GROUND-WATER RESOURCES OF SOCORRO COUNTY, NEW MEXICO

By F. Eileen Roybal

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 89-4083

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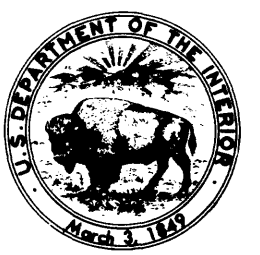
and the

NEW MEXICO BUREAU OF MINES AND MINERAL RESOURCES



Albuquerque, New Mexico

1991

U.S. DEPARTMENT OF THE INTERIOR

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CONTENTS

PLATES

[Plates are in pocket]

FIGURES

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
inch	25.40	millimeter
foot	0.3048	meter
mile	1.609	kilometer
acre	4,047	square meter
square mile	2.590	square kilometer
acre-foot	1,233	cubic meter
acre-foot per day	6,051,000	cubic meter per day
gallon per minute	0.06309	liter per second
gallon per minute per foot	0.2070	liter per second per meter
gallon per day per foot	0.01242	square meter per day
foot squared per day	0.09290	meter squared per day

$$°C = (°F - 32)/1.8$$
$$°F = (1.8 \times °C) + 32$$

Sea Level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

TABLES

GROUND-WATER RESOURCES OF SOCORRO COUNTY, NEW MEXICO

By F. Eileen Roybal

ABSTRACT

A hydrologic study of Socorro County was conducted to provide data that may be used in the management of ground-water resources. This report describes the occurrence, availability, and quality of ground water in Socorro County. Rocks ranging in age from Quaternary through Precambrian are present in the county. Quaternary deposits cover large areas in the county.

In Quaternary deposits and in the Quaternary and Tertiary Santa Fe Group, yields of ground water typically are less than 50 gallons per minute. Yields of ground water that range from less than 1 to 2,700 gallons per minute are available from Quaternary deposits mainly along the Rio Grande, the Alamosa Creek, the San Agustin Basin, and in the Jornada del Muerto. Water is used for stock, irrigation, domestic, industrial, and public supplies. Water quality ranges from potable water used for domestic supplies to water containing sulfate or chloride concentrations greater than 1,000 milligrams per liter used for stock supplies. Yields of ground water that range from 1 to 2,000 gallons per minute are available from the Santa Fe Group along the Rio Grande.

Ground-water yields that range from 2.5 to 80 gallons per minute are available in Tertiary volcanics and the Datil Group of middle Tertiary age, mainly in the San Agustin Basin and Alamosa Creek basin, and in the Crevasse Canyon Formation and Gallup Sandstone of Cretaceous age, mainly in the Alamo Navajo Indian Reservation area. Ground water from Tertiary volcanics and the Datil Group generally meets drinking water-quality standards and is mostly for stock supplies. Specific conductance of water in the Crevasse Canyon Formation and Gallup Sandstone ranges from 847 to 3,610 microsiemens per centimeter at 25 degrees Celsius.

Yields of ground water that range from less than 2 to 200 gallons per minute are available from the Permian San Andres Limestone, Yeso Formation, and Abo Formation, mainly in the eastern part of the county. Ground water is used mostly for stock supplies but some is also used for domestic supplies. Specific conductance in Permian units ranges from 659 to 9,080 microsiemens per centimeter.

A total of 26 wells and springs that have water temperatures ranging from 25 to 36 degrees Celsius may be indicators of geothermal areas in Socorro County. The depth of these wells ranges from 32.65 to 770 feet.

In Socorro County, about 81 percent of the total ground water withdrawn during 1985 was used for agriculture. About 75 percent of the total ground-water-irrigated acreage was along the Rio Grande, 15 percent was in the San Agustin Basin, and 10 percent was in scattered areas within the county.

INTRODUCTION

The Rio Grande flows southward through the middle of Socorro County (fig. 1). All surface water within the Rio Grande drainage is fully appropriated. Most of Socorro County is in the Rio Grande ground-water basin as declared by the New Mexico State Engineer Office. New appropriations of ground water, except for domestic and stock uses, are not permitted within this basin unless the State Engineer determines that existing water rights will not be impaired. However, potential development of energy resources such as coal may have an effect on ground-water resources in the county. For these reasons, a comprehensive hydrologic study of the county was done to aid in efficient management of water resources that may be affected by economic development. This study was done by the U.S. Geological Survey in cooperation with the New Mexico State Engineer Office and the New Mexico Bureau of Mines and Mineral Resources.

Purpose and Scope

This report describes the occurrence, availability, and quality of ground water in Socorro County. Available hydrologic data were used to describe ground-water resources for each major aquifer in the county. Aquifer tests were not conducted for this study; however, some additional water-level or water-quality data were collected at selected wells and springs. Existing hydrologic conditions and sources of information are intended to assist in the management of water resources.

Regional Setting

Socorro County is near the geographical center of New Mexico. The county is approximately 75 to 104 miles wide, 77 miles long, and approximately 6,624 square miles in area. Most of the county lies within the Basin and Range province, which is divided into the Mexican Highland and Sacramento sections (fig. 1). The largest part of the area lies within the Mexican Highland section, an area characterized by dissected block mountains separated by aggraded desert plains (Fenneman, 1931). The Sacramento section of the Basin and Range province is in the eastern part of the county and includes Chupadera Mesa. The Sacramento section is characterized by mature block mountains of gently tilted strata (Fenneman, 1931). The Datil section of the Colorado Plateau province is in the northwestern corner of the county.

Major topographic features in the county include the Ladron Mountains in the north, Gallinas Mountains in the northwest, Magdalena Mountains in the west, San Mateo Mountains in the southwest, Oscura Mountains in the southeast, and Los Pinos Mountains in the northeast (fig. 1). Mountain ranges cover extensive areas and are characterized by rough and broken terrain, including steep to very steep slopes and canyons. Altitudes in the mountainous areas range from about 6,000 feet in the foothill areas to 10,141 feet on San Mateo Peak. Altitudes in the nonmountainous areas generally range from 4,500 feet (in the Elephant Butte Reservoir area) to 7,000 feet.

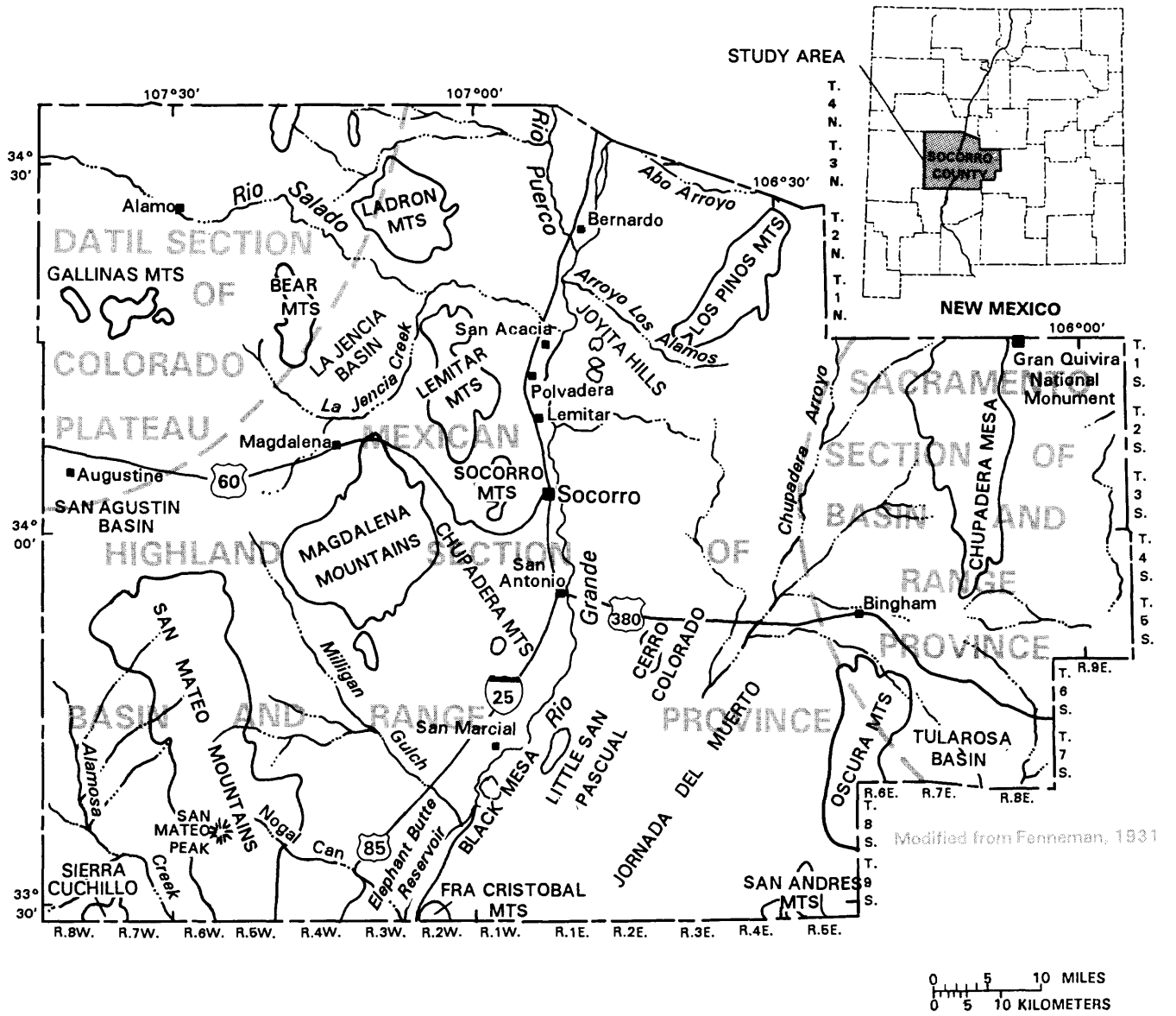


Figure 1.--Location of the study area.

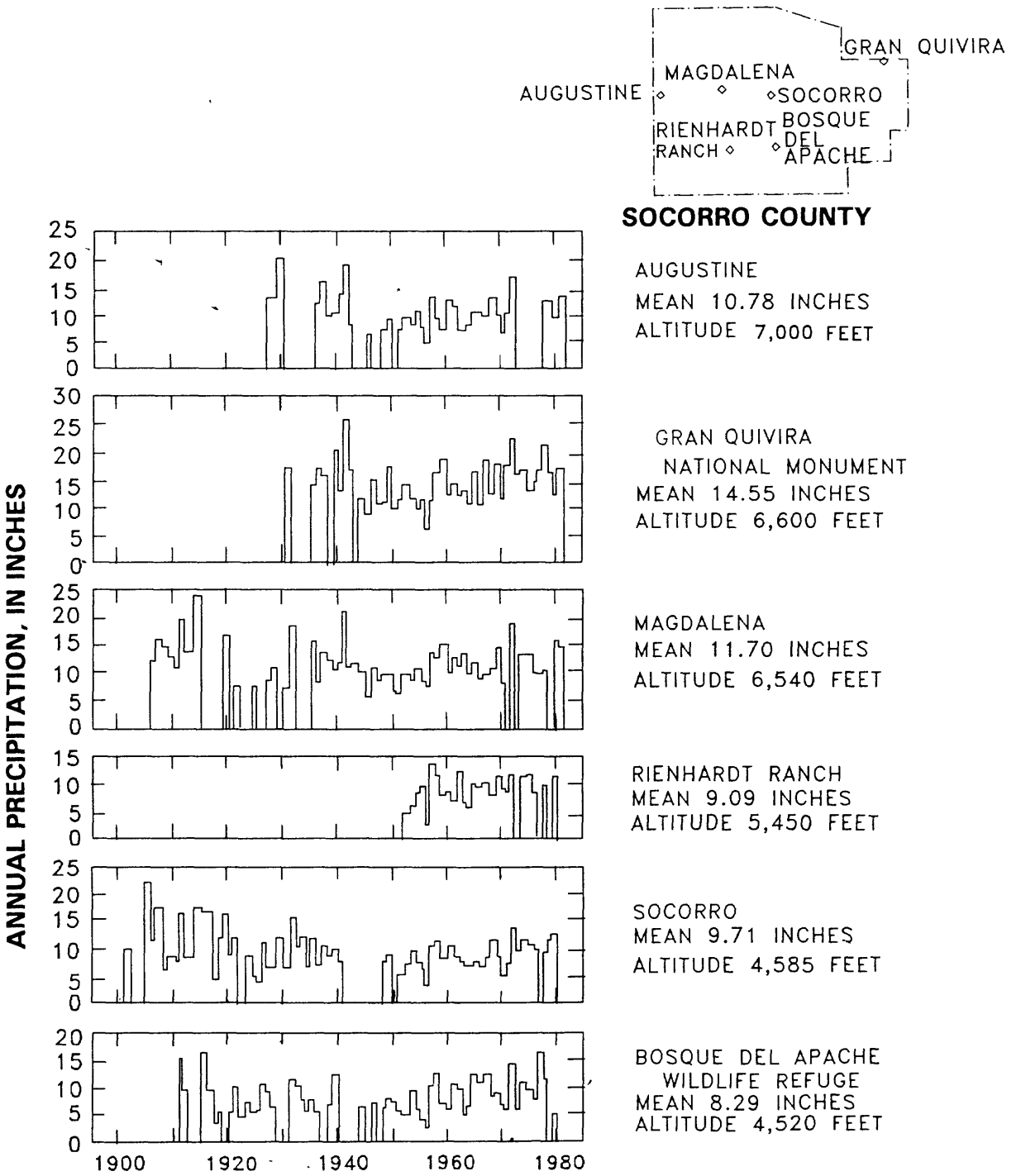
Most of the towns, villages, irrigated lands, and commercial activities are along the Rio Grande. The population of Socorro County in 1980 was 12,969 (U.S. Bureau of the Census, 1981). The principal population center is the city of Socorro, which had a population of 7,576 in 1980. The Rio Grande enters Socorro County about 9 miles north of Bernardo and flows generally southward through the central part of the county to Elephant Butte Reservoir. In most of the streams tributary to the Rio Grande in Socorro County, flow is intermittent and occurs usually after rainstorms. The tributary streams, including the Rio Puerco, Rio Salado, and several canyons and arroyos, drain into the Rio Grande from the west except for a small area in the extreme western part of the county that drains into playas in the San Agustin Basin. Several washes and small arroyos also enter the Rio Grande from the east, but most of the drainage in the eastern part of the county is into closed basins. Parts of three topographically closed basins are in Socorro County: the San Agustin Basin, Jornada del Muerto Basin, and Tularosa Basin. Approximately 39 percent of the county lies within these closed basins.

The climate of Socorro County is arid to semiarid. Long-term precipitation records at selected weather stations in the county are shown in figure 2. Mean annual precipitation ranges from 8.29 inches at Bosque del Apache National Wildlife Refuge at an altitude of 4,520 feet to 14.55 inches at Gran Quivira National Monument at an altitude of 6,600 feet. Precipitation in the Rio Grande valley is less than in the mountainous areas. July through September are the rainiest months. Most of the summer precipitation results from brief and sometimes heavy thunderstorms. During winter months precipitation may be snow, although generally in small quantities. Average annual snowfall ranges from 5 inches in the Rio Grande valley to 25 inches or more in the mountains (Maker and others, 1972).

Mean annual temperature ranges from 57.8 degrees Fahrenheit at Socorro at 4,585 feet in altitude to 50.2 degrees Fahrenheit at Augustine at 7,000 feet in altitude. Recorded temperature extremes are 113 degrees Fahrenheit at San Marcial on June 25, 1902, and -31 degrees Fahrenheit at Augustine on January 6, 1971 (Maker and others, 1972). Weather data indicate that July is the warmest month and January is the coldest month.

In the early 19th century, the economy in Socorro County was based chiefly on mining and ranching. In 1979, five active mines produced fluorite, barite, lead, quartzite, perlite, scoria, and iron in the county (Siemers and Austin, 1979). An energy-resources map prepared by the U.S. Geological Survey and the New Mexico Bureau of Mines and Mineral Resources (1981) shows eight coal mines in the county; however, only the mine at Carthage was active in 1981. There are more than 75 isolated uranium deposits or mine sites within the county.

The economy in Socorro County is based on governmental employment. In 1982, total nonagricultural employment by major industry was 3,663. Of this total, about 51 percent, or 1,873, were employed by government agencies. Land ownership in the county is 55 percent Federal, 30 percent private and other, 14 percent State, and 1 percent Indian (University of New Mexico, Bureau of Business and Economic Research, 1984).



Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Environmental Data Service (1900-81)

Figure 2.--Long-term precipitation records at selected weather stations in Socorro County.

Previous Investigations

Previous hydrologic investigations have been made in parts of Socorro County. Keyes (1905) made a short investigation of the geology and water-bearing rocks in the Jornada del Muerto area in the southeastern part of the county. Bryan (1926) conducted a brief reconnaissance of ground-water supplies in the Rio Grande valley and several plains areas of the county. Spiegel (1955) described the hydrology of a 750-square-mile area in the northeast part of the county. A detailed hydrologic study of the southeastern part of the county was done by Weir (1965). Summers (1976) presented information on the geothermal area 3 miles west of Socorro. Major aquifers in the Socorro and La Jencia Basins were studied by Anderholm (1983 and 1987). Myers and others (in press) completed a hydrologic study of the San Agustin Basin area in western Socorro County and Catron County.

Acknowledgments

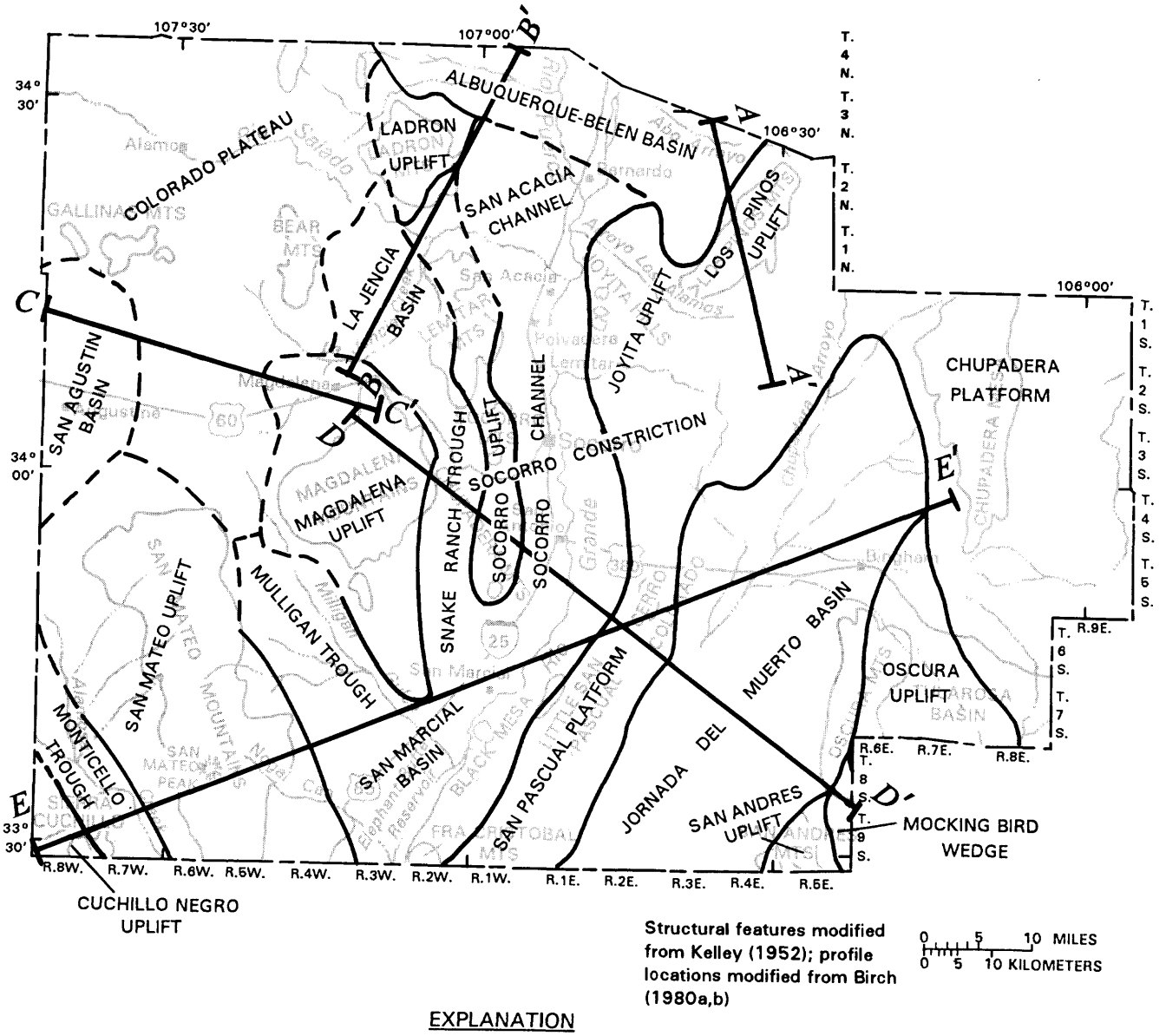
This study was conducted in cooperation with the New Mexico State Engineer Office and the New Mexico Bureau of Mines and Mineral Resources. The geologic map of Socorro County was compiled by Glenn R. Osburn, New Mexico Bureau of Mines and Mineral Resources. This report was reviewed by Barbara Mattingly, New Mexico State Engineer Office, and William J. Stone, New Mexico Bureau of Mines and Mineral Resources. Their comments and assistance are greatly appreciated.

GEOLOGIC HISTORY AND STRUCTURE

Rocks exposed in Socorro County range in age from Precambrian through Quaternary (pl. 1). The oldest Precambrian rocks consist mainly of metamorphic rocks that are exposed in mountain ranges. Paleozoic rocks reflect changing depositional environments, the most significant units of which are limestones of Pennsylvanian age (Sandia Formation, Los Moyos Limestone, Wild Cow, Madera, and Panther Seep Formations and Lead Camp Limestone); as well as the Bursum, Abo, and Yeso Formations, Glorieta Sandstone, and San Andres Limestone of Permian age. The Abo Formation represents a transition from the Pennsylvanian marine conditions to the Permian terrestrial conditions. These rocks mainly crop out in the eastern part of the county. Triassic and Cretaceous rocks are exposed in the northwestern corner of the county. The Triassic rocks are subdivided into a lower sandstone unit of the Santa Rosa Sandstone and an upper mudstone-siltstone and sandstone unit of the Chinle Formation. The thickest section of Triassic rocks in the northwestern corner of the county is the Chinle Formation. During Cretaceous time, the sea advanced from the north, then retreated south across New Mexico, depositing marine and nonmarine sediments of varied thickness. These are the marine Dakota Sandstone, all tongues of Mancos Shale, the marine shorefacies Gallup Sandstone, and the nonmarine Crevasse Canyon Formation (Hook, 1983). Toward the end of Cretaceous time, the sea withdrew from New Mexico and uplift of the land and mountain building began. The lacustrine deposits of the Baca Formation and volcanic rocks of the Datil Group (Osburn and Chapin, 1983), both of Tertiary age, were mainly deposited in the western part of the county. The Rio Grande rift formed during middle and late Tertiary time (Cather, 1983). The Santa Fe Group of Tertiary and Quaternary age that fills the Rio Grande rift is represented mainly by the Popotosa and Sierra Ladrones Formations. Deposits of Quaternary age are widespread throughout Socorro County. Holocene alluvium is found along stream bottoms with gravels and dunes found on the terraces.

The Rio Grande rift, which extends from north to south through the central part of Socorro County, has complex structural features that cause complex ground-water flow paths. These complex flow paths may be the result of changes in permeability caused by faulting or igneous intrusions. These features, if close to a discharging well, may make interpretation of flow equations difficult. If aquifers are discontinuous, hydrologic interpretation is difficult. The quality of water in the system is modified by contact with the various rock types. Most of the descriptions of the structural features (fig. 3) of Socorro County summarized here are taken from Kelley (1952).

The north-central part of Socorro County is occupied by the southern end of the Albuquerque-Belen Basin, which is the largest basin within the Rio Grande rift. This basin is bordered on the south (from west to east) by the Colorado Plateau, the Ladron uplift, the San Acacia channel, and the Joyita uplift. The Ladron uplift is a semicircular uplift having a length of 10 miles and a width of 6 miles. Its western limb descends to the Colorado Plateau. South of the San Acacia channel along the Socorro channel, a narrowing of the Rio Grande rift is defined as the Socorro constriction, which is about 40 miles long and about 5 to 10 miles wide. Along the eastern margin of the Socorro constriction is the Joyita uplift, a structure of low fold with a network of small, high-angle faults.



Structural features modified from Kelley (1952); profile locations modified from Birch (1980a,b)

0 5 10 MILES
0 5 10 KILOMETERS

EXPLANATION

A — A' LOCATION OF GEOLOGIC SECTION DERIVED FROM GRAVITY MODEL

BOUNDARY OF STRUCTURAL AND/OR TOPOGRAPHIC FEATURES--
Dashed where approximately located

Figure 3.--Major structural and associated topographic features of Socorro County.

The eastern part of the Albuquerque-Belen Basin is bordered by the Los Pinos uplift (fig. 3), which was formed by a high-angle thrust fault. South of the Los Pinos uplift is the northern end of the Jornada del Muerto Basin. About one-third of its total length, which is about 160 miles, lies within Socorro County. Most of the Jornada del Muerto Basin depression was formed prior to deposition of the Santa Fe Group. The Jornada del Muerto Basin is bounded on the east (from north to south) by the Chupadera platform, Oscura uplift, Mocking Bird wedge, and the northern end of the San Andres uplift. The west side of the Jornada del Muerto is bounded by the San Pascual platform, which in turn is bounded on the west by the San Marcial Basin.

The San Marcial Basin, which is about 30 miles long and 10 to 15 miles wide, is bounded on the west by the Socorro, Magdalena, and San Mateo uplifts and the intervening troughs that merge with the San Marcial Basin. The Socorro uplift is a structural extension of a part of the Ladron uplift separating La Jencia Basin and the Socorro channel (Chapin, 1971, p. 196). In the western part of Socorro County, the closed San Agustin Basin lies southwest of the Colorado Plateau. It was formed by the basin and range faulting that occurred about 21 million years ago (Myers and others, in press). About 10 miles of its northern end lies within Socorro County. The total length of the San Agustin Basin is about 54 miles extending into Catron County; its maximum width is 21 miles. The basin is bordered on the south by the San Mateo uplift.

Birch (1980a, b) determined the subsurface configuration and thickness of four units of age groups (Quaternary and Tertiary, Tertiary and Cretaceous, Triassic and Paleozoic, and Precambrian) in Socorro County by constructing two-dimensional gravity models. The locations of geologic sections are shown in figure 3; geologic sections derived from gravity models showing general subsurface configuration are presented in figure 4. The geologic sections in figure 4 show the approximate thickness and configuration of the units. Errors may be introduced during the process of the construction of the gravity models because of scant knowledge of the subsurface geology, use of interpolated contours rather than actual gravity observations, and other possible sources of errors listed in Birch (1980a, b).

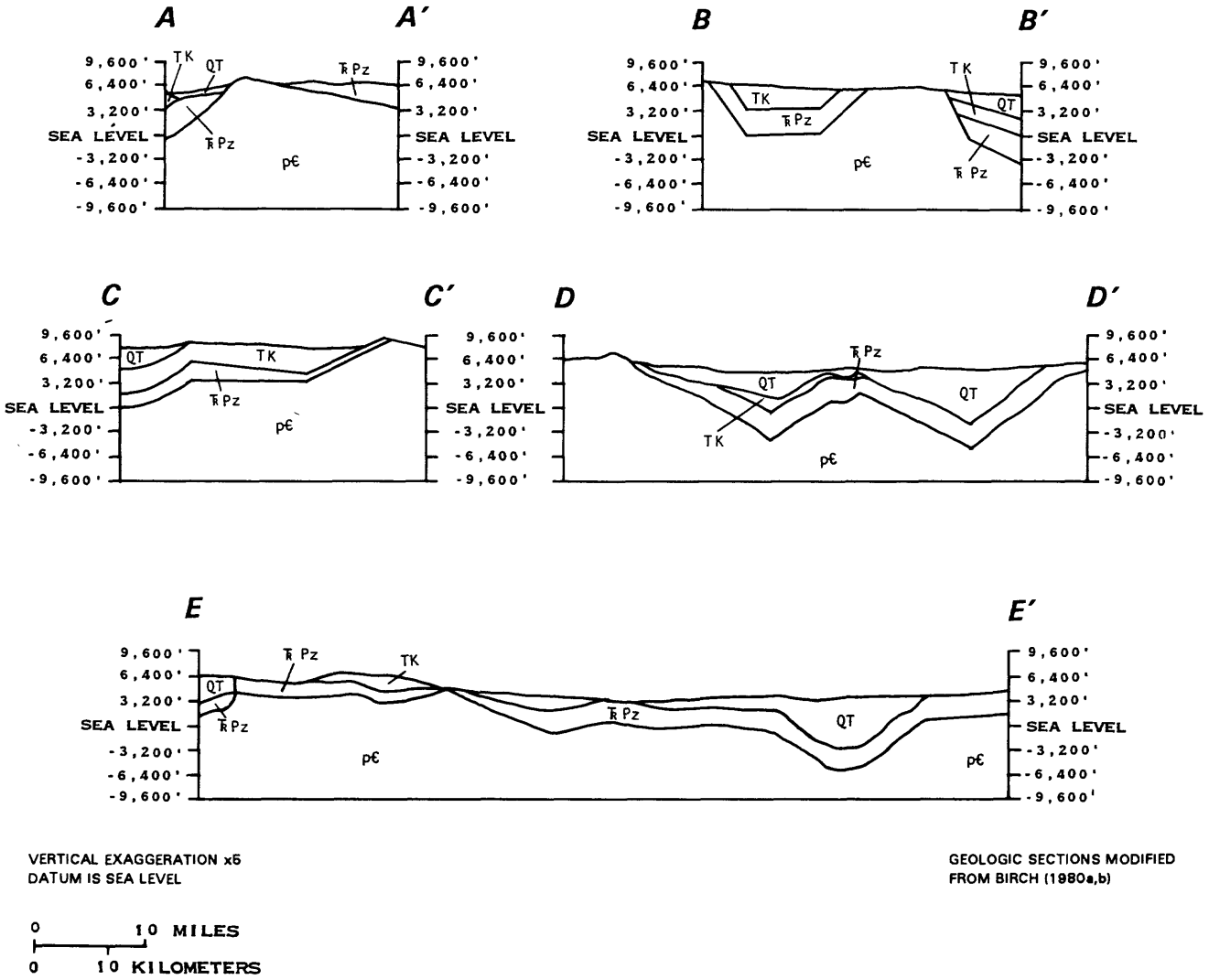


Figure 4.--Geologic sections derived from gravity models showing general subsurface configuration in Socorro County.

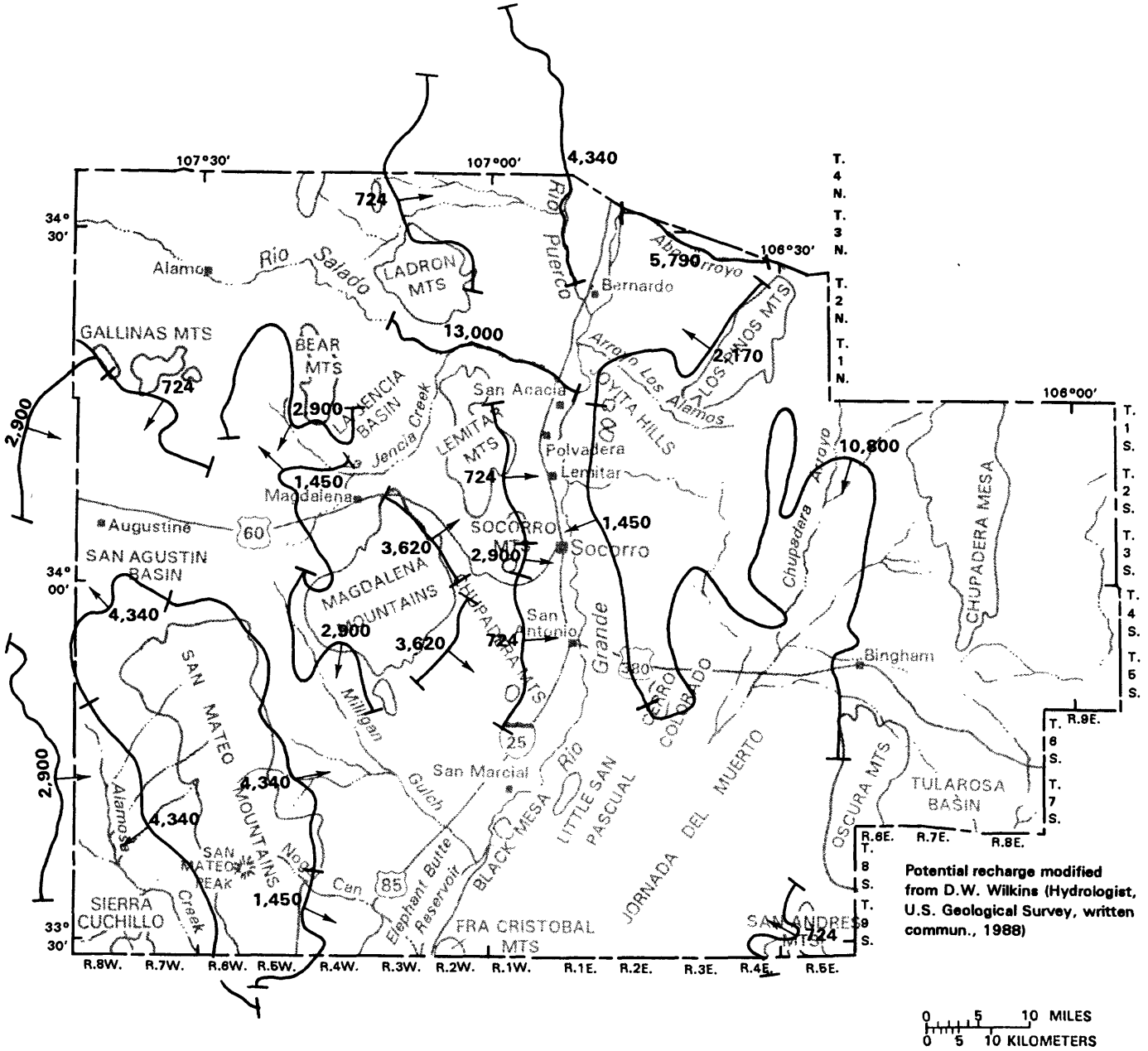
GROUND-WATER RESOURCES

Water-bearing units in Socorro County range from Quaternary through Precambrian in age. The major water-bearing units are: the Santa Fe Group of Quaternary and Tertiary age, which includes Quaternary deposits along the Rio Grande and the Sierra Ladrones and Popotosa Formations; Quaternary and Tertiary units of the Datil Group (Osburn and Chapin, 1983), alluvium, bolson, and other volcanics in the San Agustin Basin and Alamosa Creek basin; Cretaceous units, mainly the Crevasse Canyon Formation and Gallup Sandstone in the Alamo Indian Reservation area; and Permian units, mainly the San Andres Limestone, Yeso Formation, and Abo Formation in the Chupadera Mesa area.

Most recharge to the ground-water system in Socorro County occurs in areas adjacent to the mountain ranges. Runoff resulting from snowmelt or rainfall on relatively impermeable mountainous watersheds infiltrates the relatively permeable alluvial basin-fill deposits and recharges the ground-water system. A method used to estimate the quantity of recharge was developed by Hearne and Dewey (1988). Hearne and Dewey used a multiple-regression technique to estimate runoff at the mountain-front sites. It was assumed that this runoff from mountainous watersheds becomes recharge to the alluvial-basin aquifer at the bedrock-alluvial contacts in the Rio Grande basin. The mean annual discharge was related to the area-weighted winter precipitation, the area of the drainage basin, and the slope of the longest channel in the drainage basin. Although the equation was applied in the entire Rio Grande basin, the validity of using this equation in the Socorro County area is not known due to lack of data. The development and application of the regression technique used to estimate recharge in northern New Mexico and southern Colorado are described in detail in the report by Hearne and Dewey (1988). Seepage from ephemeral streamflow in the Rio Puerco, Rio Salado, and Abo Arroyo also recharges the ground-water system. Potential recharge to the ground-water system, in average acre-feet per year for Socorro County, is shown in figure 5.

Well and spring records used to describe ground-water quality were selected on the basis of location, geologic formations from which water is obtained, and completeness of the chemical analyses. Wells and springs with few records are shown on plate 2 with specific-conductance values only. Wells and springs with more complete records are shown with baseline diagrams. Identifying information and water-quality records for these wells and springs are presented in tables 1 and 2 (in Supplemental Information).

The quality of water in a well may be changed by mixing of waters within the well due to leakage from one water-bearing unit to another or by drainage of surface water into the well. Water samples from a few wells may not accurately represent the water in the formation.



Potential recharge modified from D.W. Wilkins (Hydrologist, U.S. Geological Survey, written commun., 1988)

EXPLANATION

1,450

REACH OF MOUNTAIN FRONT WHERE POTENTIAL RECHARGE WAS ESTIMATED -- Arrow is direction of potential recharge flow. Number is volume of potential recharge, in average acre-feet per year

5,790

REACH OF STREAM WHERE INFILTRATED WATER MAY RECHARGE THE AQUIFER -- Number is volume of potential recharge, in average acre-feet per year

Figure 5.--Potential recharge to the ground-water system.

Quaternary Deposits

Quaternary deposits are widespread throughout Socorro County along the Rio Grande and its tributaries; these deposits include alluvium, colluvium, terrace, and alluvial-fan deposits. These deposits mainly consist of gravel, sand, silt, and clay. Other Quaternary deposits in the San Agustin Basin and Jornada del Muerto include piedmont-slope alluvium; bolson, playa, and eolian sand deposits; and lacustrine sediments mainly consisting of unconsolidated clay, silt, and gravel that were derived from the surrounding uplands (Osburn, 1984). Thickness is variable, ranging from less than 100 feet of alluvial deposits along the Rio Grande and Alamosa Creek to as much as 2,600 feet of bolson deposits in the San Agustin Basin (Myers and others, in press).

Most ground water withdrawn from Quaternary rocks is for stock use, although some is used for irrigation, domestic, industrial, and public supplies. Yields from the numerous wells that derive water from Quaternary deposits range from less than 1 gallon per minute (well 518) to as much as 2,700 gallons per minute from well 239. Yields of ground water less than 50 gallons per minute are common. Depths to water range from 3 feet below land surface (well 380) to 585 feet below land surface (well 250).

Myers and others (in press) defined the alluvium, less than 50 feet thick, and the underlying conglomerate in Alamosa Creek basin as the Alamosa Creek basin shallow aquifer. Yields from most wells in the basin are less than 5 gallons per minute, but it is estimated that as much as 100 gallons per minute may be obtained from well 478 (Myers and others, in press). Water levels are mostly about 90 feet below land surface.

Depths to water in the San Agustin Basin generally are between 150 and 300 feet below land surface. Depths to water in the Jornada del Muerto Basin range from 12 to 585 feet below land surface, but depths to water between 50 and 300 feet below land surface are most common. Water levels from February 1983 to September 1985 for well 158 are shown in figure 6. No significant water-level change occurred during the period of measurement.

Aquifer tests for bolson-fill aquifers were conducted by Myers and others (in press) in the San Agustin Basin. Test results showed the transmissivity ranging from 2,400 feet squared per day at well 258 to 48,400 feet squared per day at well 140. Specific capacity ranges from 5.7 gallons per minute per foot at well 258 to 90 gallons per minute per foot at well 140.

Movement of ground water generally is southwestward in the San Agustin Basin. Generally ground water moves toward Alamosa Creek in the Alamosa Creek basin and generally moves toward the Rio Grande in the Jornada del Muerto Basin and the Rio Grande valley.

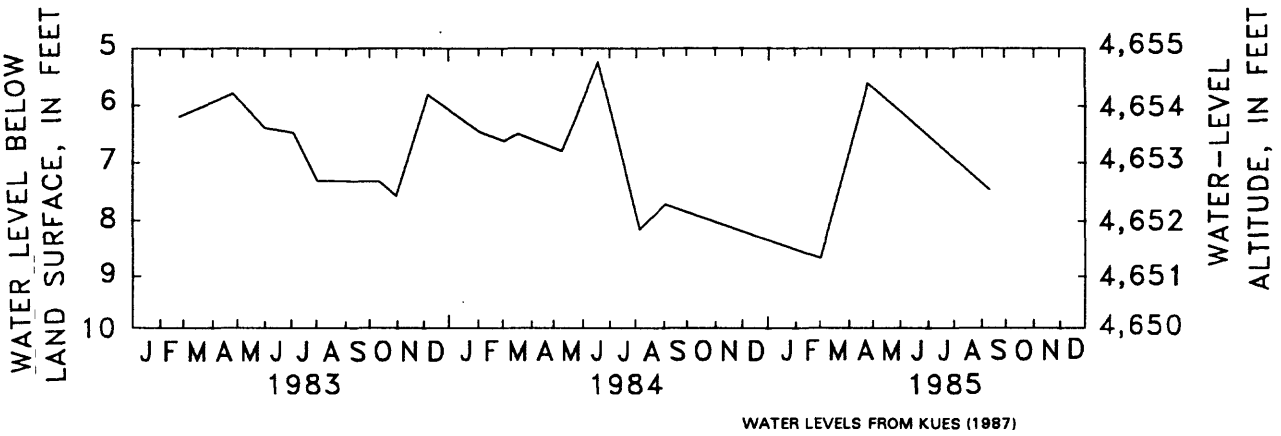


Figure 6.--Water levels in well 158 (01S.01W.01.213), 1983-85.

Water quality in Quaternary deposits varies greatly. Specific conductance ranges from 200 microsiemens per centimeter at 25 degrees Celsius in water from well 717 to 9,970 microsiemens per centimeter in water from well 83. However, most values of specific conductance are less than 2,000 microsiemens per centimeter. Sulfate or chloride concentrations greater than 1,000 milligrams per liter occur in water from a few wells generally along the Rio Grande (table 2). Nitrate concentrations ranging from 11 to 14 milligrams per liter occur in water from four wells completed in Quaternary deposits along and east of the Rio Grande (table 2). A water sample collected on July 2, 1980, from well 415 had an arsenic concentration of 55 micrograms per liter, which is greater than the limit of 50 micrograms per liter set for drinking-water supplies (U.S. Environmental Protection Agency, 1986). Water in the San Agustin Basin and the Alamosa Creek basin, however, generally meets drinking water-quality standards; water in the Jornada del Muerto contains large concentrations of sulfate.

Quaternary and Tertiary Santa Fe Group

The Santa Fe Group of Quaternary and Tertiary age is mainly represented by the Sierra Ladrones and Popotosa Formations. The Sierra Ladrones Formation is comprised of poorly indurated, buff to red fanglomerates intertonguing with light-gray, friable sandstones and red to green mudstones and siltstones. Thickness of the Sierra Ladrones Formation ranges from 0 to 1,000 feet in the Socorro area (Osburn, 1984).

The Popotosa Formation is comprised of fanglomerates, mudflow deposits, mudstones, sandstone, and bolson deposits that are locally interbedded with contemporaneous volcanic rocks. Thickness of the Popotosa Formation ranges from 0 to about 3,000 feet (Osburn, 1984).

The principal aquifer system along the Rio Grande in Socorro County includes Quaternary deposits and the Sierra Ladrones and Popotosa Formations of the Santa Fe Group. Ground water derived from the Santa Fe Group is used for stock, domestic, irrigation, industrial, and public supplies. Numerous wells completed in the Santa Fe Group generally yield less than 50 gallons per minute, but yields of as much as 2,000 gallons per minute have been reported along the Rio Grande (table 1). Depths to water range from about 12 feet in well 85 to 546 feet in well 272. Depths to water of less than 200 feet are common. Water-level measurements in well 85, which is completed in the Santa Fe Group, were made from January 1983 to September 1985 (fig. 7). This figure shows that the water level did not change significantly over the measurement period.

Anderholm (1987) reported that water from well 570, which may derive water from Quaternary deposits and the Santa Fe Group, has a hydraulic conductivity of 60 feet per day. Water from another well, 03S.01W.02.241, which also may derive water from Quaternary deposits and the Santa Fe Group, has a hydraulic conductivity of 41 feet per day and a transmissivity of about 27,000 feet squared per day. Movement of ground water adjacent to the river valley generally is toward the Rio Grande and generally toward the north in La Jencia Basin, as shown in the water-level contours in figure 8. The water-level change was less than 10 feet where there are long-term water-level measurements.

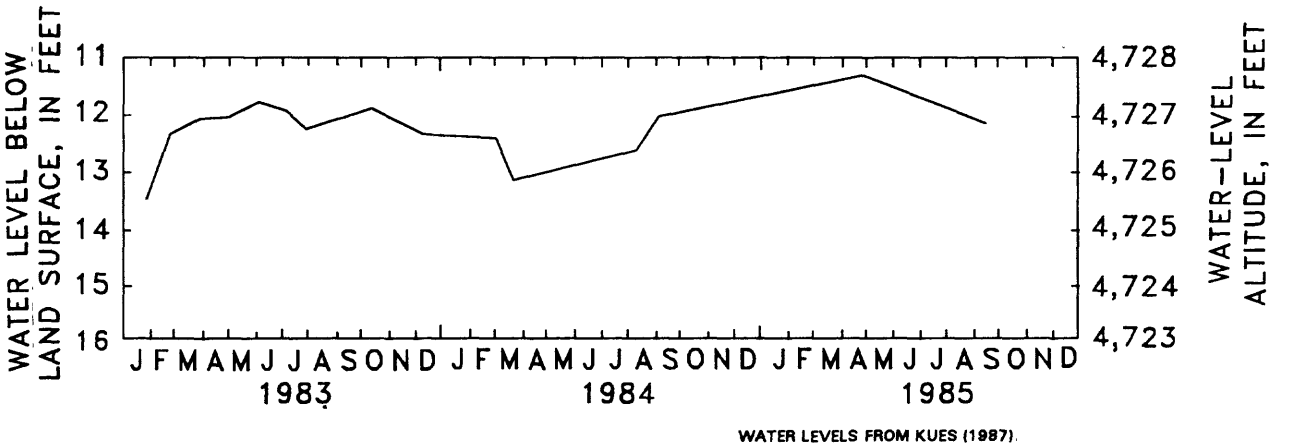
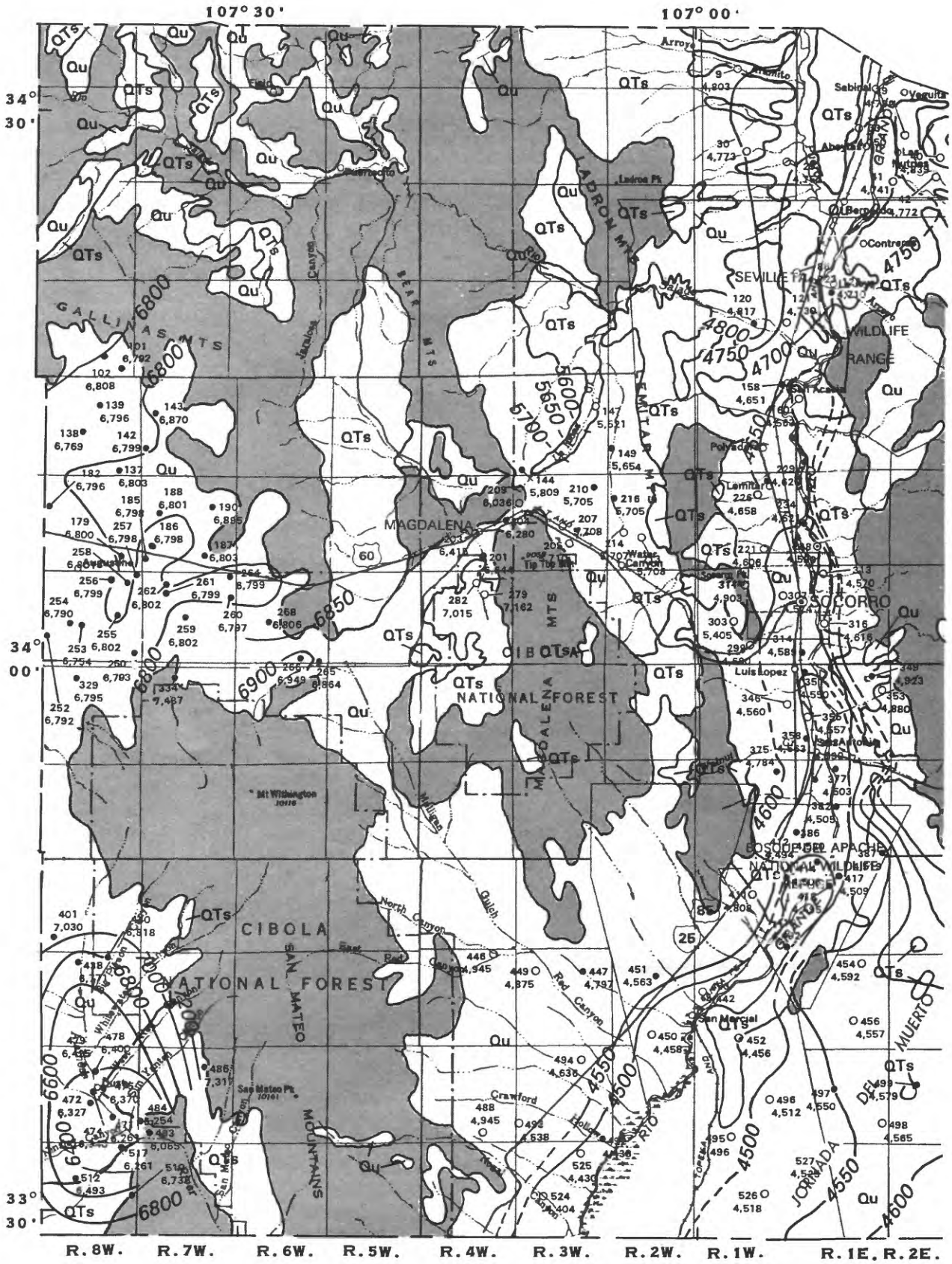


Figure 7.--Water levels in well 85 (02N.01E.04.444), 1983-85.


107° 30'
107° 00'
34° 30'
34° 00'
33° 30'
R. 8W.
R. 7W.
R. 6W.
R. 5W.
R. 4W.
R. 3W.
R. 2W.
R. 1W.
R. 1E.
R. 2E.
GALLINAS MTS
BEAR MTS
LAEMITAR MTS
MAGDALENA MTS
CIBOLA NATIONAL FOREST
MAGDALENA
SEVILLETA
WILDLIFE RANGE
SOCORRO
CIBOLA
SAN MATEO MOUNTAINS
JORNADA DEL MUERTO
Mt Withington
San Mateo Pk.
Qu
QTs

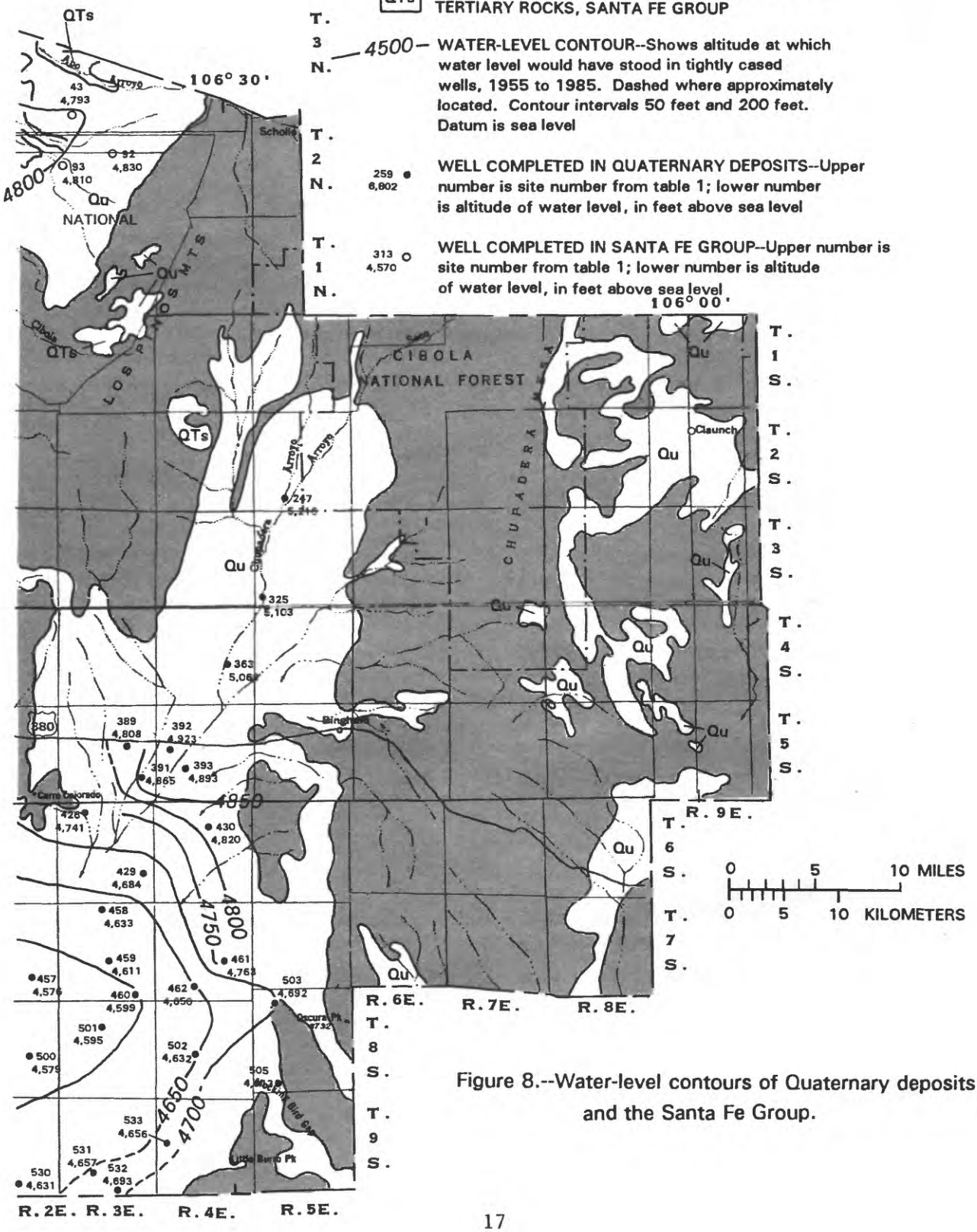


Figure 8.--Water-level contours of Quaternary deposits and the Santa Fe Group.

Water quality in the Santa Fe Group varies greatly. Specific conductance generally is less than 2,000 microsiemens per centimeter, but a specific conductance of 29,400 microsiemens per centimeter was reported by Spiegel (1955) in water from well 552 along the Rio Salado (table 2). Spiegel (1955) indicated that this may be due to recharge by greatly mineralized water from beneath the Rio Salado. Water quality ranges from potable water to water containing constituents that exceed the maximum recommended level, such as sulfate or chloride concentrations greater than 1,000 milligrams per liter (table 2). A selenium concentration of 23 micrograms per liter is present in water from well 689.

Tertiary Rocks

Tertiary rocks are separated into three units. These are the Tertiary volcanics; the Datil Group, as redefined by Osburn and Chapin (1983); and the Baca Formation. Tertiary volcanics and the Datil Group together are a significant source of water supply in the San Agustin Basin and Alamosa Creek basin in the western and southwestern parts of the county.

Tertiary Volcanics

Tertiary volcanic rocks consist of rhyolite ash-flow tuffs with basaltic andesite lavas, volcaniclastic rocks, rhyolite lavas, and rhyolite domes. These rocks were deposited during several volcanic episodes dating from about 33 million to about 26 million years ago. The thickness may be as much as 5,000 feet (Osburn and Chapin, 1983).

Twelve well records and three spring records (table 1) indicate that wells and springs completed in Tertiary volcanics generally yield less than 20 gallons per minute, although a yield of 80 gallons per minute has been reported. The depth to water is less than 360 feet below land surface. Chapin and others (1978) indicated that the volcanic rocks of Socorro County may provide greatest permeability in joints and fractures.

The water from volcanic rocks, which is used for public, domestic, and stock supplies, is of good drinking-water quality, having a specific conductance less than 750 microsiemens per centimeter. However, a fluoride concentration of 6.6 milligrams per liter occurs in water from well 405, exceeding the fluoride limit of 4.0 milligrams per liter in drinking water (U.S. Environmental Protection Agency, 1986). Fluoride is present in both igneous and sedimentary rocks, but often is associated with volcanic or fumarolic gases (Hem, 1970, p. 177).

Datil Group

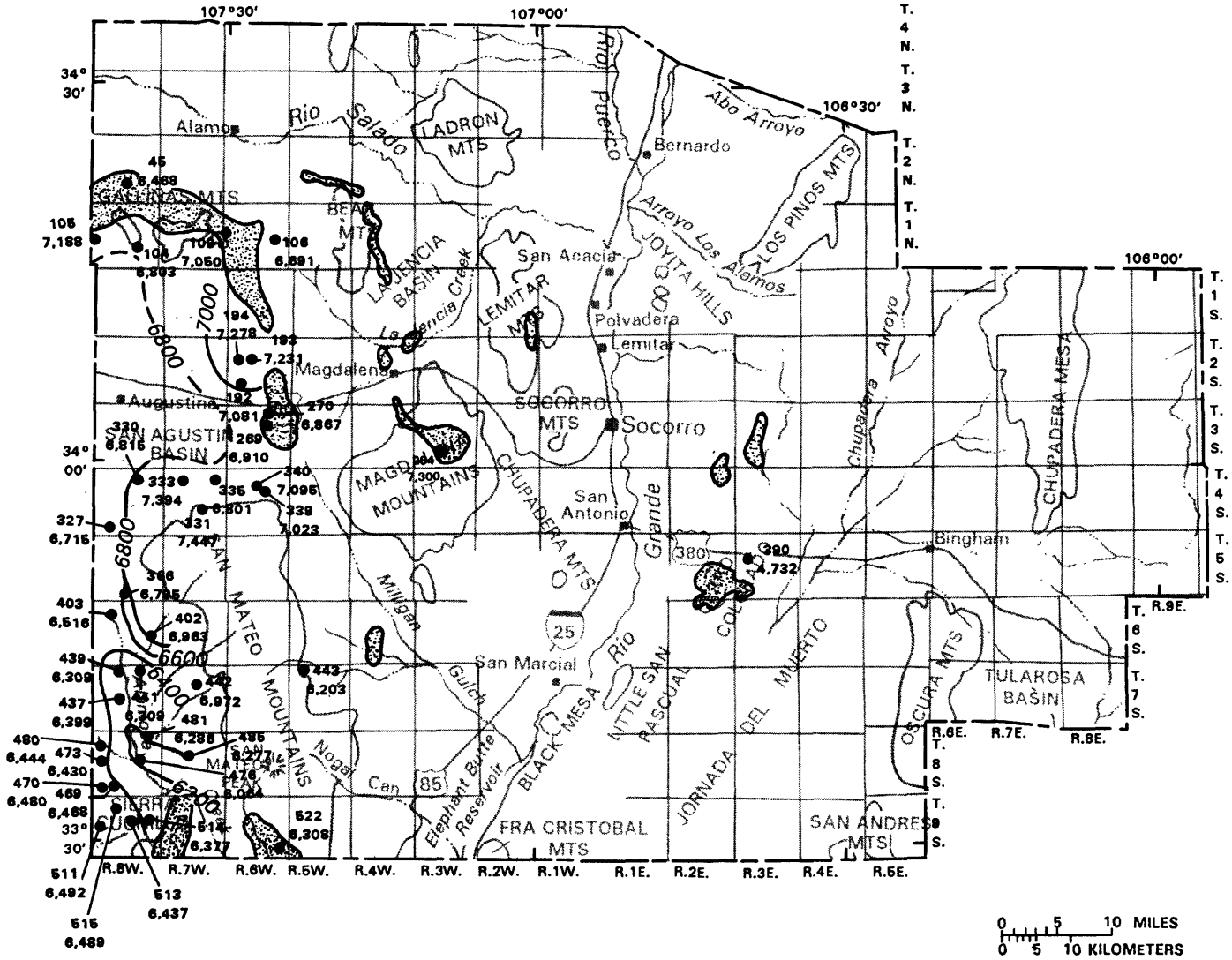
The Datil Group was deposited from about 39 million to 33 million years ago and consists of volcaniclastic rocks (Spears Formation) with interlayered ash-flow tuffs and lava flows (Osburn and Chapin, 1983). The Datil Group is in the Magdalena, Lemitar, Bear, and eastern Gallinas Mountains, the Joyita Hills, and the northern Jornada del Muerto. The Spears Formation may be as much as 2,000 feet thick in the San Agustin Basin area (Osburn, 1982, p. 34). Elsewhere, the Datil Group ranges from 0 to 3,000 feet in thickness within Socorro County (Osburn and Chapin, 1983).

The Datil Group, combined with other Tertiary volcanic rocks, has been developed as a source of water supply in the San Agustin Basin and Alamosa Creek basin. A total of 51 wells and springs derive water from the Datil Group. Within this total, 46 are wells (mostly stock wells but also a few domestic and one industrial well) and 5 are springs (table 1). Locations of selected wells completed in the Datil Group are shown in figure 9. The water-level change was less than 10 feet where there are long-term water-level measurements. Wells and springs that derive water from the Datil yield less than 30 gallons per minute. Depth to water usually is less than 300 feet below land surface. The hydraulic gradient of the Datil Group in the San Agustin Basin ranges from 110 feet per mile in the southern Gallinas Mountains to 360 feet per mile in the northern San Mateo Mountains (Myers and others, in press).

Water from the Datil Group in the San Agustin Basin and Alamosa Creek basin generally meets drinking water-quality standards. Water samples collected in these areas were analyzed and the specific conductance generally was between 250 microsiemens per centimeter in water from well 439 and 1,100 microsiemens per centimeter in water from spring 521. The greatest specific conductance in the area was 2,100 microsiemens per centimeter in water from well 403. Water from this well exceeded the maximum-contaminant level for drinking-water supplies for most of the constituents, including 2.2 micrograms per liter of mercury, which exceeds the maximum-contaminant level of 2.0 micrograms per liter. Specific conductance of water from the Datil Group east of the Rio Grande ranges from 1,680 to 3,790 microsiemens per centimeter, and sulfate concentrations range from 750 to 2,300 milligrams per liter.

Baca Formation

The Baca Formation of early Tertiary age consists of sandstone, mudstone, claystone, and conglomerate. The Baca Formation crops out in the northwestern part of the county, in the northern Jornada del Muerto, and in the area north of Cerro Colorado (Osburn and Chapin, 1983). In the Gallinas Mountains area, the Baca Formation rests disconformably on the Crevasse Canyon Formation of Cretaceous age (Sargent, 1983). In this area, the Baca Formation is about 950 feet thick (Cather, 1983, p. 179). On the east side of the Rio Grande, near the Cerro Colorado area, the Baca Formation is about 1,000 feet thick (Gardner, 1910, p. 454).



EXPLANATION

APPROXIMATE OUTCROP AREA OF DATIL GROUP

—6200— WATER-TABLE CONTOUR--Shows altitude of water table, 1975 to 1985. Contour interval is 200 feet. Datum is sea level

443 ● 6,203 WELL COMPLETED IN DATIL GROUP--Upper number is site number from table 1; lower number is altitude of water table, in feet above sea level

Figure 9.--Location of selected wells completed in the Datil Group and altitude of the water table.

Seven stock and domestic wells completed in the Baca Formation are reported to yield 2.5 to 21 gallons per minute of water. The depth to water in these wells ranges from 18 feet below land surface in well 26 to 405 feet below land surface in well 423. Very few water-quality data are available for these seven wells to characterize the water in the Baca Formation; however, the specific conductance measured onsite ranges from 540 microsiemens per centimeter in water from well 108 to 2,010 microsiemens per centimeter in water from well 423.

Cretaceous Rocks

Rocks of Late Cretaceous age in Socorro County are marine and nonmarine sediments. Osburn (1982, p. 19) reported that at least 1,900 feet of Upper Cretaceous rocks crop out on the Alamo Navajo Indian Reservation. The nonmarine Crevasse Canyon Formation overlies the Gallup Sandstone and has a thickness of about 1,000 feet in the Alamo Indian Reservation area. The Crevasse Canyon Formation consists of siltstones, sandstones, mudstones, shales, and thin coal beds that were deposited in varied environments such as distributary-channel, fluvial-channel, and overbank environments (Sargent, 1983). The Gallup Sandstone conformably overlies the Mancos Shale in the northwestern part of the county on the Alamo Indian Reservation and is 30 to 70 feet thick (Osburn, 1982). The Gallup Sandstone is a regressive coastal-barrier sandstone containing ripple marks and ball-and-pillow structures (Sargent, 1983). Elsewhere, the thickness of the Crevasse Canyon Formation and Gallup Sandstone ranges from 200 feet in the northern part of the county (Spiegel, 1955, p. 37) to about 1,000 feet in the area of sec. 1, T. 05 S., R. 02 E. (Weir, 1965, p. 22).

Fifteen wells in the Crevasse Canyon Formation and Gallup Sandstone yield from 2.5 gallons per minute in well 19 to 25 gallons per minute in well 71 in the Alamo Indian Reservation area (table 1). Elsewhere, a stock well, 324, that may be completed in the Crevasse Canyon Formation and Gallup Sandstone yields 75 gallons per minute. Weir (1965) reported that wells and springs in the outcrop area of the Crevasse Canyon Formation and Gallup Sandstone yield 2 to 4 gallons per minute of water; however, well 700 yielded 75 gallons per minute of water during 1955.

Four water samples available for the Crevasse Canyon Formation and Gallup Sandstone indicate that specific conductance ranges from 847 microsiemens per centimeter in water from well 1 to 3,610 microsiemens per centimeter in water from well 700. Water from well 2 contains a large concentration of iron (1,200 micrograms per liter), exceeding the limit of 300 micrograms per liter for iron concentration in public water supplies.

The Mancos Shale overlies the Dakota Sandstone and was deposited as marine mud. The Mancos Shale exposed along the Rio Salado is about 240 feet thick. In the southeastern part of the county, the thickness of the Mancos Shale ranges from 700 to 2,000 feet (Weir, 1965, p. 21).

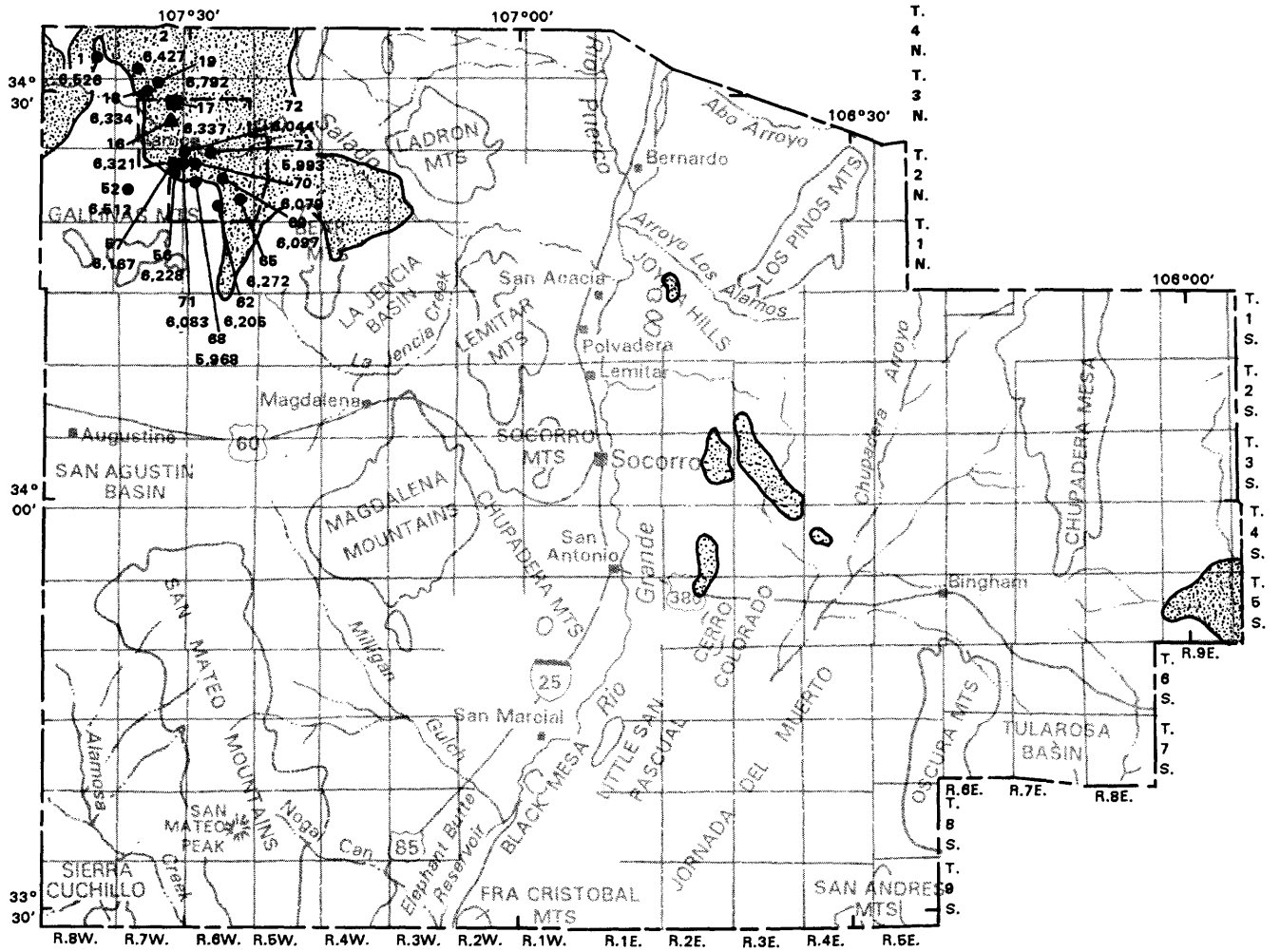
The oldest Cretaceous rocks, the Dakota Sandstone, lie unconformably on the Triassic Chinle Formation. The Dakota Sandstone ranges in thickness from 6 to 17 feet in the northwestern part of Socorro County (Tonking, 1957, p. 18) to slightly more than 100 feet in the northern part of the county (Spiegel, 1955, p. 37). Two wells (16 and 21) and one spring (20) derive water from the Dakota Sandstone in the Alamo Indian Reservation area. Information on yields is not available. Depths to water in the two wells are 19 and 155 feet below land surface. The specific conductance of water from these wells is 1,800 and 4,430 microsiemens per centimeter, respectively. The specific conductance of water from the spring is 3,600 microsiemens per centimeter.

Triassic Rocks

Triassic rocks are subdivided into a lower sandstone unit of the Santa Rosa Sandstone and an upper mudstone-siltstone and red to purple sandstone unit of the Chinle Formation. In the northwestern part of the county, the Chinle Formation disconformably overlies the Permian San Andres Limestone. The thickness of the Chinle in this area is estimated to be about 1,450 feet (Tonking, 1957, p. 6). Osburn (1982) reported about 120 feet of exposed Chinle Formation on the Alamo Indian Reservation in the northwestern part of the county. The total thickness of the Triassic rocks is estimated to be 500 feet north and east of the Joyita Hills (Weir, 1965, p. 20).

Cretaceous and Triassic rocks are combined and presented in figure 10 because the wells are clustered in the same general area. Many wells and springs with great differences in hydraulic head derive small quantities of water from Cretaceous and Triassic rocks, mostly in the Alamo Indian Reservation area. Three stock and domestic wells completed in Triassic units yield 3 to 17 gallons per minute of water. Depths to water range from 19 to 73 feet below land surface.

The specific conductance ranges from 1,440 microsiemens per centimeter in water from well 360 to 3,960 microsiemens per centimeter in water from well 538. Chemical analyses indicate sodium bicarbonate-type water in one spring (5) and sodium sulfate-type water in two wells (541 and 537).



EXPLANATION

0 5 10 MILES
0 5 10 KILOMETERS

APPROXIMATE OUTCROP AREA OF CRETACEOUS AND TRIASSIC ROCKS

BOUNDARY OF ALAMO INDIAN RESERVATION

● 1
6,626 — WELL COMPLETED IN CREVASSE CANYON FORMATION AND GALLUP SANDSTONE--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

▲ 16
6,321 — WELL COMPLETED IN DAKOTA SANDSTONE--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

■ 17
6,337 — WELL COMPLETED IN CHINLE FORMATION--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

Figure 10.--Location of selected wells completed in Cretaceous and Triassic rocks and altitude of water levels from 1965 to 1985.

Permian Rocks

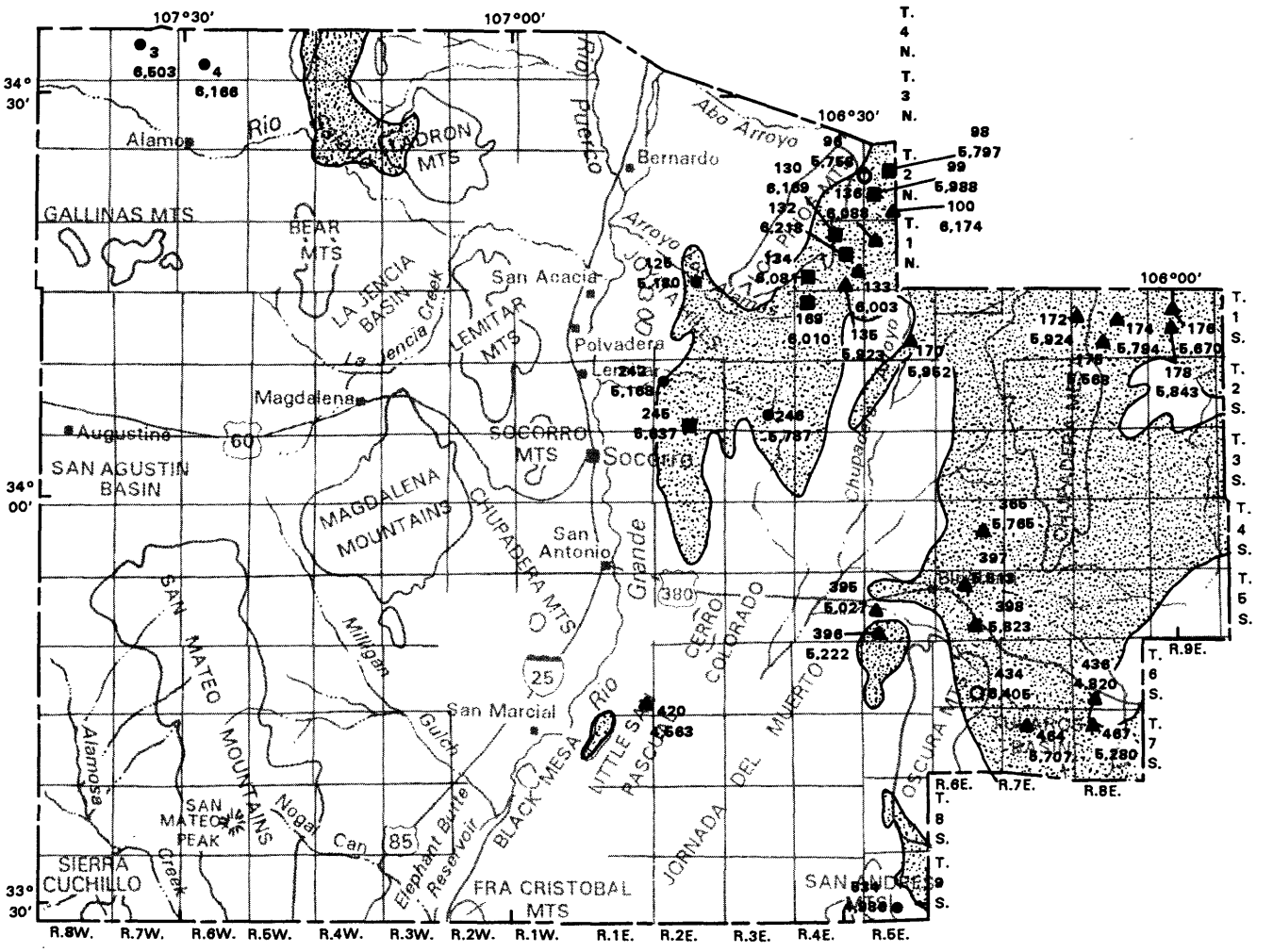
Permian rocks mainly crop out in the eastern part of Socorro County in the Chupadera Mesa area; they are separated into five units. From youngest to oldest, these are the San Andres Limestone, Glorieta Sandstone, Yeso Formation, Abo Formation, and Bursum Formation. Locations of selected wells completed in rocks of Permian age are shown in figure 11. Water-bearing rocks of Permian age are considered important in the eastern part of the county because ground water is not available from other rocks. Most wells that yield small quantities of water from Permian units are stock wells. The water quality is unacceptable for drinking-water supplies, as shown in baseline diagrams (pl. 2). Specific conductance greater than 2,250 microsiemens per centimeter, which is classified as very high salinity water (U.S. Salinity Laboratory Staff, 1954), is common in water from Permian units. Specific conductance in water from Permian units ranges from 9,080 microsiemens per centimeter in water from the Yeso Formation to 659 microsiemens per centimeter in water from the Bursum Formation. Dissolved constituents that exceed the limit set for drinking-water standards are present in water from Permian units; they include sulfate, fluoride, nitrate, iron, lead, and selenium.

San Andres Limestone

The San Andres Limestone is widely exposed in the Chupadera Mesa area. It consists of light- to dark-gray limestone, dolostone with gypsum, mudstone, siltstone, and quartzose sandstone. For the purpose of this report, the underlying Glorieta Sandstone is included with the San Andres Limestone. However, the Glorieta Sandstone is not known to be water bearing in Socorro County. Thickness ranges from 270 to 280 feet southwest of the Los Pinos Mountains (Spiegel, 1955) to more than 400 feet in the Gran Quivira National Monument area in the northeastern part of the county, to as much as 475 feet in sec. 11, T. 09 S., R. 08 E. (Weir, 1965, p. 20). Weir (1965) reported that a karst topography has developed locally on the San Andres and that sinkholes have formed in the area of sec. 6, T. 07 S., R. 08 E.

Wells that derive water from the San Andres Limestone generally yield less than 56 gallons per minute (table 1). Depths to water range from 1 foot above land surface in well 4 to about 290 feet below land surface in well 246.

Specific conductance of water from the San Andres Limestone ranges from 2,370 to 5,110 microsiemens per centimeter. Chemical analyses of water show large concentrations of several constituents, including sulfate, dissolved iron, and selenium. The sulfate concentration ranges from 460 milligrams per liter in water from spring 7 to 2,400 milligrams per liter in water from well 577. Dissolved-iron concentrations of as much as 5,600 and 3,400 micrograms per liter were measured in water from wells 536 and 4, respectively, greatly exceeding the limit of 300 micrograms per liter for public water supplies. A water sample collected from well 614 on September 4, 1980, contained a selenium concentration of 22 micrograms per liter, which exceeds the drinking-water standard of 10 micrograms per liter set by the U.S. Environmental Protection Agency (1986).



EXPLANATION

APPROXIMATE OUTCROP AREA OF PERMIAN ROCKS

125 / 5,180 — WELL COMPLETED IN SAN ANDRES LIMESTONE--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

385 / 5,765 — WELL COMPLETED IN YESO FORMATION--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

130 / 6,169 — WELL COMPLETED IN ABO FORMATION--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

434 / 6,405 — WELL COMPLETED IN BURSUM FORMATION--Upper number is site number from table 1; lower number is altitude of water level, in feet above sea level

Figure 11.--Location of selected wells completed in Permian rocks and altitude of water levels from 1949 to 1985.

Yeso Formation

The Yeso Formation consists mainly of red-brown sandstone interbedded with shale, gypsum, limestone, and siltstone. It underlies the Chupadera Mesa and the Jornada del Muerto areas. The thickness of the formation is about 680 feet at the Gran Quivira National Monument (Clebsch, 1960) and 1,100 feet in the Chupadera Mesa area, thickening to about 4,200 feet in an area outside the Socorro County boundary in sec. 33, T. 06 S., R. 09 E. (Weir, 1965).

Wells and springs that derive water from the Yeso Formation generally yield less than 20 gallons per minute, but Weir (1965) reported that well 466 yielded 200 gallons per minute. Depths to water range from 28 feet at well 170 to 650 feet below land surface at well 174. Weir (1965) conducted an aquifer test on well 467 and reported a transmissibility of about 45,000 gallons per day per foot (transmissivity of about 6,020 feet squared per day) and a storage coefficient of 2.36×10^{-3} for the aquifer in the Yeso Formation.

Specific conductance in water from the Yeso Formation can vary from 980 to 9,080 microsiemens per centimeter, but commonly ranges from 2,100 to 4,000 microsiemens per centimeter. The water from the Yeso Formation is a calcium sulfate type. The calcium concentration ranges from 68 to 650 milligrams per liter and concentrations exceeding 300 milligrams per liter are common. The sulfate concentration ranges from 170 to 3,900 milligrams per liter and concentrations exceeding 1,000 milligrams per liter are common. Water samples collected during 1982 from the Yeso Formation contained nitrate, lead, and selenium concentrations that exceed the limit set for drinking water of 10 milligrams per liter, 50 micrograms per liter, and 10 micrograms per liter, respectively (U.S. Environmental Protection Agency, 1986). Water in wells 725 and 579 contains nitrate as nitrogen concentrations of 59 and 56 milligrams per liter, respectively. Lead concentrations of 100 micrograms per liter were measured in water from seven wells. A selenium concentration of 13 micrograms per liter was measured in water from well 612. Clebsch (1960) reported that the poor chemical quality of water and great depth to water in many areas in the Yeso have discouraged prospecting for large quantities of water. However, the Yeso is a major source of ground-water supply in the Chupadera Mesa area because of the limited availability of ground water from the shallower San Andres Limestone unit in this part of Socorro County.

Abo Formation

The Abo Formation, which consists of very dark reddish-brown fine-grained sandstones with interbedded mudstone, siltstone, and minor coarse-grained sandstone, was deposited in a deltaic environment (Hunt, 1983, p. 157). The Abo Formation conformably overlies the Bursum Formation in the eastern part of the county (Weir, 1965, p. 19). The thickness of the Abo is about 540 feet in the northwestern part of the county (Tonking, 1957, p. 6), 300 feet in the Joyita Hills, 910 feet in Abo Canyon (Spiegel, 1955), and 790 feet in the central Oscura Mountains (Weir, 1965, p. 19).

Wells completed in the Abo Formation generally yield less than 2 gallons per minute of water. Depth to water generally is less than 150 feet below land surface. The Abo Formation is slightly permeable except where it is strongly jointed and fractured within the area of T. 07 S., R. 04 E. (Weir, 1965).

Specific conductance of water from the Abo Formation ranges from 754 to 3,400 microsiemens per centimeter, but conductance values from 2,200 to 3,400 microsiemens per centimeter are common. Eleven chemical analyses of water from the Abo Formation indicate that calcium concentrations range from 16 milligrams per liter in water from well 131 to 480 milligrams per liter in spring 465. The sulfate concentration ranges from 160 milligrams per liter in water from well 611 to 2,200 milligrams per liter in spring 465. Spiegel (1955) indicated that large concentrations of calcium and sulfate in the Abo Formation may be due to ground-water inflow from the overlying Yeso Formation. In addition to the moderate to large concentrations of calcium and sulfate present in water from the Abo Formation, a nitrite plus nitrate concentration exceeding the drinking-water standard also was measured in one sample collected on April 23, 1980, from well 578 (table 2).

Bursum Formation

The Bursum Formation, which consists of interbedded purplish-red and green shales, limestones, and conglomerates, conformably overlies the Pennsylvanian strata in the eastern part of Socorro County (Kottlowski, 1963, p. 102). The Bursum Formation represents transitional conditions from marine to continental environments. Thickness ranges from 80 to 120 feet in the northeastern part of the county and is 90 feet in the area of sec. 1, T. 06 S., R. 04 E., and as much as 250 feet in the central Oscura Mountains (Weir, 1965).

Very little hydrologic information is available for the Bursum Formation. A stock well, 163, that may be completed in the Bursum Formation was inspected in 1985. The depth to water at this well was about 190 feet below land surface. Weir (1965) reported yields of 2 to 30 gallons per minute from wells 737, 434, and 716.

Wells that are completed in the Bursum often yield small quantities of generally soft water, but may have large concentrations of sodium and carbonate in sec. 6, T. 02 N., R. 05 E. (Spiegel, 1955). Spiegel reported that the source of this mineralization is probably from within the formation itself; however, it is possible that calcium and magnesium in the water from the overlying Abo Formation are exchanged for sodium in the shale beds of the Bursum Formation. Sodium bicarbonate-type water has been reported in wells 737, 434, and 716 (Weir, 1965). Weir reported as much as 7 milligrams per liter of fluoride in water from well 721, exceeding the limit for fluoride concentration in drinking water of 4.0 milligrams per liter (U.S. Environmental Protection Agency, 1986). Weir (1965) also reported a concentration of 36 milligrams per liter of nitrate as nitrogen in water from well 434. This exceeds the limit of 10 milligrams per liter for nitrate as nitrogen concentration in drinking water (U.S. Environmental Protection Agency, 1986).

Pennsylvanian Rocks

Pennsylvanian rocks, comprised primarily of limestone, siltstone, sandstone, shale, and conglomerate, rest unconformably on Precambrian rocks and Ordovician or Mississippian limestones (Siemers, 1983, p. 147-155). In the Manzano and Los Pinos Mountains, and locally in the Ladron and southern Lemitar Mountains, Pennsylvanian rocks overlie Precambrian rocks. In the Magdalena Mountains, southern Lemitar Mountains, and northern Ladron Mountains, Pennsylvanian rocks unconformably overlie Mississippian rocks. In the southeastern San Mateo Mountains, Pennsylvanian rocks unconformably overlie Ordovician rocks. The thickness of Pennsylvanian rocks is at least 570 feet in the northwest corner of Socorro County, 2,700 feet in the southern Ladron Mountains, 180 to 400 feet in the Joyita Hills, and 1,300 to 1,400 feet in the Los Pinos Mountains (Kottlowski, 1963).

Three well records and nine spring records are available for the Pennsylvanian rocks. Depths to water in the wells are each less than about 50 feet below land surface. Information on yields for the three wells is not available. Yields from three springs are estimated to be less than 15 gallons per minute (table 1); however, spring 115 along the Rio Salado channel had an estimated yield of 150 gallons per minute during 1961 (table 1). No further information on yield is available for this spring. Specific conductance was 4,760 microsiemens per centimeter for this spring. Elsewhere, the specific conductance of water from springs and wells in Pennsylvanian rocks generally is less than about 800 microsiemens per centimeter.

Precambrian Rocks

Precambrian rocks consist mainly of metamorphic rocks, gabbros, quartzites, and granites. They generally crop out in parts of the Ladron, Los Pinos, Magdalena, Lemitar, Chupadera, and Oscura Mountains and in the Joyita Hills.

Precambrian rocks are not known to yield significant quantities of water within the study area. A few dug wells obtain small quantities of water from Precambrian rocks in its outcrop area. The specific conductance of water from spring 625 in Precambrian rocks was 637 microsiemens per centimeter. Selected well and spring records for the study area are in table 1. The chemical analyses of the water from selected wells and springs are presented in table 2.

Areas of Geothermal Potential

In Socorro County, geothermal potential exists in the Socorro Peak area, which was designated as a Known Geothermal Resource Area by the U.S. Geological Survey (Sass and Lachenbruch, 1978). A Known Geothermal Resource Area is defined as having sufficient geothermal potential to warrant economical development (Hatton, 1981). The Socorro Peak area is indicated to be a geothermal potential area by the high heat flow, the presence of shallow magma bodies, the existence of both reservoir rocks and cap rocks in the rock

column, and the downfaulting to considerable depths of potential reservoir rocks (Chapin and others, 1978). The temperature of the thermal springs in the Socorro Peak area ranges from about 32 to 33 degrees Celsius (Hall, 1963, p. 160-179).

A study was conducted in the Socorro geothermal area by Gross and Wilcox (1983) to determine sources and circulation patterns of the warm water and its relation to the regional ground-water system. The study indicated that the water samples of springs and wells of the geothermal anomaly were of meteoric origin and that there was no evidence of hydraulic connection between possible steam or hot-water reservoirs of the geothermal anomaly and the ground-water systems in the study area.

Other geothermal potential areas within Socorro County where wells and springs have water temperatures that are equal to or greater than 25 degrees Celsius (77 degrees Fahrenheit) are listed in table 3 (in Supplemental Information). The highest water temperature, 36 degrees Celsius, was recorded at well 187, which produces potable sodium bicarbonate-type water having a specific conductance of 430 microsiemens per centimeter. The specific conductance of water from 26 wells and springs listed in table 3 ranges from 210 to 6,740 microsiemens per centimeter. Concentrations of potassium and chloride, which may be indicators of thermal water, also are included in table 3. For example, concentrations of potassium more than a few tens of milligrams per liter are considered unusual except in hot springs or in water with very large dissolved-solids concentrations (Hem, 1970, p. 151).

WATER USE

In 1985, a total of 109,504 acre-feet of ground water and surface water was withdrawn for various water-use purposes in Socorro County (Wilson, 1986) (table 4 in Supplemental Information). Eighteen percent of the total water was withdrawn from ground water and 82 percent was withdrawn from surface water (fig. 12). Agricultural use accounted for 88 percent of the total withdrawal, most of which was for irrigation.

Surface water was used to irrigate 12,882 acres in 1985 (Wilson, 1986). About 87 percent of this was along the Rio Grande and the rest was in scattered areas within the county. During the same year, ground water was used to irrigate 7,350 acres. About 75 percent of this was along the Rio Grande, 15 percent in the San Agustin Basin, and 10 percent in scattered areas within the county (Lansford and others, 1985).

Urban and rural users that use only ground-water supplies are the towns of Socorro, Polvadera, San Acacia, and other rural areas. The total acre-feet of withdrawal in the urban and rural water-use category decreased from 1980 to 1985, but the total acre-feet of withdrawal in the commercial and minerals water-use category increased from 1980 to 1985 (table 4). This may be due to the change in the way the data were compiled by Wilson (1986), who reported that self-supplied schools, universities, and hospitals that were tabulated in the urban water-use category in 1980 were subsequently reported in the commercial water-use category in 1985.

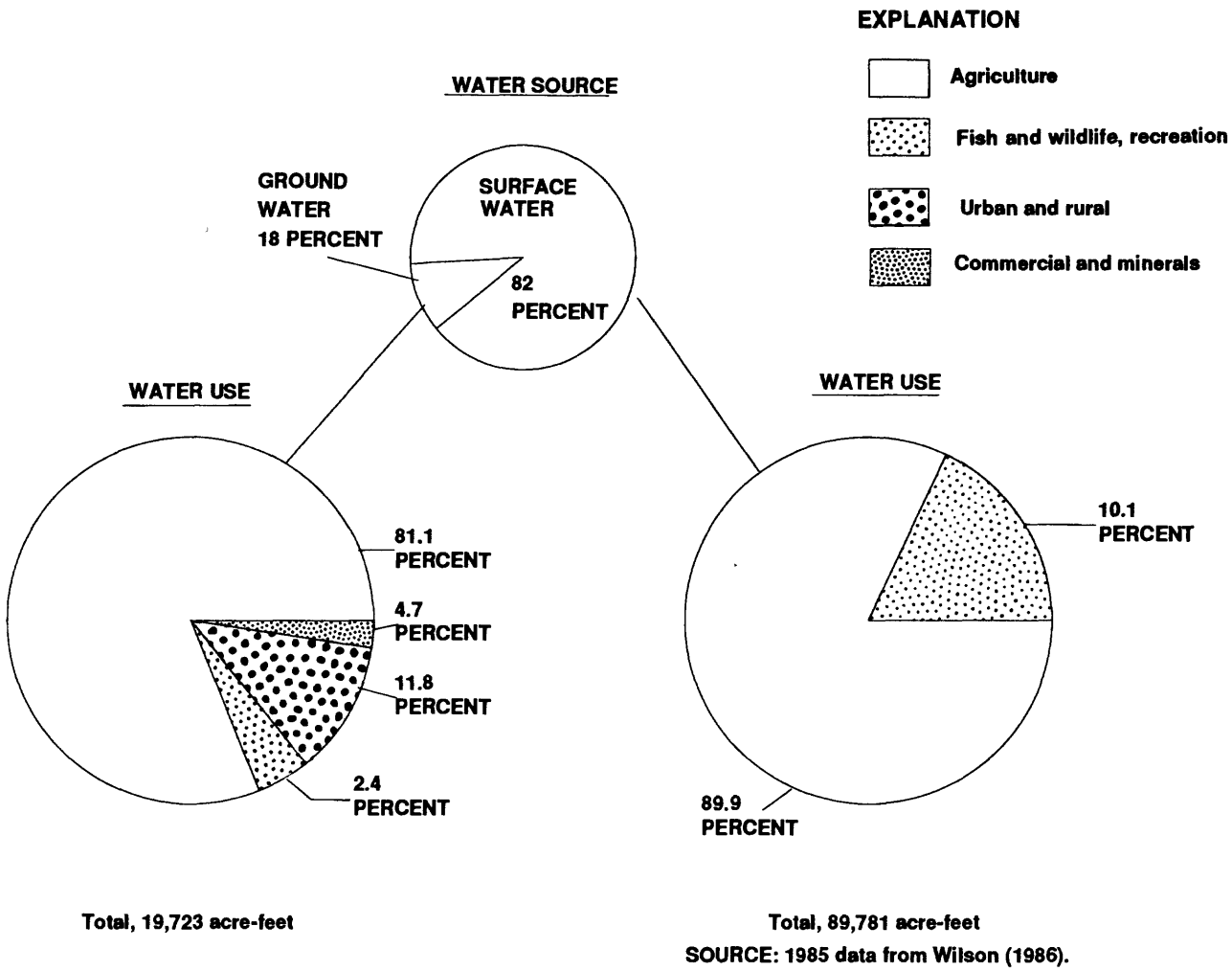


Figure 12.--Water use and source of water in Socorro County, 1985.

SUMMARY

Ground water is available in Socorro County from rocks of Quaternary through Precambrian age. The most productive water-bearing units are Quaternary deposits and the Santa Fe Group of Quaternary and Tertiary age; the Datil Group (Osburn and Chapin, 1983) and other volcanics of Tertiary age; the Crevasse Canyon Formation and Gallup Sandstone of Cretaceous age; and the San Andres Limestone, Yeso Formation, and Abo Formation of Permian age.

Complex structural features in Socorro County affect the ground-water flow system. The resulting distortions in the ground-water flow system can occur due to the changes in permeability caused by faulting or igneous intrusions. This may cause aquifers to be discontinuous and make hydrologic interpretation difficult. The quality of water in the system also will be affected by contact with various rock types.

Yields of ground water less than 50 gallons per minute are common from both Quaternary deposits and the Santa Fe Group. Outcrops of the Quaternary deposits are widespread throughout the county along the Rio Grande, the Alamosa Creek, the San Agustin Basin, and the Jornada del Muerto. In these areas, yields of ground water ranging from less than 1 to 2,700 gallons per minute are available from Quaternary deposits. Water is used for stock, irrigation, domestic, industrial, and public supplies. The outcrop of the Santa Fe Group is mainly along the Rio Grande. In this area, as much as 2,000 gallons per minute is available from the Santa Fe Group.

Water quality in Quaternary deposits and the Santa Fe Group varies greatly, but specific conductance generally is less than 2,000 microsiemens per centimeter. The quality of ground water along the Rio Grande ranges from potable to water containing constituents that exceed the maximum recommended drinking-water level, such as sulfate or chloride concentrations greater than 1,000 milligrams per liter. Water in the San Agustin Basin and the Alamosa Creek basin generally meets drinking water-quality standards; however, water in the Jornada del Muerto contains large sulfate concentrations.

Ground water is available from the Datil Group and other volcanics of Tertiary rocks. Wells and springs in these units yield as much as 80 gallons per minute, and specific conductance ranges from 95 to 3,790 microsiemens per centimeter. Most of the water from these units that meets drinking water-quality standards is on the west side of the Rio Grande.

In the Alamo Indian Reservation area ground water is available mainly from the Crevasse Canyon Formation and Gallup Sandstone of Cretaceous age. Wells and springs yield from 2.5 to 75 gallons per minute and have specific-conductance values ranging from 847 to 3,610 microsiemens per centimeter. Specific-conductance values greater than 1,000 microsiemens per centimeter are common.

Ground water available from Permian units mainly is from the San Andres Limestone, the Yeso Formation, and the Abo Formation generally in the Chupadera Mesa area. Wells and springs in these units typically yield less than 56 gallons per minute, but as much as 200 gallons per minute of water can be obtained from the Yeso Formation. Specific conductance in Permian units ranges from 659 to 9,080 microsiemens per centimeter, but specific-conductance values of 2,000 to 4,000 microsiemens per centimeter are common. Many constituents exceeding the limit set for drinking-water standards, including sulfate, fluoride, nitrate, iron, lead, and selenium, are present in water from Permian units.

During 1985, a total of 109,504 acre-feet of ground water and surface water was withdrawn in Socorro County. Eighteen percent of the total water was withdrawn from ground water and 82 percent was withdrawn from surface water. Agricultural use accounted for 88 percent of the total withdrawal, most of which was used for irrigation.

In Socorro County, 26 wells and springs indicate geothermal potential in the Socorro Peak area and other areas in the county. The water temperature in these wells and springs is equal to or greater than 25 degrees Celsius. The highest water temperature of 36 degrees Celsius was recorded at well 187, which produces potable water having a sodium bicarbonate-type ionic composition and a specific conductance of 430 microsiemens per centimeter. The depth of this well is 275 feet.

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SUPPLEMENTAL INFORMATION

Well-Numbering System

The system of numbering wells and springs in this report, used by the New Mexico State Engineer Office, is based on the common subdivision of public lands into sections. The well number, in addition to designating the well, locates its position to the nearest 10-acre tract in the land network (fig. 13). The first number denotes the township north or south of the New Mexico Base Line, the second denotes the range east or west of the New Mexico Principal Meridian, and the third denotes the section in which the well is located. The fourth number locates the well within the section to the nearest 10 acres by the system of quartering shown in figure 13. If two or more wells or springs occur in the same 10-acre tract, the wells are distinguished by letters (A, B, and so on) following the location number. The use of zeros in the fourth segment of the location number indicates that the well or spring could not be accurately located. For example, well number 01S.01W.23.400 would indicate that the well could not be located more accurately than the southeast quarter of section 23.

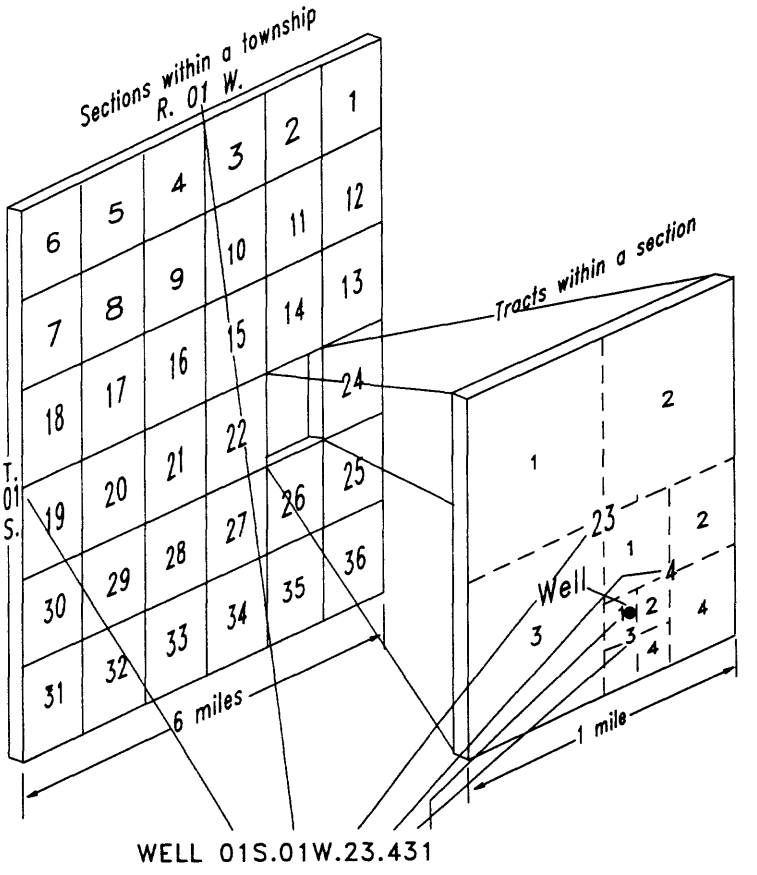

Figure 13.--System of numbering wells and springs in New Mexico.

Glossary

Baseline diagram: This is used to display ground-water-quality information in Socorro County (pl. 2). The baseline (horizontal line) represents the maximum (100 percent) acceptable level of chemical constituents in drinking water set by the U.S. Environmental Protection Agency. The lines extending from the baseline represent the percentage of deviation from the baseline. The lines below the baseline indicate the water has less than the maximum acceptable level of chemical constituents allowed in drinking water, whereas lines above the baseline indicate the water has more than the maximum acceptable level of chemical constituents in drinking water. The constituents used for the baseline diagram are chloride, dissolved solids, nitrate, sodium, specific conductance, sulfate, and total hardness (Dulas, 1978).

Chloride: Significant sources of chloride are associated with sedimentary rocks, particularly the evaporites, and also with human activities, such as the use of salt for deicing highways (Hem, 1970, p. 171-173). The drinking-water limits for chloride concentrations generally are based on palatability requirements. The maximum recommended level of chloride for drinking water is 250 milligrams per liter (U.S. Environmental Protection Agency, 1986).

Dissolved solids: These are mineral constituents dissolved from the weathering of rocks and soils. A large concentration of dissolved solids is associated with unpalatable mineral tastes, possible physiological effects, and pipe corrosion. The National Secondary Drinking Water Standard (U.S. Environmental Protection Agency, 1986) for maximum dissolved-solids concentration is 500 milligrams per liter. The U.S. Geological Survey (Hem, 1970, p. 219) classifies water according to concentrations of dissolved solids as follows: slightly saline (1,000-3,000 milligrams per liter), moderately saline (3,000-10,000 milligrams per liter), very saline (10,000-35,000 milligrams per liter), and brine (more than 35,000 milligrams per liter).

Hydraulic conductivity: If a porous medium is isotropic and the fluid is homogeneous, the hydraulic conductivity of the medium is the volume of water at the existing kinematic viscosity that will move in unit time under a unit hydraulic gradient through a unit area measured at right angles to the direction of flow (Lohman and others, 1972).

Hydraulic gradient: The change in static head per unit of distance in a given direction (Lohman and others, 1972).

Nitrate (as nitrogen): Nitrate is found in decaying organic matter, sewage and animal waste, fertilizers, and soil. The maximum level of nitrate as set forth by the National Primary Drinking Water Regulations is 10 milligrams per liter (U.S. Environmental Protection Agency, 1986). Concentrations of nitrite plus nitrate are used where they are analyzed and reported already summed.

Specific capacity: The rate of discharge of water from the well divided by the drawdown of water level within the well (Lohman and others, 1972).

Specific conductance: Specific conductance can be used to estimate the concentration of dissolved solids in water (Hem, 1970, p. 99); the greater the concentration of dissolved solids in water, the greater its specific conductance. U.S. Environmental Protection Agency drinking-water regulations do not specify any maximum value for specific conductance. The New Mexico Environmental Improvement Division (1980, p. 6) recommends that specific conductance be less than 1,000 microsiemens per centimeter at 25 degrees Celsius for drinking water. The U.S. Salinity Laboratory Staff (1954, p. 69-81) classified specific-conductance values as follows: Low-salinity water (less than 250 microsiemens per centimeter), medium-salinity water (250-750 microsiemens per centimeter), high-salinity water (750-2,250 microsiemens per centimeter), and very high salinity water (greater than 2,250 microsiemens per centimeter). Water with specific-conductance values ranging from 750 to 2,250 microsiemens per centimeter may be used for irrigation purposes under careful management practices and adequate drainage conditions (U.S. Salinity Laboratory Staff, 1954, p. 71).

Sodium: Principal sources of sodium are salt beds and clay minerals. Human activities, such as the use of salt for deicing highways in winter, and sewage and industrial wastes also contribute to increased levels of sodium in water. A sodium level of 20 milligrams per liter or less in drinking water is considered as optimal by the Environmental Protection Agency, but United States water supplies commonly have a natural or added sodium content in excess of this concentration (U.S. Environmental Protection Agency, 1976, p. 123). As a guideline, the maximum sodium level of 200 milligrams per liter, which is used by the New Mexico Environmental Improvement Division (1980, p. 8), is used for the baseline diagram. Values of sodium plus potassium are used where they are analyzed and reported already summed.

Storage coefficient: The volume of water an aquifer releases from or takes into storage per unit surface area of the aquifer per unit change in head (Lohman and others, 1972).

Sulfate: Sulfate occurs most extensively in evaporite sediments and industrial wastes. The maximum recommended level of sulfate for drinking water is 250 milligrams per liter (U.S. Environmental Protection Agency, 1986).

Total hardness: The property of hardness is associated with the use of soap from which the effects are the results of the presence of calcium and magnesium (Hem, 1985, p. 158). Hard water can be an economic problem causing excessive soap consumption and scale formation in hot-water heaters. U.S. Environmental Protection Agency drinking-water regulations do not specify any value for hardness, but for waters with hardness levels exceeding 250 milligrams per liter, softening is recommended (New Mexico Environmental Improvement Division, 1980, p. 6). Classification of the hardness of water as described in Durfor and Becker (1964, p. 27) is as follows: soft (0-60 milligrams per liter), moderately hard (61-120 milligrams per liter), hard (121-180 milligrams per liter), very hard (more than 180 milligrams per liter).

Transmissivity: The rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the aquifer under a unit hydraulic gradient (Lohman and others, 1972).

Table 1.--Records of wells and springs in Socorro County

EXPLANATION

Site number: A unique arbitrary number assigned to each well or spring for the purpose of this report.

Location number: See text for explanation.

Depth of well: Depths followed by R were reported; all others were measured.

Date completed: Dates followed by R were reported.

Water level: Water levels followed by R were reported; E, estimated; +, water level above land surface; all others were measured. Additional water-level data are available from U.S. Geological Survey files.

Use: H, domestic; I, irrigation; N, industrial; P, public supply; S, stock; U, unused.

Principal water-bearing unit: Qu, Quaternary deposits; QTs, Santa Fe Group; Tv, Tertiary volcanics; Td, Datil Group (Osburn and Chapin, 1983); Tb, Baca Formation; Kcg, Crevasse Canyon Formation and Gallup Sandstone; Kd, Dakota Sandstone; TR, Triassic rocks; TRc, Chinle Formation; Ps, San Andres Limestone; Py, Yeso Formation; Pa, Abo Formation; Pb, Bursum Formation; IPu, Pennsylvanian rocks; pC, Precambrian rocks.

Specific conductance: Values are in microsiemens per centimeter (uS/cm) at 25 degrees Celsius.

Temperature: Values are in degrees Celsius (°C).

Altitude: Altitude of land surface at the well, in feet above sea level, determined from U.S. Geological Survey topographic maps at scales 1:24,000 and 1:62,500.

Yield: Yields followed by E were estimated; R, reported; all others were measured. Values are in gallons per minute (gal/min).

-- indicates no data.

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
1	04N.08W.23.443	R.L. Ranch	256.00	7	05-19-81	200.53	05-19-81
2	04N.07W.33.412	Turner	71.00	5.60	00-00-51	20.29	05-20-81
3	04N.07W.20.221	R.L. Ranch	110.00	7.20	05-19-81	47.24	05-19-81
4	04N.06W.32.214	Majors, Buddy	750.00	10	11-21-26	1.00+	06-05-81
5	04N.06W.15.424	Pino --	--	--	--	Spring	--
6	04N.05W.17.331	Armijo	23.50	--	--	21.10	06-04-81
7	04N.03W.35.211	--	--	--	--	Spring	--
8	04N.03W.25.334	--	--	--	--	Spring	--
9	04N.01W.28.323	Huning	260.00	6	00-00-56	212.00	06-03-80
10	04N.01W.15.211	Huning	268.00	8	00-00-33	224.79	05-09-56
11	04N.01E.18.311	--	--	6	--	53.29	05-09-56
12	04N.01E.31.330	Campbell Farming Inc.	203.00	6.63	06-02-60	168.00	07-01-60
13	04N.01E.36.121	Wilkey, Lee	92.00	12	07-22-54	6.52	03-28-56
14	03N.08W.36.441	Burns, Lindsey	42.00	9.66	--	29.29	06-02-81
15	03N.08W.10.243	Watson	136.00	6.70	05-20-67	75.02	05-20-81
16	03N.07W.24.314	Alamo Band	50.00	6.63	03-00-63	18.7	09-17-85
17	03N.07W.13.412	Alamo Band	295.00	8.63	03-00-54	73.46	09-17-85
18	03N.07W.10.313	R.L. Ranch	242.00	6	00-00-50	166.29	06-03-81
19	03N.07W.02.112	R.L. Ranch	330.00	6	00-00-53	293.47	05-20-81
20	03N.06W.35.142	Alamo Band	--	--	--	Spring	--
21	03N.06W.28.114	Alamo Band	190.00	6	03-00-41	155.22	08-14-75
22	03N.06W.04.211B	Major, Buddy	25.00	5.57	--	21.18	06-05-81
23	03N.06W.04.211A	Major, Buddy	100.00	--	--	94.35	06-05-81
24	03N.03W.36.344	--	--	--	--	Spring	--
25	03N.03W.25.412	--	--	--	--	Spring	--
26	03N.02W.22.343	Lopez, E.	40.00	--	00-00-50	18.43	01-06-50
27	03N.02W.14.332	Lopez	--	--	00-00-40	26.65	01-06-50
28	03N.01W.25.444	Bryan, J.E.	70.00	8	00-00-40	35.26	01-30-81
29	03N.01W.25.441	Padilla	61.00	6	--	34.45	02-07-85
30	03N.01W.21.331	--	405.00	--	--	352.00	05-28-80
31	03N.01W.14.114	--	143.00	6	--	113.26	02-07-85
32	03N.01E.06.433	Burris, G.W.	212.00	6.63	01-00-70	52.00	03-30-70
33	03N.01E.14.300	Beale, Ed T.	90.00	2.25	04-20-81	60.00	04-24-81
34	03N.01E.16.144	Campbell, T.D.	585.00	12	11-00-39	334.00R	00-00-39
35	03N.01E.34.430	Averitt, John	35.00R	2	06-00-48	20.00R	06-00-48

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
1	S	Kcg	--	--	6,727	6,526	3.0	X
2	S	Kcg	--	--	6,447	6,427	7.2	X
3	S	Ps?	3,000	13.5	6,550	6,503	6.0	
4	S	Ps	--	--	6,165	6,166	15E	X
5	--	TRc	--	--	6,050	--	9.0E	X
6	H, S	Qu	--	--	6,030	6,009	4	X
7	--	Ps?	--	--	5,530	--	12E	X
8	--	--	--	--	5,475	--	100E	X
9	S	QTs	--	--	5,015	4,803	7.5E	X
10	S	QTs	--	--	5,035	4,810	4.0E	X
11	U	QTs	--	--	4,862	4,809	--	
12	H	QTs	--	--	4,830	4,662	--	
13	I	Qu?	--	--	4,768	4,761	1,000R	
14	S	Qu	--	--	6,480	6,451	--	X
15	S	Qu	--	--	6,470	6,395	5.3	X
16	H, S	Kd	1,800	--	6,340	6,321	--	
17	S	TRc	3,500	--	6,410	6,337	17	
18	S	Kcg	--	--	6,500	6,334	20E	
19	S	Kcg	--	--	7,085	6,792	2.5E	
20	S	Kd	3,600	16.0	5,960	--	--	
21	--	Kd	4,430	--	6,130	5,975	--	
22	U	Qu	--	--	6,080	6,059	--	
23	S	--	--	--	6,070	5,976	--	
24	--	IPu	--	--	6,950	--	--	X
25	--	QTs?	--	--	6,400	--	--	X
26	H, S	Tb?	--	--	5,578	5,560	2.5R	X
27	H, S	Qu	--	--	5,406	5,379	--	
28	S	QTs	--	--	4,786	4,752	--	X
29	S	QTs	--	--	4,786	4,752	--	
30	S	QTs	1,550	19.0	5,125	4,773	--	
31	S	QTs	2,925	19.0	4,889	4,776	1.0E	
32	H	QTs?	--	--	4,600	4,548	--	
33	H	QTs	--	--	4,810	4,750	--	
34	S	QTs	--	--	5,074	4,740	--	
35	I	QTs?	--	--	4,745	4,725	--	X

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
36	03N.01E.36.111	N. Mex. Boys Ranch	100.00	16	00-00-52	6.12	01-25-60
37	03N.02E.03.312	Miranda	163.00	16	07-00-55	100.00	11-27-56
38	03N.02E.04.121	Wheeler, Al	200.00	20	09-00-56	65.89	11-27-56
39	03N.02E.17.332	Ghoreishi, S.A.	170.00	6.63	12-08-81	38.00	12-11-81
40	03N.02E.27.123	Koeing, Harold	380.00	--	06-00-78	120.60	05-30-80
41	03N.02E.31.431	Boys Ranch, New Mexico	135.00	8	00-00-50	100.00R	06-11-80
42	03N.02E.33.222	Cox, B.W.	320.00	--	00-00-75	177.95	05-30-80
43	03N.03E.32.310	Horizon	--	--	--	379.35	06-12-80
44	03N.04E.28.244	Sanchez, Gillie	192.00	8	00-00-55	171.35	05-30-80
45	02N.08W.27.211	Taylor, Jay Cattle Co.	74.00	6.63	04-12-80	32.00	04-18-80
46	02N.08W.10.441	Burns, Lindsey	46.00	7.16	--	39.95	06-02-81
47	02N.07W.34.212	Burns, Lindsey	90.00	5.88	00-00-00	57.64	06-02-81
48	02N.07W.32.422	Burns, Lindsey	35.00	6.68	--	24.87	06-02-81
49	02N.07W.27.121	--	--	--	--	Spring	--
50	02N.07W.24.214	Alamo Band	--	--	--	Spring	--
51	02N.07W.22.334	Risinger	495.00	6	--	33.98	08-15-75
52	02N.07W.20.411	Burns, Lindsey	400.00	4.85	--	228.07	06-02-81
53	02N.07W.18.414	Burns, Lindsey	110.00	6.68	--	83.46	06-02-81
54	02N.07W.14.423	Alamo Band	--	--	--	Spring	--
55	02N.07W.13.243	Alamo Band	6.30	--	--	5.79	09-17-85
56	02N.07W.13.222	Alamo Band	300.00	--	08-12-81	42.20	11-23-82
57	02N.07W.12.422	Alamo Band	300.00	--	08-09-81	48.05	11-23-82
58	02N.07W.01.111	Alamo Band	199.00	--	07-23-8	43.40	11-23-82
59	02N.06W.36.231	Alamo Band	--	--	--	Spring	--
60	02N.06W.35.324	Alamo Band	16.60	--	--	6.34	09-18-85
61	02N.06W.32.134	Alamo Band	100.00	6.63	03-00-63	72.67	09-18-85
62	02N.06W.27.222	Alamo Band	180.00	--	00-00-66	119.58	09-18-85
63	02N.06W.26.241	Alamo Band	--	--	--	Spring	--
64	02N.06W.26.144	Alamo Band	10.25	--	--	7.26	09-18-85
65	02N.06W.25.442	Alamo Band	197.00	--	09-24-81	28.00	09-24-81
66	02N.06W.20.114	Alamo Band	20.00	--	--	18.62	09-17-85
67	02N.06W.17.424	Alamo Band	--	--	--	Spring	--
68	02N.06W.17.112	Alamo Band	300.00	--	08-18-81	212.00R	08-18-81
69	02N.06W.15.142	Alamo Band	--	--	--	8.50	09-17-85
70	02N.06W.08.131	Alamo Band	185.00	6.63	06-00-59	21.19	09-17-85

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
36	I	Qu	--	--	4,733	4,727	1,460R	
37	I	QTs	--	--	4,885	4,785	1,330R	
38	I	QTs?	--	--	4,827	4,761	2,000R	
39	I	QTs	--	--	4,820	4,782	50	
40	H	QTs	--	--	4,960	4,839	--	X
41	H, S	QTs	--	--	4,841	4,741	--	X
42	H	QTs	--	--	4,950	4,772	--	X
43	S	QTs	--	--	5,172	4,793	10E	X
44	S	Qu?	--	--	5,410	5,239	--	X
45	S	Td	--	--	6,500	6,468	30	
46	S	Qu	--	--	6,550	6,510	2.0	X
47	H, S	Qu	--	--	6,765	6,707	--	X
48	S	Qu	420	--	7,010	6,985	--	
49	S	--	480	20.0	6,650	--	1.0E	
50	H, S	--	440	15.0	6,340	--	5.0E	
51	U	Tb	--	--	6,624	6,590	--	
52	S	Kcg	1,950	--	6,740	6,512	--	
53	S	Qu	500	--	6,692	6,609	--	
54	I	--	500	15.0	6,380	--	2.0E	
55	--	--	1,050	18.0	6,360	6,354	--	
56	U	Kcg	--	--	6,270	6,228	--	
57	U	Kcg	--	--	6,215	6,167	--	
58	U	--	--	--	6,210	6,167	--	
59	--	--	720	22.0	6,293	--	5.0E	
60	H	--	820	19.0	6,365	6,359	--	
61	S	Tb	650	--	6,481	6,408	15R	
62	S	Kcg	1,350	--	6,325	6,205	--	
63	--	Qu	720	--	6,210	--	--	
64	H	--	1,200	18.0	6,240	6,233	--	
65	U	Kcg	--	--	6,300	6,272	--	
66	H, I	--	850	16.0	6,285	6,266	--	
67	H, S	QTs	740	15.5	6,210	--	4.0R	
68	U	Kcg	--	--	6,180	5,968	--	
69	H, S	Kcg	1,400	22.0	6,105	6,097	--	
70	U	Kcg	1,500	17.5	6,100	6,079	15R	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
71	02N.06W.07.411	Alamo Band	392.00	6	02-00-71	82.30	09-17-85
72	02N.06W.06.123	Alamo Band	230.00	6.63	05-13-40	96.16	09-17-85
73	02N.06W.04.444	Alamo Band	18.00	--	--	16.75	08-14-75
74	02N.06W.03.412	Alamo Band	62.00	6.63	03-00-63	20.24	09-17-85
75	02N.06W.02.422	Alamo Band	15.00	1.25	11-02-83	5.37	11-02-83
76	02N.05W.31.222	Chavez, Manuel	50.00	--	00-00-67	19.24	09-18-85
77	02N.05W.30.331	Alamo Band	17.90	--	--	8.69	09-18-85
78	02N.05W.21.324	Chavez, Manuel	--	--	--	Spring	--
79	02N.05W.10.444	--	--	--	--	Spring	--
80	02N.04W.14.324	Ust Monte, Herman B.	242.00	6	07-21-78	41.50	08-16-78
81	02N.04W.09.141	--	--	--	--	Spring	--
82	02N.02W.14.440	Campbell, T.D.	195.00	--	07-00-49	84.50	07-21-49
83	02N.01W.30.341	Campbell, T.D.	90.00R	8	00-00-48	7.02	11-30-49
84	02N.01W.13.223	Campbell, T.D.	140.00?	4	--	133.89	07-15-49
85	02N.01E.04.444	Salas, D.B.	285.00R	--	--	12.19	09-05-85
86	02N.01E.22.233	Gordon, Andrew	110.00	16	00-00-50	3.86	05-17-56
87	02N.01E.27.131	Gordon, Andrew J.	130.00	16	00-00-54	16.73	05-17-56
88	02N.01E.31.313	--	223.00	4.5	07-02-75	136.52	04-23-85
89	02N.02E.06.112	Boys Ranch	100.00	16	04-10-57	50.00	05-01-57
90	02N.02E.09.330	Campbell, T.D.	--	6.50	00-00-40	254.00	12-07-49
91	02N.02E.31.333	N. Mex. Boys Ranch	173.00	--	01-00-63	21.00	03-01-63
92	02N.03E.10.410	Cattle Co., West Pyle	420.00R	8	01-00-42	371.25	01-30-81
93	02N.03E.18.234	--	--	--	--	329.61	07-29-83
94	02N.03E.21.330	Campbell Farming Inc.	114.00	6	07-13-60	55.00	07-15-60
95	02N.04E.03.340	Miranda, Max	25.00	24	00-00-49	22.50	09-02-49
96	02N.04E.12.223	Miller, R.E.	32.00R	--	00-00-26	28.15	08-04-49
97	02N.04E.28.321	Parker, R.P.	44.10	--	00-00-34	32.70	07-28-49
98	02N.05E.04.300	Chilton, R.L.	153.00	5.56	04-23-80	38.00	04-30-80
99	02N.05E.20.244	Contreras, J.J.	57.60R	8	00-00-35	38.35	07-28-49
100	02N.05E.33.222	Bryan, Ed	200.00	6	00-00-49	41.10	11-16-49
101	01N.08W.36.323	Double H Ranch	--	--	--	217.66	03-16-81
102	01N.08W.35.123	Double H Ranch	--	--	--	237.19	03-16-81
103	01N.08W.28.231	Double H Ranch	500.00R	6	--	424.90R	04-19-79
104	01N.08W.23.423	Double H Ranch	375.00R	5	--	352.34R	04-19-79
105	01N.08W.19.144	Double H Ranch	--	6.75	--	386.58R	12-15-77

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
71	H	Kcg	1,130	16.5	6,165	6,083	25	
72	S	Kcg	2,400	18.5	6,140	6,044	10R	
73	H	Kcg	900	17.0	6,010	5,993	--	
74	S	Qu	2,000	--	5,990	5,970	--	
75	U	Qu	--	--	5,940	5,935	--	
76	S	Qu	5,000	--	6,310	6,291	--	
77	H	--	850	17.0	6,260	6,251	--	
78	--	Qu	650	16.0	6,130	--	--	
79	S	Qu?	--	--	5,975	--	5.0	X
80	H, S	TR	--	--	5,580	5,539	3.0	
81	H, I	Qu	--	--	5,590	--	10E	X
82	S	QTs	--	--	5,526	5,442	--	
83	S	Qu	--	--	5,186	5,179	--	X
84	S	QTs	--	--	4,861	4,730	--	
85	H	QTs	--	--	4,739	4,727	--	X
86	I	Qu	--	--	4,718	4,714	1,800R	
87	I	QTs	--	--	4,735	4,718	1,450R	
88	--	QTs?	--	--	4,860	4,723	--	
89	--	QTs	--	--	4,768	4,718	500	
90	S	QTs	--	--	4,993	4,739	3.0R	
91	H, S	QTs	--	--	5,050	5,029	--	
92	S	QTs	--	--	5,201	4,830	--	
93	--	QTs	--	--	5,140	4,810	--	
94	H	QTs	--	--	5,283	5,228	--	
95	H, S	pC	--	--	5,728	5,706	--	
96	H	Pb	--	--	5,786	5,758	--	
97	H	pC	--	--	6,419	6,386	--	
98	S	Pa	--	--	5,835	5,797	1.0	
99	S	Pa	--	--	6,026	5,988	2.0E	X
100	S	Py	--	--	6,215	6,174	--	X
101	I	Qu	--	--	7,010	6,792	--	
102	I	Qu	--	--	7,045	6,808	--	
103	S	Qu	280	16.0	7,221	6,796	3.0R	
104	S	Td	--	--	7,155	6,803	--	
105	S	Td	290	18.5	7,575	7,188	1.5R	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
106	01N.06W.24.122	--	23.00	--	--	8.88	08-12-75
107	01N.06W.22.421	Henderson	--	--	--	Spring	--
108	01N.06W.21.122	Henderson	185.00	6	--	61.49	08-12-75
109	01N.06W.18.321	Henderson	165.00	4	--	60.30	08-12-75
110	01N.06W.14.334	Alamo Band	--	--	--	Spring	--
111	01N.06W.10.421	Alamo Band	--	--	--	Spring	--
112	01N.06W.08.113	Alamo Band	627.00	6.62	05-11-54	304.12	09-19-85
113	01N.06W.03.424	Alamo Band	--	--	--	Spring	--
114	01N.03W.07.342	--	--	--	--	Spring	--
115	01N.02W.07.132	--	--	--	--	Spring	--
116	01N.02W.01.330	City of Socorro	44.00R	8	08-00-49	9.93	11-30-49
117	01N.01W.36.334	N. Mex. Tech	62.00	3	00-00-17	5.90	04-23-85
118	01N.01W.34.334	Campbell, T.D.	--	7	--	117.30	01-15-50
119	01N.01W.17.210	Campbell, T.D.	--	40	00-00-40	13.32	01-14-50
120	01N.01W.15.443	N. Mex. Game & Fish	20.50	4	--	9.63	02-07-85
121	01N.01W.13.244	N. Mex. Highway Dept.	212.00	6.62	09-03-76	170.46	02-28-85
122	01N.01W.03.144	U.S. Fish & Wildlife	220.00	6	00-00-52?	195.42	02-07-85
123	01N.01E.04.342	Romero, Eliosim	130.00	5	07-25-83	20.00	07-26-83
124	01N.02E.21.120	Campbell, T.D.	100.00	8	00-00-30	63.74	01-24-50
125	01N.02E.34.133	U.S. Fish & Wildlife	--	--	--	32.44	01-31-85
126	01N.03E.03.120	Campbell, T.D.	196.00	8	10-00-48	114.65	07-26-49
127	01N.03E.15.342	Campbell, T.D.	265.00R	12	07-00-49	54.90	08-11-49
128	01N.03E.32.444	U.S. Game & Fish Dept.	55.00	6	--	50.84	01-31-85
129	01N.03E.33.000	Laswell Plumbing	100.00	6.62	06-22-64	20.00	06-25-64
130	01N.04E.03.444	Sanchez, A.	145.00	--	00-00-49	136.10	08-22-49
131	01N.04E.10.121	Bryan, Ed	169.00	6	--	145.00	08-22-49
132	01N.04E.14.113	Bryan, Ed	--	12	00-00-30	68.63	08-31-49
133	01N.04E.25.314	Sais, R.	--	6	--	141.39	11-16-49
134	01N.04E.29.413	Bryan, E.	180.00R	--	--	154.50R	08-31-49
135	01N.04E.35.434	Sais, Raymond	160.00R	8	00-00-49	98.50	08-02-49
136	01N.05E.07.311	Bryan, Ed	162.00R	6	00-00-49	137.20	11-16-49
137	01S.08W.35.441	Double H Ranch	--	6.03	--	185.02R	12-14-77
138	01S.08W.21.111	Double H Ranch	--	6.375	--	283.00	12-15-77
139	01S.08W.10.341	Double H Ranch	--	8	--	217.62R	12-15-77
140	01S.08W.02.422	Double H Ranch	--	--	--	212.03	03-16-81

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
106	S	Td, Tv	980	18.5	6,700	6,691	--	
107	--	Td	540	15.0	6,840	--	1.0E	
108	S	Tb	540	--	6,900	6,839	--	
109	--	Td	--	--	7,110	7,050	--	
110	S	Td, Tv	530	13.0	6,820	--	--	
111	S	--	520	15.0	6,660	--	5.0E	
112	S, H	Tb	1,400	21.0	6,710	6,406	21	
113	--	Qu	800	19.0	6,540	--	1.0E	
114	--	QTs	--	--	5,715	--	1.0E	X
115	--	lPu	--	--	5,200	--	150E	X
116	S	Qu	--	--	4,984	4,974	--	X
117	U	Qu	--	--	4,670	4,664	--	
118	S	QTs	--	--	4,801	4,684	--	X
119	S	Qu	--	--	4,897	4,884	2.5E	
120	U	Qu	2,200	17.5	4,827	4,817	--	
121	P	QTs	--	--	4,900	4,730	--	X
122	U	QTs	--	--	4,980	4,785	--	
123	H	Qu	--	--	4,730	4,710	5.0-10	
124	S	--	--	--	5,160	5,096	--	
125	U	Ps	--	--	5,212	5,180	--	X
126	H, S	Qu?	--	--	5,494	5,379	--	
127	I	pC	--	--	6,060	6,005	--	
128	S	--	--	--	5,741	5,690	--	
129	H	lPu?	--	--	5,800	5,780	--	
130	S	Pa	--	--	6,305	6,169	--	
131	H, S	Pa	--	--	6,353	6,208	--	X
132	S	Pa	--	--	6,287	6,218	--	X
133	H, S	Py	--	--	6,144	6,003	--	
134	S	Pa	--	--	6,235	6,081	--	X
135	S	Py	--	--	6,021	5,923	--	
136	S	Py	--	--	6,225	6,088	--	X
137	S	Qu	--	--	6,988	6,803	--	
138	--	Qu?	240	17.5	7,052	6,769	--	
139	S	Qu	470	17.0	7,014	6,796	--	
140	I	Qu?	--	--	7,005	6,793	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
141	01S.08W.02.241	Double H Ranch	--	--	--	206.36	03-16-81
142	01S.07W.30.111	Double H Ranch	--	6.63	--	213.16R	12-14-77
143	01S.07W.18.224	Double H Ranch	--	--	--	200.00R	--
144	01S.03W.31.433	Badger Cattle	390.00	--	--	301.00	07-00-62
145	01S.03W.17.124	Hudgins, Don	--	6	--	182.50	07-15-80
146	01S.03W.14.241	--	--	--	--	Spring	--
147	01S.03W.12.331	Hudgins	--	--	--	119.00	07-00-62
148	01S.03W.07.131	Hudgins, Don	--	--	--	238.93	07-01-80
149	01S.02W.30.121	Badger Cat Co.	280.00	--	--	165.00R	06-00-60
150	01S.01W.36.311	Crabtree	8.00	--	--	3.33	05-17-56
151	01S.01W.27.422	Raskob, B.G.	60.00	--	--	42.00	05-00-58
152	01S.01W.27.343	Polvadera MDWCA	240.00	8	04-20-77	181.00R	04-20-77
153	01S.01W.26.223	--	--	12	--	13.25	01-29-85
154	01S.01W.25.114	Rush, Lucy K.	100.00	16	04-16-57	10.00R	04-16-57
155	01S.01W.23.431	Easarrcino	100.00	16	00-00-51	8.00	00-00-51
156	01S.01W.22.431	--	140.00	6	--	119.62	01-29-85
157	01S.01W.22.243	Armstrong	104.00	10	01-20-58	47.00R	01-20-58
158	01S.01W.01.213	Herkenhoff, Jr., Gordon	38.00	14	--	7.44	09-05-85
159	01S.01E.01.430	Campbell, T.D.	--	--	--	122.24	01-26-50
160	01S.01E.07.123	Greenwood, Morty D.	100.00	5	08-31-76	60.00R	08-31-76
161	01S.01E.09.410	Campbell, T.D.	--	--	--	351.00	02-22-50
162	01S.01E.36.220	Bland & McDonald	145.00	--	--	35.00	05-18-50
163	01S.02E.13.412	U.S. Dept. of Game & Fish	192.50	6	--	189.50	01-31-85
164	01S.02E.19.241	U.S. Dept. of Game & Fish	--	6	00-00-50	41.92	01-31-85
165	01S.02E.29.340	Bland & McDonald	13.00R	48	00-00-50	4.70	01-27-50
166	01S.03E.05.222	U.S. Dept. of Game & Fish	55.00	6	--	50.84	01-31-85
167	01S.03E.06.321	U.S. Dept. of Game & Fish	47.00	6	00-00-49	11.17	01-31-85
168	01S.03E.34.121	Conant, J.W.	397.00R	5.5	--	357.00	08-00-49
169	01S.04E.06.443	Conant, J.W.	185.00R	5.50	00-00-36	140.00	08-12-50
170	01S.05E.22.223	Ulibarri	86.00R	--	00-00-15	28.00R	09-21-50
171	01S.07E.17.410	Wells, Mack	620.00	--	00-00-40	600.00R	00-00-50
172	01S.08E.07.332	Cain, E.V.	500.00R	--	00-00-28R	480.00R	--
173	01S.08E.09.310	Connel, M.	610.00R	--	00-00-34	583.00R	--
174	01S.08E.11.322	Kite, J.L.	842.00	6	00-00-52	650.00	00-00-55
175	01S.08E.21.431	Vaughn	800.00	--	00-00-50	650.00	08-01-50

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
141	I	Qu?	--	--	7,010	6,804	--	X
142	S	Qu	--	--	7,012	6,799	--	
143	--	Qu	--	--	7,070	6,870	--	
144	S	Qu	--	--	6,110	5,809	--	X
145	S	Tv	--	--	5,861	5,679	0.50	X
146	--	QTs	--	--	5,660	--	15E	X
147	H, S	QTs?	--	--	5,640	5,521	--	
148	S	Tv	--	--	5,959	5,720	--	X
149	S	Qu	--	--	5,819	5,654	--	X
150	S	Qu?	--	--	4,680	4,677	--	
151	H	Qu?	--	--	4,660	4,618	--	X
152	P	Qu	--	--	4,785	4,604	118R	
153	I	Qu	--	--	4,641	4,628	--	
154	I	Qu	--	--	4,700	4,690	--	
155	I	Qu	--	--	4,645	4,637	1,200	X
156	U	QTs?	--	--	4,735	4,615	--	
157	N	Qu	--	--	4,725	4,678	200E	X
158	U	Qu	--	--	4,660	4,653	--	
159	S	Qu?	--	--	5,140	5,018	--	
160	--	QTs	--	--	4,623	4,563	30R	
161	S	QTs	--	--	5,040	4,689	--	
162	S	Qu?	--	--	5,080	5,045	50R	
163	S	Pb?	--	--	5,551	5,362	--	
164	U	Qu	--	--	5,160	5,118	--	
165	S	--	--	--	5,186	5,181	--	X
166	S	lPu	--	--	5,741	5,690	--	
167	S	Qu	--	--	5,518	5,507	2.5R	X
168	S	Py or Pa	--	--	6,179	5,822	--	
169	H, S	Pa	--	--	6,150	6,010	--	
170	S	Py	--	--	5,980	5,952	--	
171	S	Py?	--	--	6,411	5,811	--	
172	S	Py	--	--	6,404	5,924	--	X
173	S	Py	--	--	6,268	5,685	--	X
174	S	Py	--	--	6,424	5,774	--	X
175	H, S	Py	--	--	6,218	5,568	--	X

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
176	01S.09E.04.314	Capt. J. Smith	630.00R	--	--	600.00R	08-01-50
177	01S.09E.07.134	Wells, James & Mack	650.00R	6	--	618.00R	08-01-50
178	01S.09E.09.141	Wells, James & Mack	832.00R	--	--	657.00R	08-01-50
179	02S.08W.35.222	Bruton, Jack	--	6	--	167.79	05-09-79
180	02S.08W.21.413	Double H Ranch	200.00R	--	--	--	--
181	02S.08W.13.330	Mountain States Construction	400.00	--	05-23-79	184.00	05-23-79
182	02S.08W.07.344	Quin, A.	280.00R	--	--	279.00R	05-01-80
183	02S.08W.06.431	Olmstead, Walter	360.00R	12.75	--	268.92	04-30-80
184	02S.08W.06.314	Olmstead, Walter	--	--	--	277.37	05-01-80
185	02S.07W.31.113	Bruton, Jack	--	6	00-00-16	160.90	05-10-79
186	02S.07W.30.242	Bruton, Jack	180.00R	6	00-00-58	157.75	05-10-79
187	02S.07W.27.444	Bruton, Jack	275.00R	6	00-00-58	218.09	04-25-79
188	02S.07W.17.133	Montosas Cattle & Bruton	--	7	00-00-36	180.25	12-14-77
189	02S.07W.12.444	Montosas Cattle Company	440.00R	6	--	373.30	04-20-79
190	02S.07W.11.431	Montosas Cattle Company	380.00R	6.00	--	340.00R	04-20-79
191	02S.06W.23.243	Montosas Cattle Company	480.00	5	00-00-57	440.00E	11-27-79
192	02S.06W.20.441	Montosas Cattle Company	--	8.375	--	109.50	12-14-77
193	02S.06W.09.424	Montosas Cattle Company	500.00R	5	--	176.25	04-25-79
194	02S.06W.08.232	Montosas Cattle Company	180.00R	6	--	174.47	04-25-79
195	02S.05W.32.112	Montosas Cattle Company	550.00R	6	--	376.91	04-25-79
196	02S.05W.20.444	Montosas Cattle Company	200.00R	5	--	132.04R	04-25-79
197	02S.04W.33.211	U.S. Forest Service	390.00R	--	00-00-64	120.00R	00-00-64
198	02S.04W.28.114	Magdalena	200.00R	--	00-00-64	90.00R	07-00-72
199	02S.04W.27.241	Magdalena	340.00R	--	00-00-64	199.00R	07-00-72
200	02S.04W.27.111	Pino, L.	140.00	--	--	118.00	06-00-60
201	02S.04W.26.344	Hutchinson, Don	180.00	--	--	156.00	06-03-80
202	02S.04W.24.211	Trujillo, Tony	--	--	--	188.00	08-00-67
203	02S.04W.22.434	Pino, R.	190.00	--	--	180.00	05-00-63
204	02S.04W.13.434	Pino	--	--	--	155.00	06-00-60
205	02S.03W.27.223	Courtney, J.	420.00	--	--	347.00	06-00-60
206	02S.03W.24.411	Strozzi, A.	160.00	--	--	158.00	06-00-60
207	02S.03W.22.111	--	--	--	--	312.00	07-00-62
208	02S.03W.11.333	Gray	--	--	--	244.00	08-00-67
209	02S.03W.07.344	--	--	--	--	204.00	07-00-62
210	02S.03W.01.312	Hudgins, Don	--	--	--	175.00	08-00-67

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
176	--	Py	--	--	6,470	5,870	--	
177	--	Py	--	--	6,437	5,819	--	
178	--	Py	--	--	6,500	5,843	--	
179	U	Qu	--	--	6,968	6,800	--	
180	S, H	Qu	--	--	7,011	--	--	X
181	N	Qu	--	--	6,976	6,792	--	
182	S	Qu	--	--	7,075	6,796	--	
183	I	Qu	--	--	7,068	6,799	--	
184	U	Qu	--	--	7,075	6,798	--	
185	--	Qu	--	--	6,959	6,798	--	
186	--	Qu	--	--	6,956	6,798	--	
187	--	Qu	--	--	7,021	6,803	3.0	X
188	S	Qu	320	--	6,981	6,801	--	
189	S	Td	450	--	7,434	7,061	--	
190	S	Qu	--	--	7,235	6,895	--	
191	S	Td?	470	15.5	7,309	6,869	1.0	
192	S	Td	--	--	7,190	7,081	--	
193	N	Td	--	--	7,407	7,231	--	
194	S	Td	--	--	7,452	7,278	--	
195	S	QTs	420	18.0	7,126	6,749	1.0E	
196	S	QTs	460	17.0	6,962	6,830	2.5E	
197	H, P	Tv?	--	--	6,765	6,645	50R	
198	P	Tv?	--	--	6,530	6,440	80R	
199	P	Tv?	--	--	6,640	6,441	40-60R	X
200	H	Qu?	--	--	6,557	6,439	--	
201	--	Qu	--	--	6,800	6,644	--	X
202	H, S	Qu?	--	--	6,460	6,272	--	
203	H	Qu	--	--	6,595	6,415	25	X
204	H	Qu?	--	--	6,435	6,280	--	
205	H, S	QTs	--	--	6,057	5,710	--	X
206	H	Qu	--	--	5,867	5,709	--	X
207	--	QTs?	--	--	6,020	5,708	--	
208	S	Qu	--	--	5,946	5,702	--	X
209	S	QTs?	--	--	6,240	6,036	--	
210	S	Qu?	--	--	5,880	5,705	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
211	02S.02W.35.342	--	--	--	--	Spring	--
212	02S.02W.34.432	Strozzi, P.	134.00	--	--	100.00	06-00-60
213	02S.02W.21.333	Kelly, J.B.	181.00	--	--	156.00	07-00-62
214	02S.02W.20.311	Kelly, J.B.	160.00	--	--	131.00	07-00-62
215	02S.02W.18.112	Gray	150.00	--	--	144.00	06-00-60
216	02S.02W.07.324	Gray	150.00	--	--	150.00	06-00-60
217	02S.01W.36.433	Silva, Ernesto	60.00	10	--	15.49	02-06-85
218	02S.01W.35.221	New Mexico, Tubsan3	180.00	--	--	90.00	00-00-51
219	02S.01W.31.314	--	--	--	--	Spring	--
220	02S.01W.30.443	--	--	--	--	Spring	--
221	02S.01W.26.330	Kelly, J.B.	200.00	6	06-04-60	144.00R	06-04-60
222	02S.01W.25.324	Sickles, P.	47.00	--	--	25.00	02-00-63
223	02S.01W.24.110	--	105.00	6	03-15-79	30.00R	03-15-79
224	02S.01W.14.200	Kelly, J.B.	250.00	7	03-26-62	42.00R	03-26-62
225	02S.01W.11.330	Welleam, Tod	181.00	6.62	10-25-72	143.00R	10-25-72
226	02S.01W.10.211	Foumasi, Shirley	202.00	6	11-28-78	167.00R	11-28-78
227	02S.01W.02.300	La Point, James P.	141.00	6	08-05-78	80.00R	08-05-78
228	02S.01W.02.124	--	--	14	--	16.43	02-04-85
229	02S.01W.02.100	Chavez, Joe	80.00	6	10-03-77	40.00R	10-03-77
230	02S.01E.05.341	Jones, S.M.	--	--	--	4.00	05-00-52
231	02S.01E.07.430	Griego, Tom	108.00	4	11-19-59	58.00	11-19-59
232	02S.01E.12.341	--	--	--	--	Spring	--
233	02S.01E.14.221	--	--	--	--	Spring	--
234	02S.01E.19.120	Edgington, Paul	107.00	16	10-05-67	9.50R	10-05-67
235	02S.01E.23.331	--	--	--	--	Spring	--
236	02S.01E.26.123	--	--	--	--	Spring	--
237	02S.01E.27.243	--	--	--	--	Spring	--
238	02S.01E.29.330	Bursum, H.O.	96.00	5.50	09-23-67	45.00R	09-23-67
239	02S.01E.30.132	Edgington, Paul	95.00	--	--	10.00	00-00-51
240	02S.01E.32.332	Galindo	--	--	--	26.00	03-00-66
241	02S.02E.05.223	--	--	--	--	Spring	--
242	02S.02E.07.112	Cardenez, F.	--	--	--	11.80	01-27-50
243	02S.02E.23.241	Bustos	--	--	--	Spring	--
244	02S.02E.30.234	--	--	--	--	Spring	--
245	02S.02E.34.134	--	102.00	6	--	33.25	02-04-85

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
211	S	QTs	--	--	5,680	--	1.5E	X
212	S	QTs	--	--	5,795	5,695	--	X
213	S	QTs?	--	--	5,864	5,708	--	
214	H	QTs?	--	--	5,838	5,707	--	X
215	H	Qu	--	--	5,847	5,703	--	X
216	S	Qu	--	--	5,855	5,705	--	
217	I	Qu	--	--	4,606	4,591	--	X
218	H	QTs	--	--	4,673	4,583	52	X
219	--	Td or Qu?	--	--	5,480	--	2.0	X
220	--	Td or Qu?	--	--	5,155	--	1.0E	X
221	H	QTs	--	--	4,750	4,606	--	
222	--	Qu	--	--	4,628	4,603	--	
223	H, S	Qu?	--	--	4,675	4,645	50R	
224	H, S	Qu	--	--	4,650	4,608	10	X
225	H	QTs	--	--	4,760	4,617	25R	
226	H	QTs	--	--	4,825	4,658	30R	
227	H	QTs	--	--	4,680	4,600	50R	X
228	U	Qu	--	--	4,642	4,626	--	
229	H	Qu	--	--	4,660	4,620	30R	
230	H	Qu	--	16.0	4,720	4,716	--	
231	H	Qu	--	--	4,620	4,562	--	
232	--	Qu	--	--	5,091	--	--	X
233	--	Qu	--	--	5,030	--	20	X
234	I	Qu	--	--	4,630	4,621	--	
235	--	Py?	--	--	5,000	--	--	X
236	--	QTs?	--	--	5,000	--	--	X
237	--	lPu	--	--	4,890	--	--	X
238	H	QTs	--	--	4,635	4,590	--	
239	I	Qu	--	--	4,605	4,595	2,700	
240	--	Qu	--	--	4,610	4,584	--	
241	--	Py?	--	--	5,265	--	--	X
242	S	Ps?	--	--	5,180	5,168	--	
243	--	Pa?	--	--	5,737	--	--	X
244	--	lPu	--	--	5,210	--	--	X
245	--	Pa	--	--	5,670	5,637	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
246	02S.03E.27.411	BLM	326.00	5.31	04-24-82	289.00	05-30-82
247	02S.05E.32.222	--	--	6	--	246.33	02-07-85
248	02S.07E.20.111	Major Duncan, SW Grazing Inc.	620.00	4.5	06-26-84	438.00	07-07-84
249	02S.08E.29.443	Glover	799.00R	6	--	755.00R	01-26-56
250	03S.08W.36.222	Bruton, Jack	650.00R	8	--	585.40	05-06-80
251	03S.08W.31.111	Bruton, Jack	--	6	00-00-09	162.30R	00-00-54
252	03S.08W.30.100	Bruton, Jack	350.00R	9	--	167.72	03-17-81
253	03S.08W.21.124	Bruton, Jack	--	6	00-00-16	240.10	02-25-77
254	03S.08W.20.211	Bruton, Jack	--	5	--	168.62	05-08-79
255	03S.08W.14.423	Bruton, Jack	--	6	--	243.10	05-08-79
256	03S.08W.02.431	Benton, John	192.00R	5	00-00-42	173.00	07-04-80
257	03S.08W.01.414	VLA	245.00	8	--	176.71	05-02-80
258	03S.08W.01.310	VLA Main	--	10	00-00-74	174.30	05-02-80
259	03S.07W.16.433	Winter Bros.	355.00R	6	--	322.21	05-08-80
260	03S.07W.12.423	Winter Bros.	200.00R	8	--	208.27	05-09-80
261	03S.07W.08.231	Bruton, Jack	--	6	00-00-34	227.72	05-10-79
262	03S.07W.05.443	Bruton, Jack	220.75	5	00-00-29	203.40	05-10-79
263	03S.07W.01.414	U.S. Forest Service	245.00	8	00-00-77	176.71	05-02-80
264	03S.07W.01.222	Montosas Cattle Company	231.00	6	--	209.11	04-25-79
265	03S.06W.36.312	Dunlap, R.	--	5	--	68.62	06-24-80
266	03S.06W.35.312	Dunlap, R.	--	--	--	67.85	07-13-78
267	03S.06W.29.122	Dunlap, R.	--	6	--	269.46	07-14-78
268	03S.06W.21.111	Dunlap, R.	--	6.63	--	228.53	07-14-78
269	03S.06W.11.231	Dunlap, R.	291.00	--	--	210.03	07-13-78
270	03S.06W.02.113	Montosas Cattle Company	368.00	6	--	298.28	04-25-79
271	03S.05W.31.223	Dunlap, R.	--	7.875	--	26.87	07-12-78
272	03S.05W.27.311	Dunlap, R.	--	7.5	--	546.86	07-12-78
273	03S.05W.19.323	Dunlap, R.	50.00R	8.75	--	31.44	07-13-78
274	03S.05W.14.443	Dunlap, R.	430.00R	6.75	--	386.28	07-12-78
275	03S.05W.02.422	Dunlap, R.	107.00R	7	--	89.05	07-12-78
276	03S.04W.24.242	--	--	--	--	Spring	--
277	03S.04W.14.420	Stec, Chet W.	210.00	6	12-20-79	68.00R	12-20-79
278	03S.04W.12.132	--	--	--	--	Spring	--
279	03S.04W.11.133	Hofheine, Edward D.	100.00	4.5	07-24-84	78.00	07-25-84
280	03S.04W.10.224	Weiss, Rene	195.00	6	12-10-79	130.00R	12-10-79

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
246	S	Ps?	--	--	6,076	5,787	20	X
247	S	Qu	--	--	5,462	5,216	--	
248	S	Py?	--	--	6,193	5,755	3.0-4.0	
249	S	Py?	--	--	6,230	5,475	--	
250	S	Qu	360	--	7,378	6,793	--	
251	--	Qu	240	16.0	6,945	6,783	4.0	
252	I	Qu	--	--	6,960	6,792	--	
253	H	Qu?	--	--	6,994	6,754	--	X
254	S	Qu	250	16.0	6,959	6,790	2.1R	
255	--	Qu	300	16.0	7,045	6,802	5.0R	
256	S	Qu	--	--	6,972	6,799	--	
257	--	Qu	--	--	6,975	6,798	--	
258	--	Qu	--	--	6,975	6,801	--	X
259	S	Qu	330	15.0	7,124	6,802	--	
260	H, S	Qu	--	--	7,005	6,797	--	
261	--	Qu	--	--	7,02?	6,799	--	X
262	--	Qu	--	--	7,005	6,802	--	
263	N	Qu?	--	--	6,975	6,798	--	
264	S	Qu	240	--	7,008	6,799	--	
265	S	Qu	--	--	6,933	6,864	--	
266	S	Qu	--	--	7,017	6,949	--	
267	U	Qu	--	--	7,074	6,805	--	
268	S	Qu	--	--	7,035	6,806	--	
269	S	Td	--	--	7,120	6,910	--	X
270	U	Td	--	--	7,165	6,867	--	
271	S	Qu	--	--	6,845	6,818	--	
272	S	QTs?	--	--	6,872	6,325	--	
273	S	Qu	--	--	6,970	6,939	--	
274	S	QTs?	--	--	6,895	6,509	--	
275	S	Qu	--	--	6,725	6,636	--	
276	S	Qu	--	--	8,020	--	5.0	X
277	H	QTs?	--	--	7,760	7,692	--	
278	S	Qu?	--	--	7,335	--	2.0E	X
279	H	QTs	--	--	7,240	7,162	50	
280	H	QTs	--	--	7,160	7,030	5.0E	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
281	03S.04W.09.230	Paul, Elza	145.00	5	07-12-78	94.00R	07-12-78
282	03S.04W.03.441	Rowe, M.	200.00	4	07-19-78	70.00R	07-19-78
283	03S.03W.33.442	--	--	--	--	Spring	--
284	03S.03W.27.331	Hall, Maye L.	115.00	4.5	07-26-84	60.00	07-27-84
285	03S.03W.23.342	Kelly	40.00	--	--	5.00	04-00-66
286	03S.03W.21.332	--	61.00	--	--	20.00	07-00-67
287	03S.03W.19.132	--	--	--	--	Spring	--
288	03S.03W.13.331	Cibola Natl. Forest	--	--	--	76.00	07-00-67
289	03S.03W.07.342	--	--	--	--	Spring	--
290	03S.03W.03.312	Papa Ranch	--	--	--	57.00	07-00-62
291	03S.03W.01.212	Strozzi, Allotme	--	--	--	391.00	08-00-67
292	03S.02W.36.212	Sedillo, Allotme	155.00	--	--	41.00	07-00-67
293	03S.02W.26.222	Sedillo, Allotme	180.00	--	--	120.00	07-00-67
294	03S.02W.25.111	--	--	--	--	124.00	07-17-62
295	03S.02W.23.123	Sedillo	173.00	--	--	112.00	08-00-77
296	03S.02W.20.111	Strozzi	540.00	--	--	440.00	06-00-60
297	03S.02W.08.424	Water Canyon LDG	400.00	--	--	355.00	06-00-60
298	03S.02W.01.323	--	--	--	--	Spring	--
299	03S.01W.27.332	Great Lakes Cor.	546.00	6	11-10-61	340.00R	11-10-61
300	03S.01W.26.311	Roads Mining, Mill	440.00	--	--	370.00	00-00-51
301	03S.01W.25.233	Socorro Airport	220.00	8	00-00-43	186.00	11-00-62
302	03S.01W.23.312	--	--	10.00	00-00-84	261.22	02-05-85
303	03S.01W.21.100	Monnett, C.M.	125.00	6.63	10-31-75	55.00R	10-31-75
304	03S.01W.16.410	Forster, James J.	80.00	6	04-09-79	23.00R	04-09-79
305	03S.01W.16.323	Blue Canyon	300.00	--	06-05-64	217.00	01-22-64
306	03S.01W.14.411	City of Socorro	200.00	12	--	163.38	02-05-85
307	03S.01W.14.234	City of Socorro (Well #1)	300.00	12.75	00-00-40R	166.00	00-00-72
308	03S.01W.13.311	McCarthy, William	140.00	--	--	119.00	03-00-66
309	03S.01W.11.211	NMIMT	120.00	--	00-00-54	74.00	08-00-66
310	03S.01W.10.243	NMIMT	185.00	12	--	148.00	03-00-66
311	03S.01W.09.222	Sanford 1+2	--	--	--	54.00	03-00-66
312	03S.01W.01.221	Dean	30.00	--	--	10.00	03-00-65
313	03S.01E.04.314	--	--	--	--	110.00	03-00-63
314	03S.01E.06.421	Bamert	--	--	--	8.00	03-00-66
315	03S.01E.18.133	Montgomery	100.00	--	--	15.00	03-00-66

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
281	H, S	QTs	--	--	6,865	6,771	8.0E	
282	H	QTs	--	--	7,085	7,015	--	
283	--	Td?	--	--	7,800	--	7.0	X
284	H	Td?	--	--	7,360	7,300	5.0	
285	H, S	Qu?	--	--	6,677	6,672	--	X
286	--	Td	--	--	7,400	7,380	--	
287	S	Tv?	--	--	8,280	--	--	X
288	S	Qu?	--	--	6,520	6,444	--	X
289	S	lPu	--	--	8,080	--	.30	X
290	H, S	pC?	--	--	6,800	6,743	--	
291	S	QTs?	--	--	6,120	5,729	--	
292	--	QTs	--	--	5,520	5,479	--	X
293	S	QTs	--	--	5,680	5,560	--	
294	S	QTs?	--	--	5,680	5,556	--	X
295	S	QTs	--	--	5,864	5,752	--	X
296	S	Qu	--	--	6,232	5,792	--	X
297	H	QTs	--	--	6,075	5,720	--	X
298	S	QTs?	--	--	5,900	--	--	X
299	N	QTs?	--	--	5,020	4,680	--	
300	N	QTs?	--	--	4,920	4,550	100	X
301	H	Qu	--	--	4,760	4,574	--	X
302	N	QTs	--	--	4,830	4,569	--	
303	H	QTs	--	--	5,460	5,405	100	X
304	H	QTs	--	--	5,230	5,207	30E	
305	H	Tv?	--	--	5,200	4,983	20	X
306	P	Qu	--	--	4,725	4,561	--	
307	P	QTs	--	--	4,740	4,574	241	X
308	H	QTs?	--	18.0	4,693	4,574	--	
309	--	Qu	--	18.5	4,656	4,582	350	
310	H	Qu	--	--	4,780	4,632	100	X
311	--	QTs	--	--	4,957	4,903	--	
312	--	Qu	--	--	4,590	4,580	--	
313	--	QTs	--	--	4,680	4,570	--	
314	I	Qu	--	--	4,597	4,589	--	
315	I	Qu	--	--	4,593	4,578	2,000	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
316	03S.01E.20.422	Jones, S.M.	150.00	16	00-00-55	64.00	03-00-66
317	03S.01E.25.142	Gabaldon, Polito B.	60.00	6	03-26-83	30.00	03-30-83
318	03S.01E.29.114	Selms Ranch	--	--	--	9.00	03-00-66
319	03S.01E.31.124	Johnston, M.	75.00	--	--	8.00	02-00-63
320	03S.02E.08.422	Termentin	--	--	--	Spring	--
321	03S.02E.19.314	--	--	--	--	Spring	--
322	03S.03E.05.213	Bustos	315.00	6	06-03-65	184.00	06-03-65
323	03S.03E.19.141	--	--	5	--	5.36	02-04-85
324	03S.03E.33.430	Delcorto, Martha D.	223.00	5	01-03-83	37.00	01-06-83
325	03S.05E.31.213	--	147.00	6	--	136.44	02-07-85
326	03S.08E.22.344	Maxwell	842.00	6.62	00-00-67	810.00	07-28-67
327	04S.08W.32.413	Winter Bros.	600.00R	--	--	596.80	05-07-80
328	04S.08W.25.321	U.S. Forest Service	42.00R	8	--	39.30	05-07-80
329	04S.08W.04.331	Bruton, Jack	--	4	00-00-20	278.64	02-24-77
330	04S.08W.02.442	Bruton, Jack	575.00R	8	--	520.00R	05-07-80
331	04S.07W.23.131	Dunlap, R.	300.00R	6	--	212.95	06-23-80
332	04S.07W.21.132	Winter Bros.	110.00	8.50	--	12.20	05-07-80
333	04S.07W.04.331B	Winter Bros.	117.00	8	--	109.24	05-08-80
334	04S.07W.04.331A	Winter Bros.	45.00R	6	--	16.50	05-08-80
335	04S.07W.01.343	Dunlap, Bob	--	6	--	544.02	07-13-78
336	04S.06W.18.423	U.S. Forest Service	--	4	--	23.81	05-09-80
337	04S.06W.16.213	Dunlap, Bob	--	6	--	312.58	06-23-80
338	04S.06W.13.224	Dunlap, Bob	--	6.75	--	214.36	07-13-78
339	04S.06W.10.244	Dunlap, Bob	--	6	--	96.10	06-23-80
340	04S.06W.09.124	Dunlap, Bob	172.00?	6	--	148.95	06-23-80
341	04S.05W.07.224	Dunlap, Bob	--	7	--	167.12	07-13-78
342	04S.03W.06.442	--	--	--	--	Spring	--
343	04S.02W.07.211	--	--	--	--	Spring	--
344	04S.01W.23.100	MCA	560.00	--	00-00-54	400.00R	06-24-55
345	04S.01W.22.212	BLM MCA Well	570.00	8	--	481.40	02-06-85
346	04S.01W.13.421	Amer Telep & Telegraph	205.00	--	01-28-63	190.00R	01-28-63
347	04S.01W.13.244	Amer Telep & Telegraph	232.00	6.62	12-25-64	187.00R	12-25-64
348	04S.01W.05.211	--	--	--	--	Spring	--
349	04S.01E.02.440	Knoblock, Cassey	77.00	6	09-02-66	52.00R	09-02-66
350	04S.01E.05.444	Fernandez, Frank	100.00	--	--	22.00	05-00-52

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
316	I	QTs	--	--	4,680	4,616	1,000	X
317	H	Py	--	--	4,960	4,930	20	
318	I	Qu	--	--	4,579	4,570	--	
319	--	Qu	--	--	4,597	4,589	--	
320	--	Py	--	--	5,380	--	--	X
321	--	QTs	--	--	5,040	--	--	X
322	--	TRc?	--	--	5,820	5,636	60	X
323	S	--	--	--	5,581	5,576	--	
324	S	Kcg?	--	--	5,376	5,339	75	
325	S	Qu	--	--	5,239	5,103	--	
326	--	Py?	--	--	6,115	5,305	--	X
327	S	Td, Tv	320	18.5	7,312	6,715	--	
328	S	Qu	170	13.0	7,484	7,445	--	
329	S	Qu	360	17.0	7,074	6,795	2.5	
330	S	Td?	--	--	7,335	6,815	--	
331	S	Td	240	17.5	7,660	7,447	--	
332	S	Qu	140	11.5	7,770	7,758	--	
333	U	Td, Tv	--	--	7,503	7,394	--	
334	H, S	Qu	220	14.0	7,503	7,487	1.5E	
335	S, H	Td, Tv	--	--	7,345	6,801	--	
336	--	Qu	--	--	7,485	7,461	--	
337	S	Td, Tv?	--	--	7,395	7,082	--	X
338	S	Td?	--	--	6,950	6,736	--	
339	S	Td?	680	17.5	7,119	7,023	--	
340	H	Td?	--	--	7,244	7,095	--	
341	S	Qu?	--	--	6,790	6,623	--	
342	--	Tv?	--	--	9,920	--	--	X
343	--	Tv?	--	--	6,790	--	--	X
344	N	QTs?	--	--	4,965	4,565	250R	X
345	S	QTs?	--	--	5,025	4,544	800	X
346	U	QTs?	--	--	4,750	4,560	--	
347	H	QTs	--	--	4,710	4,523	--	
348	--	QTs?	--	--	5,175	--	--	
349	H	Qu	--	--	4,975	4,923	--	
350	S	Qu?	--	19.5	4,575	4,553	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
351	04S.01E.06.200	Fuhringer	18.00	--	--	10.00R	03-31-61
352	04S.01E.07.413	--	125.00	8	10-01-76	73.00R	10-01-76
353	04S.01E.12.440	N. Mex. Highway Dept.	177.00	--	05-20-64	120.00R	05-20-64
354	04S.01E.16.322	Fernandez, Frank	--	--	--	14.00	05-23-52
355	04S.01E.19.242	Drake, Bill	47.00	--	00-00-50	33.50	07-03-80
356	04S.01E.19.420	Enochs, Steve	132.00	--	01-16-76	35.00R	01-16-76
357	04S.01E.27.110	--	--	--	--	10.00	05-00-52
358	04S.01E.30.400	Olguin, Robert	154.00	--	07-00-61	12.00R	07-11-61
359	04S.01E.32.200	Marin, Lorenzo A.	85.00	6	02-14-84	30.00	02-16-84
360	04S.02E.23.344	Gonzalez Well on Map	63.00	4.5	--	19.23	02-04-85
361	04S.02E.34.411	Fernandez, Frank	18.00	60	00-00-38	13.23	02-10-55
362	04S.04E.07.143	--	--	--	--	Spring	--
363	04S.04E.23.323	Little Well on Map	71.00	6	--	46.7	02-07-85
364	04S.05E.23.411	--	79.00	6	--	74.75	02-07-85
365	04S.06E.14.400	Lacy, Hattie	102.00	5	07-03-82	75.00	07-03-82
366	05S.08W.33.220	Morris, George	915.00	6	07-02-79	770.00	08-30-79
367	05S.05W.26.200	Brush, Toney	325.00	6.63	05-08-78	275.00	05-30-78
368	05S.05W.24.243	Chavez, Trinidad	30.00R	--	--	21.95	01-18-56
369	05S.05W.09.243	Greene, Floyd	30.00R	6	--	10.00R	01-17-56
370	05S.02W.15.144	Cienega Ranch	360.00R	6	--	251.32	02-06-85
371	05S.02W.08.144	--	--	--	--	Spring	--
372	05S.01W.26.213	U.S. Fish & Wildlife	230.00R	6	00-00-55	214.00	02-05-58
373	05S.01W.25.422	U.S. Fish & Wildlife	42.00	6.5	--	11.75	02-05-85
374	05S.01W.11.131	BLM	570.00	6	--	446.70	02-06-85
375	05S.01W.01.330	Padilla, Paula	60.00	6	04-15-61	16.00R	04-15-61
376	05S.01E.01.220	Padilla, Paula S.	195.00	5.50	06-20-65	160.00R	06-20-65
377	05S.01E.04.000	Vasquez, Cleto	152.00	7	07-11-72	32.00R	07-11-72
378	05S.01E.04.122	Chaves, Frank	60.00	--	--	19.95	10-05-62
379	05S.01E.06.423	--	--	14	--	11.10	02-05-85
380	05S.01E.08.123	U.S. Fish & Wildlife	150.00	16	06-12-61	3.00	06-12-61
381	05S.01E.12.400	Jones, S.M.	150.00	6	01-22-58	99.00R	01-22-58
382	05S.01E.16.400	Vigil, E.R.	100.00	6.62	01-10-67	15.00R	01-10-67
383	05S.01E.17.344	U.S. Fish & Wildlife	125.00	14	07-18-56	6.42	07-02-80
384	05S.01E.20.241	U.S. Fish & Wildlife	127.90R	13.25	08-06-58	9.65	02-05-85
385	05S.01E.28.212	U.S. Fish & Wildlife	50.00R	6.62	07-16-67	14.41	02-05-85

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
351	H, S	Qu	--	--	4,560	4,550	4.0E	X
352	H	Qu	--	--	4,590	4,517	30R	
353	N	QTs	--	--	5,000	4,880	--	
354	H, S	Qu?	--	20.0	4,575	4,561	--	
355	H	QTs	--	--	4,590	4,557	--	X
356	--	QTs?	--	--	4,600	4,565	--	
357	S	Qu?	--	--	4,560	4,550	--	
358	I	Qu	--	--	4,575	4,563	1,800R	X
359	H	Qu?	--	--	4,545	4,515	70	
360	S	TR	--	--	5,170	5,151	2.5R	X
361	S	Qu?	--	--	5,025	5,012	14R	
362	S	--	--	--	5,375	--	--	X
363	S	Qu	--	--	5,115	5,068	--	
364	S	--	--	--	5,325	5,300	--	
365	H, S	Py	--	--	5,840	5,765	4.0	
366	H	Td, Tv?	--	--	7,565	6,795	8.0	
367	H	QTs?	--	--	6,180	5,905	10-15	
368	H, S	Qu	--	--	6,040	6,018	--	
369	H, S	Qu?	--	--	6,355	6,345	--	
370	S	QTs?	--	--	5,718	5,467	--	
371	--	Qu?	--	--	6,030	--	--	
372	S	QTs	--	--	4,775	4,561	--	
373	S	Qu	--	--	4,525	4,513	--	
374	S	--	--	--	4,978	4,531	--	
375	H	Qu	--	--	4,800	4,784	--	
376	--	Qu	--	--	4,760	4,600	--	
377	H	QTs	--	--	4,535	4,503	--	
378	I	Qu	--	--	4,550	4,530	--	X
379	I	Qu	--	--	4,548	4,537	--	
380	--	Qu	--	--	4,533	4,530	2,170	
381	H, S	QTs	--	--	4,850	4,751	--	
382	H	Qu	--	--	4,520	4,505	--	
383	I	Qu	--	--	4,525	4,519	1,125	X
384	U	Qu	--	--	4,529	4,519	1,420	
385	I	Qu	--	--	4,528	4,514	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
386	05S.01E.30.133	U.S. Fish & Wildlife	65.00	--	--	29.75	07-02-80
387	05S.01E.36.442	Fute, Dean	323.00	6	00-00-51	284.87	02-08-55
388	05S.02E.16.323	Fute, Dean	145.00	6	00-00-40	127.75	02-08-55
389	05S.03E.14.111	Muncy, Luke	237.00	6	00-00-50	171.62	02-10-55
390	05S.03E.17.111	Muncy, J.	337.00R	6	00-00-34	244.45	02-04-85
391	05S.03E.25.121	Muncy, Luke	140.00	6	00-00-47	63.42	02-11-55
392	05S.04E.18.243	Muncy, Luke	38.00	36	00-00-55	32.02	02-15-55
393	05S.04E.20.444	Bursum, H.O.	160.00R	6	00-00-48	84.05	02-15-55
394	05S.05E.12.410	Jones, Sam & Vera	250.00	5	01-14-83	174.00	01-24-83
395	05S.05E.19.233	Bursum, H.O.	190.00	6	--	172.80	02-15-55
396	05S.05E.32.444	Bursum, H.O.	180.00	6	--	167.91	02-16-55
397	05S.06E.04.412	--	269.00	6	--	242.47	02-07-85
398	05S.06E.26.300	Knapp, Felisha	424.00	4.5	12-20-83	257.00	12-31-83
399	05S.06E.32.123	Burrego	--	--	--	Spring	--
400	05S.09E.34.343	Gallagher	--	6	--	115.47	02-07-84
401	06S.08W.31.222	Welty, H.	100.00R	7	--	20.02	04-13-78
402	06S.08W.24.411	Welty, H.	280.00R	6.75	--	236.86	01-21-80
403	06S.08W.08.432	Welty, H.	770.00	7	--	718.70	05-05-80
404	06S.07W.15.144	U.S. Fish & Wildlife	--	4	--	13.42	01-21-80
405	06S.05W.24.342	Tigner Cattle	400.00	8	--	325.93	08-06-80
406	06S.05W.02.233	Proctor, Fay	500.00R	6	00-00-28	234.75	01-18-56
407	06S.04W.36.113	Reinhardt, Arch	400.00R	8	00-00-16	380.00R	01-18-56
408	06S.04W.30.140	Wooster, Paul	250.00R	5	--	199.00	01-18-56
409	06S.03W.10.111	Beada VI Ranch	--	8	00-00-46	456.00	02-06-85
410	06S.01W.36.412	U.S. Fish & Wildlife	45.00R	--	00-00-46	22.58	06-10-56
411	06S.01W.15.124	U.S. Fish & Wildlife	200.00R	5 R	--	115.90	02-06-58
412	06S.01W.12.233	U.S. Fish & Wildlife	75.00	6	00-00-58	30.97	02-05-85
413	06S.01W.12.231	U.S. Fish & Wildlife	155.00	12	08-00-62	32.02	07-02-80
414	06S.01E.05.233	U.S. Fish & Wildlife	170.00	--	06-02-61	4.40	07-02-80
415	06S.01E.07.213	U.S. Fish & Wildlife	100.00	--	03-29-74	5.57	07-02-80
416	06S.01E.08.223	U.S. Fish & Wildlife	185.00	8.62	04-21-67	13.65R	05-26-67
417	06S.01E.09.111	WSMR	167.00	6	11-00-63	20.65R	11-15-63
418	06S.01E.09.333	U.S. Fish & Wildlife	32.65	--	07-06-66	15.04	02-05-85
419	06S.01E.16.231	U.S. Fish & Wildlife	40.00R	--	00-00-51	26.50	06-10-56
420	06S.01E.36.233	Fute, Dean	300.00R	6	00-00-38	259.10	02-06-85

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
386	U	Qu	--	--	4,550	4,520	2.5E	X
387	S	Qu	--	--	4,804	4,519	--	X
388	H, S	Tb	--	--	5,076	4,948	5.0E	X
389	S	Qu	--	--	4,980	4,808	5.0R	
390	S	Td, Tv	--	--	4,976	4,732	3.0R	X
391	S	Qu	--	16.5	4,928	4,865	2.0E	
392	S	Qu	--	--	4,955	4,923	1.0R	
393	S	Qu	--	--	4,977	4,893	--	
394	H	--	--	--	5,484	5,310	45	
395	S	Py	--	--	5,200	5,027	3.0E	X
396	S	Py	--	--	5,390	5,222	3.0E	X
397	S	Py	--	--	5,755	5,513	--	
398	H	Py	--	--	6,080	5,823	15	
399	--	IPu	--	--	5,765	--	--	X
400	S	--	--	--	5,470	5,355	--	
401	S	Qu	--	--	7,050	7,030	--	
402	--	Td, Tv	--	--	7,100	6,863	--	
403	S	Td, Tv	--	--	7,235	6,516	--	X
404	S	Qu	--	--	7,660	7,647	--	
405	H, S	Tv	--	--	6,980	5,654	--	X
406	H, S	Td or Qu	--	--	6,190	5,955	--	
407	--	QTs?	--	--	5,325	4,945	--	
408	H, S	Td or Qu	--	--	5,870	5,671	--	
409	S	QTs?	--	--	5,708	5,252	--	
410	S	Qu	--	--	4,515	4,492	--	
411	S	QTs	--	--	4,925	4,808	5.0E	X
412	U	Qu	--	--	4,525	4,494	--	X
413	P, H	QTs	--	--	4,526	4,494	500R	X
414	I	Qu	--	--	4,510	4,506	2,000R	X
415	I	Qu	--	--	4,507	4,501	--	X
416	S	Qu	--	--	4,523	4,509	300	X
417	--	Qu	--	--	4,530	4,509	150	X
418	U	Qu	6,560	26.5	4,510	4,495	--	
419	S	Qu	--	--	4,545	4,519	--	
420	S	Py	--	--	4,822	4,563	2.0R	X

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
421	06S.02E.01.444	WSMR	600.00	7	04-17-56	317.70	04-17-56
422	06S.02E.04.144	WSMR	700.00	8	08-22-56	420.00	09-07-56
423	06S.02E.10.141	W S P G	454.00	8	05-21-56	405.00	05-31-56
424	06S.02E.25.342	Bursum, H.	140.00	6	00-00-50	100.72	02-02-55
425	06S.02E.28.413	FITE	--	6.5	--	259.28	02-06-85
426	06S.03E.05.232	WSMR	750.00	6	08-00-60	208.80	08-01-82
427	06S.03E.05.234	WSMR	720.00	12.75	07-00-69	212.65	08-01-82
428	06S.03E.11.141	Newberry, R.H.	200.00	6	00-00-47	141.36	02-03-55
429	06S.03E.25.122	W S P G	137.00	6	00-00-55	116.41	02-03-55
430	06S.04E.10.131	--	300.00R	--	--	110.30	02-23-55
431	06S.05E.36.343	W S P G	330.00R	8	--	300.00R	05-07-55
432	06S.06E.09.334	W S P G	31.00	--	--	9.03	03-03-55
433	06S.06E.20.441	--	--	--	--	Spring	--
434	06S.06E.26.333	WSMR	205.00	6	12-00-52	39.50	03-08-55
435	06S.06E.31.223	--	--	--	--	Spring	--
436	06S.08E.33.241	Nolda, L.	660.00R	6	00-00-53	630.00R	00-00-56
437	07S.08W.21.314	Welty, H.	250.00R	6	--	230.90	05-01-78
438	07S.08W.04.344	Welty, H.	100.00R	--	--	49.50	04-13-78
439	07S.08W.04.342	Welty, H.	580.00R	6.56	--	511.35	03-18-81
440	07S.08W.02.311B	Welty, H.	--	4	--	40.00E	01-21-80
441	07S.08W.02.311A	Welty, H.	580.00R	7	--	548.56	01-21-80
442	07S.07W.15.300	U.S. Forest Service	101.00	6.63	08-02-76	18.00	08-06-76
443	07S.05W.05.122	Tigner Cattle	--	8	--	124.81	08-06-80
444	07S.04W.28.142	Hutcherson, Warren	--	--	--	50.14	08-07-80
445	07S.04W.27.432	Hutcherson, Warren	359.00	6.63	10-18-76	141.75	02-05-85
446	07S.04W.02.200	Rienhardt, Arch	496.00	5.63	03-02-81	435.00	03-25-81
447	07S.03W.11.112B	Burris, G.W.	432.25	6	02-07-83	243.00	03-01-83
448	07S.03W.11.112A	Burris, G.W.	360.00	6.63	03-30-81	120.00	04-03-81
449	07S.03W.08.121	Hutcherson, Warren	--	8	--	242.94	01-11-80
450	07S.02W.34.123	--	94.00	6	--	82.17	02-05-85
451	07S.02W.10.341	--	352.00	6	--	186.20	02-05-85
452	07S.01W.33.423	--	299.00	6	--	281.09	02-05-85
453	07S.01W.18.140	Hunter & Son	140.00	6	00-00-48	28.28	07-18-80
454	07S.01E.02.334	Bruton, Neal	247.00	6	00-00-51	201.24	02-09-55
455	07S.01E.14.341	Bruton, Neal	215.00	6	00-00-50	202.87	02-09-55

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
421	U	Tb, Td, Tv	--	--	5,075	4,757	20	X
422	U	Tb, Td, QT	--	--	5,065	4,645	3.0	X
423	U	Tb	--	--	5,050	4,645	11E	X
424	S	Td or Qu?	--	--	4,775	4,674	--	X
425	S	Td, Tv, QTs	--	--	4,785	4,526	3.0E	X
426	U	Qu	--	--	4,950	4,741	200	X
427	U	QTs?	3,800	25.0	4,953	4,740	141	
428	S	Qu	--	--	4,855	4,714	--	
429	U	Qu	--	--	4,800	4,684	--	
430	S	Qu	--	--	4,930	4,820	10R	
431	U	Qu	--	--	6,020	5,720	3.0R	X
432	U	lPu	--	--	6,050	6,041	--	X
433	U	lPu	--	--	6,565	--	4.0	X
434	U	Pb	--	--	6,444	6,405	20	X
435	U	lPu	--	--	7,474	--	1.0-15E	X
436	U	Py	--	--	5,450	4,820	4.0E	X
437	S	Td, Tv	--	--	6,630	6,399	4.0E	
438	U	Qu	--	--	6,820	6,771	--	
439	S, H	Td, Tv	--	--	6,820	6,309	--	X
440	--	Qu	--	--	6,858	6,818	--	
441	S	Td, Tv	--	--	6,858	6,309	--	
442	S	Td, Tv?	--	--	6,990	6,972	6.0E	
443	S	Td?	--	--	6,328	6,203	--	
444	U	Td?	--	--	5,580	5,530	--	
445	S	Tv	--	--	5,383	5,241	10	X
446	H	QTs?	--	--	5,380	4,945	30	
447	S	QTs, Qu?	--	--	5,040	4,797	30	
448	H	QTs?	--	--	5,060	4,940	15	
449	H, S, I	QTs	--	--	5,118	4,875	2.5	X
450	S	QTs	--	--	4,540	4,458	--	
451	S	Qu	--	--	4,749	4,563	--	X
452	S	QTs?	--	--	4,737	4,456	--	
453	H	QTs	--	--	4,470	4,442	--	X
454	S	QTs	--	--	4,793	4,592	--	X
455	S	QTs	--	--	4,791	4,588	--	

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
456	07S.01E.27.214	Bruton, Neal	--	6	00-00-30	257.26	02-06-85
457	07S.02E.26.322	Harriet, Mike	180.00	6	00-00-55	174.00	02-18-55
458	07S.03E.04.231	Green, C.	160.00	6	--	143.67	03-29-55
459	07S.03E.22.314	Bruton, N.	--	6	00-00-55	115.84	02-23-56
460	07S.03E.36.333	Harriet, M.	94.00	6	--	90.39	02-23-55
461	07S.04E.23.312	Story, A & L	130.00	--	--	11.87	05-20-55
462	07S.04E.28.334	Danly, Bill	80.00	6	00-00-55	45.60	05-23-55
463	07S.06E.29.414	W S P G	--	--	--	Spring	--
464	07S.07E.09.222	--	--	6	00-00-54	68.48	05-19-55
465	07S.07E.15.421	--	--	--	--	Spring	--
466	07S.08E.08.322	WSMR	710.00	10	11-00-56	242.80	11-21-56
467	07S.08E.08.412	WSMR	702.00	10	09-00-56	214.90	11-21-56
468	08S.08W.35.222	Sullivan, Charles E.	--	--	--	--	--
469	08S.08W.32.443	Johnson, W.E.	430.00R	6.75	--	356.83	05-02-78
470	08S.08W.31.424	Johnson, W.E.	400.00R	6.63	--	345.26	05-02-78
471	08S.08W.26.232	Johnson, W.E.	25.00R	6	--	18.68	05-10-78
472	08S.08W.22.132	Johnson, W.E.	--	3.5	--	22.65	05-03-78
473	08S.08W.18.234	Johnson, W.E.	550.00R	6.75	--	404.04	05-04-78
474	08S.08W.15.343	Johnson, W.E.	72.50	8	--	19.72	12-13-78
475	08S.08W.15.244	McCracken, William	50.00	5	--	43.98	04-12-78
476	08S.08W.14.133	McCracken, C.W.	450.00R	--	--	350.00R	--
477	08S.08W.10.341	Johnson, W.E.	--	6	--	31.65	03-28-79
478	08S.08W.10.314	Johnson, W.E.	124.00R	12	--	37.98	03-18-81
479	08S.08W.09.211	McCracken, W.	--	6	--	44.99	04-12-78
480	08S.08W.07.211	Johnson, W.E.	667.00R	4	--	526.36	12-13-78
481	08S.08W.01.243	Welty, H.	412.00R	6	--	333.55	11-15-78
482	08S.07W.31.233	--	--	--	--	Spring	--
483	08S.07W.31.223	Sullivan, Eunice T.	90.00R	6	--	89.77	05-12-78
484	08S.07W.30.313	Sullivan & Son	90.00R	6.50	--	82.05	04-12-78
485	08S.07W.16.232	Sullivan, Charles	780.00R	6	--	758.20R	00-00-78
486	08S.07W.11.124	U.S. Forest Service	49.00	4X4	--	12.70	05-11-79
487	08S.05W.33.400	Nearburg, E.	140.00	6	--	110.00	07-13-61
488	08S.04W.35.113	Shivers, Russ	--	6	--	410.11	07-23-80
489	08S.04W.33.321	Hatley, Truman	403.00	6	--	355.90	07-23-80
490	08S.04W.31.441	Hatley, Truman	200.00	--	--	119.16	07-23-80

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
456	U	QTs	--	--	4,814	4,557	8.0R	X
457	U	Qu	--	--	4,750	4,576	--	
458	S	Qu	--	--	4,777	4,633	--	X
459	S	Qu	--	--	4,727	4,611	--	
460	U	Qu	--	--	4,689	4,599	--	X
461	U	Qu	--	--	4,775	4,763	--	X
462	U	Qu	--	--	4,696	4,650	--	
463	U	IPu	--	--	6,200	--	--	X
464	U	Py	--	--	5,775	5,707	--	X
465	--	Pa	--	--	5,570	--	--	X
466	U	Py	3,150	10.0	5,520	5,277	200	
467	U	Py	--	--	5,495	5,280	35	X
468	S	Qu?	450	14.5	6,260	--	0.5E	
469	S	Td	--	--	6,825	6,468	--	
470	S	Td	--	--	6,825	6,480	--	
471	S	Qu	--	--	6,280	6,261	--	
472	U	Qu	--	--	6,350	6,327	--	
473	S	Td	--	--	6,834	6,430	--	
474	--	Qu	--	--	6,360	6,340	--	
475	S	Qu	--	--	6,414	6,370	--	
476	U	Td	--	--	6,414	6,064	--	
477	H	Qu	450	14.0	6,423	6,391	1.0-2.0	
478	I	Qu	--	--	6,438	6,400	100E	
479	S	Qu	--	--	6,470	6,425	--	
480	S	Td	--	--	6,970	6,444	--	
481	S, H	Td	--	--	6,620	6,286	--	
482	--	QTs	--	--	6,220	--	--	X
483	S	Qu	--	--	6,155	6,065	--	
484	S	Qu	310	17.0	6,336	6,254	3.0	
485	S	Td	--	--	7,035	6,277	3.0R	
486	U	Td?	--	--	7,330	7,317	--	
487	S	Tv?	--	--	6,680	6,570	--	X
488	S	QTs	--	--	5,355	4,945	--	X
489	H, S	Tv	--	--	5,562	5,206	18R	X
490	S	Tv	--	--	5,560	5,441	--	X

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
491	08S.04W.09.321	Hutcherson, Warren	--	--	--	85.04	08-07-80
492	08S.03W.36.444	--	65.00	14	--	41.68	02-05-85
493	08S.03W.30.342	Shivers, Russ	271.00	--	--	259.66	07-23-80
494	08S.03W.02.331	N. Mex. Highway Dept.	277.00	12	01-13-56	226.00	07-17-80
495	08S.01W.33.341	Victoria Land & Cattle Co.	340.00R	6	--	275.90	08-14-56
496	08S.01W.23.224	Victoria Land & Cattle Co.	272.00	6	00-00-50	231.26	08-14-56
497	08S.01E.16.441	Mounyo, John	230.00	6	00-00-38	189.76	02-09-55
498	08S.01E.25.421	Mounyo, John	220.00R	6	--	175.00	10-28-59
499	08S.02E.17.224	Harriet, M.	183.00	6	--	169.36	07-13-56
500	08S.02E.23.313	Mounyo, John	165.00	--	00-00-55	150.95	02-18-55
501	08S.03E.09.434	Mounyo, John	185.00R	6	00-00-56	104.80	07-04-56
502	08S.04E.21.123	Foster, George	75.00	6	00-00-55	45.75	05-23-55
503	08S.05E.05.311	WSPG, Gen. MacDonald	360.00	6	--	343.02	05-09-55
504	08S.05E.32.334	WSMR	250.00	6	06-16-65	177.38	08-01-82
505	08S.05E.32.431	MacDonald, George	290.00	6	04-00-66	201.63	04-28-66
506	09S.08W.35.431	Meadows Estate, E.A.	--	6	--	124.60	04-06-79
507	09S.08W.30.333	Sage, Bruce	460.00R	6	--	307.64	03-29-79
508	09S.08W.28.121	Sage, Bruce	--	6	--	132.62	03-29-79
509	09S.08W.26.241	Meadows Estate, E.A.	450.00R	6	--	245.00E	04-06-79
510	09S.08W.24.221	Meadows Estate, E.A.	--	6	--	61.00	04-06-79
511	09S.08W.19.221	Greer, Raymond	300.00R	6	--	234.56	05-10-78
512	09S.08W.16.143	Greer, Raymond	120.00R	7	--	100.93	05-10-78
513	09S.08W.15.244	Greer, Raymond	336.00R	6	--	182.98	04-06-79
514	09S.08W.13.123	Greer, Raymond	336.00R	6	--	243.22	05-11-78
515	09S.08W.08.223	Greer, Raymond	--	7	--	247.36	05-10-78
516	09S.08W.03.213	Greer, Raymond	320-450.00R	6	--	82.39	05-10-78
517	09S.08W.01.331	Greer, Raymond	120.00R	6	--	48.70	05-10-78
518	09S.07W.18.312	Meadows Estate, E.A.	190.00R	6	--	62.70	04-06-79
519	09S.07W.08.121	Sullivan & Sons, Eunice T.	--	6	--	44.00	05-11-78
520	09S.07W.07.144	Greer, Raymond	80.00R	6	--	20.67	05-11-78
521	09S.07W.06.423	--	--	--	--	Spring	--
522	09S.06W.36.141	U.S. Forest Service	--	--	--	10.83	08-09-80
523	09S.04W.03.421	--	--	--	--	Spring	--
524	09S.03W.20.232	Shivers, Russ	--	--	00-00-69	259.65	07-23-80
525	09S.03W.02.322	Tigner, Lucille	149.00	6	12-04-82	108.70	02-05-85

Table 1.--Records of wells and springs in Socorro County - Continued

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
491	H, S	Tv	--	--	5,518	5,433	6.0	X
492	S	Qu	--	--	4,480	4,438	--	
493	U	QTs?	--	--	5,098	4,838	4.0R	
494	P, H	QTs	--	--	4,862	4,636	--	X
495	S	QTs	--	--	4,772	4,496	5.0E	
496	S	QTs	--	--	4,743	4,512	--	
497	S	Qu	--	--	4,740	4,550	--	
498	S	QTs	--	--	4,740	4,565	--	X
499	S	Qu	--	--	4,748	4,579	2.5E	X
500	U	Qu	--	--	4,730	4,579	--	
501	U	Qu	--	--	4,700	4,595	--	
502	U	Qu	--	--	4,678	4,632	--	
503	S	Qu	--	--	5,035	4,692	--	
504	U	Qu	--	--	5,070	4,893	1.5	X
505	U	Qu	--	--	5,115	4,913	140	X
506	--	Qu?	--	--	7,350	7,225	--	
507	S	Qu	450	16.5	6,832	6,524	1.5	
508	S	Qu?	330	14.5	6,647	6,514	1.5	
509	--	Td?	340	12.0	7,052	6,807	--	
510	--	Qu	620	--	6,797	6,736	--	
511	S	Td	--	--	6,727	6,492	--	
512	S	Qu	340	15.0	6,594	6,493	5.0	
513	S	Td	340	--	6,620	6,437	--	
514	S	Td	370	17.0	6,620	6,377	--	
515	S	Td	--	--	6,735	6,488	--	X
516	S	--	--	--	6,466	6,384	1.0	X
517	S, H	Qu	410	--	6,310	6,261	--	
518	--	Qu?	590	18.0	6,720	6,657	0.5	
519	S	Qu	--	--	6,717	6,673	--	
520	S	Qu	550	19.0	6,550	6,529	1.2	
521	--	Td	--	--	6,420	--	--	X
522	U	Td?	--	--	6,319	6,308	--	X
523	--	Qu?	--	--	5,100	--	--	X
524	H, S	QTs	--	--	4,664	4,404	18R	X
525	S	QTs	--	--	4,539	4,430	20	

Table 1.--Records of wells and springs in Socorro County - Concluded

Site number	Location number	Owner	Depth of well (feet)	Casing diameter (inches)	Date completed	Water level (feet)	Date water level measured
526	09S.01W.23.311	Victoria Land & Cattle Co.	300.00	6	--	272.41	08-14-56
527	09S.01E.18.324	--	368.00	4	--	325.88	02-06-85
528	09S.01E.18.341	Victoria Land & Cattle Co.	355.00	5	--	326.13	08-14-56
529	09S.02E.08.440	Victoria Land & Cattle Co.	125.00	6	09-06-58	60.00R	09-06-58
530	09S.02E.34.211	Baca, Gerald	180.00	6.50	00-00-50	48.86	07-13-56
531	09S.03E.28.324	--	--	6	--	39.31	06-29-55
532	09S.03E.34.443	Martin, W.	--	8	00-00-56	54.58	07-10-56
533	09S.04E.18.344	Lewis	--	72	00-00-50	18.38	06-02-55
534	09S.05E.34.313	MacDonald, Ross	175.00	5	00-00-51	138.55	04-11-55

Table 1.--Records of wells and springs in Socorro County - Concluded

Site number	Use	Principal water-bearing unit	Specific conductance (uS/cm)	Temperature (°C)	Altitude (feet)	Altitude of water level (feet)	Yield (gal/min)	Water-quality analyses in table 2
526	S	QTs	--	--	4,790	4,518	--	X
527	U	QTs?	--	--	4,851	4,525	--	
528	S	QTs	--	--	4,855	4,529	--	
529	S	QTs?	--	--	4,730	4,670	--	
530	U	Qu	--	--	4,680	4,631	--	
531	S	Qu	--	--	4,696	4,657	--	
532	U	Qu	--	--	4,748	4,693	--	
533	U	Qu	--	--	4,674	4,656	--	
534	U	Ps	--	--	5,125	4,986	--	

PAGE 77 FOLLOWS

Table 2.—Water-quality analyses from wells and springs in Socorro County

EXPLANATION

Site number: A unique arbitrary number assigned to each well or spring for the purpose of this report.

Location number: See text for explanation. * indicates spring.

Principal water-bearing unit: See table 1 for explanation.

Specific conductance: Values are in microsiemens per centimeter (uS/cm) at 25 degrees Celsius.

Temperature: Values are in degrees Celsius (°C).

Sodium: Values followed by * indicate sodium plus potassium, in milligrams per liter.

Dissolved solids: Dissolved-solids residue at 180 degrees Celsius, in milligrams per liter.

Nitrate: Values followed by * are nitrite plus nitrate dissolved as N, in milligrams per liter.

Other abbreviations: mg/L, milligrams per liter; ug/L, micrograms per liter; E, estimated; <, less than. -- indicates no data.

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
1	04N.08W.23.443	05-19-81	Kcg	847	8.4	16.0	130	32	12	140
2	04N.07W.33.412	05-20-81	Kcg	1,750	7.8	12.0	260	63	26	320
535	04N.07W.31.333	05-20-81	Td	434	7.8	17.0	160	37	16	37
3	04N.07W.20.221	05-19-81	Ps?	3,000	7.3	13.5	1,800	400	190	140
4	04N.06W.32.214	06-05-81	Ps	3,500	7.4	26.0	2,200	700	100	250
536	04N.06W.27.431	07-02-84	Ps	4,000	6.6	23.0	1,800	550	110	340
537	04N.06W.26.312	06-04-81	TRc	1,700	9.1	16.0	23	5.9	1.9	390
5	04N.06W.15.424*	04-06-81	TRc	--	--	17.0	93	21	9.8	140
538	04N.05W.33.223	05-07-54	TRc	3,960	--	--	1,700	--	--	440
6	04N.05W.17.331	06-04-81	Qu	1,500	7.8	17.0	160	44	11	310
539	04N.04W.30.223	12-08-54	Py	2,740	7.0	--	1,900	--	--	19*
7	04N.03W.35.211*	01-05-50	Ps?	5,110	--	6.5	600	130	69	880*
8	04N.03W.25.334*	01-05-50	--	5,200	--	16.0	620	140	67	890*
9	04N.01W.28.323	06-03-80	QTs	3,030	7.5	20.5	320	75	33	520
10	04N.01W.15.211	06-04-80	QTs	3,200	7.3	21.0	1,000	270	87	380
14	03N.08W.36.441	06-03-81	Qu	500	7.8	--	170	48	12	53
15	03N.08W.10.243	05-20-81	Qu	3,590	8.4	16.0	62	10	8.9	850
540	03N.07W.19.221	05-20-81	Kcg	1,350	8.5	--	49	15	2.7	280
21	03N.06W.28.114	08-14-56	Kd	4,430	9.5	--	33	7.2	3.6	1,000*
541	03N.05W.08.342	06-04-81	TRc	3,700	7.7	16.5	260	72	20	900
542	03N.04W.09.223	04-20-55	Pa	2,500	8.0	--	1,500	--	--	88*
543	03N.04W.04.414	04-20-55	Pa	2,680	7.8	--	1,800	--	--	66*
24	03N.03W.36.344*	12-22-80	IPu	402	7.3	8.0	180	54	12	20
25	03N.03W.25.412*	12-22-80	QTs?	478	7.9	7.5	230	68	15	22
544	03N.03W.12.313	03-18-81	Qu	1,850	8.1	18.5	730	200	57	200
545	03N.02W.26.112	05-15-81	Qu	820	8.6	22.0	12	3.1	.90	190
26	03N.02W.22.343	01-06-50	Tb?	710	--	--	300	72	28	40*
28	03N.01W.25.444	05-00-44	QTs	3,520	--	--	480	110	50	620*
546	03N.01W.21.332	05-29-80	QTs	1,550	7.9	19.0	400	91	41	230
35	03N.01E.34.430	08-24-49	QTs?	3,460	--	--	1,100	260	110	380*
547	03N.02E.06.420	05-13-65	Qu	799	7.6	--	290	90	16	57
548	03N.02E.19.200	05-13-65	Qu	433	7.6	--	87	26	5.4	57
40	03N.02E.27.123	05-30-80	QTs	975	7.9	17.0	190	48	17	160
41	03N.02E.31.431	06-11-80	QTs	1,150	8.3	22.5	320	84	27	150
42	03N.02E.33.222	05-30-80	QTs	3,400	7.6	17.5	370	98	31	780

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
--	--	150	9.9	0.70	17	520	0.42*	350	30
--	--	500	8.7	.90	14	1,200	.08*	630	1,200
--	--	43	9.2	.50	23	260	1.1 *	110	80
--	--	1,600	19	.40	12	2,500	5.8 *	240	180
--	--	2,000	140	2.4	13	3,400	.03*	730	3,400
--	--	2,000	110	3.3	11	3,400	<.10*	800	5,600
--	--	370	100	.80	16	1,100	.28*	730	240
--	--	81	41	.80	27	480	2.0 *	180	40
580	0	2,000	92	3.2	9.1	--	.00	--	--
--	--	510	13	.80	12	1,100	.00	610	20
68	0	1,800	35	1.0	10	--	.05	--	--
350	0	460	1,200	1.0	22	3,000	2.0	--	--
350	0	470	1,300	.80	24	3,000	.97	--	--
250	--	500	530	1.6	15	1,800	2.0 *	900	20
180	--	1,100	440	.50	15	2,400	2.6 *	--	150
--	--	35	10	.60	37	330	4.4 *	50	10
--	--	1,100	25	.60	11	2,400	.41*	840	120
--	--	320	30	2.6	11	820	.07*	590	70
830	240	360	580	--	16	2,700	.11	--	--
--	--	1,600	64	.90	9.3	2,900	.01*	990	210
68	0	1,500	19	.70	25	--	9.9	--	--
140	0	1,700	16	.60	27	--	6.8	--	--
--	--	33	12	1.8	29	260	.12*	10	<10
--	--	35	6.9	1.3	26	310	.19*	10	<10
--	--	1,000	13	1.0	17	1,600	.11*	510	590
--	--	81	21	1.0	36	530	.11*	--	20
300	0	76	30	1.4	33	440	2.1	--	--
280	0	710	610	--	--	2,200	.86	--	--
230	--	280	320	1.0	23	1,100	.00	410	10
180	0	1,100	480	--	--	2,400	.61	--	--
130	0	230	16	.30	44	570	11	--	--
120	0	67	29	1.0	44	290	.14	--	--
140	--	170	150	1.7	44	660	.01*	220	10
120	--	240	190	1.4	56	810	.00*	960	80
180	--	330	1,100	2.9	30	2,500	.13*	860	40

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
549	03N.03E.16.410	12-01-49	QTs	834	--	19.0	370	94	33	42*
550	03N.03E.20.000	12-01-49	--	1,100	--	--	510	130	45	52*
43	03N.03E.32.310	06-12-80	QTs	1,080	7.8	20.5	440	110	40	68
44	03N.04E.28.244	05-30-80	Qu?	1,550	7.3	15.5	840	200	82	98
46	02N.08W.10.441	06-02-81	Qu	550	7.9	21.0	190	48	16	51
47	02N.07W.34.212	06-02-81	Qu	560	7.8	--	180	47	15	61
551	02N.05W.21.322*	10-14-61	Td	745	7.6	--	230	--	--	--
79	02N.05W.10.444*	10-14-61	Qu?	1,260	7.8	--	320	90	24	180*
81	02N.04W.09.141*	10-22-61	Qu	1,130	7.9	--	400	120	23	100*
552	02N.02W.36.440	08-23-49	QTs?	29,400	--	--	1,800	480	140	8,400*
83	02N.01W.30.341	11-30-49	Qu	9,970	--	--	1,500	460	91	2,200*
85	02N.01E.04.444	08-23-49	QTs	820	--	--	48	14	3.1	160*
553	02N.01E.23.323	01-25-50	QTs?	1,070	--	--	360	88	35	84*
554	02N.02E.17.000	12-01-49	QTs?	1,040	--	--	410	100	38	74*
555	02N.02E.31.110	01-25-50	QTs?	1,130	--	20.0	320	77	32	120*
556	02N.04E.12.210*	08-22-49	lPu	1,140	--	17.0	680	180	58	86*
557	02N.04E.14.200	06-25-58	--	1,160	7.7	--	320	--	--	140*
558	02N.04E.16.240	12-08-49	--	1,470	--	13.5	560	130	56	120*
559	02N.05E.06.224	12-08-49	Pb	2,060	--	14.5	46	6.8	7.0	470*
99	02N.05E.20.244	12-19-49	Pa	3,010	--	14.0	1,900	470	180	98*
100	02N.05E.33.222	12-19-49	Py	3,190	--	14.0	2,200	540	210	66*
560	01N.04W.24.442	07-01-80	Tv	410	8.0	22.5	170	33	22	30
114	01N.03W.07.342*	12-05-80	QTs	590	8.0	8.0	240	55	26	41
115	01N.02W.07.132*	10-29-61	lPu	4,760	7.7	--	650	180	--	820*
116	01N.02W.01.330	08-23-49	Qu	4,830	--	--	650	150	68	860*
118	01N.01W.34.334	01-18-50	QTs	3,950	--	--	860	240	64	600*
561	01N.01W.22.220	01-14-50	Qu	2,850	--	--	600	160	49	410*
121	01N.01W.13.244	10-21-81	QTs	2,810	7.8	--	500	130	42	460
562	01N.01E.02.113	01-25-50	--	677	--	19.5	300	90	18	27*
563	01N.01E.05.100	02-15-50	Qu	3,910	--	--	660	140	75	640*
564	01N.02E.15.223	01-24-50	--	1,360	--	18.0	650	180	49	53*
125	01N.02E.34.133	01-24-50	Ps	2,760	--	18.0	1,900	560	130	21
565	01N.02E.34.310	02-03-50	Ps	2,850	--	10.0	2,000	590	140	15*
131	01N.04E.10.121	12-19-49	Pa	956	--	--	67	16	6.6	190
566	01N.04E.11.244	12-19-49	Py	830	--	14.5	330	68	40	55*

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
170	0	280	19	--	--	550	1.4	--	--
160	0	440	28	--	--	780	1.4	--	--
150	--	420	14	0.90	27	750	.85*	130	10
--	--	830	45	.80	16	1,400	1.7 *	60	110
--	--	--	11	.60	40	--	1.2 *	210	<10
--	--	29	23	.60	36	350	7.0 *	210	20
330	0	--	15	--	--	--	--	--	--
500	0	260	20	1.8	28	850	.02	--	--
190	0	420	18	1.0	19	800	.81	--	--
270	0	13,000	4,300	--	18	27,000	--	--	--
150	0	5,800	160	--	--	8,800	.43	--	--
110	6	240	28	1.1	34	550	.72	--	--
99	0	310	94	1.0	27	700	.99	--	--
130	0	380	48	--	--	720	1.8	--	--
120	0	390	42	2.0	24	750	1.1	--	--
240	0	610	20	1.5	25	1,100	2.2	--	--
350	0	220	68	2.2	29	--	1.5	--	--
290	--	E340	130	--	--	950	9.9	--	--
560	0	500	64	--	--	1,300	.16	--	--
180	0	1,800	48	--	--	2,700	5.9	--	--
180	0	2,100	29	--	--	3,000	.54	--	--
200	--	30	18	.50	37	270	4.7 *	100	<10
--	--	34	27	.60	34	370	.01*	100	<10
400	0	550	1,100	1.4	22	2,900	.61	--	--
300	0	840	1,000	1.0	18	3,100	.34	--	--
170	14	1,000	640	.70	54	2,700	.16	--	--
190	0	680	440	.50	28	1,900	2.0	--	--
170	--	660	440	1.1	--	1,880	--	--	--
130	0	200	23	.30	28	460	--	--	--
260	0	900	640	.60	26	2,600	.45	--	--
140	0	520	24	.50	24	1,000	25	--	--
140	0	1,800	10	.60	21	2,600	2.2	--	--
130	0	1,900	13	.70	18	2,700	.97	--	--
260	0	200	32	1.3	12	590	.18	--	--
280	0	170	25	1.1	23	520	.95	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
132	01N.04E.14.113	08-31-49	Pa	2,860	--	--	1,500	410	110	240*
134	01N.04E.29.413	12-19-49	Pa	774	--	16.5	200	38	25	96*
136	01N.05E.07.311	12-19-49	Py	2,420	--	15.0	1,800	470	140	10
141	01S.08W.02.241	07-10-79	Qu?	520	7.8	20.5	180	49	13	52*
144	01S.03W.31.433	00-00-51	Qu	--	7.7	19.0	120	34	8.0	23
567	01S.03W.30.213	07-15-80	Tv	503	7.7	25.0	160	43	13	42
145	01S.03W.17.124	07-15-80	Tv	720	7.8	22.5	290	75	25	68
146	01S.03W.14.241*	06-24-60	QTs	360	7.8	--	120	35	6.9	30*
568	01S.03W.12.131	04-00-56	QTs?	--	--	--	160	--	42	--
148	01S.03W.07.131	07-01-80	Tv	500	7.7	24.5	180	44	18	35
149	01S.02W.30.121	00-00-51	Qu	--	7.9	18.0	80	22	6.0	33*
569	01S.02W.11.133*	04-08-63	Qu	586	9.3	16.0	4	1.4	.10	130
570	01S.01W.35.142	00-00-51	QTs, Qu?	--	7.8	19.0	290	72	26	120*
151	01S.01W.27.422	05-28-58	Qu?	2,020	7.5	--	720	--	--	220
571	01S.01W.26.131	05-28-58	Qu	3,270	7.8	--	640	--	--	550
572	01S.01W.25.141	03-25-57	Qu?	825	7.4	--	230	75	10	93*
155	01S.01W.23.431	04-23-58	Qu	2,180	7.8	16.5	480	--	--	330
573	01S.01W.22.442	05-13-65	Qu	4,020	7.3	--	1,100	280	94	--
157	01S.01W.22.243	03-14-58	Qu	5,030	7.5	20.0	1,500	--	--	550*
574	01S.01W.14.334	03-20-61	--	--	7.5	21.0	1,000	260	96	520*
575	01S.01W.02.123	01-18-50	QTs	4,700	--	--	1,300	320	120	540*
576	01S.01E.23.313	00-00-51	--	--	7.4	17.0	840	210	77	540*
577	01S.02E.19.220	02-23-50	--	4,200	--	--	1,300	330	120	610*
578	01S.02E.22.444	04-23-80	Pa	3,400	7.6	19.0	2,000	450	210	140
165	01S.02E.29.340	02-22-50	--	7,640	--	--	4,400	460	780	760
167	01S.03E.06.321	12-28-49	Qu	818	--	15.5	370	85	38	29*
579	01S.05E.33.000	01-00-54	Py?	9,080	--	--	3,000	--	--	1,600
580	01S.08E.01.433	08-02-50	Py	2,270	--	--	1,500	340	170	13*
581	01S.08E.03.214	03-13-57	Py	3,800	7.2	--	2,200	500	230	230*
582	01S.08E.04.233	08-10-82	Py?	2,240	7.3	21.5	880	240	68	21
583	01S.08E.04.323	01-29-59	Py	1,510	7.6	20.0	860	240	64	26*
172	01S.08E.07.332	06-08-57	Py	2,150	7.3	--	1,500	400	110	8.0*
173	01S.08E.09.310	06-08-57	Py	980	7.5	--	550	160	37	8.0*
174	01S.08E.11.322	03-12-57	Py	2,770	7.6	16.0	2,000	--	--	--
175	01S.08E.21.431	08-02-50	Py	2,350	--	--	1,700	480	110	2.0*

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
210	0	1,700	36	0.80	25	2,600	0.92	--	--
300	0	73	57	.60	19	460	.18	--	--
130	0	1,500	14	.70	23	2,200	5.4	--	--
150	0	150	7.8	.70	46	390	.90*	80	<10
160	--	18	14	--	--	190	--	--	--
180	--	80	16	.60	31	320	1.6 *	100	540
160	--	180	84	.40	29	540	2.4 *	150	350
140	0	41	10	.50	28	230	3.4	--	--
--	--	110	60	--	--	--	--	--	--
240	--	25	15	.40	39	290	4.1 *	100	20
140	--	18	12	--	--	168	--	--	--
220	31	30	16	1.2	21	350	1.1	--	--
260	--	250	44	--	--	--	--	--	--
510	0	580	120	1.7	31	--	4.5	320	--
350	0	860	450	1.6	30	--	3.8	900	--
210	0	180	49	.40	28	540	.18	--	--
240	0	350	440	1.4	38	--	.07	420	--
260	0	790	760	.40	9.7	2,600	14	--	--
200	0	860	1,200	.30	50	--	.61	--	--
260	--	800	800	--	--	2,810	--	--	--
180	0	870	1,000	.20	24	3,000	.36	--	--
260	--	830	680	--	--	2,370	--	--	--
130	0	2,400	60	1.0	12	3,600	.59	--	--
--	--	1,800	84	.60	17	2,800	13 *	320	360
530	0	520	150	.20	28	7,600	.16	--	--
250	0	120	34	.30	25	520	14	--	--
330	43	5,700	62	1.6	18	--	56	--	--
280	0	1,200	34	.20	21	2,000	.81	--	--
66	0	2,500	47	1.9	7.3	3,600	.07	--	--
--	--	750	35	.50	18	1,200	4.4 *	70	15
140	0	730	36	.20	20	1,200	2.7	--	--
200	0	1,200	35	.60	--	1,900	.45	--	--
150	0	400	14	1.1	18	710	1.3	--	--
280	0	1,600	34	--	--	--	--	--	--
160	0	1,400	34	.80	19	2,100	.34	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
180	02S.08W.21.413	08-30-79	Qu	210	8.4	--	28	8.5	1.6	38*
187	02S.07W.27.444	05-07-79	Qu	430	8.3	36.0	27	8.4	1.5	84
584	02S.05W.26.100	11-09-62	QTs?	532	8.8	--	66	21	3.3	100*
199	02S.04W.27.241	05-06-65	Tv?	422	7.7	--	190	63	7.5	12
201	02S.04W.26.344	06-03-80	Qu	600	7.6	18.0	230	64	18	46
585	02S.04W.26.342	06-05-80	Qu	580	7.8	18.0	200	54	17	36
203	02S.04W.22.434	05-20-63	Qu	396	8.5	--	150	44	9.7	28*
586	02S.04W.15.100	03-12-64	Tv?	704	7.4	--	250	48	31	59
587	02S.04W.12.341	00-00-51	--	--	7.1	17.0	240	64	19	29*
588	02S.03W.31.332	01-17-64	IPu?	519	7.4	--	250	82	12	13
205	02S.03W.27.223	00-00-51	QTs	--	7.8	22.0	150	44	10	18
206	02S.03W.24.411	00-00-51	Qu	--	8.3	--	120	35	9.0	35
589	02S.03W.22.114	00-00-51	--	--	7.8	21.0	120	41	4.0	30
208	02S.03W.11.333	00-00-51	Qu	--	7.9	19.0	100	30	7.0	32
590	02S.03W.07.433	00-00-51	--	--	7.6	20.0	230	67	15	--
591	02S.03W.01.322	06-30-60	Qu?	--	7.9	22.0	94	26	7.0	35*
211	02S.02W.35.342*	06-25-60	QTs	353	7.4	--	150	--	--	23
592	02S.02W.35.324*	11-29-77	QTs	370	7.9	--	160	55	5.6	18
212	02S.02W.34.432	00-00-51	QTs	--	7.8	18.0	210	68	10	19
214	02S.02W.20.311	05-16-77	QTs?	260	8.0	--	75	21	5.5	27
593	02S.02W.19.422	00-00-51	Qu?	--	7.8	--	110	30	9.0	24
215	02S.02W.18.112	00-00-51	Qu	--	7.8	19.0	120	34	8.0	32
217	02S.01W.36.433	00-00-51	Qu	--	7.6	19.0	170	43	14	41
594	02S.01W.36.323	10-30-80	Qu	435	8.2	16.0	140	42	7.9	41
595	02S.01W.36.143	10-30-80	Qu	430	8.3	14.5	130	39	7.8	40
218	02S.01W.35.221	00-00-51	QTs	--	7.6	19.0	120	34	9.0	32
596	02S.01W.35.200	11-06-51	Qu	367	--	18.5	140	41	9.0	26*
219	02S.01W.31.314*	03-04-77	Td or Qu?	460	7.8	--	150	45	8.3	41
220	02S.01W.30.443*	03-04-77	Td or Qu?	770	8.0	--	350	120	12	78
597	02S.01W.25.344	02-10-82	Qu	1,600	7.4	18.0	580	180	34	150
598	02S.01W.24.431	00-00-51	--	--	7.2	18.0	470	120	41	170
599	02S.01W.22.141	00-00-51	--	--	7.5	23.0	270	67	24	96*
600	02S.01W.19.312	00-00-51	--	--	--	--	180	56	10	100*
224	02S.01W.14.200	03-00-62	Qu	787	8.0	--	310	--	--	42*
601	02S.01W.13.113	07-29-52	Qu	2,240	--	15.5	770	240	41	250*

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
120	0	9.5	0.40	0.40	22	140	1.2 *	40	<10
120	0	50	24	3.2	54	290	1.6 *	140	200
220	12	44	20	2.5	18	340	1.5	--	--
170	0	56	5.0	.20	27	260	1.6	--	--
--	--	130	14	.60	23	390	3.6 *	110	60
--	--	100	18	.60	24	340	1.5 *	80	10
160	6	45	12	.50	37	270	1.9	--	--
280	0	71	44	.90	28	420	.22	170	--
240	--	64	24	--	--	328	--	--	--
190	0	100	4.4	1.0	23	330	2.0	80	--
170	--	22	22	--	--	206	--	--	--
190	--	20	14	--	--	196	--	--	--
170	--	24	16	--	--	204	--	--	--
160	--	22	12	--	--	168	--	--	--
230	--	28	20	--	--	302	--	--	--
160	--	18	14	--	--	150	--	--	--
200	0	12	15	.40	31	--	.27	--	--
220	0	20	10	--	--	--	--	--	--
240	--	16	26	--	--	290	--	--	--
74	0	45	8.0	--	--	--	--	--	--
180	--	16	14	--	--	188	--	--	--
180	--	20	12	--	--	168	--	--	--
180	--	72	24	--	--	288	--	--	--
--	--	56	18	.40	29	280	.01*	90	10
--	--	67	17	.50	28	280	.00	100	30
150	--	48	16	--	--	228	--	--	--
150	0	48	15	.60	33	250	.02	--	--
180	0	85	16	--	--	--	--	--	--
160	0	350	4.0	--	--	--	--	--	--
--	--	350	180	.40	31	1,100	3.1 *	--	<10
420	--	350	92	--	--	988	--	--	--
220	--	240	28	--	--	542	--	--	--
230	--	180	21	--	--	--	--	--	--
140	0	180	74	.20	31	--	.00	--	--
480	0	730	120	.30	33	1,700	.20	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
602	02S.01W.12.314	00-00-51	--	--	7.5	15.5	800	230	56	330*
603	02S.01W.11.400	08-00-63	Qu	1,640	8.1	--	570	170	35	140
604	02S.01W.11.243	10-06-80	Qu	2,690	8.2	15.0	920	290	47	300
605	02S.01W.11.242	05-03-54	Qu	1,770	--	--	760	--	--	120
606	02S.01W.10.221	07-03-80	Qu	860	8.0	21.5	370	110	24	42
607	02S.01W.02.434	05-07-65	Qu	1,590	7.9	--	460	140	29	190
227	02S.01W.02.300	06-20-58	QTs	1,200	7.2	--	420	--	--	120
608	02S.01W.01.333	00-00-51	--	--	8.0	19.0	250	74	15	36
609	02S.01E.07.200	03-22-61	QTs	2,740	7.7	--	350	--	--	460*
232	02S.01E.12.341*	08-26-82	Qu	--	7.4	23.0	1,400	410	93	53
233	02S.01E.14.221*	08-26-82	Qu	--	7.6	21.0	1,100	300	78	43
610	02S.01E.19.300	04-23-58	Qu	822	7.7	--	270	--	--	84*
235	02S.01E.23.331*	09-17-80	Py?	6,500	8.7	16.5	3,200	390	530	760
236	02S.01E.26.123*	06-23-80	QTs?	1,580	8.0	24.0	820	170	96	140
237	02S.01E.27.243*	06-09-80	lPu	1,500	8.9	25.0	470	60	78	160
611	02S.02E.03.111	03-13-80	Pa	990	7.6	16.0	410	70	57	75
241	02S.02E.05.223*	07-10-79	Py?	4,000	8.3	30.0	2,600	560	280	200*
612	02S.02E.06.334	02-22-82	Py?	1,950	7.4	20.0	1,200	310	95	51
613	02S.02E.11.311	02-09-83	Pa	2,220	7.2	9.0	1,300	320	120	81
243	02S.02E.23.241*	08-14-81	Pa?	754	7.8	18.0	320	50	47	43
244	02S.02E.30.234*	06-09-80	lPu	561	8.5	24.0	280	43	41	26
246	02S.03E.27.411	03-30-82	Ps?	2,650	7.4	15.0	1,700	520	100	40
614	02S.03E.36.331	09-04-80	Ps	2,660	7.8	16.5	1,800	520	120	48
615	02S.07E.03.234	08-11-82	--	--	--	--	1,300	400	72	26
616	02S.08E.22.333	08-15-82	Py?	2,630	7.2	20.0	1,800	570	99	25
617	02S.09E.23.124	08-17-82	Py?	2,900	6.3	21.5	2,100	650	120	37
253	03S.08W.21.124	08-31-79	Qu?	270	--	16.5	--	--	--	--
618	03S.08W.21.100	08-04-63	Qu?	277	8.2	--	26	9.0	.90	53*
258	03S.08W.01.310	08-21-79	Qu	310	7.9	20.0	74	21	5.2	38*
261	03S.07W.08.231	05-28-80	Qu	272	8.1	20.0	50	15	3.1	42
269	03S.06W.11.231	05-28-80	Td	725	7.7	21.0	290	79	22	40
619	03S.04W.28.114	07-01-62	Qu?	329	8.0	--	110	35	5.0	29*
276	03S.04W.24.242*	08-21-80	Qu	240	7.2	16.0	110	37	3.4	7.0
620	03S.04W.12.311*	06-30-62	Tv?	402	8.2	--	64	21	2.8	71*
278	03S.04W.12.132*	06-30-62	Qu?	348	7.7	--	--	--	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
540	--	850	130	--	--	1,650	--	--	--
86	0	520	190	0.20	33	--	0.29	--	--
--	--	720	320	.30	28	1,900	.00	330	500
410	8	480	120	.10	25	--	.00	--	--
--	--	86	86	.40	30	530	.08*	70	20
360	0	440	93	.30	28	1,100	.02	--	<10
290	0	320	80	.30	29	--	.11	--	--
170	--	130	36	--	--	362	--	--	--
200	0	440	510	.50	56	--	.22	--	--
--	--	1,300	10	.70	19	2,000	<.10*	--	120
--	--	980	13	.60	19	1,500	.63*	--	<3
220	0	200	45	1.4	21	--	.16	--	--
510	0	3,900	260	2.3	19	6,100	.00*	900	40
--	--	800	38	1.1	17	1,400	1.0 *	--	50
160	0	610	39	.90	13	1,000	.01*	310	<10
--	--	160	23	.50	22	620	2.3 *	110	20
220	0	2,600	68	.80	20	3,800	.97*	480	40
--	--	1,100	10	.60	17	1,700	1.2 *	--	23
--	--	1,300	21	.70	10	1,900	<.10*	--	30
--	--	140	18	.30	23	460	2.1 *	40	<10
350	0	33	4.4	.50	13	340	.13*	90	10
--	--	1,500	44	1.1	15	2,300	2.2 *	--	70
--	--	1,700	60	1.3	10	2,500	.41*	240	60
--	--	1,200	10	1.1	21	1,800	1.8	150	70
--	--	1,700	21	1.0	42	2,500	<.10*	100	420
--	--	1,700	13	1.0	49	2,700	<.10*	150	1,400
--	--	14	9.1	1.1	39	--	10 *	--	--
120	0	15	15	.80	9.2	170	1.4	--	--
140	0	22	7.7	.70	38	200	1.2 *	70	<10
--	--	22	11	.60	35	190	1.9 *	100	140
--	--	130	28	1.1	32	450	3.3 *	90	270
160	0	16	12	.60	60	240	.14	--	--
--	--	15	1.8	.10	18	140	.13*	30	10
240	0	8.6	8.2	.50	35	270	.22	--	--
210	0	--	4.4	--	--	--	--	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
621	03S.04W.11.341	05-03-82	Tv	200	6.8	14.5	92	30	4.2	9.0
622	03S.03W.34.332	02-08-53	Td?	480	7.8	7.5	200	65	10	10
283	03S.03W.33.442*	04-16-66	Td?	354	7.3	8.0	170	56	7.2	9.0
623	03S.03W.28.424*	10-29-77	lPu?	400	7.9	--	240	79	11	10
624	03S.03W.27.441*	04-16-66	--	439	8.2	9.0	210	70	9.5	11
625	03S.03W.27.212*	04-16-66	pC?	637	7.4	11.0	330	110	14	15
626	03S.03W.26.111	05-10-62	Qu?	440	8.5	17.0	200	62	12	19
627	03S.03W.25.111	03-04-77	Tv?	300	8.1	--	130	33	12	17
285	03S.03W.23.342	03-04-77	Qu?	520	7.9	--	230	68	15	21
628	03S.03W.21.344*	04-16-66	--	367	7.8	8.5	170	59	6.6	10
629	03S.03W.20.421*	04-16-66	--	641	7.9	12.0	320	97	18	20
287	03S.03W.19.132*	06-30-62	Tv?	534	7.0	--	140	54	1.3	13*
288	03S.03W.13.331	10-29-77	Qu?	450	7.8	--	280	91	12	15
630	03S.03W.10.311*	05-16-77	lPu	420	8.0	--	160	31	20	22
289	03S.03W.07.342*	07-01-62	lPu	534	7.3	--	290	110	5.8	6.0
631	03S.03W.07.313	01-17-64	--	437	7.5	6.5	220	77	5.8	10
292	03S.02W.36.212	07-18-80	QTs	590	8.8	23.0	110	33	7.6	92
632	03S.02W.27.211	02-08-63	QTs?	632	8.2	9.0	320	100	16	5.0
294	03S.02W.25.111	06-16-62	QTs?	1,880	8.0	--	80	27	3.0	380*
295	03S.02W.23.123	00-00-52	QTs	--	7.7	17.0	150	47	8.0	34*
296	03S.02W.20.111	08-21-80	Qu	328	7.5	22.0	140	46	6.0	16
633	03S.02W.17.423	05-13-77	Qu?	250	8.0	--	88	25	6.2	17
297	03S.02W.08.424	00-00-52	QTs	--	7.7	17.0	190	61	8.0	40
634	03S.02W.08.423	03-04-77	Qu?	300	7.9	--	110	35	6.4	14
298	03S.02W.01.323*	06-25-60	QTs?	371	7.2	--	150	--	--	21*
635	03S.01W.36.113	10-22-80	Qu	508	8.1	21.5	120	41	4.9	84
636	03S.01W.33.143	08-21-80	QTs	1,020	7.7	17.0	370	120	18	96
637	03S.01W.27.300B	04-23-63	Qu	861	7.9	--	210	64	11	120*
638	03S.01W.27.300A	03-14-58	QTs?	1,200	7.6	--	440	--	--	67
300	03S.01W.26.311	10-06-60	QTs?	1,220	7.6	--	160	--	--	190*
301	03S.01W.25.233	03-14-58	Qu	528	7.8	--	120	--	--	64*
639	03S.01W.24.400	03-12-59	Qu	1,300	7.5	15.5	500	--	--	110
640	03S.01W.23.424	04-17-53	QTs?	705	--	18.0	200	--	--	80
641	03S.01W.22.131*	09-04-80	Tv?	331	8.5	30.0	62	18	4.2	56
642	03S.01W.22.113*	07-00-77	Tv?	340	7.9	30.5	61	17	4.4	54

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
--	--	7.0	3.5	0.20	31	140	0.19*	--	<9
240	0	10	15	--	--	--	--	--	--
200	0	1.9	2.8	.10	16	190	.02	70	0
230	0	65	4.0	--	--	--	--	--	--
260	0	23	3.6	.20	22	270	.02	60	0
340	0	61	6.4	.20	23	400	.00	40	10
230	5	34	10	--	--	--	--	--	--
140	0	53	8.0	--	--	--	--	--	--
210	0	87	10	--	--	--	--	--	--
210	0	17	4.0	.20	22	220	.05	40	0
330	0	78	6.4	.20	19	400	.02	40	0
130	0	57	1.4	.30	15	210	1.1	--	--
180	0	120	4.0	--	--	--	--	--	--
150	0	70	12	--	--	--	--	--	--
300	0	35	2.0	.30	12	320	.11	--	--
220	0	44	2.6	1.2	17	270	.02	60	--
--	--	90	23	.70	22	380	.50*	140	20
360	0	44	.00	--	--	--	--	--	--
180	0	450	210	.60	17	1,200	1.2	--	--
200	--	20	26	--	--	280	--	--	--
--	--	6.8	15	.30	25	210	.00	30	20
120	0	--	14	--	--	--	--	--	--
280	--	24	14	--	--	234	--	--	--
150	0	--	12	--	--	--	--	--	--
200	0	20	8.2	.40	29	--	.81	--	--
--	--	42	16	.80	51	370	.09*	130	30
--	--	260	28	.70	45	720	2.2 *	230	20
280	0	170	30	.40	81	610	.38	--	--
240	0	270	70	.60	31	--	1.7	--	--
160	0	110	230	.50	43	--	.56	--	--
210	0	68	12	.80	35	--	.84	--	--
320	0	330	88	.60	30	--	.11	360	--
270	0	83	36	.60	32	--	3.2	--	--
--	--	31	13	.70	26	220	.26*	120	<10
150	--	22	15	--	25	210	--	120	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
643	03S.01W.22.112*	10-30-80	QTs	352	8.1	32.5	61	18	4.0	57
644	03S.01W.22.111	00-00-51	--	--	8.2	33.0	68	19	5.0	53
303	03S.01W.21.100	06-26-62	QTs	616	7.5	23.0	230	78	9.1	39*
305	03S.01W.16.323	01-22-64	Tv?	380	8.1	32.0	69	21	4.0	59
645	03S.01W.15.311*	07-00-77	--	396	7.7	22.5	62	18	4.2	68
646	03S.01W.15.300	07-17-61	Qu	513	6.6	--	190	--	--	34
647	03S.01W.15.131	08-27-81	--	--	--	--	120	37	6.8	77
648	03S.01W.14.421	10-11-60	Qu	1,320	7.5	--	410	--	--	150
307	03S.01W.14.234	04-03-58	QTs	401	7.8	19.0	130	--	--	46
649	03S.01W.14.221	10-11-60	Qu	490	7.5	--	150	--	--	55
650	03S.01W.13.400	07-06-55	Qu	795	7.6	15.5	320	100	18	44*
651	03S.01W.13.300	06-26-61	Qu	1,280	7.7	--	340	--	--	130
652	03S.01W.13.212	00-00-53	Qu	514	--	15.0	180	--	--	38
653	03S.01W.12.332	10-01-80	--	404	8.1	25.0	84	26	4.7	61
654	03S.01W.12.324	05-07-65	QTs	395	8.3	--	120	40	4.1	40
655	03S.01W.11.344	03-10-64	QTs	1,310	7.8	18.5	570	190	23	86
656	03S.01W.11.332	11-09-62	Qu	1,190	7.8	18.0	410	140	15	100
657	03S.01W.11.314	11-08-62	Qu	1,390	7.6	18.0	480	160	19	130
658	03S.01W.11.214	02-13-64	Qu	934	7.2	--	350	120	13	72
659	03S.01W.11.200	12-11-51	Qu	471	--	18.0	170	56	8.5	30
660	03S.01W.11.133	03-10-64	QTs	512	7.4	18.0	190	65	6.3	37
661	03S.01W.11.132	09-28-52	Qu	1,530	--	--	310	87	23	230
662	03S.01W.11.100	03-18-58	Qu	422	7.7	19.0	140	--	--	29
310	03S.01W.10.243	09-14-51	Qu	607	--	20.5	170	50	10	70*
663	03S.01W.02.430	10-19-60	--	458	7.8	--	140	--	--	51
664	03S.01W.02.300	04-23-63	Qu	415	7.6	--	150	48	6.3	31*
665	03S.01W.01.100	03-11-59	Qu	1,710	7.7	--	510	--	--	220
666	03S.01E.06.000	04-18-57	Qu	599	7.5	18.5	220	64	15	43*
667	03S.01E.16.311	11-09-62	QTs?	1,190	7.8	--	420	140	15	100
316	03S.01E.20.422	04-18-57	QTs	582	8.5	18.0	210	56	17	42
668	03S.01E.23.110	04-21-80	QTs	1,440	8.0	23.0	120	36	7.9	300
669	03S.01E.30.400	03-12-59	Qu	292	7.7	--	99	--	--	24
320	03S.02E.08.422*	02-27-81	Py	3,500	7.8	9.0	2,100	530	180	95
321	03S.02E.19.314*	06-19-80	QTs	3,070	8.3	24.0	2,000	530	160	69
670	03S.02E.31.110	03-26-81	Ps	2,370	7.9	20.0	1,400	290	160	170

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
--	--	31	13	0.70	26	230	0.36*	120	<10
160	--	30	13	--	--	234	--	--	--
180	0	100	39	.50	33	390	.32	--	--
170	0	39	13	.60	29	250	.29	80	50
170	--	32	17	--	22	250	--	130	--
160	0	83	32	.30	28	--	.00	--	--
--	--	43	16	1.0	38	350	.24*	110	<10
410	0	260	74	.50	45	--	8.6	--	--
170	0	66	18	.70	39	--	.07	50	--
180	0	85	22	.40	30	--	.07	--	--
220	0	190	36	.20	29	520	.11	--	--
120	0	350	110	.30	34	--	.25	--	--
150	0	97	26	.40	35	--	.14	--	--
--	--	42	15	.60	27	250	.42*	70	<10
150	2	54	16	.50	27	260	.02	--	--
320	0	350	80	.30	34	920	.38	130	40
260	0	300	76	.70	31	810	2.5	--	--
290	0	370	92	.70	31	960	.86	--	--
220	0	230	53	.50	35	640	2.2	150	40
170	0	72	15	.40	31	300	.18	--	--
190	0	86	15	.60	33	340	.52	100	30
360	0	400	70	.30	48	1,000	1.7	--	--
160	0	60	7.5	.40	30	--	.09	--	--
190	0	130	19	.40	45	420	.18	--	--
160	0	81	22	.50	32	--	.18	--	--
160	0	61	13	.50	26	260	.16	--	--
420	0	490	100	.50	41	--	.18	500	--
190	0	110	27	.40	28	380	.11	--	--
260	0	300	76	.70	31	810	2.5	--	--
140	6	120	32	.80	30	380	.50	--	--
--	--	520	50	3.0	39	1,000	1.5 *	360	70
120	0	29	14	.60	26	--	.02	150	--
--	--	2,000	41	.40	19	3,000	.00	300	40
210	0	1,800	77	.70	19	2,800	.03*	270	40
--	--	1,600	20	.20	1.4	2,300	.17	140	40

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
322	03S.03E.05.213	06-03-80	TRc?	2,420	7.7	19.0	1,500	410	110	93
671	03S.05E.15.322	05-12-82	Qu	3,800	8.3	18.0	230	65	16	760
672	03S.05E.26.120	01-28-82	Qu	4,800	7.5	13.0	--	--	--	--
673	03S.06E.05.422	10-31-80	Ps or Py	2,990	8.0	16.0	2,200	520	210	71
326	03S.08E.22.344	08-14-82	Py?	2,850	6.8	23.0	2,000	570	150	33
674	03S.09E.36.414	08-09-82	Py?	3,880	6.9	22.0	1,900	520	150	350
337	04S.06W.16.213	06-23-80	Td, Tv?	400	8.1	20.0	130	37	9.9	48
342	04S.03W.06.442*	06-08-65	Tv?	163	7.3	10.0	75	25	3.0	4.0
675	04S.02W.24.431	01-06-81	Qu	525	8.6	8.0	260	82	14	17
676	04S.02W.12.112	00-00-52	--	--	7.6	19.0	440	120	35	180
343	04S.02W.07.211*	02-08-63	Tv?	219	7.8	8.0	96	30	5.0	3.0
677	04S.02W.03.321	00-00-52	--	--	7.5	21.0	210	58	16	17
344	04S.01W.23.100	06-24-55	QTs?	800	7.6	--	250	72	18	58*
345	04S.01W.22.212	08-14-81	QTs?	952	7.5	23.0	130	42	6.4	51
678	04S.01W.12.443	11-21-80	Qu	535	8.0	20.0	99	32	4.6	92
348	04S.01W.05.211*	05-17-62	QTs?	1,870	8.3	16.5	110	39	3.0	370
679	04S.01E.06.133	09-01-55	Qu	1,210	8.1	--	190	57	11	200*
351	04S.01E.06.200	03-31-61	Qu	762	8.3	--	220	--	--	86
680	04S.01E.08.244	08-26-81	Qu	701	7.8	18.0	240	71	15	56
681	04S.01E.08.422	08-26-81	Qu	504	7.8	20.5	180	55	10	36
682	04S.01E.17.200	07-21-61	Qu	4,530	7.7	--	290	78	23	960
683	04S.01E.18.400	03-00-62	Qu	911	8.3	--	5	--	--	200*
355	04S.01E.19.242	07-03-80	QTs	700	8.2	22.0	140	46	6.7	85
684	04S.01E.20.430	09-12-51	Qu	4,000	--	--	390	98	36	740*
685	04S.01E.21.241	09-18-80	Qu	1,550	8.6	21.0	140	33	14	340
686	04S.01E.29.424	10-20-80	Qu	3,050	8.1	20.0	290	84	19	750
358	04S.01E.30.400	07-11-61	Qu	621	8.0	--	250	--	--	36
687	04S.01E.32.311	05-06-65	Qu	1,150	8.5	--	360	110	22	130
688	04S.01E.33.400	03-16-62	Qu	4,750	7.8	--	580	--	--	910*
360	04S.02E.23.344	02-10-55	TR	1,440	8.0	--	480	100	57	150
689	04S.02E.29.330	03-24-82	QTs	4,200	7.3	12.0	1,100	260	120	430
690	04S.03E.15.123	09-25-80	Qu	3,260	8.7	--	1,800	540	110	220
362	04S.04E.07.143*	05-28-50	--	3,050	--	--	2,200	590	170	34*
371	05S.02W.08.144*	04-17-81	Qu?	585	7.7	13.5	230	61	20	34
691	05S.02W.05.321	08-21-81	Qu?	180	8.6	24.5	71	25	2.1	10

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
180	0	1,500	21	1.1	12	2,200	0.03*	370	840
--	--	1,600	200	.60	9.3	2,700	2.2 *	--	20
--	--	--	--	--	--	--	--	--	--
--	--	2,000	39	1.3	5.0	2,900	.00	320	30
--	--	1,800	30	1.1	21	2,700	<.10*	160	690
--	--	2,300	34	.30	19	3,500	<.10*	440	880
--	--	23	19	1.3	35	290	2.2 *	60	<10
84	0	4.2	1.2	.10	16	100	1.2	0	--
--	--	49	15	.40	37	360	5.7 *	30	<10
230	--	610	24	--	--	792	--	--	--
100	0	10	6.0	--	--	--	--	--	--
230	--	24	24	--	--	316	--	--	--
140	0	87	120	1.2	42	470	1.9	--	--
--	--	37	84	.40	12	290	.00*	80	180
--	--	52	38	.90	48	380	.53*	100	<10
440	0	480	42	--	--	--	--	--	--
240	0	230	120	--	44	780	.47	--	--
250	5	140	37	.50	34	--	.16	--	--
--	--	160	35	.40	38	470	.01*	80	<10
--	--	87	25	.50	32	320	.16*	60	<10
500	0	600	920	.60	56	2,900	.61	--	--
240	4	130	72	.60	35	--	.14	--	--
210	--	76	46	1.0	35	400	2.5 *	160	<10
290	0	640	780	.50	46	2,500	.16	--	--
--	--	240	340	.80	37	1,100	.00	180	<10
--	--	750	470	1.0	41	2,400	.00	610	130
200	0	83	52	.20	32	--	.02	--	--
300	13	260	66	.40	33	780	.02	--	--
340	0	1,300	670	1.7	66	--	.11	--	--
320	0	490	18	.10	22	1,000	3.4	--	--
--	--	960	780	2.4	21	2,700	.29*	--	70
--	--	2,200	7.3	.20	18	3,100	5.4 *	350	60
130	--	2,000	50	1.0	18	2,900	--	--	590
--	--	43	12	.30	27	340	.33*	40	10
--	--	2.0	3.1	2.0	26	110	.24*	20	20

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
692	05S.01W.36.234	02-05-58	Qu	3,430	7.5	16.5	980	--	--	--
693	05S.01W.11.132	09-02-80	IPu?	382	8.4	19.0	52	19	1.2	69
378	05S.01E.04.122	10-05-62	Qu	1,460	7.9	19.5	83	21	7.4	310*
694	05S.01E.15.130	11-05-62	Qu	5,680	7.8	19.0	1,500	--	--	--
383	05S.01E.17.344	07-02-80	Qu	1,800	7.7	17.0	580	180	32	170
695	05S.01E.18.434	02-05-58	Qu	1,030	7.8	--	220	66	13	150*
696	05S.01E.27.332	02-06-58	Qu	6,480	7.6	--	1,300	--	--	--
386	05S.01E.30.133	07-02-80	Qu	1,000	8.0	22.5	180	52	12	120
697	05S.01E.30.241	07-02-80	Qu	1,400	7.7	17.0	410	120	28	150
387	05S.01E.36.442	11-05-62	Qu	6,740	7.0	26.5	1,700	--	--	--
698	05S.02E.02.133	02-10-55	--	2,140	--	11.5	1,000	--	--	--
699	05S.02E.10.223	02-10-55	--	2,460	--	19.0	980	--	--	--
388	05S.02E.16.323	02-07-55	Tb	1,290	7.9	19.0	210	37	28	210*
700	05S.02E.17.424	05-01-57	Kcg	3,610	7.3	--	910	--	--	--
701	05S.03E.09.244	06-03-80	Qu	9,750	9.8	23.0	6,000	570	1,100	350
702	05S.03E.13.244	03-17-55	Qu	3,060	7.7	16.5	2,200	--	--	--
390	05S.03E.17.111	02-10-55	Td, Tv	1,680	--	21.5	380	--	--	--
703	05S.03E.28.323	06-29-55	Td, Tv	3,790	7.6	--	1,800	540	110	350*
704	05S.04E.16.133	03-01-55	Qu	3,360	--	--	2,300	--	--	--
705	05S.05E.12.400	00-00-61	Py?	3,110	7.6		2,100	--	--	29*
706	05S.05E.14.444	03-07-55	Py	3,090	--	13.0	2,200	--	--	--
395	05S.05E.19.233	02-15-55	Py	3,210	--	19.5	2,100	--	--	--
396	05S.05E.32.444	03-17-55	Py	3,900	7.5	17.0	2,800	--	--	--
399	05S.06E.32.123*	08-12-82	IPu	219	7.9	24.0	110	40	2.9	5.0
403	06S.08W.08.432	08-24-79	Td, Tv	2,100	7.5	35.0	440	160	11	320*
405	06S.05W.24.342	08-06-80	Tv	315	8.6	21.0	23	9.2	.10	68
707	06S.03W.19.131	05-27-80	Tv?	--	--	--	54	19	1.5	47
411	06S.01W.15.124	02-06-58	QTs	484	8.2	--	61	12	7.6	86*
708	06S.01W.12.431	02-06-58	Qu	980	7.9	15.5	110	37	5.2	200
412	06S.01W.12.233	02-05-58	Qu	540	8.1	--	68	21	3.8	100
413	06S.01W.12.231	07-02-80	QTs	625	7.9	24.0	72	24	3.0	100
414	06S.01E.05.233	07-02-80	Qu	1,200	7.8	16.0	250	73	17	150
415	06S.01E.07.213	07-02-80	Qu	4,600	7.4	33.0	470	120	41	840
709	06S.01E.08.211	09-22-67	Qu	854	7.9	--	120	34	9.5	130*
416	06S.01E.08.223	05-26-67	Qu	1,120	8.0	--	110	29	9.1	210

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
150	0	370	880	--	--	--	--	--	--
--	--	54	13	0.60	45	270	0.59*	140	640
330	0	310	100	4.3	44	960	.00	--	--
230	0	1,400	1,100	--	--	--	--	--	--
310	--	330	260	.20	32	1,200	.02*	100	350
230	0	230	81	.80	39	690	.00	--	--
300	0	1,300	1,400	--	--	--	--	--	--
140	--	120	150	.50	46	570	.21*	170	30
400	--	270	100	.50	40	910	.10*	210	350
260	0	2,200	1,100	--	--	--	--	--	--
290	0	1,000	31	--	--	1,860	--	--	--
320	0	1,200	32	--	--	2,100	--	--	--
240	0	400	33	1.5	25	850	.50	--	--
300	0	1,600	30	--	--	--	--	--	--
--	--	4,000	360	.80	1.2	6,400	.13*	1,200	110
110	0	1,900	48	--	--	3,160	--	--	--
43	0	750	44	--	--	1,210	--	--	--
38	0	2,300	59	--	--	3,400	2.7	--	--
110	0	2,200	83	--	--	3,430	--	--	--
200	0	1,900	37	1.3	23	--	.00	--	--
200	0	1,900	50	--	--	3,180	.86	--	--
140	0	2,000	76	--	--	3,180	--	--	--
240	0	2,400	140	--	--	4,040	--	--	--
--	--	19	2.4	.20	6.1	130	<.10*	--	10
120	0	580	280	3.6	29	1,400	.02*	190	180
100	--	12	39	6.6	36	220	.43*	60	30
--	--	24	6.6	1.1	35	200	.79*	70	590
150	0	85	22	.60	26	320	1.3	--	--
360	0	110	98	2.8	42	670	.16	--	--
180	0	59	48	2.8	38	370	.52	--	--
170	--	59	60	2.3	42	370	1.0 *	140	10
230	--	230	93	.40	33	710	.05*	210	530
410	--	560	980	1.0	24	2,800	1.1 *	880	1,300
160	0	110	120	.50	56	540	.27	--	--
240	0	230	82	.70	35	720	.02	--	0

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
417	06S.01E.09.111	11-15-63	Qu	1,060	8.1	15.5	22	6.4	1.5	240
710	06S.01E.17.133	02-13-58	Qu	1,480	8.0	--	430	--	--	--
420	06S.01E.36.233	02-08-55	Py	3,490	--	21.0	1,400	--	--	--
421	06S.02E.01.444	04-18-56	Tb, Td, Tv	3,380	7.4	24.5	1,700	390	180	270*
422	06S.02E.04.144	09-14-56	Tb, Td, QTs	771	7.6	28.5	120	33	8.8	130*
711	06S.02E.04.333	02-24-58	Tb, Td, QTs	707	7.5	25.0	210	50	20	82
423	06S.02E.10.141	05-21-56	Tb	2,010	7.8	25.5	420	--	--	--
424	06S.02E.25.342	06-29-53	Td or Qu	4,550	7.5	--	3,300	530	490	99
425	06S.02E.28.413	02-02-55	Td, QTs?	1,970	--	24.5	770	200	66	--
426	06S.03E.05.232	08-01-60	Qu	3,430	7.6	26.5	1,700	410	170	290
712	06S.03E.17.111	07-21-55	Td	3,430	7.4	--	1,700	--	--	--
431	06S.05E.36.343	02-16-55	Qu	658	8.2	--	270	70	22	33*
432	06S.06E.09.334	03-03-55	IPu	818	7.7	--	400	120	24	31*
713	06S.06E.16.411	03-17-55	IPu	677	7.8	10.0	340	93	25	22*
714	06S.06E.20.412*	03-04-55	IPu	625	--	3.5	330	110	12	8.0
433	06S.06E.20.441*	03-04-55	IPu	570	7.5	5.5	280	90	13	17*
715	06S.06E.24.424	02-25-54	Py or Pa	2,260	--	--	220	30	36	430*
434	06S.06E.26.333	03-08-55	Pb	1,310	7.8	15.5	480	72	74	100*
435	06S.06E.31.223*	03-02-55	IPu	650	7.7	7.0	350	130	7.6	3.4*
716	06S.06E.34.224	05-07-57	Pb	1,410	8.8	--	56	10	7.6	330
436	06S.08E.33.241	07-31-82	Py	3,190	7.0	22.5	2,100	560	160	93
717	07S.08W.28.141	08-31-79	Qu?	200	7.8	--	84	28	3.4	10*
439	07S.08W.04.342	03-30-79	Td, Tv	250	7.9	16.0	100	34	4.1	14
445	07S.04W.27.432	08-07-80	Tv	520	7.9	23.0	160	51	7.3	46
449	07S.03W.08.121	07-17-80	QTs	320	8.4	26.0	57	20	1.8	55
451	07S.02W.10.341	09-04-80	Qu	210	8.3	25.0	56	20	1.4	28
718	07S.01W.18.200	10-02-52	Qu	1,480	--	21.0	260	85	11	200
453	07S.01W.18.140	07-18-80	QTs	825	7.8	22.0	94	31	4.1	130
454	07S.01E.02.334	09-26-56	QTs	3,150	7.3	21.5	790	--	--	480*
456	07S.01E.27.214	08-14-56	QTs	2,800	6.6	23.5	1,200	280	120	270*
719	07S.02E.16.133	07-04-56	Qu	4,260	7.8	--	2,000	--	--	480
458	07S.03E.04.231	03-29-55	Qu	4,400	7.5	21.0	3,300	--	--	--
460	07S.03E.36.333	03-01-55	Qu	3,090	--	--	940	--	--	--
461	07S.04E.23.312	05-20-55	Qu	3,480	7.1	19.0	2,000	--	--	--
720	07S.04E.33.434	06-02-55	Qu	3,370	7.7	18.5	2,100	--	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
230	0	240	56	1.4	35	690	0.05	370	110
260	0	340	160	--	--	--	--	--	--
200	0	1,800	130	--	--	3,020	--	--	--
58	0	2,100	44	1.0	37	3,100	1.6	--	--
140	0	220	24	1.6	--	500	3.6	--	--
110	0	240	19	1.8	25	510	2.5	--	--
64	0	900	39	--	--	--	--	--	--
140	0	3,300	36	--	--	4,500	.05	--	--
84	0	870	85	--	--	1,560	--	--	--
51	0	2,200	42	.90	32	3,100	1.9	--	--
64	0	2,100	100	--	--	--	--	--	--
180	9	110	33	1.0	27	410	3.8	--	--
440	0	83	17	.20	24	520	.36	--	--
360	0	69	12	.60	20	420	.27	--	--
340	0	50	11	.20	20	410	2.2	--	--
310	0	40	14	.20	5.9	340	.02	--	--
290	45	400	300	2.3	7.1	1,400	.16	--	--
410	0	160	56	.20	11	830	36	--	--
340	0	39	9.0	.20	13	420	.06	--	--
620	33	120	52	2.6	7.2	870	.05	--	--
--	--	2,000	93	1.6	20	3,000	.99	370	390
--	--	11	3.0	.20	40	140	.84*	30	80
140	0	5.5	4.0	.20	49	180	.48*	30	<10
160	--	68	39	.40	46	340	.56*	110	20
130	--	32	18	1.7	43	240	.68*	120	<10
--	--	12	5.0	1.1	29	150	.43*	10	20
130	0	180	290	.70	32	870	.27	--	--
220	--	110	70	.90	33	490	.75*	230	20
200	0	1,500	81	--	--	--	2.5	--	--
160	0	1,500	41	--	--	--	.00	--	--
100	0	2,600	73	--	--	--	.92	--	--
100	0	3,200	40	--	--	4,720	--	--	--
96	0	1,800	79	--	--	2,840	--	--	--
32	0	2,300	32	--	--	3,520	--	--	--
43	0	2,200	35	--	--	3,310	--	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
463	07S.06E.29.414*	03-30-55	lPu	451	7.5	9.5	220	71	11	60*
464	07S.07E.09.222	02-25-54	Py	2,430	--	--	830	180	93	320*
465	07S.07E.15.421*	02-25-54	Pa	3,300	--	--	2,300	480	280	58*
721	07S.07E.18.444	07-18-55	Pb	1,410	8.2	--	35	7.5	4.0	330*
467	07S.08E.08.412	09-13-56	Py	3,350	7.5	--	2,500	640	210	10*
722	07S.08E.14.323	08-04-82	Py	4,280	7.4	23.0	2,200	530	210	360
723	07S.08E.22.223	11-22-56	Py?	3,370	7.3	--	2,000	--	--	140
724	07S.08E.29.144	06-24-55	Py	2,110	7.8	20.0	960	--	--	--
725	07S.08E.34.322	11-22-56	Py	3,720	8.1	--	2,600	--	--	56*
726	08S.07W.31.300*	12-13-63	Qu	899	7.0	28.0	120	44	1.5	150
727	08S.07W.31.244*	07-02-80	QTs	920	7.9	27.0	110	43	1.5	160
482	08S.07W.31.233*	07-02-80	QTs	825	8.2	27.0	110	42	1.5	140
728	08S.07W.31.144*	07-02-80	QTs	755	8.3	27.0	95	36	1.2	120
487	08S.05W.33.400	07-31-61	Tv?	95	7.0	--	27	--	--	9.0*
488	08S.04W.35.113	07-23-80	QTs	395	7.8	24.0	170	40	16	30
489	08S.04W.33.321	07-23-80	Tv	305	8.0	24.5	77	20	6.6	43
490	08S.04W.31.441	07-23-80	Tv	134	7.4	24.5	46	14	2.8	11
491	08S.04W.09.321	08-07-80	Tv	400	7.1	21.0	160	48	9.7	28
494	08S.03W.02.331	07-17-80	QTs	345	9.4	21.0	80	27	3.0	51
498	08S.01E.25.421	10-28-59	QTs	4,400	7.8	--	2,900	540	370	230
499	08S.02E.17.224	02-09-55	Qu	4,320	--	21.0	3,000	--	--	--
729	08S.02E.25.400	06-19-61	Qu?	5,330	7.5	--	--	--	--	--
730	08S.04E.10.334	05-31-55	Qu	4,060	7.7	19.0	2,000	--	--	--
731	08S.04E.12.444	08-15-31	Qu?	4,090	8.2	--	2,000	490	180	340
504	08S.05E.32.334	07-02-65	Qu	974	8.0	24.5	290	80	22	110
505	08S.05E.32.431	05-09-57	Qu	944	7.5	21.0	460	120	38	34
515	09S.08W.08.223	04-11-79	Td	290	7.5	17.0	120	40	5.2	20
516	09S.08W.03.213	04-12-79	--	700	8.0	14.0	--	--	--	--
732	09S.08W.03.142	10-28-82	Qu?	730	7.5	14.0	180	59	7.7	79
521	09S.07W.06.423*	10-28-82	Td	1,100	7.1	15.0	540	140	46	41
522	09S.06W.36.141	08-09-80	Td?	590	7.4	18.0	240	73	13	36
523	09S.04W.03.421*	03-28-80	Qu?	360	7.9	11.5	150	48	7.7	18
524	09S.03W.20.232	07-23-80	QTs	264	7.8	24.0	110	37	3.4	12
526	09S.01W.23.311	08-14-56	QTs	3,980	7.4	24.5	2,100	480	220	290*
733	09S.01E.35.200	06-26-61	Qu	3,790	7.3	--	1,700	350	210	360

Table 2.--Water-quality analyses from wells and springs in Socorro County - Continued

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
170	0	--	14	0.40	21	450	5.0	--	--
280	14	1,100	86	1.0	16	2,000	.43	--	--
160	0	2,200	45	1.0	20	3,100	.02	--	--
480	0	200	85	7.0	13	880	.11	--	--
230	0	2,000	94	1.8	16	3,100	.54	--	--
--	--	2,600	110	2.0	17	3,900	<.10*	2,400	370
44	0	2,000	120	1.0	3.8	--	2.9	--	--
390	0	680	96	--	--	--	--	--	--
100	0	2,200	80	1.8	15	--	59	--	--
130	0	98	150	3.1	42	540	--	0	--
--	--	95	150	3.9	40	560	.34*	90	<10
--	--	94	140	1.5	40	530	.35*	100	<10
--	--	90	110	--	38	470	.39*	110	<10
30	0	14	3.6	.30	22	--	.50	--	--
160	--	77	7.3	1.7	23	270	.90*	40	20
150	--	21	6.6	--	46	220	.62*	40	10
67	--	7.1	4.8	.70	38	110	.08*	20	320
180	--	32	15	.90	44	270	2.5 *	80	20
120	8	26	34	1.1	39	260	.43*	30	<10
99	0	3,100	61	1.3	61	4,400	2.1	700	--
110	0	3,100	26	--	--	--	--	--	--
94	0	--	81	--	--	6,060	--	--	--
40	0	2,500	120	--	--	3,930	--	--	--
--	--	2,500	120	1.3	12	3,700	11 *	780	70
240	0	280	28	.70	17	650	.11	--	--
160	0	300	48	1.0	28	650	1.7	--	--
150	0	19	5.5	.20	29	190	1.8 *	60	40
120	0	39	130	--	--	--	--	--	--
--	--	40	140	.20	26	410	8.6 *	--	110
--	--	320	10	1.2	31	770	<.10*	--	130
270	--	67	12	.40	39	370	1.2 *	40	<10
--	--	25	4.7	1.0	40	230	.04*	10	<10
160	--	11	5.3	.60	35	180	1.4 *	0	30
98	0	2,300	180	.50	30	3,600	.34	--	--
120	0	1,900	240	2.0	32	3,200	5.4	--	--

Table 2.--Water-quality analyses from wells and springs in Socorro County - Concluded

Site number	Location number	Date of collection	Principal water-bearing unit	Specific conductance (uS/cm)	pH	Temperature (°C)	Hardness as $CaCO_3$ (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)
734	09S.02E.19.300	03-26-62	Qu	4,490	8.0	--	3,200	--	--	140*
735	09S.02E.20.200	06-19-61	Qu?	9,690	7.0	--	5,800	520	1,100	--
736	09S.04E.04.134	09-13-45	Qu	503	--	--	2,000	470	200	640*
737	09S.05E.15.143	06-25-58	Pb	659	7.5	--	290	74	26	34*

Table 2.--Water-quality analyses from wells and springs in Socorro County - Concluded

Bicarbonate as HCO_3 (mg/L)	Carbonate as $CaCO_3$ (mg/L)	Sulfate (mg/L)	Chloride mg/L	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids (mg/L)	Nitrate, dissolved as N (mg/L)	Boron, dissolved (ug/L)	Iron, dissolved (ug/L)
110	0	3,200	34	0.90	18	--	2.5	--	--
160	0	7,300	140	--	--	--	--	--	--
82	0	3,200	32	.50	11	4,600	.00	--	30
290	0	84	11	.40	20	420	5.9	--	--

Table 3.--Location of wells and springs with water temperatures equal to or greater than 25 degrees Celsius

[°C, degrees Celsius; principal water-bearing unit, see table 1 for explanation; uS/cm, microsiemens per centimeter at 25 degrees Celsius; mg/L, milligrams per liter; -- indicates no data]

Site number	Location	Depth of well (feet)	Temperature (°C)	Principal water-bearing unit	Specific conductance (uS/cm)	Potassium (mg/L)	Chloride (mg/L)
567	01S.03W.30.213	--	25.0	Tv	503	2.3	16
237	02S.01E.27.243	Spring	25.0	IPu	1,500	5.6	39
241	02S.02E.05.223	Spring	30.0	Py?	4,000	12	68
187	02S.07W.27.444	275	36.0	Qu	430	1.7	24
653	03S.01W.12.332	--	25.0	--	404	3.1	15
305	03S.01W.16.323	300	32.0	Tv?	380	3.0	13
644	03S.01W.22.111	--	33.0	--	--	--	13
643	03S.01W.22.112	Spring	32.5	QTs	352	3.2	13
642	03S.01W.22.113	Spring	30.5	Tv?	340	3.3	15
641	03S.01W.22.131	Spring	30.0	Tv?	331	3.0	13
4	04N.06W.32.214	750	26.0	Ps	3,500	23	140
387	05S.01E.36.442	323	26.5	Qu	6,740	--	1,100
415	06S.01E.07.213	100	33.0	Qu	4,600	31	980
418	06S.01E.09.333	32.65	26.5	Qu	6,560	--	--
422	06S.02E.04.144	700	28.5	Tb, Td, QTs	771	--	24
711	06S.02E.04.333	--	25.0	Tb, Td, QTs	707	--	19
423	06S.02E.10.141	454	25.5	Tb	2,010	--	39
426	06S.03E.05.232	750	26.5	Qu	3,430	--	42
427	06S.03E.05.234	720	25.0	QTs?	3,800	--	--
403	06S.08W.08.432	770	35.0	Td, Tv	2,100	29	280
451	07S.02W.10.341	352	25.0	Qu	210	2.0	5
449	07S.03W.08.121	--	26.0	QTs	320	2.3	18
728	08S.07W.31.144	Spring	27.0	QTs	755	5.2	110
482	08S.07W.31.233	Spring	27.0	QTs	825	5.7	140
727	08S.07W.31.244	Spring	27.0	QTs	920	5.6	150
726	08S.07W.31.300	Spring	28.0	Qu	899	6.0	150

Table 4.--Ground- and surface-water use by categories in Socorro County for 1975, 1980, and 1985

Year	Agriculture	Fish and wildlife, recreation	Urban and rural	Commercial and minerals	Total
			Ground-water withdrawal, in acre-feet		
1975	31,543	6,622	1,720	138	40,023
1980	28,450	1,286	2,902	173	32,811
1985	15,998	479	2,318	928	19,723
			Surface-water withdrawal, in acre-feet		
1975	93,162	5,124	0	0	98,286
1980	101,880	6,734	0	0	108,614
1985	80,673	9,108	0	0	89,781

Source: 1975 and 1980 data from Sorensen (1977 and 1982); 1985 data from Wilson (1986).