 120 | -- | -- | 1,120 | 178 | 79 | 10 | 1.56 | 1,700 | 8.0 | -- |
| | 202 | 15 | Jan. 22, 1969 | Qa1 | 43 | -- | 201 | 56 | 50 | 2.2 | 224 | 573 | 41 | .5 | 21 | -- | -- | 1,100 | 732 | 13 | .8 | .00 | 1,440 | 7.6 | -- |
| | 401 | 120 | Nov. 19, 1968 | Qa1 | 50 | -- | 565 | 120 | 30 | 2.1 | 100 | 1,740 | 47 | .4 | 2.8 | -- | -- | 2,610 | 1,900 | 3 | .3 | .00 | 2,710 | 7.7 | -- |
| | 701 | 125 | Jan. 21, 1969 | Pa | 11 | -- | 532 | 326 | 84 | 7.8 | 196 | 2,580 | 39 | .1 | 3.7 | -- | -- | 3,680 | 2,670 | 6 | .7 | .00 | 3,750 | 7.7 | -- |
| 33-101 | Spring | Jan. 10, 1969 | Pa | 5.5 | 0.07 | -- | 410 | 25 | 9.8 | 4.4 | 7.4 | 1,040 | 3.2 | .2 | .1 | -- | -- | 1,530 | 1,130 | 2.0 | .1 | .00 | 1,710 | 7.5 | -- |
| | 201 | 10 | Feb. 28, 1969 | Qa1 | 19 | -- | 655 | 177 | 954 | | 166 | 2,380 | 1,290 | -- | 4.5 | -- | -- | 5,560 | 2,360 | 47 | 8.5 | .00 | 7,290 | 7.6 | -- |
| | 203 | Spring | July 14, 1969 | Pa | -- | -- | 1,190 | 366 | 10,500 | | 158 | 3,850 | 16,400 | -- | -- | -- | -- | 32,400 | 4,470 | -- | -- | -- | 48,100 | 7.3 | -- |
| | 402 | 65 | July 1, 1969 | Po | -- | -- | 602 | 100 | 157 | | 150 | 1,900 | 109 | -- | -- | -- | -- | 2,950 | 1,910 | -- | -- | .00 | 3,020 | 7.5 | -- |
| | 502 | Spring | July 13, 1969 | Pa | -- | -- | -- | -- | -- | -- | -- | 1,760 | 155 | -- | -- | -- | -- | 3,100 | -- | -- | -- | -- | 3,140 | -- | -- |
| | 701 | 42 | Apr. 22, 1969 | Po | 43 | -- | 65 | 29 | 61 | | 218 | 85 | 33 | 1.6 | 121 | -- | -- | 546 | 282 | 32 | 1.6 | .00 | 833 | 8.1 | -- |
| 41-103 | 123-145 | Apr. 18, 1969 | Po | 34 | -- | -- | 69 | 22 | 48 | | 247 | 54 | 54 | .9 | 38 | -- | -- | 441 | 262 | 28 | 1.3 | .00 | 731 | 7.5 | -- |
| d/ | 201 | 100 | Feb. 1959 | Qa1 | -- | .02 | 122 | 42 | 95 | | 213 | 300 | 90 | 1.6 | 14.8 | -- | -- | 930 | 480 | -- | -- | -- | 1,550 | 7.1 | -- |
| | 201 | 100 | Oct. 20, 1960 | Qa1 | 32 | .04 | 158 | 58 | 124 | 3.6 | 255 | 472 | 126 | 1.9 | 31 | -- | -- | 1,130 | 632 | 30 | 2.1 | -- | 1,640 | 6.8 | -- |
| d/ | 201 | 100 | Dec. 28, 1964 | Qa1 | -- | .56 | 75 | 28 | 60 | | 287 | 61 | 74 | .7 | 53 | -- | -- | 640 | 306 | -- | -- | -- | 950 | -- | -- |
| | 202 | 100 | Mar. 28, 1947 | Qa1 | 1.0 | -- | 152 | 56 | 93 | 8.5 | 262 | 384 | 140 | 1.6 | 10 | -- | -- | 1,090 | 610 | -- | -- | -- | 1,540 | 7.4 | -- |
| d/ | 202 | 100 | Feb. 1959 | Qa1 | -- | 1.80 | 162 | 43 | 106 | | 189 | 421 | 101 | 2.2 | 11 | -- | -- | 1,140 | 585 | -- | -- | -- | 1,900 | 7.4 | -- |
| | 202 | 100 | Apr. 9, 1969 | Qa1 | 34 | .85 | 122 | 47 | 114 | | 252 | 340 | 110 | 2.4 | 30 | -- | -- | 922 | 498 | 33 | 2.2 | .00 | 1,370 | 7.2 | -- |
| e/ | 404 | 108-157 | Apr. 16, 1968 | Qa1 | -- | -- | 74 | 32 | 51 | 4 | 281 | 14 | 64 | -- | -- | -- | -- | 279 | -- | 25.6 | 1.2 | -- | 440 | 7.7 | -- |
| Hall County | | | | | | | | | | | | | | | | | | | | | | | | | |
| KZ-12-17-303 | 54-118 | Sept. 13, 1968 | Qa1 | 49 | -- | -- | 490 | 130 | 35 | 2.5 | 180 | 1,560 | 30 | -- | -- | -- | -- | 2,390 | 1,760 | 4.0 | .4 | .00 | 2,560 | 6.9 | -- |
| a/ | 307 | 42 | Mar. 26, 1963 | Qa1 | -- | -- | 458 | 198 | 72 | 11 | 152 | 1,738 | 137 | -- | -- | -- | -- | 3,258 | -- | -- | -- | -- | 2,300 | 7.5 | -- |
| | 307 | 42 | Nov. 22, 1968 | Qa1 | 24 | -- | 114 | 8.7 | 26 | 1.8 | 236 | 86 | 60 | .2 | 14 | -- | -- | 451 | 320 | 15 | .6 | .00 | 750 | 7.3 | -- |
| | 515 | 20-44 | do. | Qa1 | 30 | -- | 290 | 72 | 55 | 2.0 | 184 | 872 | 42 | .4 | 26 | -- | -- | 1,480 | 1,020 | 10 | .7 | .00 | 1,810 | 7.5 | -- |
| | 520 | 180 | Oct. 1, 1969 | Qa1 | -- | -- | 302 | 72 | 103 | | 148 | 928 | 131 | -- | -- | -- | -- | 1,630 | 1,050 | -- | -- | .00 | 2,080 | 7.0 | -- |
| † | 605 | 120 | Nov. 6, 1968 | Qa1 | 56 | -- | 580 | 435 | 180 | 6.8 | 218 | 2,880 | 195 | .8 | 63 | 1.28 | -- | 4,430 | 3,240 | 7.0 | .8 | .00 | 4,480 | 7.1 | -- |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SO-DIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROHMS AT 25° C) | TEMPERATURE °F | |
|------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-----------------|-------------------------------|---------------------------------|--|----------------|-----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | |
| b/ | KZ-12-17-610 | 94-310 | Aug. 19, 1961 | Qa1 | -- | -- | 460 | 277 | 73 | 9 | 123 | 1,819 | 18 | -- | -- | -- | -- | 2,636 | -- | -- | -- | -- | 3,262 | 7.4 | |
| g/ | 613 | 130 | Nov. 17, 1952 | Qa1 | -- | -- | 570 | 197 | 6 | 143 | 1,966 | 60 | 60 | -- | -- | -- | -- | 2,942 | 2,237 | -- | -- | -- | -- | -- | |
| d/ | 614 | 131-221 | Feb. 8, 1963 | Qa1 | -- | -- | 343 | 126 | 82 | 10 | 193 | 1,149 | 148 | -- | -- | -- | -- | 2,149 | -- | -- | 3.3 | -- | 1,750 | 7.7 | |
| t | 803 | 16-88 | Nov. 7, 1968 | Qa1 | 30 | -- | 490 | 149 | 800 | 7.6 | 146 | 1,430 | 1,440 | 0.3 | 14 | 0.36 | -- | 4,430 | 1,840 | 49 | 8.1 | 0.00 | 6,500 | 7.1 | |
| | 901 | 55-131 | Aug. 7, 1961 | Qa1 | 46 | -- | 498 | 182 | 53 | 4.2 | 160 | 1,830 | 55 | .7 | 7.0 | .71 | -- | 2,760 | 1,990 | 5 | .5 | -- | 2,920 | 7.1 | |
| | 907 | -- | July 2, 1969 | Qa1 | -- | -- | 402 | 129 | 82 | 188 | 1,340 | 115 | 115 | -- | -- | -- | -- | 2,160 | 1,530 | -- | -- | .00 | 2,590 | 7.6 | |
| | 18-101 | 20-32 | Aug. 26, 1968 | Qa1 | -- | -- | 332 | 77 | 37 | 3.2 | 170 | 1,020 | 22 | .6 | 1.6 | -- | -- | 1,630 | 1,140 | 7.0 | .5 | .00 | 1,890 | 6.9 | |
| d/ | 105 | 41 | Mar. 21, 1963 | Qa1 | -- | -- | 381 | 228 | 127 | 20 | 211 | 1,776 | 117 | -- | -- | -- | -- | 2,914 | -- | -- | 1.27 | -- | 2,650 | 7.7 | |
| | 106 | 94 | July 19, 1949 | Qa1 | 44 | -- | 352 | 82 | 15 | 9.2 | 162 | 1,080 | 15 | -- | 1.5 | .07 | -- | 1,810 | 1,220 | -- | -- | -- | 1,920 | 7.4 | |
| | 107 | 42-49 | Nov. 6, 1968 | Qa1 | 47 | -- | 388 | 154 | 50 | 3.9 | 250 | 1,380 | 49 | .8 | 30 | -- | -- | 2,230 | 1,600 | 6.0 | .5 | .00 | 2,700 | 7.3 | |
| | 301 | 129 | Sept. 30, 1968 | Pa | 32 | -- | 575 | 210 | 54 | 3.7 | 58 | 2,200 | 42 | -- | .0 | .85 | -- | 3,150 | 2,300 | 5.0 | .5 | .00 | 3,230 | -- | |
| | 403 | 59-143 | Oct. 1, 1968 | Qa1 | 46 | -- | 262 | 98 | 39 | 2.9 | 206 | 844 | 58 | .4 | 42 | -- | -- | 1,490 | 1,060 | 7.0 | .5 | .00 | 2,020 | 7.6 | |
| | 508 | 90-95 | Dec. 12, 1968 | Pa | 21 | -- | 585 | 127 | 30 | 3.1 | 90 | 1,840 | 76 | .3 | 5.7 | -- | -- | 2,730 | 1,980 | 3.0 | .3 | .00 | 2,850 | 7.5 | |
| | 610 | 25 | Dec. 13, 1968 | Qa1 | 35 | -- | 85 | 10 | 22 | 4.9 | 280 | 37 | 26 | .6 | 4.6 | -- | -- | 363 | 253 | 16 | .6 | .00 | 575 | 8.2 | |
| | 708 | 100 | Nov. 26, 1968 | Pa | 56 | -- | 440 | 195 | 364 | 3.5 | 180 | 1,720 | 525 | .5 | 44 | -- | -- | 3,440 | 1,900 | 29 | 3.6 | .00 | 4,250 | 7.7 | |
| | 812 | 110 | Nov. 29, 1968 | Qa1 | 18 | -- | 735 | 254 | 531 | 5.0 | 142 | 2,060 | 1,260 | .7 | 34 | -- | -- | 4,970 | 2,880 | 29 | 4.3 | .00 | 6,580 | 7.7 | |
| | 903 | 95 | Dec. 11, 1968 | Pa | 21 | -- | 625 | 60 | 27 | 2.5 | 73 | 1,530 | 113 | .6 | 104 | -- | -- | 2,520 | 1,810 | 3.0 | .3 | .00 | 2,730 | 7.1 | |
| | 19-102 | 300 | Dec. 13, 1968 | Pa | 58 | -- | 157 | 39 | 24 | 1.3 | 142 | 468 | 6.7 | 1.0 | 1.5 | -- | -- | 826 | 552 | 9.0 | .4 | .00 | 1,050 | 7.6 | |
| | 201 | 140 | Nov. 13, 1968 | Pa | 52 | -- | 81 | 218 | 370 | 13 | 388 | 1,060 | 372 | .7 | 1.6 | -- | -- | 2,360 | 1,100 | 42 | 4.8 | .00 | 3,280 | 7.9 | |
| | 301 | 60 | June 8, 1968 | Qa1 | 46 | -- | 49 | 33 | 55 | 1.0 | 316 | 40 | 36 | .4 | 30 | -- | -- | 445 | 258 | 32 | 15 | .02 | 716 | 7.4 | |
| t | 401 | 21-129 | Aug. 7, 1961 | Qa1 | 39 | -- | 270 | 80 | 73 | 2.0 | 184 | 768 | 135 | .9 | 46 | .34 | -- | 1,500 | 1,000 | 14 | 1.0 | -- | 1,980 | 7.3 | |
| | 401 | 21-129 | May 21, 1969 | Qa1 | 47 | -- | 250 | 90 | 108 | 210 | 688 | 198 | .8 | 74 | -- | -- | -- | 1,560 | 994 | 19 | 1.5 | .00 | 2,090 | 7.4 | |
| d/ | 407 | 140 | July 27, 1962 | Qa1 | -- | 0.06 | 172 | 4.0 | 154 | 310 | 196 | 170 | .4 | 52 | -- | -- | -- | 1,058 | 445 | -- | -- | -- | 1,360 | 7.7 | |
| d/ | 414 | 70 | June 29, 1967 | Qa1 | -- | .24 | 134 | 32 | 100 | 222 | 240 | 169 | .6 | 34 | -- | -- | -- | 930 | 469 | -- | -- | -- | 1,560 | 7.4 | |
| d/ | 414 | 70 | Dec. 17, 1968 | Qa1 | 35 | .25 | 127 | 35 | 96 | 1.4 | 228 | 220 | 166 | .5 | 40 | .29 | -- | 833 | 461 | 31 | 1.9 | .00 | 1,320 | 7.4 | |
| d/ | 415 | 120 | July 27, 1962 | Qa1 | -- | .91 | 207 | 45 | 145 | 244 | 568 | 109 | 1.2 | 52 | -- | -- | -- | 1,373 | 706 | -- | -- | -- | 1,700 | 7.5 | |
| | 502 | 70 | July 2, 1969 | Qa1 | -- | -- | 600 | 132 | -- | -- | 160 | 1,980 | 132 | -- | -- | -- | -- | -- | 2,040 | -- | -- | -- | .00 | 3,140 | 7.9 |
| d/ | 510 | 140 | July 27, 1962 | Qa1 | -- | .75 | 300 | 75 | 60 | 178 | 874 | 84 | .5 | 48 | -- | -- | -- | 1,619 | 1,060 | -- | -- | -- | 1,870 | 7.3 | |
| | 601 | 28 | Dec. 17, 1968 | Qa1 | 24 | -- | 560 | 110 | 22 | 2.7 | 62 | 1,742 | 60 | .6 | .5 | -- | -- | 2,550 | 1,850 | 3.0 | .2 | .00 | 2,670 | 7.1 | |
| | 606 | Spring | Jan. 6, 1969 | Pa | 9.0 | -- | 530 | 228 | 157 | 5.1 | 248 | 2,100 | 146 | .5 | 14 | -- | -- | 3,310 | 2,260 | 13 | 1.4 | .00 | 3,630 | 7.8 | |
| | 802 | 57 | June 8, 1969 | Qa1 | 27 | -- | 490 | 127 | 55 | 2.7 | 182 | 1,570 | 51 | .7 | 17 | -- | -- | 2,430 | 1,740 | 6.0 | .6 | .00 | 2,700 | 7.3 | |
| | 905 | 40 | July 2, 1969 | Qa1 | -- | -- | 194 | 62 | 52 | 256 | 576 | 31 | 31 | -- | -- | -- | -- | 1,050 | 739 | -- | -- | .00 | 1,480 | 8.1 | |
| | 20-101 | 125 | June 8, 1969 | Pa | 21 | -- | 74 | 46 | 47 | 4.8 | 330 | 9.2 | 50 | .6 | 54 | -- | -- | 551 | 374 | 21 | 1.1 | .00 | 901 | 7.2 | |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | TEMPERATURE °F | | |
|--------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|--------------------------------|---------------------------------|---|----------------|-----|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | |
| KZ-12-20-105 | 98 | Oct. 15, 1943 | Pa | -- | -- | -- | 44 | 24 | 72 | 320 | 69 | 19 | -- | -- | 3.2 | -- | -- | 389 | 208 | -- | -- | -- | -- | -- | |
| | 201 | Aug. 22, 1968 | Pa | 4.4 | -- | -- | 358 | 176 | 192 | 2.3 | 406 | 1,370 | 140 | 1.0 | 6.7 | -- | -- | 2,450 | 1,620 | 17 | 1.6 | 0.00 | 2,920 | -- | |
| | 203 | do. | Pa | 33 | -- | -- | 290 | 62 | 28 | 2.1 | 168 | 826 | 29 | 1.0 | .1 | -- | -- | 1,350 | 978 | 6.0 | .4 | .00 | 1,650 | 7.3 | |
| | 206 | Sept. 27, 1968 | Pa | 46 | -- | -- | 101 | 106 | 60 | 2.4 | 272 | 281 | 211 | 1.1 | 4.7 | -- | -- | 947 | 688 | 16 | 1.0 | .00 | 1,510 | 7.8 | |
| | 213 | June 20, 1941 | Qa1 | -- | 0.1 | -- | 160 | 40 | 29 | 2.4 | 245 | 327 | 62 | -- | -- | -- | -- | 907 | 566 | -- | -- | -- | -- | 7.3 | |
| | 213 | June 27, 1941 | Qa1 | -- | .03 | -- | 141 | 42 | 43 | 2.5 | 254 | 319 | 59 | -- | -- | -- | -- | 905 | 527 | -- | -- | -- | -- | 7.4 | |
| | 213 | May 20, 1943 | Qa1 | 11 | .10 | -- | 146 | 43 | 44 | 2.4 | 240 | 329 | 61 | .4 | 13 | -- | -- | 938 | 542 | -- | -- | -- | -- | -- | |
| | 215 | May 21, 1943 | Pa | -- | -- | -- | 54 | 28 | 30 | 2.6 | 263 | 42 | 34 | -- | 11 | -- | -- | 329 | 250 | -- | -- | -- | -- | -- | |
| | 216 | do. | Pa | -- | -- | -- | -- | -- | -- | -- | 271 | 70 | 28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 217 | do. | Qa1 | -- | -- | -- | 60 | 43 | 50 | 2.3 | 239 | 130 | 74 | -- | .0 | -- | -- | 475 | 327 | -- | -- | -- | -- | -- | |
| | 218 | May 25, 1943 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 284 | 45 | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 219 | 1938 | Qa1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,338 | 889 | -- | -- | -- | 7.2 | |
| | 219 | May 22, 1943 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 246 | 1,500-2,000 | 84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 220 | Oct. 14, 1943 | Qa1, Pa | -- | -- | -- | 132 | 64 | 136 | 1.3 | 331 | 259 | 234 | -- | 22 | -- | -- | 1,010 | 592 | -- | -- | -- | -- | -- | |
| | 221 | Oct. 13, 1943 | Pa | -- | -- | -- | 66 | 25 | 182 | 1.8 | 408 | 142 | 114 | -- | -- | -- | -- | 775 | 268 | -- | -- | -- | -- | -- | |
| | 222 | Oct. 15, 1943 | Qa1 | 27 | .05 | -- | 55 | 25 | 16 | 1.6 | 265 | 15 | 3.0 | .6 | 45 | -- | -- | 317 | 240 | -- | -- | -- | -- | -- | |
| | 223 | do. | Qa1 | -- | -- | -- | 46 | 15 | 29 | 2.1 | 210 | 23 | 14 | -- | 30 | -- | -- | 260 | 176 | -- | -- | -- | -- | -- | |
| | 224 | Oct. 14, 1943 | Qa1 | -- | -- | -- | 74 | 24 | 12 | 1.2 | 210 | 95 | 18 | -- | 17 | -- | -- | 343 | 283 | -- | -- | -- | -- | -- | |
| | 227 | 38 | do. | Qa1 | -- | -- | -- | 110 | 90 | 83 | 262 | 319 | 185 | -- | 23 | -- | -- | 939 | 644 | -- | -- | -- | -- | -- | |
| 228 | 48 | Oct. 13, 1943 | Qa1 | -- | -- | -- | 63 | 55 | 61 | 266 | 125 | 85 | -- | 60 | -- | -- | 580 | 383 | -- | -- | -- | -- | -- | | |
| 230 | 55 | Oct. 8, 1943 | Qa1 | -- | -- | -- | 48 | 39 | 29 | 304 | 62 | 21 | -- | 1.0 | -- | -- | 340 | 280 | -- | -- | -- | -- | -- | | |
| 231 | 48 | Oct. 15, 1943 | Pa | -- | -- | -- | -- | -- | -- | 254 | 1,429 | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| 232 | 45-100 | Sept. 28, 1943 | Qa1 | 44 | .04 | -- | 48 | 35 | 22 | 257 | 68 | 19 | .5 | 1.5 | -- | -- | 372 | 264 | -- | -- | -- | -- | -- | | |
| 233 | 0-68 | Oct. 1, 1943 | Qa1 | 31 | .1 | -- | 100 | 37 | 41 | 250 | 154 | 76 | .4 | 21 | -- | -- | 628 | 402 | -- | -- | -- | -- | -- | | |
| 234 | 62 | Oct. 6, 1943 | Qa1 | 40 | .04 | -- | 92 | 60 | 31 | 254 | 287 | 23 | .8 | 1.8 | -- | -- | 707 | 476 | -- | -- | -- | -- | -- | | |
| 235 | 56-57 | Oct. 7, 1943 | Qa1 | -- | -- | -- | -- | -- | -- | 250 | 591 | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| 235 | 65 | Oct. 13, 1943 | Qa1 | 49 | .14 | -- | 65 | 32 | 32 | 282 | 95 | 22 | .0 | .8 | -- | -- | 438 | 294 | -- | -- | -- | -- | -- | | |
| 301 | 16 | May 22, 1943 | Pa | -- | -- | -- | -- | -- | -- | 267 | 3,000 | 87 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| 302 | -- | Nov. 13, 1968 | Pa | 22 | -- | -- | 320 | 244 | 217 | 208 | 1,660 | 235 | 1.5 | 74 | 0.46 | -- | -- | 2,880 | 1,800 | 21 | 2.2 | .00 | 3,470 | 7.4 | |
| 403 | 77 | June 9, 1969 | Pa | 16 | -- | -- | 610 | 128 | 138 | 160 | 1,840 | 200 | .7 | 15 | -- | -- | 3,030 | 2,050 | 13 | 1.3 | .00 | 2,460 | 7.3 | | |
| 506 | 66 | May 21, 1943 | Qa1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 600 | -- | -- | -- | -- | -- | -- | -- | |
| 506 | 66 | do. | Qa1 | -- | -- | -- | -- | -- | -- | 277 | 270 | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

Hall County

fj

gj

ly

See footnotes at end of table.

Table 7. ---Chemical Analyses of Water From Selected Wells and Springs---Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | PH | TEMPERATURE OF | |
|--------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|--------------------------------|---------------------------------|---|--------|----------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | |
| Hall County | | | | | | | | | | | | | | | | | | | | | | | | | |
| KZ-12-20-601 | 111 | Nov. 13, 1968 | Pa | 11 | -- | -- | 490 | 130 | 215 | 5.3 | 99 | 1,850 | 121 | 0.9 | 16 | -- | -- | 2,890 | 1,760 | 21 | 2.2 | 0.00 | 3,230 | 7.3 | -- |
| 701 | 110 | Aug. 7, 1961 | Qa1 | 23 | -- | -- | 230 | 87 | 52 | 3.2 | 180 | 742 | 44 | .6 | 37 | -- | -- | 1,360 | 932 | 11 | .7 | -- | 1,720 | 7.2 | 65 |
| 701 | 110 | July 2, 1969 | Qa1 | -- | -- | -- | 242 | 87 | 41 | 41 | 184 | 814 | 37 | -- | -- | -- | -- | 1,330 | 962 | -- | -- | .00 | 1,870 | 8.0 | -- |
| 702 | 305 | 1940 | Pa | -- | -- | -- | 266 | 79 | 41 | 41 | 146 | 848 | 52 | -- | -- | -- | -- | 990 | 950 | -- | -- | -- | -- | 7.3 | -- |
| 801 | 158 | Nov. 1, 1968 | Qa1 | 21 | -- | -- | 97 | 26 | 38 | 1.4 | 260 | 142 | 40 | .3 | 25 | 0.12 | -- | 519 | 349 | 19 | .9 | .00 | 831 | 7.2 | -- |
| 901 | 193 | Nov. 13, 1968 | Pa | 13 | -- | -- | 785 | 204 | 960 | 9.8 | 116 | 2,280 | 1,730 | 1.0 | 1.4 | 4.4 | -- | 6,040 | 2,800 | 43 | 7.9 | .00 | 8,250 | 7.3 | -- |
| 21-101 | 57 | Jan. 23, 1969 | Pa | 23 | -- | -- | 210 | 55 | 41 | 1.8 | 205 | 606 | 28 | 8.0 | 8.4 | -- | -- | 1,080 | 750 | 11 | .7 | .00 | 1,370 | 7.4 | -- |
| 202 | 71 | do. | Pa | 22 | -- | -- | 600 | 84 | 50 | 1.9 | 161 | 1,730 | 35 | 1.0 | 6.8 | -- | -- | 2,610 | 1,840 | 6.0 | .5 | .00 | 2,720 | 7.5 | -- |
| 401 | 25 | do. | Pa | 23 | -- | -- | 640 | 84 | 174 | 7.7 | 194 | 1,820 | 181 | .4 | 87 | -- | -- | 3,110 | 1,940 | 16 | 1.7 | .00 | 3,370 | 7.3 | -- |
| 501 | 55 | do. | Pa | 11 | -- | -- | 660 | 260 | 636 | 4.4 | 147 | 2,040 | 1,370 | 1.0 | 1.8 | -- | -- | 5,060 | 2,720 | 34 | 5.3 | .00 | 6,890 | 7.1 | -- |
| 701 | 80 | Nov. 4, 1968 | Pa | 14 | -- | -- | 580 | 144 | 167 | 4.2 | 42 | 1,960 | 256 | -- | 10 | -- | -- | 3,160 | 2,040 | 15 | 1.6 | .00 | 3,870 | 7.0 | -- |
| 801 | 87 | June 23, 1969 | Pa | 15 | -- | -- | 625 | 147 | 204 | 5.4 | 63 | 1,960 | 402 | .7 | 6.6 | -- | -- | 3,400 | 2,160 | 17 | 1.9 | .00 | 3,910 | 7.6 | -- |
| 25-301 | 255 | June 22, 1969 | Pa | 21 | -- | -- | 598 | 141 | 70 | 2.8 | 80 | 1,900 | 157 | .3 | 5.4 | -- | -- | 2,930 | 2,070 | 7.0 | .7 | .00 | 3,150 | 7.3 | -- |
| 601 | 52 | June 17, 1969 | Pa | 23 | -- | -- | 542 | 200 | 101 | 4.0 | 186 | 2,130 | 45 | .2 | 1.5 | -- | -- | 3,140 | 2,180 | 9.0 | .9 | .00 | 3,270 | 7.5 | -- |
| 801 | 55 | do. | Pa | 6.8 | -- | -- | 642 | 354 | 1,240 | 9.3 | 168 | 2,820 | 1,980 | .2 | 7.2 | -- | -- | 7,140 | 3,060 | 47 | 9.7 | .00 | 9,630 | 7.7 | -- |
| 901 | Spring | do. | Pp | 21 | 0.09 | -- | 1,010 | 306 | 5,230 | 22 | 196 | 3,350 | 8,250 | .5 | -- | 3.7 | -- | 18,300 | 3,780 | 75 | -- | .00 | 26,900 | 7.5 | -- |
| 26-101 | 91 | Jan. 22, 1969 | Qa1 | 23 | -- | -- | 622 | 146 | 71 | 2.5 | 69 | 1,840 | 268 | .2 | 6.2 | -- | -- | 3,010 | 2,150 | 7.0 | .7 | .00 | 3,370 | 7.0 | -- |
| 301 | 95 | Dec. 11, 1968 | Pa | 28 | -- | -- | 76 | 25 | 14 | 1.3 | 308 | 38 | 25 | .5 | 38 | -- | -- | 374 | 292 | 9.0 | .4 | .00 | 598 | 7.7 | -- |
| 309 | Spring | May 23, 1943 | Pa | -- | -- | -- | -- | -- | -- | -- | 115 | 140 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 401 | Spring | Jan. 22, 1969 | Pa | 15 | -- | -- | 2,400 | 750 | 10,000 | 33 | 182 | 2,780 | 19,800 | .8 | -- | -- | -- | 35,900 | 9,070 | 70 | -- | .00 | 32,400 | 7.4 | -- |
| 501 | 74 | Jan. 21, 1969 | Pa | 14 | -- | -- | 615 | 162 | 123 | 4.4 | 68 | 1,730 | 460 | .9 | 7.2 | -- | -- | 3,150 | 2,200 | 11 | 1.1 | .00 | 3,750 | 8.2 | -- |
| 601 | 93 | Jan. 13, 1969 | Pa | 17 | -- | -- | 810 | 218 | 528 | 6.7 | 96 | 1,860 | 1,460 | .8 | 8.6 | -- | -- | 4,960 | 2,920 | 28 | 4.3 | .00 | 6,870 | 7.2 | -- |
| 701 | Spring | Jan. 21, 1969 | Pa | 5 | -- | -- | 145 | 9.7 | 1.5 | 8.3 | 134 | 295 | 35 | .2 | .3 | -- | -- | 530 | 402 | 1.0 | .0 | .00 | 755 | 7.6 | -- |
| 801 | 16 | do. | Qa1 | 37 | .11 | -- | 680 | 130 | 279 | 21 | 552 | 1,860 | 332 | .4 | 38 | .96 | -- | 3,670 | 2,230 | 21 | 2.6 | .00 | 4,230 | 7.2 | -- |
| 901 | 90 | June 16, 1969 | Pa | 15 | -- | -- | 600 | 140 | 1,430 | 9.6 | 84 | 2,620 | 1,740 | .2 | 17 | -- | -- | 6,610 | 2,070 | 60 | 14 | .00 | 9,090 | 7.1 | -- |
| 27-101 | 75 | Dec. 26, 1968 | Pa | 6.8 | -- | -- | 592 | 159 | 96 | 5.8 | 81 | 1,480 | 555 | .2 | 4.5 | -- | -- | 2,940 | 2,130 | 9.0 | .9 | .00 | 3,820 | 6.5 | -- |
| 203 | 48 | do. | Qa1 | 24 | -- | -- | 458 | 330 | 381 | 1.8 | 248 | 2,400 | 432 | 1.1 | 52 | -- | -- | 4,220 | 2,500 | 25 | 3.3 | .00 | 5,020 | 7.3 | -- |
| 204 | 15 | Jan. 7, 1969 | Pa | 21 | -- | -- | 580 | 532 | 435 | 2.5 | 282 | 3,440 | 510 | 2.4 | 30 | -- | -- | 5,690 | 3,640 | 21 | 3.1 | .00 | 6,270 | -- | -- |
| 205 | 55 | Nov. 29, 1949 | Pa | 34 | -- | -- | 550 | 411 | 394 | 227 | 2,970 | 432 | 432 | -- | 39 | -- | -- | 5,390 | 3,060 | -- | -- | -- | 5,260 | 7.4 | 66 |
| 308 | 76 | May 28, 1969 | Qa1 | 26 | 2.0 | -- | 430 | 260 | 369 | 369 | 252 | 1,950 | 452 | -- | 89 | -- | -- | 3,700 | 2,140 | 27 | 3.5 | .00 | 4,470 | 7.4 | -- |
| 401 | 120 | Dec. 11, 1968 | Qa1 | 9.3 | -- | -- | 548 | 138 | 88 | 2.6 | 58 | 1,480 | 415 | .1 | 1.8 | -- | -- | 2,710 | 1,940 | 9.0 | .9 | .00 | 3,320 | 6.7 | -- |
| 702 | 47 | Jan. 13, 1969 | Pa | 22 | -- | -- | 655 | 178 | 560 | 7.1 | 108 | 2,130 | 900 | .5 | 35 | -- | -- | 4,540 | 2,370 | 34 | 5.0 | .00 | 5,730 | 7.3 | -- |
| 803 | 178 | July 1, 1969 | Pa | -- | -- | -- | 585 | 165 | 123 | 123 | 70 | 2,090 | 122 | -- | -- | -- | -- | 3,140 | 1,140 | -- | -- | .00 | 3,140 | 7.0 | -- |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SOLIDUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECTROSCOPIC TANGENT (MICROMOS AT 25° C) | pH | TEMPERATURE | |
|--------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|------------------|-------|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-----------------|-------------------------------|---------------------------------|---|--------|-------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | | |
| KZ-12-27-901 | 30-170 | Aug. 7, 1961 | Qa1 | 19 | -- | -- | 568 | 149 | 65 | 3.6 | 86 | 1,850 | 124 | 0.6 | 8.4 | 0.66 | -- | 2,830 | 2,030 | 7.0 | 0.6 | -- | 3,090 | 7.1 | 65 | |
| | -- | July 1, 1969 | Qa1 | -- | -- | -- | 590 | 144 | -- | -- | 74 | 1,970 | 144 | -- | -- | -- | -- | -- | 2,060 | 2,060 | -- | -- | 0.00 | 3,140 | 7.3 | -- |
| | 28-103 | 140 | Oct. 31, 1968 | Qa1 | 14 | -- | -- | 241 | 78 | 66 | 2.3 | 232 | 766 | 46 | .7 | 24 | .28 | -- | 1,360 | 922 | 13 | .9 | .00 | 1,740 | 7.1 | -- |
| | 201 | 8 | Apr. 23, 1957 | Qa1 | -- | -- | -- | 655 | 286 | 179 | 525 | 2,488 | 159 | -- | -- | -- | -- | -- | 4,275 | 2,840 | -- | -- | -- | -- | -- | -- |
| | 202 | 32 | Oct. 31, 1968 | Qa1 | 28 | -- | -- | 580 | 145 | 156 | 5.0 | 210 | 1,980 | 89 | 1.2 | 40 | -- | -- | 3,130 | 2,040 | 14 | 1.5 | .00 | 3,680 | 7.1 | -- |
| | 301 | 45 | Oct. 24, 1967 | Qa1 | 16 | -- | -- | 172 | 36 | 29 | 222 | 387 | 29 | .7 | 7.0 | -- | -- | -- | 790 | 580 | -- | -- | -- | 1,050 | 7.5 | -- |
| | 301 | 45 | Nov. 13, 1968 | Qa1 | 14 | -- | -- | 146 | 30 | 28 | 5.7 | 186 | 338 | 35 | .5 | 4.8 | -- | -- | 693 | 488 | 11 | .6 | .00 | 1,000 | 7.4 | -- |
| | 302 | 95 | Oct. 24, 1967 | Qa1 | 14 | -- | -- | 660 | 94 | 403 | 194 | 1,700 | 670 | 1.6 | .4 | -- | -- | -- | 3,720 | 2,040 | -- | -- | -- | 4,440 | 7.5 | -- |
| | 302 | 95 | Nov. 13, 1968 | Qa1 | 16 | -- | -- | 670 | 84 | 378 | 6.7 | 192 | 1,760 | 640 | .8 | 2.8 | .28 | -- | 3,650 | 2,020 | 29 | 3.7 | .00 | 4,490 | 7.3 | -- |
| | 403 | 100 | May 28, 1969 | Qa1 | 18 | -- | -- | 800 | 192 | 2,030 | 152 | 2,000 | 3,100 | -- | -- | -- | -- | -- | 8,820 | 2,790 | 61 | -- | .00 | 12,400 | 7.2 | -- |
| 502 | 45 | Jan. 27, 1969 | Qa1 | 27 | -- | -- | 81 | 34 | 65 | 2.0 | 292 | 114 | 84 | .4 | 4.6 | -- | -- | 556 | 342 | 29 | 1.5 | .00 | 912 | 7.4 | -- | |
| 603 | 41 | Sept. 17, 1945 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 361 | 100 | 28 | -- | 31 | -- | -- | 578 | -- | -- | -- | -- | -- | -- | -- | |
| 702 | -- | Jan. 13, 1969 | Fa | 18 | -- | -- | 592 | 132 | 42 | 3.1 | 84 | 1,810 | 125 | .2 | 6.2 | -- | -- | 2,770 | 2,020 | 4.0 | .4 | .00 | 2,910 | 7.0 | -- | |
| 802 | 38 | July 1, 1969 | Fa | -- | -- | -- | 575 | 150 | 205 | 42 | 2,090 | 204 | -- | -- | -- | -- | -- | 3,250 | 2,050 | -- | -- | .00 | 3,430 | 7.0 | -- | |
| 901 | 66 | Jan. 15, 1969 | Fa | 8.4 | -- | -- | 612 | 162 | 132 | 6.8 | 55 | 1,960 | 288 | .3 | 8.0 | -- | -- | 3,200 | 2,190 | 12 | 1.2 | .00 | 3,650 | 7.4 | -- | |
| 904 | 22 | Oct. 24, 1967 | Fa | 25 | -- | -- | 680 | 207 | 124 | 9.7 | 407 | 1,870 | 200 | 1.5 | 34.0 | -- | -- | 3,650 | 2,550 | -- | -- | -- | 3,850 | 7.2 | -- | |
| 29-101 | 239 | Nov. 13, 1968 | Fa | 11 | -- | -- | 720 | 123 | 594 | 9.7 | 127 | 2,030 | 1,010 | .8 | 3.8 | -- | -- | 4,560 | 2,300 | 36 | 5.4 | .00 | 6,010 | 7.1 | -- | |
| 201 | 31 | Oct. 24, 1967 | Qa1 | 24 | -- | -- | 384 | 298 | 850 | 260 | 1,720 | 1,350 | 1,7 | 80 | -- | -- | -- | 4,840 | 2,190 | -- | -- | -- | 6,330 | 7.5 | -- | |
| 202 | 33 | do. | Qa1 | 20 | -- | -- | 344 | 238 | 420 | 260 | 1,020 | 1,010 | 1.6 | 88 | -- | -- | -- | 3,270 | 1,840 | -- | -- | -- | 6,650 | 7.4 | -- | |
| 202 | 33 | Nov. 1, 1968 | Qa1 | 20 | -- | -- | 248 | 170 | 385 | 4.2 | 268 | 892 | 652 | 1.1 | 164 | -- | -- | 2,670 | 1,320 | 39 | 4.6 | .00 | 4,200 | 7.3 | -- | |
| 203 | 30 | Oct. 24, 1967 | Qa1 | 24 | -- | -- | 74 | 67 | 156 | 312 | 264 | 124 | 1.4 | 132 | -- | -- | -- | 1,000 | 402 | -- | -- | -- | 1,510 | 7.5 | -- | |
| 204 | 85 | Aug. 10, 1967 | Qa1 | 19 | -- | -- | 496 | 106 | 218 | 255 | 1,490 | 213 | 1.4 | -- | -- | -- | -- | -- | 1,680 | -- | -- | -- | -- | -- | 7.4 | -- |
| 204 | 85 | Oct. 24, 1967 | Qa1 | 20 | -- | -- | 496 | 112 | 221 | 260 | 1,540 | 187 | 1.3 | -- | -- | -- | -- | -- | 2,780 | 1,700 | -- | -- | -- | 3,200 | 7.7 | -- |
| 205 | 30 | Aug. 10, 1967 | Qa1 | 23 | -- | -- | 95 | 88 | 228 | 38 | 328 | 516 | 224 | 1.3 | 195 | -- | -- | 1,470 | 600 | -- | -- | -- | -- | 7.7 | -- | |
| 205 | 30 | Oct. 24, 1967 | Qa1 | 22 | -- | -- | 96 | 97 | 233 | 321 | 422 | 236 | 1.4 | 168 | -- | -- | -- | 1,430 | 640 | -- | -- | -- | 2,150 | 7.7 | -- | |
| 206 | 30 | do. | Qa1 | 17 | -- | -- | 152 | 144 | 211 | 243 | 520 | 470 | .9 | 35 | -- | -- | -- | 1,670 | 970 | -- | -- | -- | 2,650 | 7.8 | -- | |
| 207 | 205 | Oct. 25, 1967 | Fa | 12 | -- | -- | 900 | 225 | 570 | 59 | 1,690 | 1,890 | 1.1 | 161 | -- | -- | -- | 5,900 | 3,300 | -- | -- | -- | 7,060 | 7.4 | -- | |
| 207 | 205 | Nov. 1, 1968 | Fa | 14 | -- | -- | 905 | 229 | 545 | 2.8 | 62 | 1,920 | 1,620 | .6 | 58 | .60 | -- | 5,320 | 3,200 | 27 | 4.2 | .00 | 7,580 | 6.9 | -- | |
| 402 | 32 | Oct. 29, 1968 | Qa1 | 24 | -- | -- | 74 | 32 | 73 | 1.9 | 314 | 98 | 67 | .5 | 24 | -- | -- | 548 | 316 | 33 | 1.8 | .00 | 888 | 7.5 | -- | |
| 403 | 61-100 | do. | Qa1 | 15 | -- | -- | 121 | 30 | 98 | 3.1 | 292 | 254 | 79 | .6 | 37 | .24 | -- | 782 | 426 | 33 | 2.1 | .00 | 1,190 | 7.3 | -- | |
| 409 | 12 | Oct. 13, 1945 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 392 | 350 | 342 | -- | .0 | -- | -- | -- | 585 | -- | -- | -- | -- | -- | -- | |
| 410 | 64-71 | Sept. 14, 1945 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 36 | 600 | 192 | -- | .8 | -- | -- | -- | 232 | -- | -- | -- | -- | -- | -- | |
| 412 | 50 | Sept. 18, 1945 | Qa1 | -- | -- | -- | -- | -- | -- | -- | 515 | 45 | 21 | -- | 66 | -- | -- | -- | 162 | -- | -- | -- | -- | -- | -- | |

Hill County

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SODIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | pH | TEMPERATURE °F | |
|--------------|----------------------------------|------------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|----------------|-------------------------------|---------------------------------|---|-----|----------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | | |
| Hall County | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KZ-12-29-413 | 35 | Sept. 14, 1945 | Qal | -- | -- | -- | -- | -- | -- | -- | 360 | 120 | 86 | -- | 33 | -- | -- | -- | 352 | -- | -- | -- | -- | -- | -- | -- |
| d | 502 | 22-58 Dec. 24, 1964 | Qal | -- | -- | -- | 43 | 25 | 119 | 338 | 90 | 32 | 1.1 | 68 | -- | -- | -- | 720 | 209 | -- | -- | -- | 980 | 7.7 | -- | |
| d | 503 | 62 Dec. 15, 1966 | Qal | -- | -- | -- | 44 | 25 | 111 | 332 | 84 | 33 | 1.0 | 50 | -- | -- | -- | 680 | 211 | -- | -- | -- | 945 | 7.9 | -- | |
| | 504 | 60 Oct. 20, 1960 | Qal | 18 | 0.02 | -- | 47 | 33 | 170 | 3.8 | 353 | 162 | 88 | .7 | 68 | -- | -- | 764 | 253 | 59 | 4.6 | -- | 1,210 | 7.2 | 66 | |
| d | 504 | 60 May 13, 1964 | Qal | -- | -- | -- | 43 | 28 | 118 | 343 | 103 | 34 | .9 | 69 | -- | -- | -- | 740 | 221 | -- | -- | -- | 1,005 | 7.5 | -- | |
| | 504 | 60 June 10, 1969 | Qal | 17 | .00 | 0.00 | 40 | 25 | 134 | 1.5 | 330 | 110 | 46 | .8 | 53 | 0.35 | 0.07 | 590 | 203 | 59 | 4.1 | 1.35 | 934 | 7.6 | -- | |
| | 505 | Spring May 1943 | Pp | -- | -- | -- | 1,495 | 293 | 17,100 | 126 | 4,190 | 26,700 | -- | -- | -- | -- | -- | 49,800 | 4,940 | -- | -- | -- | 69,600 | -- | -- | |
| | 505 | Spring Sept. 23, 1948 | Pp | 15 | -- | -- | 1,500 | 311 | 17,000 | 133 | 4,250 | 26,500 | -- | -- | -- | -- | -- | 49,640 | 5,020 | -- | -- | -- | 65,900 | -- | -- | |
| | 505 | Spring Jan. 11, 1954 | Pp | -- | -- | -- | -- | -- | -- | 132 | -- | 29,500 | -- | -- | -- | -- | -- | -- | 5,000 | -- | -- | -- | 65,300 | 7.5 | -- | |
| y | 505 | Spring Mar. 5, 1960 | Pp | 12 | .00 | .00 | 1,600 | 390 | 15,000 | 100 | -- | 4,300 | 25,500 | 2.9 | -- | 2.0 | -- | 48,000 | 5,600 | -- | -- | -- | 60,000 | 7.9 | -- | |
| y | 505 | Spring Apr. 25, 1960 | Pp | 13 | -- | -- | 1,440 | 486 | 18,000 | 110 | -- | 4,700 | 25,250 | 2.5 | -- | 1.9 | -- | 50,900 | 5,600 | -- | -- | -- | 63,000 | 7.4 | -- | |
| y | 505 | Spring Sept. 15, 1960 | Pp | -- | -- | -- | 1,520 | 535 | 16,500 | 60 | -- | 3,700 | 25,700 | 1.4 | -- | 2.0 | -- | 44,000 | 6,000 | -- | -- | -- | 58,000 | 7.7 | -- | |
| d | 505 | Spring Aug. 10, 1967 | Pp | 12 | -- | -- | 1,620 | 291 | 18,400 | 101 | 4,420 | 29,500 | 2.2 | .4 | -- | -- | -- | 5,250 | -- | -- | -- | -- | 54,300 | 7.6 | -- | |
| | 505 | Spring Oct. 29, 1969 | Pp | 13 | -- | -- | 1,580 | 552 | 18,200 | 50 | 131 | 5,180 | 28,800 | 1.5 | 2.6 | 2.24 | -- | 54,400 | 6,210 | 86 | -- | .00 | 75,500 | 6.9 | -- | |
| | 506 | 60 do. | Qal | 18 | -- | -- | 52 | 29 | 220 | 1.4 | 352 | 219 | 124 | .7 | 50 | -- | -- | 881 | 249 | 66 | 6.1 | .79 | 1,390 | 7.7 | -- | |
| | 507 | Spring do. | Pp | 9.2 | -- | -- | 1,350 | 548 | 13,100 | 78 | 100 | 4,520 | 20,800 | 1.3 | 6 | -- | -- | 40,500 | 5,620 | 83 | -- | .00 | 56,900 | 6.6 | -- | |
| | 508 | Spring do. | Pp | 30 | -- | -- | 905 | 1,150 | 8,780 | 35 | 408 | 6,700 | 13,200 | 5.0 | 46 | -- | -- | 31,100 | 6,990 | 73 | -- | .00 | 43,000 | 6.8 | -- | |
| d | 512 | 45 Oct. 25, 1967 | Qal | 26 | -- | -- | 38 | 25 | 229 | 340 | 157 | 149 | 2.2 | 35 | -- | -- | -- | 830 | 199 | -- | -- | -- | 1,340 | 7.9 | -- | |
| | 514 | 33 Oct. 13, 1945 | Qal | -- | -- | -- | -- | -- | -- | 486 | 300 | 440 | -- | 126 | -- | -- | -- | 465 | -- | -- | -- | -- | -- | -- | -- | |
| | 515 | 56 Apr. 14, 1942 | Qal | -- | -- | -- | 61 | 31 | 82 | 364 | 91 | 34 | -- | 21 | -- | -- | -- | 499 | 280 | -- | -- | -- | -- | -- | -- | |
| | 515 | 56 Composite 12-29-502 | Qal | -- | -- | -- | 13 | 13 | 159 | 359 | 66 | 46 | .5 | 3.0 | -- | -- | -- | 481 | 88 | -- | -- | -- | 820 | 8.4 | -- | |
| | 802 | 17 June 17, 1969 | Pa | -- | -- | -- | 335 | 254 | 647 | 242 | 2,370 | 440 | -- | -- | -- | -- | -- | 4,170 | 1,880 | -- | -- | .00 | 4,850 | 7.5 | -- | |
| 33-301 | 38 | July 14, 1969 | Pa | -- | -- | -- | 565 | 222 | 142 | 298 | 2,270 | 17 | -- | -- | -- | -- | -- | 3,370 | 2,320 | -- | -- | .00 | 3,300 | 7.4 | -- | |
| | 601 | 160 Apr. 10, 1969 | Po | 26 | -- | -- | 590 | 107 | 77 | 192 | 1,160 | 480 | .6 | 46 | -- | -- | -- | 2,580 | 1,910 | 8 | .8 | .00 | 3,400 | 7.0 | -- | |
| | 802 | Spring Apr. 18, 1969 | Po | 1.3 | -- | -- | 628 | 209 | -- | 258 | 2,090 | 310 | -- | 7.5 | -- | -- | -- | 3,560 | 2,430 | 14 | 1.6 | .00 | 4,040 | 7.0 | -- | |
| | 902 | 250 July 1, 1969 | Po | -- | -- | -- | 588 | 130 | 110 | 180 | 1,860 | 111 | -- | -- | -- | -- | -- | 2,900 | 2,000 | -- | -- | .00 | 3,020 | 7.5 | -- | |
| 34-101 | 135 | Feb. 26, 1969 | Po | 45 | -- | -- | 580 | 176 | 229 | 189 | 2,120 | 212 | -- | 10 | -- | -- | -- | 3,460 | 2,170 | 19 | 2.1 | .00 | 3,760 | 7.3 | -- | |
| | 202 | 84 July 1, 1969 | Pa | -- | -- | -- | 578 | 127 | 57 | 134 | 1,880 | 15 | -- | -- | -- | -- | -- | 2,730 | 1,960 | -- | -- | .00 | 2,830 | 7.4 | -- | |
| | 402 | 50 do. | Pa | -- | -- | -- | 578 | 116 | 178 | 250 | 1,880 | 96 | -- | -- | -- | -- | -- | 2,970 | 1,910 | -- | -- | .00 | 3,100 | 7.5 | -- | |
| | 501 | 148 Feb. 26, 1969 | Pa | 7.0 | -- | -- | 650 | 250 | 615 | 102 | 2,430 | 970 | -- | 7.8 | -- | -- | -- | 4,980 | 2,650 | 34 | 5.2 | .00 | 6,900 | 7.4 | -- | |
| | 602 | 115 do. | Pa | 25 | 1.8 | -- | 575 | 173 | 31 | 86 | 2,020 | 26 | -- | 4.7 | -- | -- | -- | 2,900 | 2,150 | 3.0 | .3 | .00 | 3,020 | 7.3 | -- | |
| | 701 | 200 do. | Pa | 33 | 3.0 | -- | 575 | 142 | 80 | 102 | 1,930 | 70 | -- | 3.2 | -- | -- | -- | 2,880 | 2,020 | 8.0 | .8 | .00 | 3,060 | 7.1 | -- | |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SO-DIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | pH | TEMPERATURE °F | |
|--------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-----------------|-------------------------------|---------------------------------|---|-------|----------------|----|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | | |
| Hall County | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KZ-12-34-702 | 200 | Oct. 1, 1969 | Pa | -- | -- | -- | 575 | 190 | 178 | 98 | 2,160 | 195 | -- | -- | -- | -- | -- | 3,350 | 2,220 | -- | -- | 0.00 | 3,560 | 7.2 | -- | |
| 801 | 102 | Feb. 26, 1969 | Pa | 42 | -- | -- | 575 | 144 | 52 | 112 | 1,900 | 46 | 1.0 | 4.6 | -- | -- | -- | 2,820 | 2,030 | 5.0 | 0.5 | .00 | 2,880 | 7.2 | -- | |
| 902 | 140 | do. | Pa | 24 | -- | -- | 565 | 157 | 76 | 97 | 1,970 | 61 | -- | 5.1 | -- | -- | -- | 2,910 | 2,060 | 7.0 | .7 | .00 | 3,080 | -- | -- | |
| 35-203 | Spring | July 1, 1969 | Pa | -- | -- | -- | 134 | 8.0 | 20 | 70 | 320 | 14 | -- | -- | -- | -- | -- | 530 | 368 | -- | -- | .00 | 781 | 7.2 | -- | |
| 301 | 197 | June 19, 1969 | Pa | 572 | -- | -- | 572 | 142 | 65 | 49 | 1,920 | 80 | -- | -- | -- | -- | -- | 2,810 | 2,010 | -- | -- | .00 | 2,930 | 6.7 | -- | |
| 401 | -- | Jan. 16, 1969 | Pa | 16 | -- | -- | 605 | 171 | 43 | 4.3 | 54 | 2,100 | 60 | .6 | 5.5 | -- | -- | 3,030 | 2,210 | 4.0 | .4 | .00 | 3,120 | 7.2 | -- | |
| 501 | 42 | Feb. 25, 1969 | Pa | 22 | -- | -- | 570 | 187 | 65 | 172 | 2,000 | 69 | -- | 15 | -- | -- | -- | 3,010 | 2,190 | 6.0 | .6 | .00 | 3,130 | 7.4 | -- | |
| 601 | 120 | Jan. 15, 1969 | Pa | 24 | -- | -- | 605 | 180 | 66 | 2.5 | 120 | 2,070 | 101 | .4 | 5.4 | -- | -- | 3,110 | 2,250 | 6.0 | .6 | .00 | 2,970 | 7.2 | -- | |
| 701 | 68 | Feb. 25, 1969 | Pa | 13 | -- | -- | 552 | 218 | 57 | 68 | 2,160 | 66 | -- | 1.5 | -- | -- | -- | 3,100 | 2,270 | 5.0 | .5 | .00 | 3,190 | 7.9 | -- | |
| 801 | 37 | Jan. 16, 1969 | Qa1 | 15 | -- | -- | 575 | 178 | 38 | 4.0 | 136 | 1,970 | 60 | .2 | 9.4 | -- | -- | 2,920 | 2,170 | 4.0 | .4 | .00 | 3,100 | 7.7 | -- | |
| 902 | 189 | do. | Pa | 16 | -- | -- | 575 | 176 | 38 | 3.3 | 72 | 2,080 | 78 | .1 | 4.0 | -- | -- | 3,030 | 2,210 | 4.0 | .4 | .00 | 3,100 | 7.4 | -- | |
| 36-101 | 220 | Jan. 15, 1969 | Pa | 19 | -- | -- | 580 | 153 | 63 | 3.9 | 84 | 1,870 | 138 | .4 | 6.4 | -- | -- | 2,870 | 2,080 | 6.0 | .6 | .00 | 3,110 | 7.1 | -- | |
| 201 | 246 | do. | Pa | 18 | -- | -- | 580 | 147 | 32 | 2.5 | 5.4 | 1,900 | 68 | .6 | 5.7 | -- | -- | 2,780 | 2,050 | 3.0 | .3 | .00 | 2,920 | 7.0 | -- | |
| 302 | 153 | June 10, 1969 | Pa | -- | -- | -- | 590 | 141 | 223 | 82 | 1,990 | 282 | -- | -- | -- | -- | -- | 3,270 | 2,050 | -- | -- | .00 | 3,660 | 7.3 | -- | |
| 402 | 218 | Jan. 15, 1969 | Pa | 17 | -- | -- | 595 | 193 | 103 | 2.9 | 102 | 2,130 | 162 | .2 | 4.4 | -- | -- | 3,260 | 2,280 | 9.0 | 1.0 | .00 | 3,470 | 7.2 | -- | |
| 501 | 126 | June 10, 1969 | Pa | -- | -- | -- | 565 | 147 | 58 | 82 | 1,900 | 68 | -- | -- | -- | -- | -- | 2,780 | 2,010 | -- | -- | .00 | 2,900 | 7.3 | -- | |
| 603 | 80 | do. | Pa | 23 | -- | -- | 178 | 60 | 66 | 472 | 298 | 23 | .3 | .4 | -- | -- | -- | 981 | 691 | 17 | 1.1 | .00 | 1,360 | 7.6 | -- | |
| 701 | 243 | Jan. 15, 1969 | Pa | 15 | -- | -- | 600 | 176 | 72 | 2.9 | 54 | 2,160 | 79 | .1 | 4.7 | -- | -- | 3,140 | 2,220 | 7.0 | .7 | .00 | 3,170 | 7.2 | -- | |
| 801 | 163 | Jan. 16, 1969 | Pa | 18 | -- | -- | 590 | 192 | 66 | 3.1 | 72 | 2,120 | 103 | .6 | 5.3 | -- | -- | 3,130 | 2,260 | 6.0 | .6 | .00 | 3,130 | 7.3 | -- | |
| 902 | 200 | Jan. 12, 1969 | Pa | -- | -- | -- | 580 | 137 | 73 | 73 | 1,860 | 122 | -- | -- | -- | -- | -- | 2,810 | 2,010 | -- | -- | .00 | 2,960 | 7.2 | -- | |
| 37-102 | Spring | June 11, 1969 | Pa | -- | -- | -- | 350 | 64 | 67 | 160 | 996 | 80 | -- | -- | -- | -- | -- | 1,640 | 1,140 | -- | -- | .00 | 2,030 | 6.9 | -- | |
| 201 | 95 | do. | Pa | -- | -- | -- | 545 | 119 | 126 | 70 | 1,900 | 63 | -- | -- | -- | -- | -- | 2,800 | 1,850 | -- | -- | .00 | 2,960 | 7.2 | -- | |
| d/ | 203 | 410 | Oct. 21, 1960 | Qa1 | 22 | 1.1 | -- | 412 | 89 | 402 | 4.4 | 122 | 1,220 | 660 | .6 | 2.8 | -- | -- | 2,870 | 1,390 | 38 | 4.7 | -- | 3,900 | 6.8 | 70 |
| d/ | 203 | 410 | June 12, 1964 | Qa1 | -- | -- | 345 | 92 | 179 | 127 | 1,060 | 285 | 1.0 | 7.0 | -- | -- | -- | 2,100 | 1,240 | -- | -- | -- | 3,664 | 7.3 | -- | |
| d/ | 203 | 410 | June 17, 1969 | Qa1 | 23 | .01 | 0.00 | 385 | 81 | 180 | 2.8 | 134 | 1,110 | 302 | .5 | 1.7 | .26 | .00 | 2,150 | 1,290 | 23 | 2.2 | .00 | 2,780 | 7.2 | -- |
| d/ | 204 | 332 | Oct. 16, 1940 | Qa1 | -- | -- | 131 | 28 | 29 | 142 | 313 | 28 | -- | -- | -- | -- | -- | 613 | 442 | -- | -- | -- | -- | -- | -- | |
| d/ | 501 | 27 | June 11, 1969 | Pa | 12 | -- | -- | 550 | 142 | 386 | 52 | 2,090 | 402 | -- | 12 | -- | -- | 3,620 | 1,960 | 30 | 3.8 | .00 | 4,380 | 7.6 | -- | |
| d/ | 702 | 58 | do. | Pa | -- | -- | 570 | 102 | 77 | 119 | 1,960 | 84 | -- | -- | -- | -- | -- | 2,920 | 2,090 | -- | -- | .00 | 3,060 | 7.4 | -- | |
| d/ | 801 | 71 | do. | Pa | -- | -- | 528 | 118 | 226 | 124 | 1,820 | 211 | -- | -- | -- | -- | -- | 2,970 | 1,800 | -- | -- | .00 | 3,330 | 7.2 | -- | |
| d/ | 41-203 | 133 | Dec. 28, 1964 | Qa1 | -- | .31 | -- | 83 | 32 | 46 | 250 | 53 | 88 | .6 | 58 | -- | -- | 610 | 340 | -- | -- | -- | 955 | 7.4 | -- | |
| d/ | 203 | 133 | Apr. 9, 1969 | Qa1 | 27 | .11 | -- | 114 | 46 | 65 | 3.6 | 240 | 114 | 175 | .5 | 57 | .07 | -- | 720 | 474 | 23 | 1.3 | .00 | 1,230 | 7.2 | -- |
| d/ | 204 | 130 | Dec. 28, 1964 | Qa1 | -- | .56 | .05 | 75 | 28 | 60 | 287 | 61 | 74 | .7 | 53 | -- | -- | 640 | 306 | -- | -- | -- | 950 | -- | -- | |
| d/ | 42-103 | Spring | Apr. 9, 1969 | Po | 4.2 | -- | -- | 464 | 210 | 137 | 190 | 1,770 | 185 | .4 | 76 | -- | -- | 2,940 | 2,020 | 13 | 1.3 | .00 | 3,320 | 7.3 | -- | |

See footnotes at end of table.

Table 7.--Chemical Analyses of Water From Selected Wells and Springs--Continued

| WELL | DEPTH OR PRODUCING INTERVAL (FT) | DATE OF COLLECTION | WATER BEARING UNIT | SILICA (SiO ₂) | IRON (Fe) | MANGANESE (Mn) | CALCIUM (Ca) | MAGNESIUM (Mg) | SODIUM AND POTASSIUM | | BICARBONATE (HCO ₃) | SULFATE (SO ₄) | CHLORIDE (Cl) | FLUORIDE (F) | NITRATE (NO ₃) | BORON (B) | PHOSPHATE (PO ₄) | DISSOLVED SOLIDS | HARDNESS AS CaCO ₃ | PERCENT SO-DIUM | SODIUM ADSORPTION RATIO (SAR) | RESIDUAL SODIUM CARBONATE (RSC) | SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C) | pH | TEMPERATURE °F | |
|--------------|----------------------------------|--------------------|--------------------|----------------------------|-----------|----------------|--------------|----------------|----------------------|-----|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------|------------------------------|------------------|-------------------------------|-----------------|-------------------------------|---------------------------------|---|----|----------------|--|
| | | | | | | | | | Na | K | | | | | | | | | | | | | | | | |
| Hall County | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KZ-12-42-106 | 60 | Oct. 1, 1969 | Po | -- | -- | -- | 500 | 58 | 41 | 222 | 1,320 | 14 | -- | -- | -- | -- | 2,050 | 1,490 | -- | -- | 0.00 | 2,270 | 7.4 | -- | | |
| 201 | 40 | Feb. 26, 1969 | Pa | 29 | -- | -- | 565 | 218 | 76 | 166 | 2,140 | 76 | 0.0 | -- | -- | -- | 3,190 | 2,310 | 7.0 | 0.7 | .00 | 3,290 | 7.5 | -- | | |
| 203 | 100 | July 15, 1969 | Pa | -- | -- | -- | 610 | 122 | 103 | 134 | 1,860 | 142 | -- | -- | -- | -- | 2,910 | 2,020 | -- | -- | .00 | 3,040 | 7.6 | -- | | |
| 301 | -- | Oct. 1, 1969 | Po | -- | -- | -- | 575 | 156 | 67 | 112 | 1,980 | 49 | -- | -- | -- | -- | 2,900 | 2,080 | -- | -- | .00 | 3,010 | 7.2 | -- | | |
| 401 | 85-130 | July 15, 1969 | Po | -- | -- | -- | 395 | 110 | 95 | 164 | 1,260 | 140 | -- | -- | -- | -- | 2,090 | 1,440 | -- | -- | .00 | 2,520 | 7.8 | -- | | |
| 505 | 92 | do. | Qal | -- | -- | -- | 395 | 88 | 100 | 184 | 1,220 | 102 | -- | -- | -- | -- | 2,000 | 1,350 | -- | -- | .00 | 2,440 | 7.4 | -- | | |
| 43-101 | 155 | Feb. 25, 1969 | Pa | 15 | -- | -- | 580 | 160 | 118 | 72 | 2,000 | 170 | -- | 5.2 | -- | -- | 3,070 | 2,100 | 11 | 1.1 | .00 | 3,280 | 7.1 | -- | | |
| 201 | 25 | do. | Qal | 13 | -- | -- | 605 | 183 | 438 | 66 | 2,490 | 402 | -- | 2.4 | -- | -- | 4,170 | 2,260 | 30 | 4.0 | .00 | 5,210 | 6.9 | -- | | |
| 401 | 175 | Oct. 1, 1969 | Pa | -- | -- | -- | 570 | 158 | 72 | 47 | 2,070 | 24 | -- | -- | -- | -- | 2,920 | 2,070 | -- | -- | .00 | 2,970 | 7.2 | -- | | |
| 601 | 170 | Feb. 25, 1969 | Pa | 15 | -- | -- | 580 | 136 | 97 | 75 | 1,940 | 93 | -- | 5.5 | -- | -- | 2,900 | 2,010 | 10 | .9 | .00 | 3,030 | 7.1 | -- | | |
| 44-101 | 190 | June 19, 1969 | Pa | -- | -- | -- | 568 | 139 | 73 | 74 | 1,900 | 77 | -- | -- | -- | -- | 2,800 | 1,990 | -- | -- | .00 | 2,920 | 7.1 | -- | | |
| 202 | 48 | June 12, 1969 | Pa | -- | -- | -- | 555 | 162 | 151 | 40 | 2,190 | 47 | -- | -- | -- | -- | 3,030 | 2,050 | -- | -- | .00 | 3,130 | 7.2 | -- | | |
| 301 | 211 | June 11, 1969 | Pa | -- | -- | -- | 592 | 134 | 11 | 79 | 1,860 | 36 | -- | -- | -- | -- | 2,680 | 2,030 | -- | -- | .00 | 2,800 | 7.4 | -- | | |
| 501 | 210 | do. | Pa | 16 | -- | -- | 552 | 149 | 64 | 42 | 1,960 | 30 | .3 | 14 | -- | -- | 2,810 | 1,990 | 7.0 | .6 | .00 | 2,920 | 7.2 | -- | | |
| 601 | 198 | do. | Pa | -- | -- | -- | 565 | 137 | 72 | 66 | 1,920 | 54 | -- | -- | -- | -- | 2,790 | 1,970 | -- | -- | .00 | 2,900 | 7.3 | -- | | |
| 45-101 | 80 | June 12, 1969 | Pa | -- | -- | -- | 555 | 152 | 60 | 38 | 1,990 | 26 | -- | -- | -- | -- | 2,810 | 2,010 | -- | -- | .00 | 2,940 | 7.2 | -- | | |
| 201 | 130 | do. | Pa | -- | -- | -- | 575 | 136 | 97 | 96 | 1,920 | 79 | -- | 19 | -- | -- | 2,890 | 1,990 | 10 | .9 | .00 | 3,010 | 7.6 | -- | | |
| 401 | 130 | do. | Pa | -- | -- | -- | 502 | 117 | 78 | 148 | 1,650 | 46 | -- | -- | -- | -- | 2,480 | 1,730 | -- | -- | .00 | 2,690 | 7.4 | -- | | |

1/ Sodium and potassium calculated as sodium (Na) when only one number is shown.
 * Composite sample for spring BL-11-21-301, 302, 303.
 ** Pesticide analyses in files of U.S. Geological Survey.
 a/ Analysis by Western Cotton Oil Company, Abilene, Texas.
 b/ Analysis by Western Cotton Oil Company, Pecos, Texas.
 c/ Aluminum content 0.2 mg/l.
 d/ Analysis by Texas State Department of Public Health, Austin, Texas.
 e/ Analysis by Texas A&M University Extension Service, College Station, Texas.
 f/ Analysis by Curtis Laboratories, Houston, Texas.
 g/ Analysis by International Filter Company.
 h/ Analysis by Memphis Cotton Oil Company, Memphis, Texas.
 j/ Analysis by RATSEC Laboratories.