

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GROUND-WATER DATA FOR GEORGIA, 1983

By J. S. Clarke, M. F. Peck, S. A. Longworth, and K. W. McFadden

Open-File Report 84-605

Prepared in cooperation with the
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
GEORGIA GEOLOGIC SURVEY



Doraville, Georgia

1984

UNITED STATES DEPARTMENT OF THE INTERIOR

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PREFACE

Data used in this report were collected by the U.S. Geological Survey in cooperation with the State of Georgia; Chatham County; Glynn County; the cities of Brunswick and Valdosta; and the Albany Water, Gas, and Light Commission.

Records of all water-level measurements and water-quality data used in this report may be obtained upon request from the U.S. Geological Survey, Water Resources Division, 6481 Peachtree Industrial Boulevard, Suite B, Doraville, GA 30360.

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM (SI) UNITS

| <u>Multiply</u> | <u>By</u> | <u>To obtain</u> |
|-----------------------------------|-----------|---|
| foot (ft) | 0.3048 | meter (m) |
| mile (mi) | 1.609 | kilometer (km) |
| gallon per minute (gal/min) (gpm) | 0.06309 | liter per second (L/s) |
| million gallons per day (Mgal/d) | 0.04381 | cubic meter per second (m ³ /s) |
| | 43.81 | liters per second (L/s) |

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called mean sea level. NGVD of 1929 is referred to as sea level in this report.

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List of observation wells for which water-level
hydrographs are included in this report

| <u>County</u> | <u>Aquifer</u> | <u>Well number</u> | <u>Well name</u> | <u>Page</u> |
|---------------|-------------------------|------------------------|----------------------|-------------|
| Burke | Cretaceous | 28X001 | Midville Exp.Sta. | 23 |
| Camden | Floridan aquifer system | 33E027 | Kings Bay | 127 |
| Charlton | Floridan aquifer system | 27E002 | Test well OK8 | 129 |
| Chatham | Water table | 35P094 | UGA | 19 |
| Chatham | Floridan aquifer system | 36Q008 | Layne-Atlantic | 93 |
| Chatham | Floridan aquifer system | 36Q020 | Morrison | 95 |
| Chatham | Floridan aquifer system | 38Q002 | Pilot House | 97 |
| Chatham | Floridan aquifer system | 39Q003 | Test well 7, point 3 | 99 |
| Chattahoochee | Cretaceous | 06S001 | Fort Benning | 27 |
| Clay | Clayton | 05L001 | W.F. George Dam | 35 |
| Cook | Floridan aquifer system | 18H016 | Adel | 75 |
| Decatur | Floridan aquifer system | 09F520 | Bolton | 63 |
| Dougherty | Cretaceous | 12L021 | Test well 10 | 31 |
| Dougherty | Clayton | 11L002 | Albany Nursery | 39 |
| Dougherty | Clayton | 13L002 | Turner City | 41 |
| Dougherty | Claiborne | 11L001 | Test well 4 | 45 |
| Dougherty | Claiborne | 12L019 | Test well 5 | 47 |
| Dougherty | Claiborne | 13L011 | Test well 2 | 49 |
| Dougherty | Floridan aquifer system | 13L003 | Albany-Dougherty Co. | 55 |
| Dougherty | Floridan aquifer system | 13L012 | Test well 3 | 57 |
| Fulton | Crystalline rock | 10DD02 | Fort McPherson | 11 |
| Glynn | Floridan aquifer system | 33H127 | Test well 3 | 117 |
| Glynn | Floridan aquifer system | 33H133 | Test well 6 | 119 |
| Glynn | Floridan aquifer system | 33J044 | Test well 27 | 123 |

List of observation wells for which water-level
hydrographs are included in this report--Continued

| <u>County</u> | <u>Aquifer</u> | <u>Well number</u> | <u>Well name</u> | <u>Page</u> |
|---------------|-------------------------|------------------------|----------------------|-------------|
| Glynn | Floridan aquifer system | 34H391 | Test well 16 | 121 |
| Lamar | Water table | 12Z001 | Dixie Pipeline | 17 |
| Laurens | Floridan aquifer system | 21T001 | Hogan | 83 |
| Liberty | Floridan aquifer system | 34M054 | Test well 2 | 109 |
| Liberty | Floridan aquifer system | 34N089 | Test well 1 | 111 |
| Long | Floridan aquifer system | 33M004 | Test well 3 | 107 |
| Lowndes | Floridan aquifer system | 19E009 | Valdosta | 79 |
| Lowndes | Floridan aquifer system | 19F039 | Valdosta 8 | 77 |
| McIntosh | Floridan aquifer system | 35M013 | Harris Neck | 113 |
| Miller | Floridan aquifer system | 08G001 | Fleet | 65 |
| Mitchell | Floridan aquifer system | 10G313 | Meinders | 61 |
| Mitchell | Floridan aquifer system | 13J004 | Wright | 59 |
| Montgomery | Floridan aquifer system | 25Q001 | Uvalda School | 85 |
| Randolph | Clayton | 07N001 | Cuthbert | 37 |
| Seminole | Floridan aquifer system | 06F085 | Spooner | 67 |
| Spalding | Water table | 11AA01 | Experiment Sta. | 15 |
| Tift | Floridan aquifer system | 17K001 | SCL Railroad | 73 |
| Toombs | Floridan aquifer system | 26R001 | Vidalia 2 | 87 |
| Twiggs | Cretaceous | 18U001 | Test well 3 | 25 |
| Walker | Paleozoic rock | 03PP01 | Fort Oglethorpe | 7 |
| Wayne | Floridan aquifer system | 30L003 | Johnson | 103 |
| Wayne | Floridan aquifer system | 31L001 | Mears 2 | 105 |
| Worth | Floridan aquifer system | 15L020 | Sylvester | 71 |

ABSTRACT

Continuous water-level records from 134 wells and more than 700 water-level measurements made in Georgia during 1983 provide the basic data for this report. Selected wells illustrate the effects that changes in recharge and pumping have had on the various ground-water resources in the State. Daily mean water levels are shown in hydrographs for 1983. Monthly means are shown for the 10-year period 1974-83. Mean annual water levels ranged from 9 feet higher to 6 feet lower in 1983 than in 1982. Water-quality samples are collected periodically throughout Georgia and analyzed as part of areal and regional ground-water studies. Along the coast, chloride concentrations in the upper and lower water-bearing zones of the Floridan aquifer system generally remained steady in the Brunswick and Hilton Head Island areas.

1.0 INTRODUCTION

Monitoring ground-water levels and water quality is essential to the management of a ground-water reservoir or aquifer. Fluctuations and long-term trends in water levels occur as a result of recharge to and discharge from the aquifer. Recharge varies in response to precipitation, evapotranspiration, and surface-water infiltration into the aquifer. Discharge occurs as natural flow from the aquifer to streams and springs, direct ground-water evapotranspiration, and withdrawal from wells.

Ground-water levels have been monitored in Georgia for at least a hundred years. In the early years, these data were used in areal reconnaissance studies, and published, usually as tables, with a few graphs of water-level trends. These data had limited value, especially considering the time lag between data collection and publication.

As part of the cooperative ground-water investigations undertaken by the U.S. Geological Survey and the State of Georgia, a statewide water-level measurement program to monitor long-term trends was begun in 1938. This program initially consisted of an observation well network to provide long-term data on changes in ground-water storage in the coastal area. Other wells were added in areas where changes in water levels might forewarn of potential water-quality problems. More than 700 water-level measurements were made in Georgia during 1983, and 134 network and project wells were monitored continuously.

This report continues a series of publications that annually presents both water-level and water-quality data for Georgia. Forty-seven wells have been selected to illustrate the effects that changes in recharge and pumpage have had on the various aquifers in the State. Daily mean water levels are shown in hydrographs for 1983. Monthly mean water levels, as well as

chloride concentrations in selected areas along the coast, are shown for the 10-year period 1974-83. Because the 1983 hydrographs are plotted from daily mean values, the record low or high water level occurring on a day will be lower or higher than that shown on the hydrograph, which shows the mean for that day.

The cooperation and assistance of the following agencies in collecting water-level and water-quality data during 1983 are gratefully acknowledged: Georgia Department of Natural Resources, Georgia Geologic Survey; Chatham County; Glynn County; the cities of Brunswick and Valdosta; and the Albany Water, Gas, and Light Commission.

The writers extend thanks to Willis G. Hester (U.S. Geological Survey) for the layout and drafting of illustrations.

2.0 GROUND-WATER LEVELS

Mean annual ground-water levels in Georgia ranged from 9 feet higher to 6 feet lower in 1983 than in 1982. Of the 47 wells in this report, 4 had new record lows and 7 equaled or exceeded record highs.

During 1983, ground-water levels continued their recovery from record lows during the drought of 1981. This water-level rise was attributed to a reduction in pumping for irrigation as a result of greater-than-normal precipitation and to a general decrease in industrial ground-water use, chiefly in the pulp and paper industry as a result of the implementation of water conservation practices.

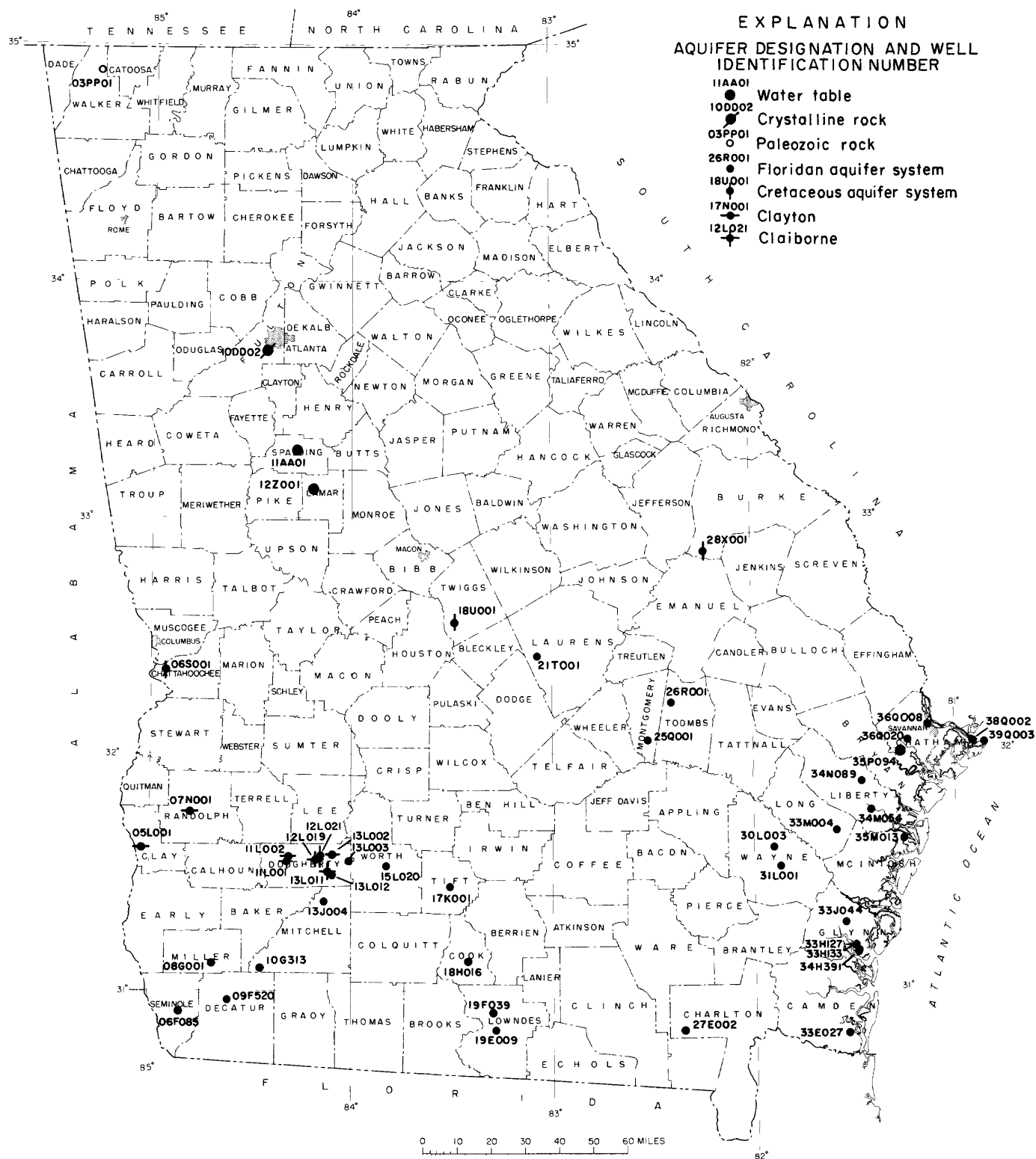


Figure 2.0-1.—Locations of observation wells for which hydrographs are included in this report.

2.1 Paleozoic Rock Aquifers

Ground-water levels in the Paleozoic rock aquifers are affected mainly by changes in precipitation. Rainfall in the area is heavy in winter and midsummer and relatively light in spring and autumn. Water levels generally are at their highest for the year in March or April and at their lowest for the year in October, November, and December.

Wells in areas having a thin soil cover commonly show a rapid response to heavy rainfall and may experience a water-level rise of several feet within a few minutes or hours. In areas having a thick soil cover, wells may show little response to individual rainfall events, but undergo a gradual rise in water level during wet periods. Most wells experience a slow decline in water level between rainfall events.

The hydrographs for observation well 03PP01 (Fort Oglethorpe) illustrate the cyclic effects that precipitation has on water levels in areas of thin soil cover.

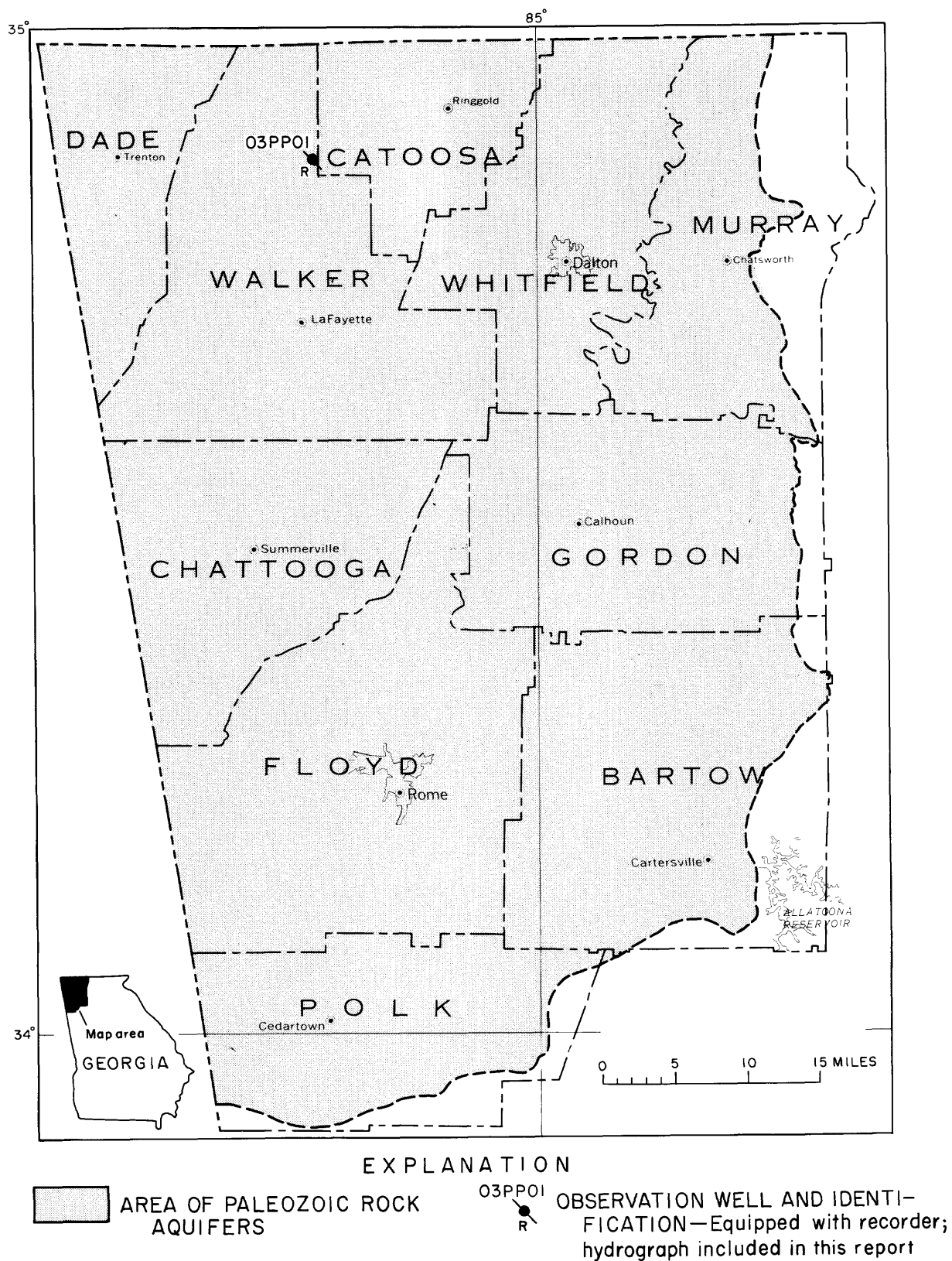


Figure 2.1-1.— Location of observation well in the Paleozoic rock aquifers.

03PP01 FORT OGLETHORPE WALKER COUNTY

345403085160001 Local number, 03PP01.

LOCATION.--Lat 34°54'03", long 85°16'00", Hydrologic Unit 06020001, Chickamauga and Chattahoochee National Military Park.

Owner: National Park Service, Fort Oglethorpe.

AQUIFER.--Chickamauga Limestone.

WELL CHARACTERISTICS.--Cable-tooled, unused observation well, diameter 8 in., depth 72 ft.

DATUM.--Altitude of land-surface datum is 730 ft.

Measuring point: Pointer on recorder shelter, 2.09 ft above land surface.

REMARKS.--Well sounded October 18, 1977. Water levels for periods of missing recorder record, June 8-14, November 20-27, and December 3-5, were estimated.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.86 ft below land-surface datum, April 3, 1979; lowest, 21.70 ft below land-surface datum, August 5, 1978.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 10.80 | 5.62 | 10.30 | 10.71 | 10.81 | 10.90 | 12.34 | 17.45 | 19.43 | 20.06 | 20.24 | 11.49 |
| 2 | 9.61 | 5.65 | 10.92 | 9.43 | 10.82 | 11.04 | 12.78 | 17.59 | 19.47 | 20.07 | 20.24 | 11.36 |
| 3 | 9.64 | 9.96 | 10.84 | 10.42 | 10.82 | 11.20 | 13.04 | 17.69 | 19.49 | 20.11 | 19.90 | 6.95 |
| 4 | 10.68 | 10.66 | 10.86 | 10.65 | 10.84 | 11.36 | 13.24 | 17.79 | 19.49 | 20.11 | 19.13 | 7.35 |
| 5 | 10.74 | 10.71 | 10.23 | 5.64 | 10.90 | 11.55 | 13.44 | 17.90 | 19.51 | 20.13 | 19.13 | 7.75 |
| 6 | 10.76 | 9.06 | 5.84 | 5.45 | 10.96 | 11.76 | 13.64 | 18.03 | 19.53 | 20.16 | 19.70 | 8.14 |
| 7 | 10.80 | 9.34 | 9.74 | 9.80 | 11.03 | 11.96 | 13.85 | 18.12 | 19.54 | 20.17 | 19.84 | 10.20 |
| 8 | 10.84 | 10.56 | 10.65 | 9.36 | 11.08 | 12.13 | 14.06 | 18.19 | 19.55 | 20.20 | 19.89 | 10.79 |
| 9 | 10.04 | 10.67 | 10.72 | 6.43 | 11.16 | 12.42 | 14.24 | 18.27 | 19.57 | 20.20 | 19.91 | 10.90 |
| 10 | 10.52 | 9.27 | 10.75 | 9.34 | 11.22 | 12.66 | 14.43 | 18.35 | 19.58 | 20.33 | 19.94 | 11.06 |
| 11 | 10.70 | 8.94 | 10.77 | 10.56 | 11.37 | 12.90 | 14.62 | 18.41 | 19.59 | 20.24 | 20.00 | 9.16 |
| 12 | 10.77 | 10.46 | 10.80 | 10.66 | 11.45 | 13.14 | 14.81 | 18.47 | 19.62 | 20.24 | 20.05 | 9.89 |
| 13 | 10.79 | 10.64 | 10.81 | 10.72 | 11.52 | 13.36 | 15.00 | 18.53 | 19.65 | 20.22 | 20.06 | 10.75 |
| 14 | 10.80 | 10.63 | 10.82 | 9.80 | 11.60 | 13.59 | 15.18 | 18.59 | 19.67 | 20.24 | 20.07 | 10.56 |
| 15 | 10.85 | 10.74 | 10.84 | 9.80 | 10.02 | 13.79 | 15.34 | 18.66 | 19.71 | 20.23 | 15.17 | 10.78 |
| 16 | 10.90 | 10.77 | 10.55 | 10.68 | 9.21 | 13.93 | 15.48 | 18.70 | 19.73 | 20.33 | 16.72 | 10.92 |
| 17 | 11.00 | 10.78 | 10.86 | 10.72 | 10.70 | 14.14 | 15.62 | 18.75 | 19.75 | 20.24 | 17.41 | 11.06 |
| 18 | 11.16 | 10.80 | 10.83 | 10.74 | 10.77 | 14.28 | 15.74 | 18.81 | 19.76 | 20.25 | 17.80 | 11.20 |
| 19 | 11.34 | 10.82 | 10.85 | 10.76 | 5.93 | 13.95 | 15.86 | 18.87 | 19.81 | 20.25 | 18.13 | 11.38 |
| 20 | 11.46 | 10.86 | 9.70 | 10.79 | 5.80 | 14.18 | 15.98 | 18.93 | 19.82 | 20.26 | 16.22 | 11.62 |
| 21 | 8.40 | 10.90 | 9.75 | 10.80 | 7.46 | 14.30 | 16.09 | 19.00 | 19.83 | 20.27 | 16.58 | 11.64 |
| 22 | 8.00 | 9.20 | 10.70 | 10.80 | 8.35 | 14.43 | 16.20 | 19.05 | 19.86 | 20.28 | 16.94 | 9.96 |
| 23 | 10.30 | 9.74 | 10.77 | 8.14 | 8.60 | 14.09 | 16.34 | 19.11 | 19.89 | 19.74 | 13.10 | 10.51 |
| 24 | 10.68 | 10.60 | 10.50 | 8.25 | 9.94 | 14.26 | 16.46 | 19.17 | 19.91 | 19.99 | 13.46 | 10.82 |
| 25 | 10.72 | 10.70 | 10.66 | 10.48 | 10.64 | 14.40 | 16.58 | 19.22 | 19.94 | 20.28 | 13.32 | 10.84 |
| 26 | 10.76 | 10.76 | 10.53 | 10.70 | 10.73 | 14.56 | 16.68 | 19.27 | 19.95 | 20.10 | 14.18 | 10.98 |
| 27 | 10.58 | 10.78 | 8.22 | 10.74 | 10.79 | 14.70 | 16.82 | 19.29 | 19.97 | 20.15 | 8.50 | 9.85 |
| 28 | 10.63 | 10.77 | 10.51 | 10.77 | 10.81 | 14.84 | 16.94 | 19.33 | 20.00 | 20.18 | 8.86 | 5.67 |
| 29 | 10.61 | --- | 10.68 | 10.79 | 10.84 | 14.93 | 17.11 | 19.35 | 20.02 | 20.19 | 10.34 | 8.75 |
| 30 | 10.50 | --- | 10.72 | 10.80 | 9.99 | 15.03 | 17.22 | 19.37 | 20.03 | 20.20 | 11.05 | 10.62 |
| 31 | 10.70 | --- | 10.70 | --- | 10.82 | --- | 17.32 | 19.46 | --- | 20.22 | --- | 10.76 |
| MEAN | 10.52 | 10.02 | 10.39 | 9.83 | 10.23 | 13.33 | 15.24 | 18.64 | 19.72 | 20.16 | 16.88 | 10.14 |
| CAL YR 1983 | MEAN | 13.78 | | HIGH | 5.45 | | LOW | 20.33 | | | | |

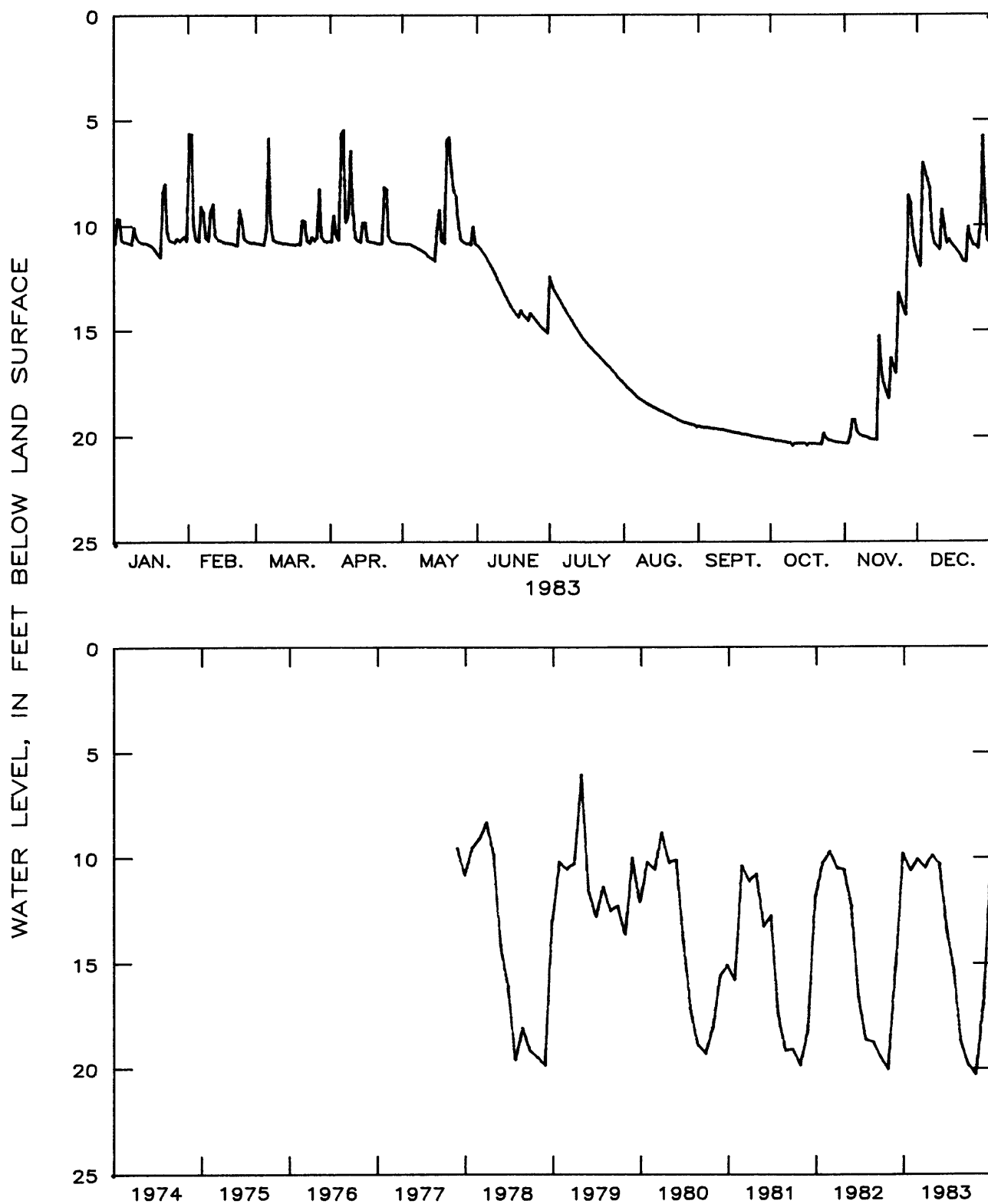


Figure 2.1-2.--Water level in observation well 03PP01, Walker County.

2.2 Crystalline Rock Aquifers

Ground-water levels in the crystalline rock aquifers are affected mainly by seasonal changes in precipitation and evapotranspiration. Rainfall in the area is heavy in winter and midsummer and relatively light in spring and autumn. Autumn is the driest season of the year. Ground-water levels rise rapidly with the onset of late winter rains and reduced evapotranspiration, and generally reach their highest levels for the year in March or April. Increases in evapotranspiration and decreases in rainfall during the spring and early summer cause ground-water levels to decline. Heavy precipitation in midsummer may cause small rises in ground-water levels, but the lack of recharge from light rainfall in the autumn results in water levels declining to the annual lows, generally in October or November.

The mean annual water level in the crystalline rock aquifer at well 10DD02 was about 1.3 feet lower in 1983 than in 1982. A new record low was recorded at well 10DD02 on September 1-2, 1983.

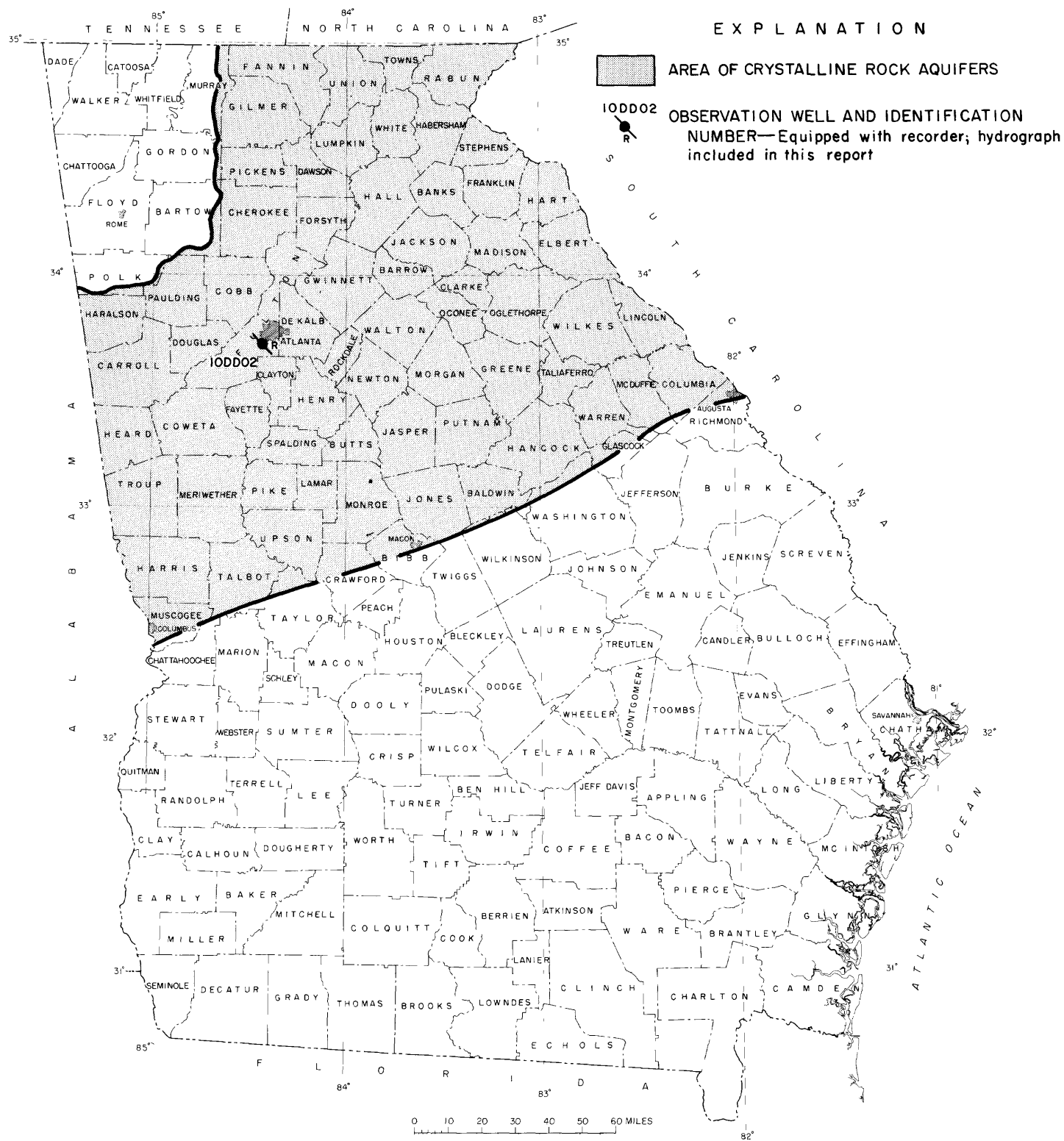


Figure 2.2-1.—Location of observation well in the crystalline rock aquifers.

334207084254801 Local number, 10DD02.

LOCATION.--Lat 33°42'07", long 84°25'48", Hydrologic Unit 03130002, 0.25 mi south of main entrance, 260 ft west of Roosevelt Highway.

Owner: U.S. Army, Fort McPherson.

AQUIFER.--Biotite gneiss.

WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in., depth 338 ft, cased to 41 ft, open hole.

DATUM.--Altitude of land-surface datum is 1,013 ft.

Measuring point: At land-surface datum.

REMARKS.--Well pumped and sounded February 14, 1976, to a depth of 338 ft. Borehole geophysical survey conducted November 19, 1974. Water levels for period of missing recorder record, October 23-24, were estimated.

PERIOD OF RECORD.--November 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.10 ft below land-surface datum, March 30, 1980; lowest, 8.09 ft below land-surface datum, September 1-2, 1983.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 5.06 | 4.74 | 4.43 | 4.09 | 4.56 | 5.26 | 6.11 | 7.29 | 8.09 | 7.60 | 7.98 | 7.01 |
| 2 | 4.72 | 4.38 | 4.52 | 4.00 | 4.54 | 5.35 | 6.12 | 7.30 | 8.09 | 7.60 | 7.95 | 6.99 |
| 3 | 4.45 | 4.32 | 4.57 | 4.04 | 4.48 | 5.36 | 6.14 | 7.26 | 8.02 | 7.59 | 7.90 | 6.62 |
| 4 | 4.64 | 4.60 | 4.55 | 4.18 | 4.52 | 5.34 | 6.17 | 7.16 | 7.91 | 7.57 | 7.80 | 6.15 |
| 5 | 4.72 | 4.70 | 4.44 | 4.23 | 4.51 | 5.38 | 6.16 | 7.14 | 7.83 | 7.55 | 7.85 | 6.17 |
| 6 | 4.72 | 4.53 | 4.20 | 4.22 | 4.69 | 5.40 | 6.16 | 7.14 | 7.80 | 7.62 | 7.91 | 6.10 |
| 7 | 4.72 | 4.52 | 4.07 | 4.13 | 4.70 | 5.41 | 6.27 | 7.12 | 7.79 | 7.70 | 7.93 | 6.12 |
| 8 | 4.75 | 4.59 | 4.18 | 3.94 | 4.64 | 5.44 | 6.36 | 7.15 | 7.78 | 7.74 | 7.96 | 6.27 |
| 9 | 4.76 | 4.58 | 4.32 | 3.64 | 4.72 | 5.51 | 6.31 | 7.20 | 7.76 | 7.75 | 7.93 | 6.39 |
| 10 | 4.74 | 4.48 | 4.36 | 3.76 | 4.80 | 5.61 | 6.29 | 7.32 | 7.75 | 7.76 | 7.82 | 6.47 |
| 11 | 4.72 | 4.56 | 4.45 | 3.90 | 4.54 | 5.64 | 6.34 | 7.47 | 7.73 | 7.73 | 7.89 | 6.17 |
| 12 | 4.96 | 4.72 | 4.48 | 4.01 | 4.33 | 5.64 | 6.39 | 7.52 | 7.68 | 7.63 | 7.99 | 5.84 |
| 13 | 4.92 | 4.70 | 4.48 | 4.02 | 4.82 | 5.65 | 6.43 | 7.60 | 7.65 | 7.68 | 8.01 | 5.85 |
| 14 | 4.56 | 4.55 | 4.46 | 4.12 | 4.84 | 5.67 | 6.46 | 7.70 | 7.65 | 7.77 | 8.03 | 5.98 |
| 15 | 4.82 | 4.58 | 4.46 | 4.16 | 4.84 | 5.66 | 6.52 | 7.72 | 7.71 | 7.84 | 7.93 | 6.21 |
| 16 | 4.86 | 4.58 | 4.44 | 4.26 | 4.79 | 5.70 | 6.67 | 7.62 | 7.72 | 7.84 | 7.95 | 6.39 |
| 17 | 4.86 | 4.56 | 4.40 | 4.28 | 4.92 | 5.77 | 6.78 | 7.57 | 7.70 | 7.84 | 8.03 | 6.42 |
| 18 | 4.96 | 4.62 | 4.42 | 4.18 | 4.98 | 5.79 | 6.85 | 7.56 | 7.71 | 7.80 | 8.03 | 6.39 |
| 19 | 5.02 | 4.63 | 4.51 | 4.27 | 4.96 | 5.82 | 6.88 | 7.58 | 7.73 | 7.80 | 7.99 | 6.33 |
| 20 | 4.95 | 4.72 | 4.46 | 4.38 | 4.94 | 5.84 | 6.90 | 7.62 | 7.68 | 7.83 | 7.77 | 6.38 |
| 21 | 4.85 | 4.73 | 4.34 | 4.42 | 4.94 | 5.87 | 6.94 | 7.74 | 7.51 | 7.86 | 7.60 | 6.40 |
| 22 | 4.86 | 4.52 | 4.50 | 4.42 | 4.90 | 5.88 | 6.94 | 7.86 | 7.46 | 7.86 | 7.64 | 6.28 |
| 23 | 4.82 | 4.27 | 4.54 | 4.28 | 4.93 | 5.93 | 6.96 | 7.93 | 7.55 | 7.84 | 7.59 | 6.17 |
| 24 | 4.87 | 4.34 | 4.42 | 4.26 | 5.00 | 5.92 | 6.99 | 7.98 | 7.58 | 7.81 | 7.29 | 6.16 |
| 25 | 4.86 | 4.50 | 4.34 | 4.45 | 5.06 | 5.90 | 7.01 | 8.05 | 7.58 | 7.79 | 7.08 | 6.28 |
| 26 | 4.88 | 4.64 | 4.20 | 4.54 | 5.07 | 5.96 | 7.08 | 8.01 | 7.53 | 7.81 | 7.15 | 6.24 |
| 27 | 4.82 | 4.62 | 3.89 | 4.56 | 5.11 | 6.02 | 7.18 | 8.00 | 7.51 | 7.85 | 7.11 | 6.17 |
| 28 | 4.85 | 4.47 | 3.94 | 4.55 | 5.16 | 6.04 | 7.27 | 7.99 | 7.51 | 7.94 | 6.90 | 5.61 |
| 29 | 4.35 | --- | 4.12 | 4.56 | 5.12 | 6.04 | 7.30 | 8.00 | 7.54 | 7.93 | 6.81 | 5.65 |
| 30 | 4.80 | --- | 4.16 | 4.57 | 5.11 | 6.08 | 7.32 | 8.04 | 7.54 | 7.94 | 6.94 | 5.93 |
| 31 | 4.84 | --- | 4.09 | --- | 5.15 | --- | 7.31 | 8.06 | --- | 8.00 | --- | 6.08 |
| MEAN | 4.82 | 4.56 | 4.35 | 4.22 | 4.86 | 5.70 | 6.66 | 7.60 | 7.70 | 7.77 | 7.69 | 6.23 |
| CAL YR 1983 | MEAN | 6.02 | HIGH | 3.64 | LOW | 8.09 | | | | | | |

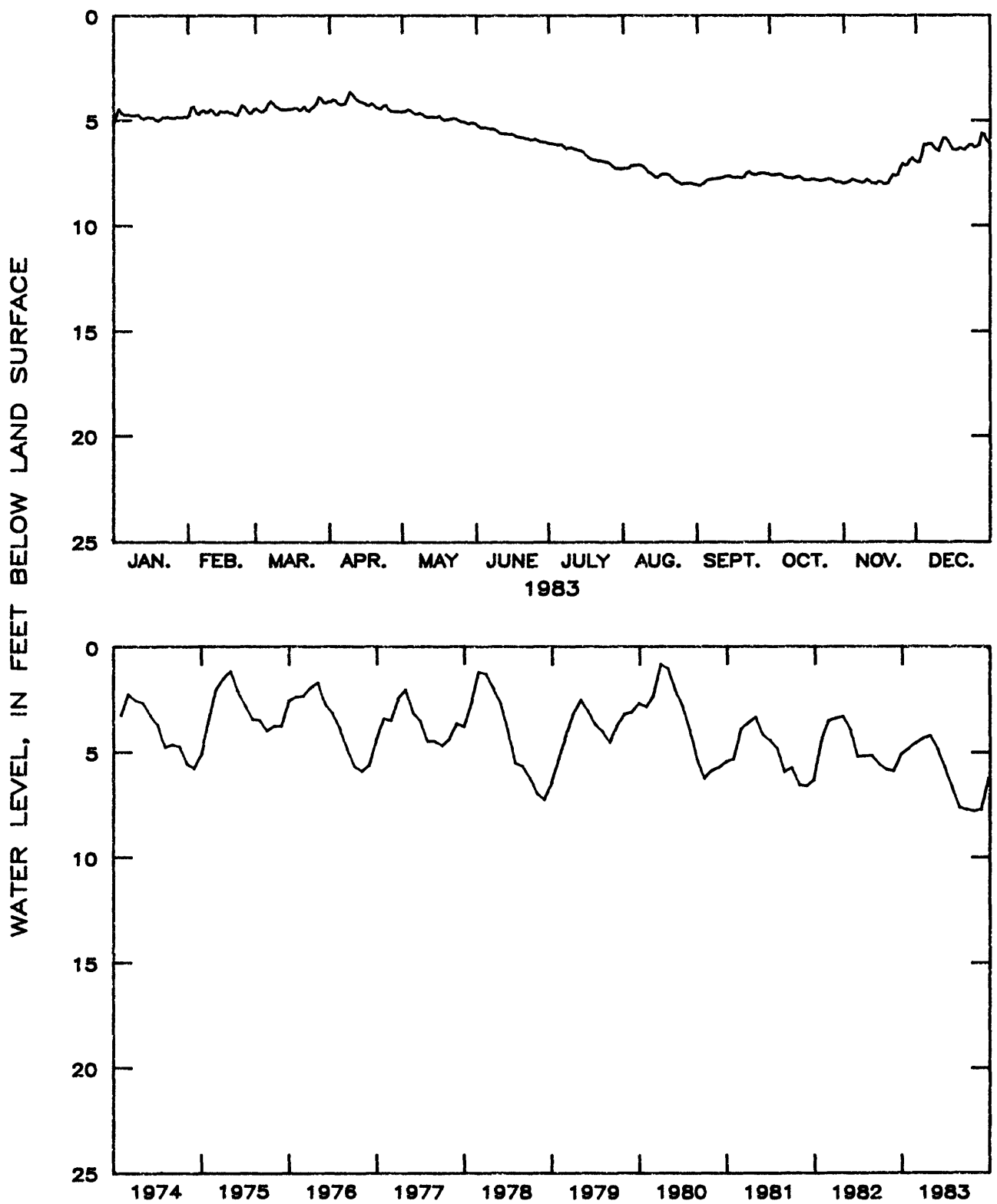


Figure 2.2-2.--Water level in observation well 10DD02, Fulton County.

2.3 Water-Table Aquifers

Shallow water-table aquifers are used for domestic and stock supplies in most areas of Georgia. Water-level fluctuations in these aquifers are caused mainly by changes in precipitation; water levels generally rise rapidly during wet periods and decline slowly during dry periods. Prolonged droughts may cause water levels, particularly on hill tops and steep slopes, to decline below the intakes of dug, bored, or shallow drilled wells, resulting in well failures. Generally, the well yields are restored with the return of adequate precipitation.

Mean annual water levels for three wells in shallow water-table aquifers ranged from 0.9 foot lower to 1.7 feet higher in 1983 than in 1982. The 10-year hydrographs illustrate the water-level recovery from the effects of the 1981 drought.

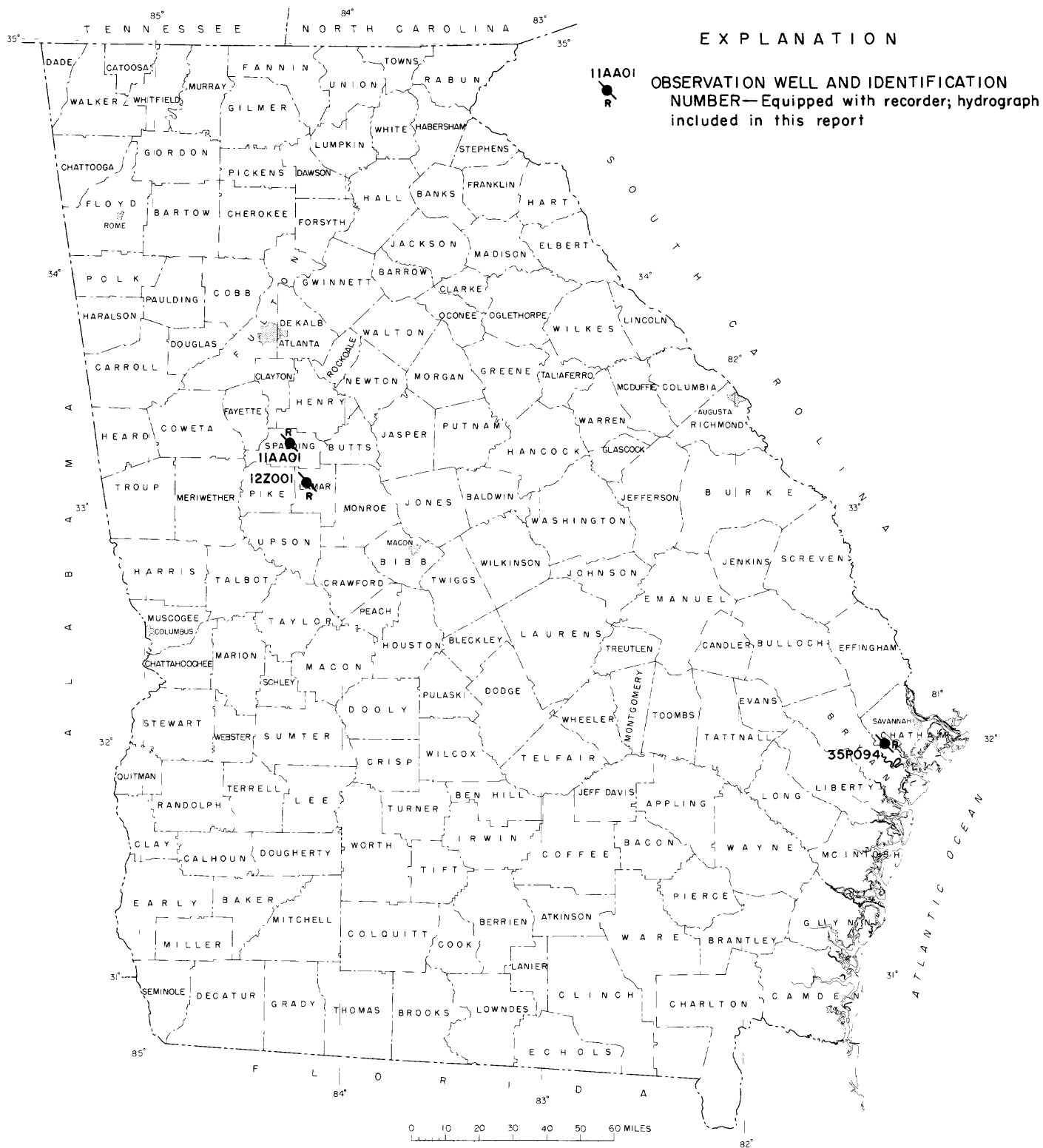


Figure 2.3-1.—Locations of observation wells in the water-table aquifers.

11AA01 EXPERIMENT STATION SPALDING COUNTY

331507084171801 Local number, 11AA01.

LOCATION.--Lat 33°15'54", long 84°16'56", Hydrologic Unit 03070103, University of Georgia Experiment Station, Experiment, Ga.

Owner: University of Georgia.

AQUIFER.--Residuum.

WELL CHARACTERISTICS.--Dug unused water-table well, size 4 x 4 ft, depth 30 ft, open hole.

DATUM.--Altitude of land-surface datum is 960 ft.

Measuring point: Hole in floor of recorder shelter, 3.1 ft above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--October 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.26 ft below land-surface datum, March 19, 1948; lowest, 21.78 ft below land-surface datum, December 13, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 16.38 | 15.15 | 13.61 | 11.29 | 11.13 | 12.87 | 14.27 | 16.11 | 17.57 | 18.27 | 19.10 | 17.64 |
| 2 | 16.23 | 14.89 | 13.66 | 11.18 | 11.15 | 12.96 | 14.31 | 16.17 | 17.60 | 18.31 | 19.12 | 17.49 |
| 3 | 16.12 | 14.85 | 13.67 | 11.35 | 11.14 | 12.97 | 14.37 | 16.22 | 17.64 | 18.33 | 19.13 | 17.24 |
| 4 | 15.99 | 14.78 | 13.63 | 11.48 | 11.26 | 13.01 | 14.40 | 16.27 | 17.67 | 18.35 | 19.14 | 16.92 |
| 5 | 15.79 | 14.65 | 13.58 | 11.48 | 11.38 | 13.03 | 14.42 | 16.33 | 17.69 | 18.38 | 19.18 | 16.61 |
| 6 | 15.65 | 14.43 | 13.49 | 11.50 | 11.47 | 13.13 | 14.49 | 16.37 | 17.71 | 18.44 | 19.22 | 16.25 |
| 7 | 15.55 | 14.43 | 13.31 | 11.48 | 11.49 | 13.18 | 14.59 | 16.38 | 17.73 | 18.48 | 19.25 | 16.04 |
| 8 | 15.48 | 14.41 | 13.21 | 10.89 | 11.48 | 13.21 | 14.64 | 16.43 | 17.74 | 18.52 | 19.28 | 15.79 |
| 9 | 15.43 | 14.32 | 13.20 | 9.74 | 11.59 | 13.29 | 14.65 | 16.49 | 17.77 | 18.55 | 19.29 | 15.63 |
| 10 | 15.37 | 14.21 | 13.17 | 9.43 | 11.69 | 13.37 | 14.69 | 16.54 | 17.79 | 18.59 | 19.29 | 15.52 |
| 11 | 15.33 | 14.28 | 13.19 | 9.45 | 11.73 | 13.40 | 14.78 | 16.58 | 17.82 | 18.60 | 19.35 | 15.25 |
| 12 | 15.41 | 14.36 | 13.18 | 9.61 | 11.75 | 13.44 | 14.84 | 16.62 | 17.84 | 18.62 | 19.39 | 15.03 |
| 13 | 15.39 | 14.28 | 13.18 | 9.76 | 11.79 | 13.49 | 14.91 | 16.69 | 17.86 | 18.66 | 19.41 | 14.84 |
| 14 | 15.33 | 14.13 | 13.18 | 9.87 | 11.85 | 13.54 | 14.96 | 16.76 | 17.91 | 18.70 | 19.43 | 14.65 |
| 15 | 15.32 | 14.14 | 13.19 | 9.99 | 11.89 | 13.58 | 15.00 | 16.81 | 17.96 | 18.71 | 19.39 | 14.66 |
| 16 | 15.33 | 14.07 | 13.15 | 10.18 | 11.92 | 13.66 | 15.06 | 16.86 | 17.98 | 18.72 | 19.34 | 14.66 |
| 17 | 15.33 | 14.03 | 13.11 | 10.24 | 12.07 | 13.74 | 15.14 | 16.91 | 18.00 | 18.74 | 19.27 | 14.58 |
| 18 | 15.43 | 14.03 | 13.16 | 10.22 | 12.12 | 13.78 | 15.20 | 16.95 | 18.04 | 18.75 | 19.21 | 14.50 |
| 19 | 15.47 | 14.01 | 13.27 | 10.42 | 12.14 | 13.85 | 15.26 | 17.00 | 18.07 | 18.78 | 19.14 | 14.44 |
| 20 | 15.42 | 14.08 | 13.18 | 10.58 | 12.19 | 13.90 | 15.33 | 17.06 | 18.08 | 18.80 | 19.04 | 14.47 |
| 21 | 15.37 | 14.03 | 13.07 | 10.71 | 12.22 | 13.95 | 15.38 | 17.11 | 18.05 | 18.83 | 19.01 | 14.46 |
| 22 | 15.42 | 13.87 | 13.05 | 10.77 | 12.24 | 13.99 | 15.43 | 17.18 | 18.09 | 18.84 | 18.93 | 14.39 |
| 23 | 15.37 | 13.81 | 12.92 | 10.62 | 12.31 | 13.97 | 15.49 | 17.24 | 18.11 | 18.82 | 18.79 | 14.40 |
| 24 | 15.38 | 13.75 | 12.74 | 10.66 | 12.40 | 13.95 | 15.56 | 17.31 | 18.12 | 18.87 | 18.66 | 14.45 |
| 25 | 15.34 | 13.77 | 12.69 | 10.82 | 12.44 | 13.96 | 15.62 | 17.34 | 18.13 | 18.92 | 18.55 | 14.49 |
| 26 | 15.31 | 13.81 | 12.44 | 10.89 | 12.50 | 14.04 | 15.70 | 17.35 | 18.13 | 18.93 | 18.38 | 14.50 |
| 27 | 15.27 | 13.73 | 11.73 | 10.92 | 12.59 | 14.10 | 15.80 | 17.38 | 18.15 | 18.97 | 18.19 | 14.48 |
| 28 | 15.30 | 13.56 | 11.54 | 10.97 | 12.63 | 14.12 | 15.87 | 17.39 | 18.18 | 19.01 | 18.01 | 14.38 |
| 29 | 15.25 | --- | 11.48 | 11.03 | 12.64 | 14.16 | 15.93 | 17.43 | 18.21 | 19.02 | 17.90 | 14.40 |
| 30 | 15.22 | --- | 11.40 | 11.07 | 12.68 | 14.22 | 15.99 | 17.48 | 18.23 | 19.05 | 17.78 | 14.41 |
| 31 | 15.25 | --- | 11.29 | --- | 12.77 | --- | 16.04 | 17.52 | --- | 19.08 | --- | 14.29 |
| MEAN | 15.49 | 14.21 | 12.92 | 10.62 | 11.96 | 13.60 | 15.10 | 16.85 | 17.93 | 18.70 | 18.97 | 15.19 |
| CAL YR 1983 | MEAN | 15.13 | | HIGH | 9.43 | | LOW | 19.43 | | | | |

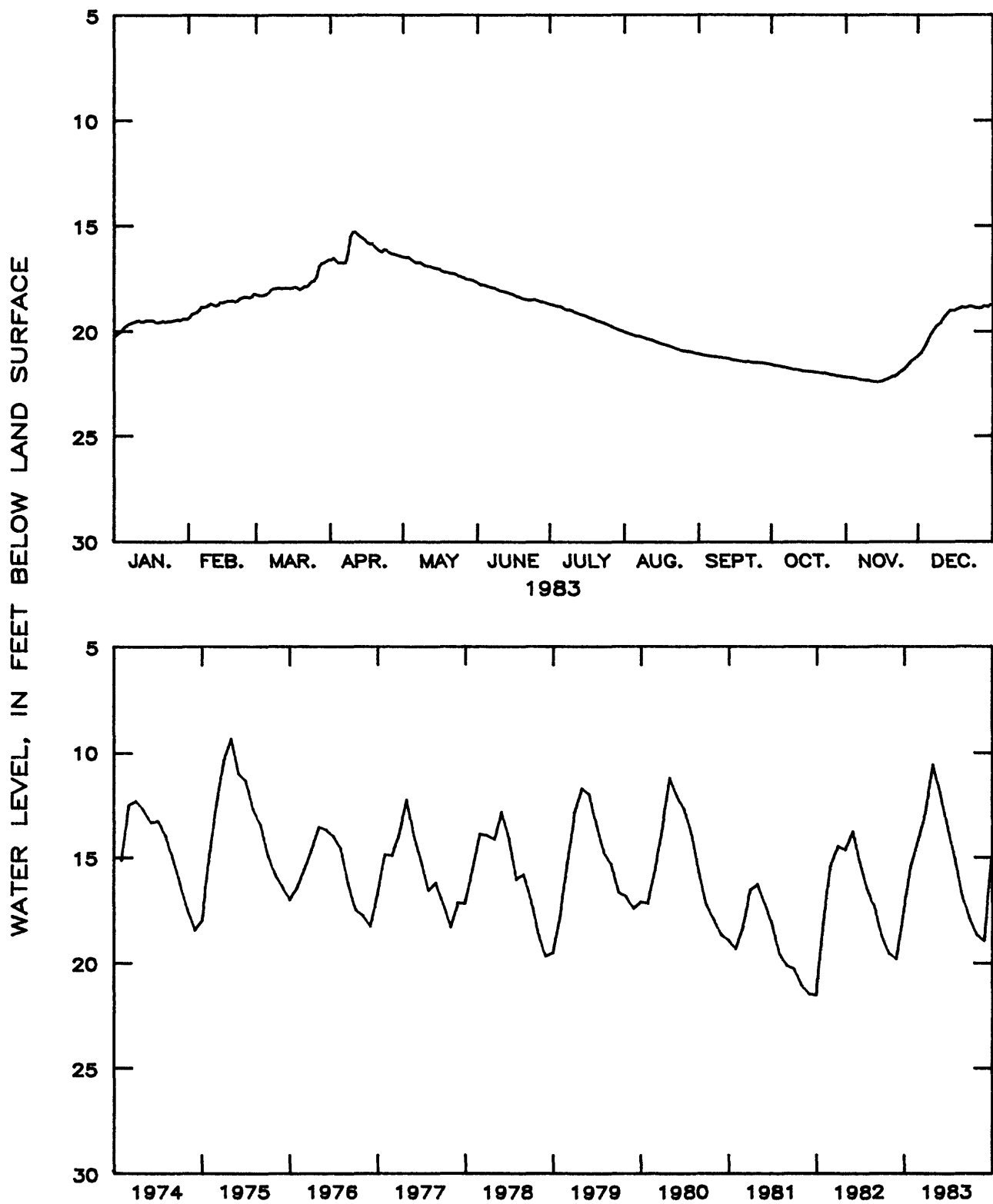


Figure 2.3-2.—Water level in observation well 11AA01, Spalding County.

12Z001 DIXIE PIPELINE LAMAR COUNTY

330858084122901 Local number, 12Z001.

LOCATION.--Lat 33°08'58", long 84°12'29", Hydrologic Unit 03130005, north of Milner, Ga., at the gas storage center.

Owner: Dixie Pipeline Co.

AQUIFER.--Residuum.

WELL CHARACTERISTICS.--Bored observation well, diameter 24 in., depth 31 ft, cased to 31 ft.

DATUM.--Altitude of land-surface datum is 852 ft.

Measuring point: Floor of recorder shelter, 2.0 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, January 1-6, May 21-22, 28-30, June 4-5, 25-26, July 2-4, 9-10, 14-15, August 13-14, 20-21, 27-28, September 3-5, 10-11, 17-18, 24-25, October 1-2, 8-9, 22-23, 29-30, November 6, 12-13, 19, 26-27, and December 4, 10-11, 13, 17-18, 23-26, were estimated.

PERIOD OF RECORD.--January 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.37 ft below land-surface datum, April 9, 1973; lowest, 15.20 ft below land-surface datum, December 1, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 9.09 | 8.41 | 7.37 | 6.12 | 6.71 | 8.48 | 9.79 | 10.90 | 11.55 | 11.58 | 12.37 | 10.31 |
| 2 | 8.96 | 8.20 | 7.40 | 6.04 | 6.76 | 8.52 | 9.68 | 10.88 | 11.58 | 11.61 | 12.61 | 9.97 |
| 3 | 8.87 | 8.05 | 7.44 | 6.12 | 6.78 | 8.64 | 9.58 | 10.89 | 11.61 | 11.01 | 12.62 | 9.68 |
| 4 | 8.77 | 8.00 | 7.46 | 6.28 | 6.84 | 8.58 | 9.46 | 10.93 | 11.63 | 11.65 | 12.64 | 9.43 |
| 5 | 8.59 | 7.94 | 7.42 | 6.35 | 6.94 | 8.56 | 9.32 | 10.96 | 11.64 | 11.11 | 12.65 | 9.18 |
| 6 | 8.47 | 7.62 | 7.34 | 6.37 | 7.04 | 8.68 | 9.88 | 10.98 | 11.65 | 11.76 | 12.58 | 9.12 |
| 7 | 8.39 | 7.76 | 7.18 | 6.36 | 7.12 | 8.66 | 9.93 | 10.88 | 11.69 | 11.90 | 12.50 | 9.00 |
| 8 | 8.39 | 7.80 | 7.04 | 6.15 | 7.14 | 8.74 | 10.03 | 10.75 | 11.73 | 11.92 | 12.53 | 8.96 |
| 9 | 8.42 | 7.83 | 7.04 | 5.72 | 7.22 | 8.76 | 10.01 | 10.68 | 11.77 | 11.92 | 12.55 | 8.63 |
| 10 | 8.47 | 7.81 | 7.08 | 5.50 | 7.31 | 8.80 | 10.03 | 10.64 | 11.77 | 11.94 | 12.58 | 8.65 |
| 11 | 8.52 | 7.96 | 7.16 | 5.48 | 7.37 | 8.84 | 10.09 | 10.69 | 11.78 | 11.97 | 12.65 | 8.51 |
| 12 | 8.59 | 8.00 | 7.23 | 5.54 | 7.41 | 8.86 | 10.14 | 10.89 | 11.78 | 11.99 | 12.65 | 8.42 |
| 13 | 8.70 | 8.06 | 7.28 | 5.62 | 7.46 | 8.90 | 10.18 | 10.92 | 11.72 | 12.21 | 12.64 | 8.36 |
| 14 | 8.80 | 7.94 | 7.34 | 5.68 | 7.52 | 8.94 | 10.19 | 10.94 | 11.80 | 12.18 | 12.62 | 8.30 |
| 15 | 8.83 | 7.80 | 7.40 | 5.76 | 7.56 | 8.98 | 10.19 | 10.95 | 11.84 | 12.18 | 12.46 | 8.41 |
| 16 | 8.87 | 7.70 | 7.44 | 5.88 | 7.59 | 9.04 | 10.21 | 10.99 | 11.94 | 12.17 | 12.29 | 8.57 |
| 17 | 8.94 | 7.62 | 7.43 | 5.96 | 7.68 | 9.10 | 10.32 | 11.02 | 11.93 | 11.99 | 12.16 | 8.57 |
| 18 | 9.01 | 7.62 | 7.40 | 6.29 | 7.76 | 9.14 | 10.36 | 11.60 | 11.95 | 12.02 | 11.89 | 8.56 |
| 19 | 9.10 | 7.67 | 7.45 | 6.23 | 7.78 | 9.18 | 10.40 | 11.20 | 11.95 | 12.04 | 12.11 | 8.58 |
| 20 | 9.18 | 7.74 | 7.40 | 6.12 | 7.80 | 9.22 | 10.42 | 11.20 | 11.76 | 12.06 | 12.29 | 8.69 |
| 21 | 9.20 | 7.80 | 7.31 | 6.22 | 7.85 | 9.26 | 10.45 | 11.20 | 11.60 | 12.10 | 12.22 | 8.70 |
| 22 | 9.20 | 7.70 | 7.26 | 6.34 | 7.88 | 9.28 | 10.48 | 11.21 | 11.37 | 12.11 | 11.95 | 8.94 |
| 23 | 9.14 | 7.58 | 7.15 | 6.44 | 7.97 | 9.29 | 10.52 | 11.25 | 11.21 | 12.09 | 11.88 | 8.93 |
| 24 | 9.00 | 7.51 | 7.02 | 6.36 | 8.02 | 9.50 | 10.57 | 11.29 | 11.22 | 12.14 | 11.74 | 8.97 |
| 25 | 8.90 | 7.47 | 6.92 | 6.28 | 8.07 | 9.47 | 10.61 | 11.33 | 11.22 | 12.40 | 10.90 | 8.99 |
| 26 | 8.84 | 7.52 | 6.76 | 6.37 | 8.20 | 9.51 | 10.65 | 11.42 | 11.22 | 12.50 | 10.84 | 8.99 |
| 27 | 8.72 | 7.52 | 6.42 | 6.48 | 8.32 | 9.53 | 10.70 | 11.44 | 11.49 | 12.24 | 10.73 | 8.95 |
| 28 | 8.66 | 7.42 | 6.26 | 6.56 | 8.34 | 9.59 | 10.75 | 11.43 | 11.32 | 12.32 | 10.65 | 8.79 |
| 29 | 8.63 | --- | 6.32 | 6.61 | 8.40 | 9.60 | 10.80 | 11.46 | 11.38 | 12.31 | 10.83 | 8.80 |
| 30 | 8.58 | --- | 6.29 | 6.66 | 8.42 | 9.64 | 10.83 | 11.49 | 11.56 | 12.33 | 10.60 | 8.79 |
| 31 | 8.52 | --- | 6.21 | --- | 8.39 | --- | 10.87 | 11.51 | --- | 12.34 | --- | 8.65 |
| MEAN | 8.79 | 7.79 | 7.10 | 6.13 | 7.60 | 9.04 | 10.24 | 11.09 | 11.62 | 12.00 | 12.06 | 8.88 |
| CAL YR 1983 | MEAN | 9.37 | HIGH | 5.48 | LOW | 12.65 | | | | | | |

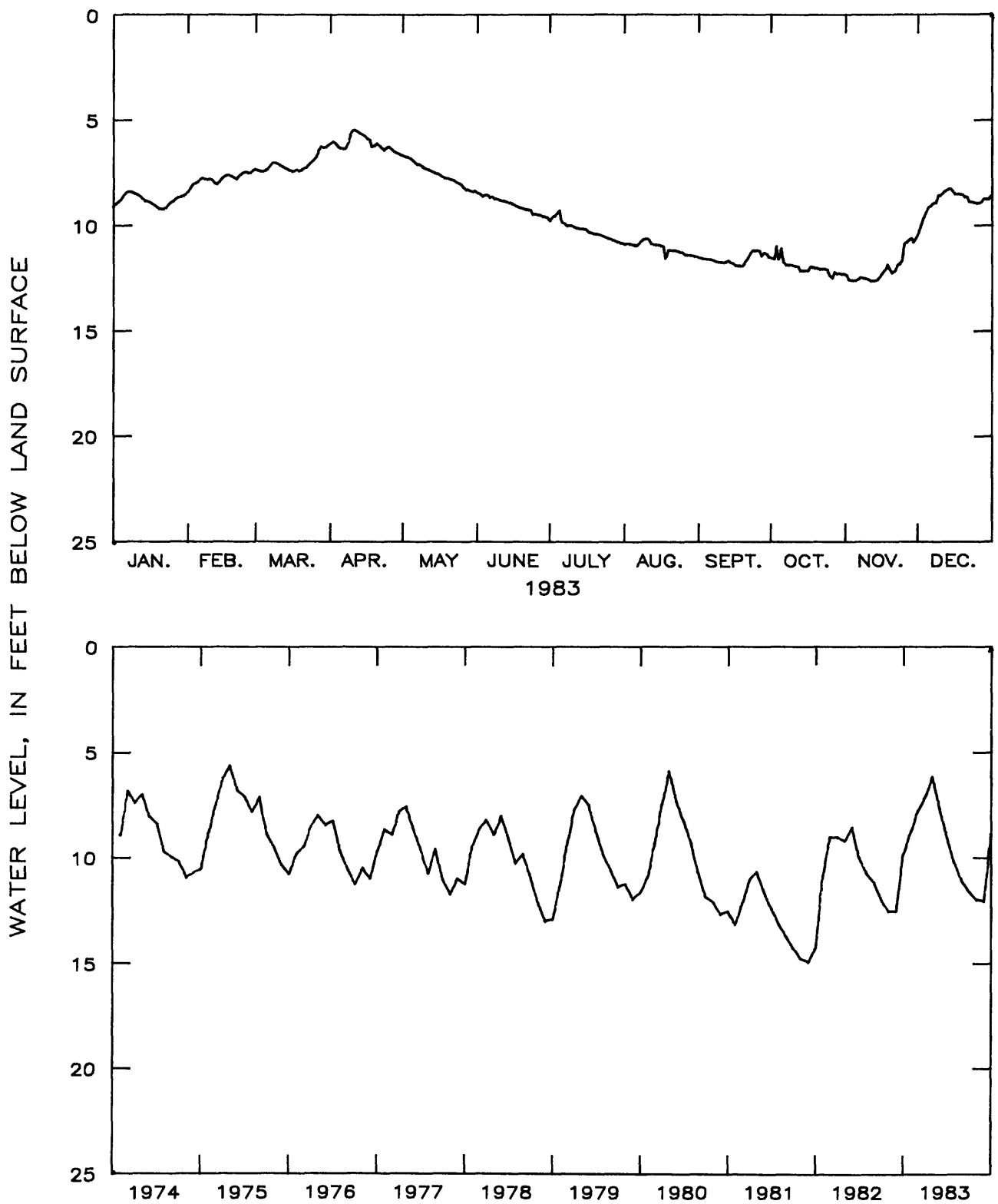


Figure 2.3-3.—Water level in observation well 12Z001,
Lamar County.

315950081161201 Local number, 35P094.

LOCATION.--Lat 31°59'50", long 81°16'12", Hydrologic Unit 03060204, Barbour Lathrop Plant Introduction Station, 10 miles south of Savannah, north of the intersection of U.S. Highway 17 and Argyle Rd.

Owner: University of Georgia, formerly U.S. Department of Agriculture.

AQUIFER.--Sands of Holocene and Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 30 in., depth 15 ft, cased to 15 ft, open end.

DATUM.--Altitude of land-surface datum is 18.67 ft.

Measuring point: Iron bracket on recorder shelter, 3.3 ft above land-surface datum.

REMARKS.--Responds quickly to precipitation. Water levels for periods of missing recorder record, February 7-21, February 25 to March 22, March 23-28, April 1-3, June 1-2, July 4-5, August 7-27, and September 30 to December 18, were estimated.

PERIOD OF RECORD.--August 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land-surface datum, Sept. 26, 1953; lowest, 12.28 ft below land-surface datum, November 30, 1972.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|------|------|------|------|-------|------|------|------|-------|-------|-------|
| 1 | 8.36 | 4.02 | 2.43 | 2.27 | 2.67 | 5.34 | 6.59 | 6.98 | 9.03 | 9.64 | 11.18 | 9.79 |
| 2 | 8.06 | 3.86 | 2.36 | 2.42 | 2.78 | 5.47 | 6.24 | 7.05 | 9.08 | 9.72 | 11.26 | 9.87 |
| 3 | 7.80 | 3.68 | 2.29 | 2.57 | 2.90 | 5.56 | 6.13 | 7.06 | 9.12 | 9.80 | 11.34 | 9.95 |
| 4 | 7.50 | 3.73 | 2.22 | 2.72 | 2.86 | 5.67 | 6.21 | 7.08 | 9.15 | 9.88 | 11.42 | 10.03 |
| 5 | 7.28 | 3.79 | 2.15 | 2.78 | 2.96 | 5.80 | 6.30 | 7.15 | 9.19 | 9.82 | 11.46 | 10.05 |
| 6 | 7.12 | 3.80 | 2.17 | 2.86 | 3.10 | 5.91 | 6.38 | 7.24 | 9.61 | 9.90 | 11.51 | 10.02 |
| 7 | 7.05 | 3.79 | 2.07 | 2.92 | 3.21 | 6.00 | 6.53 | 7.33 | 9.33 | 9.98 | 11.59 | 9.96 |
| 8 | 7.02 | 3.74 | 2.03 | 2.96 | 3.31 | 6.08 | 6.67 | 7.41 | 8.26 | 10.06 | 11.55 | 9.90 |
| 9 | 6.80 | 3.68 | 1.99 | 2.26 | 3.41 | 6.17 | 6.81 | 7.50 | 8.30 | 10.14 | 11.39 | 9.98 |
| 10 | 6.30 | 3.62 | 1.95 | 1.86 | 3.50 | 6.27 | 6.94 | 7.59 | 8.35 | 10.22 | 11.09 | 10.06 |
| 11 | 5.82 | 3.56 | 1.93 | 2.10 | 3.59 | 6.36 | 7.14 | 7.68 | 8.41 | 10.30 | 10.93 | 10.14 |
| 12 | 5.62 | 3.51 | 1.91 | 2.35 | 3.69 | 6.45 | 7.32 | 7.76 | 8.48 | 10.37 | 10.77 | 10.09 |
| 13 | 5.56 | 3.45 | 1.89 | 2.53 | 3.78 | 6.56 | 7.46 | 7.85 | 8.54 | 10.35 | 10.73 | 10.04 |
| 14 | 5.54 | 3.39 | 1.87 | 2.66 | 3.87 | 6.67 | 7.60 | 7.94 | 8.62 | 10.22 | 10.69 | 9.99 |
| 15 | 5.55 | 3.33 | 1.85 | 2.28 | 3.96 | 6.78 | 7.71 | 8.02 | 8.69 | 10.30 | 10.65 | 9.93 |
| 16 | 5.62 | 3.27 | 1.87 | 2.02 | 4.05 | 6.92 | 7.81 | 8.11 | 8.77 | 10.38 | 10.51 | 9.78 |
| 17 | 5.68 | 3.21 | 1.89 | 2.32 | 4.15 | 7.05 | 7.91 | 8.20 | 8.85 | 10.46 | 10.37 | 9.76 |
| 18 | 5.79 | 3.15 | 1.91 | 2.48 | 4.24 | 7.17 | 8.01 | 8.28 | 8.92 | 10.54 | 10.45 | 9.74 |
| 19 | 5.87 | 3.10 | 1.93 | 2.58 | 4.30 | 7.30 | 8.12 | 8.37 | 9.00 | 10.62 | 10.53 | 9.61 |
| 20 | 5.88 | 3.04 | 1.95 | 2.73 | 4.30 | 7.42 | 8.23 | 8.46 | 9.08 | 10.70 | 10.61 | 9.26 |
| 21 | 5.56 | 2.98 | 1.98 | 2.86 | 4.35 | 7.51 | 8.32 | 8.55 | 9.15 | 10.78 | 10.57 | 8.90 |
| 22 | 4.85 | 2.92 | 2.00 | 2.95 | 4.41 | 7.51 | 8.40 | 8.63 | 9.20 | 10.86 | 10.53 | 8.62 |
| 23 | 4.60 | 2.74 | 2.04 | 1.75 | 4.50 | 7.49 | 8.18 | 8.72 | 9.24 | 10.82 | 10.49 | 8.40 |
| 24 | 4.47 | 2.75 | 2.07 | .74 | 4.59 | 7.51 | 8.06 | 8.81 | 9.29 | 10.78 | 10.45 | 8.27 |
| 25 | 4.45 | 2.71 | 2.11 | 1.28 | 4.67 | 7.58 | 8.08 | 8.90 | 9.34 | 10.74 | 10.30 | 8.20 |
| 26 | 4.47 | 2.64 | 2.15 | 1.69 | 4.76 | 7.66 | 7.34 | 8.98 | 9.38 | 10.70 | 10.07 | 7.76 |
| 27 | 4.46 | 2.57 | 2.18 | 2.00 | 4.85 | 7.76 | 6.99 | 9.07 | 9.41 | 10.78 | 10.04 | 7.14 |
| 28 | 4.35 | 2.50 | 2.22 | 2.22 | 4.94 | 7.80 | 6.91 | 9.07 | 9.44 | 10.86 | 10.08 | 7.00 |
| 29 | 4.24 | --- | 2.26 | 2.40 | 5.02 | 7.84 | 6.91 | 8.89 | 9.48 | 10.94 | 9.85 | 6.60 |
| 30 | 4.14 | --- | 2.35 | 2.54 | 5.12 | 7.36 | 6.93 | 8.90 | 9.56 | 11.02 | 9.82 | 5.95 |
| 31 | 4.04 | --- | 2.12 | --- | 5.22 | --- | 6.94 | 8.96 | --- | 11.10 | --- | 5.74 |
| MEAN | 5.80 | 3.30 | 2.07 | 2.34 | 3.97 | 6.77 | 7.26 | 8.08 | 8.98 | 10.41 | 10.74 | 9.05 |
| CAL YR 1983 | MEAN | 6.58 | HIGH | .74 | LOW | 11.59 | | | | | | |

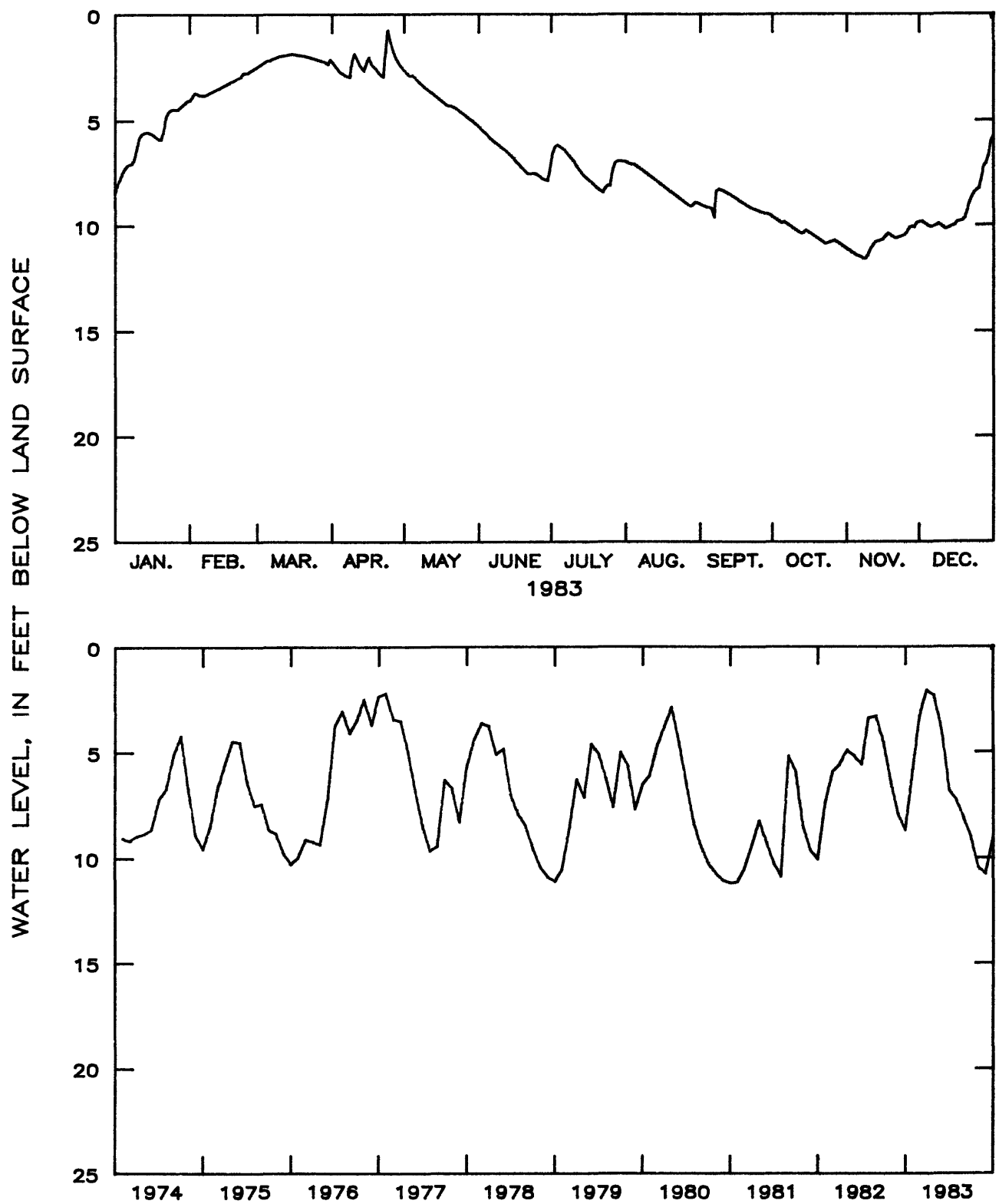


Figure 2.3-4.--Water level in observation well 35P094, Chatham County.

2.4 Cretaceous Aquifer System

The Cretaceous aquifer system in the Georgia Coastal Plain supplies more than 128 Mgal/d primarily for municipal and industrial use. The major source of recharge to the aquifer system is rainfall in areas where the individual aquifers intersect the land surface or underlie permeable surface material. Rainfall infiltrates the surface material and moves downgradient toward the southeast through the aquifer system. Most of the natural discharge from the aquifer system is into streams and rivers that cross the outcrop area. In general, water levels in the Cretaceous aquifer system declined during the period 1974-83. In east-central Georgia, the declines were greatest in Twiggs County, northwest Wilkinson County, and central Washington County, which are areas of heavy pumping associated with kaolin mining and processing. The long-term water-level declines in these areas during the period 1946-80 varied from 10 to 50 feet. The water level at well 28X001 in Burke County reached a new record low in November 1983.

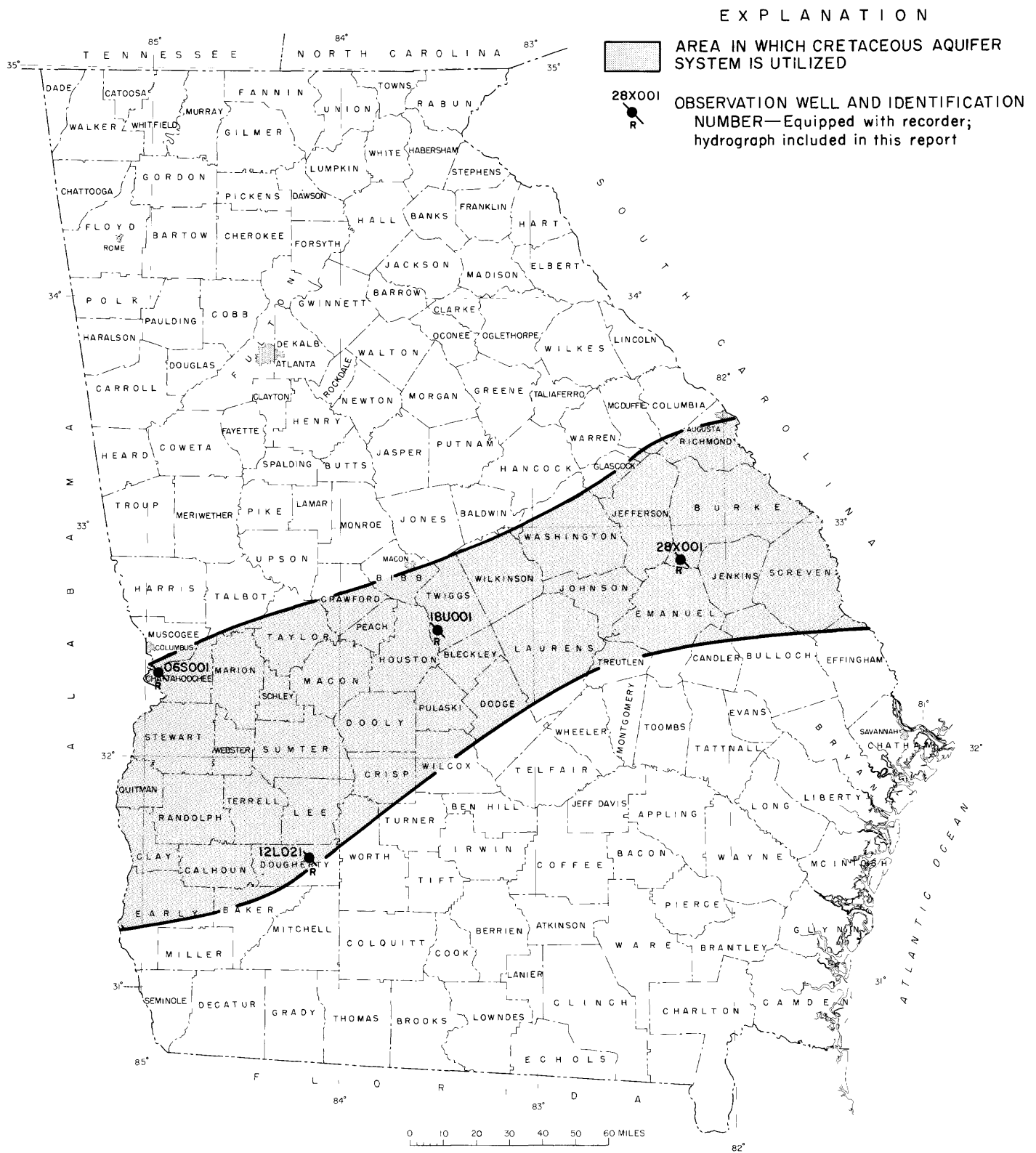


Figure 2.4-1.—Locations of observation wells in the Cretaceous aquifer system.

28X001 MIDVILLE EXPERIMENT STATION BURKE COUNTY

325232082131501 Local number, 28X001.

LOCATION.--Lat 32°52'32", long 82°13'15", Hydrologic Unit 03060201, 4.2 mi north of Midville off of State Highway 56 at South-eastern Experiment Station.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Cretaceous.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 15 in., depth 1,045 ft, cased to 1,025 ft, screened.

DATUM.--Altitude of land-surface datum is 269 ft.

Measuring point: Floor of recorder platform, 3.04 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, January 4 and March 7, 30, and 31, were estimated.

PERIOD OF RECORD.--June 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.07 ft below land-surface datum, June 4, 1980; lowest, 54.06 ft below land-surface datum, November 18, 1983.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 53.04 | 52.67 | 52.43 | 52.40 | 52.47 | 52.48 | 52.44 | 52.86 | 53.20 | 53.62 | 54.04 | 53.92 |
| 2 | 52.93 | 52.53 | 52.53 | 52.31 | 52.44 | 52.56 | 52.43 | 52.86 | 53.17 | 53.64 | 54.02 | 53.89 |
| 3 | 52.88 | 52.60 | 52.57 | 52.34 | 52.38 | 52.56 | 52.46 | 52.87 | 53.21 | 53.64 | 53.97 | 53.82 |
| 4 | 52.92 | 52.73 | 52.60 | 52.44 | 52.36 | 52.52 | 52.49 | 52.89 | 53.26 | 53.63 | 53.89 | 53.79 |
| 5 | 52.96 | 52.77 | 52.57 | 52.46 | 52.40 | 52.50 | 52.45 | 52.87 | 53.27 | 53.60 | 53.91 | 53.82 |
| 6 | 52.92 | 52.67 | 52.44 | 52.46 | 52.46 | 52.44 | 52.47 | 52.87 | 53.30 | 53.63 | 53.94 | 53.73 |
| 7 | 52.88 | 52.65 | 52.40 | 52.39 | 52.49 | 52.40 | 52.52 | 52.85 | 53.32 | 53.69 | 53.95 | 53.82 |
| 8 | 52.87 | 52.73 | 52.37 | 52.39 | 52.44 | 52.41 | 52.59 | 52.85 | 53.33 | 53.72 | 53.94 | 53.35 |
| 9 | 52.87 | 52.70 | 52.36 | 52.33 | 52.47 | 52.46 | 52.55 | 52.87 | 53.36 | 53.72 | 53.91 | 53.87 |
| 10 | 52.84 | 52.60 | 52.40 | 52.36 | 52.54 | 52.53 | 52.53 | 52.90 | 53.38 | 53.75 | 53.85 | 53.88 |
| 11 | 52.81 | 52.65 | 52.41 | 52.37 | 52.54 | 52.56 | 52.57 | 52.91 | 53.37 | 53.74 | 53.87 | 53.77 |
| 12 | 52.88 | 52.77 | 52.44 | 52.41 | 52.49 | 52.55 | 52.59 | 52.91 | 53.37 | 53.72 | 53.91 | 53.66 |
| 13 | 52.95 | 52.64 | 52.44 | 52.42 | 52.50 | 52.54 | 52.62 | 52.95 | 53.34 | 53.73 | 53.94 | 53.64 |
| 14 | 52.93 | 52.47 | 52.43 | 52.38 | 52.52 | 52.53 | 52.62 | 53.00 | 53.30 | 53.78 | 53.97 | 53.61 |
| 15 | 52.85 | 52.57 | 52.43 | 52.32 | 52.46 | 52.50 | 52.61 | 53.05 | 53.35 | 53.84 | 53.92 | 53.70 |
| 16 | 52.87 | 52.50 | 52.37 | 52.32 | 52.42 | 52.52 | 52.62 | 53.06 | 53.40 | 53.86 | 53.94 | 53.80 |
| 17 | 52.86 | 52.56 | 52.24 | 52.34 | 52.50 | 52.55 | 52.63 | 53.07 | 53.41 | 53.86 | 54.01 | 53.86 |
| 18 | 52.93 | 52.56 | 52.25 | 52.28 | 52.58 | 52.56 | 52.66 | 53.08 | 53.44 | 53.86 | 54.06 | 53.84 |
| 19 | 53.00 | 52.56 | 52.35 | 52.29 | 52.59 | 52.56 | 52.68 | 53.08 | 53.48 | 53.86 | 54.04 | 53.80 |
| 20 | 52.95 | 52.65 | 52.35 | 52.34 | 52.56 | 52.56 | 52.70 | 53.08 | 53.46 | 53.88 | 53.91 | 53.86 |
| 21 | 52.85 | 52.66 | 52.30 | 52.40 | 52.54 | 52.58 | 52.74 | 53.09 | 53.40 | 53.92 | 53.96 | 53.84 |
| 22 | 52.77 | 52.56 | 52.47 | 52.41 | 52.49 | 52.54 | 52.70 | 53.12 | 53.48 | 53.90 | 54.00 | 53.76 |
| 23 | 52.77 | 52.41 | 52.52 | 52.26 | 52.47 | 52.52 | 52.70 | 53.16 | 53.54 | 53.81 | 53.96 | 53.74 |
| 24 | 52.80 | 52.45 | 52.42 | 52.20 | 52.48 | 52.50 | 52.71 | 53.20 | 53.60 | 53.77 | 53.84 | 53.78 |
| 25 | 52.83 | 52.52 | 52.47 | 52.30 | 52.48 | 52.49 | 52.72 | 53.24 | 53.60 | 53.81 | 53.84 | 53.84 |
| 26 | 52.83 | 52.63 | 52.57 | 52.39 | 52.40 | 52.53 | 52.70 | 53.24 | 53.58 | 53.84 | 53.93 | 53.86 |
| 27 | 52.76 | 52.67 | 52.40 | 52.42 | 52.50 | 52.56 | 52.75 | 53.21 | 53.57 | 53.84 | 53.89 | 53.82 |
| 28 | 52.75 | 52.54 | 52.40 | 52.44 | 52.52 | 52.48 | 52.82 | 53.18 | 53.57 | 53.97 | 53.80 | 53.70 |
| 29 | 52.77 | --- | 52.48 | 52.46 | 52.47 | 52.46 | 52.85 | 53.17 | 53.58 | 53.97 | 53.83 | 53.70 |
| 30 | 52.70 | --- | 52.46 | 52.47 | 52.44 | 52.45 | 52.85 | 53.19 | 53.60 | 54.00 | 53.90 | 53.84 |
| 31 | 52.74 | --- | 52.43 | --- | 52.43 | --- | 52.86 | 53.22 | --- | 54.02 | --- | 53.90 |
| MEAN | 52.86 | 52.61 | 52.43 | 52.37 | 52.48 | 52.51 | 52.63 | 53.03 | 53.41 | 53.79 | 53.93 | 53.80 |
| CAL YR 1983 | MEAN | 52.99 | | HIGH | 52.20 | | LOW | 54.06 | | | | |

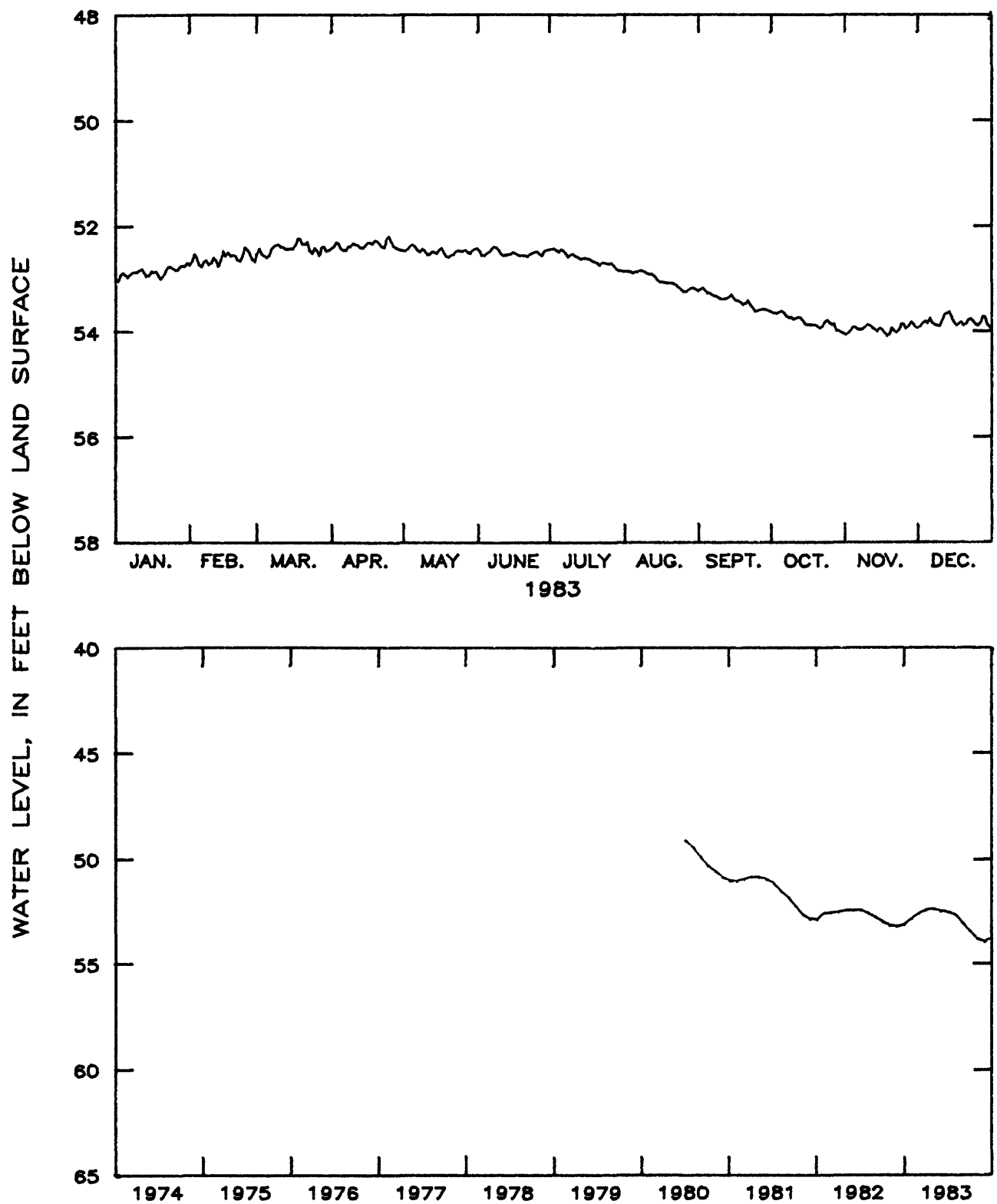


Figure 2.4-2.--Water level in observation well 28X001, Burke County.

18U001 TEST WELL 3 TWIGGS COUNTY

323302083263401 Local number, 18U001.

LOCATION.--Lat 32°33'02", long 83°26'34", Hydrologic Unit 03070104, 0.6 miles north of intersection of U.S. Highways 23 and 129 and Georgia Highway 96, turn left at Woods Road West. Well is 100 ft west of highway.

Owner: Georgia Kraft, USGS TW 3.

AQUIFER.--Upper Cretaceous.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 590 ft, 3 in.; depth 586-616 ft, cased to 616 ft.

DATUM.--Altitude of land-surface datum is 420 ft.

Measuring point: Top of recorder shelter, 2.6 ft above land-surface datum.

REMARKS.--Borehole geophysical survey conducted.

PERIOD OF RECORD.--July 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 162.00 ft below land-surface datum, April 4, 1977; lowest, 165.64 ft below land-surface datum, October 5, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 163.51 | 163.28 | 162.93 | 162.73 | 162.86 | 163.18 | 163.71 | 164.29 | 164.38 | 164.19 | 164.30 | 163.58 |
| 2 | 163.38 | 163.19 | 163.00 | 162.67 | 162.83 | 163.26 | 163.70 | 164.27 | 164.35 | 164.18 | 164.27 | 163.54 |
| 3 | 163.37 | 163.27 | 163.05 | 162.72 | 162.78 | 163.28 | 163.71 | 164.27 | 164.38 | 164.18 | 164.22 | 163.44 |
| 4 | 163.43 | 163.37 | 163.08 | 162.81 | 162.77 | 163.27 | 163.72 | 164.24 | 164.41 | 164.16 | 164.14 | 163.39 |
| 5 | 163.42 | 163.40 | 163.02 | 162.88 | 162.82 | 163.28 | 163.69 | 164.23 | 164.38 | 164.13 | 164.13 | 163.42 |
| 6 | 163.37 | 163.28 | 162.97 | 162.91 | 162.88 | 163.28 | 163.68 | 164.20 | 164.39 | 164.18 | 164.15 | 163.33 |
| 7 | 163.31 | 163.22 | 162.92 | 162.88 | 162.93 | 163.52 | 163.72 | 164.14 | 164.38 | 164.23 | 164.15 | 163.41 |
| 8 | 163.26 | 163.24 | 162.92 | 162.84 | 162.88 | 163.51 | 163.80 | 164.13 | 164.37 | 164.25 | 164.15 | 163.37 |
| 9 | 163.25 | 163.23 | 162.89 | 162.77 | 162.92 | 163.55 | 163.82 | 164.12 | 164.37 | 164.26 | 164.11 | 163.34 |
| 10 | 163.22 | 163.13 | 162.88 | 162.82 | 162.97 | 163.60 | 163.81 | 164.14 | 164.36 | 164.26 | 164.04 | 163.31 |
| 11 | 163.22 | 163.20 | 162.92 | 162.77 | 163.00 | 163.62 | 163.82 | 164.13 | 164.32 | 164.23 | 164.04 | 163.17 |
| 12 | 163.28 | 163.29 | 162.95 | 162.67 | 162.98 | 163.59 | 163.84 | 164.10 | 164.29 | 164.19 | 164.09 | 163.05 |
| 13 | 163.36 | 163.20 | 162.96 | 162.60 | 162.99 | 163.58 | 163.88 | 164.10 | 164.24 | 164.20 | 164.10 | 163.07 |
| 14 | 163.35 | 163.04 | 162.98 | 162.58 | 162.99 | 163.57 | 163.90 | 164.14 | 164.21 | 164.25 | 164.09 | 163.04 |
| 15 | 163.32 | 163.11 | 162.97 | 162.57 | 162.99 | 163.56 | 163.90 | 164.18 | 164.25 | 164.28 | 164.03 | 163.15 |
| 16 | 163.33 | 163.08 | 162.93 | 162.61 | 162.96 | 163.58 | 163.91 | 164.19 | 164.25 | 164.28 | 164.06 | 163.23 |
| 17 | 163.33 | 163.03 | 162.83 | 162.65 | 163.03 | 163.61 | 163.92 | 164.19 | 164.25 | 164.26 | 164.12 | 163.25 |
| 18 | 163.48 | 163.03 | 162.90 | 162.62 | 163.10 | 163.64 | 163.96 | 164.21 | 164.26 | 164.23 | 164.13 | 163.24 |
| 19 | 163.55 | 163.05 | 162.94 | 162.65 | 163.10 | 163.68 | 163.97 | 164.23 | 164.28 | 164.21 | 164.09 | 163.22 |
| 20 | 163.52 | 163.12 | 162.92 | 162.72 | 163.08 | 163.72 | 164.00 | 164.23 | 164.24 | --- | 163.94 | 163.28 |
| 21 | 163.42 | 163.16 | 162.94 | 162.78 | 163.07 | 163.74 | 164.03 | 164.25 | 164.19 | --- | 163.91 | 163.30 |
| 22 | 163.38 | 163.06 | 163.06 | 162.80 | 163.02 | 163.73 | 164.01 | 164.27 | 164.23 | --- | 163.95 | 163.25 |
| 23 | 163.39 | 162.99 | 163.07 | 162.66 | 163.01 | 163.74 | 164.01 | 164.30 | 164.27 | --- | 163.89 | 163.23 |
| 24 | 163.42 | 163.00 | 162.97 | 162.61 | 163.02 | 163.74 | 164.00 | 164.36 | 164.29 | --- | 163.76 | 163.28 |
| 25 | 163.44 | 163.08 | 163.03 | 162.71 | 163.04 | 163.72 | 164.01 | 164.41 | 164.28 | --- | 163.72 | 163.35 |
| 26 | 163.42 | 163.18 | 163.07 | 162.81 | 163.04 | 163.74 | 164.02 | 164.43 | 164.24 | --- | 163.76 | 163.35 |
| 27 | 163.37 | 163.15 | 162.92 | 162.85 | 163.08 | 163.74 | 164.09 | 164.44 | 164.20 | 164.21 | 163.70 | 163.31 |
| 28 | 163.40 | 163.07 | 162.94 | 162.84 | 163.13 | 163.73 | 164.17 | 164.44 | 164.19 | 164.27 | 163.57 | 163.18 |
| 29 | 163.40 | --- | 163.00 | 162.86 | 163.12 | 163.71 | 164.22 | 164.43 | 164.18 | 164.27 | 163.57 | 163.20 |
| 30 | 163.37 | --- | 162.92 | 162.86 | 163.10 | 163.71 | 164.26 | 164.44 | 164.18 | 164.28 | 163.59 | 163.33 |
| 31 | 163.37 | --- | 162.80 | --- | 163.12 | --- | 164.27 | 164.43 | --- | 164.31 | --- | 163.39 |
| MEAN | 163.38 | 163.16 | 162.96 | 162.74 | 162.99 | 163.57 | 163.92 | 164.26 | 164.29 | 164.23 | 163.99 | 163.29 |
| CAL YR 1983 | MEAN | 163.55 | | HIGH | 162.57 | | LDW | 164.44 | | | | |

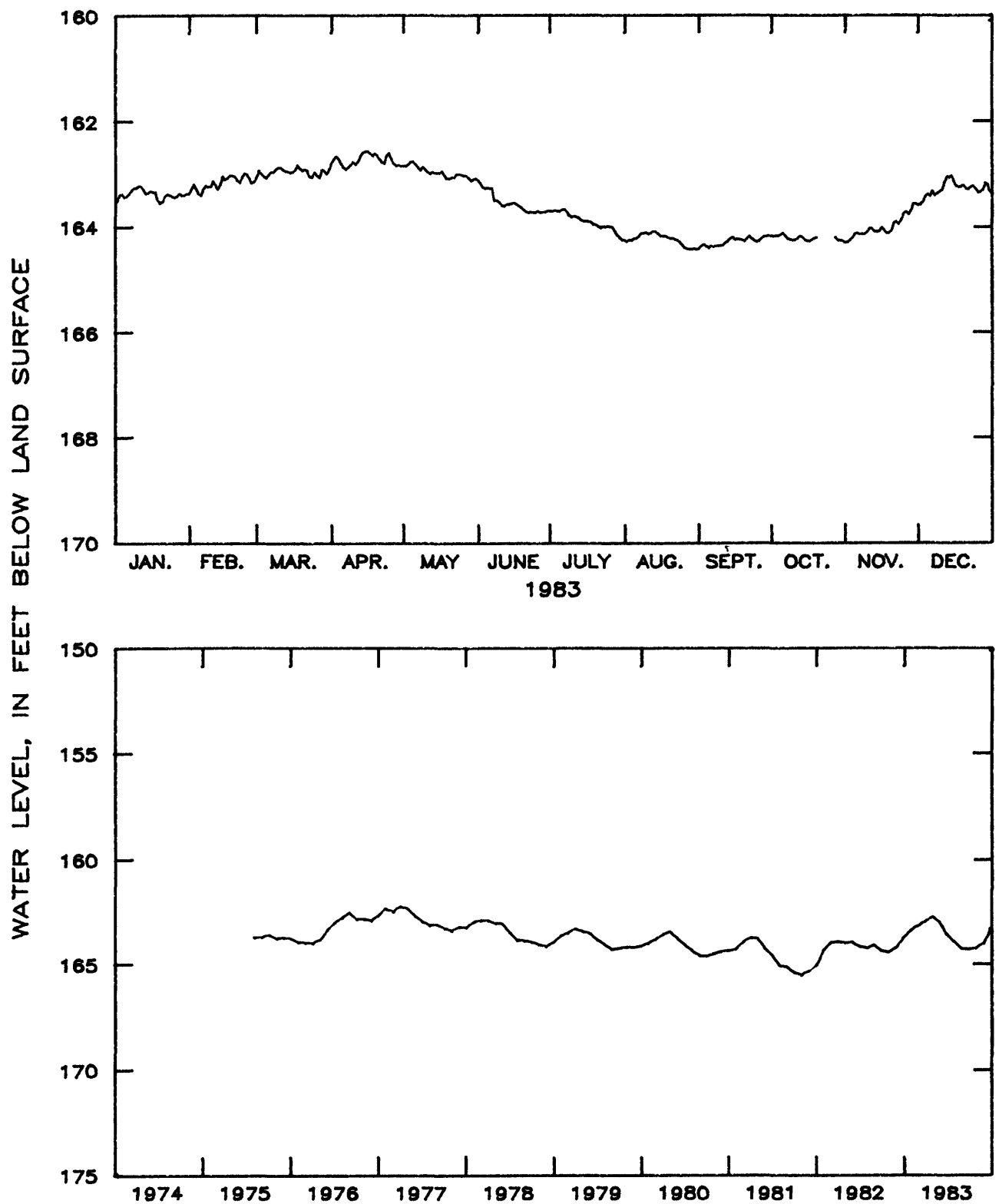


Figure 2.4-3.--Water level in observation well 18U001, Twiggs County.

322036084590301 Local number, 06S001

LOCATION.--Lat 32°20'31", long 84°59'11", Hydrologic Unit 03130003, in "Motor Pool" across road from Lawson Airfield main building.

Owner: U.S. Army.

AQUIFER.--Blufftown and Eutaw Formations, and Tuscaloosa Formation.

WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in., depth 568 ft, screened interval 215-220 ft, 230-235 ft, 280-290 ft, 540-550 ft.

DATUM.--Altitude of land-surface datum is 255 ft.

Measuring point: Floor of recorder shelter, 2.80 ft above land-surface datum.

REMARKS.--Well pumped June 1978; water-quality sample collected at conclusion of pumping. Water levels for periods of missing recorder record, April 29 to May 5 and June 21 to July 29, were estimated.

PERIOD OF RECORD.--May 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.37 ft below land-surface datum, April 10, 1964; lowest, 29.73 ft below land-surface datum, September 10, 1958.

Water level, in feet below land surface, monthly mean values through 1975 and 1983 - periodic measurements, 1975-79

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 15.68 | 15.68 | 15.64 | 15.57 | 15.82 | 16.10 | 16.40 | 16.74 | 16.92 | 17.00 | 17.38 | 17.31 |
| 2 | 15.64 | 15.60 | 15.70 | 15.54 | 15.32 | 16.13 | 16.40 | 16.68 | 16.83 | 17.01 | 17.40 | 17.31 |
| 3 | 15.60 | 15.62 | 15.73 | 15.56 | 15.82 | 16.15 | 16.43 | 16.65 | 16.86 | 17.02 | 17.40 | 17.26 |
| 4 | 15.60 | 15.66 | 15.74 | 15.62 | 15.84 | 16.15 | 16.45 | 16.65 | 16.87 | 17.03 | 17.37 | 17.20 |
| 5 | 15.60 | 15.67 | 15.71 | 15.65 | 15.87 | 16.16 | 16.45 | 16.65 | 16.87 | 17.02 | 17.35 | 17.16 |
| 6 | 15.60 | 15.64 | 15.66 | 15.66 | 15.89 | 16.18 | 16.43 | 16.65 | 16.88 | 17.03 | 17.36 | 17.12 |
| 7 | 15.60 | 15.63 | 15.53 | 15.67 | 15.89 | 16.18 | 16.44 | 16.65 | 16.88 | 17.06 | 17.37 | 17.11 |
| 8 | 15.60 | 15.66 | 15.51 | 15.66 | 15.89 | 16.19 | 16.46 | 16.64 | 16.88 | 17.07 | 17.37 | 17.12 |
| 9 | 15.60 | 15.66 | 15.52 | 15.60 | 15.91 | 16.20 | 16.49 | 16.65 | 16.88 | 17.10 | 17.38 | 17.13 |
| 10 | 15.61 | 15.63 | 15.56 | 15.52 | 15.94 | 16.22 | 16.49 | 16.65 | 16.90 | 17.11 | 17.37 | 17.13 |
| 11 | 15.61 | 15.64 | 15.60 | 15.49 | 15.99 | 16.26 | 16.49 | 16.60 | 16.91 | 17.11 | 17.36 | 17.09 |
| 12 | 15.66 | 15.70 | 15.62 | 15.50 | 16.01 | 16.28 | 16.51 | 16.67 | 16.91 | 17.11 | 17.39 | 17.08 |
| 13 | 15.70 | 15.72 | 15.64 | 15.52 | 16.01 | 16.28 | 16.54 | 16.68 | 16.89 | 17.10 | 17.40 | 17.05 |
| 14 | 15.70 | 15.66 | 15.64 | 15.54 | 16.02 | 16.29 | 16.55 | 16.71 | 16.86 | 17.12 | 17.40 | 17.01 |
| 15 | 15.70 | 15.64 | 15.65 | 15.54 | 16.04 | 16.30 | 16.56 | 16.75 | 16.88 | 17.14 | 17.38 | 17.04 |
| 16 | 15.70 | 15.63 | 15.63 | 15.57 | 16.00 | 16.30 | 16.56 | 16.77 | 16.91 | 17.15 | 17.39 | 17.12 |
| 17 | 15.70 | 15.62 | 15.58 | 15.59 | 15.98 | 16.32 | 16.57 | 16.79 | 16.93 | 17.17 | 17.41 | 17.17 |
| 18 | 15.72 | 15.64 | 15.54 | 15.60 | 16.02 | 16.34 | 16.59 | 16.80 | 16.95 | 17.17 | 17.43 | 17.18 |
| 19 | 15.76 | 15.66 | 15.60 | 15.60 | 16.04 | 16.36 | 16.60 | 16.82 | 16.96 | 17.17 | 17.44 | 17.18 |
| 20 | 15.74 | 15.70 | 15.61 | 15.64 | 16.02 | 16.36 | 16.61 | 16.84 | 16.94 | 17.18 | 17.39 | 17.20 |
| 21 | 15.68 | 15.74 | 15.63 | 15.68 | 16.02 | 16.38 | 16.64 | 16.85 | 16.89 | 17.18 | 17.37 | 17.22 |
| 22 | 15.67 | 15.70 | 15.67 | 15.69 | 16.02 | 16.40 | 16.65 | 16.86 | 16.88 | 17.19 | 17.39 | 17.22 |
| 23 | 15.68 | 15.65 | 15.68 | 15.66 | 16.02 | 16.42 | 16.65 | 16.88 | 16.91 | 17.18 | 17.38 | 17.20 |
| 24 | 15.70 | 15.64 | 15.66 | 15.62 | 16.03 | 16.44 | 16.65 | 16.91 | 16.94 | 17.18 | 17.35 | 17.23 |
| 25 | 15.72 | 15.67 | 15.67 | 15.64 | 16.05 | 16.44 | 16.67 | 16.94 | 16.95 | 17.19 | 17.35 | 17.26 |
| 26 | 15.73 | 15.72 | 15.69 | 15.68 | 16.06 | 16.44 | 16.67 | 16.95 | 16.95 | 17.20 | 17.35 | 17.27 |
| 27 | 15.72 | 15.74 | 15.63 | 15.72 | 16.08 | 16.43 | 16.70 | 16.96 | 16.96 | 17.24 | 17.34 | 17.25 |
| 28 | 15.72 | 15.68 | 15.60 | 15.76 | 16.10 | 16.42 | 16.72 | 16.96 | 16.96 | 17.31 | 17.31 | 17.19 |
| 29 | 15.74 | --- | 15.60 | 15.78 | 16.10 | 16.39 | 16.75 | 16.96 | 16.97 | 17.35 | 17.29 | 17.17 |
| 30 | 15.74 | --- | 15.60 | 15.81 | 16.09 | 16.39 | 16.76 | 16.96 | 16.98 | 17.35 | 17.30 | 17.22 |
| 31 | 15.74 | --- | 15.58 | --- | 16.09 | --- | 16.77 | 16.96 | --- | 17.36 | --- | 17.24 |
| MEAN | 15.68 | 15.66 | 15.63 | 15.62 | 15.98 | 16.30 | 16.57 | 16.78 | 16.91 | 17.15 | 17.37 | 17.18 |
| CAL YR 1983 | MEAN | 16.41 | | HIGH | 15.49 | | LOW | 17.44 | | | | |

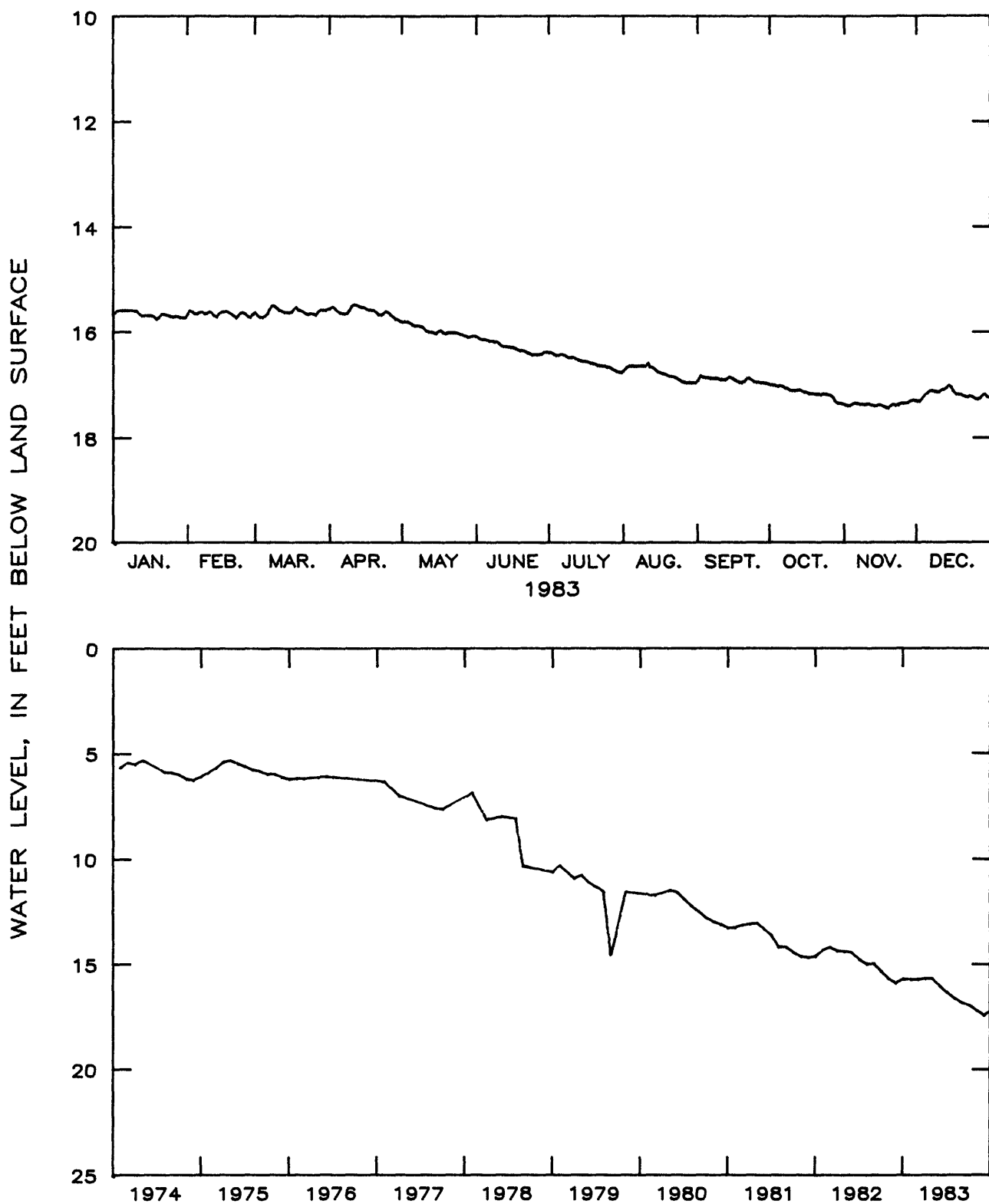


Figure 2.4-4.—Water level in observation well 06S001, Chattahoochee County.

2.4.1 Providence Aquifer

The Providence aquifer supplies about 9 Mgal/d for municipal, industrial, and agricultural users in southwest Georgia (Clarke and others, 1983). Water levels in the Providence aquifer are affected primarily by changes in local pumping. According to Clarke and others (1983), water levels in the aquifer near Albany declined more than 100 feet during the period 1950-80. From 1978-81, the mean annual water level at well 12L021 showed a downward trend and declined about 16 feet. The water level of the well recovered about 6 feet from 1981-83, reversing the downward trend.

12L021 TEST WELL 10 DOUGHERTY COUNTY

313534084103003 Local number, 12L021.

LOCATION.--Lat 31°35'34", long 84°10'30", Hydrologic Unit 03130008, located in part at intersection of Slappey Drive and Fifth Avenue.

Owner: U.S. Geological Survey, test well 10.

AQUIFER.--Providence (Upper Cretaceous).

WELL CHARACTERISTICS.--Drilled unused observation well, depth 1,346 ft, cased to 797 ft.

DATUM.--Altitude of land-surface datum is 198 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, January 1-2, February 2, 3, 14-28, and March 1 and 2, were estimated.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 103.62 ft below land-surface datum, March 19, 1979; lowest, 144.99 ft below land-surface datum, August 11, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 131.68 | 125.29 | 125.20 | 122.31 | 120.62 | 125.91 | 128.43 | 134.68 | 136.97 | 133.75 | 132.89 | 127.50 |
| 2 | 130.77 | 125.59 | 125.06 | 121.93 | 120.40 | 126.44 | 128.40 | 134.68 | 137.42 | 134.09 | 133.12 | 126.83 |
| 3 | 129.87 | 125.43 | 124.68 | 121.14 | 120.57 | 126.86 | 128.68 | 134.43 | 137.80 | 133.77 | 133.25 | 126.00 |
| 4 | 130.08 | 125.24 | 124.57 | 120.05 | 121.02 | 127.03 | 128.52 | 134.22 | 138.12 | 133.25 | 132.60 | 125.33 |
| 5 | 130.34 | 126.07 | 124.63 | 119.59 | 121.50 | 126.80 | 128.24 | 134.43 | 138.02 | 132.65 | 131.51 | 124.56 |
| 6 | 130.32 | 126.32 | 124.45 | 119.45 | 121.53 | 127.05 | 127.95 | 134.35 | 137.81 | 132.50 | 131.12 | 124.68 |
| 7 | 129.98 | 126.87 | 123.89 | 119.87 | 121.45 | 127.57 | 127.84 | 133.80 | 137.58 | 132.52 | 131.00 | 124.64 |
| 8 | 129.68 | 127.33 | 123.62 | 120.14 | 121.30 | 128.04 | 128.10 | 133.94 | 137.79 | 132.57 | 130.93 | 124.55 |
| 9 | 129.70 | 126.67 | 123.52 | 120.08 | 120.75 | 128.41 | 128.08 | 133.92 | 137.67 | 132.75 | 130.77 | 125.02 |
| 10 | 129.92 | 126.42 | 123.50 | 119.54 | 120.50 | 128.72 | 128.08 | 133.57 | 137.25 | 133.19 | 130.52 | 125.33 |
| 11 | 129.62 | 126.91 | 123.83 | 118.60 | 120.28 | 128.41 | 127.60 | 133.73 | 136.95 | 133.12 | 130.40 | 125.35 |
| 12 | 129.18 | 127.02 | 124.15 | 118.60 | 120.24 | 127.50 | 127.51 | 133.87 | 136.54 | 133.00 | 130.54 | 125.25 |
| 13 | 129.43 | 126.67 | 124.58 | 118.60 | 120.45 | 126.75 | 127.42 | 133.80 | 136.27 | 133.35 | 130.57 | 125.07 |
| 14 | 129.72 | 126.62 | 124.40 | 119.08 | 120.59 | 126.60 | 128.30 | 133.73 | 136.04 | 133.78 | 130.68 | 124.60 |
| 15 | 129.50 | 127.22 | 124.28 | 118.98 | 120.57 | 126.62 | 128.68 | 134.13 | 135.90 | 133.81 | 130.35 | 124.19 |
| 16 | 129.12 | 126.80 | 124.67 | 119.17 | 120.98 | 126.70 | 129.15 | 134.26 | 135.76 | 133.67 | 130.15 | 124.14 |
| 17 | 128.80 | 126.33 | 124.94 | 119.65 | 121.37 | 126.81 | 129.25 | 134.13 | 135.83 | 133.52 | 130.15 | 123.94 |
| 18 | 128.48 | 126.27 | 125.26 | 120.23 | 121.57 | 126.94 | 129.27 | 134.38 | 136.07 | 133.31 | 130.01 | 123.19 |
| 19 | 128.68 | 126.28 | 124.72 | 120.73 | 121.77 | 127.00 | 129.37 | 134.66 | 136.75 | 132.73 | 129.74 | 121.89 |
| 20 | 128.95 | 125.99 | 122.98 | 121.19 | 122.07 | 127.07 | 129.69 | 134.70 | 136.65 | 132.62 | 129.78 | 121.99 |
| 21 | 129.00 | 125.38 | 121.76 | 121.15 | 122.32 | 127.13 | 130.03 | 134.13 | 135.42 | 132.52 | 130.25 | 122.25 |
| 22 | 128.79 | 125.72 | 122.30 | 121.22 | 122.56 | 126.96 | 130.40 | 133.12 | 135.61 | 132.47 | 130.52 | 122.45 |
| 23 | 128.03 | 125.75 | 122.30 | 120.96 | 123.08 | 127.23 | 130.07 | 133.37 | 135.91 | 132.65 | 129.97 | 122.98 |
| 24 | 127.52 | 125.97 | 121.60 | 120.35 | 123.34 | 127.28 | 129.75 | 133.83 | 135.77 | 133.02 | 129.40 | 123.50 |
| 25 | 126.81 | 126.38 | 121.70 | 120.67 | 123.35 | 126.88 | 129.65 | 134.40 | 135.34 | 133.35 | 129.62 | 123.95 |
| 26 | 126.38 | 126.74 | 122.19 | 120.64 | 123.34 | 126.50 | 130.42 | 134.97 | 135.00 | 133.60 | 129.83 | 124.27 |
| 27 | 125.97 | 126.44 | 122.30 | 120.39 | 123.39 | 126.38 | 131.52 | 135.28 | 134.31 | 133.33 | 129.83 | 124.95 |
| 28 | 125.93 | 125.57 | 122.80 | 120.36 | 123.61 | 126.92 | 132.52 | 135.57 | 134.06 | 133.08 | 129.40 | 124.92 |
| 29 | 125.93 | --- | 123.29 | 120.65 | 124.07 | 127.61 | 133.35 | 135.98 | 134.27 | 133.22 | 128.92 | 125.42 |
| 30 | 125.87 | --- | 123.55 | 120.75 | 124.67 | 128.18 | 133.83 | 136.57 | 133.73 | 133.31 | 128.10 | 125.83 |
| 31 | 125.75 | --- | 122.63 | --- | 125.25 | --- | 134.25 | 136.73 | --- | 133.02 | --- | 126.13 |
| MEAN | 128.70 | 126.26 | 123.66 | 120.20 | 121.89 | 127.14 | 129.50 | 134.43 | 136.29 | 133.15 | 130.53 | 124.54 |
| CAL YR 1983 | MEAN | 128.03 | | HIGH | 118.60 | | LOW | 138.12 | | | | |

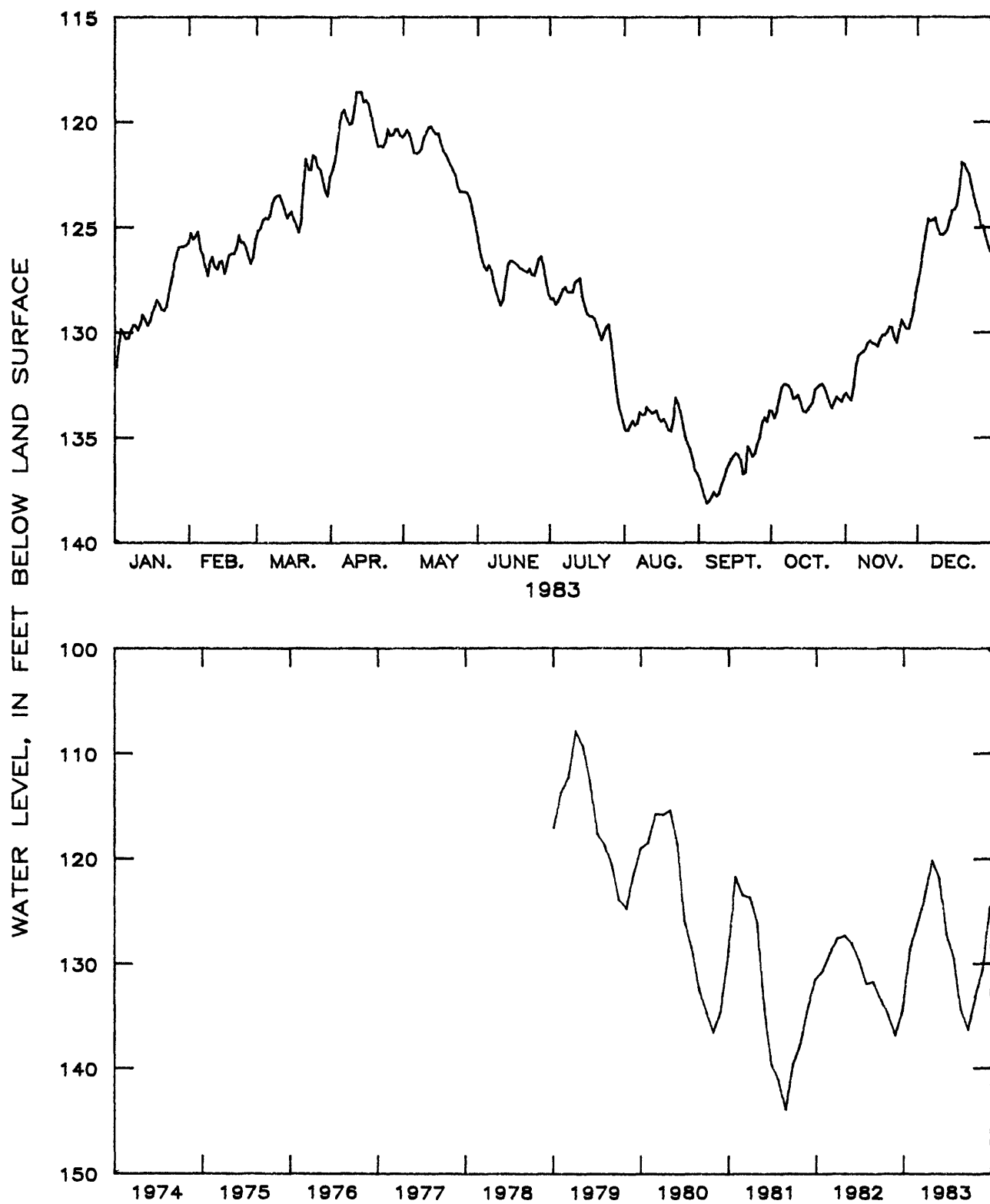


Figure 2.4.1-2--Water level in observation well 12L021, Dougherty County.

2.5 Clayton Aquifer

The Clayton aquifer supplies more than 20 Mgal/d for municipal and agricultural use in the area between the Chattahoochee and Flint Rivers in southwest Georgia (Clarke and others, 1984).

Water levels declined as much as 53 feet in some areas during the period 1976-81 because of increased irrigation pumping. Above-normal precipitation during 1982-83 resulted in reduced irrigation pumping and water levels began to recover. Mean annual water levels were as much as 8.9 feet higher in 1983 than in 1982.



Figure 2.5-1.—Observation well locations and the water level in the Clayton aquifer, October 1983.

05L001 W. F. GEORGE DAM CLAY COUNTY

313637085032601 Local number, 05L001.

LOCATION.--Lat 31°36'37", long 85°03'26", Hydrologic Unit 03130004, between Chattahoochee River and Fort Gaines waterplant.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Clayton.

WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 120 ft, cased to 44 ft, open hole.

DATUM.--Altitude of land-surface datum is 146.7 ft.

Measuring point: Top of floor of recorder shelter, 2.7 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, May 18 to October 5 and November 2-20, were estimated.

PERIOD OF RECORD.--May 23, 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.86 ft below land-surface datum, February 17, 1966; lowest, 35.95 ft below land-surface datum, February 14, 1961.

Water level, in feet below land surface, calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 29.35 | 29.63 | 28.03 | 26.07 | 28.28 | 29.83 | 27.91 | 30.67 | 30.56 | 30.55 | 30.29 | 29.52 |
| 2 | 30.13 | 28.50 | 28.95 | 26.00 | 28.09 | 28.71 | 27.81 | 30.65 | 30.74 | 30.25 | 30.16 | 29.44 |
| 3 | 29.70 | 28.89 | 28.97 | 26.07 | 27.30 | 29.83 | 28.68 | 30.66 | 30.79 | 29.95 | 30.13 | 29.53 |
| 4 | 28.48 | 28.93 | 28.70 | 26.13 | 27.68 | 29.64 | 29.55 | 30.66 | 30.83 | 29.65 | 30.08 | 29.62 |
| 5 | 28.71 | 29.04 | 28.43 | 26.12 | 27.72 | 29.44 | 29.54 | 30.54 | 30.88 | 30.22 | 30.02 | 28.66 |
| 6 | 28.67 | 29.82 | 27.97 | 26.81 | 27.73 | 29.25 | 29.51 | 30.42 | 30.89 | 29.63 | 29.97 | 28.13 |
| 7 | 28.61 | 29.23 | 28.07 | 26.82 | 28.49 | 29.05 | 29.46 | 30.30 | 30.91 | 30.07 | 29.44 | 27.71 |
| 8 | 29.13 | 29.18 | 28.33 | 26.13 | 28.65 | 28.86 | 29.45 | 30.18 | 29.82 | 30.37 | 29.48 | 27.68 |
| 9 | 29.91 | 29.11 | 26.80 | 24.71 | 28.48 | 28.87 | 29.45 | 30.06 | 29.72 | 30.51 | 29.40 | 27.73 |
| 10 | 29.51 | 28.97 | 26.87 | 23.41 | 28.36 | 28.82 | 29.44 | 30.04 | 29.86 | 30.10 | 29.39 | 27.99 |
| 11 | 29.45 | 28.65 | 26.85 | 23.45 | 28.33 | 28.94 | 29.44 | 28.61 | 29.99 | 29.94 | 29.47 | 27.85 |
| 12 | 29.52 | 28.83 | 27.47 | 24.86 | 28.34 | 29.05 | 29.43 | 28.60 | 30.13 | 29.72 | 29.55 | 26.70 |
| 13 | 29.51 | 29.07 | 27.67 | 25.46 | 28.38 | 29.17 | 29.43 | 28.60 | 30.10 | 29.80 | 29.63 | 26.49 |
| 14 | 29.45 | 29.35 | 27.53 | 25.55 | 28.85 | 29.16 | 29.40 | 28.59 | 30.09 | 29.87 | 29.62 | 26.97 |
| 15 | 30.02 | 29.30 | 27.36 | 25.58 | 29.01 | 29.15 | 29.37 | 28.58 | 30.05 | 30.30 | 29.94 | 28.05 |
| 16 | 30.30 | 28.88 | 27.38 | 25.67 | 28.46 | 29.25 | 29.79 | 29.36 | 30.04 | 30.46 | 29.87 | 27.57 |
| 17 | 29.83 | 28.87 | 27.31 | 25.67 | 28.89 | 29.06 | 30.21 | 30.15 | 30.04 | 30.10 | 29.81 | 28.31 |
| 18 | 29.80 | 29.10 | 27.38 | 25.62 | 28.66 | 29.62 | 30.63 | 30.13 | 29.93 | 29.99 | 30.08 | 28.34 |
| 19 | 29.81 | 29.26 | 27.63 | 26.19 | 28.67 | 30.18 | 30.63 | 30.11 | 29.83 | 29.97 | 30.34 | 28.26 |
| 20 | 29.75 | 29.44 | 27.85 | 26.50 | 28.64 | 30.74 | 30.62 | 29.80 | 29.72 | 29.93 | 29.62 | 28.27 |
| 21 | 29.67 | 29.60 | 26.94 | 26.59 | 28.58 | 30.74 | 30.59 | 29.50 | 30.03 | 29.93 | 30.61 | 28.29 |
| 22 | 29.80 | 29.66 | 27.53 | 26.61 | 28.49 | 30.73 | 30.53 | 29.19 | 30.00 | 30.35 | 30.65 | 28.23 |
| 23 | 29.85 | 29.72 | 27.32 | 25.73 | 28.40 | 30.64 | 30.48 | 28.87 | 29.98 | 30.47 | 30.61 | 28.23 |
| 24 | 29.62 | 28.56 | 27.23 | 26.45 | 28.42 | 30.72 | 30.42 | 28.58 | 29.96 | 30.14 | 30.58 | 28.71 |
| 25 | 29.53 | 28.06 | 27.30 | 26.55 | 28.41 | 30.44 | 30.36 | 28.78 | 29.96 | 30.02 | 30.58 | 28.64 |
| 26 | 30.18 | 28.04 | 27.51 | 26.48 | 28.37 | 30.16 | 30.36 | 28.78 | 29.95 | 30.03 | 30.85 | 28.62 |
| 27 | 29.65 | 28.03 | 25.67 | 27.06 | 28.33 | 29.86 | 30.38 | 29.54 | 29.95 | 30.03 | 30.83 | 28.55 |
| 28 | 29.54 | 28.02 | 24.25 | 27.47 | 28.83 | 29.61 | 30.36 | 30.12 | 29.92 | 30.08 | 30.32 | 28.15 |
| 29 | 30.38 | --- | 24.55 | 27.63 | 29.34 | 27.60 | 30.29 | 30.79 | 29.93 | 30.32 | 30.03 | 27.42 |
| 30 | 30.58 | --- | 25.96 | 28.08 | 29.85 | 27.93 | 30.42 | 30.58 | 30.63 | 30.57 | 29.61 | 27.47 |
| 31 | 30.01 | --- | 26.06 | --- | 29.85 | --- | 30.54 | 30.57 | --- | 30.38 | --- | 27.42 |
| MEAN | 29.63 | 28.99 | 27.29 | 26.05 | 28.53 | 29.50 | 29.82 | 29.74 | 30.17 | 30.12 | 30.03 | 28.15 |
| CAL YR 1983 | MEAN | 29.00 | | HIGH | 23.41 | | LOW | 30.91 | | | | |

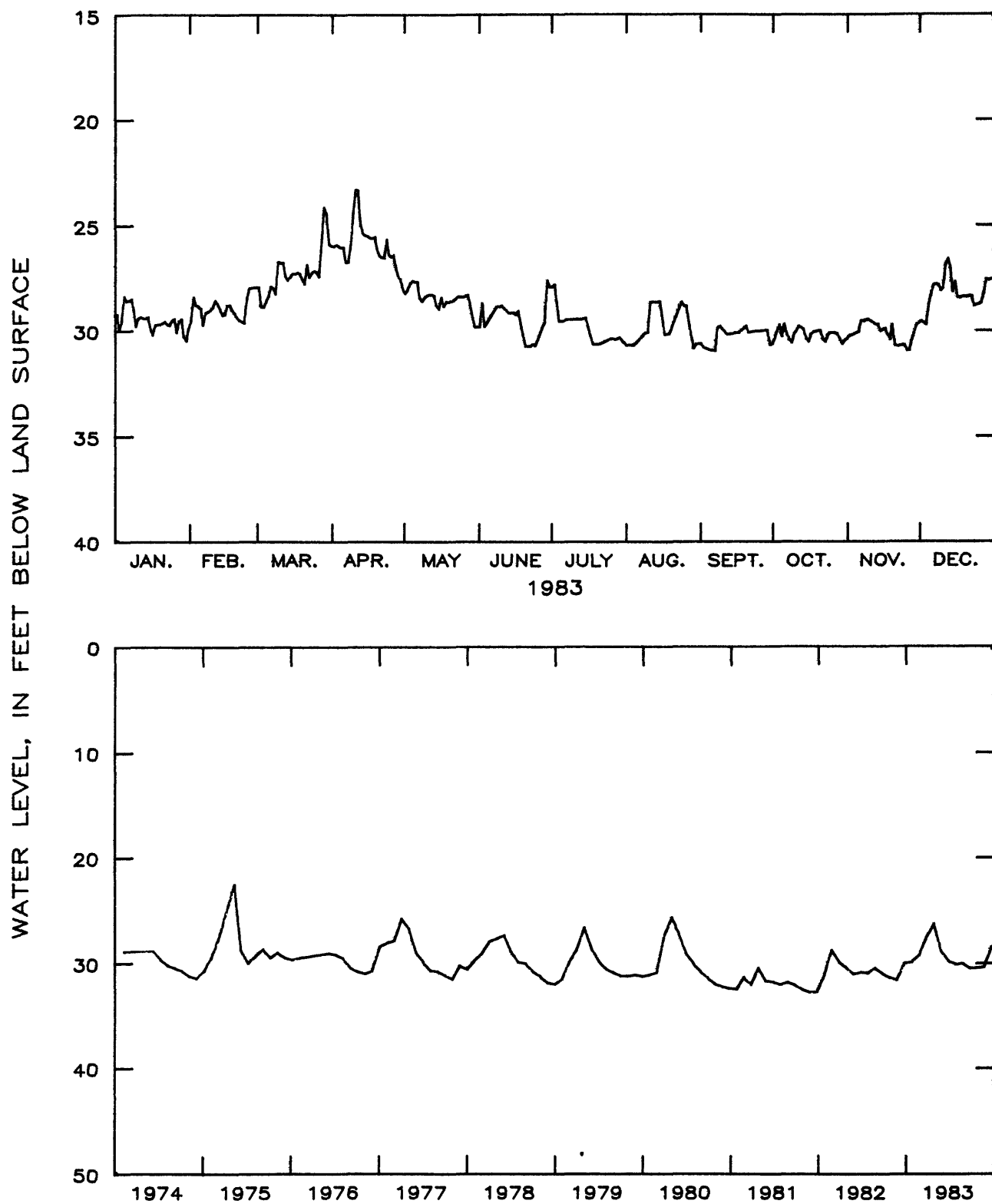


Figure 2.5-2.—Water level in observation well 05L001, Clay County.

314602084473701 Local number, 07N001.

LOCATION.--Lat 31°46'09", long 84°47'43", Hydrologic Unit 03110204, south of intersection of College and Andrew Streets, near electric substation.

Owner: City of Cuthbert.

AQUIFER.--Clayton.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 8 in., depth 372 ft, casing depth unknown.

DATUM.--Altitude of land-surface datum is 460 ft.

Measuring point: Floor of recorder shelter, 3.30 ft above land-surface datum.

REMARKS.--Well pumped and sounded June 22, 1978, to a depth of 372 ft; water-quality sample collected at conclusion of pumping.

Well near city wells. Water levels for periods of missing recorder record, January 7 to March 7, were estimated.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.0 ft below land-surface datum, December 10, 1967; lowest, 156.26 ft below land-surface datum, September 5, 1983.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 147.03 | 147.17 | 144.39 | 145.27 | 145.49 | 149.47 | 148.84 | 151.11 | 155.47 | 151.67 | 150.93 | 148.06 |
| 2 | 146.70 | 147.64 | 144.17 | 145.13 | 145.80 | 149.89 | 150.03 | 151.60 | 155.00 | 151.16 | 151.28 | 147.86 |
| 3 | 147.28 | 147.63 | 143.79 | 145.00 | 145.46 | 150.24 | 149.16 | 152.34 | 153.79 | 151.97 | 149.99 | 147.39 |
| 4 | 147.73 | 147.60 | 143.86 | 145.61 | 145.58 | 150.07 | 149.15 | 152.42 | 155.36 | 151.97 | 149.52 | 148.11 |
| 5 | 147.85 | 147.46 | 143.97 | 145.49 | 145.91 | 149.22 | 151.79 | 152.19 | 156.26 | 151.93 | 149.31 | 147.73 |
| 6 | 147.68 | 147.26 | 143.93 | 145.60 | 146.27 | 149.71 | 152.62 | 152.32 | 153.54 | 151.68 | 149.21 | 149.34 |
| 7 | 147.98 | 147.42 | 143.95 | 146.13 | 146.31 | 149.89 | 152.36 | 150.14 | 154.22 | 151.91 | 149.04 | 147.78 |
| 8 | 148.25 | 147.72 | 144.18 | 144.47 | 145.91 | 149.85 | 149.58 | 151.64 | 154.35 | 151.56 | 149.51 | 147.55 |
| 9 | 147.96 | 147.16 | 145.62 | 143.71 | 146.33 | 148.95 | 149.25 | 152.51 | 154.35 | 150.70 | 149.00 | 147.00 |
| 10 | 147.92 | 146.26 | 145.70 | 144.40 | 146.15 | 149.03 | 148.84 | 152.54 | 154.37 | 150.97 | 149.50 | 147.74 |
| 11 | 148.43 | 146.37 | 146.42 | 145.25 | 146.04 | 149.02 | 150.01 | 151.96 | 153.67 | 150.94 | 149.19 | 146.63 |
| 12 | 148.44 | 146.62 | 145.59 | 145.58 | 146.54 | 148.89 | 150.88 | 151.98 | 154.40 | 150.68 | 149.27 | 148.32 |
| 13 | 148.16 | 145.70 | 145.13 | 145.53 | 147.44 | 150.09 | 151.82 | 152.09 | 152.91 | 150.75 | 149.05 | 147.40 |
| 14 | 148.42 | 145.65 | 145.25 | 145.24 | 149.39 | 150.37 | 151.75 | 151.61 | 155.00 | 150.72 | 149.40 | 147.65 |
| 15 | 148.30 | 146.26 | 145.40 | 144.51 | 148.14 | 151.78 | 150.72 | 152.87 | 154.80 | 150.59 | 147.95 | 147.79 |
| 16 | 147.65 | 145.84 | 145.32 | 145.39 | 146.24 | 152.64 | 150.05 | 153.48 | 153.54 | 150.34 | 149.25 | 147.86 |
| 17 | 147.27 | 145.38 | 143.55 | 145.31 | 146.57 | 151.76 | 150.72 | 153.53 | 153.40 | 150.91 | 150.91 | 147.90 |
| 18 | 147.39 | 145.32 | 143.44 | 145.12 | 146.56 | 151.52 | 151.43 | 153.60 | 152.76 | 150.81 | 148.04 | 146.84 |
| 19 | 147.92 | 145.33 | 144.13 | 145.38 | 147.26 | 151.41 | 151.34 | 153.89 | 152.56 | 150.98 | 149.92 | 148.13 |
| 20 | 147.82 | 145.05 | 144.48 | 145.57 | 146.69 | 151.96 | 151.46 | 153.95 | 153.09 | 150.69 | 148.61 | 147.92 |
| 21 | 147.52 | 144.94 | 145.20 | 145.46 | 146.62 | 151.11 | 151.27 | 151.95 | 152.93 | 150.64 | 149.19 | 147.71 |
| 22 | 147.59 | 144.78 | 145.70 | 145.51 | 146.37 | 150.05 | 151.50 | 151.62 | 155.21 | 150.36 | 149.80 | 146.11 |
| 23 | 147.06 | 144.83 | 145.70 | 144.63 | 147.06 | 150.48 | 150.51 | 153.42 | 153.41 | 150.49 | 148.92 | 146.43 |
| 24 | 146.77 | 145.05 | 145.14 | 144.68 | 147.08 | 150.41 | 150.73 | 153.18 | 152.34 | 150.14 | 148.25 | 148.13 |
| 25 | 147.00 | 145.47 | 145.73 | 145.58 | 147.35 | 148.73 | 152.60 | 152.88 | 151.71 | 150.04 | 148.38 | 151.30 |
| 26 | 147.05 | 145.83 | 145.43 | 145.54 | 147.55 | 149.84 | 152.71 | 153.33 | 152.05 | 150.17 | 148.33 | 151.95 |
| 27 | 147.35 | 145.53 | 144.78 | 145.45 | 147.84 | 150.13 | 152.18 | 153.81 | 151.88 | 150.11 | 147.78 | 153.52 |
| 28 | 148.08 | 144.67 | 145.20 | 145.47 | 147.92 | 148.64 | 151.69 | 154.01 | 152.16 | 150.14 | 147.98 | 152.29 |
| 29 | 147.99 | --- | 145.64 | 145.65 | 147.88 | 150.13 | 153.08 | 154.87 | 152.04 | 150.09 | 148.25 | 150.91 |
| 30 | 147.04 | --- | 145.78 | 145.79 | 148.60 | 149.11 | 152.83 | 155.90 | 151.89 | 150.02 | 148.19 | 152.87 |
| 31 | 146.90 | --- | 145.66 | --- | 148.14 | --- | 150.96 | 156.11 | --- | 150.12 | --- | 152.83 |
| MEAN | 147.63 | 146.14 | 144.91 | 145.25 | 146.86 | 150.15 | 151.03 | 152.87 | 153.62 | 150.81 | 149.13 | 148.68 |
| CAL YR 1983 | MEAN | 148.94 | | HIGH | 143.44 | | LOW | 156.26 | | | | |

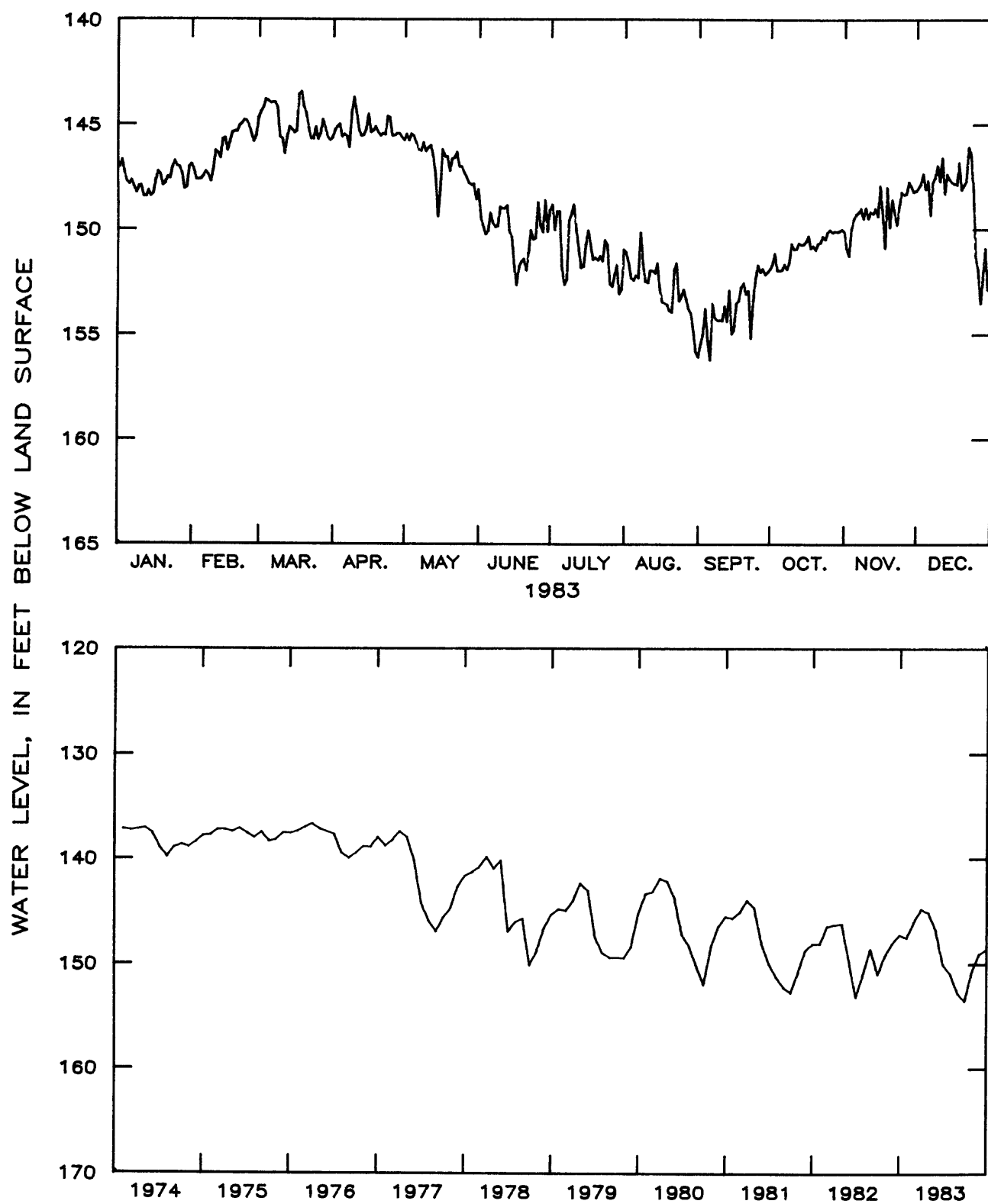


Figure 2.5-3.—Water level in observation well 07N001, Randolph County.

313530084203201 Local number, 11L002.

LOCATION.--Lat 31°35'32", long 84°20'35", Hydrologic Unit 03130008, Tallahassee Plantation, 10.4 mi west of Albany.

Owner: Georgia Department of Natural Resources, Albany Nursery.

AQUIFER.--Clayton.

WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 656 ft, cased to 542 ft, open hole.

DATUM.--Altitude of land-surface datum is 222 ft.

Measuring point: Floor of recorder shelter, 3.02 ft above land-surface datum.

REMARKS.--Well pumped April 1976; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 3, 1975. Water levels for periods of missing recorder record, August 2 to September 15 and September 21 to October 25, were estimated.

PERIOD OF RECORD.--September 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.90 ft below land-surface datum, April 29, 1975; lowest, 123.45 ft below land-surface datum, August 2, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|
| 1 | 91.12 | 88.82 | 86.04 | 84.45 | 84.13 | 91.60 | 99.13 | 112.39 | 115.97 | 108.46 | 104.40 | 99.20 |
| 2 | 90.95 | 88.67 | 85.99 | 84.28 | 84.03 | 92.72 | 98.93 | 112.86 | 115.91 | 108.60 | 104.23 | 99.00 |
| 3 | 90.90 | 88.85 | 85.95 | 84.33 | 83.91 | 93.55 | 98.75 | 113.24 | 115.85 | 108.75 | 104.17 | 98.67 |
| 4 | 90.88 | 88.93 | 85.91 | 84.39 | 83.91 | 94.17 | 98.63 | 113.61 | 115.79 | 108.90 | 103.82 | 98.49 |
| 5 | 90.73 | 88.73 | 85.79 | 84.43 | 83.93 | 94.80 | 98.48 | 113.54 | 115.69 | 108.61 | 103.67 | 98.47 |
| 6 | 90.57 | 88.38 | 85.72 | 84.48 | 83.94 | 95.40 | 98.23 | 113.46 | 115.59 | 108.73 | 103.63 | 98.34 |
| 7 | 90.62 | 88.23 | 85.66 | 84.48 | 83.88 | 95.89 | 98.02 | 113.50 | 115.14 | 108.34 | 103.36 | 98.37 |
| 8 | 90.57 | 88.21 | 85.54 | 84.38 | 83.80 | 96.30 | 97.87 | 113.54 | 114.68 | 107.35 | 103.12 | 98.32 |
| 9 | 90.44 | 88.02 | 85.52 | 84.25 | 83.85 | 96.60 | 97.67 | 113.58 | 114.66 | 107.37 | 102.95 | 98.24 |
| 10 | 90.29 | 87.68 | 85.44 | 84.15 | 84.02 | 96.78 | 97.42 | 113.55 | 114.63 | 107.38 | 102.73 | 98.08 |
| 11 | 90.13 | 87.65 | 85.48 | 83.98 | 84.20 | 96.90 | 97.22 | 113.60 | 113.90 | 107.09 | 102.65 | 97.79 |
| 12 | 90.21 | 87.75 | 85.46 | 83.88 | 84.28 | 96.88 | 97.43 | 113.66 | 113.47 | 107.10 | 102.57 | 97.57 |
| 13 | 90.18 | 87.56 | 85.40 | 83.87 | 84.37 | 96.78 | 98.28 | 113.71 | 113.44 | 106.91 | 102.37 | 97.53 |
| 14 | 90.00 | 87.32 | 85.31 | 83.83 | 84.63 | 96.77 | 99.30 | 113.77 | 113.42 | 106.73 | 102.15 | 97.34 |
| 15 | 89.90 | 87.32 | 85.25 | 83.82 | 85.05 | 96.87 | 100.37 | 113.82 | 113.39 | 106.71 | 101.91 | 97.37 |
| 16 | 89.88 | 87.17 | 85.27 | 83.87 | 85.37 | 97.17 | 101.33 | 114.39 | 113.57 | 106.69 | 101.83 | 97.39 |
| 17 | 89.76 | 87.06 | 85.29 | 83.79 | 85.65 | 97.72 | 102.33 | 114.42 | 113.36 | 106.67 | 101.77 | 97.32 |
| 18 | 89.67 | 87.05 | 85.52 | 83.62 | 85.85 | 98.42 | 103.22 | 114.44 | 112.23 | 106.53 | 101.58 | 97.13 |
| 19 | 89.65 | 86.97 | 85.77 | 83.57 | 86.02 | 99.22 | 103.97 | 114.71 | 111.78 | 106.39 | 101.33 | 96.85 |
| 20 | 89.55 | 86.97 | 85.77 | 83.71 | 86.07 | 99.98 | 104.75 | 114.79 | 111.41 | 106.20 | 100.98 | 96.64 |
| 21 | 89.46 | 86.82 | 85.87 | 83.75 | 86.05 | 100.45 | 105.49 | 114.56 | 111.34 | 105.92 | 101.00 | 96.53 |
| 22 | 89.54 | 86.51 | 86.11 | 83.75 | 85.95 | 100.72 | 106.31 | 114.34 | 111.28 | 105.93 | 100.80 | 96.40 |
| 23 | 89.58 | 86.31 | 86.04 | 83.50 | 85.85 | 100.92 | 107.15 | 114.31 | 110.79 | 105.44 | 100.45 | 96.32 |
| 24 | 89.67 | 86.24 | 85.79 | 83.42 | 85.82 | 100.73 | 107.92 | 114.28 | 110.26 | 105.25 | 100.15 | 96.23 |
| 25 | 89.65 | 86.29 | 85.75 | 83.48 | 85.84 | 100.42 | 108.58 | 114.25 | 110.04 | 105.26 | 100.15 | 95.98 |
| 26 | 89.53 | 86.41 | 85.52 | 83.50 | 86.05 | 100.19 | 109.24 | 114.32 | 109.82 | 105.28 | 99.95 | 95.53 |
| 27 | 89.35 | 86.32 | 85.17 | 83.43 | 86.62 | 99.98 | 110.00 | 114.40 | 109.60 | 105.19 | 99.56 | 95.20 |
| 28 | 89.38 | 86.13 | 85.07 | 83.43 | 87.56 | 99.75 | 110.76 | 114.57 | 109.56 | 105.06 | 99.26 | 95.17 |
| 29 | 89.32 | --- | 85.04 | 83.65 | 88.60 | 99.57 | 111.40 | 115.45 | 109.52 | 104.83 | 99.34 | 95.37 |
| 30 | 89.13 | --- | 84.85 | 83.96 | 89.55 | 99.35 | 111.93 | 115.62 | 109.34 | 104.70 | 99.28 | 95.48 |
| 31 | 89.03 | --- | 84.63 | --- | 90.45 | --- | 112.23 | 115.80 | --- | 104.52 | --- | 95.45 |
| MEAN | 89.99 | 87.44 | 85.55 | 83.91 | 85.46 | 97.55 | 102.98 | 114.08 | 112.85 | 106.67 | 101.84 | 97.15 |
| CAL YR 1983 | MEAN | 97.18 | | HIGH | 83.42 | | LOW | 115.97 | | | | |

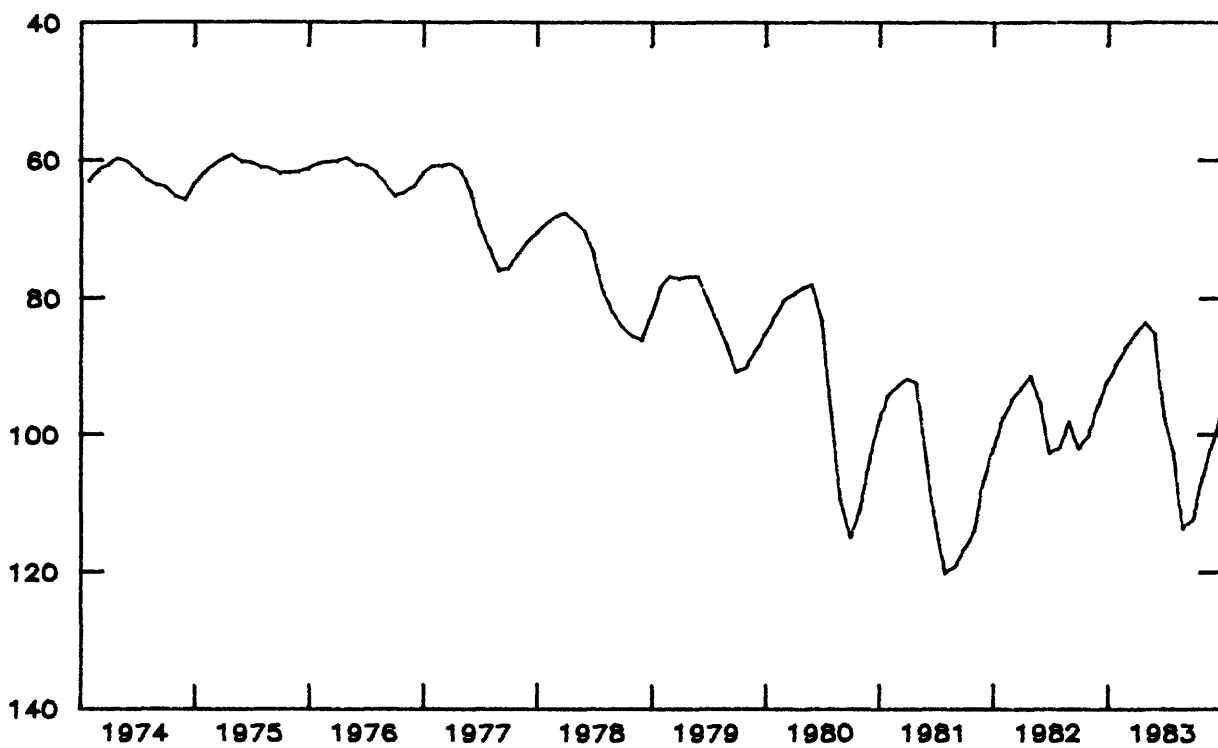
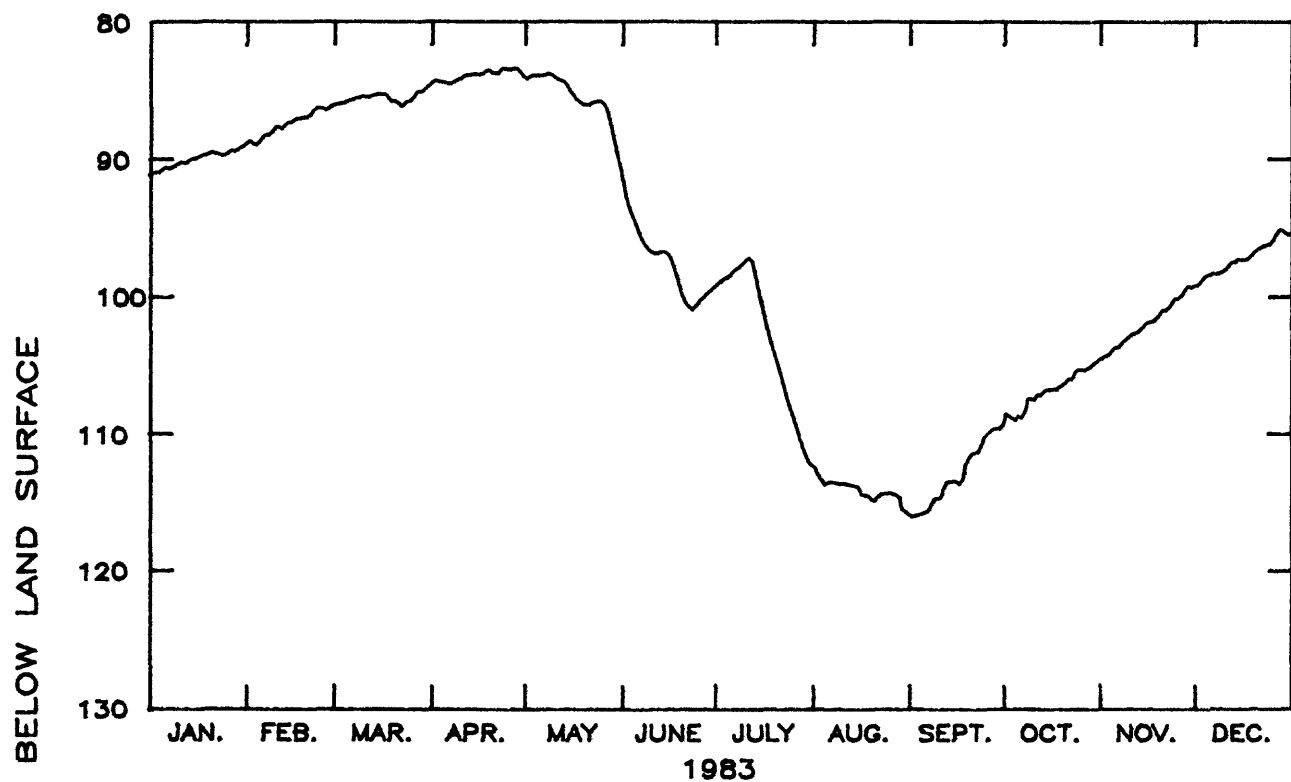


Figure 2.5-4.--Water level in observation well 11L002, Dougherty County.

13L002 TURNER CITY DOUGHERTY COUNTY

313554084062601 Local number, 13L002.

LOCATION.--Lat 31°35'54", long 84°06'25", Hydrologic Unit 03130008, Malone and Gardner Avenue near main entrance to Turner Field, Albany.

Owner: City of Albany, Turner City.

AQUIFER.--Clayton.

WELL CHARACTERISTICS.--Drilled unused supply well, diameter 12 in. and 8 in., depth 760 ft, cased to 713 ft, open hole.

DATUM.--Altitude of land-surface datum is 212.84 ft.

Measuring point: Floor of recorder shelter, 3.2 ft above land-surface datum.

REMARKS.--Well pumped and sounded to a depth of 760 ft, June 21, 1978: water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted March 17, 1977. Water levels for periods of missing recorder record, January 1-2, October 10-24, and December 10-31, were estimated.

PERIOD OF RECORD.--December 1957 to December 1959, January 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.19 ft below land-surface datum, April 1, 1959; lowest, 153.04 ft below land-surface datum, August 1, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values.

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 122.69 | 125.57 | 117.28 | 110.74 | 115.18 | 118.75 | 125.79 | 135.71 | 140.10 | 134.37 | 132.56 | 125.91 |
| 2 | 121.92 | 125.53 | 117.12 | 110.57 | 116.29 | 119.53 | 125.55 | 134.61 | 139.58 | 134.99 | 133.52 | 125.15 |
| 3 | 120.97 | 125.78 | 116.49 | 110.52 | 115.49 | 120.10 | 123.78 | 134.18 | 140.69 | 135.22 | 133.81 | 124.72 |
| 4 | 120.89 | 126.02 | 116.75 | 110.06 | 114.93 | 121.67 | 125.67 | 133.99 | 140.18 | 135.80 | 131.50 | 125.42 |
| 5 | 122.75 | 123.20 | 117.91 | 109.57 | 115.68 | 121.08 | 125.72 | 134.37 | 137.56 | 136.31 | 132.85 | 125.32 |
| 6 | 124.39 | 120.98 | 117.55 | 109.74 | 116.45 | 121.12 | 125.73 | 134.51 | 138.73 | 136.68 | 132.03 | 123.72 |
| 7 | 123.74 | 119.54 | 117.83 | 109.93 | 116.97 | 120.96 | 124.49 | 134.52 | 139.57 | 136.64 | 132.49 | 123.13 |
| 8 | 123.63 | 118.60 | 117.90 | 110.17 | 116.50 | 121.69 | 124.60 | 134.35 | 140.07 | 136.24 | 131.15 | 122.13 |
| 9 | 121.47 | 120.45 | 117.41 | 110.57 | 116.50 | 123.04 | 125.97 | 134.83 | 140.26 | 134.62 | 130.70 | 121.69 |
| 10 | 122.55 | 122.29 | 117.98 | 110.80 | 118.09 | 122.60 | 126.56 | 135.38 | 139.95 | 133.95 | 129.80 | 121.79 |
| 11 | 123.35 | 120.65 | 118.29 | 110.40 | 117.99 | 123.00 | 126.51 | 135.74 | 139.45 | 133.97 | 130.77 | 121.58 |
| 12 | 125.43 | 119.48 | 113.78 | 110.28 | 117.40 | 123.12 | 126.98 | 135.44 | 139.25 | 133.98 | 130.43 | 121.11 |
| 13 | 125.65 | 118.23 | 118.79 | 110.75 | 118.56 | 122.52 | 127.43 | 135.23 | 139.48 | 134.34 | 129.38 | 121.29 |
| 14 | 124.33 | 118.25 | 118.46 | 114.20 | 117.56 | 123.25 | 128.16 | 134.43 | 139.19 | 134.34 | 129.36 | 121.71 |
| 15 | 123.46 | 119.58 | 116.45 | 115.57 | 118.54 | 124.15 | 128.81 | 134.62 | 139.19 | 134.27 | 128.67 | 122.22 |
| 16 | 125.77 | 118.86 | 115.00 | 116.28 | 116.32 | 124.81 | 129.23 | 134.33 | 138.71 | 134.07 | 127.77 | 122.57 |
| 17 | 126.05 | 118.04 | 114.41 | 116.85 | 116.63 | 124.79 | 129.79 | 134.59 | 138.24 | 133.80 | 128.98 | 121.93 |
| 18 | 126.45 | 118.05 | 115.49 | 117.00 | 116.62 | 125.97 | 130.44 | 135.56 | 137.63 | 133.76 | 128.67 | 120.91 |
| 19 | 126.66 | 118.19 | 117.03 | 115.83 | 116.77 | 126.23 | 131.26 | 135.97 | 136.37 | 133.45 | 127.92 | 121.02 |
| 20 | 125.63 | 117.73 | 115.81 | 116.94 | 117.90 | 126.10 | 131.86 | 136.21 | 136.21 | 133.11 | 126.56 | 122.05 |
| 21 | 124.62 | 116.64 | 116.76 | 116.58 | 118.12 | 126.14 | 130.85 | 136.39 | 136.67 | 133.59 | 126.67 | 122.23 |
| 22 | 126.32 | 117.44 | 115.88 | 115.64 | 118.24 | 124.58 | 132.34 | 136.66 | 136.12 | 133.82 | 126.24 | 122.17 |
| 23 | 126.68 | 117.64 | 114.88 | 114.83 | 118.29 | 125.13 | 133.51 | 137.15 | 136.24 | 133.38 | 127.02 | 121.45 |
| 24 | 127.08 | 118.20 | 112.87 | 113.79 | 118.86 | 126.22 | 134.18 | 137.28 | 136.95 | 132.83 | 127.46 | 121.22 |
| 25 | 127.51 | 119.15 | 112.43 | 112.38 | 119.18 | 126.90 | 134.40 | 137.64 | 135.21 | 133.38 | 128.70 | 122.31 |
| 26 | 127.97 | 119.99 | 112.22 | 115.11 | 118.36 | 126.66 | 134.93 | 137.91 | 135.90 | 131.88 | 128.73 | 123.41 |
| 27 | 127.90 | 119.51 | 111.47 | 114.53 | 118.64 | 125.04 | 134.51 | 138.84 | 134.07 | 133.01 | 126.68 | 124.16 |
| 28 | 127.65 | 117.90 | 110.82 | 114.59 | 119.00 | 125.34 | 135.58 | 139.25 | 134.16 | 132.60 | 127.28 | 124.45 |
| 29 | 127.18 | --- | 110.34 | 115.29 | 118.73 | 124.86 | 135.12 | 138.78 | 134.43 | 131.52 | 127.67 | 124.77 |
| 30 | 126.77 | --- | 110.29 | 115.72 | 118.36 | 125.64 | 135.64 | 139.40 | 135.30 | 131.03 | 126.47 | 125.58 |
| 31 | 126.09 | --- | 110.47 | --- | 118.59 | --- | 135.93 | 139.14 | --- | 131.18 | --- | 125.87 |
| MEAN | 124.96 | 120.05 | 115.52 | 113.17 | 117.44 | 123.70 | 129.72 | 136.03 | 137.85 | 133.94 | 129.39 | 123.00 |
| CAL YR 1983 | MEAN | 125.44 | | HIGH | 109.57 | | LOW | 140.69 | | | | |

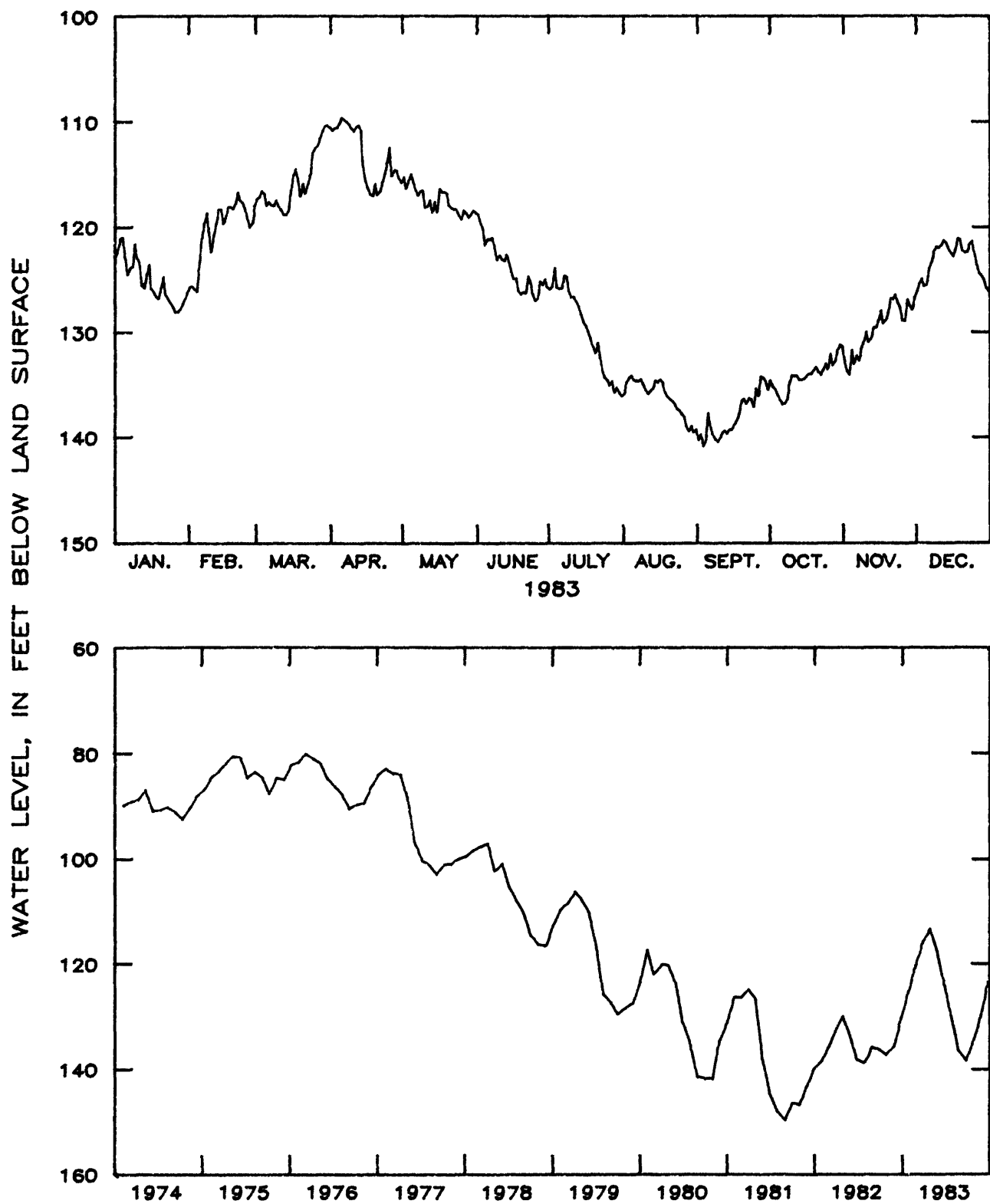


Figure 2.5-5.--Water level in observation well 13L002, Dougherty County.

2.6 Claiborne Aquifer

The Claiborne aquifer is a major aquifer in southwest Georgia and supplies more than 36 Mgal/d for municipal, agricultural, and industrial use (McFadden and Perriello, 1983). The aquifer is comprised of several hydraulically interconnected water-bearing zones of sand, limestone, and coquina.

Mean annual water levels in the Claiborne aquifer ranged from 0.8 to 6.1 feet higher in 1983 than in 1982. A new record high was reached at well 12L019 near Albany in April 1983. A reduction in pumping as a result of above-normal precipitation during the summer months allowed the water levels to rise.



Figure 2.6-1.—Observation well locations and the water level in the Claiborne aquifer, October 1983.

11L001 TEST WELL 4 DOUGHERTY COUNTY

31353084203202 Local number, 11L001.

LOCATION.--Lat 31°35'30", long 84°20'32", Hydrologic Unit 03130008, 10.4 mi west of Albany.

Owner: U.S. Geological Survey, test well 4.

AQUIFER.--Claiborne.

WELL CHARACTERISTICS.--Drilled unused observation well, depth 251 ft, cased to 233 ft.

DATUM.--Altitude of land-surface datum is 220 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, March 2-9, 11-15, 17-27, March 29 to April 16, and December 6-31, were estimated.

PERIOD OF RECORD.--March 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.11 ft below land-surface datum, June 5-6, 1978; lowest, 26.38 ft below land-surface datum, November 21-22, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 19.53 | 17.31 | 16.34 | 14.93 | 13.90 | 13.96 | 15.18 | 17.28 | 19.90 | 20.75 | 21.85 | 21.69 |
| 2 | 19.47 | 17.72 | 16.39 | 14.93 | 13.88 | 14.03 | 15.23 | 17.38 | 19.94 | 20.75 | 21.84 | 21.68 |
| 3 | 19.41 | 17.67 | 16.38 | 14.94 | 13.86 | 14.07 | 15.29 | 17.49 | 20.03 | 20.75 | 21.83 | 21.67 |
| 4 | 19.34 | 17.64 | 16.64 | 14.92 | 13.84 | 14.13 | 15.34 | 17.57 | 20.12 | 20.75 | 21.79 | 21.67 |
| 5 | 19.28 | 17.57 | 16.49 | 14.89 | 13.84 | 14.16 | 15.37 | 17.67 | 20.21 | 20.75 | 21.78 | 21.58 |
| 6 | 19.20 | 17.49 | 16.37 | 14.83 | 13.85 | 14.22 | 15.39 | 17.74 | 20.27 | 20.77 | 21.80 | 21.52 |
| 7 | 19.16 | 17.47 | 16.38 | 14.72 | 13.85 | 14.16 | 15.42 | 17.77 | 20.35 | 20.80 | 21.82 | 21.46 |
| 8 | 19.16 | 17.44 | 16.10 | 14.69 | 13.85 | 14.13 | 15.48 | 17.84 | 20.42 | 20.84 | 21.82 | 21.44 |
| 9 | 19.12 | 17.40 | 16.00 | 14.60 | 13.84 | 14.19 | 15.51 | 17.95 | 20.46 | 20.88 | 21.83 | 21.37 |
| 10 | 19.08 | 17.32 | 15.93 | 14.55 | 13.85 | 14.27 | 15.52 | 18.06 | 20.53 | 20.93 | 21.81 | 21.30 |
| 11 | 19.03 | 17.22 | 15.86 | 14.53 | 13.85 | 14.33 | 15.54 | 18.14 | 20.60 | 20.96 | 21.82 | 21.14 |
| 12 | 19.00 | 17.12 | 15.82 | 14.50 | 13.84 | 14.38 | 15.58 | 18.20 | 20.65 | 21.00 | 21.86 | 21.04 |
| 13 | 18.98 | 17.03 | 15.80 | 14.48 | 13.84 | 14.45 | 15.63 | 18.27 | 20.61 | 21.02 | 21.86 | 20.99 |
| 14 | 18.93 | 16.94 | 15.76 | 14.42 | 13.84 | 14.51 | 15.64 | 18.32 | 20.56 | 21.07 | 21.87 | 20.88 |
| 15 | 18.88 | 16.88 | 15.64 | 14.38 | 13.83 | 14.57 | 15.66 | 18.40 | 20.58 | 21.11 | 21.90 | 20.66 |
| 16 | 18.84 | 16.84 | 15.53 | 14.36 | 13.79 | 14.63 | 15.69 | 18.47 | 20.46 | 21.15 | 21.94 | 20.45 |
| 17 | 18.79 | 16.82 | 15.50 | 14.33 | 13.76 | 14.69 | 15.73 | 18.52 | 20.46 | 21.17 | 21.97 | 20.32 |
| 18 | 18.73 | 16.80 | 15.49 | 14.30 | 13.78 | 14.73 | 15.77 | 18.58 | 20.55 | 21.18 | 21.89 | 20.11 |
| 19 | 18.65 | 16.77 | 15.53 | 14.28 | 13.79 | 14.77 | 15.83 | 18.65 | 20.62 | 21.19 | 22.00 | 19.86 |
| 20 | 18.56 | 16.75 | 15.54 | 14.14 | 13.78 | 14.83 | 15.93 | 18.71 | 20.63 | 21.21 | 21.94 | 19.68 |
| 21 | 18.52 | 16.72 | 15.44 | 14.11 | 13.80 | 14.85 | 16.03 | 18.78 | 20.62 | 21.25 | 21.91 | 19.58 |
| 22 | 18.45 | 16.62 | 15.34 | 14.08 | 13.80 | 14.82 | 16.08 | 18.85 | 20.66 | 21.29 | 21.95 | 19.53 |
| 23 | 18.38 | 16.51 | 15.39 | 13.97 | 13.78 | 14.87 | 16.18 | 18.96 | 20.70 | 21.29 | 21.95 | 19.46 |
| 24 | 18.32 | 16.46 | 15.37 | 13.87 | 13.79 | 14.90 | 16.31 | 19.02 | 20.74 | 21.29 | 21.82 | 19.40 |
| 25 | 18.25 | 16.41 | 15.36 | 13.89 | 13.82 | 14.96 | 16.43 | 19.10 | 20.75 | 21.31 | 21.74 | 19.36 |
| 26 | 18.18 | 16.35 | 15.29 | 13.92 | 13.83 | 15.05 | 16.55 | 19.24 | 20.75 | 21.55 | 21.74 | 19.32 |
| 27 | 18.12 | 16.30 | 15.16 | 13.92 | 13.86 | 15.13 | 16.69 | 19.37 | 20.75 | 21.78 | 21.73 | 19.20 |
| 28 | 18.07 | 16.25 | 15.13 | 13.92 | 13.88 | 15.14 | 16.84 | 19.50 | 20.76 | 21.80 | 21.70 | 19.16 |
| 29 | 18.00 | --- | 15.04 | 13.91 | 13.90 | 15.14 | 16.98 | 19.59 | 20.75 | 21.82 | 21.69 | 19.14 |
| 30 | 17.94 | --- | 14.97 | 13.90 | 13.90 | 15.16 | 17.09 | 19.71 | 20.75 | 21.83 | 21.69 | 19.11 |
| 31 | 17.88 | --- | 14.93 | --- | 13.92 | --- | 17.19 | 19.83 | --- | 21.85 | --- | 19.03 |
| MEAN | 18.75 | 17.01 | 15.71 | 14.37 | 13.84 | 14.58 | 15.91 | 18.48 | 20.51 | 21.16 | 21.84 | 20.41 |
| CAL YR 1983 | MEAN | 17.72 | | HIGH | 13.76 | | LOW | 22.00 | | | | |

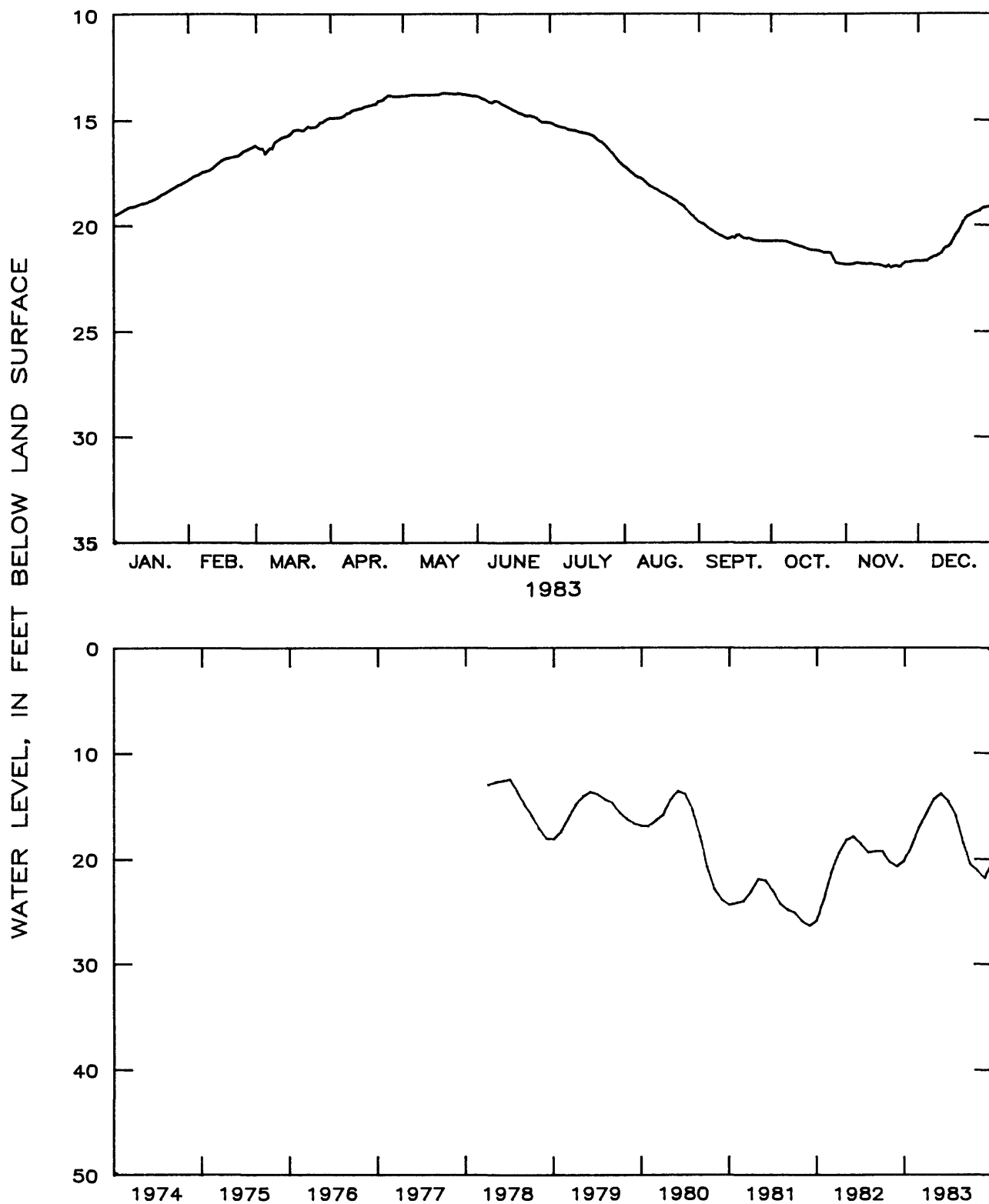


Figure 2.6-2.--Water level in observation well 11L001
Dougherty County.

12L019 TEST WELL 5 DOUGHERTY COUNTY

313534084103001 Local number, 12L019.

LOCATION.--Lat 31°35'34", long 84°10'30", Hydrologic Unit 03130008, located in part at intersection of Slappey Drive and Fifth Avenue.

Owner: U.S. Geological Survey, test well 5.

AQUIFER.--Claiborne.

WELL CHARACTERISTICS.--Drilled unused observation well, depth 257 ft, cased and screened to 88 ft.

DATUM.--Altitude of land-surface datum is 198 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--Water level for periods of missing recorder record, January 2, January 28 to February 1, April 21 to May 2, August 11 to September 9, and December 22-31, were estimated.

PERIOD OF RECORD.--March 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.35 ft below land-surface datum, April 20, 1983; lowest, 99.53 ft below land-surface datum, August 1-2, 1978.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 85.42 | 80.62 | 82.20 | 77.18 | 73.59 | 79.77 | 86.12 | 92.14 | 95.04 | 89.19 | 86.22 | 83.83 |
| 2 | 84.56 | 80.55 | 82.10 | 76.38 | 73.87 | 79.83 | 86.34 | 92.28 | 95.01 | 88.99 | 86.00 | 83.87 |
| 3 | 83.71 | 80.61 | 81.85 | 75.46 | 73.96 | 80.38 | 86.42 | 92.42 | 95.09 | 88.85 | 85.74 | 83.13 |
| 4 | 83.49 | 80.44 | 81.78 | 75.20 | 74.26 | 80.98 | 86.41 | 92.57 | 95.23 | 88.75 | 85.47 | 82.78 |
| 5 | 83.01 | 80.12 | 81.65 | 75.16 | 74.93 | 81.52 | 86.43 | 92.64 | 95.26 | 88.68 | 85.38 | 83.01 |
| 6 | 82.46 | 79.59 | 81.29 | 75.18 | 75.64 | 82.00 | 86.51 | 92.64 | 95.24 | 88.68 | 85.37 | 82.82 |
| 7 | 82.22 | 79.35 | 80.99 | 75.13 | 75.90 | 82.43 | 86.75 | 92.64 | 95.27 | 88.86 | 85.22 | 82.75 |
| 8 | 82.17 | 79.33 | 80.70 | 75.10 | 75.35 | 82.71 | 87.01 | 92.76 | 95.26 | 88.67 | 85.04 | 82.78 |
| 9 | 82.05 | 79.63 | 80.70 | 75.04 | 74.93 | 82.54 | 87.08 | 92.90 | 95.29 | 88.67 | 84.95 | 82.83 |
| 10 | 81.97 | 79.72 | 80.70 | 74.64 | 75.02 | 82.72 | 86.80 | 92.94 | 95.29 | 88.61 | 84.94 | 82.35 |
| 11 | 82.01 | 79.76 | 80.54 | 74.28 | 75.61 | 83.08 | 86.52 | 93.12 | 95.18 | 88.57 | 85.09 | 81.74 |
| 12 | 82.02 | 80.25 | 80.32 | 74.03 | 76.39 | 83.64 | 86.39 | 93.35 | 94.83 | 88.50 | 84.99 | 81.39 |
| 13 | 81.93 | 80.72 | 79.47 | 73.80 | 77.02 | 84.08 | 86.41 | 93.52 | 94.25 | 88.44 | 84.71 | 81.21 |
| 14 | 81.88 | 80.99 | 78.75 | 73.54 | 77.49 | 84.42 | 86.53 | 93.63 | 94.07 | 88.43 | 84.57 | 81.08 |
| 15 | 81.53 | 81.29 | 78.53 | 73.34 | 77.80 | 84.80 | 86.90 | 93.90 | 94.24 | 88.36 | 84.54 | 81.15 |
| 16 | 81.00 | 81.06 | 78.28 | 73.12 | 77.75 | 85.20 | 87.33 | 94.07 | 93.86 | 88.12 | 84.54 | 81.20 |
| 17 | 80.89 | 80.54 | 77.98 | 72.78 | 78.16 | 85.51 | 87.70 | 94.07 | 93.46 | 87.90 | 84.53 | 81.05 |
| 18 | 80.92 | 80.60 | 77.82 | 72.52 | 78.62 | 85.67 | 88.00 | 94.10 | 92.82 | 87.69 | 84.56 | 81.41 |
| 19 | 81.01 | 80.71 | 77.70 | 72.45 | 78.99 | 85.82 | 88.35 | 94.18 | 92.34 | 87.55 | 84.55 | 81.88 |
| 20 | 81.08 | 80.87 | 77.53 | 72.35 | 79.12 | 85.84 | 88.57 | 94.22 | 92.12 | 87.48 | 84.36 | 81.66 |
| 21 | 81.07 | 81.06 | 77.53 | 72.46 | 79.45 | 85.94 | 88.88 | 94.19 | 92.14 | 87.47 | 84.39 | 81.24 |
| 22 | 80.87 | 81.05 | 77.32 | 72.47 | 79.77 | 86.08 | 89.31 | 94.29 | 92.16 | 87.38 | 84.05 | 80.92 |
| 23 | 80.69 | 81.10 | 76.78 | 72.44 | 79.77 | 86.07 | 89.86 | 94.56 | 92.19 | 87.15 | 83.87 | 80.70 |
| 24 | 80.62 | 81.29 | 76.33 | 72.46 | 79.68 | 85.88 | 90.29 | 94.87 | 92.11 | 87.02 | 84.01 | 80.57 |
| 25 | 80.55 | 81.24 | 76.77 | 72.47 | 79.17 | 85.98 | 90.70 | 95.16 | 92.01 | 86.97 | 84.57 | 80.35 |
| 26 | 80.56 | 81.43 | 77.30 | 72.62 | 79.18 | 86.33 | 91.11 | 95.38 | 91.69 | 86.80 | 85.01 | 80.07 |
| 27 | 80.58 | 81.78 | 77.47 | 73.05 | 79.71 | 86.59 | 91.24 | 95.52 | 90.89 | 86.46 | 85.16 | 80.06 |
| 28 | 80.74 | 81.96 | 77.55 | 73.34 | 80.02 | 86.65 | 91.45 | 95.57 | 90.28 | 86.30 | 84.78 | 80.19 |
| 29 | 80.87 | --- | 77.70 | 73.44 | 80.11 | 86.43 | 91.64 | 95.47 | 89.84 | 86.28 | 84.32 | 80.44 |
| 30 | 80.91 | --- | 77.65 | 73.45 | 80.02 | 86.12 | 91.77 | 95.18 | 89.46 | 86.29 | 83.96 | 80.65 |
| 31 | 80.78 | --- | 77.44 | --- | 79.85 | --- | 91.96 | 95.06 | --- | 86.34 | --- | 80.55 |
| MEAN | 81.73 | 80.63 | 79.06 | 73.83 | 77.46 | 84.17 | 88.28 | 93.85 | 93.40 | 87.85 | 84.83 | 81.60 |
| CAL YR 1983 | MEAN | 83.91 | | HIGH | 72.35 | | LOW | 95.57 | | | | |

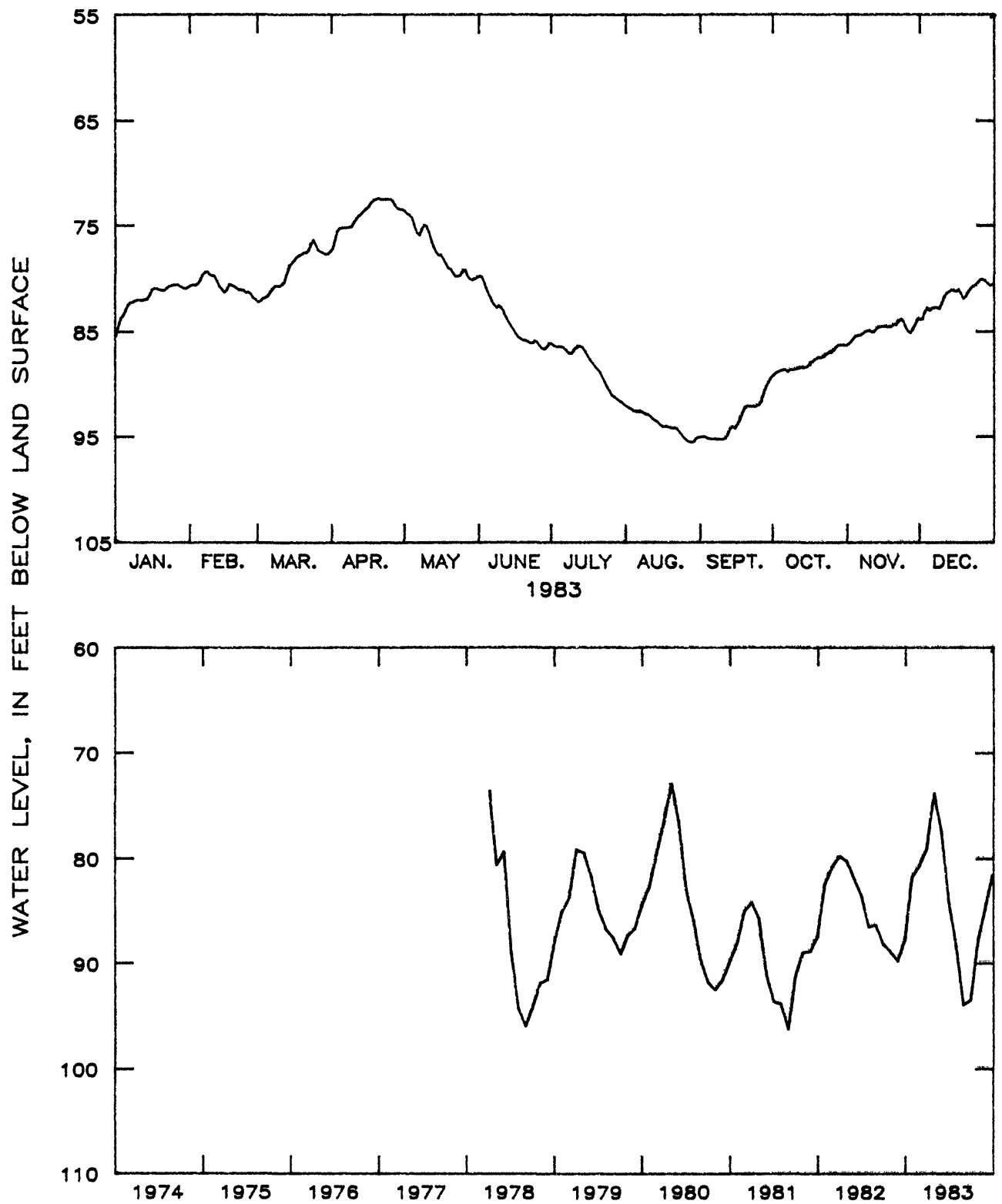


Figure 2.6-3.--Water level in observation well 12L019, Dougherty County.

13L011 TEST WELL 2 DOUGHERTY COUNTY

313105084064301 Local number, 13L011.

LOCATION.--Lat 31°31'05", long 84°06'43", Hydrologic Unit 03130008, about 6.5 mi southeast of Albany off U.S. Highway 19 on School Bus Road.

Owner: U.S. Geological Survey, test well 2.

AQUIFER.--Claiborne.

WELL CHARACTERISTICS.--Drilled unused observation well, depth 418 ft, cased to 398 ft.

DATUM.--Altitude of land-surface datum is 195 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.01 ft below land-surface datum, April 5, 1978; lowest, 95.00 ft below land-surface datum, August 9-11, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 75.83 | 74.18 | 73.25 | 69.91 | 69.17 | 69.48 | 72.93 | 76.95 | 79.19 | 77.12 | 77.59 | 74.28 |
| 2 | 75.92 | 74.02 | 73.34 | 69.76 | 69.34 | 69.57 | 72.96 | 76.79 | 79.19 | 77.18 | 77.53 | 74.23 |
| 3 | 76.03 | 74.04 | 73.42 | 69.97 | 69.31 | 69.68 | 72.98 | 76.65 | 79.30 | 77.23 | 77.65 | 74.07 |
| 4 | 76.05 | 74.08 | 73.52 | 70.17 | 69.30 | 69.76 | 72.92 | 76.58 | 79.47 | 77.25 | 77.71 | 73.96 |
| 5 | 76.05 | 74.11 | 73.54 | 70.16 | 69.56 | 69.96 | 72.70 | 76.51 | 79.53 | 77.32 | 77.72 | 73.97 |
| 6 | 76.14 | 74.07 | 73.12 | 70.13 | 69.69 | 70.19 | 72.52 | 76.47 | 79.54 | 77.38 | 77.72 | 73.99 |
| 7 | 76.16 | 74.02 | 72.69 | 70.05 | 69.57 | 70.33 | 72.48 | 76.39 | 79.59 | 77.48 | 77.61 | 74.13 |
| 8 | 76.19 | 73.75 | 72.27 | 70.12 | 69.38 | 70.49 | 72.56 | 76.30 | 79.61 | 77.70 | 77.68 | 74.09 |
| 9 | 76.30 | 73.44 | 72.08 | 70.13 | 69.18 | 70.81 | 72.72 | 76.31 | 79.67 | 78.02 | 77.76 | 73.98 |
| 10 | 76.34 | 73.21 | 72.02 | 70.24 | 69.10 | 71.01 | 72.90 | 76.47 | 79.70 | 78.10 | 77.73 | 73.90 |
| 11 | 76.24 | 73.19 | 71.97 | 70.30 | 69.03 | 71.13 | 73.10 | 76.68 | 79.72 | 78.00 | 77.78 | 73.74 |
| 12 | 76.24 | 73.22 | 71.83 | 70.36 | 68.81 | 71.23 | 73.19 | 76.94 | 79.71 | 77.94 | 77.78 | 73.51 |
| 13 | 76.27 | 73.15 | 71.74 | 70.36 | 68.72 | 71.28 | 73.39 | 77.14 | 79.56 | 77.88 | 77.60 | 73.36 |
| 14 | 76.36 | 73.01 | 71.78 | 70.21 | 68.77 | 71.33 | 73.58 | 77.27 | 79.47 | 77.88 | 77.27 | 73.24 |
| 15 | 76.39 | 73.14 | 71.81 | 70.03 | 68.81 | 71.45 | 73.76 | 77.57 | 79.37 | 77.87 | 76.96 | 73.28 |
| 16 | 76.32 | 73.09 | 71.53 | 69.92 | 68.72 | 71.74 | 74.03 | 77.77 | 79.05 | 77.79 | 76.85 | 73.30 |
| 17 | 76.21 | 72.92 | 71.20 | 69.77 | 68.78 | 72.08 | 74.25 | 77.80 | 78.66 | 77.68 | 76.77 | 73.30 |
| 18 | 76.10 | 72.92 | 71.00 | 69.55 | 69.01 | 72.35 | 74.33 | 77.86 | 78.26 | 77.68 | 76.64 | 73.20 |
| 19 | 75.95 | 72.94 | 70.87 | 69.33 | 69.25 | 72.63 | 74.58 | 77.97 | 77.88 | 77.71 | 76.58 | 72.92 |
| 20 | 75.76 | 73.00 | 70.64 | 69.21 | 69.49 | 72.77 | 74.99 | 78.03 | 77.52 | 77.77 | 76.30 | 72.75 |
| 21 | 75.51 | 73.02 | 70.35 | 69.20 | 69.67 | 72.79 | 75.35 | 78.03 | 77.27 | 77.93 | 76.10 | 72.73 |
| 22 | 75.45 | 72.99 | 70.18 | 69.10 | 69.73 | 72.78 | 75.69 | 78.16 | 77.16 | 78.01 | 75.96 | 72.58 |
| 23 | 75.24 | 73.04 | 70.11 | 68.95 | 69.78 | 72.81 | 76.11 | 78.46 | 77.15 | 77.87 | 75.81 | 72.53 |
| 24 | 75.02 | 73.00 | 70.18 | 68.86 | 69.91 | 72.89 | 76.56 | 78.80 | 77.20 | 77.67 | 75.55 | 72.58 |
| 25 | 74.75 | 73.00 | 70.42 | 68.75 | 70.03 | 73.04 | 76.98 | 79.12 | 77.07 | 77.56 | 75.43 | 72.53 |
| 26 | 74.64 | 73.14 | 70.45 | 68.78 | 70.15 | 73.07 | 77.30 | 79.36 | 77.02 | 77.55 | 75.25 | 72.42 |
| 27 | 74.57 | 73.18 | 70.19 | 69.10 | 70.15 | 73.03 | 77.48 | 79.53 | 77.21 | 77.68 | 74.94 | 72.53 |
| 28 | 74.64 | 73.23 | 70.09 | 69.27 | 69.95 | 73.01 | 77.44 | 79.61 | 77.39 | 77.99 | 74.58 | 72.89 |
| 29 | 74.69 | --- | 69.93 | 69.25 | 69.79 | 72.98 | 77.27 | 79.54 | 77.39 | 78.05 | 74.40 | 73.31 |
| 30 | 74.64 | --- | 69.89 | 69.15 | 69.68 | 72.94 | 77.16 | 79.28 | 77.20 | 77.95 | 74.28 | 73.69 |
| 31 | 74.42 | --- | 69.94 | --- | 69.55 | --- | 77.10 | 79.19 | --- | 77.71 | --- | 73.76 |
| MEAN | 75.69 | 73.36 | 71.46 | 69.67 | 69.40 | 71.62 | 74.56 | 77.73 | 78.54 | 77.71 | 76.65 | 73.33 |
| CAL YR 1983 | MEAN | 74.15 | | HIGH | 68.72 | | LOW | 79.72 | | | | |

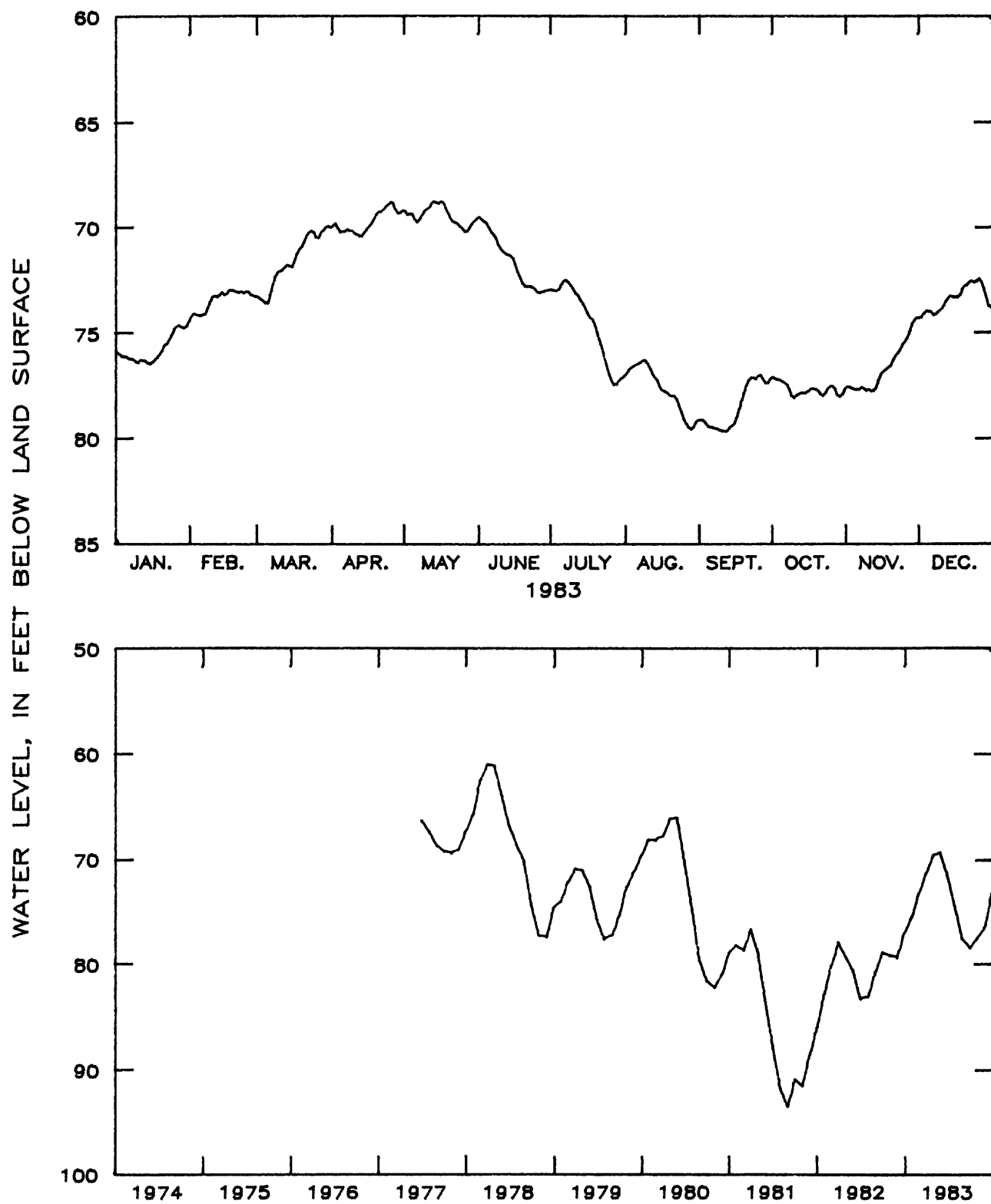


Figure 2.6-4.--Water level in observation well 13L011, Dougherty County.

2.7 Floridan Aquifer System

The Floridan aquifer system (formerly the principal artesian aquifer) is one of the most productive ground-water reservoirs in the United States. About 600 Mgal/d is pumped from the aquifer system in Georgia, mostly for industrial use and for irrigation (Pierce and Barber, 1982).

The aquifer system underlies most of the Georgia Coastal Plain and water is under artesian pressure except where the aquifer system crops out at land surface. In some areas, the artesian pressure is sufficient to produce flowing wells.

In areas of outcrop, water levels in wells tapping the Floridan aquifer system fluctuate seasonally in response to recharge from precipitation. Where the aquifer system is deeply buried, ground-water levels respond to pumping and the long-term fluctuations relating to recharge are less pronounced.

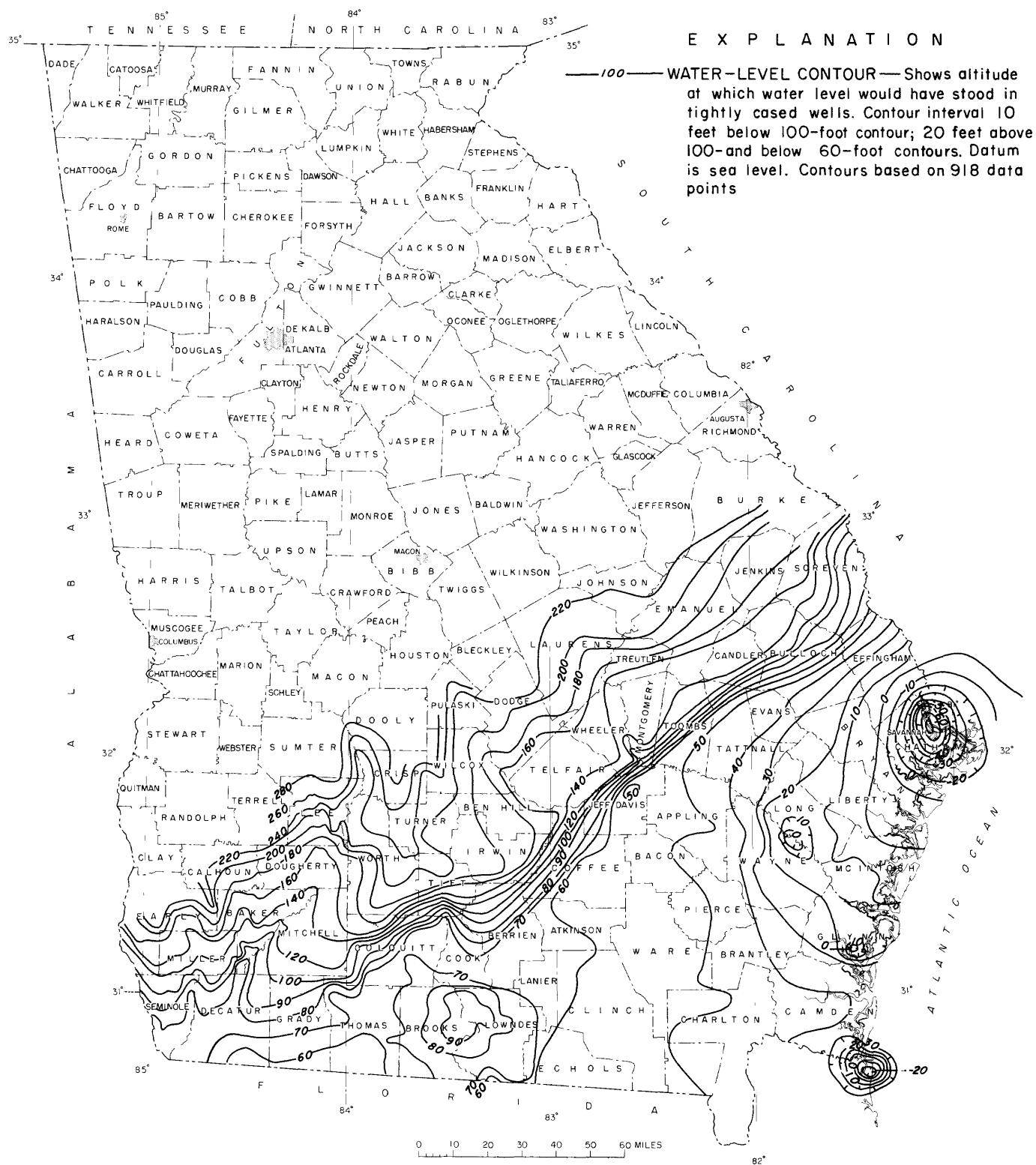


Figure 2.7-1.—Water level in the Floridan aquifer system, November 1982.

2.7.1 Southwest area

Ground-water levels in the Floridan aquifer system in southwest Georgia respond to variations in precipitation, evapotranspiration, stream stage, and pumping. More than 90 percent of all ground water used for irrigation in this area comes from the Floridan aquifer system.

Water levels began declining in the late seventies due to below-normal precipitation and increased irrigation pumping. Above-normal precipitation and a decreased need for irrigation pumping during the 1982-83 growing season enabled the water levels to continue their recovery from the record lows of 1981. The water level at well 08G001 reached a new record high in February 1983.

Mean annual water levels in the southwest area ranged from 2.6 to 8.8 feet higher in 1983 than in 1982.

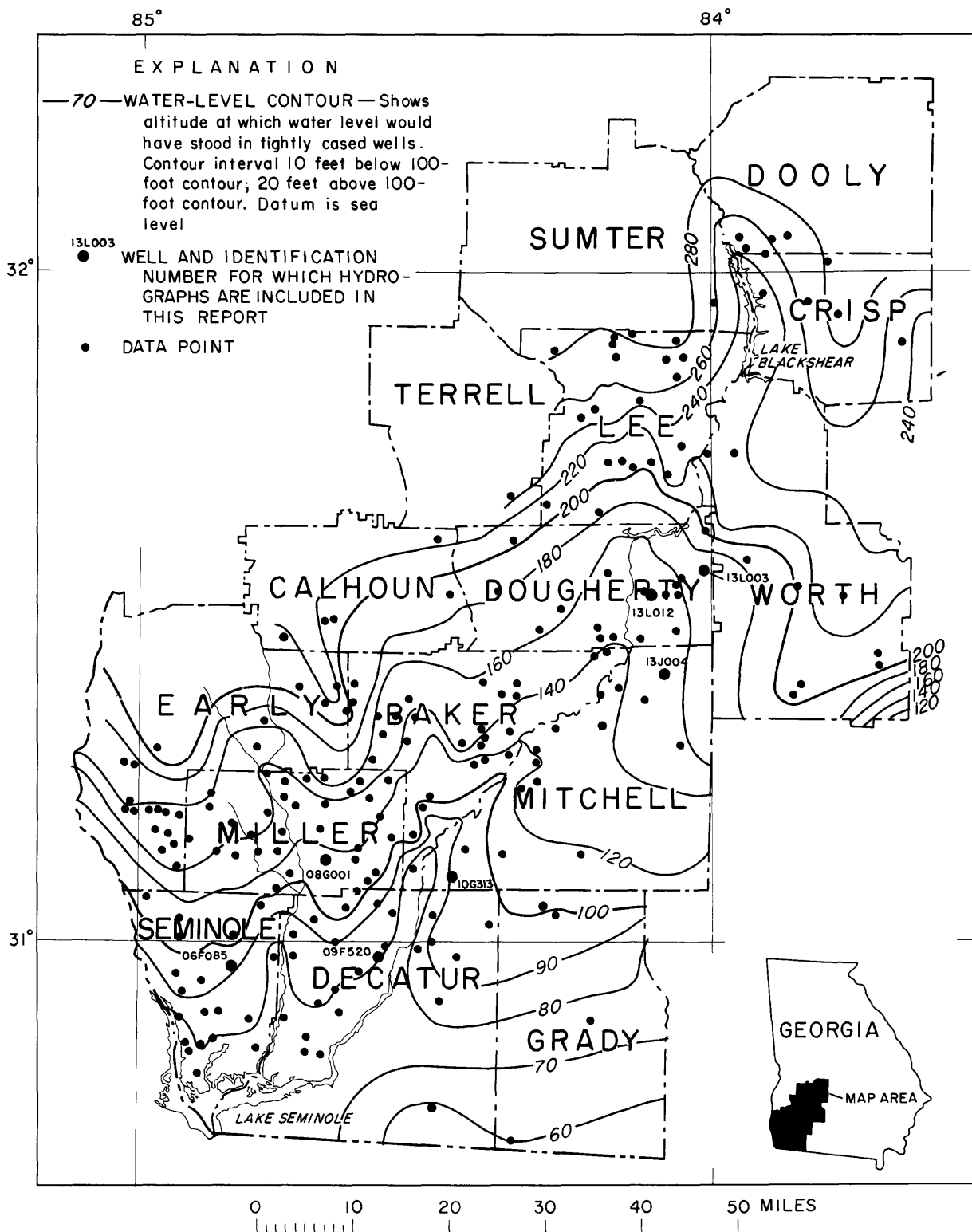


Figure 2.7.1-1—Observation well locations and the water level in the Floridan aquifer system in the southwest area, November 1982.

313748084002901 Local number, 13L003.

LOCATION.--Lat 31°33'13", long 84°00'21", Hydrologic Unit 03130008, near northeast corner of Marine Corps Supply Center, Acree, Ga.

Owner: City of Albany and Dougherty County.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused supply well, diameter 6 in., depth 259 ft, cased to 206 ft, open hole.

DATUM.--Altitude of land-surface datum is 225 ft.

Measuring point: Floor of recorder shelter, 4.10 ft above land-surface datum.

REMARKS.--Well pumped and sounded June 21, 1978; water-quality sample collected at conclusion of pumping. Borehole geo-physical survey conducted March 17, 1977. Water level for missing recorder record, December 31, was estimated.

PERIOD OF RECORD.--January 1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.41 ft below land-surface datum, April 2, 1965; lowest, 44.89 ft below land-surface datum, December 13, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 35.75 | 32.66 | 27.29 | 23.08 | 22.08 | 24.93 | 26.69 | 29.73 | 32.17 | 33.86 | 35.45 | 34.87 |
| 2 | 35.07 | 32.35 | 27.45 | 22.90 | 22.17 | 25.15 | 26.73 | 29.77 | 32.14 | 33.90 | 35.50 | 34.79 |
| 3 | 34.66 | 32.31 | 27.49 | 23.03 | 22.22 | 25.27 | 26.80 | 29.80 | 32.19 | 33.96 | 35.52 | 34.65 |
| 4 | 34.58 | 32.23 | 27.45 | 23.18 | 22.35 | 25.33 | 26.83 | 29.85 | 32.22 | 34.07 | 35.52 | 34.66 |
| 5 | 34.35 | 31.82 | 27.30 | 23.29 | 22.52 | 25.40 | 26.80 | 29.92 | 32.23 | 34.16 | 35.62 | 34.78 |
| 6 | 34.08 | 31.52 | 26.51 | 23.43 | 22.72 | 25.50 | 26.85 | 29.96 | 32.30 | 34.25 | 35.70 | 34.59 |
| 7 | 33.85 | 31.32 | 25.60 | 23.53 | 22.84 | 25.49 | 26.99 | 29.95 | 32.28 | 34.37 | 35.73 | 34.29 |
| 8 | 33.60 | 31.37 | 25.29 | 23.53 | 22.86 | 25.42 | 27.10 | 30.03 | 32.48 | 34.44 | 35.70 | 33.92 |
| 9 | 33.47 | 31.23 | 24.95 | 23.53 | 23.04 | 25.49 | 27.22 | 30.02 | 32.56 | 34.43 | 35.70 | 33.76 |
| 10 | 33.41 | 30.87 | 24.62 | 23.40 | 23.30 | 25.62 | 27.30 | 30.12 | 32.62 | 34.50 | 35.72 | 33.59 |
| 11 | 33.50 | 31.03 | 24.50 | 23.18 | 23.48 | 25.67 | 27.45 | 30.25 | 32.69 | 34.53 | 35.85 | 33.21 |
| 12 | 33.67 | 31.37 | 24.42 | 23.00 | 23.56 | 25.67 | 27.63 | 30.32 | 32.76 | 34.56 | 35.90 | 32.95 |
| 13 | 33.80 | 31.00 | 24.34 | 22.83 | 23.66 | 25.79 | 27.76 | 30.38 | 32.70 | 34.60 | 35.95 | 32.73 |
| 14 | 33.77 | 29.92 | 24.32 | 22.55 | 23.76 | 25.87 | 27.82 | 30.45 | 32.62 | 34.70 | 35.99 | 32.51 |
| 15 | 33.72 | 28.90 | 24.32 | 22.17 | 23.85 | 25.95 | 27.91 | 30.53 | 32.65 | 34.67 | 36.00 | 32.64 |
| 16 | 33.79 | 28.35 | 24.30 | 21.87 | 23.83 | 26.07 | 28.02 | 30.61 | 32.92 | 34.72 | 36.15 | 32.75 |
| 17 | 33.84 | 28.00 | 24.18 | 21.70 | 23.79 | 26.21 | 28.14 | 30.68 | 33.03 | 34.75 | 36.20 | 32.63 |
| 18 | 33.97 | 27.82 | 24.17 | 21.53 | 23.83 | 26.32 | 28.27 | 30.78 | 33.16 | 34.75 | 36.24 | 32.45 |
| 19 | 34.05 | 27.64 | 24.17 | 21.67 | 23.83 | 26.40 | 28.43 | 30.90 | 33.22 | 34.80 | 36.19 | 32.32 |
| 20 | 33.92 | 27.64 | 23.87 | 21.85 | 23.78 | 26.50 | 28.63 | 31.03 | 33.22 | 34.82 | 36.10 | 32.41 |
| 21 | 33.78 | 27.54 | 23.85 | 22.02 | 23.81 | 26.58 | 28.79 | 31.11 | 33.23 | 34.93 | 36.20 | 32.43 |
| 22 | 33.80 | 27.33 | 24.03 | 22.05 | 23.82 | 26.62 | 28.87 | 31.22 | 33.34 | 34.94 | 36.16 | 32.37 |
| 23 | 33.73 | 27.29 | 23.88 | 21.82 | 23.87 | 26.63 | 28.93 | 31.39 | 33.41 | 34.90 | 36.10 | 32.42 |
| 24 | 33.70 | 27.29 | 23.65 | 21.77 | 24.00 | 26.48 | 28.96 | 31.54 | 33.46 | 35.05 | 35.84 | 32.54 |
| 25 | 33.62 | 27.37 | 23.88 | 21.93 | 24.02 | 26.42 | 29.08 | 31.64 | 33.48 | 35.09 | 35.12 | 32.62 |
| 26 | 33.52 | 27.52 | 23.78 | 22.02 | 24.07 | 26.51 | 29.22 | 31.75 | 33.48 | 35.15 | 35.42 | 32.56 |
| 27 | 33.38 | 27.33 | 23.52 | 22.03 | 24.18 | 26.58 | 29.36 | 31.85 | 33.52 | 35.26 | 35.25 | 32.43 |
| 28 | 33.33 | 27.12 | 23.45 | 22.05 | 24.27 | 26.58 | 29.44 | 31.82 | 33.58 | 35.31 | 35.15 | 32.32 |
| 29 | 33.15 | --- | 23.35 | 22.00 | 24.32 | 26.58 | 29.52 | 31.87 | 33.66 | 35.31 | 35.05 | 32.33 |
| 30 | 33.04 | --- | 23.10 | 22.02 | 24.42 | 26.65 | 29.60 | 31.98 | 33.71 | 35.35 | 35.02 | 32.26 |
| 31 | 32.99 | --- | 23.11 | --- | 24.68 | --- | 29.67 | 32.12 | --- | 35.41 | --- | 31.90 |
| MEAN | 33.84 | 29.58 | 24.71 | 22.50 | 23.51 | 25.99 | 28.09 | 30.75 | 32.90 | 34.69 | 35.73 | 33.12 |
| CAL YR 1983 | MEAN | 29.62 | | HIGH | 21.53 | | LOW | 36.24 | | | | |

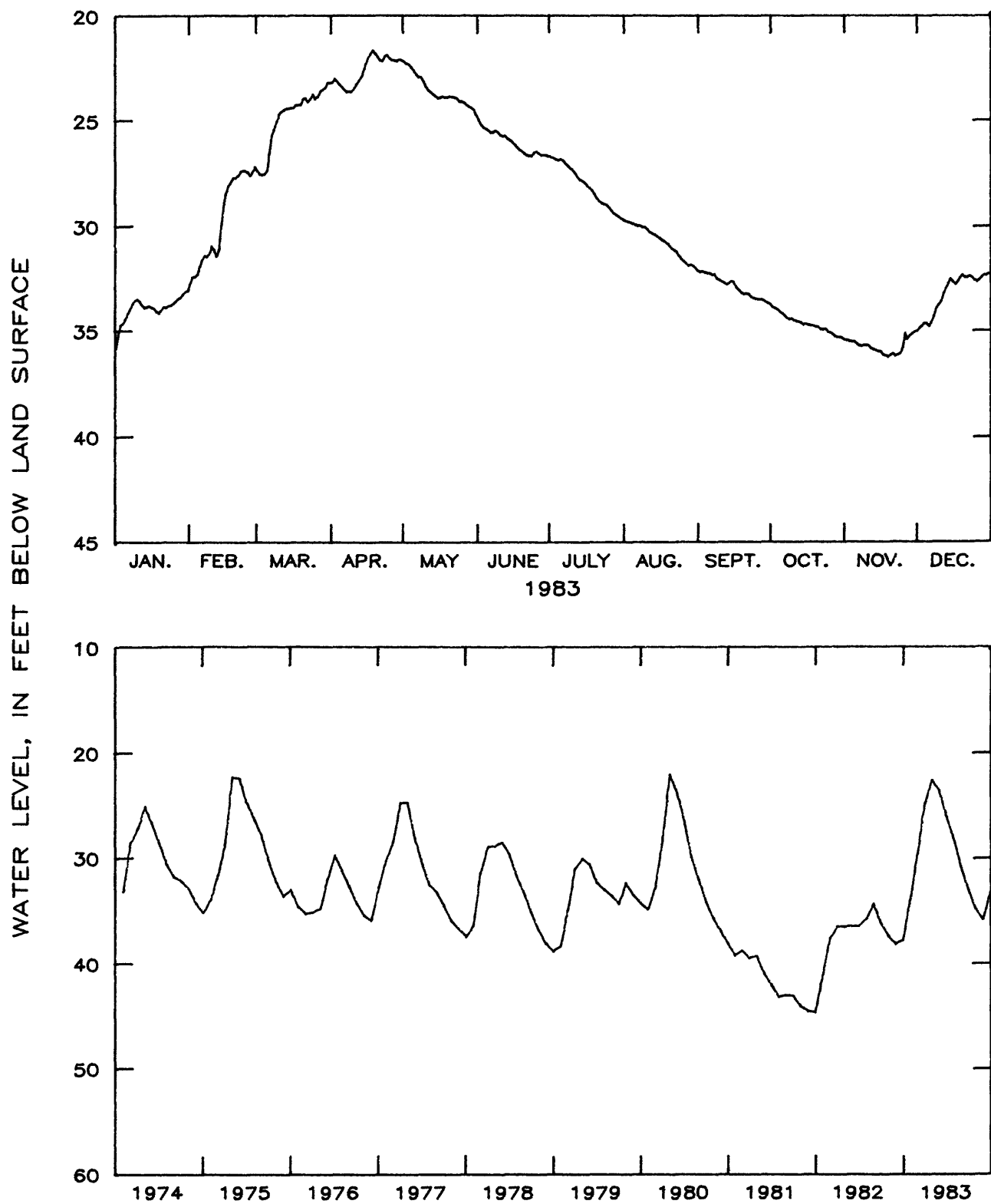


Figure 2.7.1-2.--Water level in observation well 13L003, Dougherty County.

13L012 TEST WELL 3 DOUGHERTY COUNTY

313105084064302 Local number, 13L012.

LOCATION.--Lat 31°31'05", long 84°06'43", Hydrologic Unit 03130008, about 6.5 mi southeast of Albany off U.S. Highway 19 on School Bus Road.

Owner: U.S. Geological Survey, test well 3.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, depth 218 ft, cased to 54 ft.

DATUM.--Altitude of land-surface datum is 195 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--Water levels for period of missing recorder record, October 23-24, were estimated.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.92 ft below land-surface datum, March 2, 1979; lowest, 48.18 ft below land-surface datum, July 1, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 35.89 | 38.34 | 34.09 | 29.39 | 35.37 | 41.22 | 40.39 | 42.68 | 44.26 | 43.23 | 43.97 | 39.97 |
| 2 | 34.36 | 37.25 | 34.49 | 28.82 | 35.92 | 41.54 | 40.48 | 42.32 | 43.78 | 43.38 | 44.18 | 40.04 |
| 3 | 33.86 | 36.53 | 35.19 | 29.28 | 36.13 | 41.64 | 40.61 | 42.19 | 43.72 | 43.50 | 44.38 | 39.93 |
| 4 | 33.84 | 35.95 | 35.16 | 30.32 | 36.37 | 41.24 | 40.70 | 42.17 | 43.52 | 44.10 | 44.47 | 40.09 |
| 5 | 34.18 | 34.96 | 35.28 | 32.37 | 36.54 | 41.23 | 40.95 | 42.20 | 43.32 | 44.35 | 44.37 | 40.30 |
| 6 | 34.73 | 34.50 | 28.16 | 33.29 | 37.04 | 41.26 | 40.84 | 42.20 | 43.27 | 44.40 | 44.47 | 39.31 |
| 7 | 34.40 | 33.22 | 25.80 | 34.19 | 37.13 | 40.51 | 40.98 | 42.09 | 43.32 | 44.75 | 44.37 | 35.28 |
| 8 | 33.99 | 34.86 | 26.45 | 34.42 | 37.31 | 39.62 | 41.07 | 42.05 | 43.42 | 44.70 | 44.04 | 35.81 |
| 9 | 34.05 | 34.88 | 25.77 | 33.75 | 37.82 | 40.07 | 41.26 | 42.12 | 43.38 | 44.50 | 44.03 | 36.54 |
| 10 | 35.27 | 35.05 | 26.01 | 32.09 | 38.33 | 40.23 | 41.41 | 42.36 | 43.49 | 44.43 | 44.15 | 35.96 |
| 11 | 37.23 | 36.16 | 26.77 | 31.43 | 38.67 | 40.36 | 41.61 | 42.63 | 43.68 | 44.43 | 44.21 | 34.72 |
| 12 | 38.37 | 36.97 | 27.46 | 30.76 | 38.86 | 40.39 | 41.87 | 42.69 | 43.71 | 44.36 | 44.21 | 34.49 |
| 13 | 38.86 | 37.09 | 23.37 | 29.43 | 39.09 | 40.66 | 42.05 | 42.67 | 43.49 | 44.03 | 44.27 | 34.23 |
| 14 | 39.33 | 29.84 | 29.56 | 27.57 | 39.21 | 40.74 | 42.25 | 42.18 | 42.29 | 44.03 | 44.30 | 34.78 |
| 15 | 39.53 | 26.38 | 31.56 | 25.19 | 39.31 | 40.90 | 42.44 | 42.49 | 42.38 | 43.77 | 44.19 | 35.44 |
| 16 | 39.84 | 26.79 | 32.60 | 25.32 | 38.61 | 41.24 | 42.53 | 42.55 | 42.59 | 43.83 | 44.30 | 35.66 |
| 17 | 40.15 | 26.53 | 32.21 | 26.30 | 38.40 | 41.52 | 42.70 | 42.62 | 42.61 | 43.62 | 44.12 | 35.50 |
| 18 | 40.35 | 27.60 | 31.50 | 29.11 | 39.00 | 41.66 | 42.87 | 42.67 | 42.73 | 43.54 | 44.11 | 35.58 |
| 19 | 40.58 | 28.66 | 31.16 | 30.87 | 39.19 | 41.62 | 43.04 | 42.90 | 42.83 | 43.64 | 44.02 | 36.25 |
| 20 | 40.59 | 30.12 | 30.87 | 32.38 | 39.30 | 41.58 | 43.14 | 43.09 | 42.75 | 43.63 | 43.46 | 37.49 |
| 21 | 39.91 | 32.34 | 31.13 | 32.98 | 39.41 | 41.66 | 43.33 | 43.23 | 42.62 | 43.63 | 43.05 | 37.92 |
| 22 | 39.73 | 33.03 | 31.95 | 33.50 | 39.57 | 41.43 | 43.44 | 43.56 | 42.63 | 43.61 | 43.02 | 38.36 |
| 23 | 39.25 | 33.66 | 32.46 | 32.94 | 39.82 | 41.04 | 42.79 | 43.90 | 42.75 | 43.62 | 42.95 | 38.82 |
| 24 | 38.61 | 33.94 | 32.40 | 32.47 | 39.93 | 39.18 | 42.63 | 44.03 | 42.75 | 43.64 | 41.29 | 39.11 |
| 25 | 38.70 | 33.73 | 31.96 | 32.99 | 40.07 | 39.10 | 42.70 | 44.29 | 42.74 | 43.65 | 39.91 | 39.27 |
| 26 | 38.85 | 34.04 | 32.15 | 33.04 | 40.31 | 39.96 | 42.80 | 44.31 | 42.69 | 43.83 | 40.22 | 39.23 |
| 27 | 38.48 | 33.82 | 31.60 | 33.54 | 40.43 | 39.89 | 42.65 | 44.27 | 42.79 | 43.94 | 40.62 | 39.34 |
| 28 | 37.80 | 33.95 | 30.41 | 33.64 | 40.67 | 39.88 | 42.70 | 44.10 | 42.86 | 43.93 | 39.73 | 39.03 |
| 29 | 38.08 | --- | 29.78 | 34.11 | 40.79 | 40.09 | 42.69 | 43.96 | 42.95 | 43.86 | 39.49 | 38.07 |
| 30 | 38.76 | --- | 29.64 | 34.76 | 40.98 | 40.32 | 42.69 | 44.16 | 43.10 | 43.91 | 39.83 | 37.65 |
| 31 | 38.80 | --- | 29.91 | --- | 41.07 | --- | 42.72 | 44.56 | --- | 43.94 | --- | 37.50 |
| MEAN | 37.62 | 33.21 | 30.70 | 31.36 | 38.73 | 40.73 | 42.07 | 43.01 | 43.08 | 43.93 | 43.13 | 37.57 |
| CAL YR 1983 | MEAN | 38.80 | | HIGH | 25.19 | | LOW | 44.78 | | | | |

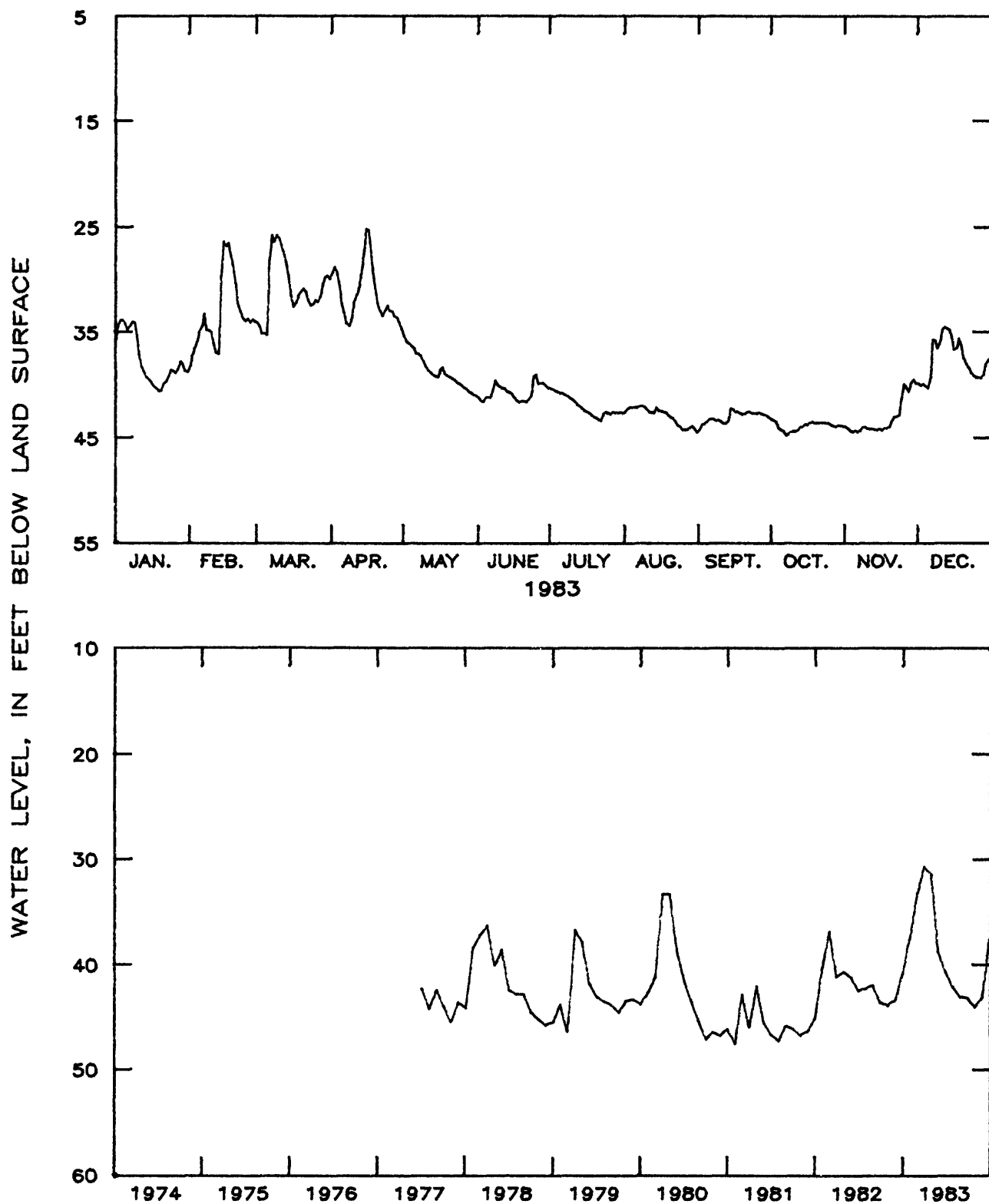


Figure 2.7.1-3.--Water level in observation well 13L012, Dougherty County.

312127084065801 Local number, 13J004.

LOCATION.--Lat 31°21'27", long 84°06'58", Hydrologic Unit 03130008, turn left at intersection of U.S. Highway 19 and State Highway 93, go 2.7 mi and turn right at red barn.

Owner: Henry Wright.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 12 in., depth 208 ft, cased to 77 ft, open hole.

DATUM.--Altitude of land-surface datum is 200 ft.

Measuring point: Top of front edge of shelter, 3.60 ft above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--June 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.90 ft below land-surface datum, April 13, 1980; lowest, 54.00 ft below land-surface datum, September 25, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 49.25 | 46.23 | 41.68 | 39.15 | 38.88 | 42.25 | 43.12 | 45.06 | 46.29 | 47.00 | 47.96 | 47.48 |
| 2 | 48.70 | 46.02 | 41.78 | 39.07 | 39.05 | 42.88 | 43.14 | 45.05 | 46.27 | 47.07 | 47.93 | 47.25 |
| 3 | 48.30 | 45.85 | 41.76 | 39.17 | 39.40 | 43.18 | 43.17 | 45.00 | 46.33 | 47.20 | 47.89 | 47.03 |
| 4 | 48.00 | 45.65 | 41.73 | 39.32 | 39.50 | 43.28 | 43.20 | 44.98 | 46.43 | 47.05 | 47.76 | 47.03 |
| 5 | 47.64 | 45.30 | 41.68 | 39.40 | 39.88 | 42.80 | 43.20 | 45.05 | 46.41 | 47.05 | 47.83 | 47.05 |
| 6 | 47.52 | 45.03 | 41.26 | 39.52 | 40.06 | 42.80 | 43.45 | 44.97 | 46.47 | 47.14 | 48.00 | 47.03 |
| 7 | 47.38 | 45.17 | 40.64 | 39.60 | 40.17 | 42.67 | 43.75 | 44.84 | 46.50 | 47.20 | 48.03 | 47.22 |
| 8 | 47.25 | 45.23 | 40.22 | 39.58 | 40.20 | 42.67 | 44.12 | 44.88 | 46.51 | 47.24 | 48.05 | 47.00 |
| 9 | 47.13 | 45.07 | 40.06 | 39.52 | 40.12 | 42.72 | 43.65 | 44.94 | 46.53 | 47.29 | 48.00 | 46.75 |
| 10 | 47.07 | 44.82 | 39.96 | 39.37 | 40.50 | 42.79 | 43.65 | 44.98 | 46.61 | 47.30 | 47.90 | 46.50 |
| 11 | 47.12 | 45.07 | 39.94 | 39.18 | 40.34 | 42.73 | 44.04 | 44.98 | 46.62 | 47.23 | 48.10 | 46.15 |
| 12 | 47.24 | 45.34 | 39.90 | 39.15 | 40.34 | 42.69 | 44.30 | 44.94 | 46.70 | 47.21 | 48.20 | 45.96 |
| 13 | 47.40 | 45.10 | 39.85 | 39.23 | 40.83 | 42.80 | 44.47 | 45.00 | 46.55 | 47.25 | 48.20 | 45.66 |
| 14 | 47.32 | 44.40 | 39.85 | 39.00 | 41.02 | 43.40 | 44.40 | 45.10 | 46.60 | 47.45 | 48.20 | 45.48 |
| 15 | 47.25 | 43.75 | 39.80 | 38.80 | 40.62 | 43.60 | 44.70 | 45.20 | 46.74 | 47.48 | 48.16 | 45.63 |
| 16 | 47.28 | 43.04 | 39.65 | 38.57 | 40.58 | 43.68 | 45.00 | 45.27 | 46.78 | 47.50 | 48.31 | 45.82 |
| 17 | 47.32 | 42.58 | 39.48 | 38.40 | 40.80 | 44.13 | 45.30 | 45.37 | 46.78 | 47.48 | 48.45 | 45.76 |
| 18 | 47.45 | 42.42 | 39.52 | 38.17 | 40.95 | 44.04 | 45.15 | 45.50 | 46.77 | 47.46 | 48.45 | 45.57 |
| 19 | 47.56 | 42.03 | 39.62 | 38.30 | 40.96 | 44.02 | 45.47 | 45.92 | 46.80 | 47.49 | 48.37 | 45.45 |
| 20 | 47.35 | 41.76 | 39.42 | 38.45 | 41.28 | 43.72 | 45.87 | 46.29 | 46.70 | 47.50 | 48.16 | 45.45 |
| 21 | 47.22 | 41.60 | 39.58 | 38.57 | 41.05 | 43.54 | 45.70 | 45.99 | 46.61 | 47.56 | 48.41 | 45.35 |
| 22 | 47.22 | 41.34 | 39.83 | 38.55 | 41.03 | 43.46 | 45.65 | 46.08 | 46.71 | 47.51 | 48.47 | 45.16 |
| 23 | 47.07 | 41.30 | 39.67 | 38.27 | 41.08 | 43.58 | 45.88 | 46.50 | 46.90 | 47.37 | 48.32 | 45.16 |
| 24 | 47.00 | 41.30 | 39.47 | 38.18 | 41.28 | 43.30 | 45.52 | 46.63 | 46.90 | 47.52 | 48.20 | 45.42 |
| 25 | 46.96 | 41.55 | 39.75 | 38.35 | 41.40 | 43.38 | 45.60 | 46.82 | 46.83 | 47.67 | 48.27 | 45.53 |
| 26 | 46.90 | 41.84 | 39.64 | 38.47 | 41.50 | 43.38 | 45.90 | 47.40 | 46.79 | 47.68 | 48.10 | 45.40 |
| 27 | 46.78 | 41.77 | 39.42 | 38.53 | 42.10 | 43.18 | 45.37 | 46.93 | 46.75 | 47.81 | 47.73 | 45.10 |
| 28 | 46.93 | 41.53 | 39.46 | 38.55 | 42.48 | 43.17 | 45.25 | 46.49 | 46.77 | 47.95 | 47.50 | 45.02 |
| 29 | 46.75 | --- | 39.47 | 38.65 | 42.32 | 43.10 | 45.24 | 46.21 | 46.88 | 47.90 | 47.65 | 45.22 |
| 30 | 46.57 | --- | 39.40 | 38.74 | 42.17 | 43.10 | 45.13 | 46.22 | 46.93 | 47.90 | 47.68 | 45.33 |
| 31 | 46.53 | --- | 39.23 | --- | 42.02 | --- | 45.10 | 46.22 | --- | 47.97 | --- | 45.10 |
| MEAN | 47.34 | 43.65 | 40.09 | 38.86 | 40.77 | 43.20 | 44.63 | 45.64 | 46.65 | 47.43 | 48.08 | 45.97 |
| CAL YR 1983 | MEAN | 44.37 | | HIGH | 38.17 | | LOW | 49.25 | | | | |

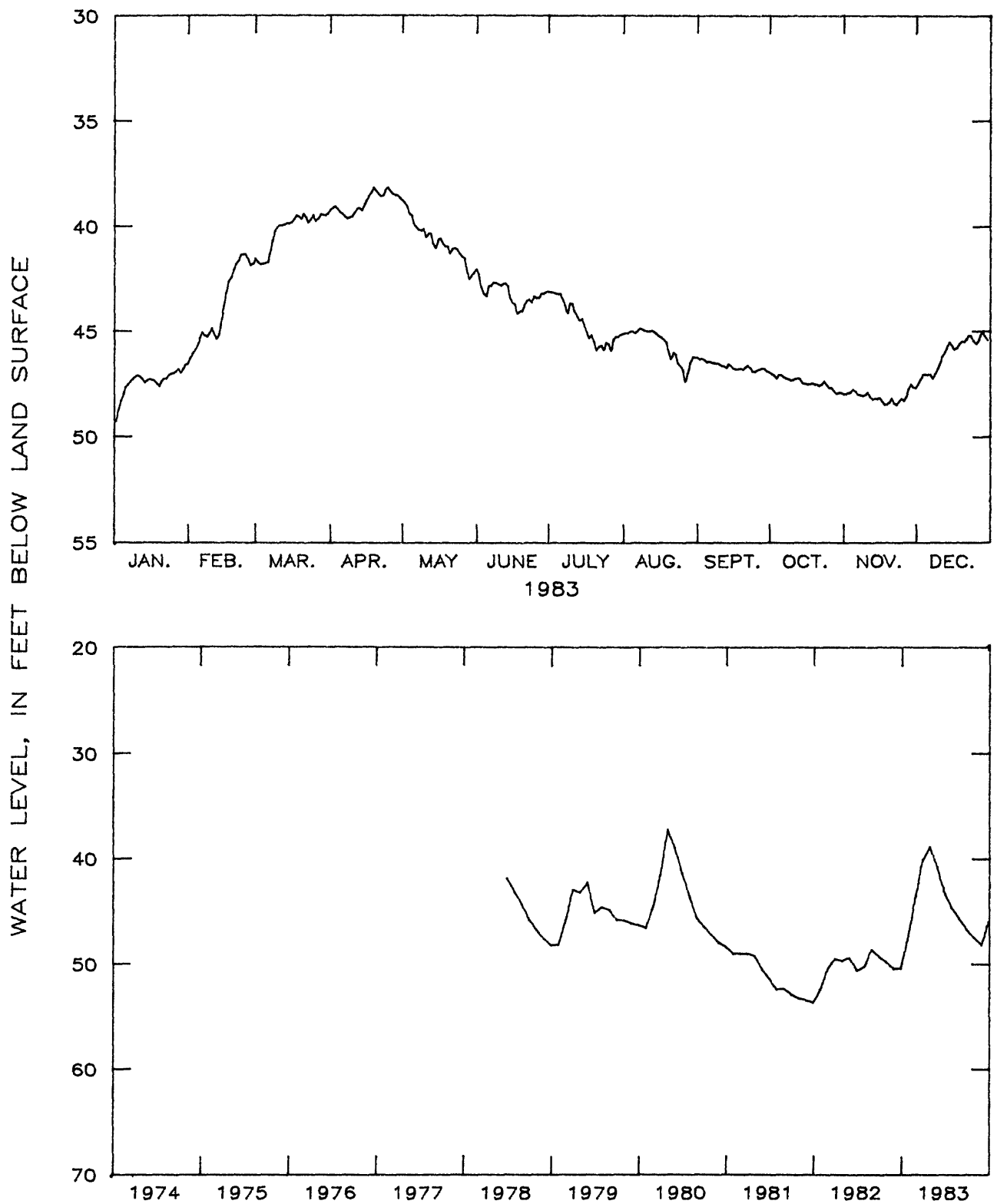


Figure 2.7.1-4.--Water level in observation well 13J004, Mitchell County.

10G313 MEINDERS MITCHELL COUNTY

310507084262201 Local number, 10G313.

LOCATION.--Lat 31°05'07", long 84°26'22", Hydrologic Unit 03130008, 1.95 mi west of Vada off of Decatur-Mitchell County line road, on right.

Owner: Harvey Meinders.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Cable-tooled unused observation well, diameter 12 in., depth 250 ft, cased to 87 ft, open hole.

DATUM.--Altitude of land-surface datum is 14.8 ft.

Measuring point: Floor of recorder shelter, 1.35 ft above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--November 1961 to September 1968; April 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.19 ft below land-surface datum, April 12, 1964; lowest, 60.26 ft below land-surface datum, January 1, 1982.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 54.88 | 52.54 | 47.39 | 41.82 | 38.71 | 40.80 | 42.45 | 44.58 | 47.47 | 49.53 | 51.36 | 51.82 |
| 2 | 54.72 | 52.55 | 47.27 | 41.61 | 38.65 | 40.96 | 42.45 | 44.65 | 47.53 | 49.61 | 51.41 | 51.76 |
| 3 | 54.68 | 52.59 | 47.15 | 41.64 | 38.59 | 41.07 | 42.46 | 44.71 | 47.62 | 49.66 | 51.44 | 51.68 |
| 4 | 54.55 | 52.55 | 47.02 | 41.61 | 38.68 | 41.18 | 42.44 | 44.79 | 47.70 | 49.71 | 51.47 | 51.72 |
| 5 | 54.36 | 52.43 | 46.86 | 41.49 | 38.80 | 41.28 | 42.35 | 44.87 | 47.77 | 49.78 | 51.54 | 51.74 |
| 6 | 54.22 | 52.30 | 46.73 | 41.40 | 38.91 | 41.41 | 42.30 | 44.93 | 47.84 | 49.86 | 51.59 | 51.65 |
| 7 | 54.09 | 52.34 | 46.33 | 41.30 | 38.95 | 41.41 | 42.34 | 44.99 | 47.92 | 49.93 | 51.63 | 51.55 |
| 8 | 53.96 | 52.28 | 46.02 | 41.17 | 38.96 | 41.34 | 42.34 | 45.10 | 47.98 | 49.99 | 51.69 | 51.26 |
| 9 | 53.86 | 52.16 | 45.76 | 41.12 | 39.09 | 41.35 | 42.30 | 45.21 | 48.06 | 50.05 | 51.72 | 51.09 |
| 10 | 53.76 | 52.02 | 45.45 | 41.07 | 39.26 | 41.39 | 42.32 | 45.33 | 48.13 | 50.10 | 51.77 | 50.97 |
| 11 | 53.66 | 52.08 | 45.18 | 40.86 | 39.21 | 41.37 | 42.42 | 45.42 | 48.19 | 50.14 | 51.85 | 50.73 |
| 12 | 53.66 | 52.03 | 44.90 | 40.71 | 39.08 | 41.40 | 42.55 | 45.50 | 48.26 | 50.20 | 51.90 | 50.59 |
| 13 | 53.54 | 51.88 | 44.63 | 40.56 | 39.08 | 41.47 | 42.68 | 45.58 | 48.30 | 50.28 | 51.95 | 50.39 |
| 14 | 53.43 | 51.69 | 44.38 | 40.41 | 39.11 | 41.54 | 42.74 | 45.69 | 48.40 | 50.35 | 51.99 | 50.13 |
| 15 | 53.36 | 51.33 | 44.09 | 40.23 | 39.12 | 41.65 | 42.80 | 45.79 | 48.49 | 50.40 | 52.04 | 50.12 |
| 16 | 53.28 | 50.87 | 43.78 | 40.10 | 39.15 | 41.78 | 42.91 | 45.90 | 48.55 | 50.45 | 52.12 | 50.03 |
| 17 | 53.24 | 50.59 | 43.55 | 39.82 | 39.35 | 41.87 | 43.02 | 45.99 | 48.62 | 50.50 | 52.18 | 49.85 |
| 18 | 53.22 | 50.36 | 43.58 | 39.44 | 39.45 | 41.99 | 43.11 | 46.12 | 48.70 | 50.55 | 52.22 | 49.67 |
| 19 | 53.16 | 50.05 | 43.50 | 39.40 | 39.53 | 42.11 | 43.26 | 46.24 | 48.77 | 50.61 | 52.24 | 49.46 |
| 20 | 53.06 | 49.79 | 43.24 | 39.36 | 39.60 | 42.20 | 43.38 | 46.36 | 48.81 | 50.66 | 52.28 | 49.27 |
| 21 | 53.03 | 49.41 | 43.25 | 39.29 | 39.68 | 42.27 | 43.48 | 46.44 | 48.87 | 50.73 | 52.38 | 49.09 |
| 22 | 53.01 | 48.95 | 43.23 | 39.11 | 39.74 | 42.32 | 43.56 | 46.53 | 48.97 | 50.76 | 52.41 | 48.89 |
| 23 | 52.98 | 48.70 | 43.01 | 38.77 | 39.82 | 42.37 | 43.68 | 46.63 | 49.05 | 50.79 | 52.43 | 48.66 |
| 24 | 52.96 | 48.42 | 42.79 | 38.88 | 39.92 | 42.33 | 43.75 | 46.74 | 49.12 | 50.88 | 52.41 | 48.62 |
| 25 | 52.92 | 48.23 | 42.89 | 38.96 | 39.98 | 42.33 | 43.86 | 46.83 | 49.17 | 50.94 | 52.35 | 48.56 |
| 26 | 52.86 | 48.08 | 42.71 | 38.94 | 40.06 | 42.40 | 43.97 | 46.93 | 49.22 | 50.99 | 52.10 | 48.41 |
| 27 | 52.80 | 47.77 | 42.52 | 38.86 | 40.20 | 42.42 | 44.12 | 47.02 | 49.27 | 51.08 | 51.91 | 48.24 |
| 28 | 52.80 | 47.40 | 42.51 | 38.79 | 40.30 | 42.43 | 44.26 | 47.10 | 49.33 | 51.14 | 51.84 | 48.09 |
| 29 | 52.75 | --- | 42.41 | 38.76 | 40.36 | 42.45 | 44.37 | 47.18 | 49.39 | 51.18 | 51.89 | 48.15 |
| 30 | 52.71 | --- | 42.17 | 38.72 | 40.43 | 42.47 | 44.43 | 47.30 | 49.46 | 51.24 | 51.86 | 48.21 |
| 31 | 52.67 | --- | 41.96 | --- | 40.59 | --- | 44.50 | 47.39 | --- | 51.30 | --- | 48.09 |
| MEAN | 53.49 | 50.76 | 44.40 | 40.14 | 39.43 | 41.78 | 43.12 | 45.93 | 48.50 | 50.43 | 51.93 | 49.95 |
| CAL YR 1983 | MEAN | 46.63 | | HIGH | 38.59 | | LOW | 54.88 | | | | |

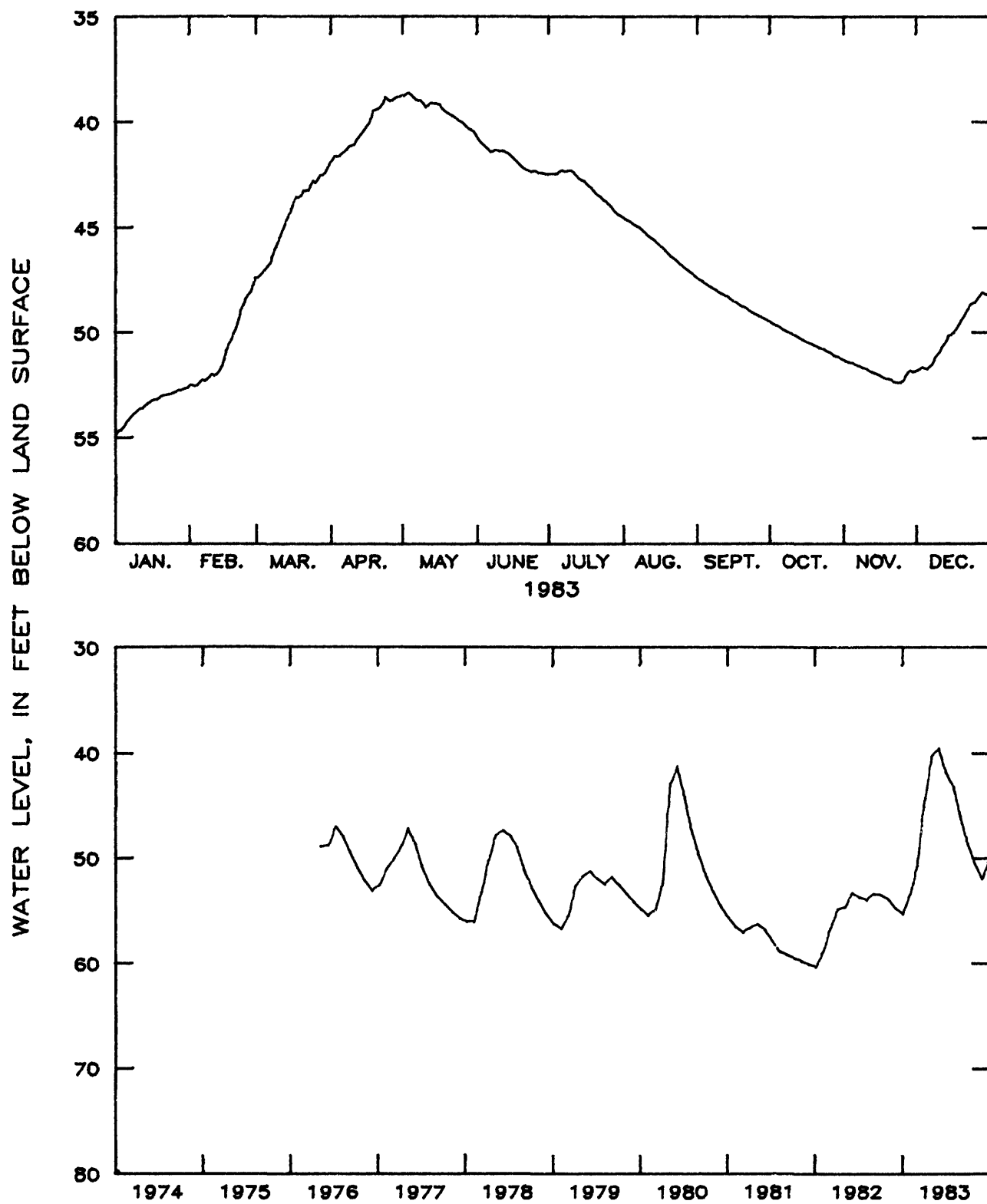


Figure 2.7.1-5.—Water level in observation well 10G313, Mitchell County.

305736084355801 Local number, 09F520.

LOCATION.--Lat 30°57'40", long 84°35'46", Hydrologic Unit 03130008, U.S. Highway 27 north of Bainbridge, right on dirt road near John Deere tractor dealership.

Owner: Graham Bolton.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Unused private irrigation well, diameter 12 in., depth 251 ft, cased to 130 ft, open hole.

DATUM.--Altitude of land-surface datum is 128 ft.

Measuring point: Floor of recorder shelter, 3.50 ft above land-surface datum.

REMARKS.--This well is about 15 ft from pumped well. Water levels for periods of missing recorder record, May 19-31 and June 9 to September 27, were estimated.

PERIOD OF RECORD.--June 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.75 ft below land-surface datum, April 24, 1975; lowest, 54.78 ft below land-surface datum, August 20, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 46.48 | 44.79 | 42.04 | 40.19 | 38.73 | 40.71 | 41.57 | 42.97 | 45.06 | 46.32 | 47.11 | 47.16 |
| 2 | 46.32 | 44.80 | 42.00 | 40.11 | 38.69 | 40.82 | 41.56 | 43.01 | 45.12 | 46.34 | 47.14 | 47.08 |
| 3 | 46.21 | 44.83 | 41.97 | 40.12 | 38.66 | 40.90 | 41.51 | 43.06 | 45.17 | 46.36 | 47.71 | 47.01 |
| 4 | 46.03 | 44.82 | 41.91 | 40.10 | 38.71 | 40.96 | 41.39 | 43.12 | 45.22 | 46.40 | 47.18 | 46.98 |
| 5 | 45.84 | 44.73 | 41.86 | 40.06 | 38.77 | 41.00 | 41.32 | 43.15 | 45.26 | 46.43 | 47.21 | 46.93 |
| 6 | 45.71 | 44.63 | 41.83 | 40.04 | 38.84 | 41.05 | 41.33 | 43.18 | 45.32 | 46.47 | 47.23 | 46.88 |
| 7 | 45.59 | 44.62 | 41.70 | 40.01 | 38.88 | 41.08 | 41.31 | 43.27 | 45.35 | 46.50 | 47.26 | 46.72 |
| 8 | 45.48 | 44.54 | 41.58 | 39.98 | 38.90 | 41.08 | 41.24 | 43.35 | 45.41 | 46.52 | 47.29 | 46.50 |
| 9 | 45.39 | 44.44 | 41.47 | 39.99 | 38.97 | 41.06 | 41.24 | 43.45 | 45.45 | 46.54 | 47.30 | 46.31 |
| 10 | 45.30 | 44.34 | 41.32 | 40.00 | 41.30 | 41.08 | 41.31 | 43.51 | 45.48 | 46.56 | 47.33 | 46.14 |
| 11 | 45.23 | 44.36 | 41.18 | 39.94 | 40.92 | 41.03 | 41.41 | 43.57 | 45.53 | 46.59 | 47.37 | 45.94 |
| 12 | 45.24 | 44.34 | 41.04 | 39.88 | 41.70 | 41.04 | 41.52 | 43.62 | 45.54 | 46.62 | 47.40 | 45.79 |
| 13 | 45.21 | 44.25 | 40.92 | 39.83 | 40.98 | 41.08 | 41.55 | 43.70 | 45.62 | 46.65 | 47.42 | 45.57 |
| 14 | 45.17 | 44.12 | 40.82 | 39.76 | 39.39 | 41.13 | 41.59 | 43.78 | 45.68 | 46.69 | 47.45 | 45.39 |
| 15 | 45.16 | 43.86 | 40.71 | 39.64 | 39.45 | 41.21 | 41.67 | 43.86 | 45.71 | 46.70 | 47.48 | 45.30 |
| 16 | 45.15 | 43.53 | 40.62 | 39.48 | 39.47 | 41.31 | 41.76 | 43.93 | 45.76 | 46.72 | 47.54 | 45.18 |
| 17 | 45.15 | 43.36 | 40.56 | 39.25 | 39.54 | 41.38 | 41.82 | 44.03 | 45.81 | 46.74 | 47.57 | 45.05 |
| 18 | 45.18 | 43.13 | 40.63 | 39.01 | 39.59 | 41.47 | 41.94 | 44.13 | 45.86 | 46.76 | 47.60 | 44.93 |
| 19 | 45.18 | 42.91 | 40.65 | 38.95 | 39.65 | 41.57 | 42.04 | 44.22 | 45.87 | 46.78 | 47.61 | 44.83 |
| 20 | 45.13 | 42.75 | 40.55 | 38.90 | 39.71 | 41.63 | 42.11 | 44.27 | 45.91 | 46.80 | 47.64 | 44.75 |
| 21 | 45.14 | 42.55 | 40.61 | 38.86 | 39.77 | 41.68 | 42.17 | 44.34 | 45.98 | 46.83 | 47.69 | 44.67 |
| 22 | 45.16 | 42.37 | 40.63 | 38.78 | 39.81 | 41.70 | 42.26 | 44.41 | 46.03 | 46.84 | 47.71 | 44.59 |
| 23 | 45.16 | 42.31 | 40.54 | 38.63 | 39.88 | 41.72 | 42.31 | 44.50 | 46.08 | 46.84 | 47.71 | 44.55 |
| 24 | 45.17 | 42.23 | 40.49 | 38.70 | 39.96 | 41.66 | 42.39 | 44.56 | 46.10 | 46.88 | 47.71 | 44.57 |
| 25 | 45.14 | 42.22 | 40.57 | 38.73 | 40.01 | 41.63 | 42.47 | 44.64 | 46.13 | 46.91 | 47.65 | 44.55 |
| 26 | 45.06 | 42.20 | 40.52 | 38.72 | 40.07 | 41.68 | 42.60 | 44.70 | 46.15 | 46.93 | 47.50 | 44.50 |
| 27 | 44.95 | 42.09 | 40.44 | 38.69 | 40.19 | 41.67 | 42.71 | 44.75 | 46.19 | 46.97 | 47.36 | 44.43 |
| 28 | 44.96 | 41.97 | 40.60 | 38.67 | 40.28 | 41.65 | 42.80 | 44.81 | 46.22 | 47.01 | 47.32 | 44.39 |
| 29 | 44.90 | --- | 40.43 | 38.69 | 40.32 | 41.65 | 42.83 | 44.90 | 46.26 | 47.03 | 47.29 | 44.46 |
| 30 | 44.88 | --- | 40.35 | 38.71 | 40.37 | 41.64 | 42.88 | 44.97 | 46.28 | 47.05 | 47.22 | 44.50 |
| 31 | 44.86 | --- | 40.26 | --- | 40.52 | --- | 42.93 | 45.02 | --- | 47.08 | --- | 44.44 |
| MEAN | 45.34 | 43.61 | 40.99 | 39.41 | 39.74 | 41.31 | 41.92 | 43.96 | 45.72 | 46.71 | 47.43 | 45.49 |
| CAL YR 1983 | MEAN | 43.47 | | HIGH | 38.63 | | LOW | 47.71 | | | | |

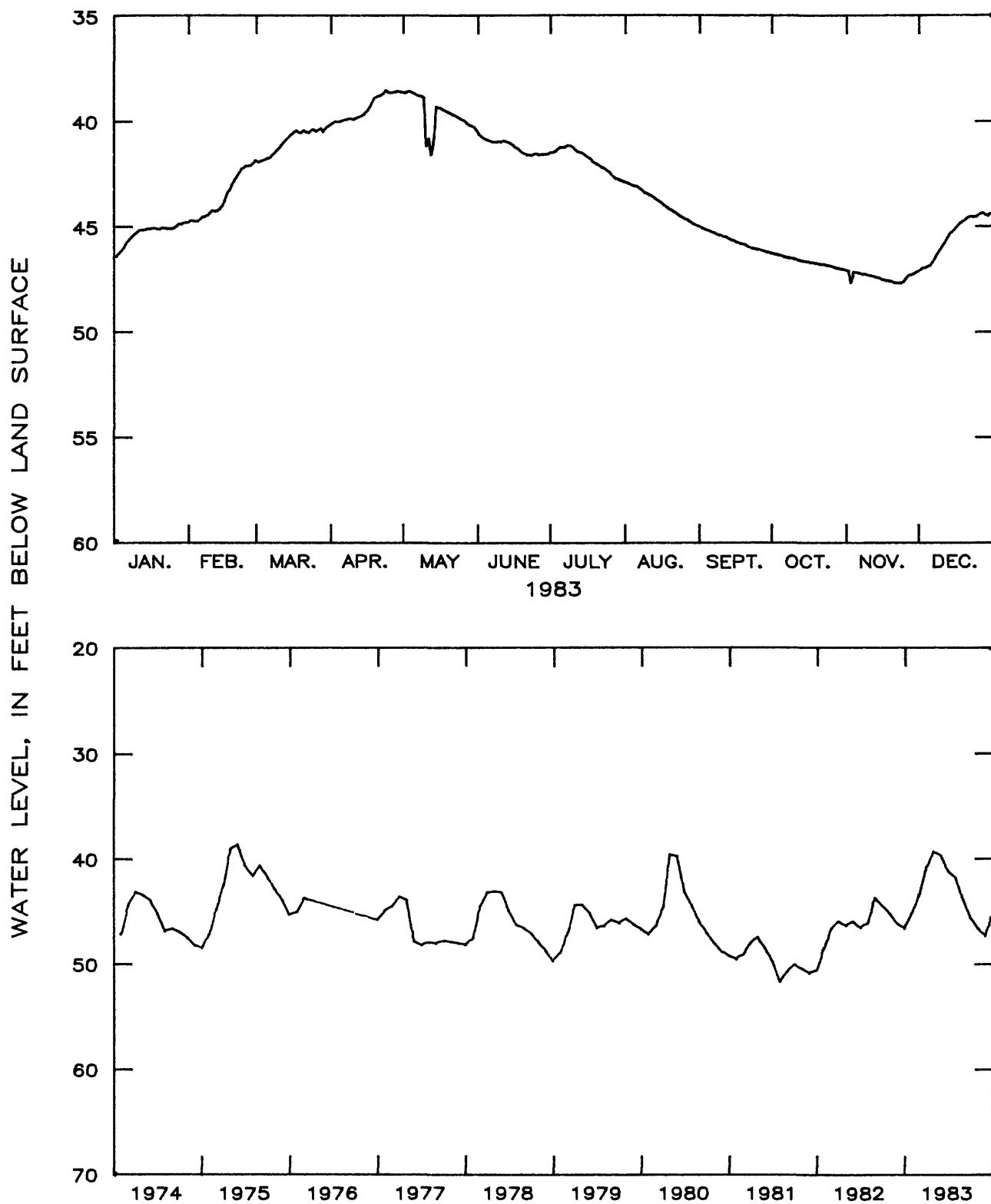


Figure 2.7.1-6.--Water level in observation well 09F520, Decatur County.

08G001 FLEET MILLER COUNTY

310651084404501 Local number, 08G001.

LOCATION.--Lat 31°06'51", long 84°40'45", Hydrologic Unit 03130010, 1 mi northeast of Boykin, Ga.

Owner: Jack Fleet.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 12 in., depth 255 ft, cased to 130 ft, open hole.

DATUM.--Altitude of land-surface datum is 150 ft.

Measuring point: Top front edge of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.62 ft below land-surface datum, February 16, 1983; lowest, 43.88 ft below land-surface datum, July 17, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 20.04 | 19.33 | 15.22 | 16.57 | 14.82 | 20.07 | 21.32 | 28.90 | 34.32 | 32.90 | 34.97 | 22.42 |
| 2 | 18.32 | 18.85 | 15.38 | 16.48 | 14.94 | 20.18 | 21.17 | 28.38 | 33.10 | 33.02 | 35.03 | 22.40 |
| 3 | 17.18 | 18.25 | 15.53 | 16.43 | 15.08 | 20.88 | 21.04 | 28.23 | 32.82 | 33.20 | 35.10 | 22.44 |
| 4 | 16.47 | 17.58 | 15.64 | 16.49 | 15.22 | 21.48 | 20.94 | 28.15 | 32.80 | 33.34 | 35.06 | 22.72 |
| 5 | 16.14 | 17.03 | 15.76 | 16.55 | 15.38 | 20.97 | 20.98 | 28.10 | 32.62 | 33.45 | 35.18 | 23.10 |
| 6 | 16.10 | 16.70 | 15.54 | 16.63 | 15.78 | 20.94 | 20.95 | 28.10 | 32.60 | 33.54 | 35.27 | 23.28 |
| 7 | 16.18 | 16.67 | 15.16 | 16.68 | 16.04 | 20.96 | 21.76 | 28.12 | 32.68 | 34.47 | 35.30 | 22.73 |
| 8 | 16.34 | 16.70 | 14.95 | 16.70 | 15.92 | 20.86 | 23.20 | 28.25 | 32.75 | 34.48 | 35.38 | 21.73 |
| 9 | 16.55 | 16.73 | 14.85 | 16.75 | 16.02 | 20.66 | 23.85 | 28.48 | 32.87 | 34.01 | 35.45 | 20.96 |
| 10 | 16.82 | 16.78 | 14.77 | 16.60 | 16.34 | 20.48 | 23.08 | 29.50 | 33.23 | 33.92 | 35.50 | 20.50 |
| 11 | 17.08 | 17.00 | 14.80 | 16.33 | 16.43 | 20.32 | 22.85 | 30.75 | 33.35 | 33.89 | 35.62 | 20.20 |
| 12 | 17.40 | 17.20 | 14.85 | 16.06 | 16.47 | 20.17 | 23.20 | 30.85 | 33.38 | 33.93 | 35.70 | 19.19 |
| 13 | 17.72 | 17.25 | 14.94 | 15.86 | 16.62 | 20.73 | 23.47 | 30.95 | 33.16 | 34.05 | 35.73 | 19.26 |
| 14 | 17.95 | 15.96 | 15.07 | 15.72 | 16.74 | 21.14 | 24.90 | 30.40 | 32.85 | 34.10 | 35.82 | 18.60 |
| 15 | 18.24 | 14.24 | 15.16 | 15.45 | 16.88 | 20.74 | 25.95 | 31.45 | 32.46 | 34.02 | 35.86 | 18.32 |
| 16 | 18.55 | 13.62 | 15.24 | 15.02 | 16.98 | 21.23 | 24.83 | 32.92 | 32.10 | 34.01 | 35.96 | 18.27 |
| 17 | 18.86 | 13.68 | 15.34 | 14.65 | 17.18 | 21.67 | 24.36 | 32.33 | 31.85 | 34.00 | 36.06 | 18.28 |
| 18 | 19.22 | 13.65 | 15.53 | 14.43 | 17.35 | 22.40 | 24.40 | 32.48 | 31.78 | 33.99 | 36.10 | 18.34 |
| 19 | 19.55 | 13.74 | 15.70 | 14.45 | 17.50 | 22.15 | 25.20 | 32.76 | 31.75 | 34.00 | 36.12 | 18.50 |
| 20 | 19.80 | 13.87 | 15.75 | 14.50 | 17.63 | 22.17 | 26.22 | 34.35 | 31.75 | 34.05 | 36.13 | 18.70 |
| 21 | 20.06 | 13.96 | 15.92 | 14.60 | 17.78 | 22.12 | 26.90 | 34.17 | 31.78 | 34.10 | 36.22 | 18.85 |
| 22 | 20.34 | 14.04 | 16.08 | 14.68 | 17.95 | 21.96 | 27.64 | 32.56 | 31.95 | 34.10 | 36.22 | 19.00 |
| 23 | 20.57 | 14.20 | 16.24 | 14.63 | 18.08 | 21.77 | 27.55 | 31.92 | 32.05 | 34.09 | 36.16 | 19.17 |
| 24 | 20.82 | 14.38 | 16.15 | 14.68 | 18.56 | 21.64 | 27.34 | 31.90 | 32.10 | 34.20 | 34.43 | 19.40 |
| 25 | 21.00 | 14.64 | 16.40 | 14.60 | 18.53 | 21.53 | 27.58 | 31.75 | 32.15 | 34.27 | 29.13 | 19.64 |
| 26 | 21.12 | 14.85 | 16.46 | 14.46 | 18.65 | 21.50 | 29.08 | 31.96 | 32.17 | 34.32 | 24.28 | 19.76 |
| 27 | 21.16 | 14.95 | 16.48 | 14.38 | 19.33 | 21.48 | 28.50 | 33.06 | 32.20 | 34.54 | 22.75 | 19.83 |
| 28 | 21.13 | 15.02 | 16.55 | 14.51 | 19.65 | 21.48 | 28.37 | 33.10 | 32.35 | 34.70 | 22.57 | 19.95 |
| 29 | 20.66 | --- | 16.55 | 14.60 | 20.37 | 21.48 | 28.37 | 33.04 | 32.55 | 34.75 | 22.73 | 20.25 |
| 30 | 20.20 | --- | 16.44 | 14.70 | 20.37 | 21.50 | 29.70 | 33.97 | 32.75 | 34.82 | 22.57 | 20.55 |
| 31 | 19.78 | --- | 16.60 | --- | 19.95 | --- | 29.70 | 34.04 | --- | 34.87 | --- | 20.68 |
| MEAN | 18.75 | 15.75 | 15.65 | 15.47 | 17.24 | 21.22 | 24.98 | 31.13 | 32.54 | 34.04 | 33.28 | 20.23 |
| CAL YR 1983 | MEAN | 23.39 | | HIGH | 13.62 | | LOW | 36.22 | | | | |

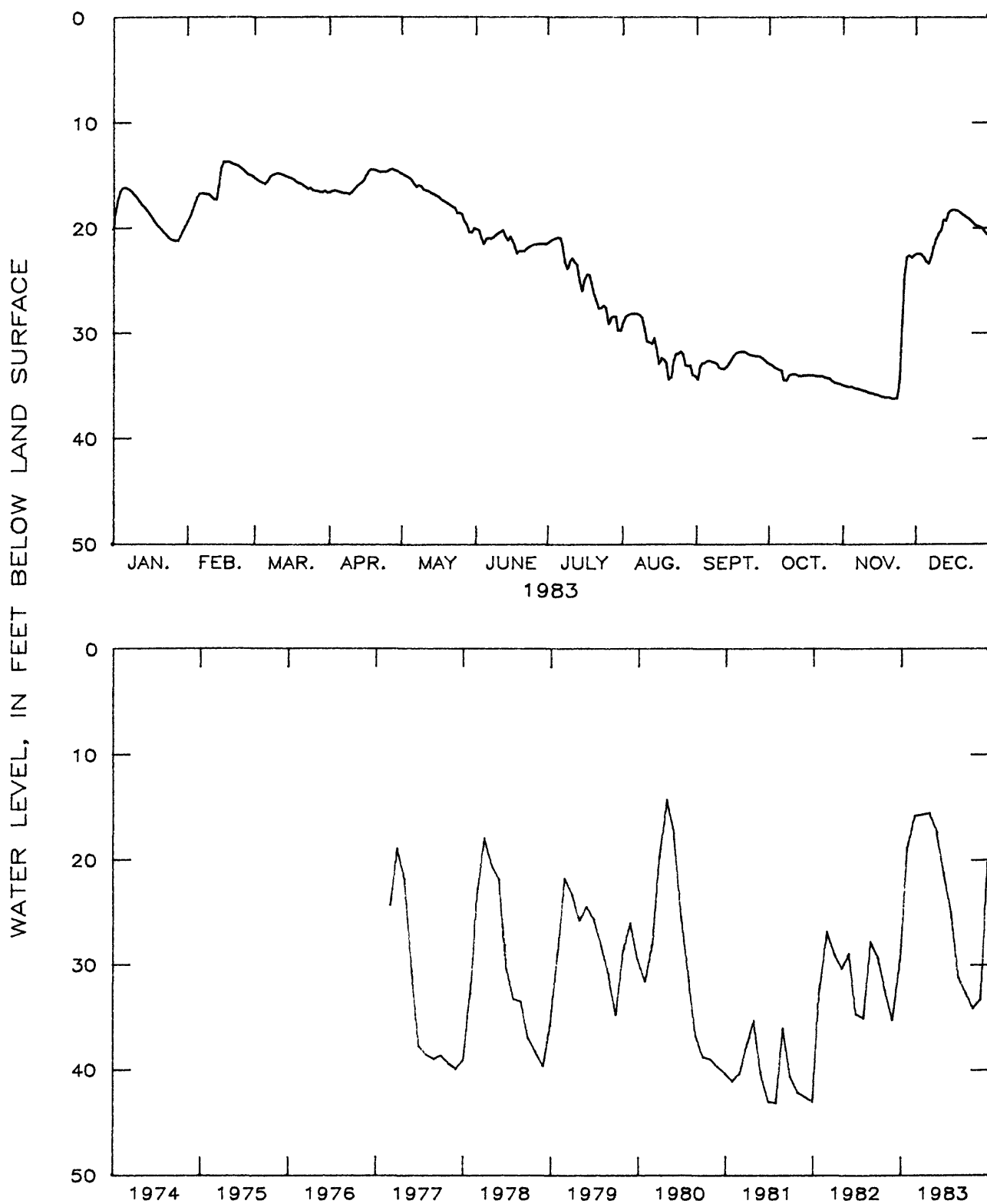


Figure 2.7.1-7.--Water level in observation well 08G001, Miller County.

06F085 SPOONER SEMINOLE COUNTY

305648084555901 Local number, 06F085.

LOCATION.--Lat 30°56'48", long 84°55'59", Hydrologic Unit 03130004, go 4.2 mi south from Donalsonville on State Highway 39, turn right on State Highway 235 to 2nd road on left. Recorder is about 450 ft from center pivot at old pond site.

Owner: J. P. Spooner, Jr.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 225 ft, cased to 118 ft, open hole.

DATUM.--Altitude of land-surface datum is 135 ft.

Measuring point: Top of front edge of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water levels for period of missing recorder record, January 1-4, were estimated.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.27 ft below land-surface datum, April 13, 1980; lowest, 48.82 ft below land-surface datum, October 10, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 30.48 | 23.72 | 19.56 | 18.94 | 17.16 | 25.88 | 29.97 | 36.28 | 39.80 | 40.47 | 41.67 | 39.68 |
| 2 | 29.39 | 22.98 | 20.20 | 18.87 | 17.32 | 26.13 | 29.82 | 36.33 | 39.85 | 40.63 | 41.63 | 39.34 |
| 3 | 28.67 | 22.55 | 19.45 | 18.98 | 17.48 | 26.34 | 29.75 | 36.37 | 39.90 | 41.48 | 41.57 | 38.97 |
| 4 | 28.24 | 22.42 | 19.42 | 19.25 | 17.80 | 26.43 | 29.72 | 36.42 | 39.97 | 42.04 | 41.46 | 38.72 |
| 5 | 28.04 | 22.03 | 19.30 | 19.52 | 18.18 | 26.18 | 29.65 | 36.47 | 39.96 | 41.17 | 41.48 | 38.60 |
| 6 | 27.42 | 21.57 | 19.08 | 19.75 | 18.56 | 26.25 | 29.67 | 36.45 | 40.01 | 40.96 | 41.58 | 38.00 |
| 7 | 26.87 | 21.45 | 18.83 | 19.80 | 18.82 | 26.25 | 29.77 | 36.42 | 40.04 | 40.44 | 41.58 | 37.68 |
| 8 | 26.40 | 21.45 | 18.74 | 19.55 | 19.01 | 26.16 | 30.02 | 36.47 | 40.07 | 40.95 | 41.61 | 36.85 |
| 9 | 26.07 | 21.21 | 18.84 | 19.14 | 19.38 | 26.23 | 30.14 | 36.58 | 40.03 | 40.96 | 41.62 | 36.20 |
| 10 | 25.85 | 20.86 | 18.91 | 18.67 | 19.93 | 26.37 | 30.28 | 36.78 | 40.05 | 40.95 | 41.57 | 35.72 |
| 11 | 25.69 | 21.03 | 19.06 | 18.29 | 20.39 | 26.56 | 30.65 | 37.02 | 40.02 | 40.90 | 41.73 | 35.18 |
| 12 | 25.73 | 21.32 | 19.19 | 18.00 | 21.96 | 26.65 | 31.93 | 37.13 | 39.95 | 40.88 | 41.87 | 34.68 |
| 13 | 25.85 | 21.02 | 19.28 | 17.80 | 21.82 | 26.82 | 32.69 | 37.27 | 39.88 | 40.97 | 41.87 | 34.00 |
| 14 | 25.69 | 20.11 | 19.42 | 17.45 | 23.08 | 27.10 | 32.67 | 37.47 | 39.94 | 41.12 | 41.87 | 33.57 |
| 15 | 25.62 | 19.27 | 19.40 | 17.02 | 23.89 | 27.38 | 33.21 | 38.14 | 40.13 | 41.12 | 41.87 | 33.42 |
| 16 | 25.68 | 18.63 | 19.33 | 16.77 | 22.57 | 27.67 | 33.35 | 37.98 | 40.15 | 41.13 | 42.01 | 33.15 |
| 17 | 25.78 | 18.27 | 19.22 | 16.43 | 22.40 | 27.95 | 32.70 | 39.05 | 40.19 | 41.11 | 42.15 | 32.73 |
| 18 | 26.03 | 18.11 | 19.45 | 16.05 | 22.50 | 29.56 | 32.94 | 39.60 | 40.29 | 41.08 | 42.18 | 32.28 |
| 19 | 26.15 | 17.92 | 19.68 | 16.07 | 22.62 | 30.22 | 33.29 | 39.72 | 40.28 | 41.08 | 42.13 | 31.92 |
| 20 | 25.99 | 17.97 | 19.52 | 16.23 | 22.75 | 29.31 | 33.55 | 40.48 | 40.20 | 41.11 | 41.95 | 31.73 |
| 21 | 25.92 | 17.92 | 19.73 | 16.40 | 22.88 | 29.31 | 34.38 | 40.61 | 40.12 | 41.14 | 42.10 | 31.52 |
| 22 | 26.03 | 17.67 | 19.84 | 16.46 | 22.98 | 29.43 | 34.53 | 39.54 | 40.26 | 41.11 | 42.22 | 31.27 |
| 23 | 26.14 | 17.64 | 20.20 | 16.04 | 23.15 | 29.60 | 34.13 | 39.92 | 40.34 | 41.02 | 42.11 | 31.16 |
| 24 | 26.28 | 17.73 | 20.27 | 15.81 | 23.38 | 29.72 | 35.35 | 40.22 | 40.38 | 41.13 | 41.82 | 31.27 |
| 25 | 26.38 | 18.00 | 20.00 | 15.97 | 23.62 | 29.78 | 36.00 | 41.36 | 40.37 | 41.23 | 41.47 | 31.45 |
| 26 | 26.33 | 18.37 | 19.88 | 16.12 | 23.97 | 29.93 | 35.10 | 41.10 | 40.32 | 41.25 | 41.18 | 31.35 |
| 27 | 25.95 | 18.42 | 19.75 | 16.24 | 24.42 | 30.06 | 35.31 | 40.08 | 40.22 | 41.40 | 40.83 | 31.09 |
| 28 | 25.40 | 18.17 | 19.70 | 16.55 | 24.77 | 30.02 | 35.60 | 39.71 | 40.22 | 41.65 | 40.50 | 30.76 |
| 29 | 24.86 | --- | 19.65 | 16.78 | 25.02 | 30.01 | 35.88 | 39.69 | 40.26 | 41.67 | 40.42 | 30.82 |
| 30 | 24.50 | --- | 19.43 | 16.97 | 25.38 | 30.03 | 36.08 | 39.60 | 40.33 | 41.63 | 40.00 | 31.17 |
| 31 | 24.24 | --- | 19.12 | --- | 25.60 | --- | 36.18 | 39.69 | --- | 41.70 | --- | 31.33 |
| MEAN | 26.38 | 19.92 | 19.47 | 17.53 | 21.70 | 27.98 | 32.72 | 38.39 | 40.12 | 41.14 | 41.60 | 34.05 |
| CAL YR 1983 | MEAN | 30.15 | | HIGH | 15.81 | | LOW | 42.22 | | | | |

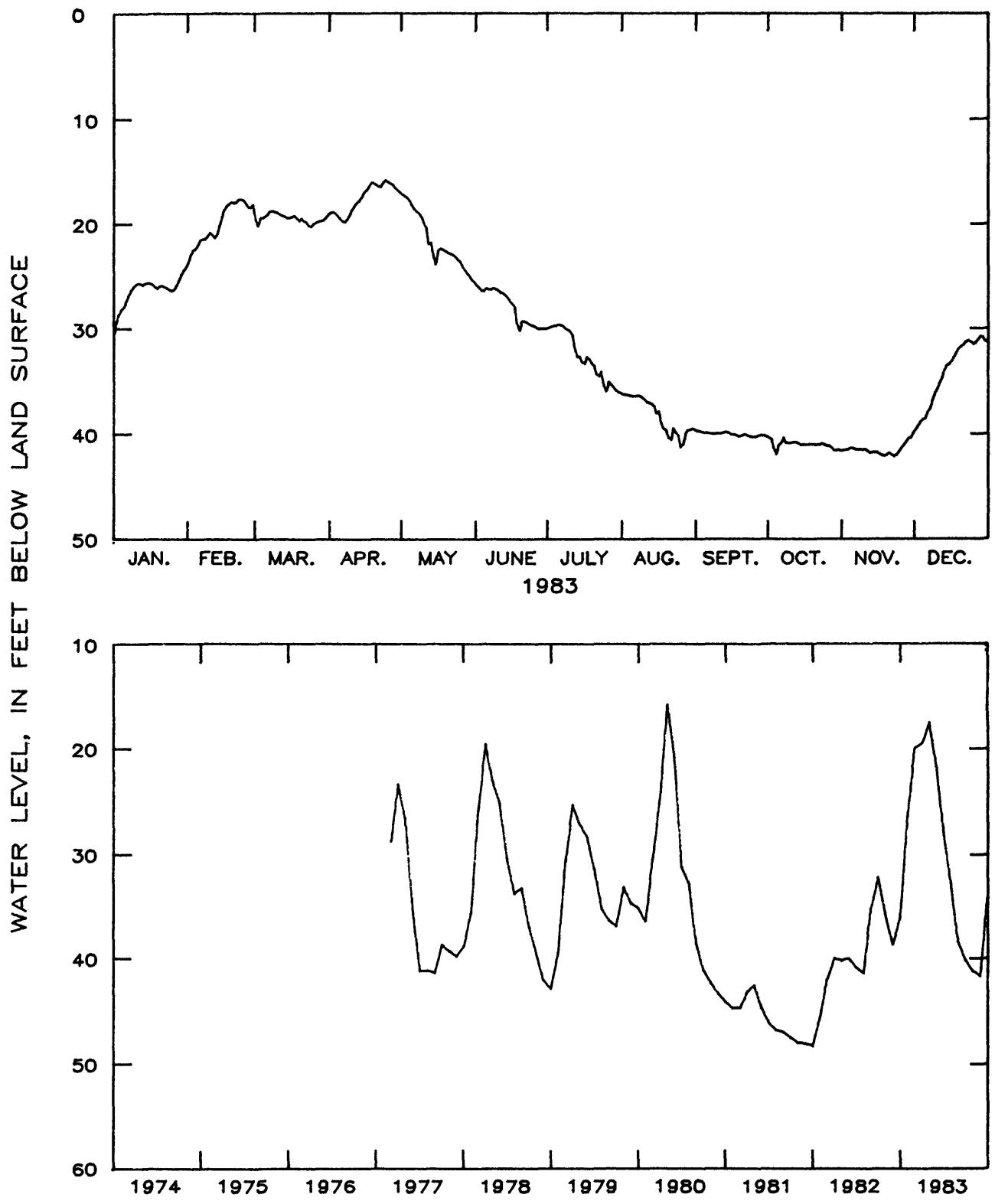


Figure 2.7.1-8.--Water level in observation well 06F085, Seminole County.

2.7.2 South-central area

Ground-water levels in the Floridan aquifer system in south-central Georgia are affected by precipitation, recharge, and pumping. Water levels in Worth, Tift, and Cook Counties began to decline in 1977 due to increased irrigation pumping. The decline accelerated during the 1980-81 drought. Irrigation pumping decreased in 1982 and water levels began to recover. Mean annual water levels changed little from 1982 to 1983.

Ground-water levels in the Valdosta area are controlled mainly by local recharge. The highest water levels are north of the city, where the Floridan aquifer system receives recharge from the Withlacoochee River. The river flows into sinkholes and cave openings in the aquifer system and water levels respond to this recharge. Increased precipitation and streamflow in winter and early spring cause high ground-water levels. Decreased precipitation and increased evapotranspiration in summer and autumn result in low streamflow and correspondingly low ground-water levels.

Mean annual water levels in the south-central area ranged from 0.9 foot higher to 2.3 feet lower than in 1982. A new record high was reached at well 19F039 in April 1983.

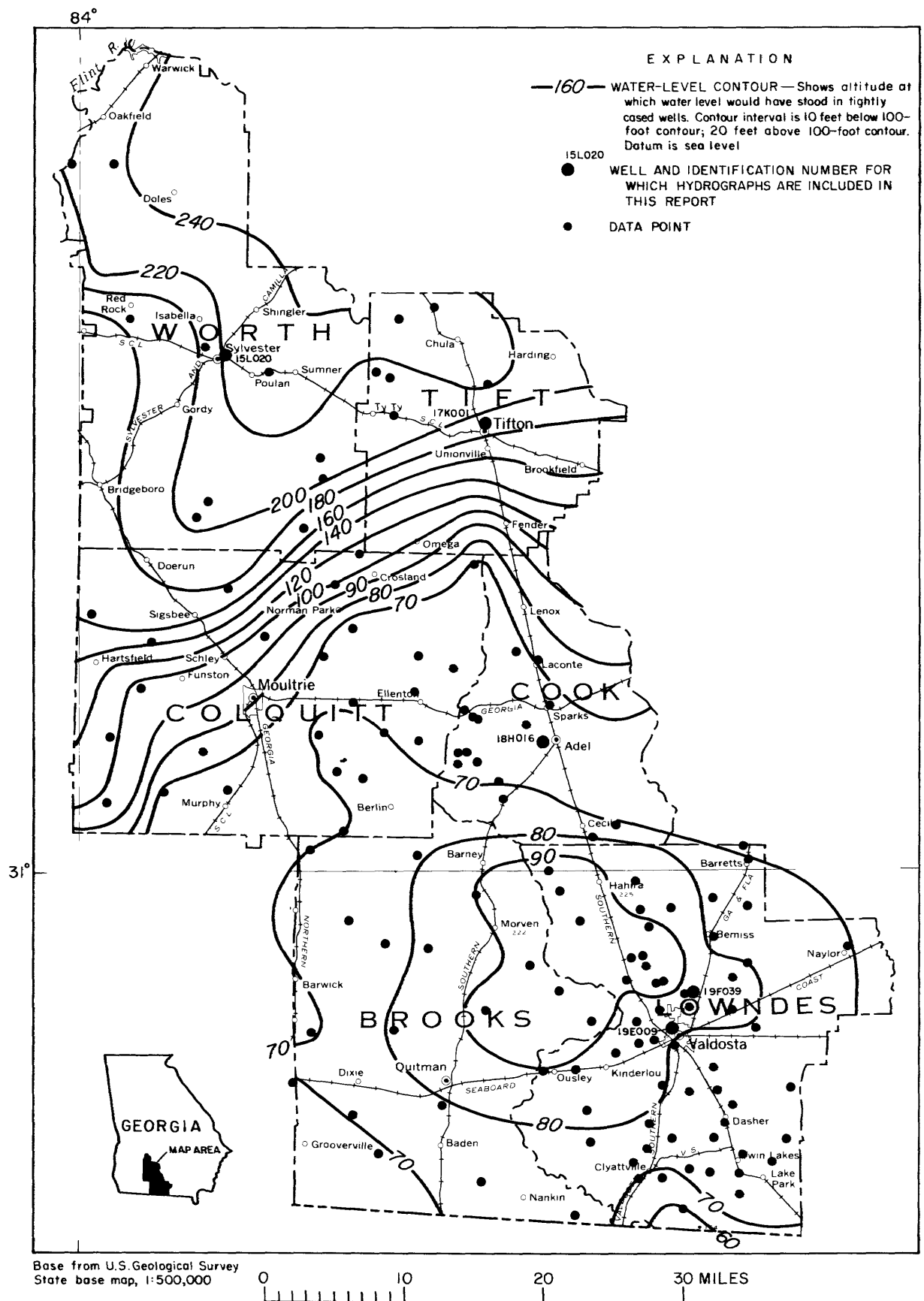


Figure 2.7.2-1.—Observation well locations and the water level in the Floridan aquifer system in the south-central area, November 1982.

15L020 SYLVESTER WORTH COUNTY

313146083491601 Local number, 15L020.

LOCATION.--Lat 31°31'46", long 83°49'16", Hydrologic Unit 03110204, near water tank, behind VFW on U.S. Highway 82 east, Sylvester, Ga.

Owner: City of Sylvester.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 18 in., depth 450 ft, cased to 212 ft, open hole.

DATUM.--Altitude of land-surface datum is 433 ft.

Measuring point: Floor of recorder shelter, 2.90 ft above land-surface datum.

REMARKS.--Well pumped and sounded July 19, 1978. Borehole geophysical survey conducted June 5, 1975.

PERIOD OF RECORD.--May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 191.50 ft below land-surface datum, May 17, 1973; lowest, 201.59 ft below land surface datum, July 31, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 198.69 | 198.09 | 197.81 | 197.42 | 197.34 | 197.33 | 197.94 | 198.88 | 199.20 | 199.02 | 199.33 | 199.02 |
| 2 | 198.49 | 197.92 | 197.93 | 197.20 | 197.26 | 197.53 | 197.95 | 198.91 | 199.20 | 199.02 | 199.32 | 198.96 |
| 3 | 198.57 | 198.19 | 198.00 | 197.33 | 197.14 | 197.56 | 197.96 | 198.85 | 199.20 | 198.99 | 199.23 | 198.73 |
| 4 | 198.75 | 198.43 | 197.95 | 197.49 | 197.17 | 197.55 | 197.95 | 198.82 | 199.30 | 198.92 | 199.06 | 198.71 |
| 5 | 198.71 | 198.39 | 197.73 | 197.51 | 197.27 | 197.56 | 197.86 | 198.81 | 199.30 | 198.89 | 199.06 | 198.79 |
| 6 | 198.65 | 198.09 | 197.75 | 197.50 | 197.37 | 197.58 | 197.88 | 198.75 | 199.30 | 198.94 | 199.13 | 198.66 |
| 7 | 198.56 | 198.23 | 197.67 | 197.44 | 197.36 | 197.53 | 197.94 | 198.63 | 199.30 | 199.00 | 199.09 | 198.94 |
| 8 | 198.47 | 198.35 | 197.62 | 197.31 | 197.25 | 197.54 | 198.00 | 198.60 | 199.30 | 199.03 | 199.04 | 198.97 |
| 9 | 198.38 | 198.26 | 197.67 | 197.27 | 197.32 | 197.63 | 197.93 | 198.64 | 199.30 | 199.04 | 198.96 | 199.02 |
| 10 | 198.33 | 197.98 | 197.69 | 197.37 | 197.43 | 197.75 | 197.85 | 198.70 | 199.30 | 199.02 | 198.81 | 199.00 |
| 11 | 198.28 | 198.17 | 197.73 | 197.36 | 197.44 | 197.77 | 197.90 | 198.65 | 199.30 | 198.95 | 198.88 | 198.75 |
| 12 | 198.41 | 198.38 | 197.74 | 197.39 | 197.38 | 197.74 | 197.98 | 198.56 | 199.20 | 198.87 | 198.97 | 198.56 |
| 13 | 198.51 | 197.95 | 197.72 | 197.37 | 197.37 | 197.72 | 198.06 | 198.56 | 199.10 | 198.86 | 198.94 | 198.58 |
| 14 | 198.45 | 198.01 | 197.68 | 197.27 | 197.36 | 197.71 | 198.10 | 198.69 | 199.10 | 199.03 | 198.93 | 198.43 |
| 15 | 198.29 | 198.12 | 197.53 | 197.25 | 197.30 | 197.67 | 198.10 | 198.79 | 199.20 | 199.05 | 198.86 | 198.68 |
| 16 | 198.29 | 198.00 | 197.28 | 197.33 | 197.27 | 197.71 | 198.16 | 198.80 | 199.20 | 199.05 | 198.95 | 198.93 |
| 17 | 198.24 | 198.02 | 197.06 | 197.26 | 197.45 | 197.80 | 198.24 | 198.78 | 199.20 | 199.03 | 199.06 | 198.99 |
| 18 | 198.37 | 198.11 | 197.33 | 197.04 | 197.52 | 197.84 | 198.28 | 198.76 | 199.20 | 198.98 | 199.09 | 198.90 |
| 19 | 198.50 | 198.14 | 197.51 | 197.12 | 197.55 | 197.89 | 198.34 | 198.76 | 199.20 | 198.97 | 199.01 | 198.79 |
| 20 | 198.35 | 198.30 | 197.33 | 197.23 | 197.55 | 197.92 | 198.42 | 198.73 | 199.20 | 198.97 | 198.75 | 198.83 |
| 21 | 198.15 | 198.24 | 197.46 | 197.29 | 197.48 | 197.92 | 198.50 | 198.80 | 199.00 | 199.00 | 198.95 | 198.87 |
| 22 | 198.25 | 197.94 | 197.73 | 197.19 | 197.38 | 197.91 | 198.50 | 198.88 | 199.10 | 198.97 | 199.03 | 198.73 |
| 23 | 198.27 | 197.88 | 197.72 | 196.80 | 197.30 | 197.97 | 198.52 | 198.93 | 199.20 | 198.76 | 198.89 | 198.71 |
| 24 | 198.39 | 197.85 | 197.42 | 196.99 | 197.29 | 197.94 | 198.52 | 199.00 | 199.30 | 198.79 | 198.62 | 198.77 |
| 25 | 198.43 | 197.98 | 197.70 | 197.26 | 197.27 | 197.89 | 198.55 | 199.03 | 199.20 | 198.86 | 198.91 | 198.99 |
| 26 | 198.40 | 198.17 | 197.74 | 197.36 | 197.23 | 197.94 | 198.59 | 199.03 | 199.20 | 198.90 | 198.99 | 199.00 |
| 27 | 198.27 | 198.04 | 197.49 | 197.39 | 197.29 | 197.98 | 198.70 | 199.02 | 199.10 | 199.03 | 198.83 | 198.96 |
| 28 | 198.41 | 197.65 | 197.59 | 197.38 | 197.31 | 197.96 | 198.80 | 198.97 | 199.00 | 199.24 | 198.68 | 198.72 |
| 29 | 198.39 | --- | 197.74 | 197.38 | 197.25 | 197.92 | 198.86 | 198.91 | 199.01 | 199.25 | 198.86 | 198.82 |
| 30 | 198.31 | --- | 197.66 | 197.36 | 197.16 | 197.93 | 198.87 | 199.00 | 199.01 | 199.25 | 198.98 | 199.22 |
| 31 | 198.33 | --- | 197.45 | --- | 197.19 | --- | 198.87 | 199.10 | --- | 199.31 | --- | 199.39 |
| MEAN | 198.42 | 198.10 | 197.63 | 197.30 | 197.33 | 197.76 | 198.26 | 198.82 | 199.19 | 199.00 | 198.97 | 198.85 |
| CAL YR 1983 | MEAN | 198.30 | | HIGH | 196.80 | | LOW | 199.39 | | | | |

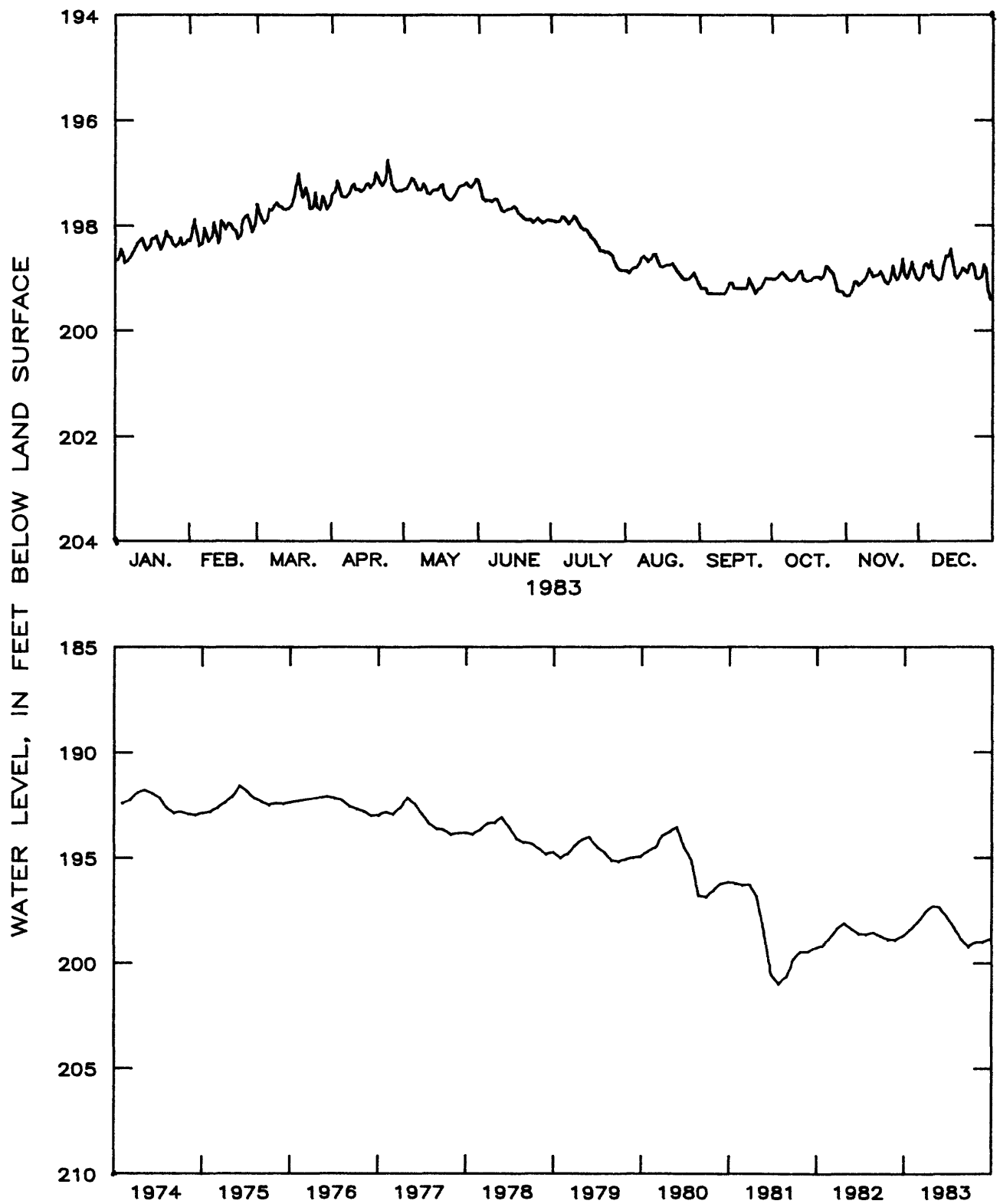


Figure 2.7.2-2.--Water level in observation well 15L020, Worth County.

17K001 SCL RAILROAD TIFT COUNTY

312716083304801 Local number, 17K001.

LOCATION.--Lat 31°27'16", long 83°30'48", Hydrologic Unit 03110204, along the Atlantic Coast Line Railroad, approximately 50 yards north of intersection of Seaboard Coast Line and the Southern Railroads.

Owner: Seaboard Coast Line Railroad.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 12 in., depth 312, cased to 110 ft, open hole.

DATUM.--Altitude of land-surface datum is 345 ft.

Measuring point: Floor of recorder shelter, 2.70 ft above land-surface datum.

REMARKS.--Well sounded April 15, 1977; obstruction at 120 ft. Water levels for periods of missing recorder record, February 14 to March 20, April 25 to May 22, November 14, and December 5-6 and 26-31, were estimated.

PERIOD OF RECORD.--February 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.02 ft below land-surface datum, April 5, 1966; lowest, 141.86 ft below land-surface datum, July 30, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 137.49 | 135.75 | 135.36 | 135.47 | 135.12 | 136.33 | 136.60 | 138.60 | 139.20 | 138.53 | 138.77 | 137.92 |
| 2 | 137.42 | 135.80 | 135.76 | 135.22 | 135.22 | 136.66 | 136.50 | 138.50 | 139.00 | 138.45 | 138.81 | 137.82 |
| 3 | 137.39 | 135.79 | 135.70 | 135.32 | 135.20 | 136.78 | 136.40 | 138.30 | 138.80 | 138.50 | 138.72 | 137.56 |
| 4 | 137.41 | 135.84 | 135.74 | 135.47 | 135.18 | 136.78 | 136.30 | 138.10 | 138.60 | 138.57 | 138.55 | 137.47 |
| 5 | 137.31 | 135.83 | 135.54 | 135.65 | 135.27 | 136.58 | 136.30 | 138.00 | 138.60 | 138.66 | 138.42 | 137.59 |
| 6 | 137.21 | 135.82 | 135.49 | 135.64 | 135.13 | 136.50 | 136.30 | 137.90 | 138.70 | 138.82 | 138.33 | 137.71 |
| 7 | 137.11 | 135.74 | 135.43 | 135.66 | 134.99 | 136.35 | 136.40 | 137.70 | 138.80 | 139.01 | 138.33 | 137.83 |
| 8 | 136.82 | 135.75 | 135.42 | 135.54 | 135.15 | 136.23 | 136.50 | 137.60 | 138.90 | 138.95 | 138.37 | 137.74 |
| 9 | 136.83 | 135.64 | 135.57 | 135.31 | 135.23 | 136.25 | 136.50 | 137.80 | 139.00 | 138.79 | 138.39 | 137.79 |
| 10 | 136.86 | 135.30 | 135.61 | 135.30 | 135.36 | 136.31 | 136.40 | 137.80 | 139.20 | 138.83 | 138.20 | 137.62 |
| 11 | 136.83 | 135.47 | 135.68 | 135.35 | 135.19 | 136.24 | 136.50 | 137.90 | 139.10 | 138.80 | 138.23 | 137.32 |
| 12 | 136.79 | 135.41 | 135.66 | 135.43 | 135.23 | 136.16 | 136.80 | 137.90 | 139.00 | 138.83 | 138.23 | 137.22 |
| 13 | 136.85 | 135.25 | 135.48 | 135.47 | 135.59 | 136.15 | 137.20 | 137.90 | 138.90 | 138.71 | 138.14 | 137.25 |
| 14 | 136.80 | 135.13 | 135.63 | 135.47 | 135.52 | 136.37 | 137.40 | 137.80 | 138.90 | 138.72 | 138.14 | 137.15 |
| 15 | 136.58 | 135.42 | 135.67 | 135.42 | 135.60 | 136.53 | 137.60 | 137.90 | 138.90 | 138.65 | 138.13 | 137.31 |
| 16 | 136.44 | 135.40 | 135.51 | 135.35 | 135.73 | 136.87 | 137.60 | 138.10 | 138.90 | 138.51 | 138.23 | 137.51 |
| 17 | 136.39 | 135.29 | 135.20 | 135.17 | 135.81 | 137.04 | 137.70 | 138.40 | 138.80 | 138.52 | 138.31 | 137.51 |
| 18 | 136.42 | 135.45 | 135.35 | 134.98 | 135.64 | 137.02 | 137.90 | 138.60 | 138.70 | 138.59 | 138.34 | 137.31 |
| 19 | 136.50 | 135.43 | 135.58 | 135.05 | 135.60 | 136.98 | 138.10 | 138.80 | 138.80 | 138.67 | 138.18 | 137.36 |
| 20 | 136.47 | 135.46 | 135.42 | 135.15 | 135.53 | 137.06 | 138.40 | 139.00 | 138.70 | 138.74 | 137.94 | 137.42 |
| 21 | 136.26 | 135.59 | 135.51 | 135.30 | 135.46 | 137.02 | 138.60 | 138.80 | 138.50 | 138.74 | 138.14 | 137.39 |
| 22 | 136.20 | 135.53 | 135.78 | 135.21 | 135.36 | 136.97 | 138.80 | 138.80 | 138.50 | 138.56 | 138.20 | 137.26 |
| 23 | 136.23 | 135.35 | 135.79 | 134.83 | 135.34 | 136.97 | 138.90 | 139.10 | 138.60 | 138.23 | 138.08 | 137.16 |
| 24 | 136.33 | 135.35 | 135.46 | 134.92 | 135.36 | 136.86 | 138.50 | 139.40 | 138.50 | 138.31 | 137.84 | 137.08 |
| 25 | 136.14 | 135.42 | 135.72 | 135.02 | 135.55 | 136.74 | 138.70 | 139.20 | 138.40 | 138.38 | 137.97 | 137.05 |
| 26 | 135.95 | 135.65 | 135.72 | 134.75 | 135.64 | 136.69 | 139.00 | 139.00 | 138.40 | 138.42 | 137.92 | 137.26 |
| 27 | 136.07 | 135.50 | 135.45 | 134.54 | 135.91 | 136.69 | 139.40 | 139.00 | 138.50 | 138.59 | 137.67 | 137.23 |
| 28 | 136.15 | 135.25 | 135.60 | 134.73 | 136.10 | 136.71 | 139.50 | 138.90 | 138.50 | 138.76 | 137.66 | 137.10 |
| 29 | 136.15 | --- | 135.79 | 134.92 | 135.99 | 136.70 | 139.50 | 138.80 | 138.51 | 138.65 | 137.83 | 136.93 |
| 30 | 136.02 | --- | 135.74 | 134.95 | 135.92 | 136.70 | 139.10 | 139.10 | 138.58 | 138.54 | 137.91 | 137.18 |
| 31 | 135.81 | --- | 135.54 | --- | 136.12 | --- | 138.80 | 139.20 | --- | 138.66 | --- | 137.31 |
| MEAN | 136.62 | 135.52 | 135.58 | 135.22 | 135.49 | 136.64 | 137.68 | 138.45 | 138.75 | 138.64 | 138.20 | 137.40 |
| CAL YR 1983 | MEAN | 137.03 | | HIGH | 134.54 | | LOW | 139.50 | | | | |

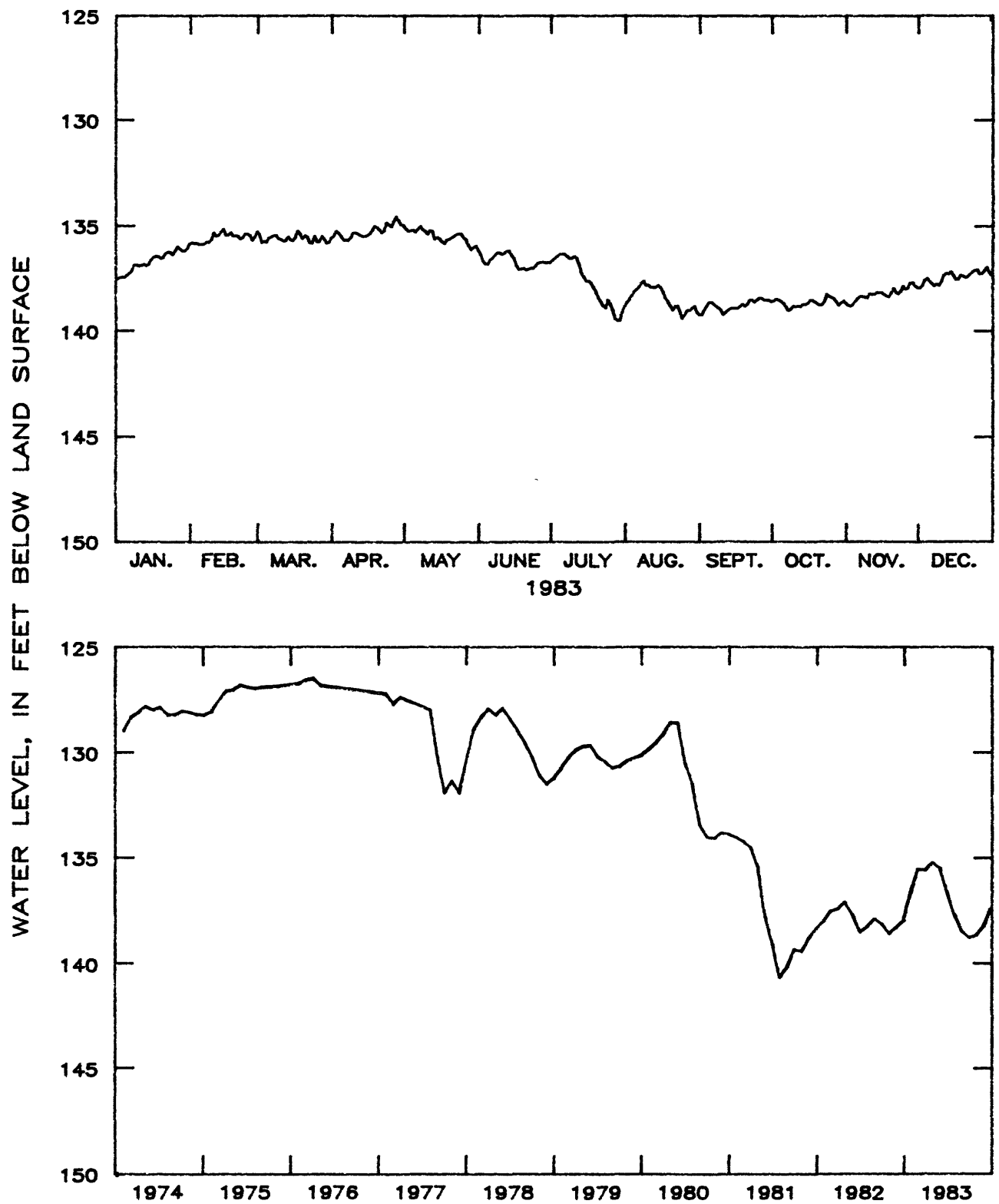


Figure 2.7.2-3.—Water level in observation well 17K001, Tift County.

310813083260301 Local number, 18H016.

LOCATION.--Lat 31°08'13", long 83°26'03", Hydrologic Unit 03110203, on West Second Street near intersection of Georgia Highways 76 and 37.

Owner: U.S. Geological Survey, Adel test well.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 865 ft, cased to 207 ft, open hole.

DATUM.--Altitude of land-surface datum is 241 ft.

Measuring point: Floor of recorder shelter, 2.66 ft above land-surface datum.

REMARKS.--Well pumped July 19, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted October 24, 1974. Water levels for periods of missing recorder record, January 3-18 and October 22 to December 6, were estimated.

PERIOD OF RECORD.--December 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 163.34 ft below land-surface datum, July 5, 1966; lowest, 173.87 ft below land-surface datum, June 30, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 171.23 | 171.04 | 170.49 | 169.99 | 169.84 | 169.98 | 170.32 | 171.11 | 171.86 | 171.40 | 171.60 | 171.28 |
| 2 | 171.15 | 170.79 | 170.66 | 169.22 | 169.95 | 170.02 | 170.29 | 171.18 | 171.77 | 171.32 | 171.66 | 171.19 |
| 3 | 171.19 | 170.96 | 170.77 | 170.06 | 169.72 | 170.19 | 170.23 | 171.10 | 171.46 | 171.26 | 171.59 | 170.95 |
| 4 | 171.28 | 171.25 | 170.79 | 170.26 | 169.66 | 170.19 | 170.13 | 171.10 | 171.20 | 171.37 | 171.43 | 170.88 |
| 5 | 171.27 | 171.22 | 170.56 | 170.32 | 169.79 | 170.11 | 170.18 | 171.10 | 171.19 | 171.38 | 171.32 | 171.02 |
| 6 | 171.24 | 170.70 | 170.39 | 170.36 | 169.82 | 170.04 | 170.28 | 170.83 | 171.28 | 171.38 | 171.25 | 171.15 |
| 7 | 171.21 | 170.86 | 170.39 | 170.26 | 169.85 | 169.97 | 170.38 | 170.67 | 171.41 | 171.48 | 171.27 | 171.29 |
| 8 | 170.99 | 171.20 | 170.35 | 170.24 | 169.77 | 169.88 | 170.53 | 170.79 | 171.45 | 171.57 | 171.32 | 171.29 |
| 9 | 171.09 | 171.16 | 170.47 | 170.02 | 169.73 | 169.60 | 170.59 | 171.08 | 171.47 | 171.54 | 171.36 | 171.31 |
| 10 | 171.19 | 170.91 | 170.48 | 170.11 | 169.92 | 170.05 | 170.42 | 171.17 | 171.53 | 171.38 | 171.19 | 171.29 |
| 11 | 171.23 | 170.96 | 170.53 | 170.18 | 170.01 | 170.15 | 170.71 | 171.17 | 171.59 | 171.44 | 171.24 | 170.93 |
| 12 | 171.27 | 171.15 | 170.48 | 170.22 | 169.95 | 170.12 | 170.90 | 171.08 | 171.45 | 171.38 | 171.25 | 170.73 |
| 13 | 171.41 | 170.84 | 170.27 | 170.20 | 169.96 | 170.03 | 171.09 | 170.98 | 171.40 | 171.35 | 171.18 | 170.85 |
| 14 | 171.43 | 170.69 | 170.39 | 170.13 | 169.98 | 170.17 | 171.26 | 170.97 | 171.25 | 171.37 | 171.20 | 170.86 |
| 15 | 171.29 | 170.95 | 170.40 | 170.04 | 169.86 | 170.26 | 171.27 | 171.09 | 171.29 | 171.42 | 171.21 | 170.94 |
| 16 | 171.22 | 170.90 | 170.12 | 169.95 | 169.69 | 170.39 | 171.28 | 171.28 | 171.35 | 171.28 | 171.32 | 171.20 |
| 17 | 171.25 | 170.77 | 169.87 | 169.78 | 169.86 | 170.55 | 171.38 | 171.29 | 171.36 | 171.20 | 171.42 | 171.23 |
| 18 | 171.31 | 170.90 | 170.00 | 169.80 | 169.94 | 170.76 | 171.34 | 171.32 | 171.35 | 171.36 | 171.47 | 171.08 |
| 19 | 171.51 | 170.35 | 170.20 | 169.98 | 169.96 | 170.63 | 171.46 | 171.39 | 171.29 | 171.36 | 171.33 | 170.98 |
| 20 | 171.34 | 170.85 | 170.01 | 170.16 | 169.94 | 170.05 | 171.79 | 171.44 | 171.32 | 171.38 | 171.10 | 171.12 |
| 21 | 171.22 | 170.95 | 170.07 | 170.12 | 169.98 | 170.75 | 171.79 | 171.39 | 171.28 | 171.38 | 171.32 | 171.18 |
| 22 | 171.19 | 170.86 | 170.61 | 169.79 | 169.86 | 170.70 | 171.78 | 171.37 | 171.28 | 171.22 | 171.40 | 171.03 |
| 23 | 171.08 | 170.65 | 170.48 | 169.55 | 169.72 | 170.60 | 171.80 | 171.69 | 171.35 | 170.90 | 171.30 | 170.82 |
| 24 | 171.24 | 170.63 | 170.22 | 169.83 | 169.77 | 170.58 | 171.44 | 171.86 | 171.34 | 171.00 | 171.07 | 170.82 |
| 25 | 171.39 | 170.67 | 170.49 | 169.94 | 169.64 | 170.46 | 171.05 | 171.91 | 171.28 | 171.09 | 171.22 | 171.34 |
| 26 | 171.33 | 170.87 | 170.39 | 170.03 | 169.80 | 170.35 | 171.20 | 171.90 | 171.31 | 171.15 | 171.19 | 171.42 |
| 27 | 171.19 | 170.69 | 170.05 | 170.05 | 169.96 | 170.41 | 171.28 | 171.90 | 171.30 | 171.33 | 170.46 | 171.39 |
| 28 | 171.23 | 170.41 | 170.25 | 170.06 | 170.00 | 170.50 | 171.18 | 171.92 | 171.30 | 171.52 | 170.96 | 171.07 |
| 29 | 171.23 | --- | 170.51 | 170.06 | 169.95 | 170.40 | 171.31 | 171.83 | 171.33 | 171.43 | 171.15 | 171.02 |
| 30 | 171.01 | --- | 170.35 | 169.93 | 169.79 | 170.34 | 171.30 | 171.88 | 171.38 | 171.34 | 171.25 | 171.53 |
| 31 | 171.08 | --- | 170.22 | --- | 169.76 | --- | 171.22 | 171.93 | --- | 171.47 | --- | 171.77 |
| MEAN | 171.24 | 170.88 | 170.36 | 170.04 | 169.85 | 170.27 | 171.01 | 171.35 | 171.38 | 171.34 | 171.27 | 171.13 |
| CAL YR 1983 | MEAN | 170.84 | | HIGH | 169.55 | | LCW | 171.93 | | | | |

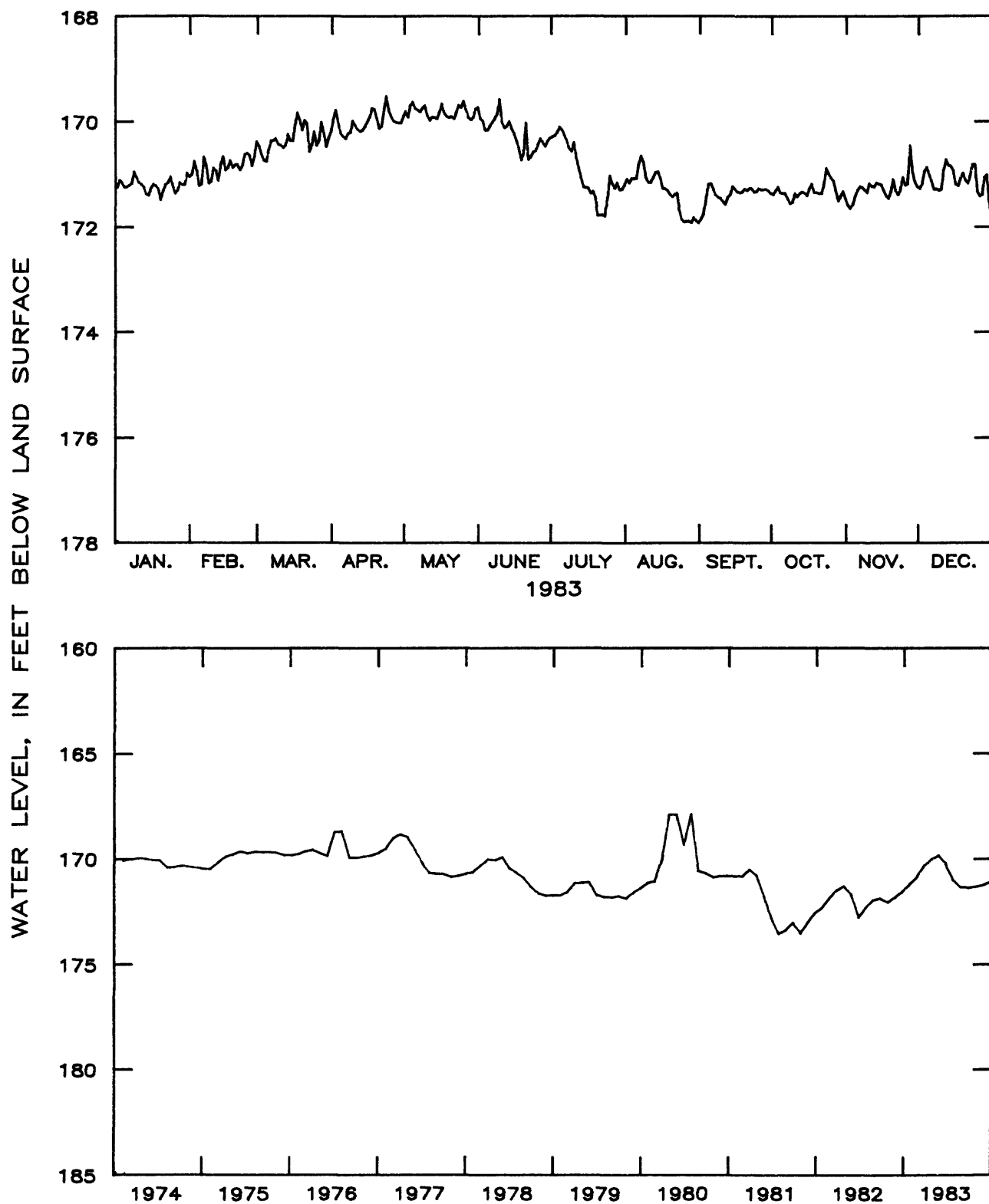


Figure 2.7.2-4.--Water level in observation well 18H016, Cook County.

19F039 VALDOSTA 8 LOWNDES COUNTY

305241083154401 Local number, 19F039.

LOCATION.—Lat 30°52'41", long 83°15'44", Hydrologic Unit 03110203, at water tank by Valdosta High School.

Owner: City of Valdosta, well 8.

AQUIFER.—Floridan aquifer system.

WELL CHARACTERISTICS.—Drilled unused observation well, depth 450 ft, cased to 350 ft, open hole.

DATUM.—Altitude of land-surface datum is 222 ft.

Measuring point: Pump base, 1.40 ft above land-surface datum.

REMARKS.—Water levels for periods of missing recorder record, May 24-31, July 12 to October 11, and October 13 to December 31, were estimated.

PERIOD OF RECORD.—February 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level, 114.81 ft below land-surface datum, April 18, 1983; lowest, 145.67 ft below land-surface datum, October 24, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 126.60 | 121.73 | 118.28 | 115.85 | 115.48 | 120.82 | 120.71 | 126.84 | 131.20 | 129.59 | 141.66 | 131.49 |
| 2 | 126.17 | 121.43 | 118.28 | 115.72 | 115.77 | 121.13 | 120.79 | 126.62 | 129.93 | 130.35 | 141.93 | 131.23 |
| 3 | 125.89 | 121.31 | 118.36 | 115.85 | 116.19 | 121.37 | 120.55 | 126.20 | 129.07 | 131.60 | 141.97 | 130.87 |
| 4 | 125.75 | 121.31 | 118.47 | 116.17 | 116.68 | 121.42 | 120.59 | 125.81 | 128.73 | 132.42 | 141.88 | 130.59 |
| 5 | 125.14 | 121.25 | 118.56 | 116.39 | 117.09 | 121.31 | 120.53 | 125.70 | 128.19 | 133.46 | 141.97 | 130.40 |
| 6 | 124.70 | 121.04 | 118.34 | 116.65 | 117.49 | 121.16 | 121.11 | 125.62 | 127.89 | 134.75 | 141.96 | 130.06 |
| 7 | 124.32 | 121.05 | 117.28 | 116.84 | 117.85 | 120.80 | 122.05 | 125.15 | 127.85 | 136.14 | 141.87 | 129.94 |
| 8 | 123.95 | 121.08 | 116.68 | 116.92 | 117.99 | 120.54 | 122.35 | 125.31 | 128.10 | 137.62 | 141.82 | 129.59 |
| 9 | 123.65 | 120.97 | 116.44 | 116.67 | 118.25 | 120.54 | 123.06 | 125.86 | 129.05 | 138.68 | 141.71 | 129.38 |
| 10 | 123.48 | 120.80 | 116.28 | 116.40 | 118.51 | 120.61 | 124.81 | 125.95 | 130.42 | 137.99 | 141.31 | 129.04 |
| 11 | 123.45 | 120.94 | 116.25 | 116.14 | 118.49 | 120.65 | 125.51 | 125.07 | 131.02 | 137.66 | 141.25 | 128.55 |
| 12 | 123.63 | 121.11 | 116.30 | 115.99 | 118.55 | 120.71 | 125.84 | 126.30 | 131.38 | 138.31 | 141.18 | 127.88 |
| 13 | 123.82 | 120.90 | 116.40 | 115.91 | 118.57 | 120.88 | 126.12 | 126.29 | 130.48 | 138.89 | 141.13 | 127.33 |
| 14 | 123.94 | 120.25 | 116.52 | 115.90 | 118.68 | 121.04 | 126.18 | 126.20 | 128.93 | 139.37 | 141.12 | 126.87 |
| 15 | 123.89 | 119.85 | 116.66 | 115.70 | 118.85 | 121.22 | 126.31 | 126.10 | 128.50 | 139.59 | 141.11 | 126.74 |
| 16 | 123.88 | 119.45 | 116.74 | 115.39 | 118.95 | 121.51 | 127.12 | 126.20 | 128.25 | 139.83 | 141.10 | 126.70 |
| 17 | 123.64 | 119.14 | 116.63 | 115.03 | 119.20 | 121.78 | 128.03 | 126.16 | 128.11 | 140.01 | 141.93 | 126.58 |
| 18 | 123.74 | 118.86 | 116.56 | 114.81 | 118.47 | 121.96 | 128.53 | 126.24 | 128.23 | 140.32 | 141.75 | 126.19 |
| 19 | 124.22 | 118.63 | 116.46 | 114.85 | 119.66 | 122.13 | 129.53 | 126.44 | 129.15 | 140.56 | 141.58 | 125.63 |
| 20 | 124.06 | 118.62 | 116.22 | 115.00 | 119.83 | 122.32 | 129.97 | 126.74 | 128.86 | 140.58 | 141.40 | 125.18 |
| 21 | 123.80 | 118.60 | 116.07 | 115.13 | 120.00 | 122.08 | 130.28 | 127.02 | 128.37 | 140.81 | 137.98 | 124.57 |
| 22 | 123.17 | 118.49 | 116.14 | 115.26 | 120.22 | 121.91 | 130.63 | 127.86 | 128.06 | 140.94 | 136.60 | 124.05 |
| 23 | 122.72 | 118.42 | 116.07 | 115.08 | 120.25 | 121.66 | 130.37 | 128.91 | 127.96 | 140.79 | 135.77 | 124.00 |
| 24 | 122.54 | 118.43 | 115.92 | 114.88 | 120.33 | 121.15 | 128.80 | 129.72 | 127.94 | 140.79 | 135.44 | 123.84 |
| 25 | 122.51 | 118.50 | 116.09 | 114.84 | 120.48 | 120.44 | 128.10 | 130.35 | 127.66 | 140.80 | 134.19 | 123.89 |
| 26 | 122.51 | 118.77 | 116.09 | 114.89 | 120.15 | 120.05 | 128.02 | 130.40 | 127.52 | 140.96 | 133.31 | 124.02 |
| 27 | 122.29 | 118.75 | 115.94 | 114.88 | 120.00 | 120.19 | 127.56 | 130.62 | 127.71 | 141.11 | 132.69 | 124.34 |
| 28 | 122.08 | 118.43 | 116.01 | 114.89 | 119.92 | 120.54 | 127.13 | 131.02 | 128.10 | 141.26 | 132.25 | 123.93 |
| 29 | 121.88 | --- | 116.13 | 114.98 | 119.95 | 120.82 | 127.00 | 130.86 | 128.41 | 141.37 | 132.00 | 123.41 |
| 30 | 121.76 | --- | 116.08 | 115.17 | 120.09 | 120.72 | 126.92 | 130.89 | 128.90 | 141.48 | 131.73 | 123.35 |
| 31 | 121.79 | --- | 115.89 | --- | 120.40 | --- | 126.89 | 131.45 | --- | 141.47 | --- | 123.06 |
| MEAN | 123.71 | 119.93 | 116.71 | 115.61 | 118.79 | 121.12 | 125.85 | 127.42 | 128.80 | 138.37 | 139.12 | 126.86 |
| CAL YR 1983 | MEAN | 125.22 | | HIGH | 114.81 | | LOW | 141.97 | | | | |

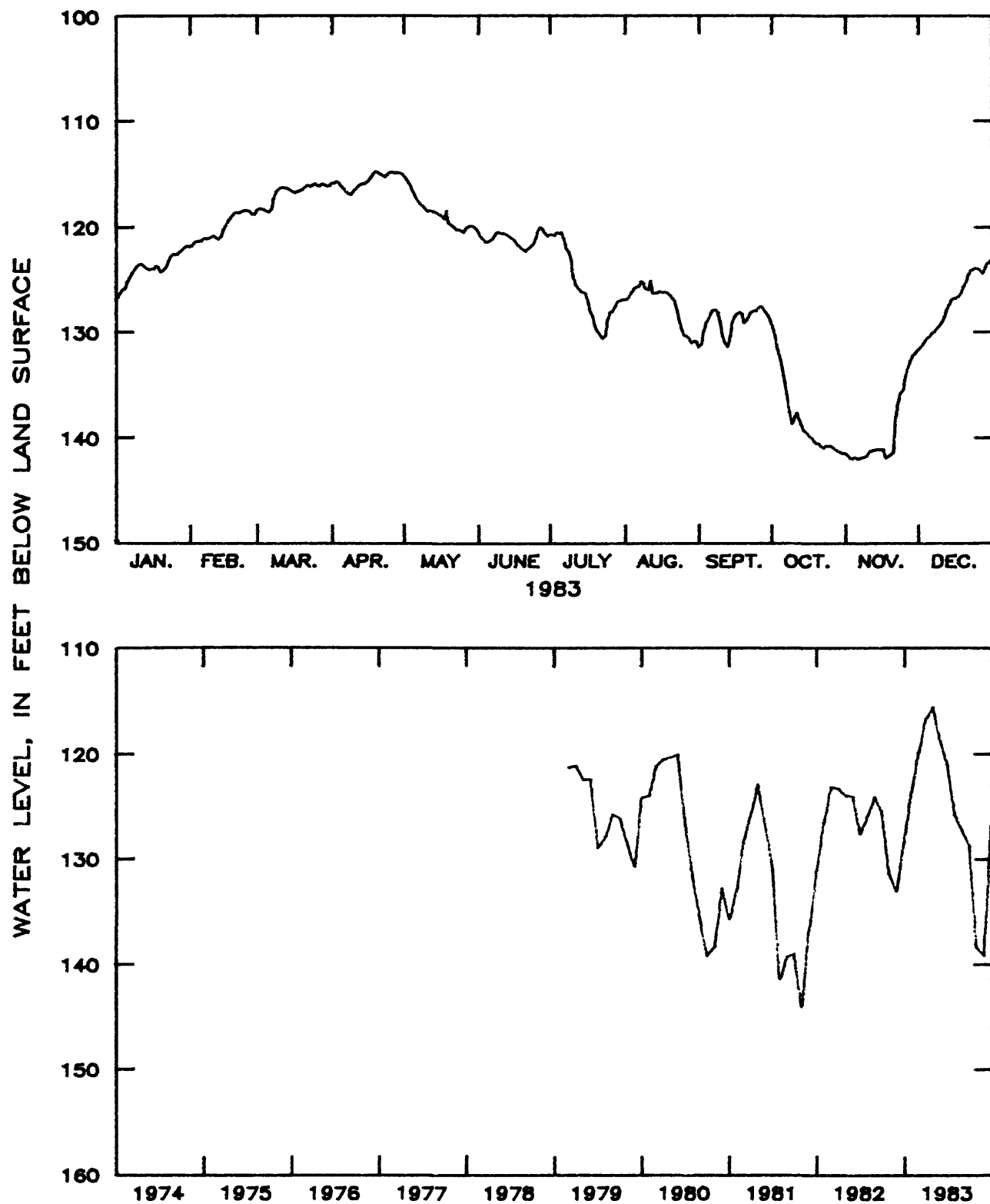


Figure 2.7.2-5.--Water level in observation well 19F039, Lowndes County.

19E009 VALDOSTA LOWNDES COUNTY

304949083165301 Local number, 19E009.

LOCATION.--Lat 30°49'51", long 83°16'59", Hydrologic Unit 03110202, N. Oak Street, one block north of intersection with U.S. Highway 84, Valdosta, Ga.

Owner: City of Valdosta.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused municipal supply well, diameter 20 in., depth 342 ft, cased to 200 ft open hole.

DATUM.--Altitude of land-surface datum is 217 ft.

Measuring point: Top of casing, 1.7 ft above land-surface datum.

REMARKS.--Well pumped July 18, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted April 11, 1963.

PERIOD OF RECORD.--February 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.69 ft below land-surface datum, March 9, 1964; lowest, 145.50 ft below land-surface datum, October 22, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 131.32 | 128.51 | 123.48 | 121.08 | 120.30 | 126.05 | 125.91 | 129.11 | 133.38 | 133.19 | 138.00 | 132.56 |
| 2 | 130.78 | 128.61 | 124.07 | 120.39 | 120.88 | 125.60 | 125.76 | 128.70 | 132.54 | 133.11 | 138.69 | 132.63 |
| 3 | 130.97 | 127.93 | 123.93 | 121.12 | 120.86 | 126.03 | 125.37 | 128.90 | 131.83 | 133.58 | 138.34 | 132.42 |
| 4 | 131.16 | 127.52 | 123.58 | 121.25 | 121.68 | 126.31 | 124.96 | 129.51 | 131.80 | 133.79 | 138.12 | 131.88 |
| 5 | 131.24 | 127.16 | 123.80 | 121.42 | 121.75 | 125.71 | 125.66 | 128.29 | 131.02 | 135.06 | 138.29 | 131.78 |
| 6 | 130.67 | 126.52 | 123.30 | 122.24 | 121.98 | 125.63 | 126.30 | 128.80 | 130.81 | 134.90 | 138.02 | 131.60 |
| 7 | 130.20 | 126.86 | 122.91 | 122.04 | 122.21 | 124.86 | 126.47 | 128.73 | 131.26 | 135.12 | 138.38 | 131.96 |
| 8 | 129.80 | 127.30 | 123.00 | 121.76 | 122.17 | 125.22 | 126.27 | 128.58 | 131.38 | 135.79 | 136.96 | 131.42 |
| 9 | 129.33 | 126.95 | 123.34 | 122.20 | 122.35 | 125.13 | 126.67 | 128.64 | 133.85 | 135.69 | 139.46 | 131.59 |
| 10 | 128.72 | 126.83 | 123.46 | 121.27 | 122.55 | 125.12 | 126.85 | 128.94 | 134.81 | 135.50 | 138.53 | 131.44 |
| 11 | 129.09 | 126.50 | 122.63 | 121.76 | 123.43 | 125.01 | 126.75 | 129.25 | 133.81 | 134.55 | 138.63 | 130.74 |
| 12 | 129.35 | 126.13 | 122.00 | 121.73 | 122.95 | 124.87 | 127.31 | 129.07 | 133.87 | 134.22 | 139.12 | 130.13 |
| 13 | 129.58 | 125.56 | 121.85 | 122.14 | 123.20 | 125.39 | 128.95 | 129.20 | 133.04 | 134.09 | 138.66 | 130.01 |
| 14 | 129.91 | 125.74 | 122.18 | 122.08 | 123.31 | 125.45 | 129.09 | 129.19 | 132.37 | 134.15 | 138.58 | 130.23 |
| 15 | 129.26 | 126.13 | 121.95 | 121.13 | 122.94 | 125.86 | 128.48 | 129.10 | 131.88 | 134.65 | 138.96 | 129.83 |
| 16 | 128.86 | 126.00 | 121.88 | 121.13 | 123.17 | 125.85 | 129.10 | 128.86 | 131.52 | 134.74 | 139.39 | 129.99 |
| 17 | 129.32 | 126.23 | 121.95 | 120.55 | 123.76 | 126.21 | 129.57 | 129.57 | 131.83 | 134.85 | 139.24 | 129.81 |
| 18 | 131.68 | 125.54 | 121.63 | 120.25 | 124.00 | 126.82 | 130.15 | 129.29 | 131.80 | 135.18 | 139.48 | 130.01 |
| 19 | 130.02 | 124.95 | 121.29 | 120.70 | 124.03 | 126.60 | 131.07 | 129.55 | 132.14 | 136.00 | 139.93 | 130.46 |
| 20 | 129.71 | 124.75 | 120.96 | 121.19 | 124.12 | 126.37 | 132.25 | 130.05 | 131.99 | 136.27 | 138.78 | 130.53 |
| 21 | 131.40 | 124.56 | 120.81 | 120.45 | 124.30 | 126.09 | 131.77 | 130.32 | 132.06 | 136.12 | 137.15 | 129.65 |
| 22 | 130.89 | 124.23 | 121.41 | 120.40 | 124.16 | 126.94 | 132.41 | 130.66 | 132.11 | 136.35 | 136.21 | 128.69 |
| 23 | 128.54 | 124.85 | 121.88 | 120.44 | 124.33 | 126.61 | 131.91 | 131.61 | 131.74 | 136.00 | 136.11 | 128.07 |
| 24 | 128.60 | 124.33 | 120.90 | 119.89 | 124.41 | 126.14 | 130.57 | 133.39 | 131.76 | 136.08 | 135.40 | 127.90 |
| 25 | 127.96 | 124.71 | 121.17 | 120.08 | 124.91 | 126.16 | 129.80 | 133.10 | 131.89 | 136.39 | 134.29 | 129.64 |
| 26 | 129.02 | 124.34 | 121.15 | 119.96 | 124.56 | 125.51 | 130.34 | 132.70 | 132.31 | 136.89 | 133.81 | 131.21 |
| 27 | 128.55 | 123.57 | 120.86 | 120.91 | 124.58 | 125.59 | 130.03 | 132.91 | 131.36 | 136.98 | 133.72 | 134.47 |
| 28 | 128.05 | 123.47 | 121.24 | 120.48 | 124.53 | 126.35 | 129.57 | 133.31 | 132.62 | 137.15 | 132.75 | 133.66 |
| 29 | 128.37 | --- | 121.28 | 120.39 | 124.16 | 126.25 | 129.69 | 132.88 | 131.86 | 137.62 | 132.92 | 132.20 |
| 30 | 128.11 | --- | 121.59 | 120.61 | 124.27 | 125.73 | 129.59 | 133.39 | 132.64 | 137.35 | 133.02 | 132.68 |
| 31 | 128.37 | --- | 121.22 | --- | 125.06 | --- | 129.64 | 134.13 | --- | 137.69 | --- | 132.58 |
| MEAN | 129.64 | 125.92 | 122.15 | 121.03 | 123.26 | 125.85 | 128.65 | 130.28 | 132.24 | 135.45 | 137.30 | 131.02 |
| CAL YR 1983 | MEAN | 128.58 | | HIGH | 119.89 | | LOW | 139.93 | | | | |

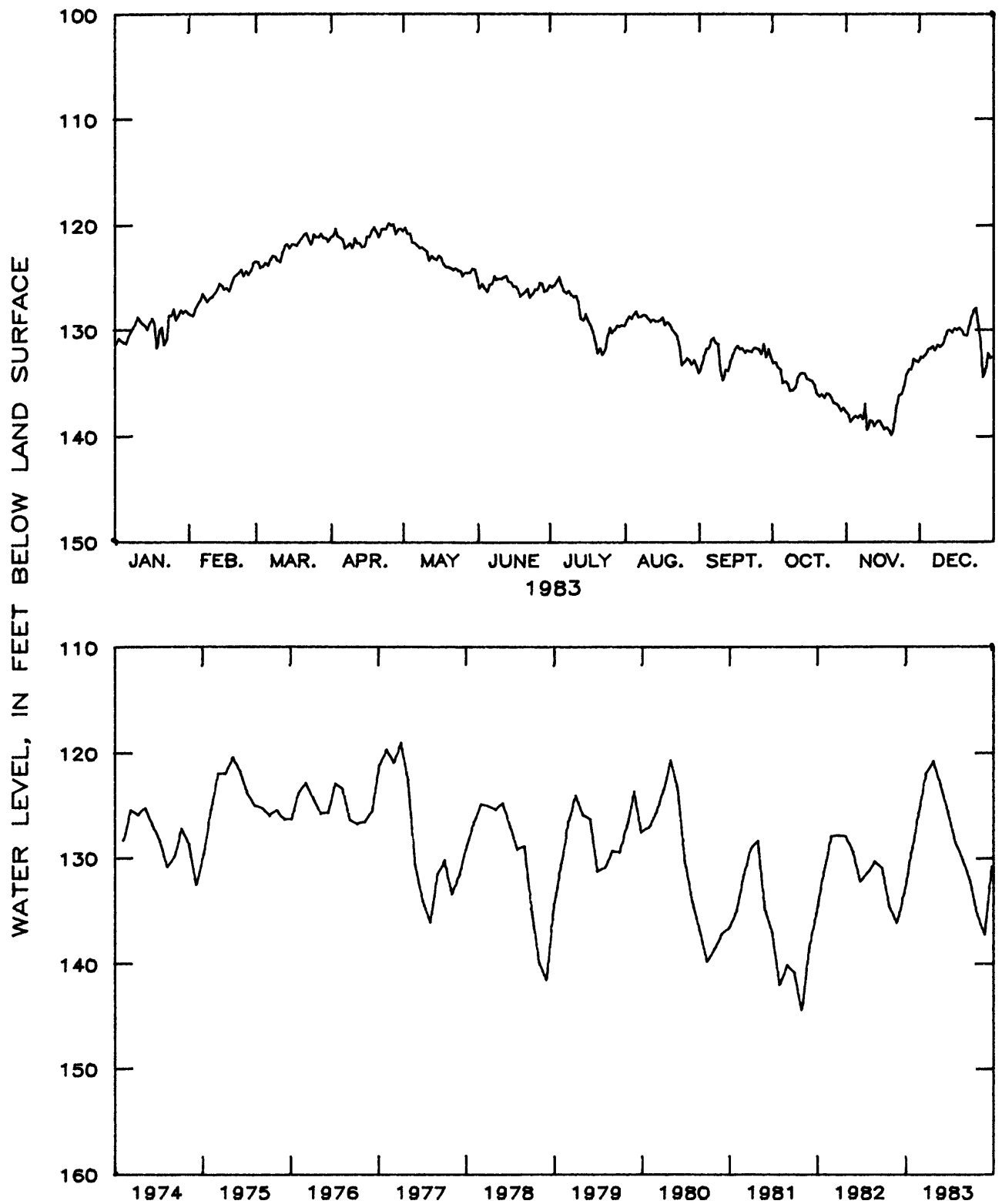


Figure 2.7.2-6.—Water level in observation well 19E009, Lowndes County.

2.7.3 East-central area

Water levels in the Floridan aquifer system in east-central Georgia are affected by precipitation, evapotranspiration, stream stage, and pumping. Precipitation was about normal during the summer of 1982, and ground-water levels began to recover from the record lows experienced during the 1980-81 drought. This rising trend continued into 1983. The water level at well 21T001 reached a new record high in February 1983.

Mean annual water levels during 1983 ranged from about the same as in 1982 to 0.9 foot higher.

21T001 HOGAN LAURENS COUNTY

322652083033001 Local number, 21T001.

LOCATION.--Lat 32°27'06", long 83°03'28", Hydrologic Unit 03070102, approximately 1.8 mi northeast of Dexter, Ga.

Owner: Danny Hogan.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 4 in., depth 123 ft, cased to 89 ft, open hole.

DATUM.--Altitude of land-surface datum is 252 ft.

Measuring point: Floor of recorder shelter, 2.57 ft above land-surface datum.

REMARKS.--Borehole geophysical survey conducted November 1973. Water levels for period of missing recorder record, March 2-22, were estimated.

PERIOD OF RECORD.--March 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.04 ft below land-surface datum, February 17-18, 1983; lowest, 39.58 ft below land-surface datum, November 12, 1968.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 26.28 | 25.15 | 24.08 | 24.25 | 26.00 | 29.84 | 31.90 | 34.17 | 32.17 | 31.21 | 33.46 | 28.71 |
| 2 | 25.90 | 24.98 | 24.09 | 24.24 | 26.09 | 30.02 | 31.75 | 33.69 | 32.21 | 31.31 | 33.50 | 28.46 |
| 3 | 25.55 | 24.94 | 24.11 | 24.32 | 26.15 | 30.15 | 31.67 | 32.65 | 32.18 | 31.38 | 33.52 | 28.15 |
| 4 | 25.37 | 24.95 | 24.12 | 24.48 | 26.23 | 30.26 | 31.63 | 31.61 | 32.17 | 31.46 | 33.52 | 27.92 |
| 5 | 25.21 | 24.98 | 24.14 | 24.59 | 26.38 | 30.39 | 31.59 | 30.87 | 32.14 | 31.54 | 33.54 | 27.80 |
| 6 | 25.09 | 24.88 | 24.15 | 24.66 | 26.54 | 30.51 | 31.53 | 30.35 | 32.02 | 31.66 | 33.62 | 27.60 |
| 7 | 25.03 | 24.86 | 24.17 | 24.72 | 26.69 | 30.57 | 31.54 | 29.96 | 31.87 | 31.80 | 33.67 | 26.96 |
| 8 | 25.01 | 24.91 | 24.18 | 24.75 | 26.79 | 30.54 | 31.61 | 29.70 | 31.79 | 31.91 | 33.71 | 26.60 |
| 9 | 25.00 | 24.95 | 24.19 | 24.75 | 26.91 | 30.56 | 31.66 | 29.54 | 31.77 | 32.01 | 33.73 | 26.38 |
| 10 | 25.00 | 24.94 | 24.21 | 24.72 | 27.09 | 30.63 | 31.70 | 29.45 | 31.77 | 32.08 | 33.73 | 26.22 |
| 11 | 25.00 | 24.92 | 24.22 | 24.69 | 27.24 | 30.71 | 31.81 | 29.41 | 31.77 | 32.11 | 33.76 | 26.00 |
| 12 | 25.06 | 25.03 | 24.34 | 24.69 | 27.37 | 30.79 | 31.94 | 29.39 | 31.79 | 32.15 | 33.84 | 25.67 |
| 13 | 25.16 | 25.02 | 24.25 | 24.72 | 27.50 | 30.85 | 32.08 | 29.39 | 31.74 | 32.19 | 33.89 | 25.46 |
| 14 | 25.21 | 24.60 | 24.27 | 24.75 | 27.63 | 30.95 | 32.19 | 29.47 | 31.50 | 32.30 | 33.93 | 25.29 |
| 15 | 25.22 | 24.30 | 24.28 | 24.75 | 27.75 | 31.04 | 32.28 | 29.59 | 31.20 | 32.39 | 33.94 | 25.28 |
| 16 | 25.29 | 24.15 | 24.30 | 24.76 | 27.84 | 31.16 | 32.38 | 29.73 | 30.93 | 32.45 | 33.94 | 25.33 |
| 17 | 25.35 | 24.04 | 24.31 | 24.82 | 27.98 | 31.30 | 32.50 | 29.89 | 30.75 | 32.51 | 34.01 | 25.36 |
| 18 | 25.47 | 24.04 | 24.32 | 24.83 | 28.15 | 31.41 | 32.63 | 30.04 | 30.64 | 32.56 | 34.06 | 25.33 |
| 19 | 25.60 | 24.06 | 24.34 | 24.88 | 28.28 | 31.52 | 32.77 | 30.21 | 30.59 | 32.61 | 34.09 | 25.25 |
| 20 | 25.66 | 24.14 | 24.35 | 25.00 | 28.37 | 31.60 | 32.90 | 30.40 | 30.55 | 32.69 | 33.96 | 25.25 |
| 21 | 25.59 | 24.19 | 24.37 | 25.11 | 28.47 | 31.68 | 33.03 | 30.58 | 30.47 | 32.77 | 33.92 | 25.28 |
| 22 | 25.52 | 24.16 | 24.38 | 25.21 | 28.54 | 31.72 | 33.13 | 30.77 | 30.48 | 32.83 | 33.92 | 25.23 |
| 23 | 25.41 | 24.11 | 24.38 | 25.16 | 28.63 | 31.79 | 33.23 | 30.96 | 30.57 | 32.82 | 33.85 | 25.19 |
| 24 | 25.35 | 24.24 | 24.33 | 25.15 | 28.76 | 31.84 | 33.33 | 31.15 | 30.66 | 32.82 | 33.49 | 25.19 |
| 25 | 25.32 | 24.42 | 24.39 | 25.31 | 28.85 | 31.89 | 33.45 | 31.33 | 30.72 | 32.89 | 32.30 | 25.28 |
| 26 | 25.31 | 24.48 | 24.49 | 25.47 | 29.00 | 32.02 | 33.57 | 31.47 | 30.77 | 32.97 | 31.28 | 25.32 |
| 27 | 25.27 | 24.52 | 24.37 | 25.59 | 29.18 | 32.12 | 33.70 | 31.59 | 30.83 | 33.06 | 30.50 | 25.33 |
| 28 | 25.28 | 24.11 | 24.31 | 25.69 | 29.32 | 32.13 | 33.85 | 31.68 | 30.90 | 33.19 | 29.86 | 25.27 |
| 29 | 25.33 | --- | 24.32 | 25.80 | 29.44 | 32.12 | 33.96 | 31.80 | 31.01 | 33.23 | 29.39 | 25.26 |
| 30 | 25.28 | --- | 24.33 | 25.90 | 29.54 | 32.05 | 34.06 | 31.95 | 31.11 | 33.31 | 29.00 | 25.38 |
| 31 | 25.24 | --- | 24.26 | --- | 29.66 | --- | 34.15 | 32.11 | --- | 33.40 | --- | 25.45 |
| MEAN | 25.33 | 24.57 | 24.27 | 24.93 | 27.82 | 31.14 | 32.57 | 30.80 | 31.30 | 32.37 | 33.10 | 26.04 |
| CAL YR 1983 | MEAN | 28.70 | | HIGH | 24.04 | | LOW | 34.17 | | | | |

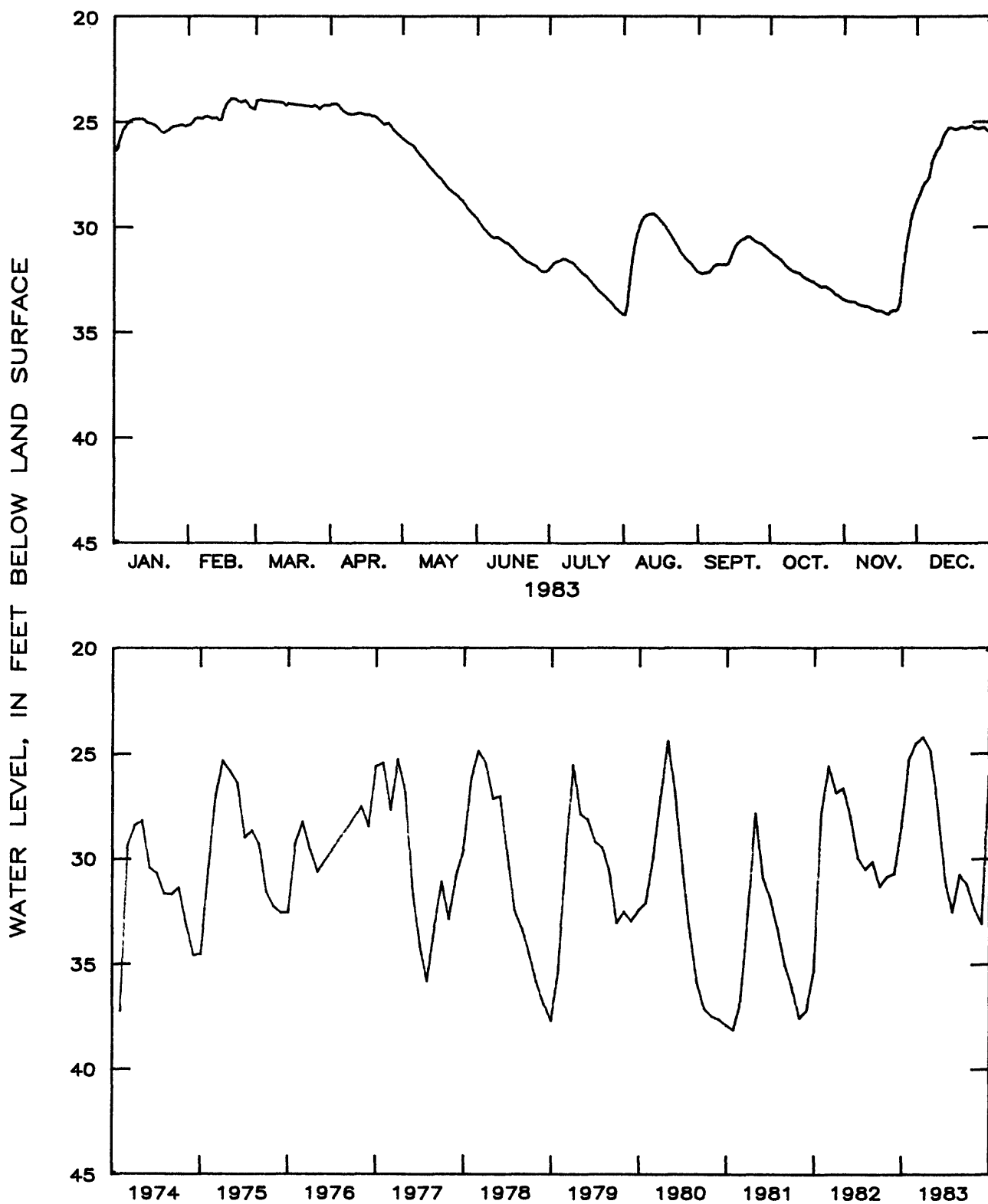


Figure 2.7.3-2.--Water level in observation well 21T001, Laurens County.

320226082301101 Local number, 25Q001.

LOCATION.--Lat 32°02'25", long 82°30'05", Hydrologic Unit 03070106, well is located behind the Uvalda School in the city of Uvalda.

Owner: Uvalda School.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 6 in., depth 536 ft., cased to 421, open hole.

DATUM.--Altitude of land-surface datum is 190 ft.

Measuring point: Top of 6-inch casing at land surface.

REMARKS.--Borehole geophysical survey conducted April 22, 1966.

PERIOD OF RECORD.--June 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 64.13 ft below land-surface datum, June 10, 1966; lowest, 78.9 ft below land-surface datum, October 9, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 76.12 | 75.59 | 75.15 | 75.12 | 74.96 | 75.18 | 75.76 | 76.09 | 76.30 | 76.80 | 77.23 | 76.77 |
| 2 | 75.95 | 75.41 | 75.26 | 75.00 | 74.93 | 75.28 | 75.79 | 75.93 | 76.30 | 76.80 | 77.19 | 76.71 |
| 3 | 75.94 | 75.51 | 75.33 | 75.07 | 74.85 | 75.28 | 75.84 | 75.92 | 76.30 | 76.70 | 77.11 | 76.60 |
| 4 | 76.05 | 75.66 | 75.37 | 75.18 | 74.84 | 75.25 | 75.84 | 75.90 | 76.30 | 76.70 | 77.00 | 76.65 |
| 5 | 76.02 | 75.68 | 75.34 | 75.18 | 74.91 | 75.24 | 75.78 | 75.89 | 76.30 | 76.70 | 77.02 | 76.71 |
| 6 | 75.98 | 75.48 | 75.27 | 75.16 | 74.99 | 75.23 | 75.74 | 75.87 | 76.30 | 76.70 | 77.06 | 76.54 |
| 7 | 75.95 | 75.51 | 75.22 | 75.13 | 75.02 | 75.21 | 75.79 | 75.83 | 76.30 | 76.80 | 77.04 | 76.69 |
| 8 | 75.92 | 75.60 | 75.16 | 75.08 | 74.98 | 75.24 | 75.81 | 75.84 | 76.40 | 76.90 | 77.01 | 76.67 |
| 9 | 75.89 | 75.56 | 75.20 | 75.02 | 75.01 | 75.33 | 75.79 | 75.88 | 76.40 | 77.00 | 76.93 | 76.66 |
| 10 | 75.86 | 75.42 | 75.23 | 75.06 | 75.09 | 75.43 | 75.76 | 75.94 | 76.40 | 77.20 | 76.83 | 76.65 |
| 11 | 75.81 | 75.46 | 75.25 | 75.06 | 75.12 | 75.48 | 75.78 | 75.97 | 76.40 | 77.30 | 76.87 | 76.52 |
| 12 | 75.87 | 75.61 | 75.29 | 75.09 | 75.11 | 75.49 | 75.80 | 75.97 | 76.50 | 77.40 | 76.93 | 76.40 |
| 13 | 75.93 | 75.50 | 75.33 | 75.11 | 75.11 | 75.50 | 75.83 | 75.99 | 76.40 | 77.40 | 76.92 | 76.40 |
| 14 | 75.90 | 75.22 | 75.36 | 75.07 | 75.11 | 75.51 | 75.83 | 76.07 | 76.40 | 77.40 | 76.93 | 76.30 |
| 15 | 75.79 | 75.34 | 75.34 | 74.97 | 75.09 | 75.52 | 75.82 | 76.13 | 76.50 | 77.40 | 76.87 | 76.42 |
| 16 | 75.81 | 75.33 | 75.20 | 74.99 | 75.03 | 75.58 | 75.84 | 76.13 | 76.60 | 77.40 | 76.91 | 76.58 |
| 17 | 75.79 | 75.28 | 75.02 | 75.01 | 75.12 | 75.65 | 75.85 | 76.12 | 76.60 | 77.30 | 76.97 | 76.61 |
| 18 | 75.86 | 75.35 | 75.04 | 74.90 | 75.17 | 75.68 | 75.86 | 76.11 | 76.70 | 77.20 | 76.99 | 76.54 |
| 19 | 75.93 | 75.37 | 75.17 | 74.90 | 75.16 | 75.71 | 75.86 | 76.11 | 76.70 | 77.20 | 76.94 | 76.43 |
| 20 | 75.86 | 75.47 | 75.15 | 74.95 | 75.13 | 75.75 | 75.90 | 76.11 | 76.70 | 77.20 | 76.77 | 76.40 |
| 21 | 75.68 | 75.47 | 75.12 | 74.98 | 75.09 | 75.77 | 75.93 | 76.12 | 76.60 | 77.20 | 76.87 | 76.37 |
| 22 | 75.67 | 75.30 | 75.28 | 74.96 | 75.05 | 75.77 | 75.92 | 76.14 | 76.70 | 77.10 | 76.89 | 76.30 |
| 23 | 75.67 | 75.19 | 75.31 | 74.71 | 75.02 | 75.80 | 75.92 | 76.17 | 76.80 | 76.98 | 76.78 | 76.30 |
| 24 | 75.74 | 75.19 | 75.13 | 74.66 | 75.03 | 75.78 | 75.91 | 76.23 | 76.80 | 77.00 | 76.64 | 76.32 |
| 25 | 75.77 | 75.24 | 75.27 | 74.80 | 75.04 | 75.76 | 75.91 | 76.28 | 76.80 | 77.04 | 76.75 | 76.44 |
| 26 | 75.76 | 75.40 | 75.32 | 74.89 | 75.03 | 75.81 | 75.89 | 76.29 | 76.80 | 77.03 | 76.84 | 76.46 |
| 27 | 75.66 | 75.40 | 75.15 | 74.93 | 75.10 | 75.85 | 75.96 | 76.27 | 76.70 | 77.10 | 76.78 | 76.42 |
| 28 | 75.70 | 75.20 | 75.18 | 74.97 | 75.17 | 75.83 | 76.02 | 76.22 | 76.70 | 77.18 | 76.70 | 76.30 |
| 29 | 75.71 | --- | 75.27 | 74.99 | 75.15 | 75.78 | 76.07 | 76.21 | 76.70 | 77.17 | 76.78 | 76.36 |
| 30 | 75.64 | --- | 75.25 | 74.98 | 75.12 | 75.77 | 76.08 | 76.26 | 76.70 | 77.22 | 76.79 | 76.60 |
| 31 | 75.67 | --- | 75.11 | --- | 75.12 | --- | 76.09 | 76.30 | --- | 77.24 | --- | 76.70 |
| MEAN | 75.84 | 75.42 | 75.23 | 75.00 | 75.05 | 75.55 | 75.87 | 76.07 | 76.54 | 77.09 | 76.91 | 76.51 |
| CAL YR 1983 | MEAN | 75.93 | | HIGH | 74.66 | | LOW | 77.40 | | | | |

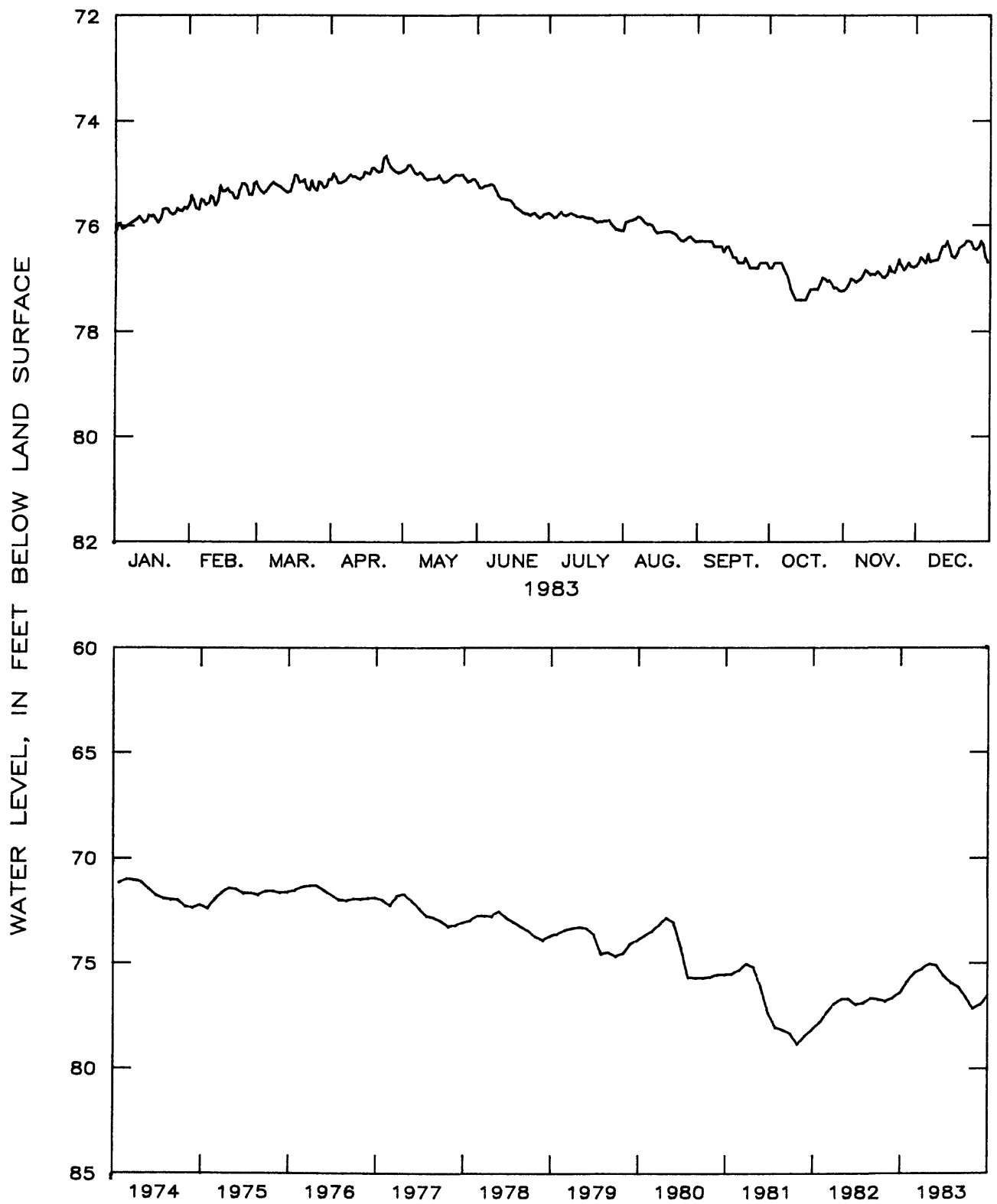


Figure 2.7.3-3.--Water level in observation well 25Q001, Montgomery County.

321302082243601 Local number, 26R001.

LOCATION.--Lat 32°13'02", long 82°24'36", Hydrologic Unit 03070107, 15 ft south of the Vidalia Water and Street Department and Fire Station.

Owner: City of Vidalia, well 2.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled municipal well, diameter 12 in., depth 1,000 ft, cased to 720 ft, open hole.

DATUM.--Altitude of land-surface datum is 285 ft.

Measuring point: Top of 12-inch casing.

REMARKS.--Water levels for period of missing recorder record, December 24-31, were estimated.

PERIOD OF RECORD.--April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.64 ft below land-surface datum, April 15, 1974; lowest, 164.70 ft below land-surface datum, August 25, 1983.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 159.50 | 159.66 | 158.67 | 158.65 | 159.10 | 161.98 | 161.04 | 162.51 | 163.58 | 162.55 | 162.83 | 161.95 |
| 2 | 159.24 | 159.50 | 158.93 | 158.48 | 159.12 | 162.18 | 161.08 | 162.71 | 163.45 | 162.43 | 162.98 | 161.86 |
| 3 | 159.63 | 159.52 | 159.09 | 158.48 | 159.12 | 162.52 | 160.82 | 162.63 | 163.40 | 162.51 | 162.83 | 161.75 |
| 4 | 160.09 | 159.78 | 159.02 | 158.76 | 158.95 | 162.48 | 160.76 | 162.92 | 163.21 | 162.67 | 162.65 | 161.53 |
| 5 | 159.76 | 159.69 | 158.86 | 158.76 | 158.89 | 161.83 | 160.60 | 162.87 | 163.11 | 162.87 | 162.74 | 161.81 |
| 6 | 159.86 | 159.17 | 158.64 | 158.90 | 159.15 | 161.87 | 160.79 | 162.85 | 163.15 | 162.94 | 162.50 | 162.05 |
| 7 | 159.75 | 159.26 | 158.56 | 158.95 | 159.32 | 161.37 | 160.91 | 162.67 | 163.14 | 162.93 | 162.35 | 162.27 |
| 8 | 159.61 | 159.50 | 158.60 | 158.72 | 159.18 | 160.72 | 161.08 | 162.61 | 163.22 | 163.02 | 162.46 | 162.14 |
| 9 | 159.40 | 159.46 | 158.71 | 158.54 | 159.22 | 160.84 | 161.12 | 162.71 | 163.31 | 162.80 | 162.46 | 162.21 |
| 10 | 159.41 | 159.28 | 158.63 | 158.50 | 159.54 | 160.98 | 160.55 | 162.93 | 163.48 | 162.79 | 162.49 | 161.71 |
| 11 | 159.71 | 159.36 | 158.68 | 158.58 | 159.71 | 160.90 | 160.73 | 163.13 | 163.46 | 162.83 | 162.57 | 161.65 |
| 12 | 159.70 | 159.56 | 158.71 | 158.92 | 159.64 | 160.80 | 161.32 | 163.13 | 163.33 | 162.88 | 162.50 | 161.51 |
| 13 | 160.22 | 159.18 | 158.80 | 158.94 | 159.97 | 161.00 | 160.44 | 163.01 | 163.20 | 162.91 | 162.24 | 161.42 |
| 14 | 159.86 | 158.85 | 158.78 | 158.91 | 160.21 | 161.42 | 162.03 | 163.20 | 163.04 | 162.92 | 162.32 | 161.34 |
| 15 | 159.58 | 159.05 | 158.80 | 158.67 | 160.03 | 161.65 | 162.32 | 163.48 | 163.09 | 162.67 | 162.45 | 161.29 |
| 16 | 159.38 | 159.08 | 158.61 | 158.67 | 159.77 | 161.80 | 162.37 | 163.49 | 163.15 | 162.46 | 162.60 | 161.10 |
| 17 | 159.62 | 158.71 | 158.32 | 158.54 | 159.74 | 161.93 | 162.56 | 163.83 | 163.05 | 162.50 | 162.57 | 161.37 |
| 18 | 159.64 | 159.36 | 158.40 | 158.33 | 159.90 | 162.20 | 162.58 | 164.06 | 163.27 | 162.49 | 162.73 | 161.23 |
| 19 | 159.72 | 159.32 | 158.76 | 158.40 | 159.92 | 161.71 | 162.49 | 164.27 | 163.20 | 162.56 | 162.71 | 161.20 |
| 20 | 159.77 | 159.22 | 158.66 | 158.54 | 159.99 | 161.38 | 162.34 | 164.42 | 163.09 | 162.61 | 162.30 | 161.39 |
| 21 | 160.02 | 159.28 | 158.62 | 158.70 | 160.16 | 161.24 | 162.23 | 164.45 | 162.80 | 162.65 | 162.27 | 161.37 |
| 22 | 160.24 | 159.04 | 158.75 | 158.82 | 160.02 | 161.26 | 162.04 | 164.22 | 162.93 | 162.59 | 162.41 | 161.29 |
| 23 | 159.81 | 159.05 | 158.82 | 158.50 | 159.89 | 161.31 | 162.33 | 164.36 | 162.70 | 162.31 | 162.22 | 161.37 |
| 24 | 159.84 | 159.08 | 158.49 | 158.11 | 160.37 | 161.80 | 162.45 | 164.51 | 162.74 | 162.33 | 162.15 | 161.44 |
| 25 | 160.06 | 159.08 | 158.75 | 158.45 | 160.57 | 161.28 | 162.34 | 164.70 | 162.51 | 162.61 | 161.92 | 161.61 |
| 26 | 159.92 | 159.05 | 158.78 | 158.67 | 160.86 | 161.23 | 162.55 | 164.26 | 162.49 | 162.84 | 161.92 | 161.68 |
| 27 | 159.70 | 159.02 | 158.62 | 158.90 | 161.12 | 161.36 | 162.43 | 164.07 | 162.59 | 162.86 | 161.68 | 161.69 |
| 28 | 159.90 | 158.67 | 158.69 | 159.04 | 161.42 | 161.22 | 162.46 | 163.86 | 162.57 | 162.93 | 161.77 | 161.62 |
| 29 | 159.75 | --- | 158.76 | 159.18 | 161.22 | 161.02 | 162.34 | 163.97 | 162.56 | 162.86 | 161.84 | 161.72 |
| 30 | 159.43 | --- | 158.83 | 159.17 | 161.30 | 161.02 | 162.57 | 164.11 | 162.52 | 162.79 | 161.84 | 162.01 |
| 31 | 159.61 | --- | 158.77 | --- | 161.74 | --- | 162.61 | 163.78 | --- | 162.71 | --- | 162.36 |
| MEAN | 159.73 | 159.24 | 158.71 | 158.69 | 159.97 | 161.48 | 161.75 | 163.54 | 163.04 | 162.70 | 162.38 | 161.64 |
| CAL YR 1983 | MEAN | 161.09 | | HIGH | 158.11 | | LOW | 164.70 | | | | |

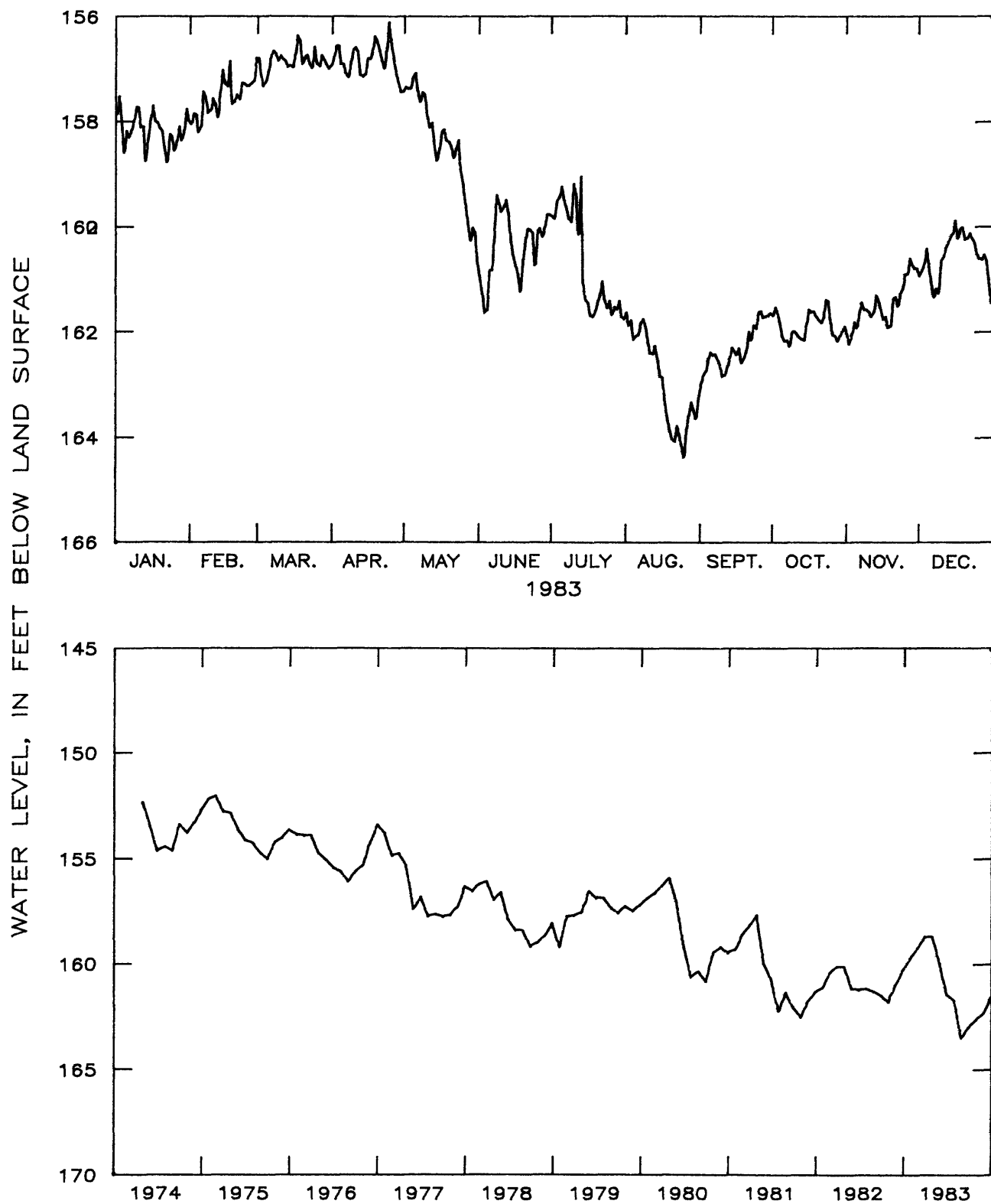


Figure 2.7.3-4.--Water level in observation well 26R001, Toombs County.

2.7.4 Coastal area

Ground-water in coastal Georgia constitutes one of the most valuable mineral resources in the area. Growth of the pulp and paper industry, as well as the chemical industry, has occurred mainly because of the presence of large supplies of ground water available at moderate depths and at small cost. Large pulp mills are located at Savannah, Jesup, Riceboro, Brunswick, and St. Marys. The combined pumpage in these areas is about 300 Mgal/d, about 80 percent of which is used for industrial purposes. All of the ground water is pumped from the Floridan aquifer system (Wait and Gregg, 1973, p. 9).

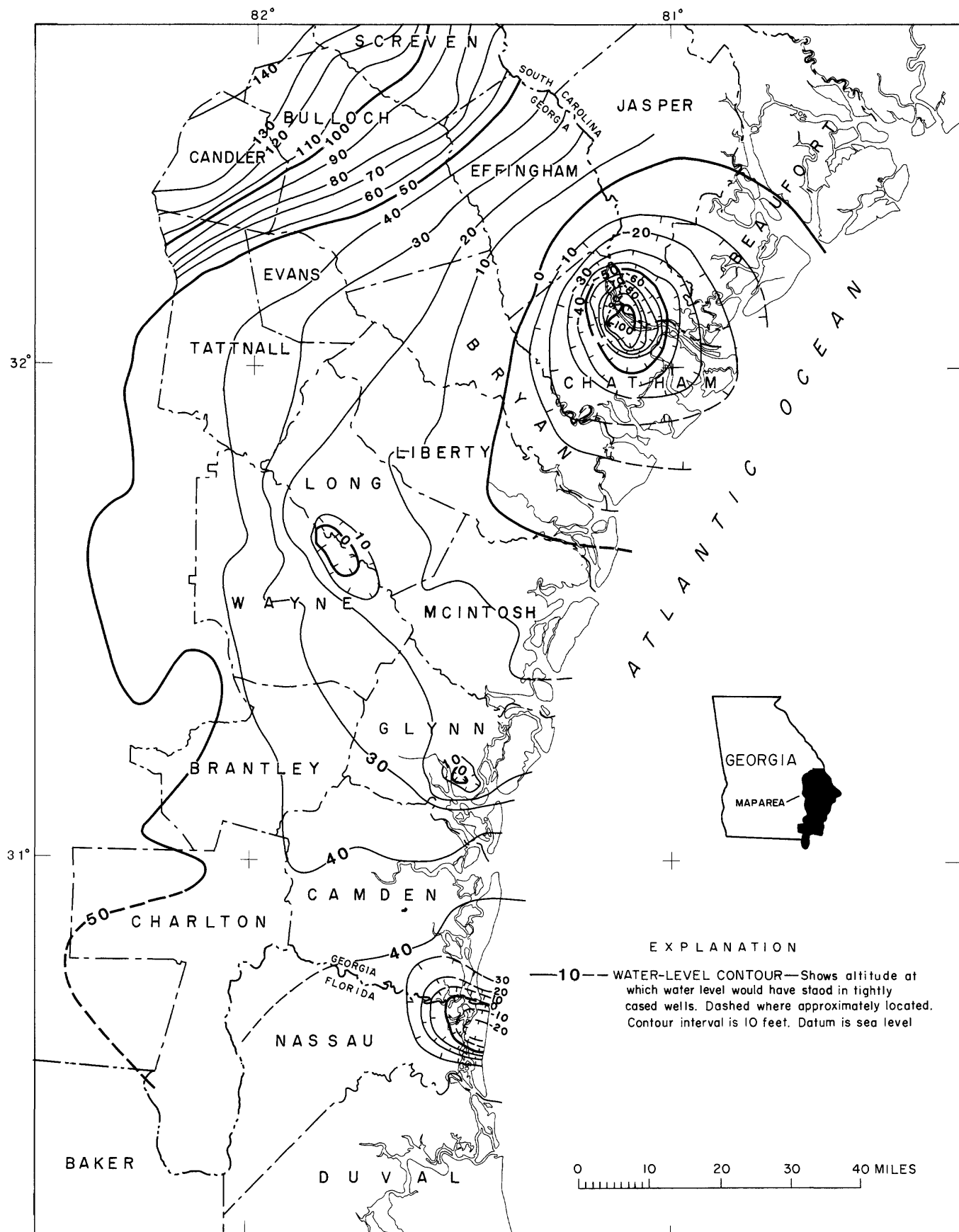


Figure 2.7.4-1.— Water level in the Floridan aquifer system in the coastal area, November 1983.

2.7.4.1 Savannah area

Ground-water levels in the Floridan aquifer system in the Savannah area are affected by changes in municipal and industrial pumping. During 1982, water levels recovered somewhat from the record lows of 1980-81 due to reductions in industrial pumping. This rising trend continued into 1983. The effects of partial industrial shutdowns are illustrated by the 1983 hydrographs for observation well 36Q008 (Layne-Atlantic) near the center of pumping. Seasonal changes in water level are shown for observation well 36Q020 (Morrison) 8 miles southwest of the pumping center.

Mean annual water levels in the Savannah area were from 1.1 feet lower to 1 foot higher in 1983 than in 1982.

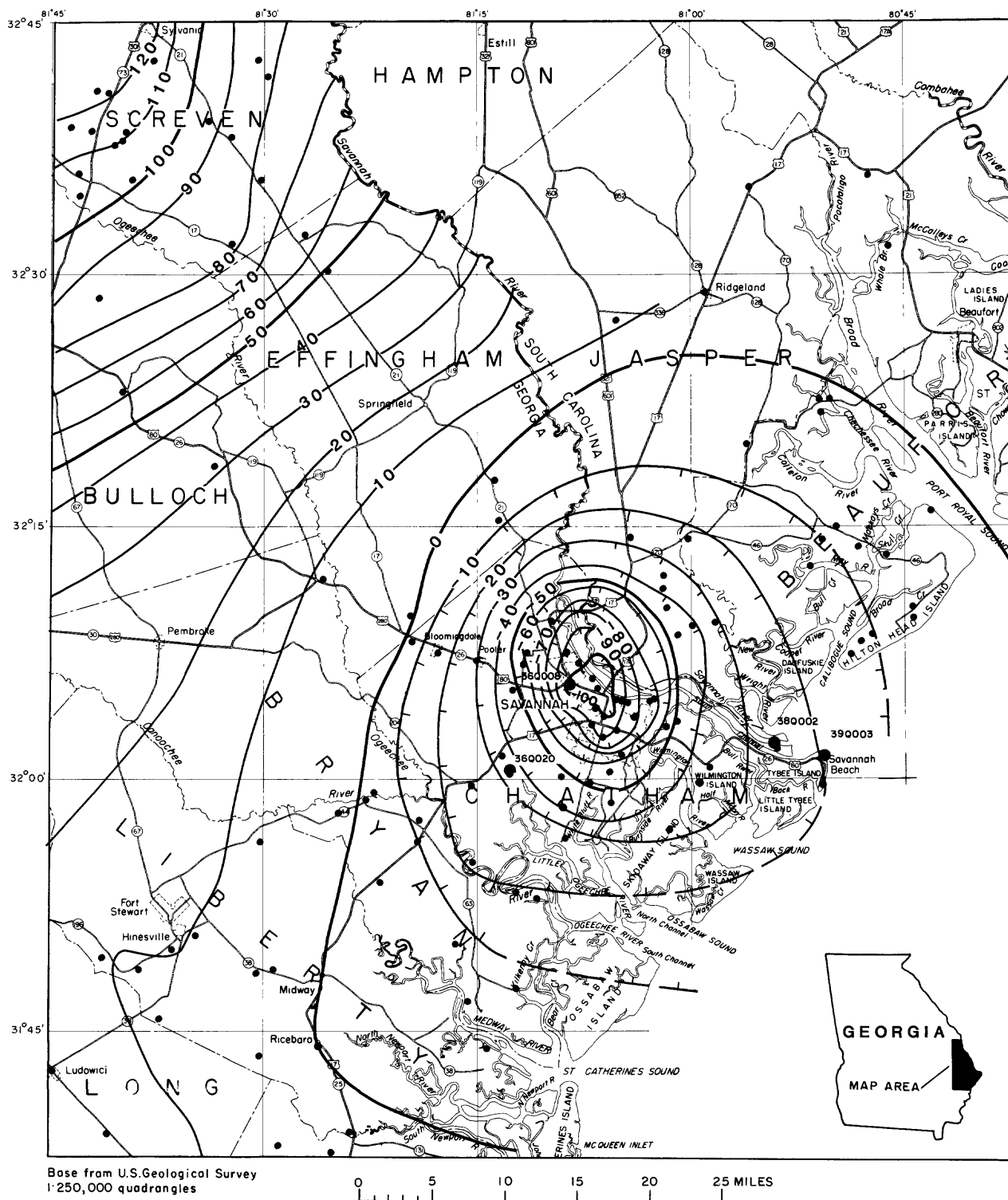


Figure 2.7.4.1-1.—Observation well locations and the water level in the Floridan aquifer system in the Savannah area, November 1983.

320530081085001 Local number, 36Q008.

LOCATION.--Lat 32°05'30", long 81°08'50", Hydrologic Unit 03060204, 0.19 mi southeast of intersection of Alfred Street and U.S. Highway 80.

Owner: Layne-Atlantic Co.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused industrial well, diameter 4 in., depth 406 ft, cased to 250 ft, open hole.

DATUM.--Altitude of land-surface datum is 9.91 ft.

Measuring point: Top of 3 in. casing, 1.0 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, February 7-10, 16-22, August 25, September 1-30, November 25-28, and December 24-31, were estimated.

PERIOD OF RECORD.--February 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.17 ft below land-surface datum, July 11, 1954; lowest, 124.40 ft below land-surface datum, August 30, 1980.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 88.90 | 96.60 | 95.60 | 102.80 | 101.37 | 105.60 | 109.85 | 101.90 | 112.43 | 110.80 | 110.32 | 108.28 |
| 2 | 89.10 | 95.25 | 96.06 | 101.64 | 97.64 | 106.50 | 108.55 | 100.10 | 111.84 | 111.30 | 110.34 | 109.71 |
| 3 | 90.00 | 96.30 | 96.46 | 101.30 | 95.04 | 106.55 | 105.07 | 99.50 | 111.59 | 109.95 | 111.08 | 108.36 |
| 4 | 91.60 | 96.12 | 96.66 | 102.30 | 92.80 | 106.75 | 99.70 | 99.68 | 110.98 | 111.25 | 111.36 | 107.00 |
| 5 | 92.70 | 95.10 | 96.84 | 103.68 | 91.51 | 105.45 | 96.71 | 99.96 | 112.63 | 111.80 | 110.21 | 106.96 |
| 6 | 93.30 | 93.70 | 95.06 | 104.20 | 90.50 | 106.14 | 96.28 | 101.34 | 111.08 | 112.21 | 108.54 | 108.58 |
| 7 | 93.70 | 93.54 | 94.12 | 104.50 | 89.31 | 107.15 | 94.62 | 102.08 | 111.43 | 112.85 | 109.16 | 109.30 |
| 8 | 94.70 | 93.88 | 96.05 | 104.24 | 87.89 | 107.05 | 93.24 | 104.30 | 111.66 | 111.25 | 110.84 | 109.62 |
| 9 | 93.70 | 92.72 | 96.35 | 103.50 | 88.80 | 107.04 | 91.47 | 106.02 | 112.47 | 109.05 | 111.17 | 109.83 |
| 10 | 93.90 | 89.56 | 96.87 | 102.20 | 92.66 | 107.27 | 89.39 | 106.30 | 112.86 | 111.85 | 110.88 | 109.61 |
| 11 | 94.70 | 88.40 | 97.50 | 102.05 | 95.54 | 107.05 | 88.75 | 106.63 | 112.77 | 110.98 | 111.16 | 108.58 |
| 12 | 95.50 | 89.60 | 97.70 | 103.80 | 97.30 | 105.70 | 92.00 | 106.15 | 112.48 | 111.43 | 110.69 | 108.16 |
| 13 | 95.70 | 90.60 | 97.10 | 104.00 | 98.77 | 105.81 | 96.04 | 105.27 | 112.07 | 111.79 | 109.50 | 108.78 |
| 14 | 95.60 | 90.67 | 97.96 | 104.40 | 99.74 | 106.95 | 97.85 | 104.62 | 110.46 | 111.86 | 109.80 | 108.98 |
| 15 | 95.60 | 91.50 | 98.90 | 104.35 | 99.05 | 107.42 | 99.92 | 106.13 | 110.11 | 111.34 | 110.18 | 109.30 |
| 16 | 96.00 | 92.16 | 99.16 | 103.90 | 99.20 | 108.77 | 100.05 | 108.06 | 110.32 | 110.40 | 110.06 | 110.10 |
| 17 | 96.40 | 92.88 | 98.95 | 102.76 | 101.30 | 109.30 | 99.98 | 108.57 | 110.57 | 110.84 | 110.20 | 109.59 |
| 18 | 97.00 | 93.74 | 98.43 | 102.70 | 101.60 | 108.85 | 101.42 | 108.40 | 110.70 | 111.71 | 110.42 | 109.02 |
| 19 | 97.70 | 94.60 | 98.73 | 104.00 | 101.32 | 107.36 | 103.20 | 108.67 | 110.61 | 112.03 | 109.79 | 108.35 |
| 20 | 98.30 | 97.20 | 98.95 | 104.10 | 101.63 | 108.21 | 103.42 | 108.92 | 110.70 | 111.47 | 109.23 | 109.00 |
| 21 | 98.00 | 97.80 | 100.55 | 104.35 | 101.52 | 108.96 | 105.08 | 107.57 | 109.93 | 111.35 | 109.16 | 108.64 |
| 22 | 98.10 | 96.40 | 102.00 | 104.60 | 101.08 | 109.47 | 105.91 | 108.37 | 109.96 | 110.25 | 109.99 | 109.18 |
| 23 | 98.00 | 95.50 | 103.10 | 102.10 | 101.40 | 109.07 | 104.55 | 110.35 | 110.27 | 108.66 | 109.80 | 107.45 |
| 24 | 98.10 | 95.55 | 103.20 | 100.76 | 102.36 | 108.87 | 102.38 | 111.33 | 109.96 | 108.82 | 108.04 | 106.17 |
| 25 | 98.40 | 95.76 | 102.80 | 102.16 | 103.10 | 107.88 | 103.61 | 111.72 | 109.51 | 110.54 | 108.00 | 103.59 |
| 26 | 98.40 | 96.00 | 102.40 | 104.65 | 103.50 | 106.88 | 105.57 | 112.10 | 109.38 | 110.73 | 107.92 | 100.31 |
| 27 | 98.20 | 95.60 | 101.35 | 104.90 | 103.80 | 107.39 | 106.10 | 112.30 | 110.11 | 111.34 | 107.60 | 99.53 |
| 28 | 99.10 | 95.25 | 101.30 | 105.40 | 104.10 | 108.90 | 106.25 | 112.50 | 110.48 | 111.56 | 107.31 | 98.54 |
| 29 | 98.10 | --- | 102.65 | 105.70 | 104.15 | 109.22 | 106.60 | 112.70 | 110.35 | 109.72 | 107.29 | 99.56 |
| 30 | 97.20 | --- | 102.25 | 104.80 | 104.20 | 109.42 | 105.35 | 112.60 | 110.58 | 107.82 | 107.88 | 100.58 |
| 31 | 96.40 | --- | 102.75 | --- | 104.80 | --- | 103.38 | 112.66 | --- | 108.40 | --- | 101.60 |
| MEAN | 95.55 | 94.00 | 98.96 | 103.53 | 98.61 | 107.57 | 100.72 | 106.99 | 111.01 | 110.82 | 109.60 | 106.85 |
| CAL YR 1983 | MEAN | 103.72 | | HIGH | 87.89 | | LOW | 112.86 | | | | |

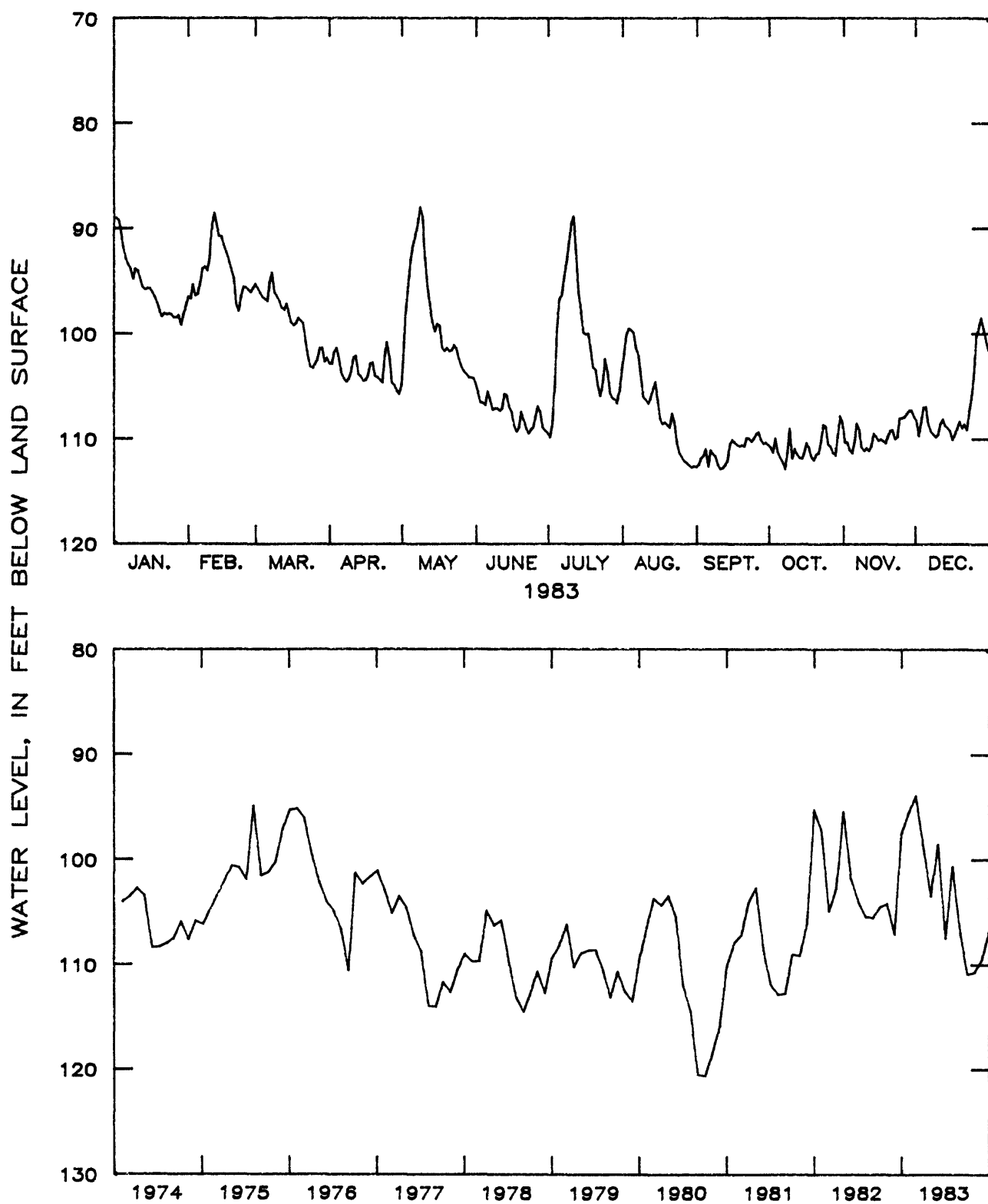


Figure 2.7.4.1-2.--Water level in observation well 36Q008, Chatham County.

320021081124801 Local number, 36Q020.

LOCATION.--Lat 32°00'18", long 81°12'48", Hydrologic Unit 03060204, 2.7 mi south of intersection of U.S. Highway 17 with Dean Forest Road.

Owner: H. J. Morrison.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 3 in., depth 365 ft, cased to 330 ft, open hole.

DATUM.--Altitude of land-surface datum is 13 ft.

Measuring point: Floor of recorder shelter, 3.88 ft above land-surface datum.

REMARKS.--Water levels for period of missing recorder record, June 7 to July 5, were estimated.

PERIOD OF RECORD.--March 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.66 ft below land-surface datum, June 28, 1958; lowest, 49.15 ft below land-surface datum, September 6 and 7, 1980.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 41.43 | 40.45 | 39.70 | 40.95 | 41.50 | 42.50 | 44.82 | 44.79 | 45.70 | 46.01 | 46.37 | 44.84 |
| 2 | 41.17 | 40.30 | 39.85 | 40.40 | 41.55 | 42.83 | 44.77 | 44.73 | 45.66 | 46.04 | 46.35 | 44.77 |
| 3 | 41.13 | 40.45 | 40.00 | 40.50 | 41.50 | 42.98 | 44.90 | 44.65 | 45.82 | 46.04 | 46.26 | 44.58 |
| 4 | 41.17 | 40.75 | 40.00 | 40.70 | 41.40 | 43.20 | 44.99 | 44.58 | 45.91 | 46.00 | 46.14 | 44.50 |
| 5 | 41.05 | 40.75 | 40.00 | 40.75 | 41.40 | 43.43 | 44.95 | 44.62 | 45.95 | 45.99 | 46.08 | 44.59 |
| 6 | 41.00 | 40.50 | 39.95 | 40.80 | 41.40 | 43.60 | 44.90 | 44.61 | 45.96 | 46.04 | 46.17 | 44.44 |
| 7 | 40.94 | 40.55 | 39.95 | 40.80 | 41.40 | 43.63 | 44.88 | 44.61 | 45.97 | 46.15 | 46.15 | 44.67 |
| 8 | 40.90 | 40.65 | 39.85 | 40.75 | 41.25 | 43.66 | 44.76 | 44.61 | 45.99 | 46.17 | 45.94 | 44.67 |
| 9 | 40.80 | 40.60 | 39.90 | 40.80 | 41.20 | 43.69 | 44.60 | 44.61 | 46.04 | 46.26 | 45.78 | 44.72 |
| 10 | 40.80 | 40.35 | 39.95 | 40.85 | 41.18 | 43.73 | 44.53 | 44.67 | 46.14 | 46.28 | 45.62 | 44.70 |
| 11 | 40.70 | 40.30 | 40.00 | 40.85 | 41.10 | 43.88 | 44.54 | 44.69 | 46.19 | 46.24 | 45.64 | 44.50 |
| 12 | 40.85 | 40.40 | 40.00 | 40.85 | 41.05 | 44.00 | 44.51 | 44.73 | 46.20 | 46.24 | 45.70 | 44.26 |
| 13 | 40.85 | 40.10 | 40.00 | 40.90 | 41.05 | 44.05 | 44.42 | 44.73 | 46.18 | 46.30 | 45.64 | 44.23 |
| 14 | 40.85 | 39.90 | 40.00 | 40.85 | 41.15 | 44.06 | 44.36 | 44.74 | 46.19 | 46.40 | 45.64 | 44.22 |
| 15 | 40.65 | 40.05 | 39.90 | 40.90 | 41.20 | 44.11 | 44.31 | 44.75 | 46.22 | 46.38 | 45.56 | 44.36 |
| 16 | 40.70 | 39.85 | 39.70 | 40.85 | 41.15 | 44.12 | 44.31 | 44.74 | 46.20 | 46.38 | 45.56 | 44.52 |
| 17 | 40.70 | 39.70 | 39.45 | 40.95 | 41.32 | 44.14 | 44.48 | 44.73 | 46.27 | 46.40 | 45.60 | 44.51 |
| 18 | 40.80 | 39.70 | 39.50 | 40.85 | 41.40 | 44.25 | 44.63 | 44.80 | 46.35 | 46.39 | 45.59 | 44.45 |
| 19 | 40.95 | 39.70 | 39.80 | 40.85 | 41.35 | 44.31 | 44.78 | 44.91 | 46.38 | 46.39 | 45.49 | 44.25 |
| 20 | 40.80 | 39.90 | 39.85 | 40.93 | 41.38 | 44.35 | 44.84 | 44.99 | 46.33 | 46.39 | 45.21 | 44.26 |
| 21 | 40.55 | 39.90 | 39.80 | 41.10 | 41.40 | 44.37 | 44.87 | 45.18 | 46.22 | 46.42 | 45.22 | 44.27 |
| 22 | 40.70 | 39.70 | 40.30 | 41.10 | 41.33 | 44.41 | 44.93 | 45.33 | 46.25 | 46.38 | 45.23 | 44.14 |
| 23 | 40.65 | 39.55 | 40.35 | 40.80 | 41.35 | 44.43 | 44.95 | 45.50 | 46.26 | 46.18 | 45.13 | 44.10 |
| 24 | 40.75 | 39.60 | 40.20 | 40.89 | 41.45 | 44.42 | 44.95 | 45.73 | 46.28 | 46.12 | 44.99 | 44.18 |
| 25 | 40.75 | 39.85 | 40.50 | 41.15 | 41.50 | 44.53 | 44.94 | 45.89 | 46.22 | 46.16 | 45.07 | 44.37 |
| 26 | 40.75 | 40.15 | 40.60 | 41.20 | 41.60 | 44.51 | 44.85 | 45.90 | 46.10 | 46.20 | 45.11 | 44.57 |
| 27 | 40.65 | 40.00 | 40.45 | 41.25 | 41.75 | 44.60 | 44.79 | 45.86 | 46.02 | 46.32 | 44.91 | 44.78 |
| 28 | 40.65 | 39.70 | 40.50 | 41.30 | 41.90 | 44.75 | 44.86 | 45.75 | 45.96 | 46.38 | 44.74 | 44.79 |
| 29 | 40.65 | --- | 40.60 | 41.35 | 42.00 | 44.80 | 44.83 | 45.72 | 45.96 | 46.35 | 44.84 | 44.92 |
| 30 | 40.55 | --- | 40.50 | 41.40 | 42.05 | 44.76 | 44.81 | 45.69 | 45.94 | 46.41 | 44.88 | 45.32 |
| 31 | 40.55 | --- | 40.40 | --- | 42.20 | --- | 44.79 | 45.68 | --- | 46.40 | --- | 45.44 |
| MEAN | 40.82 | 40.12 | 40.05 | 40.92 | 41.43 | 44.00 | 44.74 | 45.05 | 46.10 | 46.25 | 45.55 | 44.55 |
| CAL YR 1983 | MEAN | 43.32 | | HIGH | 39.45 | | LOW | 46.42 | | | | |

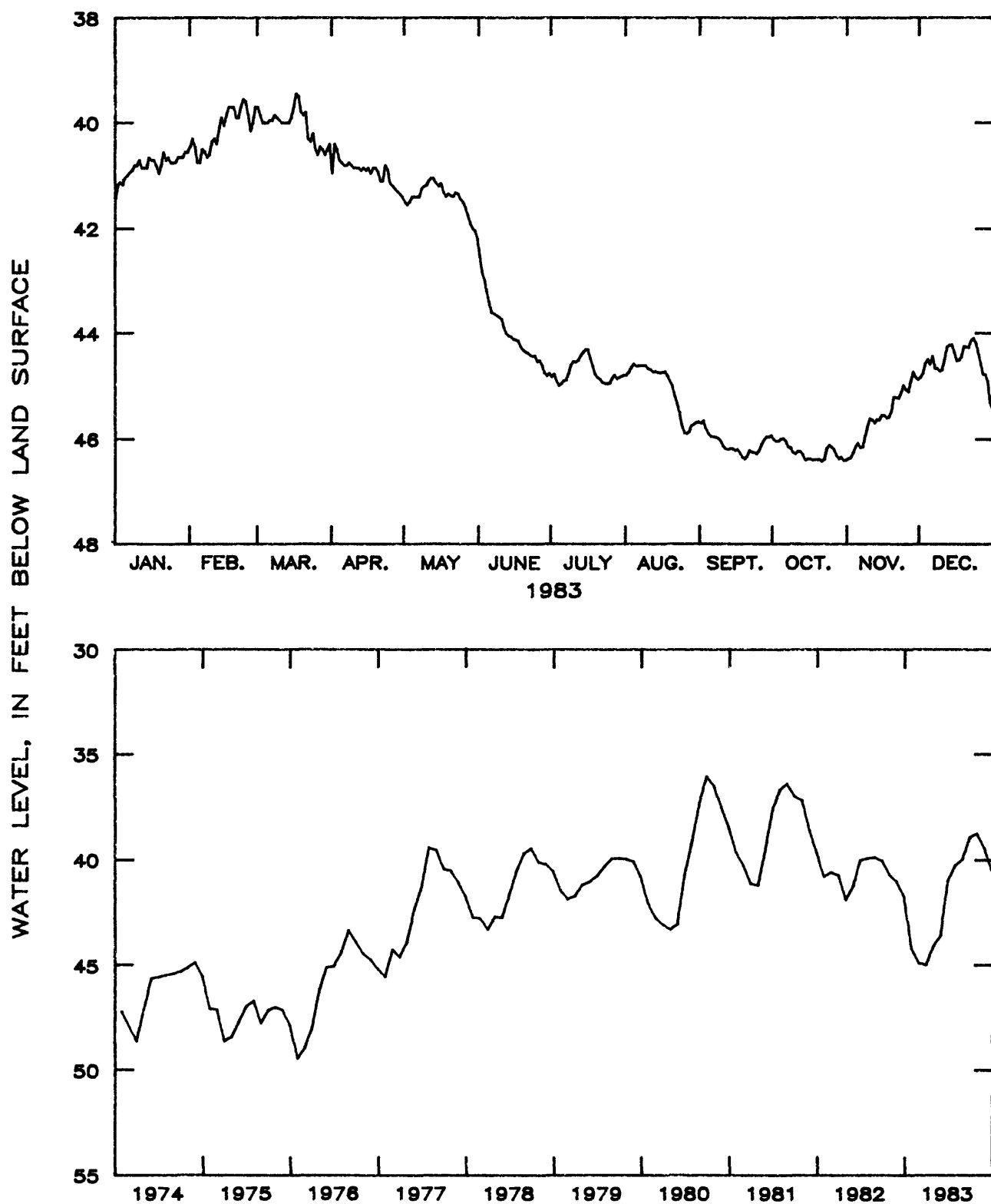


Figure 2.7.4.1-3.--Water level in observation well 36Q020, Chatham County.

38Q002 PILOT HOUSE CHATHAM COUNTY

320202080541201 Local number, 38Q002.

LOCATION.--Lat 32°02'02", long 80°54'12", Hydrologic Unit 03060204, Cockspur Island, near pilot house.

Owner: U.S. Department of the Interior, National Park Service.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 348 ft, cased to 110 ft, open hole.

DATUM.--Altitude of land-surface datum is 8.0 ft.

Measuring point: Floor of recorder shelter, 3.62 ft above land-surface datum.

REMARKS.--Borehole geophysical survey conducted June 16, 1961. Water levels for periods of missing recorder record, July 4-6 and November 25, were estimated.

PERIOD OF RECORD.--February 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.0 ft below land-surface datum, March 5, 1956; lowest, 35.60 ft below land-surface datum, September 2-6, 1980.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 30.60 | 29.30 | 28.70 | 28.70 | 29.60 | 30.33 | 32.17 | 32.90 | 32.79 | 32.56 | 32.79 | 32.37 |
| 2 | 30.50 | 29.20 | 28.90 | 28.65 | 29.60 | 30.45 | 32.27 | 32.90 | 32.69 | 32.75 | 32.82 | 32.22 |
| 3 | 30.35 | 29.55 | 29.00 | 29.00 | 29.60 | 30.50 | 32.43 | 32.80 | 32.77 | 32.83 | 32.74 | 32.09 |
| 4 | 30.40 | 29.90 | 29.00 | 29.00 | 29.70 | 30.62 | 32.34 | 32.70 | 32.86 | 32.76 | 32.68 | 32.08 |
| 5 | 30.40 | 29.65 | 28.90 | 28.90 | 29.65 | 30.75 | 32.24 | 32.71 | 32.75 | 32.73 | 32.45 | 32.15 |
| 6 | 30.50 | 29.30 | 28.90 | 29.00 | 29.80 | 30.76 | 32.14 | 32.62 | 32.77 | 32.61 | 32.57 | 31.93 |
| 7 | 30.40 | 29.50 | 28.90 | 29.10 | 29.85 | 30.70 | 32.05 | 32.52 | 32.82 | 32.74 | 32.58 | 32.43 |
| 8 | 30.30 | 29.60 | 28.80 | 28.90 | 29.75 | 30.67 | 31.92 | 32.50 | 32.86 | 32.57 | 32.22 | 32.28 |
| 9 | 29.95 | 29.45 | 28.80 | 28.90 | 29.70 | 30.41 | 32.00 | 32.52 | 32.93 | 32.76 | 32.24 | 32.29 |
| 10 | 30.00 | 29.30 | 28.85 | 29.10 | 29.70 | 30.53 | 32.05 | 32.60 | 32.94 | 32.69 | 32.33 | 32.32 |
| 11 | 30.05 | 29.20 | 28.85 | 29.00 | 29.75 | 30.47 | 32.19 | 32.84 | 33.04 | 32.55 | 32.58 | 32.00 |
| 12 | 30.40 | 29.50 | 28.90 | 28.90 | 29.75 | 30.60 | 32.23 | 33.01 | 33.12 | 32.78 | 32.54 | 31.78 |
| 13 | 30.20 | 29.10 | 28.80 | 28.85 | 29.70 | 30.80 | 32.35 | 32.85 | 33.14 | 32.90 | 32.50 | 31.92 |
| 14 | 30.10 | 29.20 | 28.80 | 28.90 | 29.85 | 30.97 | 32.45 | 32.65 | 33.17 | 33.00 | 32.50 | 31.90 |
| 15 | 30.10 | 29.20 | 28.65 | 28.95 | 29.80 | 30.95 | 32.50 | 32.69 | 32.84 | 32.99 | 32.57 | 32.10 |
| 16 | 30.05 | 29.05 | 28.30 | 29.00 | 29.90 | 31.05 | 32.48 | 32.58 | 32.73 | 32.88 | 32.77 | 32.26 |
| 17 | 30.00 | 28.95 | 28.05 | 28.90 | 29.70 | 31.19 | 32.50 | 32.61 | 32.86 | 32.95 | 32.73 | 32.15 |
| 18 | 30.00 | 29.10 | 28.35 | 28.95 | 29.70 | 31.32 | 32.62 | 32.62 | 32.97 | 32.94 | 32.52 | 31.90 |
| 19 | 30.20 | 29.10 | 28.80 | 28.90 | 29.80 | 30.45 | 32.80 | 32.75 | 32.97 | 32.84 | 32.52 | 31.63 |
| 20 | 29.70 | 29.15 | 28.50 | 29.00 | 29.90 | 31.52 | 32.98 | 32.76 | 32.90 | 32.74 | 32.52 | 31.61 |
| 21 | 29.40 | 29.10 | 28.60 | 29.20 | 30.00 | 31.60 | 33.00 | 32.77 | 32.95 | 32.77 | 32.48 | 31.52 |
| 22 | 29.60 | 28.95 | 29.20 | 29.15 | 29.95 | 31.56 | 32.98 | 32.88 | 32.99 | 32.57 | 32.46 | 31.59 |
| 23 | 29.80 | 29.00 | 29.00 | 28.80 | 30.06 | 31.57 | 32.95 | 33.10 | 32.92 | 32.46 | 32.28 | 31.62 |
| 24 | 29.80 | 28.90 | 28.75 | 29.10 | 29.80 | 31.69 | 32.85 | 33.16 | 32.90 | 32.62 | 32.16 | 31.99 |
| 25 | 29.85 | 28.90 | 28.80 | 29.20 | 29.83 | 31.71 | 32.90 | 33.17 | 32.83 | 32.69 | 32.21 | 31.92 |
| 26 | 29.80 | 28.90 | 28.80 | 29.20 | 29.87 | 31.81 | 32.75 | 33.11 | 32.67 | 32.57 | 32.26 | 31.90 |
| 27 | 29.70 | 28.80 | 28.65 | 29.30 | 30.00 | 31.95 | 32.65 | 33.10 | 32.63 | 32.66 | 32.09 | 31.88 |
| 28 | 29.65 | 28.50 | 28.90 | 29.35 | 29.96 | 32.10 | 32.70 | 33.08 | 32.54 | 32.84 | 32.12 | 31.82 |
| 29 | 29.80 | --- | 28.90 | 29.50 | 30.02 | 32.11 | 32.78 | 33.03 | 32.38 | 33.05 | 32.45 | 31.86 |
| 30 | 29.60 | --- | 28.70 | 29.50 | 30.14 | 32.10 | 32.80 | 32.95 | 32.41 | 32.81 | 32.46 | 32.01 |
| 31 | 29.60 | --- | 28.60 | --- | 30.22 | --- | 32.88 | 32.84 | --- | 32.86 | --- | 32.01 |
| MEAN | 30.03 | 29.19 | 28.76 | 29.03 | 29.83 | 31.11 | 32.51 | 32.82 | 32.84 | 32.76 | 32.47 | 31.98 |
| CAL YR 1983 | MEAN | 31.12 | | HIGH | 28.05 | | LOW | 33.17 | | | | |

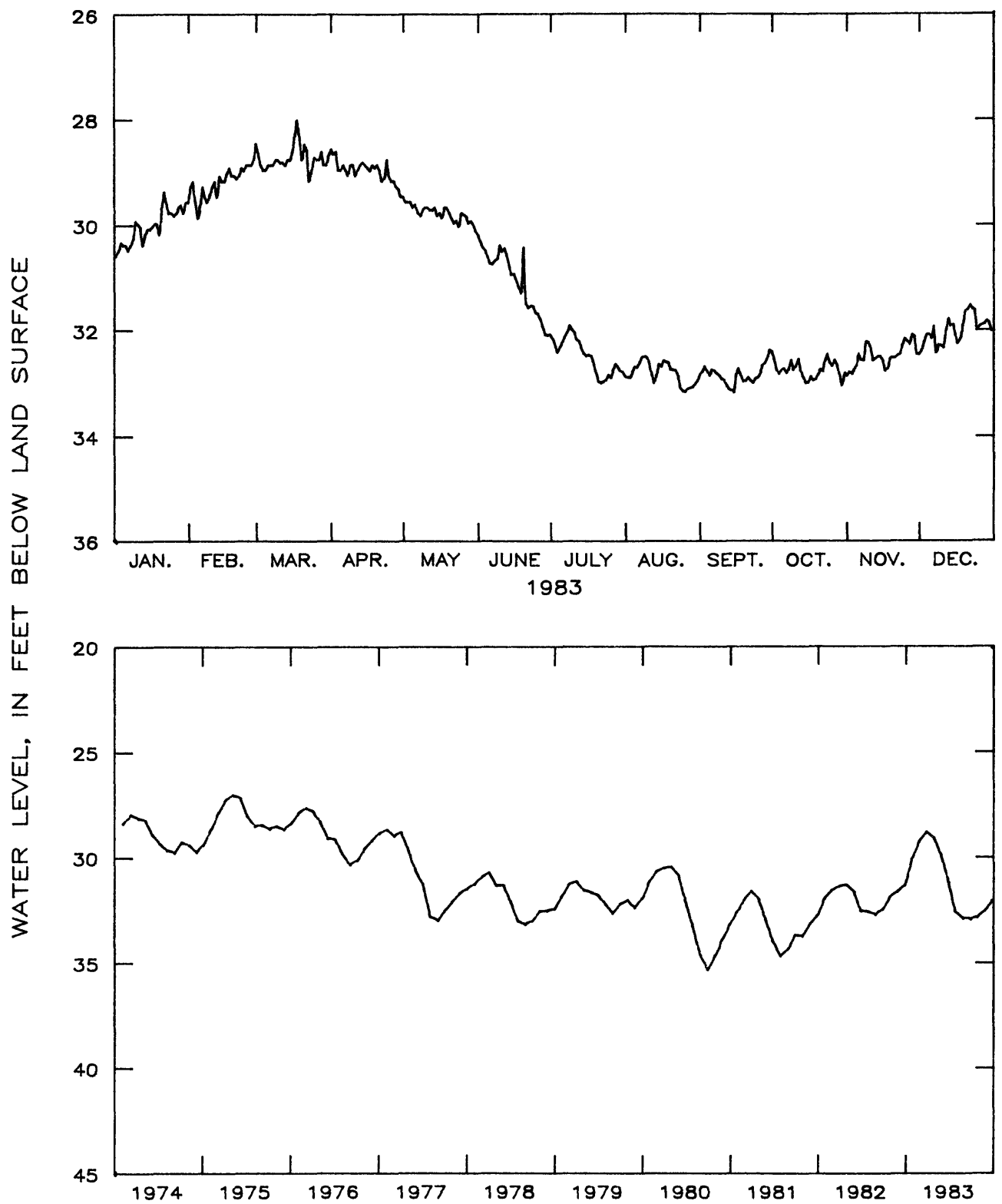


Figure 2.7.4.1-4.--Water level in observation well 38Q002, Chatham County.

39Q003 TEST WELL 7 CHATHAM COUNTY

320122080510202 Local number, 39Q003.

LOCATION.--Lat 32°01'22", long 80°51'02", Hydrologic Unit 03060204, Tybee Island near Fort Screven.

Owner: U.S. Geological Survey, test well 7.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 10 in., depth 600 ft, cased to 129 ft, open hole.

DATUM.--Altitude of land-surface datum is 7.0 ft.

Measuring point: Top of 10 in. casing, 2.0 ft above land-surface datum.

REMARKS.--Borehole geophysical survey conducted January 24, 1962. Water levels for period of missing recorder record, September 20-28, were estimated.

PERIOD OF RECORD.--May 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.8 ft below land-surface datum, April 11, 1963; lowest, 29.65 ft below land-surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 25.25 | 24.10 | 23.60 | 23.55 | 24.45 | 24.89 | 26.43 | 27.65 | 27.23 | 26.84 | 27.14 | 26.69 |
| 2 | 25.15 | 24.05 | 23.80 | 23.45 | 24.45 | 24.95 | 26.63 | 27.73 | 27.04 | 27.20 | 27.11 | 26.67 |
| 3 | 25.00 | 24.60 | 23.80 | 23.80 | 24.45 | 25.14 | 26.92 | 27.56 | 27.33 | 27.24 | 27.08 | 26.44 |
| 4 | 24.95 | 25.00 | 23.95 | 23.90 | 24.45 | 24.24 | 27.36 | 27.40 | 27.55 | 27.14 | 27.02 | 26.49 |
| 5 | 25.05 | 24.55 | 23.85 | 23.80 | 24.38 | 24.40 | 26.93 | 27.42 | 27.40 | 27.10 | 26.75 | 26.54 |
| 6 | 25.10 | 24.15 | 23.80 | 23.80 | 24.45 | 25.30 | 26.84 | 27.53 | 27.38 | 27.20 | 26.89 | 26.30 |
| 7 | 25.15 | 24.40 | 23.80 | 23.90 | 24.50 | 25.19 | 26.80 | 27.28 | 27.37 | 27.10 | 26.88 | 26.93 |
| 8 | 25.00 | 24.55 | 23.65 | 24.05 | 24.60 | 25.15 | 26.38 | 27.32 | 27.42 | 26.80 | 26.42 | 26.65 |
| 9 | 24.65 | 24.35 | 23.75 | 23.75 | 24.45 | 25.15 | 26.60 | 27.16 | 27.39 | 26.99 | 26.48 | 26.67 |
| 10 | 24.60 | 24.10 | 23.80 | 24.00 | 24.55 | 25.13 | 26.74 | 27.26 | 27.35 | 26.85 | 26.62 | 26.72 |
| 11 | 24.75 | 24.00 | 23.80 | 23.90 | 24.60 | 24.92 | 26.66 | 27.68 | 27.47 | 26.78 | 27.02 | 26.35 |
| 12 | 25.25 | 24.35 | 23.80 | 23.70 | 24.65 | 25.08 | 26.75 | 27.78 | 27.47 | 26.92 | 26.94 | 26.22 |
| 13 | 25.00 | 23.85 | 23.70 | 23.70 | 24.60 | 25.27 | 26.83 | 27.44 | 27.47 | 27.08 | 26.87 | 26.39 |
| 14 | 24.85 | 24.10 | 23.70 | 23.70 | 24.80 | 25.45 | 26.91 | 27.22 | 27.59 | 27.20 | 26.88 | 26.43 |
| 15 | 24.95 | 24.00 | 23.60 | 23.75 | 24.75 | 25.42 | 26.86 | 27.32 | 27.05 | 27.17 | 27.12 | 26.64 |
| 16 | 24.85 | 23.80 | 23.15 | 23.85 | 24.75 | 25.35 | 26.80 | 27.26 | 26.93 | 27.07 | 27.50 | 26.77 |
| 17 | 24.80 | 23.75 | 22.90 | 23.75 | 24.45 | 25.51 | 27.00 | 27.30 | 27.12 | 27.17 | 27.51 | 26.63 |
| 18 | 24.80 | 23.85 | 23.25 | 23.80 | 24.35 | 25.74 | 27.21 | 27.40 | 27.27 | 27.14 | 27.10 | 26.33 |
| 19 | 24.90 | 23.95 | 23.80 | 23.70 | 24.50 | 25.75 | 27.38 | 27.42 | 27.30 | 27.06 | 26.89 | 26.00 |
| 20 | 24.25 | 23.95 | 23.35 | 23.80 | 24.75 | 25.83 | 27.59 | 27.58 | 27.22 | 26.91 | 26.48 | 26.03 |
| 21 | 23.80 | 23.90 | 23.55 | 24.10 | 24.90 | 25.83 | 27.85 | 27.62 | 27.26 | 26.94 | 26.88 | 25.78 |
| 22 | 24.35 | 23.75 | 24.25 | 24.20 | 24.90 | 25.89 | 27.99 | 27.58 | 27.29 | 26.69 | 26.77 | 26.07 |
| 23 | 24.40 | 23.95 | 23.85 | 23.55 | 25.05 | 25.69 | 27.51 | 27.64 | 27.21 | 26.66 | 26.57 | 26.15 |
| 24 | 24.60 | 23.80 | 23.60 | 23.95 | 24.85 | 25.93 | 27.40 | 27.66 | 27.18 | 26.86 | 26.43 | 26.64 |
| 25 | 24.65 | 23.75 | 23.70 | 24.05 | 24.70 | 26.07 | 27.44 | 27.52 | 27.09 | 27.00 | 27.07 | 26.59 |
| 26 | 24.50 | 23.70 | 23.70 | 24.05 | 24.75 | 26.15 | 27.07 | 27.43 | 26.92 | 26.76 | 26.63 | 26.83 |
| 27 | 24.15 | 23.55 | 23.50 | 24.20 | 24.76 | 26.47 | 27.13 | 27.46 | 26.87 | 27.08 | 26.35 | 26.90 |
| 28 | 24.20 | 23.10 | 23.85 | 24.25 | 24.70 | 26.35 | 27.07 | 27.52 | 26.77 | 27.13 | 26.49 | 26.90 |
| 29 | 24.20 | --- | 23.90 | 24.35 | 24.81 | 26.58 | 27.13 | 27.44 | 26.60 | 27.51 | 26.86 | 26.96 |
| 30 | 24.10 | --- | 23.60 | 24.40 | 24.91 | 26.48 | 27.14 | 27.42 | 26.76 | 27.16 | 26.86 | 27.06 |
| 31 | 24.20 | --- | 23.45 | --- | 24.92 | --- | 27.45 | 27.34 | --- | 27.15 | --- | 27.00 |
| MEAN | 24.69 | 24.03 | 23.67 | 23.89 | 24.65 | 25.51 | 27.06 | 27.46 | 27.21 | 27.03 | 26.85 | 26.54 |
| CAL YR 1983 | MEAN | 25.73 | | HIGH | 22.90 | | LOW | 27.99 | | | | |

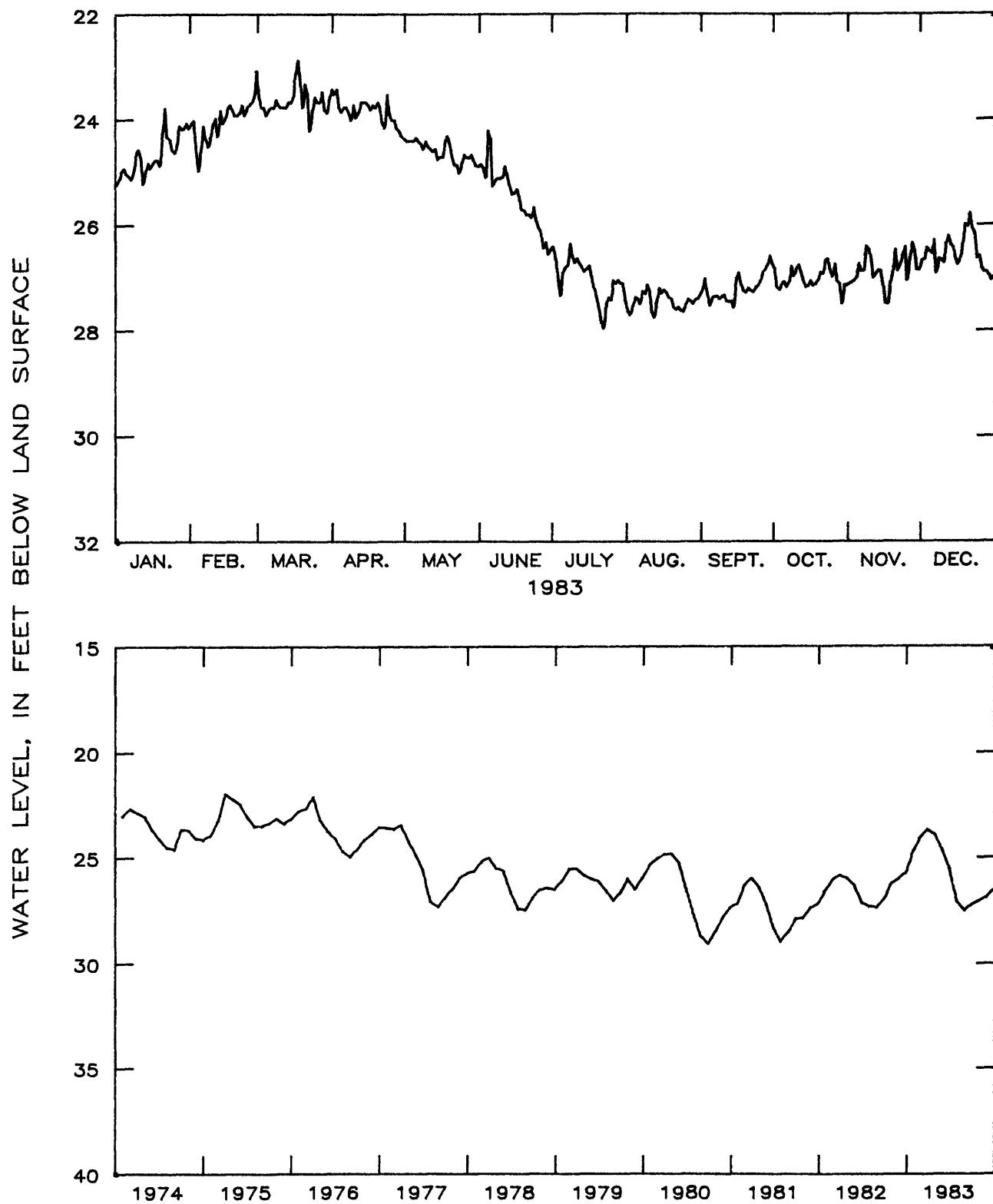


Figure 2.7.4.1-5.--Water level in observation well 39Q003, Chatham County.

2.7.4.2 Jesup-Riceboro area

Ground-water levels in the Floridan aquifer system are affected by industrial pumping of about 75 Mgal/d in the Jesup area and about 9 Mgal/d at Riceboro. Reductions in industrial pumping during 1982 allowed water levels to recover significantly from the record lows in 1981, a trend that continued into 1983. The 1983 hydrograph of well 34M054 illustrates the effects that partial industrial shutdowns have on water levels in these areas.

Mean annual water levels in the Jesup-Riceboro area were from 1.8 to 2.4 feet higher in 1983 than in 1982.

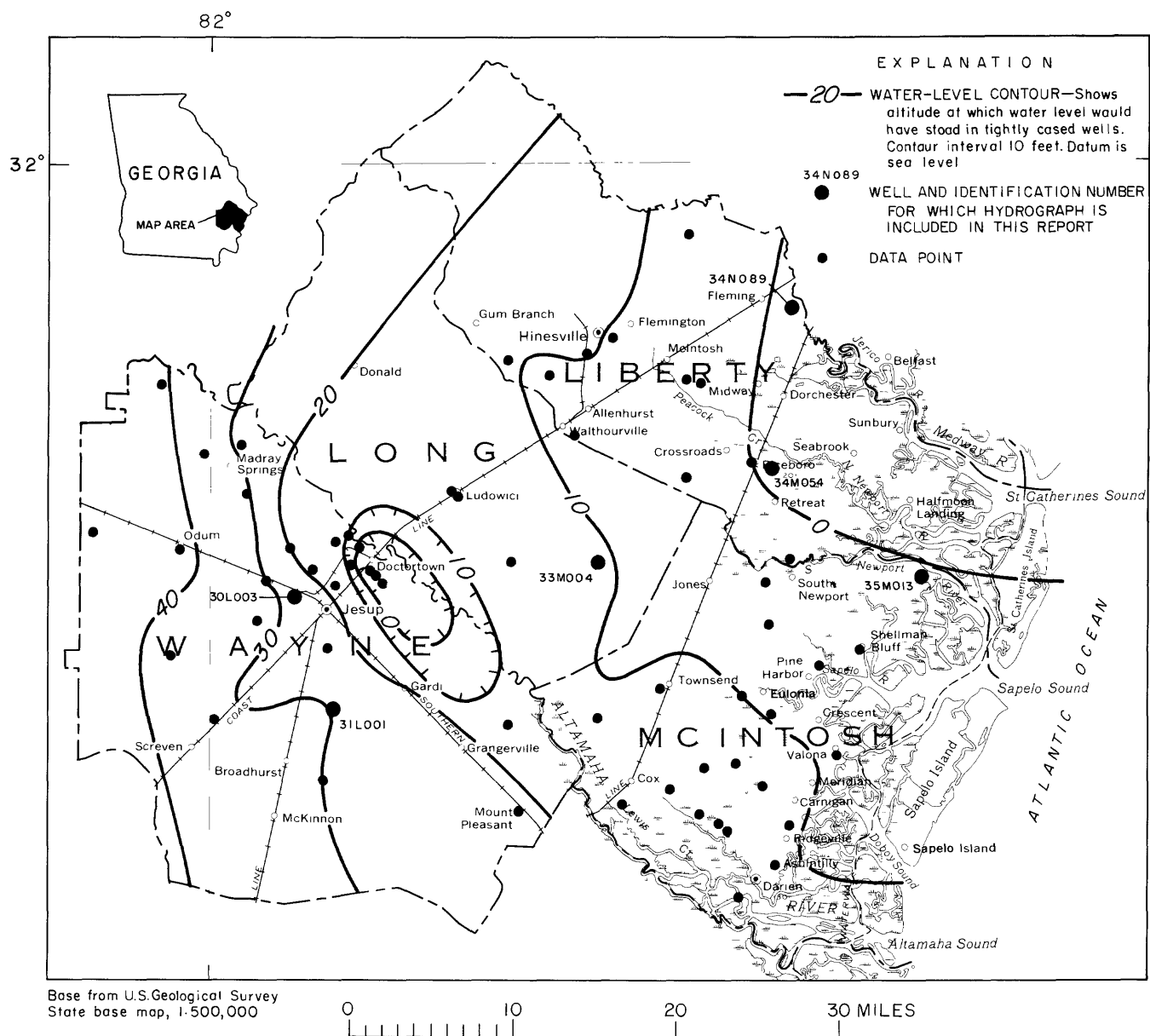


Figure 2.7.4.2-1.—Observation well locations and the water level in the Floridan aquifer system in the Jesup-Riceboro area, November 1983.

313701081543501 Local number, 30L003.

LOCATION.--Lat 31°37'01", long 81°54'35", Hydrologic Unit 03070106, about 0.5 mi west of Jesup city limits near intersection of Highway 341 and Sunset Drive.

Owner: Homer Johnson.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 4 in., depth 584 ft, cased to 472 ft, open hole.

DATUM.--Altitude of land-surface datum is 107 ft.

Measuring point: Floor of recorder shelter, 2.88 ft above land-surface datum.

REMARKS.--Borehole geophysical survey conducted August 19, 1963. Water levels for period of missing recorder record, January 1-3, were estimated.

PERIOD OF RECORD.--January 1964 to March 1967. February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.98 ft below land-surface datum, April 19, 1964; lowest 85.27 ft below land-surface datum, June 29, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 70.93 | 75.83 | 77.35 | 77.02 | 77.44 | 77.46 | 76.02 | 76.75 | 79.16 | 77.04 | 78.93 | 79.59 |
| 2 | 70.82 | 75.58 | 77.46 | 77.04 | 77.46 | 77.34 | 76.20 | 76.85 | 79.24 | 77.11 | 79.04 | 79.50 |
| 3 | 70.80 | 75.59 | 77.52 | 77.10 | 77.43 | 77.10 | 76.30 | 76.97 | 79.39 | 77.14 | 79.05 | 79.38 |
| 4 | 71.03 | 75.88 | 77.52 | 77.34 | 77.44 | 76.83 | 76.28 | 77.01 | 79.45 | 77.14 | 78.90 | 79.23 |
| 5 | 71.51 | 76.00 | 77.44 | 77.36 | 77.30 | 76.56 | 76.24 | 77.04 | 78.68 | 77.11 | 78.80 | 79.15 |
| 6 | 72.16 | 75.86 | 77.54 | 77.36 | 77.16 | 76.37 | 76.03 | 77.02 | 77.38 | 77.14 | 78.80 | 79.04 |
| 7 | 72.76 | 76.04 | 77.76 | 77.39 | 77.34 | 76.18 | 76.00 | 76.94 | 76.25 | 77.14 | 78.85 | 79.26 |
| 8 | 73.16 | 76.38 | 77.82 | 77.31 | 77.41 | 76.09 | 76.13 | 76.94 | 75.43 | 77.14 | 78.79 | 79.45 |
| 9 | 73.42 | 76.56 | 77.88 | 77.19 | 77.53 | 76.16 | 76.12 | 77.26 | 74.84 | 77.16 | 78.76 | 79.53 |
| 10 | 73.70 | 76.56 | 77.78 | 77.14 | 77.69 | 76.24 | 76.04 | 77.63 | 74.37 | 77.13 | 78.67 | 79.51 |
| 11 | 73.93 | 76.50 | 77.60 | 77.10 | 77.69 | 76.28 | 76.12 | 77.80 | 73.82 | 77.01 | 78.66 | 79.28 |
| 12 | 74.26 | 76.90 | 77.80 | 77.28 | 77.58 | 76.18 | 76.16 | 77.81 | 73.58 | 76.89 | 78.77 | 79.04 |
| 13 | 74.58 | 76.98 | 77.94 | 77.44 | 77.54 | 76.06 | 76.18 | 77.84 | 73.85 | 76.88 | 78.85 | 79.04 |
| 14 | 74.68 | 76.91 | 78.00 | 77.46 | 77.56 | 76.02 | 76.18 | 77.99 | 74.65 | 77.02 | 78.95 | 78.57 |
| 15 | 74.69 | 77.24 | 77.88 | 77.34 | 77.70 | 75.92 | 76.15 | 78.16 | 75.25 | 76.70 | 79.03 | 78.78 |
| 16 | 74.80 | 77.34 | 77.69 | 77.24 | 77.67 | 75.86 | 76.22 | 78.32 | 75.64 | 76.63 | 79.03 | 78.96 |
| 17 | 74.92 | 77.33 | 77.42 | 77.23 | 77.79 | 75.80 | 76.36 | 78.56 | 76.00 | 76.87 | 79.17 | 79.01 |
| 18 | 75.18 | 77.40 | 77.36 | 77.15 | 77.99 | 75.75 | 76.47 | 78.51 | 76.32 | 77.24 | 79.24 | 78.97 |
| 19 | 75.36 | 77.42 | 77.50 | 77.15 | 77.86 | 75.70 | 76.60 | 78.65 | 76.53 | 77.85 | 79.19 | 78.89 |
| 20 | 75.30 | 77.58 | 77.34 | 77.19 | 77.73 | 75.66 | 76.69 | 78.66 | 76.50 | 77.81 | 79.08 | 78.99 |
| 21 | 75.13 | 77.45 | 77.10 | 77.11 | 77.72 | 75.61 | 76.76 | 78.59 | 76.33 | 77.91 | 79.16 | 79.05 |
| 22 | 75.34 | 77.02 | 76.84 | 77.06 | 77.73 | 75.70 | 76.74 | 78.43 | 76.37 | 78.05 | 79.30 | 78.90 |
| 23 | 75.61 | 76.99 | 76.54 | 76.77 | 77.76 | 75.83 | 76.62 | 78.62 | 76.67 | 78.15 | 79.25 | 78.03 |
| 24 | 75.98 | 77.20 | 76.20 | 76.70 | 77.82 | 75.92 | 76.56 | 78.85 | 76.80 | 78.25 | 79.14 | 76.77 |
| 25 | 76.08 | 77.32 | 76.13 | 76.98 | 77.86 | 75.90 | 76.58 | 78.92 | 76.85 | 78.38 | 79.33 | 75.91 |
| 26 | 76.10 | 77.52 | 75.16 | 77.16 | 77.90 | 75.97 | 76.58 | 78.92 | 76.95 | 78.49 | 79.59 | 75.31 |
| 27 | 76.02 | 77.54 | 75.77 | 77.26 | 78.00 | 76.03 | 76.76 | 78.90 | 76.95 | 78.66 | 79.60 | 75.00 |
| 28 | 76.08 | 77.35 | 76.12 | 77.57 | 78.07 | 75.82 | 76.78 | 78.84 | 76.95 | 78.86 | 79.50 | 74.26 |
| 29 | 76.04 | --- | 76.53 | 77.39 | 78.06 | 75.64 | 76.75 | 78.88 | 76.95 | 78.94 | 79.55 | 73.49 |
| 30 | 75.88 | --- | 76.80 | 77.34 | 77.92 | 75.84 | 76.70 | 78.99 | 76.96 | 78.94 | 79.65 | 73.47 |
| 31 | 75.88 | --- | 76.84 | --- | 77.68 | --- | 76.72 | 79.06 | --- | 78.97 | --- | 73.59 |
| MEAN | 74.26 | 76.80 | 77.21 | 77.21 | 77.67 | 76.13 | 76.39 | 78.06 | 76.47 | 77.60 | 79.09 | 77.97 |
| CAL YR 1983 | MEAN | 77.07 | | HIGH | 70.80 | | LOW | 79.65 | | | | |

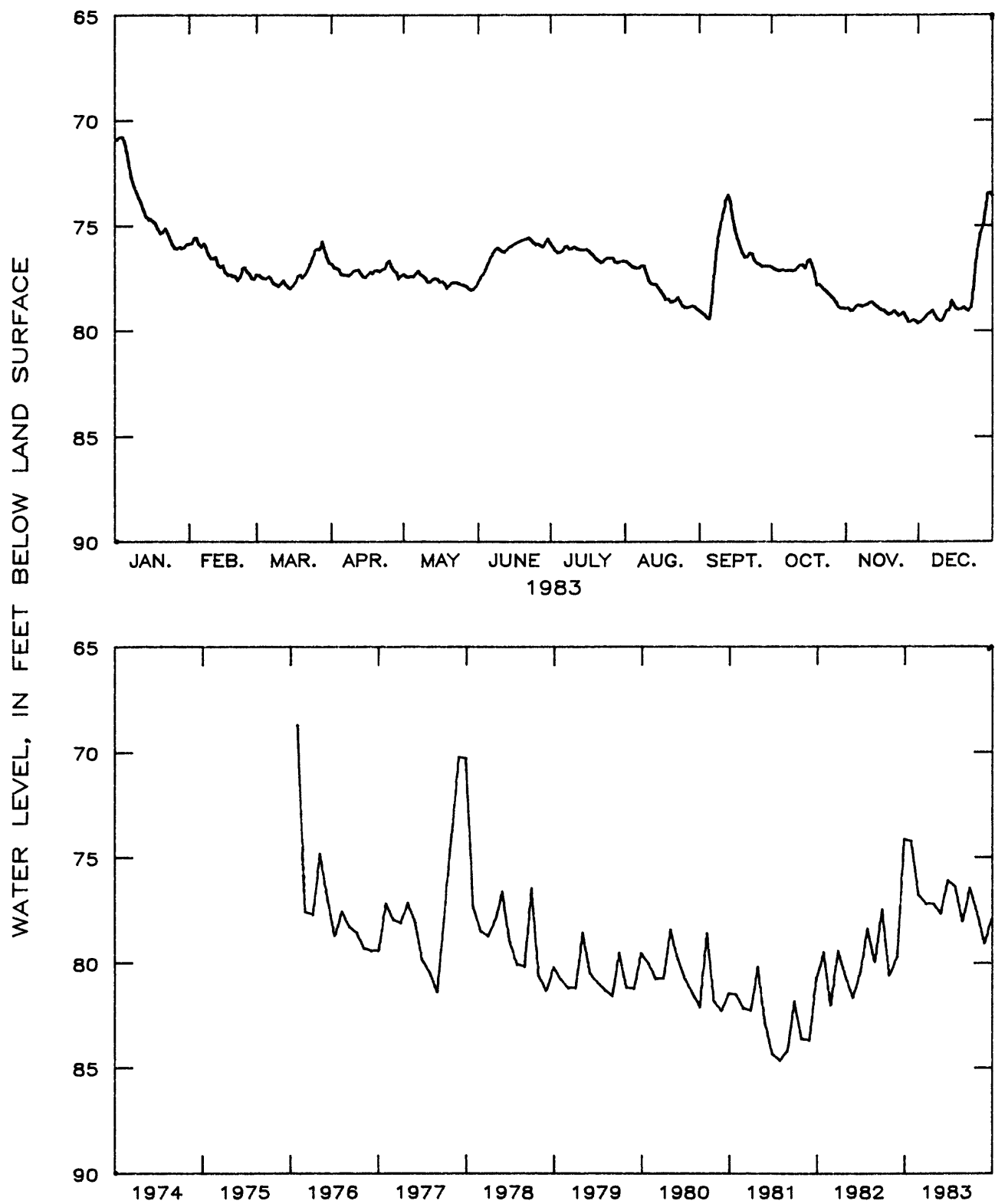


Figure 2.7.4.2-2.--Water level in observation well 30L003, Wayne County.

313055081521901 Local number, 31L001.

LOCATION.--Lat 31°31'02", long 81°52'22", Hydrologic Unit 03070106, about 6 mi south of Jesup near Penholoway Creek on Walker Creek.

Owner: Brunswick Pulp and Paper, Justice Mears 2.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused oil test well, diameter 6 in., depth 691 ft, cased to 587 ft, open hole.

DATUM.--Altitude of land-surface datum is 55 ft.

Measuring point: Top of 6 in. casing at land-surface datum.

REMARKS.--Well pumped and water quality sampled, August 2, 1978.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.30 ft below land-surface datum, December 16, 1977; lowest, 29.23 ft below land-surface datum, June 29, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 17.48 | 21.02 | 21.98 | 21.60 | 21.84 | 22.28 | 21.26 | 22.01 | 23.67 | 22.38 | 23.76 | 24.25 |
| 2 | 17.32 | 20.85 | 22.13 | 21.58 | 21.83 | 22.24 | 21.36 | 22.04 | 23.72 | 22.41 | 23.75 | 24.16 |
| 3 | 17.25 | 20.94 | 22.19 | 21.66 | 21.76 | 22.14 | 21.46 | 22.07 | 23.84 | 22.46 | 23.72 | 24.01 |
| 4 | 17.43 | 21.18 | 22.16 | 21.86 | 21.74 | 21.96 | 21.46 | 22.11 | 23.99 | 22.43 | 23.59 | 23.92 |
| 5 | 17.80 | 21.25 | 22.14 | 21.92 | 21.81 | 21.79 | 21.42 | 22.16 | 23.60 | 22.40 | 23.57 | 23.94 |
| 6 | 18.19 | 21.07 | 22.10 | 21.90 | 21.76 | 21.66 | 21.33 | 22.13 | 22.63 | 22.45 | 23.62 | 23.82 |
| 7 | 18.57 | 21.18 | 22.08 | 21.91 | 21.81 | 21.52 | 21.38 | 22.07 | 21.93 | 22.52 | 23.63 | 24.02 |
| 8 | 18.88 | 21.41 | 22.02 | 21.84 | 21.82 | 21.46 | 21.46 | 22.06 | 21.60 | 22.50 | 23.56 | 24.14 |
| 9 | 19.10 | 21.54 | 22.11 | 21.76 | 21.87 | 21.50 | 21.40 | 22.23 | 21.10 | 22.51 | 23.52 | 24.21 |
| 10 | 19.30 | 21.70 | 22.12 | 21.77 | 22.04 | 21.58 | 21.34 | 22.45 | 20.69 | 22.44 | 23.43 | 24.19 |
| 11 | 19.46 | 21.51 | 22.10 | 21.72 | 22.08 | 21.56 | 21.42 | 22.59 | 20.31 | 22.40 | 23.49 | 23.94 |
| 12 | 19.75 | 21.79 | 22.15 | 21.82 | 22.01 | 21.48 | 21.46 | 22.62 | 19.93 | 22.27 | 23.59 | 23.75 |
| 13 | 20.05 | 21.72 | 22.28 | 21.89 | 21.98 | 21.42 | 21.49 | 22.64 | 20.03 | 22.28 | 23.59 | 23.71 |
| 14 | 20.12 | 21.66 | 22.32 | 21.88 | 21.97 | 21.39 | 21.48 | 22.76 | 20.46 | 22.39 | 23.70 | 23.52 |
| 15 | 20.11 | 21.91 | 22.28 | 21.78 | 22.01 | 21.30 | 21.52 | 22.89 | 20.97 | 22.27 | 23.67 | 23.72 |
| 16 | 20.20 | 21.96 | 22.12 | 21.75 | 21.92 | 21.28 | 21.58 | 22.99 | 21.31 | 22.19 | 23.75 | 23.87 |
| 17 | 20.27 | 21.94 | 21.92 | 21.75 | 22.05 | 21.30 | 21.62 | 23.10 | 21.54 | 22.26 | 23.89 | 23.90 |
| 18 | 20.48 | 22.06 | 21.91 | 21.62 | 22.26 | 21.24 | 21.71 | 23.18 | 21.76 | 22.41 | 23.95 | 23.83 |
| 19 | 20.19 | 22.12 | 22.07 | 21.62 | 22.31 | 21.20 | 21.80 | 23.26 | 21.97 | 22.06 | 23.89 | 23.76 |
| 20 | 20.64 | 22.26 | 21.97 | 21.70 | 22.22 | 21.19 | 21.90 | 23.31 | 22.02 | 22.77 | 23.69 | 23.85 |
| 21 | 20.46 | 22.24 | 21.89 | 21.68 | 22.20 | 21.15 | 21.94 | 23.25 | 21.85 | 22.64 | 23.86 | 23.85 |
| 22 | 20.60 | 21.94 | 21.90 | 21.63 | 22.16 | 21.17 | 21.92 | 23.27 | 21.99 | 22.94 | 23.95 | 23.73 |
| 23 | 20.68 | 21.78 | 21.70 | 21.33 | 22.22 | 21.24 | 21.82 | 23.34 | 22.17 | 22.91 | 23.89 | 23.29 |
| 24 | 20.96 | 21.88 | 21.34 | 21.22 | 22.26 | 21.25 | 21.78 | 23.52 | 22.27 | 23.05 | 23.76 | 22.59 |
| 25 | 21.12 | 22.04 | 21.39 | 21.46 | 22.33 | 21.20 | 21.79 | 23.54 | 22.29 | 23.19 | 23.97 | 22.04 |
| 26 | 21.16 | 22.24 | 21.35 | 21.62 | 22.33 | 21.29 | 21.80 | 23.55 | 22.28 | 23.28 | 24.18 | 21.56 |
| 27 | 21.07 | 22.22 | 21.16 | 21.71 | 22.45 | 21.37 | 21.90 | 23.55 | 22.36 | 23.44 | 24.09 | 21.01 |
| 28 | 21.20 | 21.99 | 21.20 | 21.77 | 22.56 | 21.27 | 22.02 | 23.47 | 22.32 | 23.60 | 23.99 | 20.36 |
| 29 | 21.22 | --- | 21.93 | 21.83 | 22.52 | 21.15 | 22.02 | 23.48 | 22.30 | 23.65 | 24.14 | 19.95 |
| 30 | 21.12 | --- | 21.32 | 21.82 | 22.44 | 21.21 | 21.99 | 23.54 | 22.33 | 23.71 | 24.24 | 20.01 |
| 31 | 21.13 | --- | 21.50 | --- | 22.30 | --- | 21.98 | 23.62 | --- | 23.74 | --- | 20.00 |
| MEAN | 19.78 | 21.69 | 21.90 | 21.71 | 22.09 | 21.46 | 21.64 | 22.86 | 21.97 | 22.71 | 23.78 | 23.13 |
| CAL YR 1983 | MEAN | 22.06 | | HIGH | 17.25 | | LOW | 24.25 | | | | |

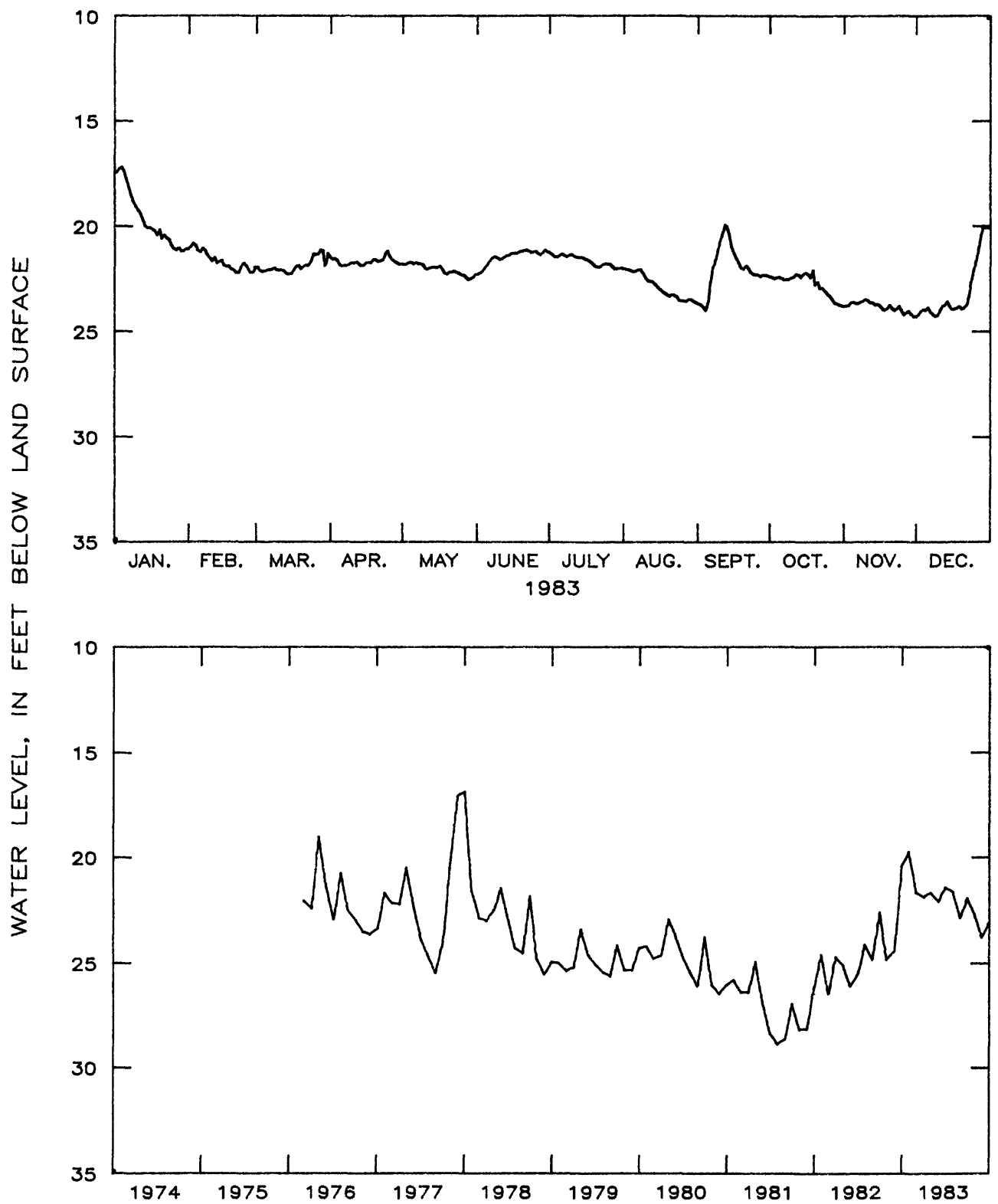


Figure 2.7.4.2-3.--Water level in observation well 31L001, Wayne County.

33M004 TEST WELL 3 LONG COUNTY

313845081361701 Local number, 33M004.

LOCATION.--Lat 31°38'54", long 81°36'04", Hydrologic Unit 03070106, 9 mi southeast of Ludowici, at Hope Cemetery.

Owner: U.S. Geological Survey, test well 3.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4-3 in, depth 872 ft, cased to 538 ft, open hole.

DATUM.--Altitude of land-surface datum is 61.2 ft.

Measuring point: Top of recorder shelter, 3.5 ft above land-surface datum.

REMARKS.--Well pumped and sounded June 17, 1976, to depth of 861 ft; water-quality sample collected. Borehole geophysical survey conducted July 28, 1976.

PERIOD OF RECORD.--January 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.04 ft below land-surface datum, January 14, 1968; lowest, 53.22 ft below land-surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 45.30 | 46.02 | 46.70 | 46.99 | 47.38 | 47.82 | 47.18 | 47.50 | 48.46 | 47.91 | 48.73 | 49.16 |
| 2 | 45.12 | 45.88 | 46.87 | 46.87 | 47.35 | 47.92 | 47.18 | 47.50 | 48.47 | 47.93 | 48.71 | 49.14 |
| 3 | 45.02 | 46.00 | 46.96 | 46.94 | 47.27 | 47.94 | 47.22 | 47.50 | 48.56 | 47.94 | 48.62 | 49.00 |
| 4 | 45.02 | 46.22 | 47.04 | 47.12 | 47.24 | 47.88 | 47.24 | 47.52 | 48.70 | 47.91 | 48.53 | 48.95 |
| 5 | 44.92 | 46.28 | 47.02 | 47.20 | 47.32 | 47.83 | 47.14 | 47.54 | 48.70 | 47.87 | 48.60 | 49.04 |
| 6 | 44.80 | 46.09 | 46.98 | 47.20 | 47.46 | 47.78 | 47.11 | 47.53 | 48.71 | 47.92 | 48.65 | 48.95 |
| 7 | 44.77 | 46.15 | 46.94 | 47.20 | 47.52 | 47.70 | 47.18 | 47.48 | 48.63 | 48.00 | 48.64 | 49.11 |
| 8 | 44.78 | 46.30 | 46.83 | 47.16 | 47.43 | 47.66 | 47.26 | 47.49 | 48.54 | 48.04 | 48.58 | 49.17 |
| 9 | 44.75 | 46.30 | 46.88 | 47.10 | 47.46 | 47.68 | 47.19 | 47.52 | 48.42 | 48.05 | 48.52 | 49.22 |
| 10 | 44.80 | 46.18 | 46.91 | 47.16 | 47.56 | 47.74 | 47.15 | 47.59 | 48.25 | 48.04 | 48.46 | 49.24 |
| 11 | 44.84 | 46.28 | 46.98 | 47.20 | 47.60 | 47.74 | 47.19 | 47.63 | 48.05 | 48.00 | 48.52 | 49.02 |
| 12 | 45.00 | 46.54 | 47.04 | 47.24 | 47.58 | 47.68 | 47.23 | 47.63 | 47.85 | 47.95 | 48.62 | 48.87 |
| 13 | 45.24 | 46.34 | 47.10 | 47.30 | 47.58 | 47.62 | 47.26 | 47.70 | 47.65 | 47.96 | 48.63 | 48.90 |
| 14 | 45.28 | 46.24 | 47.12 | 47.28 | 47.58 | 47.57 | 47.23 | 47.81 | 47.45 | 48.04 | 48.69 | 48.84 |
| 15 | 45.22 | 46.46 | 47.10 | 47.18 | 47.54 | 47.49 | 47.19 | 47.90 | 47.52 | 48.08 | 48.61 | 49.02 |
| 16 | 45.31 | 46.44 | 46.98 | 47.20 | 47.48 | 47.47 | 47.20 | 47.94 | 47.53 | 48.07 | 48.70 | 49.17 |
| 17 | 45.38 | 46.38 | 46.81 | 47.22 | 47.60 | 47.48 | 47.23 | 47.96 | 47.56 | 48.05 | 48.84 | 49.22 |
| 18 | 45.54 | 46.55 | 46.84 | 47.11 | 47.74 | 47.44 | 47.26 | 48.02 | 47.61 | 48.01 | 48.93 | 49.12 |
| 19 | 45.72 | 46.66 | 47.03 | 47.10 | 47.76 | 47.42 | 47.30 | 48.05 | 47.68 | 48.02 | 48.82 | 49.04 |
| 20 | 45.70 | 46.82 | 47.02 | 47.20 | 47.74 | 47.38 | 47.36 | 48.09 | 47.68 | 48.06 | 48.63 | 49.12 |
| 21 | 45.54 | 46.88 | 47.07 | 47.26 | 47.72 | 47.37 | 47.39 | 48.15 | 47.59 | 48.09 | 48.85 | 49.09 |
| 22 | 45.62 | 46.72 | 47.29 | 47.26 | 47.76 | 47.33 | 47.34 | 48.21 | 47.70 | 48.13 | 48.92 | 48.98 |
| 23 | 45.65 | 46.58 | 47.30 | 46.97 | 47.65 | 47.33 | 47.32 | 48.30 | 47.85 | 47.99 | 48.85 | 48.94 |
| 24 | 45.80 | 46.59 | 47.06 | 46.84 | 47.64 | 47.27 | 47.30 | 48.38 | 47.91 | 48.04 | 48.72 | 48.96 |
| 25 | 45.90 | 46.74 | 47.24 | 47.02 | 47.68 | 47.20 | 47.29 | 48.42 | 47.92 | 48.13 | 48.94 | 48.99 |
| 26 | 45.95 | 46.96 | 47.30 | 47.18 | 47.68 | 47.24 | 47.27 | 48.44 | 47.84 | 48.19 | 49.05 | 48.82 |
| 27 | 45.86 | 46.99 | 47.10 | 47.28 | 47.74 | 47.28 | 47.37 | 48.42 | 47.80 | 48.35 | 48.94 | 48.48 |
| 28 | 46.02 | 46.74 | 47.06 | 47.30 | 47.83 | 47.24 | 47.46 | 48.36 | 47.80 | 48.54 | 48.89 | 48.13 |
| 29 | 46.10 | --- | 47.16 | 47.34 | 47.76 | 47.20 | 47.50 | 48.36 | 47.82 | 48.58 | 49.01 | 48.03 |
| 30 | 46.08 | --- | 47.10 | 47.38 | 47.72 | 47.20 | 47.49 | 48.40 | 47.86 | 48.65 | 49.09 | 48.13 |
| 31 | 46.12 | --- | 46.95 | --- | 47.72 | --- | 47.50 | 48.44 | --- | 48.71 | --- | 48.05 |
| MEAN | 45.39 | 46.44 | 47.03 | 47.16 | 47.58 | 47.53 | 47.28 | 47.93 | 48.00 | 48.10 | 48.74 | 48.90 |
| CAL YR 1983 | MEAN | 47.51 | | HIGH | 44.75 | | LOW | 49.24 | | | | |

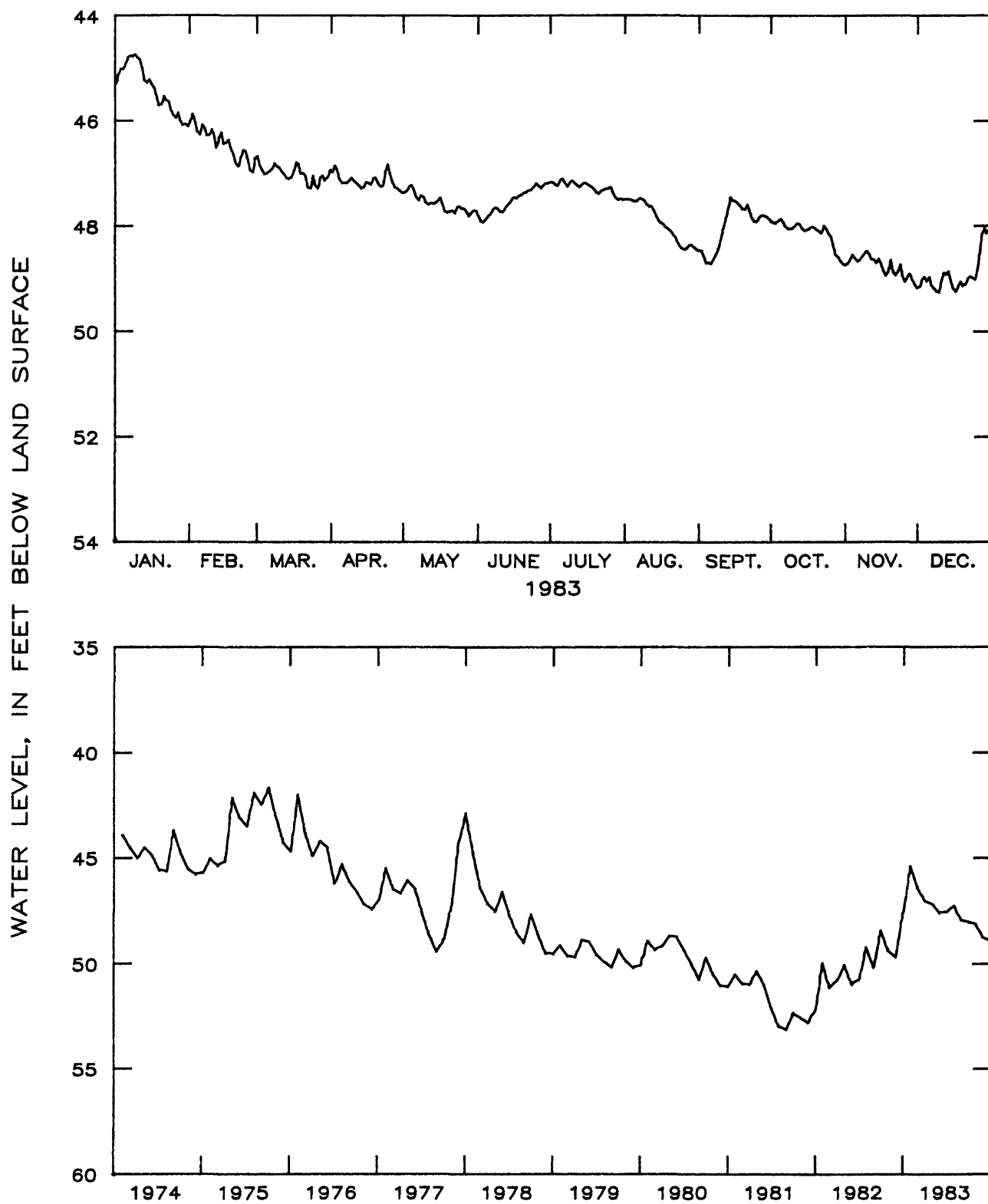


Figure 2.7.4.2-4.--Water level in observation well 33M004, Long County.

314343081251901 Local number, 34M054.

LOCATION.--Lat 31°43'43", long 81°25'19", Hydrologic Unit 03060204, Riceboro, Ga., near entrance to Interstate Paper Co.

Owner: U.S. Geological Survey, test well 2.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 802 ft, cased to 467 ft, open hole.

DATUM.--Altitude of land-surface datum is 19 ft.

Measuring point: Floor of recorder shelter, 3.4 ft above land-surface datum.

REMARKS.--Well pumped July 11, 1979; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 15, 1976. Water levels for periods of missing recorder record, January 1-3, August 6-8, and December 2-19, were estimated.

PERIOD OF RECORD.--February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.85 ft below land-surface datum, February 5, 1967; lowest, 24.30 ft below land-surface datum, December 20, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 18.04 | 18.30 | 18.75 | 19.15 | 19.25 | 19.39 | 19.74 | 20.08 | 20.16 | 20.78 | 20.32 | 21.00 |
| 2 | 18.02 | 18.15 | 18.95 | 18.95 | 19.25 | 19.52 | 19.85 | 19.88 | 20.06 | 20.78 | 20.66 | 20.98 |
| 3 | 18.09 | 18.50 | 19.00 | 19.00 | 18.65 | 19.56 | 19.95 | 19.96 | 20.18 | 20.72 | 20.66 | 20.85 |
| 4 | 18.25 | 18.65 | 18.95 | 19.13 | 18.35 | 19.54 | 19.95 | 19.92 | 20.41 | 20.81 | 20.52 | 20.80 |
| 5 | 18.60 | 18.70 | 18.85 | 19.25 | 18.85 | 19.52 | 19.89 | 19.87 | 20.64 | 20.76 | 20.52 | 20.89 |
| 6 | 18.80 | 18.55 | 18.85 | 19.35 | 19.10 | 19.51 | 19.78 | 19.90 | 20.66 | 20.58 | 20.59 | 20.80 |
| 7 | 18.83 | 18.60 | 18.78 | 19.10 | 19.20 | 19.56 | 19.72 | 19.99 | 20.72 | 20.57 | 20.61 | 20.97 |
| 8 | 18.32 | 18.65 | 18.35 | 19.10 | 19.15 | 19.56 | 19.43 | 19.94 | 20.74 | 20.14 | 20.51 | 21.03 |
| 9 | 18.83 | 18.55 | 18.60 | 19.10 | 19.15 | 19.60 | 19.71 | 20.01 | 20.90 | 20.18 | 20.46 | 21.08 |
| 10 | 18.78 | 18.35 | 18.63 | 19.10 | 19.45 | 19.64 | 19.63 | 20.03 | 20.93 | 20.43 | 20.43 | 21.10 |
| 11 | 18.75 | 18.45 | 18.65 | 19.15 | 19.35 | 19.64 | 19.66 | 20.09 | 20.92 | 20.53 | 20.49 | 20.89 |
| 12 | 18.90 | 18.70 | 18.70 | 19.15 | 19.35 | 19.66 | 19.86 | 19.99 | 20.93 | 20.50 | 20.63 | 20.74 |
| 13 | 18.95 | 18.50 | 18.80 | 19.20 | 19.45 | 19.70 | 19.92 | 19.93 | 20.94 | 20.52 | 20.63 | 20.77 |
| 14 | 18.95 | 18.40 | 18.82 | 19.17 | 19.55 | 19.70 | 19.94 | 20.01 | 20.83 | 20.65 | 20.00 | 20.71 |
| 15 | 18.85 | 18.60 | 18.85 | 19.15 | 19.55 | 19.72 | 19.90 | 19.71 | 20.89 | 20.72 | 20.55 | 20.90 |
| 16 | 18.85 | 18.55 | 18.70 | 19.10 | 19.50 | 19.82 | 19.88 | 20.05 | 20.84 | 20.72 | 20.56 | 21.05 |
| 17 | 18.80 | 18.45 | 18.50 | 19.18 | 19.50 | 19.91 | 19.90 | 20.00 | 20.74 | 20.78 | 20.66 | 21.10 |
| 18 | 18.95 | 18.60 | 18.45 | 19.05 | 19.50 | 19.86 | 19.74 | 20.00 | 20.75 | 20.68 | 20.75 | 21.00 |
| 19 | 19.10 | 18.70 | 18.68 | 18.55 | 19.45 | 19.90 | 19.34 | 19.99 | 20.78 | 20.52 | 20.82 | 20.93 |
| 20 | 19.05 | 18.75 | 18.65 | 18.85 | 19.38 | 19.26 | 19.85 | 19.95 | 20.71 | 20.65 | 20.61 | 21.01 |
| 21 | 18.85 | 18.82 | 18.70 | 19.10 | 19.39 | 18.42 | 19.80 | 19.97 | 20.68 | 20.73 | 20.67 | 20.96 |
| 22 | 18.85 | 18.75 | 19.05 | 19.15 | 19.32 | 18.04 | 19.88 | 20.06 | 20.71 | 20.64 | 20.84 | 20.56 |
| 23 | 18.83 | 18.70 | 19.05 | 18.45 | 19.30 | 17.70 | 19.93 | 20.17 | 20.77 | 20.52 | 20.82 | 19.98 |
| 24 | 18.84 | 18.70 | 18.75 | 18.10 | 19.28 | 18.76 | 19.88 | 20.13 | 20.80 | 20.58 | 20.58 | 19.78 |
| 25 | 18.89 | 18.70 | 19.20 | 18.75 | 19.31 | 19.32 | 19.85 | 20.45 | 20.80 | 20.67 | 20.55 | 20.44 |
| 26 | 18.80 | 18.95 | 19.30 | 18.88 | 19.24 | 19.57 | 19.76 | 20.50 | 20.73 | 20.68 | 20.66 | 19.70 |
| 27 | 18.60 | 18.95 | 19.05 | 19.10 | 19.28 | 19.77 | 19.84 | 20.38 | 20.78 | 20.32 | 20.55 | 19.22 |
| 28 | 18.60 | 18.70 | 19.10 | 19.10 | 19.39 | 20.04 | 19.92 | 20.27 | 20.78 | 20.37 | 20.60 | 18.77 |
| 29 | 18.60 | --- | 19.20 | 19.20 | 19.30 | 19.72 | 20.04 | 20.20 | 20.83 | 20.78 | 20.78 | 18.93 |
| 30 | 18.50 | --- | 19.25 | 19.25 | 19.25 | 19.84 | 20.06 | 20.20 | 20.82 | 20.83 | 20.89 | 19.76 |
| 31 | 18.55 | --- | 19.10 | --- | 19.26 | --- | 20.04 | 20.22 | --- | 20.27 | --- | 20.67 |
| MEAN | 18.71 | 18.61 | 18.85 | 19.03 | 19.27 | 19.46 | 19.83 | 20.06 | 20.71 | 20.59 | 20.60 | 20.56 |
| CAL YR 1983 | MEAN | 19.70 | | HIGH | 17.70 | | LOW | 21.10 | | | | |

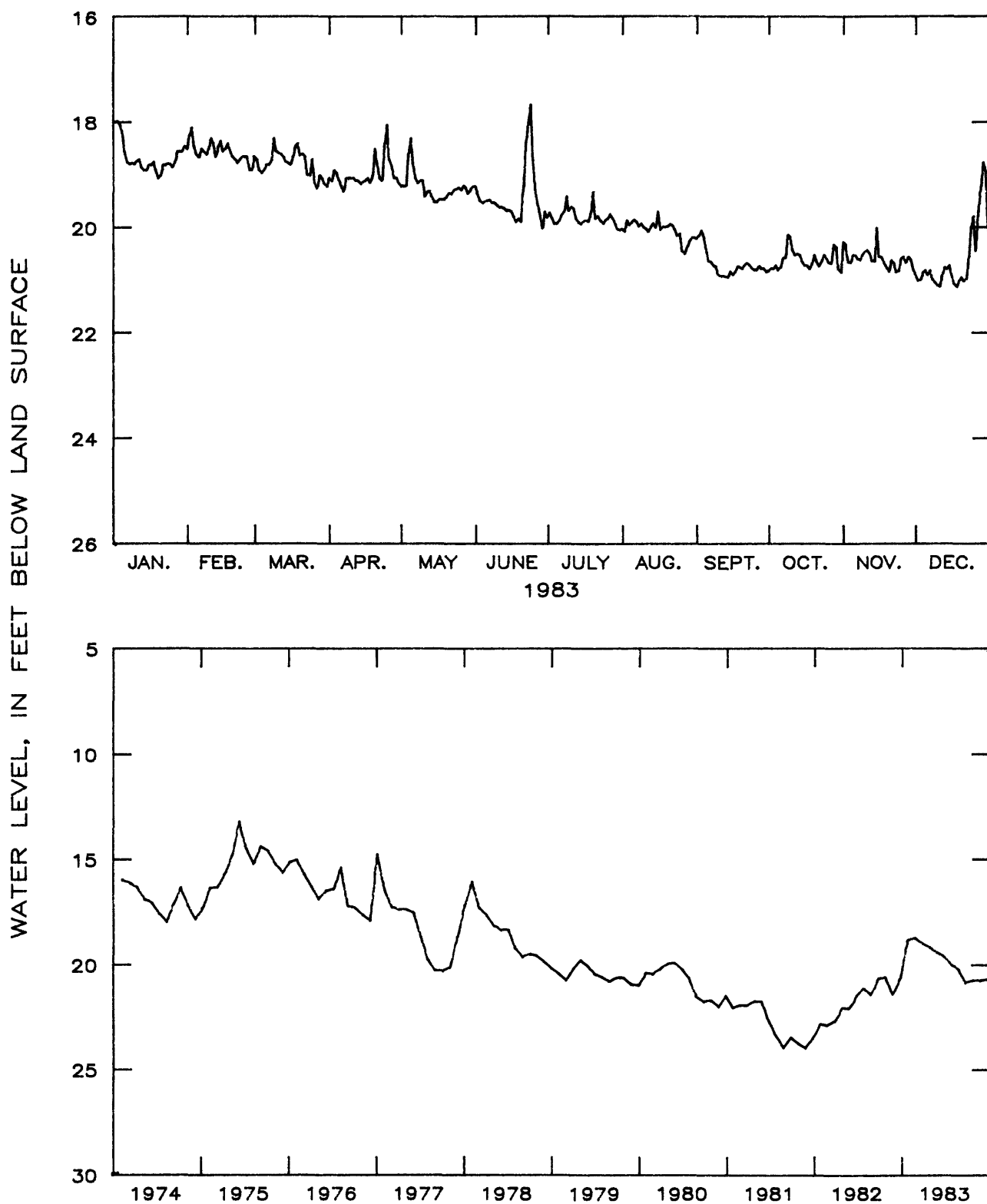


Figure 2.7.4.2-5.--Water level in observation well 34M054, Liberty County.

34N089 TEST WELL 1 LIBERTY COUNTY

315214081235301 Local number, 34N089.

LOCATION.--Lat 31°52'14", long 81°23'53", Hydrologic Unit 03060204, north of Midway, Ga., near intersection of Georgia Highway 196 and U.S. Highway 17.

Owner: U.S. Geological Survey, test well 1.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 789 ft, cased to 410 ft, open hole.

DATUM.--Altitude of land-surface datum is 17 ft.

Measuring point: Top of 4 in. casing, 1.33 ft above land-surface datum.

REMARKS.--Well pumped July 11, 1979; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 15, 1976.

PERIOD OF RECORD.--February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.34 ft below land-surface datum, March 6, 1967; lowest, 22.28 ft below land-surface datum, August 10-11, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 17.70 | 16.50 | 16.10 | 16.45 | 16.52 | 17.03 | 17.80 | 18.14 | 18.45 | 18.85 | 19.05 | 18.86 |
| 2 | 17.48 | 16.35 | 16.25 | 16.30 | 16.50 | 17.19 | 17.81 | 18.13 | 18.42 | 18.86 | 18.98 | 18.83 |
| 3 | 17.39 | 16.45 | 16.35 | 16.30 | 16.40 | 17.23 | 17.83 | 18.09 | 18.48 | 18.84 | 18.89 | 18.68 |
| 4 | 17.47 | 16.65 | 16.40 | 16.50 | 16.38 | 17.21 | 17.83 | 18.08 | 18.56 | 18.79 | 18.74 | 18.64 |
| 5 | 17.35 | 16.65 | 16.35 | 16.55 | 16.45 | 17.23 | 17.78 | 18.08 | 18.61 | 18.75 | 18.75 | 18.72 |
| 6 | 17.28 | 16.45 | 16.28 | 16.53 | 16.55 | 17.24 | 17.82 | 18.06 | 18.65 | 18.79 | 18.80 | 18.60 |
| 7 | 17.22 | 16.50 | 16.20 | 16.50 | 16.62 | 17.22 | 17.92 | 18.02 | 18.67 | 18.86 | 18.77 | 18.79 |
| 8 | 17.16 | 16.60 | 16.10 | 16.45 | 16.55 | 17.23 | 17.98 | 18.00 | 18.70 | 18.87 | 18.69 | 18.85 |
| 9 | 17.10 | 16.60 | 16.10 | 16.40 | 16.60 | 17.31 | 17.90 | 18.05 | 18.75 | 18.90 | 18.61 | 18.90 |
| 10 | 17.07 | 16.40 | 16.15 | 16.43 | 16.70 | 17.42 | 17.86 | 18.02 | 18.76 | 18.94 | 18.52 | 18.90 |
| 11 | 16.95 | 16.45 | 16.25 | 16.45 | 16.75 | 17.48 | 17.93 | 18.03 | 18.78 | 18.84 | 18.59 | 18.70 |
| 12 | 17.05 | 16.65 | 16.25 | 16.50 | 16.73 | 17.47 | 17.95 | 17.99 | 18.79 | 18.79 | 18.71 | 18.53 |
| 13 | 17.15 | 16.45 | 16.30 | 16.55 | 16.75 | 17.49 | 17.95 | 18.02 | 18.78 | 18.80 | 18.69 | 18.56 |
| 14 | 17.10 | 16.25 | 16.30 | 16.50 | 16.78 | 17.54 | 17.96 | 18.08 | 18.76 | 18.90 | 18.73 | 18.52 |
| 15 | 16.90 | 16.45 | 16.25 | 16.40 | 16.75 | 17.57 | 17.94 | 18.13 | 18.85 | 18.92 | 18.64 | 18.70 |
| 16 | 16.95 | 16.35 | 16.10 | 16.40 | 16.70 | 17.67 | 17.97 | 18.18 | 18.86 | 18.91 | 18.72 | 18.86 |
| 17 | 16.90 | 16.25 | 15.90 | 16.42 | 16.80 | 17.75 | 18.02 | 18.17 | 18.87 | 18.89 | 18.84 | 18.90 |
| 18 | 17.00 | 16.35 | 15.85 | 16.30 | 16.95 | 17.79 | 18.10 | 18.19 | 18.90 | 18.87 | 18.90 | 18.84 |
| 19 | 17.08 | 16.40 | 16.10 | 16.35 | 16.95 | 17.83 | 18.11 | 18.19 | 18.93 | 18.87 | 18.85 | 18.80 |
| 20 | 17.00 | 16.50 | 16.10 | 16.45 | 16.91 | 17.87 | 18.18 | 18.21 | 18.86 | 18.88 | 18.62 | 18.93 |
| 21 | 16.75 | 16.55 | 16.15 | 16.48 | 16.87 | 17.85 | 18.20 | 18.27 | 18.72 | 18.90 | 18.76 | 18.89 |
| 22 | 16.75 | 16.35 | 16.45 | 16.48 | 16.81 | 17.79 | 18.12 | 18.35 | 18.86 | 18.85 | 18.84 | 18.78 |
| 23 | 16.70 | 16.15 | 16.43 | 16.22 | 16.81 | 17.77 | 18.10 | 18.43 | 18.94 | 18.73 | 18.76 | 18.76 |
| 24 | 16.80 | 16.15 | 16.20 | 16.05 | 16.80 | 17.69 | 18.06 | 18.54 | 18.97 | 18.82 | 18.62 | 18.82 |
| 25 | 16.80 | 16.25 | 16.50 | 16.25 | 16.83 | 17.68 | 18.06 | 18.58 | 18.94 | 18.92 | 18.74 | 18.96 |
| 26 | 16.78 | 16.50 | 16.60 | 16.40 | 16.83 | 17.70 | 18.03 | 18.55 | 18.88 | 18.96 | 18.90 | 19.00 |
| 27 | 16.60 | 16.45 | 16.43 | 16.45 | 16.89 | 17.75 | 18.08 | 18.50 | 18.81 | 18.96 | 18.76 | 18.93 |
| 28 | 16.70 | 16.20 | 16.48 | 16.45 | 16.97 | 17.79 | 18.13 | 18.45 | 18.79 | 19.08 | 18.62 | 18.73 |
| 29 | 16.75 | --- | 16.60 | 16.52 | 16.93 | 17.77 | 18.15 | 18.40 | 18.78 | 19.02 | 18.74 | 18.71 |
| 30 | 16.65 | --- | 16.55 | 16.52 | 16.88 | 17.80 | 18.15 | 18.44 | 18.75 | 19.05 | 18.84 | 18.95 |
| 31 | 16.65 | --- | 16.42 | --- | 16.90 | --- | 18.14 | 18.45 | --- | 19.07 | --- | 19.04 |
| MEAN | 17.01 | 16.42 | 16.27 | 16.42 | 16.74 | 17.55 | 18.00 | 18.22 | 18.76 | 18.89 | 18.76 | 18.80 |
| CAL YR 1983 | MEAN | 17.66 | | HIGH | 15.85 | | LOW | 19.08 | | | | |

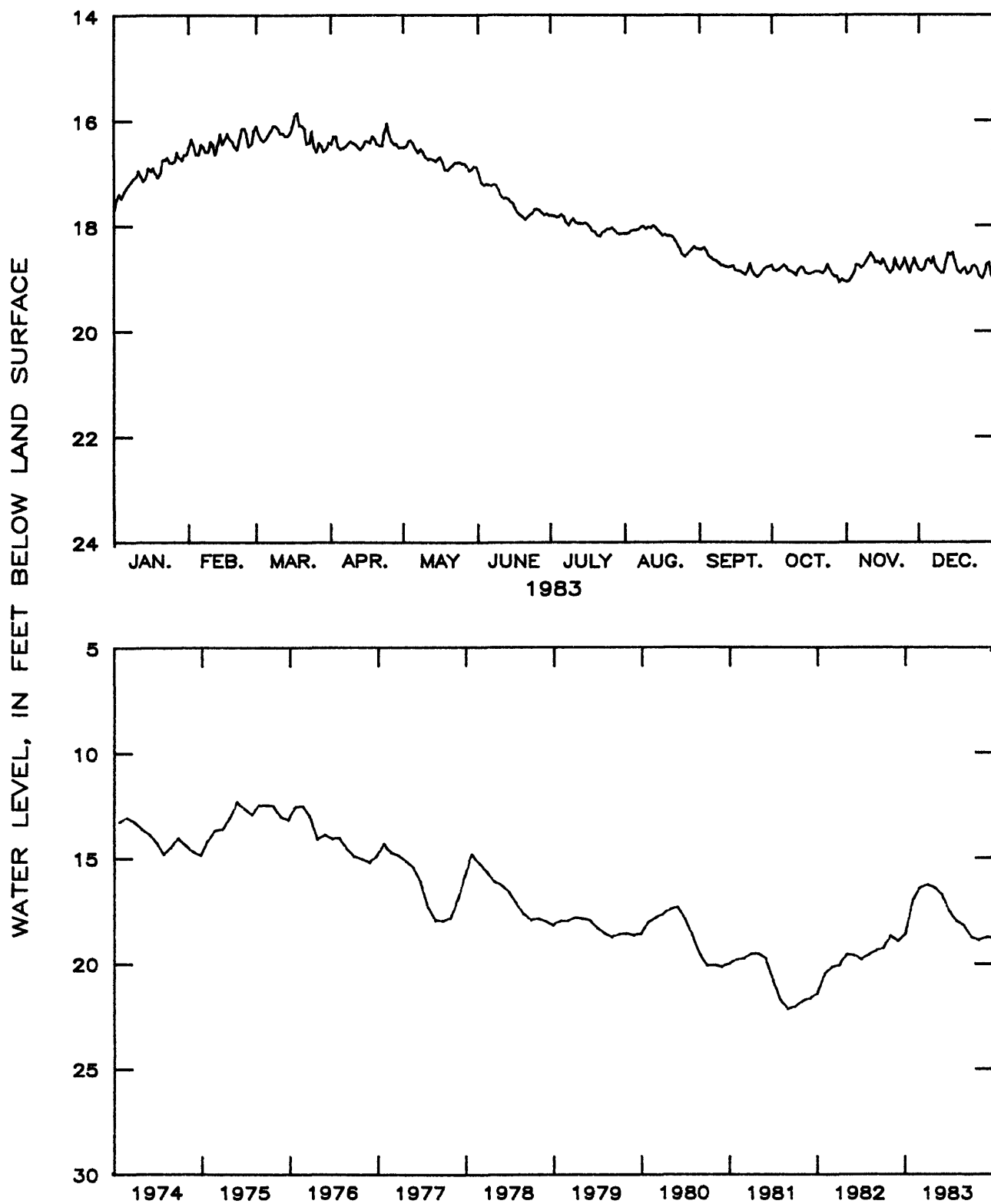


Figure 2.7.4.2-6.--Water level in observation well 34N089, Liberty County.

313826081152601 Local number, 35M013.

LOCATION.--Lat 31°38'23", long 81°15'42", Hydrologic Unit 03060204, 8.5 mi east of U.S. Highway 17 at Harris Neck Wildlife Refuge.

Owner: U.S. Department of the Interior, Fish and Wildlife Service.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused supply well, diameter 10 in., depth 553 ft, cased to 376 ft, open hole.

DATUM.--Altitude of land-surface datum is 16.3 ft.

Measuring point: Floor of recorder shelter, 3.2 ft above land-surface datum.

REMARKS.--Well pumped August 3, 1978; water-quality sample collected at conclusion of pumping. Borehole geophysical survey conducted June 16, 1976.

PERIOD OF RECORD.--September 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.35 ft below land-surface datum, October 4, 1966; lowest, 20.45 ft below land-surface datum, December 19, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 17.13 | 16.18 | 15.85 | 15.85 | 16.08 | 16.05 | 16.46 | 16.83 | 16.63 | 17.08 | 17.15 | 17.42 |
| 2 | 16.93 | 16.05 | 16.10 | 15.75 | 16.10 | 16.15 | 16.49 | 16.82 | 16.55 | 17.17 | 17.14 | 17.37 |
| 3 | 16.95 | 16.35 | 16.23 | 16.00 | 16.03 | 16.14 | 16.58 | 16.79 | 16.68 | 17.17 | 17.09 | 17.22 |
| 4 | 17.03 | 16.65 | 16.25 | 16.15 | 16.00 | 16.20 | 16.56 | 16.71 | 16.76 | 17.10 | 17.01 | 17.21 |
| 5 | 16.94 | 16.55 | 16.18 | 16.15 | 16.03 | 16.21 | 16.46 | 16.68 | 16.72 | 17.07 | 16.96 | 17.33 |
| 6 | 16.99 | 16.20 | 16.15 | 16.12 | 16.15 | 16.13 | 16.37 | 16.60 | 16.75 | 17.12 | 16.97 | 17.19 |
| 7 | 16.94 | 16.35 | 16.12 | 16.15 | 16.12 | 16.08 | 16.31 | 16.54 | 16.83 | 17.10 | 17.00 | 17.61 |
| 8 | 16.85 | 16.47 | 16.00 | 16.05 | 16.00 | 16.02 | 16.24 | 16.50 | 16.86 | 16.98 | 16.74 | 17.56 |
| 9 | 16.69 | 16.37 | 16.03 | 16.00 | 15.95 | 15.88 | 16.24 | 16.37 | 16.92 | 16.99 | 16.79 | 17.58 |
| 10 | 16.64 | 16.05 | 16.00 | 16.08 | 15.97 | 15.91 | 16.26 | 16.42 | 16.96 | 17.04 | 16.83 | 17.61 |
| 11 | 16.60 | 16.12 | 16.05 | 16.00 | 16.00 | 15.93 | 16.30 | 16.62 | 17.03 | 16.91 | 17.08 | 17.40 |
| 12 | 16.90 | 16.40 | 16.05 | 15.90 | 15.96 | 15.92 | 16.38 | 16.59 | 17.06 | 17.03 | 17.13 | 17.23 |
| 13 | 16.80 | 15.90 | 16.00 | 15.92 | 15.89 | 16.04 | 16.44 | 16.65 | 17.06 | 17.07 | 17.11 | 17.31 |
| 14 | 16.75 | 15.85 | 16.00 | 15.88 | 16.00 | 16.05 | 16.46 | 16.52 | 17.12 | 17.24 | 17.15 | 17.32 |
| 15 | 16.65 | 16.18 | 15.88 | 15.90 | 15.96 | 16.10 | 16.44 | 16.58 | 17.00 | 17.22 | 17.13 | 17.49 |
| 16 | 16.68 | 16.05 | 15.50 | 15.95 | 15.98 | 16.07 | 16.46 | 16.56 | 16.95 | 17.16 | 17.21 | 17.66 |
| 17 | 16.63 | 16.00 | 15.30 | 15.93 | 15.96 | 16.19 | 16.50 | 16.52 | 17.09 | 17.17 | 17.33 | 17.60 |
| 18 | 16.65 | 16.10 | 15.40 | 15.85 | 15.92 | 16.24 | 16.53 | 16.58 | 17.19 | 17.13 | 17.27 | 17.43 |
| 19 | 16.75 | 16.13 | 15.80 | 15.83 | 16.01 | 16.26 | 16.62 | 16.66 | 17.17 | 17.11 | 17.22 | 17.31 |
| 20 | 16.35 | 16.23 | 15.90 | 15.85 | 16.10 | 16.24 | 16.76 | 16.64 | 17.12 | 16.99 | 17.02 | 17.30 |
| 21 | 16.10 | 16.17 | 15.75 | 16.00 | 16.14 | 16.24 | 16.79 | 16.62 | 17.11 | 16.97 | 17.23 | 17.28 |
| 22 | 16.33 | 15.94 | 16.32 | 16.00 | 16.03 | 16.20 | 16.74 | 16.66 | 17.14 | 16.86 | 17.25 | 17.34 |
| 23 | 16.30 | 16.00 | 16.15 | 15.65 | 16.01 | 16.19 | 16.64 | 16.76 | 17.18 | 16.76 | 17.14 | 17.39 |
| 24 | 16.48 | 15.95 | 15.85 | 15.75 | 15.98 | 16.24 | 16.57 | 16.78 | 17.20 | 16.83 | 17.06 | 17.64 |
| 25 | 16.50 | 15.90 | 16.00 | 15.88 | 15.96 | 16.28 | 16.55 | 16.76 | 17.18 | 16.93 | 17.36 | 17.68 |
| 26 | 16.45 | 16.10 | 16.03 | 15.92 | 15.90 | 16.32 | 16.49 | 16.74 | 17.06 | 16.84 | 17.34 | 17.64 |
| 27 | 16.25 | 16.00 | 15.90 | 16.00 | 15.99 | 16.42 | 16.52 | 16.73 | 17.06 | 16.99 | 17.19 | 17.56 |
| 28 | 16.20 | 15.68 | 16.08 | 16.02 | 15.98 | 16.48 | 16.59 | 16.70 | 17.02 | 17.15 | 17.16 | 17.42 |
| 29 | 16.27 | --- | 16.05 | 16.10 | 15.90 | 16.46 | 16.60 | 16.66 | 16.96 | 17.28 | 17.42 | 17.39 |
| 30 | 16.15 | --- | 15.95 | 16.10 | 15.94 | 16.46 | 16.66 | 16.64 | 17.00 | 17.16 | 17.50 | 17.58 |
| 31 | 16.25 | --- | 15.82 | --- | 15.98 | --- | 16.76 | 16.61 | --- | 17.20 | --- | 17.60 |
| MEAN | 16.62 | 16.14 | 15.96 | 15.96 | 16.00 | 16.17 | 16.51 | 16.64 | 16.98 | 17.06 | 17.13 | 17.44 |
| CAL YR 1983 | MEAN | 16.55 | | HIGH | 15.30 | | LOW | 17.68 | | | | |

WATER LEVEL, IN FEET BELOW LAND SURFACE

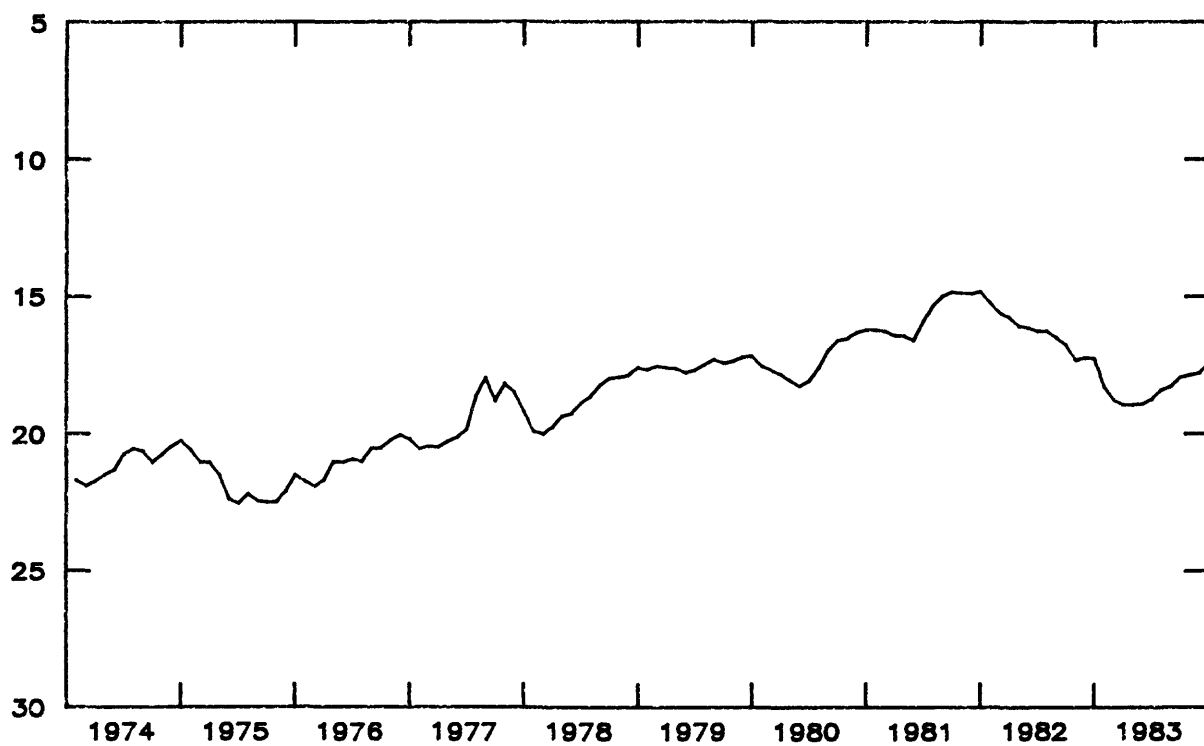
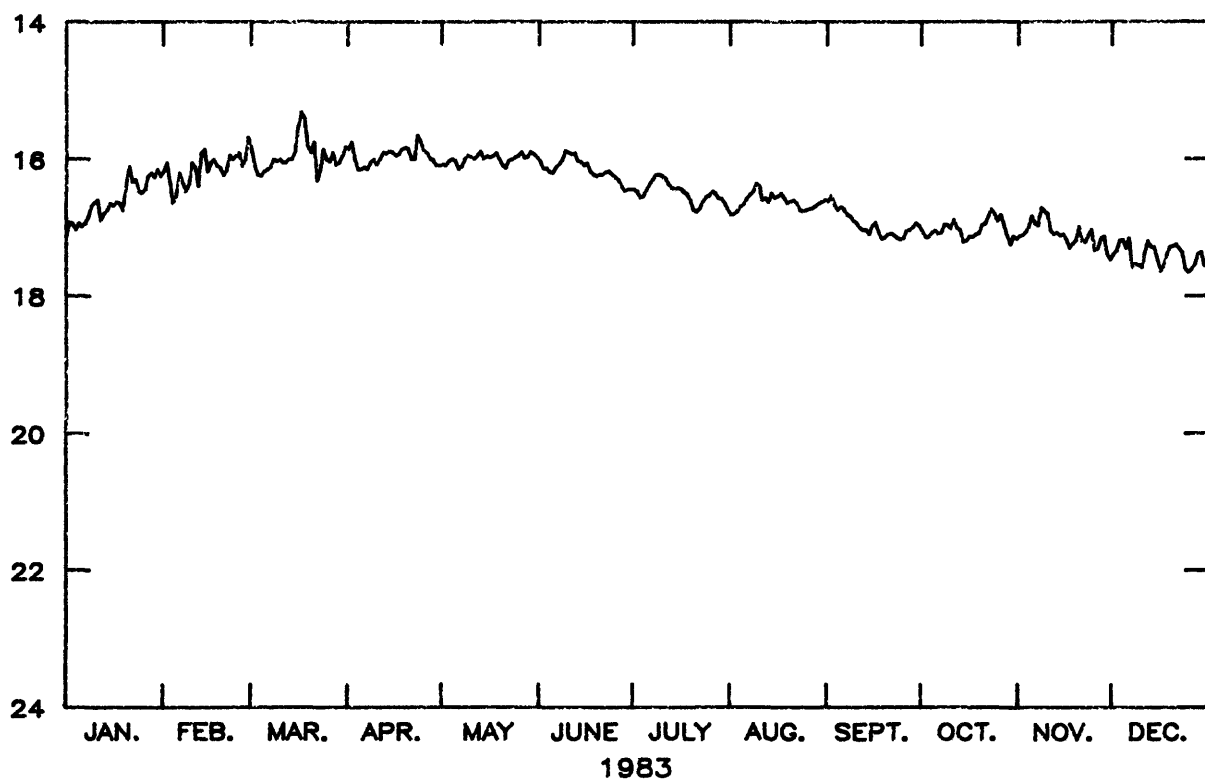


Figure 2.7.4.2-7.—Water level in observation well 35M013, McIntosh County.

2.7.4.3 Brunswick area

Water levels in the Floridan aquifer system in the Brunswick area are affected by ground-water pumpage of about 80 Mgal/d for municipal and industrial use. Partial industrial shutdowns during 1982, the installation of an evaporative cooling tower by a major water user in July 1982, and other water conservation measures reduced industrial pumpage by about 20 Mgal/d and allowed ground-water levels to recover significantly from the record lows of 1981. This rising trend continued into 1983.

Mean annual water levels in water-bearing zones of the Floridan aquifer system in the Brunswick area ranged from 5.0 to 6.2 feet higher in 1983 than in 1982. Levels in the brackish-water zone were from 0.3 foot to 4.8 feet higher in 1983 than in 1982. At wells 34H391 and 33J044 tapping the brackish-water zone, new record highs were recorded in December 1983.

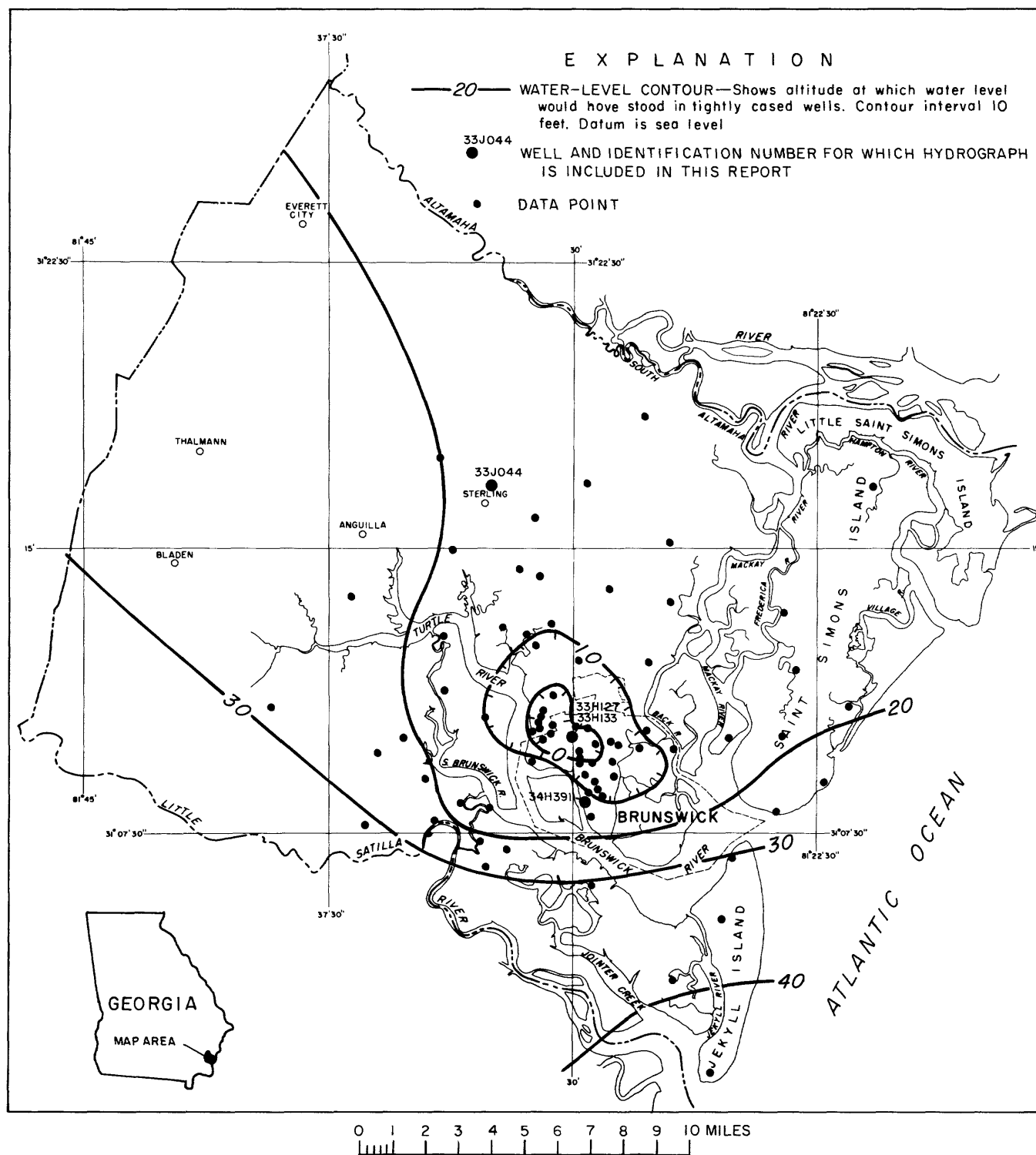


Figure 2.7.4.3-1.—Observation well locations and the water level in the Floridan aquifer system in the Brunswick area, November 1983.

33H127 TEST WELL 3 GLYNN COUNTY

311007081301701 Local number, 33H127.

LOCATION.--Lat 31°10'07", long 81°30'17", Hydrologic Unit 03070203, in south corner of Greenwood Cemetery in Brunswick.

Owner: U.S. Geological Survey, test well 3.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 4 in., depth 1,002 ft, cased to 823 ft, open hole.

DATUM.--Altitude of land-surface datum is 6 ft.

Measuring point: Top of 4-in. nipple on recorder, 4.50 ft above land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, January 12-29 and October 18, were estimated. Well was flowing January 1-5, March 13 to April 31, June 4-15, 19, 21-26, 28-29, October 5-6, and December 25-29.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.00 ft above land-surface datum, October 9, 1962; lowest, 11.19 ft below land-surface datum, July 14, 1977.

Water level, in feet above or below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | --- | -1.19 | -0.02 | --- | .06 | -0.60 | 1.08 | .44 | -0.62 | -0.80 | -0.37 | -0.99 |
| 2 | --- | -1.11 | -0.54 | --- | -0.16 | -0.12 | .84 | .54 | -0.60 | 1.20 | -0.08 | -0.96 |
| 3 | --- | -1.40 | -0.85 | --- | .14 | -0.32 | 1.01 | .20 | -0.69 | 3.56 | -0.22 | -0.87 |
| 4 | --- | -1.89 | -0.89 | --- | -0.32 | --- | 1.13 | .06 | -0.60 | 3.63 | -0.10 | -0.73 |
| 5 | --- | -1.75 | -0.90 | --- | -0.32 | --- | .98 | .06 | -0.66 | --- | -0.30 | -0.85 |
| 6 | .28 | -1.28 | -0.63 | --- | -0.42 | --- | .93 | .09 | -1.09 | --- | -0.47 | -0.76 |
| 7 | -0.32 | -1.19 | -0.61 | --- | -0.26 | --- | 1.22 | -0.06 | -1.50 | 2.19 | -0.56 | -0.83 |
| 8 | -0.50 | -1.00 | -0.12 | --- | -0.32 | --- | .41 | .22 | -1.46 | .50 | -0.65 | -0.32 |
| 9 | .07 | -1.03 | .20 | --- | -0.34 | --- | .72 | -0.14 | -1.74 | -0.18 | -0.73 | -0.71 |
| 10 | .06 | -1.04 | -0.17 | --- | -0.02 | --- | .46 | -0.59 | -2.08 | -0.20 | -0.73 | -0.34 |
| 11 | .15 | -1.48 | .15 | --- | .01 | --- | .07 | -0.61 | -1.82 | -0.22 | -0.91 | .06 |
| 12 | .00 | -1.52 | .16 | --- | -0.05 | --- | .30 | -0.55 | -2.27 | .19 | -0.91 | .83 |
| 13 | -0.06 | -1.10 | --- | --- | -0.04 | --- | -0.26 | -0.02 | -2.34 | -0.30 | -0.88 | 1.08 |
| 14 | -0.05 | -0.80 | --- | --- | -0.66 | --- | -0.52 | .08 | -2.49 | -0.33 | -0.96 | 1.88 |
| 15 | .16 | -0.26 | --- | --- | -0.68 | --- | -0.37 | -0.30 | -2.43 | -0.53 | -0.86 | 1.71 |
| 16 | -0.04 | -0.12 | --- | --- | -0.58 | .50 | -0.17 | .06 | -2.38 | -0.52 | -0.94 | 1.78 |
| 17 | -0.35 | -0.05 | --- | --- | -0.30 | .24 | -0.10 | -0.15 | -2.20 | -0.54 | -0.69 | 1.79 |
| 18 | -0.43 | -0.57 | --- | --- | -0.43 | .40 | -0.65 | -0.56 | -1.99 | -0.55 | -0.94 | 1.98 |
| 19 | -0.37 | -0.25 | --- | --- | -0.58 | --- | -0.29 | -0.68 | -1.73 | -0.56 | -0.98 | 2.00 |
| 20 | -0.22 | -0.52 | --- | --- | -0.28 | .36 | -0.92 | -0.70 | -1.54 | -0.62 | -0.71 | 1.65 |
| 21 | -0.24 | -0.52 | --- | --- | -0.52 | --- | -0.89 | -0.54 | -1.37 | -0.44 | -0.88 | 1.75 |
| 22 | -0.43 | -0.15 | --- | --- | -0.77 | --- | -0.82 | -0.50 | -1.32 | -0.29 | -0.63 | 2.42 |
| 23 | -0.48 | -0.10 | --- | --- | -0.68 | --- | -0.71 | -1.15 | -1.27 | -0.17 | -0.66 | 3.65 |
| 24 | -0.73 | -0.32 | --- | --- | -0.28 | --- | -0.34 | -1.38 | -1.19 | .58 | -0.56 | 4.06 |
| 25 | -0.90 | -0.42 | --- | --- | -0.63 | --- | -0.18 | -0.92 | -1.03 | -0.54 | -0.78 | --- |
| 26 | -0.91 | -0.52 | --- | --- | -0.69 | --- | .13 | -0.94 | -0.91 | -0.06 | -0.87 | --- |
| 27 | -0.73 | -0.44 | --- | --- | -0.27 | .54 | .26 | -1.12 | -0.82 | -0.51 | -0.86 | --- |
| 28 | -0.85 | -0.40 | --- | --- | .01 | --- | .42 | -1.01 | -0.72 | -1.03 | -0.90 | --- |
| 29 | -0.96 | --- | -0.34 | .46 | .04 | --- | .48 | -0.94 | -0.48 | -1.07 | -0.67 | --- |
| 30 | -0.82 | --- | -0.50 | .20 | -0.18 | 1.17 | .64 | -0.86 | -0.30 | -0.82 | -0.99 | 4.06 |
| 31 | -1.17 | --- | .20 | --- | .06 | --- | .79 | -0.75 | --- | -0.59 | --- | 3.99 |
| MEAN | -0.38 | -0.80 | -0.32 | .33 | -0.31 | .24 | .18 | -0.41 | -1.39 | .03 | -0.69 | 1.05 |
| CAL YR 1983 | MEAN | -0.29 | | MAX | 4.06 | MIN | -2.49 | | | | | |

WATER LEVEL, IN FEET ABOVE AND BELOW LAND SURFACE

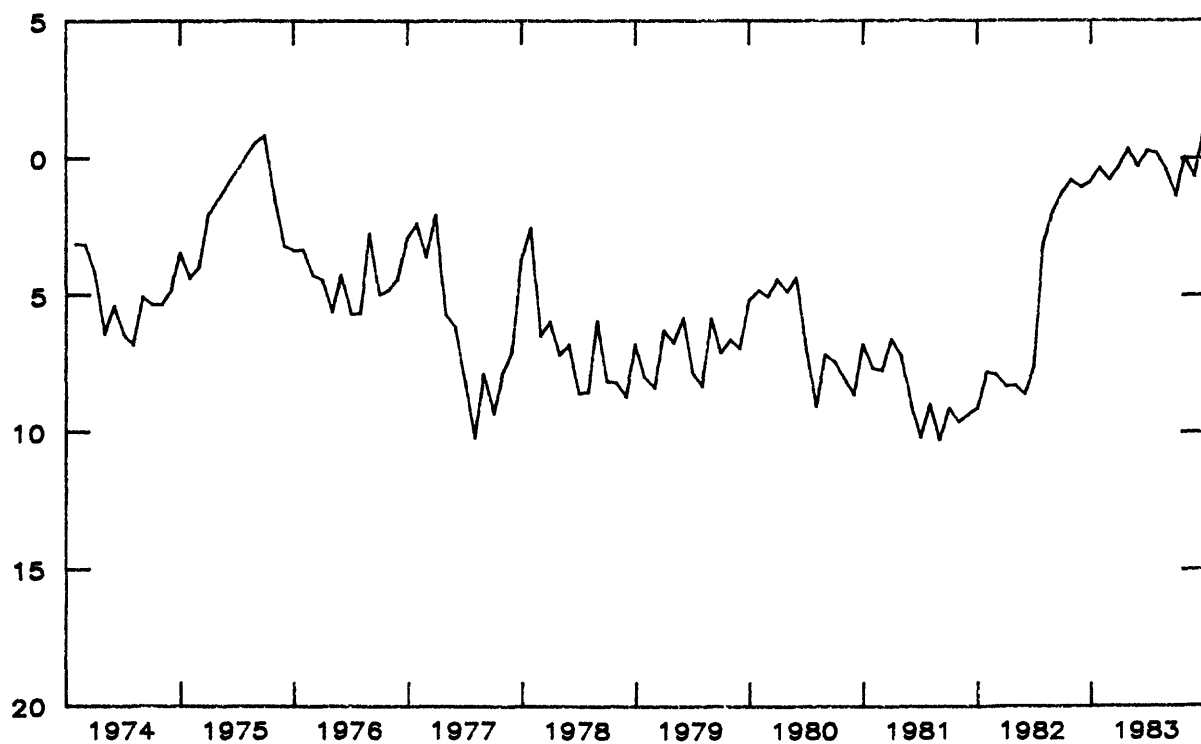
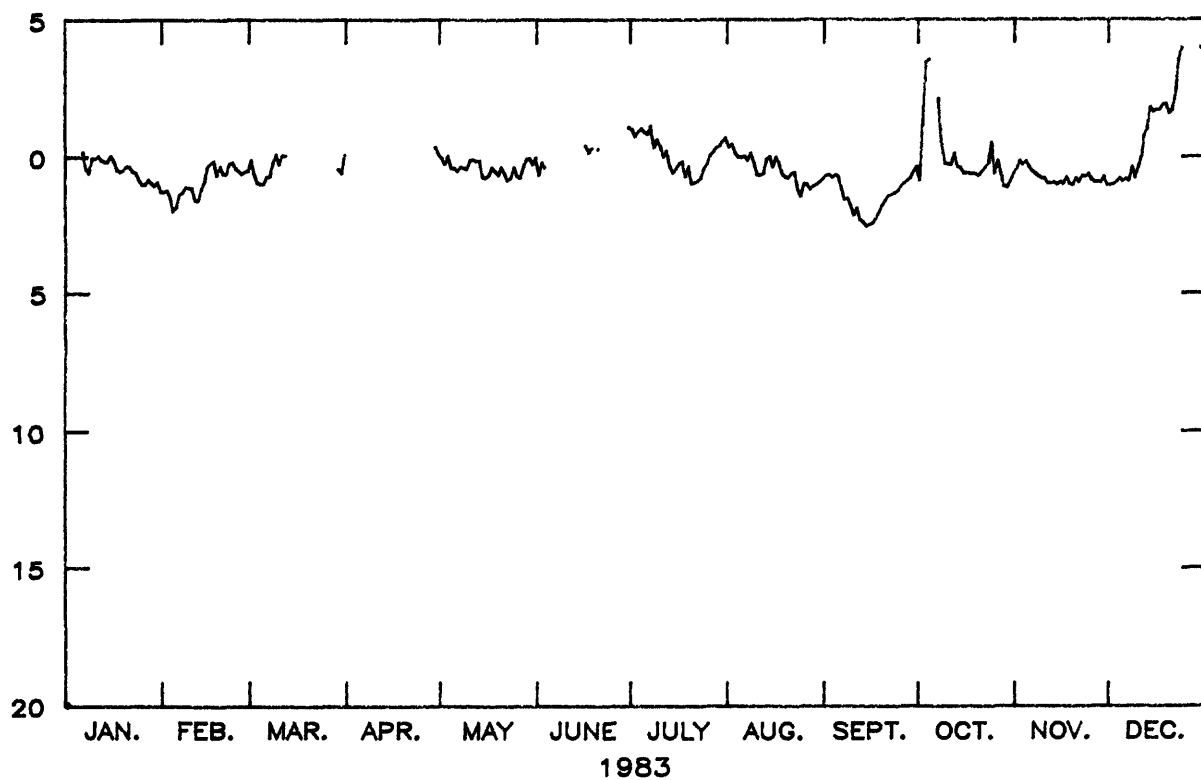


Figure 2.7.4.3-2.--Water level in observation well 33H127, lower water-bearing zone, Glynn County.

33H133 TEST WELL 6 GLYNN COUNTY

11007081301702 Local number, 33H133.

LOCATION.--Lat 31°10'07", long 81°30'17", Hydrologic Unit 03070203, near the intersection of Newcastle and Oak Streets to the south of the cemetery in Brunswick.

Owner: U.S. Geological Survey, test well 6.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 790 ft, cased to 520 ft, open hole.

DATUM.--Altitude of land-surface datum is 7 ft.

Measuring point: Floor of recorder shelter, 3.0 ft above land-surface datum.

REMARKS.--Well pumped monthly; water-quality samples collected at conclusion of pumping. Borehole geophysical survey conducted September 26, 1977. Water levels for periods of missing recorder record, February 27, March 1-2, June 12-28, and December 30-31, were estimated. Well was flowing June 7-11 and December 24-30.

PERIOD OF RECORD.--January 1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.07 ft above land-surface datum, December 26, 1965; lowest, 21.87 ft below land-surface datum, July 22, 1977.

Water level, in feet above or below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|-------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 6.80 | 9.50 | 8.70 | 6.90 | 8.27 | 8.88 | 6.27 | 6.57 | 8.80 | 8.67 | 6.76 | 8.52 |
| 2 | 7.52 | 9.42 | 9.23 | 6.27 | 8.45 | 8.40 | 6.63 | 6.42 | 9.07 | 7.48 | 6.58 | 8.83 |
| 3 | 5.85 | 9.72 | 9.56 | 5.84 | 7.86 | 8.18 | 6.25 | 7.00 | 9.14 | 6.41 | 7.36 | 8.64 |
| 4 | 5.32 | 10.40 | 9.50 | 5.55 | 8.66 | 8.66 | 5.81 | 7.44 | 8.91 | 6.17 | 7.32 | 8.61 |
| 5 | 6.78 | 10.04 | 9.66 | 5.32 | 8.38 | 6.00 | 5.72 | 7.24 | 8.82 | 5.69 | 7.65 | 8.88 |
| 6 | 8.30 | 9.41 | 9.19 | 6.00 | 8.80 | 2.05 | 6.78 | 7.36 | 9.30 | 5.28 | 8.02 | 8.42 |
| 7 | 9.14 | 9.16 | 9.32 | 6.58 | 8.57 | --- | 6.16 | 7.48 | 9.43 | 6.40 | 8.34 | 8.43 |
| 8 | 9.25 | 9.18 | 8.18 | 6.43 | 8.66 | --- | 7.32 | 7.05 | 9.74 | 7.46 | 8.80 | 7.70 |
| 9 | 8.22 | 9.37 | 7.42 | 6.72 | 8.54 | --- | 6.99 | 7.75 | 10.38 | 8.07 | 8.62 | 8.36 |
| 10 | 8.01 | 9.13 | 8.15 | 6.62 | 8.10 | --- | 7.56 | 8.64 | 10.91 | 7.81 | 8.55 | 7.31 |
| 11 | 7.88 | 9.98 | 8.12 | 6.98 | 8.18 | --- | 7.72 | 8.35 | 10.72 | 7.75 | 8.85 | 6.10 |
| 12 | 6.71 | 10.08 | 7.87 | 6.89 | 8.14 | 1.40 | 7.66 | 7.92 | 11.16 | 6.98 | 8.78 | 5.73 |
| 13 | 7.93 | 9.52 | 8.12 | 7.08 | 8.18 | 3.55 | 8.40 | 6.94 | 11.27 | 7.63 | 8.72 | 5.43 |
| 14 | 7.56 | 8.91 | 8.69 | 6.84 | 9.10 | 3.93 | 8.63 | 7.02 | 11.32 | 7.87 | 8.38 | 4.26 |
| 15 | 7.75 | 8.38 | 8.70 | 5.91 | 9.14 | 4.71 | 8.69 | 8.08 | 10.92 | 8.30 | 8.66 | 3.96 |
| 16 | 8.94 | 8.02 | 8.32 | 6.84 | 9.10 | 6.66 | 8.04 | 7.89 | 10.94 | 8.28 | 8.71 | 3.38 |
| 17 | 9.42 | 8.08 | 8.09 | 6.76 | 8.60 | 8.60 | 7.99 | 8.36 | 10.47 | 8.24 | 7.91 | 3.38 |
| 18 | 8.51 | 8.59 | 7.36 | 7.00 | 8.89 | 8.29 | 8.47 | 9.08 | 10.17 | 8.02 | 8.48 | 3.08 |
| 19 | 8.60 | 8.22 | 7.80 | 6.58 | 9.02 | 7.81 | 7.88 | 9.36 | 9.61 | 8.35 | 8.92 | 4.27 |
| 20 | 8.64 | 8.54 | 8.02 | 6.39 | 8.62 | 8.14 | 8.19 | 9.30 | 9.08 | 8.47 | 8.28 | 3.60 |
| 21 | 9.17 | 8.58 | 7.63 | 6.78 | 9.00 | 8.11 | 8.51 | 9.02 | 9.08 | 7.70 | 8.70 | 4.09 |
| 22 | 8.78 | 7.81 | 7.30 | 6.54 | 9.04 | 7.33 | 8.43 | 9.00 | 8.90 | 7.85 | 7.87 | 3.57 |
| 23 | 9.52 | 8.21 | 7.46 | 6.04 | 9.04 | 7.18 | 8.19 | 9.82 | 8.99 | 7.60 | 8.29 | 2.07 |
| 24 | 9.95 | 8.64 | 8.22 | 6.10 | 8.30 | 6.52 | 7.35 | 10.00 | 9.00 | 7.18 | 7.94 | --- |
| 25 | 9.76 | 8.81 | 8.51 | 5.90 | 8.94 | 6.78 | 7.24 | 10.44 | 8.27 | 7.71 | 8.48 | --- |
| 26 | 9.50 | 8.94 | 8.78 | 6.24 | 8.92 | 7.46 | 6.48 | 10.39 | 8.67 | 6.76 | 8.77 | --- |
| 27 | 9.20 | 8.98 | 8.58 | 6.26 | 8.18 | 8.06 | 6.60 | 9.95 | 8.18 | 7.64 | 8.81 | --- |
| 28 | 9.42 | 9.06 | 8.21 | 7.06 | 7.82 | 7.64 | 6.13 | 9.69 | 8.23 | 8.88 | 8.92 | --- |
| 29 | 9.53 | --- | 8.52 | 7.53 | 7.82 | 7.39 | 5.95 | 9.36 | 7.27 | 8.82 | 8.11 | --- |
| 30 | 9.23 | --- | 8.74 | 8.23 | 7.98 | 6.45 | 6.12 | 9.15 | 7.84 | 7.99 | 8.74 | .00 |
| 31 | 9.42 | --- | 7.44 | --- | 7.80 | --- | 5.77 | 9.26 | --- | 7.36 | --- | 1.00 |
| MEAN | 8.41 | 9.02 | 8.37 | 6.54 | 8.52 | 6.73 | 7.22 | 8.43 | 9.49 | 7.57 | 8.28 | 5.50 |
| CAL YR 1983 | MEAN | 7.89 | | HIGH | .00 | | LOW | 11.32 | | | | |

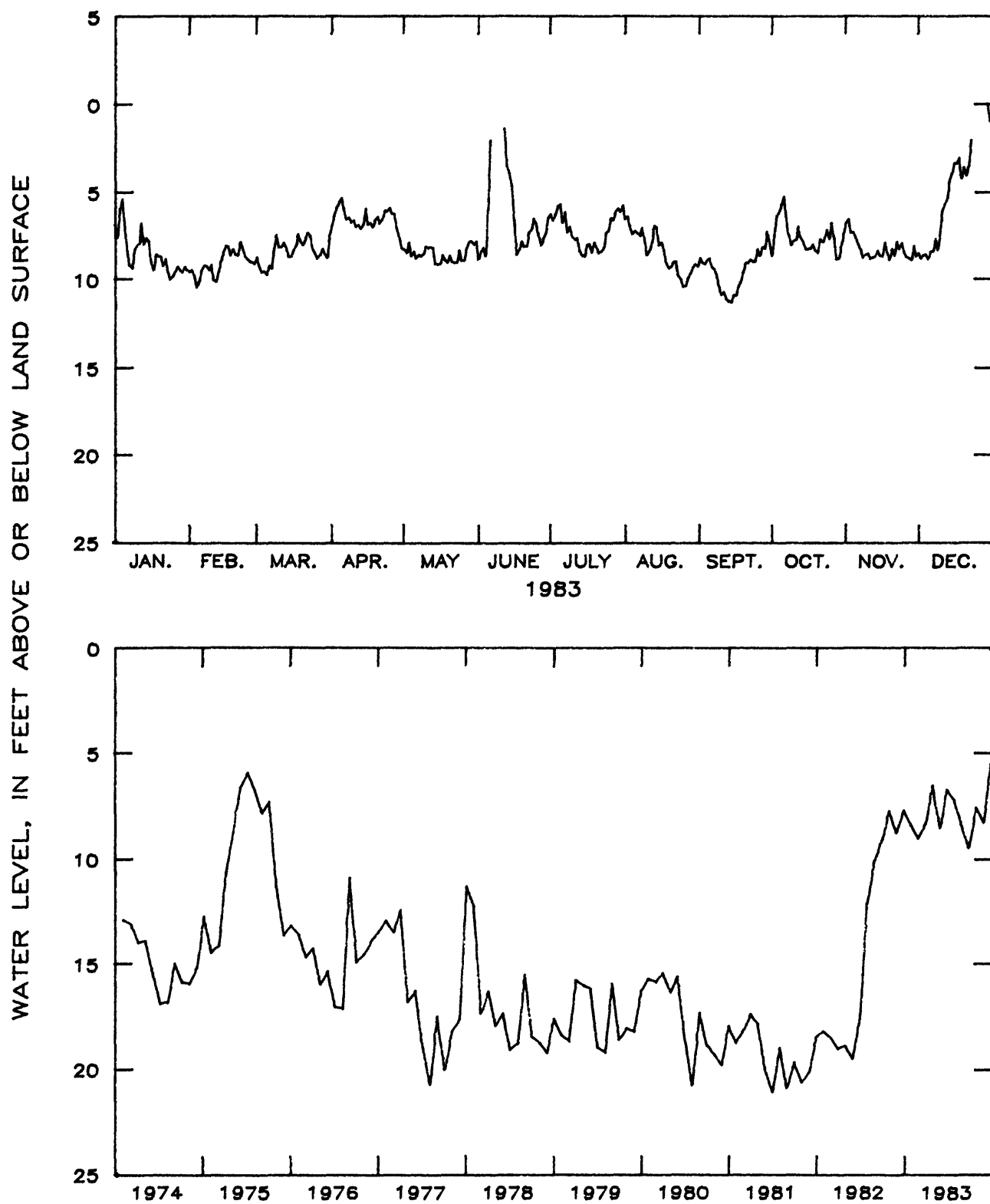


Figure 2.7.4.3-3.--Water level in observation well 33H133, upper water-bearing zone, Glynn County.

310818081294201 Local number, 34H391.

LOCATION.--Lat 31°08'18", long 81°29'42", Hydrologic Unit 03070203, located near intersection of Albermarle Street/Ocean Boulevard and Bay Street in Brunswick.

Owner: U.S. Geological Survey, test well 16.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 1,150 ft, cased to 1,070 ft, open hole.

DATUM.--Altitude of land-surface datum is 7.71 ft.

Measuring point: Floor of recorder shelter at land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, April 4-13, June 16, July 13, 14, September 5, 6, and December 11, 12, were estimated. Well was flowing September 29 to October 7 and December 25-28.

PERIOD OF RECORD.--August 1975.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.21 ft above land-surface datum, December 23, 1983; lowest, 2.96 ft below land-surface datum, July 27, 1977.

Water level, in feet above or below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|------|------|------|-------|------|------|------|------|------|------|-------|
| 1 | 7.88 | 6.63 | 7.41 | 7.76 | 7.47 | 7.03 | 7.67 | 8.00 | 6.68 | 7.59 | 7.68 | 7.25 |
| 2 | 7.80 | 6.67 | 6.91 | 7.76 | 7.44 | 7.00 | 7.30 | 7.90 | 6.75 | 7.97 | 7.68 | 7.28 |
| 3 | 7.90 | 6.50 | 6.36 | 7.62 | 7.40 | 7.00 | 7.36 | 7.56 | 6.71 | 8.65 | 7.61 | 7.49 |
| 4 | 7.62 | 6.03 | 6.24 | 7.48 | 7.39 | 6.82 | 7.46 | 7.28 | 6.77 | 8.81 | 7.75 | 7.55 |
| 5 | 7.66 | 6.11 | 6.26 | 7.41 | 7.32 | 7.47 | 7.64 | 7.31 | 7.00 | 9.01 | 7.59 | 7.48 |
| 6 | 7.29 | 6.54 | 6.30 | 7.41 | 7.20 | 8.48 | 7.50 | 7.36 | 7.05 | 9.14 | 7.58 | 7.51 |
| 7 | 7.04 | 6.51 | 6.40 | 7.52 | 7.28 | --- | 7.66 | 7.30 | 7.06 | 8.80 | 7.59 | 7.36 |
| 8 | 6.90 | 6.48 | 6.70 | 7.68 | 7.34 | --- | 7.40 | 7.40 | 6.92 | 8.40 | 7.62 | 7.44 |
| 9 | 7.27 | 6.54 | 6.92 | 7.80 | 7.28 | --- | 7.41 | 7.24 | 6.81 | 8.04 | 7.50 | 7.42 |
| 10 | 7.38 | 6.72 | 6.86 | 7.80 | 7.30 | --- | 7.30 | 6.90 | 6.61 | 7.97 | 7.50 | 7.59 |
| 11 | 7.24 | 6.40 | 6.87 | 7.79 | 7.34 | --- | 7.17 | 6.80 | 6.39 | 7.96 | 7.35 | 8.08 |
| 12 | 7.04 | 6.24 | 6.90 | 7.78 | 7.16 | 8.60 | 7.10 | 6.81 | 6.39 | 7.93 | 7.36 | 8.48 |
| 13 | 7.05 | 6.64 | 6.95 | 7.77 | 7.20 | 9.15 | 6.93 | 7.09 | 6.73 | 7.91 | 7.43 | 8.64 |
| 14 | 7.09 | 6.64 | 6.86 | 7.86 | 6.97 | 8.07 | 6.76 | 7.40 | 6.66 | 7.73 | 7.34 | 9.14 |
| 15 | 7.31 | 6.85 | 6.99 | 8.06 | 6.94 | 7.79 | 6.64 | 7.22 | 6.59 | 7.74 | 7.39 | 9.25 |
| 16 | 7.04 | 7.18 | 7.26 | 8.11 | 6.90 | 7.69 | 6.74 | 7.07 | 6.60 | 7.76 | 7.33 | 9.22 |
| 17 | 6.82 | 7.28 | 7.47 | 8.10 | 7.00 | 7.60 | 6.82 | 7.00 | 6.73 | 7.70 | 7.29 | 9.42 |
| 18 | 6.79 | 6.98 | 7.32 | 8.16 | 6.99 | 7.72 | 6.74 | 6.89 | 6.81 | 7.70 | 7.33 | 9.61 |
| 19 | 6.84 | 7.08 | 7.10 | 8.13 | 6.87 | 7.89 | 6.75 | 6.78 | 6.45 | 7.68 | 7.38 | 9.82 |
| 20 | 7.02 | 7.04 | 7.29 | 8.13 | 6.95 | 7.76 | 6.75 | 6.76 | 6.62 | 7.66 | 7.58 | 9.75 |
| 21 | 7.02 | 7.07 | 7.09 | 8.03 | 6.98 | 7.79 | 6.76 | 6.78 | 6.75 | 7.75 | 7.37 | 9.79 |
| 22 | 6.85 | 7.34 | 7.11 | 8.06 | 6.98 | 8.07 | 6.94 | 6.60 | 6.95 | 7.91 | 7.34 | 9.82 |
| 23 | 6.79 | 7.34 | 7.12 | 8.30 | 6.96 | 8.12 | 6.94 | 6.03 | 6.95 | 8.05 | 7.64 | 10.21 |
| 24 | 6.56 | 7.26 | 7.30 | 8.42 | 7.08 | 8.28 | 7.53 | 6.12 | 7.02 | 8.08 | 7.68 | --- |
| 25 | 6.44 | 7.10 | 6.90 | 8.36 | 7.01 | 8.22 | 7.62 | 6.22 | 7.13 | 8.19 | 7.46 | --- |
| 26 | 6.51 | 7.06 | 6.86 | 8.13 | 6.88 | 8.02 | 7.79 | 6.28 | 7.27 | 7.58 | 7.45 | --- |
| 27 | 6.61 | 7.14 | 7.09 | 8.12 | 7.02 | 7.84 | 7.94 | 6.31 | 7.40 | 7.13 | 7.51 | --- |
| 28 | 6.47 | 7.38 | 6.98 | 7.94 | 7.21 | 8.46 | 8.06 | 6.41 | 7.40 | 7.45 | 7.45 | --- |
| 29 | 6.54 | --- | 6.88 | 7.72 | 7.32 | 8.18 | 8.13 | 6.48 | 7.62 | 7.62 | 7.32 | --- |
| 30 | 6.64 | --- | 6.90 | 7.55 | 7.30 | 8.05 | 8.14 | 6.58 | 7.77 | 7.38 | 7.32 | --- |
| 31 | 6.60 | --- | 7.44 | --- | 7.24 | --- | 8.24 | 6.65 | --- | 7.52 | --- | --- |
| MEAN | 7.03 | 6.81 | 6.94 | 7.89 | 7.15 | 7.84 | 7.33 | 6.92 | 6.89 | 7.96 | 7.48 | 8.50 |
| CAL YR 1983 | MEAN | 7.37 | | MAX | 10.21 | | MIN | 6.03 | | | | |

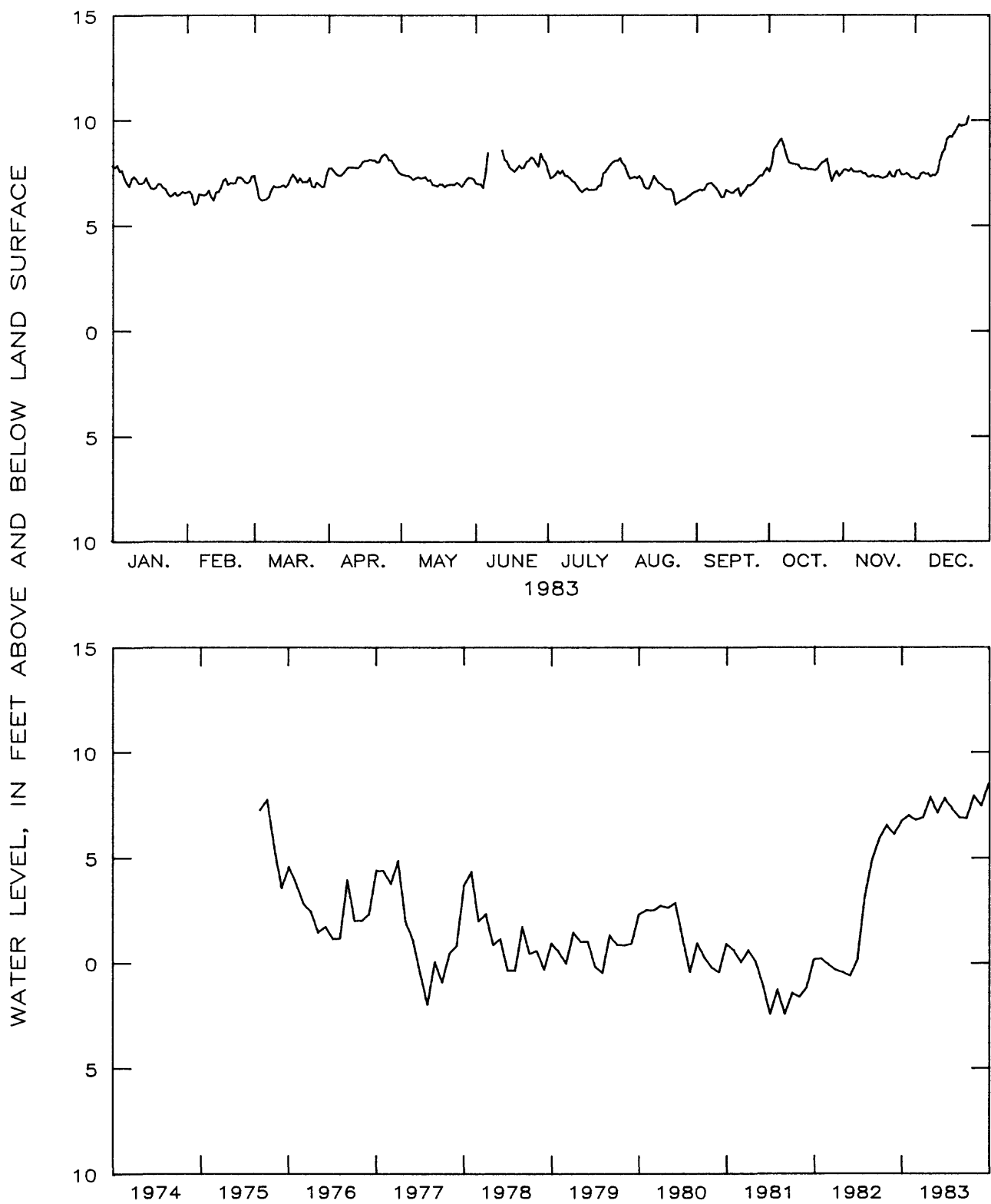


Figure 2.7.4.3-4.--Water level in observation well 34H391, brackish water zone, Glynn County.

311633081324001 Local number, 33J044.

LOCATION.--Lat 31°16'33", long 81°32'40", Hydrologic Unit 03070203, 1.2 mi east of Sterling, off State Highway 99 at the Brunswick Pulp and Paper Lumber Company.

Owner: Brunswick Pulp and Paper Co., USGS test well 27.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 9 in., depth 2,260 ft, cased to 1,079 ft, open hole.

DATUM.--Altitude of land-surface datum is 20 ft.

Measuring point: Floor of recorder shelter, 4.5 ft above land-surface datum.

REMARKS.--This is the Sterling oil test well. Water level for missing recorder record, August 23, was estimated. Well was flowing June 8-12 and December 25-31.

PERIOD OF RECORD.--May 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.08 ft above land-surface datum, December 24, 1983; lowest, 6.30 ft below land-surface datum, August 11, 1981.

Water level, in feet above or below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2.48 | 1.31 | 1.64 | 2.19 | 2.26 | 1.85 | 2.03 | 1.80 | .44 | 1.23 | 1.36 | 1.04 |
| 2 | 2.48 | 1.44 | 1.49 | 2.36 | 2.22 | 1.66 | 1.98 | 1.73 | .75 | 1.20 | 1.48 | 1.08 |
| 3 | 2.20 | 1.18 | 1.34 | 2.29 | 2.24 | 1.66 | 1.94 | 1.73 | .85 | 1.50 | 1.57 | 1.23 |
| 4 | 2.05 | .88 | 1.27 | 2.14 | 2.22 | 1.71 | 2.02 | 1.70 | .84 | 1.75 | 1.60 | 1.24 |
| 5 | 2.09 | .84 | 1.32 | 2.06 | 2.08 | 1.77 | 2.09 | 1.65 | .96 | 1.95 | 1.49 | 1.19 |
| 6 | 1.96 | 1.11 | 1.36 | 2.04 | 1.94 | 2.20 | 2.12 | 1.67 | .91 | 2.09 | 1.44 | 1.25 |
| 7 | 1.83 | 1.07 | 1.45 | 2.14 | 1.92 | 2.79 | 2.04 | 1.70 | .81 | 2.06 | 1.47 | 1.07 |
| 8 | 1.73 | .98 | 1.56 | 2.29 | 2.04 | --- | 2.04 | 1.75 | .74 | 1.93 | 1.55 | 1.06 |
| 9 | 1.75 | 1.03 | 1.65 | 2.40 | 1.97 | --- | 2.06 | 1.75 | .66 | 1.75 | 1.52 | 1.05 |
| 10 | 1.87 | 1.22 | 1.71 | 2.39 | 1.88 | --- | 2.03 | 1.62 | .50 | 1.65 | 1.52 | 1.13 |
| 11 | 1.85 | 1.06 | 1.68 | 2.37 | 1.92 | --- | 1.93 | 1.49 | .42 | 1.64 | 1.38 | 1.48 |
| 12 | 1.72 | 1.17 | 1.66 | 2.34 | 1.91 | --- | 1.82 | 1.44 | .40 | 1.58 | 1.26 | 1.74 |
| 13 | 1.64 | 1.14 | 1.70 | 2.32 | 1.93 | 2.92 | 1.72 | 1.42 | .33 | 1.55 | 1.29 | 1.76 |
| 14 | 1.65 | 1.30 | 1.70 | 2.40 | 1.88 | 2.71 | 1.62 | 1.42 | .25 | 1.36 | 1.26 | 1.99 |
| 15 | 1.78 | 1.12 | 1.76 | 2.51 | 1.86 | 2.53 | 1.57 | 1.39 | .12 | 1.35 | 1.30 | 1.98 |
| 16 | 1.70 | 1.35 | 2.00 | 2.54 | 1.86 | 2.31 | 1.48 | 1.34 | .17 | 1.36 | 1.18 | 1.95 |
| 17 | 1.59 | 1.47 | 2.24 | 2.53 | 1.74 | 2.10 | 1.48 | 1.31 | .21 | 1.35 | 1.06 | 2.06 |
| 18 | 1.44 | 1.34 | 2.16 | 2.72 | 1.68 | 2.03 | 1.44 | 1.24 | .28 | 1.35 | 1.05 | 2.28 |
| 19 | 1.38 | 1.32 | 1.94 | 2.64 | 1.69 | 2.04 | 1.34 | 1.12 | .37 | 1.33 | 1.10 | 2.50 |
| 20 | 1.52 | 1.24 | 2.01 | 2.56 | 1.69 | 2.00 | 1.22 | 1.12 | .49 | 1.32 | 1.31 | 2.46 |
| 21 | 1.68 | 1.28 | 2.00 | 2.50 | 1.74 | 1.96 | 1.12 | 1.10 | .67 | 1.31 | 1.15 | 2.51 |
| 22 | 1.50 | 1.51 | 1.74 | 2.52 | 1.78 | 2.06 | 1.18 | 1.07 | .63 | 1.42 | 1.10 | 2.63 |
| 23 | 1.49 | 1.66 | 1.83 | 2.82 | 1.77 | 2.07 | 1.22 | .72 | .65 | 1.56 | 1.25 | 2.80 |
| 24 | 1.30 | 1.63 | 2.04 | 2.92 | 1.78 | 2.15 | 1.38 | .37 | .72 | 1.61 | 1.36 | 3.08 |
| 25 | 1.21 | 1.49 | 1.76 | 2.77 | 1.80 | 2.20 | 1.44 | .29 | .82 | 1.55 | 1.20 | --- |
| 26 | 1.20 | 1.32 | 1.72 | 2.62 | 1.74 | 2.09 | 1.48 | .28 | .86 | 1.51 | 1.12 | --- |
| 27 | 1.31 | 1.39 | 1.86 | 2.58 | 1.70 | 1.98 | 1.52 | .33 | 1.01 | 1.41 | 1.23 | --- |
| 28 | 1.20 | 1.64 | 1.80 | 2.54 | 1.77 | 1.93 | 1.58 | .40 | 1.01 | 1.21 | 1.28 | --- |
| 29 | 1.16 | --- | 1.74 | 2.44 | 1.91 | 2.09 | 1.65 | .44 | 1.14 | 1.13 | 1.12 | --- |
| 30 | 1.26 | --- | 1.80 | 2.34 | 1.98 | 2.06 | 1.70 | .42 | 1.25 | 1.17 | 1.05 | --- |
| 31 | 1.23 | --- | 2.02 | --- | 1.96 | --- | 1.77 | .41 | --- | 1.24 | --- | --- |
| MEAN | 1.65 | 1.27 | 1.74 | 2.44 | 1.90 | 2.12 | 1.68 | 1.17 | .64 | 1.50 | 1.30 | 1.77 |
| CAL YR 1983 | MEAN | 1.59 | | MAX | 3.08 | | MIN | .12 | | | | |

WATER LEVEL, IN FEET ABOVE AND BELOW LAND SURFACE

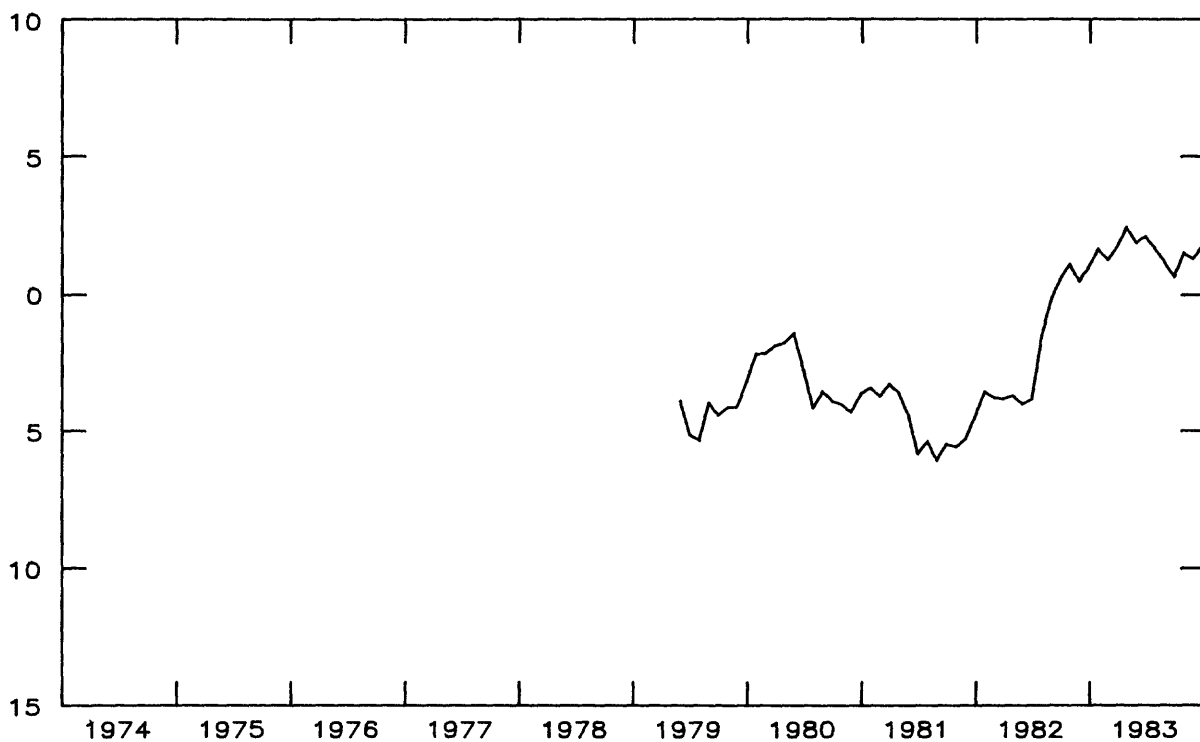
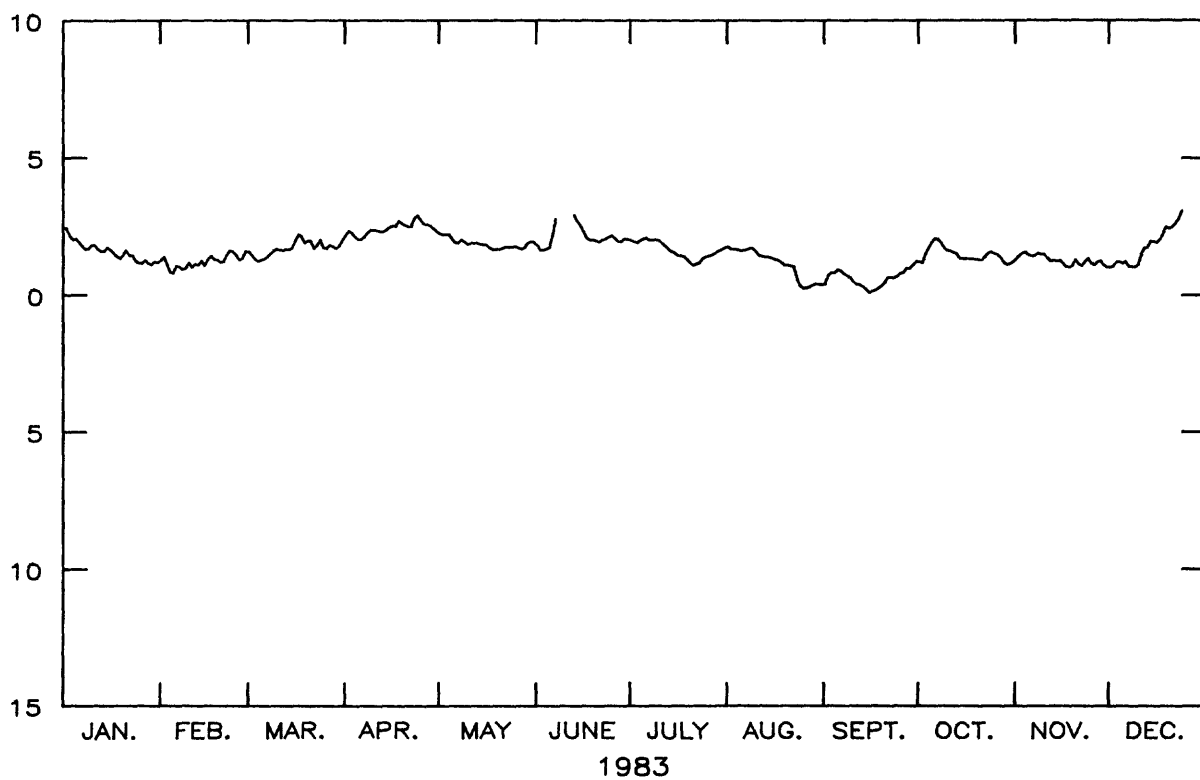


Figure 2.7.4.3-5.—Water level in observation well 33J044, brackish water zone, Glynn County.

2.7.4.4 Kings Bay-Okefenokee Swamp area

Ground-water levels in the Floridan aquifer system in the Kings Bay area are affected by industrial pumpage of about 35 Mgal/d near St. Marys. A reduction in pumping during 1982 allowed water levels to recover from the record lows of 1981. This trend continued into 1983. In March 1983, the water level at well 33E027 near Kings Bay matched the highest recorded water level of December 1982.

The water table in the Okefenokee Swamp area fluctuates seasonally and is affected by precipitation and evapotranspiration. This fluctuation probably affects the water level in the underlying Floridan aquifer system (Callahan, 1964).

Mean annual water levels in the Floridan aquifer system in the Kings Bay-Okefenokee Swamp area were from 2.5 to 2.7 feet higher in 1983 than in 1982.

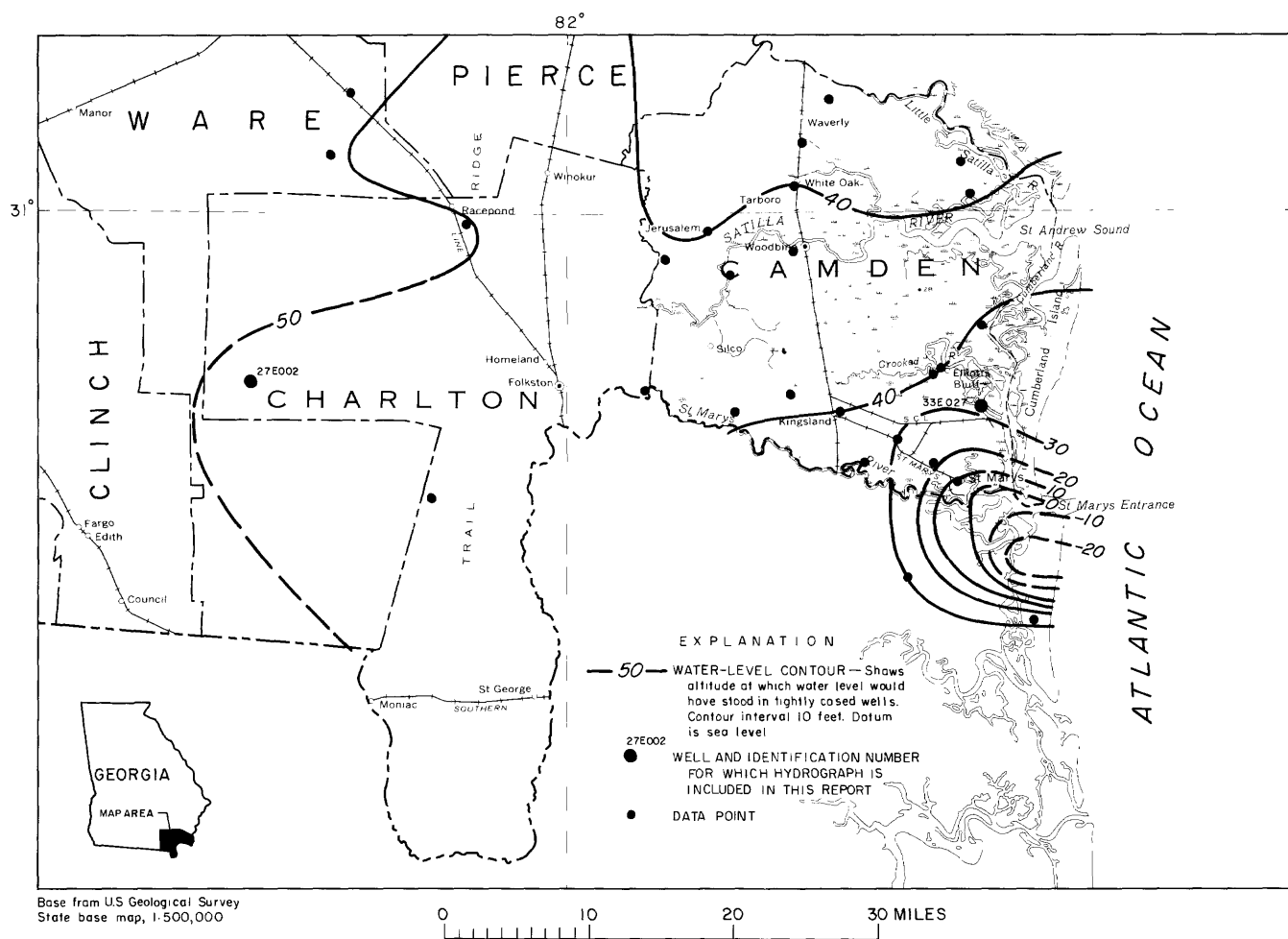


Figure 2.7.4.4-1.—Observation well locations and the water level in the Floridan aquifer system in the Kings Bay-Okefenokee Swamp area, November 1983.

304756081311101 Local number, 33E027.

LOCATION.--Lat 30°47'56", long 81°31'11", Hydrologic Unit 03070203, Kings Bay Army Terminal.

Owner: U.S. Department of the Navy.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled unused test well, diameter 8 in., depth 1,306 ft, cased to 555 ft, backfilled to 990 ft.

DATUM.--Altitude of land-surface datum is 13.1 ft.

Measuring point: Top of flange at land-surface datum.

REMARKS.--Water levels for periods of missing recorder record, January 1-4, February 1, March 31 to April 13, May 28 to June 1, June 30 to July 5, August 1-2, 28-31, September 21-26, and October 18-26, were estimated.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.10 ft above land-surface datum, December 29, 1982 and March 17, 1983; lowest, 14.75 ft above land-surface datum, February 28, 1981.

Water level, in feet above land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 23.46 | 21.80 | 22.50 | 23.04 | 22.40 | 23.02 | 22.57 | 22.03 | 22.90 | 23.40 | 22.29 | 21.42 |
| 2 | 23.42 | 21.75 | 22.40 | 23.06 | 22.40 | 23.00 | 22.66 | 22.02 | 22.97 | 23.40 | 22.22 | 21.37 |
| 3 | 23.38 | 21.70 | 22.60 | 23.08 | 22.60 | 23.10 | 22.74 | 22.02 | 23.15 | 23.30 | 22.28 | 21.95 |
| 4 | 23.34 | 21.40 | 22.70 | 23.10 | 23.00 | 23.10 | 22.83 | 22.18 | 23.10 | 23.15 | 22.35 | 22.52 |
| 5 | 23.30 | 21.50 | 23.00 | 23.12 | 23.30 | 23.00 | 22.91 | 22.15 | 23.31 | 23.10 | 22.45 | 22.40 |
| 6 | 23.20 | 22.00 | 23.00 | 23.14 | 23.20 | 23.00 | 23.00 | 22.30 | 23.26 | 23.10 | 22.50 | 22.60 |
| 7 | 23.40 | 21.60 | 23.00 | 23.16 | 23.30 | 22.90 | 23.00 | 22.28 | 23.17 | 22.95 | 22.47 | 22.18 |
| 8 | 23.30 | 21.50 | 23.30 | 23.18 | 23.40 | 22.90 | 23.00 | 22.55 | 23.17 | 23.15 | 22.56 | 22.30 |
| 9 | 23.20 | 21.60 | 23.20 | 23.20 | 23.50 | 23.00 | 23.00 | 22.63 | 23.18 | 23.05 | 22.40 | 22.40 |
| 10 | 23.00 | 21.80 | 22.90 | 23.22 | 23.30 | 22.80 | 23.00 | 22.65 | 23.19 | 23.00 | 22.42 | 22.45 |
| 11 | 23.10 | 21.60 | 22.80 | 23.24 | 23.40 | 22.80 | 23.00 | 22.65 | 23.14 | 22.90 | 21.65 | 22.50 |
| 12 | 22.60 | 21.40 | 23.00 | 23.26 | 23.20 | 22.80 | 22.90 | 22.81 | 23.15 | 22.95 | 22.00 | 22.63 |
| 13 | 22.60 | 21.70 | 23.10 | 23.28 | 23.20 | 22.90 | 22.90 | 22.75 | 22.75 | 22.90 | 22.13 | 22.43 |
| 14 | 22.70 | 21.70 | 23.10 | 23.30 | 23.20 | 22.70 | 23.00 | 22.84 | 22.75 | 22.50 | 22.34 | 22.50 |
| 15 | 22.80 | 21.90 | 23.10 | 23.30 | 23.20 | 22.80 | 23.00 | 22.86 | 22.84 | 22.60 | 22.00 | 22.05 |
| 16 | 22.60 | 22.00 | 23.50 | 23.00 | 23.20 | 22.80 | 23.00 | 22.94 | 23.06 | 22.80 | 21.56 | 22.10 |
| 17 | 22.80 | 22.10 | 24.10 | 23.00 | 23.10 | 22.80 | 23.10 | 23.04 | 22.93 | 22.95 | 21.37 | 22.05 |
| 18 | 22.70 | 21.90 | 23.90 | 23.20 | 23.30 | 22.80 | 23.20 | 23.13 | 22.95 | 22.89 | 21.49 | 22.31 |
| 19 | 22.60 | 22.00 | 23.60 | 23.20 | 23.10 | 22.70 | 23.00 | 23.00 | 23.11 | 22.84 | 21.80 | 22.28 |
| 20 | 22.60 | 22.00 | 23.50 | 23.20 | 23.30 | 22.80 | 22.60 | 23.08 | 23.07 | 22.79 | 22.40 | 22.37 |
| 21 | 22.80 | 21.80 | 23.30 | 23.20 | 23.30 | 22.70 | 22.60 | 23.16 | 23.13 | 22.73 | 22.46 | 22.37 |
| 22 | 22.60 | 22.10 | 23.10 | 23.30 | 23.30 | 22.80 | 22.60 | 23.04 | 23.19 | 22.68 | 22.47 | 22.47 |
| 23 | 22.30 | 22.00 | 23.10 | 23.60 | 23.10 | 22.80 | 22.50 | 22.90 | 23.25 | 22.63 | 22.63 | 22.48 |
| 24 | 22.10 | 22.20 | 23.10 | 23.20 | 23.20 | 22.70 | 22.60 | 22.83 | 23.32 | 22.58 | 22.80 | 22.20 |
| 25 | 21.90 | 22.00 | 23.00 | 23.20 | 23.20 | 22.80 | 22.50 | 22.92 | 23.38 | 22.53 | 22.20 | --- |
| 26 | 21.80 | 21.70 | 22.90 | 23.20 | 23.20 | 22.60 | 22.60 | 22.90 | 23.44 | 22.47 | 22.35 | --- |
| 27 | 21.80 | 22.00 | 23.10 | 23.10 | 23.10 | 22.50 | 22.50 | 22.75 | 23.50 | 22.42 | 22.70 | --- |
| 28 | 21.50 | 22.50 | 23.10 | 23.10 | 23.08 | 22.50 | 22.40 | 22.78 | 23.30 | 22.15 | 22.59 | --- |
| 29 | 21.70 | --- | 22.80 | 23.10 | 23.07 | 22.40 | 22.30 | 22.81 | 23.30 | 22.30 | 21.98 | --- |
| 30 | 21.90 | --- | 23.00 | 22.40 | 23.05 | 22.49 | 21.90 | 22.84 | 23.40 | 22.29 | 22.05 | --- |
| 31 | 21.70 | --- | 23.02 | --- | 23.03 | --- | 22.03 | 22.87 | --- | 22.24 | --- | --- |
| MEAN | 22.65 | 21.83 | 23.09 | 23.16 | 23.14 | 22.80 | 22.74 | 22.70 | 23.15 | 22.80 | 22.23 | 22.26 |
| CAL YR 1983 | MEAN | 22.73 | MAX | 24.10 | MIN | 21.37 | | | | | | |

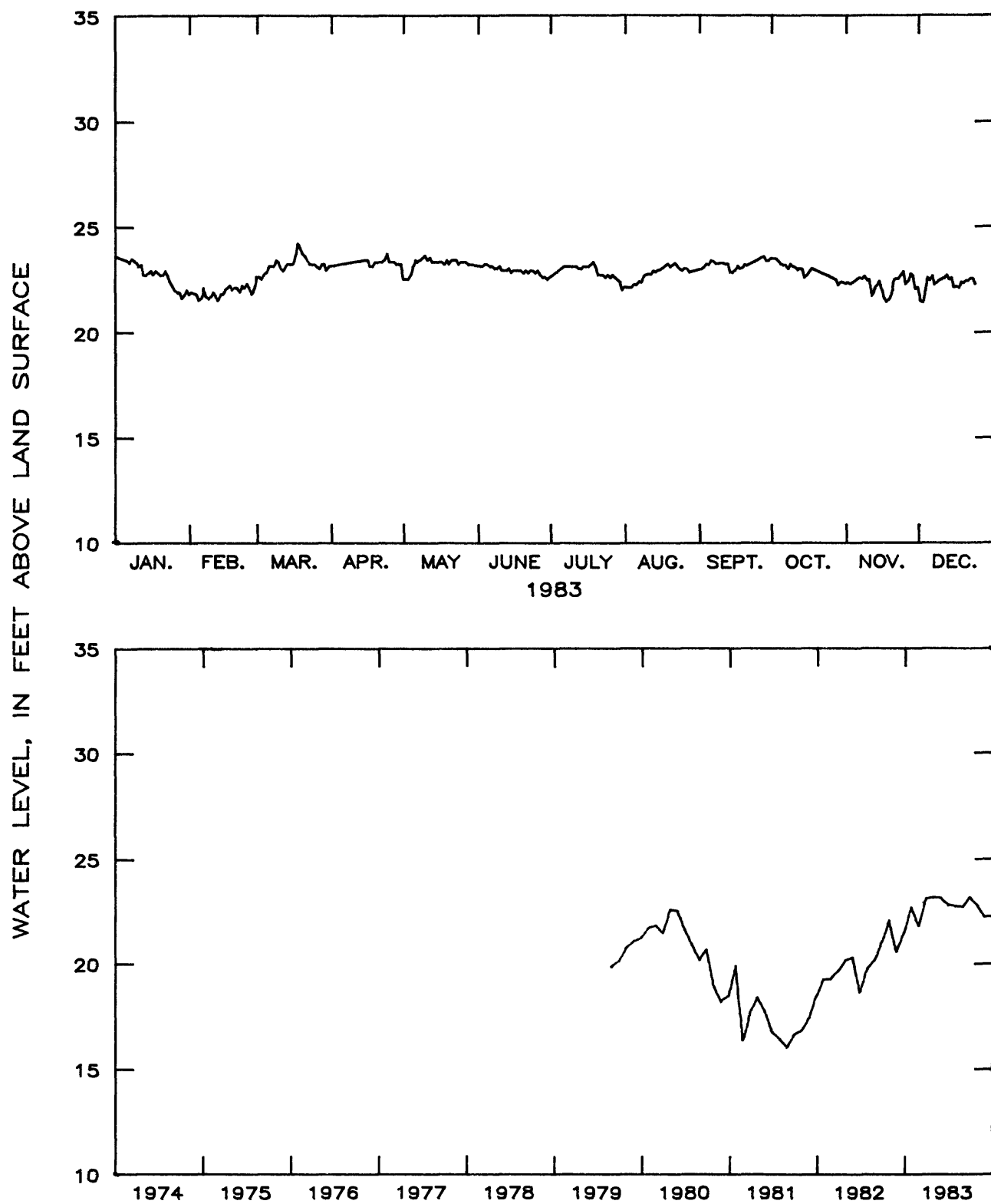


Figure 2.7.4.4-2.--Water level in observation well 33E027, Camden County.

304943082213701 Local number, 27E002.

LOCATION.--Lat 30°49'43", long 82°21'37", Hydrologic Unit 03110201, end of Georgia Highway 177 east of Stephen C. Foster State Park.

Owner: U.S. Geological Survey, test well OK 8.

AQUIFER.--Floridan aquifer system.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 647 ft, cased to 465 ft, open hole.

DATUM.--Altitude of land-surface datum is 116 ft.

Measuring point: Floor of recorder shelter, 4.2 ft above land-surface datum.

REMARKS.--Well pumped Aug. 1, 1978, sounded to obstruction at 484 ft. Well open below obstruction. Water levels for periods of missing recorder record, August 10 to September 15, September 20 to October 12, and December 25-31, were estimated.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft below land-surface datum, June 27, 1966; lowest, 71.17 ft below land surface datum, July 27, 1981.

Water level, in feet below land surface, through calendar year 1983 daily mean values - monthly mean values

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 67.03 | 66.08 | 64.62 | 63.37 | 62.67 | 63.45 | 64.85 | 65.58 | 65.83 | 66.23 | 66.47 | 66.45 |
| 2 | 66.90 | 66.04 | 64.71 | 63.26 | 62.63 | 63.62 | 64.88 | 65.62 | 65.84 | 66.24 | 66.45 | 66.42 |
| 3 | 66.84 | 66.04 | 64.77 | 63.22 | 62.53 | 63.70 | 64.92 | 65.58 | 65.92 | 66.22 | 66.37 | 66.28 |
| 4 | 66.90 | 66.04 | 64.76 | 63.30 | 62.44 | 63.72 | 64.91 | 65.65 | 65.39 | 66.18 | 66.26 | 66.21 |
| 5 | 66.92 | 66.04 | 64.65 | 63.30 | 62.52 | 63.77 | 64.84 | 65.72 | 66.00 | 66.16 | 66.23 | 66.27 |
| 6 | 66.86 | 65.84 | 64.59 | 63.26 | 62.63 | 63.82 | 64.83 | 65.67 | 66.03 | 66.18 | 66.28 | 66.22 |
| 7 | 66.80 | 65.72 | 64.48 | 63.24 | 62.69 | 63.82 | 64.83 | 65.56 | 66.06 | 66.22 | 66.30 | 66.33 |
| 8 | 66.73 | 65.77 | 64.37 | 63.15 | 62.62 | 63.84 | 64.90 | 65.51 | 66.06 | 66.25 | 66.26 | 66.41 |
| 9 | 66.64 | 65.78 | 64.34 | 63.05 | 62.63 | 63.95 | 64.89 | 65.53 | 66.11 | 66.25 | 66.21 | 66.44 |
| 10 | 66.58 | 65.56 | 64.32 | 62.98 | 62.74 | 64.09 | 64.85 | 65.58 | 66.12 | 66.25 | 66.14 | 66.44 |
| 11 | 66.56 | 65.54 | 64.34 | 62.98 | 62.80 | 64.16 | 64.88 | 65.58 | 66.10 | 66.21 | 66.15 | 66.22 |
| 12 | 66.60 | 65.70 | 64.34 | 63.02 | 62.80 | 64.16 | 64.91 | 65.55 | 66.09 | 66.17 | 66.24 | 66.07 |
| 13 | 66.67 | 65.50 | 64.32 | 63.04 | 62.80 | 64.16 | 64.94 | 65.55 | 66.09 | 66.20 | 66.27 | 66.10 |
| 14 | 66.63 | 65.30 | 64.30 | 63.00 | 62.83 | 64.18 | 64.95 | 65.56 | 66.07 | 66.23 | 66.27 | 66.03 |
| 15 | 66.54 | 65.38 | 64.19 | 62.92 | 62.83 | 64.17 | 64.93 | 65.56 | 66.18 | 66.30 | 66.23 | 66.21 |
| 16 | 66.47 | 65.32 | 64.00 | 62.87 | 62.80 | 64.22 | 64.93 | 65.66 | 66.18 | 66.31 | 66.29 | 66.35 |
| 17 | 66.44 | 65.21 | 63.77 | 62.85 | 62.90 | 64.30 | 64.99 | 65.66 | 66.24 | 66.30 | 66.41 | 66.38 |
| 18 | 66.45 | 65.26 | 63.76 | 62.73 | 63.04 | 64.34 | 65.06 | 65.65 | 66.28 | 66.27 | 66.46 | 66.31 |
| 19 | 66.46 | 65.30 | 63.90 | 62.66 | 63.09 | 64.30 | 65.09 | 65.65 | 66.29 | 66.25 | 66.40 | 66.21 |
| 20 | 66.42 | 65.33 | 63.84 | 62.71 | 63.10 | 64.43 | 65.18 | 65.66 | 66.18 | 66.25 | 66.22 | 66.24 |
| 21 | 66.30 | 65.32 | 63.84 | 62.76 | 63.10 | 64.49 | 65.27 | 65.66 | 66.27 | 66.28 | 66.34 | 66.22 |
| 22 | 66.25 | 65.13 | 64.00 | 62.74 | 63.08 | 64.54 | 65.25 | 65.70 | 66.33 | 66.28 | 66.40 | 66.11 |
| 23 | 66.25 | 64.94 | 63.96 | 62.50 | 63.08 | 64.60 | 65.26 | 65.78 | 66.36 | 66.16 | 66.33 | 66.07 |
| 24 | 66.31 | 64.88 | 63.71 | 62.62 | 63.08 | 64.60 | 65.26 | 65.86 | 66.34 | 66.12 | 66.24 | 66.09 |
| 25 | 66.35 | 64.91 | 63.84 | 62.51 | 63.12 | 64.60 | 65.33 | 65.88 | 66.34 | 66.15 | 66.30 | 66.15 |
| 26 | 66.32 | 65.03 | 63.90 | 62.64 | 63.15 | 64.67 | 65.36 | 65.89 | 66.29 | 66.18 | 66.46 | 66.14 |
| 27 | 66.20 | 65.00 | 63.73 | 62.70 | 63.23 | 64.76 | 65.38 | 65.87 | 66.24 | 66.27 | 66.35 | 65.99 |
| 28 | 66.18 | 64.74 | 63.66 | 62.69 | 63.34 | 64.77 | 65.47 | 65.83 | 66.22 | 66.41 | 66.23 | 65.77 |
| 29 | 66.22 | --- | 63.71 | 62.70 | 63.34 | 64.76 | 65.53 | 65.80 | 66.20 | 66.44 | 66.33 | 65.74 |
| 30 | 66.17 | --- | 63.61 | 62.68 | 63.32 | 64.81 | 65.55 | 65.81 | 66.22 | 66.43 | 66.43 | 65.96 |
| 31 | 66.14 | --- | 63.46 | --- | 63.33 | --- | 65.57 | 65.83 | --- | 66.47 | --- | 66.04 |
| MEAN | 66.52 | 65.45 | 64.12 | 62.92 | 62.91 | 64.23 | 65.09 | 65.68 | 66.15 | 66.25 | 66.31 | 66.19 |
| CAL YR 1983 | MEAN | 65.15 | | HIGH | 62.44 | | LOW | 67.03 | | | | |

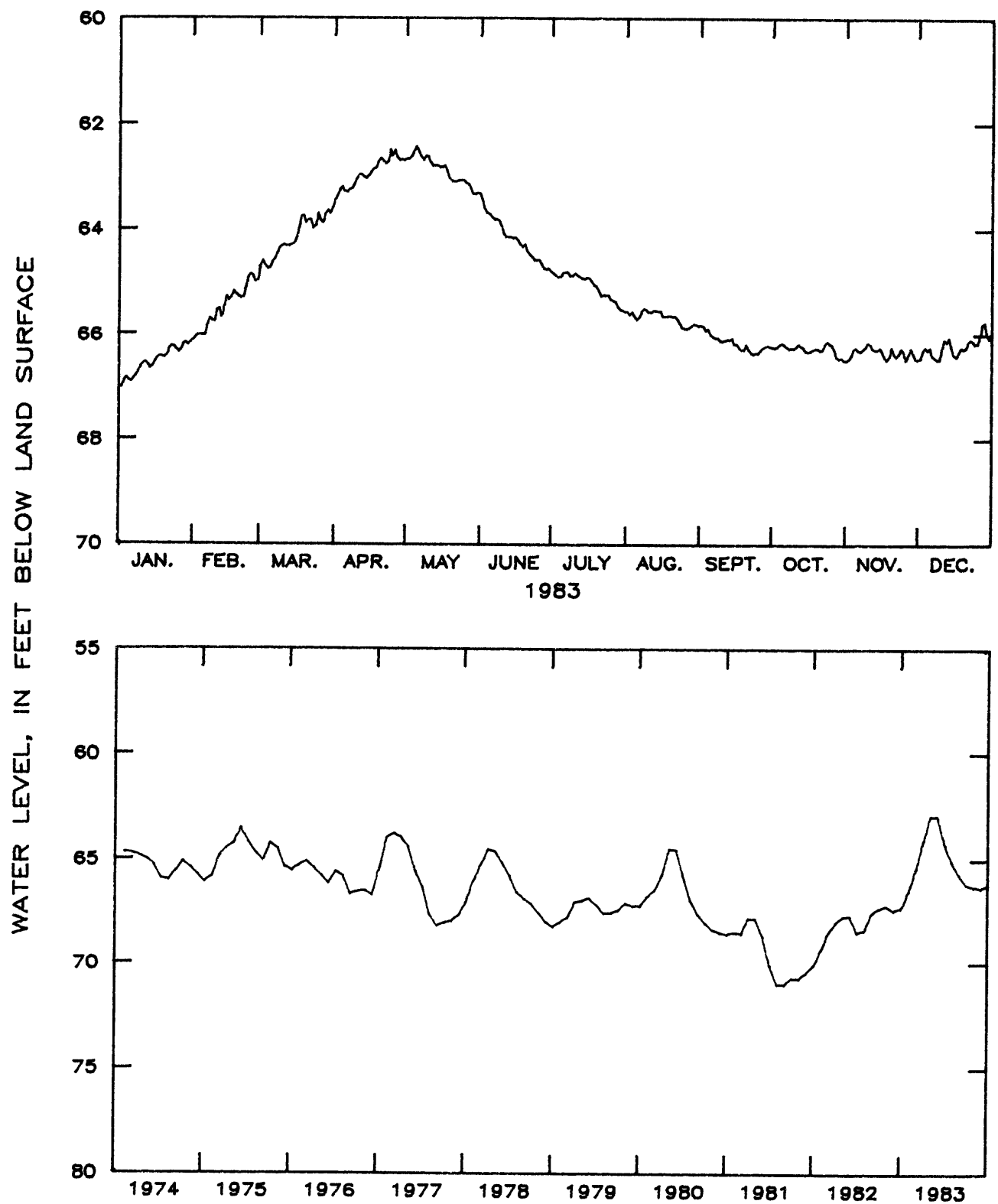


Figure 2.7.4.4-3.—Water level in observation well 27E002, Charlton County.

3.0 GROUND-WATER QUALITY

Water-quality samples are collected periodically throughout Georgia and analyzed as part of areal and regional ground-water studies. Wells along the coast have been monitored for chloride concentration since the late fifties. Chloride is indicative of brackish-water contamination and is readily analyzed in the field. Wells in the water-level monitoring networks also are pumped and sampled periodically to note any changes in water quality that may occur in the various aquifers of the State.

Where water-quality problems are noted, or are considered likely to occur, samples are collected more frequently and analyzed for water-quality constituents indicative of the problem. Streams also are sampled for water quality in those areas where the stream water recharges an aquifer. Withdrawals of ground water can induce water-quality problems that might not have otherwise occurred.

3.1 Savannah area

Ground-water pumpage, totaling about 75 Mgal/d in the Savannah area, has lowered the artesian water level in the Floridan aquifer system to about 120 feet below sea level in the cone of depression. This water-level decline has caused no significant increase in chloride concentration in the freshwater zones of the Floridan aquifer system during the past 20 years. Fourteen wells in the Savannah area are pumped and sampled periodically for chloride analysis.

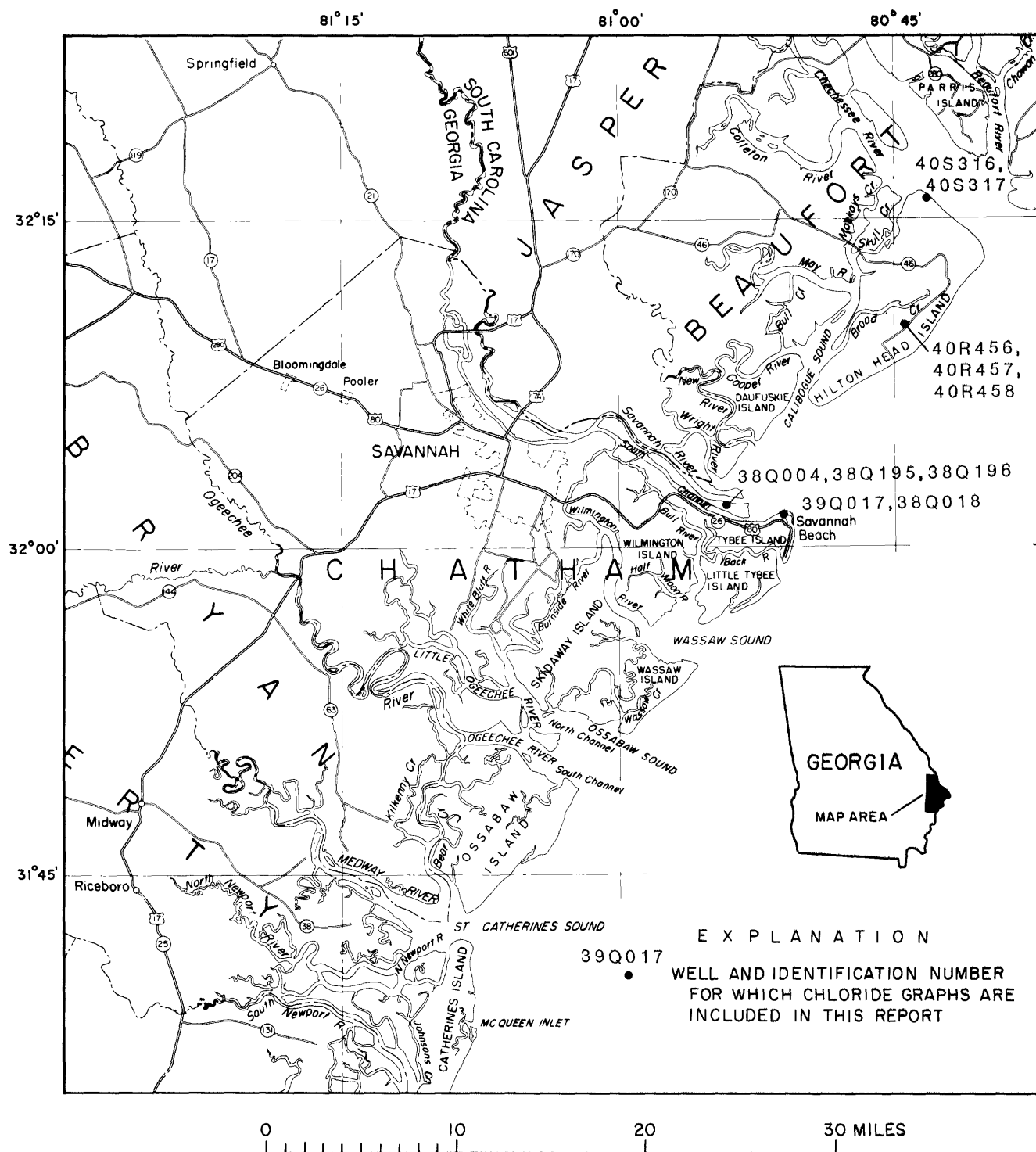


Figure 3.1-1.—Location of chloride-monitoring wells in the Savannah area.

Chloride concentrations in Chatham County generally remained stable during 1974-82. At the end of 1983, the chloride concentration in one well rose. Well 38Q195 (depth, 1,230-1,363 ft) taps one of the deepest brackish-water zones of the Floridan aquifer system and has a chloride concentration of about 13,000 mg/L. Well 38Q196 (depth, 870-925 ft) also taps a brackish-water zone and has a chloride concentration of about 5,300 mg/L. Well 39Q017 (depth, 710-745 ft), well 39Q018 (depth, 630-670 ft), and well 38Q004 (depth, 606-657 ft) all have chloride concentrations of less than 900 mg/L. At the end of 1983, the chloride concentration at well 39Q018 increased, whereas the concentration at well 39Q017 decreased. More data are needed to assess whether these changes were due to well failure or to changes in nearby pumping.

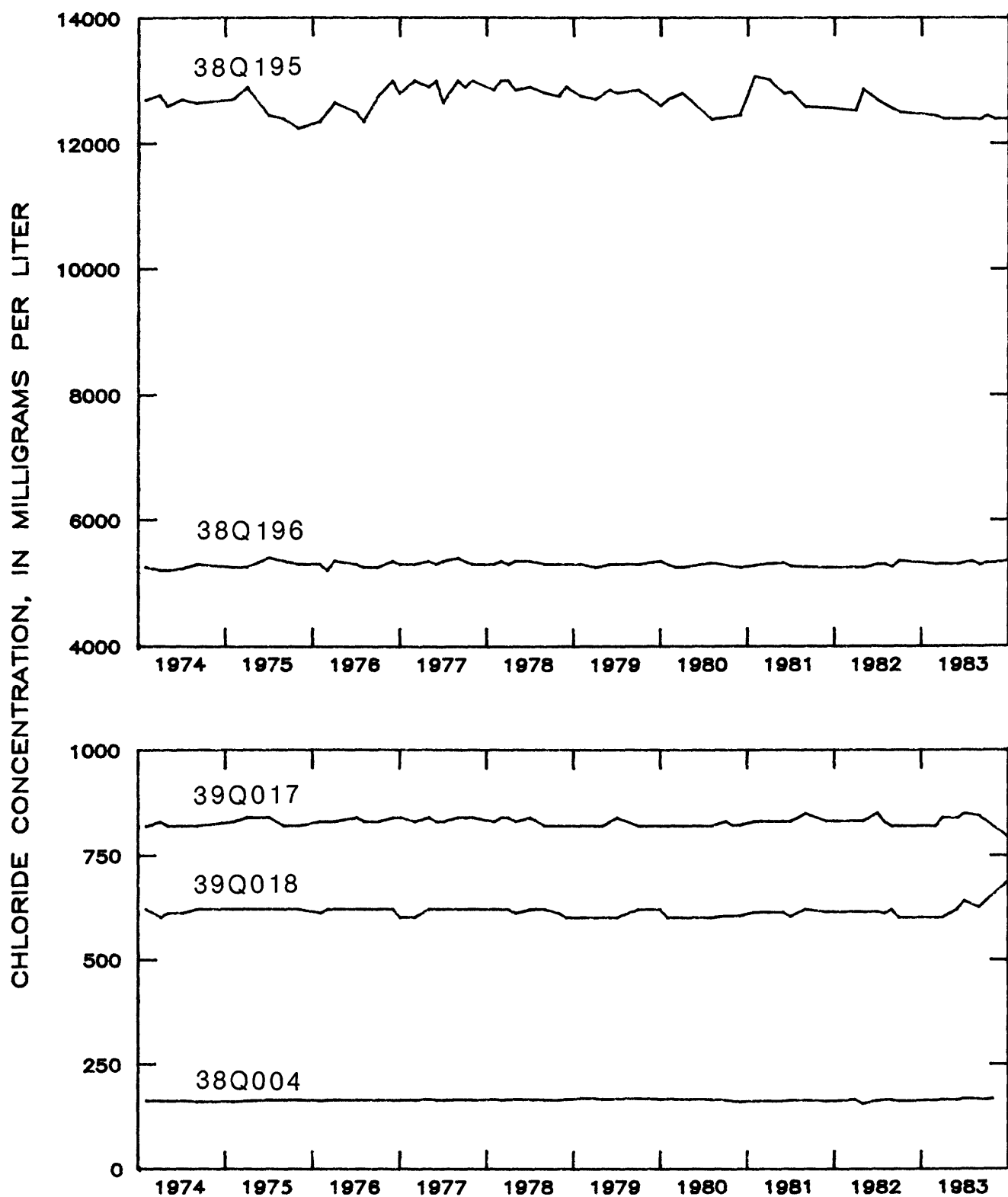


Figure 3.1-2.--Chloride concentrations in Chatham County.

U.S. Geological Survey wells 40R456, 40R457, 40R458, 40S316, and 40S317 are on Hilton Head Island, S.C. Well 40R458 (depth, 665-745 ft) had a chloride concentration ranging from 1,900 to 2,000 mg/L until 1981. At that time, the chloride concentration began to fluctuate, possibly in response to nearby pumping or due to well failure. Wells 40R456 (depth, 580-635 ft) and 40R457 (depth, 500-559 ft) showed little change in chloride concentrations for the period 1974-83.

The chloride concentration in well 40S316 (depth, 450-510 ft) in the lower part of the Floridan aquifer system has increased only slightly for the period 1974-83. The chloride concentration in well 40S317 (depth, 150-410 ft) has risen significantly since 1978. This increase may indicate that brackish water in the Floridan aquifer system is moving in response to pumping. There are, however, no data to indicate that any increase in chloride concentration has occurred in the upper part of the aquifer system that is utilized by most supply wells in the area.

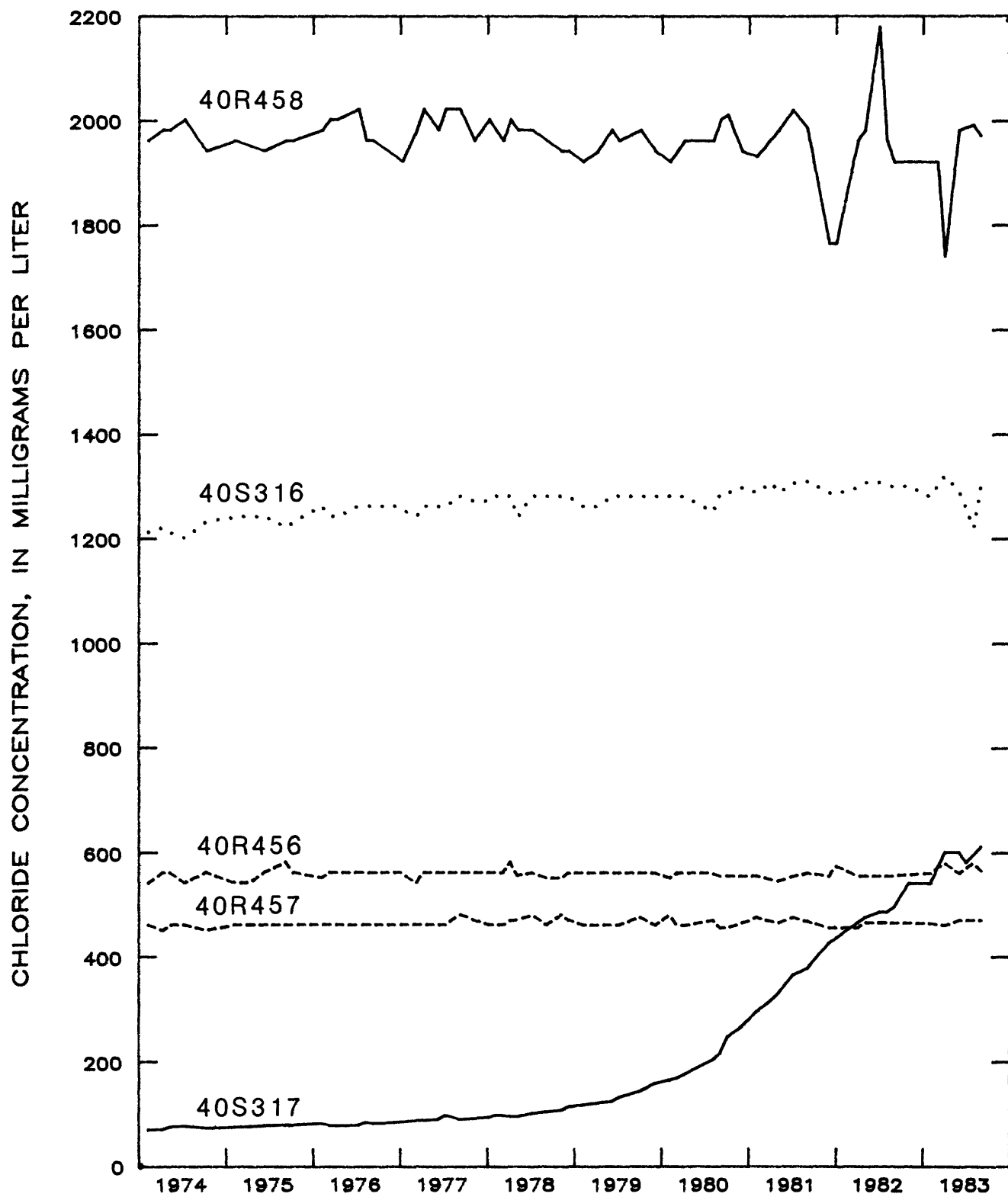


Figure 3.1-3.--Chloride concentrations on Hilton Head Island, South Carolina.

3.2 Brunswick Area

Since pumping began in the late 1800's, ground-water withdrawal in the Brunswick area has lowered the artesian water level in the Floridan aquifer system by as much as 25 to 65 feet. This water-level decline has allowed brackish water from underlying formations to migrate into the aquifer system at three known locations and move downgradient toward the centers of pumping. The brackish water has a chloride concentration of more than 6,000 mg/L. At two locations in Brunswick, the chloride concentration in the upper water-bearing zone of the Floridan aquifer system has risen to more than 2,000 mg/L.

About 100 wells in Glynn County, mostly in the Brunswick area, are pumped and sampled periodically for chloride analysis.

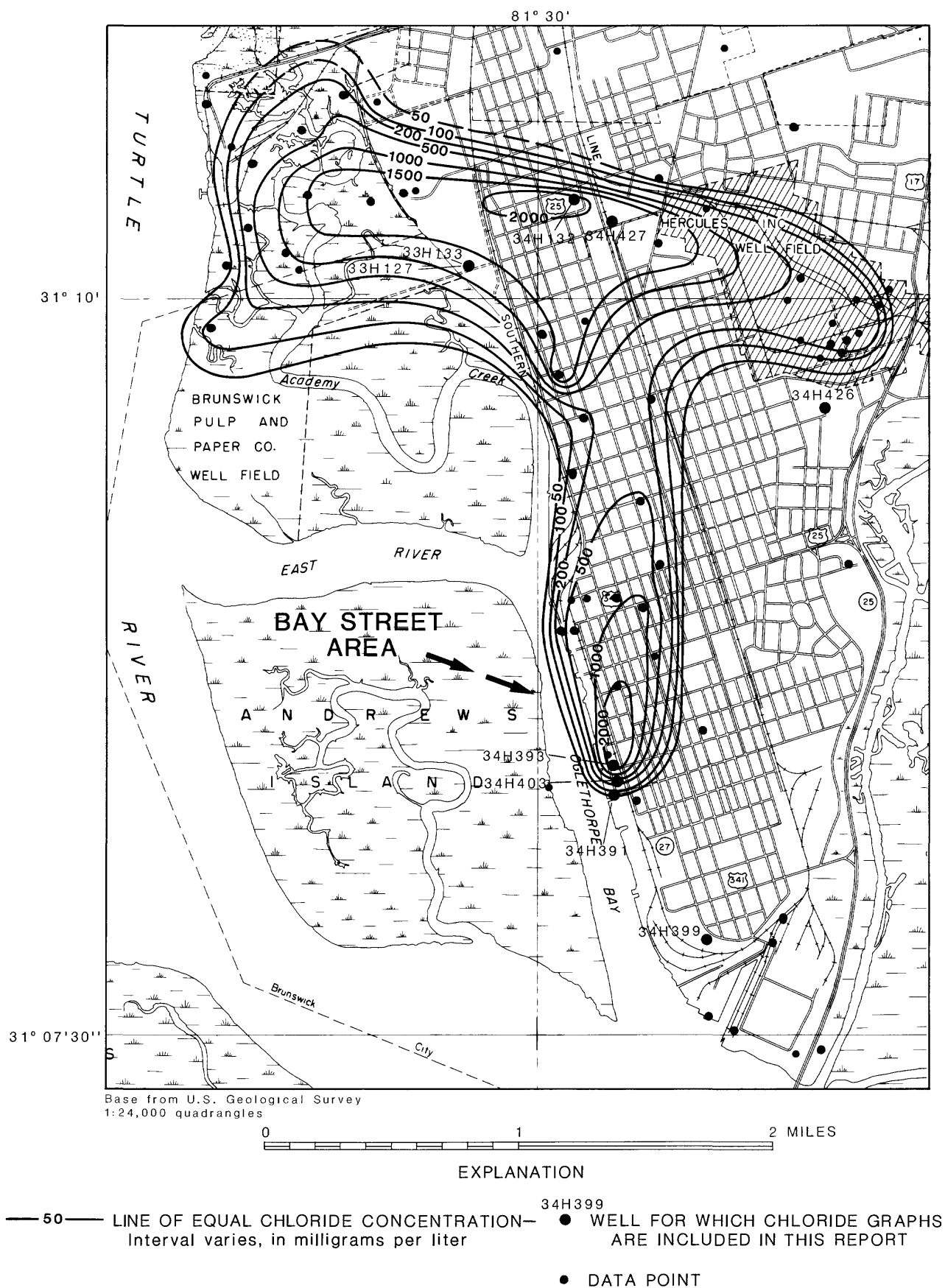


Figure 3.2-1.—Locations of the chloride-monitoring wells and chloride concentrations in the upper water-bearing zone in the Brunswick area October 1983.

Chloride concentrations in the Bay Street area respond to local pumping. Well 34H399 (depth, 1,075-1,218 ft) taps the brackish-water zone beneath the Floridan aquifer system and has shown a steady increase in chloride concentration from 1969 to 1982. This indicates that saltwater is invading the brackish-water zone from a deeper source in the cavernous limestone (Harold E. Gill, U.S. Geological Survey, oral commun., 1979; Gregg and Zimmerman, 1974). The chloride concentration at well 34H399 at the end of 1983 was 6,520 mg/L, a decrease of about 330 mg/L since 1982 in response to a reduction in pumpage. Well 34H391 (depth, 1,070-1,159 ft) also taps the brackish-water zone. For the first half of 1982, this well had a chloride concentration of about 2,700 mg/L. With the reduction in pumpage of about 20 Mgal/d in 1982, the chloride concentration decreased to about 2,350 mg/L. This decrease continued into 1983 and by the end of the year, the chloride concentration was 2,295 mg/L.

Well 34H393 (depth, 615-723 ft) taps the upper water-bearing zone of the Floridan aquifer system in the Bay Street area. The chloride concentration in this well has remained steady since 1975 and was about 2,400 mg/L in 1983. Well 34H403 (depth, 788-982 ft) is in the lower water-bearing zone of the aquifer system and yields water containing about 1,400 mg/L chloride. The chloride concentrations in both the upper and lower water-bearing zones of the Floridan aquifer system have remained fairly stable for the last few years.

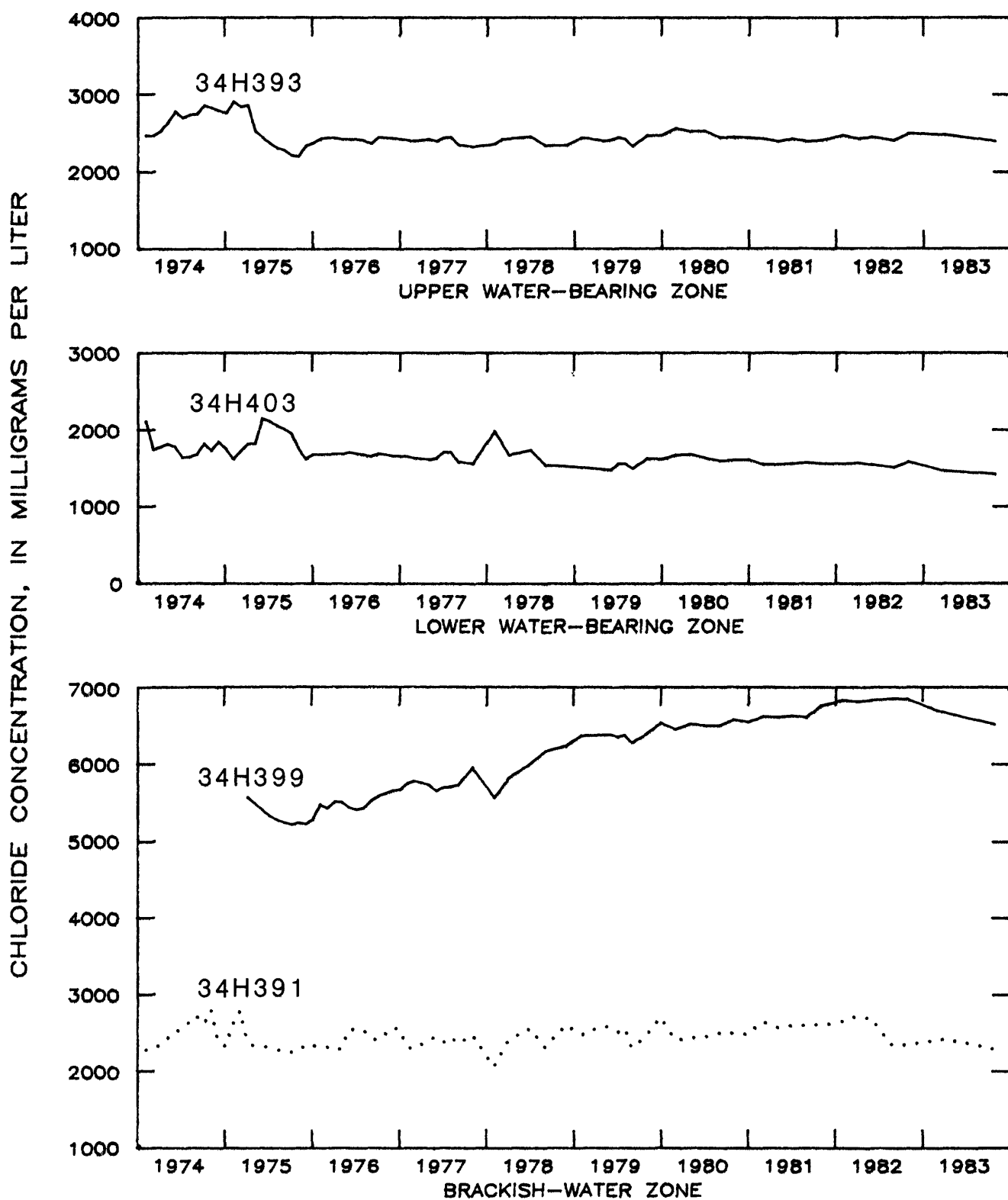


Figure 3.2-2.--Chloride concentrations in the Bay Street area of Brunswick.

Chloride concentrations remained steady in the North Brunswick area during 1983. Observation wells 34H427 (depth, 500-640 ft), 34H132 (depth, 540-566 ft), and 33H133 (depth, 520-790 ft) tap the upper water-bearing zone of the Floridan aquifer system. Observation well 34H427 showed a decrease in chloride concentration during 1982, and leveled off during 1983. The chloride concentration at the well was about 1,650 mg/L at the end of 1983. The chloride concentration in wells 34H132 and 33H133 continued to increase during 1982 but remained stable during 1983.

Well 33H127 (depth, 823-952 ft) taps the lower water-bearing zone. With the reduction in pumping in July 1982, the chloride concentration in this well began to fluctuate. During 1983, however, the chloride concentration remained steady. Well 34H426 (depth, 1,027-1,211 ft) taps the brackish-water zone beneath the Floridan aquifer system. The chloride concentration in this well had been fairly stable since 1978, but rose dramatically in late summer of 1982. During 1983, the chloride concentration remained stable. The decrease in pumping nearby during 1982 may have changed the principal direction of ground-water movement in the aquifer system and thus affected the chloride concentration. More data are needed to assess the implications of the 1982 rise in chloride concentration.

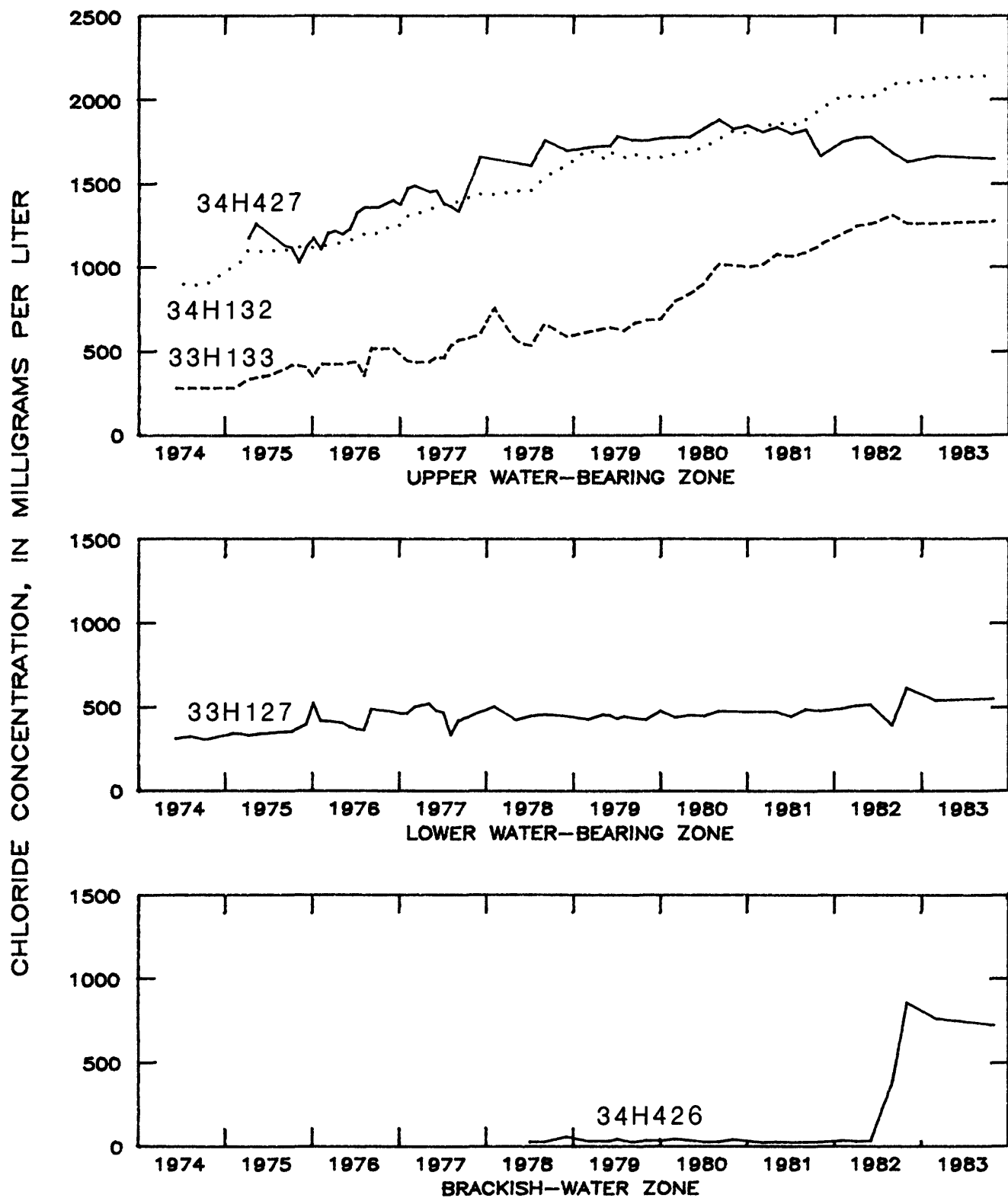


Figure 3.2-3.--Chloride concentrations in the North Brunswick area.

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