

SELECTED GROUND-WATER DATA, AND RESULTS OF AQUIFER TESTS FOR THE UPPER FLORIDAN AQUIFER, BRUNSWICK, GLYNN COUNTY, GEORGIA, AREA

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CONVERSION FACTORS AND VERTICAL DATUM

CONVERSION FACTORS

Factors for converting inch-pound units to the International System (SI) of units are given below:

<u><i>Multiply</i></u>	<u><i>by</i></u>	<u><i>To obtain</i></u>
<u>Length</u>		
inch (in.)	25.40	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
<u>Area</u>		
square mile (mi ²)	2.590	square kilometer
<u>Volume</u>		
gallon (gal)	3.785×10 ⁻³	cubic meter
	3.785	liter
<u>Flow</u>		
gallon per minute (gal/min)	6.309×10 ⁻⁵	cubic meter per second
	0.06309	liter per second
million gallons per day (Mgal/d)	0.04381	cubic meters per second
	43.81	liter per second
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second
<u>Transmissivity</u>		
foot squared per day (ft ² /d)	0.09290	meter squared per day
<u>Hydraulic conductivity</u>		
foot per day (ft/d)	0.3048	meter per day
<u>Leakance</u>		
gallon per day per cubic foot [(gal/d)/ft ³]	0.1337	meter per day per meter
foot per day per foot [(ft/d)/ft] or, in reduced form (day ⁻¹)	1.000	meter per day per meter

VERTICAL DATUM

In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD 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.

SELECTED GROUND-WATER DATA AND RESULTS OF AQUIFER TESTS FOR THE UPPER FLORIDAN AQUIFER, BRUNSWICK, GLYNN COUNTY, GEORGIA, AREA

By L. Elliott Jones and Morris L. Maslia

ABSTRACT

Ground water in the Brunswick, Glynn County, Georgia, area has been the topic of a number of studies since wells were first used as a source of fresh-water supply more than one hundred years ago. Ground-water withdrawal has resulted in a decline in ground-water levels of more than 50 ft in wells open to the Upper Floridan aquifer near centers of pumping in Brunswick. Chloride contamination of the Upper Floridan aquifer in the Brunswick area as a result of pumping has been documented since the early 1960's. By the middle 1980's, chloride contamination had broadened so that within a five-square-mile area in Brunswick, water pumped from this aquifer had a chloride concentration exceeding 250 milligrams per liter (mg/L), and some wells within that area yield water having a chloride concentration exceeding 2,000 mg/L.

The U.S. Geological Survey (USGS) has collected and maintains an extensive record of data relating to ground-water conditions in the Upper Floridan aquifer in the area. The data were collected as part of various studies in the Glynn County area, and exist in several forms, including, but not limited to: well-location and construction information; geophysical logs; water levels; and chloride concentration. In this report, well locations and available construction information are tabulated for 758 wells in Brantley, Camden, Glynn, McIntosh, and Wayne Counties, Ga. The altitude of characteristic markers on natural-gamma geophysical logs are tabulated for area wells that have been logged. Ground-water level in wells and chloride concentration in ground water change over time; and thus, long-term records of water levels and chloride concentration are plotted for representative wells to illustrate trends. For several historical time periods, all available water-level and chloride-concentration data are tabulated for wells in the area. These data can be used to estimate regional ground-water conditions over time.

In 1978, a 2,720-foot-deep well was drilled on Colonel's Island in southern Glynn County to identify the source of saltwater intrusion into the Upper Floridan aquifer and monitor water quality with depth. The relation between chloride concentration in ground water and the depth of the sampling point is plotted for the Colonel's Island well.

Aquifer properties of the Upper Floridan aquifer were determined from analyses of short-term declines in water levels after increases in pumping rates. Results of these analyses are summarized herein.

INTRODUCTION

Saltwater is intruding into the Upper Floridan aquifer in the Brunswick area due to the lowering of the potentiometric surface as a result of ground-water withdrawal (Wait, 1965; Gregg and Zimmerman, 1974; Krause and Randolph, 1989; Maslia and Prowell, 1990). The Upper Floridan aquifer is the principal source of water supply in the area. Understanding the relations between ground-water withdrawal, lowering of the potentiometric surface, and movement of saltwater is necessary to effectively manage ground-water resources.

In the late 1950s, the U.S. Geological Survey (USGS) entered a cooperative agreement with the city of Brunswick, and Glynn County, Ga., to provide information on the Upper Floridan aquifer in the area. This information could be used to mitigate or reduce saltwater intrusion and to evaluate other ground-water and surface-water sources to determine their suitability for future water supply. As part of this agreement, the USGS has inventoried a large number of wells in the area; conducted numerous borehole soundings to provide geophysical information; constructed new and modified old wells to create a monitoring network; installed automatic recorders to monitor water levels continuously; periodically measured water levels in selected wells to characterize the potentiometric surface and its variation over time; and sampled water in selected wells to determine the change in ground-water quality over time.

In 1978, a deep test well was drilled on Colonel's Island, southwest of the city of Brunswick. One of the primary objectives of the test drilling was to define the source of saltwater that was contaminating the Upper Floridan and underlying aquifers. The test well was drilled to a depth of approximately 2,720 ft, and penetrated the entire thickness of Tertiary sediments.

Purpose and Scope

The purpose of this report is to present selected ground-water data and aquifer properties of the Upper Floridan aquifer in the Brunswick, Glynn County, Ga., area. Although much of the data herein have been included in one form or another in other publications, a primary intent of this report is to present hydrologic data and conditions over time. Additionally, having the data, without interpretation, as the topic of a report allows a thorough discussion of their origins, reliability, accuracy, and limitations, which often is lacking. An appreciation of these points is critical for proper data interpretation. Information in this report can serve as a foundation for future interpretive studies of ground-water hydrology in the area.

Data presented chiefly are from the Upper Floridan aquifer, the primary aquifer used in the Brunswick area and the aquifer in which chloride contamination has occurred. To fully characterize the aquifer in that area, however, data from wells open to water-bearing units above and below the Upper Floridan aquifer are presented. Also, data from wells throughout Glynn County and the adjoining counties are included to illustrate how hydrologic conditions in the Brunswick area relate to regional characteristics. If available, data tabulated for each well are: identification (well number and local name); location; date drilled; depths of the well and casing; land-surface altitude; and altitudes of two characteristic markers on natural-gamma geophysical logs. Periodic water-level data are tabulated for 11 time periods from 1939-90, and long-term records of water levels are plotted for representative wells. Chloride-concentration data are presented in three forms: a table of periodic data for seven time periods from 1962-90; plots of long-term (monthly to semiannual) records for select wells; and a plot with depth in the Colonels Island well. Analyses of aquifer tests, which resulted in estimates of aquifer properties that characterize the Upper Floridan aquifer, also are summarized herein.

Location of Study Area

The study area is in southeast Georgia in the Coastal Plain and includes Glynn County and most of bordering McIntosh, Wayne, Brantley, and Camden Counties (fig. 1). Tidal marshes cover much of the coastal counties (Camden, Glynn, and McIntosh), which include four barrier islands (Cumberland in Camden County, Jekyll and St. Simons in Glynn County, and Sapelo in McIntosh County). The five counties cover an area of about 2,579 mi² (Hodler and Schretter, 1986) and, in 1990, had a population of 134,740 (U.S. Bureau of Census, 1991) (table 1). In Glynn County, there are two principal urban areas, the city of Brunswick and the southern part of St. Simons Island.

Table 1. Area and population of study-area counties

County	Area (square miles) ¹	Population (1990) ²
Brantley	445	11,080
Camden	650	30,170
Glynn	412	62,500
McIntosh	425	8,630
Wayne	647	22,360
TOTAL	2,579	134,740

¹ Hodler and Schretter, 1986.

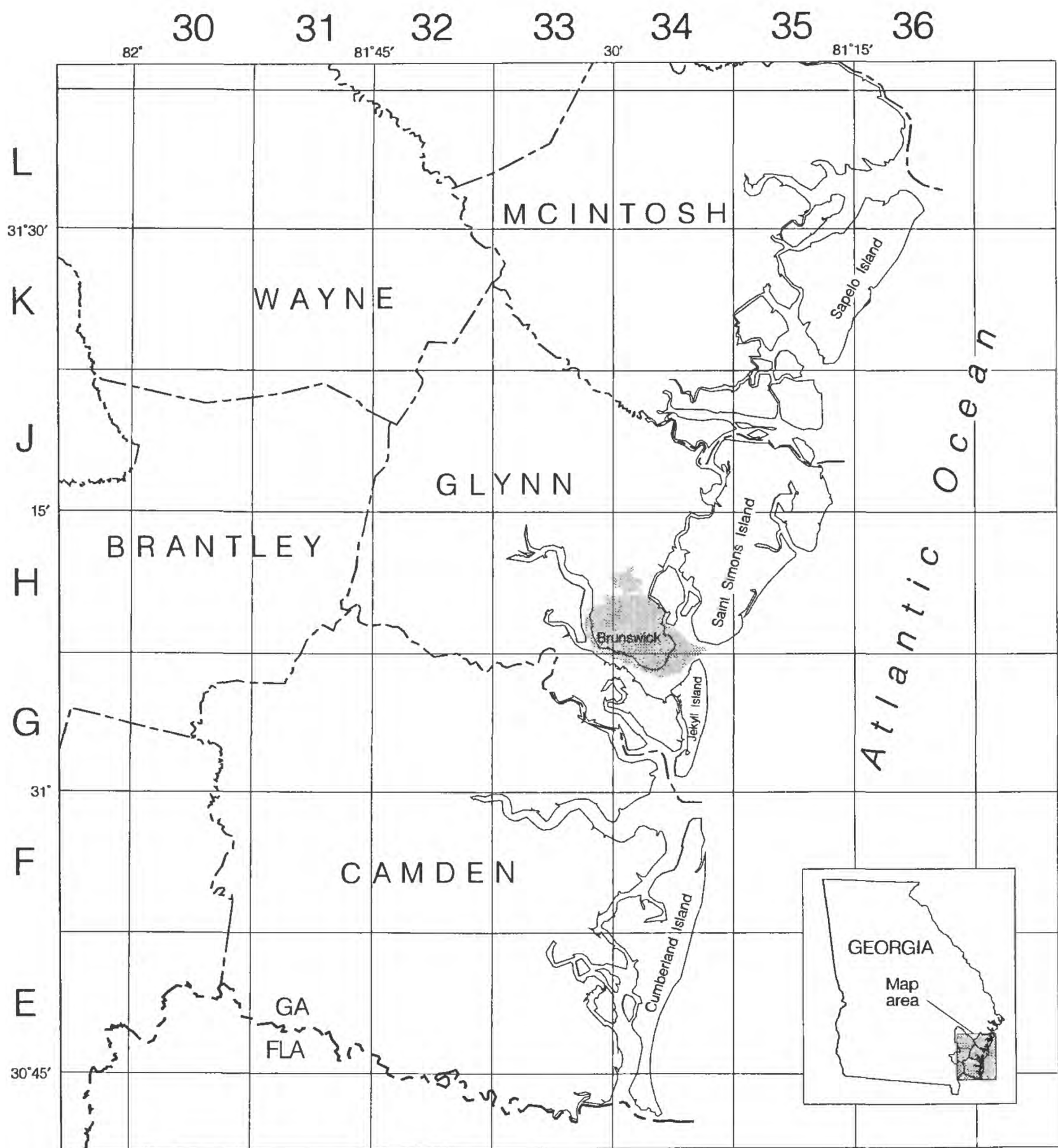
² U.S. Bureau of Census, 1991.

Previous Investigations

The first investigations of the ground-water resources of the Glynn County area were conducted by McCallie (1898, 1908) as part of regional studies. Construction data for municipal and privately owned supply wells were described by Stephenson and Veatch (1915). Warren (1944) presented maps of the potentiometric surface of aquifers in the Coastal Plain prior to development in 1880 and for 1942. Warren (1945) also presented an inventory of wells listing construction data, water levels, and well yields for the entire coastal area of Georgia. Wait (1962, 1965); Wait and Gregg (1973); and Gregg and Zimmerman (1974) presented water-level and water-chemistry data and investigated the occurrence of chloride contamination in the Brunswick area. Krause and others (1984) established an inventory of available wells that could be used for monitoring purposes and proposed sites for installation of additional monitoring wells in the coastal area. Since 1977, annual USGS ground-water data reports present continuous water-level data from observation wells and depict interpretations of periodic water-level and chloride-concentration data for most years in the form of potentiometric-surface and chloride-concentration maps (USGS, 1978; Clarke and others, 1979; Matthews and others, 1980, 1981, 1982; Stiles and Matthews, 1983; Clarke and others, 1984, 1985, 1986, 1987; Joiner and others, 1988, 1989; Peck and others, 1990; Milby and others, 1991; Peck and others, 1992; Peck and Cressler, 1993; and Joiner and Cressler, 1994).

Hydrogeologic Units

The unconfined surficial aquifer is in undifferentiated Pliocene- to Holocene-aged sand, gravel, clay, shells, limestone, and marl that extend from land surface to a depth of about 75 ft (Randolph and Krause, 1990) (fig. 2). Interbedded sand, clay, and limestone, and sandy, phosphatic limestone and marl of Miocene age (Hawthorn Formation) extend from about 75 to 505 ft. Two water-bearing zones (identified by Clarke and others (1991) as the upper and lower Brunswick aquifers) are in the Miocene-aged sediments.



Base from U.S. Geological Survey digital data, 1:100,000, 1981
 Universal Transverse Mercator projection, Zone 17

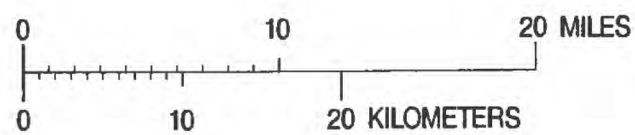


Figure 1. Location of study area and grid-numbering system.

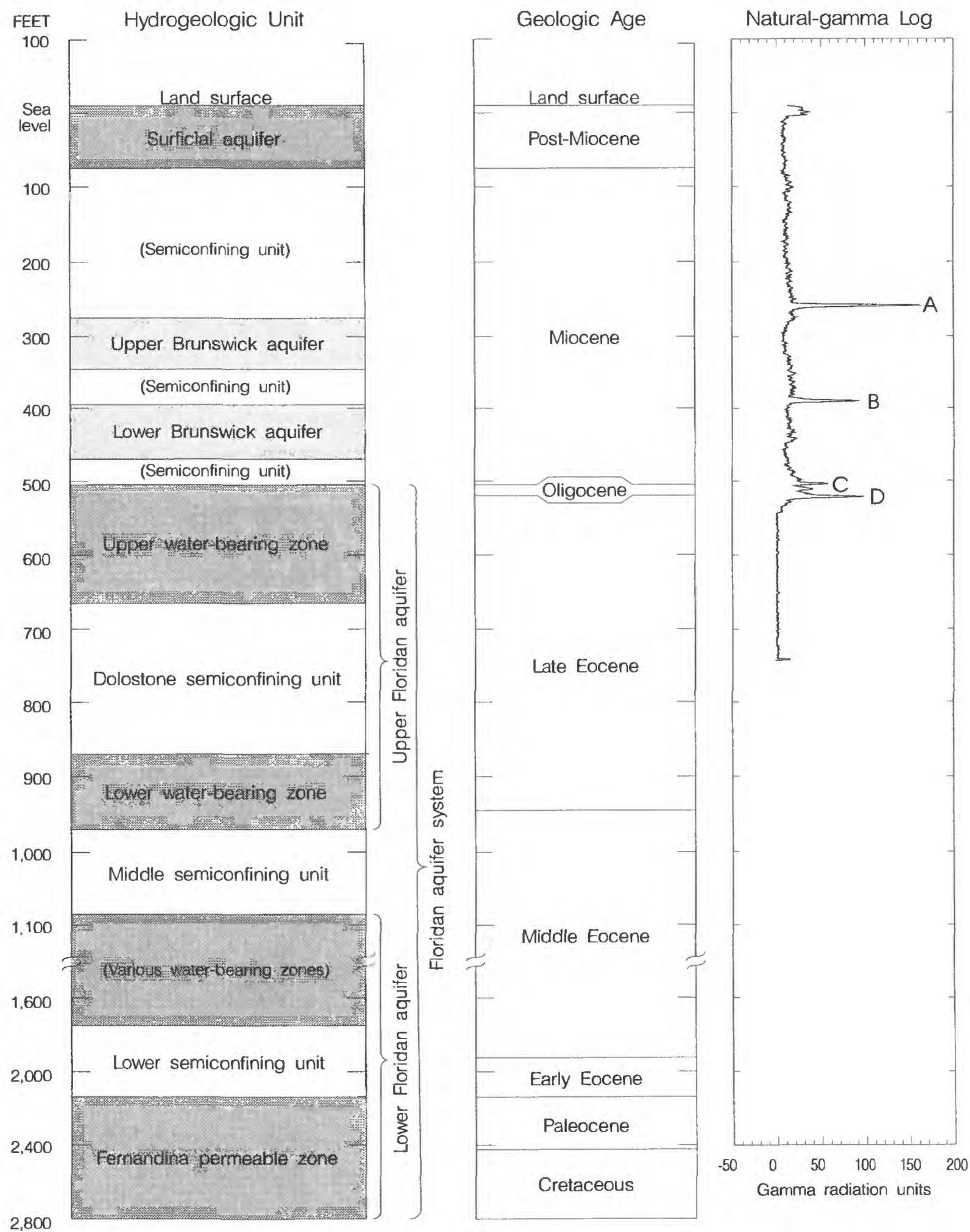


Figure 2. Relation between ground-water hydrology, geologic age, and a typical natural-gamma geophysical log (well 34H468) at Brunswick, Ga. (Modified from Maslia and Prowell, 1990; Randolph and Krause, 1990; and Clarke and others, 1990)

The Upper Floridan aquifer in the Brunswick area (fig. 2) extends from about 505 to 970 ft, and is in rocks ranging in age from the middle Eocene to the Oligocene (Maslia and Prowell, 1990). Limestone of Oligocene age (Suwannee Limestone) extends from about 505 to 520 ft; late Eocene-aged limestone and dolomite (Ocala Limestone) extends from about 520 to 945 ft; and middle Eocene-aged limestone interbedded with dolomite (Avon Park Formation) extends from about 945 to 1,930 ft. The upper water-bearing zone of the Upper Floridan aquifer is in the Oligocene-aged rocks and the uppermost part of the late Eocene-aged rocks (about 505 to 670 ft), and the lower water-bearing zone is in the lowermost part of the late Eocene-aged rocks and the uppermost part of the middle Eocene-aged rocks (about 870 to 970 ft). The upper and lower water-bearing zones of the Upper Floridan aquifer are separated by a dolostone semiconfining unit.

The Lower Floridan aquifer (fig. 2), including the Fernandina permeable zone, extends from about 1,090 to more than 2,700 ft (Randolph and Krause, 1990). It is in the lower part of the middle Eocene-aged rocks (Avon Park Formation), early Eocene-aged rocks (Oldsmar Formation), Paleocene-aged rocks (Cedar Keys Formation), and the latest Cretaceous-aged rocks (undifferentiated). The Fernandina permeable zone is separated from the upper part of the Lower Floridan aquifer by the lower semiconfining unit. The Upper and Lower Floridan aquifers are separated by the middle semiconfining unit.

Acknowledgements

The data and analyses described in this report were gathered and conducted by the USGS as part of a cooperative program between the USGS and the city of Brunswick and Glynn County, Ga. Some historical data (prior to the late 1950's) and data from outside Glynn County were collected in cooperation with the Georgia Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey. For assisting in data gathering, gratitude is extended to city, county, and industry officials, and the citizens of Brunswick and Brantley, Camden, Glynn, McIntosh, and Wayne Counties, Ga.

WELL INVENTORY

Well-Numbering System

The well-numbering system used in this report is based on the USGS 7 1/2-minute topographic maps. Georgia is divided into a grid of 7 1/2-minute quadrangles starting in the south and west at the point having lat 31°15'00"N., long 81°37'30"W. From that point, the quadrangles are numbered from 1 to 40 eastward and are lettered alphabetically northward. Quadrangles in the northern part of the State are

designated by double letters; "AA" follows "Z", and so forth. The letters "I", "O", "II", and "OO" are not used. Each 7 1/2-minute quadrangle thus is identified by the longitude and latitude grid lines along its southern and western sides. To identify a 7 1/2-minute quadrangle in the grid, read right (number), then up (letter). Grid numbering and lettering of quadrangles in Glynn County and adjoining counties are shown in figure 1. The wells within each 7 1/2-minute quadrangle are numbered sequentially in the order in which they were inventoried. The quadrangle-grid designation with the well numbering expressed in three digits constitute a well number. Thus, the first well inventoried in the quadrangle having grid designation 34H is assigned the well number 34H001.

Other numbering systems have been used in previous publications to identify wells in the Glynn County area. Consequently, many wells identified in this report have previously had other number designations. Warren (1944, 1945) numbered wells sequentially by county. In Wait (1962, 1965), each 10-minute quadrangle containing a portion of Glynn County is identified by a letter (A through J, omitting I), and wells within each lettered quadrangle are numbered sequentially. A table cross-referencing the well numbers used in this report to previous well numbers is provided in Wait and Gregg (1973, Appendix A).

Well-Site Data

Locations of wells in Glynn County and adjoining counties, for which geophysical, hydrologic, or water-chemistry data are presented in this report, are shown in figures 3 through 6. Well locations in the counties adjoining Glynn County (Brantley, Camden, McIntosh, and Wayne Counties) are in figure 3; Glynn County well locations, excluding those in the Brunswick and St. Simons Island areas, are in figure 4; and well locations in the Brunswick and St. Simons Island areas are in figures 5 and 6, respectively. The 758 wells shown are all located on USGS 7 1/2-minute quadrangle maps numbered 30 through 36 and lettered E through L.

Well numbers, well names, and latitudes and longitudes of wells in figures 3 through 6 are listed in table 2 (at the end of this report, p. 36-66) by county and well number. Well names are usually the owner's name, joint ownership is indicated by a slash, place names are separated by a comma, and other identifiers (locality description, former owner, and year of construction) are given in parentheses. Numbers and letters listed under "Well name" are owner designations. Latitudes and longitudes were estimated from USGS 7 1/2-minute topographic maps and Georgia Department of Transportation highway maps of each county. Estimates are considered accurate to within plus or minus five seconds, or within about $\pm 1,000$ ft in the study area.

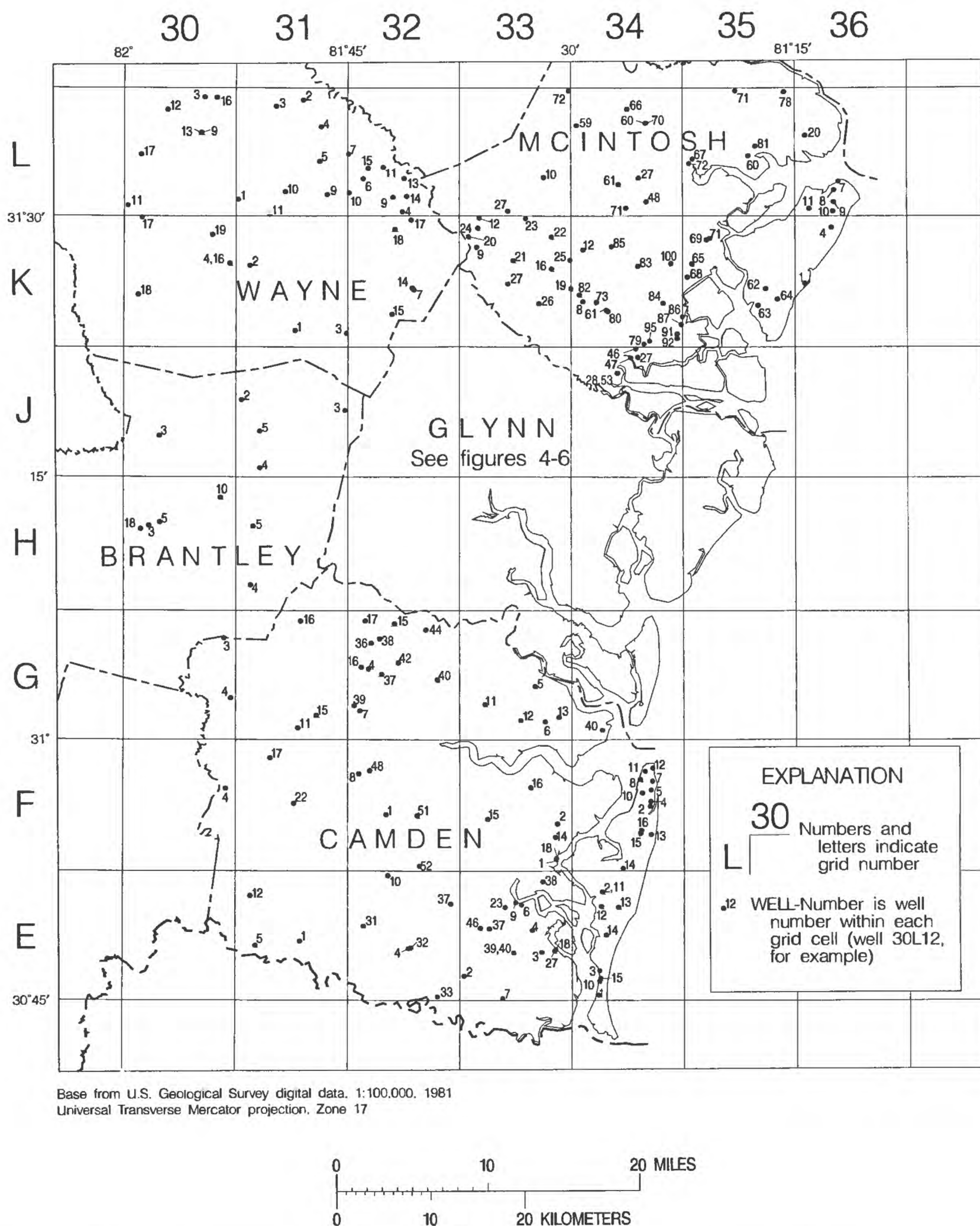


Figure 3. Well locations by grid in Brantley, Camden, McIntosh, and Wayne Counties, Ga.

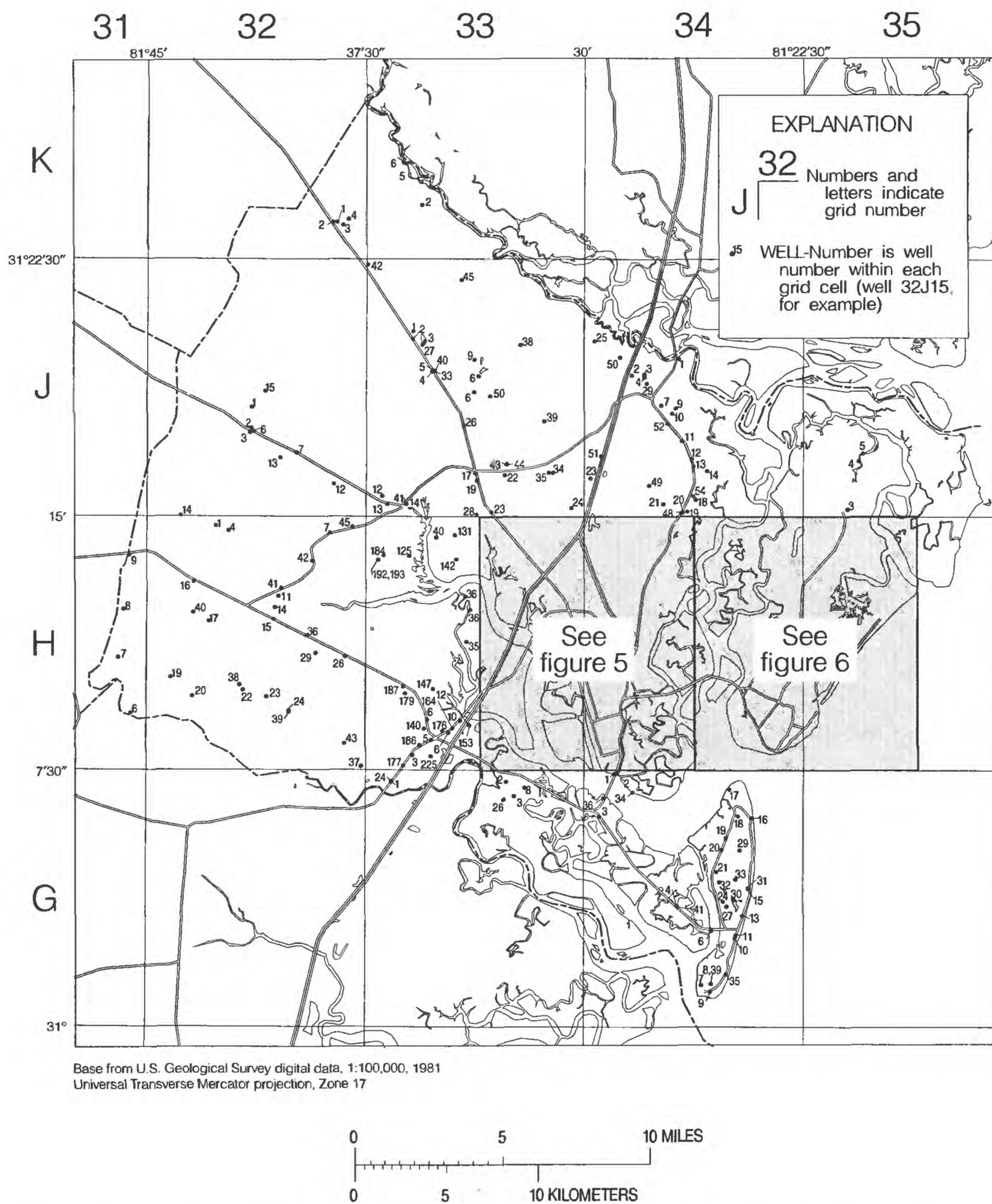


Figure 4. Well locations by grid in Glynn County, Ga., excluding the Brunswick and St. Simons Island areas.

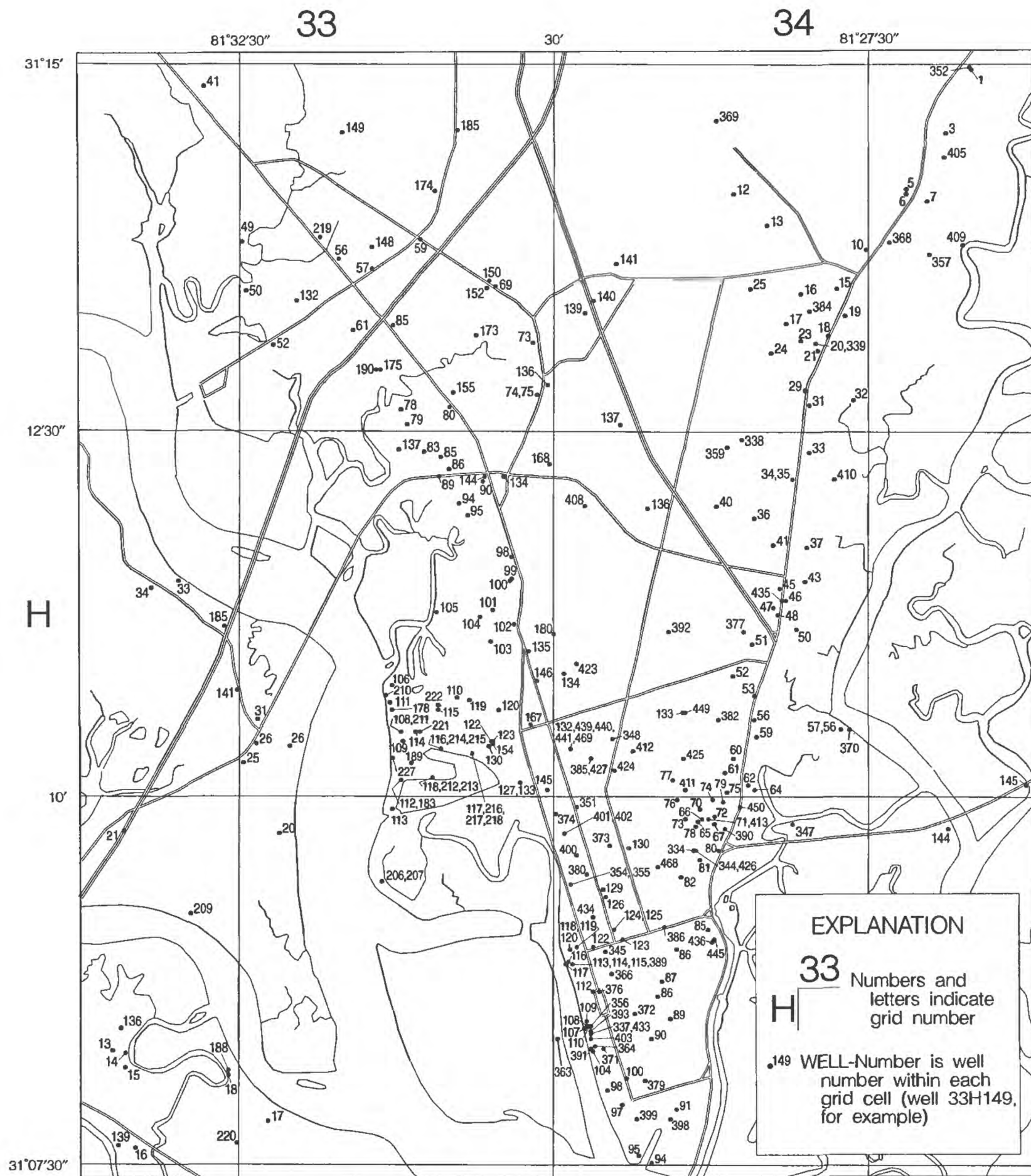


Figure 5. Well locations by grid in the Brunswick, Ga., area.

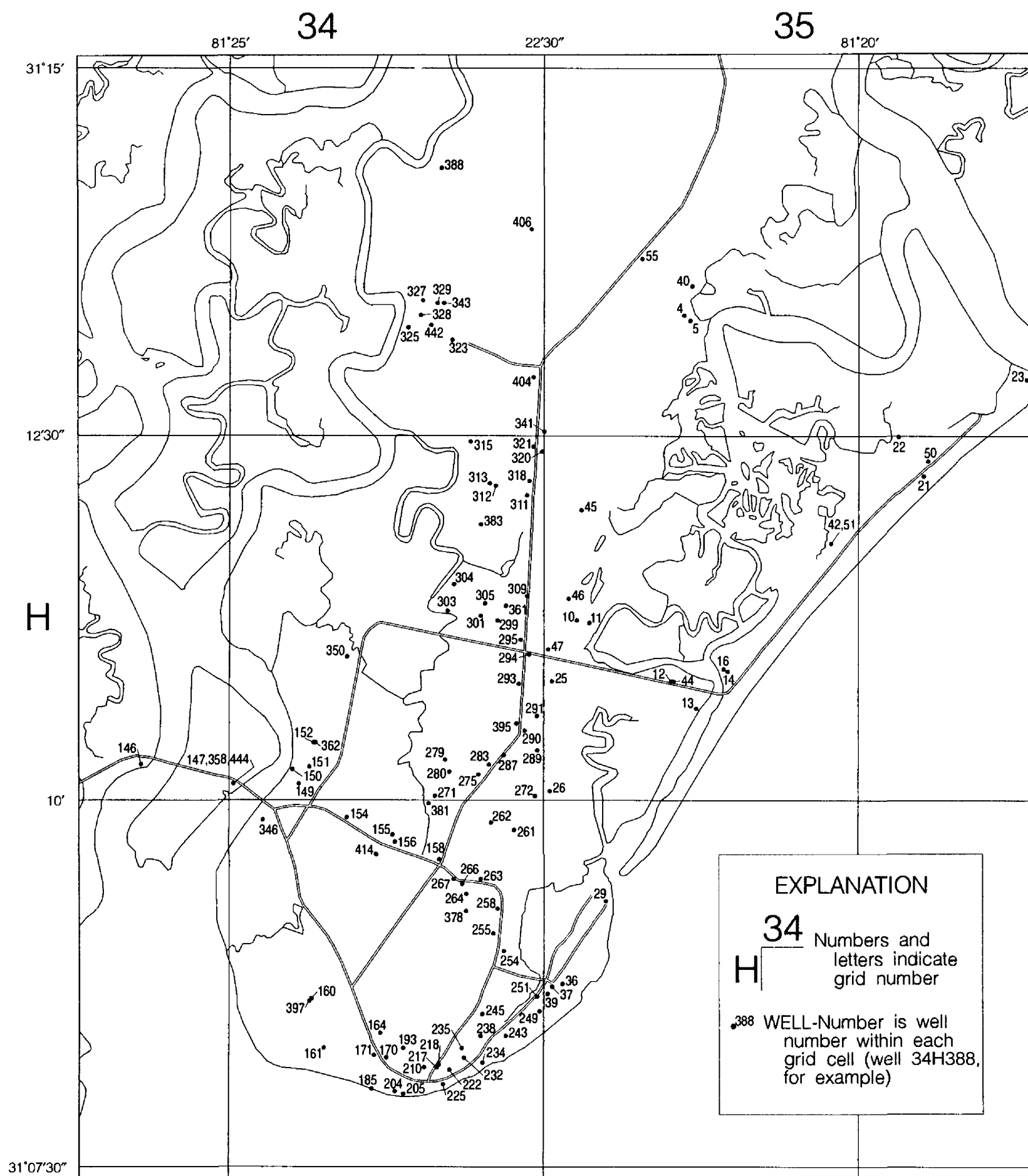


Figure 6. Well locations by grid in the St. Simons Island, Ga., area.

Construction data (dates drilled, casing and well depths) compiled from USGS records are given in table 2 (at the end of this report). Dates drilled were reported by the well owner or driller. Depths of casings and wells are values either reported by the owner or driller, or measured during USGS logging operations. Though some construction data are not available, the data given in table 2 are as complete and up-to-date as possible.

Altitudes of land surface at each well were estimated and are listed in table 2 (at the end of this report). Some land-surface altitudes were estimated by leveling (considered accurate to within ± 0.01 ft), and are reported in table 2 to the nearest 0.01 ft. All other land-surface altitudes, which are reported in table 2 to the nearest foot, were estimated by interpolation of topographic contours on USGS 7 1/2-minute quadrangle maps. These estimates generally are considered accurate to within one-half the contour interval (U.S. Geological Survey, 1975), which is 5 ft on quadrangle maps in the study area, or within ± 2.5 ft. However, estimation errors could be as much as five feet or more, considering the accuracy of the location on the quadrangle maps and the possibility of well-site alteration between the well-construction date and the map-publication date. Publication dates of the 41 quadrangle maps used in the estimation of land-surface altitudes all precede 1981 (only one has since been photo-revised), and 11 of the dates precede 1962. Uncertainty associated with the estimation of land-surface altitudes is transferred to any analyses of well data based on water-level measurements and geophysical logs, which depend on an estimation of the well's land-surface altitude. An accurate estimate of land-surface altitude at a well enhances the value of data measured and logged at that well.

The type of measured data presented in this report (geophysical, water-level, or chloride-concentration) is indicated for each well in table 2 (at the end of this report). Changes in well construction, possible errors in measured data, and other pertinent information are noted in table 2 under "Remarks."

NATURAL-GAMMA GEOPHYSICAL LOGS

In the Glynn County area, three units within the Miocene strata and one unit at the base of the Oligocene strata (at the contact with the Eocene limestone) typically are rich in radioactive elements (mainly phosphate minerals) and have characteristic expressions (spikes) on natural-gamma geophysical logs (Wait, 1962) (fig. 2). These contacts probably represent a depositional hiatus (unconformity) of considerable time, because such a hiatus in an open marine environment is commonly marked by a bed of radioactive phosphatic debris (Maslia and Prowell, 1990).

The deepest of these units, at the base of the Oligocene-aged strata, is identified with a "D" on the natural-gamma geophysical log in figure 2, and is referred to as the D marker. The altitudes of the D marker have been identified for a number of wells in the Glynn County area (Harold E. Gill, USGS, written commun., 1984), and are listed in table 2 (at the end of this report). Negative values indicate that the altitudes of the D markers are below sea level. The deepest Miocene-aged marker (labeled with a "C" in figure 2, and referred to as the C marker) is at or near the contact between Miocene strata and the underlying Oligocene limestone. The C marker, however, may be confused with the D marker (the Oligocene-Eocene contact) where the Oligocene section is thin. An intermediate B marker and an uppermost A marker (labeled "B" and "A", respectively, in figure 2) are thought to mark similar contacts. The B marker represents a layer that varies considerably in thickness (1 to 15 ft) and in radioactive intensity. The A marker, however, is characteristically thin (1 to 3 ft) and highly radioactive, producing a distinctive spike on natural-gamma geophysical logs. The altitudes of the A marker for wells in the Glynn County area have also been identified (Harold E. Gill, USGS, written commun., 1984), and are listed in table 2. Negative values indicate that the altitudes of the A markers are below sea level.

GROUND-WATER LEVELS

Fluctuations and long-term trends in ground-water levels can be observed in records of measured water levels. The USGS maintains records of water levels measured manually at varying frequency and automatically using continuous water-level recorders. Water-level data presented in this section are: (1) a table of water-level measurements for 11 selected time periods; (2) long-term hydrographs of manually measured water levels at select wells; and (3) graphs of monthly mean water levels at pairs of wells equipped with continuous recorders having one well open to the upper water-bearing zone and the other open to the lower water-bearing zone of the Upper Floridan aquifer. Short-term declines in water levels resulting from pumping increases can be used to determine aquifer properties, and several short-term water-level hydrographs are presented in the section "Aquifer-test results".

Few ground-water-level measurements are available in Glynn County before 1938. In the period from December 1938 to October 1939, the USGS inventoried hundreds of wells in Glynn County, and, as part of this survey, the water level in each well usually was measured using a pressure gage. Records indicate nearly all wells open to the Upper Floridan aquifer in the study area flowed at that time. Published (Meinzer and others, 1940; Warren, 1945) and unpublished

water-level measurements for that period are listed in table 3 (at the end of this report, p. 67-84) under the column "1939". Meinzer and others (1945) reported several water levels measured in Glynn County in July 1943. These water levels are included with other unpublished measurements in table 3. These early water-level data are limited to the accuracy of the pressure gages, which are delicate instruments that decrease in accuracy due to unavoidable jarring in field conditions and should be calibrated frequently (U.S. Geological Survey, 1980). Water levels measured using a pressure gage are accurate to within no less than 0.5 ft, and may be subject to errors of as much as several feet, depending on expertise and calibration frequency.

Manual water-level measurements (usually monthly) were made by the USGS at many wells in the study area beginning in the late 1950's and early 1960's. A monitoring-well network was established in the early 1960's and automatic water-level recorders were installed at some wells. Since the early 1960's, less frequent (usually annual or semiannual) manual measurement of water levels by the USGS has continued for a large number of wells in and around Glynn County to the present (1994). Manual water-level measurements were made using a variety of methods and devices. Water levels at flowing wells were measured using a pressure gage, a mercury manometer, or simply a vertically extended hose attached to the discharge point of the well. Water levels in wells that were not flowing were measured using a wetted steel tape. Although measurements made using pressure gages may not be accurate to within 0.5 ft, measurements made using a mercury manometer or an extended hose are considered accurate to within 0.1 ft, and measurements made using a wetted steel tape are considered accurate to within 0.01 ft (U.S. Geological Survey, 1980). Beginning in January 1958, and separated by two- to six-year intervals, nine time periods having a substantial number of water-level measurements were selected and the data are presented in table 3 (at the end of this report). A negative value in table 3 indicates a water level below sea level.

Hydrographs of water levels at six wells having a long period of record (fig. 7) illustrate long-term trends in water levels in the area. The wells are all open to the upper water-bearing zone of the Upper Floridan aquifer and are located in Glynn County away from the centers of pumping in northern Brunswick. Wells 32H001 and 32J002 are in western Glynn County; well 34G020 is on Jekyll Island; wells 34H205 and 34H328 are on St Simons Island; and well 34J009 is in northern Glynn County. Although water levels in wells open to the upper water-bearing zone of the Upper Floridan aquifer typically fluctuate more rapidly than the intervals between measurements, the measured points are connected by straight lines for visualization.

Wells equipped with automatic water-level recorders provide a more complete record of water-level fluctuations having measurement intervals that range from 15 minutes to an hour. Simple statistical computations can be performed on the recorded water levels allowing determination of an average condition for a chosen period. In figure 8, monthly mean water levels are shown for three pairs of adjacent wells equipped with recorders in Brunswick. One of the wells in each pair is open to the upper water-bearing zone of the Upper Floridan aquifer (on the left side in figure 8) and the other to the lower water-bearing zone of the Upper Floridan aquifer (on the right side in figure 8). These graphs are intended to illustrate short-term (seasonal) fluctuations in water levels and differences in water levels between the two water-bearing zones. Paired wells 33H133-33H127 are in northwestern Brunswick; paired wells 34H344-34H334 are in northeastern Brunswick; and paired wells 34H371-34H403 are in southern Brunswick.

CHLORIDE CONCENTRATION IN GROUND WATER

The occurrence and movement of saltwater in an aquifer can be indicated by the chloride concentration in ground water sampled from wells open to that aquifer. The USGS maintains a record of chloride concentration in ground water sampled periodically from wells in the Brunswick area since the 1960's. Water from most wells open to the Upper Floridan aquifer in Glynn County has a chloride concentration of about 20 milligrams per liter (mg/L). In this report, chloride-concentration data greater than 50 mg/L are considered elevated with respect to background conditions in the area. Chloride-concentration data presented in this section are (1) a table of chloride concentration in ground water for seven selected time periods; (2) plots of chloride concentration over time for wells having elevated chloride concentration; and (3) a table of wells yielding ground water having less than 50 mg/L chloride concentration. Also, a plot of chloride concentration in ground water and depth is given for the 2,720-foot-deep test well on Colonel's Island (well 33H188).

Beginning in the early 1960's and continuing to the present day (1994), chloride concentration was measured in water sampled periodically from a number of wells in the Glynn County area. Samples of water were collected from wells that were pumped sufficiently to remove at least two casing volumes. The source of the water is the entire open interval of the well (see table 2, at the end of this report). Prior to 1966, water samples were analyzed at the laboratories

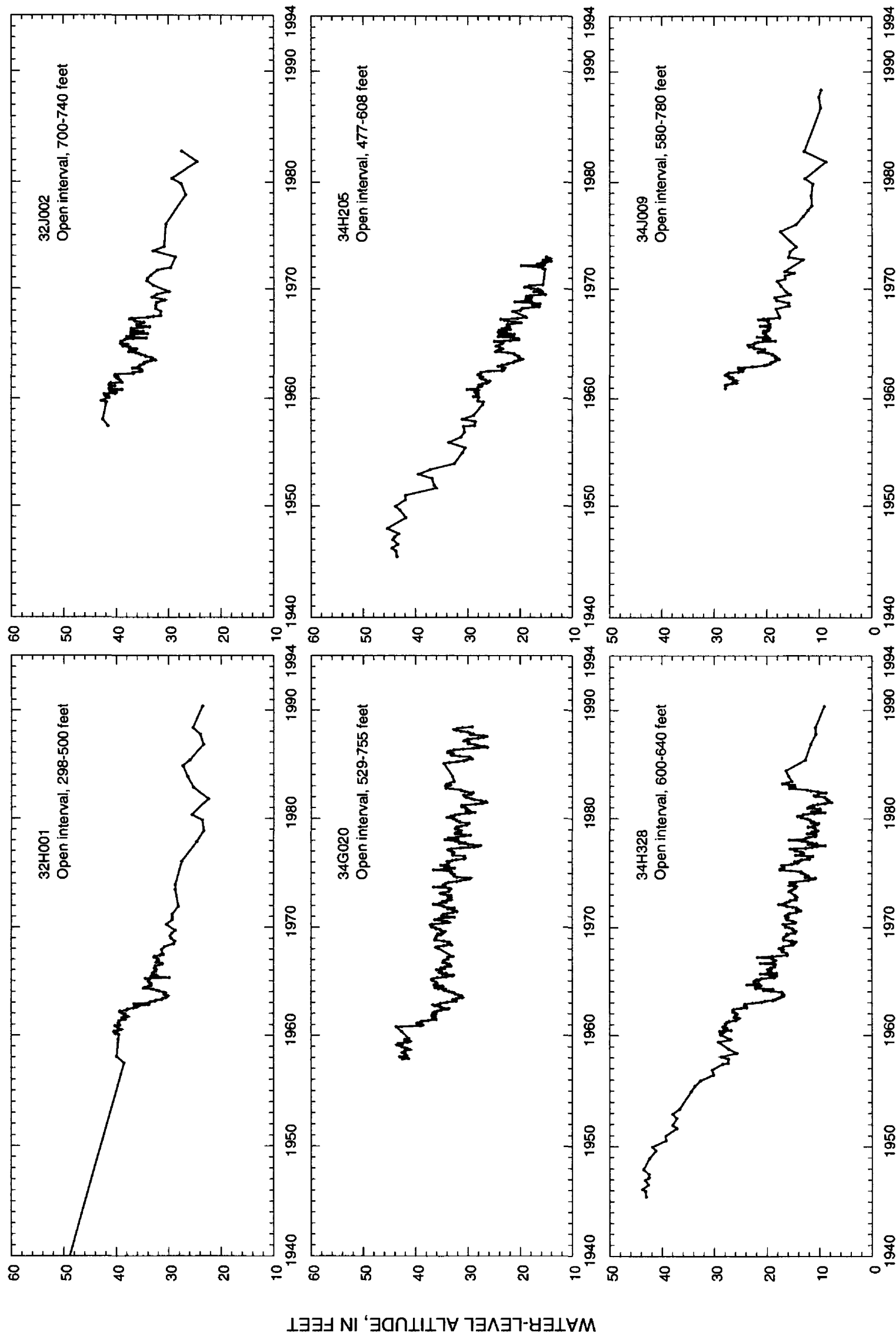


Figure 7. Long-term water-level fluctuations in observation wells 32H001, 32J002, 34G020, 34H328, 34H205, and 34J009, upper water-bearing zone of the Upper Floridan aquifer, Glynn County, Ga.

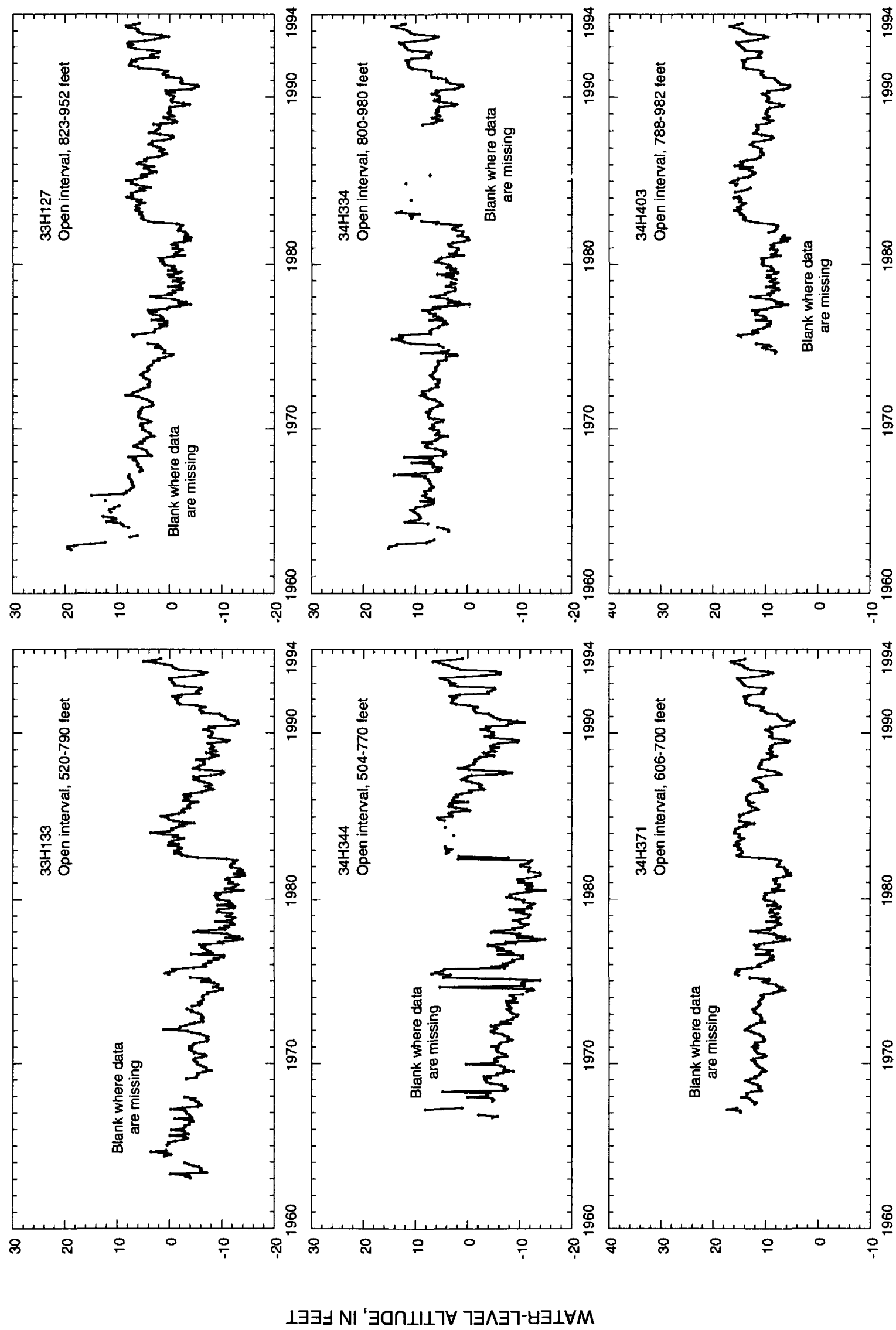


Figure 8. Monthly mean water levels in paired observation wells 33H133-33H127, 34H344-34H334, and 34H371-34H403, upper and lower water-bearing zones of the Upper Floridan aquifer, Brunswick, Ga.

of Hercules, Inc.,¹ (then Hercules Powder Company) in Brunswick. After 1966 but before 1983, chloride concentration was determined by the USGS using field titration with silver nitrate. Since 1983, all water samples were analyzed at the USGS laboratory in Ocala, Fla. Beginning in 1962 and separated by three- to six-year intervals, seven time periods were selected and chloride-concentration data are given for each period in table 4 (at the end of this report, p. 85-91).

Chloride-concentration data of water from wells in the Brunswick area were reviewed for elevated chloride concentration (more than 50 mg/L). Eighty-eight wells open to the Upper Floridan aquifer, and six wells open to zones below the Upper Floridan aquifer (more than 1,200 feet) had at least one elevated measurement. For each well in these two categories, chloride concentration over time is plotted in figures 9-23 and figure 24, respectively (at the end of this report, p. 92-107). Although chloride concentration may fluctuate in the intervals between sample-collection periods, measured points on these plots are connected by straight lines for visualization. Two wells, 33H108 and 33H117, had single elevated chloride measurements (70 mg/L in November, 1976;

and 91 mg/L in July, 1966, respectively) which were not plotted. Wells having a record of chloride concentration near background levels (less than 50 mg/L) are useful in delineating the maximum areal extent of elevated chloride concentration. Such wells in the Brunswick area are identified in table 5 along with the period of record and maximum recorded chloride concentration.

During the drilling of the 2,720-foot-deep test well on Colonel's Island (33H188), water discharging from the well bore was sampled every 5 to 10 ft below a depth of 645 ft. Chloride concentration in the water samples is plotted with depth in figure 25. These chloride-concentration data probably reflect the "weighted" quality of the water in the formation at the depths shown; however, water can enter the well bore over the entire open interval. In an inset in figure 25, chloride concentration for the depth interval 645-2,145 ft is plotted at an expanded horizontal scale to better illustrate its variability in this interval. A sharp rise in chloride concentration is evident in the interval 2,145-2,320 ft, indicating an interface between comparatively freshwater above and saltwater below. At 2,145 ft, the measured chloride concentration was 282 mg/L, at 2,150 ft, it increased to 2,716 mg/L, and at a depth of 2,320 ft, the chloride concentration reached 16,500 mg/L. Freshwater and saltwater probably are mixed in the depth interval 2,145-2,320 ft.

¹Any use of firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Table 5. Wells in the Brunswick, Ga., area having near-background chloride concentration

[Period refers to period of record; max. is the maximum chloride concentration for the period of record, mg/L is milligrams per liter]

Well	Period	max., in mg/L	Well	Period	max., in mg/L	Well	Period	max., in mg/L
33G005	11/84-5/90	41	33H178	4/81-10/93	23	34H097	6/66-10/93	21
33G006	11/84-5/90	41	33H179	11/84-5/90	21	34H130	4/90	20
33G008	3/67-10/93	25	33H180	4/75-3/83	24	34H133	3/81-10/89	33
33G026	11/84	28	33H183	4/81-10/93	25	34H134	3/81-10/93	37
33H013	11/84-5/90	23	33H190	5/90-10/93	23	34H160	3/81-3/83	24
33H016	3/81-3/83	22	33H193	5/90	19	34H204	11/84	15
33H038	11/84-5/90	21	33H207	2/83-10/93	26	34H344	3/64-10/93	34
33H101	2/76-5/89	28	33H209	11/84	19	34H358	11/84	18
33H102	12/75-4/93	30	33H210	3/83	18	34H368	4/75-11/84	32
33H103	8/75-10/93	28	33H211	4/85-10/93	21	34H371	10/66-10/93	33
33H104	10/75-10/93	30	33H220	11/85-4/86	31	34H372	7/68-10/93	28
33H105	10/75-10/93	28	34G004	11/84	21	34H381	11/84	16
33H111	11/75	20	34G016	10/62	16	34H383	11/84	25
33H112	11/75	42	34G017	9/74-10/88	24	34H392	3/81-5/90	22
33H119	7/66-3/83	27	34G041	5/90	26	34H410	11/84	26
33H135	6/66	24	34H012	4/93-10/93	28	34H436	1/84-10/93	31
33H139	11/84-5/90	19	34H025	3/81-10/88	30	34H442	11/85-5/90	26
33H141	11/66-10/88	24	34H062	4/81-3/83	40	34H444	5/90	18
33H164	11/84	18	34H085	6/66-4/86	30	34H445	10/88-4/93	17
33H173	8/81-3/83	28	34H091	7/67-5/88	45	34H449	5/90-10/93	23
33H175	4/75-11/84	36	34H095	3/83-10/93	30	34H450	11/90-10/93	18

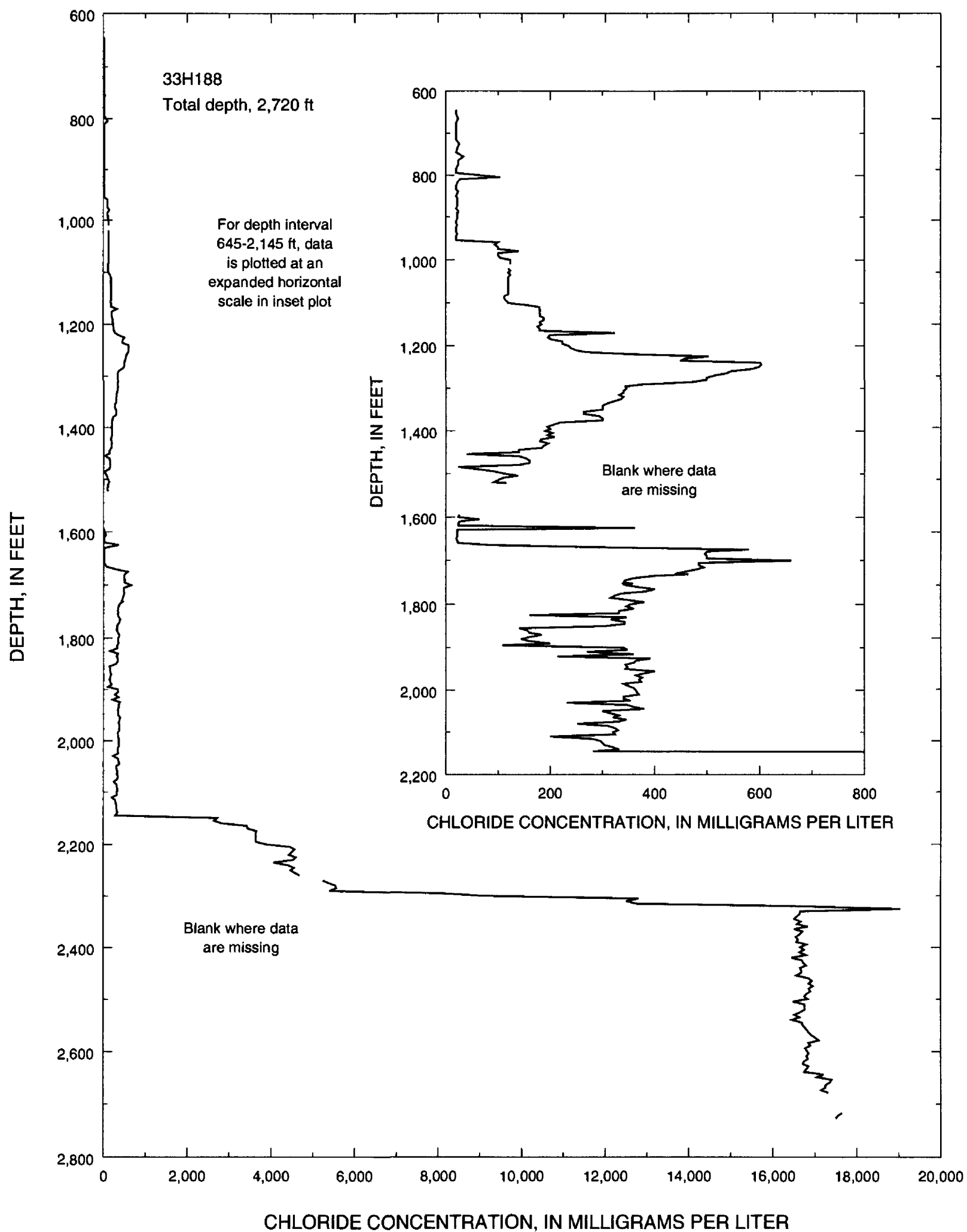


Figure 25. Chloride concentration with depth for the Colonel's Island test well (33H188), Glynn County, Ga. (Modified from Gill and Mitchell, 1979)

AQUIFER-TEST RESULTS

An aquifer test is a method of estimating aquifer properties from water-level observations in the vicinity of a pumped well. In this section, equations are presented for conducting aquifer-test analyses of confined and semiconfined aquifers. The physical dimensions of variables used in the equations are given in square brackets. Following the equation development, results of four aquifer tests conducted in the Brunswick, Glynn County, Ga., area are summarized. All results have been approved by the Director of the USGS, and are considered the best available estimates of properties of the Upper Floridan aquifer and adjoining semiconfining units in the area.

In an infinite, confined aquifer, increased pumping from a fully penetrating production well will cause the water level in a nearby observation well to decline at a characteristic rate. Bear (1979, p. 320) expresses water-level decline (drawdown) in an observation well, due to a time-varying pumping change, Q , in a production well, as:

$$s = \frac{1}{4\pi T} \int_0^t \frac{Q(\tau)}{t-\tau} \exp \left[-\frac{r^2 S}{4T(t-\tau)} \right] d\tau, \quad (1)$$

where,

- s is the drawdown [L] in the observation well,
- T is the aquifer transmissivity [$L^2 T^{-1}$],
- Q is the increase in pumping rate [$L^3 T^{-1}$] at the production well,
- S is the aquifer storage coefficient [dimensionless],
- r is the distance [L] from the production well to the observation well,
- t is the time [T] since pumping started, and
- τ is the variable of integration [T].

Theis (1935) gives the following solution for (1) when Q is constant:

$$s(r, t) = \frac{Q}{4\pi T} W(u), \quad (2)$$

where $W(u)$ is the well function [dimensionless] of $u = Sr^2/4Tt$ for a fully confined aquifer (Jacob, 1940). From equation (2), the transmissivity and storage coefficient are:

$$T = \frac{Q}{4\pi s} W(u), \quad (3)$$

and

$$S = \frac{4Tt}{r^2} u. \quad (4)$$

McElwee (1980) presents a technique and an algorithm to automatically fit experimental aquifer-test data to the Theis equation by obtaining the "best" T and S , in the least-squares sense, using sensitivity analysis. In this method, initial estimates of T and S are made. Then, the change in head that would be produced by a small change of either T (called ΔT) or S (called ΔS) is expressed as the product of the change in property value and a sensitivity coefficient (that is, $\Delta h_T = U_T \Delta T$ and $\Delta h_S = U_S \Delta S$, respectively). These sensitivity coefficients are obtained from equation (1) by applying Leibnitz's rule, and are written:

$$U_T = \frac{\partial s}{\partial T} = -\frac{s}{T} + \frac{Q}{4\pi T^2} \exp \left(-\frac{r^2 S}{4Tt} \right), \quad (5)$$

where,

U_T is the sensitivity coefficient [$L^{-1}T$] for aquifer transmissivity,

and

$$U_S = \frac{\partial s}{\partial S} = -\frac{Q}{4\pi TS} \exp \left(-\frac{r^2 S}{4Tt} \right). \quad (6)$$

where,

U_S is the sensitivity coefficient [L] for aquifer storage coefficient.

McElwee (1980) computes these sensitivity coefficients for each data point consisting of a time (t_m) and a measured drawdown (s_m). In addition, using equation (1), a theoretical drawdown (s_t) is determined for each time a measurement was taken. The original estimates of T and S then are changed by the quantities ΔT and ΔS , respectively, resulting in a better fit of the measured data. The changes are determined by:

$$\Delta T = \frac{SUTDIF - SUTUS \times \Delta S}{SSUT}, \quad (7)$$

and

$$\Delta S = \frac{SSUS \times SUSDIF - SUTUS \times SUTDIF}{SSUS \times SSUT - (SUTUS)^2}, \quad (8)$$

where,

$$SSUS = \sum_i U_S^2(t_i),$$

$$SSUT = \sum_i U_T^2(t_i),$$

$$SUTUS = \sum_i U_S(t_i) U_T(t_i),$$

$$SUSDIF = \sum_i U_S(t_i) [s_m(t_i) - s_t(t_i)], \text{ and}$$

$$SUTDIF = \sum_i U_T(t_i) [s_m(t_i) - s_t(t_i)].$$

Using ΔT and ΔS to update the previous estimates, McElwee (1980) repeats the process until the quantities ΔT and ΔS are insignificant, and the "best" T and S are obtained. To complete the automated Theis type-curve matching procedure, match point values t^* and s^* , corresponding to chosen values of $1/u^*$ and $W(u)^*$, are determined from equations (4) and (3), respectively, using the "best" T and S from the sensitivity analysis.

Most (semi)confining units have some finite permeability and allow some quantity of water to enter the aquifer. Considering this, Hantush and Jacob (1955) derived the following dimensionless equations for non-steady radial flow in an infinite, leaky (semiconfined) aquifer:

$$\frac{4\pi sT}{Q} = 2K_0(2v) - \int_{v^2/u}^{\infty} \frac{1}{y} \exp\left(-\frac{y-v^2}{y}\right) dy, \quad (9)$$

where,

$K_0(2v)$ is the modified, zero-order Bessel function of the second kind of $2v$ [dimensionless], and y is the variable of integration [dimensionless],

and,

$$v = \frac{r}{2} \sqrt{\frac{K'}{b'T}}, \quad (10)$$

where,

v is the parameter [dimensionless] associated with leakance on Hantush-Jacob leaky-aquifer type curves,

K' is the vertical hydraulic conductivity [LT^{-1}] of the semiconfining unit, and

b' is the thickness [L] of the semiconfining unit.

As described by Cooper (1963), if the right-hand side of equation (9) is represented by $L(u,v)$, equation (9) may be written:

$$T = \frac{Q}{4\pi s} L(u, v), \quad (11)$$

where,

$L(u,v)$ is the leakance function [dimensionless] of u and v .

Rearranging equations (4) and (10), leakance is expressed as:

$$\frac{K'}{b'} = 4T\left(\frac{v^2}{r^2}\right) = \frac{S(v^2/u)}{t}, \quad (12)$$

where,

K'/b' is the leakance [T^{-1}] of the semiconfining unit.

Using the match-point values (s^* , $L(u,v)^*$, t^* , u^* , and v^*) determined manually by Hantush-Jacob type-curve fitting of time-drawdown data for each observation well, and applying equations (11), (4), and (12), respectively, estimates of transmissivity, storage coefficient, and leakance can be determined for each observation well.

In addition to the uncertainty associated with the estimation of type-curve match points, whether the curve matching is performed manually or by an automated procedure, there also can be uncertainty in estimation of other parameters necessary for determining hydraulic properties. As noted in the "Well-site data" section, reported well coordinates (table 2) are accurate only to within plus or minus five seconds. Although most reported well locations probably are more accurate than the five-second tolerance, there could be substantial error in the estimation of distances between pumping and observation wells if latitudes and longitudes are used. Additionally, estimation of the magnitude of pumping changes may constitute another source of error in aquifer-test calculations. These estimates often are based on the rated capacity of the pumps; whereas, actual capacities of pumps in the field may differ markedly from their rated capacities.

December 1962 Aquifer Test

The test site is in northwestern Brunswick in the well field of Brunswick Pulp and Paper Company (BP&P, now a subsidiary of Georgia-Pacific, Inc.). On or around December 2, 1962, BP&P placed production well 33H118 into continuous operation. In January and February 1963, BP&P also began using production wells 33H112, 33H113, and 33H114. All the pumped wells are open to the entire thickness of the Upper Floridan aquifer (upper and lower water-bearing zones). To calculate the hydraulic parameters, a centroid of pumping is assumed to be located at well 33H118 and all pumping was assumed to start on December 2, 1962 (L. Elliott Jones, USGS, written commun., 1993). Water-level measurements are not available for the pumped wells. Sixteen observation wells in Glynn County ranging from 15,400 to 71,400 ft (2.9 to 13.5 mi) from the centroid of pumping were used for this aquifer test. The observation wells are listed in table 6, and construction data for all the wells are listed in table 2. Latitude and longitude estimates for all wells are assumed accurate to within plus or minus one second; thus, the distances to the centroid of pumping in table 6, which are based on those estimates, are considered accurate to within about ± 200 ft. All observation wells were open to the upper water-bearing zone of the Upper Floridan aquifer, although wells 32H024, 32H026, and 33H003 also were open to strata overlying the upper water-bearing zone. At the time of the test, all the observation wells were flowing (artesian conditions).

Table 6. Match-point values and computed aquifer-property values for the December 1962 aquifer test, Glynn County, Ga.

[Centroid of pumping assumed at well 33H118 (lat 31°10'08"N., long 81°30'58"W.); total pumpage, about 20 million gallons per day; (-), dimensionless; match-point fit: E, excellent; G, good; F, Fair]

Well number	Distance to centroid (feet)	Match-point values					T (feet squared per day)	S (-)
		$1/u$ (-)	t (days)	$W(u)$ (-)	s (feet)	fit		
32H024	48,600	1.0	15.1	1.0	1.91	E	111,000	2.8×10^{-3}
32H026	38,400	1.0	25.6	1.0	3.22	G	66,000	4.6×10^{-3}
32J002	71,400	1.0	107	1.0	4.39	F	48,000	4.1×10^{-3}
33H003	28,800	1.0	39.4	1.0	3.29	G	65,000	1.2×10^{-2}
33H036	20,500	1.0	12.4	1.0	3.67	G	58,000	6.8×10^{-3}
33H052	19,300	1.0	4.40	1.0	2.39	F	89,000	4.2×10^{-3}
33H078	15,800	1.0	12.0	1.0	3.26	E	65,000	1.3×10^{-2}
34G013	52,800	1.0	35.3	1.0	2.30	F	92,000	4.7×10^{-3}
34G017	36,100	1.0	16.6	1.0	3.55	F	60,000	3.1×10^{-3}
34H097	15,400	1.0	2.48	1.0	1.33	E	160,000	6.7×10^{-3}
34H205	39,700	1.0	37.7	1.0	3.17	E	67,000	6.4×10^{-3}
34H328	43,400	1.0	16.4	1.0	2.94	G	72,000	2.5×10^{-3}
34J001	61,200	1.0	6.58	1.0	1.97	G	108,000	7.6×10^{-4}
34J009	53,400	1.0	3.42	1.0	1.49	E	143,000	6.8×10^{-4}
35H012	49,500	1.0	28.4	1.0	3.82	G	56,000	2.6×10^{-3}
35H037	44,700	1.0	48.0	1.0	3.86	G	55,000	5.3×10^{-3}

From December 1962 through August 1963, monthly and bimonthly water levels were measured at all observation wells using a manometer. Hydrographs of water levels in all observation wells are shown in figures 26, 27, and 28. Although water levels in the Upper Floridan aquifer typically fluctuate over periods that are shorter than the intervals between measurements for this test, the points on the hydrographs are connected with straight lines for visualization.

Although the magnitude of the pumping increase created by bringing four BP&P wells into production is unknown, an estimate of 20 Mgal/d is used for the December 1962 aquifer test. This estimate is determined by comparison of water-level response following the December 1962 through February 1963 pumpage increase with water-level response following a pumpage reduction in July 1982, which is known to have been about 15 Mgal/d. In nearby wells, the total recovery in 1982 was about 75 percent of the total drawdown in 1962-63. The estimated 20 Mgal/d pumpage increase is assumed to have begun on December 2, 1962, and the centroid of pumping is assumed to be located at well 33H118, which is near the center of the four-well cluster. Because individual pumping rates for the four production wells are unknown, determination of a weighted-average location for the centroid is impossible.

Transmissivity and storage coefficient for the December 1962 aquifer test are computed from time-drawdown data for each observation well using the automated procedure of McElwee (1980), which is based on the Theis non-leaky aquifer model for a fully penetrating well. Using the computed T and S , match-point values ($W(u)^*$, $1/u^*$, s^* , and t^*) are calculated for each observation well from equations (3) and (4). Time-drawdown plots for the observation wells are plotted with the corresponding Theis type curves (fig. 29), and the quality of fit for each well is rated as follows:

- excellent. . all data points closely match the type curve;
- good one or two data points fall off the type curve; and
- fair more than two data points fall off the type curve, making determination of unique match-point values questionable.

Match-point values, quality-of-fit rating, and computed aquifer-property values for each of the observation wells are summarized in table 6. Using the estimated pumpage of 20 Mgal/d, transmissivity for the December 1962 aquifer test ranged from 48,000 to 160,000 ft²/d and had a geometric mean of 82,000 ft²/d. Storage coefficients ranged from 6.8×10^{-4} to 1.3×10^{-2} and had a geometric mean of 5.0×10^{-3} .

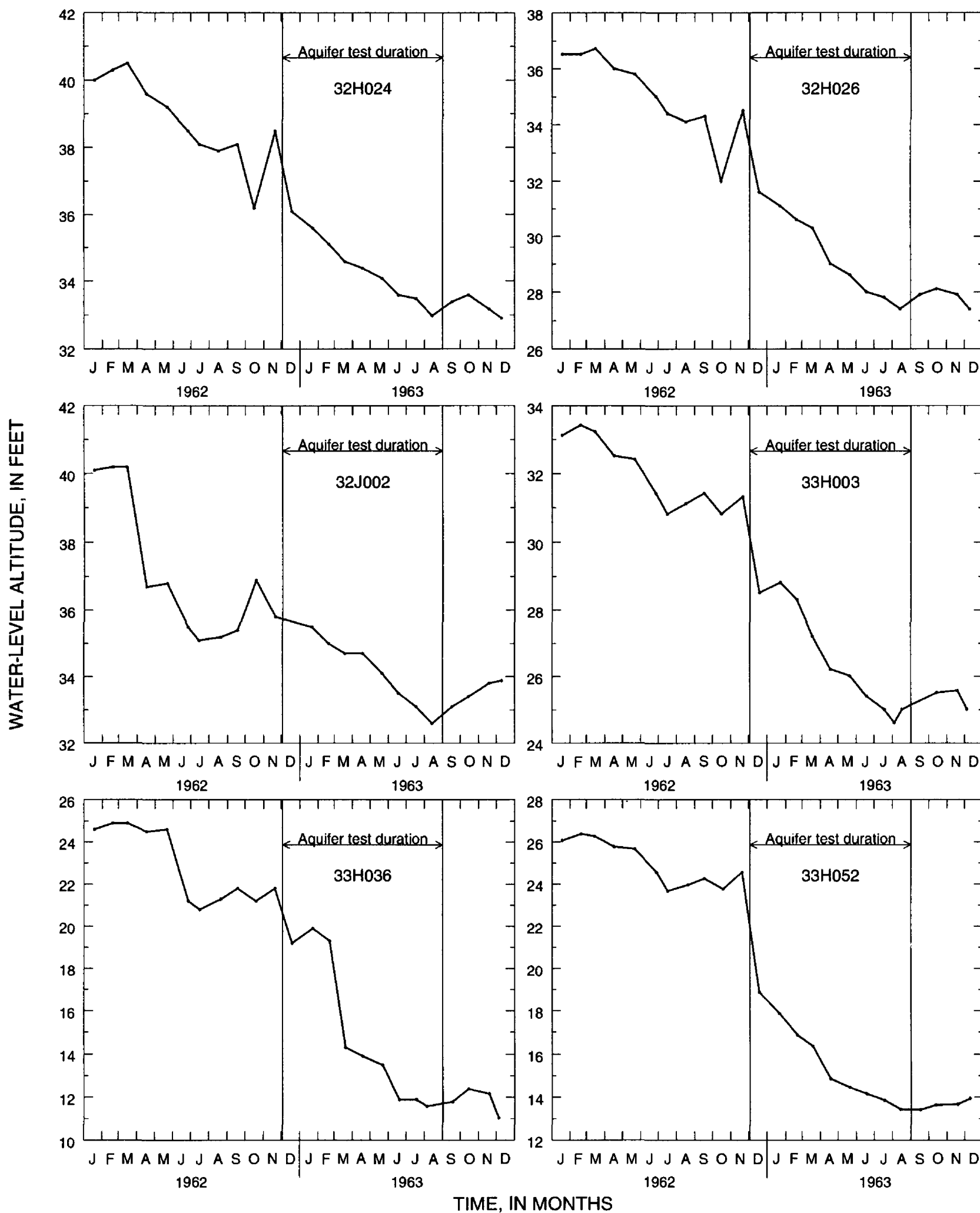


Figure 26. Monthly water levels, Upper Floridan aquifer, Glynn County, Ga., 1962-63, in observation wells 32H024, 32H026, 32J002, 33H003, 33H036, and 33H052.

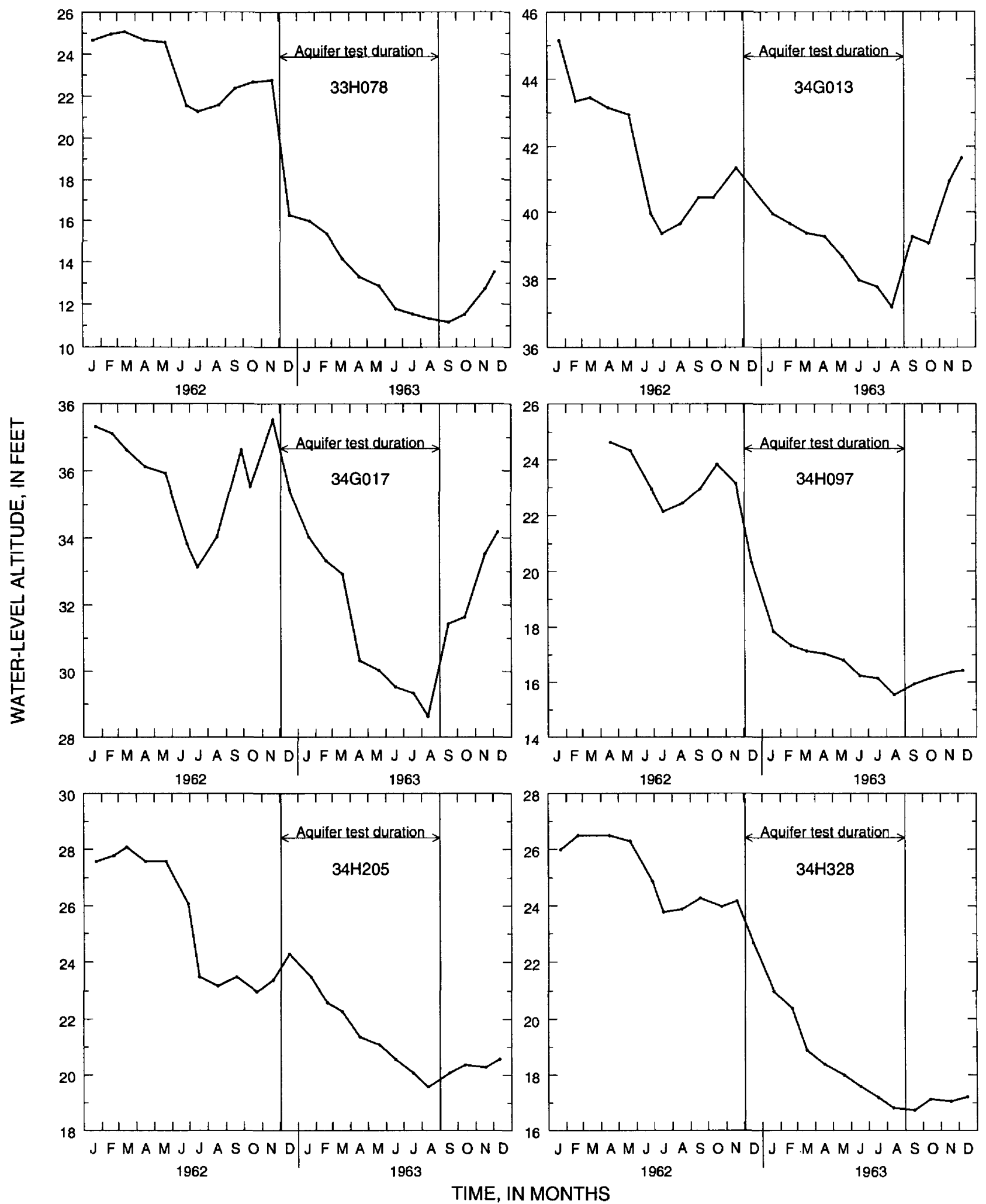


Figure 27. Monthly water levels, Upper Floridan aquifer, Glynn County, Ga., 1962-63, in observation wells 33H078, 34G013, 34G017, 34H097, 34H205, and 34H328.

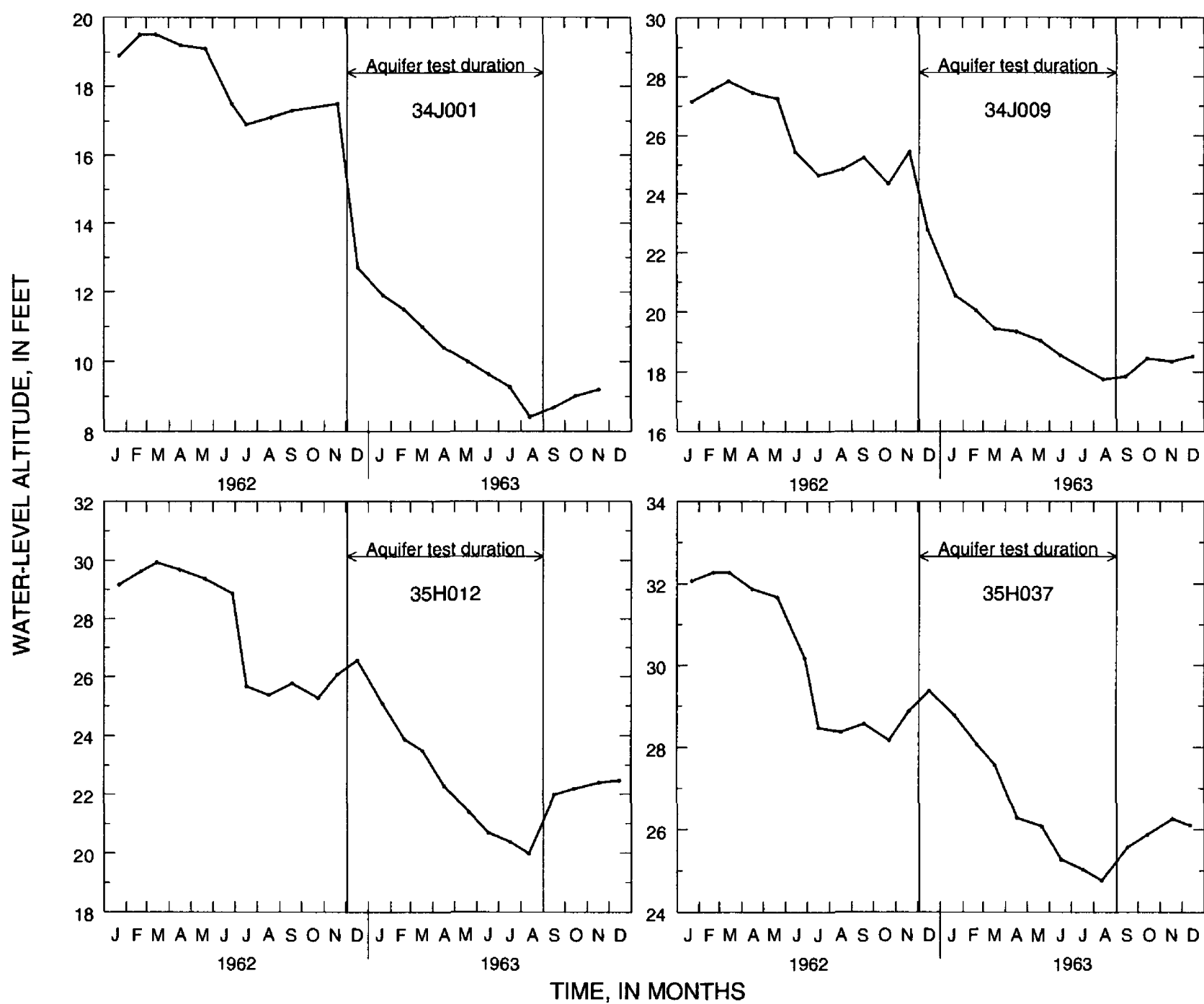


Figure 28. Monthly water levels, Upper Floridan aquifer, Glynn, County, Ga., 1962-63, in observation wells 34J001, 34J009, 35H012, and 35H037.

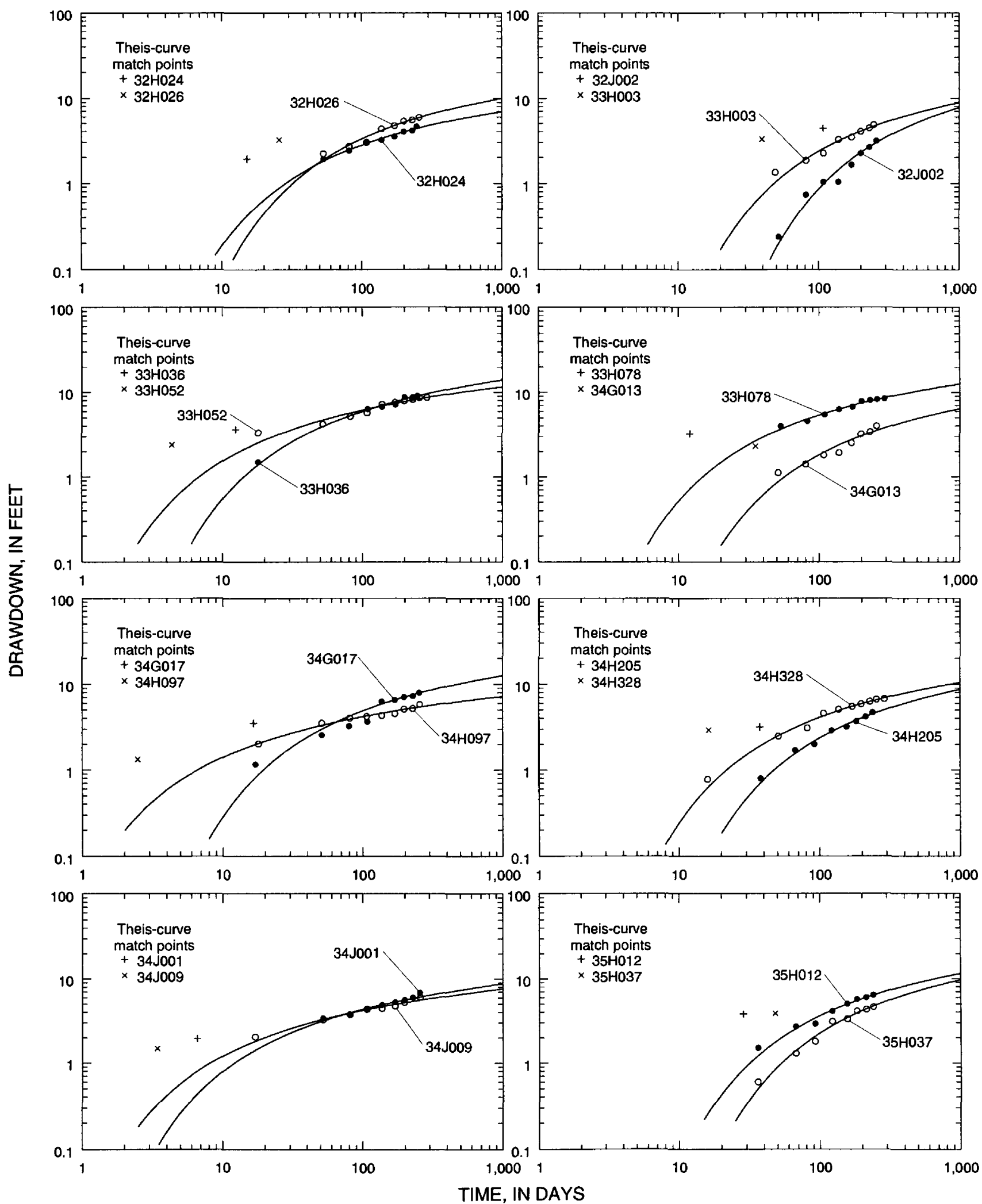


Figure 29. Logarithmic plots of time and drawdown and matched Theis type curves for the December 1962 aquifer test. (Modified from Maslia and Prowell, 1990)

For the December 1962 aquifer test, the pumping wells were open to both the upper and lower water-bearing zones of the Upper Floridan aquifer and the observation wells were open to only the upper water-bearing zone. The contribution of each of the two water-bearing zones to the total volume pumped is uncertain. Because of this uncertainty, and the uncertainty of the total pumping rate, the values of transmissivity and storage coefficient listed in table 6 are not an absolute characterization of aquifer properties at any specific well site. This conclusion is supported by a comparison of these test results with the results for later, more highly controlled tests (presented in the next three sections) that relate only to the upper water-bearing zone and for which pumping rates are known to be accurate. The importance of this test is its applicability to an analysis of aquifer anisotropy, which was discussed by Maslia and Prowell (1990).

The large scatter of the transmissivity and storage-coefficient results for the December 1962 aquifer test may be attributed to several factors. Pumping variations at wells other than the four BP&P production wells may have locally influenced the ground-water-flow system. In an aquifer-test analysis, pumping at all wells other than the specified production wells is assumed constant for the duration of the test. However, there were numerous other production wells in the study area at the time of the

test, and there may have been considerable pumping variations capable of locally affecting the flow system. Also, there may have been substantial leakage from deeper water-bearing zones. This upward intrusion of water also may be capable of locally affecting the flow system. Finally, for the relatively large areal extent of this aquifer test, it may be inappropriate to consider the upper water-bearing zone a homogeneous, isotropic, porous medium.

July 1985 Aquifer Test

The test site is in northeastern Brunswick in the well field of Hercules, Inc. At about 2:55 p.m. EST on July 13, 1985, four well pumps were turned on at Hercules, Inc., after routine well-field maintenance. The four production wells were all pumped at the rated capacity of the pumps, which were 1,930 gal/min (well 34H065); 1,580 gal/min (well 34H073); 3,000 gal/min (well 34H079); and 1,850 gal/min (well 34H413). Total pumpage was 8,360 gal/min. To calculate hydraulic parameters, the total pumpage was assumed to occur at a centroid, based on a weighted-average location of the four pumping wells, at lat 31°09'53.3"N., long 81°28'46.7"W. (L. Elliott Jones and Morris L. Maslia, USGS, written commun., 1987). Sixteen observation wells ranging from 700 to 12,700 ft from the centroid of pumping were used for this test. Observation wells are listed in table 7 and construction data for all wells are listed in table 2.

Table 7. Match-point values and computed hydraulic-property values for the July 1985 aquifer test, Brunswick, Ga.

[Centroid of pumping located at lat 31°09'53.3"N., long 81°28'46.7"W.; total pumpage, 8,360 gallons per minute; (-), dimensionless; match point fit: E, excellent; G, good; F, fair]

Well number	Distance to centroid (feet)	Match-point values						<i>T</i> (feet squared per day)	<i>S</i> (-)	<i>K'/b</i> ¹ (feet per day per foot)
		<i>l/u</i> (-)	<i>t</i> (days)	<i>L[u,v]</i> (-)	<i>s</i> (feet)	<i>v</i> (-)	fit			
33H100	12,700	1.0	320	1.0	1.7	0.35	G	75,300	4.2×10 ⁻⁴	2.3×10 ⁻⁴
33H133	7,900	1.0	130	1.0	2.05	.25	G	62,500	3.6×10 ⁻⁴	2.5×10 ⁻⁴
34H062	2,100	1.0	4.7	1.0	2.0	.04	G	64,000	1.9×10 ⁻⁴	9.5×10 ⁻⁵
34H076	1,400	1.0	1.8	1.0	2.2	.04	G	58,200	1.5×10 ⁻⁴	2.0×10 ⁻⁴
34H078	700	1.0	0.2	1.0	2.3	.012	E	55,700	6.3×10 ⁻⁵	6.4×10 ⁻⁵
34H125	6,100	1.0	80	1.0	2.3	.20	E	55,700	3.3×10 ⁻⁴	2.3×10 ⁻⁴
34H344	1,600	1.0	4.4	1.0	2.32	.052	E	55,200	2.6×10 ⁻⁴	2.3×10 ⁻⁴
34H371	10,500	1.0	295	1.0	1.85	.30	F	69,200	5.1×10 ⁻⁴	2.2×10 ⁻⁴
34H374	6,300	1.0	100	1.0	3.1	.135	F	41,300	2.9×10 ⁻⁴	7.6×10 ⁻⁵
34H392	7,900	1.0	110	1.0	1.7	.225	F	75,300	3.7×10 ⁻⁴	2.4×10 ⁻⁴
34H205	6,000	1.0	43	1.0	1.5	.125	G	85,400	2.8×10 ⁻⁴	1.5×10 ⁻⁴
34H412	4,000	1.0	19	1.0	2.0	.125	G	64,000	2.1×10 ⁻⁴	2.5×10 ⁻⁴
34H424	4,200	1.0	25	1.0	1.9	.12	E	67,400	2.7×10 ⁻⁴	2.2×10 ⁻⁴
34H425	2,500	1.0	10	1.0	1.95	.07	G	65,700	2.9×10 ⁻⁴	2.1×10 ⁻⁴
34H427	5,300	1.0	45	1.0	1.9	.175	E	67,400	3.0×10 ⁻⁴	2.9×10 ⁻⁴
34H469	6,300	1.0	71	1.0	2.0	.225	E	64,000	3.2×10 ⁻⁴	3.2×10 ⁻⁴

¹Refer to equation (12), p. 17.

Latitude and longitude estimates for the observation wells are assumed accurate to within plus or minus one second; thus, the radial distances in table 7, which are based on those estimates, are considered accurate to within about ± 200 ft.

Manual depth-to-water measurements were made by the wetted-steel-tape method in observation wells 34H062, 34H076, 34H078, 34H392, 34H401, 34H412, and 34H425. For the manually measured wells, the initial measurement interval at the start of the July 1985 aquifer test was one minute, and the measurement interval increased to a maximum of about 18 hours over the course of the test. Continuous water-level measurements in all other observation wells were made at regular time intervals ranging from 15 minutes to three hours using digital and analog water-level recorders. Hydrographs of water levels in all the observation wells are shown in figures 30, 31, and 32. Although water levels in the Upper Floridan aquifer typically fluctuate over periods that are shorter than the intervals between manual measurements for this test, the points on the hydrographs of manually measured wells are connected with straight lines for visualization.

Time-drawdown plots for each observation well in the July 1985 aquifer test are matched manually to the Hantush-Jacob leaky-aquifer type curve (fig. 33). Using the Hantush-Jacob model for a fully-penetrating well allows estimation of the parameter v (indicated at the end of each curve in figure 33), which is related to leakance, K'/b' , by equation (12). Match-point values ($1/u^*$, t^* , $L(u,v)^*$, s^* , and v^*) are determined, and the quality of fit for each well is rated as follows:

- excellent . . . all but one or two data points closely match the type curve;
- good several points of data fall off the type curve either early in the test or late in the test; and
- fair. several points of data fall off the type curve and tidal influences late in the test make determination of a unique match-point and leakance values questionable.

Transmissivity, storage coefficient, and leakance are computed using equations (11), (4), and (12), respectively. Match-point values, quality-of-fit rating, and computed hydraulic-property values for each of the observation wells are summarized in table 7.

Transmissivity for the July 1985 aquifer test ranged from 41,300 to 85,400 ft^2/d (table 7), and had a geometric mean of 63,100 ft^2/d . The low and high extreme values are for wells 34H374 and 34H401, respectively, for which the curve fits are rated fair and good, respectively. Drawdown response at these wells could have been affected by leakage. The rest of the transmissivity values ranged from 55,200 to 75,300 ft^2/d .

Storage coefficients for the July 1985 aquifer test ranged from 6.3×10^{-5} to 5.1×10^{-4} (table 7), and had a geometric mean of 2.9×10^{-4} . The lowest value is for well 34H078, which is a Hercules, Inc., water-supply well. The curve fit for well 34H078 is rated excellent, but the well is located close to the pumped wells and calculated results probably are affected by the assumption that the total pumpage occurred at a centroid location. The rest of the storage coefficients ranged from 1.6×10^{-4} to 5.1×10^{-4} .

Leakance (K'/b') for the July 1985 aquifer test ranged from 6.4×10^{-5} to 3.2×10^{-4} $\text{ft}/\text{d}/\text{ft}$ (table 7) and had a geometric mean of 2.0×10^{-4} $\text{ft}/\text{d}/\text{ft}$. These values are much higher than previous results reported by Wait (1965) and Wait and Gregg (1973). The pumping wells described in those reports were open to the upper and the lower water-bearing zones of the Upper Floridan aquifer, but the July 1985 aquifer test used pumping and observation wells considered open to only the upper water-bearing zone. Although pumping wells 34H073 and 34H079 and observation wells 34H076 and 34H078 were open to a fractured transition zone between the upper and lower water-bearing zones of the Upper Floridan aquifer, which extends from about 890 to 912 ft below land surface (fig. 2), the wells responded as upper-water-bearing-zone wells. These wells are considered upper-water-bearing-zone wells for this analysis. Based on data from Wait (1965, p. E48), K'/b' is about 9×10^{-7} $\text{ft}/\text{d}/\text{ft}$ for leakage from the lower to the upper water-bearing zone and 4×10^{-7} $\text{ft}/\text{d}/\text{ft}$ for leakage from the surficial aquifer to the upper water-bearing zone in the area of pumping. Values obtained in this analysis are at least two orders of magnitude higher than those of Wait (1965).

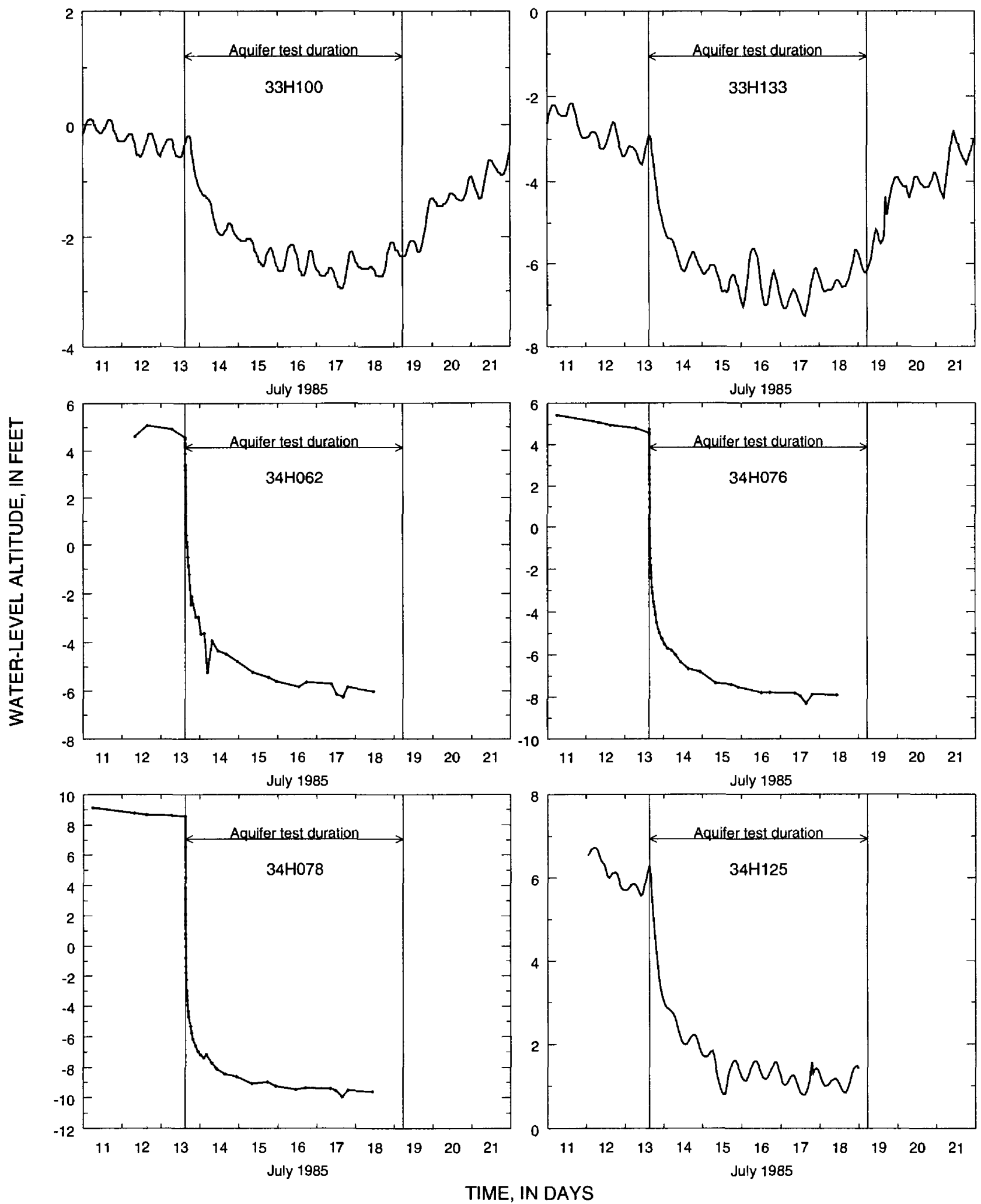


Figure 30. Water-level fluctuations, upper water-bearing zone of the Upper Floridan aquifer, Brunswick, Ga., July 11-21, 1985, in observation wells 33H100, 33H133, 34H062, 34H076, 34H078, and 34H125.

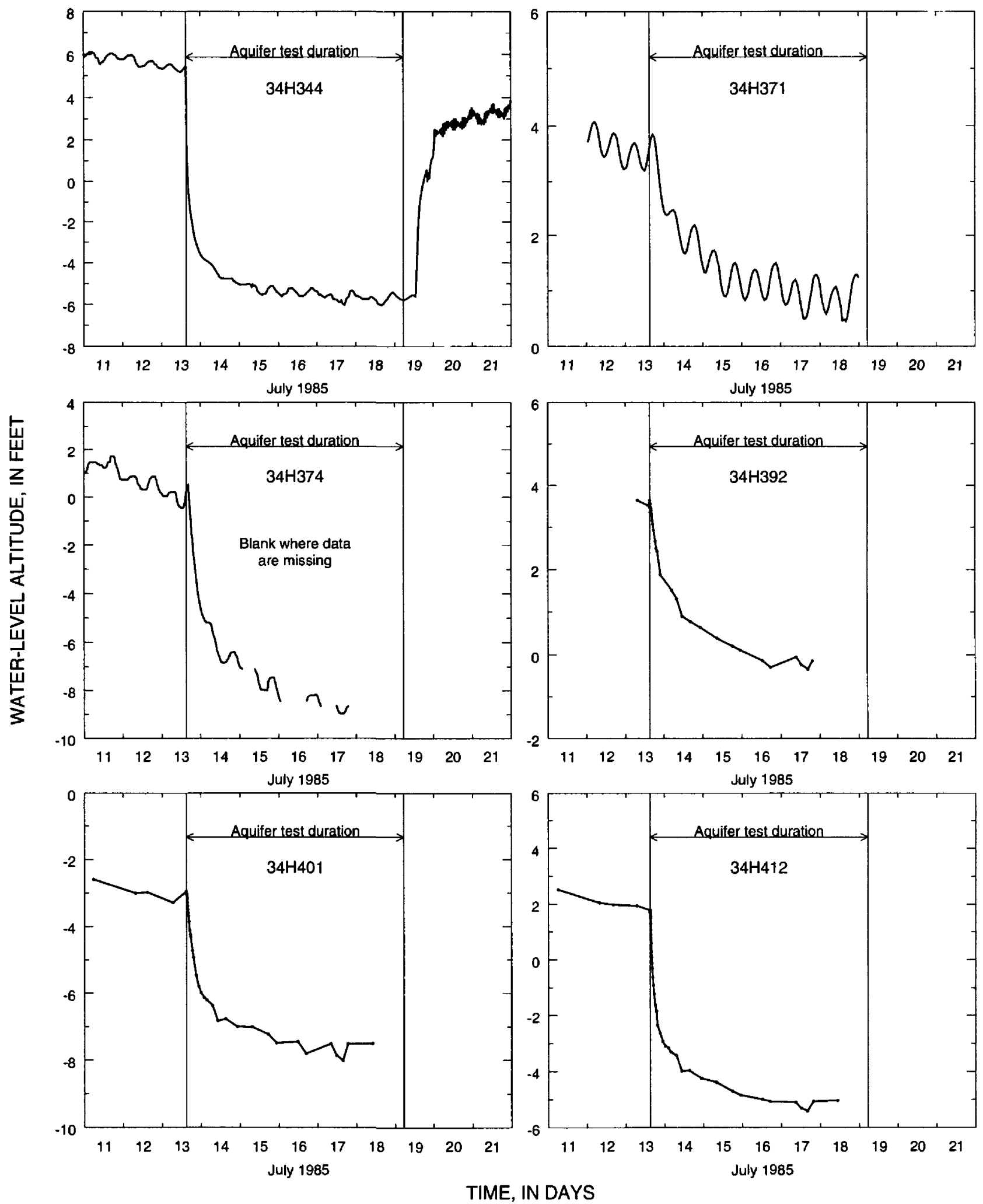


Figure 31. Water-level fluctuations, upper water-bearing zone of the Upper Floridan aquifer, Brunswick, Ga., July 11-21, 1985, in observation wells 34H344, 34H371, 34H374, 34H392, 34H401, and 34H412.

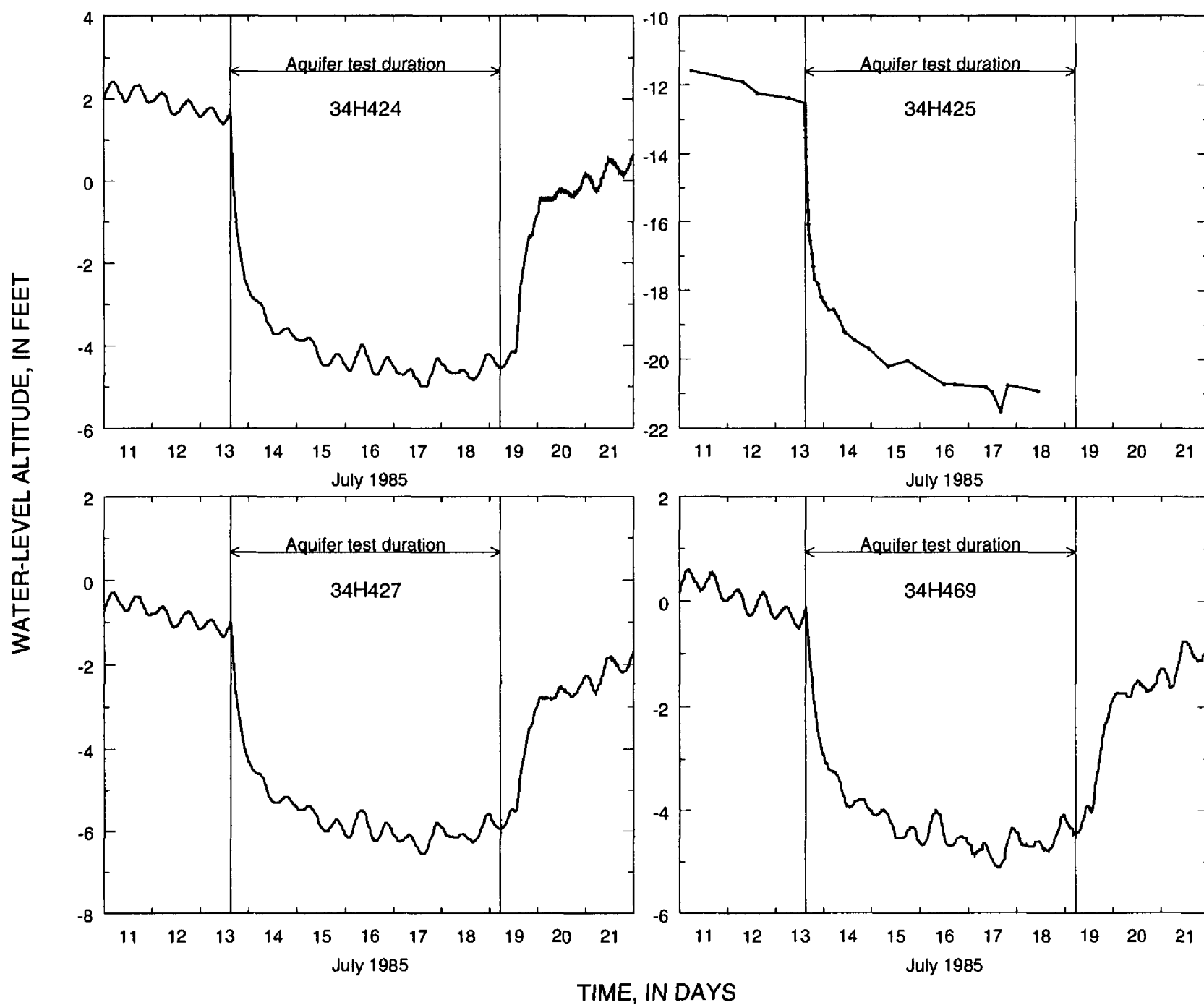


Figure 32. Water-level fluctuations, upper water-bearing zone of the Upper Floridan aquifer, Brunswick, Ga., July 11-21, 1985, in observation wells 34H424, 34H425, 34H427, and 34H469.

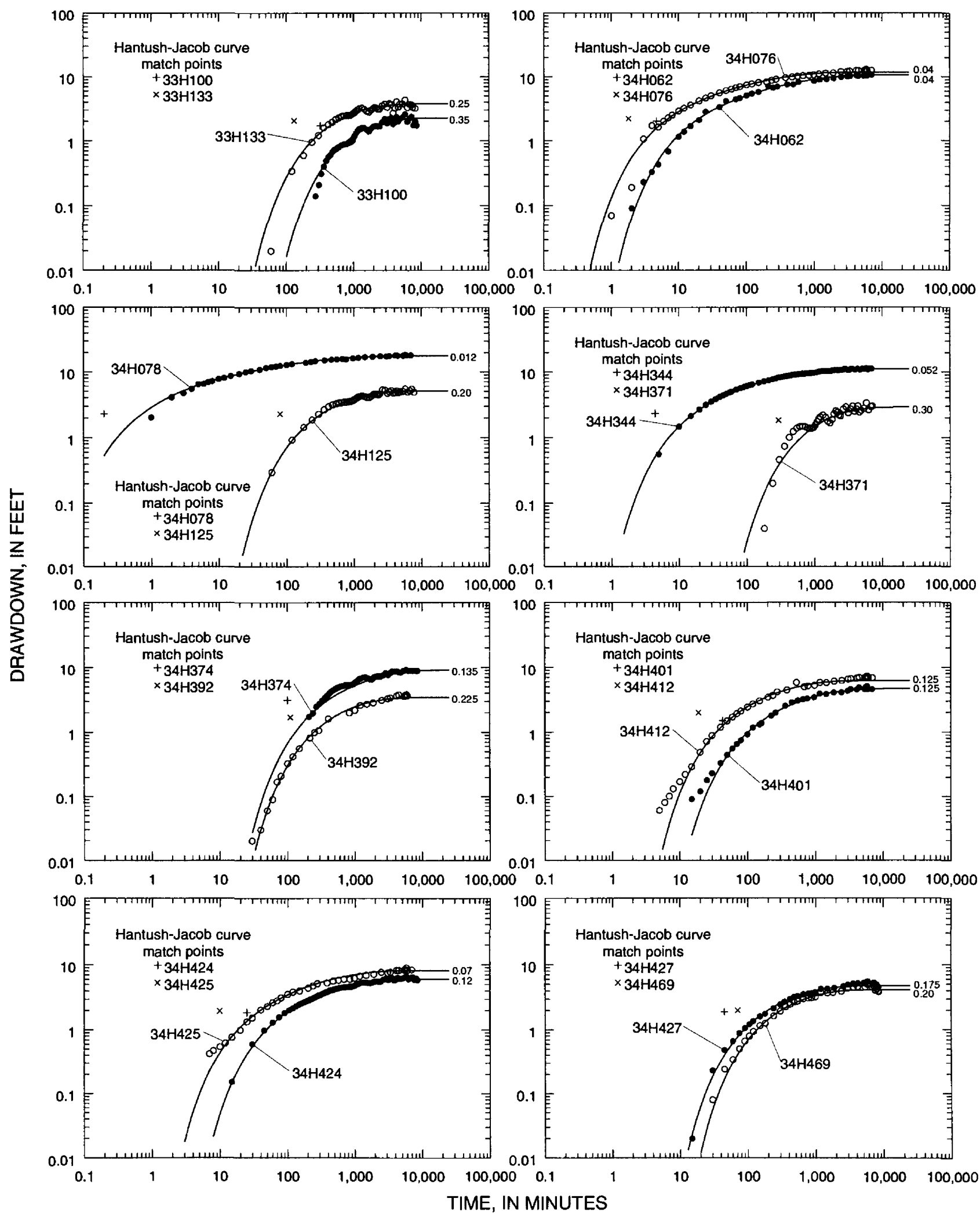


Figure 33. Logarithmic plots of time and drawdown and matched Hantush-Jacob type curves for the July 1985 aquifer test. (Modified from Maslia and Prowell, 1990)

December 1986 Aquifer Test

The test site is in northeastern Brunswick in a municipal well field in Coffin Park. At about 1:30 p.m. EST on December 22, 1986, the city of Brunswick began testing their new production well, 34H445, which is open to the upper water-bearing zone of the Upper Floridan aquifer. The well was pumped at a rate of 1,530 gal/min for 24 hours. Continuous water-level measurements were made using recorders in two observation wells, 34H085 and 34H344, located 420 ft and 3,570 ft, respectively, from the pumped well (Robert B. Randolph, USGS, written commun., 1987). These distances are estimated from a street map of the city of Brunswick and are considered accurate to within ± 50 ft. The measurement interval was 15 minutes for well 34H085 and five minutes for well 34H344. The observation wells are listed in table 8, and construction data for all the wells are listed in table 2. Hydrographs of water levels in the observation wells are shown in figure 34.

Using time-drawdown plots (fig. 35) and manual type-curve matching, transmissivity and storage coefficient were determined for the two observation wells. The time-drawdown data for well 34H085 do not indicate leakage (departure from the Theis non-leaky aquifer type curve at later times), and are fitted to a Theis type curve. The time-drawdown data for well 34H344, however, show the effects of leakage,

and are, therefore, fitted to a Hantush-Jacob leaky-aquifer type curve, allowing estimation of v (indicated at the end of the curve in figure 35). There is a good fit of the data to the type curves for both wells, but tidal fluctuations cause a large number of points to fall off the curve, especially at well 34H344 where the total drawdown due to the pumping change was small (about one foot). Match-point values determined from the manually fitted type curves and computed hydraulic-property values are summarized in table 8.

Although the December 1986 and the July 1985 aquifer tests both use production and observation wells open to only the upper water-bearing zone of the Upper Floridan aquifer, some results of the two tests differ. Transmissivity determined for well 34H344 for the December 1986 aquifer test (23,400 ft²/d) is lower than that determined for the same well for the July 1985 aquifer test (55,200 ft²/d); and transmissivity determined for well 34H085 for the December 1986 aquifer test (32,400 ft²/d) is lower than all values determined for the July 1985 aquifer test. Storage coefficients for the December 1986 aquifer test are consistent with storage coefficients for the July 1985 aquifer test. Leakance (K'/b') derived for well 34H344 for the December 1986 aquifer test (1.2×10^{-3} ft/d/ft) is higher than the mean leakance (2.4×10^{-4} ft/d/ft) derived for the July 1985 aquifer test.

Table 8. Match-point values and computed hydraulic-property values for the December 1986 aquifer test, Brunswick, Ga.

[Pumped well located at lat 31°09'02"N., long 81°28'43"W.; pumpage, 1,530 gallons per minute; (-), dimensionless; match-point fit: E, excellent; G, good; F, fair]

Well number	Distance to pumped well (feet)	Match-point values						T (feet squared per day)	S (-)	K'/b'^1 (feet per day per foot)
		$1/u$ (-)	t (minutes)	$L[u,v]$ or $W[u]$ (-)	s (feet)	v (-)	fit			
34H100	420	1.0	0.92	1.0	0.72	--	G	32,500	4.7×10^{-4}	--
34H344	3,570	1.0	55	1.0	1.0	0.4	G	23,400	2.8×10^{-4}	1.2×10^{-3}

¹Refer to equation (12), p. 17.

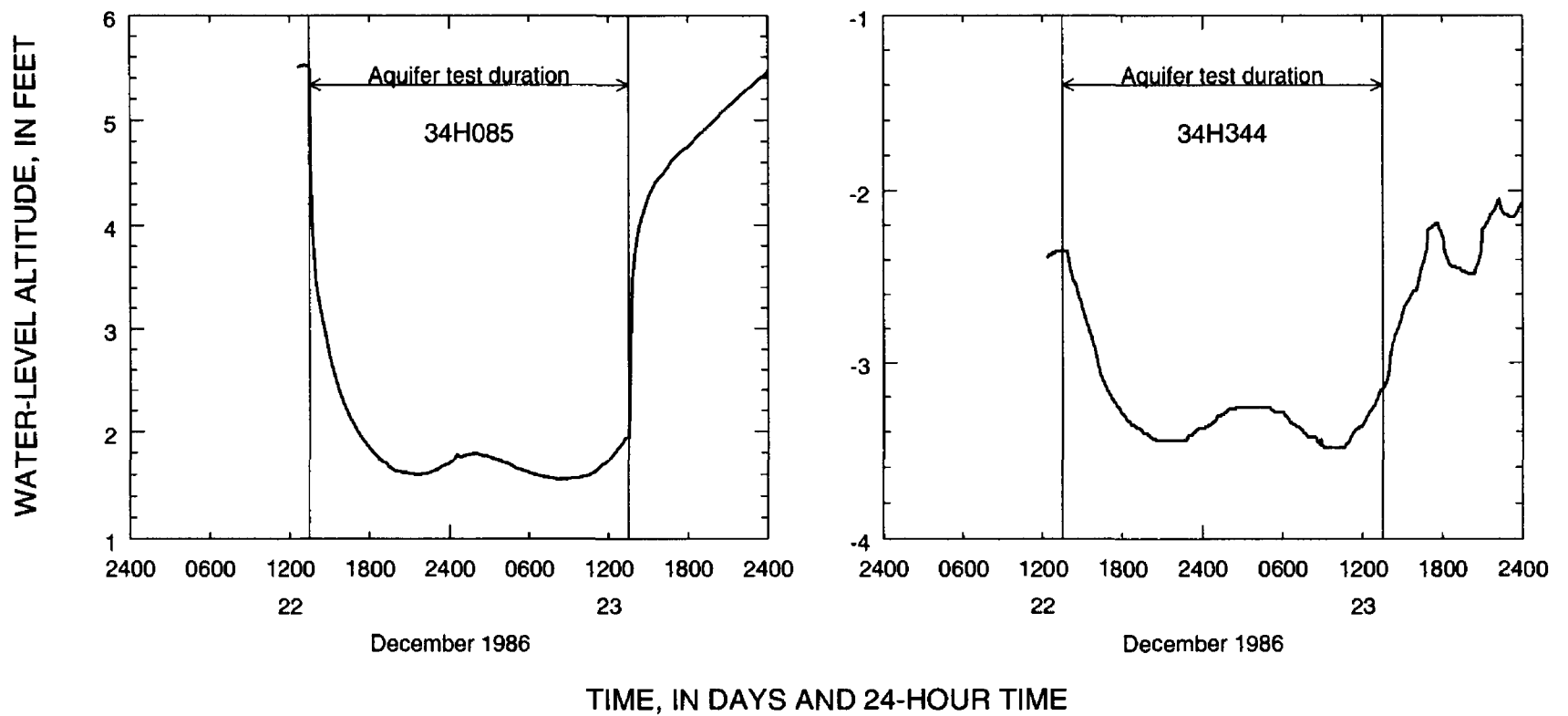


Figure 34. Water-level fluctuations in observation wells 34H085 and 34H344, upper water-bearing zone of the Upper Floridan aquifer, Brunswick, Ga., December 22-23, 1986.

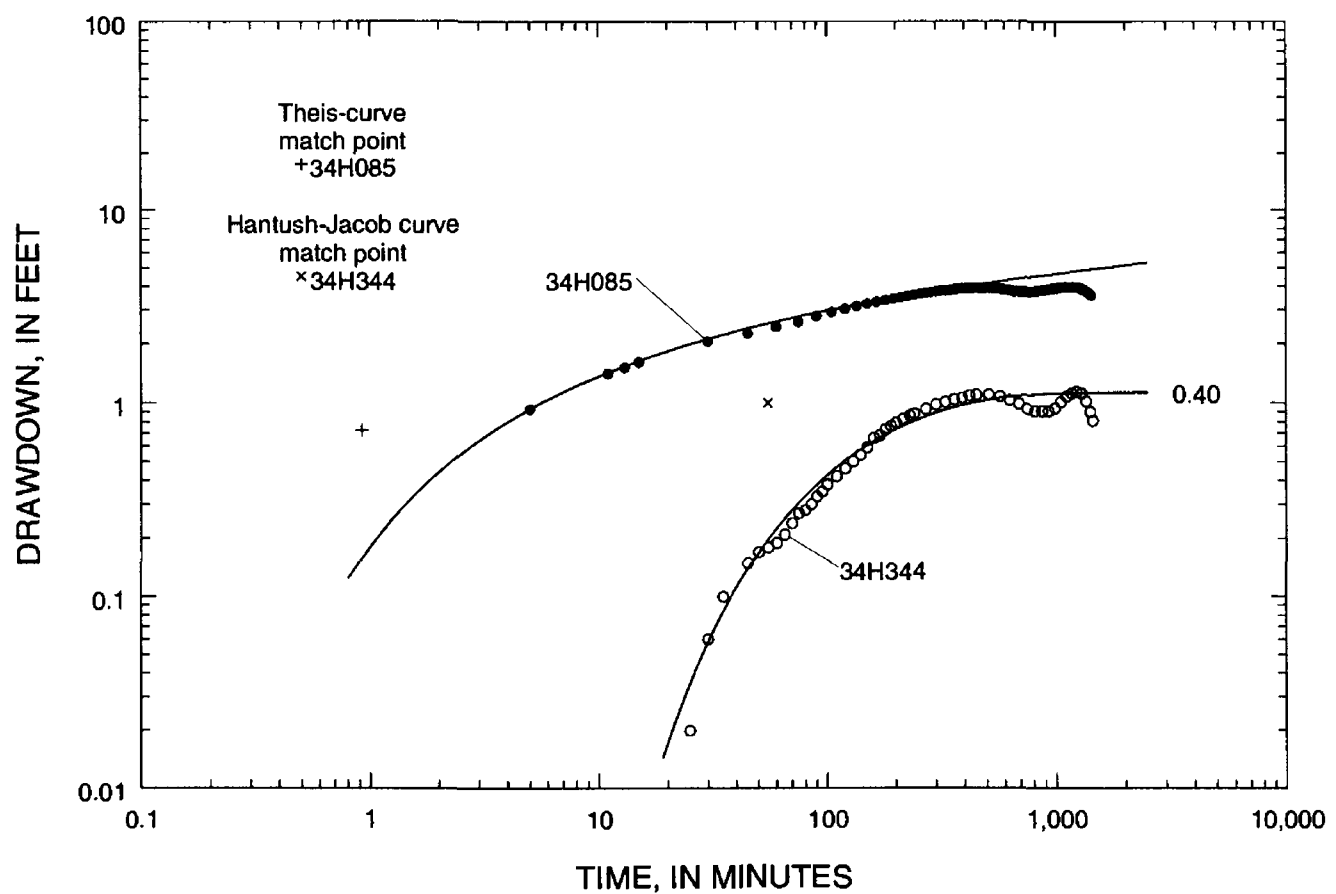


Figure 35. Logarithmic plots of time and drawdown and matched type curves for the December 1986 aquifer test.

April 1990 Aquifer Test

The test site is in northern Brunswick in a municipal well field in Goodyear Park. At about 6:30 p.m. EST on April 13, 1990, the city of Brunswick began testing their new production well, 34H449, which is open to the upper water-bearing zone of the Upper Floridan aquifer. The well was pumped at a rate of 2,080 gal/min for 24 hours. Continuous water-level measurements were made at regular 30-minute intervals using a recorder in observation well 34H133, located 86 ft from the pumped well (Reggina Garza, USGS, written commun., 1991). This distance was measured by steel tape and is considered accurate to within ± 2 ft. The observation well is listed in table 9, and construction data for both wells are listed in table 2. A hydrograph of water levels in the observation well is shown in figure 36.

Using a time-drawdown plot and manual Hantush-Jacob leaky aquifer type-curve matching (fig. 37), match-point values (including v , indicated at the end of the curve in figure 37) are determined for observation well 34H133 for the April 1990 aquifer test. Although there is a good fit of the time-drawdown data to the upper part of the Hantush-Jacob type curve, determination of a unique match point for this test is hampered by the lack of water-level measurements in the first half-hour of the pumping period. Thus, match-point values and computed aquifer-property values given for this test in table 9 may be less accurate than corresponding values for the other aquifer tests. Well 34H133 is not used as an observation well in any other aquifer test, but the results in table 9 are well within the range of values determined for nearby wells for the July 1985 aquifer test.

Table 9. Match-point values and computed hydraulic-property values for the April 1990 aquifer test, Brunswick, Ga.

[Pumped well located at lat 31°10'35"N., long 81°28'57"W.; pumpage, 2,080 gallons per minute; (-), dimensionless; match-point fit: E, excellent; G, good; F, fair]

Well number	Distance to pumped well (feet)	Match-point values						T (feet squared per day)	S (-)	K'/b'^1 (feet per day per foot)
		$1/u$ (-)	t (min-utes)	$L[u,v]$ (-)	s (feet)	v (-)	fit			
34H133	86	1.0	0.016	1.0	0.56	0.01	G	57,000	3.5×10^{-4}	1.2×10^{-3}

¹Refer to equation (12), p. 17.

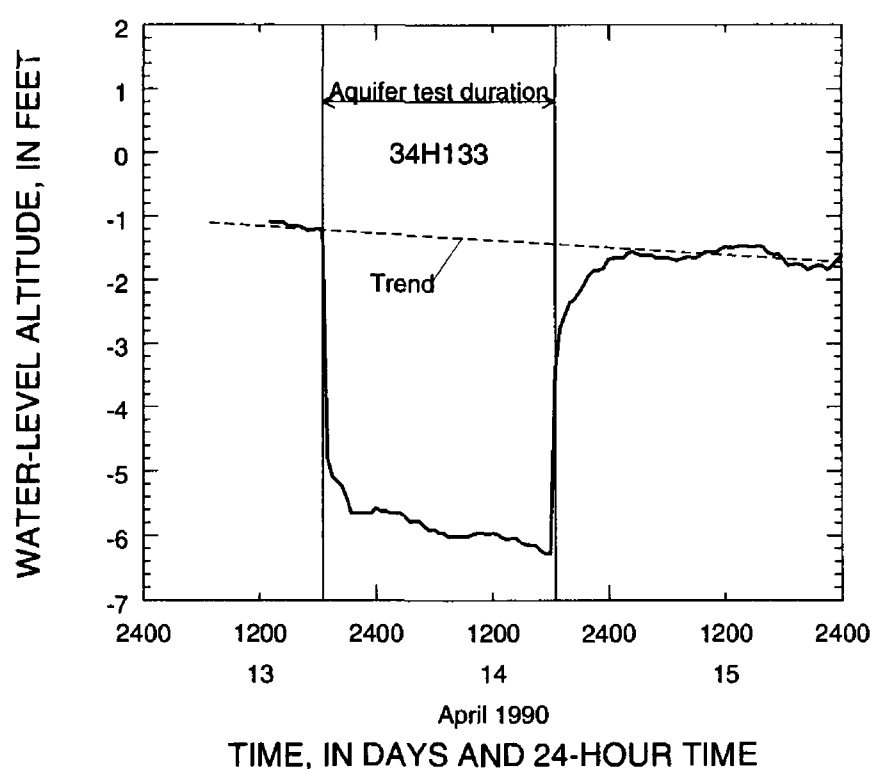


Figure 36. Water-level fluctuations in observation well 34H133, upper water-bearing zone of the Upper Floridan aquifer, Brunswick, Ga., April 13-15, 1990.

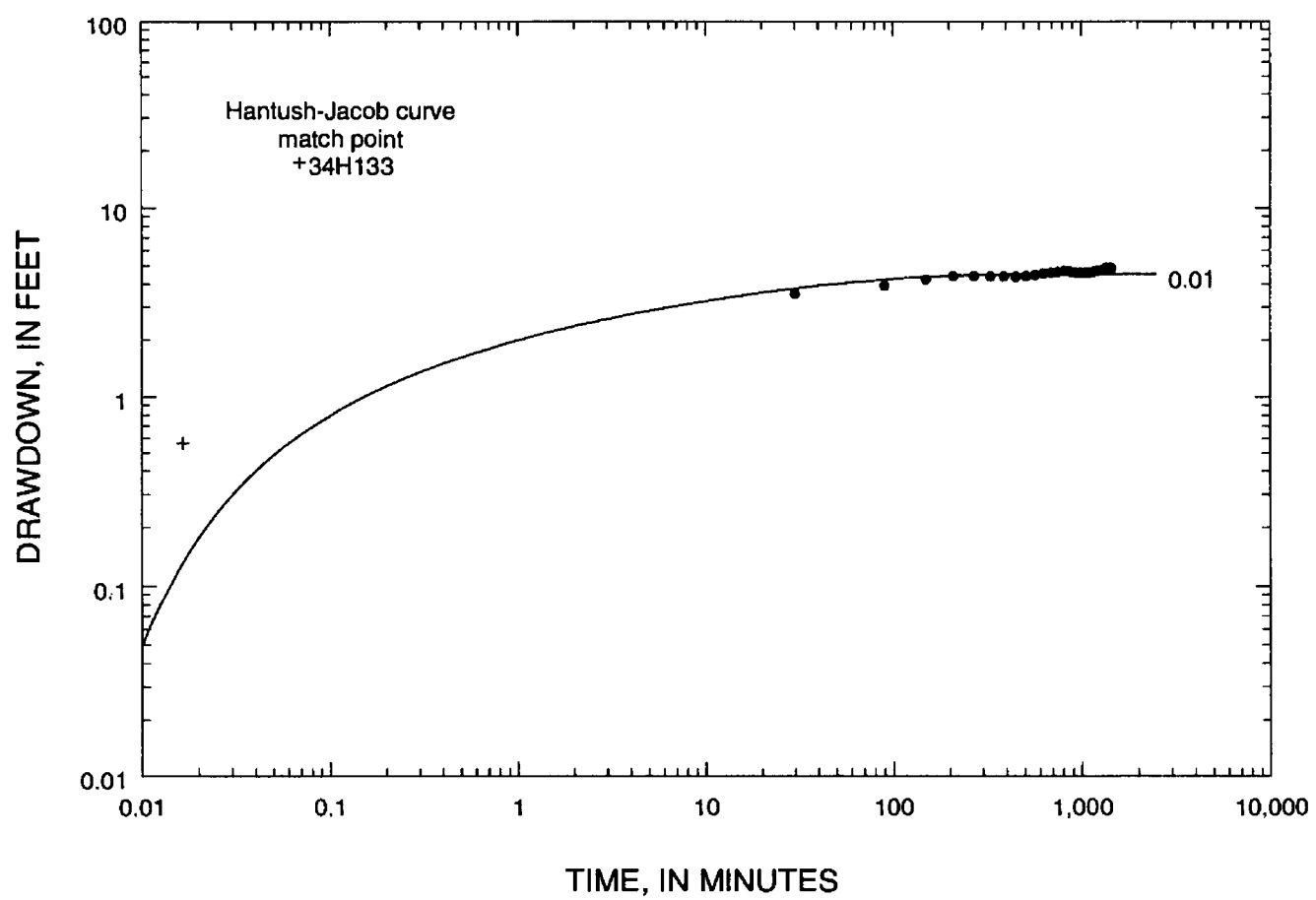


Figure 37. Logarithmic plot of time and drawdown and matched type curve for the December 1986 aquifer test.

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Tables 2, 3, and 4 and figures 9-24 follow.

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
BRANTLEY COUNTY											
30H003	Okefenokee Rural Electric Corp.	31°12'17"N	81°58'17"W	1953	578	650	62	--	--	W	None
30H005	Georgia DOT, Nahunta	31°12'28"N	81°57'33"W	08-1974	618	700	65	--	--	W	None
30H010	Humble Oil/Union Bag 85	31°13'52"N	81°53'29"W	03-10-59	0	860	75	-259	-585	G	None
30H016	Nahunta, Georgia 2	31°12'05"N	81°58'50"W	1964	509	677	66	-257	-559	G	None
30J003	W. F. Hellemn ST-1	31°17'26"N	81°57'35"W	03-20-61	0	4,512	42	--	-518	G	None
31H004	Satilla River Estates 2	31°08'59"N	81°51'29"W	11-1973	617	764	55	-276	-582	G	None
31H005	Deerwood Subdivision (KOA Campground)	31°12'14"N	81°51'19"W	05-20-74	612	745	53	--	--	W	None
31J002	Humble Oil/Brown 1	31°19'31"N	81°52'05"W	10-16-59	141	994	71	-281	-566	G	None
31J003	Humble Oil/Harrison	31°18'53"N	81°45'11"W	06-23-59	392	1,043	41	-304	-677	G	None
31J004	Humble Oil/Union Bag 87	31°15'34"N	81°50'53"W	03-19-59	62	955	57	-281	-569	G	None
31J005	Humble Oil/Union Bag 71	31°17'42"N	81°50'53"W	04-03-58	0	770	74	-280	-553	G	None
CAMDEN COUNTY											
30F004	Harrell, G.C.	30°57'13"N	81°53'08"W	07-1972	485	700	65	--	--	W	None
30G003	Miller, S.T.	31°05'59"N	81°53'16"W	07-18-72	495	724	25	-240	-497	G	None
30G004	John Buie 1	31°02'30"N	81°52'48"W	03-27-48	0	4,960	65	-235	-433	G	None
31E001	Brown, Elmo	30°48'30"N	81°48'12"W	1958	400	500	22	--	--	W	None
31E005	Silcox, Mrs. Oscar	30°48'14"N	81°51'09"W	1936	409	433	20	-203	--	G,W	None
31E012	Union Camp B1	30°51'07"N	81°51'30"W	09-14-70	1,500	--	22	-194	-356	G	None
31F017	Wilson, Richard	30°58'59"N	81°50'10"W	--	--	600	17	--	--	W	None
31F022	Van, John	30°56'23"N	81°48'35"W	05-1973	422	650	20	-185	-408	G,W	None
31G011	Buie, J.A. (estate)	31°00'44"N	81°48'19"W	06-15-39	--	360	11	-183	--	G	None
31G015	Walker, R.	31°01'30"N	81°47'05"W	05-06-71	353	520	20	-195	--	G	None
31G018	Humble Oil/Kelly 1	31°06'57"N	81°48'09"W	09-19-59	230	800	12	-214	-458	G	None
32E004	Gross, Edmond (1956)	30°48'04"N	81°40'54"W	1956	--	450	26	--	--	W	None
32E010	Hercules Inc., Seals	30°52'17"N	81°42'18"W	1968	340	350	17	-221	--	G	None
32E031	B&S Chicken Farm	30°49'22"N	81°43'55"W	--	--	750	20	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
CAMDEN COUNTY--Continued											
32E032	Gross, E. (1950)	30°48'07"N	81°40'46"W	1950	466	516	27	-265	-440	G	None
32E033	Georgia DOT, Welcome Center	30°45'16"N	81°38'59"W	09-1974	420	600	18.25	-243	-445	G,W	None
32E037	Lowe, James	30°50'41"N	81°38'06"W	--	--	645	10	-245	--	G	None
32F001	Johnson, L.E.	30°55'46"N	81°42'25"W	09-1969	472	566	16	-201	--	G	None
32F008	Williams, Henry	30°58'04"N	81°44'13"W	12-1965	399	783	6	-177	-386	G,W	None
32F048	Briese, Windy	30°58'15"N	81°43'30"W	8-1974	415	560	12	--	--	W	None
32F051	Billyville	30°55'42"N	81°40'20"W	--	192	456	23	-231	--	G	None
32F052	BP&P, Seals Swamp 1	30°52'50"N	81°40'12"W	--	--	435	20	-232	--	G	None
32G004	West, Joyce	31°04'13"N	81°43'35"W	08-1964	527	792	15	-227	-500	G,W	None
32G007	Limton, William (Buie, J.A.)	31°01'45"N	81°44'09"W	1962	432	600	16	--	--	W	None
32G015	Bryson, Edward	31°06'48"N	81°41'51"W	09-1966	522	726	20.83	-250	-501	G,W	None
32G016	Humble Oil/Atkinson 1	31°04'19"N	81°44'05"W	09-17-59	204	834	18	-214	-474	G	None
32G017	Humble Oil/Union Bag 80	31°06'58"N	81°43'48"W	04-18-58	0	850	16	-226	-480	G	None
32G036	Powers	31°05'42"N	81°43'25"W	1968	292	424	20	-231	--	G	None
32G037	Middleton, O.P.	31°03'54"N	81°42'42"W	06-1968	316	366	15	-223	--	G	None
32G038	Berry, Elmer	31°05'57"N	81°42'51"W	07-1968	508	635	15	-230	-474	G	None
32G039	Strickland, Clyde	31°02'03"N	81°44'32"W	05-06-71	362	522	15	-197	-443	G	None
32G040	Daniels, Perry	31°03'35"N	81°38'58"W	--	--	793	25	--	--	W	None
32G042	Humble Oil/Union Bag 101	31°04'34"N	81°41'35"W	09-12-59	--	--	16	-239	-498	G	None
32G044	Humble Oil/Union Bag 92	31°06'27"N	81°39'44"W	07-24-59	0	842	13	-297	-548	G	None
33E002	Rayonier, Inc.	30°46'27"N	81°37'12"W	1930	80	474	22	-321	--	G	None
33E003	USN, Kings Bay (refill station)	30°47'51"N	81°32'01"W	--	302	--	10	-292	--	G	None
33E004	USN, Kings Bay, Etowah Park	30°49'08"N	81°32'38"W	1958	465	516	16	-266	--	G,W	Destroyed
33E007	Davis, G.H.	30°45'10"N	81°34'38"W	04-1964	525	770	18	--	--	W	None
33E008	Crooked River State Park	30°50'37"N	81°33'23"W	--	261	470	16	-249	--	G	None
33E009	Barwick, Jack (Am. Legion, St Marys)	30°50'45"N	81°33'46"W	1930	250	565	12	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
CAMDEN COUNTY--Continued											
33E018	USN, Kings Bay Club	30°48'00"N	81°31'05"W	04-01-37	145	486	10	-290	--	G	None
33E023	Hannah, Jim (Norieka, Richard)	30°50'29"N	81°34'28"W	1961	450	650	16	--	--	W	None
33E027	USN, Kings Bay TW 1	30°47'56"N	81°31'11"W	04-01-37	555	990	10	-290	-546	G,W	None
33E037	Drury, Dr. Carl, Laurel Island	30°49'13"N	81°35'31"W	--	--	575	10	-303	-515	G	None
33E038	BP&P, Sea Island Pasture, Black Point	30°51'57"N	81°31'56"W	--	66	340	12	-277	--	G	None
33E039	USN, Kings Bay, Observation Well 1	30°47'49"N	81°33'53"W	11-01-85	950	1,150	24	-315	--	G	None
33E040	USN, Kings Bay, Observation Well 2	30°47'49"N	81°33'53"W	11-01-85	560	750	24	-316	--	G	None
33E046	Joiner/Greene/Crocker/O'Neal	30°49'16"N	81°36'07"W	11-11-83	548	650	10	--	--	W	None
33F001	BP&P, Cabin Bluff	30°53'14"N	81°31'03"W	1959	483	760	9	--	--	W	None
33F002	Union Carbide 2	30°55'14"N	81°30'56"W	09-20-63	513	806	10	-313	-513	G	None
33F014	BP&P, Shellbine	30°54'28"N	81°31'04"W	--	180	306	6	-279	--	G	None
33F015	BP&P, Forestview	30°55'30"N	81°35'36"W	--	169	332	28	-257	--	G	None
33F016	BP&P, Crews Point	30°57'18"N	81°32'44"W	--	90	306	20	-258	--	G	None
33F018	BP&P, Cabin Bluff (1975)	30°53'16"N	81°31'01"W	04-24-75	467	675	9	--	--	W	None
33G005	Episcopal Center, Camp Reese	31°03'12"N	81°32'25"W	1960	572	783	7	-319	-572	G,W,Q	None
33G006	Kirby, T.W., Sr.	31°01'06"N	81°31'45"W	1953	387	817	12	--	--	W,Q	None
33G011	Hardy Swamp 1	31°02'08"N	81°35'46"W	--	243	456	21	-297	--	G	None
33G012	W. Piney Bluff 1	31°01'11"N	81°33'23"W	--	186	449	10	-300	--	G	None
33G013	Dover Bluff 1	31°01'22"N	81°30'49"W	--	225	320	10	-295	--	G	None
34E001	Cumberland Is., GGS TW 1	30°45'22"N	81°28'13"W	1979	540	645	17	-353	-531	G,W	None
34E002	Cumberland Is. (plum orchard 2, east)	30°51'22"N	81°27'55"W	1904	--	600	17	--	--	W	None
34E003	Ferguson, R. W. 2, Greyfield	30°46'46"N	81°28'09"W	1931	538	730	13	--	--	W	None
34E010	Cumberland Is. 32/Rockefeller	30°46'10"N	81°28'09"W	--	550	750	10	-367	-550	G,W	None
34E011	Cumberland Is. (plum orchard 1, west)	30°51'22"N	81°27'56"W	--	--	--	13	--	--	W	None
34E012	Cumberland Is., Reddick	30°50'32"N	81°28'01"W	--	--	--	12	--	--	W	None
34E013	Cumberland Is., Yankee Paradise Trail	30°50'29"N	81°26'51"W	--	--	--	17	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
CAMDEN COUNTY--Continued											
34E014	Cumberland Is., Foster	30°48'51"N	81°27'40"W	--	--	--	26	--	--	W	None
34E015	Cumberland Is., Missoe	30°46'19"N	81°28'05"W	--	--	--	13	--	--	W	None
34F002	Hemley	30°56'14"N	81°24'45"W	1966	554	684	7	-313	-542	G	None
34F004	Botsford, Sam	30°56'30"N	81°24'43"W	1966	571	743	10	-304	-538	G	None
34F005	Kingsley I	30°57'09"N	81°24'41"W	1966	547	638	10	-288	-540	G	None
34F007	Richardson, I.H.	30°57'39"N	81°24'36"W	1967	519	580	10	-291	-526	G	None
34F008	Hunter, J.H.	30°57'45"N	81°25'24"W	1966	554	683	10	-289	-542	G	None
34F010	Generals Mound	30°56'59"N	81°25'16"W	1960	562	784	5	-297	-539	G	None
34F011	Platt, F.H.	30°58'13"N	81°25'05"W	1967	537	702	10	-276	-526	G	None
34F012	Pomeroy, Theodore	30°58'24"N	81°24'35"W	1967	498	698	10	-280	-512	G	None
34F013	Cumberland Is. 16	30°54'38"N	81°24'41"W	--	--	368	10	-348	--	G	None
34F014	Cumberland Is., Squawtown	30°52'42"N	81°26'34"W	--	--	--	8	--	--	W	None
34F015	Cumberland Is., Candler (water tower)	30°54'42"N	81°25'23"W	--	--	--	15	--	--	W	None
34F016	Cumberland Is., Candler (new, 1987)	30°54'52"N	81°25'19"W	1987	--	--	15	--	--	W	None
34G040	Sam Lewis Marine Farm	31°00'36"N	81°27'55"W	1960	584	777	8	-279	-545	G	None
GLYNN COUNTY											
31H006	Humble Oil/Union Bag 79	31°09'13"N	81°45'32"W	04-17-58	0	910	14	-234	-538	G	None
31H007	Humble Oil/Union Bag 97	31°10'51"N	81°45'58"W	08-27-59	375	884	18	-265	-567	G	None
31H008	Humble Oil/Union Bag 81	31°12'16"N	81°45'47"W	04-20-58	0	914	44	-255	-568	G	None
31H009	Humble Oil/Union Bag 96	31°13'53"N	81°45'36"W	08-24-59	330	960	66	-237	-556	G	None
32H001	BP&P, Bladen	31°14'45"N	81°42'38"W	1938	298	500	19.18	-278	--	G,W,Q	Shallow, insufficient casing
32H004 ^a	Long, I.A.	31°14'37"N	81°42'12"W	--	--	--	14.5	--	--	W	None
32H007 ^a	Cason, J.A.	31°14'33"N	81°38'45"W	1940	400	650	10	--	--	W	None
32H011 ^a	Wainwright, W.M.	31°12'40"N	81°40'30"W	--	--	--	15	--	--	W	None
32H014 ^a	Drury, L.H.	31°12'20"N	81°40'37"W	1921	--	--	14	--	--	W,Q	Land surface datum estimated
32H015 ^a	Wilkes, C.G.	31°11'58"N	81°40'40"W	10-1955	--	500	17	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
32H016 ^a	Moody, J.O.	31°13'05"N	81°43'24"W	--	--	--	16	--	--	W	None	
32H017	Roads End Camp	31°11'55"N	81°42'52"W	1948	245	442	20.17	-281	--	G,W	None	
32H019 ^a	Union Bag	31°10'16"N	81°44'10"W	--	--	--	15	--	--	W	None	
32H020 ^a	Union Bag/Vickers, A.D.	31°09'43"N	81°43'25"W	--	--	--	15	--	--	W	None	
32H022 ^a	Johnson, Walter	31°09'54"N	81°41'42"W	1946	--	--	17	--	--	W	None	
32H023 ^a	Glynn County, Buck Swamp School	31°09'42"N	81°40'54"W	1938	--	--	16	-298	--	W	None	
32H024	Lamar, Stafford	31°09'18"N	81°40'08"W	02-1939	214	518	18.48	--	--	G,W,Q	None	
32H026	Osborn, N.B.	31°10'53"N	81°38'12"W	03-1957	292	445	20.92	-275	--	G,W	Shallow, insufficient casing	
32H029	Demery, Minder	31°10'59"N	81°39'13"W	1950	--	--	15	--	--	W	None	
32H036	Livingston, J.L.	31°11'30"N	81°39'32"W	1910	260	318	16	-296	--	G	None	
32H037	Curry, C.K.	31°07'39"N	81°37'39"W	1962	286	570	31	-315	--	G	None	
32H038	Humble Oil/Union Bag 77	31°10'03"N	81°41'49"W	04-12-58	0	910	16	-254	-596	G	None	
32H039	Humble Oil/Union Bag 93	31°09'15"N	81°40'08"W	08-16-59	351	896	17	-273	-538	G	None	
32H040	Humble Oil/Union Bag 100	31°12'11"N	81°43'24"W	09-11-59	264	920	18	-286	-589	G	None	
32H041	Humble Oil/Union Bag 76	31°12'54"N	81°40'25"W	04-10-58	0	900	12	-303	-600	G	None	
32H042	Humble Oil/Union Bag 89	31°13'43"N	81°39'21"W	06-26-59	357	967	16	-299	-614	G	None	
32H043	Humble Oil/Union Bag 78	31°08'20"N	81°38'13"W	04-16-58	20	820	14	-254	-488	G	D-point value questionable	
32H045	Humble Oil/Union Bag 73	31°14'44"N	81°37'58"W	04-05-58	--	780	13	-266	-585	G	None	
32J001	Nail, G.A.	31°18'12"N	81°41'25"W	11-1957	413	699	10	-300	-672	G,W	None	
32J002	Seaboard Coast Line RR, Thalmann	31°17'36"N	81°41'27"W	12-1938	700	740	20.60	--	--	W,Q	Errors in W measurement (?)	
32J003	Harrison, Connie	31°17'28"N	81°41'30"W	1950	700	840	18.72	--	--	W	None	
32J006 ^a	McLain, R.B.	31°17'30"N	81°41'23"W	09-1938	--	740	21	--	--	W	None	
32J007 ^a	State Highway Dept.	31°16'53"N	81°39'54"W	--	--	--	15	--	--	W	None	
32J012	Humble Oil/Union Bag 91	31°15'59"N	81°38'37"W	07-24-59	385	935	12	-278	-586	G	None	
32J013	Humble Oil/Union Bag 75	31°16'44"N	81°40'27"W	04-09-58	0	840	15	-285	-630	G	None	
32J014	Humble Oil/Union Bag 72	31°15'04"N	81°43'51"W	04-04-58	0	740	17	-268	-608	G	None	
32J015	Arnett Field	31°18'40"N	81°40'58"W	--	314	483	15	-297	--	G	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
32K001 ^a	Mullins, W.W.	31°23'37"N	81°38'31"W	1935	200	560	15.06	--	--	W,Q	None	
32K002 ^a	Cowart, D.C.	31°23'37"N	81°38'39"W	12-1938	--	500	18	--	--	W	None	
32K003 ^a	Crenshaw, M.C.	31°23'32"N	81°38'18"W	1910	--	525	15.24	--	--	W	None	
32K004 ^a	Savage, L.A.	31°23'42"N	81°38'07"W	1932	--	550	15	--	--	W	None	
33G001	Curry Oil Test	31°07'11"N	81°36'37"W	03-25-54	694	1,457	8.43	-328	-569	G,Q	Original depth 2,050 ft; plugged, 10-1982	
33G002	Massey (lake)	31°07'11"N	81°32'40"W	1949	570	660	8.23	-293	-585	G,W,Q	None	
33G003	Massey Oil Test	31°06'46"N	81°32'24"W	11-25-53	610	921	12.67	-259	-578	G,W,Q	Original depth 4,602 ft; plugged, 11-1963	
33G008	USGS TW 15	31°07'01"N	81°32'02"W	12-1966	599	702	7.46	-289	-598	G,W,Q	None	
33G024	Curry 2	31°07'13"N	81°36'38"W	03-21-77	577	770	9	--	--	Q	None	
33G026	S.C.M., Inc. 2	31°06'40"N	081°32'45"W	09-09-80	622	825	10	--	--	Q	None	
33H003	Madge Merritt Garden Club	31°07'59"N	81°35'54"W	1959	147	480	9.62	-315	--	G,W	Shallow, insufficient casing	
33H005 ^a	Knowles, W.H.	31°08'26"N	81°35'15"W	1930	--	600	18.61	--	--	W	None	
33H006	Scarlett, R.M.	31°09'02"N	81°35'23"W	1916	180	480	18	--	--	W	None	
33H008	Hosmer, H.E.	31°08'39"N	81°34'39"W	1939	350	470	14	--	--	W	None	
33H010	Cowman, George F.	31°09'00"N	81°34'15"W	02-1937	332	414	6.30	-282	--	G,W	Shallow, insufficient casing	
33H012 ^a	Stutts	31°08'53"N	81°33'57"W	--	--	--	8	--	--	W	None	
33H013	Watts, W.H.	31°08'17"N	81°33'30"W	--	504	700	7	--	--	W,Q	None	
33H014 ^a	Scarlett, R.M.	31°08'16"N	81°33'24"W	--	--	--	9	--	--	W	None	
33H015 ^a	Beauford	31°08'10"N	81°33'24"W	--	--	--	9.5	--	--	W	None	
33H016	Satilla Shores	31°07'37"N	81°33'19"W	12-1959	580	780	10.15	--	--	W,Q	None	
33H017	Massey, Roy (barn)	31°07'48"N	81°32'16"W	--	224	333	12	--	--	W	None	
33H018	Massey, Roy (house)	31°08'07"N	81°32'35"W	--	--	--	10	--	--	W,Q	None	
33H020 ^a	Blythe Island, C.C. Camp	31°09'45"N	81°32'11"W	--	--	--	11	--	--	W	None	
33H021	Blythe Island (near I-95)	31°09'46"N	81°33'25"W	1939	297	514	9	-274	--	G,W	None	
33H025	Riccio, Joseph (Skarpaletz, John)	31°10'14"N	81°32'28"W	1935	--	500	13	--	--	W	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
33H026 ^a	Lee, J.E.	31°10'22"N	81°32'22"W	1945	--	685	10	--	--	W	None	
33H028 ^a	Kersey, Golden Isles Nursery	31°10'21"N	81°32'06"W	--	--	600	8.5	--	--	W	None	
33H031 ^a	Lovett, Leroy	31°10'32"N	81°32'21"W	1953	487	587	10	--	--	W	None	
33H033 ^a	Burch, O.E.	31°11'29"N	81°32'59"W	--	--	675	9	--	--	W	None	
33H034 ^a	Thompson, Pete	31°11'26"N	81°33'12"W	--	300	700	10	--	--	W	None	
33H035	Boy Scouts of America, Camp Tolochee	31°11'19"N	81°34'02"W	1960	580	720	7.71	-304	-573	G,W	None	
33H036 ^a	Mauromat, Andrew	31°12'16"N	81°33'55"W	1942	--	--	7	--	--	W	None	
33H038	Camp Glynn	31°12'39"N	81°34'05"W	04-01-62	621	780	9.05	-318	-621	G,W,Q	None	
33H040 ^a	Holtzendorf, R.R.	31°14'25"N	81°35'05"W	1950	--	--	10	--	--	W,Q	None	
33H041	Daniel, A.R.	31°14'51"N	81°32'47"W	1960	659	802	20.06	-364	-684	G,W	None	
33H049 ^a	Burgess, C.D.	31°13'47"N	81°32'29"W	--	--	--	10	--	--	W	None	
33H050 ^a	Jones, Wyche	31°13'27"N	81°32'27"W	1952	--	600	10	--	--	W,Q	None	
33H052	Waters, Wayne (Anderson, L.L.)	31°13'05"N	81°32'14"W	1957	560	825	10.17	--	--	W,Q	None	
33H056 ^a	Lewis, S.L.	31°13'40"N	81°31'43"W	--	--	700	26	--	--	W	None	
33H057 ^a	Lewis & Whorton	31°13'36"N	81°31'27"W	1937	--	700	27	--	--	W	None	
33H059 ^a	Steele, O.D.	31°13'48"N	81°31'04"W	1913	--	700	30	--	--	W	None	
33H061	Metro Development/Sautell, H.B.	31°13'11"N	81°31'36"W	1918	598	988	20	-328	-611	G,W	None	
33H065 ^a	Thrower, Charles	31°13'13"N	81°31'17"W	1956	--	665	19.97	--	--	W	None	
33H069 ^a	Phillips, F.E.	31°13'29"N	81°30'28"W	1937	490	690	15	--	--	W	None	
33H073 ^a	McViegh, W.J.	31°13'06"N	81°30'10"W	--	--	--	15	--	--	W	None	
33H074 ^a	Roland (turpentine still)	31°12'45"N	81°30'08"W	1932	--	550	18.30	--	--	W	None	
33H075 ^a	Sanders, Jack	31°12'45"N	81°30'08"W	09-1939	602	632	20	--	--	W	None	
33H078 ^a	Willis, B.H.	31°12'39"N	81°31'13"W	--	--	780	9.35	--	--	W,Q	None	
33H079	Hamilton, R.L.	31°12'33"N	81°31'10"W	1960	623	741	8.73	-327	-604	G,W	None	
33H080 ^a	Schofeer, Frank	31°12'40"N	81°30'50"W	1941	--	650	10	--	--	W	None	
33H083 ^a	Bates, A.R.	31°12'22"N	81°31'02"W	08-1937	500	615	13	--	--	W	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
33H085 ^a	Morgan, Earl	31°12'20"N	81°30'54"W	08-1956	--	850	12.56	--	--	W	None
33H086	Bennett, B.K.	31°12'15"N	81°30'50"W	1949	--	680	12.57	--	--	W,Q	None
33H089 ^a	Coppland, Milton	31°12'12"N	81°30'55"W	--	--	--	11	--	--	W	None
33H090 ^a	Turner (Morgan, R.L.)	31°12'10"N	81°30'34"W	--	--	550	15.5	--	--	W	None
33H094 ^a	Robarts, E.	31°12'01"N	81°30'45"W	1956	--	765	11.51	--	--	W,Q	None
33H095	Robarts, Ernest	31°11'56"N	81°30'41"W	1961	546	760	12.96	-262	-526	G,Q	None
33H098 ^a	Roberts, George	31°11'39"N	81°30'20"W	02-1930	--	576	16	--	--	W	None
33H099 ^a	Georgia Forestry Commission	31°11'30"N	81°30'20"W	--	--	800	14.05	--	--	W,Q	None
33H100	Jenkins, S.O., Sunset Theatre	31°11'29"N	81°30'21"W	1958	540	777	12.44	-263	-544	G,W	None
33H101	LCP 1	31°11'17"N	81°30'29"W	06-1919	531	1,026	10	--	--	W,Q	None
33H102	LCP 2	31°11'11"N	81°30'19"W	1920	447	983	14.71	-250	-530	G,W,Q	None
33H103	LCP 3	31°11'04"N	81°30'30"W	04-14-19	501	982	10	--	--	W,Q	None
33H104	LCP 4	31°11'14"N	81°30'35"W	1920	535	600	6	--	--	W,Q	None
33H105	LCP 5	31°11'16"N	81°30'56"W	12-1956	534	1,064	5	--	--	W,Q	None
33H106	LCP 6	31°10'46"N	81°31'17"W	08-1956	496	775	6	-240	-519	G,W,Q	None
33H108	BP&P 1	31°10'27"N	81°31'13"W	06-1937	492	871	12.60	-245	-547	G,W,Q	Called BP&P 2 in Warren (1945); replaced by 33H211, 10-1984
33H109	BP&P 2	31°10'23"N	81°31'12"W	1937	488	849	14	-250	-539	G,Q	Called BP&P 1 in Warren (1945)
33H110	BP&P 3	31°10'41"N	81°30'46"W	1937	494	1,050	6.85	--	--	W,Q	None
33H111	BP&P 4	31°10'39"N	81°31'18"W	04-1948	492	1,043	7	-240	-530	G,Q	None
33H112	BP&P 5	31°10'07"N	81°31'13"W	09-1950	517	1,019	11.24	-248	-503	G,Q	None
33H113	BP&P 6	31°09'55"N	81°31'17"W	11-1955	550	1,076	10	-252	-502	G,W,Q	None
33H114	BP&P 8	31°10'27"N	81°31'06"W	06-1960	560	1,006	9.74	-247	-544	G,W,Q	Called BP&P 7 in Wait (1965), Wait and Gregg (1973), and Gregg and Zimmerman (1974)

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
33H115	BP&P 7	31°10'36"N	81°30'55"W	1960	560	935	8.59	-246	-553	G,W,Q	Called BP&P 8 in Wait (1965), Wait and Gregg (1973), and Gregg and Zimmerman (1974); plugged, 03-1990
33H116	BP&P 9	31°10'20"N	81°30'54"W	12-07-60	557	928	6.36	-250	-542	G,W	Replaced by 33H214 and 33H215, 11-1984
33H117	BP&P 10	31°10'18"N	81°30'39"W	12-10-60	558	1,030	10.95	-230	-547	G,Q	Replaced by 33H216, 33H217 and 33H218, 01-1985
33H118	BP&P 11	31°10'08"N	81°30'58"W	1961	550	1,003	6.59	-245	-516	G,W,Q	Replaced by 33H212 and 33H213, 12-1984
33H119	Lipthrott, David, Jr.	31°10'40"N	81°30'40"W	12-1939	520	640	11.50	--	--	W,Q	None
33H120	Palmetto Cemetery (north)	31°10'36"N	81°30'26"W	--	514	571	11.88	-247	-552	G,W,Q	None
33H122 ^a	Selden Park	31°10'23"N	81°30'30"W	03-1940	520	645	9	--	--	W	None
33H123 ^a	Selden Recreation	31°10'23"N	81°30'29"W	--	--	--	9	--	--	Q	None
33H125 ^a	Union Bag/Whittle, A.E.	31°13'52"N	81°36'00"W	1928	--	--	9	--	--	W	None
33H127	USGS TW 3	31°10'06"N	81°30'16"W	08-1962	823	952	6.15	-220	-490	G,W,Q	None
33H130	Selden Park	31°10'21"N	81°30'31"W	04-1963	530	700	10.79	--	--	W,Q	None
33H131	Jenkins, S.O. (pasture)	31°14'29"N	81°34'26"W	1963	600	766	3.53	-312	-622	G,W	None
33H132	Oak Bluff Subdivision	31°13'23"N	81°32'03"W	10-1963	499	736	20.96	-321	-615	G	None
33H133	USGS TW 6	31°10'06"N	81°30'16"W	03-1964	520	790	6.71	-219	-491	G,W,Q	None
33H134	Ballard Fire Station	31°12'12"N	81°30'24"W	04-21-64	537	700	17.44	-303	-545	G	None
33H135	O'Quinn Trailer Park	31°11'00"N	81°30'12"W	07-1964	568	857	16.08	-249	-533	G,Q	None
33H136	Taylor Methodist Church	31°12'49"N	81°30'03"W	--	562	684	20.63	--	-547	G	None
33H137	Self, S.B.	31°12'23"N	81°31'14"W	07-1965	626	743	8	--	-602	G,W	None
33H138	Zell, Richard	31°08'26"N	81°33'26"W	1966	408	460	7.81	-327	--	G	None
33H139	Cheek, Guy (O'Quinn, Wyllie, Jr.)	31°07'38"N	81°33'27"W	1963	595	784	9.12	-300	-583	G,W,Q	W measurement error, 05-1980
33H140	Sapp, H.A.	31°08'46"N	81°35'29"W	08-1965	557	763	18.36	-267	-535	G	None
33H141	USGS TW 12	31°10'44"N	81°32'31"W	10-1966	558	720	12.55	-272	-549	G,W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY --Continued											
33H142	Jenkins, S.O. (house)	31°13'46"N	81°34'23"W	--	--	--	11	--	--	W	None
33H144	Pure Oil Service Station	31°12'12"N	81°30'33"W	04-1967	561	635	17	-298	-538	G	None
33H145	Justice, Clifford	31°10'03"N	81°30'03"W	--	372	514	14	-215	-487	G	None
33H146	Johnson, Arco Laundry	31°10'48"N	81°30'08"W	1961	529	800	14	-241	-531	G	None
33H147	Barnes, Robert D. (Mims, Vernon)	31°09'56"N	81°35'11"W	1967	418	570	13	-293	--	G,W	None
33H148	Whorton Farms	31°13'45"N	81°31'27"W	1958	630	762	29	-347	-638	G	None
33H149	Escambia Corp.	31°14'32"N	81°31'41"W	1968	644	732	14.26	-382	-683	G,W	None
33H150	Havenwood Nursery	31°13'31"N	81°30'31"W	1968	490	501	15	-358	--	G	None
33H152	Thomas, A.L.	31°13'28"N	81°30'32"W	04-1968	608	713	16	-350	-621	G	None
33H153	Stutts, T.J.	31°08'52"N	81°33'56"W	05-1969	546	684	7	-289	-557	G	None
33H154	USGS TW 18	31°10'22"N	81°30'29"W	07-1969	817	989	10.20	-239	-527	G,W,Q	None
33H155	Sapp, Woodrow	31°12'46"N	81°30'48"W	04-1970	582	706	11	-336	-589	G	None
33H164	Tidewater Construction Co.	31°08'47"N	81°34'31"W	1971	570	695	10	--	--	W	None
33H165	Kessie, Ralph	31°11'10"N	81°32'37"W	04-1971	561	748	9	-285	-550	G	None
33H167	Beasley/Mims	31°10'30"N	81°30'11"W	1940	515	549	13	-240	-535	G	None
33H168	Hudley, Robert	31°12'17"N	81°30'02"W	10-1971	569	691	16	-297	-537	G	None
33H173	Sea Pak Corp. 1	31°13'09"N	81°30'37"W	09-21-72	635	793	12.50	--	--	W,Q	None
33H174	Northwood Estate Subdivision	31°14'08"N	81°30'57"W	10-1972	670	793	30	-371	-645	G,W	None
33H175	Brunswick, Glyndale 1	31°12'55"N	81°31'23"W	02-1973	632	811	17	-345	-623	G,W,Q	None
33H176	KOA Campground	31°08'42"N	81°34'52"W	07-12-73	583	763	16	-289	-561	G	None
33H177	Spaulding Trailer Park	31°07'40"N	81°36'13"W	08-1973	580	750	15	--	--	W,Q	None
33H178	BP&P 4 (new)	31°10'36"N	81°31'17"W	04-01-74	560	850	7	--	--	W,Q	None
33H179	Dennard, Tom (hostel)	31°09'48"N	81°36'08"W	04-1975	555	700	20	--	--	W,Q	None
33H180	Thomas, R.E., Leaseaway Transportation	31°11'07"N	81°30'00"W	03-22-74	575	710	15	--	--	W,Q	None
33H183	BP&P 5 (new)	31°10'07"N	81°31'13"W	01-11-77	550	850	11	--	--	W,Q	None
33H184	Humble Oil/Union Bag 94	31°13'53"N	81°36'53"W	08-18-59	282	944	12	-298	-609	G	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
33H185	Humble Oil/Union Bag 74	31°14'33"N	81°30'46"W	04-07-58	0	983	33	-367	-656	G	None
33H186	Humble Oil/Bell 1	31°08'17"N	81°35'39"W	09-03-59	100	901	19	-296	-542	G	None
33H187	Humble Oil/Harper 1	31°10'00"N	81°36'13"W	08-20-59	295	955	30	-281	-587	G	None
33H188	USGS TW 26, Colonel's Island	31°08'09"N	81°32'35"W	10-1978	2,138	2,720	9.37	-318	-597	G,W,Q	None
33H189	BP&P 2 (new)	31°10'14"N	81°31'08"W	05-1979	540	900	5	-253	-543	G,W,Q	None
33H190	Brunswick, Glyndale 2	31°12'55"N	81°31'25"W	05-1980	650	820	16.4	--	--	W,Q	None
33H192	Davis, W.K./Union Camp 1 (oil test)	31°13'45"N	81°37'04"W	07-12-81	1,320	1,894	10	-303	-616	G,Q	Original depth, 8,468 ft; plugged, 10-1982
33H193	Davis Oil Test (supply)	31°13'45"N	81°37'04"W	02-1981	600	700	10	--	--	W	None
33H206	USGS/GGS/BP&P TW 1 (south)	31°09'25"N	81°31'22"W	02-23-83	1,000	1,100	7	-262	-520	G,W,Q	None
33H207	USGS/GGS/BP&P TW 2 (south)	31°09'25"N	81°31'22"W	02-02-83	620	720	7	-264	-517	G,W,Q	None
33H209	Glynn County Recreation Dept., Blythe Island	31°09'12"N	81°32'53"W	03-1982	540	640	10	-283	-532	G,W,Q	None
33H210	Brunswick Salt Transfer, Inc.	31°10'42"N	81°31'20"W	1978	518	620	6	--	--	Q	None
33H211	USGS/BP&P 1	31°10'27"N	81°31'13"W	10-31-84	590	630	12.60	--	--	W,Q	Replaced 33H108
33H212	USGS/BP&P 11 (lower)	31°10'08"N	81°30'58"W	12-13-84	870	1,007	6.59	--	--	W,Q	Replaced 33H118; three sections of casing below 870 ft, 890-940, 950-980, and 990-1,007
33H213	USGS/BP&P 11 (upper)	31°10'08"N	81°30'58"W	12-13-84	550	800	6.59	--	--	W,Q	Replaced 33H118
33H214	USGS/BP&P 9 (lower)	31°10'20"N	81°30'54"W	11-1984	895	920	6.36	--	--	W,Q	Replaced 33H116
33H215	USGS/BP&P 9 (upper)	31°10'20"N	81°30'54"W	11-1984	557	800	6.36	--	--	W,Q	Replaced 33H116
33H216	USGS/BP&P 10 (lower)	31°10'18"N	81°30'39"W	01-23-85	1,010	1,030	10.95	--	--	W,Q	Replaced 33H117
33H217	USGS/BP&P 10 (middle)	31°10'18"N	81°30'39"W	01-23-85	885	907	10.95	--	--	W,Q	Replaced 33H117
33H218	USGS/BP&P 10 (upper)	31°10'18"N	81°30'39"W	01-23-85	557	800	10.95	--	--	W,Q	Replaced 33H117
33H219	Golden Gate Christian Academy	31°13'49"N	81°31'52"W	11-27-84	654	736	22	-337	-627	G	None
33H220	Georgia Ports Authority (fire well)	31°07'39"N	81°32'31"W	06-1984	620	756	12	-315	-603	G,Q	None
33H221	BP&P 8 (new)	31°10'27"N	81°31'04"W	08-1985	556	1,006	10	--	--	W,Q	None
33H222	BP&P 7 (new)	31°10'38"N	81°30'55"W	12-1985	546	1,010	9	--	--	W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
33H225	Southport Observation (Fault) Well	31°07'57"N	81°35'16"W	06-23-88	640	890	15	-318	-577	G	None
33H227	BP&P 1 (new, 1989)	31°10'16"N	81°31'17"W	11-03-89	551	874	10	-253	-513	G,Q	None
33J001 ^a	Gowen, C.B.	31°20'24"N	81°35'54"W	--	--	--	13	--	--	W	None
33J002 ^a	Georgia DOT (Paulk, J.B.)	31°20'11"N	81°35'55"W	--	--	--	15	--	--	W	None
33J003 ^a	Jenkins, L.D.	31°20'07"N	81°35'30"W	1948	--	500	15	--	--	W	None
33J004 ^a	Paulk, J.B.	31°19'14"N	81°35'15"W	--	--	--	22	--	--	W	None
33J005 ^a	Zuta (sawmill)	31°19'15"N	81°35'14"W	--	--	--	22	--	--	W	None
33J006	Winters Excelsior	31°18'38"N	81°33'47"W	--	--	850	13.85	--	--	W	None
33J008	Bar None Ranch	31°19'06"N	81°33'38"W	01-15-62	634	900	13.24	-313	-691	G	None
33J009 ^a	Croft, R.V.	31°19'35"N	81°33'47"W	1926	--	--	20.4	--	--	W	None
33J012	Bright, B.	31°15'38"N	81°36'57"W	05-1957	590	750	13	--	--	W	Destroyed, 1977
33J013	Glynn Farms (pond)	31°15'24"N	81°36'46"W	--	373	487	13	-280	--	G	None
33J014 ^a	Glynn County	31°15'18"N	81°36'00"W	--	--	--	7.5	--	--	W	None
33J017 ^a	Skipper, S.B., Jr.	31°16'18"N	81°33'45"W	1924	255	338	12	--	--	W	None
33J019 ^a	Pipkin, J.E. (Holtzendorf)	31°16'05"N	81°33'41"W	07-1938	400	603	14	--	--	W	None
33J022 ^a	BP&P, Sterling	31°16'14"N	81°32'44"W	--	--	--	22.96	--	--	W	None
33J023 ^a	Darby	31°15'10"N	81°33'12"W	1930	--	560	13	--	--	W	None
33J024 ^a	Abott, C.B.	31°15'18"N	81°30'26"W	05-1939	--	760	24	--	--	W	None
33J026	Young, S.L.	31°17'41"N	81°34'09"W	12-07-65	680	900	13.13	-320	-687	G,W	None
33J027	Whittington, Lou (Blackerby, D.G.)	31°20'00"N	81°35'35"W	1961	590	788	17.08	-282	-634	G,W	None
33J028	Woodmen of the World	31°15'06"N	81°33'42"W	--	654	823	10	-367	-671	G,W	None
33J033	Glynn Farms	31°19'15"N	81°35'11"W	1959	212	395	22	-296	--	G	None
33J034	Girl Scout Camp	31°16'19"N	81°31'05"W	1959	660	780	25	--	--	W	None
33J035	Knight, James	31°16'19"N	81°31'13"W	10-15-73	570	576	25	-340	--	G	None
33J038	Humble Oil/Union Bag 61	31°20'00"N	81°32'12"W	02-25-58	0	1,528	15	-312	-680	G	None
33J039	Humble Oil/Union Bag 90	31°17'48"N	81°31'24"W	07-18-59	345	1,132	35	-363	-723	G	None
33J040	Humble Oil/Glynn Farms 1	31°19'16"N	81°35'09"W	07-27-59	285	1,058	22	-295	-670	G	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 56]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
33J041	Humble Oil/Schluter 1	31°15'24"N	81°36'07"W	07-21-59	285	924	6	-309	-604	G	None
33J042	Humble Oil/Union Bag 62	31°22'22"N	81°37'28"W	02-27-58	0	1,540	14	-311	-606	G	None
33J043	USGS TW 28, Sterling	31°16'33"N	81°32'41"W	11-28-78	662	800	20	--	--	W	Land surface datum estimated
33J044	USGS TW 27	31°16'33"N	81°32'40"W	01-11-79	1,079	1,910	20	-337	-684	G,W	None
33J045	PanAm/Union Camp 1	31°21'55"N	81°34'14"W	08-06-70	--	4,435	13	-296	-584	G	None
33J050	Jones, Jimmy/Brinson, Daryle	31°18'31"N	81°33'14"W	09-09-86	704	803	20	--	--	W	None
33K002 ^a	Atkinson, Elik	31°24'07"N	81°35'36"W	1931	--	600	16	--	--	W	None
33K005	Dixon, John (Shadron, Sylvester)	31°25'21"N	81°36'09"W	--	426	590	9.78	-284	--	G,W	None
33K006	Hadden & Hadden	31°25'23"N	81°36'14"W	1966	425	590	10.41	--	--	W	None
34G001	Babcock & Wilcox	31°07'26"N	81°28'58"W	1943	589	1,006	8.79	-304	-610	G,W,Q	None
34G002	Georgia DOT, Lanier Bridge	31°07'27"N	81°28'53"W	1956	585	750	10.05	-303	-606	G,W,Q	None
34G003	Jekyll Island 18, Jekyll Towers (entrance structure)	31°06'10"N	81°29'28"W	09-1958	494	692	5.69	-258	-585	G,W,Q	Elevation of measuring point, 11.64 ft
34G004	Jekyll Island 17/Dykes, Jules (package store)	31°03'31"N	81°26'47"W	08-1961	552	780	6.31	-228	-543	G,W,Q	None
34G006	Jekyll Island 20, Jekyll Bridge	31°02'49"N	81°25'38"W	--	370	464	10.85	-271	--	G,W	None
34G007	Jekyll Island 15, St. Andrews Picnic Area	31°01'15"N	81°25'58"W	--	380	396	12.75	-241	--	G,W	None
34G008	Jekyll Island 12 (old incinerator)	31°01'17"N	81°25'38"W	10-1959	510	718	8.20	--	--	W,Q	None
34G009	Jekyll Island 24 (youth center)	31°01'03"N	81°25'40"W	06-1955	561	706	10	--	--	W	None
34G010 ^a	Jekyll Island (duck pond)	31°02'36"N	81°24'50"W	--	--	--	6.8	--	--	W	None
34G011	Jekyll Island 2, Aquarama	31°02'41"N	81°24'48"W	09-1957	520	747	15.86	--	--	W	None
34G013	Jekyll Island 6 (9-hole golf course clubhouse)	31°03'15"N	81°24'35"W	09-1957	523	764	9.76	--	--	W,Q	None
34G015	Jekyll Island 1 (old)	31°04'02"N	81°24'22"W	10-1954	498	706	16	--	--	--	Abandoned
34G016	Jekyll Island 22 (north picnic area)	31°06'07"N	81°24'15"W	09-1957	555	773	9.88	-328	-612	G,W,Q	None
34G017	Jekyll Island 13, Clam Creek (fishing pier)	31°06'58"N	81°25'01"W	08-1957	502	715	7.03	-314	-612	G,W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
34G018	Jekyll Island 21, Maurice Rd.	31°06'10"N	81°24'43"W	1957	--	--	10	--	--	Q	None	
34G019 ^a	Jekyll Island (west side, marsh)	31°05'31"N	81°25'08"W	--	--	--	8	--	--	W	None	
34G020	Jekyll Island 23, N. Riverview Dr.	31°05'10"N	81°25'16"W	08-1957	529	755	10.02	-264	-563	G,W,Q	None	
34G021 ^a	Jekyll Island (gamekeeper's house)	31°04'31"N	81°25'27"W	--	--	--	11	--	--	W	None	
34G024	Jekyll Island 7 (auto shop)	31°03'39"N	81°25'13"W	07-12-57	550	745	10	--	--	W,Q	None	
34G027 ^a	Jekyll Island (garage)	31°03'31"N	81°25'05"W	--	--	--	12	--	--	W	None	
34G029	Jekyll Island 3, Woods	31°05'09"N	81°24'39"W	07-1963	526	766	16.76	-266	-557	G	None	
34G030	Jekyll Island 8, Championship Golf Course (#8 Tee)	31°03'42"N	81°24'50"W	06-02-64	526	785	7.32	-251	--	G	None	
34G031	Jekyll Island 1, Oakgrove Subdivision	31°04'03"N	81°24'22"W	08-1965	532	780	15.85	-258	-576	G	None	
34G032	Jekyll Island 10, Pinelakes Golf Course (#3 Tee)	31°04'13"N	81°25'20"W	05-30-66	544	766	11.97	-249	-565	G	None	
34G033	Jekyll Island 9, Pinelakes Golf Course (#17 Tee)	31°04'18"N	81°24'47"W	06-1966	540	686	13	-251	-541	G	None	
34G034	Quarantine Island	31°06'53"N	81°28'20"W	09-27-83	231	462	7	-283	--	G	None	
34G035	Jekyll Island 4, South Beachview	31°01'34"N	81°25'08"W	05-1969	545	685	10	-268	-564	G	None	
34G036	USGS TW 23	31°06'43"N	81°29'20"W	08-1970	1,062	1,140	7.50	-267	-591	G,W,Q	None	
34G039 ^a	Jekyll Island 12 (new incinerator)	31°01'17"N	81°25'38"W	03-30-74	567	730	10	--	--	Q	None	
34G041	Jekyll Island, Ga. State Patrol Post	31°03'32"N	81°26'48"W	03-04-87	541	680	10	--	--	W,Q	None	
34H001 ^a	Smith, B.	31°14'58"N	81°26'41"W	--	--	--	13	--	--	W	None	
34H003	Paulk, R.	31°14'32"N	81°26'53"W	1955	585	730	10.22	-318	-572	G,W	None	
34H005 ^a	Dees, W.O.	31°14'09"N	81°27'12"W	1957	--	670	12	--	--	W	None	
34H006 ^a	Osborne, J.H.	31°14'07"N	81°27'12"W	1914	590	600	12	--	--	W	None	
34H007 ^a	Higginbotham, W.P.	31°14'04"N	81°27'02"W	1924	590	600	9.5	--	--	W	None	
34H010	Twin Courts Motel	31°13'44"N	81°27'31"W	09-08-58	575	694	10	-325	-566	G	None	
34H012	Brunswick, Fed. Law Enforcement Training Center	31°14'07"N	81°28'34"W	--	620	850	24	--	--	W,Q	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H013	Brunswick, Fed. Law Enforcement Training Center	31°13'54"N	81°28'18"W	06-20-41	610	1,063	20	-342	-594	G	None
34H015 ^a	Brunswick Country Club (drinking)	31°13'28"N	81°27'45"W	--	--	--	13	--	--	W	None
34H016 ^a	Brunswick Country Club (irrigation)	31°13'26"N	81°28'02"W	--	--	640	15	--	--	W	None
34H017 ^a	Brunswick Country Club (pond)	31°13'14"N	81°28'09"W	1938	--	640	15	--	--	W	None
34H018 ^a	Brunswick Country Club (shop)	31°13'09"N	81°27'49"W	--	--	640	13	--	--	W	None
34H019 ^a	Cherokee Garden Club	31°13'17"N	81°27'41"W	--	--	--	6.26	--	--	W	None
34H020 ^a	Georgia Lodge 1	31°13'06"N	81°27'55"W	1947	--	720	14.69	--	--	W	None
34H021 ^a	Hafner, H.J.	31°13'03"N	81°27'54"W	--	--	600	14	--	--	W	None
34H023 ^a	Stanford, E.W.	31°13'07"N	81°28'02"W	--	--	780	16.15	--	--	W	None
34H024 ^a	Gay, J.M.	31°13'02"N	81°28'16"W	10-1958	--	740	16.87	--	--	W	None
34H025	Brunswick, Glynco Annex	31°13'28"N	81°28'26"W	12-1959	620	820	19.47	-337	-585	G,Q	None
34H029 ^a	Krauss, G.A.	31°12'47"N	81°28'00"W	1930	--	620	11.5	--	--	W	None
34H031 ^a	George, Mary	31°12'41"N	81°27'58"W	1947	--	750	9.44	--	--	W	None
34H032 ^a	Thiot, R.W.	31°12'43"N	81°27'37"W	--	--	--	8	--	--	W	None
34H033 ^a	Sea Spray Motel	31°12'22"N	81°27'58"W	--	--	--	7.81	--	--	W,Q	None
34H034 ^a	Beverly Shores 1	31°12'11"N	81°28'06"W	1934	--	600	10	--	--	W	None
34H035	Beverly Shores 2	31°12'11"N	81°28'06"W	06-19-57	560	760	12.03	--	--	W	None
34H037 ^a	Lashley, W.L.	31°11'43"N	81°27'59"W	--	--	--	5	--	--	W	None
34H038	Tomlinson, J.E.	31°11'55"N	81°28'24"W	1951	526	664	11	-278	-539	G	None
34H040 ^a	Guest, A.J.	31°12'00"N	81°28'42"W	1944	--	750	17.80	--	--	W	None
34H041 ^a	Lancaster, W.B.	31°11'44"N	81°28'15"W	--	--	500	7.5	--	--	W	None
34H043 ^a	Island View Subdivision	31°11'29"N	81°28'00"W	--	--	--	8.91	--	--	W,Q	None
34H045 ^a	Bradham, H.D.	31°11'26"N	81°28'12"W	--	--	700	5.51	--	--	W	None
34H046 ^a	Woodall, B.L.	31°11'21"N	81°28'09"W	1885	--	--	7	--	--	W	None
34H047	Crown Court Motel	31°11'18"N	81°28'15"W	1958	525	780	5.24	--	--	W,Q	None
34H048 ^a	Cowart, E.C.	31°11'15"N	81°28'13"W	--	--	685	6	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
34H050 ^a	Nation, J.A.	31°11'09"N	81°28'04"W	--	--	--	5	--	--	W	None	
34H051 ^a	Ingwersen, S.	31°11'03"N	81°28'25"W	--	--	--	7	--	--	W,Q	None	
34H052 ^a	Brunigraf, Henry	31°10'50"N	81°28'34"W	1930	--	--	10	--	--	W	None	
34H053 ^a	Dawson, J.L.	31°10'42"N	81°28'24"W	1928	--	540	6	--	--	W	None	
34H056 ^a	Yates, C.T.	31°10'32"N	81°28'24"W	1925	--	650	6	--	--	W	None	
34H057 ^a	Riverside Subdivision	31°10'28"N	81°27'43"W	--	--	--	4	--	--	W	None	
34H058 ^a	Riverside Developers	31°10'28"N	81°27'43"W	--	--	--	5	--	--	Q	None	
34H059 ^a	Oak Park Hotel	31°10'25"N	81°28'23"W	--	--	--	8	--	--	W	None	
34H060	Caravel Corp.	31°10'16"N	81°28'34"W	--	496	571	8.90	-250	-504	G,W,Q	None	
34H061	Benton Brothers Storage	31°10'10"N	81°28'38"W	1917	152	520	9.68	-243	--	G,Q	None	
34H062	Dixie-O'Brien (front)	31°10'05"N	81°28'27"W	1959	554	810	8.70	--	--	W,Q	None	
34H064	Dixie-O'Brien (back)	31°10'03"N	81°28'24"W	1930	491	632	8.56	-258	-496	G,Q	None	
34H065	Hercules Inc. A	31°09'50"N	81°28'51"W	1920	455	664	11	-249	-496	G,W,Q	Original depth 971 ft	
34H066	Hercules Inc. B	31°09'51"N	81°28'49"W	1920	384	646	11	-254	-495	G,W,Q	Original depth 973 ft	
34H067	Hercules Inc. C	31°09'49"N	81°28'43"W	1921	500	621	10	--	--	W,Q	Original depth 668 ft	
34H070	Hercules Inc. F	31°09'55"N	81°28'50"W	08-1929	557	887	10	--	--	Q	Original depth 880 ft; deepened to 1,025 ft, 1935; plugged to 887 ft, 1965; destroyed, 1986	
34H071	Hercules Inc. H	31°09'51"N	81°28'46"W	10-1939	560	890	10	-253	-494	G,W,Q	Original depth 1,062 ft; plugged, 05-1965; destroyed, replaced by 34H413, 02-27-1973	
34H072	Hercules Inc. I	31°09'52"N	81°28'43"W	06-1941	498	950	10	--	--	Q	Taps multiple water-bearing zones	
34H073	Hercules Inc. J	31°09'51"N	81°28'57"W	08-1942	547	890	12	-242	-487	G,W,Q	Original depth 1,060 ft, plugged to 890 ft, 04-1964	
34H074	Hercules Inc. K	31°09'59"N	81°28'44"W	03-08-46	560	894	10	-243	-490	G,W,Q	Original depth 1,053 ft; plugged to 894 ft, 01-1966	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H075	Hercules Inc. L	31°10'02"N	81°28'37"W	02-1945	560	895	9	-253	-491	G,W,Q	Original depth 1,050 ft, plugged to 895 ft, 11-1968
34H076	Hercules Inc. M	31°09'59"N	81°29'01"W	02-1950	480	911	13	--	--	W,Q	Original depth 1,015 ft; plugged to 911 ft, 10-1965
34H077	Hercules Inc. N	31°10'07"N	81°29'03"W	08-14-53	555	932	15	-240	-488	G,W,Q	Original depth 1,050 ft; plugged to 932 ft, 06-1968; destroyed, 1970
34H078	Hercules Inc. O	31°09'48"N	81°28'52"W	09-27-55	545	890	10	-249	-488	G,W,Q	Original depth 1,014 ft; plugged to 890 ft, 07-1964
34H079	Hercules Inc. P	31°09'58"N	81°28'39"W	08-26-57	549	912	9	--	--	W,Q	Original depth 1,040 ft; plugged to 912 ft, 08-1970
34H080 ^a	Parkview Motel	31°09'38"N	81°28'41"W	1959	560	780	7	--	--	Q	None
34H081 ^a	Anchorage Hotel	31°09'34"N	81°28'50"W	--	--	800	8	--	--	Q	None
34H082	Thon, L.L.	31°09'27"N	81°28'59"W	1949	550	656	10.13	-261	-537	G,W	None
34H085	Brunswick, Coffin Park	31°09'06"N	81°28'46"W	12-1938	514	623	6.98	-267	-531	G,W,Q	None
34H086 ^a	Gould	31°08'58"N	81°29'01"W	--	--	--	11.29	--	--	W,Q	None
34H087 ^a	Glynn Ice & Coal Co.	31°08'45"N	81°29'08"W	1919	500	750	11	--	--	Q	None
34H088	Knight, Ann	31°08'39"N	81°29'10"W	--	316	427	7.79	-273	--	G	None
34H089	Lang Planing Mill	31°08'30"N	81°29'04"W	--	521	567	5.83	-277	-543	G,W,Q	None
34H090	Purcell, Della	31°08'22"N	81°29'13"W	1928	496	592	9.29	-284	-560	G,W	None
34H091	Brunswick (north shipyard)	31°07'53"N	81°29'01"W	06-1942	619	736	6.08	-329	-609	G,W,Q	None
34H094	Brunswick (south shipyard)	31°07'31"N	81°29'13"W	07-1942	568	787	9.03	--	--	W,Q	Casing deteriorated; destroyed, 04-02-1987
34H095	Georgia Pacific	31°07'34"N	81°29'19"W	06-25-59	489	805	5	--	--	W,Q	Influenced by in-line pumpage
34H097	Georgia Ports Authority (main office)	31°07'55"N	81°29'27"W	1960	584	751	7.04	-312	-591	G,W,Q	None
34H098	Jekyll Island Packing	31°08'01"N	81°29'34"W	02-1958	556	780	7.64	-307	-585	G,W,Q	None
34H100	Riley, Barney	31°08'06"N	81°29'25"W	1960	595	786	11.35	-299	-583	G,W,Q	None
34H104	Royalls, Ed	31°08'17"N	81°29'41"W	--	358	404	5	-307	--	G	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H107	Lewis Crab Co. 1	31°08'26"N	81°29'45"W	--	--	--	6	--	--	Q	Plugged, 1961
34H108	Lewis Crab Co. 2	31°08'27"N	81°29'44"W	06-1957	594	800	6	--	--	Q	Plugged, 1961 (?)
34H109 ^a	Lewis Crab Co. 3	31°08'29"N	81°29'44"W	--	--	770	7.30	--	--	Q	None
34H110	Lewis Crab Co. 4	31°08'27"N	81°29'43"W	1957	582	682	6.60	-294	-574	G,Q	Original depth, 780 ft; plugged to 682 ft, 01-30-1962; pump, casing failed after 1981
34H112	Abbott Ice House	31°08'41"N	81°29'41"W	08-1960	540	780	8.58	-270	-537	G,W,Q	None
34H113	Golden Shores 1	31°08'52"N	81°29'51"W	07-1958	524	737	8.11	-266	-531	G,Q	None
34H114 ^a	Golden Shores 2	31°08'52"N	81°29'51"W	--	--	700	9	--	--	Q	None
34H115 ^a	Golden Shores 3	31°08'52"N	81°29'51"W	1946	--	700	11	--	--	W,Q	None
34H116 ^a	Golden Shores 4	31°08'53"N	81°29'53"W	--	--	680	7	--	--	Q	None
34H117	Whorton Crab	31°08'52"N	81°29'54"W	1956	528	747	6.70	--	--	W,Q	None
34H118	Brunswick, 1525 Grant St.	31°08'59"N	81°29'49"W	1912	508	980	17.02	--	--	W,Q	None
34H119	Brunswick (old J49)	31°08'59"N	81°29'49"W	1918	380	428	16.73	-256	--	G,W	None
34H120	Brunswick, F St.	31°08'58"N	81°29'52"W	04-1942	476	955	10.44	-261	-525	G,W,Q	None
34H122	Coastal Bank (Brunswick Laundry)	31°08'59"N	81°29'41"W	1960	448	573	13.72	-258	-518	G,W,Q	None
34H123	Miller Funeral Home	31°09'02"N	81°29'27"W	--	530	600	10	--	--	Q	None
34H124 ^a	Duckworth, James	31°09'06"N	81°29'31"W	1940	--	700	12	--	--	W,Q	None
34H125	USGS TW 1	31°09'06"N	81°29'31"W	1960	535	604	11.57	-254	--	G,W,Q	None
34H128	Firestone Store	31°09'19"N	81°29'35"W	1960	519	700	11	-258	-528	G,W,Q	None
34H129	Glynn Cleaners	31°09'22"N	81°29'36"W	1956	537	747	10.93	-255	-526	G,Q	None
34H130	Rice TV Service (Mock Laundry)	31°09'39"N	81°29'24"W	04-1959	--	700	11	--	--	W,Q	None
34H132	USGS TW 2	31°10'21"N	81°29'52"W	1960-61	540	1,103	13.91	--	--	--	Three measuring points, 34H439-441; replaced by 34H469, 01-1975; all data listed elsewhere
34H133	Brunswick, Goodyear Park	31°10'35"N	81°28'58"W	1943	520	800	12	--	--	W,Q	Plugged, 05-1990
34H134	Brunswick Villa	31°10'51"N	81°29'55"W	04-1943	518	942	12.67	-248	-533	G,W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
34H136	Ramsey, Ben	31°11'59"N	81°29'15"W	08-1959	526	692	13.37	-278	-532	G	None	
34H137 ^a	Souter, J.C.	31°12'33"N	81°29'28"W	1945	--	780	21	--	--	W	None	
34H139 ^a	Kinstle, L.M.	31°13'18"N	81°29'45"W	1927	--	715	20	--	--	W	None	
34H140 ^a	Parker & Wright, Inc.	31°13'23"N	81°29'41"W	--	--	500	18	--	--	W	None	
34H141 ^a	Miller, Bert	31°13'38"N	81°29'30"W	1929	--	780	20	--	--	W	None	
34H144	J. Torras Causeway (maintenance shop)	31°09'47"N	81°26'52"W	1925	--	300	11	--	--	W	Shallow, insufficient casing	
34H145	Bennett, George	31°10'05"N	81°26'15"W	1948	391	430	5.64	-292	--	G	None	
34H146	Wilson, Arthur	31°10'15"N	81°25'42"W	1939	362	453	8.38	-291	--	G,W	None	
34H147 ^a	Olsen's Yacht Yard	31°10'07"N	81°24'58"W	12-1937	--	600	11	--	--	W	Replaced by 34H358, 02-1966	
34H149 ^a	American Legion	31°10'07"N	81°24'27"W	--	--	--	8.63	--	--	W	None	
34H150 ^a	Glynn County (old mill)	31°10'13"N	81°24'30"W	--	--	550	12	--	--	W	None	
34H151 ^a	Sea Island Co.	31°10'14"N	81°24'22"W	1957	--	--	10	--	--	W	None	
34H152 ^a	Epworth-by-the-Sea	31°10'24"N	81°24'20"W	1955	--	780	10	--	--	W,Q	None	
34H154 ^a	Moose Lodge #1915	31°09'53"N	81°24'04"W	1955	--	550	10	--	--	W	None	
34H155 ^a	Lewis, Alberta	31°09'46"N	81°23'42"W	1930-39	--	--	13.92	--	--	W	None	
34H156 ^a	Morrison's estate	31°09'43"N	81°23'41"W	--	--	800	16.34	--	--	W	None	
34H158 ^a	Nickols, J.B.	31°09'36"N	81°23'20"W	04-1938	500	640	12	--	--	W	None	
34H160	Sea Island Golf Course (1959)	31°08'40"N	81°24'21"W	05-1959	580	1,052	7.94	-303	-577	G,W,Q	None	
34H161 ^a	Sea Island Golf Course	31°08'20"N	81°24'15"W	1927	--	--	10	--	--	W	None	
34H164 ^a	Tracy, A.W. (O'Steen, Homer)	31°08'26"N	81°23'48"W	--	--	--	10	--	--	W	None	
34H170 ^a	McCaskill, D.C.	31°08'16"N	81°23'45"W	--	--	--	9	--	--	W	None	
34H171 ^a	Edwards, Ann	31°08'17"N	81°23'51"W	1945	--	600	9	--	--	W	None	
34H185 ^a	Cofer, H.J.	31°08'03"N	81°23'52"W	05-1938	--	650	10	--	--	W	None	
34H193	Mallory Park	31°08'20"N	81°23'37"W	--	435	437	10	-310	--	G	None	
34H204	Glynn County (casino)	31°08'02"N	81°23'41"W	1949	540	750	10.14	--	--	W,Q	None	
34H205	Saint Simons Island (lighthouse)	31°08'01"N	81°23'37"W	1927	477	608	9.87	-296	-586	G,W,Q	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H210 ^a	Vickers, J.J.	31°08'12"N	81°23'27"W	--	--	--	10	--	--	W	None
34H217 ^a	McDonald, R.L.	31°08'12"N	81°23'21"W	1939	--	--	12.06	--	--	W	None
34H218 ^a	Sea Island Co.	31°08'13"N	81°23'20"W	--	--	--	11.27	--	--	W	None
34H222 ^a	Saint Simons Elementary School	31°08'11"N	81°23'15"W	--	--	750	8	--	--	Q	None
34H225 ^a	Murphy, F.E.	31°08'05"N	81°23'18"W	--	--	--	9.21	--	--	W	None
34H232 ^a	Slaughter, W.T.	31°08'16"N	81°23'08"W	--	--	--	7	--	--	W	None
34H234 ^a	Townsend, W.G.	31°08'14"N	81°22'59"W	--	--	--	7	--	--	W	None
34H235	Brandies, A.H.	31°08'20"N	81°23'09"W	--	--	750	9.09	--	--	W	None
34H238	Jackson	31°08'25"N	81°23'00"W	1960	150	406	9	-293	--	G	None
34H243 ^a	Griffin, Virginia	31°08'25"N	81°22'48"W	--	--	--	10	--	--	W	None
34H245 ^a	Follins, H.	31°08'34"N	81°22'59"W	1930	--	--	10	--	--	W	None
34H249 ^a	Riggins, W.P.	31°08'35"N	81°22'32"W	--	--	--	7	--	--	W	None
34H251 ^a	McKewen, H.S.	31°08'41"N	81°22'33"W	1958	--	700	10	--	--	W	None
34H254 ^a	Stevens, George	31°08'59"N	81°22'49"W	--	--	458	7	--	--	W	None
34H255 ^a	Glynn County	31°09'06"N	81°22'54"W	--	--	--	12	--	--	W	Casing deteriorated
34H258 ^a	Wood, W.D.	31°09'16"N	81°22'52"W	--	--	--	11.54	--	--	W	None
34H261	Shearouse, Fred (1960)	31°09'48"N	81°22'44"W	03-14-60	--	428	8	-316	--	G	None
34H262 ^a	Meadows, J.J.	31°09'51"N	81°22'55"W	--	--	666	10	--	--	W	None
34H263 ^a	Brewer, Jessie	31°09'28"N	81°23'00"W	1945	--	650	14.34	--	--	W	None
34H264 ^a	Sea Pak Corp.	31°09'22"N	81°23'07"W	1955	--	700	15	--	--	W	None
34H266	Saint Simons Airport (1942)	31°09'26"N	81°23'09"W	09-1942	570	709	15.46	--	--	Q	None
34H267	Saint Simons Airport (1959)	31°09'28"N	81°23'13"W	06-1959	--	--	20.46	--	--	Q	None
34H271 ^a	Taylor, O.L.	31°10'02"N	81°23'22"W	1959	--	--	10	--	--	W	None
34H272 ^a	Strother, W.F.	31°10'02"N	81°22'34"W	1953	--	750	6.37	--	--	W	None
34H275 ^a	Wells	31°10'11"N	81°23'01"W	--	--	--	8.13	--	--	W	None
34H279 ^a	Cross, Dave	31°10'17"N	81°23'17"W	--	--	--	8	--	--	W	None
34H280 ^a	Brown, E.	31°10'12"N	81°23'15"W	1958	500	750	4.30	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H283 ^a	Drew, Kenyon	31°10'15"N	81°22'56"W	--	--	--	12.38	--	--	W	None
34H287	Smith, Judson B.	31°10'19"N	81°22'49"W	--	--	700	10.09	--	--	W	None
34H289	Whittle, Lucian	31°10'21"N	81°22'33"W	1950	536	653	6	-315	-557	G	None
34H290 ^a	Gilbert, John	31°10'29"N	81°22'39"W	1951	--	750	10	--	--	W	None
34H291 ^a	Highsmith, E. W.	31°10'35"N	81°22'33"W	02-1958	--	660	9.45	--	--	W	None
34H293 ^a	Saint Williams Chapel	31°10'48"N	81°22'42"W	--	--	--	15	--	--	W	None
34H294 ^a	Glynn County	31°11'00"N	81°22'37"W	--	--	--	14	--	--	W	None
34H295 ^a	Cowart, D. T.	31°11'06"N	81°22'41"W	1934	300	640	10	--	--	W	None
34H299 ^a	Middleton, Glenn 3	31°11'14"N	81°22'52"W	--	--	--	15	--	--	W	None
34H301 ^a	Rowe, Remo	31°11'16"N	81°23'00"W	1954	--	700	9.99	--	--	W	None
34H303 ^a	Middleton, Glenn 2	31°11'18"N	81°23'16"W	--	--	--	7	--	--	W	None
34H304 ^a	Middleton, Glenn 1	31°11'29"N	81°23'13"W	--	--	--	5	--	--	W	None
34H305 ^a	Pennington	31°11'21"N	81°22'58"W	--	--	750	9	--	--	W	None
34H309	Estes, C.F.	31°11'24"N	81°22'38"W	10-1957	500	750	14.03	--	--	W	None
34H311 ^a	Edwards, S.C.	31°12'06"N	81°22'38"W	11-1956	--	850	17	--	--	W	None
34H312 ^a	Brown, Elliott (Lester, J.H., Jr.)	31°12'10"N	81°22'53"W	1959	--	--	12.99	--	--	W	None
34H313 ^a	Gray, Edward	31°12'11"N	81°22'56"W	10-1960	600	800	10.22	--	--	W	None
34H315 ^a	Benjamin, L.W.	31°12'28"N	81°23'05"W	01-1956	--	675	6	--	--	W	None
34H318	Mendenhall, W.C.	31°12'12"N	81°22'37"W	1955	614	766	18.74	-360	-605	G,W	None
34H320	Gentile, Benny	31°12'24"N	81°22'31"W	1960	577	685	19.56	--	-620	G	None
34H321 ^a	Taylor, A.	31°12'26"N	81°22'35"W	06-1957	600	735	15	--	--	W	None
34H323 ^a	Saint Simons Island, Christ Church	31°13'09"N	81°23'14"W	1937	--	--	10	--	--	W	None
34H325 ^a	Sea Island Development Co.	31°13'14"N	81°23'35"W	1937	--	600	9	--	--	W	None
34H327 ^a	Dodge, Anson	31°13'25"N	81°23'28"W	--	--	600	10	--	--	W	None
34H328	U.S. NPS, Fort Frederica (Stephens)	31°13'19"N	81°23'29"W	12-1937	600	640	12.38	--	--	W	None
34H329 ^a	U.S. NPS, Fort Frederica (center)	31°13'24"N	81°23'21"W	1957	507	670	10.25	--	--	W,Q	None
34H334	USGS TW 4	31°09'38"N	81°28'53"W	09-1962	800	980	8.33	-247	-501	G,W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H337	USGS TW 5 (point 1)	31°08'24"N	81°29'42"W	05-1963	567	919	8.85	-307	-586	G,W,Q	Point 2, 34H433; destroyed, 03-1974
34H338	Beverly Shores (oxidation pond)	31°12'27"N	81°28'30"W	06-1962	576	767	16.07	-275	-514	G	None
34H339	Georgia Motor Lodge	31°13'06"N	81°27'55"W	02-1963	581	755	14.48	-311	-553	G	None
34H341	Brockington, Alfred	31°12'32"N	81°22'30"W	12-1962	855	993	13.94	-350	-608	G	None
34H343	U.S. NPS, Fort Frederica	31°13'24"N	81°23'18"W	08-1963	480	670	9.83	-341	-563	G,W	None
34H344	USGS TW 7	31°09'38"N	81°28'52"W	04-1964	504	770	8.29	-245	-496	G,W,Q	None
34H345	American National Bank	31°08'57"N	81°29'35"W	1964	560	780	12	-257	-522	G,W,Q	Destroyed, 1987
34H346	Sea Island Yacht Club	31°09'52"N	81°24'44"W	1962	546	800	7.77	-270	-524	G	None
34H347	Roberts, L.D.	31°09'49"N	81°28'06"W	10-1963	520	750	6.90	-255	-500	G,W	None
34H348	Quick Clean Laundry	31°10'24"N	81°29'32"W	03-1964	536	787	12.80	-239	-531	G,Q	None
34H350	Engle, Marvin	31°10'59"N	81°24'04"W	1963	450	576	6.48	-309	-507	G,W	None
34H351	Twin Oaks Drive-In	31°09'56"N	81°29'49"W	08-1964	524	760	16.63	-219	-496	G,Q	None
34H352	King, R.W.	31°14'59"N	81°26'42"W	11-1964	620	780	14.76	--	--	W	None
34H354	USGS TW 8	31°09'24"N	81°29'52"W	06-1965	804	1,003	13.76	-244	-510	G,W,Q	None
34H355	USGS TW 9	31°09'24"N	81°29'52"W	06-1965	523	785	13.98	--	--	W,Q	None
34H356	Lewis Crab Co. 5	31°08'27"N	81°29'42"W	07-1965	578	624	8.16	-299	-578	G,W,Q	None
34H357	Troupe Creek Marina	31°13'42"N	81°27'01"W	04-1965	595	774	7.29	-335	-591	G,W	Erratic W during measurement, 10-1986
34H358	Golden Isles Marina (Olsen's Yacht Yard)	31°10'07"N	81°24'58"W	02-1966	589	765	5.55	-280	-519	G,W,Q	Replaced 34H147, 02-1966
34H359	Beverly Shores 4	31°12'24"N	81°28'37"W	02-1965	565	740	18.93	-278	-516	G	None
34H361	Middleton Estates	31°11'20"N	81°22'48"W	1966	577	724	12.90	-326	-564	G,W	None
34H362	Bloodworth, F.H.	31°10'24"N	81°24'19"W	06-1965	576	803	13.68	-311	-556	G,W	None
34H363	USGS TW 10	31°08'22"N	81°29'58"W	06-1966	612	744	2	-295	-567	G,W,Q	None
34H364	Kennedy, R.L.	31°08'19"N	81°29'40"W	--	234	402	9.55	-299	--	G	None
34H366	First Baptist Church	31°08'48"N	81°29'32"W	1956	529	791	8.19	-262	-535	G,W,Q	Destroyed, 01-1985
34H368	Sea Harvest Packing	31°13'47"N	81°27'20"W	07-1966	588	788	9.09	-321	-584	G,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34H369	Glynn County, Glyncio Golf Course	31°14'37"N	81°28'42"W	08-27-66	642	796	23.23	-344	-632	G	None
34H370	Ellzey, C.M.	31°10'28"N	81°27'39"W	1966	569	743	7.58	-292	-563	G,W	None
34H371	USGS TW 11	31°08'18"N	81°29'36"W	10-1966	606	700	9.49	-299	-583	G,W,Q	None
34H372	Harrington, Lawrence	31°08'32"N	81°29'21"W	11-1963	566	733	10.83	-276	-555	G,W,Q	None
34H373	USGS TW 13	31°09'40"N	81°29'33"W	10-1966	512	719	9.28	-233	-509	G,W,Q	None
34H374	USGS TW 14	31°09'53"N	81°29'59"W	11-1966	527	696	17.02	-227	-505	G,W,Q	None
34H376	Saint Francis Xavier Church	31°08'41"N	81°29'38"W	12-1966	543	660	6.55	-271	-540	G	None
34H377	Stopchuck, Mike	31°11'08"N	81°28'29"W	11-1966	522	630	9.06	-267	-512	G	None
34H378	Sea Pak Corp.	31°09'15"N	81°23'07"W	01-31-67	530	810	15	-302	-547	G	None
34H379	Harris, A.M., Sr.	31°08'05"N	81°29'16"W	1967	140	500	11	-311	--	G	None
34H380	Mcgraw, R.O.	31°09'28"N	81°29'44"W	--	348	440	15	-242	--	G	None
34H381	Beggs, R.	31°09'59"N	81°23'25"W	1967	496	630	10	-319	-558	G,W,Q	None
34H382	Rushing, Alton	31°10'32"N	81°28'41"W	1959	546	690	9	-265	-540	G	None
34H383	Holland, Al (Derry, Inez)	31°11'54"N	81°23'00"W	06-1967	590	758	10	-342	-574	G,W,Q	None
34H384	Brunswick Country Club	31°13'19"N	81°27'58"W	05-1967	594	792	13	-318	-569	G	None
34H385	Champion, E.M. 1	31°10'16"N	81°29'42"W	1948	500	572	14	-239	-511	G	Casing deteriorated; not used after 11-1978
34H386	Tollison, H.K./WGIG Radio Station	31°09'07"N	81°29'07"W	1961	612	773	11.76	-264	-531	G,W	None
34H388	Reu, A.H.	31°14'19"N	81°23'19"W	03-1963	631	804	10	-329	-606	G,W	None
34H389	Golden Shores 5	31°08'52"N	81°29'51"W	01-11-68	524	737	8.11	--	--	Q	None
34H390	Hercules Inc. (parking lot)	31°09'47"N	81°28'38"W	1968	407	409	10	-254	--	G	None
34H391	USGS TW 16	31°08'18"N	81°29'42"W	04-1968	1,070	1,158	7.13	-305	-585	G,W,Q	None
34H392	Brunswick College	31°11'08"N	81°29'05"W	05-1968	541	660	16	-270	-529	G,W,Q	None
34H393	USGS TW 17	31°08'25"N	81°29'42"W	10-1968	615	723	6.95	-304	-585	G,W,Q	None
34H395	Hall, Jim	31°10'32"N	81°22'43"W	1968	300	573	14	-315	-554	G	None
34H397	Sea Island Golf (1969)	31°08'39"N	81°24'22"W	1969	484	1,061	10	-300	-576	G	None
34H398	King Shrimp Co.	31°07'49"N	81°29'04"W	07-20-69	622	720	7	-334	-618	G,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
34H399	USGS TW 19	31°07'49"N	81°29'20"W	09-1969	1,075	1,218	7.51	-317	-602	G,W,Q	None	
34H400	USGS TW 20	31°09'36"N	81°29'49"W	09-1969	524	756	12.50	-240	-507	G,W,Q	None	
34H401	USGS TW 21	31°09'45"N	81°29'55"W	09-1969	525	756	13.16	-247	-507	G,W,Q	None	
34H402	USGS TW 22	31°09'45"N	81°29'55"W	09-1969	815	946	13.21	-245	-506	G,W,Q	None	
34H403	USGS TW 24	31°08'22"N	81°29'42"W	09-1970	788	982	9.56	-302	-582	G,W,Q	None	
34H404	Bishop, J./Taylor	31°12'54"N	81°22'35"W	--	615	760	12.12	--	--	W	None	
34H405	Suddath Van Lines	31°14'22"N	81°26'54"W	1971	585	702	10	-331	-576	G	None	
34H406	Camp Islander	31°13'54"N	81°22'36"W	1971	621	721	10	-350	-624	G	None	
34H408	Van Diviere Oil Co.	31°12'00"N	81°29'45"W	08-1971	588	703	17.99	-284	-523	G,W	None	
34H409	Thrower, Charles	31°13'46"N	81°26'45"W	09-1971	605	728	8.05	-342	-598	G	None	
34H410	Laws, John, Sr.	31°12'11"N	81°27'46"W	09-1971	577	724	6.50	-290	-530	G,W	None	
34H411	Hercules Inc. R	31°10'03"N	81°28'57"W	05-1972	540	698	13	-236	-483	G,Q	None	
34H412	Hercules Inc. Q	31°10'19"N	81°29'22"W	11-02-72	548	630	15	-243	-501	G,W,Q	Replaced 34H071	
34H413	Hercules Inc. S	31°09'51"N	81°28'46"W	02-27-73	550	838	10	--	--	W,Q	None	
34H414	King & Prince Hotel	31°09'38"N	81°23'50"W	07-1973	556	708	15	-302	-553	G	None	
34H423 ^a	Boys Club of Glynn County	31°10'55"N	81°29'49"W	04-1975	552	700	15	--	--	W	None	
34H424	Hercules Inc. T	31°10'11"N	81°29'31"W	02-13-76	550	745	15	--	--	W,Q	None	
34H425	Hercules Inc. U	31°10'16"N	81°28'58"W	05-12-76	550	700	12	--	--	W,Q	None	
34H426	USGS TW 25	31°09'38"N	81°28'52"W	10-1976	1,027	1,211	8.30	-250	-502	G,W,Q	Casing position uncertain; Q erratic	
34H427	Champion, E.M. 2	31°10'16"N	81°29'42"W	11-1977	500	640	14	--	--	W,Q	None	
34H433	USGS TW 5 (point 2)	31°08'24"N	81°29'42"W	05-1964	1,370	1,420	8.85	--	--	W	Point 1, 34H337; destroyed, 03-1974	
34H434	Glynn County Courthouse	31°09'11"N	81°29'41"W	1982	530	670	10	-254	-510	G,W,Q	None	
34H435	ABC Home & Health Service	31°11'21"N	81°28'11"W	--	--	697	8	-275	-527	G	None	
34H436	Coffin Park TW 1	31°09'01"N	81°28'44"W	10-20-83	1,000	1,103	6.62	-255	-512	G,W	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet			Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker			
GLYNN COUNTY--Continued												
34H439	USGS TW 2 (point 1)	31°10'21"N	81°29'52"W	1960-61	540	920	13.91	--	--	--	W,Q	Original depth 1,103 ft, see 34H132; plugged to 566 ft and replaced by 34H469, 01-1975
34H440	USGS TW 2 (point 2)	31°10'21"N	81°29'52"W	1960-61	950	1,003	13.91	--	--	--	W,Q	Destroyed, 01-1975; see 34H132, 34H439
34H441	USGS TW 2 (point 3)	31°10'21"N	81°29'52"W	1960-61	1,053	1,103	13.91	--	--	--	W	Destroyed, 01-1975; see 34H132, 34H439
34H442	Fort Frederica (pump house)	31°13'15"N	81°23'24"W	09-22-76	651	860	10	--	--	--	Q	None
34H444	Golden Isles Marina	31°10'07"N	81°24'58"W	08-30-84	590	780	6	--	--	--	W	None
34H445	Brunswick, Coffin Park	31°09'02"N	81°28'43"W	12-20-86	580	824	7	-257	-552	--	G	None
34H449	Brunswick, Goodyear Park 2 (1990)	31°10'35"N	81°28'57"W	04-09-90	580	753	12	--	--	--	W	None
34H450	Hercules V	31°09'56"N	81°28'31"W	08-28-90	557	750	10	--	--	--	Q	None
34H468	Brunswick, Perry Park	31°09'30"N	81°29'10"W	07-23-91	560	750	10	-259	-522	--	G	None
34H469	USGS TW 2 (1975)	31°10'21"N	81°29'52"W	01-1975	540	566	13.91	-227	-515	--	G,W,Q	Replaced 34H439, 01-1975
34J001	Two-Way Fish Camp	31°19'37"N	81°26'45"W	--	--	--	5.5	--	--	--	W,Q	Land surface datum estimated
34J002 ^a	State of Georgia, Boys Estate	31°19'08"N	81°28'22"W	1934	--	700	21	--	--	--	W	None
34J003 ^a	Strong, Duncan (1923)	31°19'10"N	81°27'56"W	1923	--	--	17	--	--	--	W	None
34J004 ^a	Strong, Duncan (1922)	31°19'05"N	81°27'56"W	1922	--	--	22	--	--	--	W	None
34J007 ^a	Dent, Miriam	31°18'16"N	81°27'21"W	1938	400	520	21	--	--	--	W	None
34J009	Newhope Plantation	31°18'11"N	81°26'51"W	1960	580	780	9.39	-338	-671	--	G,W,Q	None
34J010 ^a	Blackburn	31°18'02"N	81°26'59"W	--	--	680	31	--	--	--	W	None
34J011 ^a	Smith, Sheldon B.	31°17'14"N	81°26'39"W	1929	--	650	17.1	--	--	--	W	None
34J012 ^a	Briskell, W.W.	31°16'43"N	81°26'19"W	03-1938	480	600	16	--	--	--	W	None
34J013 ^a	Wayside Inn Motor Court	31°16'30"N	81°26'15"W	1931	--	550	15	--	--	--	W	None
34J014 ^a	Brunswick Peninsular Co.	31°16'22"N	81°25'47"W	--	--	--	17	--	--	--	W	None
34J018 ^a	Happy	31°15'32"N	81°26'10"W	1939	520	640	14	--	--	--	W	None
34J019 ^a	George, Charlie	31°15'12"N	81°26'28"W	--	--	--	15	--	--	--	W	None
34J020 ^a	New England Tourist Court	31°15'10"N	81°26'37"W	09-1928	300	600	15	--	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY--Continued											
34J021	Job Corps	31°15'25"N	81°27'17"W	05-1954	602	998	16.84	-318	-670	G,W	None
34J023 ^a	Brunswick Peninsular Co.	31°16'09"N	81°29'47"W	--	--	--	30.9	--	--	W	None
34J025	Altama Plantation (1966)	31°20'07"N	81°29'39"W	1966	633	716	17	-330	--	G	None
34J029	Wilder, Henry	31°18'54"N	81°27'51"W	1969	686	866	5.27	-353	-730	G,W	None
34J048	Humane Society	31°15'09"N	81°26'41"W	05-1970	605	702	13.96	-312	-638	G	None
34J049	Glynco Jetport	31°15'57"N	81°27'46"W	08-1970	640	788	24.55	-315	-674	G	None
34J050	Altama Plantation (1971)	31°19'39"N	81°28'46"W	04-1971	688	824	22	-341	-752	G	None
34J051	Georgia DOT (1-95 rest area)	31°16'47"N	81°29'25"W	12-10-71	709	839	34.70	-345	-688	G,W	Land surface datum (?); obtained from Georgia DOT
34J052	Humble Oil/Union Bag 55	31°17'45"N	81°27'09"W	02-03-58	0	1,589	21	-337	-675	G	None
34J054	King, Ronnie	31°15'39"N	81°26'15"W	07-15-83	620	700	15	-293	-624	G	None
35H004 ^a	Bagley, H.W.	31°13'19"N	81°21'23"W	--	--	--	14	--	--	W	None
35H005 ^a	Verney, G.	31°13'17"N	81°21'20"W	08-1939	520	740	8.23	--	--	W	None
35H010 ^a	Hartridge, A.C.	31°11'14"N	81°22'14"W	1916	--	650	7.5	--	--	W	None
35H011 ^a	Gale, H.W.	31°11'13"N	81°22'08"W	--	--	--	8.5	--	--	W	None
35H012	Sea Island Gun Club (old)	31°10'49"N	81°21'29"W	--	514	640	6.18	--	-594	G,W,Q	Destroyed 09-01-1966
35H013 ^a	Sea Island Co., Black Banks	31°10'38"N	81°21'17"W	--	--	--	6.43	--	--	W	None
35H014	Sea Island Co. 1	31°10'53"N	81°21'02"W	08-1928	553	721	7	-343	-621	G	None
35H016	Sea Island Co. 3 (beach)	31°10'54"N	81°21'04"W	07-12-38	540	812	6.31	--	--	W,Q	None
35H021	Sea Island Co., 35th St.	31°12'14"N	81°19'29"W	06-1927	180	619	7.73	--	--	W,Q	None
35H022 ^a	Sea Island Co., 36th St. at Camp	31°12'30"N	81°19'41"W	1927	--	--	7.5	--	--	W	None
35H023 ^a	Sea Island Co., Hampton Fish Camp	31°12'53"N	81°18'40"W	--	--	--	6.50	--	--	W	None
35H025 ^a	Welch, H.G.	31°10'49"N	81°22'26"W	1954	--	--	10.22	--	--	W	None
35H026 ^a	Roundtree & Strother	31°10'04"N	81°22'27"W	1949	--	--	7.23	--	--	W	None
35H029 ^a	Backus, L.J.	31°09'19"N	81°22'00"W	1931	--	--	8	--	--	W	None
35H036 ^a	East Beach, 2nd St.	31°08'46"N	81°22'21"W	--	--	--	8	--	--	W	None
35H037	U.S. Coast Guard Station	31°08'45"N	81°22'26"W	--	580	704	9.87	-295	-538	G,W,Q	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
GLYNN COUNTY --Continued											
35H039 ^a	Mobley, Owen C.	31°08'42"N	81°22'28"W	--	--	--	10	--	--	W	None
35H040	Verney, G.	31°13'31"N	81°21'19"W	10-02-62	611	800	11.70	-341	-630	G	None
35H042	Sea Island Co., 22nd St. (old)	31°11'46"N	81°20'13"W	05-1963	580	1,042	7.22	-353	-573	G,Q	None
35H044	Sea Island Gun Club (new)	31°10'49"N	81°21'28"W	09-1966	598	789	6.18	-335	-594	G,W,Q	None
35H045	Sea Palms (hole 1)	31°12'00"N	81°22'12"W	1967	607	796	14.63	-341	-594	G	None
35H046	Sea Palms (hole 14)	31°11'23"N	81°22'18"W	1967	626	799	8.60	-343	-619	G	None
35H047	Olsen, O.H.	31°11'02"N	81°22'28"W	07-1967	583	752	7	-327	-577	G,W	None
35H050	Sea Island Co., 36th St.	31°12'20"N	81°19'27"W	02-23-73	560	820	8	-306	-542	G,W,Q	None
35H051	Sea Island Co., 22nd St. NE	31°11'46"N	81°20'13"W	02-23-76	594	825	8	--	--	W	None
35H055	Smith, Teddie E.	31°13'42"N	81°21'43"W	--	--	750	17	-343	-629	G	None
35J003	Humble Oil/Taylor 1	31°15'16"N	81°20'58"W	09-07-59	260	1,075	13	-338	-652	G	None
35J004	Hagen, Arthur R.	31°16'40"N	81°20'37"W	07-1981	700	800	10	--	--	W	None
35J005	Pendergast	31°16'53"N	81°20'28"W	01-06-83	677	739	10	-317	-668	G	None
MCINTOSH COUNTY											
33K009	Eastside Fishing Club	31°28'14"N	81°36'19"W	1950	456	598	24	-230	-465	G	None
33K012	Davis, Edgar	31°29'55"N	81°36'10"W	11-1959	458	660	20	-237	-455	G	None
33K016	Terrell, Mrs. Phillip	31°26'59"N	81°31'17"W	12-1957	444	664	13	-285	-552	G,W	None
33K019	Goodrich, Dennis	31°25'53"N	81°30'01"W	08-1972	590	720	12	--	--	W	None
33K020	Humble Oil/Fort Barrington	31°28'50"N	81°36'53"W	10-05-59	36	820	13	-220	-457	G	None
33K021	Humble Oil/Union Bag 34	31°27'28"N	81°33'52"W	10-30-57	0	810	13	-280	-502	G	None
33K022	Humble Oil/Union Bag 54	31°28'49"N	81°31'18"W	01-27-58	0	1,492	12	-269	-516	G	None
33K023	Humble Oil/Union Bag 33	31°29'53"N	81°33'03"W	11-28-57	0	800	19	-248	-486	G	None
33K024	Humble Oil/Union Bag 32	31°29'20"N	81°36'14"W	11-26-57	0	795	41	-243	-461	G	None
33K025	Humble Oil/Union Bag 35	31°27'29"N	81°30'04"W	12-02-57	0	865	12	-295	-552	G	None
33K026	Humble Oil/Savannah River Lumber Corp. 7	31°25'01"N	81°32'09"W	09-22-59	380	1,020	17	-279	-576	G	None
33K027	Gail, Sammy	31°26'09"N	81°34'14"W	11-1981	552	710	18	--	--	W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

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Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
MCINTOSH COUNTY--Continued											
33L010	Union Camp Corp.	31°32'19"N	81°31'49"W	1933	382	532	19.03	-236	-457	G,W	None
33L027	Davis, Edgar	31°30'20"N	81°34'14"W	03-01-69	465	700	27	--	--	W	None
33L072	Humble/Union Bag 2	31°37'23"N	81°30'09"W	10-05-57	--	--	15	-250	-421	G	None
34J027	Darien, Georgia (1968)	31°21'58"N	81°25'30"W	01-1968	658	799	21	-355	-700	G	None
34J028	Ga. Dept. Nat. Resources, Game & Fish Commission	31°21'02"N	81°26'51"W	--	561	598	4.03	-360	--	G	None
34J046	Pack, John	31°22'27"N	81°25'39"W	1958	559	618	22	-343	--	G	None
34J047	Boone Seafood Co.	31°21'56"N	81°25'59"W	1970	683	806	4	-338	-702	G	None
34J053	Ga. Dept. Nat. Resources, Butler Is.	31°21'02"N	81°26'52"W	--	--	--	4.03	--	--	W	None
34K008	Blackburn, George	31°25'08"N	81°29'11"W	12-1957	642	764	14	-327	-634	G,W	None
34K012	Middleton, Mrs. Clyatt T.	31°28'05"N	81°29'10"W	1957	446	700	19	--	--	W	None
34K073	Howard, Paul J.	31°25'06"N	81°28'16"W	1959	643	780	12	--	--	W	None
34K079	Fisher, W.	31°22'44"N	81°25'06"W	1965	687	791	22	-348	-679	G	None
34K080	Pearling Industries (shoe factory)	31°24'35"N	81°27'30"W	01-1964	638	797	28	-342	-655	G	None
34K081	O'Quinn, Charlie	31°24'39"N	81°27'37"W	1952	630	850	31	--	--	W	Land surface datum estimated
34K082	Young, E.L.	31°25'31"N	81°29'25"W	12-1966	604	747	10	-330	-625	G,W	None
34K083	Poppell, T.	31°27'09"N	81°25'29"W	1967	612	765	41	--	--	W	Land surface datum estimated
34K084	Fischette, Mike	31°25'03"N	81°23'48"W	10-01-68	610	780	25	--	--	W	None
34K085	Georgia DOT (I-95 weigh station)	31°28'17"N	81°27'15"W	11-1968	453	604	19.58	-262	-540	G,W	None
34K086	Dykes, W.L.	31°24'17"N	81°22'31"W	06-1970	582	760	8	-314	-634	G	None
34K087	Newburn, Joe	31°23'50"N	81°22'35"W	06-1970	603	687	6	-321	-652	G	None
34K091	Carter	31°23'19"N	81°22'51"W	1970	583	738	7	-332	-653	G	None
34K092	Harper and Kimbrell	31°23'03"N	81°22'51"W	1970	582	760	7	-333	-648	G	None
34K095	Fisher, Cal M.	31°22'54"N	81°24'43"W	06-1973	629	730	20	--	--	W	None
34K100	Humble Oil/Union Bag 37	31°27'18"N	81°23'16"W	12-08-57	0	925	15	-318	-588	G	None
34L027	Ware, G.	31°32'17"N	81°25'27"W	1955	391	641	7	-277	-477	G	None
34L048	Williams, W.E. and F.B.	31°30'54"N	81°24'55"W	1958	495	575	22	-270	-480	G,W	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
MCINTOSH COUNTY--Continued											
34L059	Warsaw Lumber Co.	31°35'22"N	81°29'37"W	1925	172	472	15	-260	-443	G	None
34L060	Union Camp Paper Corp.	31°35'31"N	81°24'58"W	1971	426	760	27	--	--	W	None
34L061	Standard Oil Co.	31°31'55"N	81°26'48"W	02-1972	466	593	20	-261	-459	G,W	None
34L066	Humble/Union Bag 48	31°36'20"N	81°26'12"W	01-16-58	--	--	17	-269	-439	G	None
34L070	Union Camp, Sapelo Forest Office	31°35'31"N	81°24'57"W	--	136	395	25	-268	--	G	None
34L071	Eulonia, Ga (04-1984)	31°30'31"N	81°26'18"W	04-28-84	497	634	15	-262	-496	G	None
35K062	Sapelo Island Research Foundation, Long Tabby	31°25'53"N	81°16'56"W	1967	528	725	6	-272	-571	G	None
35K063	Sapelo Island Research Foundation (airstrip)	31°24'56"N	81°17'26"W	1967	60	364	6	-279	--	G	None
35K064	Johnson, Benny	31°25'17"N	81°16'09"W	1967	320	372	7	-273	--	G	None
35K065	Sapelo Island Research Foundation (mainland)	31°27'17"N	81°21'52"W	1967	578	726	4	-309	-589	G	None
35K068	Pease Island Development	31°26'32"N	81°22'09"W	1965	577	766	9	-302	-592	G	None
35K069	Gore, Sam	31°28'40"N	81°20'53"W	09-1971	570	703	11	-304	-587	G,W	None
35K071	Bolton, George	31°28'45"N	81°20'40"W	1982	486	638	11	-305	-585	G	None
35L067	Holt, Vernon	31°33'25"N	81°21'49"W	12-05-66	436	586	8	-288	-494	G,W	None
35L068	Mitchell and neighbors	31°34'19"N	81°19'26"W	07-1969	485	640	18	--	--	W	None
35L071	Proudfoot, H.S.	31°37'22"N	81°18'58"W	08-1970	442	601	14	-270	-454	G	None
35L072	Stafford, T.A.	31°33'09"N	81°22'04"W	02-19-70	483	604	14	-288	-494	G	None
35L078	Harris Neck, Gould's Landing	31°37'19"N	81°15'42"W	--	204	360	7	-300	--	G	None
35L080	Julienton, Thorpe, H.M (old homesite)	31°33'36"N	81°18'06"W	1912	395	582	18	-285	-502	G	None
35L081	Julienton, Middle Road	31°34'10"N	81°17'37"W	1939	416	699	15	-301	-501	G	None
36K001	Reynolds, R.J. (estate)	31°26'11"N	81°14'21"W	1960	520	780	12	-276	-568	G	None
36K004	U.S. FWS, Blackbeard Island 4	31°29'23"N	81°12'33"W	03-1935	439	709	12	-263	-531	G	None
36L007	U.S. FWS, Blackbeard Island 5	31°32'05"N	81°12'05"W	1966	20	301	7	-259	--	G	None
36L008	U.S. FWS, Blackbeard Island 1	31°31'35"N	81°12'22"W	11-15-34	390	520	8	-257	-487	G	None
36L009	U.S. FWS, Blackbeard Island 2	31°30'53"N	81°12'23"W	12-29-34	408	536	10	-259	-499	G	None

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals—Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations; footnote on p. 66]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks	
					Casing	Well	Land surface	A marker	D marker			
MCINTOSH COUNTY--Continued												
36L010	U.S. FWS, Blackbeard Island 3	31°30'20"N	81°12'26"W	02-14-35	431	617	13	-271	--	G	None	
36L011	Sapelo Research Foundation (pond)	31°30'30"N	81°14'02"W	1968	273	339	8	-271	--	G	None	
36L020	Goat House, Barbour Island	31°34'47"N	81°14'18"W	--	62	330	10	-257	--	G	None	
WAYNE COUNTY												
30K004	BP&P/Mears, Justice 1	31°27'19"N	81°52'53"W	02-26-74	662	770	55	-326	-637	G,W	None	
30K016	Scott and Mead I-C	31°27'18"N	81°52'53"W	03-26-75	--	--	61	-315	-621	G	None	
30K017	Humble Oil/Bennett 1	31°29'58"N	81°58'47"W	04-14-59	--	--	108	-254	-532	G	None	
30K018	Humble Oil/Davis 1	31°25'33"N	81°59'01"W	05-03-59	--	--	88	-302	-611	G	None	
30K019	Humble Oil/Rodgers 1	31°28'58"N	81°54'02"W	06-18-59	--	--	50	-320	-555	G	None	
30L003	Johnson, Homer	31°37'01"N	81°54'34"W	08-19-63	574	594	105.77	-218	-454	G,W	None	
30L009	Jesup Industrial Park	31°34'57"N	81°54'47"W	09-01-67	532	651	106	-227	-480	G	None	
30L011	Aspinwall, Clyde	31°30'41"N	81°59'44"W	10-1970	594	732	123	--	--	W	None	
30L012	Parkinson, B.D.	31°36'18"N	81°57'03"W	12-1970	614	700	149	--	--	W	None	
30L013	Jesup, Georgia Industrial Park	31°34'57"N	81°54'48"W	1967	650	696	105	--	--	W	None	
30L016	Humble/Jones 1	31°37'00"N	81°53'45"W	10-09-59	--	--	82	-223	-450	G	None	
30L017	Humble/Green 1	31°33'41"N	81°58'51"W	04-24-59	310	--	113	-219	-495	G	None	
31K001	Brunswick Peninsular Corp.	31°23'30"N	81°48'31"W	12-17-44	--	--	55	--	-684	G	None	
31K002	Ga. Dept. Nat. Resources, Wayne 2 (test)	31°27'12"N	81°51'31"W	05-03-74	--	--	55	-320	--	G	None	
31K003	Owner unknown	31°23'20"N	81°45'05"W	--	--	--	55	-268	--	G	None	
31L001	BP&P/Mears, Justice 2	31°31'02"N	81°52'20"W	03-11-75	587	691	50	-277	-506	G,W	None	
31L002	Humble/Kicklighter 1	31°36'51"N	81°47'59"W	06-12-59	215	--	45	-232	-450	G	None	
31L003	Humble/Grantham 1	31°36'30"N	81°49'48"W	04-27-58	--	--	63	-249	-470	G	None	
31L004	Humble/Williamson, Lee 1	31°35'18"N	81°46'46"W	05-24-59	231	--	37	-242	-430	G	None	
31L005	Humble/Union Bag 64	31°33'17"N	81°46'52"W	03-06-58	--	855	61	-267	-479	G	None	
31L009	Humble/Hopkin Brothers 5	31°31'19"N	81°46'22"W	06-06-59	269	--	72	-248	-466	G	None	
31L010	Humble/Union Bag 106	31°31'28"N	81°49'12"W	10-13-59	--	--	59	-251	-473	G	None	

Table 2. Well inventory and geophysical data for selected wells in the Glynn County, Ga., area—Continued

[BP&P, Brunswick Pulp and Paper Company (a subsidiary of Georgia-Pacific Corp.); TW, test well; GGS, Georgia Geologic Survey; LCP, LCP Chemicals--Georgia; USGS, U.S. Geological Survey; A marker, D marker, altitudes of the A and D markers on natural-gamma geophysical logs; G, W, Q, data types (geophysical, water-level, water-quality, respectively); --, data not available; see figures 3 through 6 for well locations]

Well number	Well name	Latitude	Longitude	Date drilled	Depth, in feet		Altitude, in feet			Type of data	Remarks
					Casing	Well	Land surface	A marker	D marker		
WAYNE COUNTY--Continued											
31L011	Humble/Union Bag 69	31°30'09"N	81°50'15"W	04-01-58	--	--	63	-268	-519	G	None
32K007	BP&P, Mount Pleasant	31°25'49"N	81°40'32"W	01-1957	605	618	55	-223	-525	G	None
32K014	BP&P Land Co.	31°25'55"N	81°40'39"W	09-1982	600	700	57	--	--	W	None
32K015	Humble Oil/Union Bag 66	31°24'25"N	81°42'00"W	03-21-58	--	--	53	-226	-545	G	None
32K016	Humble Oil/Union Bag 63	31°29'16"N	81°41'48"W	03-04-58	--	--	47	-234	-456	G	None
32K017	Humble Oil/Hopkins Bros. 7	31°29'48"N	81°40'43"W	06-14-59	--	--	49	-232	-446	G	None
32L004	Martin, Lennis and Melvin	31°30'18"N	81°41'19"W	03-1971	546	700	40	--	--	W	None
32L006	Hopkins, C.D. 1 (1976)	31°32'15"N	81°43'57"W	--	--	3,198	75	-235	-458	G	None
32L007	Humble/Anderson, Mary 1	31°33'42"N	81°44'57"W	06-10-59	267	--	46	-255	-471	G	None
32L009	Humble/Hopkins Brothers 6	31°31'09"N	81°41'57"W	06-07-59	223	--	54	-220	-406	G	None
32L010	Humble/Hopkins Brothers 9	31°31'25"N	81°44'55"W	10-12-59	50	--	68	-259	-473	G	None
32L011	Humble/Union Bag 67	31°32'55"N	81°42'36"W	04-26-58	--	--	67	-228	--	G	None
32L013	Humble/Union Bag 88	31°32'15"N	81°41'12"W	06-08-59	244	--	47	-248	-453	G	None
32L014	Union Camp Paper Corp. 1	31°31'12"N	81°41'02"W	11-22-60	--	--	49	-223	-406	G	None
32L015	Gardi TW 1	31°32'52"N	81°43'36"W	04-20-83	545	750	74	-223	-452	G,W	None

^a Well not listed in the USGS digital data base, Ground-Water Site Inventory (GWSI).

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement date within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
BRANTLEY COUNTY												
30H003	Okefenokee Rural Electric Corp.	--	--	--	--	45.2	45.6	--	45.2	39.0	35.8	--
30H005	Georgia DOT, Nahunta	--	--	--	--	--	--	--	42.4	42.0	37.1	36.5
31H005	Deerwood Subdivision (KOA Campground)	--	--	--	--	--	--	--	41.4	40.0	36.1	--
CAMDEN COUNTY												
30F004	Harrell, G.C.	--	--	--	--	--	--	--	44.6	44.9	41.2	39.9
31E001	Brown, Elmo	--	--	--	--	--	48.0	43.3	--	42.6	39.0	37.7
31E005	Silcox, Mrs. Oscar	60.2	57.4	(50.2)	(51.2)	46.9	48.0	44.5	41.8	42.8	--	--
31F017	Wilson, Richard	--	--	--	--	--	--	--	39.2	42.4	37.1	37.4
31F022	Van, John	--	--	--	--	--	--	--	43.5	44.1	39.8	39.0
32E004	Gross, Edmond (1956)	--	--	(49.9)	50.2	--	47.6	43.8	41.3	41.4	--	36.3
32E031	B&S Chicken Farm	--	--	--	--	--	--	43.8	41.6	41.6	--	--
32E033	Georgia DOT, Welcome Center	--	--	--	--	--	--	--	38.7	39.7	38.2	33.8
32F008	Williams, Henry	--	--	--	--	--	48.5	46.1	43.3	44.1	41.1	39.1
32F048	Briese, Windy	--	--	--	--	--	--	--	38.9	39.4	--	--
32G004	West, Joyce	--	--	--	--	--	46.1	43.0	40.5	40.6	35.6	35.4
32G007	Limton, William (Buie, J.A.)	--	--	--	--	--	47.2	42.1	40.8	41.2	37.5	36.4
32G015	Bryson, Edward	--	--	--	--	--	--	41.5	39.4	39.2	35.5	34.4
32G040	Daniels, Perry	--	--	--	--	--	--	--	38.1	--	--	--
33E004	U.S. Navy, Kings Bay, Etowah Park	--	--	(45.9)	--	--	41.7	38.7	36.5	37.5	--	--
33E007	Davis, G.H.	--	--	--	--	--	27.0	23.3	22.8	24.1	--	16.8
33E009	Barwick, Jack (Am. Legion, St Marys)	59.3	--	(52.8)	(54.3)	47.8	48.9	43.7	42.2	--	34.4	37.7
33E023	Hannah, Jim (Norieka, Richard)	--	--	--	--	--	47.7	--	--	42.3	36.0	--
33E027	U.S. Navy, Kings Bay TW 1	--	--	--	--	--	--	--	--	--	--	27.9
33E046	Joiner/Greene/Crocker/O'Neal	--	--	--	--	--	--	--	--	--	--	38.2
33F001	BP&P, Cabin Bluff	--	--	--	--	--	44.8	--	37.8	37.5	32.9	--
33F018	BP&P, Cabin Bluff (1975)	--	--	--	--	--	--	--	--	--	--	37.1

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
CAMDEN COUNTY--Continued												
33G005	Episcopal Center, Camp Reese	--	--	--	47.3	--	43.0	40.5	38.0	37.3	35.7	33.6
33G006	Kirby, T.W., Sr.	--	--	(49.5)	53.3	--	43.6	--	42.2	40.1	39.5	37.7
34E001	Cumberland Is., GGS TW 1	--	--	--	--	--	--	--	--	--	--	20.2
34E002	Cumberland Is., plum orchard 2 (east)	--	--	--	--	--	--	--	--	33.5	--	17.9
34E003	Ferguson, R.W. 2 (Greyfield)	--	--	--	--	--	--	--	--	31.0	--	19.1
34E010	Cumberland Is. 32 (Rockefeller)	--	--	--	--	--	--	--	--	27.4	--	20.0
34E011 ^a	Cumberland Is., plum orchard 1 (west)	--	--	--	--	--	--	--	--	30.3	--	21.7
34E012 ^a	Cumberland Is., Reddick	--	--	--	--	--	--	--	--	36.5	--	30.2
34E013 ^a	Cumberland Is., Yankee Paradise Trail	--	--	--	--	--	--	--	--	--	--	28.5
34E014 ^a	Cumberland Is., Foster	--	--	--	--	--	--	--	--	--	--	30.8
34E015 ^a	Cumberland Is., Missoe	--	--	--	--	--	--	--	--	--	--	25.1
34F014 ^a	Cumberland Is., Squawtown	--	--	--	--	--	--	--	--	--	--	30.3
34F015 ^a	Cumberland Is., Candler (water tower)	--	--	--	--	--	--	--	--	--	--	27.5
34F016 ^a	Cumberland Is., Candler (new, 1987)	--	--	--	--	--	--	--	--	--	--	27.9
GLYNN COUNTY												
32H001 ^b	BP&P, Bladen	49.2	--	39.9	39.3	33.8	32.6	29.3	27.4	25.6	23.3	23.5
32H004 ^{a,c}	Long, I.A.	48.3	--	--	--	--	--	--	--	--	--	--
32H007 ^c	Cason, J.A.	--	--	34.9	36.2	34.7	--	--	--	--	--	--
32H011 ^{a,c}	Wainwright, W.M.	--	--	--	36.5	35.0	32.8	--	--	--	--	--
32H014 ^{a,c}	Drury, L.H.	--	--	38.2	37.8	35.2	35.0	32.9	--	--	--	--
32H015 ^{b,c}	Wilkes, C.G.	--	--	--	33.2	26.8	--	--	--	--	--	--
32H016 ^{a,c}	Moody, J.O.	--	--	40.4	--	--	--	--	--	--	--	--
32H017 ^b	Roads End Camp	--	--	--	38.5	35.5	36.3	--	--	--	--	--
32H019 ^{a,c}	Union Bag	41.8	--	30.1	29.8	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
32H020 ^{a,c}	Union Bag/Vickers, A.D.	42.1	--	37.4	--	--	--	--	--	--	--	--
32H022 ^{a,c}	Johnson, Walter	--	--	--	37.6	--	--	--	--	--	--	--
32H023 ^{a,c}	Glynn County, Buck Swamp School	--	--	25.4	--	--	--	--	--	--	--	--
32H024	Lamar, Stafford	49.2	--	40.4	40.5	36.2	35.9	33.3	--	--	--	--
32H026 ^b	Osborn, N.B.	--	--	--	--	32.0	29.6	26.6	--	--	--	--
32H029 ^a	Demery, Minder	--	--	--	37.6	34.2	32.9	30.0	--	--	26.0	25.0
32J001	Nail, G.A.	--	--	--	34.8	--	--	--	--	--	--	--
32J002	Seaboard Coast Line RR., Thalmann	--	--	42.5	41.9	37.5	34.1	34.1	30.5	29.4	--	--
32J003	Harrison, Connie	--	--	--	42.8	38.9	37.9	34.7	--	--	27.7	26.5
32J006 ^c	McLain, R.B.	57.2	54.0	39.2	37.8	--	--	--	--	--	--	--
32J007 ^{a,c}	State Highway Dept.	26.2	--	18.2	--	--	--	--	--	--	--	--
32K001 ^c	Mullins, W.W.	47.4	--	35.3	33.8	31.2	--	--	--	--	--	--
32K002 ^c	Cowart, D.C.	43.6	--	--	--	--	--	--	--	--	--	--
32K003 ^c	Crenshaw, M.C.	37.8	--	33.9	--	--	--	--	--	--	--	--
32K004 ^c	Savage, L.A.	47.2	--	--	--	--	--	--	--	--	--	--
33G002	Massey (lake)	--	--	--	34.8	31.8	27.6	24.5	23.0	21.3	21.0	17.8
33G003	Massey Oil Test	--	--	--	44.9	42.1	31.3	28.0	--	--	23.2	--
33G008	USGS TW 15	--	--	--	--	--	--	24.0	23.8	22.0	20.3	--
33H003 ^b	Madge Merritt Garden Club	--	--	--	33.5	30.8	26.9	17.3	--	--	--	--
33H005 ^c	Knowles, W.H.	--	--	--	33.7	30.5	26.2	23.4	--	--	--	--
33H006 ^b	Scarlett, R.M.	--	--	--	30.7	25.6	--	--	--	--	--	--
33H008 ^b	Hosmer, H.E.	46.1	--	33.1	30.3	26.8	21.0	18.7	--	--	--	--
33H010 ^b	Cowman, George F.	41.1	38.8	26.5	25.6	23.0	15.9	12.7	--	--	--	--
33H012 ^{a,c}	Stutts	--	--	--	22.6	--	--	--	--	--	--	--
33H013	Watts, W.H.	--	--	--	27.2	24.2	--	--	--	--	14.4	12.6
33H014 ^{a,c}	Scarlett, R.M.	29.6	--	20.0	19.1	--	--	--	--	--	--	--
33H015 ^{a,c}	Beauford	22.5	--	--	--	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
33H016	Satilla Shores	--	--	--	--	31.1	26.0	--	--	--	--	--
33H017 ^b	Massey, Roy (barn)	--	--	--	24.3	22.0	--	--	--	--	--	--
33H018 ^a	Massey, Roy (house)	--	--	--	23.5	22.4	--	--	--	--	--	--
33H020 ^{a,c}	Blythe Island, C. C. Camp	--	--	16.9	--	--	--	--	--	--	--	--
33H021 ^b	Blythe Island (near I-95)	36.7	--	21.1	--	--	--	--	--	--	--	--
33H025 ^b	Riccio, Joseph (Skarpaletz, John)	34.0	--	13.6	--	--	--	--	--	--	--	--
33H026 ^c	Lee, J.E.	--	--	19.7	--	--	--	--	--	--	--	--
33H028 ^c	Kersey	--	--	11.2	--	--	--	--	--	--	--	--
33H031 ^c	Lovett, Leroy	--	--	--	19.0	17.7	--	--	--	--	--	--
33H033 ^c	Burch, O.E.	--	--	14.0	16.3	--	--	--	--	--	--	--
33H034 ^c	Thompson, Pete	--	--	13.9	--	--	--	--	--	--	--	--
33H035	Boy Scouts of Am., Camp Tolochee	--	--	--	--	--	--	--	--	14.8	8.9	--
33H036 ^{a,c}	Mauromat, Andrew	--	--	--	25.2	21.2	--	10.8	--	--	--	--
33H038	Camp Glynn	--	--	--	(27.6)	--	22.4	16.9	18.5	16.4	15.2	13.1
33H040 ^{a,c}	Holtzendorf, R.R.	--	--	--	29.4	22.7	--	--	--	--	--	--
33H041	Daniel, A.R.	--	--	--	31.3	29.4	22.8	19.7	--	--	--	--
33H049 ^{a,c}	Burgess, C.D.	--	--	15.7	--	--	--	--	--	--	--	--
33H050 ^c	Jones, Wyche	--	--	--	--	23.2	--	--	--	--	--	--
33H052	Waters, Wayne (Anderson, L.L.)	--	--	--	28.1	24.0	17.7	14.5	13.4	12.0	11.4	--
33H056 ^c	Lewis, S.L.	48.5	43.8	28.7	--	--	--	--	--	--	--	--
33H057 ^c	Lewis & Whorton	54.7	--	--	--	--	--	--	--	--	--	--
33H059 ^c	Steele, O.D.	39.7	--	--	--	--	--	--	--	--	--	--
33H061	Metro Development/Sautell, H.B.	52.4	--	--	--	--	--	--	--	--	--	--
33H065 ^c	Thrower, Charles	--	--	--	25.6	22.6	--	--	--	--	--	--
33H069 ^c	Phillips, F.E.	--	--	--	--	19.7	--	--	--	--	--	--
33H073 ^{a,c}	McViegh, W.J.	--	--	--	24.6	21.5	--	--	--	--	--	--
33H074 ^{b,c}	Roland (turpentine still)	33.2	--	24.7	24.9	21.6	--	--	--	--	--	--
33H075 ^c	Sanders, Jack	47.7	--	--	--	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
33H078 ^c	Willis, B.H.	--	--	--	25.9	22.7	15.0	--	--	--	--	--
33H079	Hamilton, R.L.	--	--	--	25.6	21.8	15.4	11.8	9.9	8.9	8.6	6.0
33H080 ^c	Schofeer, Frank	--	--	21.7	22.4	19.6	--	--	--	--	--	--
33H083 ^c	Bates, A.R.	45.0	--	--	--	--	--	--	--	--	--	--
33H085 ^c	Morgan, Earl	--	--	23.7	24.2	--	--	--	--	--	--	--
33H086	Bennett, B.K.	--	--	23.0	22.6	19.5	--	--	--	--	--	--
33H089 ^{a,c}	Coppland, Milton	36.0	--	13.4	--	--	--	--	--	--	--	--
33H090 ^{b,c}	Turner (Morgan, R.L.)	45.2	--	20.5	--	--	--	--	--	--	--	--
33H094 ^c	Robarts, E.	--	--	--	23.3	20.8	--	--	--	--	--	--
33H098 ^c	Roberts, George	42.1	--	--	--	--	--	--	--	--	--	--
33H099 ^c	Georgia Forestry Commission	--	--	--	17.4	--	--	--	--	--	--	--
33H100	Jenkins, S.O., Sunset Theatre	--	--	14.9	16.4	13.0	1.1	0.2	-2.3	-2.8	-5.3	-3.5
33H101	LCP 1	40.8	--	--	--	--	--	--	--	-6.8	--	--
33H102	LCP 2	47.2	--	--	--	--	--	--	--	-13.3	--	--
33H103	LCP 3	42.5	36.9	--	--	--	--	--	--	--	--	--
33H104	LCP 4	42.0	--	--	--	--	--	--	--	--	-83.4p	--
33H105	LCP 5	--	--	15.1	--	--	--	--	--	-10.2	-11.1	--
33H106	LCP 6	--	--	--	--	--	--	--	--	--	-14.3	--
33H108	BP&P 1	36.4	--	--	--	--	--	--	--	-66.4p	--	--
33H110	BP&P 3	--	--	--	--	--	--	--	--	-14.8	--	-73.2p
33H113	BP&P 6	--	--	--	--	--	--	--	--	-58.0p	--	-95.0p
33H114	BP&P 8	--	--	--	20.7	-52.7p	--	--	--	-245.0p	--	--
33H115	BP&P 7	--	--	--	--	6.0	--	--	--	-107.4p	--	--
33H116	BP&P 9	--	--	--	18.1	--	-17.3	--	--	--	--	--
33H118	BP&P 11	--	--	--	--	14.3	--	--	--	-17.4	--	--
33H119	Liphratt, David, Jr.	36.6	32.6	--	11.1	6.6	-11.0	--	--	--	--	--
33H120	Palmetto Cemetery (north)	--	--	11.5	--	--	-6.7	--	--	--	-11.1	-11.1
33H122 ^c	Selden Park	(46.6)	34.0	--	--	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
33H125 ^{a,c}	Union Bag/Whittle, A.E.	48.1	--	33.7	--	--	--	--	--	--	--	--
33H127	USGS TW 3	--	--	--	--	19.0	8.7	5.6	2.5	2.0	1.4	1.0
33H130	Selden Park	--	--	--	--	--	--	--	-12.2	-14.2	-13.6	-13.4
33H131	Jenkins, S.O. (pasture)	--	--	--	--	--	25.8	--	--	--	--	--
33H133	USGS TW 6	--	--	--	--	--	-2.8	-4.0	-7.4	-10.7	-6.6	-8.6
33H137	Self, S.B.	--	--	--	--	--	--	9.8	--	--	--	--
33H139	O'Quinn, Wyllie, Jr.	--	--	--	--	--	--	20.7	21.5	18.3	18.3	16.0
33H141	USGS TW 12	--	--	--	--	--	--	8.7	7.6	4.9	6.2	2.1
33H142 ^a	Jenkins, S.O. (house)	--	--	--	--	--	--	19.8	--	--	--	--
33H147	Barnes, Robert D. (Mims, Vernon)	--	--	--	--	--	--	17.6	--	--	--	--
33H149	Escambia Corp.	--	--	--	--	--	--	--	--	--	13.0	--
33H154	USGS TW 18	--	--	--	--	--	--	-7.0	-8.9	-9.9	-14.1	-12.2
33H164	Tidewater Construction Co.	--	--	--	--	--	--	--	20.2	18.0	17.4	14.8
33H173	Sea Pak Corp. 1	--	--	--	--	--	--	--	6.0	--	7.0	--
33H174	Northwood Estate Subdivision	--	--	--	--	--	--	--	13.0	--	11.2	9.1
33H175	Brunswick, Glyndale 1	--	--	--	--	--	--	--	12.3	--	--	--
33H177	Spaulding Trailer Park	--	--	--	--	--	--	--	30.5	29.0	27.1	25.6
33H178	BP&P 4 (new)	--	--	--	--	--	--	--	--	-96.0p	--	-88.0p
33H179	Dennard, Tom	--	--	--	--	--	--	--	--	--	19.8	16.8
33H180	Thomas, R.E., Leaseway Transportation	--	--	--	--	--	--	--	--	-7.6	-8.7	-7.6
33H183	BP&P 5 (new)	--	--	--	--	--	--	--	--	-70.0p	--	-13.0
33H189	BP&P 2 (new)	--	--	--	--	--	--	--	--	-107.0p	--	-140.0p
33H190	Brunswick, Glyndale 2	--	--	--	--	--	--	--	--	9.3	9.2	6.4
33H193	Davis Oil Test (supply)	--	--	--	--	--	--	--	--	--	22.2	20.3
33H207	USGS/GGS/BP&P TW 2 (south)	--	--	--	--	--	--	--	--	--	-2.7	-5.3
33H209	Glynn County Recreation Dept., Blythe Island	--	--	--	--	--	--	--	--	--	11.3	12.7
33H211	USGS/BP&P 1	--	--	--	--	--	--	--	--	--	-21.0	-23.1

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
33H212	USGS/BP&P 11 (lower)	--	--	--	--	--	--	--	--	--	-11.6	-13.4
33H213	USGS/BP&P 11 (upper)	--	--	--	--	--	--	--	--	--	-22.0	-23.8
33H214	USGS/BP&P 9 (lower)	--	--	--	--	--	--	--	--	--	-48.1	-29.9
33H215	USGS/BP&P 9 (upper)	--	--	--	--	--	--	--	--	--	-27.6	-27.2
33H216	USGS/BP&P 10 (lower)	--	--	--	--	--	--	--	--	--	5.4	3.3
33H217	USGS/BP&P 10 (middle)	--	--	--	--	--	--	--	--	--	-20.5	-16.4
33H218	USGS/BP&P 10 (upper)	--	--	--	--	--	--	--	--	--	-16.0	-16.5
33H221	BP&P 8 (new)	--	--	--	--	--	--	--	--	--	--	-105.0p
33H222	BP&P 7 (new)	--	--	--	--	--	--	--	--	--	--	-45.0p
33J001 ^{a,c}	Gowen, C.B.	42.6	--	--	--	--	--	--	--	--	--	--
33J002 ^{a,c}	Georgia DOT	--	--	21.3	--	--	--	--	--	--	--	--
33J003 ^c	Jenkins, L.D.	--	--	--	25.5	--	--	--	--	--	--	--
33J004 ^{a,c}	Paulk, J.B.	43.2	--	--	--	--	--	--	--	--	--	--
33J005 ^{a,c}	Zuta (sawmill)	--	--	30.8	29.4	--	--	--	--	--	--	--
33J006	Winters Excelsior	--	--	--	34.2	30.3	26.4	21.2	--	--	--	--
33J009 ^{a,c}	Croft, R.V.	17.4	--	22.5	--	--	--	--	--	--	--	--
33J012	Bright, B.	--	--	38.6	37.9	34.6	31.5	28.8	26.1	--	--	--
33J014 ^{a,c}	Glynn County	27.9	--	--	--	--	--	--	--	--	--	--
33J017 ^{b,c}	Skipper, S.B., Jr.	42.9	--	21.1	--	--	--	--	--	--	--	--
33J019 ^c	Pipkin, J.E.	44.0	--	27.4	--	--	--	--	--	--	--	--
33J022 ^{a,c}	BP&P, Sterling	--	--	31.3	30.6	27.8	--	--	--	--	--	--
33J023 ^c	Darby	35.4	--	15.1	--	--	--	--	--	--	--	--
33J024 ^c	Abbott, C.B.	43.0	--	--	--	--	--	--	--	--	--	--
33J026	Young, S.L.	--	--	--	--	--	26.6	23.3	21.4	19.2	17.4	--
33J027	Whittington, Lou (Blackerby, D.G.)	--	--	--	--	--	--	20.5	--	--	17.2	15.7
33J028	Woodmen of the World	--	--	--	--	--	--	19.8	17.9	16.3	15.2	12.7
33J034	Girl Scout Camp	--	--	--	--	--	--	--	--	13.9	13.0	12.1
33J043	USGS TW 28, Sterling	--	--	--	--	--	--	--	--	--	17.9	15.8

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[¹1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
33J050	Jones, Jimmy/Brinson, Daryle	--	--	--	--	--	--	--	--	--	--	14.9
33K002 ^c	Atkinson, Elik	42.4	--	--	--	--	--	--	--	--	--	--
33K005	Shadron, S	--	--	--	--	--	--	25.0	22.6	17.3	13.9	13.1
33K006	Hadden & Hadden	--	--	--	--	--	--	25.1	--	--	--	--
34G001	Babcock & Wilcox	--	--	28.6	33.8	28.9	(25.3)	19.1	18.8	17.3	--	--
34G002	Georgia DOT, Lanier Bridge	--	--	--	--	--	--	--	18.6	17.0	18.1	16.7
34G003	Jekyll Island 18	--	--	(40.2)	34.4	30.2	28.1	23.9	23.3	21.2	21.2	19.1
34G004	Jekyll Island 17 (Dykes, Jule)	--	--	--	--	42.4	(42.6)	38.9	37.4	37.8	31.9	--
34G006 ^b	Jekyll Island 20/Georgia DOT	--	--	(39.8)	37.9	35.7	(31.6)	--	--	--	--	--
34G007 ^b	Jekyll Island 15	--	--	--	(34.1)	--	--	--	--	--	--	--
34G008	Jekyll Island 12	--	--	--	48.6	41.5	(44.0)	--	--	--	--	--
34G009	Jekyll Island 24	--	--	43.5	--	--	--	--	43.8	41.6	41.9	39.2
34G010 ^{a,c}	Jekyll Island (duck pond)	38.3	--	33.7	--	--	--	--	--	--	--	--
34G011	Jekyll Island 2	--	--	(47.1)	(47.8)	42.4	(42.5)	(39.1)	37.9	--	--	--
34G013	Jekyll Island 6	--	--	(46.8)	46.6	40.5	43.4	--	--	--	--	--
34G016	Jekyll Island 22	--	--	42.5	39.4	37.6	37.1	32.7	--	--	28.3	23.2
34G017	Jekyll Island 13	--	--	40.6	40.2	35.5	34.5	31.3	30.3	26.1	27.1	--
34G019 ^{a,c}	Jekyll Island (west side, marsh)	39.8	--	36.6	35.0	--	--	--	--	--	--	--
34G020	Jekyll Island 23	--	--	44.6	43.2	40.3	38.8	32.5	33.8	31.7	30.9	26.6
34G021 ^{a,c}	Jekyll Island (gamekeeper's house)	32.9	--	--	--	--	--	--	--	--	--	--
34G024	Jekyll Island 7	--	--	43.0	43.8	--	--	--	--	--	--	--
34G027 ^{a,c}	Jekyll Island (garage)	41.1	--	38.1	--	--	--	--	--	--	--	--
34G036	USGS TW 23	--	--	--	--	--	--	(27.8)	26.4	24.6	25.0	21.8
34G041	Jekyll Island, Ga. State Patrol Post	--	--	--	--	--	--	--	--	--	--	32.4
34H001 ^{a,c}	Smith, B.	26.3	--	--	--	--	--	--	--	--	--	--
34H003	Paulk, R.	--	--	27.5	28.0	26.2	17.7	14.4	--	--	--	--
34H005 ^c	Dees, W.O.	--	--	--	24.9	19.8	--	--	--	--	--	--
34H006 ^c	Osborne, J.H.	37.7	--	--	--	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H007 ^c	Higginbotham, W.P.	36.7	--	--	--	--	--	--	--	--	--	--
34H012	Brunswick, Fed. Law Enforcement Training Center	37.2	--	--	--	--	--	--	--	--	8.4	6.9
34H015 ^{a,c}	Brunswick Country Club (drinking)	28.9	--	--	--	--	--	--	--	--	--	--
34H016 ^c	Brunswick Country Club (irrigation)	48.9	--	--	--	--	--	--	--	--	--	--
34H017 ^c	Brunswick Country Club (pond)	45.8	--	--	--	--	--	--	--	--	--	--
34H018 ^c	Brunswick Country Club (shop)	45.8	--	--	--	--	--	--	--	--	--	--
34H019 ^{a,c}	Cherokee Garden Club	--	--	19.9	18.4	--	(10.9)	--	--	--	--	--
34H020 ^c	Georgia Lodge 1	--	--	--	28.3	25.0	--	--	--	--	--	--
34H021 ^c	Hafner, H.J.	46.2	--	--	--	--	--	--	--	--	--	--
34H023 ^c	Stanford, E.W.	--	--	--	25.8	24.5	--	--	--	--	--	--
34H024 ^c	Gay, J.M.	--	--	--	25.5	22.1	--	--	--	--	--	--
34H029 ^c	Krauss, G.A.	45.3	--	--	--	--	--	--	--	--	--	--
34H031 ^c	George, Mary	--	--	--	25.1	21.4	--	--	--	--	--	--
34H032 ^{a,c}	Thiot, R.W.	28.7	--	--	--	--	--	--	--	--	--	--
34H033 ^{a,c}	Sea Spray Motel	--	--	--	25.8	20.6	--	--	--	--	--	--
34H034 ^c	Beverly Shores 1	40.8	--	--	--	--	--	--	--	--	--	--
34H035	Beverly Shores 2	--	--	25.2	--	--	--	--	--	--	--	--
34H037 ^{a,c}	Lashley, W.L.	--	--	--	20.3	18.0	--	--	--	--	--	--
34H040 ^c	Guest, A.J.	--	--	--	22.7	19.7	--	--	--	--	--	--
34H041 ^{b,c}	Lancaster, W.B.	38.6	--	--	--	--	--	--	--	--	--	--
34H043 ^{a,c}	Island View Subdivision	--	--	--	23.9	19.8	--	--	--	--	--	--
34H045 ^c	Bradham, H.D.	--	--	--	22.9	20.0	--	--	--	--	--	--
34H046 ^{a,c}	Woodall, B.L.	23.7	--	--	--	--	--	--	--	--	--	--
34H047	Crown Court Motel	--	--	--	22.3	18.3	--	--	--	--	--	--
34H048 ^c	Cowart, E.C.	39.2	--	19.8	--	--	--	--	--	--	--	--
34H050 ^{a,c}	Nation, J.A.	--	--	13.8	13.1	--	--	--	--	--	--	--
34H051 ^{a,c}	Ingwersen, S.	--	--	--	(21.2)	19.3	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H052 ^{a,c}	Brunegraf, Henry	27.1	--	--	--	--	--	--	--	--	--	--
34H053 ^{b,c}	Dawson, J.L.	26.7	--	--	--	--	--	--	--	--	--	--
34H056 ^c	Yates, C.T.	24.9	--	11.9	--	--	--	--	--	--	--	--
34H057 ^{a,c}	Riverside Subdivision	23.1	--	--	--	--	--	--	--	--	--	--
34H059 ^{a,c}	Oak Park Hotel	20.7	--	--	--	--	--	--	--	--	--	--
34H060	Caravel Corp.	--	--	--	--	--	--	-3.8	--	--	--	--
34H062	Dixie-O'Brien (front)	--	--	--	--	--	--	--	-10.1	-0.4	-2.5	--
34H066	Hercules Inc. B	--	--	13.0	--	--	--	--	--	--	--	--
34H067	Hercules Inc. C	--	--	10.5	--	--	--	--	--	--	--	--
34H071	Hercules Inc. H	44.0	--	--	--	--	--	--	--	--	--	--
34H073	Hercules Inc. J	--	--	17.1	--	--	--	--	--	--	--	--
34H074	Hercules Inc. K	--	--	17.6	--	--	--	--	-16.6	-4.1	--	--
34H075	Hercules Inc. L	--	--	--	--	--	--	--	-84.3p	--	--	--
34H076	Hercules Inc. M	--	--	26.0	--	-40.4p	-67.0p	--	-14.9	-4.0	-45.4p	--
34H077	Hercules Inc. N	--	--	--	--	-18.0p	-23.3p	--	--	--	--	--
34H078	Hercules Inc. O	--	--	36.0	--	-50.0p	-64.0p	--	-79.7p	--	--	--
34H079	Hercules Inc. P	--	--	--	--	--	--	--	-100.0p	-0.2	5.2	--
34H082	Thon, L.L.	--	--	--	--	--	--	-2.1	--	--	--	--
34H085	Brunswick, Coffin Park	43.9	36.2	20.7	21.6	12.4	8.3	4.6	2.1	3.5	-0.7	--
34H086 ^{a,c}	Gould	--	--	22.0	22.3	18.0	--	--	--	--	--	--
34H089	Lang Planing Mill	--	--	--	--	16.9	9.0	5.6	--	--	--	--
34H090	Purcell, Della	41.9	--	--	--	17.9	--	--	--	--	--	--
34H091	Brunswick (north shipyard)	--	--	--	30.4	24.4	16.9	13.5	--	11.8	10.1	--
34H094	Brunswick (south shipyard)	--	--	--	--	25.2	12.3	--	--	--	--	--
34H095	Georgia Pacific	--	--	--	--	--	--	--	--	10.5	--	--
34H097	Georgia Ports Authority (main office)	--	--	--	--	23.8	17.4	14.0	13.4	11.3	12.0	11.5
34H098	Jekyll Island Packing	--	--	24.7	27.4	23.5	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H100	Riley, Barney	--	--	--	26.0	23.0	16.5	--	--	--	--	--
34H112	Abbott Ice House	--	--	--	--	--	9.8	--	3.8	3.1	5.4	2.8
34H115 ^c	Golden Shores 3	--	--	(21.9)	21.7	--	--	--	--	--	--	--
34H117	Whorton Crab	--	--	--	--	--	--	--	-0.4	0.2	2.7	0.3
34H118	Brunswick, 1525 Grant St.	35.3	--	--	--	--	--	--	--	3.7	--	--
34H119 ^b	Brunswick (old J49)	--	--	--	--	--	9.0	--	--	--	--	--
34H120	Brunswick, F St.	--	45.0	25.3	--	--	--	(1.4)	--	--	--	--
34H122	Coastal Bank	--	--	--	--	--	--	3.0	--	1.0	4.2	--
34H124 ^c	Duckworth, James	--	--	--	19.9	16.8	--	--	--	--	--	--
34H125	USGS TW 1	--	--	--	16.4	13.4	5.7	2.3	0.8	-0.6	2.1	0.0
34H128	Firestone Store	--	--	--	--	15.9	--	--	--	-3.7	1.2	--
34H130	Rice TV Service (Mock Laundry)	--	--	--	--	--	--	--	--	--	--	1.8
34H133	Brunswick, Goodyear Park	--	--	12.9	--	12.2	9.0	--	--	-7.6	--	--
34H134	Brunswick Villa	--	--	(11.6)	--	7.6	-4.1	-9.6	--	-8.3	--	--
34H137 ^c	Souter, J.C.	--	--	(22.6)	--	--	--	--	--	--	--	--
34H139 ^c	Kinstle, L.M.	48.5	--	(26.2)	--	--	--	--	--	--	--	--
34H140 ^{b,c}	Parker & Wright, Inc.	33.2	--	--	--	--	--	--	--	--	--	--
34H141 ^c	Miller, Bert	--	--	(26.4)	--	--	--	--	--	--	--	--
34H144 ^b	J. Torras Causeway (maintenance shop)	39.0	--	20.1	18.6	17.1	--	--	--	--	6.0	3.0
34H146 ^b	Wilson, Arthur	31.2	--	--	--	--	19.4	--	--	--	11.1	7.4
34H147 ^c	Olsen's Yacht Yard	50.9	--	34.1	32.5	29.0	19.4	--	--	--	--	--
34H149 ^{a,c}	American Legion	--	--	--	23.8	21.5	17.8	--	--	--	--	--
34H150 ^{b,c}	Glynn County (old mill)	31.3	--	--	--	--	--	--	--	--	--	--
34H151 ^{a,c}	Sea Island Co.	--	--	29.5	--	--	--	--	--	--	--	--
34H152 ^c	Epworth-by-the-Sea	--	--	--	27.3	24.0	--	--	--	--	--	--
34H154 ^{b,c}	Moose Lodge #1915	--	--	--	28.7	--	--	--	--	--	--	--
34H155 ^{a,c}	Lewis, Alberta	--	--	--	31.2	28.4	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H156 ^c	Morrison's Estate	--	--	--	29.6	26.6	22.9	--	--	--	--	--
34H158 ^c	Nickols, J.B.	46.9	--	29.8	28.5	24.9	--	--	--	--	--	--
34H160	Sea Island Golf (1959)	--	--	--	--	27.6	27.6	17.8	19.4	18.0	--	--
34H161 ^{a,c}	Sea Island Golf Course	28.3	--	--	--	--	--	--	--	--	--	--
34H164 ^{a,c}	Tracy, A.W. (O'Steen, Homer)	--	--	--	30.9	27.1	24.8	18.2	--	--	--	--
34H170 ^{a,c}	McCaskill, D.C.	--	--	--	30.9	--	--	--	--	--	--	--
34H171 ^c	Edwards, Ann	--	--	--	30.0	27.1	--	--	--	--	--	--
34H185 ^c	Cofer, H.J.	46.1	--	--	--	--	--	--	--	--	--	--
34H204	Glynn County (casino)	--	--	--	35.0	33.0	30.4	27.0	26.0	24.6	23.2	--
34H205	Saint Simons Island (lighthouse)	46.4	43.8	31.0	28.4	23.3	(21.4)	--	--	--	--	--
34H210 ^{a,c}	Vickers, J.J.	37.9	--	--	--	--	--	--	--	--	--	--
34H217 ^{a,c}	McDonald, R.L.	--	--	30.3	--	--	--	--	--	--	--	--
34H218 ^{a,c}	Sea Island Co.	--	--	25.8	23.8	20.9	--	--	--	--	--	--
34H225 ^{a,c}	Murphy, F.E.	--	--	--	34.3	32.0	29.8	24.4	--	--	--	--
34H232 ^{a,c}	Slaughter, W.T.	--	--	--	23.7	--	--	--	--	--	--	--
34H234 ^{a,c}	Townsend, W.G.	--	--	--	19.8	--	--	--	--	--	--	--
34H235	Brandies, A.H.	--	--	--	34.0	31.9	28.6	23.7	--	--	--	--
34H243 ^{a,c}	Griffin, Virginia	--	--	--	34.2	31.5	28.9	--	--	--	--	--
34H245 ^{a,c}	Follins, H.	--	--	--	24.7	--	--	--	--	--	--	--
34H249 ^{a,c}	Riggins, W.P.	--	--	--	30.7	28.4	--	--	--	--	--	--
34H251 ^c	McKewen, H.S.	--	--	--	25.3	32.9	29.8	--	--	--	--	--
34H254 ^{b,c}	Stevens, George	--	--	--	24.4	20.7	--	--	--	--	--	--
34H255 ^{a,c}	Glynn County	--	--	--	25.8	22.8	21.9	16.4	--	--	--	--
34H258 ^{a,c}	Wood, W.D.	--	--	--	24.5	20.8	20.2	--	--	--	--	--
34H262 ^c	Meadows, J.J.	--	--	--	28.0	24.6	23.5	--	--	--	--	--
34H263 ^c	Brewer, Jessie	--	--	--	29.4	25.7	--	--	--	--	--	--
34H264 ^c	Sea Pak Corp.	--	--	26.6	26.7	23.9	--	--	--	--	--	--
34H271 ^{a,c}	Taylor, O.L.	--	--	--	30.4	28.9	23.8	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		• 1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H272 ^c	Strother, W.F.	--	--	--	30.4	27.7	25.2	--	--	--	--	--
34H275 ^{a,c}	Wells	--	--	--	30.0	28.6	--	--	--	--	--	--
34H279 ^{a,c}	Cross, Dave	--	--	--	30.3	--	--	--	--	--	--	--
34H280 ^c	Brown, E.	--	--	--	26.6	25.0	--	--	--	--	--	--
34H283 ^{a,c}	Drew, Kenyon	--	--	--	29.7	28.1	--	--	--	--	--	--
34H287	Smith, Judson B.	--	--	--	29.9	28.5	23.6	--	--	--	--	--
34H290 ^c	Gilbert, John	--	--	--	26.5	--	--	--	--	--	--	--
34H291 ^c	Highsmith, E.W.	--	--	30.4	29.9	28.7	--	--	--	--	--	--
34H293 ^{a,c}	Saint William's Chapel	--	--	--	27.9	--	--	--	--	--	--	--
34H294 ^{a,c}	Glynn County	30.1	--	--	--	--	--	--	--	--	--	--
34H295 ^c	Cowart, D.T.	45.9	--	--	--	--	--	--	--	--	--	--
34H299 ^{a,c}	Middleton, Glenn 3	--	--	--	28.1	25.5	--	--	--	--	--	--
34H301 ^c	Rowe, Remo	--	--	29.5	28.7	27.6	21.0	--	--	--	--	--
34H303 ^{a,c}	Middleton, Glenn 2	--	--	--	26.9	--	--	--	--	--	--	--
34H304 ^{a,c}	Middleton, Glenn 1	--	--	--	18.9	--	--	--	--	--	--	--
34H305 ^c	Pennington	--	--	29.8	--	--	--	--	--	--	--	--
34H309	Estes, C.F.	--	--	--	28.7	26.3	--	--	--	--	--	--
34H311 ^c	Edwards, S.C.	--	--	--	27.7	--	--	--	--	--	--	--
34H312 ^{a,c}	Brown, Elliott (Lester, J.H., Jr.)	--	--	--	31.6	29.2	21.8	--	--	--	--	--
34H313 ^c	Gray, Edward	--	--	--	28.3	25.0	--	--	--	--	--	--
34H315 ^c	Benjamin, L.W.	--	--	--	25.7	--	--	--	--	--	--	--
34H318	Mendenhall, W.C.	--	--	--	30.4	24.9	20.4	--	--	--	--	--
34H321 ^c	Taylor, A.	--	--	--	26.1	--	--	--	--	--	--	--
34H323 ^{a,c}	Saint Simons Island, Christ Church	43.1	--	--	--	--	--	--	--	--	--	--
34H325 ^c	Sea Island Development Co.	46.1	--	--	--	--	--	--	--	--	--	--
34H327 ^c	Dodge, Anson	30.6	--	--	--	--	--	--	--	--	--	--
34H328	U.S. NPS, Fort Frederica (Stephens)	48.4	42.9	28.7	27.7	23.8	19.3	15.9	14.6	13.2	11.7	9.1
34H329 ^c	U.S. NPS, Fort Frederica (center)	--	--	--	28.1	26.4	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

['1939' measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H334	USGS TW 4	--	--	--	--	14.7	8.4	7.2	7.0	5.0	4.9	5.8
34H337	USGS TW 5 (point 1)	--	--	--	--	--	18.0	--	--	--	--	--
34H343	U.S. NPS, Fort Frederica	--	--	--	--	--	19.6	--	--	--	--	--
34H344	USGS TW 7	--	--	--	--	--	-0.3	-6.1	-6.8	-9.6	-2.7	-4.7
34H345	American National Bank	--	--	--	--	--	--	--	1.3	0.9	3.8	--
34H347	Roberts, L.D.	--	--	--	--	--	--	--	--	--	4.8	2.5
34H350 ^b	Engle, Marvin	--	--	--	--	--	--	15.4	--	--	--	--
34H352	King, R.W.	--	--	--	--	--	18.2	--	--	--	--	--
34H354	USGS TW 8	--	--	--	--	--	--	11.4	9.1	8.1	8.1	6.2
34H355	USGS TW 9	--	--	--	--	--	4.0	0.7	-1.5	-3.0	-0.1	-2.2
34H356	Lewis Crab Co. 5	--	--	--	--	--	--	--	7.5	--	--	--
34H357	Troupe Creek Marina	--	--	--	--	--	17.7	13.6	12.5	10.8	10.7	8.3
34H358	Golden Isles Marina (Olsen's Yacht Yard)	--	--	--	--	--	--	16.9	16.0	13.7	--	--
34H361	Middleton Estates	--	--	--	--	--	--	17.7	--	--	--	--
34H362	Bloodworth, F.H.	--	--	--	--	--	--	17.3	15.9	--	--	--
34H363	USGS TW 10	--	--	--	--	--	--	--	10.6	9.4	--	--
34H366	First Baptist Church	--	--	--	--	--	--	--	--	3.1	--	--
34H370	Ellzey, C.M.	--	--	--	--	--	--	--	--	--	6.2	4.6
34H371	USGS TW 11	--	--	--	--	--	--	11.5	10.8	9.9	10.7	8.4
34H372	Harrington, Lawrence	--	--	--	--	--	--	4.7	3.1	2.8	4.9	2.4
34H373	USGS TW 13	--	--	--	--	--	--	-5.5	-8.5	-10.1	-4.9	-7.2
34H374	USGS TW 14	--	--	--	--	--	--	-1.8	--	-6.3	-3.8	-4.8
34H381	Beggs, R.	--	--	--	--	--	--	17.8	16.4	15.0	14.2	--
34H383	Holland, Al (Derry, Inez)	--	--	--	--	--	--	18.3	16.4	14.2	13.5	--
34H386	Tollison, H.K./WGIG Radio Station	--	--	--	--	--	--	3.1	--	--	--	--
34H388	Reu, A.H.	--	--	--	--	--	--	17.6	15.9	16.0	--	--
34H391	USGS TW 16	--	--	--	--	--	--	11.0	--	--	11.2	8.3

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34H392	Brunswick College	--	--	--	--	--	--	2.8	--	-1.2	-0.2	--
34H393	USGS TW 17	--	--	--	--	--	--	--	10.8	8.7	--	--
34H399	USGS TW 19	--	--	--	--	--	--	13.8	13.1	6.0	5.6	3.5
34H400	USGS TW 20	--	--	--	--	--	--	-4.0	-6.6	-8.0	-4.5	-6.6
34H401	USGS TW 21	--	--	--	--	--	--	-4.5	-7.3	-9.0	-6.0	-7.7
34H402	USGS TW 22	--	--	--	--	--	--	6.2	4.5	3.4	2.8	1.1
34H403	USGS TW 24	--	--	--	--	--	--	13.0	--	--	11.2	9.0
34H404	Bishop, J./Taylor	--	--	--	--	--	--	15.4	14.6	--	--	--
34H408	Van Diviere Oil Co	--	--	--	--	--	--	--	5.4	4.5	3.8	2.7
34H410	Laws, John, Sr.	--	--	--	--	--	--	--	9.6	7.2	8.5	--
34H412	Hercules Inc. Q	--	--	--	--	--	--	--	--	-82.0p	-4.0	-5.0
34H413	Hercules Inc. S	--	--	--	--	--	--	--	--	--	-7.4	-10.3
34H423 ^c	Boys Club of Glynn County	--	--	--	--	--	--	--	7.3	--	--	--
34H424	Hercules Inc. T	--	--	--	--	--	--	--	--	-8.3	-3.7	-5.5
34H425	Hercules Inc. U	--	--	--	--	--	--	--	--	-20.5p	-20.1p	--
34H427	Champion, E.M. 2	--	--	--	--	--	--	--	--	--	-5.8	--
34H434	Glynn County Courthouse	--	--	--	--	--	--	--	--	--	--	-3.6
34H436	Coffin Park TW 1	--	--	--	--	--	--	--	--	--	10.2	10.8
34H439	USGS TW 2 (point 1)	--	--	--	2.9	--	3.0	-0.4	--	--	--	--
34H440	USGS TW 2 (point 2)	--	--	--	--	(15.9)	14.4	12.2	--	--	--	--
34H441	USGS TW 2 (point 3)	--	--	--	--	(14.9)	13.3	10.7	--	--	--	--
34H442	Fort Frederica (pumphouse)	--	--	--	--	--	--	--	--	--	13.5	--
34H444	Golden Isles Marina	--	--	--	--	--	--	--	--	--	13.9	9.2
34H469	USGS TW 2 (1975)	--	--	--	--	--	--	--	-6.3	-8.4	-5.2	-6.1
34J001 ^a	Two-Way Fish Camp	32.1	--	23.5	19.6	(17.3)	--	--	--	--	6.3	--
34J002 ^c	State of Georgia, Boys Estate	31.7	--	--	--	--	--	--	--	--	--	--
34J003 ^{a,c}	Strong, Duncan (1923)	28.7	--	--	--	--	--	--	--	--	--	--
34J004 ^{a,c}	Strong, Duncan (1922)	38.2	--	--	--	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
34J007 ^{b,c}	Dent, Miriam	32.4	--	--	--	--	--	--	--	--	--	--
34J009	Newhope Plantation	--	--	--	28.0	24.3	20.3	16.6	14.5	12.8	9.7	--
34J010 ^c	Blackburn	39.4	--	--	--	--	--	--	--	--	--	--
34J011 ^c	Smith, Sheldon B	38.4	--	23.5	(22.7)	21.0	--	--	--	--	--	--
34J012 ^c	Briskell, W W	34.1	--	--	--	--	--	--	--	--	--	--
34J013 ^{b,c}	Wayside Inn Motor Court	38.7	--	22.2	--	--	--	--	--	--	--	--
34J014 ^{a,c}	Brunswick Peninsular Co	34.5	--	--	--	--	--	--	--	--	--	--
34J018 ^c	Happy	33.4	--	--	--	--	--	--	--	--	--	--
34J019 ^{a,c}	George, Charlie	27.8	--	--	--	--	--	--	--	--	--	--
34J020 ^c	New England Tourist Court	40.1	35.5	(23.5)	--	--	--	--	--	--	--	--
34J021	Job Corps	--	--	30.7	--	--	--	--	14.2	11.5	12.0	9.8
34J023 ^{a,c}	Brunswick Peninsular Co	49.4	--	24.7	--	--	--	--	--	--	--	--
34J029	Wilder, Henry	--	--	--	--	--	--	16.9	15.8	13.4	11.5	11.0
34J051	Georgia DOT (I-95 rest area)	--	--	--	--	--	--	--	16.9	13.3	13.0	10.4
35H004 ^{a,c}	Bagley, H W	36.1	--	--	--	--	--	--	--	--	--	--
35H005 ^c	Verney, G	48.0	--	30.4	29.5	--	--	--	--	--	--	--
35H010 ^c	Hartridge, A C	28.2	--	--	--	--	--	--	--	--	--	--
35H011 ^{a,c}	Gale, H W	28.7	--	--	--	--	--	--	--	--	--	--
35H012	Sea Island Gun Club (old)	47.1	42.7	31.4	30.4	25.2	24.9	--	--	--	--	--
35H013 ^{a,c}	Sea Island Co., Black Banks	35.9	--	--	--	--	--	--	--	--	--	--
35H016	Sea Island Co. 3 (beach)	43.2	--	34.2	31.5	--	--	--	--	--	--	--
35H021	Sea Island Co., 35th St.	43.9	--	31.5	30.4	29.9	25.7	--	--	--	--	--
35H022 ^{a,c}	Sea Island Co., 36th St. at Camp	41.4	--	--	--	--	--	--	--	--	--	--
35H023 ^{a,c}	Sea Island Co., Hampton Fish Camp	38.3	--	--	--	24.1	--	--	--	--	--	--
35H025 ^{a,c}	Welch, H.G.	--	--	--	29.1	27.9	--	--	--	--	--	--
35H026 ^{a,c}	Roundtree & Strother	--	--	--	31.8	29.5	26.0	18.9	--	--	--	--
35H029 ^{a,c}	Backus, L.J.	--	--	--	26.0	--	--	--	--	--	--	--
35H036 ^{a,c}	East Beach, 2nd St.	--	--	--	22.9	--	--	--	--	--	--	--

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 84]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
GLYNN COUNTY--Continued												
35H037	U.S. Coast Guard Station	--	--	--	33.4	28.2	28.6	21.7	23.4	21.9	20.4	14.4
35H039 ^{a,c}	Mobley, Owen C.	--	--	--	29.4	26.0	--	--	--	--	--	--
35H044	Sea Island Gun Club (new)	--	--	--	--	--	--	18.4	20.6	17.6	15.9	9.7
35H047	Olsen, O.H.	--	--	--	--	--	--	13.4	--	--	--	--
35H050	Sea Island Co., 36th St.	--	--	--	--	--	--	--	--	--	13.5	--
35H051	Sea Island Co., 22nd St. NE	--	--	--	--	--	--	--	--	--	14.6	10.7
35J004	Hagen, Dr. Arthur R.	--	--	--	--	--	--	--	--	--	11.6	9.4
MCINTOSH COUNTY												
33K016	Terrell, Mrs. Phillip	--	--	--	--	--	25.0	20.0	16.6	12.4	--	--
33K019	Goodrich, Dennis	--	--	--	--	--	--	--	17.6	12.7	--	--
33K027	Gail, Sammy	--	--	--	--	--	--	--	--	--	9.3	8.4
33L010	Union Camp Corp.	--	--	--	(31.5)	27.7	25.8	20.0	18.6	12.3	7.0	--
33L027	Davis, Edgar	--	--	--	--	--	--	25.7	23.2	17.8	--	12.7
34J053 ^a	Ga. Dept. Nat. Resources, Butler Is.	--	--	--	--	--	--	--	--	--	10.0	8.4
34K008	Blackburn, George	--	--	--	33.4	--	28.1	25.3	--	--	--	--
34K012	Middleton, Mrs. Clyatt T.	--	--	--	30.3	--	25.9	20.6	16.6	13.4	--	8.7
34K073	Howard, Paul J.	--	--	--	27.7	--	22.2	17.3	--	11.5	8.2	7.0
34K081	OQuinn, Charlie	--	--	--	--	--	--	21.3	18.7	15.8	12.8	11.3
34K082	Young, E.L.	--	--	--	--	--	--	18.0	15.1	12.2	--	--
34K083	Poppell, T.	--	--	--	--	--	--	19.2	17.2	13.8	10.5	9.5
34K084	Fischette, Mike	--	--	--	--	--	--	15.4	13.0	10.0	5.8	5.4
34K085	Georgia DOT (I-95 weigh station)	--	--	--	--	--	--	--	18.1	14.6	9.4	8.3
34K095	Fisher, Cal M.	--	--	--	--	--	--	--	12.5	--	6.9	5.6
34L048	Williams, W.E. and F.B.	--	--	--	--	29.3	25.8	19.9	17.3	13.5	9.2	9.8
34L060	Union Camp Paper Corp.	--	--	--	--	--	--	--	11.6	7.6	3.1	2.0
34L061	Standard Oil Co.	--	--	--	--	--	--	--	17.8	14.9	--	8.8
35K069	Gore, Sam	--	--	--	--	--	--	--	11.1	7.8	4.4	--
35L067	Holt, Vernon	--	--	--	--	--	--	10.7	7.5	4.2	--	-1.5

Table 3. Selected water-level data for the Upper Floridan aquifer, Glynn County, Ga., area—Continued

[‘1939’ measurements made from December 1938 through October 1939; --, data not available; (), measurement data within several months of header date; p, well pumping when water level measured; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations]

Well number	Well name	Water-level altitude, in feet										
		1939	July 1943	January 1958	December 1960	October 1962	December 1965	December 1970	January 1976	May 1980	October 1986	May 1990
<u>MCINTOSH COUNTY--Continued</u>												
35L068	Mitchell and neighbors	--	--	--	--	--	--	--	12.1	9.0	3.8	2.7
<u>WAYNE COUNTY</u>												
30K004	BP&P/Mears, Justice 1	--	--	--	--	--	--	--	34.0	30.3	26.1	--
30L003	Johnson, Homer	--	--	--	--	--	--	--	37.1	--	--	18.0
30L011	Aspinwall, Clyde	--	--	--	--	--	38.5	37.0	33.7	--	--	--
30L012	Parkinson, B.D.	--	--	--	--	--	--	38.7	34.9	--	--	--
30L013	Jesup, Georgia Industrial Park	--	--	--	--	--	--	--	--	--	18.7	12.8
31L001	BP&P/Mears, Justice 2	--	--	--	--	--	--	34.2	26.2	22.1	20.8	20.8
32K014	BP&P Land Co.	--	--	--	--	--	--	--	--	--	18.1	17.2
32L004	Martin, Lennis and Melvin	--	--	--	--	--	--	28.3	20.4	16.4	15.6	15.6
32L015	Gardi TW 1	--	--	--	--	--	--	--	--	15.1	14.2	14.2

^a Open interval unknown; water levels consistent with those from the Upper Floridan aquifer.

^b Open to zones above the Upper Floridan aquifer; water levels consistent with those from the Upper Floridan aquifer.

^c Well not listed in the USGS digital data base, Ground-Water Site Inventory (GWSI).

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 2 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter							
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1970 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986	April 1990	
32H001	BP&P, Bladen	upper ^a	34	--	--	--	--	--	--	30
32H014 ^b	Drury, L.H.	upper ^c	20	--	--	--	--	--	--	--
32H024	Lamar, Stafford	upper	20	--	--	--	--	--	--	--
32J002	Seaboard Coast Line RR, Thalmann	upper	32	--	--	--	--	--	--	--
32K001 ^b	Mullins, W.W.	upper	26	--	--	--	--	--	--	--
33G002	Massey (lake)	upper	42	--	72	76	82	74	--	--
33G003	Massey Oil Test	upper,lower	--	--	75	56	46	110	--	--
33G005	Episcopal Center, Camp Reese (Camden County)	upper	--	--	--	--	--	--	--	28
33G006	Kirby, T.W., Sr. (Camden County)	upper	--	--	--	--	--	--	--	30
33G008	USGS TW 15	upper	--	--	20	20	20	--	--	--
33G024	Curry 2	upper	--	--	--	--	40	24	--	--
33H013	Watts, W.H.	upper	--	--	--	--	--	--	--	15
33H016	Satilla Shores	upper	14	23	22	22	22	--	--	--
33H018	Massey, Roy (house)	upper ^c	30	--	--	--	--	--	--	--
33H038	Camp Glynn	upper	26	20	--	--	--	--	--	--
33H040 ^b	Holtzendorf, R.R.	upper ^c	30	--	--	--	--	--	--	--
33H050 ^b	Jones, Wyche	upper	30	--	--	--	--	--	--	--
33H052	Waters, Wayne (Anderson, L.L.)	upper	32	--	--	--	--	--	--	--
33H078 ^b	Willis, B.H.	upper	28	--	--	--	--	--	--	--
33H086	Bennett, B.K.	upper	19	--	--	--	--	--	--	--
33H094 ^b	Robarts, E.	upper	24	--	--	--	--	--	--	--
33H095	Robarts, Ernest	upper	18	--	--	--	--	--	--	--
33H099 ^b	Georgia Forestry Commission	upper	28	--	--	--	--	--	--	--
33H101	LCP 1	upper,lower	20	--	--	24	--	--	--	--
33H102	LCP 2	upper,lower	17	--	--	22	26	--	--	--
33H103	LCP 3	upper,lower	16	--	--	22	24	--	--	--
33H104	LCP 4	upper	19	--	--	22	26	--	--	24
33H105	LCP 5	upper,lower	19	--	--	--	--	--	--	21
33H106	LCP 6	upper	16	--	--	--	--	18	--	--
33H108	BP&P 1	upper	17	68	--	55	170	--	--	--

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter									
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1970 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986				
33H109	BP&P 2	upper	17	--	--	--	--	--	--	--	--	--
33H110	BP&P 3	upper,lower	21	21	--	39	160	390	--	--	460	--
33H111	BP&P 4	upper,lower	18	17	--	15	16	--	--	--	--	--
33H112	BP&P 5	upper,lower	18	20	--	43	19	--	--	--	--	--
33H113	BP&P 6	upper,lower	36	63	--	110	100	150	--	--	200	--
33H114	BP&P 7	upper,lower	--	35	--	222	195	--	--	--	--	--
33H115	BP&P 8	upper,lower	26	38	--	175	305	--	--	--	--	--
33H117	BP&P 10	upper,lower	62	--	--	--	--	--	--	--	--	--
33H118	BP&P 11	upper,lower	--	79	--	238	373	--	--	--	--	--
33H119	Liphratt, David, Jr.	upper	30	24	20	20	20	--	--	--	--	--
33H120	Palmetto Cemetery (north)	upper	--	--	20	--	--	72	--	--	150	--
33H123 ^b	Selden Recreation	upper ^c	26	275	--	--	--	--	--	--	--	--
33H127	USGS TW 3	lower	74	176	263	408	440	600	--	--	600	--
33H130	Selden Park	upper	--	236	630	1,016	1,390	2,200	--	--	2,300	--
33H133	USGS TW 6	upper	--	62	235	422	844	1,400	--	--	1,600	--
33H135	O'Quinn Trailer Park	upper	--	22	--	--	--	--	--	--	--	--
33H139	Cheek, Guy (O'Quinn, Wyllic, Jr.)	upper	--	--	--	--	--	--	--	--	18	--
33H141	USGS TW 12	upper	--	--	18	20	20	15	--	--	--	--
33H145	Justice, Clifford	upper ^a	--	--	248	--	--	--	--	--	--	--
33H154	USGS TW 18	lower	--	--	110	274	386	740	--	--	770	--
33H173	Sea Pak Corp.1	upper	--	--	--	24	26	--	--	--	--	--
33H175	Brunswick, Glyndale 1	upper	--	--	--	28	26	--	--	--	--	--
33H177	Spaulding Trailer Park	upper	--	--	--	72	78	62	--	--	46	--
33H178	BP&P 4 (new)	upper	--	--	--	--	--	16	--	--	16	--
33H179	Dennard, Tom (hostel)	upper	--	--	--	--	--	--	--	--	15	--
33H180	Thomas, R.E., Leaseway Transportation	upper	--	--	--	22	22	--	--	--	--	--
33H183	BP&P 5 (new)	upper	--	--	--	--	--	21	--	--	21	--
33H189	BP&P 2 (new)	upper,lower	--	--	--	--	375	390	--	--	440	--
33H190	Brunswick, Glyndale 2	upper	--	--	--	--	--	--	--	--	23	--
33H193	Davis Oil Test (supply)	upper	--	--	--	--	--	--	--	--	19	--

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter									
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1970 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986				
33H206	USGS/GGS/BP&P TW 1 (south)	lower	--	--	--	--	--	240	260			
33H207	USGS/GGS/BP&P TW 2 (south)	upper	--	--	--	--	--	15	15			
33H211	USGS/BP&P 1	upper	--	--	--	--	--	18	13			
33H212	USGS/BP&P 11 (lower)	lower	--	--	--	--	--	1,100	1,100			
33H213	USGS/BP&P 11 (upper)	upper	--	--	--	--	--	18	14			
33H214	USGS/BP&P 9 (lower)	lower	--	--	--	--	--	1,400	1,400			
33H215	USGS/BP&P 9 (upper)	upper	--	--	--	--	--	1,900	2,100			
33H216	USGS/BP&P 10 (lower)	lower	--	--	--	--	--	1,800	2,100			
33H217	USGS/BP&P 10 (middle)	lower	--	--	--	--	--	1,500	1,800			
33H218	USGS/BP&P 10 (upper)	upper	--	--	--	--	--	2,200	2,400			
33H220	Georgia Ports Authority (fire well)	upper	--	--	--	--	--	31	--			
33H221	BP&P 8 (new)	upper,lower	--	--	--	--	--	670	910			
33H222	BP&P 7 (new)	upper,lower	--	--	--	--	--	140	180			
34G001	Babcock & Wilcox	upper,lower	300	222	286	472	550	--	--			
34G002	Georgia DOT, Lanier Bridge	upper	96	118	97	100	87	21	76			
34G003	Jekyll Island 18, Jekyll Towers (entrance structure)	upper	30	--	61	80	88	110	120			
34G008	Jekyll Island 12 (old incinerator)	upper	40	--	42	--	--	--	--			
34G013	Jekyll Island 6 (9-hole golf course clubhouse)	upper	17	--	--	--	--	--	--			
34G016	Jekyll Island 22 (north picnic area)	upper	16	--	--	--	--	--	--			
34G017	Jekyll Island 13, Clam Creek (fishing pier)	upper	16	--	--	20	20	--	--			
34G020	Jekyll Island 23, N. Riverview Dr.	upper	16	--	--	--	--	--	--			
34G024	Jekyll Island 7 (auto shop)	upper	15	--	--	--	--	--	--			
34G036	USGS TW 23	lower	--	--	150	178	204	270	300			
34G039 ^b	Jekyll Island 12 (new incinerator)	upper	--	--	--	38	20	36	--			
34G041	Jekyll Island, Ga. State Patrol Post	upper	--	--	--	--	--	--	26			
34H025	Brunswick, Glynco Annex	upper	36	--	--	26	26	--	--			
34H033 ^b	Sea Spray Motel	upper ^c	24	--	--	--	--	--	--			
34H043 ^b	Island View Subdivision	upper ^c	22	--	--	--	--	--	--			

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter							
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1971 to Jan. 1976	Nov. 1975 to Mar. 1980	Mar. 1980 to June 1986	Apr. 1986 to Oct. 1986	April 1990	
34H047	Crown Court Motel	upper	16	--	--	--	--	--	--	--
34H051 ^b	Ingwersen, S.	upper ^c	24	--	--	--	--	--	--	--
34H058 ^b	Riverside Developers	upper ^c	22	--	--	--	--	--	--	--
34H060	Caravel Corp.	upper	28	--	22	--	--	--	--	--
34H061	Benton Brothers Storage	upper ^a	34	--	--	--	--	--	--	--
34H062	Dixie-O'Brien (front)	upper	16	--	--	22	28	--	--	--
34H064	Dixie-O'Brien (back)	upper	20	--	--	--	--	--	--	--
34H065	Hercules Inc. A	upper	24	--	--	148	168	510	260	260
34H066	Hercules Inc. B	upper	37	--	--	--	--	--	--	--
34H067	Hercules Inc. C	upper	22	23	--	--	20	82	--	--
34H070	Hercules Inc. F	upper	215t	110	--	480	286	--	--	--
34H071	Hercules Inc. H	upper	370t	29	--	--	--	--	--	--
34H072	Hercules Inc. I	upper,lower	31	33	--	136	234	--	400	400
34H073	Hercules Inc. J	upper	445t	33	--	90	130	290	260	260
34H074	Hercules Inc. K	upper	286t	510t	--	206	--	--	--	--
34H075	Hercules Inc. L	upper	35t	170t	--	20	24	40	34	34
34H076	Hercules Inc. M	upper,lower	310	44	--	480	444	56	690	690
34H077	Hercules Inc. N	upper,lower	150	370	--	--	--	--	--	--
34H078	Hercules Inc. O	upper	410t	32	--	56	50	75	150	150
34H079	Hercules Inc. P	upper,lower	31	275	--	74	100	--	--	--
34H080 ^b	Parkview Motel	upper	24	--	--	--	--	--	--	--
34H081 ^b	Anchorage Hotel	upper	24	--	--	--	--	--	--	--
34H085	Brunswick, Coffin Park	upper	18	20	18	20	22	14	--	--
34H086 ^b	Gould	upper ^c	22	20	--	--	--	--	--	--
34H087 ^b	Glynn Ice & Coal Co.	upper	22	20	--	--	--	--	--	--
34H089	Lang Planing Mill	upper	16	--	--	--	--	--	--	--
34H091	Brunswick (north shipyard)	upper	22	22	20	20	20	33	--	--
34H094	Brunswick (south shipyard)	upper	50	64	85	110	112	47	--	--
34H095	Georgia Pacific	upper	20	--	--	--	--	19	21	21
34H097	Georgia Ports Authority (main office)	upper	16	--	--	--	--	--	--	--
34H098	Jekyll Island Packing	upper	20	21	--	--	--	--	--	--

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter									
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1970 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986				
34H100	Riley, Barney	upper	21	32	--	--	--	--	--	--	--	--
34H107	Lewis Crab Co. 1	upper ^c	570	--	--	--	--	--	--	--	--	--
34H108	Lewis Crab Co. 2	upper	200	--	--	--	--	--	--	--	--	--
34H109 ^b	Lewis Crab Co. 3	upper	760	--	--	--	--	--	--	--	--	--
34H110	Lewis Crab Co. 4	upper	860	1,270	1,860	2,238	2,210	--	--	--	--	--
34H112	Abbott Ice House	upper	540	--	--	1,822	2,180	2,000	--	2,000	--	2,000
34H113	Golden Shores 1	upper	105	200	295	462	--	--	--	--	--	--
34H114 ^b	Golden Shores 2	upper	85	--	--	--	--	--	--	--	--	--
34H115 ^b	Golden Shores 3	upper	22	--	--	--	--	--	--	--	--	--
34H116 ^b	Golden Shores 4	upper	21	--	--	--	--	--	--	--	--	--
34H117	Whorton Crab	upper	21	20	--	20	46	770	--	640	--	--
34H118	Brunswick, 1525 Grant St.	upper,lower	103	--	--	56	158	--	--	--	--	--
34H120	Brunswick, F St.	upper,lower	74	116	500	300	460	--	--	--	--	--
34H122	Coastal Bank (Brunswick Laundry)	upper	224	380	760	982	942	580	--	--	--	--
34H123	Miller Funeral Home	upper	204	--	82	--	--	16	--	--	--	--
34H124 ^b	Duckworth, James	upper	133	--	--	--	--	--	--	--	--	--
34H125	USGS TW 1	upper	270	218	200	124	190	320	--	360	--	--
34H128	Firestone Store	upper	20	--	268	460	588	540	--	660	--	--
34H129	Glynn Cleaners	upper	23	46	180	--	--	--	--	--	--	--
34H130	Rice TV Service (Mock Laundry)	upper	26	--	--	--	--	--	--	20	--	--
34H133	Brunswick, Goodyear Park	upper	26	--	20	26	26	23	--	--	--	--
34H134	Brunswick Villa	upper,lower	25	23	20	20	22	--	--	--	--	--
34H152 ^b	Epworth-by-the-Sea	upper	26	--	--	--	--	--	--	--	--	--
34H160	Sea Island Golf Course (1959)	upper,lower	24	22	20	20	24	--	--	--	--	--
34H204	Glynn County (casino)	upper	26	--	--	--	--	--	--	--	--	--
34H205	Saint Simons Island (lighthouse)	upper	10	--	--	--	--	--	--	--	--	--
34H222 ^b	Saint Simons Elementary School	upper	14	--	--	--	--	--	--	--	--	--
34H266	Saint Simons Airport (1942)	upper	28	--	--	--	--	--	--	--	--	--
34H267	Saint Simons Airport (1959)	upper ^c	12	--	--	--	--	--	--	--	--	--
34H318	Mendenhall, W.C.	upper	27	--	--	--	--	--	--	--	--	--
34H329 ^b	U.S. NPS, Fort Frederica (center)	upper	28	--	--	--	--	--	--	--	--	--

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations; footnotes on p. 91]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter									
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1971 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986	April 1990			
34H334	USGS TW 4	lower	126	85	187	440	582	940	950			
34H337	USGS TW 5 (point 1)	upper, lower	--	20	2,570	--	--	--	--			
34H344	USGS TW 7	upper	--	22	20	20	20	16	15			
34H345	American National Bank	upper	--	324	660	1,076	1,390	1,600	--			
34H348	Quick Clean Laundry	upper	--	25	--	20	20	64	240			
34H351	Twin Oaks Drive-In	upper	--	278	760	910	1,004	--	--			
34H354	USGS TW 8	lower	--	346	493	616	838	1,000	1,200			
34H355	USGS TW 9	upper	--	40	47	80	106	330	370			
34H356	Lewis Crab Co. 5	upper	--	1,240	1,520	--	--	--	--			
34H363	USGS TW 10	upper	--	--	20	20	20	--	--			
34H366	First Baptist Church	upper	--	--	410	812	970	--	--			
34H368	Sea Harvest Packing	upper	--	--	--	30	28	--	--			
34H371	USGS TW 11	upper	--	--	20	20	20	17	15			
34H372	Harrington, Lawrence	upper	--	--	20	20	20	17	16			
34H373	USGS TW 13	upper	--	--	43	90	220	310	540			
34H374	USGS TW 14	upper	--	--	968	1,256	1,430	1,100	900			
34H376	Saint Francis Xavier Church	upper	--	--	1,120	--	--	--	--			
34H386	Tollison, H.K./WGIG Radio Station	upper	--	--	25	--	--	--	--			
34H389	Golden Shores 5	upper	--	--	209	290	384	880	--			
34H391	USGS TW 16	lower	--	--	2,670	2,306	2,440	2,400	2,700			
34H392	Brunswick College	upper	--	--	18	22	20	--	18			
34H393	USGS TW 17	upper	--	--	2,816	2,434	2,530	2,400	2,400			
34H398	King Shrimp Co.	upper	--	--	21	--	30	90	110			
34H400	USGS TW 20	upper	--	--	170	186	206	270	460			
34H401	USGS TW 21	upper	--	--	1,156	1,540	1,860	1,900	2,000			
34H402	USGS TW 22	lower	--	--	1,175	1,556	1,865	2,000	2,100			
34H403	USGS TW 24	lower	--	--	880	1,660	1,675	1,500	1,400			
34H411	Hercules Inc. R	upper	--	--	--	--	148	660	440			
34H412	Hercules Inc. Q	upper	--	--	--	252	492	44	610			
34H413	Hercules Inc. S	upper	--	--	--	180	188	1,200	270			
34H424	Hercules Inc. T	upper	--	--	--	--	1,625	1,900	1,900			

Table 4. Selected chloride-concentration data from the Upper Floridan aquifer, Brunswick, Ga., area—Continued

[All wells in Glynn County unless indicated otherwise; t, well tapped multiple water-bearing zones at time of sample collection; --, data not available; refer to table 1 for name abbreviations and construction data; see figures 3 through 6 for well locations]

Well number	Well name	Water-bearing zone	Chloride concentration, in milligrams per liter									
			Sept. 1957 to Dec. 1962	June 1965 to Dec. 1965	Jan. 1970 to Jan. 1971	Nov. 1975 to Mar. 1976	Mar. 1980 to June 1980	Apr. 1986 to Oct. 1986	April 1990			
34H425	Hercules Inc. U	upper	--	--	--	--	22	44	20			
34H427	Champion, E.M. 2	upper	--	--	100	1,020	1,780	1,000	1,100			
34H434	Glynn County Courthouse	upper	--	--	--	--	--	--	2,000			
34H436	Coffin Park TW 1	lower	--	--	--	--	--	30	29			
34H439	USGS TW 2 (point 1)	upper,lower	99	106	419	--	--	--	--			
34H440	USGS TW 2 (point 2)	lower	30	66	148	--	--	--	--			
34H441	USGS TW 2 (point 3)	lower	--	--	792	--	--	--	--			
34H442	Fort Frederica (pump house)	upper	--	--	--	--	--	26	25			
34H444	Golden Isles Marina	upper	--	--	--	--	--	--	18			
34H445	Brunswick, Coffin Park	upper	--	--	--	--	--	--	15			
34H449	Brunswick, Goodyear Park (1990)	upper	--	--	--	--	--	--	20			
34H469	USGS TW 2 (1975)	upper	--	--	--	1,130	1,695	1,600	1,500			
34J001	Two-Way Fish Camp	upper ^c	26	--	--	--	--	--	--			
34J009	Newhope Plantation	upper	39	--	--	--	--	--	--			
35H012	Sea Island Gun Club (old)	upper	27	--	--	--	--	--	--			
35H016	Sea Island Co. 3 (beach)	upper	21	--	--	--	--	--	--			
35H021	Sea Island Co., 35th St.	upper	30	--	--	--	--	--	--			
35H037	U.S. Coast Guard Station	upper	24	--	24	22	22	--	--			
35H042	Sea Island Co., 22nd St. (old)	upper,lower	--	30	34	--	--	--	--			
35H044	Sea Island Gun Club (new)	upper	--	--	--	--	--	23	--			
35H050	Sea Island Co., 36th St.	upper	--	--	--	28	26	24	--			

^a Open to zones above the Upper Floridan aquifer; water quality consistent with that of the Upper Floridan aquifer in proximity.

^b Well not listed in the USGS digital data base, Ground-Water Site Inventory (GWSI).

^c Open interval unknown, water quality consistent with that of the Upper Floridan aquifer in proximity.

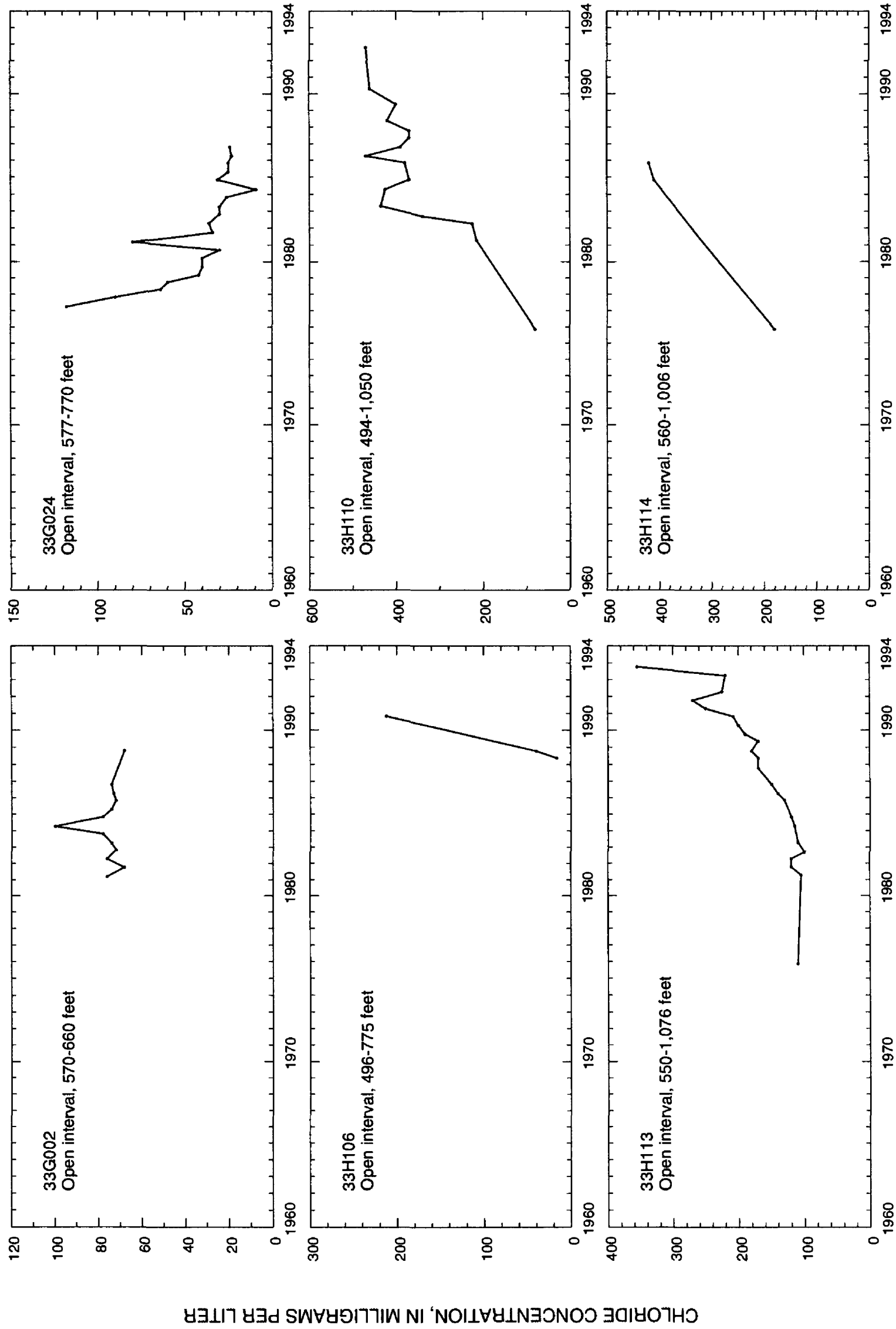


Figure 9. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 33G002, 33G024, 33H106, 33H110, 33H113, and 33H114.

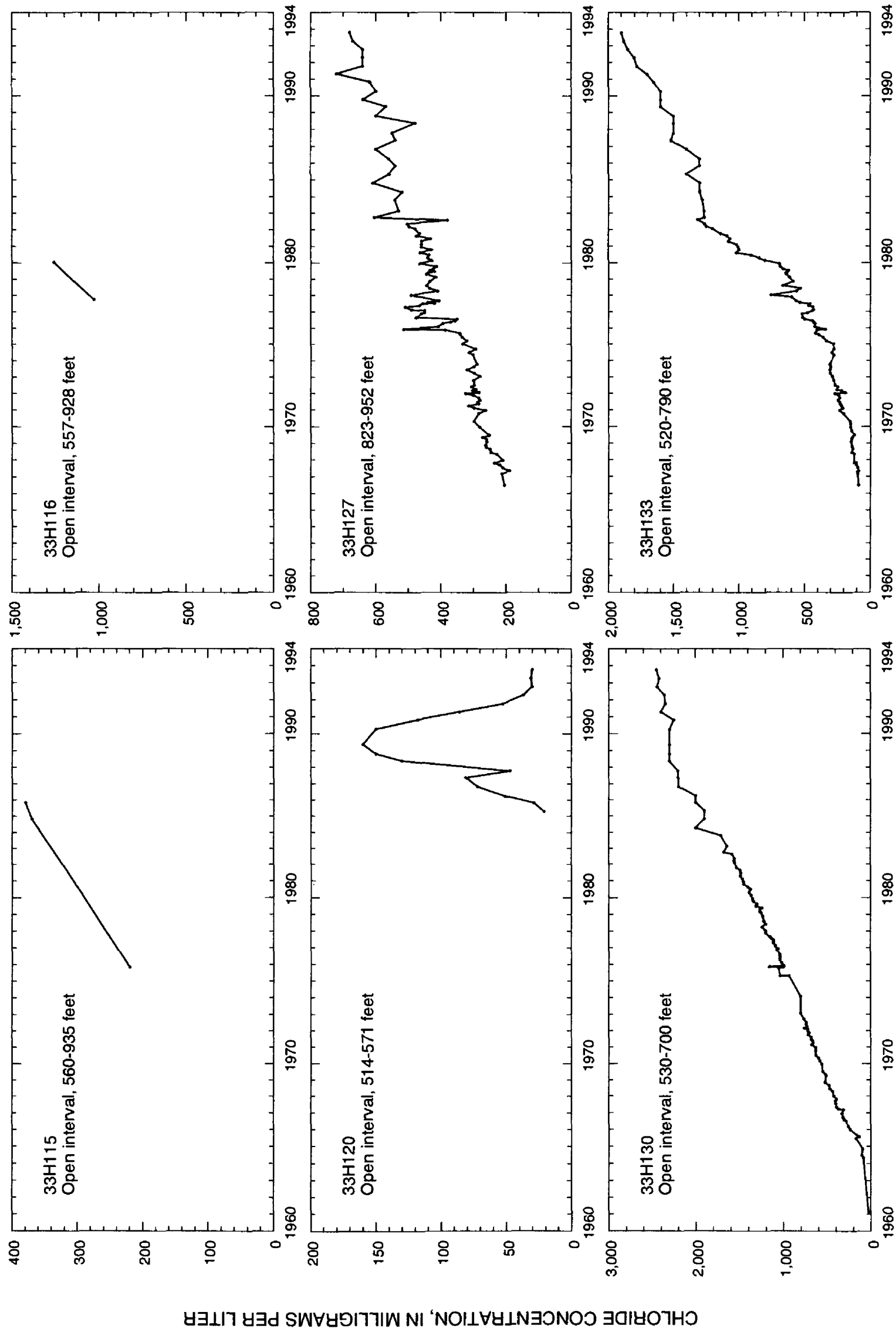


Figure 10. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 33H115, 33H116, 33H120, 33H127, 33H130, and 33H133.

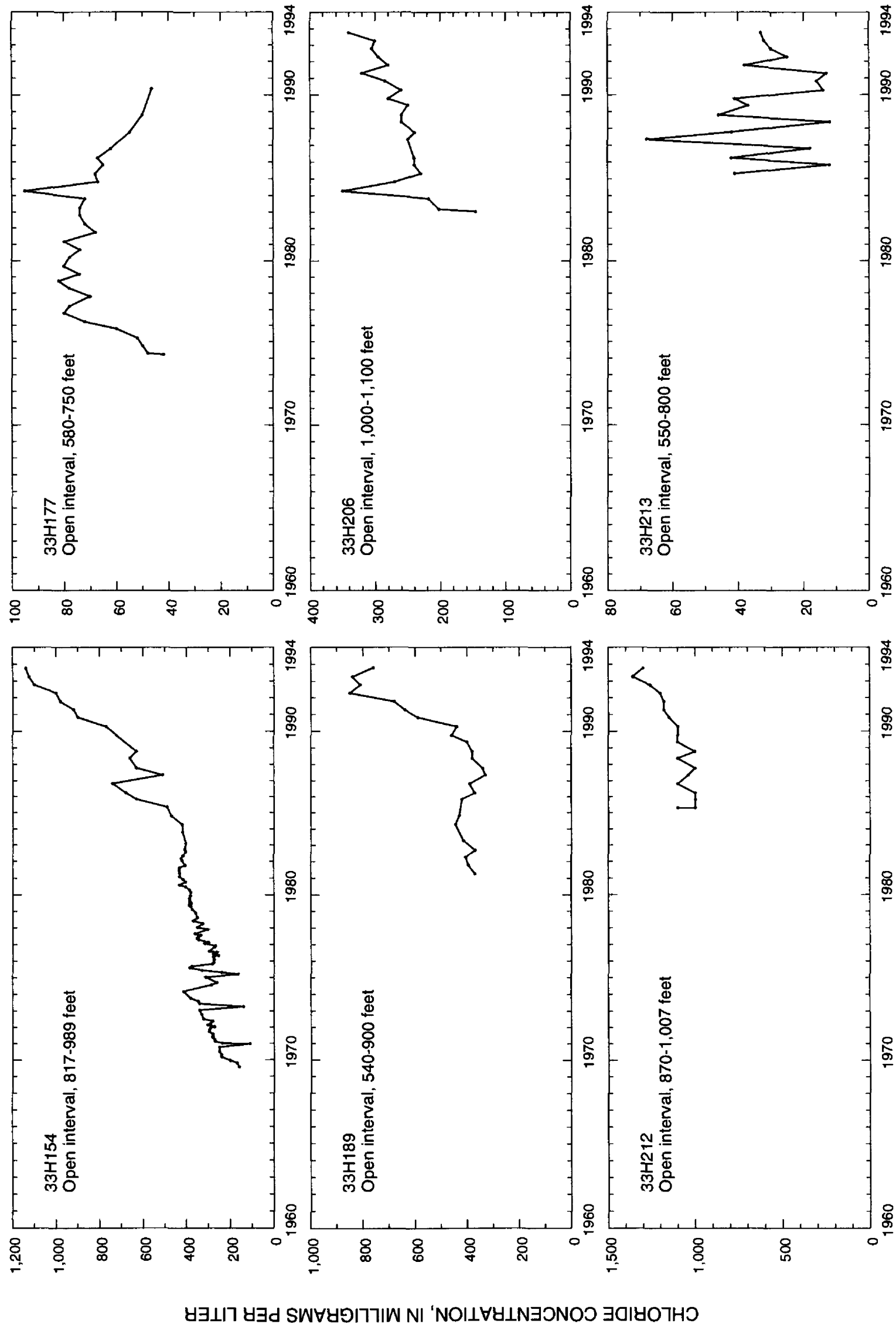


Figure 11. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 33H154, 33H177, 33H189, 33H206, 33H212, and 33H213.

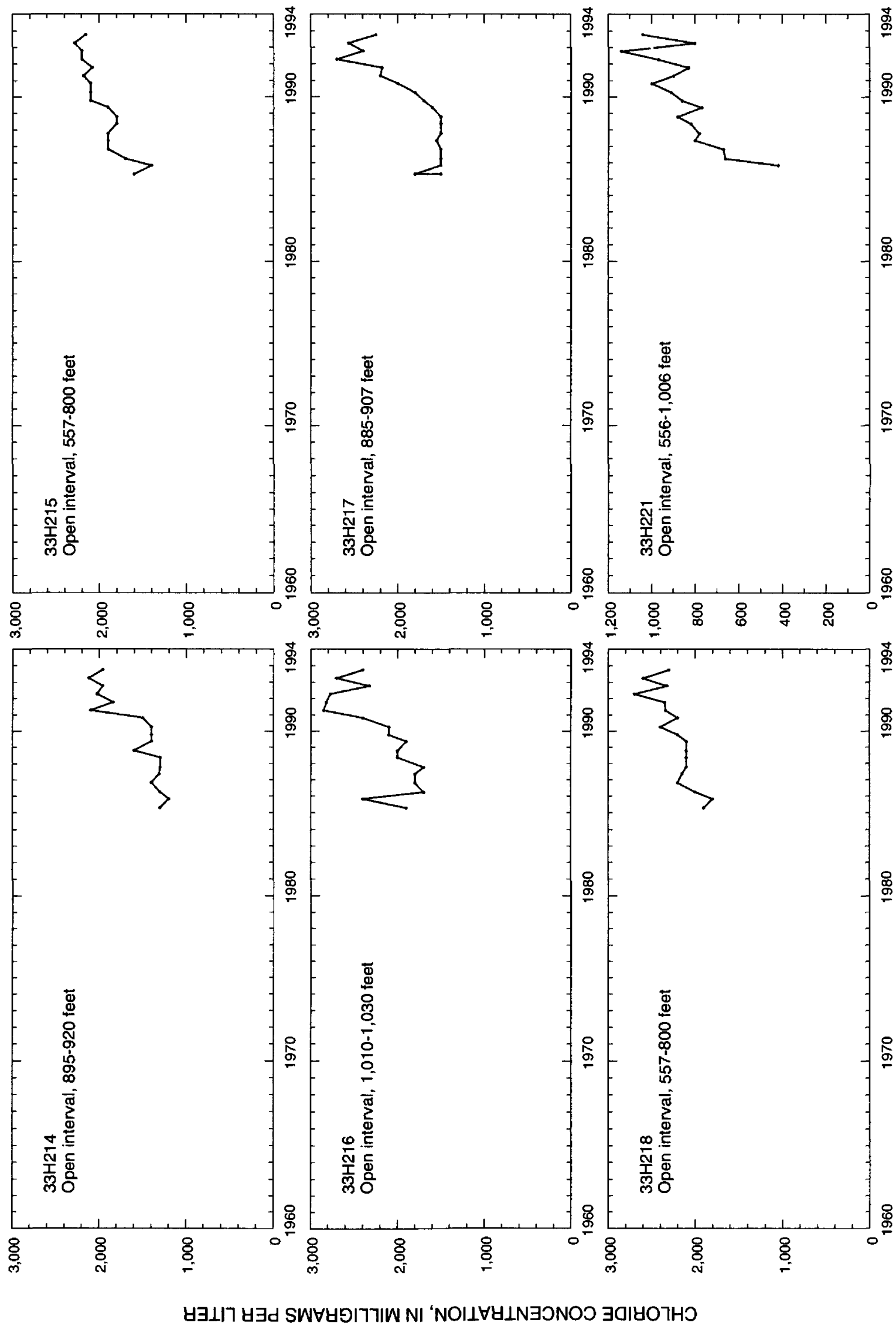


Figure 12. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 33H214, 33H215, 33H216, 33H217, 33H218, and 33H221.

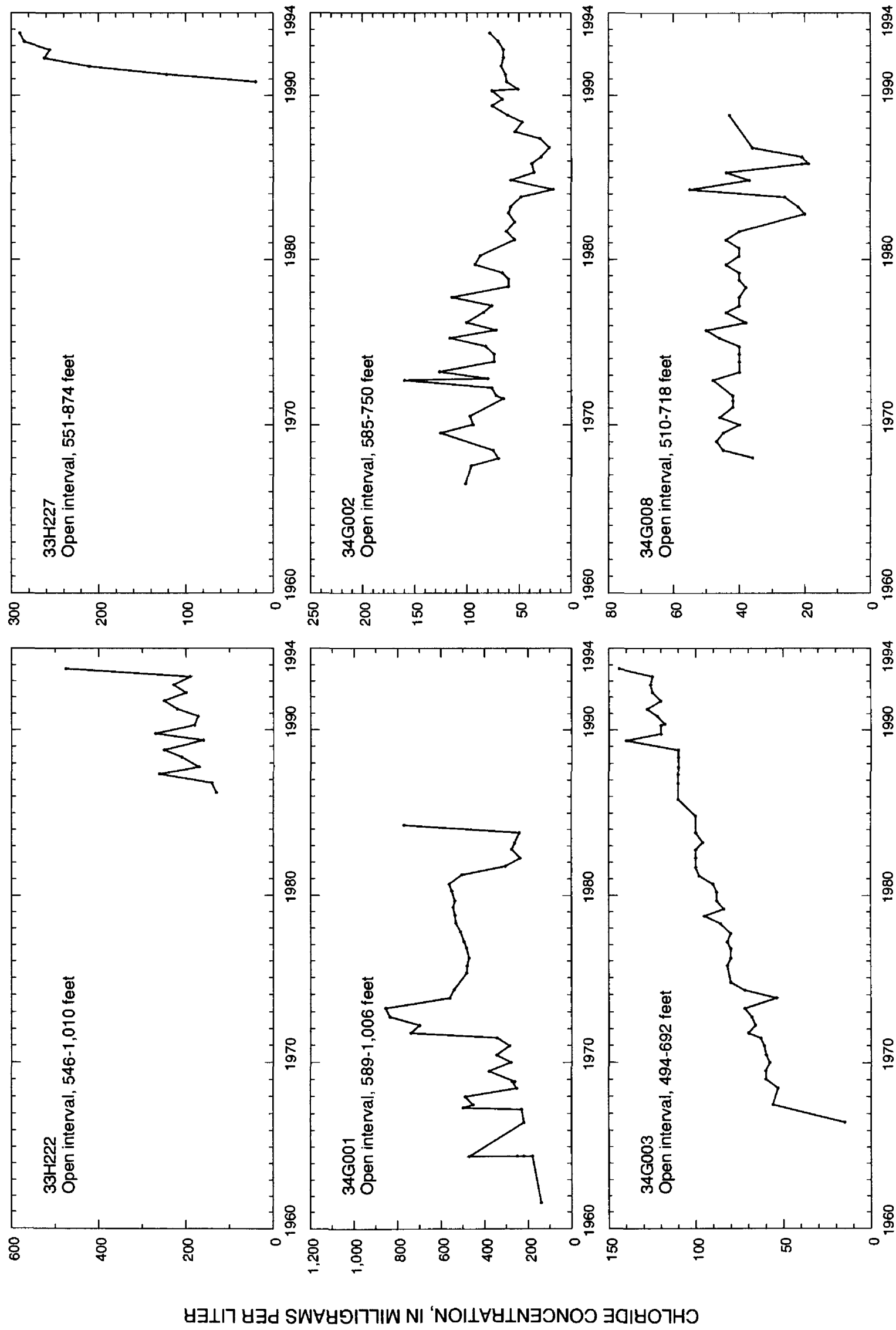


Figure 13. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 33H222, 33H227, 34G001, 34G002, 34G003, and 34G008.

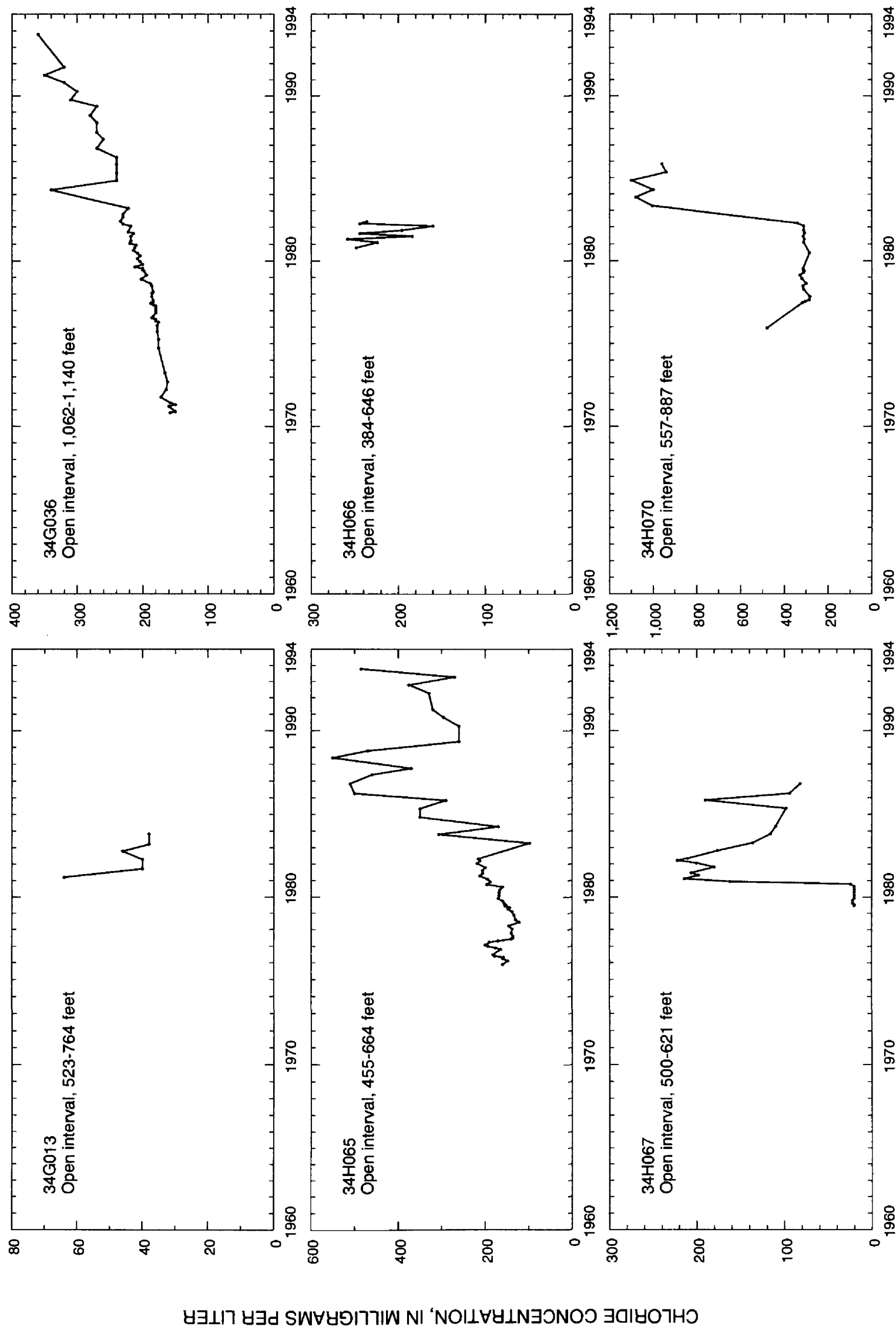


Figure 14. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34G013, 34G036, 34H065, 34H066, 34H067, and 34H070.

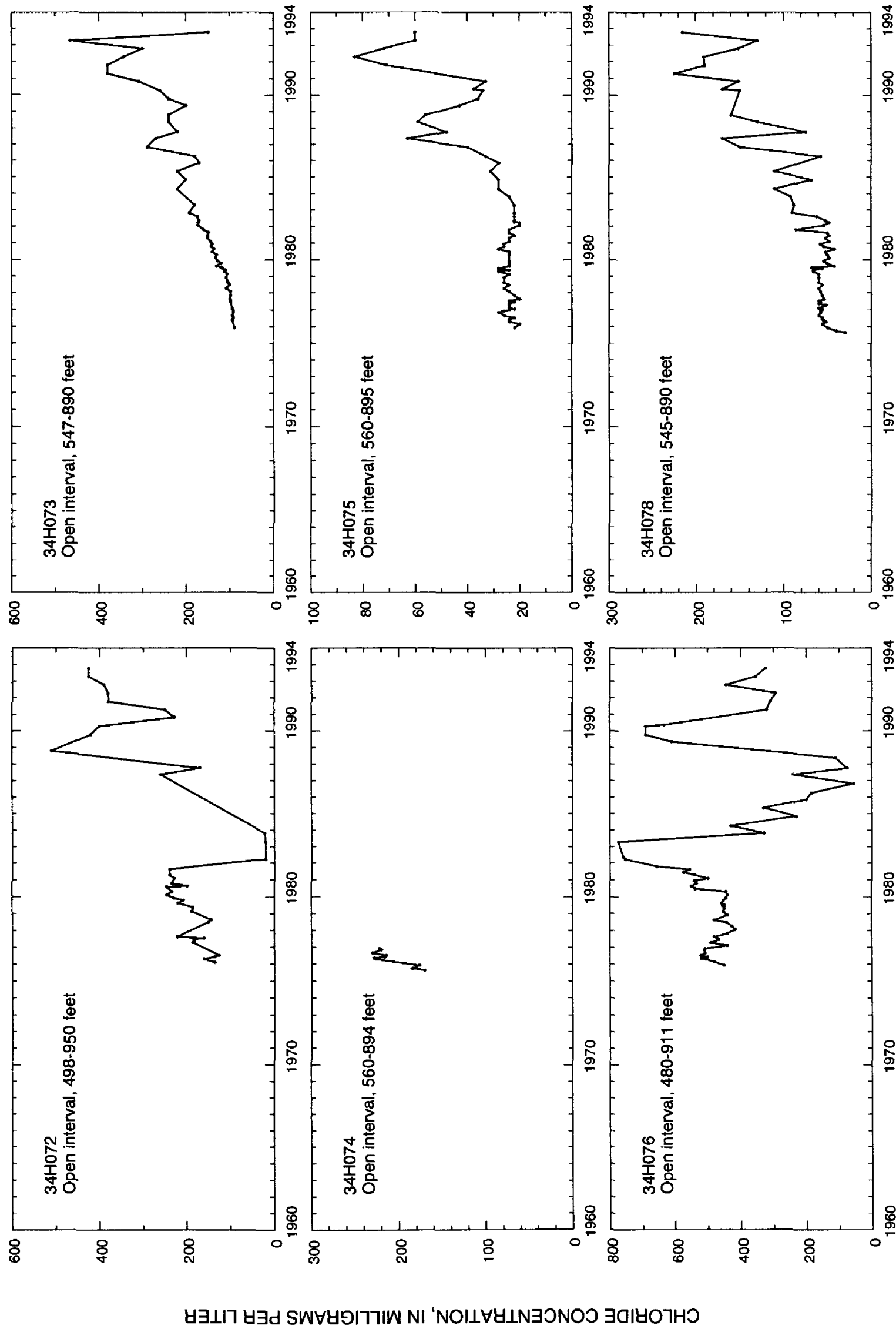


Figure 15. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H072, 34H073, 34H074, 34H075, 34H076, and 34H078.

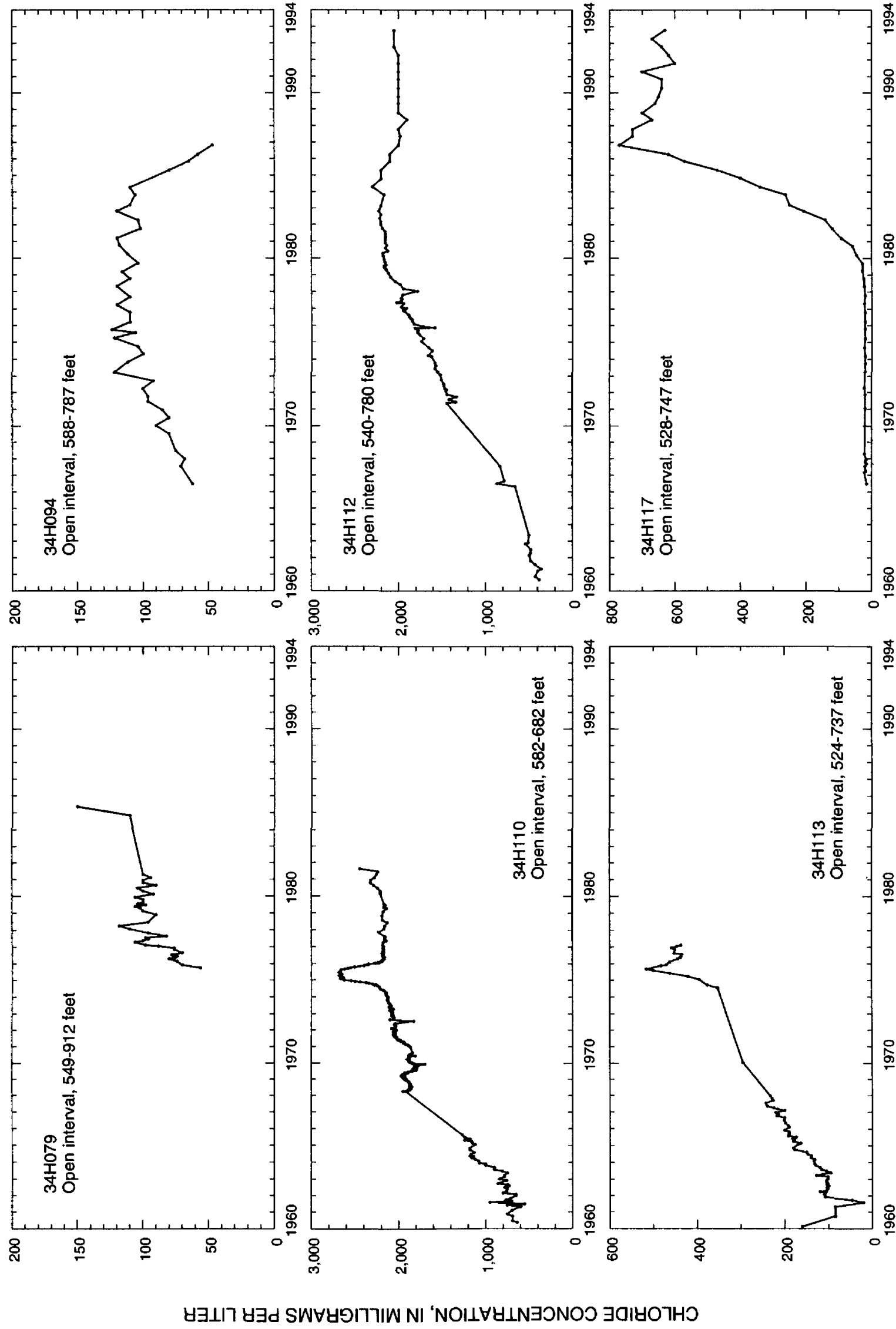


Figure 16. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H079, 34H094, 34H110, 34H112, 34H113, and 34H117.

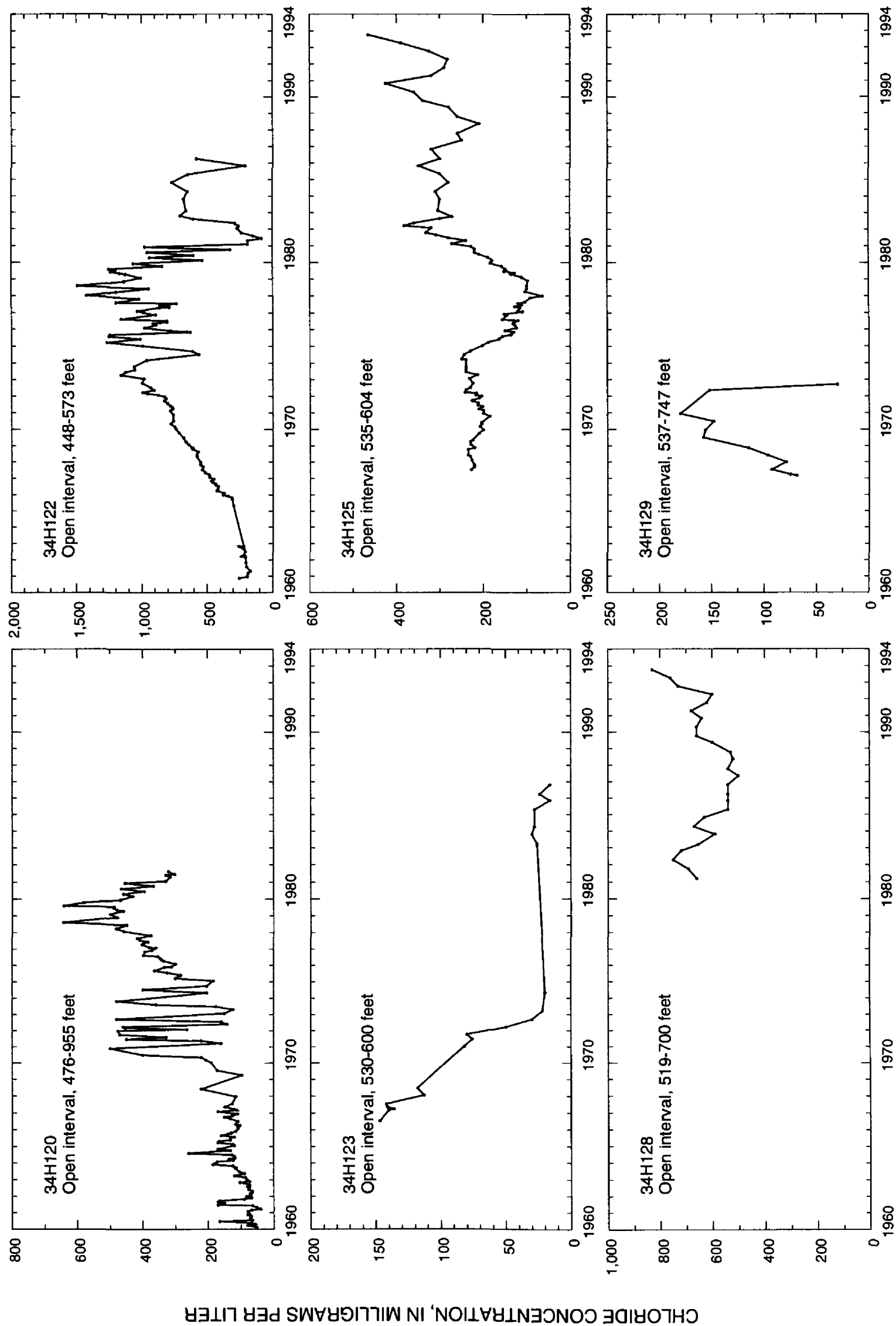


Figure 17. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H120, 34H122, 34H123, 34H125, 34H128, and 34H129.

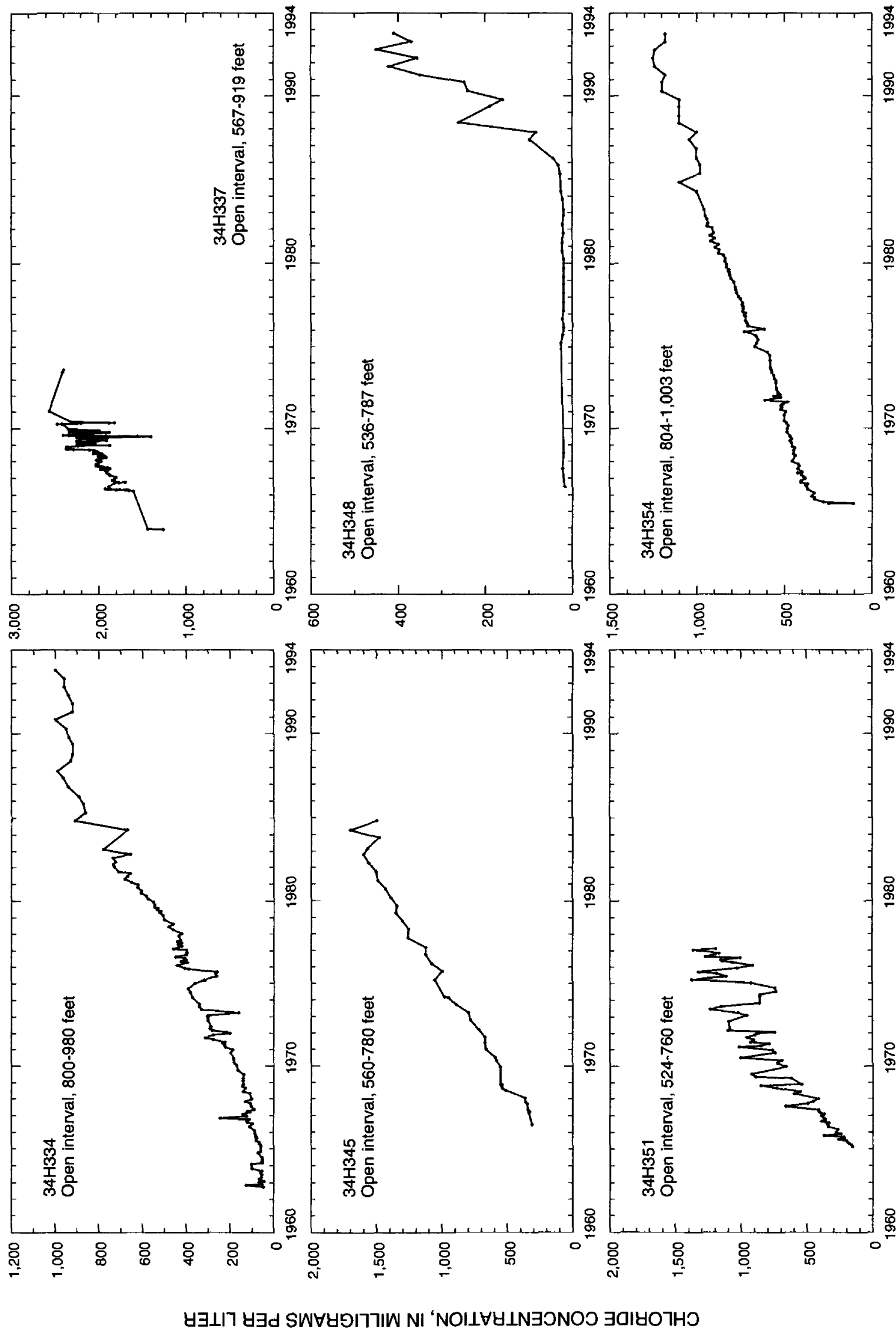


Figure 18. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H334, 34H337, 34H345, 34H348, 34H351, and 34H354.

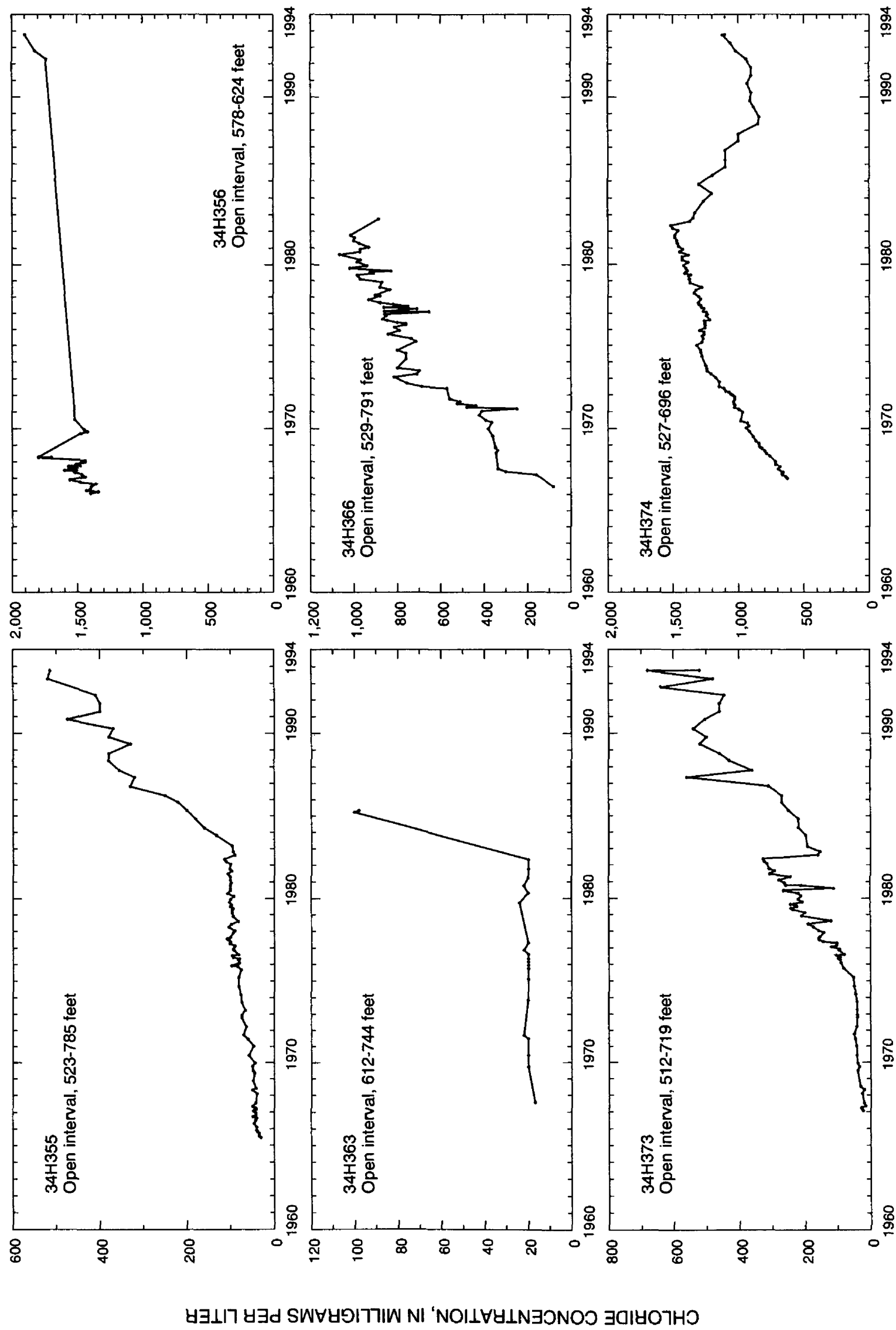


Figure 19. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H355, 34H356, 34H363, 34H366, 34H373, and 34H374.

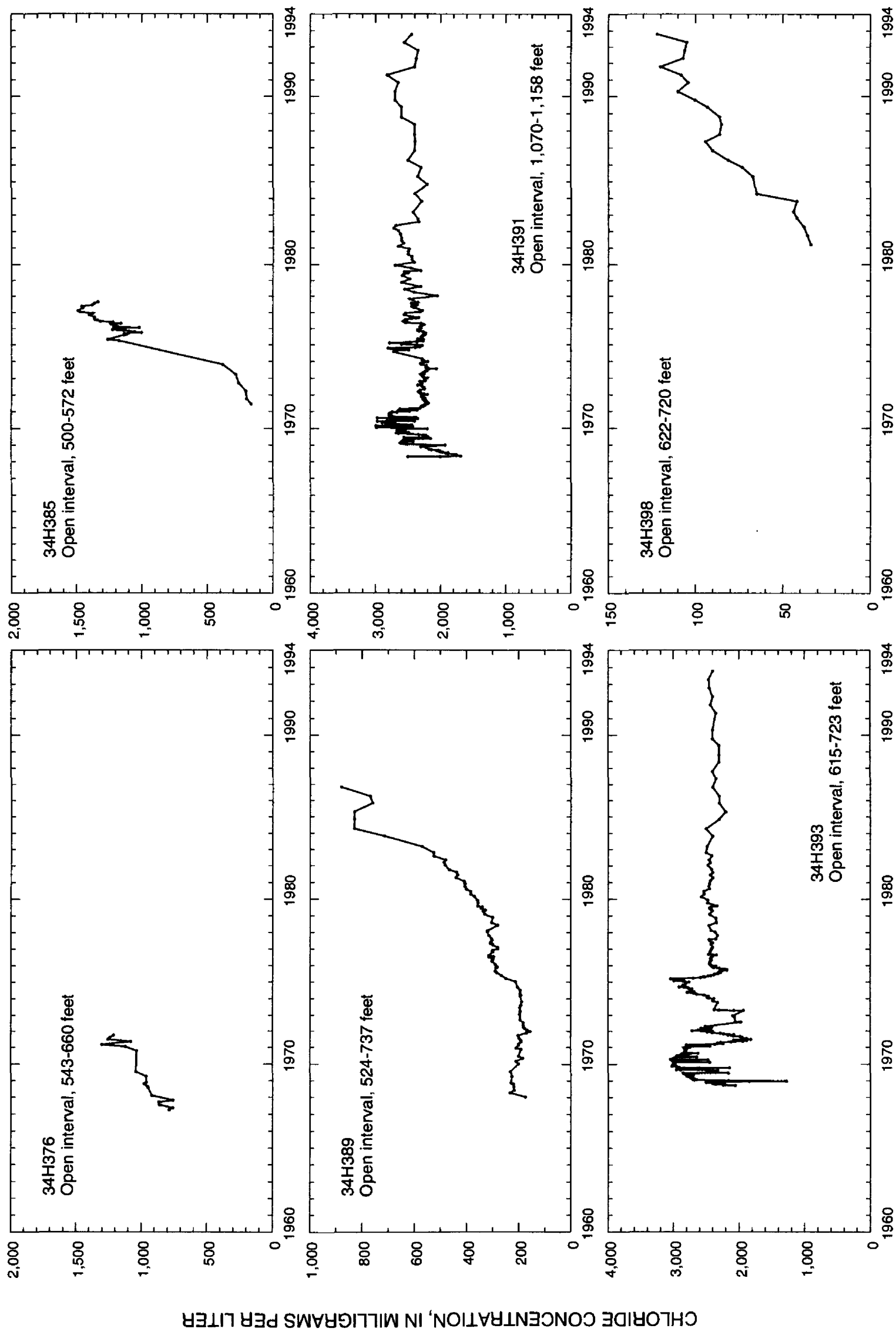


Figure 20. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H376, 34H385, 34H389, 34H391, 34H393, and 34H398.

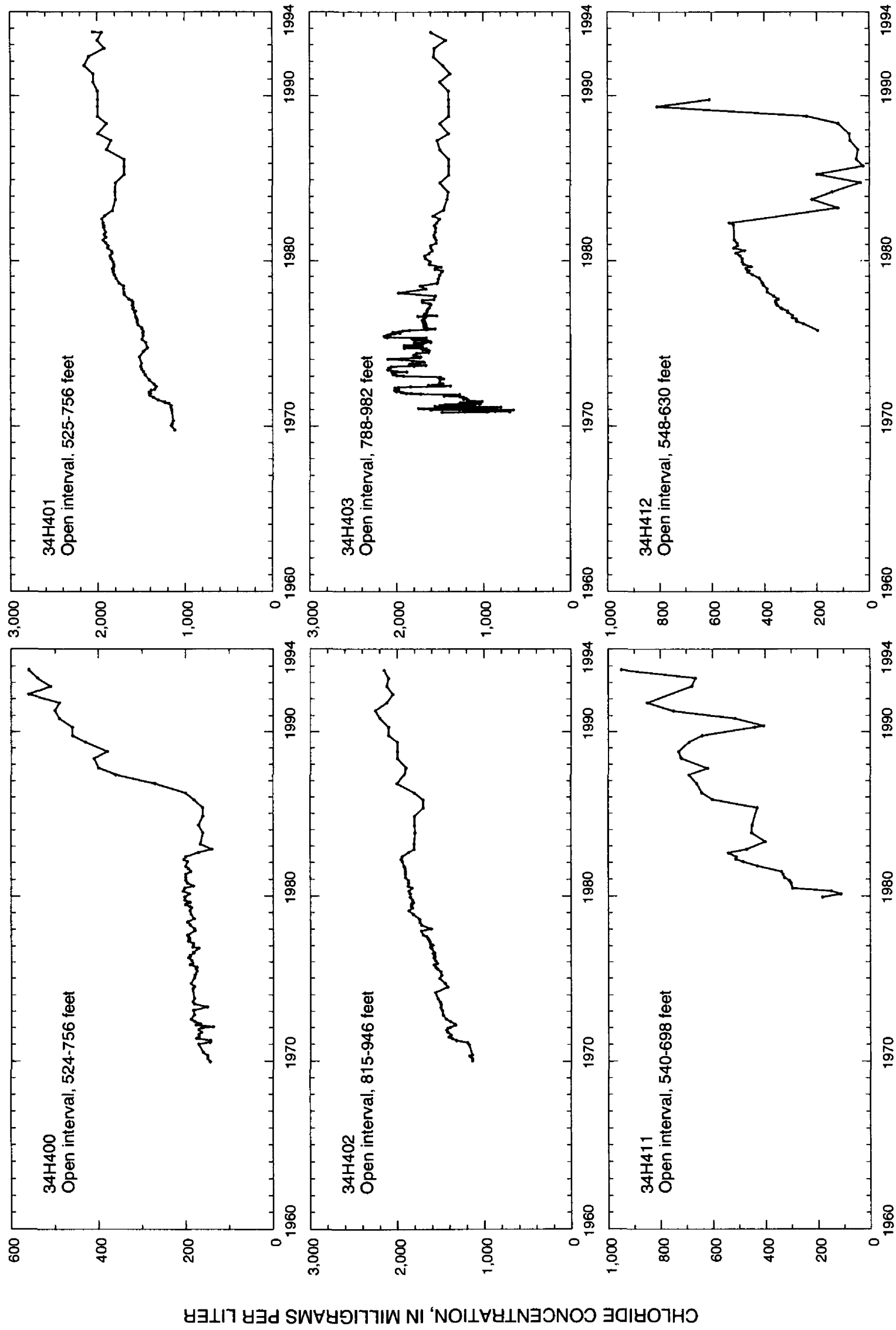


Figure 21. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H400, 34H401, 34H402, 34H403, 34H411, and 34H412.

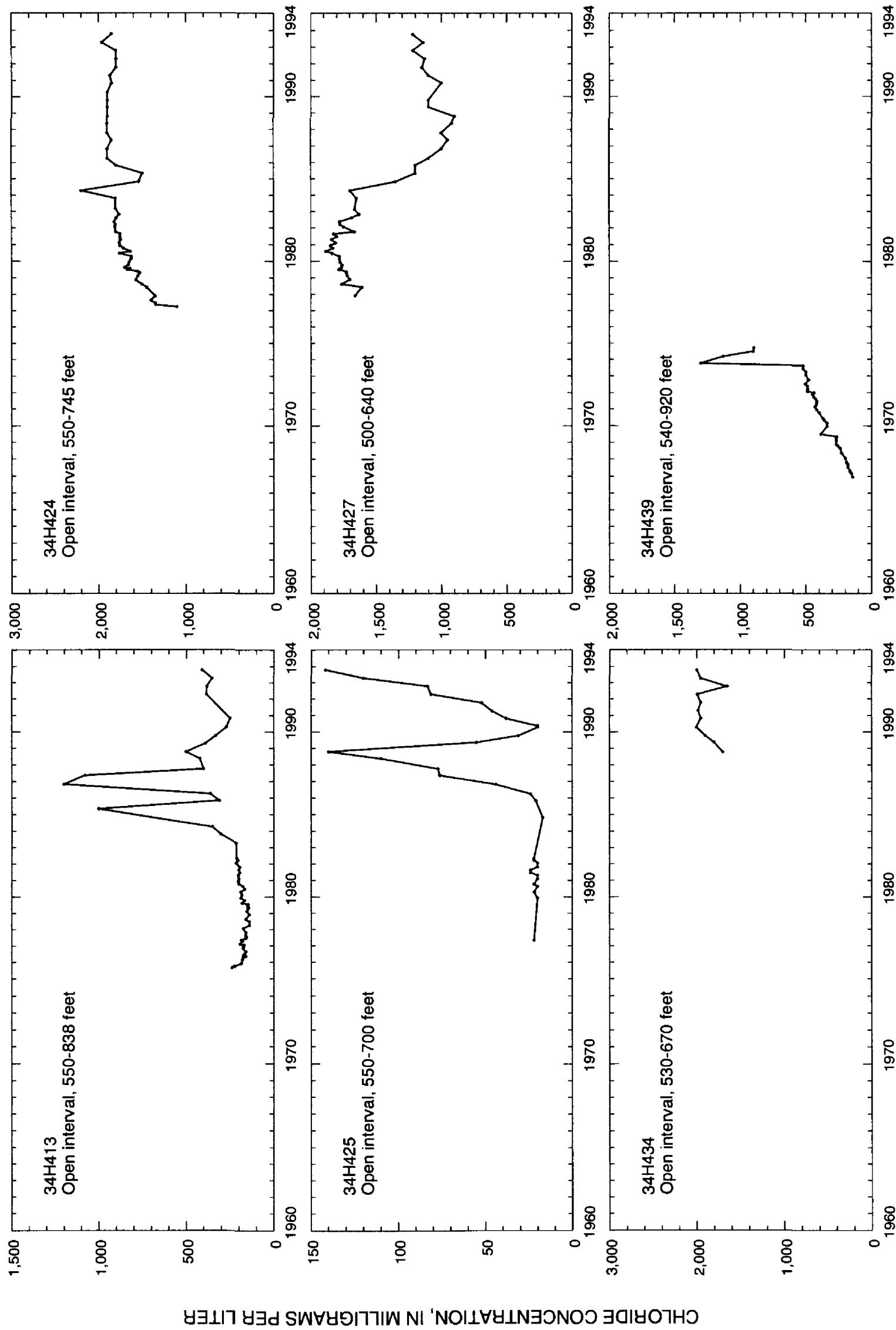


Figure 22. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H413, 34H424, 34H425, 34H427, 34H434, and 34H439.

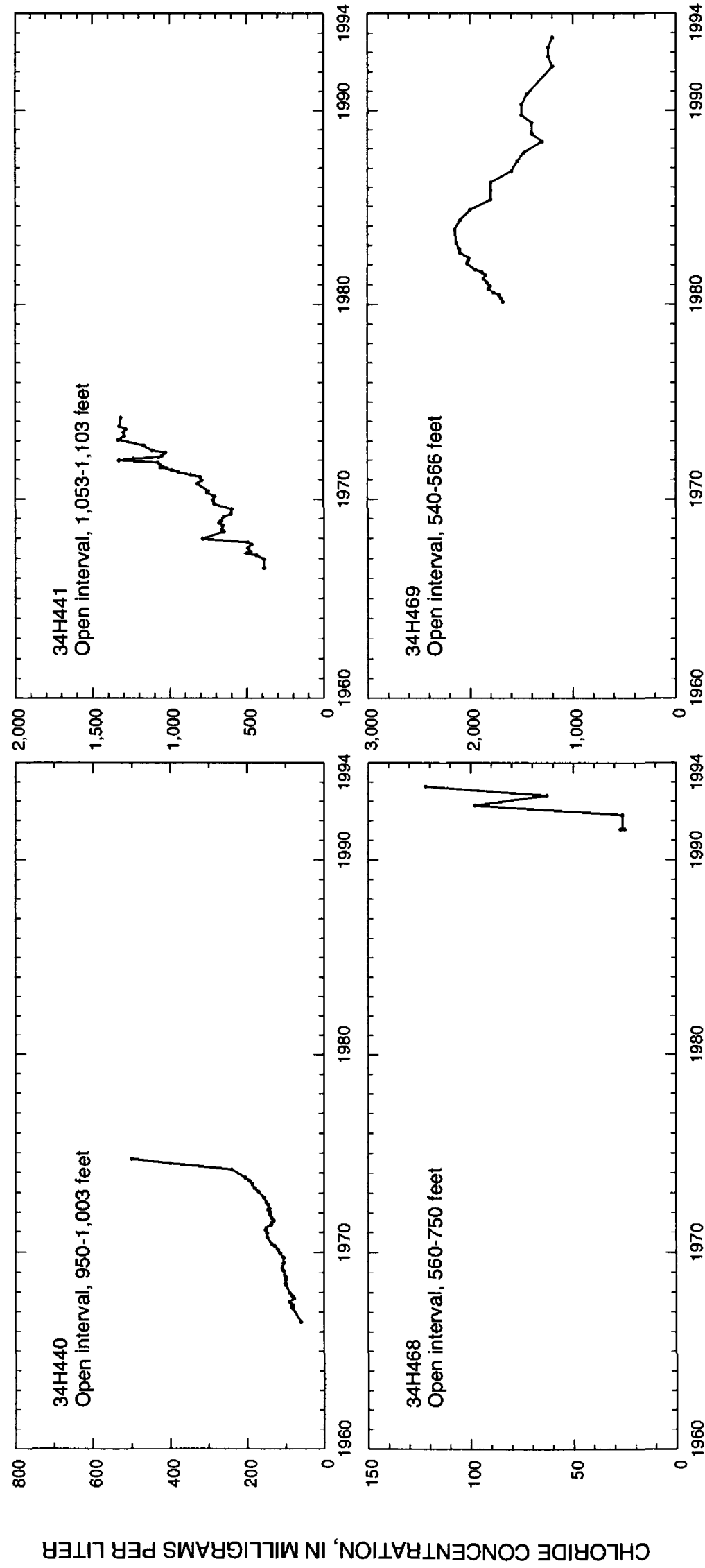


Figure 23. Chloride concentration, Upper Floridan aquifer, Glynn County, Ga., in observation wells 34H440, 34H441, 34H468, and 34H469.

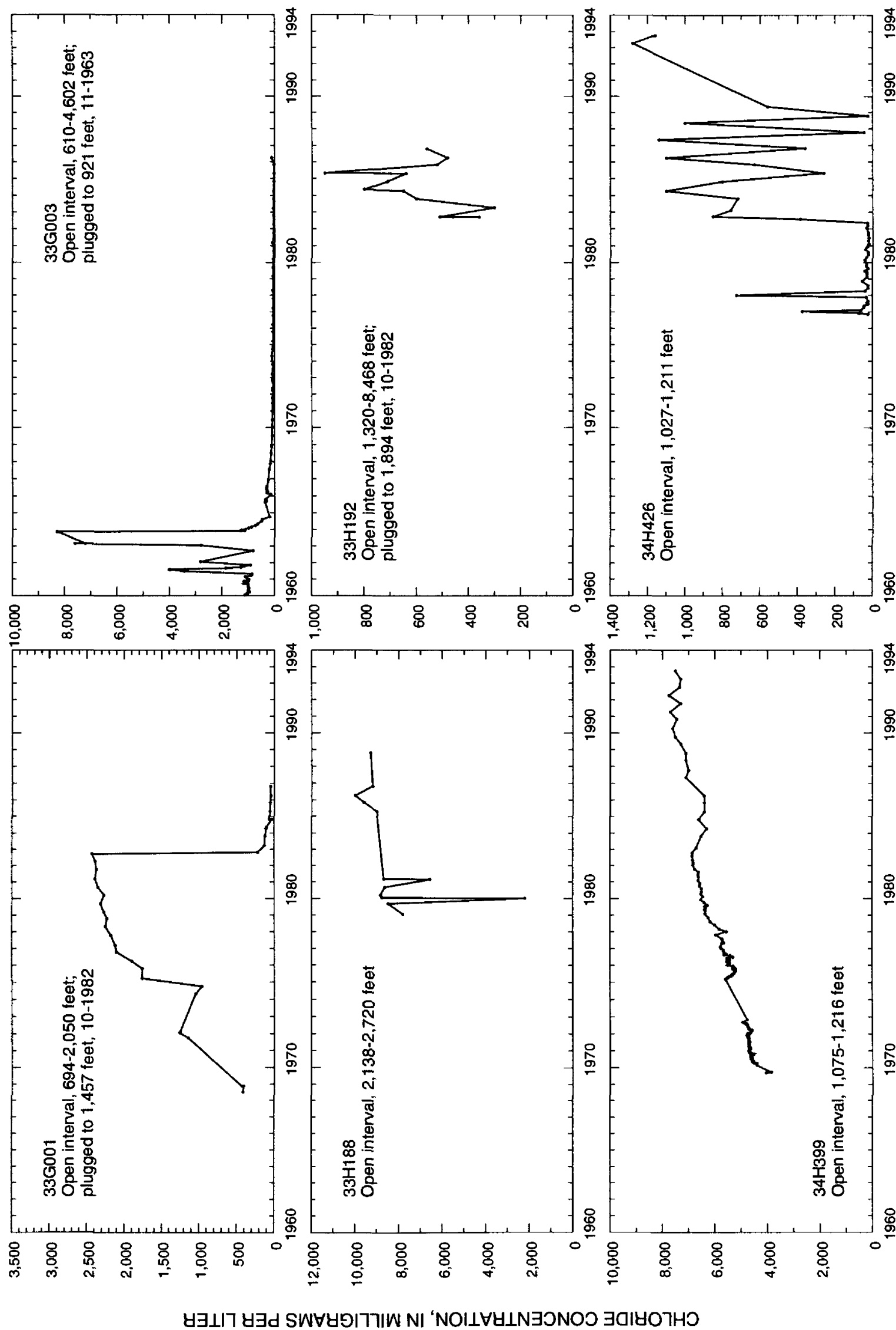


Figure 24. Chloride concentration in deep observation wells 33G001, 33H003, 33H188, 33H192, 34H399, and 34H426, Lower Floridan aquifer, Glynn County, Ga.