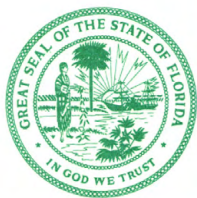
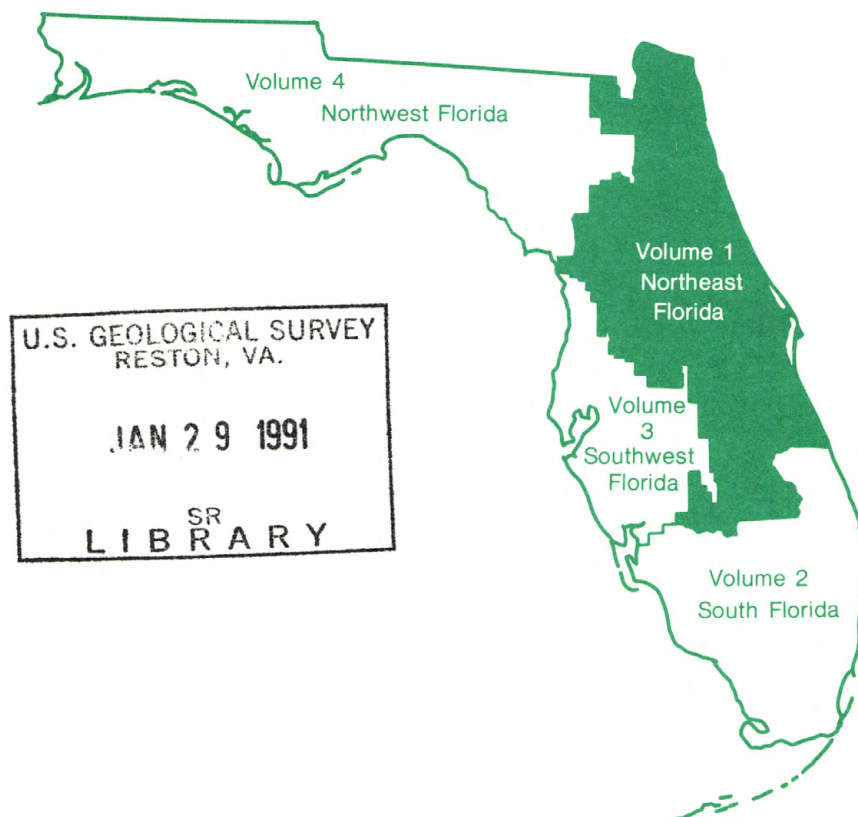


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Water Resources Data Florida Water Year 1990

Volume 1B. Northeast Florida Ground Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-90-1B
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1990

1989

| OCTOBER | | | | | | | NOVEMBER | | | | | | | DECEMBER | | | | | | |
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1990

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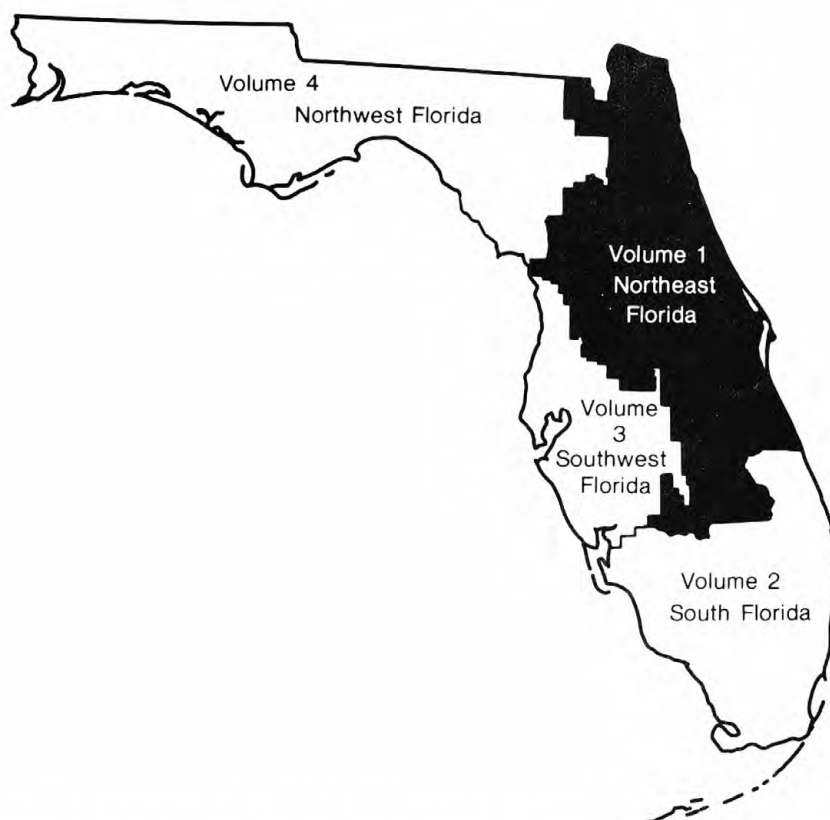
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| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
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Water Resources Data Florida Water Year 1990

Volume 1B. Northeast Florida Ground Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-90-1B
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

Prepared in cooperation with the
State of Florida
and with other agencies as listed
under cooperation

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U.S. Geological Survey
224 West Center Street, Suite 1006
Altamonte Springs, Florida 32714

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes:

- Volume 1. Northeast Florida
- Volume 2. South Florida
- Volume 3. Southwest Florida
- Volume 4. Northwest Florida

ACKNOWLEDGMENT

The water-resources data for northeast Florida were processed and prepared for publication under the supervision of Larry D. Fayard, Chief, Hydrologic Surveillance and Data Analysis Section.

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This report was prepared in cooperation with the State of Florida and with other agencies under the general supervision of I.H. Kantrowitz, District Chief, Florida.

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| 17. Document Analysis. a. Descriptors *Florida, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells. b. Identifiers/Open-Ended Terms c. COSATI Field/Group | | | | |
| 18. Availability Statement No restrictions on distribution. This report may be purchased from: National Technical Information Center, Springfield, VA 22161 | | 19. Security Class (This Report) UNCLASSIFIED | | 21. No. of Pages 364 |
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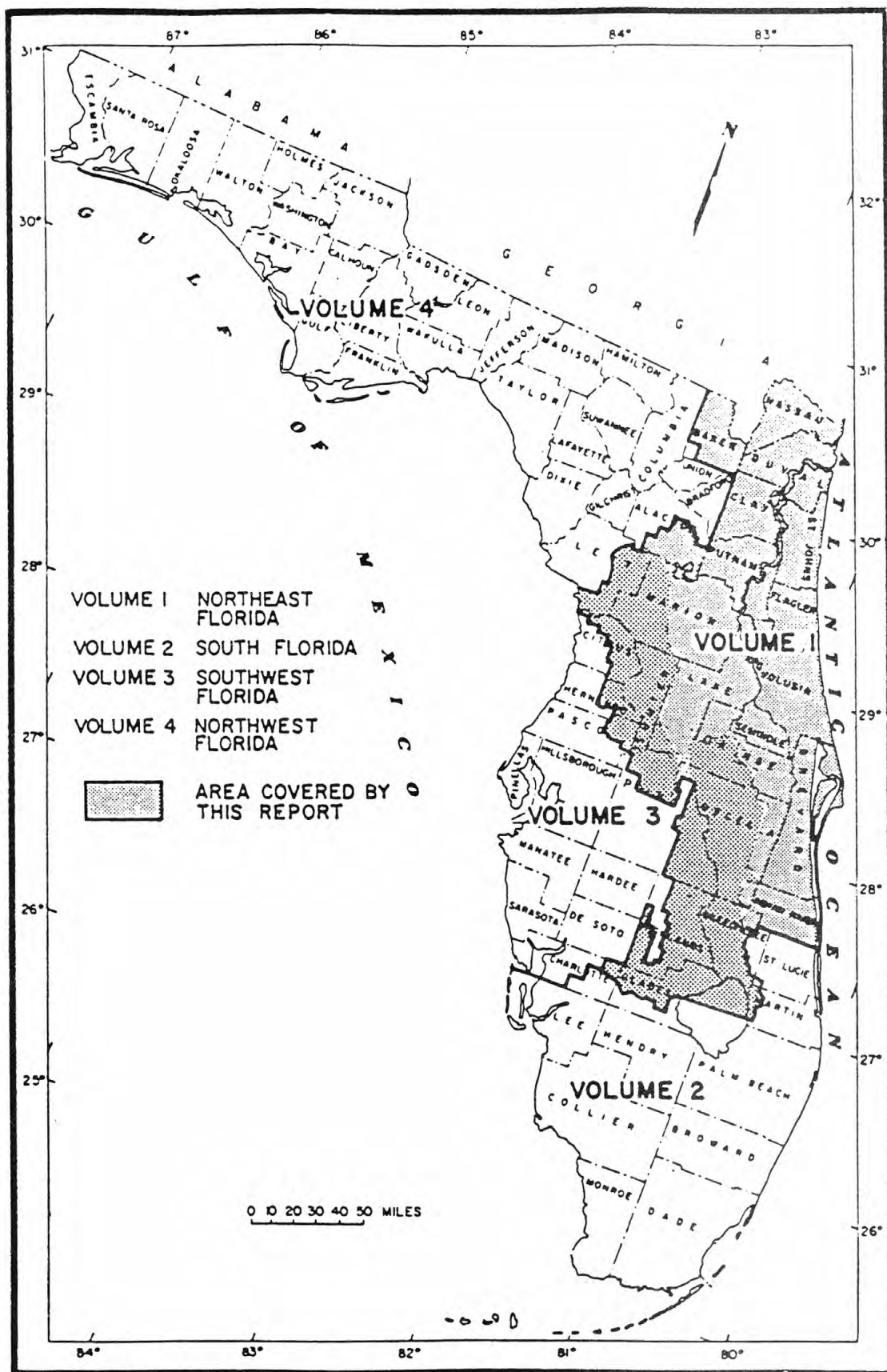


Figure 1.--Geographic area covered by this report.

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, local, and Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State.

The data for northeast Florida include continuous or daily discharge for 164 streams, periodic discharge for 27 streams, miscellaneous discharge for 22 streams, continuous or daily stage for 2 streams, continuous or daily tide stage for 3 sites, periodic stage for 13 streams, peak discharge for 17 streams, and peak stage for 30 streams; continuous or daily elevations for 41 lakes, periodic elevations for 53 lakes; continuous ground-water levels for 76 wells, periodic ground-water levels for 161 wells, and miscellaneous water-level measurements for 878 wells; quality-of-water data for 51 surface-water sites and 78 wells.

This series of annual reports for Florida began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Florida were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report FL-90-1B." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (407) 648-6191.

COOPERATION

The U.S. Geological Survey and agencies of the State of Florida have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

| | |
|---|----------------------------------|
| U.S. Army Corps of Engineers, Jacksonville District | City of Daytona Beach |
| U.S. Army Corps of Engineers, Savannah District | City of Edgewater |
| Florida Department of Environmental Regulation | City of Jacksonville |
| Florida Department of Natural Resources | City of Jacksonville Beach |
| St. Johns River Water Management District | City of Lake Mary |
| South Florida Water Management District | City of Ocala |
| Southwest Florida Water Management District | City of Port Orange |
| County of Polk | Jacksonville Electric Authority |
| County of St. Johns | Lake County Water Authority |
| City of Cocoa | Reedy Creek Improvement District |

Organizations that provided data are acknowledged in station descriptions.

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SUMMARY OF HYDROLOGIC CONDITIONS

Rainfall was below normal throughout northeastern Florida during most of the water year. Monthly totals were generally below normal each month except for December, February, June, and July. Total rainfall for the water year was below normal for the entire area with a mild deficiency in the southern portion and a severe deficiency in the northern portion. Ground-water levels closely followed the rainfall patterns.

In the St. Johns River Basin, including the Oklawaha River Basin, rainfall was 7 inches below normal at Melbourne, 9 inches below normal at Clermont, 14 inches below normal at Orlando, and 24 inches below normal at Jacksonville. Ground-water levels in the basin exceeded previous long-term minimums at 55 of 113 wells, particularly in the northern counties. In May 1990, discharge at several large springs in Orange and Seminole Counties approached record low May levels, however, this condition was alleviated by increased rainfall in June and July coupled with mandatory water-use restrictions imposed by St. Johns River Water Management District on May 30. Subsequently, spring discharge and ground-water levels returned to the previous downward trend. In the Keystone Heights area of Clay County, several small lakes were nearly dry at the end of the water year.

In the Withlacoochee River Basin, representative rainfall deficits for the water year ranged from 9 inches below normal at St. Leo and Clermont to 13 inches below normal at Ocala. Water levels in the Floridan aquifer at the end of the water year were 2 to 6 feet below September averages for periods of record, as reported by Southwest Florida Water Management District.

In the Kissimmee River Basin rainfall was below normal for the water year with representative departures of 14 inches below normal at Orlando in the upper basin to 3 inches below normal at Archbold Biological Station in the lower basin. Ground-water levels approached long-term minimums at some wells in May, however, increased rainfall during the June-to-September period caused water levels to rise to near-average levels at the end of the water year in some areas of the lower basin.

Figures 3-14 present hydrographs for 12 wells representing selected areas of the above basins. The upper hydrograph shows the water levels for the water year, and the lower hydrograph shows the water levels for the period of record.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

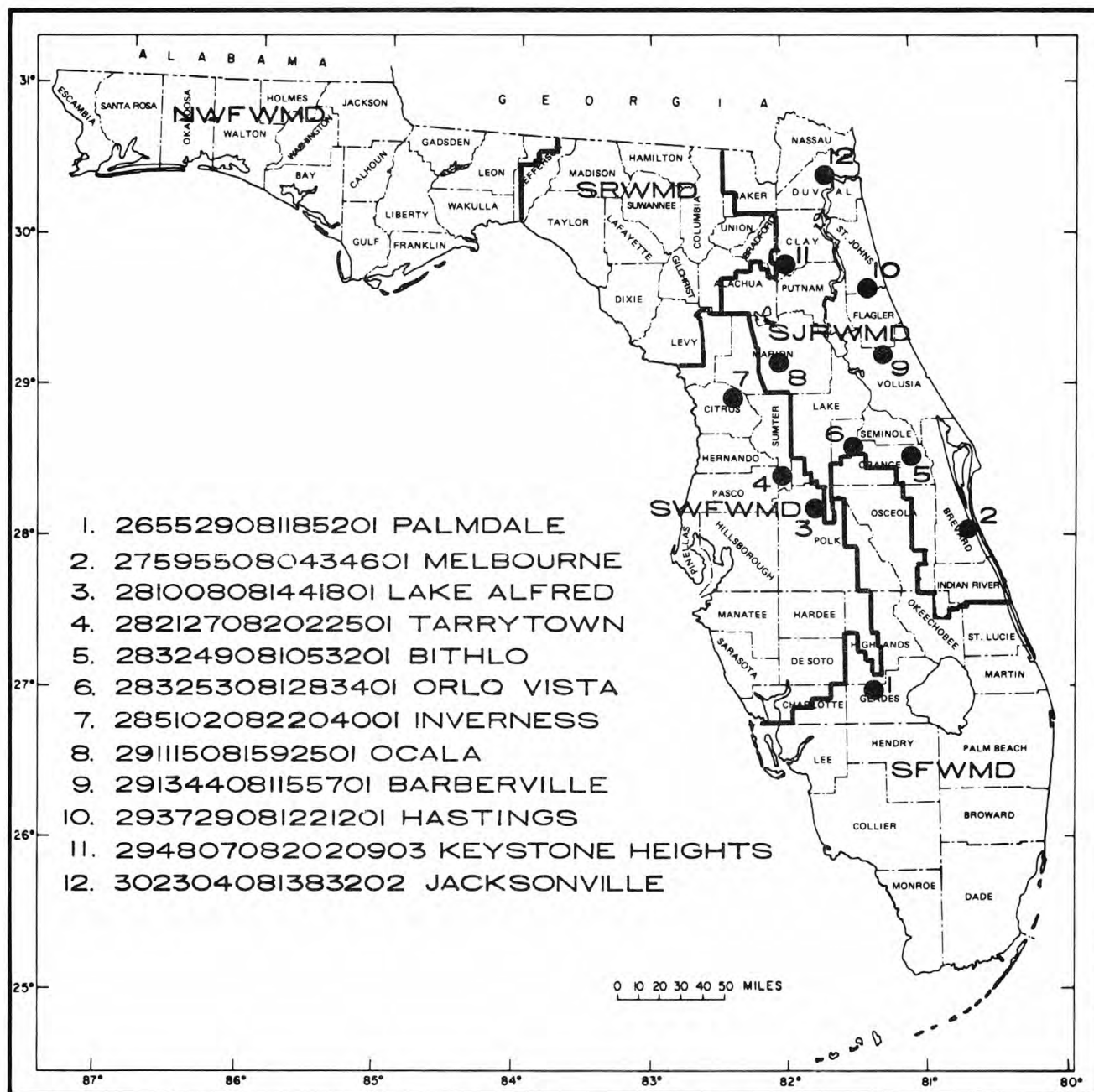


Figure 2.--Location of wells for long-term hydrographs (figs. 3-14).

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

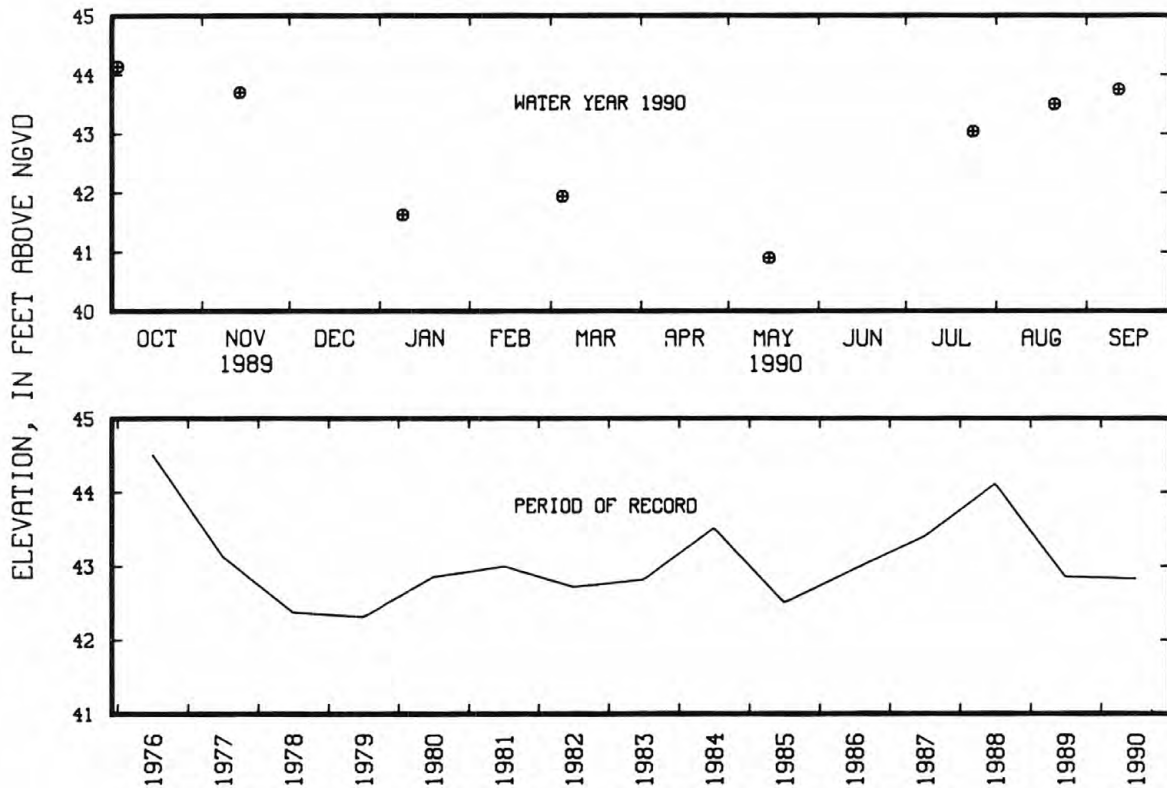


Figure 3.--Water-year and long-term hydrographs for well 265529081185201 (GL-267) near Palmdale in Glades County. Map, No. 1.

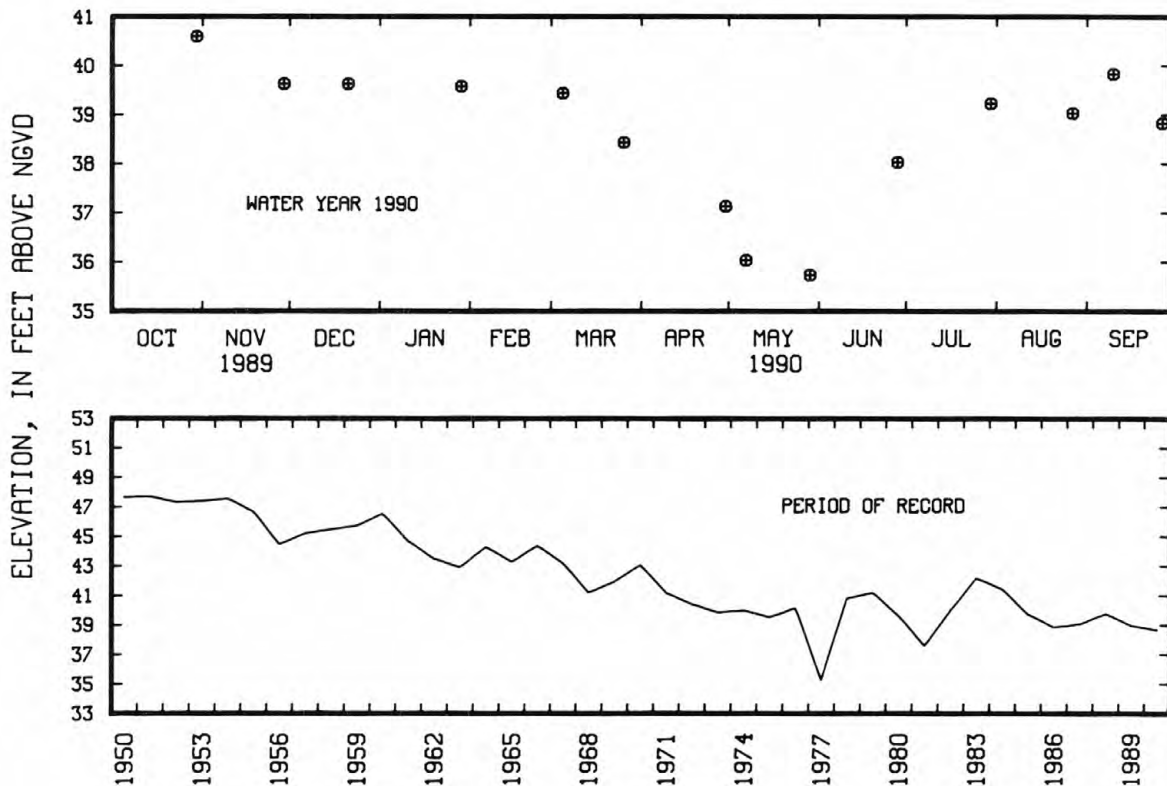


Figure 4.--Water-year and long-term hydrographs for well 275955080434601 (Platt) near Melbourne in Brevard County. Map, No. 2.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

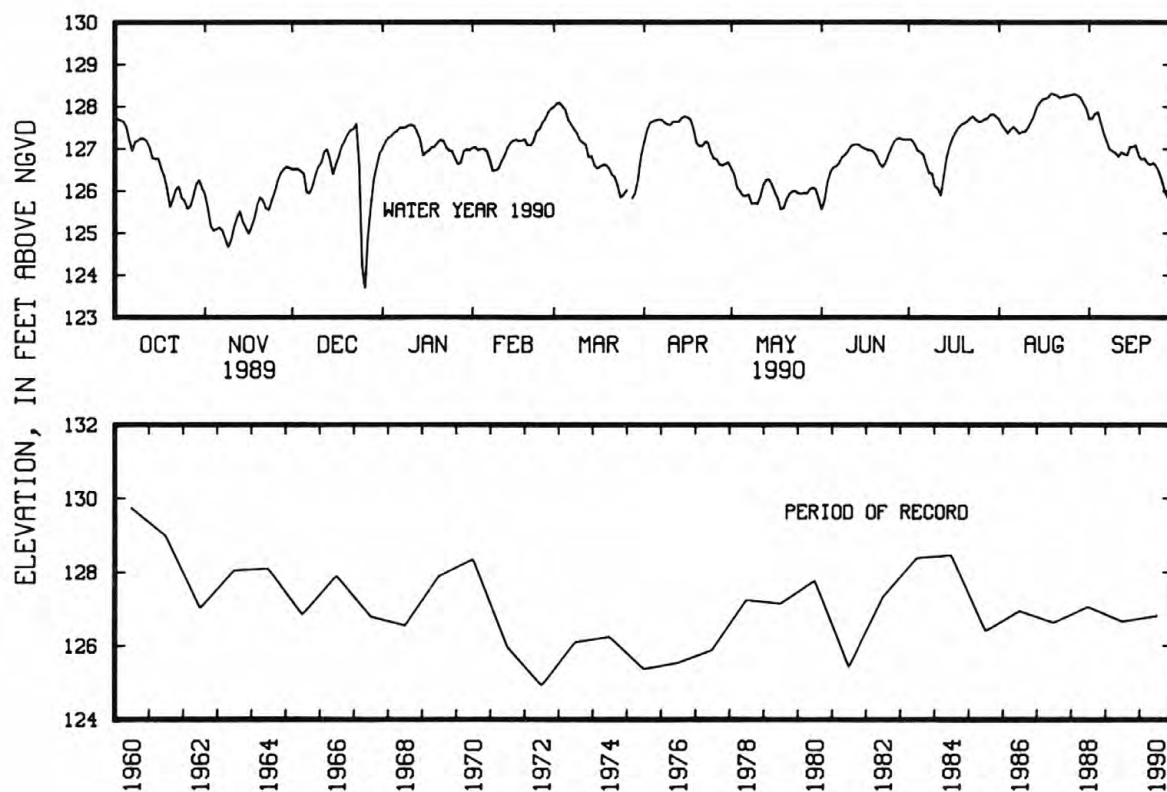


Figure 5.--Water-year and long-term hydrographs for well 281008081441801 (Lake Alfred Deep) near Lake Alfred in Polk County. Map, No. 3.

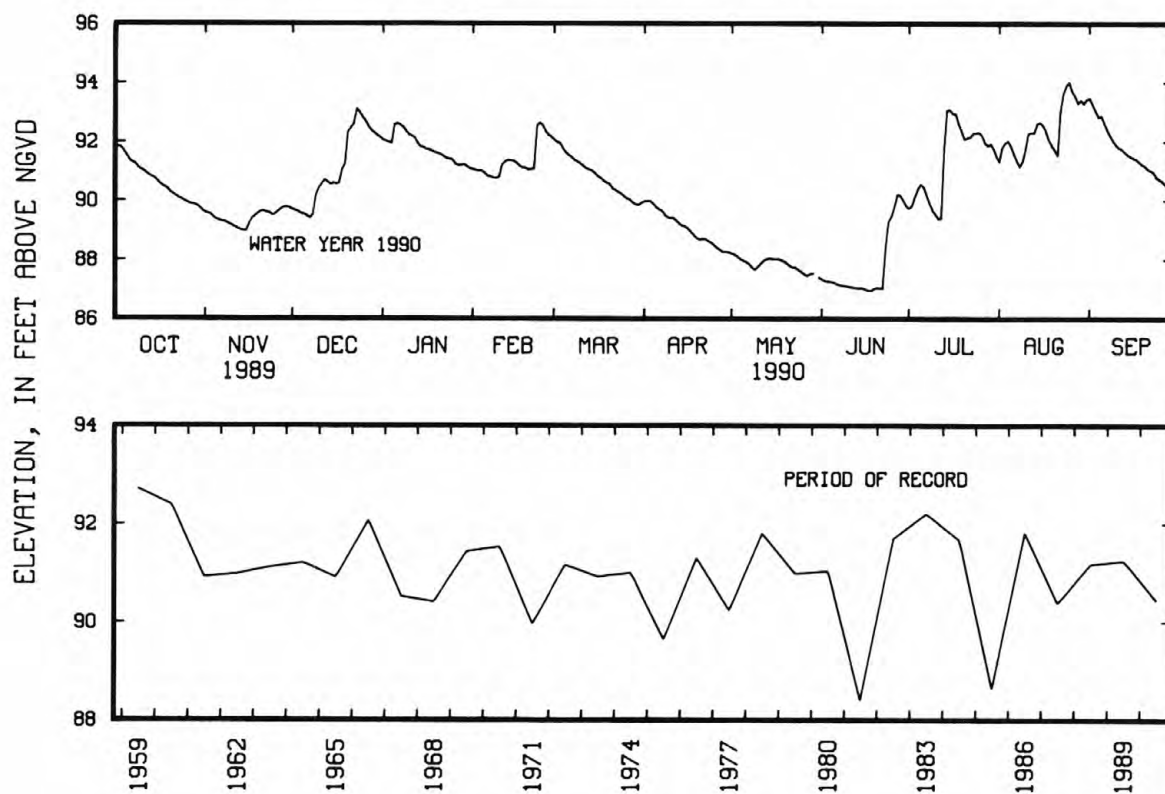


Figure 6.--Water-year and long-term hydrographs for well 282127082022501 (Cumpresso Ranch) near Tarrytown in Sumter County. Map, No. 4.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

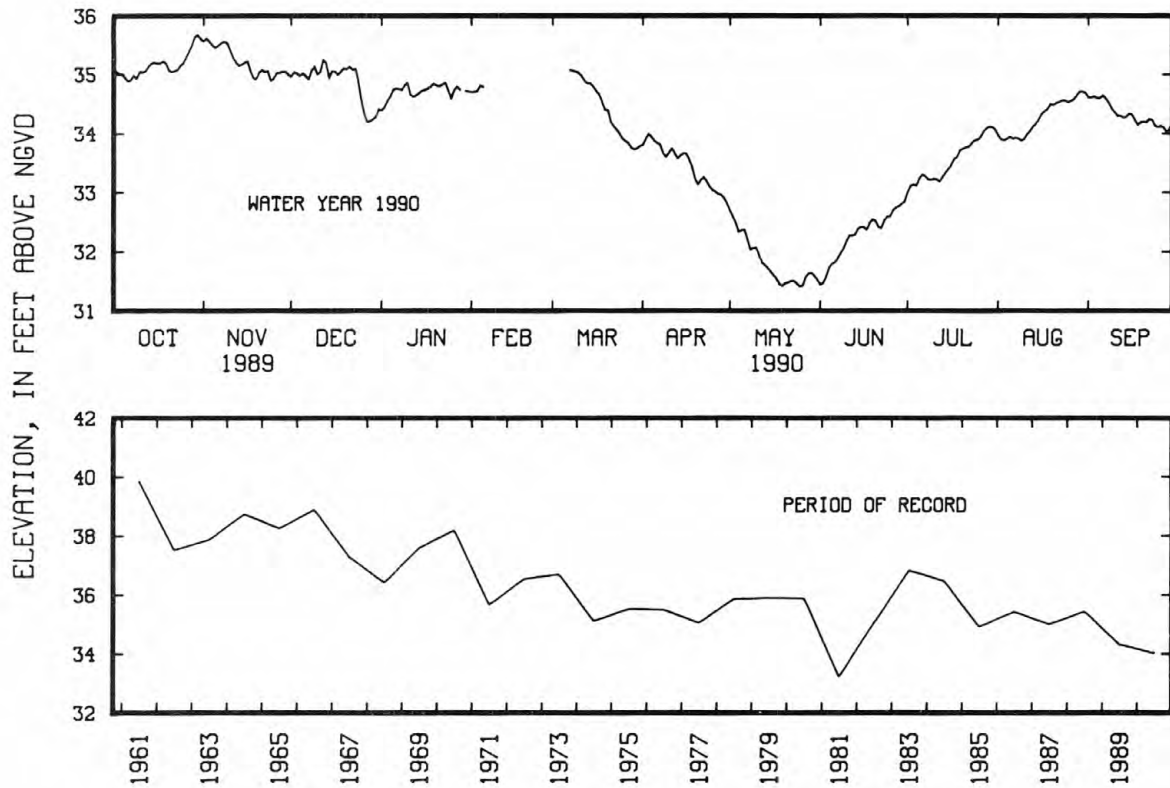


Figure 7.--Water-year and long-term hydrographs for well 283249081053201 (Bithlo-1) at Bithlo in Orange County. Map, No. 5.

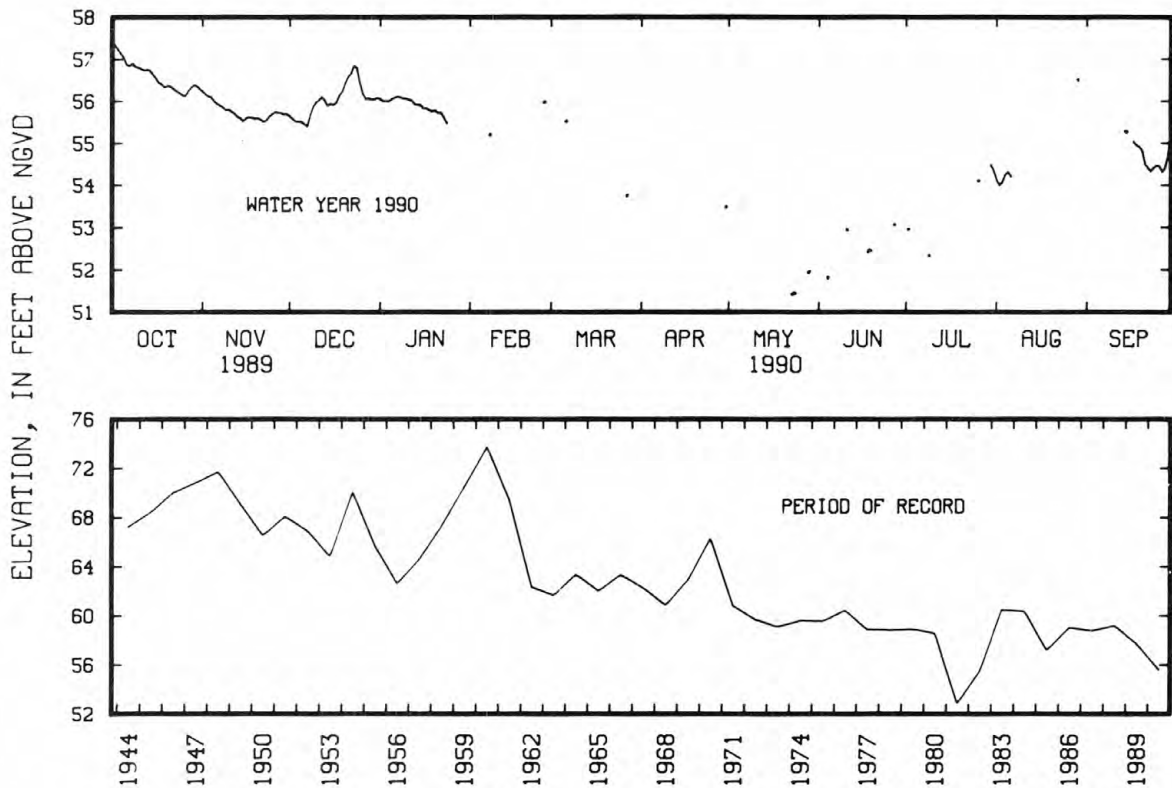


Figure 8.--Water-year and long-term hydrographs Well 283253081283401 (OR-47) at Orlo Vista in Orange County. Map, No. 6.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

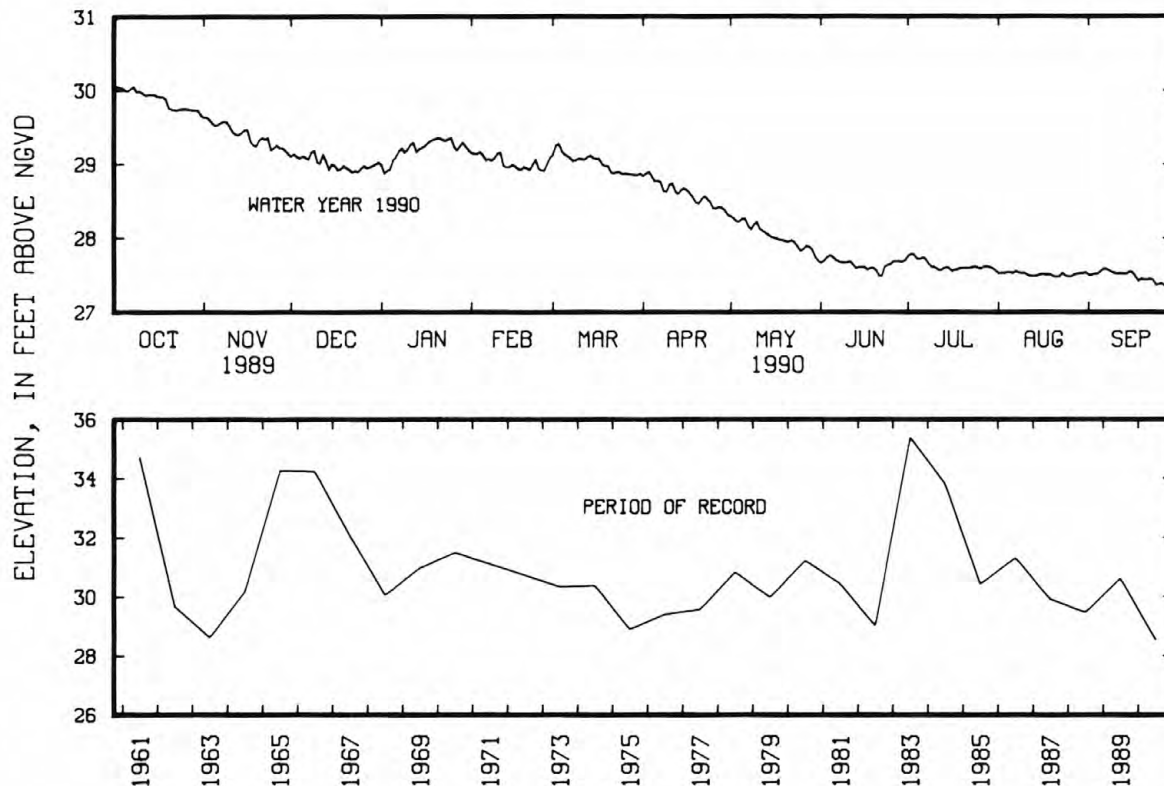


Figure 9.--Water-year and long-term hydrographs for well 285102082204001 (DOT-41 observation) at Inverness in Citrus County. Map, No. 7.

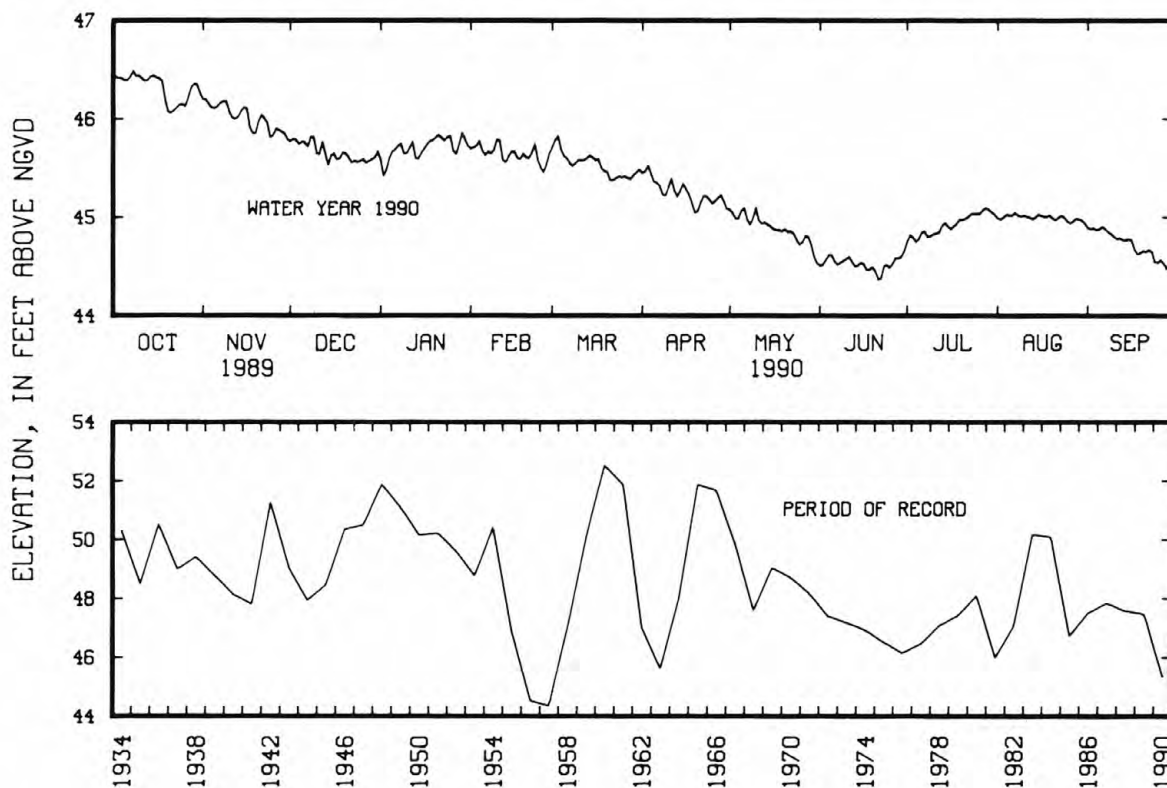


Figure 10.--Water-year and long-term hydrographs for well 291115081592501 (Sharpes Ferry) near Ocala in Marion County. Map, No. 8.

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

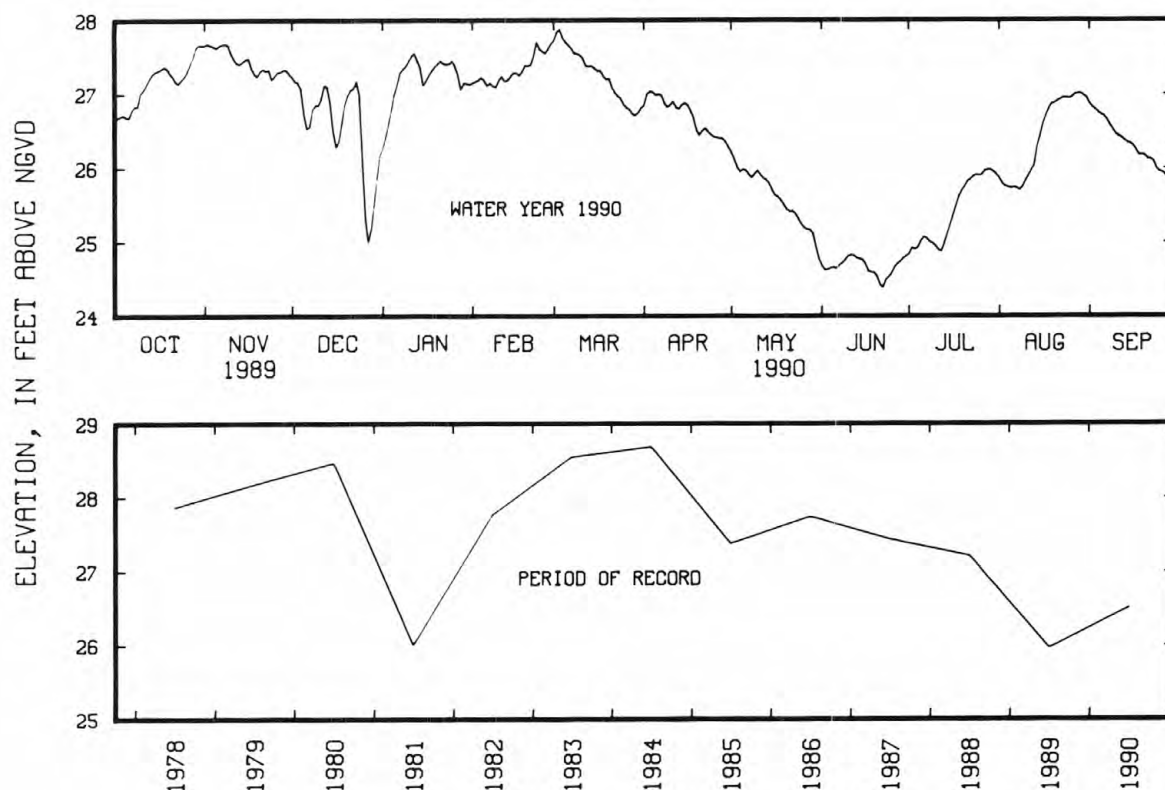


Figure 11.--Water-year and long-term hydrographs for well 291344081155701 (Union Camp Deep) near Barberville in Volusia County. Map, No. 9.

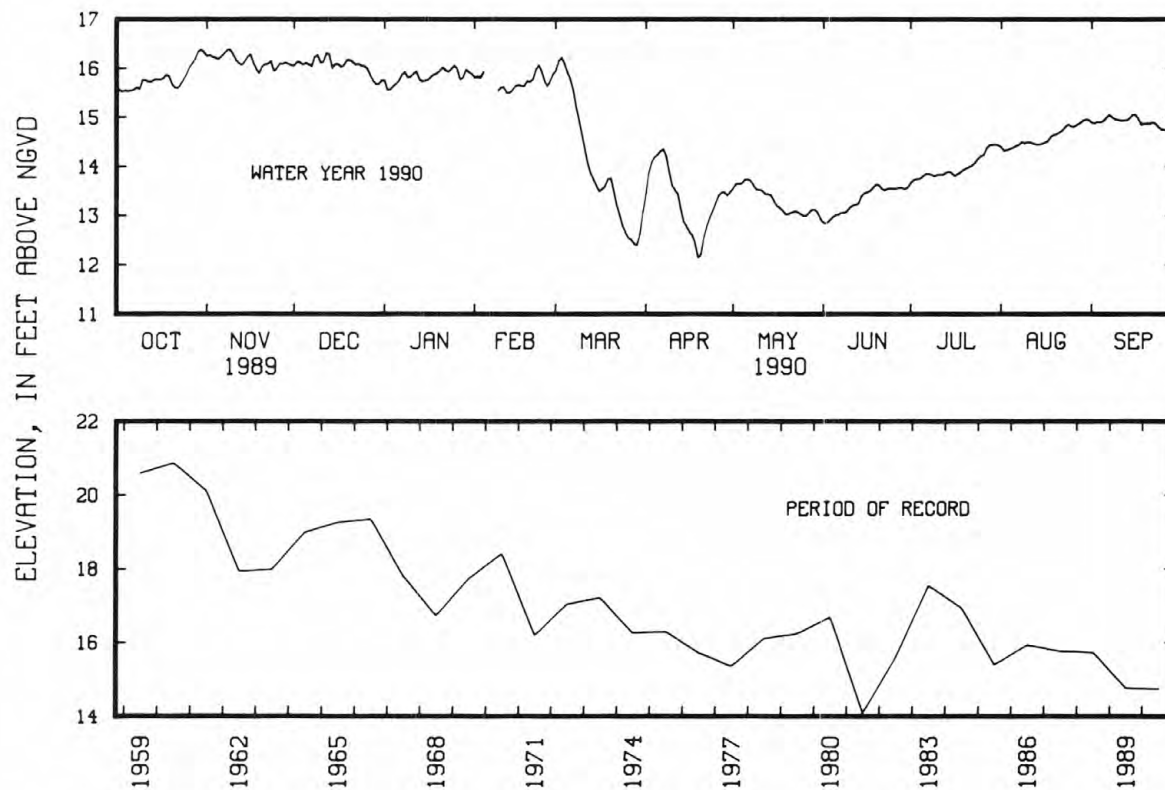


Figure 12.--Water-year and long-term hydrographs for well 293729081221201 (Florida Department of Transportation) near Hastings in St. Johns County. Map, No. 10.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

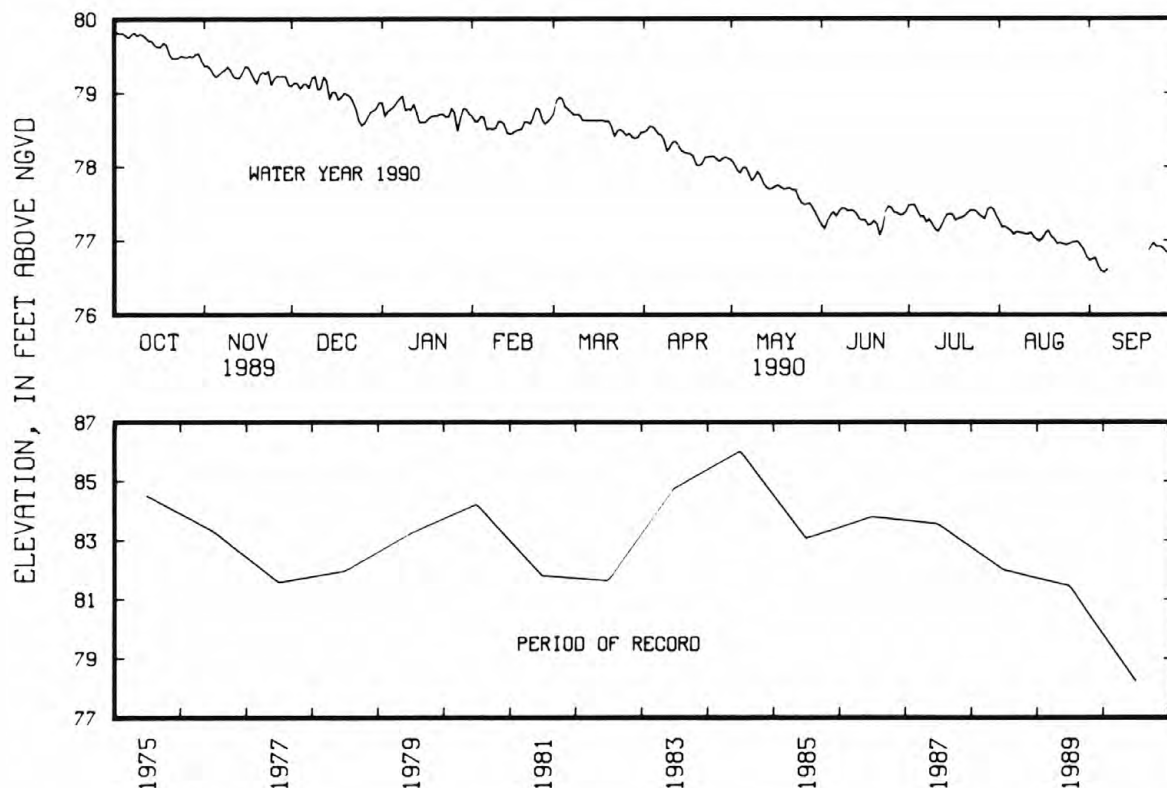


Figure 13.--Water-year and long-term hydrographs for well 294807082020903 (USGS local number 948-202-8) at Keystone Heights in Clay County. Map, No. 11.

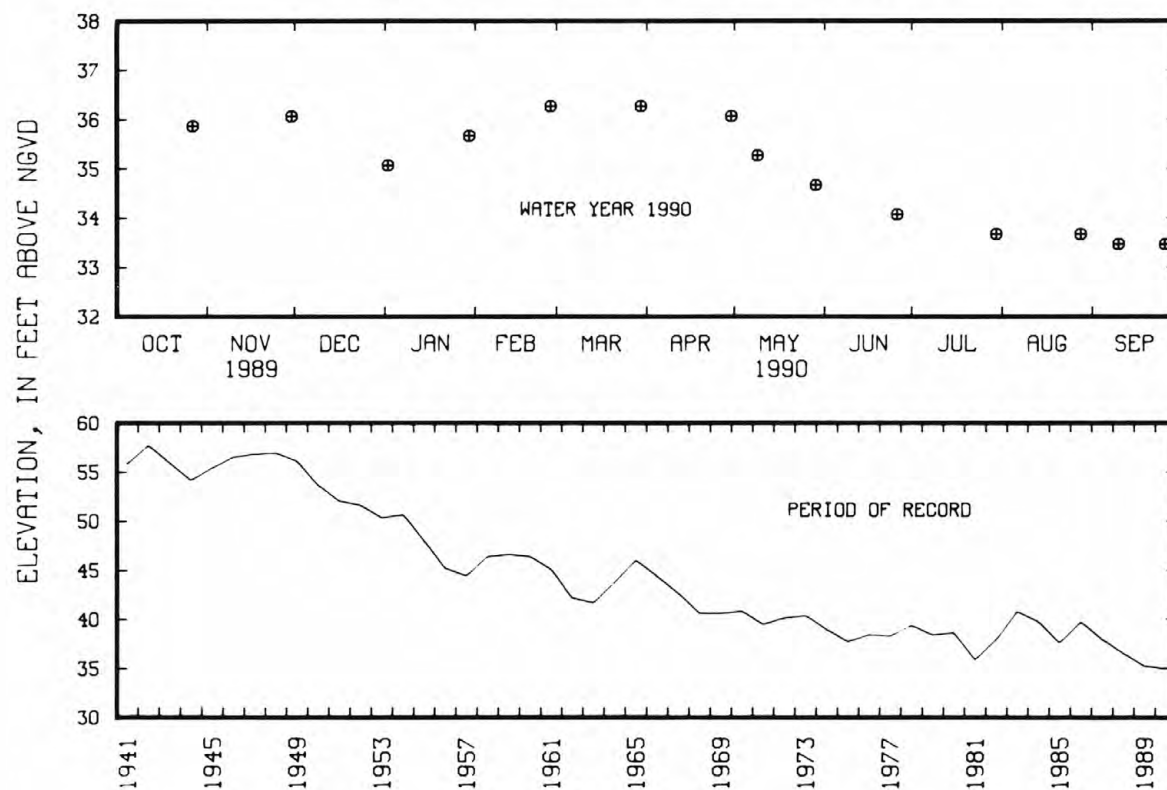


Figure 14.--Water-year and long-term hydrographs for well 302304081383202 (City of Jacksonville Panama Park) in Duval County. Map, No. 12.

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SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council.

The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. The NASQAN stations in Florida are shown in figure 15.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

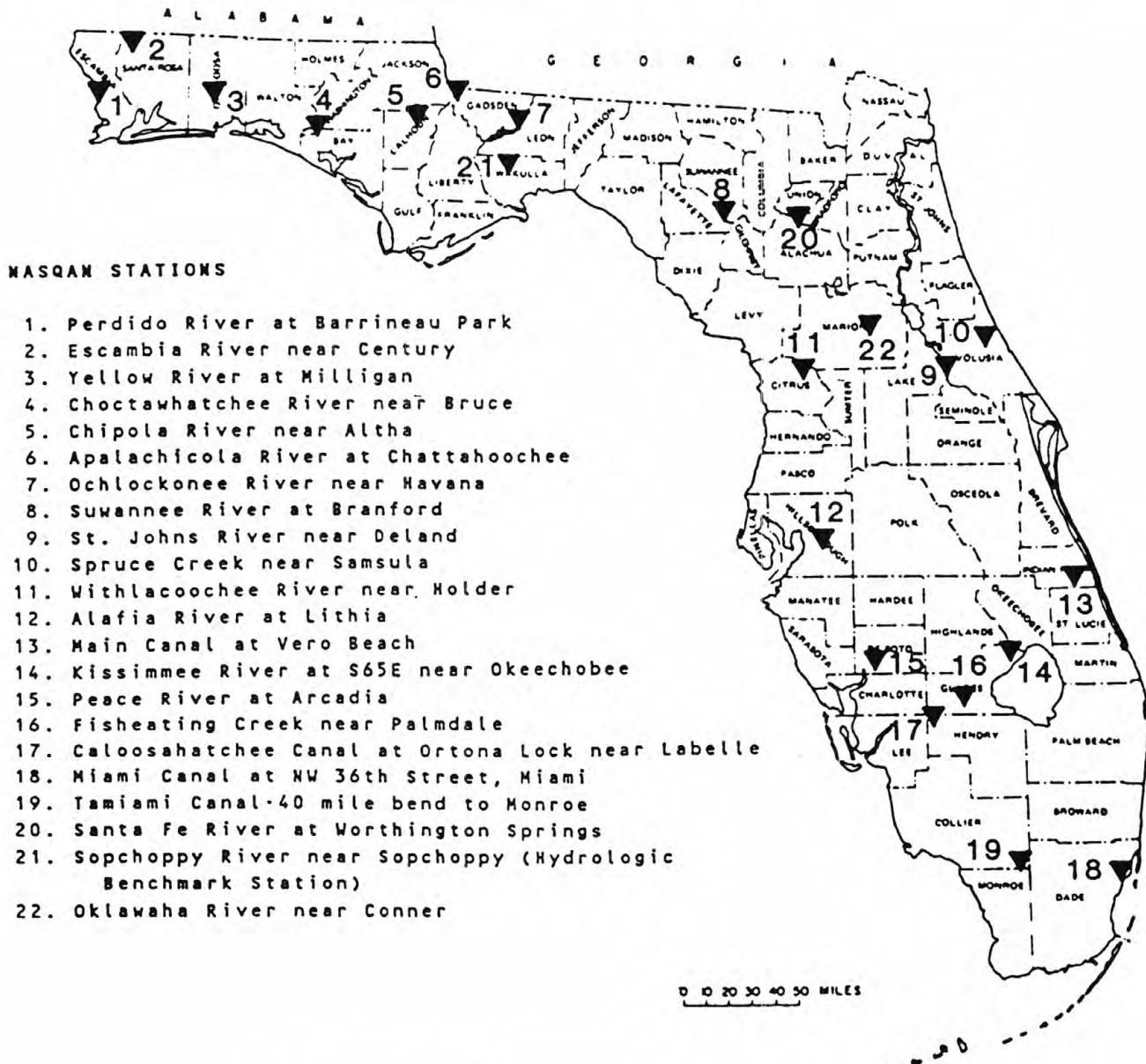


Figure 15.--NASQAN stations in the State of Florida.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1990 water year that began October 1, 1989, and ended September 30, 1990. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous observations are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

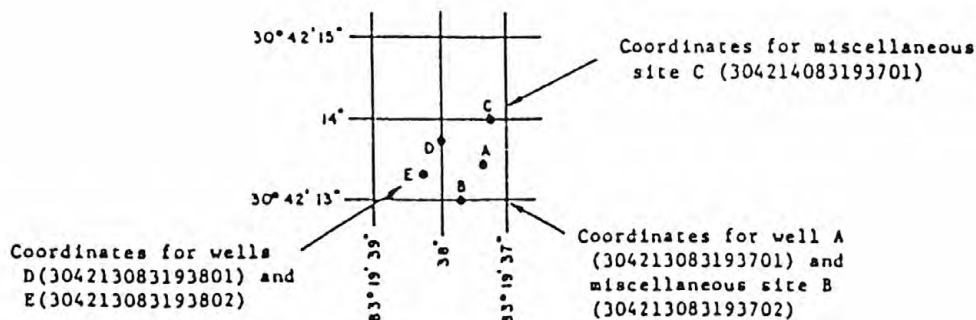


Figure 16.--System for numbering wells and miscellaneous sites.
(latitude and longitude)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake elevation, similarly, are those for which stage may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a stage-recording device or daily or weekly observations, but need not be. Because daily mean discharges and lake elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Location of all complete-record and partial-record stations for which data are given in this report are shown in figures preceding each sub-basin.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily mean discharges.

Records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location, period of record, average discharge, historical extremes, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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LOCATION.--Information on locations is obtained from the most accurate base maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are delineated and measured using the most accurate topographic maps available, and are updated as necessary.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see DEFINITION OF TERMS), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic foot per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic foot per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic foot per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown

are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than $1.0 \text{ ft}^3/\text{s}$; to the nearest tenth between 1.0 and $10 \text{ ft}^3/\text{s}$; to whole numbers between 10 and $1,000 \text{ ft}^3/\text{s}$; and to 3 significant figures for more than $1,000 \text{ ft}^3/\text{s}$. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic foot per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Orlando Subdistrict office of the Florida District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years, usually less frequently than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station or a periodic observation station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the quality of the water in its natural state. To assure this, certain measurements, such as water temperature, pH, alkalinity, specific conductance, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For stations equipped with water-quality monitors, the records consist of daily mean values for each constituent measured and are based upon unit values (hourly or 15-minute recordings). These unit values may be obtained from the Orlando Subdistrict, 224 West Center Street, Suite 1006, Altamonte Springs, FL 32714.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Accuracy of the Records

In March 1989 the National Water-Quality Laboratory uncovered a bias in the turbidimetric method for sulfate analyses made from 1982 through 1989. Sulfate values below 75 mg/L as determined by the turbidimetric method have a median positive bias of 2 mg/L above the true value. In this report, sulfate values for NASQAN stations were determined using the turbidimetric method, and the data have not been corrected for this bias. Sulfate values for non-NASQAN stations in this report were determined in the Florida District QW Services unit using the chromatograph method and these data are not biased.

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Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a recording or sampling device, which may be time- or event-activated, is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

| Printed output | Remark |
|----------------|--|
| E | Estimated value |
| > | Actual value is known to be greater than the value shown |
| < | Actual value is known to be less than the value shown |
| K | Results based on colony count outside the acceptance range (non-ideal colony count) |
| L | Biological organism count less than 0.5 percent (organism may be observed rather than counted) |
| D | Biological organism count equal to or greater than 15 percent (dominant) |
| & | Biological organism estimated as dominant |

Records of Ground-Water Levels

Ground-water level data from a statewide network of observation wells are published herein. The records include data from wells equipped with water-level recorders and data from wells where water levels are measured periodically.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, manometer, or from the graph or punched tape of a water-level recorder. The measurements in this report are given in feet above National Geodetic Vertical Datum of 1929 or in some tables as feet below land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

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Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on hourly, daily, weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with reference to National Geodetic Vertical Datum of 1929, and the dates of their occurrence.

A table of water levels follows the station description for each well. For wells equipped with recorders, only abbreviated tables are published; generally, daily maximums are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality in the report area. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published immediately following the ground-water-level records of each county. Data for quality of ground water are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. The Remark Codes listed for surface-water-quality records are also applicable to ground-water-quality records.

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ACCESS TO WATSTORE DATA

The National **W**ater Data **S**torage and **R**etrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day (cubic foot per second per day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

CFSM (cubic foot per second per square mile) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (ft^3/s or cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per gram ($\mu\text{g}/\text{g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g}/\text{L}$, $\mu\text{g}/\text{L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

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Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

| Classification | Size (mm) | Method of analysis |
|----------------|-----------------|------------------------|
| Clay..... | 0.00024 - 0.004 | Sedimentation |
| Silt..... | .004 - .062 | Sedimentation |
| Sand..... | .062 - 2.0 | Sedimentation or sieve |
| Gravel..... | 2.0 - 64.0 | Sieve |

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one millionth of the amount of radioactivity represented by a micro-curie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegrations per minute.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

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Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimeted. All areas shown are those for the stage when the planimeted map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45 µm filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

| | |
|--------------|--------------------------|
| Kingdom..... | Animal |
| Phylum..... | Arthropoda |
| Class..... | Insecta |
| Order..... | Ephemeroptera |
| Family..... | Ephemeridae |
| Genus..... | <u>Hexagenia</u> |
| Species..... | <u>Hexagenia limbata</u> |

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1990, is called the "1990 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publications, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. WATER TEMPERATURE-INFLUENTIAL FACTORS, FIELD MEASUREMENT, AND DATA PRESENTATION, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. GUIDELINES FOR COLLECTION AND FIELD ANALYSIS OF GROUND-WATER SAMPLES FOR SELECTED UNSTABLE CONSTITUENTS, W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. APPLICATION OF SURFACE GEOPHYSICS TO GROUND-WATER INVESTIGATIONS, by A.A.R. Zohdy, G.P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. APPLICATION OF SEISMIC-REFRACTION TECHNIQUES TO HYDROLOGIC STUDIES, by F.P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. APPLICATION OF BOREHOLE GEOPHYSICS TO WATER-RESOURCES INVESTIGATIONS, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-F1. APPLICATION OF DRILLING, CORING, AND SAMPLING TECHNIQUES TO TEST HOLES AND WELLS, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. GENERAL FIELD AND OFFICE PROCEDURES FOR INDIRECT DISCHARGE MEASUREMENTS, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. MEASUREMENT OF PEAK DISCHARGE BY THE SLOPE-AREA METHOD, by Tate Dalrymple and M.A. Benson, USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. MEASUREMENT OF PEAK DISCHARGE AT CULVERTS BY INDIRECT METHODS, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. MEASUREMENT OF PEAK DISCHARGE AT WIDTH CONTRACTIONS BY INDIRECT METHODS, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. MEASUREMENT OF PEAK DISCHARGE AT DAMS BY INDIRECT METHODS, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. GENERAL PROCEDURE FOR GAGING STREAMS, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
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- 3-A13. COMPUTATION OF CONTINUOUS RECORDS OF STREAMFLOW, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
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WELL DESCRIPTIONS AND GROUND-WATER DATA

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KEY TO SITE LOCATIONS ON FIGURE 17
ALACHUA COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 294207082163201 | 30 |

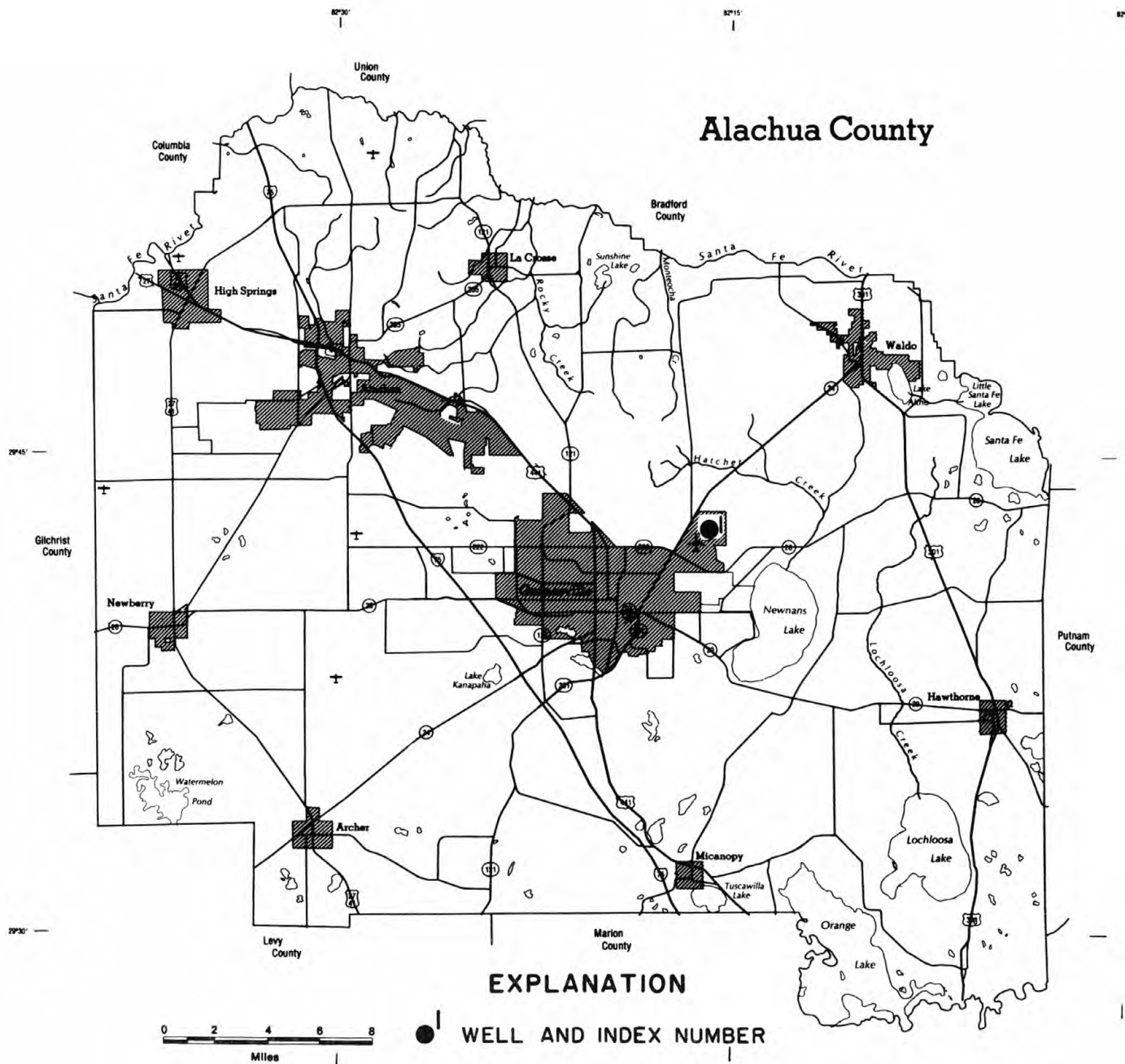


Figure 17.--Location of wells in Alachua County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ALACHUA COUNTY

WELL NUMBER.--294207082163201. Sperry Rand Well at Gainesville, FL.

LOCATION.--Lat 29°42'07", long 82°16'32", in NW¼NE¼NE¼ sec. 23, T.9 S., R.20 E., Hydrologic Unit 03080102, on north side of Gainesville Airport property, east of State Highway 24, and about 2 mi north of State Highway 232 in Gainesville. Owner: City of Gainesville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 10 in., depth 447 ft, cased to 175 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by observer.

DATUM.--Land-surface datum is 153.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.25 in. pipe, 0.16 ft above land-surface datum.

PERIOD OF RECORD.--June 1957 to December 1958, January 1961 to September 1981 (bimonthly); October 1981 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.71 ft NGVD, Sept. 2, 1965; lowest measured, 45.31 ft NGVD, Sept. 10, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 05... | 1250 | 49.31 | 02... | 0900 | 47.19 |
| 28... | 0900 | 48.32 | 30... | 1200 | 47.26 |
| NOV | | | MAY | | |
| 29... | 1325 | 51.31 | 14... | 0734 | 46.23 |
| DEC | | | 24... | 1500 | 46.68 |
| 04... | 1525 | 50.88 | 29... | 1215 | 46.52 |
| JAN | | | JUN | | |
| 05... | 1030 | 51.10 | 29... | 1600 | 46.36 |
| 24... | 1230 | 50.71 | JUL | | |
| 30... | 0900 | 50.29 | 26... | 1135 | 47.04 |
| MAR | | | 31... | 1500 | 47.42 |
| 03... | 0930 | 48.62 | AUG | | |
| 22... | 1145 | 48.45 | 30... | 1635 | 46.75 |
| | | | SEP | | |
| | | | 10... | 1255 | 45.31 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

ALACHUA COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|------------------|----------------------|--------------|--|---|
| 292909082095101 | 05-16-90 09-12-90 | 0838 1425 | 92920901 11S21E36 YEARLING RESTAURANT | 52.34 51.96 |
| 292951082174001 | 05-16-90 09-13-90 | 0926 1145 | THOMAS 66STA WELL NR MICANOPY | 52.13 51.12 |
| 293148082251201 | 05-16-90 09-13-90 | 1030 1055 | BRICE WELL NR KANAPAHA | 45.49 45.95 |
| 293203082200601 | 05-16-90 09-13-90 | 0947 1115 | CHITTY WELL AT KIRKWOOD | 53.73 52.90 |
| 293252082292301 | 05-16-90 09-11-90 | 1150 1330 | ALTO STRAUGHN-ARCHER WELL | 42.00 42.98 |
| 293253082055701 | 05-16-90 09-13-90 | 0810 1235 | DRISCOLL WELL NR LOCHLOOSA | 67.88 67.25 |
| 293301082153501 | 05-16-90 09-13-90 | 0906 1200 | JENSEN WELL NR MICANOPY | 55.17 51.68 |
| 293329082243801 | 05-16-90 09-11-90 | 1253 1415 | PARISH WELL NR WACAHOOTA | 42.52 43.42 |
| 293542082253801 | 05-16-90 09-11-90 | 1210 1400 | USGS/HOWELL WELL AT KANAPAHA | 41.96 42.83 |
| 293548082044101 | 05-17-90 09-12-90 | 0756 0945 | 93520403 10S22E26 C E TITUSVILLE | 74.10 73.35 |
| 293556082043401 | 05-17-90 09-12-90 | 0735 0935 | A-0071 HAWTHORNE TOWER DEEP | 73.79 73.05 |
| 2936200822362001 | 05-15-90 09-11-90 | 1011 1305 | 93623601 10S17E22 CE-1A | 40.08 40.74 |
| 293634082144901 | 05-17-90 09-12-90 | 0844 1030 | HOLBACK WELL NR GAINESVILLE | 58.41 57.91 |
| 293644082244201 | 05-16-90 09-11-90 | 1222 1430 | RUB MONITOR NO 1 AT KANAPAHA | 45.00 44.82 |
| 293645082202701 | 05-17-90 09-11-90 | 1130 1030 | 93622003 | 52.52 52.39 |
| 293723082120102 | 05-17-90 09-12-90 | 0824 1000 | 93721202 10S21E15 DICK SURRENCY | 74.53 73.94 |
| 293728082282401 | 05-15-90 09-11-90 | 1112 1350 | 93722801 10S18E14 PARKER RD BAPTIST CHURCH | 41.40 42.20 |
| 293737082212501 | 05-17-90 09-11-90 | 1110 1040 | 937221 UNIV OF FLA E 6 ENTOMOLOGY | 59.58 60.28 |
| 293857082203901 | 05-14-90 09-12-90 | 1015 1105 | GEOLOGY DEPT WELL GAINESVILLE | 43.49 44.26 |
| 294108082293101 | 05-15-90 09-11-90 | 1144 1245 | 94122901 09S18E27 U OF FLA FARNSWORTH | 41.54 42.03 |
| 294121082231801 | 05-14-90 09-10-90 | 1055 1100 | PINE GROVE CHURCH AT GAINESVILLE | 41.32 39.77 |
| 294209082173101 | 09-12-90 | 1305 | RUB WELL N-7 AT GAINESVILLE | 27.17 |
| 294209082180301 | 09-12-90 | 1300 | 94221801 CITY OF GAINESVILLE N-3 AT GAINESVILLE | 8.99 |
| 294228082181801 | 09-12-90 | 1330 | 94221804 CITY OF GAINESVILLE N-6 AT GAINESVILLE | 0.64 |
| 294259082083401 | 05-15-90 09-11-90 | 0720 0915 | ORANGE HEIGHTS BAPTIST CHURCH WELL AT ORANGE HTS | 72.73 71.75 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

ALACHUA COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------|------|---|---|
| 294415082170701 | 05-14-90 | 0807 | NEWMANS WELL NR FAIRBANKS | 53.36 |
| | 09-11-90 | 0955 | | 52.36 |
| 294501082131001 | 05-15-90 | 0744 | CARY MEMORIAL FOREST WELL NR WALDO | 66.99 |
| | 09-10-90 | 1400 | | 66.13 |
| 294530082232001 | 05-15-90 | 0900 | DEERHAVEN POWER PLT WELL NR GAINESVILLE | 41.60 |
| | 09-10-90 | 1035 | | 40.60 |
| 294839082230701 | 05-14-90 | 1220 | CELLON WELL NR LA CROSSE | 42.62 |
| | 09-10-90 | 0935 | | 42.16 |
| 294923082174501 | 05-15-90 | 0817 | MONTEOCHA | 56.66 |
| | 09-10-90 | 0900 | | 55.41 |
| 294928082355301 | 05-15-90 | 0935 | 94923502 08S17E03 CITY HIGH SPRINGS | 32.88 |
| | 09-10-90 | 1005 | | 32.73 |

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KEY TO SITE LOCATIONS ON FIGURE 18
BAKER COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 301535082162001 | 36 |
| 2 | 302620082173501 | 36 |

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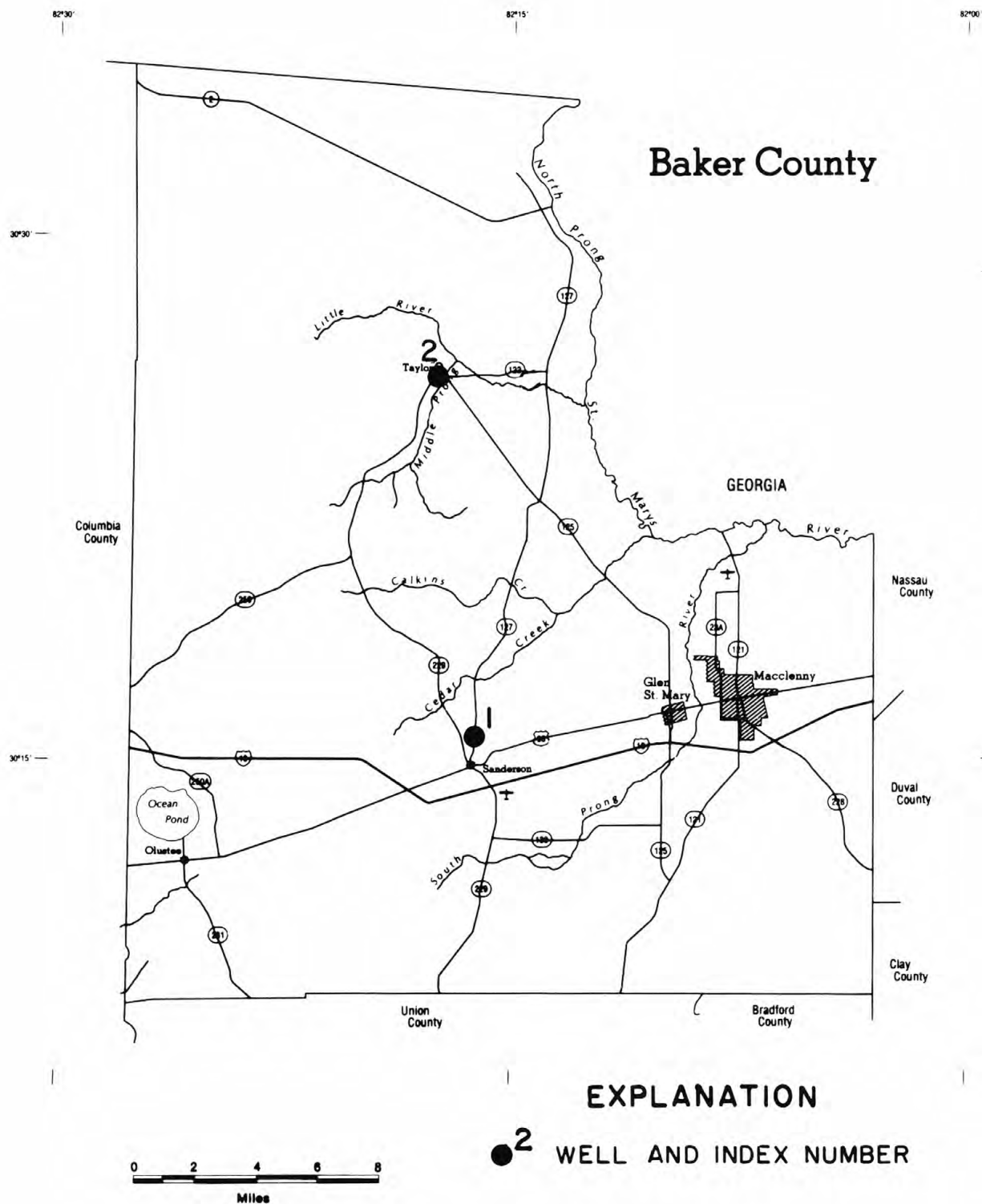


Figure 18.--Location of wells in Baker County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BAKER COUNTY

WELL NUMBER.--301535082162001. Local Number B-11. USGS Well at Sanderson, FL.

LOCATION.--Lat 30°15'35", long 82°16'20", in SW¼NW¼SW¼ sec.1, T.3 S., R.20 E., Hydrologic Unit 03070204, 0.4 mi northwest of Sanderson Public School, and 0.7 mi, north of U.S. Highway 90 in Sanderson. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 825 ft, cased to 282 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 157.68 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1963 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to 1975 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.05 ft NGVD, Mar. 1, 1965; lowest measured, 48.19 ft NGVD, Sept. 26, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1045 | 50.51 | 09... | 1135 | 51.08 |
| NOV | | | 30... | 1240 | 50.36 |
| 28... | 1210 | 50.38 | JUN | | |
| JAN | | | 26... | 1235 | 49.51 |
| 02... | 0955 | 50.12 | JUL | | |
| 30... | 0930 | 50.95 | 30... | 0905 | 48.86 |
| FEB | | | AUG | | |
| 27... | 0910 | 51.45 | 28... | 0955 | 48.59 |
| MAR | | | SEP | | |
| 30... | 1020 | 51.88 | 11... | 1045 | 48.39 |
| APR | | | 26... | 0930 | 48.19 |
| 30... | 1145 | 51.53 | | | |

WELL NUMBER.--302620082173501. Local Number B-9. USGS Well at Taylor, FL.

LOCATION.--Lat 30°26'20", long 82°17'35", in NW¼SE¼NE¼ sec.3, T.1 S., R.20 E., Hydrologic Unit 03070204, 50 ft northeast of intersection of State Highways 125 and 250, and 90 ft northeast of General Store in Taylor. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 905 ft, cased to 417 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 116.30 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to 1973 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.50 ft NGVD, Jan. 1, 1973; lowest measured, 45.53 ft NGVD, Sept. 26, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1110 | 47.77 | 09... | 1055 | 48.82 |
| NOV | | | 30... | 1305 | 48.02 |
| 28... | 1240 | 47.67 | JUN | | |
| JAN | | | 26... | 1300 | 46.99 |
| 02... | 1020 | 47.61 | JUL | | |
| 30... | 0955 | 48.65 | 30... | 0930 | 46.20 |
| FEB | | | AUG | | |
| 27... | 0935 | 49.33 | 28... | 0930 | 45.92 |
| MAR | | | SEP | | |
| 30... | 1040 | 49.75 | 11... | 1215 | 45.73 |
| APR | | | 26... | 0955 | 45.53 |
| 30... | 1205 | 49.28 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

BAKER COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) | DEPTH- BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-----------------|----------|------|---|---|--|
| 301022082103301 | 05-09-90 | 1425 | B-17 MANNING WELL NEAR MANNING | 53.20 | -- |
| | 09-10-90 | 1320 | | 50.92 | -- |
| 301423082261101 | 05-09-90 | 1215 | B-15 | 54.15 | -- |
| | 09-11-90 | 1120 | | 51.84 | -- |
| 302251082194901 | 05-09-90 | 1110 | B-25 ONF NO 6 FLORIDAN WELL NEAR TAYLOR | 49.26 | -- |
| | 09-11-90 | 1200 | | 46.16 | -- |
| 302610082143001 | 11-28-89 | 1250 | B-12 BAKER COUNTY WELL NEAR TAYLOR | -- | 21.20 |

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KEY TO SITE LOCATIONS ON FIGURE 19
BREVARD COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 275508080510701 | 40 |
| 2 | 275542080413102 | 41 |
| 2 | 275542080413103 | 42 |
| 2 | 275542080413104 | 43 |
| 3 | 275749080373902 | 44 |
| 3 | 275749080373903 | 45 |
| 3 | 275749080373904 | 46 |
| 4 | 275800080380901 | 47 |
| 4 | 275800080380902 | 48 |
| 4 | 275800080380903 | 49 |
| 5 | 275859080342401 | 50 |
| 5 | 275859080342402 | 50 |
| 6 | 275905080333501 | 51 |
| 6 | 275905080333502 | 52 |
| 6 | 275905080333503 | 53 |
| 7 | 275913080331701 | 54 |
| 7 | 275913080331702 | 55 |
| 7 | 275913080331703 | 56 |
| 8 | 275955080434601 | 57 |
| 10 | 280311080332302 | 58 |
| 10 | 280311080332303 | 59 |
| 10 | 280311080332304 | 60 |
| 11 | 280314080331301 | 61 |
| 11 | 280314080331302 | 62 |
| 11 | 280314080331303 | 63 |
| 11 | 280316080330701 | 64 |
| 11 | 280316080330702 | 65 |
| 11 | 280316080330703 | 66 |
| 12 | 282245080471601 | 67 |
| 13 | 283627080512001 | 67 |

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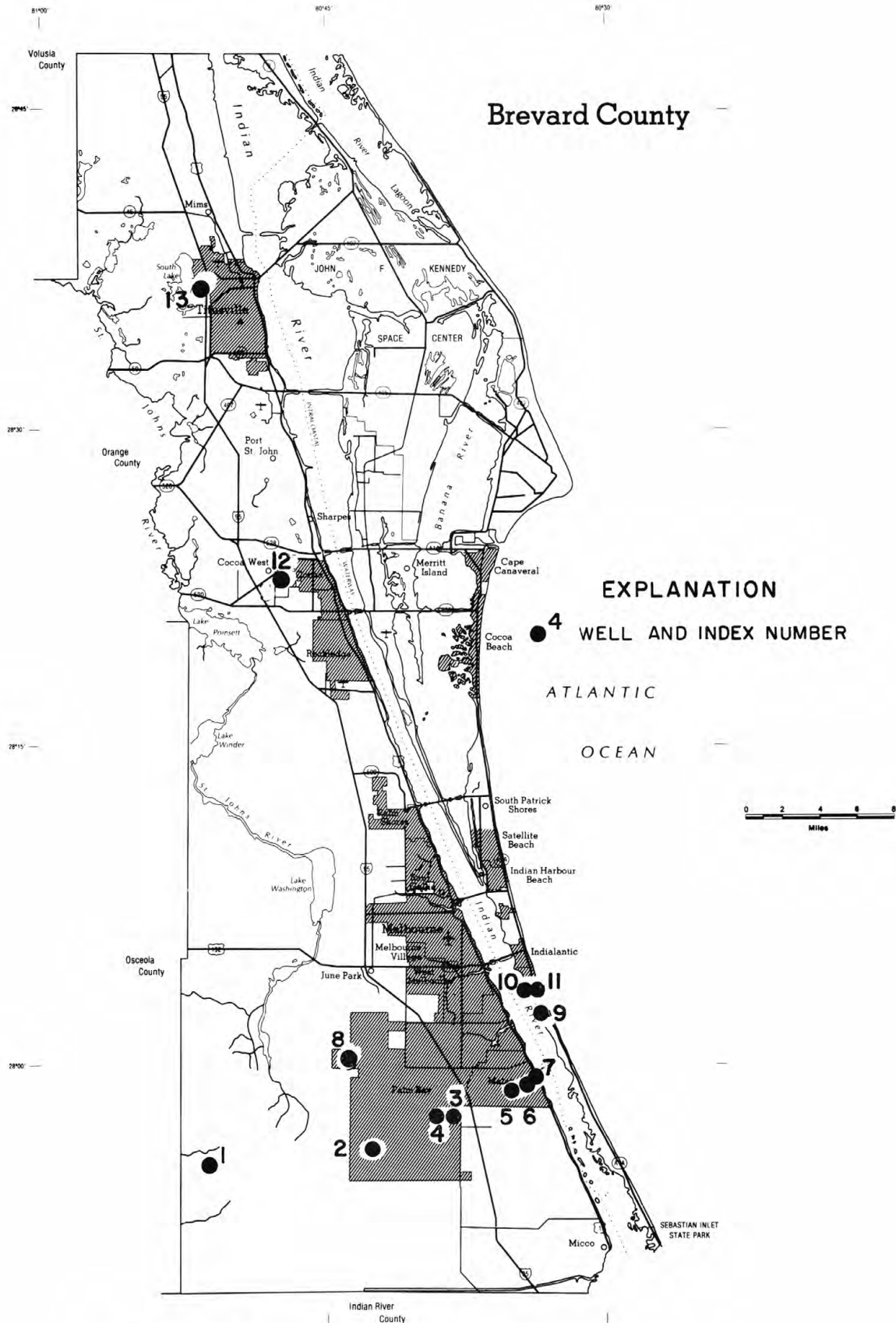


Figure 19--Location of wells in Brevard County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275508080510701. Ten-Mile Ranch Well near Kenansville, FL.

LOCATION.--Lat 27°55'08", long 80°51'07", in SW¼SW¼NW¼ sec.32, T.29 S., R.35 E., Hydrologic Unit 03080101, 2,500 ft west of private road, 10 mi east of U.S. Highway 441, and 8 mi east of Kenansville. Owner: Deseret Ranches of Florida, Inc.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 3 in., depth 272 ft, casing unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 28.07 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of concrete slab, 0.51 ft above land-surface datum.

PERIOD OF RECORD.--June 1956 (annually); 1957 (semiannually); May 1973 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.07 ft NGVD, July 11, 1957; lowest measured, 37.12 ft NGVD, May 13, 1974.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| DEC | | | APR | | |
| 01... | 1350 | 42.18 | 30... | 1000 | 38.48 |
| JAN | | | JUN | | |
| 25... | 1000 | 42.28 | 25... | 1100 | 38.28 |
| MAR | | | SEP | | |
| 23... | 1315 | 39.78 | 12... | 1010 | 40.18 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275542080413102. Local Number BR-794. Laika Road Shallow Well at Palm Bay, FL.

LOCATION.--Lat 27°55'42", long 80°41'31", in NW¼SE¼SE¼ sec.26, T.29 S., R.36 E., Hydrologic Unit 03080202, on north side of Laika Road, 200 ft west of Quebec Avenue in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 13 ft, cased to 6 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 21.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.11 ft NGVD, Oct.12, 1989; lowest measured, 17.73 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0920 | 18.93 | SEP 01... | 1330 | 20.14 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1503 | 21.11 | APR 06... | 0910 | 19.11 |
| 26... | 1200 | 20.45 | 20... | 0850 | 18.43 |
| 31... | 1000 | 20.73 | MAY 07... | 1425 | 17.99 |
| NOV 17... | 0905 | 20.10 | 21... | 1400 | 17.73 |
| DEC 01... | 1025 | 19.41 | JUN 07... | 1740 | 18.03 |
| 15... | 1025 | 19.39 | 15... | 1000 | 18.14 |
| 29... | 1000 | 20.22 | 28... | 0820 | 19.31 |
| JAN 12... | 1015 | 19.67 | JUL 10... | 0815 | 19.02 |
| 26... | 1050 | 19.31 | 23... | 1630 | 21.08 |
| FEB 09... | 1345 | 19.08 | AUG 07... | 1450 | 20.66 |
| 26... | 1405 | 20.10 | 21... | 1430 | 21.00 |
| MAR 09... | 1245 | 19.33 | SEP 04... | 1645 | 19.85 |
| 23... | 1230 | 18.70 | 26... | 0845 | 20.35 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275542080413103. Local Number BR-795. Laika Road Intermediate Well at Palm Bay, FL.

LOCATION.--Lat 27°55'42", long 80°41'31", in NW¼SE¼SE¼ sec.26, T.29 S., R.36 E., Hydrologic Unit 03080202, on north side of Laika Road, 200 ft west of Quebec Avenue in Palm Bay. Owner: St. Johns Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 50 ft, cased to 29 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 21.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.63 ft NGVD, Oct.12, 1989; lowest measured, 15.87 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0921 | 17.05 | SEP 01... | 1329 | 18.23 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1500 | 19.63 | APR 06... | 0915 | 16.93 |
| 26... | 1205 | 18.56 | 20... | 0855 | 16.51 |
| 31... | 1005 | 18.64 | MAY 07... | 1430 | 16.15 |
| NOV 17... | 0910 | 18.08 | 21... | 1405 | 15.87 |
| DEC 01... | 1035 | 17.68 | JUN 07... | 1745 | 15.89 |
| 15... | 1035 | 17.53 | 15... | 1005 | 16.22 |
| 29... | 1010 | 17.93 | 28... | 0825 | 17.25 |
| JAN 12... | 1025 | 17.55 | JUL 10... | 0820 | 17.14 |
| 26... | 1055 | 17.30 | 23... | 1635 | 18.60 |
| FEB 09... | 1355 | 17.12 | AUG 07... | 1455 | 18.41 |
| 26... | 1415 | 17.59 | 21... | 1435 | 18.74 |
| MAR 09... | 1250 | 17.19 | SEP 04... | 1650 | 17.97 |
| 23... | 1235 | 16.78 | 26... | 0850 | 18.42 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275542080413104. Local Number BR-796. Laika Road Deep Well at Palm Bay, FL.

LOCATION.--Lat 27°55'42", long 80°41'31", in NW¼SE¼SE¼ sec.26, T.29 S., R.36 E., Hydrologic Unit 03080202, on north side of Laika Road, 200 ft west of Quebec Avenue in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 95 ft, cased to 85 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 21.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.97 ft NGVD, Oct. 31, 1989; lowest measured, 17.45 ft NGVD, June 7, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | -- | 18.23 | SEP 01... | 1334 | 19.39 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1501 | 19.77 | APR 06... | 0920 | 18.41 |
| 26... | 1210 | 19.79 | 20... | 0900 | 18.13 |
| 31... | 1010 | 19.97 | MAY 07... | 1435 | 17.84 |
| NOV 17... | 0900 | 19.56 | 21... | 1410 | 17.58 |
| DEC 01... | 1030 | 19.31 | JUN 07... | 1750 | 17.45 |
| 15... | 1030 | 19.14 | 15... | 1010 | 17.56 |
| 29... | 1005 | 19.26 | 28... | 0830 | 18.04 |
| JAN 12... | 1020 | 19.15 | JUL 10... | 0825 | 18.34 |
| 26... | 1100 | 18.88 | 23... | 1640 | 18.89 |
| FEB 09... | 1350 | 18.76 | AUG 07... | 1500 | 19.39 |
| 26... | 1410 | 18.74 | 21... | 1440 | 19.72 |
| MAR 09... | 1255 | 18.73 | SEP 04... | 1655 | 19.51 |
| 23... | 1240 | 18.44 | 26... | 0855 | 19.66 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275749080373902. Local number BR-788. Parragon Street Shallow Well at Palm Bay, FL.

LOCATION.--Lat 27°57'49", long 80°37'39", in NE¼SW¼NE¼ sec.16, T.29 S., R.37 E., Hydrologic Unit 03080202, on west side of Parragon Street, 400 ft southwest of the junction of Republic and Parragon Streets in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 15 ft, cased to 9 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 34.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. steel protective casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.27 ft NGVD, Oct. 11, 1989; lowest measured, 29.53 ft NGVD, June 15, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0823 | 30.48 | SEP 01... | 1145 | 31.15 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 11... | 1342 | 33.27 | APR 06... | 0825 | 30.34 |
| 31... | 0900 | 30.48 | 19... | 1550 | 30.13 |
| NOV 14... | 1315 | 31.43 | MAY 07... | 1330 | 29.84 |
| DEC 01... | 0925 | 31.08 | 21... | 1315 | 29.67 |
| 15... | 0920 | 31.02 | JUN 07... | 1710 | 29.63 |
| 29... | 0900 | 31.66 | 15... | 1325 | 29.53 |
| JAN 12... | 0920 | 31.12 | 27... | 1530 | 30.51 |
| 26... | 0955 | 30.79 | JUL 10... | 1015 | 30.63 |
| FEB 09... | 1255 | 30.72 | 24... | 1600 | 31.64 |
| 26... | 1315 | 31.37 | AUG 07... | 1420 | 30.84 |
| MAR 09... | 1155 | 30.84 | 21... | 1345 | 32.57 |
| 23... | 1145 | 30.47 | SEP 04... | 1620 | 31.99 |
| | | | 26... | 0800 | 31.87 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275749080373903. Local Number BR-789. Parragon Street Intermediate Well at Palm Bay, FL.

LOCATION.--Lat 27°57'49", Long 80°37'39", in NE¼SW¼NE¼ sec.16, T.29 S., R.37 E., Hydrologic Unit 03080202, on west side of Parragon Street, 400 ft southwest of the junction of Republic and Parragon Streets in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 42 ft, cased to 36 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 34.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. steel protective casing, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.53 ft NGVD, Nov. 14, 1989; lowest measured, 25.07 ft NGVD, June 15, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0827 | 29.34 | SEP 01... | 1143 | 30.40 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 11... | 1337 | 29.44 | APR 06... | 0835 | 26.23 |
| 31... | 0905 | 29.13 | 19... | 1555 | 25.91 |
| NOV 14... | 1320 | 30.53 | MAY 07... | 1335 | 25.45 |
| DEC 01... | 0930 | 27.32 | 21... | 1320 | 25.24 |
| 15... | 0925 | 27.14 | JUN 07... | 1715 | 25.18 |
| 29... | 0905 | 27.89 | 15... | 1330 | 25.07 |
| JAN 12... | 0925 | 27.29 | 27... | 1535 | 25.72 |
| 26... | 1000 | 26.86 | JUL 10... | 1020 | 25.99 |
| FEB 09... | 1300 | 26.80 | 24... | 1605 | 27.10 |
| 26... | 1320 | 27.37 | AUG 07... | 1425 | 26.46 |
| MAR 09... | 1200 | 26.84 | 21... | 1350 | 29.21 |
| 23... | 1150 | 26.38 | SEP 04... | 1625 | 28.54 |
| | | | 26... | 0805 | 28.36 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275749080373904. Local Number BR-790. Parragon Street Deep Well at Palm Bay, FL.

LOCATION.--Lat 27°57'49", long 80°37'39", in NE¼SW¼NE¼ sec. 16, T.29 S., R.37 E., Hydrologic Unit 03080202, on west side of Parragon Street, 400 ft southwest of the junction of Republic and Parragon Streets in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 88 ft, cased to 57 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 34.67 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in steel protective casing, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.94 ft NGVD, Aug. 21, 1990; lowest measured, 20.50 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0825 | 21.48 | SEP 01... | 1153 | 23.27 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 11... | 1340 | 24.38 | APR 06... | 0830 | 22.45 |
| 31... | 0910 | 24.13 | 19... | 1600 | 22.01 |
| NOV 14... | 1330 | 23.92 | MAY 07... | 1340 | 20.96 |
| DEC 01... | 0935 | 23.72 | 21... | 1325 | 20.50 |
| 15... | 0930 | 23.66 | JUN 07... | 1720 | 21.22 |
| 29... | 0910 | 24.04 | 15... | 1335 | 20.68 |
| JAN 12... | 0930 | 23.81 | 27... | 1540 | 21.81 |
| 26... | 1005 | 23.39 | JUL 10... | 1025 | 22.03 |
| FEB 09... | 1305 | 23.19 | 24... | 1610 | 23.30 |
| 26... | 1325 | 23.61 | AUG 07... | 1430 | 22.72 |
| MAR 09... | 1205 | 23.15 | 21... | 1355 | 24.94 |
| 23... | 1155 | 22.33 | SEP 04... | 1630 | 24.34 |
| | | | 26... | 0810 | 24.35 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275800080380901. Local Number BR-754. Columbia Elementary School Shallow Well at Palm Bay, FL.

LOCATION.--Lat 27°58'00", long 80°38'09", in SE¼NW¼NW¼ sec.16, T.29 S., R.37 E., Hydrologic Unit 03080202, at southeast corner of school property, 260 ft west of San Filippo Drive in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 15 ft, cased to 5 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 30.15 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.72 ft NGVD, Oct. 12, 1989; lowest measured, 26.33 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0847 | 27.17 | SEP 01... | 1216 | 27.98 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1038 | 29.72 | APR 06... | 0850 | 27.29 |
| 27... | 0920 | 29.41 | 19... | 1535 | 26.90 |
| 31... | 0930 | 29.03 | MAY 07... | 1350 | 26.46 |
| NOV 17... | 1145 | 28.69 | 21... | 1335 | 26.33 |
| DEC 01... | 0950 | 28.16 | JUN 07... | 1655 | 26.34 |
| 15... | 0950 | 28.21 | 26... | 1420 | 27.18 |
| 29... | 0930 | 28.90 | JUL 10... | 1205 | 27.28 |
| JAN 12... | 0945 | 28.39 | 24... | 1545 | 28.74 |
| 26... | 1015 | 27.99 | AUG 07... | 1405 | 27.65 |
| FEB 09... | 1320 | 27.95 | 21... | 1405 | 29.29 |
| 26... | 1335 | 28.59 | SEP 04... | 1610 | 28.60 |
| MAR 09... | 1215 | 27.95 | 26... | 0825 | 28.53 |
| 23... | 1210 | 27.31 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275800080380902. Local Number BR-755. Columbia Elementary School Intermediate Well at Palm Bay, FL.

LOCATION.--Lat 27°58'00", long 80°38'09", in SE¼NW¼NW¼ sec.16, T.29 S, R.37 E., Hydrologic Unit 03080202, at southeast corner of school property, 260 ft west of San Filippo Drive in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 44.5 ft, cased to 39.5 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 30.15 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.55 ft NGVD, Oct. 12, 1989; lowest measured, 20.87 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0847 | 21.64 | SEP 01... | 1218 | 23.08 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1040 | 25.55 | APR 06... | 0855 | 22.19 |
| 27... | 0925 | 24.51 | 19... | 1540 | 21.77 |
| 31... | 0935 | 24.45 | MAY 07... | 1355 | 21.13 |
| NOV 17... | 1200 | 23.70 | 21... | 1340 | 20.87 |
| DEC 01... | 0955 | 23.32 | JUN 07... | 1700 | 21.19 |
| 15... | 1000 | 23.18 | 26... | 1425 | 21.83 |
| 29... | 0940 | 23.70 | JUL 10... | 1210 | 22.14 |
| JAN 12... | 0955 | 23.32 | 24... | 1550 | 23.73 |
| 26... | 1025 | 22.91 | AUG 07... | 1410 | 23.02 |
| FEB 09... | 1325 | 22.64 | 21... | 1410 | 24.85 |
| 26... | 1340 | 23.18 | SEP 04... | 1615 | 24.12 |
| MAR 09... | 1225 | 22.83 | 26... | 0830 | 24.32 |
| 23... | 1215 | 22.28 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275800080380903. Local Number HR-753. Columbia Elementary School Deep Well at Palm Bay, FL.

LOCATION.--Lat 27°58'00", long 80°38'09", in SE¼NW¼NW¼ sec.16, T.29 S., R.37 E., Hydrologic Unit 03080202, at southeast corner of school property, 260 ft west of San Filippo Drive in Palm Bay. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 97 ft, cased to 80 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 30.15 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--July 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.56 ft NGVD, Oct. 12, 1989; lowest measured, 20.04 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| JUL 12... | 0845 | 20.90 | SEP 01... | 1214 | 22.59 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 12... | 1035 | 24.56 | APR 06... | 0845 | 21.64 |
| 27... | 0915 | 24.08 | 19... | 1530 | 21.23 |
| 31... | 0925 | 23.98 | MAY 07... | 1345 | 20.42 |
| NOV 17... | 1155 | 23.29 | 21... | 1330 | 20.04 |
| DEC 01... | 1000 | 22.91 | JUN 07... | 1650 | 20.57 |
| 15... | 0955 | 22.77 | 26... | 1415 | 21.14 |
| 29... | 0935 | 23.20 | JUL 10... | 1200 | 21.39 |
| JAN 12... | 0950 | 22.84 | 24... | 1540 | 20.74 |
| 26... | 1020 | 22.43 | AUG 07... | 1400 | 22.46 |
| FEB 09... | 1315 | 22.64 | 21... | 1400 | 24.25 |
| 26... | 1345 | 22.68 | SEP 04... | 1605 | 23.53 |
| MAR 09... | 1220 | 22.35 | 26... | 0820 | 23.80 |
| 23... | 1205 | 21.72 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275859080342401. Local Number BR-1030. Jordan Boulevard West Shallow Well at Malabar, FL.

LOCATION.--Lat 27°58'59", long 80°34'24", in NW¼NW¼NW¼ sec.7, T.29 S., R.38 E., Hydrologic Unit 03080202, on south side of Jordan Boulevard, 0.95 mi west of Jordan Boulevard East wells, and 1.4 mi southwest of Malabar Town Hall. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 30 ft, cased to 20 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 25.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel protective casing, 2.54 ft above land-surface datum.

PERIOD OF RECORD.--April to September 1990 (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.82 ft NGVD, Aug. 21, 1990; lowest measured, 20.14 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| APR | | | JUL | | |
| 20... | 1030 | 21.08 | 11... | 1005 | 22.29 |
| MAY | | | 23... | 1430 | 22.67 |
| 07... | 1245 | 20.48 | AUG | | |
| 21... | 1225 | 20.14 | 07... | 1230 | 22.70 |
| JUN | | | 21... | 0935 | 23.82 |
| 08... | 1550 | 20.67 | SEP | | |
| 26... | 0855 | 20.65 | 05... | 1420 | 23.04 |
| | | | 24... | 1220 | 22.79 |

WELL NUMBER.--275859080342402. Local Number BR-1031. Jordan Boulevard West Deep Well at Malabar, FL.

LOCATION.--Lat 27°58'59", long 80°34'24", in NW¼NW¼NW¼ sec.7, T.29 S., R.38 E., Hydrologic Unit 03080202, on south side of Jordan Boulevard, 0.95 mi west of Jordan Boulevard East wells, and 1.4 mi southwest of Malabar Town Hall. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 50 ft, cased to 40 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 25.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel protective casing, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--April to September 1990 (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.59 ft NGVD, Aug. 21, 1990; lowest measured, 16.52 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| APR | | | JUL | | |
| 20... | 1035 | 17.48 | 11... | 1010 | 18.18 |
| MAY | | | 23... | 1435 | 18.31 |
| 07... | 1250 | 16.84 | AUG | | |
| 21... | 1230 | 16.52 | 07... | 1235 | 18.42 |
| JUN | | | 21... | 0940 | 19.59 |
| 08... | 1555 | 16.81 | SEP | | |
| 26... | 0900 | 17.00 | 05... | 1425 | 18.56 |
| | | | 24... | 1225 | 19.01 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275905080333501. Local Number BR-1027. Jordan Boulevard East Shallow Well at Malabar, FL.

LOCATION.--Lat 27°59'05", long 80°33'35", in NW¼SE¼SE¼ sec.6, T.29 S., R.38 E., Hydrologic Unit 03080202, on east side of Jordan Boulevard, 1,500 ft west of U.S. Highway 1, and 1,300 ft northwest of intersection of Jordan Boulevard and Florida East Coast Railroad tracks at Malabar. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 30 ft, cased to 30 ft.

INSTRUMENTATION.--Electronic recorder--15-minute interval.

DATUM.--Land-surface datum is 21.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.01 ft above land-surface datum.

PERIOD OF RECORD.--April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.61 ft NGVD, Aug 19, 1990; lowest, 14.62 ft NGVD, June 21, 22, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| APR | | | JUL | | |
| 06... | 1015 | 16.57 | 11... | 0815 | 17.26 |
| 20... | 1000 | 16.16 | 24... | 0840 | 16.91 |
| MAY | | | AUG | | |
| 07... | 1225 | 15.71 | 07... | 0840 | 17.53 |
| 21... | 1205 | 15.40 | 16... | 0923 | 18.37 |
| JUN | | | 21... | 0815 | 18.49 |
| 08... | 1525 | 15.02 | SEP | | |
| 14... | 1155 | 14.74 | 04... | 1315 | 17.51 |
| 19... | 0940 | 14.67 | 24... | 1315 | 17.88 |
| 29... | 1130 | 15.54 | | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.65 | 17.60 | 17.44 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.33 | 17.88 | 17.28 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 14.74 | 17.08 | 18.37 | 17.13 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 14.65 | 16.83 | 18.56 | 18.21 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | 15.02 | 16.82 | 18.08 | 17.81 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 15.52 | 16.47 | 17.71 | 17.98 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.65 | --- | 18.21 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275905080333502. Local Number BR-1028 Jordan Boulevard East Intermediate Well at Malabar, FL.

LOCATION.--Lat 27°59'05", long 80°33'35", in NW¼SE¼SE¼ sec.6, T.29 S., R.38 E., Hydrologic Unit 03080202, on east side of Jordan Boulevard, 1,500 ft west of U.S. Highway 1, and 1,300 ft northwest of intersection of Jordan Boulevard and Florida East Coast Railroad tracks at Malabar. Owner: St. Johns Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 50 ft, cased to 40 ft.

INSTRUMENTATION.--Electronic recorder--15-minute interval.

DATUM.--Land-surface datum is 21.49 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 1.31 ft above land-surface datum.

PERIOD OF RECORD.--April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.06 ft NGVD, Aug. 20, 1990; lowest water level measured, 11.11 ft NGVD, June 14, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| APR | | | JUL | | |
| 06... | 1020 | 12.82 | 11... | 0820 | 13.01 |
| 20... | 1005 | 12.38 | 24... | 0845 | 12.83 |
| MAY | | | AUG | | |
| 07... | 1230 | 11.83 | 07... | 0845 | 13.11 |
| 21... | 1210 | 11.55 | 16... | 0924 | 13.81 |
| JUN | | | 21... | 0820 | 14.05 |
| 08... | 1530 | 11.55 | SEP | | |
| 14... | 1205 | 11.22 | 04... | 1320 | 13.39 |
| 19... | 0935 | 11.35 | 24... | 1320 | 13.75 |
| 29... | 1135 | 11.99 | | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.11 | 13.07 | 13.39 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.00 | 13.29 | 13.24 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 11.17 | 12.95 | 13.74 | 13.13 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 11.26 | 12.67 | 14.06 | 13.60 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | 11.58 | 12.82 | 13.82 | 13.70 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 11.95 | 12.63 | 13.66 | 13.71 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.23 | --- | 13.76 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275905080333503. **Local Number** BR-1029. **Jordan Boulevard East Deep Well at Malabar, FL.**

LOCATION.--Lat 27°59'05", long 80°33'35", in NW¼SE¼SE¼ sec.6, T.29 S., R.38 E., Hydrologic Unit 03080202, on east side of Jordan Boulevard, 1,500 ft west of U.S. Highway 1, and 1,300 ft northwest of intersection of Jordan Boulevard and Florida East Coast Railroad tracks at Malabar. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 93 ft, cased to 83 ft.

INSTRUMENTATION.--Electronic recorder--15-minute interval.

DATUM.--Land-surface datum is 21.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.46 ft above land-surface datum.

PERIOD OF RECORD.--April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.00 ft NGVD, Aug. 20, 1990; lowest water level measured, 11.17 ft NGVD, June 14, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| APR | | | JUL | | |
| 06... | 1025 | 12.85 | 11... | 0825 | 12.92 |
| 20... | 1010 | 12.45 | 24... | 0850 | 12.78 |
| MAY | | | AUG | | |
| 07... | 1235 | 11.83 | 07... | 0850 | 13.02 |
| 21... | 1215 | 11.57 | 16... | 0927 | 13.73 |
| JUN | | | 21... | 0825 | 13.95 |
| 08... | 1535 | 11.47 | SEP | | |
| 14... | 1200 | 11.17 | 04... | 1325 | 13.29 |
| 19... | 0930 | 11.33 | 24... | 1325 | 13.65 |
| 29... | 1140 | 11.92 | | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.02 | 12.99 | 13.35 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12.92 | 13.13 | 13.16 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 11.33 | 12.94 | 13.58 | 13.07 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 11.27 | 12.66 | 14.00 | 13.50 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | 11.58 | 12.84 | 13.77 | 13.67 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 12.00 | 12.68 | 13.58 | 13.67 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.17 | --- | 13.73 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275913080331701. Local Number BR-784 Rocky Point Deep Well at Malabar, FL.

LOCATION.--Lat 27°59'13", long 80°33'17", in SE¼NW¼SW¼ sec.5, T.29 S., R.38 E., Hydrologic Unit 03080202, on east side of U.S. Highway 1, and 1.0 mi south of State Highway 514 at Malabar. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 110 ft, cased to 72 ft.

INSTRUMENTATION.--Electronic recorder--15-minute interval.

DATUM.--Land-surface datum is 5.89 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. pvc casing.

PERIOD OF RECORD.--October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.61 ft NGVD, Oct. 19, 1989; lowest water level measured, 4.23 ft NGVD, June 14, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 19... | 1650 | 7.61 | 07... | 1300 | 4.78 |
| 26... | 1505 | 5.97 | 21... | 1240 | 4.43 |
| 31... | 1055 | 6.03 | JUN | | |
| NOV | | | 06... | 0825 | 4.91 |
| 16... | 1345 | 5.61 | 14... | 1045 | 4.23 |
| 30... | 1615 | 5.55 | 19... | 0915 | 4.78 |
| DEC | | | 28... | 1100 | 5.10 |
| 15... | 1110 | 5.40 | JUL | | |
| 29... | 1145 | 5.48 | 09... | 1620 | 5.54 |
| JAN | | | 10... | 1350 | 5.47 |
| 12... | 1115 | 5.31 | 24... | 1030 | 5.35 |
| 26... | 1125 | 5.21 | AUG | | |
| FEB | | | 07... | 1005 | 5.60 |
| 09... | 1210 | 5.14 | 16... | 1140 | 5.94 |
| 26... | 1500 | 5.60 | 21... | 1210 | 6.14 |
| MAR | | | SEP | | |
| 09... | 1130 | 5.50 | 04... | 1440 | 5.84 |
| 23... | 1120 | 5.22 | 24... | 1500 | 6.25 |
| APR | | | | | |
| 06... | 0945 | 5.19 | | | |
| 19... | 0935 | 4.95 | | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL NUMBER.--275913080331702. Local Number BR-785 Rocky Point Intermediate Well at Malabar, FL.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

INSTRUMENTATION.--Electronic recorder--15-minute interval.

PERIOD OF RECORD.--October 1989 to current year.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--275955080434601. Platt Well near Melbourne, FL.

LOCATION.--Lat 27°59'55", long 80°43'46", in NE¼NE¼NW¼ sec.4, T.29 S., R.36 E., Hydrologic Unit 03080203, on south side of extension of State Highway 514, 3.5 mi west of State Highway 509, and 9.5 mi southwest of Melbourne. Owner: Marion Platt.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 4 in., depth 447 ft, cased to 125 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 21.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. tee, 1.25 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985, data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--August 1934, July 1942, November 1946 (annually); May 1947 to December 1949 (semiannually); January 1950 to November 1975 (bimonthly); December 1977 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.53 ft NGVD, Aug. 14, 1934; lowest measured, 34.23 ft NGVD, May 19, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 0724 | 40.68 | 07... | 1345 | 36.03 |
| NOV | | | 29... | 1019 | 35.73 |
| 29... | 1100 | 39.63 | JUN | | |
| DEC | | | 28... | 0948 | 38.03 |
| 21... | 1002 | 39.63 | JUL | | |
| JAN | | | 30... | 1100 | 39.23 |
| 29... | 1000 | 39.58 | AUG | | |
| MAR | | | 27... | 0936 | 39.03 |
| 05... | 1023 | 39.44 | SEP | | |
| 26... | 1030 | 38.43 | 10... | 1510 | 39.83 |
| APR | | | 27... | 0900 | 38.83 |
| 30... | 0947 | 37.13 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280311080332302. Local Number BR-883. Gemini Elementary School Intermediate Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'11", long 80°33'23", in SW¼NE¼NW¼ sec.17, T. 28S., R. 38E., Hydrologic Unit 03080202, at southwest corner of school property, 750 ft southwest of Oak Street, and 0.95 mi south of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 45 ft, cased to 35 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 9.19 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 0.96 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.49 ft NGVD, Oct. 13, 1989; lowest measured, 2.74 ft NGVD, Feb. 9, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1737 | 3.60 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 13... | 1422 | 4.49 | 06... | 1450 | 3.04 |
| 31... | 1250 | 3.79 | 19... | 1330 | 2.87 |
| NOV | | | MAY | | |
| 15... | 0900 | 3.38 | 07... | 1055 | 2.90 |
| 30... | 1430 | 3.12 | JUN | | |
| DEC | | | 07... | 1545 | 3.18 |
| 15... | 1255 | 3.15 | 27... | 1315 | 3.85 |
| 29... | 1240 | 3.43 | JUL | | |
| JAN | | | 11... | 1130 | 3.70 |
| 12... | 1240 | 2.97 | 25... | 1120 | 3.32 |
| 26... | 1310 | 2.86 | AUG | | |
| FEB | | | 06... | 1430 | 3.37 |
| 09... | 1110 | 2.74 | 22... | 1115 | 4.12 |
| 27... | 1055 | 3.25 | SEP | | |
| MAR | | | 06... | 1105 | 3.85 |
| 09... | 1005 | 3.08 | 25... | 1340 | 3.97 |
| 23... | 0955 | 2.99 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280311080332303. **Local Number** BR-884. **Gemini Elementary School Shallow Well at Melbourne Beach, FL.**

LOCATION.--Lat 28°03'11", long 80°33'23", in SW¼NE¼NW¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, at southwest corner of school property, 750 ft southwest of Oak Street, and 0.95 mi south of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 21 ft, cased to 16 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 9.07 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 0.90 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.53 ft NGVD, Oct. 13, 1989; lowest measured, 2.75 ft NGVD, Feb. 9, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1735 | 3.66 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 13... | 1410 | 4.53 | 06... | 1455 | 3.06 |
| 31... | 1255 | 3.83 | 19... | 1335 | 2.91 |
| NOV | | | MAY | | |
| 15... | 0905 | 3.41 | 07... | 1100 | 2.91 |
| 30... | 1435 | 3.12 | JUN | | |
| DEC | | | 07... | 1550 | 3.16 |
| 15... | 1250 | 3.18 | 27... | 1310 | 3.79 |
| 29... | 1245 | 3.46 | JUL | | |
| JAN | | | 11... | 1135 | 3.71 |
| 12... | 1245 | 2.99 | 25... | 1125 | 3.34 |
| 26... | 1305 | 2.85 | AUG | | |
| FEB | | | 06... | 1435 | 3.38 |
| 09... | 1115 | 2.75 | 22... | 1120 | 4.15 |
| 27... | 1050 | 3.27 | SEP | | |
| MAR | | | 06... | 1110 | 3.85 |
| 09... | 1000 | 3.08 | 25... | 1345 | 4.02 |
| 23... | 1000 | 3.03 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280311080332304. Local Number BR-885. Gemini Elementary School Deep Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'11", long 80°33'23", in SW¼NE¼NW¼ sec.27, T.28 S., R.38 E., Hydrologic Unit 03080202, at southwest corner of school property, 750 ft southwest of Oak Street, and 0.95 mi south of Melbourne Beach.
Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NSRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 82 ft, cased to 76 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 9.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 0.62 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.84 ft NGVD, Oct. 13, 1989; lowest measured, 5.77 ft NGVD, May 7, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|
| SEP | | |
| 01... | 1739 | 6.66 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 13... | 1414 | 7.84 | 06... | 1500 | 6.36 |
| 31... | 1300 | 7.68 | 19... | 1340 | 6.16 |
| NOV | | | MAY | | |
| 15... | 0910 | 6.84 | 07... | 1105 | 5.77 |
| 30... | 1440 | 7.07 | JUN | | |
| DEC | | | 07... | 1555 | 6.07 |
| 15... | 1245 | 6.84 | 27... | 1320 | 6.92 |
| 29... | 1235 | 6.68 | JUL | | |
| JAN | | | 11... | 1140 | 6.18 |
| 12... | 1235 | 6.61 | 25... | 1130 | 6.17 |
| 26... | 1300 | 6.64 | AUG | | |
| FEB | | | 06... | 1440 | 6.33 |
| 09... | 1120 | 6.62 | 22... | 1125 | 6.83 |
| 27... | 1045 | 6.96 | SEP | | |
| MAR | | | 06... | 1115 | 6.66 |
| 09... | 0955 | 6.98 | 25... | 1350 | 6.94 |
| 23... | 1005 | 6.40 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280314080331301. Local Number BR-903. Flutie Park Site 2 Deep Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'14", long 80°33'13", in SE¼NE¼NW¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 610 ft southwest of site 1 wells, 125 ft northeast of Oak Street, south southwest of playground in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 86 ft, cased to 76 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 10.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 1.84 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.22 ft NGVD, Oct. 31, 1989; lowest measured, 5.60 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1751 | 7.09 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 18... | 1203 | 7.79 | APR 06... | 1530 | 6.62 |
| 31... | 1205 | 8.22 | 19... | 1345 | 6.53 |
| NOV 15... | 1210 | 7.63 | MAY 07... | 1110 | 6.15 |
| 30... | 1525 | 7.40 | 21... | 1100 | 5.60 |
| DEC 15... | 1210 | 7.35 | JUN 07... | 1510 | 6.19 |
| 29... | 1215 | 7.16 | 19... | 1055 | 6.12 |
| JAN 12... | 1215 | 7.10 | 27... | 0845 | 6.94 |
| 26... | 1255 | 6.96 | JUL 09... | 1210 | 6.69 |
| FEB 09... | 1045 | 7.17 | 25... | 1015 | 6.53 |
| 27... | 1025 | 7.53 | AUG 06... | 1330 | 6.53 |
| MAR 09... | 1040 | 7.41 | 20... | 1400 | 7.24 |
| 23... | 1025 | 6.78 | SEP 05... | 1050 | 6.86 |
| | | | 25... | 1000 | 7.13 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280314080331302. Local Number BR-904. Flutie Park Site 2 Intermediate Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'14", long 80°33'13", in SE¼NE¼NW¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 610 ft southwest of site 1 wells, 125 ft northeast of Oak Street, south southwest of playground in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 46 ft, cased to 36 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 10.90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 0.99 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.45 ft NGVD, Oct. 31, 1989; lowest measured, 4.36 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1750 | 5.93 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 18... | 1206 | 6.41 | 06... | 1535 | 4.73 |
| 31... | 1210 | 6.45 | 19... | 1350 | 4.67 |
| NOV | | | MAY | | |
| 15... | 1215 | 6.21 | 07... | 1115 | 4.57 |
| 30... | 1530 | 5.44 | 21... | 1105 | 4.36 |
| DEC | | | JUN | | |
| 15... | 1215 | 5.25 | 07... | 1515 | 4.48 |
| 29... | 1220 | 5.52 | 19... | 1105 | 4.45 |
| JAN | | | 27... | 0850 | 4.81 |
| 12... | 1220 | 5.14 | JUL | | |
| 26... | 1250 | 4.85 | 09... | 1212 | 5.24 |
| FEB | | | 25... | 1020 | 4.92 |
| 09... | 1050 | 4.79 | AUG | | |
| 27... | 1030 | 4.97 | 06... | 1335 | 4.82 |
| MAR | | | 20... | 1405 | 5.62 |
| 09... | 1035 | 5.13 | SEP | | |
| 23... | 1030 | 4.88 | 05... | 1055 | 5.26 |
| | | | 25... | 1005 | 5.49 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280314080331303. Local Number BR-905. Flutie Park Site 2 Shallow Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'14", long 80°33'13", in SE¼NE¼NW¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 610 ft southwest of site 1 wells, 125 ft northeast of Oak Street, south southwest of playground in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 24 ft, cased to 19 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 10.85 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pvc casing, 1.28 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.77 ft NGVD, Oct. 18, 1989; lowest measured, 4.31 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1752 | 5.39 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 18... | 1209 | 5.77 | APR 06... | 1540 | 4.58 |
| 31... | 1245 | 5.58 | 19... | 1355 | 4.51 |
| NOV 15... | 1220 | 5.48 | MAY 07... | 1120 | 4.45 |
| 30... | 1535 | 5.25 | 21... | 1110 | 4.31 |
| DEC 15... | 1220 | 5.07 | JUN 07... | 1520 | 4.37 |
| 29... | 1225 | 5.52 | 19... | 1100 | 4.33 |
| JAN 12... | 1225 | 5.15 | 27... | 0855 | 4.71 |
| 26... | 1245 | 4.85 | JUL 09... | 1215 | 5.23 |
| FEB 09... | 1055 | 4.77 | 25... | 1025 | 4.92 |
| 27... | 1035 | 5.08 | AUG 06... | 1340 | 4.80 |
| MAR 09... | 1030 | 4.92 | 20... | 1410 | 5.63 |
| 23... | 1035 | 4.72 | SEP 04... | 1100 | 5.24 |
| | | | 25... | 1010 | 5.49 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280316080330701. Local Number BR-887. Flutie Park Site 1 Deep Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'16", long 80°33'07", in NW¼NW¼NE¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 100 ft west of State Highway A1A, 150 ft east of tennis courts in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 95 ft, cased to 85 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 16.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of metal casing, 2.93 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.62 ft NGVD, Oct. 31, 1989; lowest measured, 6.03 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1805 | 7.18 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 18... | 1445 | 8.20 | 06... | 1510 | 6.86 |
| 31... | 1225 | 8.62 | 19... | 1405 | 6.66 |
| NOV | | | MAY | | |
| 15... | 1420 | 7.71 | 07... | 1125 | 6.38 |
| 30... | 1500 | 7.44 | 21... | 1125 | 6.03 |
| DEC | | | JUN | | |
| 15... | 1230 | 7.57 | 07... | 1525 | 6.45 |
| 29... | 1155 | 7.28 | 27... | 1030 | 7.01 |
| JAN | | | JUL | | |
| 12... | 1155 | 7.23 | 11... | 1300 | 6.59 |
| 26... | 1225 | 6.94 | 25... | 0900 | 6.43 |
| FEB | | | AUG | | |
| 09... | 1030 | 7.35 | 06... | 1210 | 6.61 |
| 27... | 1010 | 7.81 | 20... | 1245 | 7.03 |
| MAR | | | SEP | | |
| 09... | 1025 | 7.60 | 05... | 0945 | 7.01 |
| 23... | 1010 | 7.07 | 25... | 1110 | 7.21 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280316080330702. Local Number BR-888. Flutie Park Site 1 Intermediate Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'16", long 80°33'07", in NW¼NW¼NE¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 100 ft west of State Highway A1A, 150 ft east of tennis courts in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 45 ft, cased to 40 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 16.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of metal casing, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.98 ft NGVD, Oct. 31, 1989; lowest measured, 2.99 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|
| SEP 01... | 1800 | 3.96 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 18... | 1445 | 4.35 | 06... | 1545 | 3.73 |
| 31... | 1230 | 4.98 | 19... | 1410 | 3.47 |
| NOV | | | MAY | | |
| 15... | 1425 | 4.82 | 07... | 1130 | 3.35 |
| 30... | 1505 | 4.33 | 21... | 1120 | 2.99 |
| DEC | | | JUN | | |
| 15... | 1235 | 4.34 | 07... | 1530 | 3.14 |
| 29... | 1200 | 4.68 | 27... | 1035 | 3.24 |
| JAN | | | JUL | | |
| 12... | 1200 | 4.11 | 11... | 1305 | 3.40 |
| 26... | 1230 | 3.84 | 25... | 0905 | 3.21 |
| FEB | | | AUG | | |
| 09... | 1035 | 4.02 | 06... | 1215 | 3.54 |
| 27... | 1015 | 4.05 | 20... | 1250 | 3.71 |
| MAR | | | SEP | | |
| 09... | 1020 | 3.99 | 05... | 0950 | 3.77 |
| 23... | 1015 | 3.51 | 25... | 1115 | 4.27 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--280316080330703. Local Number BR-889. Flutie Park Site 1 Shallow Well at Melbourne Beach, FL.

LOCATION.--Lat 28°03'16", long 80°33'07", in NW¼NW¼NE¼ sec.17, T.28 S., R.38 E., Hydrologic Unit 03080202, approximately 100 ft west of State Highway A1A, 150 ft east of tennis courts in Flutie Park, and 0.95 mi southeast of Melbourne Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 24 ft, cased to 19 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 16.86 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of metal casing, 2.61 ft above land-surface datum.

PERIOD OF RECORD.--September 1989 to current year (biweekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.06 ft NGVD, Oct. 31, 1989; lowest measured, 3.13 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|
| SEP | | |
| 01... | 1810 | 3.94 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 18... | 1445 | 4.35 | 06... | 1520 | 3.88 |
| 31... | 1235 | 5.06 | 19... | 1415 | 3.61 |
| NOV | | | MAY | | |
| 14... | 1430 | 4.80 | 07... | 1135 | 3.49 |
| 30... | 1510 | 4.32 | 21... | 1130 | 3.13 |
| DEC | | | JUN | | |
| 15... | 1240 | 4.34 | 07... | 1535 | 3.27 |
| 29... | 1205 | 4.73 | 27... | 1040 | 3.37 |
| JAN | | | JUL | | |
| 12... | 1205 | 4.05 | 11... | 1310 | 3.53 |
| 26... | 1235 | 3.83 | 25... | 0910 | 3.35 |
| FEB | | | AUG | | |
| 09... | 1040 | 4.13 | 06... | 1220 | 3.68 |
| 27... | 1020 | 4.08 | 20... | 1255 | 3.84 |
| MAR | | | SEP | | |
| 09... | 1015 | 4.14 | 05... | 0955 | 3.90 |
| 23... | 1020 | 3.65 | 25... | 1120 | 4.41 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

BREVARD COUNTY

WELL NUMBER.--282245080471601. Local Number HR-202. Cocoa Recorder Well at Cocoa, FL.

LOCATION.--Lat 28°22'45", long 80°47'16", in SW¼SW¼ sec.24, T.24 S., R.35 E., Hydrologic Unit 03080101, on east side of Cox Road, and 1.3 mi north of State Highway 520 in Cocoa. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 129 ft, cased to 114 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 24.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter floor, 9.14 ft above land-surface datum.

COOPERATION.--Since October 1985, records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--August 1955 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 34.69 ft NGVD, Aug. 16, 1955; lowest, 22.57 ft NGVD, May 23, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 27.54 | 27.92 | --- | --- | 27.55 | 27.84 | --- | 24.79 | 24.39 | 25.86 | 26.34 | 26.95 |
| 10 | 27.75 | 27.89 | --- | --- | 27.61 | --- | --- | 24.55 | 24.71 | 25.86 | 26.34 | 26.84 |
| 15 | 27.77 | 27.76 | --- | --- | 27.58 | --- | --- | 24.31 | 25.03 | 25.83 | 26.45 | 26.70 |
| 20 | 27.74 | 27.74 | --- | --- | 27.58 | --- | 25.58 | 24.11 | 25.18 | 26.07 | 26.73 | 26.61 |
| 25 | 27.75 | 27.74 | --- | --- | 27.77 | --- | 25.45 | 24.02 | 25.30 | 26.31 | 26.82 | 26.59 |
| EOM | 28.05 | --- | --- | 27.53 | 27.78 | --- | 25.20 | 24.25 | 25.58 | 26.42 | 26.99 | 26.52 |
| MAX | 28.05 | --- | --- | --- | 27.78 | --- | --- | 25.13 | 25.58 | 26.47 | 26.99 | 26.99 |

WELL NUMBER.--283627080512001. Champion Road Well at Titusville, FL.

LOCATION.--Lat 28°36'27", long 80°51'20", in NW¼NW¼SE¼ sec.6, T. 22S., R. 35E., Hydrologic Unit 03080202, on north side of Champion Road, 0.1 mi west of Carpenter Road, 0.7 mi south of Garden Street, and 0.5 mi west of Interstate Highway 95 in Titusville. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary system, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 136 ft, cased to 132 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 38.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.77 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 (annually); October 1978 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.40 ft NGVD, July 6, 1983; lowest measured, 10.77 ft NGVD, June 2, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1415 | 14.92 | 09... | 1040 | 14.01 |
| 31... | 1040 | 15.86 | 31... | 1210 | 13.01 |
| NOV | | | JUN | | |
| 29... | 1345 | 15.32 | 28... | 1155 | 13.55 |
| DEC | | | JUL | | |
| 28... | 1100 | 15.04 | 26... | 1443 | 14.35 |
| JAN | | | AUG | | |
| 30... | 1345 | 16.12 | 28... | 1157 | 14.79 |
| FEB | | | SEP | | |
| 26... | 1210 | 15.58 | 12... | 1300 | 15.04 |
| MAR | | | 28... | 1136 | 14.43 |
| 30... | 0900 | 17.26 | | | |
| APR | | | | | |
| 30... | 1200 | 14.13 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

BREVARD COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | | | | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--------------------|------------------|-------------------|-------------------|---|
| 274925080361701 | 05-07-90 09-10-90 | 1505 1612 | 749036002 | 30S37E35 | 433 37527 | FELLSMERE TP | 36.06 39.66 |
| 275125080485501 | 05-07-90 09-10-90 | 1145 1200 | 751048003 | 30S35E22 | 123 31139 | KENANSVILLE SE TP | 35.40 40.40 |
| 275422080374001 | 05-07-90 09-10-90 | 1440 1600 | 754037007 | 29S37E04 | 232 09840 | FELLSMERE NW TP | 34.60 38.40 |
| 275425080283101 | 05-08-90 09-11-90 | 1005 1012 | 754028002 | | | | 29.47 32.97 |
| 275435080311001 | 09-10-90 | 1700 | 754031001 | 29S38E34 | 343 04383 | GRANT 82 | 36.40 |
| 275629080504901 | 05-16-90 09-12-90 | 0935 1010 | 756050001 | 29S35E20 | 243 22042 | KENANSVILLE NE TP | 36.57 40.47 |
| 275720080300601 | 05-08-90 09-11-90 | 1050 1000 | 757030004 | 29S38E14 | 334 01412 | GRANT 25 | 32.10 35.50 |
| 275948080393501 | 05-07-90 09-10-90 | 1415 1516 | 759039005 | 29S37E06 | 322 37578 | FELLSMERE NW TP | 34.13 37.15 |
| 275955080434601 | 05-07-90 09-10-90 | 1345 1510 | 759-043-02 | PLATT WELL | NEAR MELBOURNE | | 36.23 39.83 |
| 280008080342601 | 05-07-90 09-10-90 | 1620 1730 | 800034072 | 28S37E36 | 424 08182 | MELBOURNE EAST TP | 31.87 32.07 |
| 280256080325601 | 05-08-90 09-10-90 | 1105 1030 | 802032002 | 28S38E17 | 432 1645 | MELBOURNE EAST 49 | 24.30 25.50 |
| 280348080431201 | 05-07-90 09-10-90 | 1320 1410 | 803043006 | 28S36E10 | 313 37563 | MELBOURNE WEST TP | 35.80 39.40 |
| 280532080514501 | 05-07-90 09-10-90 | 0750 0835 | 805051003 | 27S35E31 | 331 30139 | DEER PARK SE TP | 37.30 40.70 |
| 280534080465101 | 05-07-90 09-10-90 | 0900 0855 | 805046002 | 27S35E36 | 331 37472 | DEER PARK SE TP | 36.03 39.73 |
| 280648080422801 | 05-07-90 09-10-90 | 0830 0925 | DAN PLATT SARNO RD | REPLACEMENT WELL | | | 34.65 36.65 |
| 281109080373701 | 05-08-90 09-11-90 | 0920 0911 | 811037014 | 26S37E33 | 122 18134 | EAU GALLIE 09 | 23.59 26.09 |
| 281215080474601 | 05-09-90 09-12-90 | 0850 1045 | 812047001 | 26S35E23 | 234 28390 | DEER PARK NE TP | 34.00 37.60 |
| 281306080401201 | 05-09-90 09-12-90 | 0920 1115 | 813040016 | 26S37E18 | 233 24103 | EAU GALLIE 88 | 28.56 30.47 |
| 281447080392601 | 05-08-90 | 0905 | 814039076 | 26S36E06 | 444 37577 | EAU GALLIE 79 | 24.54 26.74 |
| 281508080443501 | 05-09-90 09-12-90 | 0825 1015 | 815044001 | 26S36E05 | 213 00082 | COCOA 00 | 28.90 31.50 |
| 281509080363001 | 05-08-90 09-11-90 | 1145 1135 | 815036012 | 26S37E03 | 224 01562 | COCOA BEACH TP | 24.10 26.80 |
| 281744080444001 | 05-09-90 09-12-90 | 0800 0930 | 817044004 | 25S36E20 | I-95 & FISKE BLVD | | 29.14 31.74 |
| 281905080375001 | 05-08-90 09-11-90 | 1210 1200 | 819037196 | 25S37E16 | 212 27337 | COCOA 04 | 18.45 20.55 |
| 282143080403401 | 05-08-90 09-11-90 | 0841 0750 | KIWANIS PARK | | | | 15.20 17.40 |
| 282204080514301 | 05-08-90 09-12-90 | 1650 0915 | 822051001 | 24S35E30 | 342 00767 | LAKE POINSETT | 27.48 29.88 |
| 282423080353601 | 05-09-90 09-11-90 | 1225 1245 | 824035001 | 24S37E11 | 444 15764 | CAPE CANAVERAL TP | 16.01 23.07 |
| 282524080422301 | 05-08-90 09-11-90 | 1510 1510 | MERRITT ISLAND | INJECTION WELL | | | 13.88 16.35 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

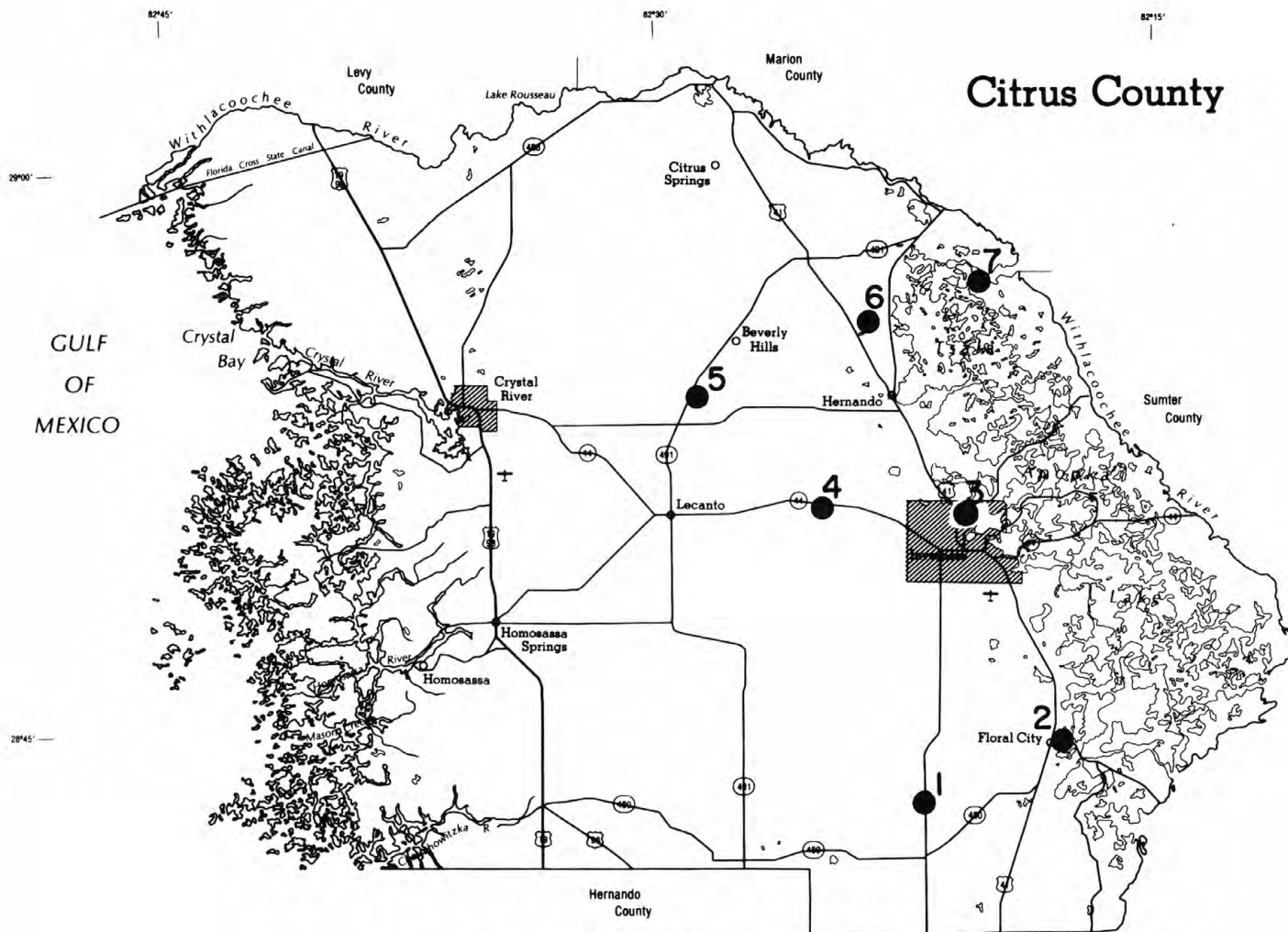
BREVARD COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | | | | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--------------|----------|-----------------------|-------------------|---|
| 282647080331301 | 05-08-90 09-11-90 | 1340 1300 | 826033001 | 23S38E32 | 321 28485 | CAPE CANAVERAL TP | 18.20 20.40 |
| 282929080343601 | 05-08-90 09-11-90 | 1350 1325 | 829034001 | 23S37E13 | 222 28488 | CAPE CANAVERAL TP | 15.21 16.75 |
| 283027080403601 | 05-08-90 09-11-90 | 1500 1430 | 830040002 | 23S37E01 | 444 00155 | ORSINO TP | 8.50 10.56 |
| 283236080535101 | 05-09-90 09-12-90 | 1000 1225 | 832053001 | 22S34ESG | --- 00773 | TITUSVILLE SW TP | 15.10 16.80 |
| 283644080574901 | 05-09-90 09-12-90 | 1215 1420 | 8360573 | | | | 13.00 14.20 |
| 283835080424501 | 05-08-90 09-11-90 | 1420 1400 | 838042002 | 21S36E27 | MERRITT ISLE WILDLIFE | | 7.20 9.82 |
| 283906080514501 | 05-08-90 09-12-90 | 1100 1315 | 839051005 | 21S35E19 | 431 00864 | MIMS 15 | 10.70 10.72 |
| 283955080565701 | 05-09-90 09-12-90 | 1155 1415 | 839056002 | | | | 10.49 11.90 |
| 284116080514001 | 05-09-90 09-12-90 | 1135 1350 | 841051226 | 21S35E06 | 343 05242 | MIMS 20 | 8.52 8.82 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 20
CITRUS COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 284330082215401 | 72 |
| 2 | 284508082174601 | 72 |
| 3 | 285102082204001 | 73 |
| 4 | 285124082245601 | 73 |
| 5 | 285414082284201 | 74 |
| 6 | 285608082233401 | 74 |
| 7 | 285720082201301 | 75 |



EXPLANATION

●⁴ WELL AND INDEX NUMBER



Figure 20.--Location of wells in Citrus County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CITRUS COUNTY

WELL NUMBER.--284330082215401. Romp 109 Well near Floral City, FL.

LOCATION.--Lat 28°43'30", long 82°21'54", in SW¼SE¼SW¼, sec.24, T.20 S., R.19 E., Hydrologic Unit 03100208, 0.5 mi west of State Highway 581, 4.5 mi southwest of Floral City. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 260 ft, cased to 189 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 157.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. flange, 2.67 ft above land-surface datum.

PERIOD OF RECORD.--May 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.15 ft NGVD, Aug. 23, 1984; lowest, 14.96 ft NGVD, July 15, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 16.95 | 16.75 | 16.44 | 16.19 | 16.02 | 15.99 | 15.82 | 15.56 | 15.28 | 15.06 | 15.18 | 15.57 |
| 10 | 16.98 | 16.69 | 16.37 | 16.18 | 16.01 | 15.98 | 15.79 | 15.51 | 15.27 | 15.01 | 15.21 | 15.59 |
| 15 | 16.97 | 16.67 | 16.36 | 16.17 | 15.98 | 15.95 | 15.76 | 15.47 | 15.21 | 14.96 | 15.26 | 15.62 |
| 20 | 16.94 | 16.62 | 16.29 | 16.15 | 15.93 | 15.92 | 15.69 | 15.41 | 15.15 | 15.03 | 15.30 | 15.63 |
| 25 | 16.90 | 16.54 | 16.26 | 16.11 | 15.96 | 15.88 | 15.66 | 15.36 | 15.10 | 15.10 | 15.38 | 15.62 |
| EOM | 16.82 | 16.50 | 16.23 | 16.05 | 15.99 | 15.83 | 15.59 | 15.32 | 15.08 | 15.15 | 15.50 | 15.57 |
| MAX | 16.99 | 16.81 | 16.49 | 16.20 | 16.06 | 16.00 | 15.85 | 15.58 | 15.32 | 15.15 | 15.50 | 15.63 |
| CAL YR 1989 | MAX 20.37 | | | | | | | | | | | |
| WTR YR 1990 | MAX 16.99 | | | | | | | | | | | |

WELL NUMBER.--284508082174601. Ferris Packing Company Well at Floral City, FL.

LOCATION.--Lat 28°45'08", long 82°17'46", in NE¼NE¼NW¼ sec.15, T.20 S., R.20 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, in rear of packing house, 0.2 mi north of State Highway 48 in Floral City. Owner: Ferris Packing Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 8 in., depth 400 ft, cased to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 70.43 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March and May 1961, January 1964 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.32 ft NGVD, Aug. 23, 1965; lowest measured, 29.65 ft NGVD, Dec. 17, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | JUN | | |
| 08... | 1635 | 33.29 | 20... | 1750 | 31.51 |
| JAN | | | AUG | | |
| 16... | 0922 | 33.30 | 09... | 1715 | 31.18 |
| MAR | | | SEP | | |
| 14... | 1805 | 33.02 | 10... | 1450 | 30.98 |
| MAY | | | | | |
| 04... | 1755 | 32.41 | | | |
| 17... | 1000 | 32.35 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CITRUS COUNTY

WELL NUMBER.--285102082204001. DOT-41 Observation Well at Inverness, FL.

LOCATION.--Lat 28°51'02", long 82°20'40", in SW¼SW¼NE¼ sec.7, T.19 S., R.20 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, 0.4 mi north of intersection of U.S. Highway 41 and State Highway 581 in Inverness. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 18 in., depth 450 ft, cased to 290 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 41.56 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 1.99 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.80 ft NGVD, Oct. 14, 1982; lowest, 26.76 ft NGVD, July 5, 1962.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 30.00 | 29.52 | 29.11 | 29.05 | 29.12 | 29.13 | 28.76 | 28.26 | 27.75 | 27.72 | 27.54 | 27.55 |
| 10 | 29.99 | 29.50 | 29.01 | 29.20 | 29.15 | 29.08 | 28.72 | 28.22 | 27.67 | 27.61 | 27.53 | 27.53 |
| 15 | 29.94 | 29.47 | 29.00 | 29.23 | 28.99 | 29.08 | 28.67 | 28.01 | 27.61 | 27.60 | 27.51 | 27.55 |
| 20 | 29.75 | 29.33 | 28.95 | 29.35 | 28.94 | 28.97 | 28.46 | 27.95 | 27.56 | 27.60 | 27.48 | 27.44 |
| 25 | 29.75 | 29.22 | 28.94 | 29.36 | 28.91 | 28.86 | 28.39 | 27.82 | 27.65 | 27.60 | 27.48 | 27.38 |
| EOM | 29.66 | 29.14 | 29.03 | 29.19 | 29.09 | 28.87 | 28.31 | 27.69 | 27.70 | 27.56 | 27.54 | 27.32 |
| MAX | 30.06 | 29.64 | 29.19 | 29.36 | 29.17 | 29.28 | 28.90 | 28.29 | 27.77 | 27.79 | 27.56 | 27.59 |

CAL YR 1989 MAX 31.55
WTR YR 1990 MAX 30.06

WELL NUMBER.--285124082245601. ROMP 113 Well near Inverness, FL.

LOCATION.--Lat 28°51'24", long 82°24'56", in NE¼NW¼NW¼ sec.9, T.19 S., R.19 E., Hydrologic Unit 03100208, on south side of State Highway 44, 5.5 mi west of Inverness. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 150 ft, cased to 130 ft, screened 130 to 150 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 129.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 4.01 ft above land-surface datum.

PERIOD OF RECORD.--October 1975, September 1976 to September 1977 (bimonthly); October 1977 to September 1980; October 1980 to September 1981 (bimonthly); October 1981 to current year. Records prior to October 1976 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 12.72 ft NGVD, Oct. 23, 1982; lowest, 5.75 ft NGVD, Feb. 11, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 6.87 | 6.55 | 6.40 | --- | 6.18 | 6.38 | 6.30 | 6.11 | 6.11 | 6.04 | 6.46 | 6.89 |
| 10 | 6.95 | 6.56 | 6.38 | 6.38 | 6.16 | 6.40 | 6.27 | 6.11 | 6.11 | 6.03 | 6.51 | 6.92 |
| 15 | 6.91 | 6.59 | 6.44 | 6.41 | 6.23 | 6.39 | 6.20 | 6.12 | 6.09 | 6.05 | 6.52 | 6.92 |
| 20 | 6.88 | 6.58 | 6.36 | 6.33 | 6.23 | 6.41 | 6.14 | 6.06 | 6.00 | 6.18 | 6.56 | 6.92 |
| 25 | 6.76 | 6.51 | --- | 6.28 | 6.26 | 6.29 | 6.12 | 6.06 | 6.02 | 6.30 | 6.71 | 6.87 |
| EOM | 6.58 | 6.50 | --- | 6.23 | 6.31 | 6.25 | 6.13 | 6.11 | 6.06 | 6.43 | 6.81 | 6.83 |
| MAX | 6.96 | 6.60 | --- | --- | 6.31 | 6.41 | 6.31 | 6.13 | 6.11 | 6.43 | 6.81 | 6.92 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CITRUS COUNTY

WELL NUMBER.--285414082284201. North Lecanto Well near Lecanto, FL.

LOCATION.--Lat 28°54'14", long 82°28'42", in SW¼NE¼NW¼ sec.22, T.18 S., R.18 E., Hydrologic Unit 03100207, 40 ft east of State Highway 491, and 3.8 mi north of Lecanto. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 335 ft, cased to 288 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 68.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.07 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.10 ft NGVD, Oct. 15, 1982; lowest 3.40 ft NGVD, Mar. 25, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 4.63 | --- | 3.94 | 3.97 | 3.85 | 4.32 | 4.05 | 3.89 | 4.00 | 3.95 | 4.34 | 4.59 |
| 10 | 4.54 | 4.29 | 4.06 | 4.22 | 3.97 | 4.12 | 3.91 | 3.87 | 3.93 | 3.92 | 4.36 | 4.56 |
| 15 | --- | 4.32 | 4.08 | 4.11 | 4.09 | 4.17 | 3.83 | 3.87 | 3.77 | 4.29 | 4.37 | 4.55 |
| 20 | --- | 4.10 | 3.98 | 3.99 | 4.03 | 4.12 | 3.72 | 3.81 | 3.77 | 4.39 | 4.42 | 4.42 |
| 25 | --- | 4.05 | 3.83 | 3.93 | 4.25 | 3.97 | 3.82 | 3.92 | 4.02 | 4.44 | 4.59 | 4.35 |
| EOM | --- | 4.10 | 4.07 | 3.88 | 4.11 | 4.04 | 3.96 | 3.98 | 3.94 | 4.44 | 4.58 | 4.33 |
| MAX | --- | --- | 4.21 | 4.26 | 4.26 | 4.32 | 4.14 | 4.03 | 4.02 | 4.45 | 4.60 | 4.61 |

WELL NUMBER.--285608082233401. Camp Mining Well (CE-64) near Holder, FL.

LOCATION.--Lat 28°56'08", long 82°23'34", in SW¼NW¼SE¼ sec.10, T.18 S., R.19 E., Hydrologic Unit 03100208, in a field about 0.5 mi east of U.S. Highway 41, at a point 2.5 mi south of State Highway 200 in Holder. Owner: G.L. Robinson.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 14 in., depth 91 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 65.92 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.14 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, December 1961 to current year (bimonthly). Records prior to January 1974 are unpublished and are available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.01 ft NGVD, Nov. 20, 1964; lowest measured, 12.04 ft NGVD, Apr. 13, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| NOV 08... | 1215 | 21.12 | MAY 15... | 1615 | 19.83 |
| JAN 10... | 1728 | 20.00 | JUN 21... | 1900 | 19.19 |
| MAR 08... | 1655 | 20.13 | AUG 09... | 2005 | 19.51 |
| APR 24... | 1750 | 20.25 | SEP 11... | 1200 | 19.88 |

WELL NUMBER.--285720082201301. ROMP 116 Well near Tsala Apopka, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

INSTRUMENTATION.--Digital recorder--60-minute interval.

PERIOD OF RECORD.--June 1974, September 1976 to March 1977 (bimonthly); April 1977 to current year. Records prior to September 1976 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.91 ft NGVD, Oct. 6, 1982; lowest, 30.54 ft NGVD, June 5.6, 1985.

[illegible]

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990
CITRUS COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------------------|----------------------|--|---|
| 284101082184301 | 05-16-90 09-10-90 | 1430 1315 | 84121801 21S20E04 OAK FOREST SUBMERSIBLE | 28.44 28.27 |
| 284439082131401 | 05-16-90 09-10-90 | 1549 1355 | 84421301 TRAILS END FISH CAMP WELL NR FLORAL CITY | 39.35 39.60 |
| 284519082150701 | 05-16-90 09-10-90 | 1515 1335 | 84521501 20S21E07 HOMER N FISHER | 39.44 39.20 |
| 284528082211801 | 05-16-90 09-10-90 | 1245 1530 | 84522101 20S19E12 WSF-MUTUAL MINE REC AREA | 15.65 15.71 |
| 284609082163001 | 05-16-90 09-10-90 | 1501 1420 | DUVAL ISLAND WELL NR FLORAL CITY | 38.93 38.93 |
| 284752082202501 | 05-16-90 09-10-90 | 1215 1545 | 84722001 19S20E31 HIGHLANDS VFD NR INVERNESS | 17.35 17.03 |
| 284805082225701 | 05-16-90 09-10-90 | 1635 1600 | 84822201 19S19E26 WSF-HOLDER MINE REC AREA | 11.11 10.81 |
| 284844082282801 | 05-15-90 09-10-90 | 1315 1655 | 84822801 19S18E22 WSF-PERRYMAN TRACT | 4.77 3.81 |
| 284958082190401 | 05-16-90 09-10-90 | 1050 1800 | 84921901 19S20E16 CITRUS 8 USGS | 35.97 35.57 |
| 285026082174101 | 05-16-90 09-10-90 | 1105 1805 | 85021701 19S20E15 CITRUS 9 USGS | 39.29 38.07 |
| 285037082213801 | 05-16-90 09-10-90 | 1000 1620 | 85022101 19S19E12 INVERNESS VILLAGE EASTW | 19.09 18.73 |
| 285056082163001 | 05-16-90 09-10-90 | 1110 1810 | 85021601 19S20E11 CITRUS 10 USGS | 37.25 37.73 |
| 285105082135802 | 05-16-90 09-10-90 | 1117 1815 | USGS WELL 0.7 MI.W OF WITH.R. ON SR 44, 47 FT N RD | 37.75 37.82 |
| 285248082183201 | 05-16-90 09-10-90 | 1040 1745 | 85221801 18S20E33 ELMER HEATH | 37.89 37.99 |
| 285514082275402 | 05-15-90 09-11-90 | 1415 1210 | 85522704 18S18E14 BEVERLY HILLS WELL 6-T | 3.91 4.59 |
| 285612082294201 | 09-11-90 | 1220 | 85622901 18S18E04 PINE RIDGE NO 3 | 1.00 |
| 285812082360901 | 05-15-90 09-11-90 | 1200 1415 | 85823601 17S17E29 CE 7 USGS | 9.03 11.72 |
| 285833082233301 | 05-15-90 09-11-90 | 1515 0900 | 85822301 17S19E34 CE 16 | 12.92 13.85 |
| 285930082283702 | 05-15-90 09-11-90 | 1445 1245 | 85922803 17S18E22 CITRUS SPRINGS RECORDER | 6.24 6.71 |
| 285935082324501 | 05-15-90 09-11-90 | 1215 1345 | 85923201 17S17E24 MELODY JOHNSON | 5.52 6.62 |
| 285951082350901 | 05-15-90 09-11-90 | 1130 1400 | 85923501 17S17E15 CE 6 USGS | 14.40 17.91 |
| 290023082393601 | 05-15-90 09-11-90 | 1836 1445 | 90023901 17S16E11 CE 89 USGS | 6.33 10.25 |
| 290107082400501 | 05-15-90 09-11-90 | 1830 1500 | 90124001 17S16E11 CE 88 USGS | 0.41 2.94 |
| 290132082324201 | 05-15-90 09-11-90 | 1100 1320 | 90123202 17S17E01 EMORY COWART HOUSE WELL | 10.16 12.26 |
| 290216082292001 | 05-15-90 09-11-90 09-18-90 | 0912 1315 1130 | 90222901 16S18E33 CE 77 USGS | 10.68 11.57 11.59 |

MISCELLANEOUS WATER-QUALITY MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

CITRUS COUNTY

290216082292001 - 90222901 16S18E33 CE-77 USGS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 0912 | 10.68 | 183 | 8.2 | 24.0 | K18 | 3.4 |
| SEP 18... | 1130 | 11.59 | 156 | 7.6 | 24.5 | <1 | 3.5 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 0.470 | 0.020 | <0.20 | <0.020 | 0.020 | 0.3 |
| SEP 18... | 0.010 | 0.460 | 0.010 | <0.20 | 0.060 | 0.020 | 0.2 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 21
CLAY COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 294807082020903 | 80 |
| 2 | 295353081381901 | 80 |
| 3 | 300450081482801 | 81 |
| 4 | 300649081485901 | 82 |
| 5 | 300656081463401 | 82 |
| 6 | 300834081421301 | 83 |
| 7 | 300850081552001 | 84 |
| 8 | 300957081423501 | 84 |

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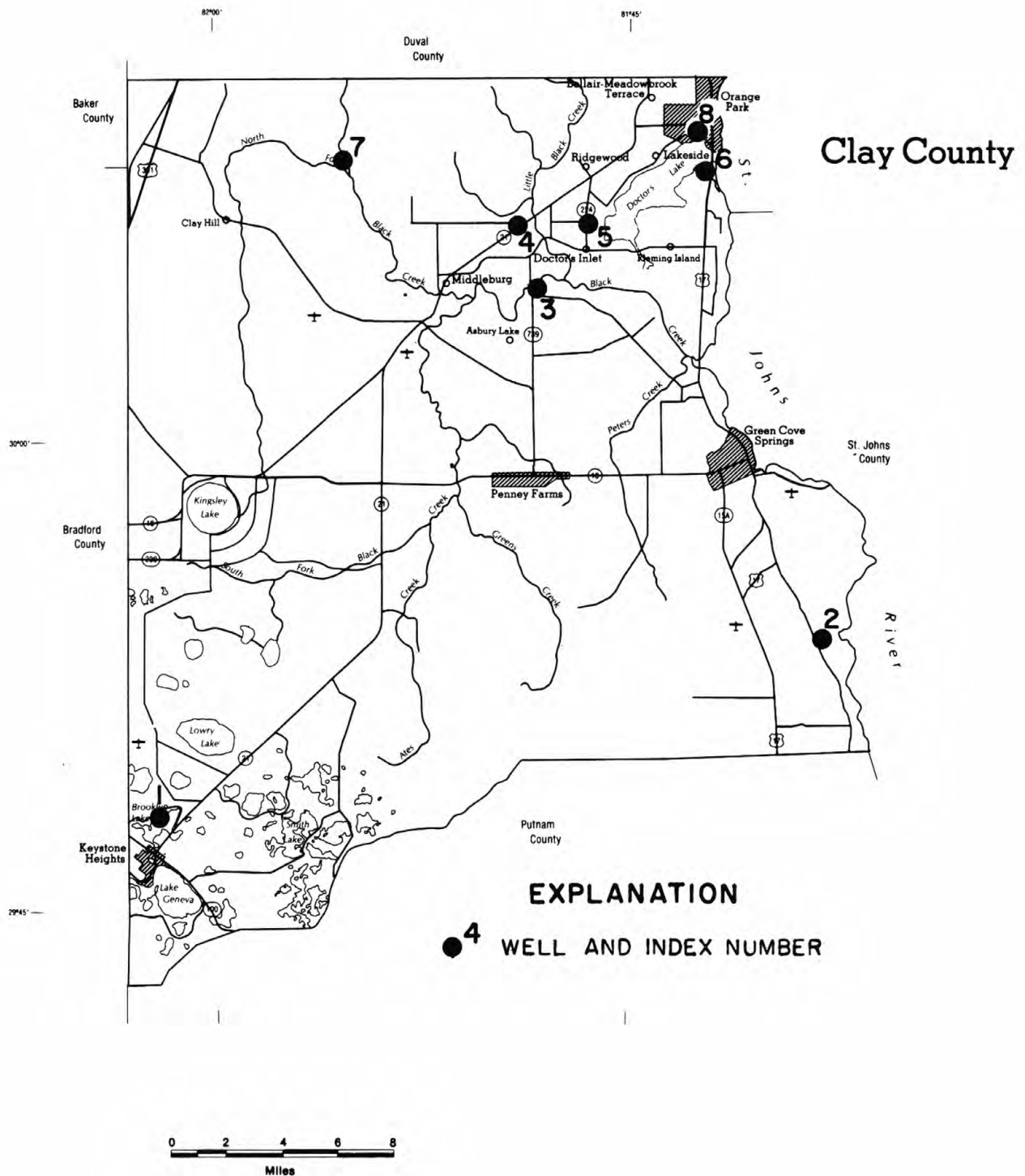


Figure 21--Location of wells in Clay County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

WELL NUMBER.--294807082020903. Local Number 948-202-8. USGS Well at Keystone Heights, FL.

LOCATION.--Lat 29°48'07", long 82°02'09", in SE¼NW¼NE¼ sec.18, T.8 S., R.23 E., Hydrologic Unit 03080103, on graded road on west side of Brooklyn Lake, 1.2 mi north of intersection of State Highways 100 and 21 at Keystone Heights. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 6 in., depth 250 ft, cased to 193 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 145.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Recorder shelf, 2.06 ft above land-surface datum.

PERIOD OF RECORD.--August 1960 to current year. Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 89.50 ft NGVD, Oct. 31, 1960; lowest, 76.33 ft NGVD, Sept. 7, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 79.78 | 79.21 | 79.12 | 78.81 | 78.67 | 78.81 | 78.50 | 77.99 | 77.39 | 77.32 | 77.13 | 76.59 |
| 10 | 79.80 | 79.30 | 79.04 | 78.78 | 78.61 | 78.70 | 78.27 | 77.93 | 77.40 | 77.15 | 77.09 | --- |
| 15 | 79.64 | 79.36 | 79.02 | 78.60 | 78.46 | 78.62 | 78.19 | 77.70 | 77.28 | 77.36 | 77.00 | --- |
| 20 | 79.52 | 79.25 | 78.98 | 78.69 | 78.60 | 78.61 | 78.01 | 77.70 | 77.22 | 77.33 | 77.02 | --- |
| 25 | 79.49 | 79.19 | 78.55 | 78.80 | 78.64 | 78.47 | 78.14 | 77.51 | 77.44 | 77.35 | 76.95 | 76.92 |
| EOM | 79.44 | 79.10 | 78.87 | 78.71 | 78.66 | 78.47 | 78.11 | 77.28 | 77.39 | 77.33 | 76.78 | 76.93 |
| MAX | 79.82 | 79.37 | 79.23 | 78.96 | 78.80 | 78.94 | 78.55 | 78.09 | 77.46 | 77.48 | 77.26 | --- |

CAL YR 1989 MAX 83.18

WELL NUMBER.--295353081381901. Local Number C-111. Williamson Well near Green Cove Springs, FL.

LOCATION.--Lat 29°53'53", long 81°38'19", in SE¼SE¼SW¼ sec.7, T.7 S., R.27 E., Hydrologic Unit 03080103, 100 ft east of State Road 209, and 5.2 mi from U.S. Highway 17. Owner: P.L. Williamson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 494 ft, cased to 274 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 4 in. tee, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.30 ft above land-surface datum, Sept. 15, 1982; lowest measured, 13.50 ft above land-surface datum, Apr. 4, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 06... | 1545 | -19.50 | 16... | 1020 | -14.50 |
| DEC | | | 23... | 1400 | -15.10 |
| 06... | 1600 | -19.60 | JUL | | |
| JAN | | | 25... | 1345 | -16.90 |
| 24... | 1125 | -20.60 | SEP | | |
| MAR | | | 13... | 1435 | -18.00 |
| 21... | 1330 | -14.00 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

WELL NUMBER.--300450081482801. Local Number C-18. Muir Well near Doctors Inlet, FL.

LOCATION.--Lat 30°04'51", long 81°48'31", in NW¼SE¼NW¼ sec.9, T.5 S., R.25 E., Hydrologic Unit 03080103, 300 ft east on first paved road south of bridge crossing Black Creek, 3.4 mi southwest of Doctors Inlet. Owner: A.B. Muir, III.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 500 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 5.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. tee, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1970 to May 1972 (monthly); May 1974, May 1976, May 1977 to September 1985 (semiannually); May 1986 to current year (bimonthly). Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.20 ft above land-surface datum, Sept. 22, 1970; lowest measured, 35.60 ft above land-surface datum, Sept. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 10... | 1435 | -39.10 | 11... | 1025 | -37.90 |
| DEC | | | 25... | 0910 | -37.30 |
| 07... | 0850 | -38.90 | JUL | | |
| JAN | | | 26... | 1510 | -36.30 |
| 25... | 1010 | -39.40 | SEP | | |
| MAR | | | 12... | 1025 | -35.60 |
| 27... | 0840 | -39.20 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

WELL NUMBER.--300649081485901. Local Number C-5. John Huntley Well near Middleburg, FL.

LOCATION.--Lat 30°06'49", long 81°48'59", in SE¼SW¼SW¼ sec.28, T.4 S., R.25 E., Hydrologic Unit 03080103, 200 ft north of State Highway 21, 0.4 mi southwest of Little Black Creek, and 3.8 mi northeast of Middleburg. Owner: John Huntley.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 4 in., depth 530 ft, cased to 157 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 24.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. tee, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--August 1940 to August 1945 (semiannually) incomplete; August 1946 to July 1964 (bimonthly); January 1965 to May 1969 (semiannually); January 1970 to current year (bimonthly) incomplete. Records prior to May 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.92 ft NGVD, Apr. 26, 1944; lowest measured, 35.02 ft NGVD, Sept. 12, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1400 | 38.22 | 10... | 0845 | 36.62 |
| DEC | | | JUL | | |
| 07... | 0905 | 38.52 | 26... | 1525 | 35.12 |
| JAN | | | SEP | | |
| 25... | 0930 | 39.12 | 12... | 1015 | 35.02 |
| MAR | | | | | |
| 27... | 0905 | 37.92 | | | |

WELL NUMBER.--300656081463401. Local Number C-94. USGS Test Well near Orange Park, FL.

LOCATION.--Lat 30°06'56", long 81°46'34", in SW¼SE¼SW¼ sec.26, T.4 S., R.25 E., Hydrologic Unit 03080103, at St. Johns River Community College, 150 ft east of State Highway 224, 1.5 mi south of intersection of State Highways 224 and 21, and 5.0 mi southwest of Orange Park. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 8 in., depth 1,197 ft, cased to 391 ft.

INSTRUMENTATION.--Monthly measurement with chalked taped by USGS personnel.

DATUM.--Land-surface datum is 46.22 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2.5 in. coupling, 1.29 ft above land-surface datum.

PERIOD OF RECORD.--February 1974 to April 1979 (quarterly); July 1979 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.59 ft NGVD, Feb. 28, 1983; lowest measured, 29.73 ft NGVD, July 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0900 | 34.31 | 10... | 1335 | 31.40 |
| NOV | | | 30... | 1010 | 29.74 |
| 29... | 1345 | 34.53 | JUN | | |
| JAN | | | 26... | 0950 | 30.07 |
| 02... | 1135 | 32.65 | JUL | | |
| 30... | 1200 | 34.36 | 30... | 1135 | 29.73 |
| FEB | | | AUG | | |
| 27... | 1100 | 34.51 | 28... | 1155 | 30.19 |
| MAR | | | SEP | | |
| 30... | 0840 | 32.89 | 13... | 0950 | 30.09 |
| APR | | | 26... | 1225 | 29.75 |
| 30... | 1045 | 32.23 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

WELL NUMBER.--300834081421301. Local Number C-7. Hanson Well near Orange Park, FL.

LOCATION.--Lat 30°08'34", long 81°42'13", in land grant 44, T.4 S., R.26 E., Hydrologic Unit 03080103, 350 ft north of Creighton Road, 500 ft west of U.S. Highway 17, and 1.5 mi south of Orange Park. Owner: Mr. Hanson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 550 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 5.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. cross, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to September 1980 (biannually); May 1981 to current year (monthly). Records prior to October 1981 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.20 ft above land-surface datum, Mar. 24, 1983; lowest measured, 17.20 ft above land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0840 | -24.30 | 11... | 0915 | -21.00 |
| NOV | | | 30... | 0940 | -18.60 |
| 29... | 1325 | -24.20 | JUN | | |
| JAN | | | 26... | 0915 | -19.20 |
| 03... | 1030 | -22.80 | JUL | | |
| 30... | 1220 | -24.20 | 30... | 1155 | -18.40 |
| FEB | | | AUG | | |
| 27... | 1120 | -24.80 | 28... | 1215 | -19.60 |
| MAR | | | SEP | | |
| 30... | 0820 | -21.40 | 12... | 1100 | -19.30 |
| APR | | | 26... | 1245 | -17.20 |
| 30... | 1025 | -22.10 | | | |

Note.--Negative figures indicate water level above land-surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

WELL NUMBER.--300850081552001. Local Number C-29. Jennings Well near Maxville, FL.

LOCATION.--Lat 30°08'50", long 81°55'20", in NW¼NW¼SE¼ sec. 17, T.4 S., R.24 E., Hydrologic Unit 03080103, on east side of wooded trail, 0.15 mi south of Long Branch Road, 5.4 mi east of junction of State Road 217 and Long Branch Road, and 6.3 mi southeast of Maxville. Owner: Mr. Jennings.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in., depth 330 ft, cased to 300 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 6 in. flare, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--March 1968, May 1977 to September 1986 (semiannually); October 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.90 ft above land-surface datum, May 13, 1980; lowest measured, 10.50 ft above land-surface datum, Aug. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 10... | 1635 | -18.70 | 10... | 1245 | -19.50 |
| DEC | | | JUL | | |
| 07... | 1305 | -18.80 | 20... | 1330 | -16.50 |
| JAN | | | SEP | | |
| 25... | 0730 | -19.40 | 11... | 1330 | -16.30 |
| MAR | | | | | |
| 27... | 1300 | -20.00 | | | |

Note.--Negative figures indicate water level above land surface.

WELL NUMBER.--300957081423501. Local Number C-2. A.H. Harrington Well at Orange Park, FL.

LOCATION.--Lat 30°09'57", long 81°42'35", in land grant 41, T.4 S., R.26 E., Hydrologic Unit 03080103, 350 ft north of Kingsley Avenue, 150 ft east of Railroad Avenue at Orange Park. Owner: A.H. Harrington.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 450 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. gate valve, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--1934, 1958, 1966 to 1977 (annually); April 1979 to current year (bimonthly) incomplete. Records prior to February 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.50 ft NGVD, May 16, 1934; lowest measured, 22.34 ft NGVD, June 6, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAR | | |
| 02... | 1420 | 28.30 | 27... | 0705 | 27.00 |
| DEC | | | MAY | | |
| 07... | 0705 | 28.70 | 25... | 0745 | 24.10 |
| JAN | | | JUL | | |
| 24... | 1200 | 30.20 | 26... | 1605 | 24.00 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

CLAY COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|-------------------------------|---|
| 294307082020903 | 05-16-90 09-10-90 | 0700 0825 | 9432023 COUNTYLINE NR MELROSE | 79.97 79.05 |
| 295615081394701 | 05-16-90 09-10-90 | 1005 1157 | C-36 | 30.50 32.50 |
| 295835081515001 | 05-16-90 09-10-90 | 0915 1044 | C-17 | 65.83 64.70 |
| 295847081380601 | 05-16-90 09-10-90 | 0950 1121 | C-78 | 18.40 19.90 |
| 295900081403201 | 05-16-90 09-10-90 | 0938 1107 | C-82 | 23.00 24.50 |
| 300048081414301 | 05-11-90 09-12-90 | 1000 0930 | C-30 | 27.77 26.07 |
| 300242081532002 | 05-10-90 09-12-90 | 0905 1000 | C-15 | 53.12 51.32 |
| 300300081422501 | 05-15-90 09-14-90 | 0900 0840 | C-16 | 24.40 24.00 |
| 300604081441501 | 05-11-90 09-12-90 | 1115 1045 | C-22 | 29.10 27.30 |
| 301018081415101 | 05-11-90 09-12-90 | 1140 1110 | C-4 | 26.90 25.50 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 22
DUVAL COUNTY

| Index number | Site number | Page number | Index number | Site number | Page number |
|-----------------|-----------------|----------------|-----------------|-----------------|----------------|
| 1 | 300812081390801 | 88 | 22 | 301846081240201 | 113 |
| 1 | 300820081354001 | 88 | 22 | 301852081234201 | 114 |
| 2 | 301157081374301 | 89 | 23 | 301900081342801 | 114 |
| 3 | 301422081541201 | 90 | 24 | 301907081420901 | 115 |
| 3 | 301422081541202 | 90 | 25 | 301957081342301 | 116 |
| 3 | 301422081541203 | 91 | 26 | 302007081353201 | 117 |
| 4 | 301522081331301 | 91 | 26 | 302013081353801 | 118 |
| 5 | 301537081441901 | 92 | 27 | 302015081384501 | 119 |
| 6 | 301551081415701 | 93 | 27 | 302022081393501 | 120 |
| 7 | 301552081234301 | 94 | 28 | 302130081411802 | 121 |
| 7 | 301604081234601 | 95 | 28 | 302236081401501 | 122 |
| 8 | 301604081361501 | 96 | 29 | 302227081435001 | 123 |
| 9 | 301620081234201 | 97 | 30 | 302243081300401 | 124 |
| 10 | 301639081330802 | 98 | 30 | 302301081295001 | 125 |
| 11 | 301648081431801 | 99 | 30 | 302301081295002 | 125 |
| 12 | 301657081233301 | 100 | 31 | 302304081383202 | 126 |
| 12 | 301704081233401 | 101 | 32 | 302307081293801 | 127 |
| 10 | 301710081323601 | 102 | 33 | 302339081254702 | 128 |
| 10 | 301710081323602 | 102 | 34 | 302416081522601 | 129 |
| 10 | 301710081323603 | 103 | 34 | 302416081522602 | 129 |
| 12 | 301716081234301 | 104 | 35 | 302502081330701 | 130 |
| 13 | 301725081584501 | 105 | 35 | 302503081332001 | 131 |
| 14 | 301740081361001 | 106 | 35 | 302505081331001 | 132 |
| 15 | 301743081304701 | 107 | 35 | 302511081331201 | 133 |
| 16 | 301743081362301 | 108 | 35 | 302519081331501 | 134 |
| 16 | 301744081363301 | 108 | 36 | 302538081253101 | 135 |
| 16 | 301752081360501 | 109 | 37 | 302538081392501 | 136 |
| 18 | 301801081384302 | 109 | 38 | 302550081331501 | 137 |
| 19 | 301817081374901 | 110 | 38 | 302559081331501 | 137 |
| 19 | 301817081374902 | 111 | 39 | 302608081354901 | 138 |
| 20 | 301839081392101 | 112 | 39 | 302608081354902 | 138 |
| 21 | 301844081403801 | 113 | 39 | 302608081354903 | 139 |
| | | | 40 | 302801081375101 | 140 |

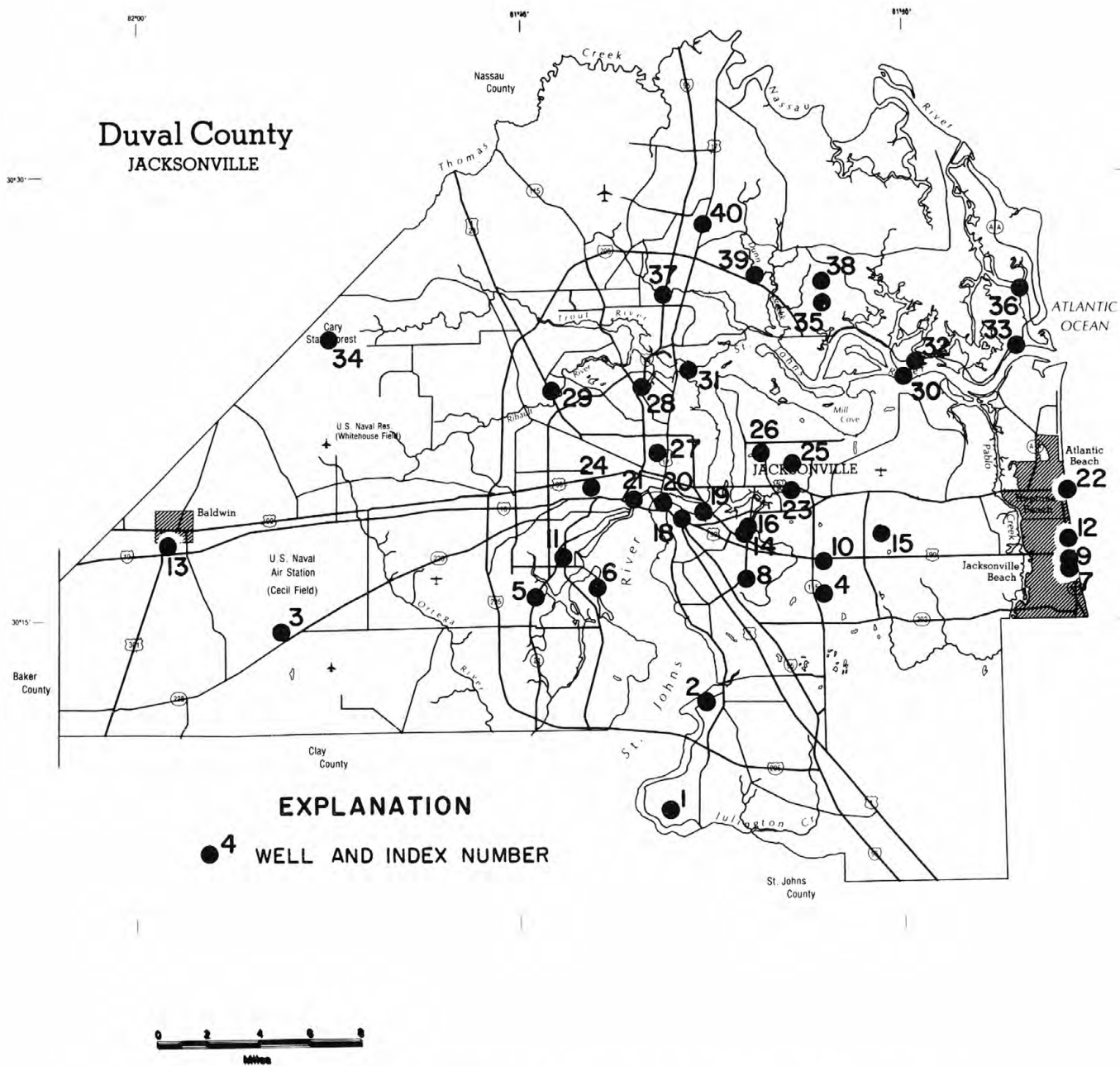


Figure 22.--Location of wells in Duval County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--300812081390801. Local Number D-1097. D. Barnes Well at Mandarin, FL.

LOCATION.--Lat 30°08'12", long 81°39'08", in land grant 35, T.4 S., R.26 E., Hydrologic Unit 03080103, 0.9 mi northwest of Westberry Road, 100 ft west of Mandarin Road in Mandarin. Owner: D. Barnes.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 560 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. tee, 1.1 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1985 (semiannually); May 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.40 ft above land-surface datum, Sept. 16, 1982; lowest measured, 7.90 ft above land-surface datum, May 30, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 29... | 1245 | -15.30 | 14... | 1150 | -8.90 |
| JAN | | | 30... | 1330 | -7.90 |
| 31... | 1320 | -14.80 | JUL | | |
| MAR | | | 30... | 1315 | -8.70 |
| 28... | 1430 | -12.30 | SEP | | |
| | | | 12... | 1305 | -9.20 |
| | | | 26... | 1500 | -9.50 |

Note.--Negative figures indicate water level above land surface.

WELL NUMBER.--300820081354001. Local Number D-296. Hood Landing Well at Mandarin, FL.

LOCATION.--Lat 30°08'20", long 81°35'40", in land grant 43, T.4 S., R.27 E., Hydrologic Unit 03080103, 50 ft east of Hood Landing Road, 150 ft south of Julington Creek Road. Owner: W.C. Clark.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, private, domestic, artesian well, diameter 3 in., depth 487 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. reducer, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--November 1961 to May 1976 (annually); May 1977 to September 1985 (semiannually); May 1986 to current year (bimonthly). Records prior to May 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.20 ft above land-surface datum, May 13, 1966; lowest measured, 12.00 ft above land-surface datum, May 30, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 29... | 1230 | -17.20 | 14... | 1210 | -13.00 |
| JAN | | | 30... | 1315 | -12.00 |
| 31... | 1300 | -17.20 | JUL | | |
| MAR | | | 30... | 1330 | -13.20 |
| 28... | 1415 | -14.70 | SEP | | |
| | | | 12... | 1250 | -13.40 |
| | | | 26... | 1440 | -13.10 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301157081374301. Local Number D-538. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°11'57", long 81°37'43", in land grant 40, T.3 S., R.27 E., Hydrologic Unit 03080103, well located in Beauclerc Gardens pumping station, 3054 Shady Drive, 50 ft south of station entrance, in the Beauclerc Gardens area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,000 ft, cased to 484 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | HARDNESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS-SOLVED (MG/L AS Ca) | MAGNESIUM DIS-SOLVED (MG/L AS Mg) | SODIUM DIS-SOLVED (MG/L AS Na) |
|-----------|------|------------------------------|---------------------|---------------------------|-------------------------------|--------------------------------|---------------------------------|-----------------------------------|--------------------------------|
| OCT 30... | 1320 | 675 | -- | 25.0 | -- | -- | -- | -- | -- |
| JAN 25... | 1445 | 660 | -- | 28.0 | -- | -- | -- | -- | -- |
| APR 24... | 1000 | 550 | 8.2 | 24.0 | <5 | 260 | 47 | 33 | 14 |
| JUL 19... | 0900 | 770 | -- | 27.0 | -- | -- | -- | -- | -- |

| DATE | POTASSIUM, DIS-SOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CaCO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLORIDE, DIS-SOLVED (MG/L AS CL) | FLUORIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | STRONTIUM, DIS-SOLVED (UG/L AS SR) |
|-----------|-----------------------------------|--------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---|------------------------------------|
| OCT 30... | -- | -- | -- | 21 | -- | -- | -- | -- |
| JAN 25... | -- | -- | -- | 21 | -- | -- | -- | -- |
| APR 24... | 2.8 | 83 | 170 | 21 | 0.50 | 5.2 | 368 | 5300 |
| JUL 19... | -- | -- | -- | 26 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301422081541201. Local Number DS-226. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NW¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 250 ft south of State Highway 228 (Normandy Boulevard), 0.8 mi west of main gate of NAS Cecil Field in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn Formation of Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 210 ft, cased to 210 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 2 in. PVC casing, at land-surface datum.

PERIOD OF RECORD.--January 1976, May 1977, February 1979 to current year (bimonthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.11 ft below land-surface datum, Feb. 26, 1986; lowest measured, 11.57 ft below land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|--------------|------|---|--------------|------|---|
| NOV 29... | 1100 | 8.22 | MAY 30... | 1125 | 9.30 |
| JAN 30... | 1105 | 8.00 | JUL 30... | 1050 | 10.75 |
| MAR 01... | 1340 | 8.16 | SEP 26... | 1045 | 11.57 |

WELL NUMBER.--301422081541202. Local Number DS-227. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NE¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 200 ft south of Normandy Boulevard (State Highway 228), 0.8 mi west of main gate NAS Cecil Field in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Hawthorn Formation of the Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 401 ft, cased to 396 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 2 in. PVC casing, at land-surface datum.

PERIOD OF RECORD.--January 1976, March to May 1977, February 1979 to current year (bimonthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.70 ft below land-surface datum, May 21, 1984; lowest measured, 37.32 ft below land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|--------------|------|---|--------------|------|---|
| NOV 29... | 1105 | 33.64 | MAY 30... | 1130 | 35.46 |
| JAN 30... | 1110 | 33.35 | JUL 30... | 1055 | 36.89 |
| MAR 01... | 1345 | 33.05 | SEP 26... | 1050 | 37.32 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301422081541203. Local Number DS-238. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NE¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 220 ft south of Normandy Boulevard (State Highway 228), 0.8 mi west of main gate NAS Cecil Field in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Limestone aquifer of the Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 101 ft, cased to 82 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 2 in. casing, at land-surface datum.

PERIOD OF RECORD.--March 1976 to May 1977, February 1979 to current year (bimonthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.04 ft below land-surface datum, Sept. 25, 1979; lowest measured, 9.50 ft below land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 29... | 1115 | 5.08 | 30... | 1135 | 7.30 |
| JAN | | | JUL | | |
| 30... | 1115 | 5.25 | 30... | 1100 | 8.39 |
| MAR | | | SEP | | |
| 01... | 1350 | 4.51 | 26... | 1055 | 9.50 |

WELL NUMBER.--301522081331301. Local Number D-291. Humphries Mining Company Well at Jacksonville, FL.

LOCATION.--Lat 30°15'22", long 81°33'13", in NW¼NE¼SW¼ sec.12, T.3 S., R.27 E., Hydrologic Unit 03080103, 2.2 mi south of U.S. Highway 90 (Beach Boulevard), and 200 ft east of Alternate U.S. Highway 1 in Jacksonville. Owner: Gate Petroleum Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 18 in. (revised), depth 1,246 ft, cased to 520 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 4 in. opening of 18 in. casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, February 1973 to December 1975, February 1976 to current year (monthly). Records prior to 1976 are unpublished and available in the files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.35 ft (corrected) below land-surface datum, Mar. 1, 1961; lowest measured, 19.98 ft below land-surface datum, July 20, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 27... | 1300 | 16.45 | 30... | 1115 | 19.68 |
| NOV | | | JUN | | |
| 29... | 1400 | 16.16 | 26... | 1300 | 19.70 |
| JAN | | | JUL | | |
| 02... | 1230 | 17.33 | 20... | 1225 | 19.98 |
| 31... | 1015 | 16.33 | AUG | | |
| FEB | | | 28... | 1200 | 19.40 |
| 27... | 1400 | 16.20 | SEP | | |
| MAR | | | 27... | 1115 | 19.65 |
| 29... | 1245 | 17.31 | | | |
| APR | | | | | |
| 30... | 1230 | 17.40 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

Well Number.--301537081441901. Local Number D-75. City of Jacksonville Confederate Point Well at Jacksonville, FL.

LOCATION.--Lat 30°15'37", long 81°44'19", in land grant 42, T.3 S., R.26 E., Hydrologic Unit 03080103, at water plant lot, 200 ft north of west end of Swamp Fox Road, in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 12 in., depth 1,302 ft, cased to 488 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15.3 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.10 ft above land-surface datum, Mar. 26, 1987; lowest measured, 17.50 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| | | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | | | |
|-------|------|---|---|---|---|--|--|--|
| DATE | TIME | | | | | | | |
| OCT | | | | | | | | |
| 27... | 1010 | -20.50 | 368 | 26.0 | 7.9 | | | |
| NOV | | | | | | | | |
| 29... | 1220 | -20.70 | -- | -- | -- | | | |
| JAN | | | | | | | | |
| 03... | 0845 | -19.90 | -- | -- | -- | | | |
| 30... | 1320 | -20.70 | 366 | 25.0 | 7.4 | | | |
| FEB | | | | | | | | |
| 27... | 1220 | -21.50 | -- | -- | -- | | | |
| MAR | | | | | | | | |
| 30... | 0910 | -21.30 | -- | -- | -- | | | |
| APR | | | | | | | | |
| 25... | 0630 | -20.70 | 362 | 26.0 | 8.1 | | | |
| MAY | | | | | | | | |
| 30... | 1040 | -18.80 | -- | -- | -- | | | |
| JUN | | | | | | | | |
| 26... | 1020 | -18.30 | -- | -- | -- | | | |
| JUL | | | | | | | | |
| 30... | 1235 | -17.90 | 348 | 27.0 | 6.4 | | | |
| AUG | | | | | | | | |
| 28... | 1120 | -18.10 | -- | -- | -- | | | |
| SEP | | | | | | | | |
| 26... | 1155 | -17.50 | -- | -- | -- | | | |
| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | |
| APR | | | | | | | | |
| 25... | 0630 | 8.0 | 10 | 180 | 43 | 17 | 7.0 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINEITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
| APR | | | | | | | | |
| 25... | 1.8 | 111 | 65 | 0.40 | 17 | 229 | 3500 | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301551081415701. Local Number D-129. K.A. Merrill Well at Jacksonville, FL.

LOCATION.--Lat 30°15'51", long 81°41'57", in land grant 42, T.3 S., R.26 E., Hydrologic Unit 03080103, 44 ft north of Merrill driveway, and 45 ft east of Ortega Boulevard in Jacksonville. Owner: K.A. Merrill.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 470 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 8.63 ft above National Geodetic Vertical Datum of 1929. Measuring point: 0.5 in. corporation cock, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--July 1940 to April 1942, January to April 1944, August 1945 to September 1978 (semiannually); February 1979 to July 1980 (bimonthly); August 1980 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.93 ft NGVD, July 9, 1940; lowest measured, 20.53 ft NGVD, June 29, 1988.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0820 | 27.63 | 10... | 1425 | 24.53 |
| NOV | | | 30... | 0920 | 20.93 |
| 29... | 1245 | 27.43 | JUN | | |
| JAN | | | 26... | 0850 | 21.33 |
| 03... | 1045 | 25.53 | JUL | | |
| 30... | 1240 | 27.73 | 30... | 1215 | 21.63 |
| FEB | | | AUG | | |
| 27... | 1250 | 28.33 | 28... | 1230 | 22.13 |
| MAR | | | SEP | | |
| 30... | 0805 | 26.33 | 12... | 0820 | 20.73 |
| APR | | | 26... | 1305 | 21.33 |
| 30... | 1005 | 26.03 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301552081234301. Local Number D-2707. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°15'52", long 81°23'43", in SE¼NE¼NW¼ sec. 9, T.3 S., R.29 E., Hydrologic Unit 03080201, well in pumphouse at 900 Seabreeze Avenue, 300 ft west of road in Jacksonville Beach. Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 16 in., depth 900 ft, cased to 400 ft (revised).

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 16 in. flange, 4.1 ft above land-surface datum.

PERIOD OF RECORD.--October 1985 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.70 ft above land-surface datum, Dec. 12, 1989; lowest measured, 3.51 ft above land-surface datum, May 12, 1986.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 0945 | -16.70 | 626 | 8.2 | 26.0 | <5 | 290 | 60 | 34 |
| JUN 22... | 1030 | -6.70 | 620 | 7.9 | 26.0 | 10 | 310 | 63 | 36 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|--|---|---|---|---|--|---|--|--|
| DEC 12... | 15 | 2.1 | 137 | 160 | 19 | 1.1 | 25 | 413 | 2100 |
| JUN 22... | 16 | 2.1 | 135 | 160 | 18 | 1.0 | 24 | 426 | 2100 |

Note.--Negative figures indicate water level above land surface datum.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301604081234601. Local Number D-2747. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°16'04", long 81°23'46", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T.3 S., R.29 E., Hydrologic Unit 03080103, well at pumphouse, 560 ft west of Coastal Boulevard, and 150 ft south of Pullian Road in Jacksonville Beach. Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 16 in., depth 920 ft, cased to 402 ft (revised).

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of spigot at well, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--June 1986 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.70 ft above land-surface datum, Dec. 12, 1989; lowest measured, 6.90 ft above land-surface datum, June 27, 1989.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 1015 | -12.70 | 625 | 8.0 | 23.0 | <5 | 300 | 62 | 35 |
| JUN 22... | 1100 | -- | 614 | 7.8 | 24.0 | <5 | 310 | 62 | 37 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINEITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|--|---|--|---|---|--|---|--|--|
| DEC 12... | 13 | 2.4 | 121 | 190 | 13 | 0.90 | 23 | 428 | 2100 |
| JUN 22... | 14 | 2.4 | 122 | 190 | 12 | 0.90 | 22 | 427 | 2200 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301604081361501. Local Number D-450. City of Jacksonville Santa Monica Well at Jacksonville, FL.

LOCATION.--Lat 30°16'08", long 81°36'28", in land grant 56, T.3 S., R.27 E., Hydrologic Unit 03080103, at water treatment plant, 75 ft east of the end of J-Ray Circle, 1 block east of Interstate Highway 95. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 12 to 8 in., depth 1,304 ft, cased to 502 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.90 ft above land-surface datum, Mar. 26, 1987; lowest measured, 11.50 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 31... | 1120 | -15.30 | 798 | 26.0 | 78 |
| NOV | | | | | |
| 29... | 1330 | -15.30 | -- | -- | -- |
| JAN | | | | | |
| 31... | 1230 | -14.70 | 810 | 24.0 | 75 |
| FEB | | | | | |
| 27... | 1345 | -15.30 | -- | -- | -- |
| MAR | | | | | |
| 29... | 1300 | -14.70 | -- | -- | -- |
| APR | | | | | |
| 20... | 0845 | -14.10 | 815 | 26.0 | 77 |
| MAY | | | | | |
| 30... | 1130 | -12.30 | -- | -- | -- |
| JUN | | | | | |
| 26... | 1315 | -11.90 | -- | -- | -- |
| JUL | | | | | |
| 30... | 1215 | -11.90 | 782 | 26.5 | 78 |
| AUG | | | | | |
| 28... | 1210 | -11.70 | -- | -- | -- |
| SEP | | | | | |
| 26... | 1315 | -11.50 | -- | -- | -- |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-------|------|--------------------------------|--|---|--|--|--|
| APR | | | | | | | |
| 20... | 0845 | 7.6 | <5 | 360 | 85 | 35 | 27 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| APR | | | | | | | |
| 20... | 2.4 | 142 | 170 | 0.80 | 24 | 552 | 4000 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301620081234201. Local Number D-3034. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°16'20", long 81°23'42", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T.3 S., R.29 E., Hydrologic Unit 03080201, well in pumphouse at 2771 Pullian Street in Jacksonville Beach. Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 16 in., depth 900 ft, cased to 400 ft (revised).

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 16 in. flange, 4.05 ft above land-surface datum.

PERIOD OF RECORD.--October 1985 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.85 ft above land-surface datum, Dec. 16, 1986; lowest measured, 1.18 ft below land-surface datum, June 22, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 1000 | -12.05 | 615 | 8.3 | 20.0 | <5 | 300 | 57 | 37 |
| JUN 22... | 1015 | 1.18 | 614 | 8.1 | 23.0 | <5 | 300 | 59 | 37 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|--|---|---|---|---|--|---|--|--|
| DEC 12... | 13 | 2.3 | 136 | 170 | 14 | 1.2 | 23 | 419 | 2100 |
| JUN 22... | 14 | 2.3 | 131 | 170 | 12 | 1.0 | 22 | 428 | 2200 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301639081330802. Local Number D-1155. City of Jacksonville Southside Estates Well at Jacksonville, FL.

LOCATION.--Lat 30°16'39", long 81°33'08", in SW¼NE¼NW¼, sec. 1, T.3 S., R.27 E., Hydrologic Unit 03080103, 0.35 mi east of Southside Boulevard, and 0.60 mi south of U.S. Highway 90 (Beach Boulevard) in pumphouse south of Anders Boulevard. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 10 in., depth 1,170 ft, cased to 500 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 2 in. casing, 1.76 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.75 ft below land-surface datum, Mar. 26, 1987; lowest measured, 18.60 ft below land-surface datum, July 20, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 27... | 1400 | 15.02 | 1080 | 26.0 | 160 |
| NOV | | | | | |
| 29... | 1415 | 14.88 | -- | -- | -- |
| JAN | | | | | |
| 02... | 1215 | 15.94 | -- | -- | -- |
| 31... | 1100 | 15.00 | 1090 | 26.5 | 150 |
| FEB | | | | | |
| 27... | 1430 | 15.13 | -- | -- | -- |
| MAR | | | | | |
| 29... | 1230 | 15.46 | -- | -- | -- |
| APR | | | | | |
| 20... | 1330 | 16.59 | 1020 | 28.0 | 140 |
| MAY | | | | | |
| 30... | 1100 | 18.26 | -- | -- | -- |
| JUN | | | | | |
| 26... | 1245 | 18.28 | -- | -- | -- |
| JUL | | | | | |
| 20... | 1150 | 18.60 | 945 | 28.5 | 110 |
| AUG | | | | | |
| 28... | 1130 | 18.04 | -- | -- | -- |
| SEP | | | | | |
| 27... | 1145 | 18.29 | -- | -- | -- |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-------|------|--------------------------------|--|---|--|--|--|
| APR | | | | | | | |
| 20... | 1330 | 7.6 | <5 | 420 | 100 | 41 | 36 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| APR | | | | | | | |
| 20... | 2.8 | 136 | 190 | 0.70 | 24 | 697 | 4800 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301648081431801. Local Number D-103. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°16'48", long 81°43'18", in land grant 59, T.2 S., R.26 E., Hydrologic Unit 03080103, well located in Lakeshore pumping station at intersection of Hamilton and Appleton Streets, 0.1 mi south of intersection of San Juan Avenue and Roosevelt Boulevard in Lakeshore area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,332 ft, casing length unknown.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-76, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 26... | 1230 | 463 | -- | 27.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1230 | 450 | -- | 28.5 | -- | -- | -- | -- | -- |
| APR 24... | 0915 | 470 | 7.9 | 27.0 | <5 | 230 | 51 | 23 | 8.8 |
| JUL 20... | 1000 | 464 | -- | 28.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|---|--|---|--|--|
| OCT 26... | -- | -- | -- | 10 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 11 | -- | -- | -- | -- |
| APR 24... | 2.1 | 120 | 110 | 9.5 | 0.60 | 19 | 311 | 4000 |
| JUL 20... | -- | -- | -- | 8.2 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301657081233301. Local Number D-483. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°16'57", long 81°23'33", in SE½SE½SW¼ Sec. 33, T.2 S., R.29 E., Hydrologic Unit 03080201, well located in manhole, 10 ft northwest of intersection of 6th Avenue South and 4th Street South in Jacksonville Beach. Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,220 ft, cased to 372 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 8.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 12 in. flange, 1.0 ft below land-surface datum.

PERIOD OF RECORD.--May 1974, May 1975 (annually); October 1986 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.20 ft above land-surface datum, Dec. 16, 1986; lowest measured, 27.40 ft above land-surface datum, June 16, 1986.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979, 1981, 1983, October 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 0930 | -32.00 | 809 | 8.0 | 28.0 | 5 | 320 | 74 | 33 |
| JUN 22... | 0920 | -29.00 | 834 | 7.8 | 28.0 | 5 | 330 | 74 | 35 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|--|---|---|---|---|--|---|--|--|
| DEC 12... | 37 | 2.4 | 149 | 140 | 83 | 0.80 | 28 | 511 | 2300 |
| JUN 22... | 41 | 2.4 | 148 | 140 | 90 | 0.70 | 27 | 522 | 2300 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301704081233401. Local Number D-484. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°17'04", long 81°23'34", in NE¼SE¼SW¼ sec. 33, T.2 S., R.29 E., Hydrologic Unit 03080201, well in manhole 25 ft northwest of intersection of 4th Avenue South and 4th Street South in Jacksonville Beach. Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,220 ft, cased to 375 ft (revised).

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 8.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 12 in. flange, 1.15 ft below land-surface datum.

PERIOD OF RECORD.--May 1974 to May 1977 (annually); October 1985 to current year (semiannually) incomplete.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft above land-surface datum, May 7, 1974; lowest measured, 26.10 ft above land-surface datum, May 3, 1977.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-76, 1979-81, 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS- SOLVED (MG/L AS Ca) | MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 0915 | -32.85 | 1100 | 7.9 | 28.0 | 5 | 400 | 92 | 40 |
| JUN 22... | 0910 | -29.65 | 1120 | 7.7 | 28.0 | <5 | 410 | 92 | 42 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS Na) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CaCO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS Cl) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS Sr) |
|--------------|--|---|---|---|---|--|---|--|--|
| DEC 12... | 69 | 2.7 | 146 | 140 | 180 | 0.70 | 29 | 675 | 2400 |
| JUN 22... | 76 | 2.7 | 147 | 150 | 180 | 0.70 | 29 | 713 | 2400 |

Note.--Negative figures indicate water level above land surface datum.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301710081323601. Local Number DS-520. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 0.9 mi east of intersection of Beach Boulevard and Southside Boulevard, 200 ft south of Beach Boulevard, next to U.S. Forest Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand aquifer of the Tertiary System, Geologic Unit 122 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 2 in., depth 60 ft, cased to 40 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 54.65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. casing, 0.25 ft above land-surface datum.

PERIOD OF RECORD.--February 1989 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.17 ft NGVD, Oct. 6, 1989; lowest measured, 38.31 ft NGVD, Aug. 3, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------|------|---|-----------|------|---|
| OCT 06... | 1210 | 42.17 | MAR 23... | 1100 | 41.21 |
| DEC 07... | 1140 | 41.05 | MAY 23... | 0910 | 39.50 |
| JAN 25... | 1130 | 40.91 | JUL 25... | 1050 | 39.84 |

WELL NUMBER.--301710081323602. Local Number DS-521. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 0.9 mi east of intersection of Beach Boulevard and Southside Boulevard, 200 ft south of Beach Boulevard, next to U.S. Forestry Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Limestone aquifer of the Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 4 in., depth 120 ft, cased to 100 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 55.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing at shelter floor, 2.22 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 43.04 ft NGVD, Oct. 19 to Nov. 7, 1989; lowest, 39.77 ft NGVD, July 5-7, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 42.58 | 43.04 | 42.63 | 42.29 | 42.21 | 42.41 | 42.43 | 42.07 | 41.43 | 41.04 | 41.45 | 41.54 |
| 10 | 42.83 | 43.03 | 42.53 | 42.31 | 42.19 | 42.48 | 42.38 | 41.99 | 41.33 | 41.11 | 41.53 | 41.52 |
| 15 | 42.98 | 42.98 | 42.45 | 42.31 | 42.18 | 42.51 | 42.33 | 41.91 | 41.22 | 41.15 | 41.60 | 41.48 |
| 20 | 43.04 | 42.90 | 42.36 | 42.29 | 42.18 | 42.52 | 42.26 | 41.81 | 41.12 | 41.16 | 41.62 | 41.42 |
| 25 | 43.04 | 42.80 | 42.33 | 42.27 | 42.22 | 42.52 | 42.19 | 41.70 | 41.07 | 41.20 | 41.62 | 41.35 |
| EOM | 43.04 | 42.73 | 42.28 | 42.22 | 42.29 | 42.46 | 42.13 | 41.55 | 41.07 | 41.34 | 41.57 | 41.24 |
| MAX | 43.04 | 43.04 | 42.71 | 42.31 | 42.29 | 42.52 | 42.45 | 42.12 | 41.53 | 41.34 | 41.62 | 41.56 |

WTR YR 1990 MAX 43.04

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301710081323603. Local Number D-3824. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 0.9 mi east of intersection of Beach Boulevard and Southside Boulevard, 200 ft south of Beach Boulevard, next to U.S. Forestry Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 740 ft, cased to 490 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 54.97 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 6 in. casing at shelter floor, 2.37 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 32.46 ft NGVD, Feb. 23, 1990; lowest, 25.28 ft NGVD, June 5, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 31.07 | --- | --- | 30.95 | 32.29 | 32.10 | 30.71 | 28.61 | 26.56 | 27.19 | 26.28 | 26.96 |
| 10 | 31.02 | --- | 31.85 | 31.60 | 32.29 | 31.99 | 30.25 | 28.36 | 27.07 | 25.98 | 26.79 | 26.96 |
| 15 | 31.17 | --- | 31.89 | 31.38 | 32.11 | 31.18 | 30.42 | 27.60 | 26.58 | 26.20 | 26.79 | 26.77 |
| 20 | 31.02 | --- | 31.91 | 31.47 | 31.80 | 31.10 | 29.54 | 26.79 | 26.31 | 26.13 | 26.47 | 26.83 |
| 25 | 30.79 | --- | 30.71 | 31.86 | 32.09 | 30.60 | 29.80 | 26.86 | 26.99 | 26.10 | 26.83 | 26.34 |
| EOM | --- | --- | 30.25 | 32.00 | 32.13 | 30.30 | 29.55 | 26.55 | 26.42 | 26.84 | 26.67 | 27.15 |
| MAX | --- | --- | --- | 32.08 | 32.46 | 32.30 | 30.76 | 29.40 | 27.07 | 27.19 | 27.05 | 27.26 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301716081234301. Local Number D-482. City of Jacksonville Beach Well at Jacksonville Beach, FL.

LOCATION.--Lat 30°17'16", long 81°23'43", in NW¼NE¼SW¼ sec. 33, T.2 S., R.29 E., Hydrologic Unit 03080201, well in manhole 25 ft northeast of intersection of 6th Street south and Shetter Avenue in Jacksonville Beach.
Owner: City of Jacksonville Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,212 ft, cased to 375 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of 12 in. flange, 1.5 ft below land-surface datum.

PERIOD OF RECORD.--May 1974 and July 1975 (annually); June 1986 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.60 ft above land-surface datum, Dec. 16, 1986; lowest measured, 17.30 ft above land-surface datum, May 8, 1973.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1975, 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|--------------|------|---|---|--------------------------------|--------------------------------------|--|---|--|--|
| DEC 12... | 0845 | -28.90 | 658 | 7.5 | 27.0 | 5 | 300 | 65 | 32 |
| JUN 22... | 0845 | -25.50 | 751 | 7.5 | 27.5 | <5 | 300 | 65 | 33 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|--|---|---|---|---|--|---|--|--|
| DEC 12... | 21 | 2.3 | 147 | 140 | 39 | 0.80 | 28 | 440 | 2300 |
| JUN 22... | 24 | 2.3 | 145 | 140 | 43 | 0.80 | 27 | 472 | 2300 |

Note.--Negative figures indicate water level above land surface datum.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301725081584501. Local Number D-254. Seaboard Coastline Well at Baldwin, FL.

LOCATION.--Lat 30°17'25", long 81°58'45", in NE¼SW¼SW¼ sec.26, T.2 S., R.23 E., Hydrologic Unit 03080103, 0.5 mi east of U.S. Highway 301, and 0.4 mi north of Interstate Highway 10 on property of Seaboard Railroad in Baldwin. Owner: Seaboard Coastline Railroad.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 8 in., depth 750 ft, cased to 433 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: 1.25 in. tap in pump base, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1961 to May 1962, May 1964 to September 1978 (annually); February 1979 to March 1983 (periodic); May 1983 to current year (monthly). Records prior to May 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.25 ft below land-surface datum, Jan. 11, 1961; lowest measured, 37.38 ft below land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1015 | 35.09 | 09... | 1010 | 34.84 |
| NOV | | | 30... | 1200 | 35.56 |
| 28... | 1415 | 35.06 | JUN | | |
| JAN | | | 26... | 1125 | 36.36 |
| 02... | 0915 | 35.55 | JUL | | |
| 30... | 0820 | 34.72 | 30... | 1005 | 36.87 |
| FEB | | | AUG | | |
| 27... | 1020 | 34.45 | 28... | 1025 | 37.04 |
| MAR | | | SEP | | |
| 30... | 0955 | 34.17 | 11... | 0930 | 37.18 |
| APR | | | 26... | 0905 | 37.38 |
| 30... | 1245 | 34.45 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301740081361001. Local Number D-275. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'40", long 81°36'10", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located 0.15 mi north and 300 ft west of intersection of U.S. Highway 90 (Beach Boulevard) and University Boulevard in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,234 ft, cased to 515 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-80, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|--------------------------------------|---|--------------|------|---|--------------------------------------|---|
| OCT 27... | 1430 | 1150 | 28.0 | 200 | MAY 30... | 0940 | 1100 | 28.0 | 180 |
| NOV 30... | 1215 | 1150 | 27.0 | 200 | JUN 27... | 1010 | 1120 | 28.5 | -- |
| JAN 02... | 1300 | 1160 | 27.0 | 200 | JUL 30... | 1100 | 1100 | 28.5 | 200 |
| 29... | 0930 | 1150 | 28.0 | 200 | AUG 27... | 0945 | 1100 | 28.5 | 200 |
| FEB 27... | 0900 | 1140 | 27.0 | 190 | SEP 26... | 1300 | 1120 | 28.0 | 200 |
| MAR 29... | 0900 | 1120 | 27.0 | 190 | | | | | |
| APR 19... | 0945 | 1120 | 27.0 | 190 | | | | | |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|--------------------------------|--|---|--|--|--|
| APR 19... | 0945 | 7.7 | <5 | 410 | 98 | 38 | 73 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|--|---|--|--|
| APR 19... | 2.6 | 146 | 150 | 0.70 | 25 | 725 | 3700 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301743081304701. Local Number D-224. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'43", long 81°30'47", in SW¼SW¼SE¼ sec. 29, T.2 S., R.28 E., Hydrologic Unit 03080103, well located at Sandalwood High School at intersection of Saints and John Prom Roads, 0.15 mi west of Oakridge Pumping Station in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,179 ft, cased to 423 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-----------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 30... | 1010 | 663 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 31... | 0920 | 728 | -- | 25.0 | -- | -- | -- | -- | -- |
| APR 24... | 1200 | 695 | 7.7 | 27.0 | 5 | 310 | 75 | 30 | 22 |
| JUL 19... | 1215 | 688 | -- | 28.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINEITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-----------|---|--|---|---|--|---|--|--|
| OCT 30... | -- | -- | -- | 37 | -- | -- | -- | -- |
| JAN 31... | -- | -- | -- | 61 | -- | -- | -- | -- |
| APR 24... | 2.1 | 144 | 140 | 49 | 0.70 | 25 | 476 | 3100 |
| JUL 19... | -- | -- | -- | 54 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301743081362301. Local Number D-225. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'43", long 81°36'23", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located in pumphouse at Love Grove Water Plant at the end of Wilman Way, 600 ft north of Beach Boulevard, 0.4 mi east of intersection of Wilman Way and Spring Glen Road in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,277 ft, cased to 547 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-75, 1978-80, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|--------------------------------------|---|-------|------|---|--------------------------------------|---|
| OCT | | | | | MAY | | | | |
| 31... | 1135 | 730 | 28.5 | 56 | 30... | 0930 | 894 | 27.0 | 130 |
| NOV | | | | | JUN | | | | |
| 30... | 1230 | 814 | 28.0 | 80 | 27... | 1000 | 803 | 27.0 | 86 |
| JAN | | | | | JUL | | | | |
| 02... | 1315 | 722 | 28.0 | 53 | 30... | 1120 | 921 | 28.0 | 120 |
| FEB | | | | | AUG | | | | |
| 27... | 0850 | 914 | 28.0 | 120 | 27... | 0935 | 845 | 27.5 | 110 |
| MAR | | | | | SEP | | | | |
| 29... | 0850 | 776 | 27.0 | 75 | 26... | 1245 | 832 | 27.5 | 98 |
| APR | | | | | | | | | |
| 19... | 0920 | 840 | 26.0 | 93 | | | | | |

WELL NUMBER.--301744081363301. Local Number D-2193. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'44", long 81°36'63", in NE½SE¼NW¼ sec. 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located in pumphouse 85 ft south of Wilman Way, 165 ft northeast of intersection of Beach Boulevard and Spring Glen Road in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,304 ft, cased to 550 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|--------------------------------------|---|-------|------|---|--------------------------------------|---|
| OCT | | | | | MAY | | | | |
| 31... | 1130 | 892 | 28.0 | 110 | 30... | 0915 | 788 | 28.0 | 120 |
| NOV | | | | | JUN | | | | |
| 30... | 1220 | 896 | 27.0 | 110 | 27... | 0950 | 954 | 28.5 | 150 |
| JAN | | | | | JUL | | | | |
| 02... | 1310 | 908 | 27.0 | 110 | 30... | 1110 | 893 | 28.0 | 120 |
| 29... | 0915 | 905 | 28.0 | 120 | AUG | | | | |
| FEB | | | | | 27... | 0930 | 805 | 28.0 | 120 |
| 27... | 0845 | 942 | 28.0 | 130 | SEP | | | | |
| MAR | | | | | 26... | 1240 | 910 | 28.5 | 130 |
| 29... | 0845 | 848 | 28.0 | 120 | | | | | |
| APR | | | | | | | | | |
| 20... | 0900 | 942 | 27.0 | 130 | | | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301752081360501. Local Number D-649. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'52", long 81°36'05", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located 50 ft east and 150 ft north of Hart Toll Bridge on-ramp on University Boulevard, 0.40 mi north of intersection of Beach and University Boulevards in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,005 ft, cased to 534 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1975, 1979, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|--------------------------------------|---|--------------|------|---|--------------------------------------|---|
| OCT 27... | 1420 | 644 | 28.0 | 24 | APR 19... | 1000 | 636 | 27.0 | 25 |
| NOV 30... | 1300 | 648 | 28.0 | 24 | MAY 30... | 0945 | 628 | 26.0 | 23 |
| JAN 02... | 1245 | 642 | 27.0 | 25 | JUN 27... | 1020 | 630 | 27.0 | 24 |
| 29... | 0940 | 637 | 27.0 | 25 | AUG 27... | 0950 | 616 | 27.0 | 24 |
| FEB 27... | 0910 | 640 | 27.0 | 24 | SEP 26... | 1230 | 600 | 27.5 | 24 |
| MAR 29... | 0915 | 635 | 27.0 | 25 | | | | | |

WELL NUMBER.--301801081384302. Local Number D-54A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°18'01", long 81°38'43", in land grant 47, T.2 S., R.26 E., Hydrologic Unit 03080103, well located at River Oaks Water Treatment Plant, at intersection of Trinity and Mitchell Place, 0.15 mi west of U.S. Highway 1, in River Oaks area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 10 in., depth 1,348 ft, cased to 505 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1969-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 30... | 1400 | 655 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1320 | 644 | -- | 27.0 | -- | -- | -- | -- | -- |
| APR 24... | 1330 | 645 | 7.7 | 28.0 | 5 | 320 | 74 | 31 | 12 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|---|--|---|--|--|
| OCT 30... | -- | -- | -- | 14 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 14 | -- | -- | -- | -- |
| APR 24... | 2.3 | 133 | 190 | 14 | 0.70 | 22 | 449 | 4200 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301817081374901. Local Number D-425 Top Zone. USGS Well at Jacksonville, FL.

LOCATION.--Lat 30°18'17", long 81°37'49", in land grant 55, T.2 S., R.27 E., Hydrologic Unit 03080103, 300 ft south of State Highway 10 (Atlantic Boulevard), and 450 ft north of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 2,486 ft, cased to 752 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 8 in. casing, 2.00 ft above land-surface datum.

REMARKS.--Multiple completion packers set at 750 and 2,050 ft. This well monitors the zone between 750 and 2,050 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.40 ft above land-surface datum, Oct. 19, 1966; lowest measured, 9.40 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| | | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | | | |
|-------|------|---|---|---|---|--|--|--|
| DATE | TIME | | | | | | | |
| OCT | | | | | | | | |
| 31... | 0800 | -13.60 | 587 | 29.0 | 15 | | | |
| NOV | | | | | | | | |
| 29... | 1430 | -13.40 | -- | -- | -- | | | |
| JAN | | | | | | | | |
| 02... | 0815 | -12.40 | -- | -- | -- | | | |
| 29... | 0900 | -13.20 | 582 | 28.5 | 15 | | | |
| FEB | | | | | | | | |
| 27... | 0830 | -14.00 | -- | -- | -- | | | |
| MAR | | | | | | | | |
| 29... | 0830 | -13.40 | -- | -- | -- | | | |
| APR | | | | | | | | |
| 20... | 0800 | -12.80 | 575 | 29.0 | 14 | | | |
| MAY | | | | | | | | |
| 09... | 1000 | -11.40 | -- | -- | -- | | | |
| 30... | 0900 | -10.40 | -- | -- | -- | | | |
| JUN | | | | | | | | |
| 26... | 0830 | -9.80 | -- | -- | -- | | | |
| JUL | | | | | | | | |
| 20... | 0810 | -9.80 | 566 | 29.0 | 13 | | | |
| AUG | | | | | | | | |
| 27... | 0910 | -10.00 | -- | -- | -- | | | |
| SEP | | | | | | | | |
| 10... | 0800 | -10.00 | -- | -- | -- | | | |
| 26... | 0840 | -9.40 | -- | -- | -- | | | |
| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | |
| APR | | | | | | | | |
| 20... | 0800 | 7.6 | 5 | 290 | 72 | 26 | 12 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
| APR | | | | | | | | |
| 20... | 1.9 | 142 | 140 | 0.70 | 24 | 396 | 3400 | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301817081374902. Local Number D-425 Bottom Zone. USGS Well at Jacksonville, FL.

LOCATION.--Lat 30°18'17", long 81°37'49", in land grant 55, T.2 S., R.27 E., Hydrologic Unit 03080103, 300 ft south of State Highway 10 (Atlantic Boulevard), and 450 ft north of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 2,486 ft, cased to 752 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 8 in. casing, 2.00 ft above land-surface datum.

REMARKS.--Multiple completion packers set at 750 and 2,050 ft. This well monitors the zone between 2,050 and 2,486 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.80 ft above land-surface datum, Dec. 19, 1966; lowest measured, 12.20 ft above land-surface datum, July 20, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 31... | 0810 | -15.60 | 1610 | 28.0 | 76 |
| NOV | | | | | |
| 29... | 1440 | -15.60 | -- | -- | -- |
| JAN | | | | | |
| 02... | 0810 | -14.80 | -- | -- | -- |
| 29... | 0905 | -15.40 | 1620 | 28.0 | 78 |
| FEB | | | | | |
| 27... | 0835 | -16.00 | -- | -- | -- |
| MAR | | | | | |
| 29... | 0835 | -15.50 | -- | -- | -- |
| APR | | | | | |
| 20... | 0815 | -14.80 | 1590 | 28.5 | 80 |
| MAY | | | | | |
| 09... | 1010 | -14.00 | -- | -- | -- |
| 30... | 0905 | -13.00 | -- | -- | -- |
| JUN | | | | | |
| 26... | 0825 | -12.60 | -- | -- | -- |
| JUL | | | | | |
| 20... | 0815 | -12.20 | 1510 | 29.0 | 77 |
| AUG | | | | | |
| 27... | 0915 | -12.80 | -- | -- | -- |
| SEP | | | | | |
| 10... | 0805 | -12.60 | -- | -- | -- |
| 26... | 0845 | -12.40 | -- | -- | -- |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-------|------|--------------------------------|--|---|--|--|--|
| APR | | | | | | | |
| 20... | 0815 | 7.4 | <5 | 840 | 240 | 55 | 52 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| APR | | | | | | | |
| 20... | 4.4 | 121 | 720 | 1.0 | 24 | 1360 | 8000 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301839081392101. Local Number D-198. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°18'39", long 81°39'21", in land grant 44, T.2 S., R.26 E., Hydrologic Unit 03080103, well located in Hendricks Avenue pumping station, 50 ft north of intersection of Cedar Street and Naldo Avenue, in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,297 ft, casing length unknown.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-77, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CA CO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-----------|------|---|--------------------------------|--------------------------------------|--|--|--|--|--|
| OCT 30... | 1350 | 544 | -- | 27.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1305 | 570 | -- | 28.5 | -- | -- | -- | -- | -- |
| APR 20... | 1400 | 585 | 7.7 | 28.0 | <5 | 280 | 68 | 26 | 11 |
| JUL 19... | 0830 | 522 | -- | 28.5 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CA CO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-----------|---|--|---|---|--|---|--|--|
| OCT 30... | -- | -- | -- | 14 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 14 | -- | -- | -- | -- |
| APR 20... | 2.1 | 136 | 150 | 14 | 0.60 | 23 | 388 | 3700 |
| JUL 19... | -- | -- | -- | 13 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301844081403801. Local Number D-18. Riverside Avenue and Lomax Street at Jacksonville, FL.

LOCATION.--Lat 30°18'44", long 81°40'38", in land grant 56, T.2 S., R.26 E., Hydrologic Unit 03080103, 350 ft east of Riverside Avenue and 70 ft north of Lomax Street in Jacksonville. Owner: Unknown.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth and casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 4.48 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8 in. tee, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--November 1938, July 1940 to May 1941, May 1946 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft NGVD, Nov. 26, 1968; lowest measured, 22.48 ft NGVD, June 29, 1988.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0800 | 28.98 | 10... | 1455 | 26.78 |
| NOV | | | 30... | 0905 | 24.18 |
| 29... | 1030 | 28.58 | JUN | | |
| JAN | | | 26... | 0835 | 22.78 |
| 03... | 1115 | 27.08 | JUL | | |
| 30... | 1300 | 29.08 | 30... | 1315 | 23.98 |
| FEB | | | AUG | | |
| 27... | 1310 | 30.18 | 28... | 1245 | 24.08 |
| MAR | | | SEP | | |
| 30... | 0745 | 28.98 | 11... | 1425 | 23.38 |
| APR | | | 26... | 1320 | 22.88 |
| 30... | 0950 | 28.08 | | | |

WELL NUMBER.--301846081240201. Local Number D-246. Neptune Beach Park Well at Neptune Beach, FL.

LOCATION.--Lat 30°18'52", long 81°24'02", in NW¼SE¼SW¼ sec.21, T.2 S., R.29 E., Hydrologic Unit 03080201, 25 ft north of Florida Boulevard and 0.2 mi west of State Highway A1A. Owner: City of Neptune Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,212 ft, cased to 388 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 14 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 9 in. flange, 5.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.50 ft above land-surface datum, May 17, 1983; lowest measured, 18.30 ft above land-surface datum, May 2, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1620 | -19.30 | 09... | 1310 | -19.00 |
| DEC | | | JUL | | |
| 07... | 1445 | -23.70 | 20... | 1550 | -18.70 |
| JAN | | | SEP | | |
| 24... | 1520 | -22.30 | 10... | 1345 | -19.10 |
| MAR | | | | | |
| 26... | 1530 | -21.00 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301852081234201. Local Number D-160. City of Neptune Beach Well at Neptune Beach, FL.

LOCATION.--Lat 30°18'52", long 81°23'42", in NW¼SW¼SE¼ sec.21, T.2 S., R.29 E., Hydrologic Unit 03080201, 20 ft south of Florida Avenue, 70 ft east of Third Street in Neptune Beach. Owner: City of Neptune Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 585 ft, cased to 340 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 12.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8 in. tee, 0.50 ft below land-surface datum. After May 8, 1990, top of 8 in. gate valve flange, 2.48 ft below land-surface datum.

PERIOD OF RECORD.--June 1934, October 1939, September 1940 to February 1942, January 1944 to April 1980 (bimonthly); May 1980 to current year (monthly). Records prior to 1936 are unpublished and available in the files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.75 ft NGVD, June 15, 1934; lowest measured, 23.87 ft NGVD, May 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JUN | | |
| 30... | 0935 | 31.25 | 26... | 1000 | 25.87 |
| NOV | | | JUL | | |
| 29... | 0850 | 30.55 | 30... | 0705 | 24.97 |
| JAN | | | AUG | | |
| 04... | 0830 | 28.55 | 27... | 1300 | 24.77 |
| 31... | 0850 | 29.65 | SEP | | |
| MAY | | | 10... | 1320 | 25.37 |
| 09... | 1245 | 26.87 | 26... | 0920 | 24.17 |
| 30... | 0830 | 23.87 | | | |

WELL NUMBER.--301900081342801. Local Number D-94. Jerry Jarvis Well at Arlington, FL.

LOCATION.--Lat 30°19'07", long 81°34'54", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, at residence of Jerry Jarvis, 453 Arlington Road, 500 ft south of Strawberry Creek in Arlington. Owner: Jerry Jarvis.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 2 in., depth 635 ft, cased to 520 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage by USGS personnel.

DATUM.--Land-surface datum is 24.09 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 0.75 in. gate valve, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.99 ft NGVD, Apr. 27, 1983, Jan. 27, Feb. 29, 1984; lowest measured, 26.38 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 0920 | 30.99 | 10... | 1445 | 30.39 |
| NOV | | | 30... | 1000 | 26.67 |
| 30... | 1200 | 30.39 | JUN | | |
| JAN | | | 27... | 1030 | 26.67 |
| 02... | 1200 | 29.39 | JUL | | |
| 29... | 0945 | 29.99 | 30... | 1030 | 26.70 |
| FEB | | | AUG | | |
| 27... | 0920 | 30.79 | 27... | 1010 | 26.71 |
| MAR | | | SEP | | |
| 29... | 0930 | 30.79 | 10... | 1245 | 26.75 |
| APR | | | 27... | 0900 | 26.38 |
| 30... | 0945 | 30.39 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301907081420901. Local Number D-241. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°19'07", long 81°42'09", in SE¼NW¼NE¼ sec.21, T.2 S., R.26 E., Hydrologic Unit 03080103, well located in 2900 block of Rosselle Street, 2 blocks east of intersection of McDuff Avenue and Rosselle Street, in Riverside area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,324 ft, cased to 594 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | HARDNESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS-SOLVED (MG/L AS Ca) | MAGNESIUM, DIS-SOLVED (MG/L AS Mg) | SODIUM, DIS-SOLVED (MG/L AS Na) |
|-----------|------|------------------------------|---------------------|---------------------------|-------------------------------|--------------------------------|---------------------------------|------------------------------------|---------------------------------|
| OCT 26... | 1245 | 567 | -- | 28.5 | -- | -- | -- | -- | -- |
| JAN 29... | 1245 | 565 | -- | 28.5 | -- | -- | -- | -- | -- |
| APR 19... | 1245 | 562 | 7.6 | 28.5 | 5 | 270 | 66 | 25 | 11 |
| JUL 20... | 0930 | 557 | -- | 29.0 | -- | -- | -- | -- | -- |

| DATE | POTASSIUM, DIS-SOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CaCO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLORIDE, DIS-SOLVED (MG/L AS CL) | FLUORIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | STRONTIUM, DIS-SOLVED (UG/L AS SR) |
|-----------|-----------------------------------|--------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---|------------------------------------|
| OCT 26... | -- | -- | -- | 13 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 13 | -- | -- | -- | -- |
| APR 19... | 2.0 | 134 | 140 | 12 | 0.70 | 22 | 377 | 3100 |
| JUL 20... | -- | -- | -- | 11 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--301957081342301. Local Number D-313. Jacksonville Suburban Utilities Well at Jacksonville, FL.

LOCATION.--Lat 30°19'57", long 81°34'23", in land grant 52, T.2 S., R.26 E., Hydrologic Unit 03080103, well located at Alderman Park pumping station on Carlotta Road North, 1 block east of intersection of Townsend Boulevard and Carlotta Road North, in Alderman Park area of Jacksonville. Owner: Jacksonville Suburban Utilities.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 8 in., depth 1,150 ft, cased to 576 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 30... | 0950 | 746 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1000 | 762 | -- | 26.0 | -- | -- | -- | -- | -- |
| APR 26... | 0930 | 808 | 7.6 | 27.0 | 10 | 330 | 79 | 31 | 54 |
| JUL 19... | 0930 | 744 | -- | 28.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|---|--|---|--|--|
| OCT 30... | -- | -- | -- | 79 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 84 | -- | -- | -- | -- |
| APR 26... | 2.6 | 150 | 120 | 100 | 0.70 | 27 | 522 | 2200 |
| JUL 19... | -- | -- | -- | 78 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302007081353201. Local Number D-479. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'07", long 81°35'32", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located at Arlington Lions Club, at intersection of Commerce Avenue and Sprinkle Drive in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,350 ft, cased to 606 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-79, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 30... | 0930 | 712 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1030 | 721 | -- | 28.0 | -- | -- | -- | -- | -- |
| APR 19... | 1045 | 730 | 7.6 | 28.0 | <5 | 320 | 78 | 29 | 28 |
| JUL 19... | 1000 | 720 | -- | 28.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINEITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|--|---|---|--|---|---|--|
| OCT 30... | -- | -- | -- | 71 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 72 | -- | -- | -- | -- |
| APR 19... | 1.9 | 148 | 110 | 75 | 0.60 | 26 | 474 | 2400 |
| JUL 19... | -- | -- | -- | 74 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302013081353801. Local Number D-673. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'13", long 81°35'38", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well located inside pumphouse at 1595 Maitland Street, 0.25 mi north of intersection of Arlington Road and Maitland Street, in Arlington area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 814 ft, cased to 578 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975, 1977-80, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|--------------------------------------|---|
| OCT | | | | |
| 30... | 0940 | 788 | 28.5 | 94 |
| NOV | | | | |
| 30... | 1130 | 770 | 28.0 | 91 |
| JAN | | | | |
| 02... | 1150 | 782 | 27.5 | 95 |
| 29... | 1045 | 794 | 28.0 | 94 |
| FEB | | | | |
| 27... | 0930 | 806 | 27.0 | 92 |
| MAR | | | | |
| 29... | 0940 | 797 | 28.0 | 95 |
| APR | | | | |
| 19... | 1020 | 804 | 28.0 | 95 |
| MAY | | | | |
| 30... | 1015 | 785 | 27.0 | 94 |
| JUN | | | | |
| 27... | 1040 | 805 | 27.5 | 100 |
| JUL | | | | |
| 30... | 1045 | 787 | 28.0 | 99 |
| AUG | | | | |
| 27... | 1020 | 793 | 27.5 | 100 |
| SEP | | | | |
| 26... | 1130 | 740 | 29.0 | 100 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| OCT | | | | | | | |
| 25... | 1.8 | 142 | 110 | 0.60 | 27 | 456 | 2400 |
| APR | | | | | | | |
| 24... | 2.0 | 143 | 120 | 0.60 | 26 | 473 | 2700 |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-------|------|--------------------------------|--|---|--|--|--|
| APR | | | | | | | |
| 19... | 1020 | 7.5 | 5 | 350 | 85 | 32 | 28 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| APR | | | | | | | |
| 19... | 2.0 | 145 | 120 | 0.60 | 26 | 517 | 2600 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302015081384501. Local Number D-335. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'15", long 81°38'45", in land grant 37, T.2 S., R.26 E., Hydrologic Unit 03080103, well located at rear of Robert Kennedy Community Center, 1133 Ionia Street, near intersection of 2nd and Clark Streets, in Springfield area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 12 in., depth 1,286 ft, cased to 531 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1969-79, 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 27... | 1045 | 516 | -- | 29.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1050 | 512 | -- | 27.5 | -- | -- | -- | -- | -- |
| APR 19... | 1215 | 518 | 7.6 | 28.0 | 10 | 250 | 62 | 22 | 13 |
| JUL 19... | 1415 | 493 | -- | 29.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|---|--|---|--|--|
| OCT 27... | -- | -- | -- | 17 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 16 | -- | -- | -- | -- |
| APR 19... | 1.7 | 155 | 88 | 17 | 0.70 | 26 | 339 | 2100 |
| JUL 19... | -- | -- | -- | 15 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302022081393501. Local Number D-176. City of Jacksonville Main Street Well at Jacksonville, FL.

LOCATION.--Lat 30°20'22", long 81°39'35", in land grant 37, T.2 S., R.26 E., Hydrologic Unit 03080103, at pumphouse next to Hogan Creek Bridge, 50 ft west of intersection of Pearl and 3rd Streets. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 10 in., depth 1,283 ft, cased to 484 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 3.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.70 ft above land-surface datum, Dec. 30, 1986, Feb. 25, 1987; lowest measured, 20.10 ft above land-surface datum, Aug. 27, Sept. 26, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|---|--------------------------------------|---|
| OCT 27... | 1030 | -24.70 | 613 | 27.0 | 13 |
| NOV 29... | 1015 | -24.30 | -- | -- | -- |
| JAN 31... | 1200 | -25.10 | 622 | 25.0 | 13 |
| FEB 27... | 1330 | -24.00 | -- | -- | -- |
| MAR 30... | 1100 | -25.50 | -- | -- | -- |
| APR 20... | 0915 | -25.70 | 618 | 26.0 | 12 |
| MAY 30... | 1350 | -22.30 | -- | -- | -- |
| JUN 26... | 1045 | -23.70 | -- | -- | -- |
| JUL 30... | 1020 | -23.20 | 560 | 28.0 | 11 |
| AUG 27... | 1245 | -20.10 | -- | 28.0 | -- |
| SEP 26... | 1115 | -20.10 | -- | -- | -- |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|--------------------------------|--|---|--|--|--|
| APR 20... | 0915 | 7.6 | <5 | 300 | 74 | 28 | 11 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|--|---|--|--|
| APR 20... | 2.1 | 136 | 170 | 0.80 | 22 | 447 | 3900 |

Note.--Negative figures indicate water above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302130081411802. Local Number D-46A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°21'30", long 81°41'18", in land grant 35, T.2 S., R.26 E., Hydrologic Unit 03080103, well located at intersection of Fairfax and 25th Streets, in Moncrief Park area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 10 in., depth 1,234 ft, cased to 530 ft.

REMARKS.--Well originally drilled to 1,064 ft in 1939, later drilled to 1,234 ft in 1963.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941, 1964, 1969-81, 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | HARDNESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS-SOLVED (MG/L AS Ca) | MAGNESIUM, DIS-SOLVED (MG/L AS Mg) | SODIUM, DIS-SOLVED (MG/L AS Na) |
|-----------|------|------------------------------|---------------------|---------------------------|-------------------------------|--------------------------------|---------------------------------|------------------------------------|---------------------------------|
| OCT 27... | 1100 | 554 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 29... | 1105 | 546 | -- | 27.0 | -- | -- | -- | -- | -- |
| APR 24... | 0730 | 492 | 8.2 | 25.0 | <5 | 230 | 54 | 23 | 18 |
| JUL 20... | 0920 | 537 | -- | 27.0 | -- | -- | -- | -- | -- |

| DATE | POTASSIUM, DIS-SOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CaCO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLORIDE, DIS-SOLVED (MG/L AS CL) | FLUORIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | STRONTIUM, DIS-SOLVED (UG/L AS SR) |
|-----------|-----------------------------------|--------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---|------------------------------------|
| OCT 27... | -- | -- | -- | 14 | -- | -- | -- | -- |
| JAN 29... | -- | -- | -- | 14 | -- | -- | -- | -- |
| APR 24... | 1.7 | 129 | 100 | 16 | 0.70 | 22 | 320 | 2300 |
| JUL 20... | -- | -- | -- | 12 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302236081401501. Local Number D-336. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°22'36", long 81°40'15", in land grant 50, T.1 S., R.26 E., Hydrologic Unit 03080103, well located at 1025 Kenmore Street, 0.4 mi west of Norwood Avenue, and 0.4 mi southeast of intersection of Norwood Avenue and Interstate Highway 95 in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter unknown, depth 1,303 ft, cased to 520 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975, 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | HARDNESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS-SOLVED (MG/L AS Ca) | MAGNESIUM, DIS-SOLVED (MG/L AS Mg) | SODIUM, DIS-SOLVED (MG/L AS Na) |
|-----------|------|------------------------------------|---------------------------|---------------------------------|-------------------------------------|---|--|---|--|
| OCT 27... | 1115 | 491 | -- | 27.0 | -- | -- | -- | -- | -- |
| JAN 30... | 1300 | 486 | -- | 27.5 | -- | -- | -- | -- | -- |
| APR 24... | 0830 | 483 | 7.7 | 27.0 | 5 | 230 | 58 | 21 | 12 |
| JUL 20... | 0910 | 476 | -- | 28.0 | -- | -- | -- | -- | -- |

| DATE | POTASSIUM, DIS-SOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CaCO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLORIDE, DIS-SOLVED (MG/L AS CL) | FLUORIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | STRONTIUM, DIS-SOLVED (UG/L AS SR) |
|-----------|--|---|---|--|---|--|--|---|
| OCT 27... | -- | -- | -- | 14 | -- | -- | -- | -- |
| JAN 30... | -- | -- | -- | 15 | -- | -- | -- | -- |
| APR 24... | 1.5 | 148 | 83 | 14 | 0.60 | 25 | 316 | 1500 |
| JUL 20... | -- | -- | -- | 12 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302227081435001. Local Number D-592. City of Jacksonville Lincoln Estates Well at Jacksonville, FL.

LOCATION.--Lat 30°22'27", long 81°43'50", in land grant 39, T.1 S., R.26 E., Hydrologic Unit 03080103, at water treatment plant, on south side of Kinlock Drive South, 0.3 mile west of U.S. Highway 1. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 16 to 10 in., depth 1,326 ft, cased to 528 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.90 ft above land-surface datum, Mar. 26, 1987; lowest measured, 24.70 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 31... | 0830 | -27.10 | 598 | 26.0 | 12 |
| NOV | | | | | |
| 29... | 1000 | -27.30 | -- | -- | -- |
| JAN | | | | | |
| 02... | 0920 | -25.90 | -- | -- | -- |
| 30... | 0900 | -26.70 | 600 | 25.0 | 12 |
| FEB | | | | | |
| 27... | 1315 | -27.90 | -- | -- | -- |
| MAR | | | | | |
| 30... | 1005 | -27.90 | -- | -- | -- |
| APR | | | | | |
| 25... | 0730 | -27.70 | 593 | 26.0 | 12 |
| MAY | | | | | |
| 30... | 1330 | -26.10 | -- | -- | -- |
| JUN | | | | | |
| 26... | 1015 | -25.70 | -- | -- | -- |
| JUL | | | | | |
| 30... | 0845 | -25.10 | 581 | 26.0 | 11 |
| AUG | | | | | |
| 27... | 1200 | -25.10 | -- | 26.0 | -- |
| SEP | | | | | |
| 26... | 1030 | -24.70 | -- | -- | -- |

| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|-------|------|--------------------------------|--|---|--|--|--|
| APR | | | | | | | |
| 25... | 0730 | 7.8 | 10 | 300 | 75 | 26 | 10 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|-------|---|---|---|--|---|--|--|
| APR | | | | | | | |
| 25... | 1.7 | 132 | 160 | 0.70 | 23 | 407 | 2800 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302243081300401. Local Number D-360. Hidden Hills Country Club Well at Jacksonville, FL.

LOCATION.--Lat 30°22'43", long 81°30'04", in land grant 33, T.1 S., R.28 E., Hydrologic Unit 03080103, near fourth hole of Hidden Hills Golf Course, 0.25 mi east of intersection of Monument and Fort Caroline Roads.
Owner: Hidden Hills Country Club.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 5 in., depth 665 ft, cased to 462 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-79, 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|------|---|--------------------------------|--------------------------------------|--|---|--|--|--|
| OCT 27... | 1230 | 1330 | -- | 26.0 | -- | -- | -- | -- | -- |
| JAN 30... | 1400 | 1340 | -- | 25.5 | -- | -- | -- | -- | -- |
| APR 26... | 1030 | 1300 | 7.6 | 27.0 | <5 | 430 | 100 | 42 | 110 |
| JUL 19... | 1240 | 1290 | -- | 27.0 | -- | -- | -- | -- | -- |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
|--------------|---|---|---|---|--|---|--|--|
| OCT 27... | -- | -- | -- | 270 | -- | -- | -- | -- |
| JAN 30... | -- | -- | -- | 260 | -- | -- | -- | -- |
| APR 26... | 2.4 | 148 | 140 | 260 | 0.60 | 28 | 844 | 2700 |
| JUL 19... | -- | -- | -- | 260 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302301081295001. Local Number DS-522. Fort Caroline National Memorial Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'01", long 81°29'38", in land grant 43, T.1 S., R.28 E., Hydrologic Unit 02080103, 200 ft southwest of Fort Caroline Park entrance, 75 ft east of Fort Caroline Road. Owner: St. Johns River Water Management District.

AQUIFER.--Non-artesian sand aquifer of the Tertiary System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, unused, nonartesian well, diameter 4 in., depth 34 ft, cased to 24 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 16.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Shelter floor, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year. Prior to October 1989, published as D-3537 U.S. Park Service Well at Jacksonville, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.77 ft NGVD, Sept. 29, 1989; lowest, 6.07 ft NGVD, Aug. 22, 1988.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 5 | 12.84 | 11.63 | 10.68 | 10.55 | 10.07 | 10.47 | 9.73 | 9.14 | 8.35 | 8.25 | 7.93 | 7.75 |
| 10 | 12.47 | 11.46 | 10.52 | 10.47 | 10.04 | 10.30 | 9.65 | 9.04 | 8.26 | 8.05 | 8.03 | 7.71 |
| 15 | 12.20 | 11.27 | 10.49 | 10.36 | 10.05 | 10.12 | 9.56 | 8.88 | 8.15 | 8.02 | 8.04 | 7.75 |
| 20 | 11.93 | 11.10 | 10.74 | 10.30 | 10.02 | 9.99 | 9.45 | 8.74 | 8.13 | 7.91 | 7.88 | 7.85 |
| 25 | 11.72 | 10.96 | 10.65 | 10.19 | 10.67 | 9.87 | 9.34 | 8.61 | 8.12 | 7.84 | 7.87 | 7.74 |
| EOM | 12.01 | 10.84 | 10.70 | 10.13 | 10.65 | 9.81 | 9.26 | 8.45 | 8.00 | 8.05 | 7.79 | 7.89 |
| MAX | 13.43 | 11.91 | 10.81 | 10.70 | 10.67 | 10.62 | 9.78 | 9.23 | 8.42 | 8.25 | 8.08 | 7.89 |
| CAL YR 1989 | MAX 13.77 | | | | | | | | | | | |
| WTR YR 1990 | MAX 13.43 | | | | | | | | | | | |

WELL NUMBER.--302301081295002. Local Number DS-523. Fort Caroline National Memorial Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'01", long 81°29'50", in land grant 43, T.1S., R.28 E., Hydrologic Unit 02080103, 200 ft southwest of Fort Caroline Park entrance, 75 ft east of Fort Caroline Road. Owner: St. Johns River Water Management District.

AQUIFER.--Hawthorne sand and gravel aquifer of Miocene Series, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, observation, unused, nonartesian well, diameter 4 in., depth 204 ft, cased to 190 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 16.81 ft above National Geodetic Vertical Datum of 1929. Measuring point: Shelter floor, 1.3 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year. Prior to October 1989, published as D-3538 U.S. Park Service Well at Jacksonville, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.66 ft NGVD, Oct. 2,3, 1989; lowest, 5.89 ft NGVD, June 29, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 9.62 | 8.92 | 8.08 | 7.81 | 7.47 | 7.73 | 7.36 | 6.91 | 6.47 | 6.43 | 6.26 | 6.16 |
| 10 | 9.46 | --- | 8.05 | 7.80 | 7.47 | 7.71 | 7.27 | 6.86 | 6.41 | 6.25 | 6.32 | 6.10 |
| 15 | 9.34 | --- | 7.96 | 7.69 | 7.47 | 7.56 | 7.22 | 6.71 | 6.37 | 6.24 | 6.24 | 6.20 |
| 20 | 9.12 | --- | 8.04 | 7.65 | 7.40 | 7.44 | 7.20 | 6.67 | 6.41 | 6.17 | 6.16 | 6.25 |
| 25 | 8.95 | --- | 7.98 | 7.56 | 7.70 | 7.38 | 7.11 | 6.63 | 6.39 | 6.11 | 6.23 | 6.17 |
| EOM | 9.13 | --- | 7.92 | 7.51 | 7.76 | 7.41 | 7.06 | 6.56 | 6.28 | 6.34 | 6.13 | 6.27 |
| MAX | 9.66 | --- | --- | 7.92 | 7.76 | 7.77 | 7.40 | 7.01 | 6.54 | 6.43 | 6.33 | 6.27 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302304081383202. Local Number D-122A. City of Jacksonville Panama Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'04", long 81°38'32", in land grant 50, T.1 S., R.27 E., Hydrologic Unit 03080103, well between Eastland and Russell Streets, 20 ft north of 63rd Street, and 0.4 mi east of U.S. Highway 17 in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 905 ft, cased to 571 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 14.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange at land-surface datum.

REMARKS.--Well originally drilled to 700 ft in 1914, later drilled to 905 ft in 1925.

PERIOD OF RECORD.--August 1930, June 1938, November 1940 to April 1942, January 1944 to June 1944, August 1945 to current year (monthly). Records prior to 1936 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.87 ft (corrected), NGVD, Aug. 21, 1930; lowest measured, 31.07 ft NGVD, Apr. 24, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 27... | 1150 | 35.87 | 09... | 1245 | 35.27 |
| NOV | | | 29... | 1300 | 34.67 |
| 30... | 0900 | 36.07 | JUN | | |
| JAN | | | 26... | 1100 | 34.07 |
| 02... | 0845 | 35.07 | JUL | | |
| 30... | 1220 | 35.67 | 30... | 1000 | 33.67 |
| FEB | | | AUG | | |
| 27... | 1140 | 36.27 | 28... | 0900 | 33.67 |
| MAR | | | SEP | | |
| 30... | 1030 | 36.27 | 10... | 1100 | 33.47 |
| APR | | | 26... | 1100 | 33.47 |
| 30... | 1100 | 36.07 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302307081293801. Local Number D-424. U.S. Park Service Well at Jacksonville, FL.

LOCATION.--Lat 30°23'07", Long 81°29'38", in NW¼SE¼SE¼ sec.28, T.1 S., R.28 E., Hydrologic Unit 03080103, 106 ft southeast of Fort Caroline Road, and 0.2 mi northeast of Fort Caroline National Park entrance in Jacksonville. Owner: U.S. Park Service.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 6 in., depth 700 ft, cased to 426 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of flange on 6 in. tee, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--December 1966, May 1968 to September 1978 (semiannually); January 1979 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.30 ft above land-surface datum, Dec. 19, 1966; lowest measured, 14.80 ft above land-surface datum, Sept. 11, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 03... | 1420 | -20.80 | 11... | 0930 | -18.40 |
| DEC | | | JUL | | |
| 04... | 1400 | -21.20 | 23... | 1445 | -16.80 |
| JAN | | | SEP | | |
| 22... | 1350 | -21.00 | 11... | 1130 | -14.80 |
| MAR | | | | | |
| 19... | 1400 | -21.20 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302339081254702. Local Number D-464A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°23'39", long 81°25'47", in land grant 38, T.1 S., R.29 E., Hydrologic Unit 03080103, well in Julia Street pumping station, 1 block east of Ocean Street (State Highway A1A), 0.2 mi south of Mayport Ferry landing in Mayport. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 10 in., depth 1,000 ft, cased to 427 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 7.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of 15 in. flange 3.9 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to current year (semiannually). Records prior to 1984 are unpublished and available in the files of Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.30 ft above land-surface datum, Sept. 15, 1982; lowest measured, 17.50 ft above land-surface datum, May 19, 1989.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | | |
|--------------|---|---|---|--|---|--|--|
| OCT 30... | 1045 | -- | 566 | 26.0 | 15 | | |
| JAN 31... | 0900 | -- | 551 | 25.0 | 15 | | |
| APR 24... | 1115 | -- | 562 | 27.0 | 15 | | |
| MAY 09... | 1455 | -17.80 | 570 | 25.0 | 16 | | |
| JUL 19... | 1330 | -- | 542 | 27.0 | 13 | | |
| SEP 10... | 1430 | -25.10 | -- | -- | -- | | |
| DATE | TIME | PH (STAND- ARD UNITS) | COLOR (PLAT- INUM- COBALT UNITS) | HARD- NESS TOTAL (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
| APR 24... | 1115 | 7.8 | 5 | 270 | 62 | 28 | 11 |
| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINEITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
| APR 24... | 1.7 | 135 | 140 | 0.70 | 25 | 389 | 1600 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302416081522601. Local Number D-348. Monticello Drug Company Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¼NW¼NE¼ sec.23, T.1 S., R.24 E., Hydrologic Unit 03080103, 1.5 mi west of west end of Garden Street, off a private dirt road in Jacksonville. Owner: Monticello Drug Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, temporary water supply, artesian well, diameter 6 in., depth 708 ft, cased to 416 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 86 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 11 in. flange, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--March 1971 to current year. Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 41.01 ft below land-surface datum, Apr. 23, 24, 1984; lowest, 51.22 ft below land-surface datum, Sept. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 48.55 | 48.14 | 48.09 | 48.66 | 47.69 | 47.11 | 47.29 | 48.06 | --- | 50.47 | 51.02 | 50.87 |
| 10 | 48.50 | 48.02 | 48.14 | 48.34 | 47.38 | 47.10 | 47.50 | --- | --- | 50.56 | 51.00 | 50.82 |
| 15 | 48.38 | 47.90 | 48.06 | 48.40 | 47.49 | 47.07 | 47.47 | --- | 49.89 | 50.80 | 50.82 | 50.84 |
| 20 | 48.40 | 48.02 | 48.04 | 48.09 | 47.43 | 47.10 | 47.88 | --- | 49.99 | 50.89 | 50.61 | 51.00 |
| 25 | 48.34 | 48.09 | 48.66 | 47.82 | 47.43 | 47.34 | 47.85 | --- | 50.17 | 50.85 | 50.60 | 51.10 |
| EOM | 48.04 | 48.15 | 49.00 | 47.82 | 47.31 | 47.34 | 47.85 | --- | 50.39 | 50.79 | 50.71 | 51.09 |
| MIN | 48.00 | 47.86 | 47.82 | 47.71 | 47.09 | 46.92 | 47.18 | --- | --- | 50.34 | 50.54 | 50.75 |

WELL NUMBER.--302416081522602. Local Number D-349. Monticello Drug Co. Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¼NW¼NE¼ sec.23, T.1 S., R.24 E., Hydrologic Unit 03080103, 1.5 mi west of west end of Garden Street, off a private dirt road in Jacksonville. Owner: Monticello Drug Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian oil test well, diameter 10 in., depth 2,230 ft, cased to 444 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 86 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 10 in. casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--March 1971 to current year. Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 29.10 ft below land-surface datum, Mar. 10, 1971; lowest, 47.17 ft below land-surface datum, Sept. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|
| 5 | 44.09 | 43.84 | 43.88 | 44.24 | 43.50 | 42.93 | 43.23 | 44.04 | --- | --- | 46.86 | 46.78 |
| 10 | 44.06 | 43.74 | 43.91 | 43.95 | 43.25 | 42.96 | 43.43 | --- | --- | --- | 46.85 | 46.77 |
| 15 | 43.96 | 43.64 | 43.83 | 44.04 | 43.36 | 42.96 | 43.42 | --- | --- | --- | 46.70 | 46.77 |
| 20 | 44.01 | 43.76 | 43.81 | 43.80 | 43.30 | 43.02 | 43.81 | --- | --- | --- | 46.51 | 46.89 |
| 25 | 43.99 | 43.83 | 44.42 | 43.57 | 43.25 | 43.26 | 43.81 | --- | --- | --- | 46.53 | 47.04 |
| EOM | 43.72 | 43.90 | 44.50 | 43.61 | 43.12 | 43.28 | 43.82 | --- | --- | 46.63 | 46.64 | 47.02 |
| MIN | 43.68 | 43.60 | 43.57 | 43.49 | 42.96 | 42.76 | 43.11 | --- | --- | --- | 46.47 | 46.68 |

CAL YR 1989 HIGH 42.96 JAN 3

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302502081330701. Local Number D-228. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'02", long 81°33'30", in NW¼NW¼SE¼, sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 850 ft, casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 16 in. flange, 1.0 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well in use.

PERIOD OF RECORD.--October 1979 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.40 ft above land-surface datum, Mar. 9, 1983; lowest measured, 19.20 ft above land-surface datum, July 19, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 24... | 1400 | -22.40 | 434 | 24.0 | 24 |
| JAN | | | | | |
| 30... | 1030 | -23.50 | 509 | 23.0 | 25 |
| APR | | | | | |
| 20... | 1110 | -- | 470 | 25.0 | 24 |
| JUL | | | | | |
| 19... | 1115 | -19.20 | 380 | 25.5 | 22 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302503081332001. Local Number D-1149. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'03", long 81°33'20", in NE¼NE¼SW¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete slab, 1.15 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well in use.

PERIOD OF RECORD.--January 1980 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.00 ft above land-surface datum, Feb. 3, 1983; lowest measured, 17.00 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 24... | 1350 | -20.35 | 346 | 26.0 | 19 |
| JAN | | | | | |
| 30... | 1100 | -- | 521 | 24.0 | 19 |
| APR | | | | | |
| 20... | 1050 | -21.95 | 515 | 26.0 | 19 |
| JUL | | | | | |
| 19... | 1105 | -- | 502 | 27.0 | 19 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302505081331001. Local Number D-1150. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'05", long 81°33'10", in NW¼NW¼SE¼, sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 16 in. flange, 3.1 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well in use.

PERIOD OF RECORD.--January 1981 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.70 ft above land-surface datum, Mar. 9, 1984; lowest measured, 18.60 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-------|------|---|---|--------------------------------------|---|
| OCT | | | | | |
| 24... | 1335 | -22.90 | 540 | 27.0 | 28 |
| JAN | | | | | |
| 30... | 1055 | -24.30 | 545 | 24.0 | 27 |
| APR | | | | | |
| 20... | 1045 | -24.30 | 561 | 27.0 | 30 |
| JUL | | | | | |
| 19... | 1100 | -- | 524 | 27.0 | 25 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302511081331201. Local Number D-1151. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'11", long 81°33'12", in SW¼SW¼NE¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive, in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 16 in. flange, 1.2 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well in use.

PERIOD OF RECORD.--September 1976, July 1979, October 1980 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.70 ft below land-surface datum, Jan. 31, 1986; lowest measured, 22.50 ft below land-surface datum, June 5, 1984.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|--------------------------------------|---|
| JUL 19... | 1050 | 498 | 26.0 | 19 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302519081331501. Local Number D-1152. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'19", long 81°33'15", in NE¼SE¼NW¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of spigot handle, at land-surface datum.

REMARKS.--No water level data collected at times when well in use.

PERIOD OF RECORD.--October 1980 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.50 ft above land-surface datum, Feb. 3, 1983; lowest measured, 16.30 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|---|--------------------------------------|---|
| OCT 24... | 1330 | -- | 511 | 25.0 | 23 |
| JAN 30... | 1045 | -19.90 | 486 | 24.0 | 23 |
| APR 20... | 1030 | -22.00 | 518 | 26.0 | 22 |
| JUL 19... | 1040 | -16.50 | 492 | 26.5 | 22 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302538081253101. Local Number D-164. Golf Course Well at Fort George Island, FL.

LOCATION.--Lat 30°25'38", long 81°25'31", in land grant 37, T.1 S., R.29 E., Hydrologic Unit 03080103, 75 ft south of clubhouse, 500 ft east of Fort George Road, 2.3 mi north of State Highway 105 in Jacksonville. Owner: Fairfield Industries.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 840 ft, cased to 450 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of faucet, 1.30 ft above land-surface datum.

PERIOD OF RECORD.--October 1930, May 1931, September 1940 to September 1941 (semiannually); January 1944, August 1944, August 1945, June 1946 to December 1962 (monthly) incomplete, February 1963 to July 1964 (bimonthly); January 1965 to September 1978 (semiannually); February 1979 to November 1981 (monthly); May 1982 to September 1983 (semiannually); January 1984 to current year (bimonthly) incomplete. Records prior to May 1978 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.01 ft NGVD, Oct. 9, 1930; lowest measured, 34.51 ft NGVD, July 24, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1140 | 39.01 | 13... | 0900 | 37.51 |
| DEC | | | JUL | | |
| 06... | 1100 | 38.41 | 29... | 0940 | 35.91 |
| JAN | | | SEP | | |
| 26... | 1400 | 38.21 | 11... | 1015 | 36.11 |
| MAR | | | | | |
| 23... | 0910 | 38.21 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302538081392501. Local Number D-329. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°25'38", long 81°39'25", in land grant 49, T.1 S., R.26 E., Hydrologic Unit 03080103, well located in Highlands pumping station at end of Beckner Drive, 2 blocks south of intersection of Monaco Drive and Dunn Avenue in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 20 in., depth 1,209 ft, cased to 545 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967, 1972-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | HARDNESS TOTAL (MG/L AS CaCO3) | CALCIUM DIS-SOLVED (MG/L AS Ca) | MAGNESIUM, DIS-SOLVED (MG/L AS Mg) | SODIUM, DIS-SOLVED (MG/L AS Na) |
|-----------|------|------------------------------|---------------------|---------------------------|-------------------------------|--------------------------------|---------------------------------|------------------------------------|---------------------------------|
| OCT 27... | 1130 | 516 | -- | 28.0 | -- | -- | -- | -- | -- |
| JAN 30... | 1230 | 504 | -- | 26.0 | -- | -- | -- | -- | -- |
| APR 20... | 0950 | 518 | 7.7 | 27.0 | 5 | 240 | 58 | 24 | 15 |
| JUL 20... | 0850 | 506 | -- | 26.5 | -- | -- | -- | -- | -- |

| DATE | POTASSIUM, DIS-SOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CaCO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLORIDE, DIS-SOLVED (MG/L AS CL) | FLUORIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | STRONTIUM, DIS-SOLVED (UG/L AS SR) |
|-----------|-----------------------------------|--------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---|------------------------------------|
| OCT 27... | -- | -- | -- | 20 | -- | -- | -- | -- |
| JAN 30... | -- | -- | -- | 20 | -- | -- | -- | -- |
| APR 20... | 1.5 | 164 | 78 | 20 | 0.60 | 30 | 337 | 590 |
| JUL 20... | -- | -- | -- | 19 | -- | -- | -- | -- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302550081331501. Local Number D-3840. St. Johns River Power Park replacement Well at Jacksonville, FL.

LOCATION.--Lat 30°25'50", long 81°33'15", in SE¼NE¼SW¼ sec.12, T.1 S., R.27 E., Hydrologic Unit 03080103, 1,800 ft southeast of the intersection of New Berlin and Faye Roads in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, industrial, artesian well, diameter 6 in., depth 750 ft, cased to 470 ft.

INSTRUMENTATION.--Continuous pressure gage recorder.

DATUM.--Land-surface datum is 13.67 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. gate valve, 1.12 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for D-2399 (302559081331501), available October 1984 to April 1990.

PERIOD OF RECORD.--April to September 1990.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 31.79 ft NGVD, Apr. 6, 1990; lowest, 22.39 ft NGVD, July 15, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 5 | --- | --- | --- | --- | --- | --- | 29.39 | 29.89 | 28.19 | 27.29 | 27.09 | 28.39 |
| 10 | --- | --- | --- | --- | --- | --- | 30.99 | 28.79 | 25.99 | 25.89 | 27.29 | 27.09 |
| 15 | --- | --- | --- | --- | --- | --- | 30.89 | 28.89 | 27.49 | 22.39 | 27.79 | 27.99 |
| 20 | --- | --- | --- | --- | --- | --- | 30.59 | 28.39 | 27.99 | 24.69 | 28.39 | 27.19 |
| 25 | --- | --- | --- | --- | --- | --- | 29.69 | 28.79 | 27.89 | 26.09 | 28.99 | 26.89 |
| EOM | --- | --- | --- | --- | --- | --- | 30.29 | 28.09 | 26.79 | 27.09 | 27.39 | 28.29 |
| MAX | --- | --- | --- | --- | --- | --- | --- | 30.69 | 29.59 | 28.89 | 29.89 | 29.79 |

WELL NUMBER.--302559081331501. Local Number D-2399. St. Johns River Power Park Well at Jacksonville, FL.

LOCATION.--Lat 30°25'59", long 81°33'15", in NE¼NE¼SW¼ sec. 12, T.1 S., R.27 E., Hydrologic Unit 03080103, 1,700 ft east of the intersection of New Berlin and Faye Roads in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 752 ft, cased to 521 ft.

INSTRUMENTATION.--Continuous pressure gage recorder.

DATUM.--Land-surface datum is 14.24 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1984 to April 1990 (replaced, see D-3840, 302550081331501).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 41.44 ft NGVD, Jan. 27,28, 1986; lowest, 20.28 ft NGVD, Dec. 23, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-----|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 5 | --- | --- | 31.74 | 26.61 | 31.54 | 29.14 | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | 29.54 | 26.84 | 29.84 | 29.74 | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | 31.44 | --- | 28.84 | 25.77 | --- | --- | --- | --- | --- | --- |
| 20 | --- | 32.74 | 29.14 | 28.44 | 29.64 | 29.54 | --- | --- | --- | --- | --- | --- |
| 25 | --- | 29.14 | 26.58 | 29.04 | 29.14 | 29.34 | --- | --- | --- | --- | --- | --- |
| EOM | --- | 29.34 | 29.04 | 30.14 | 29.34 | 31.74 | --- | --- | --- | --- | --- | --- |
| MAX | --- | --- | 33.34 | --- | 32.34 | 32.04 | --- | --- | --- | --- | --- | --- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302608081354901. Local Number D-262. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'10", long 81°35'48", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Kraft Paper Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 4 in., depth 1,237 ft, cased to 1,163 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 16.32 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1951 to April 1981 (bimonthly); May 1981 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.32 ft NGVD, June 12, 1951; lowest measured, 31.12 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1030 | 34.32 | 09... | 1105 | 33.52 |
| NOV | | | 29... | 1225 | 32.72 |
| 30... | 1000 | 34.12 | JUN | | |
| JAN | | | 26... | 1130 | 32.12 |
| 02... | 1110 | 33.32 | JUL | | |
| 30... | 1000 | 34.32 | 30... | 0935 | 31.72 |
| MAR | | | AUG | | |
| 29... | 1100 | 34.52 | 28... | 0950 | 31.92 |
| APR | | | SEP | | |
| 30... | 1025 | 34.12 | 10... | 1045 | 31.72 |
| | | | 27... | 1010 | 31.12 |

WELL NUMBER.--302608081354902. Local Number D-263. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'08", long 81°35'49", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Kraft Paper Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 1,025 ft, cased to 850 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15.96 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of tee flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to April 1979 (semiannually); January 1980 to September 1985 (bimonthly), October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.16 ft NGVD, Feb. 4, 1954; lowest measured, 32.56 ft NGVD, June 29, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1025 | 35.86 | 09... | 1100 | 34.96 |
| NOV | | | 29... | 1230 | 33.96 |
| 30... | 0950 | 35.36 | JUN | | |
| JAN | | | 26... | 1135 | 33.46 |
| 02... | 1105 | 34.16 | JUL | | |
| 30... | 0955 | 34.96 | 30... | 0930 | 33.16 |
| FEB | | | AUG | | |
| 27... | 1040 | 35.96 | 28... | 0945 | 33.36 |
| MAR | | | SEP | | |
| 29... | 1050 | 35.96 | 10... | 1040 | 33.36 |
| APR | | | 27... | 1005 | 33.16 |
| 30... | 1030 | 35.36 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302608081354903. Local Number D-264. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'10", long 81°35'49", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Kraft Paper Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, industrial, artesian well, diameter 4 in., depth 700 ft, cased to 450 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1978 (semiannually); February 1979 to September 1985 (bimonthly), October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.87 ft NGVD, Jan. 9, 1952; lowest measured, 31.07 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1020 | 34.27 | 09... | 1055 | 33.07 |
| NOV | | | 29... | 1220 | 32.47 |
| 30... | 0945 | 34.07 | JUN | | |
| JAN | | | 26... | 1140 | 32.07 |
| 02... | 1100 | 33.07 | JUL | | |
| 30... | 1010 | 33.67 | 30... | 0925 | 31.67 |
| MAR | | | AUG | | |
| 29... | 1045 | 34.07 | 28... | 0940 | 31.67 |
| APR | | | SEP | | |
| 30... | 1020 | 33.87 | 10... | 1035 | 31.47 |
| | | | 27... | 1000 | 31.07 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302801081375101. Local Number D-145. Duval County School Board Observation Well at Oceanway, FL.

LOCATION.--Lat 30°28'01", long 81°37'51", in land grant 37, T.1 N., R.27 E., Hydrologic Unit 03080103, at Oceanway School on Oceanway Avenue, and 600 ft east of U.S. Highway 17 in Oceanway. Owner: Duval County School Board.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 2 in., depth and casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage by USGS personnel.

DATUM.--Land-surface datum is 34.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. pipe, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--July 1940 to September 1978 (semiannually); February 1979 to March 1981 (bimonthly); May 1981 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.99 ft NGVD, June 3, 1947; lowest measured, 31.89 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 1000 | 35.02 | 09... | 1130 | 34.00 |
| NOV | | | 29... | 1205 | 33.30 |
| 30... | 0920 | 34.84 | JUN | | |
| JAN | | | 26... | 1120 | 32.45 |
| 02... | 1045 | 33.90 | JUL | | |
| 30... | 0930 | 35.24 | 30... | 0915 | 32.31 |
| FEB | | | AUG | | |
| 27... | 1115 | 35.37 | 28... | 0920 | 32.41 |
| MAR | | | SEP | | |
| 29... | 1120 | 35.16 | 10... | 1020 | 32.29 |
| APR | | | 27... | 0940 | 31.89 |
| 30... | 1045 | 35.19 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

DUVAL COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 300824081305401 | 05-15-90 09-12-90 | 1245 1400 | D-0169 POWEL AT BAYARD | 36.37 36.37 |
| 301032081380401 | 05-14-90 09-12-90 | 1130 1325 | D-2846 CLARE RD AT MANDARIN RD | 25.30 25.60 |
| 301144081413801 | 05-11-90 09-12-90 | 1215 0900 | D-0126 J-0190 | 25.00 23.90 |
| 301216081451201 | 05-11-90 09-12-90 | 1255 1140 | D-0321 J-0386 | 22.80 21.15 |
| 301255081371001 | 05-14-90 09-12-90 | 1115 1345 | D-0282 J-0347 3715 RUBINS RD, JAX | 17.60 18.80 |
| 301333081324101 | 05-15-90 09-13-90 | 1300 1305 | D-2847 GOLF COURSE AT DEERWOOD | 31.34 31.30 |
| 301335081355001 | 05-16-90 09-13-90 | 0905 1345 | D-0536 J-0603 | 32.80 33.80 |
| 301339081433401 | 05-11-90 09-12-90 | 1350 0835 | D-1055 J-1109 VISTA VERDE AVE, ORANGE PARK | 27.26 25.36 |
| 301339081531203 | 05-15-90 09-14-90 | 1145 1015 | D-0326 J-0391 | 44.31 42.38 |
| 301415081284801 | 05-15-90 09-12-90 | 0915 1130 | D-0658 J-0721 BEACH BLVD AND ST. JOHNS, JAX | 25.22 25.74 |
| 301434082021401 | 05-15-90 09-14-90 | 1040 1105 | D-0085 J-0149 OIL TEST SITE, E.FIVETONE RD, JAX | 49.75 47.49 |
| 301607081301001 | 05-11-90 09-12-90 | 1310 1100 | D-0991 J-1001 | 27.75 26.18 |
| 301617081421601 | 05-10-90 09-12-90 | 1415 0815 | D-0115 J-0179 | 26.15 22.55 |
| 301712081233301 | 05-09-90 09-10-90 | 1605 1235 | D-0343 J-0408 | 23.20 21.30 |
| 301715081300001 | 05-09-90 09-12-90 | 1345 1015 | D-0298 J-0363 BEACH BLVD AND MEADOWBROOK, JAX | 26.62 24.82 |
| 301725081392101 | 05-10-90 | 0845 | D-0048 J-0112 3450 SUNNYSIDE, JAX | 20.20 |
| 301902081394601 | 05-10-90 09-11-90 | 1410 1330 | D-0297 J-0362 | 24.50 22.70 |
| 301919081375401 | 05-10-90 09-10-90 | 1400 1400 | D-0376 J-0442 BRYANT AND ADAMS ST, JAX | 32.10 29.90 |
| 301925081262501 | 05-09-90 09-10-90 | 1525 1455 | D-0934 J-1032 ATLANTIC BLVD., JAX BEACH | 23.90 22.40 |
| 302037081455301 | 05-14-90 09-13-90 | 0950 0810 | D-0581 J-0647 MR & R TRUCKING, JAX | 33.80 31.70 |
| 302112081384701 | 05-09-90 09-11-90 | 1400 1030 | D-0210 J-0276 16TH ST. EAST OF MAIN ST, JAX | 33.00 31.40 |
| 302120081362201 | 05-11-90 | 1030 | D-0310 J-0375 UNIVERSITY BLVD, JAX | 29.20 |
| 302122081274001 | 05-11-90 09-10-90 | 1130 1310 | D-0400 J-0467 1669 GIRVIN RD, JAX | 28.80 27.50 |
| 302137081240001 | 05-09-90 09-10-90 | 1405 1405 | D-0084 J-0148 SEMINOLE DR, ATLANTIC BEACH | 26.65 26.45 |
| 302142081330701 | 05-11-90 09-11-90 | 1045 1150 | D-0277 J-0342 9005 FT. CAROLINE RD, JAX | 29.10 27.70 |
| 302145081394201 | 05-09-90 09-10-90 | 1300 1130 | D-0043 J-0107 3926 LAURIE ST, JAX | 33.04 31.64 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

DUVAL COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 302300081295101 | 05-11-90 09-11-90 | 0910 1115 | D-0396 J-0463 AT FORT CAROLINE PARK, JAX | 32.40 31.00 |
| 302317081330401 | 05-11-90 09-11-90 | 0830 0930 | D-0488 J-0555 JPA AT BLOUNT ISLAND | 30.60 29.60 |
| 302330081463001 | 05-14-90 09-13-90 | 0930 0755 | D-0420 J-0487 WING-LEE FARM, JAX | 35.00 33.10 |
| 302339081254702 | 05-09-90 09-10-90 | 1455 1430 | D-464A J-0531 1459 JULIA ST, MAYPORT | 24.80 32.10 |
| 302345081261301 | 05-10-90 09-11-90 | 0830 1000 | D-0470 J-0537 MAYPORT FERRY N., MAYPORT | 32.10 29.90 |
| 302351081390201 | 05-09-90 09-11-90 | 1230 1010 | D-0151 J-0215 OLD BROWARD RD NR TROUT RI, JAX | 28.44 26.64 |
| 302502081321001 | 05-09-90 09-11-90 | 1030 0905 | D-0270 J-0335 5186 HECKSHER DR, JAX | 30.70 29.70 |
| 302514081393701 | 05-09-90 09-10-90 | 1200 1000 | D-0227 J-0294 10402 MONACO DR NORTH, JAX | 33.40 32.20 |
| 302616081413901 | 05-14-90 09-13-90 | 1030 0905 | D-0305 J-0370 DUNNS RD NR LEM TURNER, JAX | 36.60 34.40 |
| 302647081460201 | 05-14-90 | 0845 | D-1068 J-1127 | 43.10 |
| 302724081244801 | 05-10-90 09-11-90 | 0945 1050 | D-0395 J-0462 LITTLE TALBOT IS. ST. PARK, JAX | 32.77 31.57 |
| 302738081290001 | 05-14-90 | 1345 | D-1078 J-1106 7124 CEDAR POINT ROAD, JAX | 24.60 |
| 303015081343301 | 05-14-90 09-12-90 | 1315 1035 | D-0077 J-0141 CAPE DR E. OFF STARRETT HEDGES | 32.00 30.00 |
| 303216081433301 | 05-11-90 09-12-90 | 0830 1550 | D-0401 J-0468 DUVAL COUNTY PRISON FARM, JAX | 34.40 32.10 |
| 303458081364001 | 05-14-90 09-12-90 | 1230 1105 | D-0411 J-0478 | 29.10 26.90 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

DUVAL COUNTY

301758081303901 - (D-665) CITY OF JACKSONVILLE WELL IN JACKSONVILLE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) | TEMPER- ATURE WATER (DEG C) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|------|---|--------------------------------------|---|
| OCT 30... | 1020 | 1410 | 27.0 | 280 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 23
FLAGLER COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 292750081152001 | 146 |

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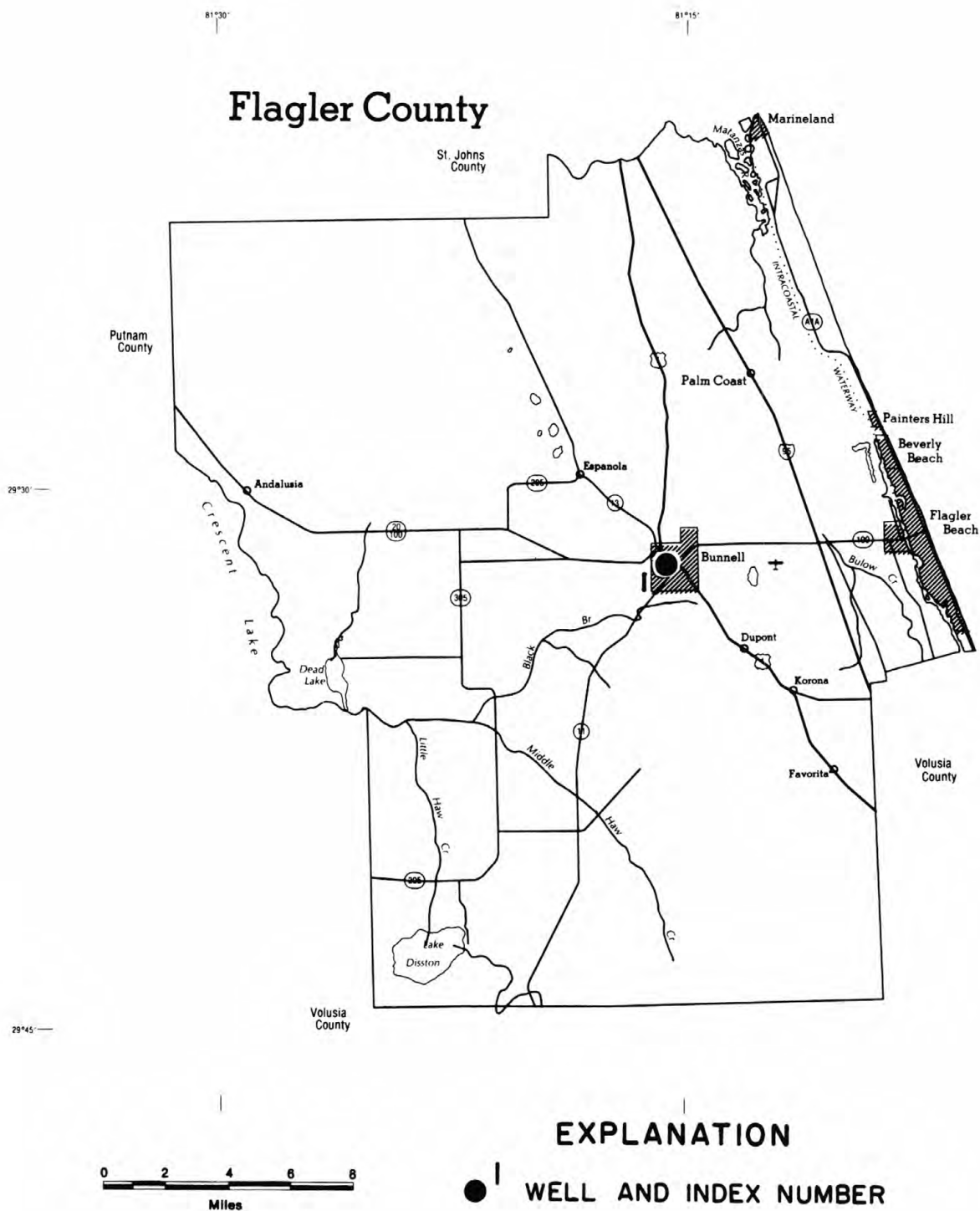


Figure 23.--Location of wells in Flagler County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

FLAGLER COUNTY

WELL NUMBER.--292750081152001. USGS Well Flagler 14 at Bunnell, FL.

LOCATION.--Lat 29°27'50", long 81°15'20", in NE¼ sec.15, T.12 S., R.30 E., Hydrologic Unit 03080201, 200 ft south of intersection of West Court and South Railroad Streets, and 600 ft southwest of intersection of State Highway 11 and U.S. Highway 1 at Bunnell. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 to 4 in., depth 417 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 21.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling at land-surface datum.

COOPERATION.--Since Oct. 1, 1985, records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--March 1936 to December 1962 (monthly); February 1963 to September 1985 (bimonthly); October 1985 to current year (monthly). Records of water levels prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.30 ft NGVD, Sept. 9, 1947; lowest measured, 10.46 ft NGVD, July 10, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0920 | 14.55 | 14... | 1153 | 12.48 |
| NOV | | | 30... | 1016 | 11.93 |
| 29... | 0941 | 14.11 | JUN | | |
| DEC | | | 26... | 0825 | 11.97 |
| 29... | 0720 | 14.04 | JUL | | |
| JAN | | | 24... | 0854 | 12.68 |
| 30... | 0955 | 13.95 | AUG | | |
| FEB | | | 27... | 1210 | 13.15 |
| 21... | 1045 | 14.04 | SEP | | |
| MAR | | | 10... | 1020 | 12.83 |
| 27... | 1004 | 12.52 | 27... | 0745 | 12.28 |
| APR | | | | | |
| 25... | 1208 | 12.90 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

FLAGLER COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 291720081194401 | 05-14-90 09-10-90 | 1058 0929 | 91711901 14S29E13 | 17.39 17.64 |
| 291818081190401 | 05-14-90 09-10-90 | 1030 0920 | RELAY TOWER DEEP WELL (F0251) | 15.27 15.66 |
| 291913081224201 | 05-14-90 09-10-90 | 1000 0857 | 13S29E33 | 17.14 17.45 |
| 291955081200901 | 05-14-90 09-10-90 | 1015 0908 | 91912003 13S29E36 | 10.17 10.64 |
| 292156081215001 | 05-14-90 09-10-90 | 0944 0842 | 92112103 13S29E37 | 8.59 9.11 |
| 292302081155901 | 05-14-90 09-10-90 | 1124 0945 | SR304 WELL AT SWEETWATER BRANCH | 7.76 8.43 |
| 292448081121301 | 05-17-90 09-20-90 | 1004 1350 | ITT-PALM COAST WELL LW-15 | 15.97 15.90 |
| 292603081082502 | 05-15-90 09-11-90 | 1008 1100 | F-176 BULLOW RUINS | 6.66 7.66 |
| 292604081062401 | 05-15-90 09-11-90 | 1208 1206 | SJRWMD SHALLOW WELL F174 | 4.13 5.13 |
| 292645081110301 | 05-17-90 09-20-90 | 1037 1440 | TT PALM COAST WELL SW-82 | 12.24 12.87 |
| 292647081182001 | 05-14-90 09-10-90 | 1212 1038 | 92611803 12S30E19 | 7.77 8.13 |
| 292728081125601 | 05-16-90 09-11-90 | 1042 1033 | BUNNELL AIRPORT WELL AT GORE LK | 14.20 14.74 |
| 292750081152001 | 05-14-90 09-10-90 | 1153 1020 | 92711501 USGS OBSER WELL FLAGLER 14 AT BUNNELL | 12.48 12.83 |
| 292820081221001 | 05-14-90 09-12-90 | 0900 1210 | 92812201 OBSERVATION WELL FLAGLER 44 NR BUNNELL | 9.92 11.42 |
| 292853081082501 | 05-16-90 09-11-90 | 0857 1133 | 928108 12S31E12 SR201 WELL AT FLAGLER BEACH | 6.79 8.98 |
| 292947081164401 | 05-14-90 09-17-90 | 0950 0945 | ITT-PALM COAST WELL LW-6 | 13.54 14.32 |
| 293034081293001 | 05-14-90 09-10-90 | 0800 0709 | 93012901 11S28E32 | 12.21 13.48 |
| 293128081090501 | 05-15-90 | 1238 | LENSSEN WELL AT BEVERLY BCH | 8.40 |
| 293257081171601 | 05-15-90 09-11-90 | 0740 0813 | 93211702 11S30E16 | 13.20 14.31 |
| 293337081230301 | 05-14-90 | 1244 | CONTAINER CORP WELL AT DINNER ISLAND | 13.12 |
| 293337081230302 | 05-14-90 09-10-90 | 1246 1110 | CONTAINER CORP SHALLOW WELL AT DINNER ISLAND | 22.98 21.37 |
| 293529081191701 | 05-14-90 09-10-90 | 1400 1240 | *SJ* F165 10S30E31 PALM COAST ITT-LW-20 WESTBOUN DR | 12.87 14.11 |
| 293724081160101 | 05-14-90 09-17-90 | 0830 0900 | ITT-PALM COAST WELL LW-53 | 12.77 14.17 |
| 293754081121901 | 05-15-90 09-11-90 | 1325 1307 | *SJ* F200 10S31E WASHINGTON OAKS PARK WEATHER STA | 12.60 13.88 |
| 293754081121902 | 05-15-90 09-11-90 | 1315 1300 | F-191 WASH OAKS STATE PK | 1.81 0.82 |
| 293905081142701 | 05-15-90 09-10-90 | 0715 1325 | 939114 10S30E39 WADSWORTH WELL AT STYLES CK | 11.46 13.06 |
| 293943081124301 | 05-16-90 09-11-90 | 0735 1333 | 93911201 | 8.31 10.48 |

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KEY TO SITE LOCATIONS ON FIGURE 24
GLADES COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 265529081185201 | 150 |
| 2 | 271150081054401 | 150 |

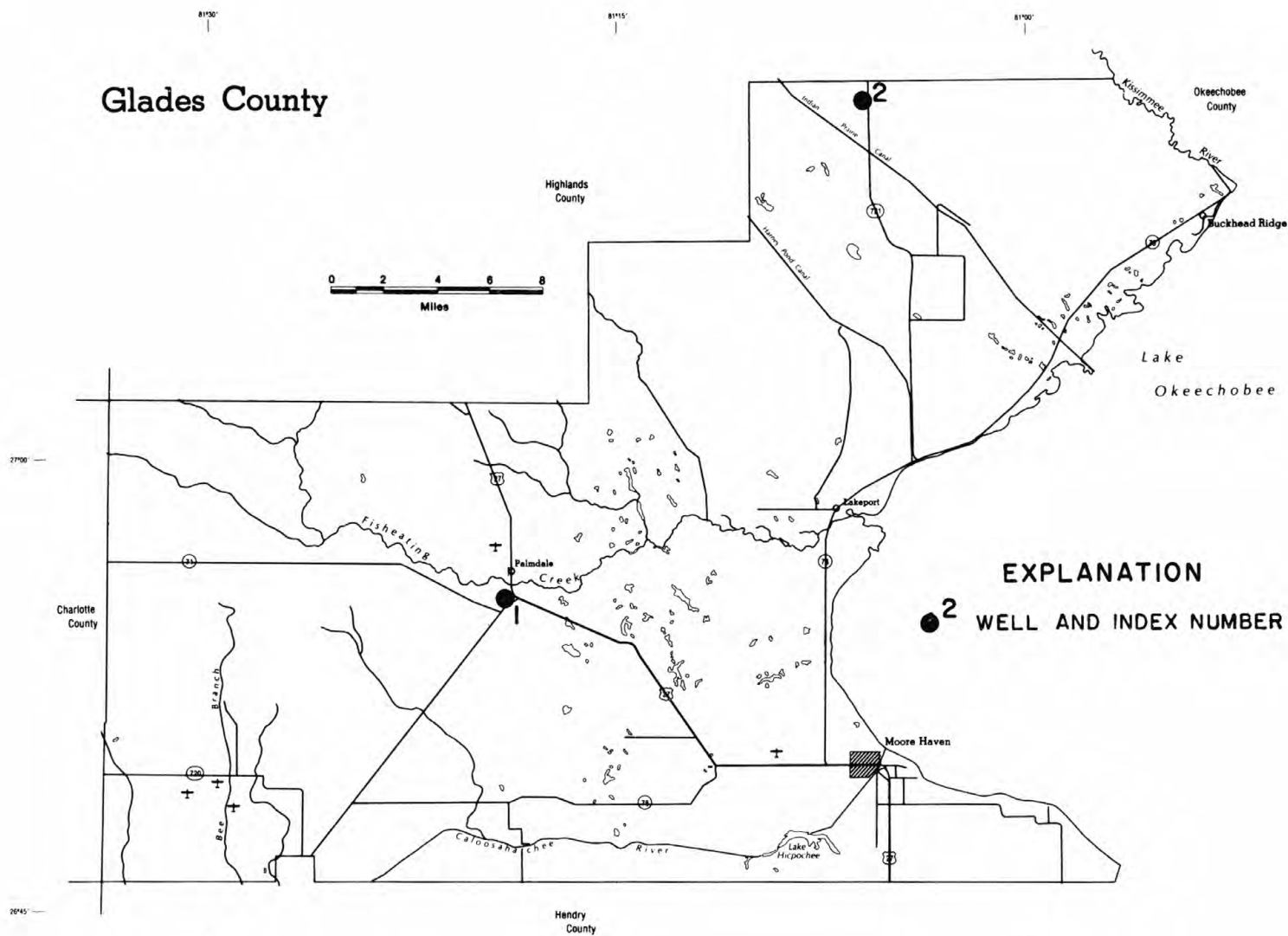


Figure 24.--Location of wells in Glades County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

GLADES COUNTY

WELL NUMBER.--265529081185201. GL-267 Well near Palmdale, FL.

LOCATION.--Lat 26°55'29", long 81°18'52", in NE¼SW¼NW¼ sec.10, T.41 S., R.30 E., Hydrologic Unit 03090103, 100 ft north of Palmdale Fire Tower, 500 ft northwest of intersection of U.S. Highway 27 and State Highway 29, and 2.0 mi south of Palmdale. Owner: Florida Division of Forestry.

AQUIFER.--Hawthorn Limestone aquifer of the Miocene Series, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 450 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage or chalked tape by USGS personnel.

DATUM.--Land-surface datum is 42.15 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, land-surface datum was considered to be 41 ft, from topographic map. Oct. 1, 1978 to Mar. 25, 1980 at datum 0.60 ft lower. Measuring point: Top of 3/4 in. tee, 0.89 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to May 1976 (annually); July 1976 to current year (bimonthly). Records prior to January 1974 are unpublished and are available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.25 ft NGVD, Sept. 7, 1976; lowest measured, 40.62 ft NGVD, June 22, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 03... | 1000 | 44.14 | 15... | 1415 | 40.90 |
| NOV | | | JUL | | |
| 14... | 1135 | 43.70 | 24... | 1100 | 43.04 |
| JAN | | | AUG | | |
| 09... | 1100 | 41.63 | 21... | 1130 | 43.50 |
| MAR | | | SEP | | |
| 05... | 1121 | 41.94 | 12... | 1245 | 43.75 |

WELL NUMBER.--271150081054401. GL-155 Well near Brighton, FL.

LOCATION.--Lat 27°11'50", long 81°05'44", in NE¼SE¼SW¼ sec.2, T.38 S., R.32 E., Hydrologic Unit 03090103, in front of Lykes Ranch headquarters, 300 ft west of State Highway 721, and 1.9 mi south of State Highway 70 in Brighton. Owner: Lykes Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 600 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 29.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.15 ft NGVD, Apr. 1, 1983; lowest measured, 38.15 ft NGVD, May 11, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 03... | 1015 | 48.45 | 15... | 1800 | 43.15 |
| NOV | | | JUL | | |
| 15... | 0925 | 48.25 | 24... | 0905 | 47.55 |
| JAN | | | AUG | | |
| 10... | 0830 | 45.25 | 21... | 1558 | 48.45 |
| MAR | | | SEP | | |
| 06... | 1300 | 46.25 | 12... | 1550 | 48.35 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

GLADES COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|-------------------------------------|---|
| 265452081165401 | 05-15-90 09-12-90 | 1450 1315 | 65411601 41S30E12 CLEMONS, PALMDALE | 42.04 49.30 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 25
HERNANDO COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 283537082151501 | 154 |
| 2 | 283840082154801 | 154 |

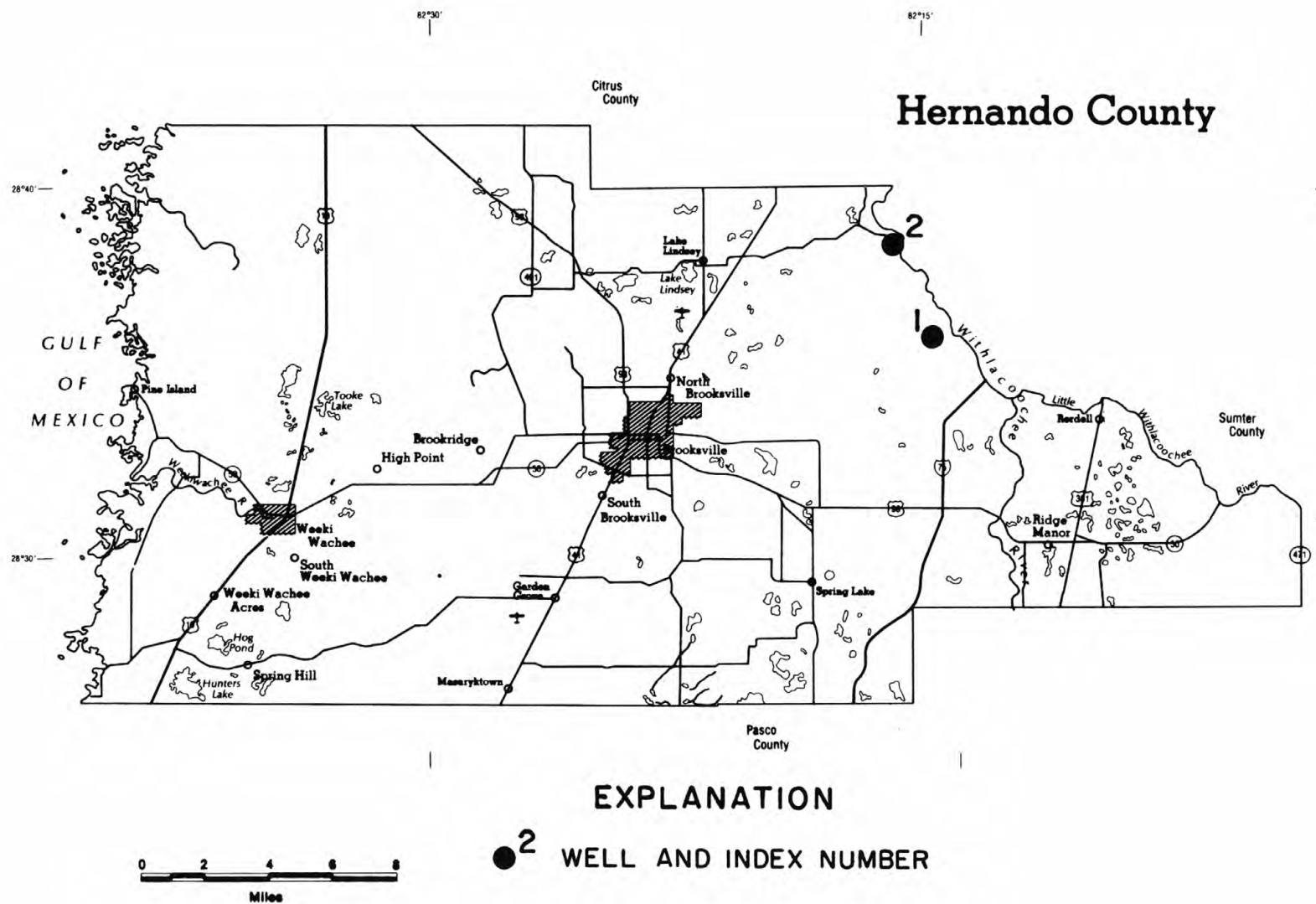


Figure 25.--Location of wells in Hernando County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

HERNANDO COUNTY

WELL NUMBER.--283537082151501. ROMP 103 Well near Brooksville, FL.

LOCATION.--Lat 28°35'37", long 82°15'15", in NE¼NE¼NE¼ sec.12, T.22 S., R.20 E., Hydrologic Unit 03100208, on south side of Croom Road, 2.6 mi east of Tucker Hill Fire Tower, and 6.3 mi northeast of Brooksville. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 198 ft, cased to 111 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 92.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.42 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 48.95 ft NGVD, Oct. 14, 1982; lowest, 36.37 ft NGVD, Aug. 2-4, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 41.25 | 40.62 | 40.11 | 39.94 | 39.97 | 39.87 | 39.65 | 39.16 | 38.49 | 37.99 | 38.01 | 38.48 |
| 10 | 41.19 | 40.54 | 40.04 | 39.99 | 39.94 | 39.87 | 39.56 | 39.07 | 38.42 | 37.89 | 38.06 | 38.51 |
| 15 | 41.10 | 40.46 | 39.99 | 40.04 | 39.90 | 39.86 | 39.52 | 38.95 | 38.34 | 37.80 | 38.15 | 38.52 |
| 20 | 40.98 | 40.36 | 39.94 | 40.07 | 39.85 | 39.82 | 39.45 | 38.84 | 38.25 | 37.79 | 38.23 | 38.47 |
| 25 | 40.88 | 40.27 | 39.93 | 40.06 | 39.83 | 39.76 | 39.36 | 38.73 | 38.16 | 37.90 | 38.31 | 38.36 |
| EOM | 40.74 | 40.21 | 39.93 | 40.02 | 39.86 | 39.70 | 39.26 | 38.59 | 38.07 | 37.96 | 38.42 | 38.23 |
| MAX | 41.31 | 40.72 | 40.19 | 40.07 | 40.01 | 39.89 | 39.69 | 39.24 | 38.56 | 38.06 | 38.42 | 38.53 |

CAL YR 1989 MAX 44.88
WTR YR 1990 MAX 41.31

WELL NUMBER.--283840082154801. Barnhart Well (CE-25) at Nobleton, FL.

LOCATION.--Lat 28°38'40", long 82°15'48", in NW¼NW¼SW¼ sec.24, T.21 S., R.20 E., Hydrologic Unit 03100208, on Second Street, 200 ft east of Edgewater Avenue in Nobleton. Owner: C.C. Chandler.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 140 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 59.37 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in sanitary seal, 0.26 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.33 ft NGVD, Aug. 23, 1965; lowest measured, 36.33 ft NGVD, July 20, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 23... | 0855 | 40.31 | 17... | 1128 | 38.36 |
| DEC | | | JUN | | |
| 18... | 0830 | 38.56 | 04... | 0915 | 37.50 |
| FEB | | | JUL | | |
| 12... | 0830 | 39.85 | 30... | 0810 | 37.74 |
| APR | | | SEP | | |
| 16... | 0815 | 39.29 | 10... | 1120 | 38.48 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

HERNANDO COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 282620082193801 | 05-17-90 | 1320 | 82621901 | 75.66 |
| 282839082190801 | 05-17-90 09-10-90 | 1240 0915 | 82821901 RUSSELL BLACKETT LAKE NEFF | 76.01 76.39 |
| 282851082035301 | 05-17-90 09-10-90 | 1435 0815 | 82820301 23S22E13 E H BOYETTE | 79.77 81.74 |
| 283001082064702 | 05-17-90 09-10-90 | 1421 0800 | 83020602 23S22E09 WSF-RICHLOAM FIRE TOWER | 69.50 70.77 |
| 283036082105502 | 05-17-90 09-10-90 | 1408 0845 | 83021002 23S21E02 RIDGE MANOR NO 2 | 49.52 50.88 |
| 283108082123401 | 05-17-90 09-10-90 | 1350 0855 | 83121201 22S21E04 LE:COMPTE WELL | 45.17 46.91 |
| 283508082215101 | 05-17-90 09-10-90 | 1215 1030 | 83522101 22S19E12 CLARENCE SMITH | 35.27 34.60 |
| 283510082133701 | 05-17-90 09-10-90 | 1140 1110 | CROOM RR SIDING WELL NR CROOM | 40.24 40.09 |
| 283613082184301 | 05-17-90 09-10-90 | 1203 1050 | 83621801 22S20E04 DELMAS C NIX | 34.43 33.91 |
| 283632082245101 | 05-16-90 09-10-90 | 1350 1220 | SEABOARD COASTLINE RR WELL NR BROOKSVILLE | 31.65 30.98 |
| 283806082214801 | 05-16-90 09-10-90 | 1339 1145 | 83822101 21S19E25 EDEN CHRISTIAN SCHOOL | 29.57 25.09 |
| 283957082181001 | 05-17-90 09-10-90 | 1112 1130 | 83921801 21S20E16 W A BLIZZARD | 31.99 31.31 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 26
HIGHLANDS COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 270157081203101 | 158 |
| 2 | 272504081120101 | 158 |

WATER RESOURCES DATA - FLORIDA, 1990
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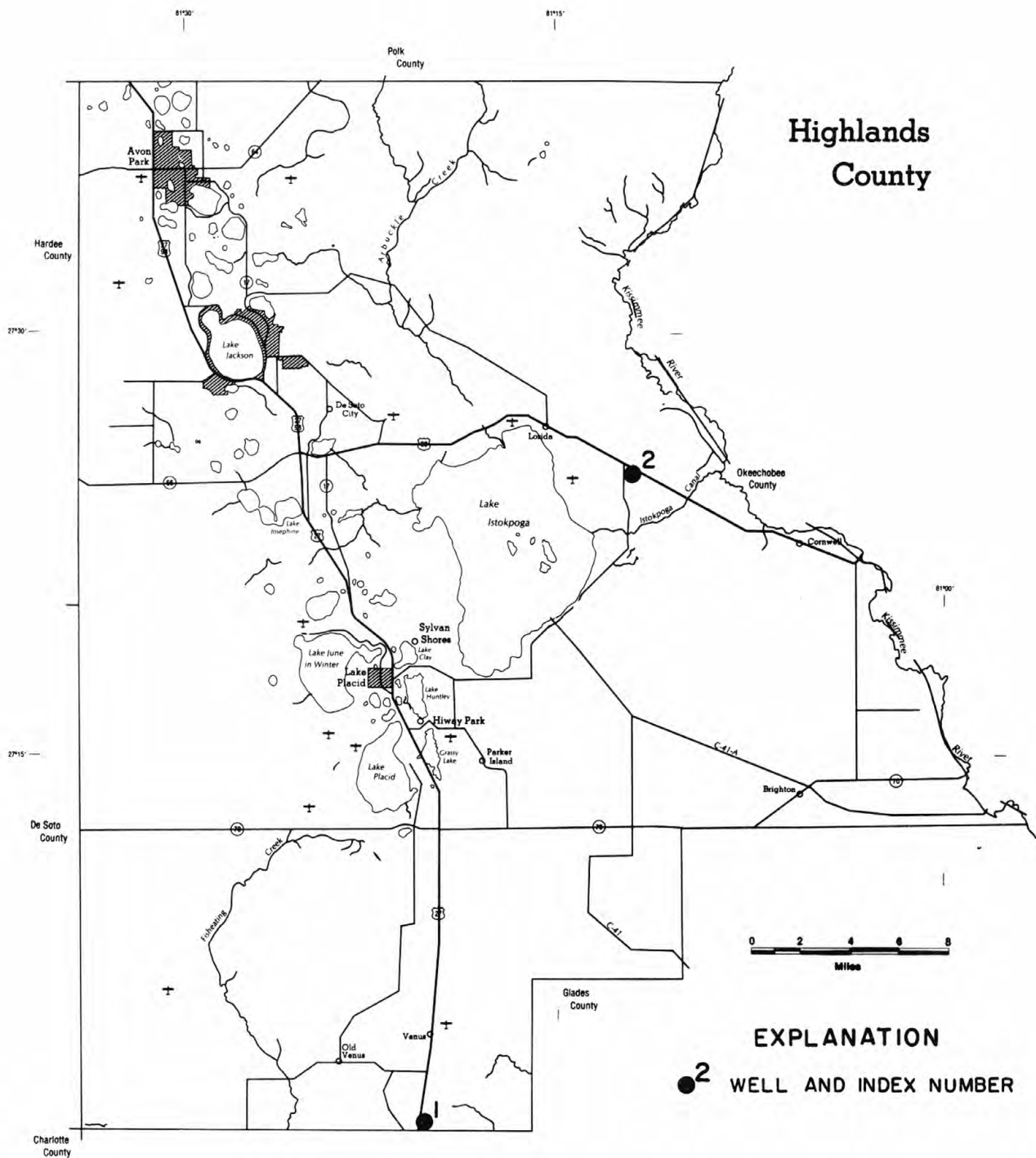


Figure 26.--Location of wells in Highlands County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

HIGHLANDS COUNTY

WELL NUMBER.--270157081203101. H-15A Well near Palmdale, FL.

LOCATION.--Lat 27°02'02", long 81°20'33", in SE¼SE¼SW¼ sec.32, T.39 S., R.30 E., Hydrologic Unit 03090103, on east side of U.S. Highway 27, 200 ft north of Glades-Highlands County line, 2.4 mi southeast of Venus, and 6.7 mi northwest of Palmdale. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 23 ft, cased to 19 ft, gravel-packed screen from 19 to 23 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 58.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1948 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.26 ft NGVD, Oct. 1, 1982; lowest, 53.49 ft NGVD, June 27, 1956.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 58.30 | 57.40 | 56.81 | 57.77 | 57.52 | 57.33 | 57.01 | 56.50 | 58.30 | 59.15 | 59.35 | 57.84 |
| 10 | 58.66 | 57.26 | 57.04 | 57.64 | 57.25 | 57.11 | 56.80 | 56.42 | 57.98 | 58.50 | 58.63 | 57.49 |
| 15 | 58.14 | 57.13 | 56.94 | 57.46 | 57.41 | 56.97 | 56.63 | 56.29 | 57.62 | 60.08 | 59.61 | 57.93 |
| 20 | 58.00 | 57.04 | 57.42 | 57.35 | 57.16 | 56.83 | 56.47 | 56.09 | 58.23 | 58.45 | 58.67 | 58.69 |
| 25 | 57.65 | 56.96 | 57.98 | 57.26 | 57.88 | 56.71 | 56.80 | 56.01 | 58.43 | 58.57 | 57.93 | 57.84 |
| EOM | 57.54 | 56.91 | 57.67 | 57.68 | 57.59 | 57.17 | 56.76 | 56.95 | 58.55 | 57.83 | 57.85 | 59.66 |
| MAX | 59.36 | 57.51 | 58.27 | 57.77 | 58.00 | 57.54 | 57.17 | 56.95 | 59.46 | 60.18 | 59.81 | 59.66 |

WTR YR 1990 MAX 60.18

WELL NUMBER.--272504081120101. H-11A Well near Lake Placid, FL.

LOCATION.--Lat 27°25'04", long 81°12'01", in NE¼NE¼SW¼ sec.23, T.35 S., R.31 E., Hydrologic Unit 03090101, on north side of U.S. Highway 98, 0.4 mi east of State Highway 621, 2.6 mi northwest of the Istokpoga Canal, and 9.0 mi east of Lake Placid. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 16 ft, cased to 13 ft, gravel-packed screen from 13 to 16 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 49.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1956 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.04 ft NGVD, Sept. 10, 1960; lowest, 43.26 ft NGVD, June 18, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|
| 5 | 47.94 | 47.55 | 46.89 | 47.35 | 46.83 | 47.19 | --- | 45.10 | 44.77 | 47.22 | 48.15 | 48.17 |
| 10 | 48.51 | 47.38 | 47.36 | 47.25 | 46.64 | 46.89 | --- | 44.99 | 44.67 | 47.30 | 48.44 | 47.99 |
| 15 | 48.54 | 47.21 | 46.98 | 47.05 | 47.05 | 46.67 | --- | 44.88 | 44.55 | 48.60 | 48.64 | 47.94 |
| 20 | 48.45 | 47.28 | 47.04 | 46.97 | 46.73 | 46.47 | --- | 44.74 | 45.07 | 48.30 | 48.49 | 48.46 |
| 25 | 48.03 | 47.33 | 47.87 | 46.88 | 47.87 | 46.27 | --- | 44.61 | 45.94 | 48.04 | 48.12 | 48.11 |
| EOM | 47.76 | 47.12 | 47.49 | 47.04 | 47.57 | --- | --- | 44.52 | 46.84 | 47.81 | 48.42 | 48.55 |
| MAX | 48.56 | 47.72 | 47.94 | 47.47 | 47.88 | --- | --- | --- | 46.87 | 48.65 | 48.68 | 48.55 |

CAL YR 1989 MAX 48.56

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

HIGHLANDS COUNTY

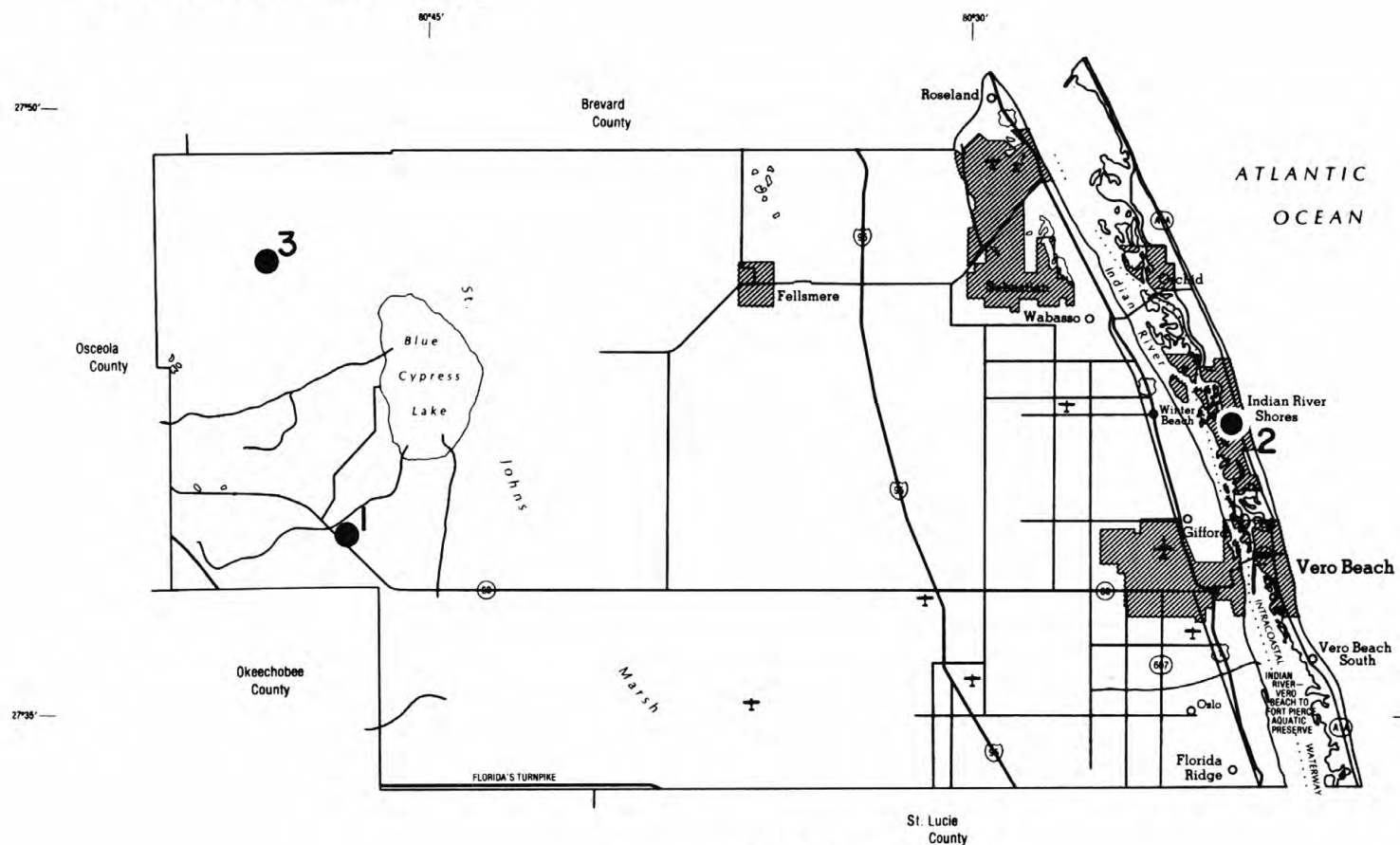
| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------|------|-----------------------------------|---|
| 271303081080501 | 05-15-90 | 1640 | 71310801 37S32E33 LYKES BROS | 41.90 |
| | 09-12-90 | 1435 | | 46.05 |
| 271503081080901 | 09-12-90 | 1515 | 71510801 37S32E20 LYKES BROS | 48.00 |
| 273603081270501 | 05-15-90 | 1105 | 73612701 33S29E19 DRESSLERS DIARY | 75.09 |
| | 09-12-90 | 1018 | | 78.35 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 27
INDIAN RIVER COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 273923080471801 | 162 |
| 2 | 274206080225501 | 162 |
| 3 | 274607080493001 | 163 |

Indian River County



EXPLANATION

●³ WELL AND INDEX NUMBER



Figure 27.--Location of wells in Indian River County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

INDIAN RIVER COUNTY

WELL NUMBER.--273923080471801. IR-25 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°39'23", long 80°47'18", in NW¼NE¼NW¼ sec.36, T.32 S., R.35 E., Hydrologic Unit 03080101, on north side of State Highway 60, 1.3 mi east of Blue Cypress Road, and 7.9 mi east of U.S. Highway 441 in Yeehaw Junction. Owner: U.S. Geological Survey

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 19 ft, cased to 13 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 30.01 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--October 1950 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

PERIOD OF RECORD.--Highest daily maximum water level, 31.99 ft NGVD, Sept. 4, 1979; lowest, 25.17 ft NGVD, May 31, 1967.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 27.85 | 28.26 | 27.52 | 27.90 | 27.14 | 28.54 | 27.24 | 26.04 | 25.74 | 27.71 | 29.33 | 28.77 |
| 10 | 30.02 | 28.05 | 27.93 | 27.72 | 27.03 | 28.26 | 27.02 | 25.84 | 25.95 | 28.14 | 29.74 | 28.45 |
| 15 | 29.35 | 27.81 | 27.64 | 27.58 | 27.32 | 28.01 | 26.81 | 25.69 | 26.31 | 29.99 | 29.62 | 28.17 |
| 20 | 28.93 | 27.69 | 27.62 | 27.46 | 28.04 | 27.80 | 26.66 | 25.53 | 26.12 | 29.88 | 29.30 | 29.28 |
| 25 | 28.64 | 27.69 | 28.48 | 27.35 | 29.10 | 27.52 | 26.44 | 25.46 | 26.78 | 29.72 | 29.29 | 29.06 |
| EOM | 28.49 | 27.85 | 28.08 | 27.25 | 28.90 | 27.54 | 26.25 | 25.87 | 26.96 | 29.69 | 29.22 | 29.77 |
| MAX | 30.02 | 28.46 | 28.54 | 28.04 | 29.16 | 28.84 | 27.56 | 26.21 | 27.03 | 30.17 | 29.97 | 29.77 |

WTR YR 1990 MAX 30.17

WELL NUMBER.--274206080225501. Johns Island Well near Vero Beach, FL.

LOCATION.--Lat 27°42'06", long 80°22'55", in NE¼NE¼NE¼ sec.13, T.32 S., R.39 E., Hydrologic Unit 03080203, in wooded area between fourth and fifth holes of Johns Island Golf Course, 0.5 mi west of State Highway A-1-A, and 1.9 mi north of Vero Beach. Owner: Johns Island Company Inc.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 2,020 ft, cased to 424 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 2.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Mark on casing, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--June 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft NGVD, Dec. 22, 1982; lowest measured, 27.63 ft NGVD, May 2, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 10... | 1230 | 31.26 | 02... | 1640 | 27.63 |
| DEC | | | JUN | | |
| 06... | 1520 | 31.60 | 26... | 0925 | 26.83 |
| JAN | | | SEP | | |
| 25... | 1400 | 29.43 | 14... | 1550 | 30.63 |
| MAR | | | | | |
| 22... | 1820 | 27.83 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

INDIAN RIVER COUNTY

WELL NUMBER.--274607080493001. IR-189 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°46'07", long 80°49'30", in SE¼NE¼SW¼ sec.22, T.31 S., R.35 E., Hydrologic Unit 03080101, on north side of private road at Rollins Ranch, 10 mi north of Yeehaw Junction. Owner: Rollins Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, stock, artesian well, diameter 4 in., depth 630 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 33.66 ft above National Geodetic Vertical Datum of 1929. Prior to April 1983, land-surface datum was 33.16 ft. Measuring point: Top of 4 in. tee, 1.63 ft above land-surface datum.

PERIOD OF RECORD.--1951, 1957, 1970 (annually); January 1976 to October 1983 (bimonthly); November 1983 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.16 ft NGVD, Nov. 13, 1951, July 10, 1957; lowest measured, 36.67 ft NGVD, May 6, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1130 | 41.89 | 16... | 1014 | 38.89 |
| 31... | 1350 | 42.29 | JUN | | |
| NOV | | | 01... | 0940 | 38.34 |
| 29... | 1120 | 41.59 | JUL | | |
| DEC | | | 26... | 1113 | 40.99 |
| 28... | 1410 | 40.49 | AUG | | |
| JAN | | | 28... | 0930 | 42.19 |
| 30... | 1000 | 41.49 | SEP | | |
| MAR | | | 27... | 0834 | 42.24 |
| 01... | 0950 | 42.09 | | | |
| APR | | | | | |
| 02... | 0840 | 40.09 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

INDIAN RIVER COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 273355080355601 | 05-15-90 09-11-90 | 1325 0955 | 73303501 BRADY GROVES WEST OF OSLO | 34.30 38.00 |
| 273357080220201 | 05-15-90 09-10-90 | 0920 1155 | 73302201 MIDWAY MHP SOUTH OF OSLO | 30.77 34.37 |
| 273423080332201 | 05-15-90 09-11-90 | 1252 0955 | 73403301 MORRISON GROVE 1 JIMROD 1 WEST OF OSLO | 32.90 38.00 |
| 273435080255101 | 05-15-90 09-10-90 | 1003 1222 | 73402501 USDA SOUTH WELL 43RD AVE SW OF OSLO | 26.38 33.63 |
| 273522080235801 | 09-10-90 | 1200 | 73502302 OSLO NURSERY OSLO RD WEST OF OSLO | 28.73 |
| 273536080240201 | 05-15-90 09-10-90 | 0946 1211 | 73502403 REVERSE OSMOSIS MONITOR W OF OSLO | 31.80 35.30 |
| 273633080364301 | 05-15-90 09-11-90 | 1415 0901 | 73603601 RIO GROVES MCCLELLAND RD W OF VERO BCH | 34.70 38.20 |
| 273758080301501 | 05-15-90 09-11-90 | 1215 1020 | 73703001 VILLAGE GREEN SOUTH WEST OF VERO BEACH | 27.80 34.10 |
| 273814080245201 | 05-15-90 09-10-90 | 1017 1237 | 73802402 IR 24 1ST CHRIST CHURCH SR 60 VERO BCH | 27.30 28.20 |
| 273821080273901 | 05-15-90 09-10-90 | 1202 1254 | 73802701 CHAUNCEY HATCH JR SR 60 W OF VERO BEACH | 27.85 34.40 |
| 273822080374402 | 05-15-90 09-11-90 | 1353 0846 | 73803703 CARDINAL GROVES UNUSED 122ND AVE | 33.43 35.83 |
| 273827080322001 | 05-15-90 09-11-90 | 1238 0820 | 73803201 SR 60 WEST OF I-95 WEST OF VERO BEACH | 30.30 34.00 |
| 273835080345801 | 09-11-90 | 0833 | 73803401 KROMHOUT GROVE SR 60 WEST OF VERO BEACH | 41.10 |
| 274047080513701 | 05-16-90 09-11-90 | 0856 1100 | 74005101 USGS TH SITE OF VILLAGE OF YEEHAW | 48.83 51.47 |
| 274055080281301 | 05-15-90 09-10-90 | 1146 1321 | 74002801 IR 210 WALTER POOL LINDSEY RD GIFFORD | 27.60 34.00 |
| 274350080364501 | 05-16-90 09-11-90 | 0721 0733 | 74303601 JACK BERRY GROVE BLK 11 S OF FELLSMERE | 33.70 36.30 |
| 274452080275501 | 09-10-90 | 1334 | 74402701 IR 147 A S PFARR SR 510 W OF WABASSO | 34.45 |
| 274522080304301 | 05-15-90 09-10-90 | 1107 1349 | 74503003 SR 510 SOUTH OF RIVER BRIDGE | 30.32 35.72 |
| 274524080240801 | 05-15-90 09-10-90 | 0801 1116 | 74502406 NORTH BEACH WAT CO NO 2 S OF ORCHID | 24.60 29.80 |
| 274534080251101 | 05-15-90 09-10-90 | 0820 1126 | 74502502 MARSH ISLAND SR 510 EAST OF WABASSO | 28.73 36.63 |
| 274606080335401 | 05-16-90 09-11-90 | 0655 0804 | 74603301 SCHINER MEMORIAL WELL E OF FELLSMERE | 32.70 36.30 |
| 274635080363001 | 05-16-90 09-11-90 | 0633 0706 | 74603601 IR 183 JOE SCREWS SR 507 FELLSMERE | 32.60 30.65 |
| 274705080460301 | 05-16-90 09-11-90 | 0947 1139 | 74704603 ROLLINS RANCH SILAGE ROAD | 37.20 41.20 |
| 274801080482001 | 05-16-90 09-11-90 | 1138 1330 | 74804801 BLUE CYPRESS RANCH AT OLD SHOP UNUSED | 40.30 43.84 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

INDIAN RIVER COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------------------|----------------------|---|---|
| 274815080254101 | 05-15-90 09-10-90 | 0727 1048 | 74802501 IR 33 A J BYRD JUNGLE TR N OF ORCHID | 23.70 38.40 |
| 274915080362501 | 05-16-90 09-11-90 | 0618 0655 | 74903601 IR 180 A BECKMAN SR 507 N OF FELLSMERE | 36.80 37.70 |
| 274916080520701 | 05-07-90 05-16-90 09-11-90 | 1020 1103 1244 | 74905201 USGS TH MACE RANCH FELLSMERE GRADE | 46.80 46.52 49.71 |
| 274921080254201 | 05-15-90 09-10-90 | 0717 1028 | 74902501 IND RIV CO A1A NORTH OF WABASSO BCH | 29.30 34.00 |
| 275117080270401 | 05-15-90 09-10-90 | 0707 1014 | 75102702 STATE PARK SEBASTIAN INLET, UNUSED | 21.56 25.86 |

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KEY TO SITE LOCATIONS ON FIGURE 28
LAKE COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 282245081492601 | 168 |
| 1 | 282245081492602 | 168 |
| 2 | 282717081553101 | 169 |
| 3 | 283204081544901 | 169 |
| 3 | 283204081544902 | 170 |
| 4 | 283314081455501 | 170 |
| 5 | 284445081462101 | 171 |
| 6 | 284842081533001 | 171 |
| 7 | 284855081520401 | 172 |
| 8 | 290647081342101 | 173 |
| 9 | 290950081315501 | 174 |

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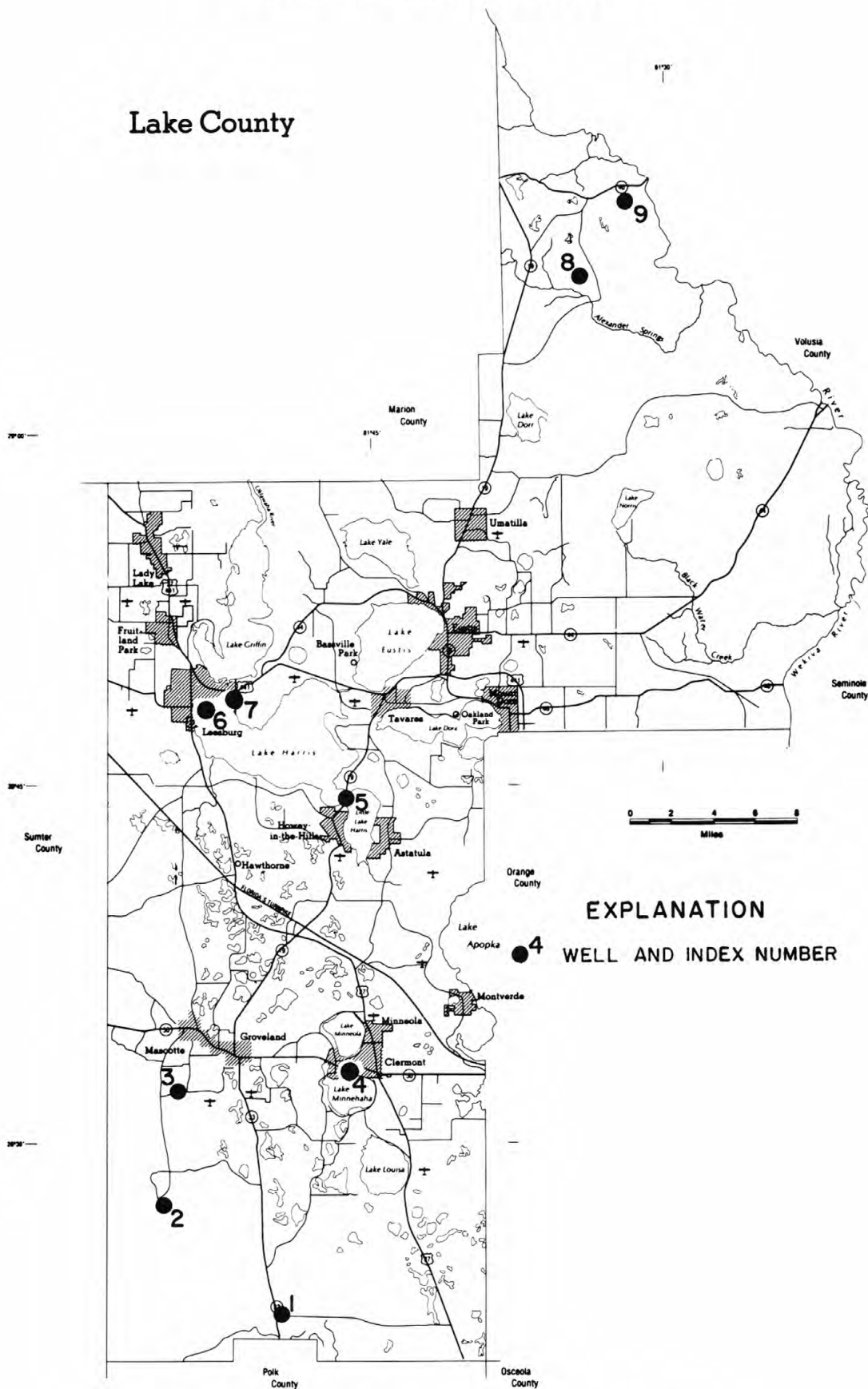


Figure 28.--Location of wells in Lake County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--282245081492601. Eva Deep Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¼SE¼SE¼ sec.20, T.24 S., R.25 E., Hydrologic Unit 03100208, on east side of State Highway 33, 1,000 ft north of State Highway 474 at Eva. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 192 ft, cased to 100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 113.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. nipple, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to December 1962; January 1963 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.72 ft NGVD, Sept. 10, 1960; lowest measured, 105.52 ft NGVD, May 13, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 26... | 1230 | 109.63 | 16... | 1120 | 108.81 |
| DEC | | | JUN | | |
| 21... | 1415 | 110.60 | 06... | 1155 | 107.95 |
| FEB | | | AUG | | |
| 15... | 1300 | 110.20 | 02... | 1345 | 110.29 |
| APR | | | SEP | | |
| 19... | 1210 | 108.74 | 13... | 1043 | 109.99 |

WELL NUMBER.--282245081492602. Eva Shallow Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¼SE¼SE¼ sec.20, T.24 S., R.25 E., Hydrologic Unit 03100208, on east side of State Highway 33, 1,000 ft north of State Highway 474 at Eva. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 111 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 23 ft, cased to 18 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 113.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in 6 in. cap, 3.62 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to June 1962; July 1962 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 114.44 ft NGVD, Sept. 10, 1960; lowest measured, 107.21 ft NGVD, May 13, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 26... | 1225 | 110.70 | 16... | 1125 | 109.96 |
| DEC | | | JUN | | |
| 21... | 1410 | 112.03 | 06... | 1150 | 108.72 |
| FEB | | | AUG | | |
| 15... | 1255 | 110.96 | 02... | 1340 | 112.92 |
| APR | | | SEP | | |
| 19... | 1205 | 109.45 | 13... | 1045 | 111.47 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--282717081553101. ROMP 101 Well near Bay Lake, FL.

LOCATION.--Lat 28°27'17", long 81°55'31", in NE¼NE¼SE¼ sec.29, T.23 S., R.24 E., Hydrologic Unit 03100208, 75 ft south of State Highway 565, 800 ft west of Seaboard Coastline Railroad crossing, and 2.3 mi southwest of intersection of Bay Lake Road and State Highway 565 at Bay Lake. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 404 ft, cased to 118 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 101.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.58 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 100.30 ft NGVD, Sept. 11, 1988; lowest, 93.87 ft NGVD, Dec. 22, 1978.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 97.12 | 95.92 | 95.84 | 97.72 | 97.02 | 97.75 | 97.03 | 95.56 | 95.73 | 97.50 | 97.19 | 97.13 |
| 10 | 96.86 | 95.95 | 96.64 | 97.65 | 97.10 | 97.56 | 96.70 | 95.60 | 95.71 | 96.98 | 97.55 | 96.71 |
| 15 | 96.68 | 95.80 | 96.56 | 97.46 | 97.32 | 97.38 | 96.48 | 95.30 | 96.00 | 98.09 | 97.91 | 96.55 |
| 20 | 96.35 | 96.12 | 97.13 | 97.40 | 97.15 | 97.17 | 96.16 | 95.09 | 95.98 | 97.92 | 97.51 | 96.60 |
| 25 | 96.25 | 96.18 | 97.06 | 97.31 | 98.00 | 96.89 | 96.02 | 94.91 | 96.90 | 97.86 | 97.82 | 96.20 |
| EOM | 96.11 | 96.14 | 97.43 | 97.11 | 97.94 | 97.24 | 95.87 | 94.70 | 97.41 | 97.41 | 97.42 | 97.33 |
| MAX | 97.28 | 96.24 | 97.55 | 97.76 | 98.03 | 97.92 | 97.26 | 95.82 | --- | 98.09 | 97.91 | 97.33 |

CAL YR 1989 MAX 99.69

WELL NUMBER.--283204081544901. Mascotte Deep Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW¼NW¼NE¼ sec.33, T.22 S., R.24 E., Hydrologic Unit 03100208, on east side of State Highway 565, 75 ft east of Midway Baptist Church, and 3.6 mi south of State Highway 50 in Mascotte. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 160 ft, cased to 63 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 103.51 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 102.66 ft NGVD, Sept. 10, 1988; lowest, 96.66 ft NGVD, May 25, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|-------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| 5 | 100.42 | 99.66 | 99.14 | 100.59 | 99.92 | 100.18 | 99.87 | 98.80 | 98.67 | 100.54 | 99.92 | 100.02 |
| 10 | 100.39 | 99.69 | 99.83 | 100.48 | 99.95 | 99.98 | 99.62 | 98.89 | 99.59 | 100.21 | 100.17 | 99.75 |
| 15 | 100.24 | 99.50 | 99.55 | 100.28 | 99.86 | 99.81 | 99.47 | 98.51 | 99.61 | 101.05 | 100.62 | 99.60 |
| 20 | 100.06 | 99.48 | 100.18 | 100.19 | 99.75 | 99.65 | 99.28 | 98.32 | 99.69 | 100.60 | 100.39 | 99.83 |
| 25 | 99.90 | 99.40 | 99.93 | 100.10 | 100.52 | 99.43 | 99.16 | 98.17 | 100.71 | 100.50 | 100.46 | 99.52 |
| EOM | 99.79 | 99.34 | 100.17 | 99.96 | 100.33 | 100.08 | 99.05 | 97.90 | 100.70 | 100.16 | 100.15 | 100.52 |
| MAX | 100.61 | 99.77 | 100.47 | 100.59 | 100.65 | 100.29 | 100.07 | 98.96 | 101.06 | 101.07 | 100.62 | 100.52 |

CAL YR 1989 MAX 101.88
WTR YR 1990 MAX 101.07

[illegible]

WELL NUMBER.--284445081462101. Lake Yale Groves Well near Tavares, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System. Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 200 ft, cased to 112 ft.

DATUM.--Land-surface datum is 64.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8 in. coupling at land-surface datum.

PERIOD OF RECORD.--May 1963 (annually); October 1963 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.45 ft NGVD, Mar. 13, 1970; lowest measured, 62.36 ft NGVD, May 15, 1985.

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 27... | 0915 | 65.35 | 17... | 0855 | 64.04 |
| 29... | 0930 | 65.29 | 30... | 0828 | 62.76 |
| DEC | | | JUN | | |
| 28... | 0902 | 64.49 | 25... | 1033 | 63.53 |
| JAN | | | JUL | | |
| 29... | 0949 | 65.29 | 23... | 0855 | 65.65 |
| FEB | | | AUG | | |
| 20... | 0927 | 65.98 | 28... | 0908 | 65.54 |
| MAR | | | SEP | | |
| 27... | 0920 | 64.46 | 12... | 0945 | 64.86 |
| APR | | | 26... | 0757 | 64.45 |
| 25... | 0910 | 64.69 | | | |

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 69.07 ft NGVD, Oct. 8, 1982; lowest, 57.29 ft NGVD, May 16, 1981.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--284855081520401. Herlong Park Well at Leesburg, FL.

LOCATION.--Lat 28°48'55", long 81°52'04", in SE¼SW¼SW¼ sec.24, T.19 S., R.24 E., Hydrologic Unit 03080102, on north side of Herlong Park, 450 ft north of U.S. Highway 441 in Leesburg. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 105 ft, cased to 100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 60.61 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--April 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.46 ft NGVD, Sept. 13, 1982; lowest measured, 49.67 ft NGVD, May 1, 1974.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 27... | 1020 | 60.85 | 10... | 1250 | 59.50 |
| JAN | | | JUL | | |
| 31... | 1400 | 60.93 | 10... | 1320 | 59.24 |
| MAR | | | AUG | | |
| 15... | 1015 | 59.65 | 30... | 1455 | 60.58 |
| APR | | | SEP | | |
| 30... | 1235 | 59.97 | 14... | 1200 | 60.45 |

WELL NUMBER.--290647081342101. USGS Well 2 mi north of Alexander Springs near Astor Park, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

INSTRUMENTATION.--Digital recorder--60-minute interval.

PERIOD OF RECORD.--January 1983 to September 1984 (bimonthly); October 1984 to current year.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--290950081315501. Astor Park Well at Astor Park, FL.

LOCATION.--Lat 29°09'50", long 81°31'55", in land grant 37, T.15 S., R.28 E., Hydrologic Unit 03080101, at residence, 200 ft north of State Highway 40, and 1.0 mi west of St. Johns River at Astor Park. Owner: Earl Little.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 254 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 17.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 2.30 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985, data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--February 1936 to December 1949 (monthly); January 1950 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.15 ft NGVD, in October 1945; lowest measured, 10.69 ft NGVD, June 17, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1451 | 14.32 | 14... | 1530 | 11.68 |
| NOV | | | 30... | 0836 | 11.08 |
| 27... | 1525 | 13.78 | JUN | | |
| DEC | | | 26... | 0821 | 11.49 |
| 19... | 1323 | 13.64 | JUL | | |
| JAN | | | 25... | 1157 | 11.64 |
| 31... | 1450 | 12.52 | AUG | | |
| FEB | | | 27... | 1145 | 12.38 |
| 19... | 1308 | 12.67 | SEP | | |
| MAR | | | 11... | 0930 | 12.12 |
| 26... | 1404 | 11.96 | 26... | 0857 | 11.97 |
| APR | | | | | |
| 25... | 1222 | 12.10 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

LAKE COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 02236095 | 05-14-90 | 1900 | ALEXANDER SPRINGS NEAR ASTOR | 8.80 |
| 282126081403901 | 05-15-90 09-13-90 | 1500 1015 | 821140 24S26E35 | 115.79 117.87 |
| 282532081511801 | 05-16-90 09-13-90 | 1140 1115 | 82515101 24S25E06 JACK M BARRY | 104.05 105.30 |
| 282633081425601 | 05-15-90 09-13-90 | 1515 1405 | BRADSHAW WINDMILL | 94.43 95.88 |
| 282729081443301 | 05-16-90 09-13-90 | 1445 1300 | LK LOUISA STATE PARK (SJRWMD L-0053) NR CLERMONT | 95.50 97.28 |
| 282823081500401 | 05-16-90 09-12-90 | 1350 1515 | 82815001 23S25E20 D D GAFFNEY | 100.76 103.07 |
| 282833081544201 | 05-16-90 09-12-90 | 1252 1503 | 82815402 23S24E21 BROWN | 93.41 94.92 |
| 283111081502001 | 05-16-90 09-12-90 | 1330 1541 | 831150 23S25E06 | 96.92 99.37 |
| 283116081442301 | 05-15-90 09-13-90 | 1430 1525 | 83114401 23S26E05 RINGS POND | 80.76 81.27 |
| 283128081404701 | 05-15-90 09-11-90 | 1240 1320 | JOHNS LAKE WELL NR CLERMONT (SJ L-0052) | 82.00 82.34 |
| 283232081394101 | 05-15-90 09-11-90 | 1210 1300 | 83213902 22S26E25 | 80.58 81.32 |
| 283307081435301 | 05-16-90 09-11-90 | 1520 1430 | 83314301 22S26E20 JACKS LAKE WELL | 78.40 78.86 |
| 283359081411501 | 05-15-90 09-11-90 | 1145 1240 | 22S26E14 332 | 73.32 73.76 |
| 283422081480401 | 05-15-90 09-11-90 | 1400 1510 | 834148 22S25E15 SAND MINE 565A | 89.72 91.26 |
| 283530081514501 | 05-17-90 09-11-90 | 1140 1535 | 83515101 22S24E12 NEAR LAKE LUCY | 86.33 86.91 |
| 283540081402401 | 05-15-90 09-12-90 | 1108 1640 | 22S26E01 333 | 72.36 73.12 |
| 283830081534901 | 05-17-90 09-12-90 | 1125 1400 | 83815301 21S24E27 M J VITTI | 86.82 87.05 |
| 284129081414201 | 05-15-90 09-11-90 | 0955 1112 | 21S26E03 214 | 66.76 67.74 |
| 284135081565501 | 05-17-90 09-12-90 | 1030 1235 | 84115601 21S24E06 841156113 BUSH CITRUS | 74.56 75.26 |
| 284232081533001 | 05-17-90 09-12-90 | 1100 1310 | 842153142 20S24E34 | 78.01 79.14 |
| 284234081440001 | 05-15-90 09-11-90 | 1040 1205 | ASTATULA REPLACEMENT | 67.25 69.20 |
| 284241081402601 | 05-15-90 09-11-90 | 0930 1045 | 84214001 20S26E25 USGS | 54.83 57.28 |
| 284245081463301 | 05-17-90 09-12-90 | 1250 1005 | 843145331 20S25E26 HOWEY IN HILLS | 74.34 75.68 |
| 284258081495701 | 05-17-90 09-12-90 | 0920 1025 | 84214901 20S25E29 | 74.37 75.32 |
| 284328081515901 | 05-17-90 09-12-90 | 1010 1200 | 843151 20S24E25 | 75.97 77.30 |
| 284503081515501 | 05-17-90 09-12-90 | 0950 1120 | 84515101 20S24E13 HAWTHORNE IRRIGATION | 85.90 87.96 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

LAKE COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---------------------------------------|---|
| 284728081322201 | 05-10-90 09-10-90 | 1015 0940 | LAKE 847-132-1 SORRENTO | 44.75 43.16 |
| 284757081543002 | 05-11-90 | 1220 | C R WILLIAMS WELL | 66.41 |
| 284808081432801 | 05-10-90 09-12-90 | 1330 1140 | 84814301 19S26E28 TAVERAS WELL 3 | 58.68 58.40 |
| 284826081254601 | 05-10-90 09-12-90 | 0950 1240 | 84812502 19S29E29 SPENCER HARDIN | 20.07 20.36 |
| 284827081403501 | 05-10-90 09-12-90 | 1202 1100 | 848140-- 19S26E26 D BARTHOLOW | 56.85 56.93 |
| 284856081383001 | 05-10-90 09-12-90 | 1100 1046 | CITY OF MT. DORA WELL NO 3 | 49.27 48.86 |
| 284917081353701 | 05-10-90 09-12-90 | 1100 1030 | 84913501 19S27E22 RICKEY AND REED | 45.48 45.15 |
| 284934081474801 | 05-10-90 09-14-90 | 1350 1515 | 849147-- 19S25E22 LAKE SUMTER JC | 60.99 61.41 |
| 285057081321301 | 09-12-90 | 0900 | NEW HEINDRICK WELL NR MOUNT PLYMOUTH | 38.25 |
| 285129081541002 | 05-11-90 09-12-90 | 1300 1334 | CITY OF FRUITLAND PK NO 2 S COMM BLDG | 62.21 62.10 |
| 285244081471401 | 05-10-90 09-14-90 | 1410 1353 | 852147 18S25E35 | 57.84 58.05 |
| 285257081434201 | 05-10-90 09-12-90 | 1500 1525 | 852143121 18S26E32 J EICHEL BADGER | 56.21 56.70 |
| 285301081285401 | 05-14-90 09-14-90 | 1005 0837 | REESE WELL NR CASSIA | 35.75 35.25 |
| 285318081340601 | 05-11-90 09-10-90 | 1555 1500 | 853134 18S27E25 EUSTIS SAND CO | 43.76 43.50 |
| 285426081380901 | 05-10-90 09-10-90 | 1542 1541 | 854138 18S27E20 N B MARSHALL | 49.90 50.01 |
| 285452081563201 | 05-11-90 09-12-90 | 1318 1417 | 85415601 18S24E19 | 51.86 51.77 |
| 285504081405901 | 05-10-90 09-10-90 | 1525 1300 | 855140-- 18S26E14 AUSTIN GROVES | 49.14 49.67 |
| 285514081243201 | 05-14-90 | 1100 | LOIL SILES FERNERY WELL NR PINE LAKES | 24.10 |
| 285523081314701 | 05-11-90 09-11-90 | 1620 1300 | BAY LAKE WELL | 41.76 41.00 |
| 285539081262901 | 05-14-90 09-14-90 | 1030 0853 | PINE LAKES WELL ON SR 44 | 33.12 32.44 |
| 285645081492401 | 05-10-90 09-12-90 | 1425 0945 | 856149-- 18S25E09 D K HARTMAN | 53.51 53.47 |
| 285707081441101 | 05-11-90 | 1450 | 857144-- 18S26E05 J F ERVIN EST | 47.70 |
| 285722081360501 | 05-11-90 09-12-90 | 1520 1600 | 85713601 18S27E03 | 42.94 47.00 |
| 285726081465601 | 05-10-90 09-11-90 | 1440 1506 | 857146-- 18S25E02 | 54.12 54.28 |
| 285827081331401 | 05-14-90 09-12-90 | 1220 1000 | 85813301 17S28E31 | 40.95 40.39 |
| 290000081380001 | 05-14-90 09-12-90 | 1240 1600 | 90013801 17S27E17 PITMAW WORKS | 43.69 43.27 |
| 290047081232501 | 05-14-90 09-14-90 | 1115 1100 | 900123-- 17S29E--U S FOREST SERV | 13.53 15.49 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

LAKE COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------|------|---------------------------------------|---|
| 290153081272501 | 05-14-90 | 1200 | HUNT CAMP AT CLAY LAKE NR FULLERVILLE | 31.56 |
| | 09-13-90 | 0930 | | 31.69 |
| 290244081302601 | 05-14-90 | 1650 | 90213001 17S28E03 | 14.05 |
| | 09-14-90 | 1040 | | 13.40 |
| 290420081311701 | 05-14-90 | 1715 | AMOCO WATER WELL #1A | 37.93 |
| | 09-14-90 | 1100 | | 37.62 |
| 290445081344001 | 05-14-90 | 1830 | 90413401 --S27E--U S FOREST SERV. | 15.36 |
| | 09-14-90 | 0900 | | 15.21 |
| 290633081375201 | 05-14-90 | 1310 | 90613701 16S27E18 CAMP OCALA | 29.80 |
| | 09-11-90 | 1230 | | 29.48 |
| 290650081314001 | 05-14-90 | 1620 | 906131 15S28E-- JOHNSON | 16.45 |
| | 09-14-90 | 1137 | | 16.59 |
| 290820081305001 | 05-14-90 | 1600 | 908130 16S28E-- FRANK SAUL | 13.57 |
| | 09-13-90 | 1030 | | 15.29 |
| 290900081342002 | 05-14-90 | 1510 | 909134 15S27E-- ASTOR PARK | 30.75 |
| | 09-11-90 | 1030 | | 30.93 |
| 290910081360001 | 05-14-90 | 1425 | 909136 15S27E33 4 H CLUB FOUND | 42.15 |
| | 09-13-90 | 1147 | | 42.45 |
| 290950081315501 | 05-14-90 | 1530 | 9091311 USGS OBSER WELL AT ASTOR PARK | 11.68 |
| | 09-11-90 | 0930 | | 12.12 |
| 291107081340601 | 05-14-90 | 1450 | 91113401 15S27E14 BROWN | 10.32 |
| | 09-14-90 | 1206 | | 10.85 |
| 291449081381701 | 05-14-90 | 1340 | 91413801 14S27E30 ENGLISH | 3.46 |
| | 09-14-90 | 1400 | | 3.83 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 29
LEVY COUNTY

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| 1 | 290112082371101 | 180 |
| 2 | 290200082432301 | 181 |
| 3 | 290202082403901 | 182 |
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| 5 | 290743082341501 | 184 |
| 6 | 291910082341101 | 184 |
| 7 | 292430082283001 | 185 |
| 8 | 292615082272601 | 185 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290112082371101. CE-5 Well near Inglis, FL.

LOCATION.--Lat 29°01'12", long 82°37'11", in NE¼NE¼NE¼ sec.7, T.17 S., R.17 E., Hydrologic Unit 03100208, on island 700 ft southwest of Inglis lock, and 3.2 mi southeast of Inglis. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 125 ft, cased to 84 ft.

INSTRUMENTATION.--Digital recorder--15-minute interval.

DATUM.--Land-surface datum is 25.39 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1966 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.41 ft NGVD, Sept. 6, 1968; lowest, 6.96 ft below NGVD, Sept. 16, 1966.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290200082432301. ROMP 124 Well near Yankeetown, FL.

LOCATION.--Lat 29°02'00", long 82°43'23", in NW¼NE¼NE¼ sec.6, T.17 S., R.16 E., Hydrologic Unit 03110101, 120 ft south of Bonita Club Road, and 1.2 mi west of Yankeetown. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 250 ft, cased to 200 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 4.21 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.64 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.11 ft NGVD, Aug. 31, 1985; lowest, 1.58 ft NGVD, June 18, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|----------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 3.22 | 2.35 | 2.04 | 2.67 | 2.64 | 3.02 | 2.44 | 2.12 | 2.06 | 2.60 | 3.37 | 3.15 |
| 10 | 3.03 | 2.75 | 2.33 | 2.87 | 2.79 | 2.98 | 2.45 | 2.48 | 1.97 | 2.60 | 3.32 | 3.05 |
| 15 | 3.14 | 2.97 | 2.46 | 2.53 | 2.83 | 3.06 | 2.39 | 1.96 | 1.70 | 3.00 | 3.30 | 3.04 |
| 20 | 2.66 | 2.32 | 2.42 | 2.58 | 2.61 | 2.66 | 1.75 | 1.96 | 1.75 | 3.24 | 3.30 | 2.63 |
| 25 | 2.28 | 2.28 | 2.49 | 2.59 | 2.81 | 2.66 | 2.19 | 2.23 | 2.37 | 3.40 | 3.17 | 2.27 |
| EOM | 2.41 | 2.13 | 3.00 | 2.49 | 2.93 | 2.90 | 2.17 | 1.93 | 2.12 | 3.26 | 3.14 | 2.56 |
| MAX | 3.69 | 3.19 | 3.00 | 3.11 | 3.11 | 3.40 | 2.79 | 2.48 | 2.47 | 3.60 | 3.39 | 3.19 |
| CAL YR 1989 | MAX 3.78 | | | | | | | | | | | |
| WTR YR 1990 | MAX 3.69 | | | | | | | | | | | |

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940) | SULFATE DIS- SOLVED (MG/L) AS SO4 (00945) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940) | SULFATE DIS- SOLVED (MG/L) AS SO4 (00945) |
|-------|------|--|--|--|-------|------|--|--|--|
| OCT | | | | | MAY | | | | |
| 06... | 1115 | 2670 | 64 | 1800 | 04... | 1420 | 2790 | 65 | 1800 |
| NOV | | | | | JUN | | | | |
| 22... | 1545 | 2810 | 64 | 1800 | 26... | 1405 | 2920 | 65 | 1800 |
| JAN | | | | | AUG | | | | |
| 05... | 1340 | 2820 | 65 | 1800 | 10... | 1500 | 2760 | 67 | 1700 |
| MAR | | | | | | | | | |
| 15... | 1430 | 2900 | 64 | 1800 | | | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290202082403901. Florida Power Corporation (CE-62) Well at Inglis, FL.

LOCATION.--Lat 29°02'02", long 82°40'39", in SW¼NW¼NE¼ sec.3, T.17 S., R.16 E., Hydrologic Unit 03100208, 100 ft south of State Highway 40 at abandoned power plant, 0.6 mi west of U.S. Highway 19 in Inglis. Owner: Florida Power Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 155 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 12.67 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. coupling, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, October 1963 to current year (bimonthly). Records of prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.55 ft NGVD, Sept. 15, 1964; lowest measured, 1.34 ft NGVD, Mar. 14, 1968.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | APR | | |
| 22... | 1424 | 3.34 | 25... | 1420 | 2.60 |
| JAN | | | JUN | | |
| 05... | 1220 | 3.98 | 26... | 1300 | 2.46 |
| MAR | | | AUG | | |
| 09... | 1358 | 3.90 | 10... | 1410 | 4.75 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290230082412501. ROMP 125 Well at Crackertown, FL.

LOCATION.--Lat 29°02'30", long 82°41'25", in SE¼SW¼SE¼ sec.33, T.16 S., R.16 E., Hydrologic Unit 03110101, 40 ft southwest of intersection of State Highway 40A and Schoolcraft Road at Crackertown. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, unused, artesian well, diameter 6 in., depth 280 ft, cased to 270 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 8.64 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.29 ft NGVD, Sept. 9, 1988; lowest, 1.03 ft NGVD, June 20, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 4.00 | 2.70 | 2.23 | 3.44 | 3.24 | 3.80 | 2.77 | 1.98 | 1.49 | 2.66 | 4.12 | 4.38 |
| 10 | 3.76 | 2.92 | 2.49 | 3.65 | 3.23 | 3.63 | 2.64 | 2.01 | 1.39 | 2.62 | 3.81 | 4.09 |
| 15 | 3.65 | 2.92 | 2.69 | 3.58 | 3.18 | 3.44 | 2.49 | 1.69 | 1.15 | 3.49 | 3.61 | 3.96 |
| 20 | 3.22 | 2.52 | 2.89 | 3.48 | 3.10 | 3.24 | 2.09 | 1.66 | 1.03 | 4.53 | 3.43 | 3.59 |
| 25 | 2.94 | 2.43 | 3.31 | 3.38 | 3.63 | 3.09 | 2.15 | 1.62 | 1.65 | 4.43 | 3.83 | 3.18 |
| EOM | 2.78 | 2.35 | 3.65 | 3.22 | 3.69 | 3.00 | 2.16 | 1.51 | 1.93 | 4.41 | 4.41 | 3.09 |
| MAX | 4.26 | 3.01 | 3.65 | 3.79 | 3.69 | 3.91 | 2.98 | 2.04 | 1.93 | 4.64 | 4.41 | 4.54 |

WTR YR 1990 MAX 4.64

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940) | SULFATE DIS- SOLVED (MG/L) AS SO4) (00945) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940) | SULFATE DIS- SOLVED (MG/L) AS SO4) (00945) |
|--------------|------|--|--|--|--------------|------|--|--|--|
| OCT 06... | 1150 | 755 | 11 | 350 | MAY 04... | 1500 | 776 | 10 | 340 |
| NOV 22... | 1615 | 765 | 10 | 340 | JUN 26... | 1441 | 762 | 9.1 | 340 |
| JAN 05... | 1426 | 765 | 10 | 350 | AUG 10... | 1601 | 760 | 8.8 | 330 |
| MAR 15... | 1527 | 802 | 11 | 340 | | | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290743082341501. Tidewater No. 1 Well near Dunnellon, FL.

LOCATION.--Lat 29°07'43", long 82°34'15", in NE¼SE¼NE¼ sec.34, T.15 S., R.17 E., Hydrologic Unit 03110101, on south side of State Highway 336 in Tidewater, 9.8 mi northwest of Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 12 in., depth 784 ft, cased to 298 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 70.07 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.82 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 61.81 ft NGVD, Sept. 26, 1982; lowest, 52.27 ft NGVD, June 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 56.01 | 55.22 | 54.86 | 55.22 | 54.86 | 54.74 | 54.04 | 53.25 | 52.62 | 53.68 | 54.50 | 55.10 |
| 10 | 55.93 | 55.23 | 54.90 | 55.25 | 54.94 | 54.65 | 53.94 | 53.19 | 52.54 | 53.58 | 54.53 | 54.92 |
| 15 | 55.85 | 55.27 | 54.97 | 55.14 | 54.79 | 54.57 | 53.84 | 52.94 | 52.47 | 54.11 | 54.50 | 54.94 |
| 20 | 55.61 | 55.07 | 55.06 | 55.20 | 54.69 | 54.38 | 53.50 | 52.87 | 52.37 | 54.53 | 54.54 | 54.72 |
| 25 | 55.60 | 54.97 | 55.22 | 55.17 | 54.71 | 54.22 | 53.47 | 52.71 | 52.69 | 54.68 | 54.84 | 54.52 |
| EOM | 55.41 | 54.90 | 55.29 | 54.97 | 54.84 | 54.15 | 53.33 | 52.53 | 53.44 | 54.62 | 55.02 | 54.52 |
| MAX | 56.07 | 55.37 | 55.29 | --- | 54.94 | 55.00 | 54.17 | 53.29 | 53.44 | 54.73 | 55.03 | 55.12 |

WELL NUMBER.--291910082341101. Bullock-Huber Well near Williston, FL.

LOCATION.--Lat 29°19'10", long 82°34'11", in NW¼NW¼NW¼ sec.36, T.13 S., R.17 E., Hydrologic Unit 03110101, in a field, 1.0 mi south of a county road, 2.9 mi west of State Highway 121, and 10 mi southwest of Williston. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 91 ft, cased to 68 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 92.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1974 to September 1977 (bimonthly); October 1977 to September 1979 (semiannually); October 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.24 ft NGVD, Oct. 7, 1982; lowest measured, 41.80 ft NGVD, May 14, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1615 | 44.63 | 14... | 1500 | 41.80 |
| NOV | | | 24... | 0925 | 42.43 |
| 29... | 0845 | 44.35 | JUL | | |
| JAN | | | 25... | 0850 | 43.31 |
| 23... | 0915 | 43.64 | SEP | | |
| MAR | | | 12... | 1320 | 43.20 |
| 21... | 0850 | 43.14 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

LEVY COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 290301082335601 | 05-14-90 09-11-90 | 1320 1520 | 90323301 16S17E35 DEL WRIGHT CORRAL | 48.97 52.02 |
| 290503082323101 | 05-14-90 09-11-90 | 1308 1640 | 90523201 16S17E13 SCE 108 T & J RANCH | 68.44 71.89 |
| 290605082372601 | 05-14-90 09-11-90 | 1350 1610 | 90623701 16S17E07 GEOTHE ROAD | 25.74 28.01 |
| 291004082382901 | 05-14-90 09-11-90 | 1403 1620 | 91023801 15S16E24 910238433 DIXIE LIME PR | 22.49 25.16 |
| 291048083011801 | 05-14-90 09-12-90 | 1940 0920 | 15S13E17 910301212 | 2.24 3.20 |
| 291414082560901 | 05-15-90 09-12-90 | 1228 0900 | ROSEWOOD TOWER WELL NR CEDAR KEYS | 9.92 10.52 |
| 291508082432901 | 05-15-90 09-12-90 | 1748 0825 | GULF HAMMOCK | 8.66 9.45 |
| 291712082351801 | 05-14-90 09-12-90 | 1445 1340 | SOUTH OF BONSON-RO | 45.37 44.69 |
| 291806082545601 | 05-14-90 09-12-90 | 1925 0930 | 918254331 13S14E33 TEST 2 USGS | 19.56 19.68 |
| 291855082472601 | 05-15-90 09-12-90 | 1714 0845 | HUDSON NR OTTER CREEK | 20.17 22.59 |
| 292143082282201 | 05-14-90 09-12-90 | 1536 1245 | 92122801 13S18E11 WILLISTON AIRPORT | 43.16 44.29 |
| 292310082373701 | 05-14-90 09-12-90 | 1726 1130 | ERCELL SMITH | 51.81 52.63 |
| 292507082560201 | 09-12-90 | 0950 | A J MIMMS (121420) SR 347 SW OF CHIEFLAND | 1.74 |
| 292615082272601 | 05-14-90 09-12-90 | 1640 1215 | ROMP 134 NEAR WILLISTON | 43.80 44.55 |
| 292632082312801 | 05-14-90 09-12-90 | 1650 1200 | 92623101 USGS TEST WELL CR 335 & CR 241 | 44.54 45.33 |
| 292640082381201 | 05-14-90 09-12-90 | 1705 1115 | 92623801 12S17E17 926238241 HARDEE HOTEL | 48.50 49.38 |
| 292713082493601 | 05-14-90 09-12-90 | 1830 1010 | H E MILLS NR CHIEFLAND | 22.78 23.35 |

MISCELLANEOUS WATER-QUALITY MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

LEVY COUNTY

290118082364101 - 90123601 17S17E05 CE-70 USGS AT INGLIS LOCK

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 0815 | 19.64 | 507 | 7.0 | 22.0 | <1 | 10 |
| SEP 18... | 1000 | 22.50 | 514 | 7.2 | 21.5 | <1 | 9.6 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | <0.020 | 0.230 | 0.48 | 0.090 | 0.060 | 5.2 |
| SEP 18... | <0.010 | <0.020 | 0.200 | 0.51 | 0.120 | 0.030 | 5.9 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 30
MARION COUNTY

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| 3 | 290106082191001 | 191 |
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| 5 | 290215082152401 | 192 |
| 6 | 290306082232802 | 192 |
| 7 | 290312082250801 | 193 |
| 8 | 290455081530401 | 193 |
| 9 | 290514082270701 | 194 |
| 10 | 290815082025701 | 194 |
| 11 | 291059082190801 | 195 |
| 12 | 291100082010003 | 195 |
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| 14 | 291115081592501 | 196 |
| 15 | 291115082102901 | 197 |
| 16 | 291130082015001 | 197 |
| 17 | 291740081562001 | 198 |
| 18 | 291849081411401 | 198 |
| 19 | 292019082064201 | 199 |
| 20 | 292200081510001 | 200 |
| 21 | 292546081513301 | 201 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--285900082072001. USGS Observation CE-36 Well at Pedro, FL.

LOCATION.--Lat 28°59'00", long 82°07'20", in NE¼SE¼NE¼ sec.29, T.17 S., R.22 E., Hydrologic Unit 03100208, on west side of State Highway 475A, 12.8 mi south of Ocala, and 0.2 mi north of State Highway 42 at Pedro. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 66 ft, cased to 45 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 74.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1966 to September 1977; October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft NGVD, Sept. 13, 1982; lowest measured, 43.22 ft NGVD, Oct. 26, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------|------|---|-----------|------|---|
| NOV 08... | 0850 | 46.08 | MAY 14... | 0835 | 44.54 |
| JAN 04... | 1603 | 45.42 | JUN 12... | 1242 | 44.34 |
| MAR 08... | 1430 | 46.00 | AUG 09... | 1330 | 45.55 |
| APR 20... | 1358 | 45.26 | SEP 12... | 0915 | 44.76 |

WELL NUMBER.--285920081490501. USGS Well Mar-48 near Oklawaha, FL. (Formerly Mar-48 Replacement Well near Oklawaha, FL.)

LOCATION.--Lat 28°59'20", long 81°49'05", in SE¼SW¼ sec.20, T.17 S., R.25 E., Hydrologic Unit 03080102, at fish camp south of State Highway 42, on east side of Oklawaha River at Starkes Ferry, and 7 mi southeast of Oklawaha. Owner: E. Nelson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 152 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 61.08 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.77 ft above land-surface datum.

REMARKS.--Record is equivalent to that for Mar 48 Replacement (285930081500501), available October 1980 to September 1983.

PERIOD OF RECORD.--March 1936 to December 1949 (monthly); January 1950 to September 1980, October 1983 to current year (bimonthly). Records of water levels prior to January 1974 are unpublished and available in the files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.28 ft NGVD, October 1945; lowest measured, 50.18 ft NGVD, Apr. 24, 1957.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------|------|---|-----------|------|---|
| NOV 22... | 1530 | 52.93 | MAY 17... | 1500 | 53.05 |
| JAN 31... | 1100 | 52.44 | JUL 09... | 1440 | 51.56 |
| MAR 14... | 1510 | 52.47 | AUG 30... | 1245 | 51.82 |
| APR 30... | 1115 | 52.21 | SEP 11... | 1525 | 51.39 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--290106082191001. CE-23 Well near Dunnellon, FL.

LOCATION.--Lat 29°01'06", long 82°19'10", in NE¼NE¼NE¼ sec.17, T.17 S., R.20 E., Hydrologic Unit 03100208, north of State Highway 200, 2.8 mi northeast of Withlacoochee River, and 16.3 mi southwest of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 45 ft, cased to 19 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 62.64 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1966 to September 1977; October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.54 ft NGVD, Sept. 7, 1968; lowest measured, 37.10 ft NGVD, Feb. 10, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEVATION ABOVE NGVD (FEET) | DATE | TIME | ELEVATION ABOVE NGVD (FEET) |
|-----------|------|--------------------------------------|-----------|------|--------------------------------------|
| NOV 08... | 1023 | 40.90 | MAY 14... | 1115 | 40.42 |
| JAN 11... | 1830 | 40.24 | JUN 29... | 1011 | 39.63 |
| MAR 08... | 1540 | 41.48 | AUG 09... | 1445 | 40.94 |
| APR 24... | 1810 | 40.91 | SEP 12... | 1140 | 40.95 |

WELL NUMBER.--290133082140901. ROMP 119 Well near Ocala, FL.

LOCATION.--Lat 29°01'33", long 82°14'09", in NW¼NW¼SW¼ sec.8, T.17 S., R.21 E., Hydrologic Unit 03080102, on south side of State Highway 484, 4.5 mi west from intersection with Interstate Highway 75, and 12 mi southwest of Ocala. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 502 ft, cased to 106 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 71.85 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.90 ft above land-surface datum.

PERIOD OF RECORD.--December 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.41 ft Aug. 18, 19, 1983; lowest, 41.89 ft, June 13, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--290215082152401. CE-74 Well near Ocala, FL.

LOCATION.--Lat 29°02'15", long 82°15'24", in NE¼SW¼SE¼ sec.1, T.17 S., R.20 E., Hydrologic Unit 03100208, 0.25 mi west of State Highway 484, 2.9 mi southeast of State Highway 200, and 13 mi southwest of Ocala. Owner: U.S. Army Corps of Engineers.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 2 in., depth 51 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 76.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1964 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.47 ft NGVD, Dec. 1, 1964; lowest measured, 40.64 ft NGVD, July 15, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 08... | 1000 | 43.04 | 15... | 0845 | 41.72 |
| JAN | | | JUN | | |
| 04... | 1640 | 42.05 | 22... | 1345 | 41.15 |
| MAR | | | AUG | | |
| 08... | 1520 | 42.40 | 09... | 1430 | 41.58 |
| APR | | | SEP | | |
| 24... | 1826 | 42.00 | 12... | 1045 | 41.48 |

WELL NUMBER.--290306082232802. Fire Tower (CE-73) Well at Dunnellon, FL.

LOCATION.--Lat 29°03'06", long 82°23'28", in SE¼NW¼SE¼ sec.34, T.16 S., R.19 E., Hydrologic Unit 03100208, on south side of State Highway 484, across from Dunnellon Fire Tower, and 4.4 mi east of U.S. Highway 41 in Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 36 ft, cased to 26 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 65.18 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in cap, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1964 to May 1966 (monthly), July 1966 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.52 ft NGVD, Sept. 21, 1970; lowest measured, 47.91 ft NGVD, July 15, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 21... | 1625 | 53.92 | 14... | 1215 | 52.74 |
| JAN | | | JUN | | |
| 04... | 1705 | 54.15 | 22... | 1330 | 51.61 |
| MAR | | | AUG | | |
| 08... | 1605 | 54.45 | 28... | 1927 | 54.09 |
| APR | | | SEP | | |
| 24... | 1905 | 53.30 | 12... | 1315 | 53.68 |

WELL NUMBER.--290312082250801. CE-14 Well near Dunnellon, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 190 ft, cased to 112 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

PERIOD OF RECORD.--June 1966 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 50.18 ft NGVD, Aug. 27, 1970; lowest, 34.31 ft NGVD, Feb. 28, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 38.29 | 38.00 | 37.56 | 37.01 | 37.67 | 37.64 | 37.85 | 37.18 | 36.61 | 36.17 | 36.75 | 37.00 |
| 10 | 38.34 | 37.95 | 37.43 | 37.04 | 37.69 | 37.75 | 37.75 | 37.09 | 36.51 | 36.07 | 36.89 | 36.93 |
| 15 | 38.32 | 37.92 | 37.32 | 37.11 | 37.66 | 37.84 | 37.65 | 36.98 | 36.39 | 36.21 | 36.92 | 36.86 |
| 20 | 38.25 | 37.84 | 37.21 | 37.34 | 37.60 | 37.89 | 37.50 | 36.89 | 36.30 | 36.40 | 36.97 | 36.78 |
| 25 | 38.20 | 37.75 | 37.12 | 37.52 | 37.56 | 37.88 | 37.39 | 36.80 | 36.28 | 36.54 | 36.99 | 36.66 |
| EOM | 38.08 | 37.66 | 37.08 | 37.63 | 37.60 | 37.89 | 37.28 | 36.67 | 36.23 | 36.69 | 36.98 | 36.58 |
| MAX | 38.34 | 38.07 | 37.63 | 37.63 | 37.70 | 37.89 | 37.88 | 37.26 | 36.65 | 36.69 | 36.99 | 37.01 |

| | | | | |
|-----|----|------|-----|-------|
| CAL | YR | 1989 | MAX | 42.46 |
| WTR | YR | 1990 | MAX | 38.34 |

WELL NUMBER.--290455081530401. USGS Well at Moss Bluff Park, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 225 ft, cased to 80 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 50.12 ft above National Geodetic Vertical Datum of 1929. Measuring Point: Top of flange, 6.09 ft, above land-surface datum.

PERIOD OF RECORD.--October 1975 to June 1982; July 1982 to January 1985 (bimonthly); January 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.90 ft NGVD, Oct. 11, 1982; lowest, 48.96 ft NGVD, Dec. 20, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 52.10 | 51.66 | 51.33 | 51.24 | 51.29 | 51.22 | 50.92 | 50.55 | 50.10 | 50.36 | 50.49 | 50.40 |
| 10 | 52.13 | 51.67 | 51.23 | 51.27 | 51.38 | 51.17 | 50.85 | 50.61 | 50.10 | 50.33 | 50.45 | 50.27 |
| 15 | 52.09 | 51.71 | 51.21 | 51.24 | 51.29 | 51.16 | 50.85 | 50.37 | 50.05 | 50.46 | 50.53 | 50.27 |
| 20 | 51.93 | 51.57 | 51.23 | 51.39 | 51.24 | 51.08 | 50.61 | 50.29 | 49.96 | 50.55 | 50.55 | 50.13 |
| 25 | 51.95 | 51.44 | 50.88 | 51.42 | 51.16 | 50.94 | 50.70 | 50.17 | 50.09 | 50.55 | 50.51 | 50.00 |
| EOM | 51.87 | 51.37 | 51.16 | 51.33 | 51.29 | 51.00 | 50.61 | 49.95 | 50.24 | 50.49 | 50.52 | 50.01 |
| MAX | 52.17 | 51.79 | 51.44 | 51.43 | 51.43 | 51.45 | 51.06 | 50.61 | 50.24 | 50.59 | 50.58 | 50.45 |

WTR YR 1990 MAX 52.17

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--290514082270701. Rainbow Springs Well near Dunnellon, FL.

LOCATION.--Lat 29°05'14", long 82°27'07", in SW¼NW¼SW¼ sec.13, T.16 S., R.18 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, 2.8 mi north of Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 442 ft, cased to 125 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 113.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Well records used to determine flow of Rainbow Springs.

PERIOD OF RECORD.--October 1964 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 36.12 ft NGVD, Oct. 22, 1964; lowest, 29.88 ft NGVD, July 3, 4, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 30.89 | 30.92 | 30.79 | 30.46 | 30.34 | 30.27 | 30.48 | 30.37 | 30.31 | 30.40 | 30.73 | 30.99 |
| 10 | 30.90 | 30.93 | 30.69 | 30.46 | 30.31 | 30.25 | 30.41 | 30.36 | 30.29 | 30.36 | 30.80 | 30.96 |
| 15 | 30.90 | 30.89 | 30.59 | 30.42 | 30.31 | 30.26 | 30.39 | 30.33 | 30.27 | 30.52 | 30.82 | 30.98 |
| 20 | 30.92 | 30.86 | 30.53 | 30.39 | 30.27 | 30.29 | 30.38 | 30.30 | 30.28 | 30.55 | 30.84 | 30.96 |
| 25 | 30.92 | 30.89 | 30.51 | 30.37 | 30.30 | 30.28 | 30.39 | 30.33 | 30.42 | 30.66 | 30.92 | 30.89 |
| EOM | 30.92 | 30.86 | 30.49 | 30.34 | 30.28 | 30.41 | 30.36 | 30.27 | 30.36 | 30.71 | 30.92 | 30.87 |
| MEAN | 30.91 | 30.90 | 30.62 | 30.41 | 30.31 | 30.28 | 30.41 | 30.33 | 30.31 | 30.51 | 30.82 | 30.95 |
| MAX | 30.93 | 30.93 | 30.85 | 30.47 | 30.34 | 30.41 | 30.49 | 30.37 | 30.42 | 30.71 | 30.92 | 30.99 |
| MIN | 30.88 | 30.86 | 30.49 | 30.34 | 30.27 | 30.25 | 30.36 | 30.27 | 30.26 | 30.35 | 30.71 | 30.87 |

CAL YR 1989 MEAN 31.09 MAX 32.30 MIN 30.49

WTR YR 1990 MEAN 30.56 MAX 30.99 MIN 30.25

WELL NUMBER.--290815082025701. USGS Well CE-40 replacement near Ocala, FL.

LOCATION.--Lat 29°08'15", long 82°02'57", in SE¼SE¼SW¼ sec.31, T.15 S., R.23 E., Hydrologic Unit 03100208, on south side of State Highway 464, 6.5 mi northwest of Candler, and 4.3 mi southeast of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in., depth 105 ft, cased to 47 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 91.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of casing 2.80 ft above land-surface datum.

REMARKS.--Record is equivalent to that for CE-40 (290810082025001), available March 1966 to September 1982.

PERIOD OF RECORD.--March 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.39 ft NGVD, Oct. 17, 1988; lowest measured, 41.74 ft NGVD, May 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1215 | 43.16 | 15... | 1545 | 41.82 |
| NOV | | | 21... | 1125 | 41.74 |
| 27... | 1550 | 42.50 | JUL | | |
| JAN | | | 23... | 1440 | 42.29 |
| 22... | 1150 | 42.60 | SEP | | |
| MAR | | | 10... | 1420 | 41.85 |
| 19... | 1145 | 42.28 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--291059082190801. Romp 120 near Cotton Plant, FL.

LOCATION.--Lat 29°10'59", long 82°19'08", in NE¼SE¼SE¼ sec.17, T.15 S., R.20 E., Hydrologic Unit 03080102, on south side of State Highway 328, 0.4 mi from intersection with State Highway 40 in Cotton Plant. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in, depth 403 ft, cased to 110 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 76.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.22 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 50.69 ft NGVD, Aug. 2,3, 1982; lowest, 41.03 ft NGVD, Feb. 14, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 43.22 | 43.13 | 42.62 | 42.28 | 42.24 | 42.13 | 41.97 | 41.71 | 41.30 | 41.19 | 41.60 | 41.74 |
| 10 | 43.29 | 43.06 | 42.50 | 42.26 | 42.25 | 42.15 | 41.97 | 41.66 | 41.25 | 41.20 | 41.65 | 41.69 |
| 15 | 43.30 | 43.00 | 42.45 | 42.26 | 42.18 | 42.12 | 41.92 | 41.57 | 41.19 | 41.22 | 41.70 | 41.67 |
| 20 | 43.27 | 42.91 | 42.37 | 42.31 | 42.15 | 42.09 | 41.84 | 41.52 | 41.13 | 41.37 | 41.72 | 41.59 |
| 25 | 43.27 | 42.80 | 42.35 | 42.33 | 42.10 | 42.05 | 41.82 | 41.44 | 41.08 | 41.45 | 41.72 | 41.53 |
| EOM | 43.20 | 42.70 | 42.32 | 42.27 | 42.14 | 42.01 | 41.74 | 41.33 | 41.12 | 41.52 | 41.75 | 41.46 |
| MAX | 43.31 | 43.19 | 42.66 | 42.33 | 42.28 | 42.18 | 42.01 | 41.74 | 41.34 | 41.52 | 41.76 | 41.75 |
| CAL YR 1989 | MAX 46.42 | | | | | | | | | | | |
| WTR YR 1990 | MAX 43.31 | | | | | | | | | | | |

WELL NUMBER.--291100082010003. Local Number CE-76. USGS Observation Well CE-76 near Ocala, FL.

LOCATION.--Lat 29°11'00", long 82°01'00", in NE¼NW¼SW¼ sec.16, T.15 S., R.23 E., Hydrologic Unit 03080102, on south side of Sharpes Ferry Road, 6.5 mi east of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 153 ft, cased to 124 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 64.51 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to September 1977; October 1977 to current year (bimonthly). Records of water levels prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 46.78 ft NGVD, Apr. 19, 1970; lowest measured, 40.65 ft NGVD, Jan. 28, 1982.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAR | | |
| 02... | 1510 | 42.33 | 19... | 1215 | 41.47 |
| NOV | | | MAY | | |
| 28... | 0805 | 41.71 | 21... | 1200 | 41.05 |
| JAN | | | JUL | | |
| 22... | 1240 | 41.71 | 23... | 1520 | 41.37 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--291110082060001. USGS Well CE-44 at Ocala, FL.

LOCATION.--Lat 29°11'10", long 82°06'00", in SW¼SW¼NW¼ sec.15, T.15 S., R.22 E., Hydrologic Unit 03080102, on south side of State Highway 40, 120 ft east of Florida Highway Patrol Station at Ocala, and 3.0 mi west of Silver Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 91 ft, cased to 34.2 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 102.73 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1966 to September 1977; October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.50 ft NGVD, Sept. 13, 1982; lowest measured, 39.15 ft NGVD, Sept. 10, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1405 | 41.48 | 15... | 1310 | 40.24 |
| NOV | | | 21... | 1350 | 40.40 |
| 28... | 0650 | 40.99 | JUL | | |
| JAN | | | 23... | 1535 | 40.64 |
| 22... | 1440 | 40.90 | SEP | | |
| MAR | | | 10... | 1200 | 39.15 |
| 19... | 1325 | 40.78 | | | |

WELL NUMBER.--291115081592501. Sharpes Ferry Well, Marion 5 near Ocala, FL.

LOCATION.--Lat 29°11'15", long 81°59'25", in NE¼SE¼ sec.15, T.15 S., R.23 E., Hydrologic Unit 03080102, on north side of Sharpes Ferry Road, 0.1 mi east of Oklawaha River, and 7.6 mi east of Ocala. Owner: Florida Department of Transportation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 135 ft, cased to 135 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 39.83 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of reducer, 2.55 ft above land-surface datum.

REMARKS.--Well records used to determine flow of Silver Springs.

PERIOD OF RECORD.--January 1933 to July 1947 (weekly); August 1947 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.42 ft NGVD, Oct. 14, 1960; lowest, 43.18 ft NGVD, May 7, 1957.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 46.39 | 46.11 | 45.77 | 45.67 | 45.67 | 45.62 | 45.36 | 45.07 | 44.62 | 44.78 | 45.02 | 44.88 |
| 10 | 46.44 | 46.07 | 45.65 | 45.65 | 45.80 | 45.58 | 45.31 | 45.10 | 44.58 | 44.83 | 45.02 | 44.80 |
| 15 | 46.44 | 46.12 | 45.63 | 45.66 | 45.67 | 45.61 | 45.35 | 44.91 | 44.54 | 44.91 | 45.03 | 44.78 |
| 20 | 46.07 | 45.97 | 45.65 | 45.82 | 45.61 | 45.46 | 45.06 | 44.88 | 44.45 | 44.98 | 44.99 | 44.66 |
| 25 | 46.15 | 45.83 | 45.57 | 45.83 | 45.50 | 45.41 | 45.14 | 44.72 | 44.49 | 45.04 | 44.96 | 44.54 |
| EOM | 46.26 | 45.79 | 45.67 | 45.72 | 45.65 | 45.49 | 45.08 | 44.53 | 44.66 | 45.03 | 44.94 | 44.51 |
| MEAN | 46.32 | 46.01 | 45.66 | 45.71 | 45.65 | 45.54 | 45.26 | 44.89 | 44.53 | 44.93 | 45.00 | 44.72 |

CAL YR 1989 MEAN 46.62
WTR YR 1990 MEAN 45.35

WELL NUMBER.--291115082102901. USGS Well CE-31 replacement at Ocala, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System. Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 55 ft, cased to 27 feet.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 72.66 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.4 ft above land-surface datum.

REMARKS.--Record is equivalent to that for CE-31 (291120082102501), available November 1935 to May 1983.

PERIOD OF RECORD.--April 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.77 ft NGVD, Oct. 17, 1988; lowest measured, 41.33 ft NGVD, Sept. 10, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|--------------|------|---|--------------|------|---|
| OCT 02... | 1310 | 42.53 | MAY 15... | 1240 | 41.48 |
| NOV 27... | 1620 | 43.16 | 21... | 1445 | 41.42 |
| JAN 22... | 1500 | 41.98 | JUL 23... | 1555 | 41.51 |
| MAR 19... | 1510 | 41.88 | SEP 10... | 1135 | 41.33 |

WELL NUMBER.--291130082015001. Local Number CE-47. USGS Observation Well CE-47 near Ocala, FL.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 192 ft, cased to 174.4 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 53.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1966 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 45.50 ft NGVD, Sept. 13, 1982; lowest, 39.57 ft NGVD, July 9, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--291740081562001. USGS Well CE-54 near Ocala, FL.

LOCATION.--Lat 29°17'40", long 81°56'20", in SW¼SW¼SW¼ sec.6, T.14 S., R.24 E., Hydrologic Unit 03080102, on east side of Gores Landing Road, 1.0 mi west of Oklawaha River at Gores Landing, 5.0 mi south of Fort McCoy, and 14.3 mi northeast of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 280 ft, cased to 258 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 50.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1966 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 50.45 ft NGVD, Apr. 19, 1970; lowest, 43.27 ft NGVD, June 21, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 45.56 | 44.96 | 44.79 | 44.92 | 44.88 | 44.90 | 44.52 | 43.98 | 43.66 | 43.82 | 44.03 | 44.01 |
| 10 | 45.55 | 44.97 | 44.76 | 44.98 | 44.96 | 44.79 | 44.36 | 44.01 | 43.67 | 43.84 | 43.91 | 43.85 |
| 15 | 45.46 | 44.99 | 44.76 | 44.90 | 44.82 | 44.68 | 44.27 | 43.88 | 43.56 | 43.92 | 44.03 | 43.80 |
| 20 | 45.16 | 44.96 | 44.77 | 45.04 | 44.79 | 44.60 | 43.95 | 43.93 | 43.32 | 44.02 | 44.03 | 43.76 |
| 25 | 45.21 | 44.85 | 44.81 | 45.02 | 44.76 | 44.53 | 44.20 | 43.80 | 43.49 | 44.09 | 43.92 | 43.56 |
| EQM | 45.15 | 44.83 | 44.93 | 44.92 | 44.88 | 44.46 | 44.10 | 43.46 | 43.65 | 44.08 | 44.02 | 43.44 |
| MAX | 45.62 | 45.09 | 44.93 | 45.07 | 44.99 | 45.09 | 44.62 | 44.05 | 43.68 | 44.13 | 44.07 | 44.04 |
| WTR YR 1990 | MAX 45.62 | | | | | | | | | | | |

WELL NUMBER.--291849081411401. Lake George Well near Salt Springs, FL.

LOCATION.--Lat 29°18'49", long 81°41'14", in SE¼ sec.42, Joseph M. Hernandez Grant, T.13 S., R.26 E., Hydrologic Unit 03080101, on a sand trail, on the east side of State Highway 19, 3.8 mi southeast of Salt Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 298 ft, cased to 267.50 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 18.92 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.00 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--January 1983 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.28 ft NGVD, Mar. 16, 1983; lowest measured, 14.08 ft NGVD, Sept. 26, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1555 | 15.90 | 17... | 1120 | 14.42 |
| NOV | | | 29... | 1235 | 14.35 |
| 27... | 1600 | 15.79 | JUN | | |
| DEC | | | 26... | 0735 | 14.22 |
| 19... | 1405 | 15.36 | JUL | | |
| JAN | | | 25... | 1240 | 14.12 |
| 31... | 1015 | 15.03 | AUG | | |
| FEB | | | 27... | 1225 | 14.18 |
| 19... | 1350 | 15.02 | SEP | | |
| MAR | | | 11... | 1225 | 14.10 |
| 26... | 1020 | 14.87 | 26... | 1300 | 14.08 |
| APR | | | | | |
| 25... | 0855 | 14.61 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--292019082064201. USGS Well CE-66 replacement at Sparr, FL.

LOCATION.--Lat 29°20'19", long 82°06'42", in SW¼SW¼SE¼ sec.21, T.13 S., R.22 E., Hydrologic Unit 03080102, in lumber yard at northeast corner of intersection of Alternate U.S. Highway 301 and Main Street at Sparr.
Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 120 ft, cased to 61 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 95.11 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.65 ft above land-surface datum.

REMARKS.--Record is equivalent to that for CE-66 (292015082065001), available March 1961 to August 1985.

PERIOD OF RECORD.--May 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.39 ft NGVD, Sept. 20, 1988; lowest measured, 43.40 ft NGVD, Sept. 13, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 03... | 1250 | 44.89 | 16... | 1235 | 43.90 |
| NOV | | | 22... | 1430 | 43.82 |
| 28... | 1605 | 44.51 | JUL | | |
| JAN | | | 24... | 1345 | 43.68 |
| 25... | 1100 | 44.31 | SEP | | |
| MAR | | | 13... | 1405 | 43.40 |
| 19... | 1350 | 44.29 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--292200081510001. USGS Well CE-84 near Salt Springs, FL.

LOCATION.--Lat 29°22'00", long 81°51'00", in NW¼NW¼NE¼ sec.13, T.13 S., R.24 E., Hydrologic Unit 03080101, on north side of State Highway 316, 2.5 mi east of Oklawaha River at Eureka, 7.5 mi west of Salt Springs, and 8.0 mi east of Fort McCoy. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 90 ft, cased to 53 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 91.72 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--July 1970 to September 1977; October 1977 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.92 ft NGVD, Nov. 28, 1979; lowest measured, 22.32 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1055 | 23.45 | 16... | 1410 | 22.60 |
| NOV | | | 29... | 0845 | 22.52 |
| 27... | 1035 | 23.31 | JUN | | |
| DEC | | | 25... | 1240 | 22.38 |
| 19... | 0905 | 23.20 | JUL | | |
| JAN | | | 25... | 0815 | 22.37 |
| 31... | 1040 | 23.08 | AUG | | |
| FEB | | | 27... | 0905 | 22.38 |
| 19... | 0950 | 23.00 | SEP | | |
| MAR | | | 11... | 1050 | 22.36 |
| 26... | 0950 | 22.87 | 27... | 0825 | 22.32 |
| APR | | | | | |
| 25... | 0820 | 22.70 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

MARION COUNTY

WELL NUMBER.--292546081513301. USGS Well CE-67 near Salt Springs, FL.

LOCATION.--Lat 29°25'46", long 81°51'33", in NE¼SE¼SE¼ sec.23, T.12 S., R.24 E., Hydrologic Unit 03080102, on northwest corner of Forest Roads 75 and 97 in the Ocala National Forest, 7.8 mi northeast of Fort McCoy, and 9.2 mi northwest of Salt Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 340 ft, cased to 307 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 137.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in cap, 2.20 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1964 to November 1967 (monthly); January 1968 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.60 ft NGVD, Oct. 29, 1965; lowest measured, 17.34 ft NGVD, July 1, 1968.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1000 | 19.19 | 16... | 1355 | 18.84 |
| NOV | | | 29... | 0815 | 18.62 |
| 27... | 1015 | 19.14 | JUN | | |
| DEC | | | 25... | 1300 | 18.37 |
| 19... | 0845 | 19.12 | JUL | | |
| JAN | | | 25... | 0750 | 18.74 |
| 31... | 0845 | 19.11 | AUG | | |
| FEB | | | 27... | 0850 | 18.74 |
| 19... | 0935 | 18.98 | SEP | | |
| MAR | | | 11... | 1040 | 18.72 |
| 26... | 0925 | 18.81 | 27... | 0805 | 18.68 |
| APR | | | | | |
| 25... | 0755 | 18.71 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|--|------------------------------|---|---|
| 02236130 | 05-17-90 09-11-90 | 1245 0920 | JUNIPER SPRINGS NR OCALA | 30.27 30.11 |
| 02236160 | 05-17-90 | 1210 | SILVER GLEN SPRINGS NR ASTOR | 0.09 |
| 02236205 | 09-11-90 | 1200 | SALT SPRINGS NR EUREKA | 4.07 |
| 285930081430901 | 05-17-90 09-11-90 | 1435 1500 | 85914301 KOA WELL ON SR-42 WEST OF ALTOONA | 51.46 50.53 |
| 285933082192501 | 05-14-90 09-12-90 | 1055 1200 | 85921901 17S20E20 CE24 USGS | 37.01 37.66 |
| 290103082104501 | 05-14-90 09-12-90 | 1000 1000 | 90121001 17S21E14 MARION OAKS NO 2 | 42.72 42.77 |
| 290220081562001 | 05-16-90 09-13-90 | 1653 1620 | 90215601 USGS OBSER WELL CE42 AT OKLAWAHA | 44.70 41.44 |
| 290227082250801 | 05-14-90 09-12-90 | 1300 1355 | 90222501 16S19E31 CE75 USGS | 51.49 51.76 |
| 290238082120901 | 05-14-90 09-12-90 | 1025 1015 | 90221201 17S21E03 SCE 168 CORPS OF ENGINEERS | 42.78 42.62 |
| 290312082190601 | 05-14-90 05-15-90 09-12-90 09-18-90 | 1130 1049 1235 1241 | 90321901 16S20E33 CE22 USGS | 46.35 46.35 46.57 46.42 |
| 290325082283701 | 05-14-90 09-12-90 | 1330 1445 | 90322802 16S18E27 AK:54 WELL NR VOGT SPRINGS | 36.14 36.76 |
| 290400082091001 | 05-14-90 05-15-90 09-12-90 09-17-90 | 0930 1305 0935 1030 | 90420901 USGS OB WELL CE33 NR OCALA | 43.12 43.11 43.10 43.00 |
| 290421082190801 | 05-14-90 09-12-90 | 1150 1255 | 90421901 16S20E28 CE21 USGS | 41.69 41.76 |
| 290447082250901 | 05-14-90 05-15-90 09-12-90 09-18-90 | 1240 1000 1335 1222 | 90422501 16S19E20 CE13 USGS | 31.82 31.76 32.41 32.39 |
| 290455081530401 | 05-16-90 09-13-90 | 1630 1555 | 90415301 USGS OBSER WELL AT MOSS BLUFF PARK | 50.34 50.31 |
| 290614082274801 | 05-14-90 09-12-90 | 1415 1520 | 90622701 16S18E11 SCE 170 RAINBOWS END GOLF CRS | 31.90 32.62 |
| 290628081425301 | 05-17-90 09-11-90 | 1355 1410 | 90614201 LOOKOUT TOWER WELL,BOMB RNGE, ASTOR PARK | 44.95 43.86 |
| 290739082245701 | 05-14-90 09-13-90 | 1435 0755 | 90722401 15S19E32 CE12 USGS | 33.51 34.30 |
| 290752082121401 | 09-12-90 | 1115 | COLLEGE RD CHURCH WELL | 50.11 |
| 290752082271101 | 05-15-90 09-12-90 | 1013 1545 | 90722701 15S18E35 SCE 116 RAINBOW ACRES | 33.38 34.16 |
| 290822082310101 | 05-14-90 09-12-90 | 1515 1610 | 90823101 15S18E32 LAKE BONABLE | 40.95 42.37 |
| 290910082315001 | 05-14-90 09-12-90 | 1535 1625 | 90923101 15S18E30 SCE 138 LITTLE LAKE BONABLE | 40.86 42.15 |
| 290913082245601 | 05-14-90 09-12-90 | 1630 1700 | 90922401 15S19E29 SCE 118 LAKE TROPICANA | 35.06 36.21 |
| 290951082211201 | 05-15-90 09-13-90 | 0930 0815 | 90922101 15S19E25 SCE 173 RAINBOW PARK ESTATES | 40.88 41.42 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|--|------------------------------|--|---|
| 290953082031301 | 05-14-90 05-15-90 09-10-90 09-17-90 | 1200 1435 1400 1315 | 90920301 USGS OB WELL CE79 NR SILVER SPRINGS | 41.46 41.46 41.44 41.34 |
| 291015081385001 | 05-17-90 09-11-90 | 1230 0850 | 91013801 15S26E DOT 49 | 35.90 35.60 |
| 291022082131101 | 09-13-90 | 0855 | OCALA AIRPORT WELL | 43.71 |
| 291056082263201 | 05-15-90 09-12-90 | 1100 1730 | 91022601 15S18E13 HERSHEL KYPER ROMEO | 36.39 37.43 |
| 291059082190801 | 05-15-90 09-13-90 | 1220 0825 | ROMP 120 NR COTTON PLANT | 41.57 41.66 |
| 291130082015001 | 05-15-90 09-10-90 | 1445 1320 | USGS OBSER WELL CE47 NR Ocala | 40.05 40.08 |
| 291240082034001 | 05-15-90 09-10-90 | 1330 1230 | 91220301 15S22E01 SCE124 | 39.57 39.57 |
| 291241082300101 | 05-15-90 09-12-90 | 1145 1805 | 91223001 15S18E04 PETTYJOHN-BOOM IRR. | 38.87 40.23 |
| 291310082045001 | 05-14-90 05-15-90 09-10-90 09-17-90 | 1340 1405 1250 1435 | 91320401 USGS OB WELL CE45 AT SILVER SPRINGS | 40.88 40.88 40.78 40.75 |
| 291454082173401 | 09-13-90 | 1005 | SKELLY HOUSE WELL AT FELLOWSHIP | 40.73 |
| 291600081550001 | 05-14-90 05-17-90 09-11-90 09-17-90 | 1235 0950 0955 1347 | 91615501 USGS OB WELL CE55 NR SALT SPRINGS | 43.01 42.94 42.64 42.62 |
| 291728081390501 | 05-17-90 09-11-90 | 1150 1245 | 91713901 14S26E12 UNKNOWN | 11.93 11.88 |
| 291738082115301 | 05-16-90 | 1215 | 91721102 14S21E10 CE30A | 41.72 |
| 291740081562001 | 05-16-90 09-13-90 | 1445 1510 | USGS OBSER WELL CE54 NR Ocala | 43.90 43.79 |
| 291750081494001 | 05-17-90 09-11-90 | 1010 1010 | 917149 14S25E06 CE56 | 29.12 28.69 |
| 291849081411401 | 05-17-90 09-11-90 | 1120 1225 | LAKE GEORGE WELL NR SALT SPRINGS, | 14.42 14.10 |
| 292100081435001 | 05-17-90 09-11-90 | 1045 1130 | 921143 13S26E19 SCE 34 | 4.61 4.22 |
| 292101082233601 | 05-16-90 09-13-90 | 0930 1045 | 92122301 13S19E15 HOMESTEADER NURSERY | 44.50 44.73 |
| 292146082182501 | 05-16-90 09-13-90 | 1135 1130 | 92121801 13S20E09 SR 316 WELL SRWMD | 46.48 45.63 |
| 292200081510001 | 05-16-90 09-11-90 | 1410 1050 | USGS OBSER WELL CE84 NR SALT SPRINGS | 22.60 22.36 |
| 292205082022901 | 05-16-90 09-13-90 | 1305 1440 | 922202-- 13S23E18 FT MCCOY FIRE TOWER | 48.78 48.58 |
| 292256082164001 | 05-16-90 | 1120 | 92221601 13S20E12 922216121 L K EDWARDS | 47.47 |
| 292349082191501 | 05-16-90 09-13-90 | 1100 1210 | 92321901 12S20E33 E H UPDIKE | 46.08 45.27 |
| 292546081513301 | 05-16-90 09-11-90 | 1355 1040 | 925151124 USGS OBSER WELL CE67 NR SALT SPRINGS | 18.84 18.72 |
| 292816082234501 | 09-13-90 | 1245 | 92822301 12S19E03 SMITH BROTHERS WACAHOOTA | 49.86 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY

290130082082001 - 90120801 USGS OB WELL CE-35 NR PEDRO

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 1220 | 44.60 | 250 | 7.7 | 24.0 | K2 | 3.1 |
| SEP 17... | 0937 | 44.50 | 257 | 7.4 | 24.0 | <1 | 4.7 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 2.30 | 0.020 | <0.20 | 0.300 | 0.050 | 0.3 |
| SEP 17... | 0.010 | 2.00 | <0.010 | <0.20 | 0.330 | 0.040 | 0.1 |

290132082133001 - 90121301 17S21E08 USGS OB WELL CE-78 NR PEDRO

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 1130 | 42.71 | 191 | 7.6 | 23.5 | <1 | 3.0 |
| SEP 18... | 1320 | 42.57 | 208 | 7.8 | 23.5 | <1 | 3.9 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 0.120 | 0.020 | <0.20 | <0.020 | 0.020 | 0.3 |
| SEP 18... | <0.010 | 0.150 | 0.010 | <0.20 | 0.040 | 0.020 | 0.2 |

290312082190601 - 90321901 16S20E33 CE-22 USGS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 1049 | 46.35 | 199 | 7.9 | 24.0 | K2 | 1.9 |
| SEP 18... | 1241 | 46.42 | 210 | 7.7 | 24.0 | <1 | 2.0 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

290312082190601 - 90321901 16S20E33 CE-22 USGS--Continued

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 0.150 | 0.010 | <0.20 | <0.020 | 0.050 | 0.3 |
| SEP 18... | <0.010 | 0.150 | <0.010 | 2.3 | 0.060 | 0.040 | 0.2 |

290400082091001 - 90420901 USGS OB WELL CE-33 NR OCALA

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 1305 | 43.11 | 399 | 7.4 | 24.0 | >160 | 6.1 |
| SEP 17... | 1030 | 43.00 | 390 | 7.3 | 24.5 | <1 | 6.0 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 0.950 | 0.130 | 0.35 | 0.090 | 0.020 | 0.7 |
| SEP 17... | 0.010 | 0.920 | 0.010 | <0.20 | 0.060 | 0.030 | 0.2 |

290447082250901 - 90422501 16S19E20 CE-13 USGS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 15... | 1000 | 31.76 | 254 | 7.6 | 23.0 | <1 | 4.4 |
| SEP 18... | 1222 | 32.39 | 261 | 7.5 | 23.5 | <1 | 3.5 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 15... | <0.010 | 1.10 | 0.020 | <0.20 | <0.020 | 0.070 | 0.2 |
| SEP 18... | <0.010 | 1.00 | 0.010 | <0.20 | 0.070 | 0.050 | 0.2 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

290552082044701 - 90520401 USGS WELL CE-81 WOLF SINK NR SANTOS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|-----------|------|--|--|---|---|---|--|
| MAY 14... | 1000 | 42.88 | 505 | 7.4 | 24.5 | K110 | 8.7 |
| SEP 17... | 1145 | 42.62 | 509 | 7.5 | 24.5 | 62 | 8.2 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|-----------|---|---|---|--|---|--|--|
| MAY 14... | <0.010 | 0.950 | 0.020 | <0.20 | 0.030 | 0.040 | 0.6 |
| SEP 17... | <0.010 | 0.670 | 0.020 | 0.28 | 0.080 | 0.050 | 0.4 |

290820082032001 - 90820301 USGS OB WELL CE-39 NR OCALA

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|-----------|------|--|--|---|---|---|--|
| MAY 14... | 1100 | 41.64 | 359 | 7.6 | 24.5 | K750 | 5.5 |
| SEP 17... | 1230 | 41.49 | 399 | 7.3 | 24.5 | <1 | 5.5 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|-----------|---|---|---|--|---|--|--|
| MAY 14... | <0.010 | 1.20 | 0.020 | <0.20 | 0.060 | 0.070 | 0.4 |
| SEP 17... | <0.010 | 1.40 | <0.010 | 0.70 | 0.100 | 0.080 | 0.2 |

290835082102701 - 6-IN WELL OS NO 1 CR475A NR OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) |
|-----------|------|--|---|---|---|---|---|---|---|---|
| JUN 27... | 1415 | 580 | 7.5 | 24.0 | <5 | <0.10 | <2 | K2 | 100 | 12 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

290835082102701 - 6-IN WELL OS N 1 CR475A NR OCALA--Continued

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
|--------------|--|---|---|--|---|--|--|---|---|--|
| JUN 27... | 5.9 | 0.80 | 146 | 140 | 9.4 | 0.20 | 9.6 | 394 | <0.010 | 1.40 |
| DATE | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS P) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS ZN) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
| JUN 27... | 1.50 | <0.010 | <0.20 | 0.030 | 0.040 | 0.040 | <1 | <1 | 4 | 4 |
| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) | |
| JUN 27... | 220 | <10 | 8 | <10 | <10 | <0.10 | <1 | 20 | 32 | |

290838082103501 - YEARLING BARN WELL RO NO 3 CR 475C NR OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) |
|--------------|---|--|--|---|--|---|--|--|---|--|
| JUN 27... | 1315 | 550 | 7.5 | 23.0 | <5 | 0.19 | 100 | 11 | 6.6 | 0.70 |
| DATE | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) |
| JUN 27... | 149 | 120 | 11 | 0.20 | 9.6 | 368 | 2.50 | 0.030 | <1 | <1 |
| DATE | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) |
| JUN 27... | 2 | 1 | 120 | <10 | <1 | 20 | <10 | <0.10 | <1 | 30 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

290930082104501 - WELL AT 2918 SW 34TH AVE, OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | COLI- FORM, FECAL, 0.7 UM-MF (COLS. / 100 ML) (31625) | STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | |
|--------------|-------|--|---|---|--|---|--|--|---|---|--|
| JUN 28... | 1430 | 650 | 7.3 | 25.0 | <5 | 0.55 | <2 | <2 | 120 | 16 | |
| DATE | | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
| JUN 28... | 8.5 | 0.90 | 142 | 210 | 13 | 0.20 | 9.8 | 480 | <0.010 | 0.890 | |
| DATE | | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
| JUN 28... | 0.910 | <0.010 | <0.20 | 0.030 | 0.030 | 0.010 | <1 | <1 | 1 | 1 | |
| DATE | | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) | |
| JUN 28... | | 30 | <10 | <1 | <10 | <10 | <0.10 | <1 | 320 | 0.3 | |

291210082053301 - CONST CO. WELL 1530 NE 32ND AVE, OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | TUR- BID- ITY | COLI- FORM, FECAL, 0.7 UM-MF | STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | |
|--------------|------|---|---|-------------------------------|---|---|--|--|---|---|---|
| | | (US/CM) (00095) | UNITS) (00400) | (DEG C) (00010) | UNITS) (00080) | (NTU) (00076) | (COLS. / 100 ML) (31625) | (COLS. 100 ML) (31673) | (00915) | (00925) | |
| JUN 28... | 0845 | 595 | 6.9 | 23.0 | <5 | <0.10 | <2 | <2 | 120 | 2.7 | |
| DATE | | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, LAB SOLVED (MG/L AS K) (00935) | ALKA- LITY AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
| JUN 28... | 5.1 | 0.20 | 298 | 11 | 7.1 | 0.10 | 8.6 | 340 | <0.010 | 1.70 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

291210082053301 - CONST CO. WELL 1530 NE 32ND AVE, OCALA--Continued

| DATE | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS P) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS TOTAL (MG/L AS P) (70507) | PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
|--------------|--|---|---|---|---|--|--|--|---|--|
| JUN 28... | 1.70 | <0.010 | <0.20 | 0.050 | 0.070 | 0.060 | <1 | <1 | 3 | 2 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|--|---|--|--|---|--|---|--|--|
| JUN 28... | 40 | <10 | 4 | 10 | <10 | <0.10 | <1 | 140 | 66 |

291255082051701 - BOOSTER STADIUM WELL NE 36TH AVE, OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) |
|--------------|------|---|---|---|---|---|---|---|---|--|
| JUN 27... | 1050 | 475 | 7.2 | 23.0 | <5 | <0.10 | 79 | 10 | 5.9 | 0.60 |

| DATE | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) |
|--------------|--|--|--|---|--|---|--|---|--|
| JUN 27... | 198 | 29 | 9.0 | 0.30 | 12 | 276 | <0.010 | 3.00 | 2.00 |

| DATE | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | PHOS- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CHRO- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
|--------------|---|--|---|--|--|--|--|--|--|
| JUN 27... | <0.010 | 0.35 | 0.050 | 0.050 | 0.050 | <1 | <1 | 1 | 4 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|--|---|--|--|---|--|---|--|--|
| JUN 27... | 20 | <10 | 1 | <10 | <10 | <0.10 | <1 | 30 | 42 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

291310082045001 - 91320401 USGS OB WELL CE-45 AT SILVER SPRINGS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 14... | 1355 | 40.88 | 332 | 7.3 | 24.0 | <1 | 2.5 |
| SEP 17... | 1435 | 40.75 | 343 | 7.2 | 25.0 | <1 | 3.8 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 14... | 0.010 | 0.160 | 0.020 | 0.22 | 1.50 | 0.280 | 1.2 |
| SEP 17... | <0.010 | 0.140 | 0.010 | 0.23 | 2.70 | 0.210 | 0.9 |

291320082042301 - RK WAREHOUSE WELL 4690 NE 35TH ST. OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673) | CALCIUM DIS- SOLVED (AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (AS MG) (00925) |
|--------------|------|--|---|---|---|---|---|---|---|---|
| JUN 28... | 1000 | 225 | 7.8 | 22.5 | <5 | 0.16 | <2 | <2 | 38 | 2.9 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
|--------------|---|--|--|--|--|---|--|---|---|---|
| JUN 28... | 3.0 | 0.20 | 105 | 1.9 | 5.2 | 0.10 | 9.6 | 119 | <0.010 | 0.130 |

| DATE | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
|--------------|--|---|---|---|--|--|--|--|---|--|
| JUN 28... | 0.150 | <0.010 | 0.25 | 0.020 | 0.020 | 0.010 | 2 | <1 | 6 | <1 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|--|---|--|--|---|--|---|--|--|
| JUN 28... | 120 | <10 | <1 | 10 | <10 | <0.10 | 3 | 40 | 24 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

MARION COUNTY--Continued

291600081550001 - 91615501 USGS OB WELL CE-55 NR SALT SPRINGS

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) (72020) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|--|---|---|---|--|
| MAY 14... | 1235 | 43.01 | 367 | 7.5 | 22.0 | <1 | 13 |
| SEP 17... | 1347 | 43.52 | 373 | 7.3 | 22.5 | <1 | 12 |

| DATE | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|---|---|---|---|---|--|--|
| MAY 14... | <0.010 | <0.020 | 0.130 | 0.20 | <0.020 | 0.070 | 1.4 |
| SEP 17... | <0.010 | <0.020 | 0.100 | <0.20 | 0.070 | 0.050 | 1.2 |

291704082111501 - MARKET WELL NW GAINESVILLE RD OCALA

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | TUR- BID- ITY (NTU) (00076) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673) | CALCIUM DIS- SOLVED AS CA (00915) | MAGNE- SIUM, DIS- SOLVED AS MG (00925) |
|--------------|------|--|---|---|---|---|---|---|---|---|
| JUN 28... | 1300 | 390 | 7.1 | 22.5 | <5 | 0.22 | <2 | K4 | 72 | 5.9 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, LAB SOLVED (MG/L AS K) (00935) | ALKA- LINITY (MG/L ASO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
|--------------|---|---|--|--|--|---|--|---|---|---|
| JUN 28... | 4.9 | 0.40 | 194 | 6.4 | 7.6 | 0.20 | 11 | 225 | <0.010 | 0.280 |

| DATE | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042) |
|--------------|--|---|---|---|--|--|--|--|---|--|
| JUN 28... | 0.310 | 0.010 | 0.25 | 0.020 | 0.020 | 0.030 | 5 | <1 | 1 | 1 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900) | SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|--|---|--|--|---|--|---|--|--|
| JUN 28... | 380 | 80 | 3 | 10 | <10 | <0.10 | <1 | 120 | 1.1 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 31
NASSAU COUNTY

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| 5 | 303808081261401 | 218 |
| 6 | 304002081381201 | 218 |
| 7 | 304213081270801 | 219 |
| 8 | 304410081592101 | 219 |
| 9 | 304640081583801 | 220 |

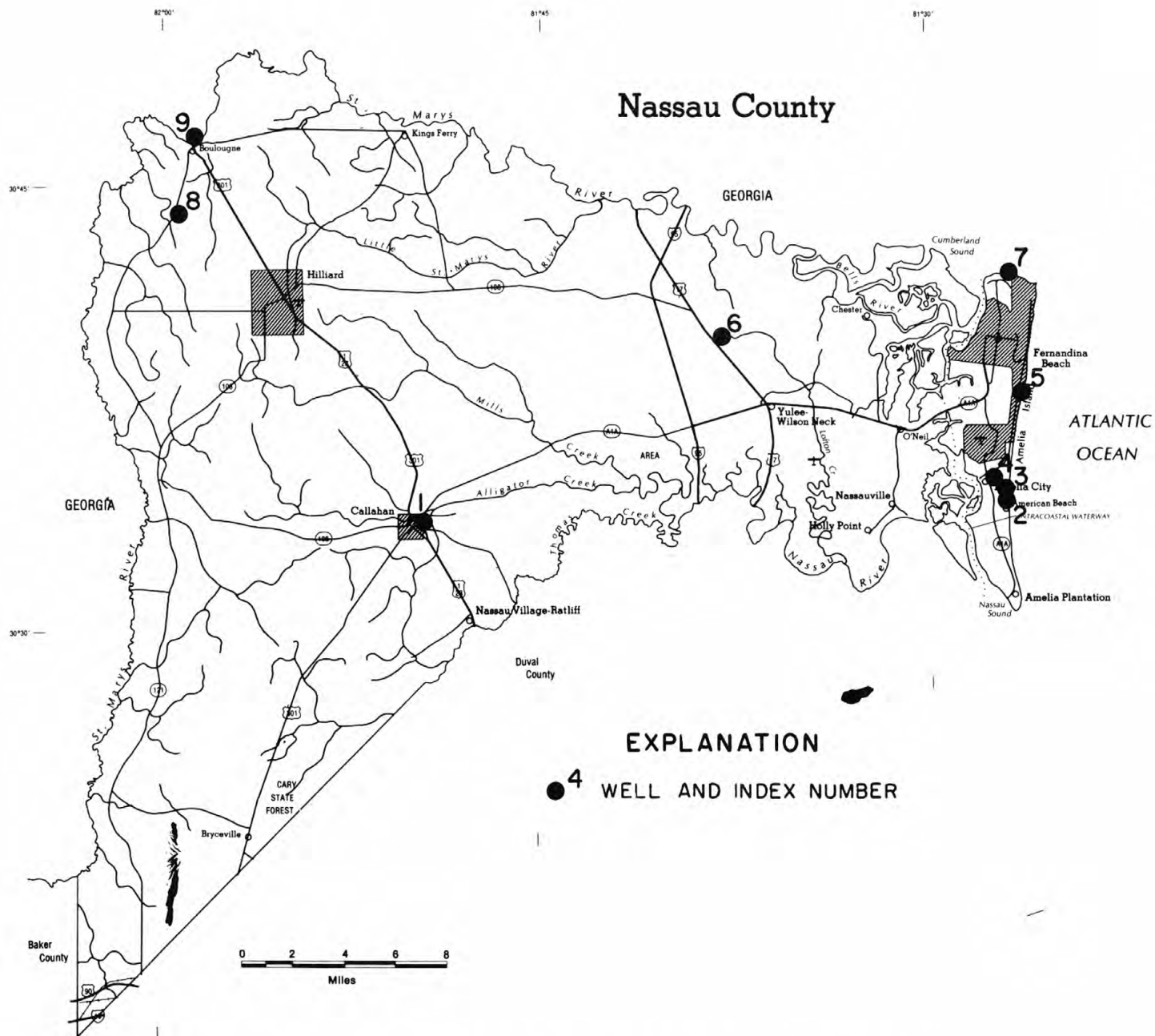


Figure 31.--Location of wells in Nassau County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303340081500001. Local Number N-51. Ellis Howard Well at Callahan, FL.

LOCATION.--Lat 30°33'40", long 81°50'00", in SW¼NW¼ sec.29, T.2 N., R.25 E., Hydrologic Unit 03070205, 200 ft from northeast corner of intersection of Green Avenue and Mickler Street in Callahan. Owner: Ellis Howard.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 2 in., depth 580 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 18.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. cross, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1940 to April 1942, January 1944 to September 1978 (semiannually); February 1979 to current year (bimonthly). Records of water levels prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.28 ft NGVD, July 15, 1947; lowest measured, 34.18 ft NGVD, Sept. 13, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 03... | 0930 | 36.58 | 11... | 0900 | 36.88 |
| DEC | | | JUL | | |
| 04... | 1000 | 36.18 | 23... | 0915 | 35.38 |
| JAN | | | SEP | | |
| 22... | 0940 | 36.78 | 13... | 0900 | 34.18 |
| MAR | | | | | |
| 19... | 0930 | 37.58 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303435081271401. Local Number N-46. Amelia Island Corporation Well at Amelia City, FL.

LOCATION.--Lat 30°34'35", long 81°27'14", in land grant 14, T.2 N., R.28 E., Hydrologic Unit 03070205 at Amelia Island waterworks, 1.1 mi south of intersection of State Highways A1A and 105A, 200 ft east of water storage tanks at Amelia City. Owner: Amelia Island Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, commercial, artesian well, diameter 12 in., depth 1,016 ft, cased to 492 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of lowest 14 in. flange, 1.10 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--April to December 1975, May 1977, May 1978, April 1979 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.10 ft above land-surface datum, Dec. 31, 1985; lowest measured, 6.92 ft above land-surface datum, July 27, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1715 | -14.70 | 01... | 1340 | -11.60 |
| NOV | | | 10... | 1010 | -8.90 |
| 30... | 1145 | -13.30 | 31... | 1400 | -7.01 |
| JAN | | | JUN | | |
| 03... | 1320 | -12.80 | 27... | 1315 | -8.10 |
| 30... | 1330 | -13.60 | JUL | | |
| FEB | | | 30... | 0900 | -7.40 |
| 27... | 1455 | -14.40 | AUG | | |
| MAR | | | 29... | 1245 | -9.40 |
| 29... | 0800 | -13.40 | SEP | | |
| | | | 11... | 1130 | -8.70 |
| | | | 27... | 1330 | -8.70 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303457081271501. Local Number N-9. George Morse Well at Amelia City, FL.

LOCATION.--Lat 30°34'57", long 81°27'01", in land grant 15, T.2 N., R.28 E., Hydrologic Unit 03070205, 100 ft east of State Highway A1A, and 0.8 mi south of Amelia City. Owner: George Morse.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 586 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 18.37 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 3 in. tee, 1.50 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--March 1939, September 1955, May 1977, April 1979 to May 1981 (bimonthly); June 1981 to current year (monthly). Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.57 ft NGVD, Mar. 24, 1939; lowest measured, 20.54 ft NGVD, July 27, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1720 | 27.47 | 01... | 1335 | 24.47 |
| NOV | | | 31... | 1345 | 21.76 |
| 30... | 1150 | 26.07 | JUN | | |
| JAN | | | 27... | 1310 | 20.95 |
| 03... | 1325 | 25.77 | JUL | | |
| 30... | 1325 | 26.37 | 30... | 0910 | 21.15 |
| FEB | | | AUG | | |
| 27... | 1450 | 27.27 | 29... | 1235 | 22.22 |
| MAR | | | SEP | | |
| 29... | 0740 | 26.27 | 27... | 1320 | 21.22 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303518081275001. Local Number N-3. Pierce Johnson Well at Amelia City, FL.

LOCATION.--Lat 30°35'18", long 81°27'50", in land grant 12, T.2 N., R.28 E., Hydrologic Unit 03070205, at Sandbar Cafe on Forest Boulevard, 0.4 mi west of State Highway A1A. Owner: Pierce Johnson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 540 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 4 in. cross, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for N-2 (303519081275301), available March 1939 to October 1985.

PERIOD OF RECORD.--March 1939, September 1955, October, November 1959, June 1985 to current year (monthly). Records prior to October 1985 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.00 ft above land-surface datum, Mar. 22, 1939; lowest measured, 4.05 ft above land-surface datum, June 27, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1730 | -10.90 | 01... | 1325 | -8.00 |
| NOV | | | 10... | 1045 | -6.80 |
| 30... | 1155 | -9.30 | 31... | 1330 | -5.85 |
| JAN | | | JUN | | |
| 03... | 1335 | -9.00 | 27... | 1300 | -4.75 |
| 30... | 1315 | -9.70 | JUL | | |
| FEB | | | 30... | 0920 | -4.94 |
| 27... | 1445 | -10.80 | AUG | | |
| MAR | | | 29... | 1225 | -5.71 |
| 29... | 0755 | -9.80 | SEP | | |
| | | | 11... | 1145 | -5.51 |
| | | | 27... | 1305 | -4.78 |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303808081261401. Local Number N-112. Domestic Well at Fernandina Beach, FL.

LOCATION.--Lat 30°38'08", long 81°26'14", in land grant 12, T.3 N., R.29 E., Hydrologic Unit 03070205, at Hammond Apartments, 0.2 mi south of intersection of Atlantic Boulevard and State Highway A1A in Fernandina Beach. Owner: Unknown.

AQUIFER.--Floridan aquifer system of Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian, observation well, diameter 3 in., depth and casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1969, December 1974 to December 1975 (monthly); May 1976 to September 1978 (annually); April 1979 to current year (bimonthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft below land-surface datum, Dec. 28, 1975; lowest measured, 33.79 ft below land-surface datum, Dec. 23, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 30... | 1210 | 22.63 | 31... | 1305 | 24.80 |
| JAN | | | JUL | | |
| 30... | 1305 | 23.22 | 30... | 0935 | 24.08 |
| MAR | | | SEP | | |
| 29... | 0825 | 22.00 | 27... | 1250 | 24.19 |

WELL NUMBER.--304002081381201. Local Number N-53. Rayonier Inc. Well near Yulee, FL.

LOCATION.--Lat 30°40'18", long 81°38'28", in land grant 50, T.3 N., R.27 E., Hydrologic Unit 03070205, 50 ft north of intersection of U.S. Highway 17 and Crandall Road, 0.3 mi northwest of Yulee Fire Tower, and 3.0 mi northwest of Yulee. Owner: ITT Rayonier Incorporated.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter unknown, depth 500 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 20.22 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. valve, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February to November 1940, April to July 1944, September 1955, January 1960, May 1962, May 1964 to September 1978 (annually); April 1979 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.72 ft NGVD, May 30, 1940; lowest measured, 24.30 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1505 | 27.22 | 01... | 1200 | 27.22 |
| NOV | | | 11... | 1500 | 26.82 |
| 30... | 1425 | 26.72 | 31... | 1050 | 26.22 |
| JAN | | | JUN | | |
| 03... | 1505 | 26.52 | 27... | 1120 | 25.72 |
| 30... | 1120 | 26.62 | JUL | | |
| FEB | | | 30... | 1115 | 24.82 |
| 27... | 1120 | 27.12 | AUG | | |
| MAR | | | 29... | 0945 | 24.72 |
| 29... | 1355 | 27.92 | SEP | | |
| | | | 12... | 1430 | 24.63 |
| | | | 27... | 1025 | 24.30 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--304213081270801. Local Number N-19. Fort Clinch State Park Well at Fernandina Beach, FL.

LOCATION.--Lat 30°42'13", long 81°27'08", in NE¼SE¼NW¼, sec.12, T.3 N., R.28 E., Hydrologic Unit 03070204, at picnic area in Fort Clinch State Park at Fernandina Beach. Owner: Florida Department of Natural Resources.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 5 in., depth 700 ft, casing length unknown.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 8.41 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 5 in. casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1974, December 1974 to December 1975 (monthly), May 1977, May 1978, April 1979 to September 1981 (bimonthly), May 1982 to September 1985 (semiannually), October 1985 to November 1985 (bimonthly), December 1985 to current year. Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.26 ft NGVD, Apr. 26, 1989; lowest water level measured, 30.30 ft below NGVD, May 25, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|--------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|
| 5 | --- | -7.72 | -7.85 | -9.98 | -8.01 | -7.46 | -8.13 | -12.09 | -3.16 | -15.48 | -12.46 | -10.65 |
| 10 | --- | -10.99 | -8.19 | -9.90 | -8.22 | -7.53 | -8.21 | -11.99 | .82 | -13.44 | -10.92 | -13.72 |
| 15 | --- | -9.99 | -6.37 | -11.29 | -9.88 | -8.94 | -7.45 | -13.87 | -9.74 | -13.73 | -12.28 | -12.93 |
| 20 | --- | -9.45 | -6.76 | -10.53 | --- | -8.21 | -4.58 | -13.26 | -11.39 | -13.75 | -12.58 | -12.11 |
| 25 | --- | -8.73 | -14.84 | -9.72 | --- | -8.73 | -3.24 | -11.32 | -15.98 | -12.37 | -12.45 | -12.72 |
| EOM | -4.01 | -8.26 | -11.04 | -8.63 | -6.65 | -8.28 | -8.88 | -10.90 | -16.03 | -12.68 | -10.96 | -12.25 |
| MAX | --- | -4.73 | -6.37 | -8.63 | --- | -6.75 | -1.17 | -9.40 | 5.54 | -11.40 | -10.92 | -9.87 |

WELL NUMBER.--304410081592101. Local Number N-120. Humphreys Mining No. 2 Well near Boulogne, FL.

LOCATION.--Lat 30°44'22", long 81°59'23", in NE¼NW¼NW¼ sec.26, T.4 N., R. 23 E., Hydrologic Unit 03070204, 100 ft west of State Highway 121, and 2.5 mi southwest of intersection of U.S. Highway 1 and State Highway 121 in Boulogne. Owner: Mrs. Greenwood.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 18 to 12 in., depth 923 ft, cased to 525 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 96.12 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of metal base at land-surface datum.

PERIOD OF RECORD.--March 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.00 ft NGVD, Mar. 26, 1986; lowest measured, 36.25 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1425 | 39.05 | 01... | 1115 | 39.85 |
| NOV | | | 11... | 1130 | 39.42 |
| 30... | 1520 | 38.92 | 31... | 1000 | 38.63 |
| JAN | | | JUN | | |
| 03... | 1550 | 38.65 | 27... | 1020 | 37.60 |
| 30... | 1040 | 39.33 | JUL | | |
| FEB | | | 30... | 1205 | 36.76 |
| 27... | 1030 | 39.58 | AUG | | |
| MAR | | | 29... | 0900 | 36.63 |
| 29... | 1445 | 40.28 | SEP | | |
| | | | 13... | 1235 | 36.45 |
| | | | 27... | 0935 | 36.25 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--304640081583801. Local Number WN-18. Domestic Well at Boulogne, FL.

LOCATION.--Lat 30°46'42", long 81°58'20", in land grant 41, T.4 N., R.23 N., Hydrologic Unit 03070204, 500 ft north of State Highway 121, and 0.5 mi northeast of intersection of U.S. Highway 1 and State Highway 121 in Boulogne. Owner: Mr. Siprelle.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, private, artesian well, diameter 4 in., depth 700 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 20.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. tee, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1966, May 1977 to June 1983 (semiannually); July 1983 to current year (monthly). Records prior to 1985 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.50 ft NGVD, May 9, 1966; lowest measured, 35.70 ft NGVD, Sept. 27, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1405 | 38.50 | 01... | 1100 | 39.10 |
| NOV | | | 11... | 1105 | 38.90 |
| 30... | 1505 | 38.20 | 31... | 0950 | 38.60 |
| JAN | | | JUN | | |
| 03... | 1535 | 37.80 | 27... | 1005 | 37.20 |
| 30... | 1030 | 38.70 | JUL | | |
| FEB | | | 30... | 1150 | 36.20 |
| 27... | 1020 | 38.70 | AUG | | |
| MAR | | | 29... | 0850 | 36.20 |
| 29... | 1430 | 40.30 | SEP | | |
| | | | 13... | 1225 | 36.00 |
| | | | 27... | 0920 | 35.70 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

NASSAU COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---------------------------------------|---|
| 302952081531701 | 05-11-90 09-17-90 | 0945 1100 | N-114 CRAWFORD PLANT WELL NR CRAWFORD | 43.77 39.49 |
| 303340081500001 | 07-23-90 09-13-90 | 0915 0900 | N-51 | 35.38 34.18 |
| 303357081295601 | 05-10-90 09-12-90 | 1535 1325 | N-119 CHARLES ALLEN WELL N-100 SUB | 26.05 24.65 |
| 303417081342201 | 05-11-90 09-12-90 | 1555 1125 | N-118 COX WELL HART'S RD NR HEDGES | 27.70 25.90 |
| 303658081422601 | 05-11-90 09-13-90 | 1415 1435 | N-50 | 33.69 31.19 |
| 303722081295401 | 05-10-90 09-12-90 | 1455 1230 | N-54 | 5.41 3.08 |
| 303754081362701 | 05-11-90 09-13-90 | 1445 1520 | N-44 | 26.01 23.88 |
| 303805081273901 | 05-10-90 09-11-90 | 1405 1215 | N-106 | -24.28 -25.86 |
| 303819081455701 | 05-11-90 09-13-90 | 1340 1415 | N-98 | 35.20 32.50 |
| 303836081274201 | 05-10-90 09-11-90 | 1345 1250 | N-32 | -24.33 -25.93 |
| 303939081312601 | 05-10-90 09-12-90 | 1600 1350 | N-20 | -0.55 -1.21 |
| 304022081275001 | 05-10-90 09-11-90 | 1240 1305 | N-33 | -19.74 -25.37 |
| 304055081272002 | 05-10-90 09-11-90 | 1325 1340 | N-90 | -67.11 -67.16 |
| 304150081470301 | 05-11-90 09-13-90 | 1235 1340 | N-99 | 37.90 35.10 |
| 304317081372301 | 05-11-90 09-12-90 | 1525 1450 | N-67 | 23.90 21.70 |
| 304324081555901 | 05-11-90 09-13-90 | 1050 1200 | N-129 | 33.96 30.97 |

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KEY TO SITE LOCATIONS ON FIGURE 32
OKEECHOBEE COUNTY

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|-----------------|-----------------|----------------|
| 1 | 273127080481401 | 224 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

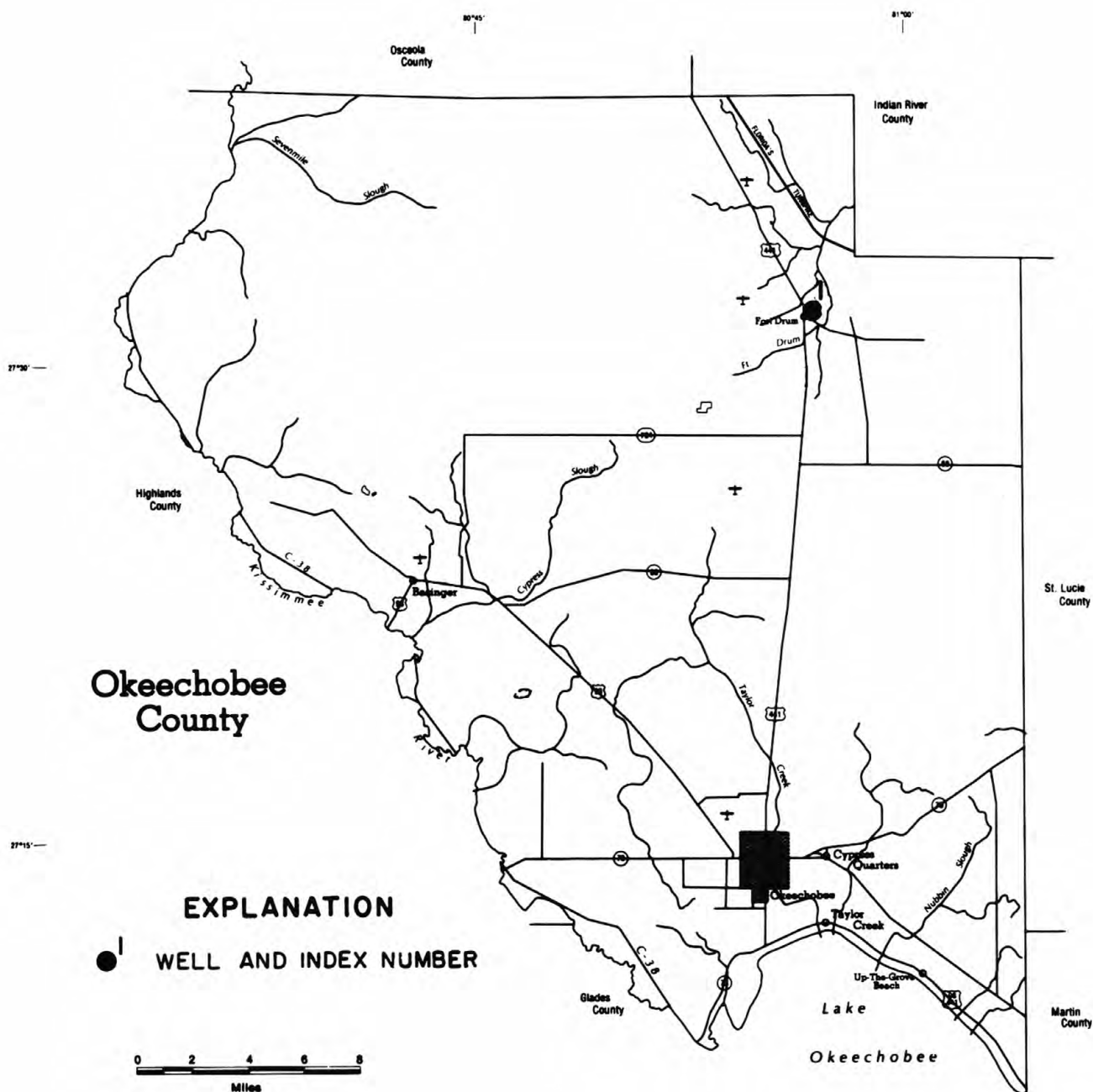


Figure 32.--Location of wells in Okeechobee County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKEECHOBEE COUNTY

WELL NUMBER.--273127080481401. OK-1 Well at Fort Drum, FL.

LOCATION.--27°31'27", long 80°48'14", in SE¼SW¼SW¼ sec.11, T.34 S., R.35 E., Hydrologic Unit 03080101, 200 ft south of dirt road, 0.2 mi east of U.S. Highway 441 at Fort Drum, and 13.4 mi south of State Road 60. Owner: Mr. Nine.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 960 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 56.0 ft (corrected) above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum. Prior to Oct. 1, 1986 miscellaneous readings published at datum 2.0 ft lower.

PERIOD OF RECORD.--May 1976, May 1977 to September 1985 (semiannually); October 1985 to current year (monthly). Records (corrected) prior to October 1986 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.66 ft NGVD, Sept. 18, 1985; lowest measured, 38.91 ft NGVD, May 8, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1212 | 44.27 | 16... | 0955 | 40.75 |
| 31... | 1455 | 44.91 | JUN | | |
| NOV | | | 01... | 1048 | 40.92 |
| 29... | 1150 | 44.02 | 28... | 0930 | 42.59 |
| DEC | | | JUL | | |
| 28... | 1445 | 42.54 | 26... | 1154 | 43.82 |
| JAN | | | AUG | | |
| 30... | 1035 | 43.78 | 28... | 1007 | 44.57 |
| MAR | | | SEP | | |
| 01... | 1045 | 44.28 | 13... | 0937 | 44.29 |
| APR | | | 27... | 1348 | 44.49 |
| 02... | 0920 | 42.96 | | | |
| 30... | 1000 | 41.55 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 273114080533601 | 09-13-90 | 0909 | 73105301 34S34E14 TIGER CATTLE CO | 45.38 |
| 273509080504201 | 05-16-90 09-13-90 | 1010 0952 | 73505001 33S35E20 COOK | 37.46 41.03 |
| 273726080471701 | 05-16-90 09-13-90 | 1110 1040 | 73704701 LATT MAXCY J-1 NE OF FORT DRUM | 34.42 38.80 |
| 282051081183401 | 05-16-90 09-14-90 | 1200 1735 | 82011801 24S30E34 BOGGY CRK | 43.13 46.41 |
| 282141081241701 | 05-16-90 09-14-90 | 1246 1440 | 82112401 24S29E34 TELY | 44.49 48.97 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY

272321080415901 - V-BAR 2 FLOWING WELL NR OIL WELL NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|------|--|---|---|--|---|---|---|---|---|--|--|
| SEP 13... | 1000 | 2830 | 7.5 | 28.5 | 123 | <0.010 | 0.020 | 0.430 | 0.49 | 0.040 | 0.010 | 1.7 |

271327080560401 - KISSIMMEE RIVER FLOWING WELL NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|--|--|---|--|---|--|---|--|--|---|
| FEB 28... | 1300 | 6850 | 7.3 | 29.0 | 360 | 180 | 780 | 24 | 79 | 1000 |
| DATE | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) |
| FEB 28... | 1700 | 0.50 | 4560 | <0.010 | 0.020 | 0.270 | 0.29 | 0.030 | 0.010 | 10 |
| DATE | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | LEAD, DIS- SOLVED (UG/L AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| FEB 28... | <10 | 120 | 50 | <1 | <1 | 20 | <10 | 10 | 10 | 1.0 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

271337080574501 - LOCK S-65E SUPPLY WELL NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L) AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L) AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935) | ALKA- LINITY LAB (MG/L) AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L) AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940) |
|--------------|------|--|---|---|--|--|--|---|---|---|---|
| FEB 28... | 1415 | 1580 | 7.1 | 24.0 | 310 | 24 | 29 | 4.7 | 368 | 510 | 28 |

| DATE | FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L) AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625) | PHOS- PHORUS TOTAL (MG/L) AS P) (00665) | PHOS- PHORUS TOTAL (MG/L) AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034) | CHRO- MIUM, DIS- SOLVED (UG/L) AS CR) (01030) |
|--------------|--|---|--|--|--|--|--|--|--|---|
| FEB 28... | 0.20 | 1170 | <0.010 | 0.020 | 0.970 | 1.3 | 0.880 | 0.070 | <10 | <10 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L) AS FE) (01045) | IRON, DIS- SOLVED (UG/L) AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051) | LEAD, DIS- SOLVED (UG/L) AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L) AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L) AS C) (00680) | RADON 222 TOTAL (PC/L) (82303) |
|--------------|---|--|---|--|---|--|---|--|---|--|
| FEB 28... | 6800 | 6000 | <1 | <1 | 60 | 50 | 40 | 40 | 6.6 | <80 |

271340080504001 - 713050--

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L) AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L) AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935) | ALKA- LINITY LAB (MG/L) AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L) AS SO4) (00945) |
|--------------|------|--|---|---|--|--|--|---|---|---|
| FEB 26... | 1100 | 6150 | 7.6 | 28.0 | 200 | 130 | 900 | 25 | 98 | 500 |

| DATE | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L) AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625) | PHOS- PHORUS TOTAL (MG/L) AS P) (00665) | PHOS- PHORUS TOTAL (MG/L) AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034) |
|--------------|---|--|---|--|--|--|--|--|--|--|
| FEB 26... | 1700 | 0.60 | 3780 | <0.010 | 0.040 | 0.440 | 0.58 | 0.040 | 0.010 | 10 |

| DATE | CHRO- MIUM, DIS- SOLVED (UG/L) AS CR) (01030) | IRON, TOTAL RECOV- ERABLE (UG/L) AS FE) (01045) | IRON, DIS- SOLVED (UG/L) AS PB) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051) | LEAD, DIS- SOLVED (UG/L) AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L) AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L) AS C) (00680) |
|--------------|---|---|--|---|--|---|--|---|--|---|
| FEB 26... | <10 | 220 | 20 | <1 | <1 | 10 | 10 | 10 | <10 | 1.8 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

271411080461201 - 714046-MURPHY-WHITE DAIRY FLOWING WELL

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | |
|--------------|------|--|----------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|-----------------------------------|-----------------------------|---------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | |
| MAY 03... | 1210 | 6880 | 7.4 | 29.0 | 270 | 160 | 1000 | 28 | 99 | 700 | |
| DATE | | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED | NITRO- GEN, NITRITE TOTAL | NITRO- GEN, NO2+NO3 TOTAL | NITRO- GEN, AMMONIA TOTAL | NITRO- GEN,AM- MONIA + ORGANIC TOTAL | PHOS- PHORUS ORTHO TOTAL | CARBON, ORGANIC TOTAL | |
| | | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L) (70300) | (MG/L AS N) (00615) | (MG/L AS N) (00630) | (MG/L AS N) (00610) | (MG/L AS N) (00625) | (MG/L AS P) (00665) | (MG/L AS P) (70507) | (MG/L AS C) (00680) |
| MAY 03... | 1900 | | 0.60 | 4300 | <0.010 | <0.020 | 0.470 | 0.52 | <0.020 | 0.010 | 1.3 |

271429080581801 - DIRR FARMS GROVE WELL NO 1 NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | |
|--------------|------|--|----------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|----------------------------------|-----------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | (MG/L AS K) (00935) | (MG/L AS CASO3) (90410) | (MG/L AS SO4) (00945) | |
| MAY 02... | 1045 | 1560 | 7.5 | 27.0 | 64 | 42 | 170 | 6.9 | 92 | 220 | |
| DATE | | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C | NITRO- GEN, NITRITE TOTAL | NITRO- GEN, NO2+NO3 TOTAL | NITRO- GEN, AMMONIA TOTAL | NITRO- GEN,AM- MONIA + ORGANIC TOTAL | PHOS- PHORUS ORTH TOTAL | PHOS- PHORUS ORTH TOTAL | CARBON, ORGANIC TOTAL |
| | | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L) (70300) | (MG/L AS N) (00615) | (MG/L AS N) (00630) | (MG/L AS N) (00610) | (MG/L AS N) (00625) | (MG/L AS P) (00665) | (MG/L AS P) (70507) | (MG/L AS C) (00680) |
| MAY 02... | 300 | 0.60 | 925 | <0.010 | <0.020 | 0.190 | 0.33 | <0.020 | 0.010 | 0.7 | |

271430080574301 - DIRR FARMS GROVE WELL NO 2 NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | |
|--------------|------|---|--|--|--|--|--|--|--|--|---|
| | | (US/CM) (00095) | (00400) | (00010) | (00915) | (00925) | (00930) | (00935) | (90410) | (00945) | |
| MAY 02... | 1130 | 3100 | 7.3 | 29.5 | 140 | 85 | 350 | 12 | 83 | 430 | |
| DATE | | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS ORTH TOTAL (MG/L AS P) | PHOS- PHORUS ORTH TOTAL (MG/L AS P) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| | | (00940) | (00950) | (70300) | (00615) | (00630) | (00610) | (00625) | (00665) | (70507) | (00680) |
| MAY 02... | 700 | 0.50 | 1870 | <0.010 | <0.020 | 0.200 | 0.27 | <0.020 | 0.010 | 0.7 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

271438080523201 - DIRR FARMS COWPEN WELL NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | |
|--------------|------|--|----------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|-----------------------------------|-----------------------------------|---------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS AS SO4) (00945) | |
| MAY 02... | 0945 | 4120 | 7.5 | 28.0 | 130 | 86 | 590 | 19 | 102 | 350 | |
| DATE | | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED | NITRO- GEN, NITRITE TOTAL | NITRO- GEN, NO2+NO3 TOTAL | NITRO- GEN, AMMONIA TOTAL | NITRO- GEN,AM- MONIA + ORGANIC TOTAL | PHOS- PHORUS ORTHO TOTAL | CARBON, ORGANIC TOTAL | |
| | | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L) (70300) | (MG/L AS N) (00615) | (MG/L AS N) (00630) | (MG/L AS N) (00610) | (MG/L AS N) (00625) | (MG/L AS P) (00665) | (MG/L AS P) (70507) | (MG/L AS C) (00680) |
| MAY 02... | 1100 | | 0.60 | 2440 | <0.010 | <0.020 | 0.350 | 0.44 | <0.020 | 0.010 | 1.7 |

271514080511601 - 715051 OK-23 NR LIVESTOCK MARKET

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | |
|--------------|------|---|--|--|--|--|--|--|---|---|---|
| | | (US/CM) (00095) | (00400) | (00010) | (00915) | (00925) | (00930) | (00935) | (90410) | (00945) | |
| MAY 03... | 1100 | 1680 | 7.7 | 26.5 | 62 | 42 | 200 | 9.3 | 113 | 210 | |
| DATE | TIME | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| | | (00940) | (00950) | (70300) | (00615) | (00630) | (00610) | (00625) | (00665) | (70507) | (00680) |
| MAY 03... | 320 | 0.80 | 996 | <0.010 | <0.020 | 0.300 | 0.35 | <0.020 | 0.010 | 1.1 | |

271552080564201 - 715056-OKF-76 PELAEZ AND SONS

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE |
|--------------|------|--|----------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|-----------------------------------|---|
| | | (US/CM (00095) | (UNITS (00400) | (DEG C) (00010) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | (MG/L AS K) (00935) | (MG/L AS CO3) (90410) | DIS- SOLVED (MG/L AS SO4) (00945) |
| MAY 02... | 1310 | 2120 | 7.4 | 27.5 | 80 | 55 | 260 | 11 | 99 | 250 |
| DATE | TIME | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED | NITRO- GEN, NITRITE TOTAL | NITRO- GEN, NO2+NO3 TOTAL | NITRO- GEN, AMMONIA TOTAL | NITRO- GEN,AM- MONIA + ORGANIC TOTAL | PHOS- PHORUS ORTHO TOTAL | CARBON, ORGANIC TOTAL |
| | | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L) (70300) | (MG/L AS N) (00615) | (MG/L AS N) (00630) | (MG/L AS N) (00610) | (MG/L AS N) (00625) | (MG/L AS P) (00665) | (MG/L AS P) (70507) |
| MAY 02... | 460 | 0.80 | 1290 | <0.010 | <0.020 | 0.250 | 0.41 | <0.020 | 0.020 | 0.8 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

271640080571501 - 716057-OKF-25 PELAEZ AND SONS

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|--|---|---|---|---|---|---|--|--|--|
| MAY 02... | 1410 | 1170 | 7.5 | 27.0 | 48 | 34 | 110 | 6.0 | 98 | 170 |
| DATE | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| MAY 02... | 200 | 0.70 | 705 | <0.010 | <0.020 | 0.160 | 0.29 | <0.020 | 0.010 | 0.6 |

271821080531801 - DRY LAKE DAIRY WELL ON US 98 NR OKEECHOBEE

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | |
|--------------|------|--|----------------------------------|--|------------------------------------|------------------------------------|------------------------------------|--|-----------------------------------|--------------------------------|---------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | |
| MAY 03... | 1445 | 3500 | 7.8 | 27.5 | 110 | 76 | 450 | 15 | 92 | 300 | |
| DATE | TIME | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED | NITRO- GEN, NITRITE TOTAL | NITRO- GEN, NO2+NO3 TOTAL | NITRO- GEN, AMMONIA TOTAL | NITRO- GEN,AM- MONIA + ORGANIC TOTAL | PHOS- PHORUS ORTHO TOTAL | CARBON, ORGANIC TOTAL | |
| | | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L) (70300) | (MG/L AS N) (00615) | (MG/L AS N) (00630) | (MG/L AS N) (00610) | (MG/L AS N) (00625) | (MG/L AS P) (00665) | (MG/L AS P) (70507) | (MG/L AS C) (00680) |
| MAY 03... | 860 | | 0.60 | 2020 | <0.010 | <0.020 | 0.330 | 0.97 | <0.020 | <0.010 | 1.0 |

272010080550801 - 72005501 36S34E15 DIXIE RANCH

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | |
|--------------|------|---|---|---|---|---|---|---|--|--|--|---|--|
| MAR 12... | 1245 | 948 | 7.9 | 26.0 | 22 | 28 | 120 | 10 | 141 | 160 | 100 | 1.9 | |
| DATE | | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (70507) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| MAR 12... | 569 | <0.010 | <0.020 | 0.380 | 0.43 | 0.040 | 0.010 | 1400 | <10 | <10 | <10 | 2.8 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

272235080573001 - AMERADO SUPPLY WELL NR BASINGER

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | |
|--------------|------|--|--|---|--|---|--|---|---|---|--|
| | | (US/CM) (00095) | (00400) | (00010) | (00915) | (00925) | (00930) | (00935) | (90410) | (00945) | |
| MAR 01... | 1130 | 1890 | 7.5 | 28.0 | 82 | 49 | 200 | 7.5 | 89 | 250 | |
| DATE | | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (00665) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | |
| | | | | | | | | | | | |
| MAR 01... | 400 | 0.40 | 1160 | <0.010 | 0.020 | 0.170 | 0.20 | 0.030 | 0.010 | <10 | |
| DATE | | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | LEAD, DIS- SOLVED (UG/L AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| | | | | | | | | | | | |
| MAR 01... | <10 | 90 | 20 | <1 | <1 | 10 | 10 | 10 | <10 | 0.8 | |

272318080561901 - 72305601-LOFTON WELL NR BASINGER

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|------|--|---|---|---|---|---|---|---|--|
| MAY 07... | 1200 | 704 | 7.4 | 26.5 | 94 | 7.5 | 45 | 1.5 | 280 | 9.2 |
| DATE | | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS ORTHOPHOS- PHORUS TOTAL (MG/L AS P) (00665) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| MAY 07... | 59 | 0.30 | 422 | <0.010 | <0.020 | 0.420 | 0.69 | <0.020 | 0.010 | 7.3 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

272344080550701 - MCGEE SHALLOW WELL NR BASINGER

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|---|---|---|---|---|--|--|--|--|
| FEB 21... | 1145 | 680 | 7.1 | 23.0 | 100 | 8.8 | 35 | 1.4 | 291 | 0.60 | 45 |

| DATE | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030) |
|--------------|---|---|---|---|---|---|---|--|---|--|
| FEB 21... | 0.20 | 413 | <0.010 | 0.040 | 0.350 | 0.82 | 0.380 | 0.350 | <10 | <10 |

| DATE | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | LEAD, DIS- SOLVED (UG/L AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) | RADON 222 TOTAL (PC/L) (82303) |
|--------------|--|---|--|---|--|---|--|---|--|--|
| FEB 21... | 300 | 100 | 1 | <1 | 20 | 20 | 20 | <10 | 12 | 270 |

272403081065801 - LOCK S65-C WELL

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|------|--|---|---|---|---|---|--|--|--|
| MAR 01... | 1000 | 742 | 7.6 | 26.0 | 40 | 39 | 42 | 5.1 | 175 | 120 |

| DATE | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) |
|--------------|--|---|---|---|---|---|---|---|--|---|
| MAR 01... | 55 | 0.60 | 467 | <0.010 | 0.020 | 0.380 | 0.38 | 0.030 | 0.010 | <10 |

| DATE | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | LEAD, DIS- SOLVED (UG/L AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|--|--|---|--|---|--|---|--|---|--|
| MAR 01... | <10 | 50 | <10 | <1 | <1 | <10 | <10 | <10 | <10 | 1.7 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

272430081035501 - 724103-LARSON DAIRY NR MICCO BLUFF

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|------|--|---|---|---|---|---|--|--|--|
| MAY 07... | 1100 | 737 | 7.7 | 26.5 | 49 | 29 | 50 | 5.3 | 186 | 76 |

| DATE | TIME | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|------|--|---|---|---|---|---|---|--|--|--|
| MAY 07... | 78 | 0.80 | 448 | <0.010 | <0.020 | 0.320 | 0.40 | <0.020 | <0.010 | 2.3 | |

272512080574701 - OKEECHOBEE SOD WELL NR BASINGER

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|------|--|---|---|--|---|---|---|---|---|--|--|
| SEP 14... | 0900 | 603 | 7.8 | 25.0 | 174 | <0.010 | 0.020 | 0.300 | 0.42 | 0.040 | 0.010 | 1.6 |

272656080440701 - SHALLOW WELL AT MEAT PRODUCERS COOP NR FORT DRUM

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) |
|--------------|------|--|---|---|---|---|---|--|--|--|
| MAR 01... | 1345 | 505 | 7.3 | 23.0 | 95 | 1.6 | 9.1 | 0.70 | 227 | 1.5 |

| DATE | TIME | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034) |
|--------------|------|--|---|---|---|---|---|---|---|--|---|
| MAR 01... | 17 | 0.20 | 304 | <0.010 | 0.520 | 0.080 | 0.23 | 0.890 | 0.790 | <10 | |

| DATE | TIME | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051) | LEAD, DIS- SOLVED (UG/L AS PB) (01049) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092) | ZINC, DIS- SOLVED (UG/L AS ZN) (01090) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|------|--|--|---|--|---|--|---|--|---|--|
| MAR 01... | <10 | 1000 | 470 | 1 | <1 | 20 | 10 | 350 | 140 | 5.3 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

OKEECHOBEE COUNTY--Continued

272656080440801 - DEEP WELL AT MEAT PRODUCERS COOP NR FORT DRUM

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | |
|--------------|------|---|---|---|---|---|---|--|--|--|--|---|--|
| MAR 13... | 1345 | 1160 | 8.5 | 26.5 | 53 | 37 | 110 | 9.7 | 134 | 140 | 190 | 1.1 | |
| DATE | | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| MAR 13... | 687 | <0.010 | <0.020 | 0.380 | 0.35 | 0.030 | 0.010 | 200 | <10 | <10 | <10 | 1.8 | |

273103080414501 - EVANS PROPERTIES WELL 37 BW NR FORT DRUM

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | |
|--------------|------|---|---|---|---|---|---|--|--|--|--|---|--|
| MAR 12... | 1500 | 1800 | 7.6 | 25.5 | 91 | 52 | 180 | 7.4 | 131 | 200 | 370 | 0.60 | |
| DATE | TIME | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045) | IRON, DIS- SOLVED (UG/L AS FE) (01046) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
| MAR 12... | 1090 | <0.010 | <0.020 | 0.350 | 0.29 | 0.040 | 0.010 | 250 | 170 | <10 | <10 | 2.2 | |

273156080522101 - INDIAN HAMMOCK FIRE PROTECTION WELL NR FORT DRUM

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOS- PHORUS TOTAL (MG/L AS P) (00665) | PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|--------------|------|--|---|---|--|---|---|---|--|---|--|--|
| SEP 13... | 1600 | 746 | 7.5 | 25.5 | 260 | <0.010 | <0.020 | 0.610 | 1.1 | 0.040 | 0.010 | 3.4 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

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ORANGE COUNTY

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EXPLANATION

● 4 WELL AND INDEX NUMBER

0 2 4 6 8
Miles

237

ORANGE COUNTY

WELL NUMBER.--282202081384601. Lake Oliver Deep Well near Vineland, FL.

LOCATION.--Lat 28°22'02", long 81°38'46", in NE¼NW¼SE¼ sec.30, T.24 S., R.27 E., Hydrologic Unit 03090101, on west side of State Highway 545, 1.4 mi north of U.S. Highway 192, and 15.0 mi west of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 318 ft, cased to 103 ft.

INSTRUMENTATION.--Digital recorder--30-minute interval.

DATUM.--Land-surface datum is 117.12 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. nipple, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1959 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.73 ft NGVD, Sept. 13, 1960; lowest, 104.00 ft NGVD, May 26,28, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL NUMBER.--282202081384602. Lake Oliver Shallow Well near Vineland, FL.

LOCATION.--Lat 28°22'02", long 81°38'46", in NE¼NW¼SE¼ sec.30, T.24 S., R.27 E., Hydrologic Unit 03090101, on west side of State Highway 545, 1.4 mi north of U.S. Highway 192, and 15.0 mi west of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 4 in., depth 38 ft, revised, well deepened June 1982.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 117.06 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. coupling, 2.48 ft above land-surface datum.

PERIOD OF RECORD.--April 1959 to December 1969; January 1974 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 115.54 ft NGVD, Sept. 10, 1960; lowest unknown, below 108.00 ft NGVD, during period May to July 1981, (casing collapsed).

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 110.81 | 110.37 | 110.10 | 110.55 | 110.16 | 110.43 | 110.30 | 109.82 | 109.63 | 109.74 | 110.52 | 111.25 |
| 10 | 110.79 | 110.29 | 110.36 | 110.49 | 110.09 | 110.29 | 110.13 | 109.79 | 109.58 | 109.62 | 110.76 | 111.17 |
| 15 | 110.70 | 110.21 | 110.33 | 110.41 | 110.19 | 110.19 | 110.14 | 109.71 | 109.69 | 110.55 | 111.38 | 111.10 |
| 20 | 110.59 | 110.23 | 110.39 | 110.35 | 110.09 | 110.08 | 110.02 | 109.84 | 109.60 | 110.64 | 111.66 | 111.01 |
| 25 | 110.50 | 110.17 | 110.66 | 110.28 | 110.55 | 110.00 | 109.94 | 109.79 | 109.64 | 110.58 | 111.52 | 110.93 |
| ECM | 110.44 | 110.15 | 110.64 | 110.20 | 110.54 | 110.31 | 109.89 | 109.64 | 109.79 | 110.42 | 111.36 | 111.36 |
| MAX | 110.91 | 110.43 | 110.66 | 110.63 | 110.56 | 110.53 | 110.34 | 109.87 | 109.79 | 110.64 | 111.66 | 111.36 |
| CAL YR 1989 | MAX 112.90 | | | | | | | | | | | |
| WTR YR 1990 | MAX 111.66 | | | | | | | | | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282210081352601. Disney Shallow Well at Tree Farm near Vineland, FL.

LOCATION.--Lat 28°22'10" long 81°35'26", in SW¼SW¼NW¼ sec.26, T.24 S., R.27 E., Hydrologic Unit 03090101, at Walt Disney World tree farm, 2.5 mi south of State Highway 405, and 5.6 mi southwest of Vineland. Owner: U.S. Geological Survey.

AOUIFER.--Nonartesian sand aquifer of the Pleistocene Age. Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 18 ft., cased to 18 ft.

INSTRUMENTATION.--Digital recorder--30-minute interval.

DATUM.--Land-surface datum is 99.44 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, land-surface datum was considered to be 99 ft, from topographic map. Measuring point: Top of casing, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--March 1969 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 99.91 ft NGVD, Nov. 3, 1987; lowest, 93.35 ft NGVD, present datum, May 14, 1971.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL NUMBER.--282341081040101. Cocoa-A Well near Bithlo. FL.

LOCATION.--Lat 28°23'41", long 81°04'01", in SE½SW½SE½ sec.13, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 100 ft west of Cocoa Water Plant Road, 7 mi west of State Highway 520, and 11.3 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 10 in., depth 516 ft, cased to 301 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 75.06 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.71 ft above land-surface datum.

PERIOD OF RECORD.--March 1960 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 43.59 ft NGVD, Sept. 30, Oct. 17, 1960;
lowest, 30.55 ft NGVD, May 19, 24, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282434081283102. Sea World Drive Replacement Well near Vineland, FL.

LOCATION.--Lat 28°24'34", long 81°28'31", in NE¼SE¼SE¼ sec.11, T.24 S., R.28 E., Hydrologic Unit 03090101, on west side of Interstate Highway 4, 2.0 mi northeast of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 239 ft, cased to 158 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 103.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter floor, 4.00 ft above land-surface datum.

REMARKS.--Record is equivalent to that for Sea World Drive Well (282434081283101), available October 1980 to September 1989.

PERIOD OF RECORD.--October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 62.07 ft NGVD, Dec. 24, 1989; lowest, 54.18 ft NGVD, May 22, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 61.49 | 59.54 | --- | 60.54 | 60.06 | 60.41 | 58.21 | 55.71 | 56.01 | 57.11 | 58.99 | 59.81 |
| 10 | 60.52 | 58.91 | --- | 60.81 | 59.51 | 59.60 | 57.56 | 55.32 | 57.11 | 56.66 | 59.09 | 58.71 |
| 15 | 60.58 | --- | --- | 60.68 | 59.80 | 58.40 | 58.04 | 54.92 | 56.96 | 57.69 | 60.32 | 57.91 |
| 20 | 59.73 | --- | 61.38 | 60.42 | 59.51 | 57.92 | 56.94 | 54.20 | 56.16 | 58.76 | 60.39 | 57.60 |
| 25 | 59.18 | --- | 61.98 | 60.19 | 60.77 | 57.61 | 57.20 | 54.35 | 56.42 | 58.69 | 60.13 | 57.13 |
| EOM | 59.62 | --- | 61.01 | 60.02 | 60.93 | 57.78 | 57.07 | 55.45 | 56.97 | 58.67 | 60.54 | 58.00 |
| MAX | --- | --- | --- | 60.87 | 60.93 | 60.89 | 58.33 | 56.67 | 57.34 | 58.88 | 60.56 | 60.36 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282510081054501. Cocoa-1 Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road (abandoned FEC Railroad grade owned by Magnolia Ranch) and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 20 in., depth 710 ft, cased to 316 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 70.33 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.30 ft above land-surface datum. Prior to Aug. 31, 1988 at elevation 0.30 ft lower.

PERIOD OF RECORD.--1966, 1967, 1969 (annually); January 1971 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.87 ft NGVD, Oct. 26, 1966; lowest measured, 30.36 ft NGVD, May 27, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1206 | 34.66 | 16... | 1009 | 30.44 |
| NOV | | | JUN | | |
| 02... | 1335 | 35.48 | 06... | 1445 | 31.38 |
| 30... | 1320 | 34.79 | 11... | 1440 | 31.46 |
| JAN | | | JUL | | |
| 03... | 0905 | 33.53 | 02... | 1355 | 32.97 |
| FEB | | | AUG | | |
| 05... | 1450 | 34.48 | 02... | 1205 | 34.47 |
| MAR | | | SEP | | |
| 07... | 1315 | 35.04 | 06... | 1509 | 35.42 |
| APR | | | 12... | 1600 | 34.90 |
| 03... | 1415 | 33.36 | | | |
| 30... | 1313 | 31.96 | | | |

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 1968, 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L) AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L) AS NA) (00930) |
|-------|------|---|---|---|---|--|--|---|
| JUN | | | | | | | | |
| 14... | 1305 | 1000 | 7.8 | 24.0 | 10 | 140 | 9.0 | 70 |
| | | | | | | | | |
| | | POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935) | ALKA- LINITY LAB (MG/L) AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L) AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950) | SILICA, DIS- SOLVED (MG/L) AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (UG/L) AS SR) (01080) |
| JUN | | | | | | | | |
| 14... | 2.2 | 323 | 38 | 100 | 0.20 | 27 | 606 | 1200 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282510081054502. Cocoa-M Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R. 32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road (abandoned FEC Railroad grade owned by Magnolia Ranch) and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 10 ft, cased to 10 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 70.81 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Bolt hole in cap, 3.15 ft above land-surface datum.

PERIOD OF RECORD.--February 1969 to January 1977; February 1977 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 69.94 ft NGVD, Nov. 4, 1969; well observed dry August 1981, July 1982, August and October 1984.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 04... | 1212 | 65.39 | 03... | 1425 | 67.27 |
| NOV | | | 30... | 1320 | 66.22 |
| 02... | 1340 | 66.65 | JUN | | |
| 30... | 1330 | 66.00 | 06... | 1448 | 64.21 |
| JAN | | | JUL | | |
| 03... | 0910 | 67.20 | 02... | 1358 | 64.61 |
| FEB | | | AUG | | |
| 05... | 1455 | 66.45 | 02... | 1210 | 64.21 |
| MAR | | | SEP | | |
| 07... | 1320 | 66.79 | 06... | 1515 | 62.86 |

WELL NUMBER.--282510081054503. Cocoa 1-T Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road (abandoned FEC Railroad grade owned by Magnolia Ranch) and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Hawthorn sand and gravel of the intermediate aquifer system, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 200 ft, cased to 85 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 71.19 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--September 1969 to March 1970; January 1971 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.54 ft NGVD, Oct. 1, 1982; lowest measured, 44.55 ft NGVD, June 7, 1971.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 04... | 1202 | 47.21 | 03... | 1420 | 49.06 |
| NOV | | | 30... | 1306 | 48.54 |
| 02... | 1330 | 47.66 | JUN | | |
| 30... | 1335 | 47.93 | 06... | 1440 | 47.42 |
| JAN | | | JUL | | |
| 03... | 0900 | 48.85 | 02... | 1402 | 51.67 |
| FEB | | | AUG | | |
| 05... | 1445 | 48.48 | 02... | 1200 | 49.55 |
| MAR | | | SEP | | |
| 07... | 1310 | 50.06 | 06... | 1505 | 46.81 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282528081340901. Bay Lake Deep Well near Windermere, FL.

LOCATION.--Lat 28°25'28", long 81°34'09", in SW¼NE¼SW¼ sec.1, T.24 S., R.27 E., Hydrologic Unit 03090101, on north shore of Bay Lake, 0.8 mi northeast of Walt Disney World Theme Park, and 5.3 mi southwest of Windermere. Owner: Gee & Jensen.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 223 ft, cased to 104 ft.

INSTRUMENTATION.--Digital recorder--15-minute interval.

DATUM.--Land-surface datum is 97.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1966 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 96.91 ft NGVD, Oct. 31, 1966; lowest, 82.39 ft NGVD, May 19, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 87.48 | 85.81 | 86.44 | 86.71 | 86.40 | 86.33 | 86.15 | 83.33 | 83.83 | 83.93 | 85.19 | 87.16 |
| 10 | 87.02 | 85.21 | 86.94 | 87.49 | 85.83 | 85.59 | 84.52 | 83.21 | 84.31 | 84.09 | 85.60 | 86.69 |
| 15 | 86.94 | 85.10 | 86.43 | 87.00 | 85.78 | 85.09 | 84.97 | 82.95 | 84.17 | 85.12 | 86.49 | 86.13 |
| 20 | 86.31 | 86.50 | 87.14 | 86.90 | 85.42 | 85.19 | 84.01 | 82.74 | 83.49 | 85.71 | 86.27 | 85.91 |
| 25 | 86.32 | 85.58 | 83.62 | 86.84 | 86.18 | 84.74 | 84.46 | 82.69 | 83.47 | 85.63 | 86.26 | 85.69 |
| EQM | 86.50 | 86.56 | 85.89 | 86.41 | 86.65 | 84.91 | 84.32 | 83.09 | 83.99 | 85.39 | 86.59 | 86.39 |
| MAX | 87.77 | 86.56 | 87.39 | 87.58 | 86.65 | 86.88 | 86.15 | 84.01 | 84.43 | 85.77 | 86.59 | 87.16 |
| WTR YR 1990 MAX 87.77 | | | | | | | | | | | | |

WELL NUMBER.--282531081054301. Cocoa-O Well near Bithlo, FL.

LOCATION.--Lat 28°25'31", long 81°05'43", in NW¼SW¼SW¼ sec.2, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 225 ft east of private road (abandoned FEC Railroad grade owned by Magnolia Ranch), 0.3 mi north of Wewahootee Road, 1.6 mi south of Beeline Expressway (State Highway 528), and 8.6 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn sand and gravel of the intermediate aquifer system, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 90 ft, cased to 70 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 68.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--February 1970 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.77 ft NGVD, Oct. 1, 1982; lowest measured, 12.23 ft NGVD, Nov. 1, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 04... | 1222 | 33.84 | 03... | 1355 | 15.43 |
| 05... | 1330 | 13.54 | 30... | 1255 | 17.27 |
| NOV | | | JUN | | |
| 01... | 1425 | 12.23 | 06... | 1425 | 37.12 |
| 30... | 1300 | 36.59 | JUL | | |
| DEC | | | 05... | 1120 | 55.30 |
| 04... | 1437 | 28.57 | AUG | | |
| JAN | | | 02... | 1225 | 19.31 |
| 03... | 1015 | 14.91 | SEP | | |
| FEB | | | 05... | 1032 | 15.27 |
| 01... | 1325 | 34.55 | | | |
| MAR | | | | | |
| 07... | 1400 | 39.11 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282531081095701. Cocoa-D Well near Narcoossee, FL.

LOCATION.--Lat 28°25'31", long 81°09'57", in NE&SW&SE& sec.1, T.24 S., R.31 E., Hydrologic Unit 03080101, in Cocoa well field, on south side of Wewahootee Road, 5.1 mi west of State Highway 15, 2.5 mi west of Magnolia Ranch headquarters, and 9.7 mi northeast of Narcoossee. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 300 ft, cased to 226 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 75.91 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1961 to October 1965 (bimonthly); November 1965 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.04 ft NGVD, Dec. 12, 1963; lowest daily maximum water level, 28.80 ft NGVD, May 26, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 34.12 | 34.73 | 34.61 | --- | 33.44 | 33.03 | 32.87 | 30.02 | 29.85 | 31.27 | 32.46 | 33.78 |
| 10 | 34.32 | 35.16 | 34.66 | --- | 32.61 | 32.88 | 31.30 | 29.66 | 29.66 | 31.54 | 32.81 | 33.37 |
| 15 | 34.47 | 34.71 | 34.49 | --- | 32.67 | 32.89 | 31.35 | 29.14 | 30.47 | 32.83 | 33.36 | 32.65 |
| 20 | 34.51 | 34.64 | 34.19 | --- | 32.50 | 33.34 | 30.80 | 28.88 | 30.22 | 33.36 | 34.00 | 32.96 |
| 25 | 35.68 | 34.79 | 31.74 | --- | 32.68 | 32.94 | 31.52 | 28.81 | 30.76 | 33.47 | 33.23 | 31.71 |
| EOM | 35.33 | 34.50 | 33.53 | --- | 33.87 | 32.73 | 31.16 | 29.45 | 31.50 | 32.79 | 33.44 | 31.71 |
| MAX | 36.26 | 36.32 | 35.50 | --- | 33.89 | 33.87 | 33.18 | 31.47 | 32.06 | 33.47 | 35.37 | 34.49 |
| CAL YR 1989 | MAX 36.32 | | | | | | | | | | | |

WELL NUMBER.--282532081075601. Cocoa-B Well near Bithlo, FL.

LOCATION.--Lat 28°25'32", long 81°07'56", in SW&NE&SE& sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 6 ft south of Wewahootee Road, 7.1 mi east of State Highway 15, and 10.1 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 515 ft, cased to 235 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 62.15 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--January 1965 (annually); October 1965 to July 1968; August 1968 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.37 ft NGVD, June 23, 1966; lowest measured, 21.42 ft NGVD, Aug. 5, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 04... | 1443 | 27.74 | 02... | 1308 | 27.30 |
| NOV | | | 30... | 1330 | 25.85 |
| 01... | 1445 | 33.97 | JUN | | |
| 30... | 1340 | 27.55 | 06... | 1408 | 23.95 |
| JAN | | | JUL | | |
| 02... | 1435 | 33.77 | 02... | 1425 | 31.88 |
| FEB | | | AUG | | |
| 01... | 1340 | 34.20 | 02... | 1030 | 26.66 |
| MAR | | | SEP | | |
| 05... | 1450 | 29.03 | 05... | 1014 | 26.47 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082202. Cocoa-C (Zone 1) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,357 ft, cased to 1,351 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.25 in. coupling, 4.38 ft above land-surface datum.

PERIOD OF RECORD.--December 1965 (annually); February 1966 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.81 ft NGVD, Dec. 6, 1965; lowest measured, 28.73 ft NGVD, May 27, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|-------|------|---|--|---|--|-------|------|---|--|---|--|
| OCT | | | | | | APR | | | | | |
| 04... | 1032 | 31.97 | 10200 | 24.0 | 2600 | 02... | 1105 | 30.87 | 9200 | 23.5 | 2600 |
| NOV | | | | | | 30... | 1115 | 29.73 | 9150 | 24.0 | 2600 |
| 01... | 1257 | 32.58 | 8770 | 23.0 | 2600 | JUN | | | | | |
| 30... | 1025 | 31.96 | 9440 | 22.0 | 2600 | 06... | 1242 | 28.76 | 9100 | 24.0 | 2500 |
| JAN | | | | | | JUL | | | | | |
| 02... | 1148 | 31.21 | 9030 | 21.5 | 2600 | 02... | 1215 | 30.18 | 9450 | -- | 2700 |
| FEB | | | | | | AUG | | | | | |
| 01... | 1140 | 31.70 | 9180 | 23.0 | 2600 | 02... | 0858 | 30.98 | 8760 | 25.0 | 2600 |
| MAR | | | | | | SEP | | | | | |
| 02... | 1303 | 32.30 | 10600 | 23.5 | 2300 | 05... | 0920 | 31.80 | -- | -- | -- |
| | | | | | | 06... | 1400 | 31.78 | 9310 | 25.5 | 2700 |

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|-------|------|--|---|--|--|---|---|---|---|
| JUN | | | | | | | | | |
| 06... | 1242 | 9100 | 8.4 | 24.0 | <5 | 350 | 200 | 1400 | |
| | | | | | | | | | |
| DATE | | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINEITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| JUN | | | | | | | | | |
| 06... | 54 | 31 | 1100 | 2500 | 0.30 | 0.60 | 6380 | 10000 | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082204. Cocoa-C (Zone 3) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10.0 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,224 ft, cased to 1,218 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.25 in. coupling 4.30 ft above land-surface datum..

PERIOD OF RECORD.--February 1966 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft NGVD, Feb. 2, 1970; lowest measured, 33.11 ft NGVD, July 4, 1986.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|-------|------|---|--|---|--|-------|------|---|--|---|--|
| OCT | | | | | | APR | | | | | |
| 04... | 1036 | 37.31 | 958 | 23.5 | 79 | 02... | 1114 | 36.16 | -- | -- | -- |
| NOV | | | | | | 03... | 1103 | 36.29 | 908 | 23.5 | 80 |
| 02... | 0950 | 37.94 | 882 | 24.0 | 80 | 30... | 1119 | 35.04 | -- | -- | -- |
| 30... | 1520 | 37.46 | 881 | -- | 80 | MAY | | | | | |
| DEC | | | | | | 01... | 1015 | 34.92 | 908 | 24.0 | 81 |
| 04... | 1138 | 37.30 | -- | -- | -- | JUN | | | | | |
| JAN | | | | | | 06... | 1250 | 34.03 | -- | -- | -- |
| 02... | 1152 | 36.53 | -- | -- | -- | 07... | 1105 | 34.07 | 925 | 24.0 | 79 |
| 03... | 0932 | 36.59 | 883 | 23.5 | 80 | JUL | | | | | |
| FEB | | | | | | 02... | 1220 | 35.45 | -- | -- | -- |
| 01... | 1145 | 37.04 | -- | -- | -- | 05... | 1015 | 35.45 | 611 | 24.5 | 37 |
| 05... | 1105 | 37.02 | 915 | 23.5 | 79 | AUG | | | | | |
| MAR | | | | | | 02... | 0902 | 36.22 | 873 | 24.0 | 78 |
| 06... | 1045 | 37.51 | 892 | 23.5 | 78 | SEP | | | | | |
| | | | | | | 05... | 0925 | 37.02 | -- | -- | -- |
| | | | | | | 07... | 1000 | 37.02 | 993 | 23.5 | 78 |
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WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082205. Cocoa-C (Zone 4) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10.0 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,050 ft, cased to 1,044 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.74 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.25 in. coupling, 4.29 ft above land-surface datum.

PERIOD OF RECORD.--February 1966 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft NGVD, Oct. 31, 1969; lowest measured, 33.09 ft NGVD, May 27, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|-------|------|---|--|---|--|-------|------|---|--|---|--|
| OCT | | | | | | APR | | | | | |
| 04... | 1040 | 37.12 | -- | -- | -- | 02... | 1118 | 36.08 | -- | -- | -- |
| 05... | 1100 | 37.14 | 609 | 24.0 | 37 | 03... | 1110 | 36.16 | 640 | 24.0 | 38 |
| NOV | | | | | | 30... | 1127 | 34.92 | | | |
| 02... | 1005 | 37.86 | 612 | 24.0 | 38 | MAY | | | | | |
| DEC | | | | | | 01... | 1020 | 34.81 | 627 | 24.0 | 38 |
| 04... | 1130 | 37.18 | 620 | 23.0 | 37 | JUN | | | | | |
| JAN | | | | | | 06... | 1252 | 33.90 | -- | -- | -- |
| 02... | 1156 | 36.42 | -- | -- | -- | 07... | 1110 | 33.98 | 649 | 23.5 | 38 |
| 03... | 0935 | 36.50 | 616 | 23.5 | 37 | JUL | | | | | |
| FEB | | | | | | 02... | 1223 | 35.24 | -- | -- | -- |
| 01... | 1148 | 36.92 | -- | -- | -- | 05... | 1020 | 35.39 | 879 | 24.0 | 79 |
| 05... | 1110 | 36.93 | 627 | 23.5 | 36 | AUG | | | | | |
| MAR | | | | | | 02... | 0910 | 36.11 | 595 | 24.0 | 36 |
| 06... | 1050 | 37.41 | 619 | 24.0 | 36 | SEP | | | | | |
| | | | | | | 05... | 0930 | 36.91 | -- | -- | -- |
| | | | | | | 07... | 1004 | 36.88 | 630 | 23.5 | 36 |

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|-------|------|--|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 07... | 1110 | 649 | 8.3 | 23.5 | <5 | 81 | 7.3 | 21 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
|-------|--|--|--|--|---|--|--|---|
| JUN | | | | | | | | |
| 07... | 1.4 | 230 | 38 | 38 | 0.30 | 22 | 406 | 43000 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082206. Cocoa-C (Zone 5) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10.0 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 1,004 ft, cased to 248 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.72 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.25 in. sampling tube, 4.29 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--February 1966 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.18 ft NGVD, Dec. 4, 1969; lowest measured, 26.83 ft NGVD, May 27, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 04... | 1042 | 33.09 | 02... | 1122 | 32.20 |
| NOV | | | 30... | 1130 | 30.77 |
| 01... | 1010 | 34.96 | JUN | | |
| DEC | | | 06... | 1255 | 28.05 |
| 04... | 1140 | 32.63 | 08... | 1125 | 27.80 |
| 06... | 1302 | 33.74 | JUL | | |
| JAN | | | 02... | 1227 | 31.66 |
| 02... | 1200 | 33.77 | AUG | | |
| FEB | | | 02... | 0907 | 32.03 |
| 01... | 1153 | 33.73 | SEP | | |
| MAR | | | 05... | 0933 | 30.66 |
| 02... | 1306 | 33.49 | | | |

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|-------|------|--|---|--|--|---|---|--|
| JUN | | | | | | | | |
| 08... | 1125 | 905 | 8.3 | 23.0 | <5 | 100 | 15 | 60 |
| | | | | | | | | |
| | | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINEITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SiO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SR) (01080) |
| JUN | | | | | | | | |
| 08... | 2.8 | 219 | 83 | 99 | 0.20 | 18 | 564 | 3400 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282556081302404. Doctor Phillips Deep Well at Doctor Phillips, FL.

LOCATION.--Lat 28°25'56", long 81°30'24", in SW¼NW¼NW¼ sec.3, T.24 S., R.28 E., Hydrologic Unit 03090101, 800 ft west of the Apopka-Vineland Road, 1,100 ft south of Kilgore Road, and 0.8 mi south of Doctor Phillips. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 230 ft, cased to 130 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 127.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--February 1971 to June 1990 (discontinued). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 85.95 ft NGVD, Sept. 14, 1971; lowest, 68.64 ft NGVD, May 19, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|
| 5 | 75.15 | 73.08 | 73.92 | 74.72 | 73.94 | 74.99 | 73.15 | 70.16 | 71.19 | --- | --- | --- |
| 10 | 74.44 | 72.49 | 74.63 | 75.00 | 73.38 | 73.57 | 72.17 | 69.69 | --- | --- | --- | --- |
| 15 | 74.14 | 72.59 | 75.07 | 74.51 | 73.83 | 72.63 | 72.51 | 69.54 | --- | --- | --- | --- |
| 20 | 73.49 | 73.64 | 75.47 | 74.62 | 73.50 | 72.65 | 71.69 | 68.67 | --- | --- | --- | --- |
| 25 | 73.26 | 73.99 | 75.21 | 74.45 | 74.91 | 71.84 | 71.93 | 69.34 | --- | --- | --- | --- |
| EOM | 73.60 | 74.14 | 74.63 | 74.10 | 75.16 | 72.33 | 71.71 | 70.39 | --- | --- | --- | --- |
| MAX | 76.01 | 74.28 | 76.05 | 75.07 | 75.16 | 75.05 | 73.15 | 71.36 | --- | --- | --- | --- |

WELL NUMBER.--282623081153801. Cocoa-P Well near Taft, FL.

LOCATION.--Lat 28°26'23", long 81°15'38", in NW¼NW¼SW¼ sec.31, T.23 S., R.31 E., Hydrologic Unit 03080101, on east side of State Highway 15, 0.7 mi south of State Highway 528, and 7.2 mi east of Taft. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 439 ft, cased to 245 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 91.48 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, land-surface datum was considered to be 91 ft, from topographic map. Measuring point: Top of casing, 3.80 ft above land-surface datum.

PERIOD OF RECORD.--April 1961 to January 1971 (bimonthly); March 1971 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.02 ft NGVD, present datum, Apr. 14, 1961; lowest daily maximum water level, 39.09 ft NGVD, May 19, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 45.45 | 44.64 | 44.13 | 44.22 | 43.80 | 44.58 | 43.10 | 40.42 | 40.69 | 42.04 | 42.65 | 43.47 |
| 10 | 44.96 | 44.27 | 44.74 | 44.38 | 43.74 | 43.95 | 42.42 | 40.23 | 41.46 | 41.43 | 42.92 | 42.55 |
| 15 | 44.96 | 44.10 | 44.79 | 44.18 | 44.08 | 43.42 | 42.57 | 39.51 | 41.44 | 42.74 | 44.47 | 42.35 |
| 20 | 44.52 | 44.16 | 45.11 | 44.20 | 43.74 | 43.10 | 41.77 | 39.65 | 41.08 | 43.27 | 44.10 | 42.09 |
| 25 | 44.39 | 44.18 | 45.18 | 44.02 | 44.98 | 42.35 | 42.13 | 39.94 | 41.65 | 42.87 | 43.73 | 41.83 |
| EOM | 44.94 | 44.26 | 44.20 | 43.90 | 44.93 | 42.71 | 41.71 | 39.94 | 41.93 | 43.32 | 43.68 | 42.56 |
| MAX | 45.96 | 44.88 | 45.73 | 44.44 | 44.98 | 44.97 | 43.24 | 41.38 | 41.96 | 43.48 | 44.47 | 43.55 |

WTR YR 1990 MAX 45.96

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282738081341401. Lake Sawyer Well near Windermere, FL.

LOCATION.--Lat 28°27'38", long 81°34'14", in SW¼NE¼NW¼ sec.25, T.23 S., R.27 E., Hydrologic Unit 03090101, on Overstreet Road, 0.6 mi west of State Highway 535, and 3.2 mi southwest of Windermere. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 178 ft, cased to 103 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 116.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter floor, 2.88 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 86.27 ft NGVD, Mar. 17, 1983; lowest, 72.39 ft NGVD, Oct. 22, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 81.85 | 80.00 | 80.88 | --- | --- | 81.39 | 80.63 | 77.96 | --- | 79.40 | 80.45 | 81.65 |
| 10 | 81.49 | 78.18 | 81.18 | --- | 80.34 | 80.69 | 78.84 | 77.62 | 79.38 | 78.70 | 80.87 | 80.85 |
| 15 | 80.78 | 78.05 | 81.36 | --- | 80.82 | 78.40 | 79.93 | 76.93 | 79.54 | 79.80 | 81.53 | 80.14 |
| 20 | 79.80 | 80.58 | 81.69 | --- | 80.48 | 80.12 | 79.07 | 77.18 | 78.11 | 80.60 | 81.67 | --- |
| 25 | 78.93 | 80.86 | 74.13 | --- | 81.32 | 79.51 | 79.53 | --- | 78.98 | 80.90 | 81.77 | --- |
| EOM | 79.32 | 80.78 | --- | --- | 81.60 | 79.90 | 79.48 | --- | 79.32 | 80.68 | 81.72 | 80.60 |
| MAX | 82.51 | 81.22 | --- | --- | --- | 81.58 | 80.64 | --- | --- | 80.90 | 81.80 | --- |

WELL NUMBER.--282739081054501. Cocoa-F Well near Bithlo, FL.

LOCATION.--Lat 28°27'39", long 81°05'45", in SE¼SE¼NE¼ sec.27, T.23 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 150 ft west of Dallas Boulevard, 0.7 mi north of Beeline Expressway (State Highway 528), and 6.3 mi south of Bithlo. Owner: Magnolia Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 375 ft, cased to 200 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 67.29 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--1960-70 (annually); October 1970 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.92 ft NGVD, June 24, 1960; lowest measured, 30.15 ft NGVD, May 27, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 1035 | 34.51 | 01... | 0940 | 32.21 |
| NOV | | | 16... | 1100 | 31.13 |
| 01... | 1210 | 35.15 | JUN | | |
| 30... | 1005 | 34.53 | 06... | 1215 | 31.32 |
| JAN | | | JUL | | |
| 02... | 1515 | 33.84 | 02... | 1142 | 32.71 |
| FEB | | | AUG | | |
| 05... | 1240 | 34.31 | 02... | 1535 | 33.58 |
| MAR | | | SEP | | |
| 07... | 0955 | 34.74 | 07... | 1136 | 34.28 |
| APR | | | 12... | 1610 | 34.09 |
| 02... | 1420 | 33.49 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282835081305201. Palm Lake Drive Well near Windermere, FL.

LOCATION.--Lat 28°28'39", long 81°30'26", in SE¼NW¼NW¼ sec.22, T.23 S., R.28 E., Hydrologic Unit 03090101, 2.0 mi southwest of Windermere, and 2.3 mi north of Doctor Phillips. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 235 ft, cased to 161 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 157.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.56 ft above land-surface datum.

PERIOD OF RECORD.--October 1980 to June 1981 (bimonthly); July 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 73.58 ft NGVD, Apr. 1, 1987; lowest, 57.48 ft NGVD, May 18, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 65.01 | 63.98 | 64.74 | 66.09 | 63.93 | 64.88 | 63.57 | 59.28 | 61.90 | 63.85 | 64.44 | 64.66 |
| 10 | 65.18 | 63.27 | 66.41 | 65.56 | 64.05 | 63.52 | 61.94 | 59.06 | 63.22 | 61.18 | 65.04 | 62.72 |
| 15 | 64.25 | 62.49 | 65.93 | 65.47 | 64.72 | 62.20 | 62.58 | 58.46 | 62.43 | 64.67 | 67.09 | 62.91 |
| 20 | 64.18 | 63.98 | 67.38 | 65.28 | 64.28 | 62.56 | 61.85 | 57.58 | 60.71 | 65.72 | 66.26 | 62.11 |
| 25 | 63.25 | 64.96 | 66.12 | 64.82 | 66.89 | 61.60 | 62.39 | 59.24 | 62.91 | 64.99 | 66.53 | 61.69 |
| EOM | 64.34 | 64.56 | 65.19 | 64.60 | 66.30 | 63.38 | 61.51 | 60.97 | 62.65 | 63.99 | 66.47 | 64.33 |
| MAX | 67.16 | 65.57 | 68.23 | 66.29 | 66.89 | 65.87 | 63.75 | 61.05 | 63.92 | 66.04 | 67.10 | 66.10 |
| CAL YR 1989 | MAX 70.83 | | | | | | | | | | | |
| WTR YR 1990 | MAX 68.23 | | | | | | | | | | | |

WELL NUMBER.--282847081013701. Cocoa-H Well near Bithlo, FL.

LOCATION.--Lat 28°28'47", long 81°01'37", in SW¼NW¼NW¼ sec.21, T.23 S., R.33 E., Hydrologic Unit 03080101, on west side of State Highway 520, 5.4 mi south of intersection with State Highway 50, and 7.3 mi southeast of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 495 ft, cased to 252 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 60.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to June 1977; July 1977 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 39.01 ft NGVD, Feb. 25, 1970; lowest measured, 29.48 ft NGVD, May 13, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 1002 | 33.91 | 01... | 1104 | 31.66 |
| NOV | | | 15... | 1205 | 30.67 |
| 01... | 1200 | 34.54 | JUN | | |
| DEC | | | 06... | 1140 | 30.75 |
| 04... | 1510 | 34.04 | JUL | | |
| JAN | | | 02... | 1110 | 32.10 |
| 02... | 1542 | 33.22 | AUG | | |
| FEB | | | 02... | 1608 | 33.02 |
| 05... | 1215 | 33.72 | SEP | | |
| MAR | | | 07... | 1052 | 33.69 |
| 02... | 1215 | 34.28 | 12... | 1300 | 33.44 |
| APR | | | | | |
| 02... | 1030 | 32.87 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282847081013702. Cocoa-K Well near Bithlo, FL.

LOCATION.--Lat 28°28'47", long 81°01'37", in SW¼NW¼NW¼ sec.21, T.23 S., R.33 E., Hydrologic Unit 03080101, on west side of State Highway 520, 5.4 mi south of intersection with State Highway 50, and 7.3 mi southeast of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 8 ft, cased to 8 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 60.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to February 1977; March 1977 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 59.81 ft NGVD, Oct. 3, 4, 1969; lowest, 54.82 ft NGVD, May 14, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 1005 | 56.91 | 01... | 1110 | 57.47 |
| NOV | | | 15... | 1200 | 56.58 |
| 01... | 1150 | 57.91 | JUN | | |
| DEC | | | 06... | 1145 | 57.27 |
| 04... | 1506 | 57.36 | JUL | | |
| JAN | | | 02... | 1107 | 58.46 |
| 02... | 1545 | 58.49 | AUG | | |
| FEB | | | 02... | 1605 | 57.38 |
| 05... | 1212 | 57.73 | SEP | | |
| MAR | | | 07... | 1050 | 57.21 |
| 02... | 1218 | 58.51 | 12... | 1255 | 56.94 |
| APR | | | | | |
| 02... | 1035 | 58.15 | | | |

WELL NUMBER.--283249081053201. Bithlo-1 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection of State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 492 ft, cased to 151 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 63.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.98 ft NGVD, Oct. 31, 1960; lowest, 30.48 ft NGVD, May 23, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 34.94 | 35.45 | 35.02 | 34.74 | 34.79 | --- | 33.87 | 32.37 | 31.80 | 33.23 | 33.95 | 34.60 |
| 10 | 35.05 | 35.41 | 34.99 | 34.86 | --- | 35.02 | 33.68 | 32.07 | 32.18 | 33.23 | 33.91 | 34.36 |
| 15 | 35.21 | 35.21 | 35.06 | 34.73 | --- | 34.79 | 33.67 | 31.66 | 32.42 | 33.40 | 34.24 | 34.34 |
| 20 | 35.06 | 35.03 | 35.09 | 34.81 | --- | 34.39 | 33.12 | 31.47 | 32.52 | 33.75 | 34.48 | 34.20 |
| 25 | 35.20 | 34.92 | 34.56 | 34.59 | --- | 33.91 | 33.04 | 31.41 | 32.60 | 33.90 | 34.53 | 34.11 |
| EOM | 35.60 | 35.00 | 34.41 | 34.71 | --- | 33.79 | 32.81 | 31.52 | 32.85 | 34.07 | 34.69 | 34.17 |
| MAX | 35.68 | 35.62 | 35.26 | --- | --- | --- | 34.00 | 32.69 | 32.85 | 34.12 | 34.71 | 34.65 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283249081053202. Bithlo-2 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection with State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn limestone of the intermediate aquifer system, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 75 ft, cased to 65 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.49 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.60 ft NGVD, Jan. 26, 1971; lowest measured, 43.65 ft NGVD, June 7, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 0938 | 47.91 | 01... | 1120 | 45.45 |
| NOV | | | 15... | 1228 | 44.47 |
| 02... | 1522 | 48.26 | JUN | | |
| 30... | 1543 | 47.83 | 07... | 1648 | 43.65 |
| JAN | | | JUL | | |
| 02... | 1600 | 47.49 | 05... | 1446 | 44.12 |
| FEB | | | AUG | | |
| 05... | 1616 | 47.73 | 02... | 1615 | 45.15 |
| MAR | | | SEP | | |
| 07... | 0920 | 47.30 | 07... | 1108 | 44.92 |
| APR | | | 12... | 0950 | 44.72 |
| 02... | 1446 | 46.44 | | | |

WELL NUMBER.--283249081053203. Bithlo-3 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection with State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 15 ft, cased to 12 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 63.14 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1960 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.21 ft NGVD, Aug. 28, 1964; lowest measured, 57.74 ft NGVD, June 7, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 0935 | 59.58 | 01... | 1125 | 59.25 |
| NOV | | | 15... | 1230 | 58.51 |
| 02... | 1516 | 59.02 | JUN | | |
| 30... | 1540 | 58.36 | 07... | 1645 | 57.74 |
| JAN | | | JUL | | |
| 02... | 1555 | 60.65 | 05... | 1445 | 58.07 |
| FEB | | | AUG | | |
| 05... | 1613 | 59.86 | 02... | 1618 | 59.30 |
| MAR | | | SEP | | |
| 07... | 0923 | 60.05 | 07... | 1106 | 58.19 |
| APR | | | 12... | 0955 | 57.73 |
| 02... | 1443 | 59.71 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283253081283401. OR-47 Well at Orlo Vista, FL.

LOCATION.--Lat 28°32'53", long 81°28'34", in SE¼NE¼NE¼ sec.26, T.22 S., R.28 E., Hydrologic Unit 03080101, on west side of Hiwassee Road, 0.6 mi north of Old Winter Garden Road, and 0.15 mi south of State Highway 50 in Orlo Vista. Owner: Orange County.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 350 ft, cased to 328 ft.

INSTRUMENTATION.--Electronic recorder--60-minute interval.

DATUM.--Land-surface datum is 81.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.71 ft below land-surface datum.

REMARKS.--Digital recorder removed Jan. 23, 1990 due to construction. Monthly measurement with chalked tape February through August. Electronic recorder installed September 1990.

PERIOD OF RECORD.--July 1930 to May 1933; August 1943 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 80.78 ft NGVD, Mar. 20, 1960; lowest, 49.80 ft NGVD, June 19, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-------|
| 5 | 57.04 | 55.98 | 55.50 | 56.05 | --- | --- | --- | --- | --- | --- | 54.32 | --- |
| 10 | 56.80 | 55.80 | 55.97 | 56.06 | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | 56.62 | 55.51 | 55.94 | 55.90 | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | 56.37 | 55.59 | 56.44 | 55.78 | --- | --- | --- | --- | --- | --- | --- | 54.81 |
| 25 | 56.14 | 55.69 | 56.41 | --- | --- | --- | --- | --- | --- | --- | --- | 54.47 |
| EOM | 56.29 | 55.69 | 56.08 | --- | --- | --- | 53.46 | --- | --- | 54.34 | --- | 55.32 |
| MAX | 57.45 | 56.23 | 56.86 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

WELL NUMBER.--283253081283404. OR-47B replacement well at Orlo Vista, FL.

LOCATION.--28°32'53", 81°28'34", in SE¼NE¼NE¼ sec.26, T.22 S., R.28 E., Hydrologic Unit 03080101, on west side of Hiwassee Road, 0.6 mi north of Old Winter Garden Road, and 0.15 mi south of State Highway 50 in Orlo Vista. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 1.25 in., depth 35 ft, cased to 33 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 81.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.94 ft above land-surface datum.

REMARKS.--Record is equivalent to that for OR47B (283253081283402), available September 1948 to September 1981.

PERIOD OF RECORD.--February 1982 to September 1988 (bimonthly); October 1988 to April 1990 (monthly). Discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.46 ft NGVD, Aug. 28, 1984; lowest measured, observed dry May 9, 1985; July 30, 1986.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JAN | | |
| 02... | 1100 | 58.77 | 23... | 1130 | 57.42 |
| 30... | 0715 | 58.10 | MAR | | |
| NOV | | | 06... | 1658 | 57.46 |
| 29... | 1055 | 57.55 | 27... | 1155 | 56.53 |
| DEC | | | APR | | |
| 27... | 0720 | 58.01 | 30... | 1130 | 55.80 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283333081233501. Lake Adair 9 Deep Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¼NW¼SW¼ sec.23, T.22 S., R.29 E., Hydrologic Unit 03080101, 25 ft northeast of intersection of Westmoreland Drive and Lake Adair Boulevard in Orlando. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 20 in., depth 1,281 ft, cased to 601 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Recorder shelf, 4.05 ft above land-surface datum.

PERIOD OF RECORD.--January 1961 (annually); November 1962 to August 1973; September 1973 to September 1983 (bimonthly); October 1983 to January 1984 (monthly); January 1984 to June 1988; July 1988 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.23 ft NGVD, Aug. 9, 1966; lowest measured, 41.88 ft NGVD, May 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1030 | 48.01 | 10... | 1140 | 41.89 |
| 30... | 1235 | 46.96 | 30... | 1055 | 41.88 |
| NOV | | | JUN | | |
| 29... | 1025 | 46.14 | 27... | 1010 | 44.06 |
| DEC | | | JUL | | |
| 27... | 1245 | 46.35 | 26... | 0950 | 45.25 |
| JAN | | | AUG | | |
| 30... | 1015 | 45.86 | 29... | 1505 | 45.86 |
| FEB | | | SEP | | |
| 27... | 1123 | 46.82 | 10... | 1225 | 43.93 |
| MAR | | | 27... | 0910 | 42.93 |
| 27... | 1107 | 43.40 | | | |
| APR | | | | | |
| 30... | 1025 | 43.17 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283333081233502. Lake Adair 10 Shallow Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¼NW¼SW¼ sec.23, T.22 S., R.29 E., Hydrologic Unit 03080101, 25 ft northeast of intersection of Westmoreland Drive and Lake Adair Boulevard in Orlando. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian, observation well, diameter 4 in., depth 400 ft, cased to 105 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Recorder shelf, 3.63 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to November 1972; May 1973 to September 1983 (bimonthly); October 1983 to January 1984 (monthly); January 1984 to June 1988; July 1988 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.92 ft NGVD, June 28, 1974; lowest measured, 42.10 ft NGVD, May 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1030 | 48.63 | 10... | 1149 | 42.12 |
| 30... | 1230 | 47.26 | 30... | 1045 | 42.10 |
| NOV | | | JUN | | |
| 29... | 1020 | 46.43 | 27... | 1005 | 44.50 |
| DEC | | | JUL | | |
| 27... | 1240 | 46.88 | 26... | 0945 | 46.02 |
| JAN | | | AUG | | |
| 30... | 1012 | 46.08 | 29... | 1502 | 46.45 |
| FEB | | | SEP | | |
| 27... | 1118 | 47.43 | 10... | 1225 | 44.33 |
| MAR | | | 27... | 0900 | 43.26 |
| 27... | 1105 | 43.71 | | | |
| APR | | | | | |
| 30... | 1020 | 43.48 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283340081222801. Lake Ivanhoe Interface Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¼SE¼NW¼ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 2,089 ft, cased to 2,060 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 2.91 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.27 ft NGVD, Oct. 2, 1989; lowest measured, 41.25 ft NGVD, May 10, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1015 | 47.27 | 10... | 1115 | 41.25 |
| 30... | 1210 | 46.36 | 30... | 1035 | 41.26 |
| NOV | | | JUN | | |
| 29... | 1000 | 45.50 | 27... | 0945 | 43.47 |
| DEC | | | JUL | | |
| 27... | 1220 | 45.72 | 26... | 0928 | 44.65 |
| JAN | | | AUG | | |
| 30... | 0950 | 45.26 | 29... | 1535 | 45.17 |
| FEB | | | SEP | | |
| 27... | 1055 | 46.21 | 10... | 1155 | 43.29 |
| MAR | | | 27... | 0830 | 42.19 |
| 27... | 1043 | 42.67 | | | |
| APR | | | | | |
| 30... | 1005 | 42.44 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283340081222802. Lake Ivanhoe Lower Floridan Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¼SE¼NW¼ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 1,350 ft, cased to 1,300 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. casing, 2.75 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.62 ft NGVD, Oct. 2, 1989; lowest measured, 41.59 ft NGVD, May 10, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1015 | 47.62 | 10... | 1116 | 41.59 |
| 30... | 1215 | 46.78 | 30... | 1020 | 41.65 |
| NOV | | | JUN | | |
| 29... | 1003 | 45.91 | 27... | 0948 | 43.83 |
| DEC | | | JUL | | |
| 22... | 1225 | 46.02 | 26... | 0932 | 44.99 |
| JAN | | | AUG | | |
| 30... | 0953 | 45.62 | 29... | 1538 | 45.50 |
| FEB | | | SEP | | |
| 27... | 1101 | 46.61 | 10... | 1200 | 43.60 |
| MAR | | | 27... | 0830 | 42.47 |
| 27... | 1045 | 43.02 | | | |
| APR | | | | | |
| 30... | 1007 | 42.76 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--283340081222803. Lake Ivanhoe Upper Floridan Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¼SE¼NW¼ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2.5 in., depth 450 ft, cased to 189 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 80.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2.5 in. casing, 2.34 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.96 ft NGVD, Oct. 2, 1989; lowest measured, 41.66 ft NGVD, May 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1020 | 47.96 | 10... | 1118 | 41.71 |
| 30... | 1215 | 46.90 | 30... | 1015 | 41.66 |
| NOV | | | JUN | | |
| 29... | 1006 | 45.98 | 27... | 0950 | 43.95 |
| DEC | | | JUL | | |
| 27... | 1230 | 46.27 | 26... | 0935 | 45.19 |
| JAN | | | AUG | | |
| 30... | 0956 | 45.69 | 29... | 1540 | 45.70 |
| FEB | | | SEP | | |
| 27... | 1104 | 46.75 | 10... | 1205 | 43.77 |
| MAR | | | 27... | 0845 | 42.72 |
| 27... | 1048 | 43.19 | | | |
| APR | | | | | |
| 30... | 1009 | 42.94 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 282051081183401 | 05-16-90 09-14-90 | 1200 1735 | 82011801 24S30E34 BOGGY CREEK | 43.13 46.41 |
| 282141081241701 | 05-16-90 09-14-90 | 1246 1440 | 82112401 24S29E34 TELY | 44.49 48.97 |
| 282145081365601 | 05-17-90 09-13-90 | 1410 1410 | 82113601 24S27E28 HARTZOG RD 4 IN. BRITT GRO | 100.15 102.80 |
| 282241081112801 | 05-16-90 09-12-90 | 0903 1655 | 82211103 24S31E23 MOSS PARK | 38.83 41.99 |
| 282241081112802 | 05-16-90 09-12-90 | 0902 1700 | 82211104 24S31E23 MOSS PARK SHALLOW | 59.42 59.04 |
| 282331081370801 | 05-17-90 09-13-90 | 1436 1400 | 82313702 27416 E USGS WELL HARTZOG RD | 93.24 95.68 |
| 282348080564701 | 05-15-90 09-12-90 | 1145 1320 | 82305601 24S34E18 | 31.18 34.11 |
| 282354081313001 | 05-11-90 09-14-90 | 1220 1330 | 82313104 24S28E17 RCID OBSER. WELL 1 | 77.15 81.32 |
| 282534081220601 | 05-16-90 | 1350 | 82512203 24S29E01 | 41.07 |
| 282543081385801 | 05-17-90 09-13-90 | 1513 1335 | 82513801 | 96.98 98.25 |
| 282545081240901 | 05-16-90 09-14-90 | 1312 1635 | 82512401 24S29E03 | 42.25 45.47 |
| 282611081320501 | 09-13-90 | 1320 | 82613201 28332 E USGS WELL SUNSET DRIVE | 77.80 |
| 282709081283001 | 05-16-90 09-14-90 | 1441 1155 | 82712804 23S28E25 USGS WELL NR I-4 & 528A | 51.02 55.70 |
| 282749081315801 | 05-10-90 09-13-90 | 1450 1230 | 82713101 23S28E29 | 72.90 76.87 |
| 282838080572401 | 05-15-90 09-12-90 | 0950 1055 | 82805701 23S34E18 | 29.60 32.30 |
| 282848080544501 | 05-15-90 09-12-90 | 1045 1145 | 82805402 23S34E15 | 28.30 31.20 |
| 282900081112901 | 05-14-90 09-14-90 | 1315 1100 | 82911101 ORA CO LDFILL NO.F DP | 37.69 40.22 |
| 282911081243601 | 05-17-90 09-14-90 | 1228 1620 | 100 FT S OF AMERICAN BLVD, 100 FT W OF TEXAS AVE | 39.73 43.25 |
| 282923081282801 | 05-10-90 09-14-90 | 0925 1100 | 82912802 | 54.55 58.13 |
| 282936081340201 | 05-11-90 09-13-90 | 1506 1145 | 82913405 23S27E12 ROSS WELL ON LK BUTLER | 76.33 78.77 |
| 282945081255001 | 05-16-90 09-14-90 | 1530 1545 | 82912501 23S29E08 ORANGE 39 | 42.42 46.05 |
| 283011081360002 | 05-11-90 09-13-90 | 1535 1125 | WEST ORANGE COUNTRY CLUB WELL NR ORLANDO | 74.13 75.00 |
| 283017081195201 | 05-15-90 09-10-90 | 1410 1410 | 83011901 23S30E08 | 40.39 43.42 |
| 283017081391301 | 05-10-90 09-13-90 | 1600 1105 | DAVENPORT RD 4.IN WELL, S OF OAKLAND | 77.60 78.20 |
| 283105081222201 | 05-15-90 09-10-90 | 1430 1350 | 83112203 23S29E36 | 41.04 44.25 |
| 283121081311601 | 05-10-90 09-14-90 | 0930 1030 | O-197 LK OLIVIA DRAIN WELL | 61.07 63.18 |
| 283135081234301 | 05-17-90 | 1137 | 83112319 22S29E34 | 41.93 |
| 283144081254201 | 05-17-90 09-14-90 | 1205 0900 | 83112504 LK MANN DRAIN WELL O-174, ORLANDO | 44.60 48.13 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 283157081180401 | 09-10-90 | 1440 | 83111802 22S30E34 ENGLEWOOD S/D DRAIN WELL | 44.88 |
| 283214080583501 | 05-15-90 09-12-90 | 0913 1015 | 83205801 22S33E36 | 23.56 26.16 |
| 283307081300801 | 05-10-90 09-14-90 | 0200 1010 | 83313001 22S28E22 W-5110 LK SHERWOOD DRAIN WELL | 55.88 58.04 |
| 283325081374001 | 05-10-90 09-13-90 | 1450 1040 | 83313703 22S27E20 | 74.64 75.21 |
| 283326081262101 | 05-10-90 09-14-90 | 1347 0925 | 83312601 22S29E20 LK LAWNE SOUTH SIDE DRAIN WELL | 44.38 46.55 |
| 283417081331401 | 05-10-90 | 1430 | 83413302 22S28E18 | 63.90 |
| 283436081194501 | 05-11-90 09-10-90 | 1030 1130 | 83411901 22S30E17 LK SPEIR SO. DRAIN WELL | 41.43 43.42 |
| 283441081203301 | 05-11-90 09-10-90 | 1020 1120 | 83412002 22S30E17 | 41.01 42.97 |
| 283524081344701 | 05-10-90 09-13-90 | 1515 0945 | 83513401 22S28E11 | 64.17 65.19 |
| 283528081235201 | 05-15-90 09-13-90 | 1458 0830 | 83512302 22S29E10 | 42.23 45.20 |
| 283530081214301 | 05-10-90 09-10-90 | 1000 1100 | 83512107 LK MIDGET DRAIN WELL IN WINTER PARK | 40.02 42.14 |
| 283548081181401 | 05-17-90 09-10-90 | 1030 1030 | 83511802 22S30E10 | 37.20 40.80 |
| 283605081103601 | 05-15-90 09-12-90 | 0840 0920 | 83611001 22S31E01 LEO FARON | 32.50 34.63 |
| 283623081230501 | 05-17-90 09-10-90 | 0945 0940 | 83612301 22S29E02 | 40.80 43.93 |
| 283654081260801 | 05-14-90 | 1520 | 83612604 21S29E32 | 48.47 |
| 283813081325701 | 05-11-90 09-11-90 | 1600 1610 | 83813204 21S28E30 APOPKA AGRI R.C. | 51.44 52.15 |
| 283816081225501 | 05-10-90 09-10-90 | 0935 0900 | 83812201 21S29E26 LK CHARITY WELL NR MAITLAND | 41.98 43.78 |
| 284025081301701 | 05-14-90 09-11-90 | 1410 1635 | 84013002 21S28E10 | 42.87 44.48 |
| 284234081273901 | 05-14-90 09-11-90 | 1105 1010 | 84212702 20S28E36 | 18.44 19.34 |
| 284326081283601 | 05-14-90 09-11-90 | 1131 1045 | 84312802 20S28E26 | 39.31 39.92 |
| 284330081360501 | 05-14-90 09-11-90 | 1337 1525 | 84313603 20S27E27 JEWEL FOULAGE | 50.12 51.40 |
| 284429081272001 | 05-14-90 09-11-90 | 0915 1330 | 84412701 20S29E19 | 25.70 26.08 |
| 284453081284401 | 05-14-90 09-11-90 | 1200 1125 | 84412801 20S28E14 | 33.33 34.32 |
| 284453081365101 | 05-14-90 09-11-90 | 1255 1445 | 84413601 20S27E16 SADLER RD NR LK OLA | 46.57 47.06 |
| 284528081301101 | 05-14-90 09-11-90 | 1035 0950 | 84513005 20S28E10 | 28.31 28.19 |
| 284529081301001 | 05-14-90 09-11-90 | 1031 0945 | 84513001 20S28E10 | 32.71 32.65 |
| 284541081265201 | 05-14-90 09-11-90 | 0930 1300 | 84512601 20S29E07 | 29.40 29.82 |
| 284635081280601 | 05-14-90 09-11-90 | 0840 1355 | 84612801 | 30.65 32.26 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY

282344081054201 - 82310501 COCOA 11 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 07... | 1205 | 1280 | 8.0 | 25.5 | 20 | 120 | 20 | 110 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 07... | 4.1 | 207 | 120 | 190 | 0.30 | 21 | 772 | 3100 | |

282404081050501 - 82410504 COCOA 12B NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|-----------------------------|------------------------------------|----------------------------------|-----------------------------------|---|-----------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 08... | 1225 | 1440 | 7.4 | 25.0 | 10 | 130 | 23 | 140 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | DEG. C DIS- SOLVED (MG/L) (70300) | (UG/L AS SR) (01080) |
| JUN 08... | 4.4 | 231 | 140 | 240 | 0.30 | 22 | 886 | 4800 | |

282405081053002 - 82410506 COCOA 4A1 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 08... | 1255 | 1520 | 7.7 | 25.5 | 5 | 130 | 24 | 140 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 08... | 4.6 | 206 | 160 | 260 | 0.30 | 21 | 926 | 6400 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282412081044701 - 82410402 COCOA 12A NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|-----------------------------|------------------------------------|----------------------------------|-----------------------------------|--|-----------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 08... | 1205 | 1880 | 7.1 | 25.0 | 5 | 140 | 31 | 200 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | (MG/L SOLVED (70300) | (UG/L AS SR) (01080) |
| JUN 08... | 6.1 | 201 | 210 | 350 | 0.30 | 21 | 1160 | 5200 | |

282412081044702 - COCOA 2T

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|--------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--|-------------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 14... | 1130 | 640 | 7.8 | 23.5 | 5 | 130 | 3.1 | 17 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 DEG. C | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L (MG/L AS SO4) (00945) | (MG/L (MG/L AS CL) (00940) | (MG/L (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | (MG/L SOLVED (MG/L) (70300) | (UG/L (UG/L AS SR) (01080) |
| JUN 14... | 0.80 | 330 | 0.20 | 18 | 0.20 | 24 | 404 | 670 | |

282416081054101 - 82410502 COCOA 4 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 08... | 1315 | 1470 | 7.7 | 26.0 | 5 | 140 | 24 | 130 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 08... | 4.1 | 203 | 170 | 220 | 0.30 | 21 | 876 | 6400 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282529081073201 - 82510702 COCOA 7A NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|--|---|
| | | | | | | | | | |
| JUN 08... | 1435 | 1370 | 7.9 | 25.5 | 5 | 160 | 16 | 110 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SR) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 08... | 2.9 | 237 | 150 | 190 | 0.20 | 23 | 876 | 2900 | |

282530081054204 - 82510521 COCOA 7T1 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|--|---|
| | | | | | | | | | |
| JUN 11... | 1240 | 630 | 7.7 | 23.0 | <5 | 120 | 3.8 | 17 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SR) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 11... | 1.1 | 307 | 0.30 | 16 | 0.20 | 21 | 364 | 650 | |

282530081085401 - 82510802 COCOA 15 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | |
|--------------|------|---|---|---|---|--|--|---|--|
| | | (US/CM) (00095) | (00400) | (00010) | (00080) | (00915) | (00925) | (00930) | |
| JUN 07... | 1245 | 937 | 7.7 | 25.0 | 10 | 110 | 15 | 55 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY LAB (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS SR) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) |
| | | (00935) | (90410) | (00945) | (00940) | (00950) | (00955) | (70300) | (01080) |
| JUN 07... | 2.7 | 209 | 110 | 95 | 0.20 | 22 | 568 | 1700 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282530081091701 - 82510902 COCOA 16 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|--------------|--|--|--|--|---|--|---|---|
| JUN 07... | 1310 | 720 | 7.8 | 24.5 | 5 | 90 | 13 | 32 |
| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| JUN 07... | 1.8 | 191 | 84 | 51 | 0.20 | 21 | 466 | 1200 |

282530081094001 - 82510903 COCOA 17 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|--------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|---|-----------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 07... | 1510 | 694 | 8.0 | 24.0 | 10 | 89 | 14 | 30 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L (MG/L AS SO4) (00945) | (MG/L (MG/L AS CL) (00940) | (MG/L (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | DEG. C DIS- SOLVED (MG/L) (70300) | (UG/L AS SR) (01080) |
| JUN 07... | 1.8 | 188 | 84 | 45 | 0.20 | 21 | 427 | 1200 | |

282531081075601 - 82510703 COCOA 13 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 07... | 1525 | 1170 | 7.9 | 24.5 | 10 | 140 | 16 | 84 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 07... | 2.8 | 231 | 120 | 150 | 0.20 | 22 | 719 | 1400 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282531081082201 - 82510801 COCOA 14 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|-----------------------------|------------------------------------|----------------------------------|-----------------------------------|---|-----------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 11... | 1340 | 1000 | 7.7 | 25.0 | 10 | 120 | 14 | 66 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINEITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | DEG. C DIS- SOLVED (MG/L) (70300) | (UG/L AS SR) (01080) |
| JUN 11... | 2.6 | 226 | 120 | 110 | 0.20 | 22 | 649 | 2000 | |

282548081054201 - 82510504 COCOA 3 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD | TEMPER- ATURE WATER | COLOR (PLAT- INUM- COBALT | CALCIUM DIS- SOLVED | MAGNE- SIUM, DIS- SOLVED | SODIUM, DIS- SOLVED | |
|--------------|------|--|----------------------------------|-----------------------------|------------------------------------|----------------------------------|-----------------------------------|---|-----------------------------------|
| | | (US/CM) (00095) | (UNITS) (00400) | (DEG C) (00010) | (UNITS) (00080) | (MG/L AS CA) (00915) | (MG/L AS MG) (00925) | (MG/L AS NA) (00930) | |
| JUN 15... | 1330 | 1800 | 7.7 | 25.0 | 20 | 160 | 24 | 180 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED | ALKA- LINEITY LAB | SULFATE DIS- SOLVED | CHLO- RIDE, DIS- SOLVED | FLUO- RIDE, DIS- SOLVED | SILICA, DIS- SOLVED | SOLIDS, RESIDUE AT 180 | STRON- TIUM, DIS- SOLVED |
| | | (MG/L AS K) (00935) | (MG/L AS CACO3) (90410) | (MG/L AS SO4) (00945) | (MG/L AS CL) (00940) | (MG/L AS F) (00950) | (MG/L AS SIO2) (00955) | DEG. C DIS- SOLVED (MG/L) (70300) | (UG/L AS SR) (01080) |
| JUN 15... | 4.7 | 231 | 190 | 320 | 0.20 | 22 | 1170 | 5800 | |

282556081094001 - COCOA 18

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|---|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 07... | 1450 | 872 | 8.0 | 24.5 | 10 | 110 | 17 | 36 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINEITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 07... | 2.1 | 195 | 150 | 59 | 0.20 | 21 | 558 | 1500 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282612081054201 - 82610502 COCOA 2 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|--------------|------|--|--|--|--|---|---|---|
| | | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) |
| JUN 14... | 1220 | 2380 | 7.8 | 25.5 | 5 | 190 | 35 | 260 |
| DATE | | | | | | | | |
| JUN 14... | 6.6 | 196 | 300 | 470 | 0.20 | 21 | 1620 | 14000 |

282624081090401 - COCOA 19 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | |
|--------------|------|--|--|--|--|---|---|---|---|
| | | | | | | | | | |
| JUN 07... | 1425 | 875 | 7.9 | 25.0 | 30 | 120 | 16 | 39 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) AS SR) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | | | | | | | | |
| JUN 07... | 2.2 | 216 | 130 | 59 | 0.20 | 22 | 563 | 1300 | |

282632081054501 - 82610503 COCOA 8 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE | PH (STAND- ARD UNITS) | TEMPER- ATURE WATER (DEG C) | COLOR (PLAT- INUM- COBALT UNITS) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | |
|--------------|------|--|--|--|--|---|--|---|---|
| | | (US/CM) (00095) | (00400) | (00010) | (00080) | (00915) | (00925) | (00930) | |
| JUN 14... | 1240 | 2450 | 8.0 | 25.5 | 5 | 180 | 40 | 270 | |
| DATE | TIME | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LITY LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) AS SR) (70300) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080) |
| | | (00935) | (90410) | (00945) | (00940) | (00950) | (00955) | (70300) | (01080) |
| JUN 14... | 8.4 | 215 | 300 | 470 | 0.20 | 21 | 1600 | 10000 | |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

ORANGE COUNTY--Continued

282650081054201 - 82610504 COCOA 9 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|--------------|------|--|---|---|---|---|---|---|
| JUN 08... | 1520 | 1190 | 7.9 | 24.0 | 10 | 130 | 12 | 92 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINIT LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (MG/L AS SR) (01080) |
|--------------|--|---|--|--|---|--|---|---|
| JUN 08... | 2.6 | 261 | 90 | 150 | 0.40 | 24 | 710 | 1500 |

282716081054501 - 82710501 COCOA 10 NR BITHLO

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | PH (STAND- ARD UNITS) (00400) | TEMPER- ATURE WATER (DEG C) (00010) | COLOR (PLAT- INUM- COBALT UNITS) (00080) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) |
|--------------|------|--|---|---|---|---|---|---|
| JUN 08... | 1100 | 820 | 6.4 | 24.0 | 5 | 110 | 6.6 | 48 |

| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | ALKA- LINIT LAB (MG/L AS CACO3) (90410) | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | STRON- TIUM, DIS- SOLVED (MG/L AS SR) (01080) |
|--------------|--|---|--|--|---|--|---|---|
| JUN 08... | 1.3 | 298 | 22 | 45 | 0.50 | 30 | 478 | 1300 |

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Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 34
OSCEOLA COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 274947080584001 | 272 |
| 2 | 275222081030701 | 272 |
| 3 | 280619080542601 | 273 |
| 4 | 281714081093001 | 273 |
| 5 | 281722080543001 | 274 |

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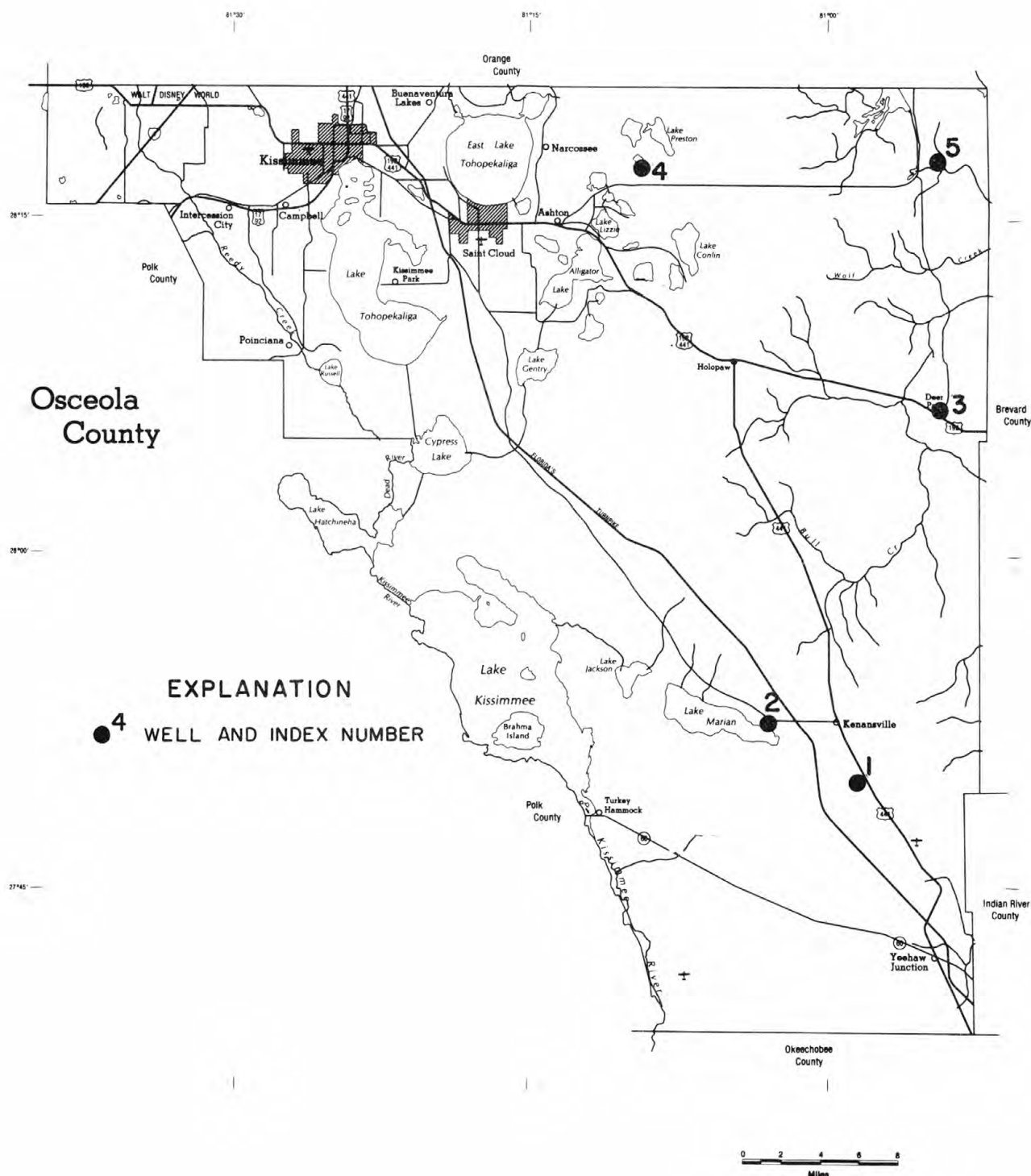


Figure 34.--Location of wells in Osceola County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OSCEOLA COUNTY

WELL NUMBER.--274947080584001. Hayman Well near Kenansville, FL.

LOCATION.--Lat 27°49'47", long 80°58'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.30 S., R.33 E., Hydrologic Unit 03080101, in pasture of Seven Eleven Ranch, 0.4 mi west of U.S. Highway 441, and 3.1 mi south of Kenansville. Owner: W. Paul Hayman.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, windmill powered, nonartesian well, diameter 3 in., depth 90 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 74.25 ft above National Geodetic Vertical Datum of 1929. Measuring point: Drilled hole in sanitary seal, 0.50 ft above land-surface datum.

PERIOD OF RECORD.--January 1974 to current year (bimonthly, incomplete).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.78 ft NGVD, Sept. 22, 1981; lowest measured, 64.74 ft NGVD, June 13, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 06... | 1640 | 70.18 | 30... | 1130 | 68.45 |
| DEC | | | JUN | | |
| 01... | 1230 | 68.93 | 25... | 1245 | 66.98 |
| JAN | | | SEP | | |
| 25... | 1145 | 64.97 | 04... | 1030 | 69.00 |
| MAR | | | | | |
| 23... | 1200 | 68.33 | | | |

WELL NUMBER.--275222081030701. OS-243 Well at Lake Marian near Kenansville, FL.

LOCATION.--Lat 27°52'22", long 81°03'07", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.18, T.30 S., R.33 E., Hydrologic Unit 03090101, at boat ramp in Osceola County Park, on east side of Lake Marian, and 3.0 mi west of Kenansville. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn limestone aquifer of the Miocene Series, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 320 ft, cased to 243 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 62.61 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, datum was considered to be 63.95 ft, and Oct. 1, 1977, to Sept. 30, 1978, to be 65.05 ft NGVD. Measuring point: Top of casing, 0.69 ft above land-surface datum.

PERIOD OF RECORD.--April 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.52 ft NGVD, Sept. 30, 1985; lowest measured, 48.43 ft NGVD, present datum, May 8, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 06... | 1700 | 54.51 | 16... | 1015 | 53.54 |
| DEC | | | JUN | | |
| 01... | 1255 | 54.62 | 25... | 1200 | 53.12 |
| JAN | | | SEP | | |
| 25... | 1055 | 54.54 | 04... | 1005 | 54.42 |
| MAR | | | 12... | 1055 | 54.44 |
| 23... | 1225 | 54.86 | | | |
| APR | | | | | |
| 30... | 1055 | 54.03 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OSCEOLA COUNTY

WELL NUMBER.--280619080542601. OS-179 Well at Deer Park, FL.

LOCATION.--Lat 28°06'19", long 80°54'26", in NW¼NE¼SW¼ sec.27, T.27 S., R.34 E., Hydrologic Unit 03080101, on south side of U.S. Highway 192, 0.8 mi northwest of Deer Park, and 11 mi east of Holopaw. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 SDGV.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 17.6 ft, cased to 17.6 ft, gravel packed 12.6 to 17.6 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 48.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.11 ft NGVD, July 15, 1978; lowest, 42.67 ft NGVD, June 6, 1967.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 5 | 45.67 | 46.32 | 45.42 | 46.56 | 45.64 | 46.50 | 45.26 | 44.67 | 43.73 | 43.87 | 45.20 | --- |
| 10 | 48.30 | 46.12 | 46.45 | 46.35 | 45.47 | 46.18 | 45.08 | 44.48 | 43.62 | 43.69 | 45.02 | --- |
| 15 | 47.45 | 45.94 | 46.20 | 46.17 | 45.39 | 45.95 | 44.92 | 44.29 | 43.49 | 43.67 | 45.09 | --- |
| 20 | 46.91 | 45.79 | 46.77 | 46.08 | 45.46 | 45.74 | 45.07 | 44.10 | 43.36 | 43.62 | 45.36 | --- |
| 25 | 46.63 | 45.67 | 47.41 | 45.94 | 47.50 | 45.50 | 45.40 | 43.96 | 43.60 | 45.51 | 45.53 | --- |
| EOM | 46.67 | 45.58 | 46.88 | 45.77 | 47.15 | 45.44 | 45.00 | 43.85 | 43.96 | 45.42 | --- | --- |
| MAX | 48.30 | 46.51 | 47.57 | 46.84 | 47.69 | 46.95 | 45.44 | 44.91 | 43.96 | 45.58 | --- | --- |
| CAL YR 1989 | MAX 48.30 | | | | | | | | | | | |

WELL NUMBER.--281714081093001. Lake Joel Well near Ashton, FL.

LOCATION.--Lat 28°17'14", long 81°09'30", in SW¼NW¼NW¼ sec.30, T.25 S., R.32 E., Hydrologic Unit 03090101, on southwest shore of Lake Joel, 0.8 mi north of State Highway 532, and 5.0 mi northeast of Ashton. Owner: Deseret Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 750 ft, cased to 394 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 64.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1969, May 1973 to November 1975 (bimonthly); December 1975 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office. Prior to October 1977, published as (OS 213). Gulf American Co..

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft NGVD, Nov. 20, 1969; lowest daily maximum water level, 38.50 ft NGVD, May 22, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 43.46 | 43.89 | --- | 42.75 | 43.27 | 43.63 | 42.31 | 40.60 | 39.90 | 41.49 | 42.49 | 43.25 |
| 10 | 43.45 | 43.81 | --- | 43.02 | 43.29 | 43.47 | 42.12 | 40.24 | 40.35 | 41.54 | 42.48 | 43.03 |
| 15 | 43.68 | 43.67 | --- | 42.94 | 43.18 | 43.28 | 42.13 | 39.83 | 40.62 | 41.74 | 42.73 | 42.99 |
| 20 | 43.60 | 43.55 | --- | 43.16 | 43.17 | 42.90 | 41.50 | 39.44 | 40.70 | 42.17 | 43.02 | 42.84 |
| 25 | 43.61 | 43.43 | --- | 43.25 | 43.18 | 42.37 | 41.40 | 39.27 | 40.80 | 42.32 | 43.10 | 42.74 |
| EOM | 44.00 | 43.51 | 42.46 | 43.05 | 43.40 | 42.21 | 41.23 | 39.57 | 41.15 | 42.51 | 43.31 | 42.69 |
| MAX | 44.04 | 44.03 | --- | 43.25 | 43.40 | 43.73 | 42.43 | 41.13 | 41.15 | 42.54 | 43.34 | 43.26 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OSCEOLA COUNTY

WELL NUMBER.--281722080543001. OS-171 Well near Deer Park, FL.

LOCATION.--Lat 28°17'22", long 80°54'30", in SE¼SW¼SW¼ sec.22, T.25 S., R.34 E., Hydrologic Unit 03080101, on ranch road, 0.9 mi east of State Highway 532, 3.6 mi south of K-6 Ranch Headquarters, and 13.5 mi north of Deer Park. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 19 ft, cased to 12.7 ft, gravel packed, 11 to 19 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 31.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1950 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.56 ft NGVD, Sept. 23, 1960; lowest, 26.32 ft NGVD, July 28, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 5 | 31.17 | 31.03 | 30.32 | 31.28 | 30.82 | 31.13 | 29.68 | 28.34 | 27.43 | 29.09 | 28.45 | --- |
| 10 | 32.37 | 30.91 | 31.52 | 31.20 | 30.60 | 30.94 | 29.29 | 28.13 | 27.44 | 28.56 | 28.86 | --- |
| 15 | 31.49 | 30.70 | 31.31 | 31.13 | 30.70 | 30.72 | 29.08 | 27.96 | 27.29 | 29.05 | 28.91 | --- |
| 20 | 31.32 | 30.47 | 31.75 | 31.08 | 30.36 | 30.28 | 28.95 | 27.79 | 27.19 | 28.65 | --- | --- |
| 25 | 31.17 | 30.53 | 31.65 | 31.00 | 31.68 | 29.73 | 28.74 | 27.65 | 29.04 | 28.48 | --- | --- |
| EOM | 31.23 | 30.71 | 31.35 | 30.95 | 31.36 | 30.41 | 28.57 | 27.55 | 29.07 | 28.24 | --- | --- |
| MAX | 32.37 | 31.19 | 31.90 | 31.33 | 31.84 | 31.29 | 30.35 | 28.52 | 29.73 | 29.52 | --- | --- |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

OSCEOLA COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 274307080582401 | 05-17-90 09-13-90 | 0840 0850 | 743058-- | 40.58 44.16 |
| 274428081035201 | 05-17-90 09-13-90 | 0915 0920 | SR-60 WELL LATT-MAXEY | 44.22 47.80 |
| 274807081115501 | 05-17-90 09-13-90 | 1050 1040 | OSF-52 S-65 WELL NR KENANSVILLE | 41.03 44.51 |
| 274856080594401 | 05-17-90 09-13-90 | 0810 0815 | 74805902 31S33E20 HAYMAN WELL NR KENANSVILLE | 40.08 43.36 |
| 275609081132001 | 05-16-90 09-12-90 | 1050 1145 | 75611301 29S31E28 OS-319 JOE OVERSTREET | 43.39 47.30 |
| 275826080554701 | 05-16-90 09-12-90 | 0850 0930 | 75805501 29S34E09 FITCH | 38.31 41.80 |
| 275852081030501 | 05-16-90 09-12-90 | 0730 0800 | TH-10 WILLIAMS RD | 40.05 41.48 |
| 280229080565501 | 05-15-90 09-10-90 | 0815 1115 | 80205601 28S34E17 TH-8 | 37.88 41.35 |
| 280526080543001 | 05-14-90 09-10-90 | 1215 1000 | 805054-- 27S34E34 K-8 IN. PUMP DEER PARK | 36.94 40.26 |
| 280823081210301 | 05-18-90 09-14-90 | 0940 1115 | OSF-53 S-61 WELL NR ALCOMA | 47.34 50.98 |
| 280826081031801 | 05-14-90 09-10-90 | 1245 1030 | HOLOPAW TEST NO 1 | 38.40 41.75 |
| 280829080574001 | 05-14-90 09-11-90 | 0955 0815 | 808057 27S34E18 TH-6 DEER PARK NW | 38.26 41.34 |
| 280905081270101 | 05-18-90 09-14-90 | 0900 1040 | 80912701 27S29E06 REEDY CR OVERLOOK WELL NR SO | 59.07 61.86 |
| 280928080532001 | 09-10-90 | 0930 | 80905301 27S34E02 DSR18 | 48.00 |
| 281006081162601 | 05-16-90 09-12-90 | 1145 1230 | 80711601 27S30E01 CANOE CR CAMPGROUND | 43.48 47.97 |
| 281105080541401 | 05-14-90 09-10-90 | 0835 0900 | 811054-- 26S34E34 RODEO FIELD DEER PARK NW | 36.34 38.34 |
| 281116081024101 | 05-14-90 09-11-90 | 1040 0900 | 81110201 26S33E29 DSRW5 | 37.31 40.43 |
| 281146081211701 | 05-16-90 09-12-90 | 1235 1300 | 811121-- 26S30E30 WHALEY WELL NR KISSIMMEE PARK | 47.04 50.81 |
| 281354080563301 | 05-14-90 09-10-90 | 0815 0830 | 813056 26S34E08 TH-4 DEER PARK NW | 36.12 39.18 |
| 281429081290501 | 05-18-90 09-14-90 | 0840 1020 | MERCANTILE LANE WELL (OS-254)NR POINCIANA | 60.99 63.65 |
| 281443081140501 | 05-16-90 09-12-90 | 1315 1340 | ASHTON FORESTRY TOWER WELL (OS-250) AT ASHTON | 41.59 45.63 |
| 281456081171701 | 05-15-90 09-11-90 | 1145 1330 | 814117-- 26S36E02 CITY ST. CLOUD UNUSED WELL | 40.87 45.07 |
| 281536081324801 | 05-18-90 09-14-90 | 0800 1005 | 815132-- 25S28E31 FPC SRKOI | 73.66 75.27 |
| 281559081260701 | 05-18-90 09-14-90 | 1020 1215 | 815126-- 25S29E32 SHINGLE CRAFT 531A | 54.82 58.05 |
| 281630080591001 | 05-14-90 09-10-90 | 1320 1300 | 816059 25S33E26 TH-3 LAKE POINSETT SW | 33.86 36.88 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

OSCEOLA COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------|------|--|---|
| 281630081024401 | 05-14-90 | 1330 | TH-9 NOVA RD 532 WEST | 37.08 |
| | 09-10-90 | 1320 | | 40.10 |
| 281632080515001 | 05-15-90 | 1040 | 816051 25S34E36 DSR38 | 32.20 |
| | 09-11-90 | 1225 | | 35.00 |
| 281719081134001 | 05-16-90 | 1335 | 81711301 25S31E28 SOUTH EAGLE RD E. NARCOOSSEE | 40.86 |
| | 09-12-90 | 1410 | | 44.61 |
| 281820080540501 | 05-15-90 | 1015 | 818054-- 25S34E15 K6-TILT LAKE POINSETT SW | 32.38 |
| | 09-11-90 | 1200 | | 35.68 |
| 281931081280301 | 05-18-90 | 0720 | 81912804 24S28E12 KOA CAMP ON US192 NR KISSIMMEE | 56.55 |
| | 09-14-90 | 0920 | | 60.02 |
| 281937081245901 | 05-15-90 | 1350 | 81912401 25S29E09 OS U.L | 44.63 |
| | 09-14-90 | 0900 | | 49.42 |
| 282051081133201 | 09-12-90 | 1430 | 82011301 | 44.17 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 35
PASCO COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 281654082065901 | 280 |
| 2 | 282259082104101 | 281 |
| 3 | 282641082112001 | 282 |

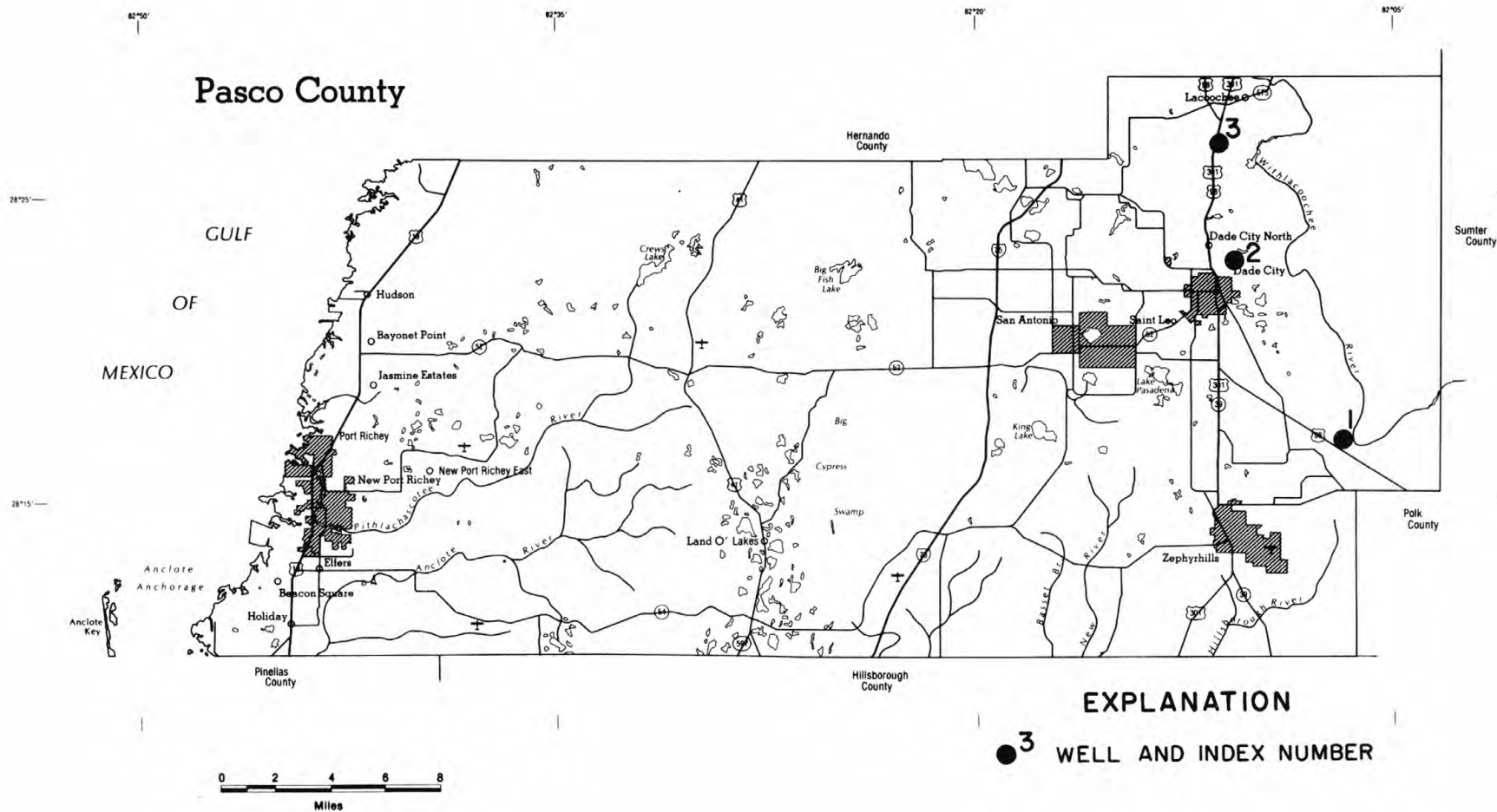


Figure 35.--Location of wells in Pasco County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

PASCO COUNTY

WELL NUMBER.--281654082065901. U.S. Highway 98 Well near Dade City, FL.

LOCATION.--Lat 28°16'54", long 82°06'59", in SW¼SE¼NW¼ sec.28, T.25 S., R.22 E., Hydrologic Unit 03100208, on north side of U.S. Highway 98, 2.9 mi north of intersection of State Highway 54, and 7.8 mi southeast of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 3 in., depth 200 ft, cased to 41 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 85.63 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.24 ft above land-surface datum.

PERIOD OF RECORD.--May 1976, January 1977 to current year (bimonthly). Records prior to January 1977 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.37 ft NGVD, Sept. 20, 1979; lowest measured, 72.74 ft NGVD, May 30, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JUN | | |
| 27... | 0830 | 75.47 | 05... | 0855 | 73.09 |
| DEC | | | JUL | | |
| 19... | 0855 | 75.27 | 31... | 0955 | 74.54 |
| FEB | | | SEP | | |
| 13... | 0940 | 75.57 | 10... | 1430 | 75.00 |
| APR | | | 26... | 0820 | 74.44 |
| 17... | 0910 | 74.54 | | | |
| MAY | | | | | |
| 14... | 1520 | 73.71 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

PASCO COUNTY

WELL NUMBER.--282259082104101. Lykes Pasco Well near Dade City, FL.

LOCATION.--Lat 28°22'59", long 82°10'41", in NW¼NW¼SE¼ sec.23, T.24 S., R.21 E., Hydrologic Unit 03100208, 0.5 mi east of confluence of Pasco Packing Company and Evans Packing Company canals, and 2 mi northeast of Dade City. Owner: Lykes Pasco Packing Co.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 36 ft, casing length unknown.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 73.81 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of flange on casing, 4.33 ft above land-surface datum.

PERIOD OF RECORD.--April 1973 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 73.74 ft NGVD, Oct. 11, 1979; lowest, 60.19 ft NGVD, May 30, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 65.32 | 64.60 | 64.04 | 63.38 | 63.26 | 63.51 | 63.28 | --- | 62.14 | 62.26 | 63.22 | 64.01 |
| 10 | 65.34 | 64.38 | 63.80 | 63.44 | 63.23 | 63.66 | 63.16 | --- | 62.20 | 62.27 | 63.26 | 64.07 |
| 15 | 65.22 | 64.33 | 63.60 | 63.46 | 63.22 | 63.78 | 63.01 | 62.44 | 62.13 | 62.34 | 63.39 | 64.04 |
| 20 | 65.09 | 64.26 | 63.62 | 63.46 | 63.24 | 63.78 | 62.83 | 62.29 | 62.04 | 62.57 | 63.57 | 63.89 |
| 25 | 65.01 | 64.23 | 63.46 | 63.43 | 63.31 | 63.72 | 62.87 | 62.02 | 62.04 | 62.74 | 63.69 | 63.73 |
| EOM | 64.81 | 64.10 | 63.40 | 63.37 | 63.43 | 63.37 | 62.70 | 62.06 | 62.18 | 63.03 | 63.89 | 63.51 |
| MAX | 65.45 | 64.72 | 64.04 | 63.46 | 63.43 | 63.78 | 63.40 | --- | 62.20 | 63.03 | 63.89 | 64.07 |

CAL YR 1989 MAX 70.23

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

PASCO COUNTY

WELL NUMBER.--282641082112001. Overpass Well near Trilacoochee, FL.

LOCATION.--Lat 28°26'41", long 82°11'20", in NE¼SE¼NE¼ sec.34, T.23 S., R.21 E., Hydrologic Unit 03100208, between lanes of divided U.S. Highway 301 at Seaboard Coast Line Railroad crossing, 1.4 mi south of Trilacoochee, and 4.3 mi north of Dade City. Owner: Florida Department of Transportation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 227 ft, cased to 49 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 80.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 14.19 ft above land-surface datum.

PERIOD OF RECORD.--October 1959, February 1960 to June 1965, July 1965 to April 1966 (bimonthly); May to July 1966, July 1967 to March 1990 (discontinued). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 74.30 ft NGVD, Aug. 10, 1960; lowest, 55.86 ft NGVD, June 23, 1974.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 5 | 61.17 | 60.37 | --- | 59.70 | 59.43 | 59.53 | --- | --- | --- | --- | --- | --- |
| 10 | 61.08 | 60.22 | --- | 59.78 | 59.36 | --- | --- | --- | --- | --- | --- | --- |
| 15 | 60.97 | 60.11 | --- | 59.80 | 59.31 | --- | --- | --- | --- | --- | --- | --- |
| 20 | 60.80 | 60.04 | 59.64 | 59.76 | 59.25 | --- | --- | --- | --- | --- | --- | --- |
| 25 | 60.72 | --- | 59.49 | 59.66 | 59.35 | --- | --- | --- | --- | --- | --- | --- |
| EOM | 60.52 | --- | 59.57 | 59.57 | 59.44 | --- | --- | --- | --- | --- | --- | --- |
| MAX | 61.24 | --- | --- | 59.82 | 59.51 | --- | --- | --- | --- | --- | --- | --- |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

PASCO COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 281704082085201 | 05-14-90 09-10-90 | 1505 1415 | 81720801 25S22E30 RICHLAND BAPTIST CHURCH | 64.26 65.64 |
| 281930082093702 | 05-14-90 09-10-90 | 1440 1405 | 81920902 25S21E12 LYKES PASCO FERT 4-IN | 63.26 64.85 |
| 282005082112801 | 05-14-90 09-10-90 | 1330 1215 | 82021104 25S21E03 STEARNS WELL | 63.97 65.43 |
| 282121082071101 | 05-14-90 09-10-90 | 1420 1210 | 82120702 24S22E32 CUMMER OFFICE WELL | 70.78 71.90 |
| 282154082142401 | 05-14-90 09-10-90 | 1240 1156 | 82121401 24S21E30 HAYCRAFT WELL | 62.75 64.23 |
| 282221082103001 | 05-14-90 09-10-90 | 1400 1301 | 82221001 24S21E26 COLLURA WELL NO.1 | 62.76 64.31 |
| 282428082134501 | 05-14-90 09-10-90 | 1215 1130 | 82421301 24S21E08 LEE WELL | 60.98 62.41 |
| 282430082112101 | 05-14-90 09-10-90 | 1145 1115 | 82421102 24S21E10 SELF WELL | 60.31 61.64 |
| 282717082142001 | 05-14-90 09-10-90 | 1105 1030 | 82721401 23S21E30 ROSSINI WELL WEST OF TRILBY | 52.56 53.08 |
| 282816082123701 | 05-14-90 09-10-90 | 1040 1005 | 82821201 23S21E21 TOMKOW HAY BARN WELL | 48.69 49.89 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 36
POLK COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 274812081190301 | 286 |
| 2 | 274815081130301 | 286 |
| 3 | 274846081262001 | 287 |
| 4 | 280503081552801 | 287 |
| 5 | 280531081431601 | 288 |
| 6 | 280556081532601 | 288 |
| 7 | 280715081543501 | 289 |
| 8 | 280719081543301 | 289 |
| 9 | 281008081441801 | 290 |
| 9 | 281008081441802 | 290 |
| 10 | 281057081495002 | 291 |
| 11 | 281202081391701 | 291 |
| 11 | 281202081391702 | 292 |
| 12 | 281312082011601 | 292 |

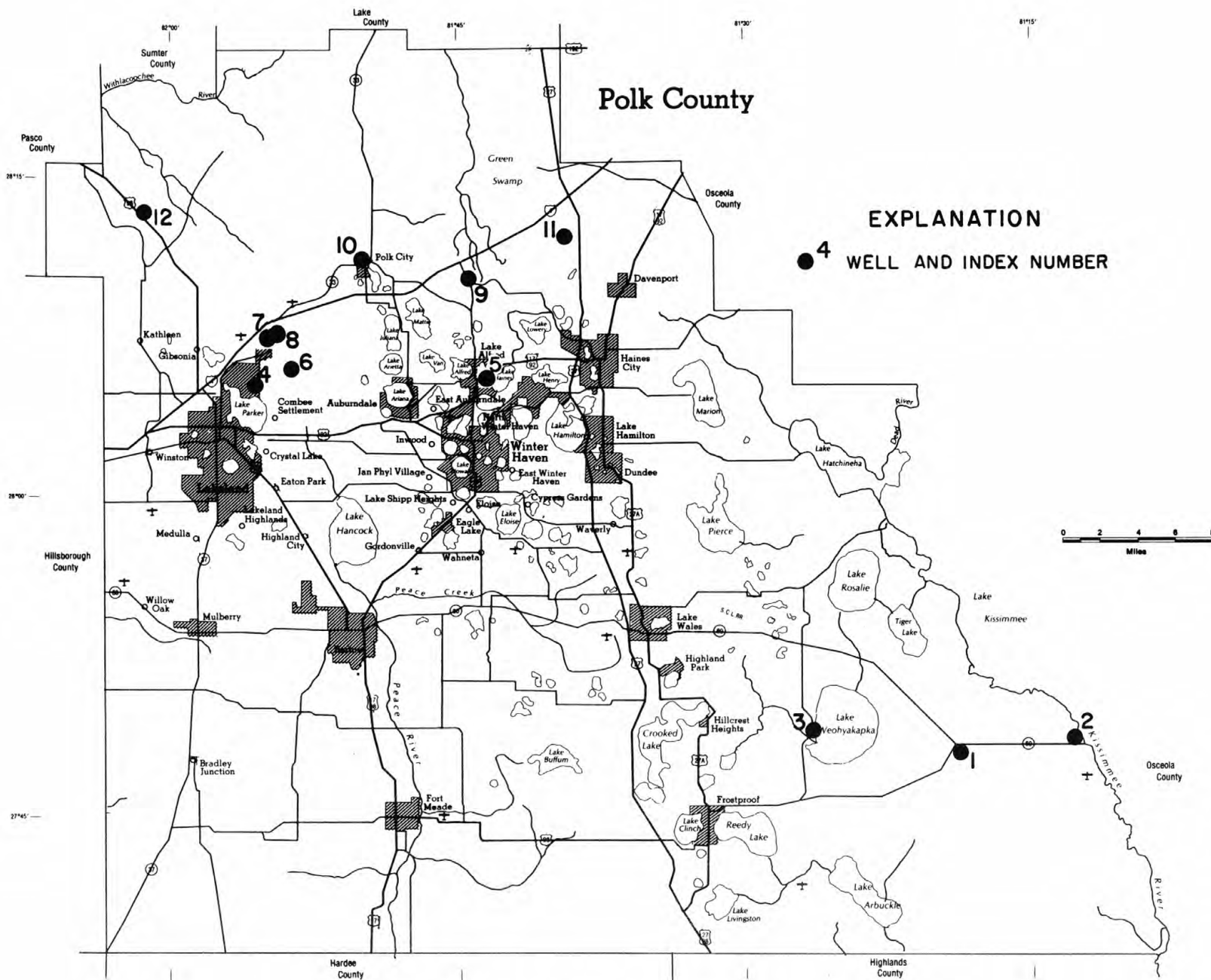


Figure 36--Location of wells in Polk County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--274812081190301. P-49 Well near Frostproof, FL.

LOCATION.--Lat 27°48'12", long 81°19'03", in SE¼NE¼NE¼ sec.9, T.31 S., R.30 E., Hydrologic Unit 03090101, on south side of State Highway 630, 0.2 mi west of State Highway 60, and 12.0 mi east of Frostproof. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 17 ft, cased to 14 ft, gravel-packed from 14 to 17 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 104.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.38 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to current year. Records prior to January 1974 are unpublished and are available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 105.38 ft NGVD, June 18, 1982; lowest, 98.76 ft NGVD, June 8, 1962.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 103.15 | 101.81 | 102.04 | 102.72 | 101.62 | 103.19 | 102.51 | 100.95 | 100.46 | 103.55 | 103.81 | 103.92 |
| 10 | 103.19 | 101.63 | 103.04 | 102.64 | 101.45 | 102.90 | 102.07 | 100.79 | 100.46 | 102.71 | 104.91 | 103.59 |
| 15 | 102.79 | 101.45 | 102.61 | 102.37 | 101.43 | 102.60 | 101.77 | 100.64 | 100.36 | 104.77 | 104.57 | 103.26 |
| 20 | 102.48 | 101.72 | 102.36 | 102.17 | 102.86 | 102.29 | 101.55 | 100.48 | 101.44 | 103.99 | 105.01 | 104.44 |
| 25 | 102.19 | 101.49 | 103.53 | 101.99 | 103.94 | 102.01 | 101.33 | 100.36 | 102.29 | 103.76 | 104.65 | 103.64 |
| EOM | 102.00 | 102.48 | 102.97 | 101.78 | 103.64 | 102.90 | 101.15 | 100.25 | 103.11 | 103.30 | 104.78 | 104.78 |
| MAX | --- | 102.63 | 103.59 | 103.01 | 104.36 | 103.57 | 102.90 | 101.11 | 103.38 | 104.77 | 105.01 | 104.78 |

WELL NUMBER.--274815081130301. River Ranch Well near Indian Lake Estates, FL.

LOCATION.--Lat 27°48'15", long 81°13'03", in NW¼NW¼NW¼ sec.10, T.31 S., R.31 E., Hydrologic Unit 03090101, 92 ft south of State Highway 60, 1.0 mi west of Kissimmee River Bridge, and 6.5 mi east of Indian Lake Estates. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 300 ft, cased to 185 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 55.17 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, datum was considered to be 55.64 ft, and Oct. 1, 1977, to Sept. 30, 1978, at 55.34 ft NGVD. Measuring point: Top of casing, 0.30 ft above land-surface datum.

PERIOD OF RECORD.--May 1974 to September 1984 (bimonthly); October 1984 to September 1986 (monthly); October 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.79 ft NGVD, present datum, Nov. 13, 1975; lowest measured, 41.33 ft NGVD, June 1, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1150 | 45.49 | 15... | 1215 | 42.44 |
| NOV | | | JUN | | |
| 29... | 1200 | 45.44 | 29... | 1340 | 43.35 |
| FEB | | | SEP | | |
| 01... | 1300 | 45.32 | 04... | 1200 | 45.67 |
| MAR | | | 11... | 1223 | 45.72 |
| 20... | 1110 | 45.37 | | | |
| APR | | | | | |
| 30... | 1305 | 43.51 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--274846081262001. Lake Weohyakapka Well near Frostproof, FL.

LOCATION.--Lat 27°48'46", long 81°26'20", in NE¼NW¼SE¼ sec.5, T.31 S., R.29 E., Hydrologic Unit 03090101, on southwest shore of Lake Weohyakapka, at county boat ramp, and 8.0 mi east of Frostproof. Owner: Polk County.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 3 in., depth 199 ft, cased to 153 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 65.15 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, datum was considered to be 65 ft, from topographic map, and Oct. 1, 1977, to Sept. 30, 1978, at 65.30 ft NGVD. Measuring point: Spigot on discharge line, 2.41 ft above land-surface datum.

PERIOD OF RECORD.--February 1958, December 1959, June 1969 to September 1984 (bimonthly); October 1984 to September 1986 (monthly); October 1986 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.35 ft NGVD, present datum, Dec. 15, 1959; lowest measured, 72.27 ft NGVD, May 20, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 02... | 1040 | 81.56 | 30... | 1451 | 77.56 |
| NOV | | | MAY | | |
| 29... | 1056 | 81.46 | 15... | 1150 | 75.35 |
| FEB | | | JUN | | |
| 01... | 1140 | 78.46 | 29... | 1230 | 78.06 |
| MAR | | | SEP | | |
| 20... | 1000 | 76.96 | 11... | 1116 | 79.05 |

WELL NUMBER.--280503081552801. Fish Lake Deep Well near Lakeland, FL.

LOCATION.--Lat 28°05'03", long 81°55'28", in SE¼SE¼SE¼ sec.32, T.27 S., R.24 E., Hydrologic Unit 03100101, 50 ft east of Lake Park Drive, 1.4 mi south of Old Combee Road, and 3.5 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 311 ft, cased to 265 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 134.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1955 to current year (bimonthly), incomplete. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.97 ft NGVD, Aug. 8, 1960; lowest measured, 103.60 ft NGVD, May 10, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 20... | 1005 | 111.52 | 16... | 1032 | 109.12 |
| DEC | | | JUN | | |
| 22... | 1015 | 113.43 | 07... | 1000 | 109.30 |
| FEB | | | AUG | | |
| 16... | 1000 | 113.18 | 03... | 1055 | 112.41 |
| APR | | | SEP | | |
| 20... | 1005 | 110.19 | 12... | 1012 | 111.97 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--280531081431601. Lake Alfred Deep Well at Lake Alfred, FL.

LOCATION.--Lat 28°05'31", long 81°43'16", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.33, T.27 S., R.26 E., Hydrologic Unit 03100101, on northeast corner at intersection of Glencruiten Avenue and Haines Boulevard at Lake Alfred. Owner: City of Lakeland.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public supply, artesian well, diameter 12 in., depth 555 ft, cased to 282 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 171.04 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelter floor, 3.46 ft above land-surface datum. Prior to May 1988, at elevation 3.12 ft lower.

PERIOD OF RECORD.--May 1973 to February 1976 (quarterly), incomplete; March 1976 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 126.51 ft NGVD, July 10, 1974; lowest, 109.13 ft NGVD, May 15, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 120.97 | 117.25 | 119.56 | 120.01 | 119.78 | 120.86 | 120.54 | --- | 119.95 | 120.08 | 120.83 | 120.88 |
| 10 | 120.08 | 116.09 | 120.13 | 120.52 | 118.50 | 119.01 | 120.18 | --- | 120.58 | 118.29 | 120.60 | 119.64 |
| 15 | 119.37 | 116.11 | 120.15 | 119.93 | 119.77 | 118.51 | 120.81 | --- | 120.62 | 120.59 | 121.67 | 119.75 |
| 20 | 117.77 | 118.44 | 120.92 | 119.64 | 119.61 | 118.22 | 119.08 | 117.87 | 120.54 | 121.34 | 122.00 | 119.15 |
| 25 | 117.82 | 118.64 | 114.16 | 119.22 | 120.46 | 117.31 | --- | 118.78 | 120.83 | 121.42 | 121.98 | 118.54 |
| EOM | 118.33 | 119.59 | 119.16 | 119.62 | 120.87 | 118.94 | --- | 118.99 | 120.57 | 121.62 | 121.55 | 119.86 |
| MAX | 121.46 | 119.93 | 121.27 | 120.61 | 120.87 | 121.08 | --- | --- | 121.03 | 121.85 | 122.07 | 121.86 |
| CAL YR 1989 | MAX 121.62 | | | | | | | | | | | |

WELL NUMBER.--280556081532601. Tennorock Road Well near Lakeland, FL.

LOCATION.--Lat 28°05'56", long 81°53'26", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.27, T.27 S., R.24 E., Hydrologic Unit 03100101, on south side of Tennorock Road, 0.9 mi east of Alternate State Highway 33, and 5.4 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 72 ft, cased to 45 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 131.46 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.85 ft above land-surface datum.

PERIOD OF RECORD.--February 1956 to February 1960 (monthly), incomplete; June 1960 to May 1961 and January 1963 to September 1977 (about thrice yearly); October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 124.41 ft NGVD, Sept. 18, 1979; lowest measured, 96.15 ft NGVD, May 7, 1968.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 20... | 0950 | 119.62 | 16... | 1020 | 117.11 |
| DEC | | | JUN | | |
| 22... | 1000 | 120.24 | 07... | 1015 | 117.36 |
| FEB | | | AUG | | |
| 16... | 0950 | 119.93 | 03... | 1035 | 119.83 |
| APR | | | SEP | | |
| 20... | 0950 | 118.61 | 12... | 1005 | 119.38 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--280715081543501. Combee Road Deep Well near Lakeland, FL.

LOCATION.--Lat 28°07'07", long 81°54'30", in SW¼NE¼SE¼ sec.21, T.27 S., R.24 E., Hydrologic Unit 03100101, at the intersection of State Highway 33 and Combee Road, 1.5 mi southwest of Interstate Highway 4, and 7.3 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn Formation of Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 55 ft, cased to 31 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 136.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1956 to September 1977 (thrice yearly); October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.92 ft NGVD, July 7, 1959; lowest measured, 118.56 ft NGVD, Nov. 6, 1964.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 20... | 0945 | 133.38 | 16... | 1006 | 132.26 |
| DEC | | | JUN | | |
| 22... | 0950 | 134.25 | 07... | 1025 | 132.23 |
| FEB | | | AUG | | |
| 16... | 0940 | 133.78 | 03... | 1030 | 133.71 |
| APR | | | SEP | | |
| 20... | 0940 | 132.84 | 12... | 0954 | 133.80 |

WELL NUMBER.--280719081543301. Combee Road Shallow Well near Lakeland, FL.

LOCATION.--Lat 28°07'06", long 81°54'31", in SW¼NE¼SE¼ sec.21, T.27 S., R.24 E., Hydrologic Unit 03100101, at the intersection of State Highway 33 and Combee Road, 1.5 mi southwest of Interstate Highway 4, and 7.3 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 1.25 in., depth 9 ft, cased to 8 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 136.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1955 to September 1977 (thrice yearly); October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.76 ft NGVD, Sept. 18, 1979; well observed dry Nov. 16, 1964.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 20... | 0940 | 135.11 | 16... | 1003 | 133.41 |
| DEC | | | AUG | | |
| 22... | 0950 | 134.65 | 03... | 1025 | 134.66 |
| FEB | | | SEP | | |
| 16... | 0940 | 134.66 | 12... | 0950 | 135.07 |
| APR | | | | | |
| 20... | 0940 | 134.13 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--281008081441801. Lake Alfred Deep Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¼NW¼NW¼ sec.5, T.27 S., R.26 E., Hydrologic Unit 03100208, on west side of Pit Road, 100 ft north of intersection with State Highway 557, 1.2 mi south of Interstate Highway 4, and 5.0 mi north of Lake Alfred. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 425 ft, cased to 102 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 137.38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.25 ft above land-surface datum.

PERIOD OF RECORD.--July 1959 to November 1960 (monthly); December 1960 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.07 ft NGVD Nov. 3, 1960; lowest daily maximum water level, 119.85 ft NGVD, May 3, 1974.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 127.52 | 125.10 | 126.40 | 127.38 | 127.00 | 127.91 | 127.67 | 125.88 | 126.56 | 126.92 | 127.46 | 127.61 |
| 10 | 127.25 | 124.85 | 126.58 | 127.56 | 126.53 | 127.20 | 127.55 | 125.69 | 126.94 | 126.10 | 127.41 | 126.90 |
| 15 | 126.75 | 125.12 | 126.38 | 126.84 | 127.20 | 126.60 | 127.76 | 126.14 | 127.03 | 127.05 | 128.09 | 127.04 |
| 20 | 125.60 | 125.86 | 127.34 | 127.15 | 127.07 | 126.52 | 127.06 | 125.80 | 126.81 | 127.61 | 128.29 | 126.77 |
| 25 | 125.76 | 125.97 | 124.17 | 126.94 | 127.62 | 125.91 | 126.76 | 125.93 | 127.02 | 127.64 | 128.26 | 126.44 |
| EOM | 126.06 | 126.55 | 126.89 | 126.97 | 127.95 | 126.83 | 126.68 | 125.81 | 127.21 | 127.76 | 127.95 | 126.66 |
| MAX | 127.73 | 126.57 | 127.59 | 127.57 | 127.95 | 128.09 | 127.76 | 126.52 | 127.25 | 127.82 | 128.31 | 127.87 |
| CAL YR 1989 | MAX 128.58 | | | | | | | | | | | |
| WTR YR 1990 | MAX 128.31 | | | | | | | | | | | |

WELL NUMBER.--281008081441802. Lake Alfred Shallow Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¼NW¼NW¼ sec.5, T.27 S., R.26 E., Hydrologic Unit 03100208, on west side of Pit Road, 100 ft north of intersection with State Highway 557, 1.2 mi south of Interstate Highway 4, and 5.0 mi north of Lake Alfred. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 111 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 2 in., depth and casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 137.25 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.20 ft below land-surface datum.

PERIOD OF RECORD.--October 1960 to September 1977 (monthly); October 1977 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 135.14 ft NGVD, Sept. 6, 1985; well observed dry on numerous visits.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1435 | 131.94 | 16... | 0858 | 130.32 |
| 30... | 1035 | 130.70 | 30... | 1325 | 129.76 |
| NOV | | | JUN | | |
| 29... | 1345 | 130.27 | 27... | 1225 | 130.70 |
| DEC | | | JUL | | |
| 27... | 1050 | 131.65 | 26... | 1240 | 131.62 |
| JAN | | | AUG | | |
| 30... | 1300 | 130.75 | 29... | 1325 | 131.73 |
| FEB | | | SEP | | |
| 27... | 1210 | 131.60 | 12... | 0857 | 131.10 |
| MAR | | | 27... | 1215 | 130.32 |
| 27... | 1343 | 130.53 | | | |
| APR | | | | | |
| 30... | 1520 | 131.03 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

POLK COUNTY

WELL NUMBER.--281057081495002. ROMP 76A Well near Polk City, FL.

LOCATION.--Lat 28°10'57", long 81°49'50", in NW¼SW¼NE¼ sec.32, T.26 S., R.25 E., Hydrologic Unit 03100208, in pasture at end of Pine Avenue, 0.3 mi north of State Highway 33 in Polk City. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 315 ft, cased to 264 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 136.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 132.29 ft NGVD, Oct. 3, 1979; lowest, 119.37 ft NGVD, May 16, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 129.22 | 126.66 | 127.70 | 129.11 | 128.44 | 129.63 | 128.75 | 126.49 | 127.21 | 127.97 | 128.96 | 129.05 |
| 10 | 129.05 | 126.33 | 128.10 | 129.31 | 127.96 | 128.55 | 128.66 | 126.55 | 127.66 | 127.25 | 128.84 | 128.23 |
| 15 | 128.39 | 126.24 | 128.39 | 128.78 | 128.85 | 127.88 | 128.77 | 126.97 | 127.79 | 128.12 | 129.40 | 128.35 |
| 20 | 127.29 | 127.26 | 129.06 | 128.66 | 128.79 | 127.86 | 128.07 | 126.43 | 127.68 | 128.99 | 129.56 | 127.78 |
| 25 | 127.16 | 127.45 | 126.45 | 128.55 | 129.20 | 127.27 | 127.55 | 126.62 | 127.69 | 129.34 | 129.56 | 127.50 |
| EOM | 127.56 | 127.94 | 128.59 | 128.75 | 129.61 | 127.95 | 127.54 | 126.46 | 128.10 | 129.39 | 129.46 | 127.57 |
| MAX | 129.67 | 127.94 | 129.34 | 129.35 | 129.61 | 129.82 | 128.82 | 127.44 | 128.10 | 129.44 | 129.67 | 129.29 |

WTR YR 1990 MAX 129.82

WELL NUMBER.--281202081391701. PO-1 Thornhill Deep Well near Davenport, FL.

LOCATION.--Lat 28°12'02", long 81°39'17", in SE¼SW¼SW¼ sec.19, T.26 S., R.19 E., Hydrologic Unit 03080102, on dirt road 0.8 mi east of State Highway 27, and 2.0 mi south of the intersection State Highway 27 and Interstate Highway 4 near Davenport. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, unused, diameter 4 in., depth 151 ft, casing length unknown.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 133.21 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1983 to October 1985 (semiannually); November 1985 to current year. Records prior to October 1986 are unpublished and available in the files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.06 ft NGVD, Sept. 12, 1983; lowest, 121.43 ft NGVD, Dec. 25, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5 | 124.49 | 123.26 | 123.24 | 124.56 | 124.37 | 124.97 | 124.82 | 123.84 | 124.07 | 124.15 | 124.20 | 125.04 |
| 10 | 124.46 | 123.08 | 123.73 | 124.59 | 124.02 | 124.70 | 124.77 | 123.78 | 124.24 | 123.79 | 124.37 | 124.74 |
| 15 | 124.34 | 122.84 | 123.45 | 124.23 | 124.29 | 124.49 | 124.95 | 123.75 | 124.31 | 124.09 | 124.80 | 124.71 |
| 20 | 123.60 | 123.36 | 124.10 | 124.48 | 124.26 | 124.13 | 124.64 | 123.75 | 124.12 | 124.36 | 125.04 | 124.60 |
| 25 | 123.36 | 123.42 | 121.43 | 124.29 | 124.76 | 124.04 | 124.46 | 123.69 | 124.19 | 124.34 | 125.12 | 124.27 |
| EOM | 123.38 | 123.71 | 124.27 | 124.25 | 124.99 | 124.42 | 124.37 | 123.72 | 124.26 | 124.41 | 125.08 | 124.61 |
| MAX | 124.64 | 123.72 | 124.48 | 124.66 | 124.99 | 125.06 | 124.95 | 124.21 | 124.31 | 124.46 | 125.23 | 125.14 |

WTR YR 1990 MAX 125.23

[illegible]

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

POLK COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 273903081185201 | 09-11-90 | 1022 | 73911801 33S30E06 USAF AVON PARK NO.1 | 72.79 |
| 273929081080601 | 05-17-90 09-13-90 | 1000 0950 | POF-20 S-65A WELL NR S CO LINE | 41.44 45.02 |
| 274553081115601 | 05-15-90 09-11-90 | 1240 1255 | 745111-- 31S31E23 RIVER RANCH PUBLIC SUPPLY | 40.85 44.80 |
| 274746081202201 | 05-15-90 09-11-90 | 1325 1200 | 747120-- 31S30E08 INDIAN LK ESTATES GOLF COURSE | 61.79 62.77 |
| 275137081252501 | 09-11-90 | 1135 | 751125-- 30S29E21 E. LK WALES UTILITY | 78.08 |
| 275622081252301 | 05-15-90 09-11-90 | 1450 1330 | 756125 29S29E28 LK ROSALIE NW | 55.58 58.02 |
| 275634081211801 | 05-15-90 09-11-90 | 1530 1356 | 756121-- 29S30E19 KISS STATE PK NR LK KISSIMMEE | 52.68 56.00 |
| 280153081274101 | 05-15-90 09-11-90 | 1630 1455 | 801127-- 28S29E19 LK HATCHINA NR HAINES CITY | 63.59 66.89 |
| 280420081570101 | 05-16-90 09-12-90 | 1100 1035 | LAKELAND STADIUM WELL AT LAKELAND | 87.61 94.11 |
| 280558081314801 | 05-15-90 09-11-90 | 0925 1518 | 805131-- 27S28E29 KIMBELL WELL NR LK MARION | 68.90 69.95 |
| 281058081495002 | 05-16-90 09-12-90 | 1145 1114 | USGS 1.75-IN DRILL PIPE -INNER MONITOR AT POLK CITY | 126.39 127.88 |
| 281058081495003 | 05-16-90 09-12-90 | 1148 1112 | USGS 4-IN ANNULAR MONITOR AT POLK CITY | 125.50 127.16 |
| 281058081495004 | 05-16-90 09-12-90 | 1135 1110 | USGS CORE HOLE 2 AT POLK CITY | 125.39 125.56 |
| 281317081491301 | 05-16-90 09-12-90 | 1202 1130 | 813149423 26S25E16 | 124.78 126.39 |
| 281440081431701 | 05-16-90 09-12-90 | 1315 1246 | 814143232 26S26E04 | 125.87 127.24 |
| 281511081393101 | 05-16-90 09-12-90 | 1340 1303 | 815139342 26S26E01 | 119.12 120.03 |
| 281532081345001 | 05-16-90 09-12-90 | 1355 1320 | 815134134 26S27E02 LOUGHMAN DP WELL NR LOUGHMAN | 90.05 90.41 |
| 281532081493001 | 05-16-90 09-12-90 | 1217 1150 | 815149233 25S25E32 | 122.46 125.06 |
| 281631081564501 | 05-16-90 09-12-90 | 1243 1213 | SPEARS WELL NR ROCK RIDGE | 103.13 106.06 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 37
PUTNAM COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 292948081503001 | 296 |

82°00'



81°30'

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

PUTNAM COUNTY

WELL NUMBER.--292948081503001. Well RD-77-G near Orange Springs, FL.

LOCATION.--Lat 29°29'48", long 81°50'30", in NW¼SW¼NW¼ sec. 31, T.11 S., R.25 E., Hydrologic Unit 03080102, in northeast corner of intersection of roads 77 and 77-G in Ocala National Forest, 7.3 mi west of State Highway 19, and about 6.0 mi east of Orange Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary system, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 241 ft, cased to 215 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 100.81 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. casing, 2.50 ft above land-surface datum.

COOPERATION.--Since October 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1982 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.68 ft NGVD, Jan. 13, 1983; lowest measured, 17.30 ft NGVD, Mar. 25, 1986.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 0930 | 18.89 | 14... | 0725 | 18.42 |
| NOV | | | 29... | 0750 | 18.43 |
| 27... | 0940 | 18.84 | JUN | | |
| DEC | | | 25... | 1325 | 18.36 |
| 19... | 0810 | 18.85 | JUL | | |
| JAN | | | 25... | 0725 | 18.37 |
| 31... | 0810 | 18.68 | AUG | | |
| FEB | | | 27... | 0820 | 18.28 |
| 19... | 0855 | 18.69 | SEP | | |
| MAR | | | 10... | 1310 | 18.46 |
| 26... | 0855 | 18.57 | 27... | 0710 | 18.38 |
| APR | | | | | |
| 25... | 0735 | 18.44 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

PUTNAM COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 292143081374601 | 09-13-90 | 1308 | *SJ* P423 13S27E39 DRAYTON ISLAND E.SHORE GRAMD | 8.18 |
| 292218081333101 | 05-17-90 09-12-90 | 0814 1204 | *SJ* P410 13S27E11 UNION CAMPS SJRWMD OBS WELL GEORGETOWN | 23.77 22.97 |
| 292238081380301 | 05-17-90 09-13-90 | 1241 1322 | *SJ* P422 13S27E39 DRAYTON ISLAND E.SHORE F C JONES | 14.00 13.50 |
| 292254081382101 | 05-17-90 09-13-90 | 1257 1340 | *SJ* P421 13S27E39 DRAYTONISLAND E.SHORE LANDING | 10.00 10.00 |
| 292307081305201 | 05-17-90 09-12-90 | 0930 1240 | *SJ* P341 13S28E06 OLD HWY17 OLD FERNERY.5MI W OF 17 | 22.14 23.84 |
| 292435081441301 | 05-14-90 09-10-90 | 0822 1355 | NR FRONTIER D H NR SALT SPGS | 8.58 8.70 |
| 292528081383501 | 05-15-90 09-12-90 | 0755 0825 | 92513801 26S12E26 PUTNAM 28 | 16.15 16.09 |
| 292606081311101 | 05-17-90 09-13-90 | 0735 0939 | *SJ* P242 12S28E25 D GAUTIER LK STELLA CRESCENT CTY | 27.34 25.92 |
| 292621081375101 | 05-15-90 09-12-90 | 0859 0835 | *SJ* P373 MANSFIELD FERNERY BEULAH CH RD | 20.06 19.28 |
| 292628081385501 | 05-15-90 | 0740 | *SJ* P396 12S26E23 WELAKA FISH HATCHERY FRUITLAND | 9.68 |
| 292824081341501 | 05-15-90 09-12-90 | 1015 0904 | P-0246 COL. SAULS | 15.69 15.32 |
| 292824081443301 | 05-14-90 09-10-90 | 0800 1247 | JOHNSONS FIELD NR WELAKA | 6.13 6.48 |
| 292859081375701 | 05-15-90 09-12-90 | 0707 0750 | P-408 HWAY 308B | 15.87 15.49 |
| 292859081375702 | 05-15-90 09-12-90 | 0715 0755 | P-409 SH OBS WELL HWY 308B | 65.87 64.98 |
| 293113081370301 | 05-15-90 09-12-90 | 0931 1012 | *SJ* P382 11S27E19 MAIN ROAD OFF SISCORD POMONA PK | 26.41 26.02 |
| 293214081352201 | 05-15-90 09-12-90 | 1012 0928 | *SJ* P413 11S27E21 SJRWMD OBS WELL NR LK BROWARD | 36.84 36.16 |
| 293234081424101 | 05-14-90 09-10-90 | 0651 1409 | 93214201 --S--E-- RODEHEAVER BOYS RANCH | 16.73 16.78 |
| 293300081523901 | 05-16-90 09-10-90 | 1126 1212 | 933152 11S24E11 CE 60 USA CORPS ENG. | 59.27 58.53 |
| 293304081342301 | 05-15-90 09-12-90 | 0958 0950 | *SJ* P411 11S27E09 PINEY BLUFF LANDING DUNNS CRK | 19.26 19.76 |
| 293439081524301 | 05-16-90 09-10-90 | 1109 1222 | *SJ* P17 10S24E35 DEEP CRK OFF HWY 315 KEUKA | 64.45 63.95 |
| 293543081315301 | 05-14-90 09-10-90 | 1237 0827 | 93513101 11S26E-- B T TILTON | 13.04 14.66 |
| 293554081342601 | 05-14-90 09-10-90 | 1210 0734 | SAN MATEO TOWERSITE DEEP | 14.29 15.73 |
| 293631082005201 | 05-16-90 09-11-90 | 1009 1345 | *SJ* P5 10S23E20 N TWIN LK HWY 20 HWTHRN | 79.00 77.73 |
| 293633081594601 | 05-16-90 09-11-90 | 1044 1330 | DRAINAGE WELL COWPEN LAKE PUTNAM CO | 75.93 75.12 |
| 293720081595301 | 05-16-90 09-11-90 | 0934 1320 | *SJ* P8 10S23E10 CHESSER WELL PTMHLL | 76.98 76.59 |
| 293733081474801 | 05-16-90 09-11-90 | 0626 1202 | HOLLISTER WORKCTR CF (P-510) | 46.88 47.37 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

PUTNAM COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|----------------------------------|----------------------------------|---|
| 293744081541601 | 05-16-90 09-11-90 | 0908 1223 | *SJ* P15 | 10S24E16 GRASSY LAKE WELL PTMHL | 70.29 69.79 |
| 293806081544901 | 05-16-90 09-11-90 | 0850 1234 | *SJ* P16 | 10S24E08 KELLER WELL 11 PTMHL | 70.79 70.27 |
| 293913081384001 | 05-17-90 09-11-90 | 1414 0850 | 93913801 | 10S26E01 | 21.67 23.30 |
| 293933081342801 | 05-14-90 09-10-90 | 1307 0855 | 93913411 | 10S27E04 P-172 CRACKER SWAMP | 13.43 17.21 |
| 294034081431001 | 05-16-90 09-13-90 | 1447 1530 | 94014301 | 09S26E32 DAVIS SPRINGSIDE | 25.40 28.90 |
| 294055081354501 | 05-16-90 09-10-90 | 1200 0930 | *SJ* P77 | 09S27E E.PALATKA MECHECK FARMS | 19.83 23.08 |
| 294308082002201 | 05-16-90 09-11-90 | 0730 1400 | DRAINAGE WELL SWAN LK NR MELROSE | | 80.31 79.35 |
| 294441081442903 | 05-15-90 09-11-90 | 1400 1500 | 94414403 | 09S26E06 | 52.17 51.06 |
| 294449081573301 | 05-16-90 09-11-90 | 0710 0735 | 94415701 | 09S23E01 PROGRESS LEAGUE WELL | 76.25 75.17 |
| 294515081314001 | 05-16-90 09-12-90 | 1308 1439 | *SJ* P10 | 08S27E36 FEDERAL POINT RIVERDALE | 19.00 18.00 |
| 294553081344301 | 05-15-90 09-11-90 | 1241 0952 | 94513401 | 08S27E-- RIVERDALE NO 61 | 22.50 26.00 |
| 294814081345201 | 05-15-90 09-11-90 | 1310 1005 | 94813401 | 08S27E15 ART RIEGEL | 25.00 27.50 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 38
ST. JOHNS COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 293729081221201 | 302 |
| 2 | 294120081292001 | 302 |
| 3 | 295134081245201 | 303 |
| 4 | 295341081263705 | 303 |
| 5 | 295357081294301 | 304 |
| 6 | 295502081175401 | 305 |
| 7 | 295713081203401 | 306 |
| 8 | 300019081363301 | 307 |
| 9 | 300354081301201 | 308 |
| 10 | 300717081381001 | 309 |
| 11 | 300758081230501 | 310 |

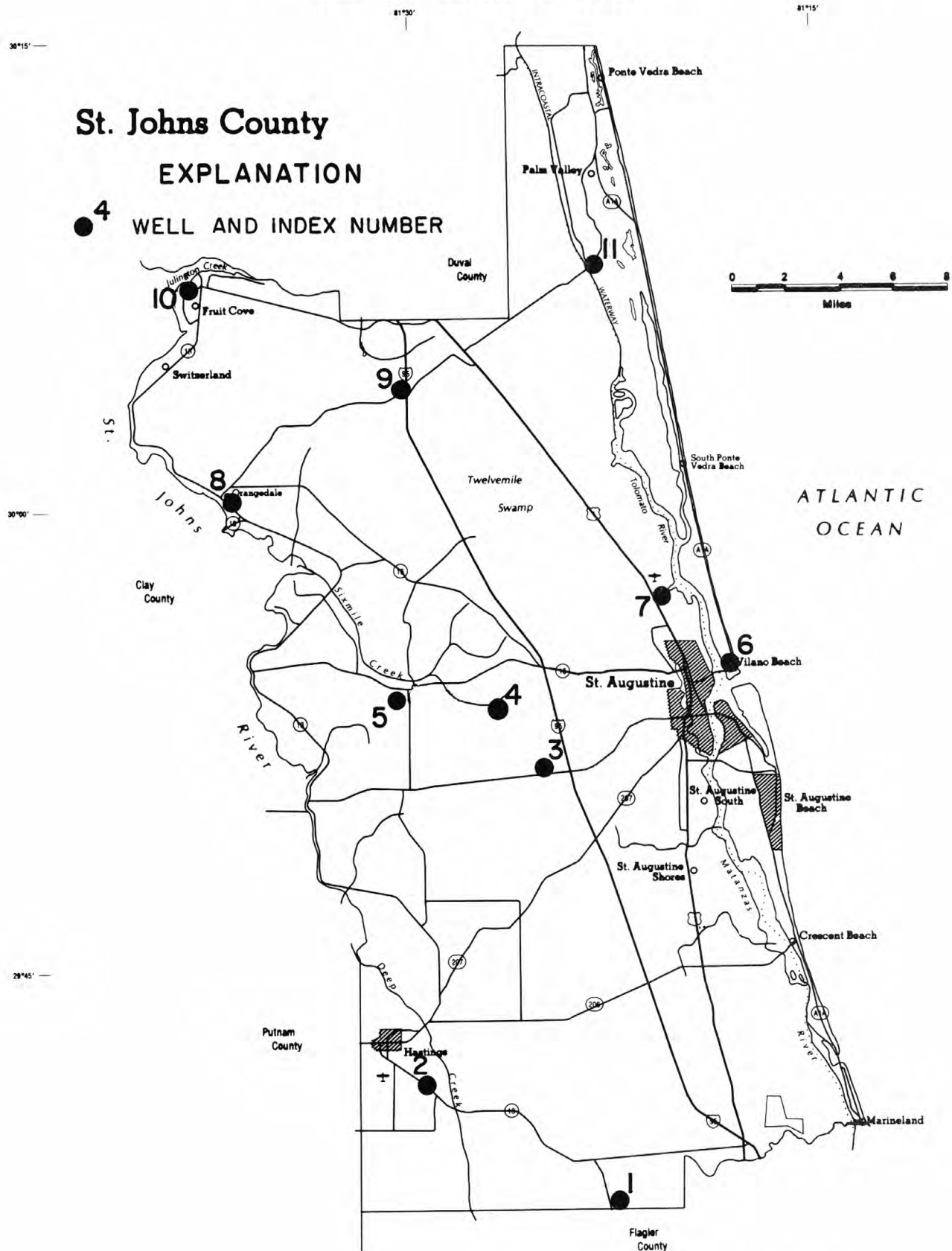


Figure 38.--Location of wells in St. Johns County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--293729081221201. Local Number SJ-104. Meadowbrick Well near Hastings, FL.

(Formerly published as St. Johns 937-122-1. Florida Department of Transportation Well near Hastings).

LOCATION.--Lat 29°37'29", long 81°22'12", in SW¼SW¼ sec.15, T.10 S., R.29 E., Hydrologic Unit 03080103, on Old Dixie Highway, at Flagler-St. Johns County line, and 12 mi southeast of Hastings. Owner: Florida Department of Transportation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 622 ft, cased to 142 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 37.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 4.17 ft above land-surface datum.

PERIOD OF RECORD.--November 1958 to current year. Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.34 ft NGVD, Sept. 11, 1960; lowest, 11.46 ft NGVD, May 18, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 15.53 | 16.18 | 16.11 | 15.69 | --- | 15.91 | 14.24 | 13.74 | 13.01 | 13.80 | 14.38 | 14.93 |
| 10 | 15.77 | 16.28 | 16.11 | 15.82 | 15.62 | 14.65 | 13.61 | 13.52 | 13.16 | 13.83 | 14.50 | 14.95 |
| 15 | 15.78 | 16.24 | 16.09 | 15.75 | 15.65 | 13.60 | 12.77 | 13.29 | 13.46 | 13.87 | 14.46 | 15.06 |
| 20 | 15.67 | 16.04 | 16.17 | 15.95 | 15.72 | 13.76 | 12.21 | 13.03 | 13.62 | 13.97 | 14.66 | 14.88 |
| 25 | 15.88 | 15.99 | 16.04 | 16.06 | 15.74 | 12.65 | 13.25 | 12.99 | 13.55 | 14.22 | 14.81 | 14.75 |
| EOM | 16.33 | 16.06 | 15.76 | 15.88 | 15.88 | 13.06 | 13.48 | 12.92 | 13.58 | 14.43 | 14.95 | 14.69 |
| MAX | 16.39 | 16.39 | 16.31 | 16.06 | --- | 16.22 | 14.36 | 13.74 | 13.63 | 14.45 | 14.96 | 15.06 |
| CAL YR 1989 | MAX 16.47 | | | | | | | | | | | |

WELL NUMBER.--294120081292001. Local Number SJ-105. D.A. Reid Well near Hastings, FL.

(Formerly published as St. Johns 941-129-7. D.A. Reid Well near Hastings.)

LOCATION.--Lat 29°41'27", long 81°29'12", in NW¼SE¼NW¼ sec. 28, T.9 S., R.28 E., Hydrologic Unit 03080103, in a field on south side of State Highway 13, 2.4 mi southeast of intersection of State Highways 207 and 13 at Hastings. Owner: D.A. Reid.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 541 ft, cased to 118 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 12.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter floor, 5.30 ft above land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

PERIOD OF RECORD.--1955-56 (annually); 1957-63 (bimonthly); 1964-69 (annually); 1970 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.33 ft NGVD, Sept. 15, 1960; lowest measured, 1.06 ft NGVD, Mar. 20, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 05... | 1100 | 15.85 | 16... | 1242 | 8.79 |
| DEC | | | 21... | 1255 | 9.68 |
| 05... | 1050 | 15.35 | JUL | | |
| JAN | | | 24... | 1100 | 13.90 |
| 23... | 1030 | 15.75 | SEP | | |
| MAR | | | 12... | 1257 | 13.18 |
| 20... | 1105 | 1.06 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--295134081245201. Local Number SJS-111. (A-11) Well near Elkton, FL.

LOCATION.--Lat 29°51'34", long 81°24'52", in NW¼NE¼NE¼ sec. 31, T.7 S., R.29 E., Hydrologic Unit 03080201, 75 ft north of State Highway 214, 4.8 mi east of Molasses Junction, and 5.3 mi north of Elkton. Owner: St. Johns County.

AQUIFER.--Nonartesian sand aquifer of the Tertiary System, Geologic Unit 120 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 2 in., depth 83 ft, cased to 62 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 43 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.0 ft above land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.59 ft below land-surface datum, Mar. 18, 1983; lowest, 16.48 ft below land-surface datum, Nov. 2, 3, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 11.62 | 10.93 | 11.39 | 11.46 | 12.29 | 11.74 | 11.97 | 12.04 | 13.56 | 14.68 | 15.14 | 13.55 |
| 10 | 11.31 | 10.94 | 11.10 | 11.30 | 11.89 | 12.04 | 12.48 | 12.01 | 13.37 | 14.83 | 14.46 | 13.90 |
| 15 | 11.17 | 11.33 | 11.26 | 11.47 | 12.36 | 12.16 | 12.85 | 12.66 | 13.75 | 14.73 | 14.40 | 14.30 |
| 20 | 10.77 | 11.45 | 11.01 | 11.56 | 12.38 | 12.60 | 12.83 | 13.27 | 14.65 | 14.58 | 13.95 | 14.61 |
| 25 | 10.90 | 11.50 | 11.25 | 11.64 | 11.60 | 12.71 | 12.59 | 13.58 | 13.83 | 13.85 | 13.50 | 14.87 |
| EOM | 10.62 | 11.15 | 11.43 | 12.02 | 11.62 | 12.21 | 11.69 | 13.96 | 13.96 | 14.85 | 13.12 | 14.80 |
| MIN | 10.62 | 10.53 | 10.76 | 11.13 | 11.40 | 11.61 | 11.69 | 11.77 | 13.28 | 13.85 | 12.95 | 13.11 |
| CAL YR 1989 | HIGH 10.53 NOV 1 | | | | | | | | | | | |
| WTR YR 1990 | HIGH 10.53 NOV 1 | | | | | | | | | | | |

WELL NUMBER.--295341081263705. Local Number SJ-112E. Tillman Ridge Deep Test Well near Tillman Ridge, FL.

LOCATION.--Lat 29°53'41", long 81°26'37", in SW¼SW¼NW¼ sec.13, T.7 S., R.28 E., Hydrologic Unit 03080201, 50 ft east of Cabbage Hammock Road, 1.5 mi south of State Highway 208, and 3.0 mi southeast of Bakersville. Owner: St. Johns County.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 517 ft, cased to 204 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 33 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of shelter floor, 1.10 ft above land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1981 to September 1982 (semiannually); January 1983 to current year. Records prior to May 1982 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 0.62 ft above land-surface datum, Mar. 18, 1983; lowest, 11.32 ft below land-surface datum, Apr. 29, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5 | 3.78 | 3.07 | 3.24 | 3.62 | 3.60 | 5.25 | 5.52 | 6.25 | 6.99 | 5.93 | 5.52 | 4.71 |
| 10 | 3.54 | 3.05 | 3.14 | 3.46 | 4.55 | --- | 7.89 | 6.72 | 6.58 | 6.18 | 5.30 | 4.71 |
| 15 | 3.52 | 3.05 | 3.17 | 3.53 | 4.37 | --- | 9.92 | 7.51 | 6.33 | 6.16 | 5.20 | 4.62 |
| 20 | 3.65 | 3.26 | 3.11 | 3.35 | 4.92 | --- | 9.93 | 7.61 | 6.29 | 5.94 | 5.00 | 4.86 |
| 25 | 3.43 | 3.32 | 3.44 | 3.21 | 3.98 | --- | 7.51 | 7.46 | 6.18 | 5.86 | 4.90 | 5.02 |
| EOM | 2.97 | 3.22 | 3.54 | 3.43 | 4.39 | 7.59 | 6.76 | 7.54 | 6.07 | 5.35 | 4.71 | 4.99 |
| MIN | 2.89 | 2.90 | 2.92 | 3.21 | 3.43 | --- | 5.51 | 6.25 | 6.07 | 5.29 | 4.67 | 4.60 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--295357081294301. Local Number SJ-77. Engel Well near Molasses Junction, FL.

LOCATION.--Lat 29°53'57", long 81°29'43", in NE¼NE¼NE¼ sec. 17, T.7 S., R.28 E., Hydrologic Unit 03080103, in ditch on the west side of Alternate State Road 13, and 0.4 mi south of State Road 208. Owner: Mr. Engel.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth and casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 4 in. tee at land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.50 ft above land-surface datum, May 12, 1980; lowest measured, 1.52 ft above land-surface datum, May 4, 1987. Water level observed below land-surface datum, Mar. 26, 1990 but could not be measured.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1145 | -11.00 | 18... | 0915 | -5.30 |
| DEC | | | JUL | | |
| 04... | 0835 | -10.80 | 23... | 1140 | -7.90 |
| JAN | | | | | |
| 22... | 0950 | -11.40 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--295502081175401. Local Number SJ-91. P.J. Manucy Well near St. Augustine, FL.

LOCATION.--Lat 29°55'02", long 81°17'54", in NE¼NE¼NE¼ sec.8, T.7 S., R.30 E., Hydrologic Unit 03080201, 150 ft north of State Highway A1A, and 150 ft east of Vilano Beach Bridge, and 2.5 mi northeast of St. Augustine. Owner: P.J. Manucy.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 198 ft, cased to 195 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 5.09 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. tee, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.20 ft NGVD, May 13, 1980; lowest measured, 17.50 ft NGVD, May 6, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1125 | 24.99 | 17... | 0940 | 20.29 |
| NOV | | | 30... | 1130 | 19.69 |
| 29... | 1020 | 24.79 | JUN | | |
| JAN | | | 26... | 1210 | 21.29 |
| 04... | 1100 | 23.69 | JUL | | |
| 31... | 1120 | 24.69 | 23... | 0700 | 20.69 |
| FEB | | | AUG | | |
| 26... | 1135 | 24.49 | 27... | 1130 | 21.19 |
| MAR | | | SEP | | |
| 28... | 1225 | 21.49 | 13... | 0930 | 21.29 |
| APR | | | 26... | 1150 | 20.89 |
| 30... | 1240 | 21.79 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--295713081203401. Local Number SJ-89. Airport Well near St. Augustine, FL.

LOCATION.--Lat 29°57'13", long 81°20'34", in land grant 50, T.6 S., R.29 E., Hydrologic Unit 03080201, at pump-house at St. Augustine Airport on U.S. Highway 1, 2.5 mi north of St. Augustine. Owner: St. Augustine Airport Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 350 ft, cased to 190 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 4 in. tee at land-surface datum.

PERIOD OF RECORD.--May 1978 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.00 ft above land-surface datum, Nov. 28, 1983, Jan. 30, 1984; lowest measured, 15.80 ft above land-surface datum, April 26, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1145 | -21.80 | 15... | 1215 | -17.00 |
| NOV | | | 30... | 1150 | -16.90 |
| 29... | 1110 | -21.40 | JUN | | |
| JAN | | | 26... | 1230 | -18.00 |
| 04... | 1150 | -20.70 | JUL | | |
| 31... | 1140 | -21.00 | 24... | 0655 | -18.00 |
| FEB | | | AUG | | |
| 26... | 1155 | -20.90 | 27... | 1030 | -18.60 |
| MAR | | | SEP | | |
| 28... | 1245 | -17.50 | 12... | 0845 | -18.40 |
| APR | | | 26... | 1250 | -18.20 |
| 30... | 1150 | -17.50 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--300019081363301. Local Number SJ-3. Peacock Well near Orangedale, FL.

LOCATION.--Lat 30°00'19", long 81°36'33", in land grant 37, T.6 S., R.27 E., Hydrologic Unit 03080103, 300 ft west of State Highway 13, and 0.3 mi southeast of intersection of State Highways 16 and 13 in Orangedale.
Owner: W.B. Copeland.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 500 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 21 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of 3 in. tee, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--March 1968, June 1970 to May 1972 (monthly); May 1974 and May 1976 (annually); May 1977 to June 1986 (semiannually); July 1986 to current year (bimonthly). Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.50 ft above land-surface datum, May 12, 1980; lowest measured, 5.53 ft above land-surface datum, Mar. 23, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1115 | -10.90 | 14... | 1220 | -7.30 |
| DEC | | | 18... | 0830 | -6.69 |
| 04... | 0805 | -10.90 | JUL | | |
| JAN | | | 23... | 1215 | -7.50 |
| 22... | 0925 | -11.50 | SEP | | |
| MAR | | | 13... | 1045 | -8.70 |
| 23... | 0830 | -5.53 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--300354081301201. Local Number SJ-26. Wilson Well near Sampson, FL.

LOCATION.--Lat 30°03'54", long 81°30'12", in SW¼NE¼SE¼ sec. 17, T. 5 S., R.28 E., Hydrologic Unit 03080103, 250 ft north of State Road 210 and 0.5 mi west of Interstate 95 in Sampson. Owner: M.J. Wilson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 362 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. cross, 1.3 ft above land-surface datum.

PERIOD OF RECORD.--June 1969 to May 1976, May 1977 to September 1978 and May 1980 to September 1985 (semiannually); May 1986 to current year (bimonthly). Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.60 ft above land-surface datum, May 12, 1980; lowest measured, 7.50 ft above land-surface datum, May 12, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1100 | -11.50 | 14... | 1330 | -9.50 |
| DEC | | | 18... | 0745 | -8.40 |
| 04... | 0730 | -12.20 | JUL | | |
| JAN | | | 23... | 1235 | -8.80 |
| 22... | 0900 | -12.50 | SEP | | |
| MAR | | | 12... | 1245 | -10.10 |
| 23... | 0800 | -8.60 | | | |

Note.--Negative figures indicate water level above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--300717081381001. Local Number SJ-15. S.L. Chavez Well near Mandarin, FL.

LOCATION.--Lat 30°07'17", long 81°38'10", in NE¼SW¼SW¼ sec. 30, T.4 S., R.27 E., Hydrologic Unit 03080103, on the north side of Fruit Cove Road, 0.6 mi west of the intersection of State Road 13 and Fruit Cove Road, 3.7 mi south of old Mandarin Post Office. Owner: S.L. Chavez.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 580 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 8.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 3 in. tee, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--1974, 1977 to 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.90 ft above land-surface datum, May 12, 1980; lowest measured, 17.90 ft above land-surface datum, Apr. 26, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1245 | -25.00 | 14... | 1415 | -19.00 |
| NOV | | | 30... | 1300 | -18.20 |
| 29... | 1215 | -24.70 | JUN | | |
| JAN | | | 26... | 1450 | -19.70 |
| 04... | 1255 | -23.30 | JUL | | |
| 31... | 1245 | -24.40 | 30... | 1355 | -18.70 |
| FEB | | | AUG | | |
| 26... | 1310 | -24.00 | 27... | 0910 | -18.50 |
| MAR | | | SEP | | |
| 28... | 1400 | -21.20 | 13... | 1145 | -18.80 |
| APR | | | 26... | 1425 | -19.20 |
| 30... | 1115 | -20.60 | | | |

Note.--Negative figures indicate water levels above land surface.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ST. JOHNS COUNTY

WELL NUMBER.--300758081230501. Local Number SJ-5. G. Oesterreicher Well near Palm Valley, FL.

LOCATION.--Lat 30°07'58", long 81°23'05", in land grant 54, T.4 S., R.29 E., Hydrologic Unit 03080201, 100 ft east of the Intracoastal Waterway, 250 ft northwest of State Highways 210 and 210A, and 2.8 mi south of Palm Valley. Owner: D. Cowgill.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 350 ft, cased to 180 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage by USGS personnel.

DATUM.--Land-surface datum is 4.53 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 4 in. gate valve, 2.18 ft above land-surface datum.

PERIOD OF RECORD.--1934, 1940, 1944 to 1946 (annually); 1947 to 1963 (bimonthly); 1964 to 1980 (annually); May 1981 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.73 ft NGVD, Nov. 9, 1948; lowest measured, 29.51 ft NGVD, May 30, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | 1045 | 35.01 | 14... | 0710 | 30.41 |
| NOV | | | 30... | 1025 | 29.51 |
| 29... | 0950 | 34.91 | JUN | | |
| JAN | | | 26... | 1100 | 29.61 |
| 04... | 1025 | 33.61 | JUL | | |
| 31... | 1045 | 34.61 | 26... | 0720 | 29.61 |
| FEB | | | AUG | | |
| 26... | 1055 | 34.81 | 27... | 1210 | 30.31 |
| MAR | | | SEP | | |
| 28... | 0845 | 33.31 | 10... | 1045 | 30.31 |
| APR | | | 26... | 1040 | 30.21 |
| 30... | 1325 | 30.91 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

ST JOHNS COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 294334081270801 | 05-16-90 09-12-90 | 1351 0729 | SJ-84 FORTNER NR SPUDS | 13.64 18.00 |
| 294518081181401 | 05-17-90 09-13-90 | 0834 0735 | SJ-164 | 12.93 14.36 |
| 294602081151901 | 05-17-90 09-12-90 | 0845 0800 | SJ-94 HOWARD AT CRESCENT BEACH | 9.60 10.60 |
| 294702081263201 | 09-12-90 | 1350 | 9471261 | 20.34 |
| 294927081192501 | 05-17-90 09-13-90 | 0820 0850 | SJ-97 CORBETT NR MOULTRIE CREEK | 24.70 23.20 |
| 295105081300401 | 09-13-90 | 1024 | SJ-118 AT MOLASSES JUNCTION | 35.10 |
| 295132081164801 | 05-17-90 09-12-90 | 0910 0830 | SJ-92 ANASTASIA WATER PLANT | 14.98 14.48 |
| 295333081191401 | 05-17-90 | 0930 | SJ-90 MARSH NR ST. AUGUSTINE | 14.35 |
| 295556081342101 | 09-13-90 | 1047 | SJ-19 | 33.60 |
| 295903081334301 | 05-14-90 09-13-90 | 1200 1100 | SJ-119 (SUB FOR SJ-11) | 24.20 28.80 |
| 300036081213501 | 05-14-90 09-12-90 | 1130 0900 | SJ-88 CHARD NR STOKEE CREEK | 30.00 29.80 |
| 300307081234201 | 05-14-90 09-12-90 | 1115 0915 | SJ-99 BOREHOLE MINE ON PINE ISLAND RD | 36.00 36.40 |
| 300322081342801 | 05-14-90 09-12-90 | 1300 1300 | SJ-24 | 32.35 33.95 |
| 300341081395401 | 05-14-90 09-13-90 | 1245 1130 | SJ-12 | 26.60 29.40 |
| 300507081272701 | 05-14-90 | 1050 | SJ-163 SJRWMD DURBIN OBSERVATION WELL | 33.60 |
| 300632081334301 | 05-14-90 09-12-90 | 1400 1220 | SJ-27 | 34.10 33.70 |
| 301005081225901 | 05-14-90 09-10-90 | 0800 1010 | SJ-55 SAWGRASS NR PALM VALLEY | 13.60 13.80 |
| 301037081243901 | 05-14-90 09-13-90 | 0945 0930 | SJ-10 | 25.20 24.80 |
| 301212081252401 | 05-14-90 09-13-90 | 0920 0910 | SJ-63 DEE DOT RANCH AT BULL PEN | 36.50 36.10 |
| 301249081225801 | 05-14-90 09-10-90 | 0850 0925 | SJ-0122 | 21.85 21.35 |
| 301304081222701 | 05-14-90 09-10-90 | 0945 1205 | SJ-0103 PONTE VEDRA UTILITIES AT S PLANT | 20.75 21.35 |
| 301408081253101 | 05-14-90 09-13-90 | 0900 0845 | SJ-60 DEE DOT RANCH AT CRACKER LODGE | 24.90 23.50 |
| 301411081224201 | 05-14-90 09-10-90 | 1100 1140 | SJ-0047 | 28.30 28.30 |

WATER RESOURCES DATA - FLORIDA, 1990
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KEY TO SITE LOCATIONS ON FIGURE 39
SEMINOLE COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 284147081220201 | 314 |
| 2 | 284247081070801 | 314 |
| 2 | 284247081070802 | 315 |
| 3 | 284750081132301 | 315 |

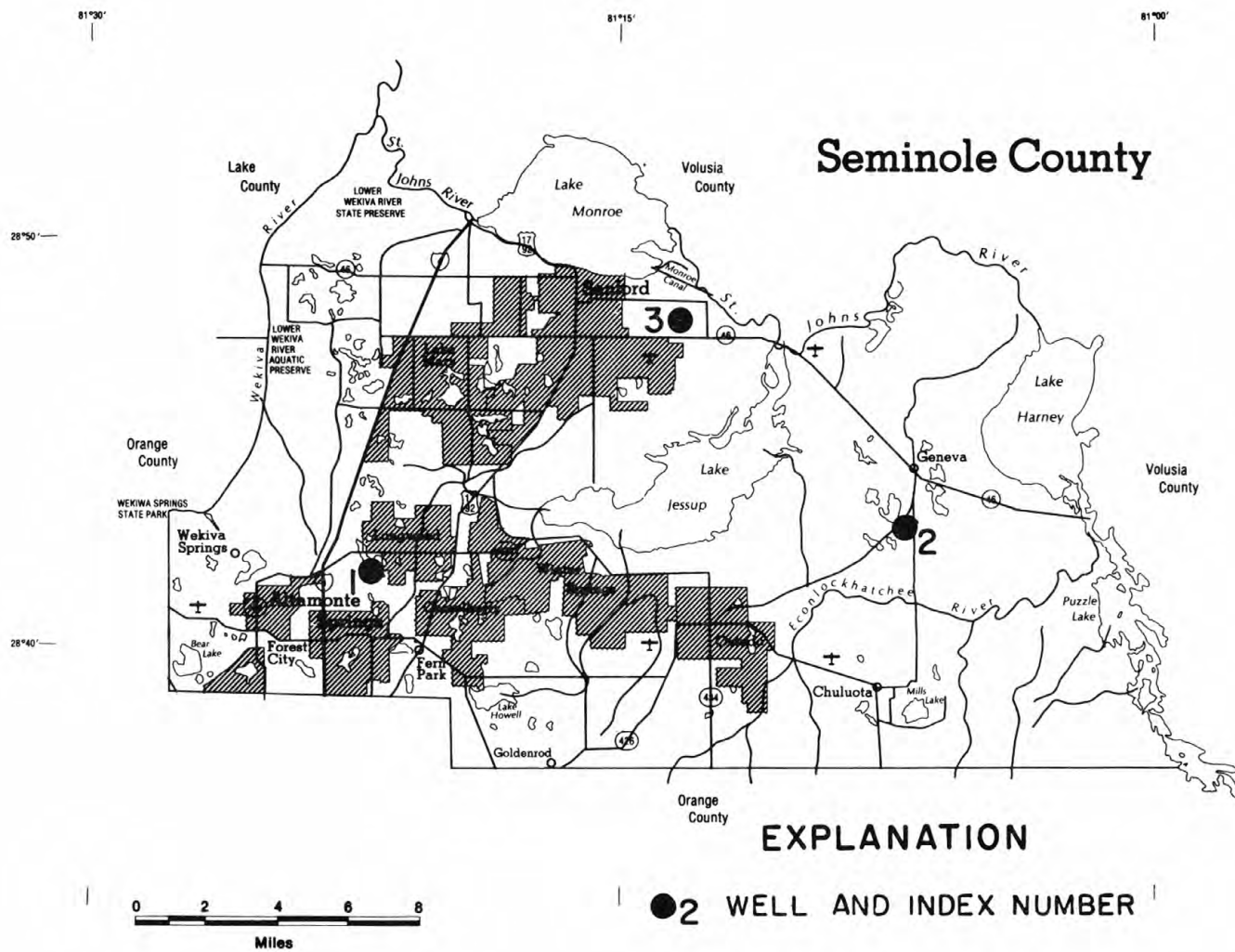


Figure 39.--Location of wells in Seminole County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SEMINOLE COUNTY

WELL NUMBER.--284147081220201. Seminole 125 Well at Longwood, FL.

LOCATION.--Lat 28°41'47", long 81°22'02", in NW¼NE¼ sec.1, T.21 S., R.29 E., Hydrologic Unit 03080101, 500 ft south of State Highway 434, at a point 1.3 mi west of State Highway 427 in Longwood. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 146 ft., cased to 63 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 85.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf. 1.26 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1952 (monthly); November 1952 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.80 ft NGVD, Sept. 30, 1960; lowest, 32.57 ft NGVD, May 18, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL NUMBER.--284247081070801. Geneva Well S-0001 near Geneva, FL.

LOCATION.--Lat 28°42'47", long 81°07'08", in SW1/4NW1/4 sec.33, T.20 S., R.32 E., Hydrologic Unit 03080101, 50 ft southeast of County Road 426, 150 ft south of the intersection of County Road 426 and Old Mims Road, and 1.1 mi south of Geneva. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System. Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, unused, diameter 4 in., depth 204 ft. cased to 95 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 49.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Shelter floor, 1.23 ft above land-surface datum.

PERIOD OF RECORD.--November 1985 to current year. Records prior to October 1986 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.56 ft NGVD, Jan. 19, 1986; lowest, 16.83 ft NGVD, May 26, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SEMINOLE COUNTY

WELL NUMBER.--284247081070802. Geneva Well S-0002 near Geneva, FL.

LOCATION.--Lat 28°42'47", long 81°07'08", in SW¼NW¼NW¼ sec.33, T.20 S., R.32 E., Hydrologic Unit 03080101, 50 ft southeast of County Road 426, 150 ft south of the intersection of County Road 426 and Old Mims Road, and 1.1 mi south of Geneva. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geological Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, unused, diameter 2 in., depth 50 ft, cased to 45 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 49.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.77 ft above land-surface datum.

PERIOD OF RECORD.--November 1985 to current year (monthly). Records prior to October 1986 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.82 ft NGVD, Nov. 5, 1985; lowest measured, 36.13 ft NGVD, Sept. 20, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 02... | 1525 | 38.88 | 15... | 1055 | 36.58 |
| 31... | 0910 | 38.36 | 31... | 1310 | 36.43 |
| NOV | | | JUN | | |
| 29... | 1428 | 37.81 | 28... | 1315 | 36.76 |
| DEC | | | JUL | | |
| 28... | 1015 | 37.87 | 26... | 1548 | 36.86 |
| JAN | | | AUG | | |
| 30... | 1442 | 37.51 | 28... | 1336 | 36.61 |
| FEB | | | SEP | | |
| 26... | 1130 | 37.35 | 10... | 1105 | 36.35 |
| MAR | | | 20... | 1246 | 36.13 |
| 30... | 0745 | 37.17 | | | |
| APR | | | | | |
| 30... | 1330 | 36.88 | | | |

WELL NUMBER.--284750081132301. Seminole 257 Well near Sanford, FL.

LOCATION.--Lat 28°47'50", long 81°13'23", in NE¼SE¼NW¼ sec.33, T.19 S., R.31 E., Hydrologic Unit 03080101, on west side of Beardall Avenue, 0.3 mi north of State Highway 46, and 3 mi east of Sanford. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 206 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 18.61 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 7.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1951 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.45 ft NGVD, Oct. 10, 1953; lowest measured, 16.66 ft NGVD, May 18, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 13... | 0935 | 20.91 | 16... | 1220 | 17.89 |
| 14... | 1430 | 20.95 | JUL | | |
| JAN | | | 05... | 0813 | 19.23 |
| 08... | 1315 | 20.99 | AUG | | |
| MAR | | | 20... | 0940 | 20.11 |
| 05... | 0833 | 21.01 | SEP | | |
| APR | | | 11... | 0940 | 19.71 |
| 30... | 0730 | 18.99 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

SEMINOLE COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 283717081194202 | 05-17-90 09-12-90 | 1255 0935 | 83711904 LAKEMONT AVE DRAIN WELL, WINTER PARK | 40.45 43.70 |
| 283740081031401 | 05-15-90 09-10-90 | 0920 1000 | 83710302 21S33E30 | 23.67 25.62 |
| 283754081154301 | 05-17-90 09-11-90 | 1230 1435 | 83711502 21S31E30 | 37.84 40.65 |
| 283843081075501 | 05-15-90 09-10-90 | 1020 0933 | 83810706 21S32E20 | 27.30 29.40 |
| 283849081273401 | 05-17-90 09-12-90 | 1425 1020 | 83812702 | 43.09 45.63 |
| 283920081232501 | 05-17-90 09-12-90 | 1345 0955 | 83912302 21S29E14 SPANISH TRACE APTS | 39.85 42.55 |
| 283945081071901 | 05-15-90 09-10-90 | 1035 1150 | 83910702 21S32E16 | 21.87 23.57 |
| 283956081040201 | 05-15-90 09-10-90 | 0950 1030 | 83910402 21S32E13 | 13.10 14.87 |
| 283958081203401 | 05-17-90 09-12-90 | 1320 0910 | 84012002 21S30E17 | 42.89 45.64 |
| 284012081264601 | 05-17-90 09-12-90 | 1440 1040 | 84012603 21S29E07 | 40.15 42.90 |
| 284025081123001 | 05-17-90 09-11-90 | 1205 1410 | 84011201 21S31E10 | 30.57 33.00 |
| 284120081152201 | 05-17-90 | 1020 | 84111501 21S31E06 | 31.83 |
| 284125081131701 | 05-17-90 09-11-90 | 1035 1345 | 84111301 21S31E04 | 27.20 29.10 |
| 284133081105701 | 05-17-90 09-11-90 | 1115 1355 | FLORIDA AVE WELL NR OVIEDO | 18.90 20.10 |
| 284207081174401 | 05-17-90 09-11-90 | 1000 1325 | 84211703 20S30E35 | 31.16 32.77 |
| 284217081023001 | 05-15-90 09-10-90 | 1150 1200 | KILBEE NO.3 TEST NR ST JOHNS RIVER NR GENEVA | 6.20 7.62 |
| 284244081234901 | 05-17-90 09-12-90 | 1840 0815 | 84212302 20S29E34 | 29.56 31.60 |
| 284317081213401 | 05-16-90 09-12-90 | 1535 0840 | MARTIN MARIETTA | 32.17 33.55 |
| 284331081031001 | 05-15-90 09-10-90 | 1310 1235 | 84310302 20S33E30 | 8.58 10.15 |
| 284428081072602 | 05-15-90 09-10-90 | 1510 1445 | USGS AVENUE C 1.25-IN INNER MONITOR AT GENEVA | 12.27 11.68 |
| 284428081072603 | 05-15-90 09-10-90 | 1515 1450 | USGS AVENUE C 6-IN ANNULAR MONITOR AT GENEVA | 10.39 11.48 |
| 284428081155201 | 09-11-90 | 0910 | LARGENT WELL SANFORD AVE | 26.05 |
| 284434081050101 | 05-15-90 09-10-90 | 1335 1305 | 84410503 POT MAP WELL NR LK HARNEY, GENEVA | 9.87 10.68 |
| 284440081175901 | 05-16-90 09-11-90 | 1020 0845 | 84411722 20S30E15 | 31.34 32.73 |
| 284533081204801 | 05-16-90 09-11-90 | 1510 1250 | 84512005 20S30E08 | 30.14 30.04 |
| 284550081071501 | 05-15-90 09-10-90 | 1500 1430 | 84510703 CAMERON WELL NR GENEVA | 8.83 9.94 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

SEMINOLE COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 284618081095401 | 05-16-90 09-10-90 | 1135 1515 | 84610902 20S31E12 | 10.93 12.54 |
| 284626081051801 | 05-15-90 09-10-90 | 1400 1325 | K RD TEST WELL OSCEOLA RD NR GENEVA | 9.76 10.43 |
| 284645081152401 | 05-16-90 09-11-90 | 1100 0925 | 84611515 20S31E06 | 27.36 29.08 |
| 284651081193301 | 05-16-90 09-11-90 | 1440 1220 | 84611902 20S30E04 | 30.54 31.53 |
| 284706081070801 | 05-15-90 09-10-90 | 1435 1405 | 84710703 THRASHER PASTURE WELL NR GENEVA | 6.40 7.16 |
| 284712081044301 | 05-15-90 09-10-90 | 1410 1345 | 84710401 CO. LANDFILL OSCEOLA RD NR GENEVA | 7.51 7.88 |
| 284802081192701 | 05-16-90 09-11-90 | 1420 1200 | WELL JORDAN BAPTIST UPSALA RD | 23.87 24.99 |
| 284802081211101 | 05-16-90 09-11-90 | 1405 1145 | 84812106 19S30E31 | 28.30 29.57 |
| 284802081242101 | 05-16-90 09-11-90 | 1350 1120 | VIA HERMOSA WELL | 23.01 24.04 |
| 284945081244201 | 05-16-90 09-11-90 | 1330 1055 | 84912407 19S29E39 | 12.03 13.78 |
| 284954081201101 | 05-16-90 09-11-90 | 1255 1010 | ANDERSON WELL MISSOURI ST | 23.75 24.90 |
| 285002081215101 | 05-16-90 09-11-90 | 1310 1025 | 85012101 19S29E38 STEVE CAIN | 19.60 16.29 |

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KEY TO SITE LOCATIONS ON FIGURE 40
SUMTER COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 281951082012001 | 320 |
| 1 | 281951082012002 | 321 |
| 1 | 281951082012003 | 322 |
| 2 | 282127082022501 | 323 |
| 3 | 282152082011201 | 323 |
| 3 | 282152082011202 | 324 |
| 4 | 282740082012101 | 325 |
| 4 | 282740082012102 | 326 |
| 5 | 282741081585701 | 327 |
| 6 | 283638082025701 | 328 |
| 6 | 283638082025702 | 328 |
| 7 | 284619082035101 | 329 |
| 8 | 285121082112201 | 330 |
| 9 | 285207082014501 | 330 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--281951082012003. Green Swamp Well L11MS near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE¼NE¼NE¼ sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpressco, and 12 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 1.50 in., depth 9 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 92.67 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.50 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.67 ft NGVD, Aug. 23, 1977; lowest measured, 85.07 ft NGVD, June 9, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 25... | -- | 88.31 | 14... | 0945 | 87.38 |
| NOV | | | 23... | -- | 86.40 |
| 29... | -- | 87.35 | JUN | | |
| DEC | | | 20... | -- | 86.01 |
| 20... | -- | 91.89 | JUL | | |
| JAN | | | 25... | -- | 91.37 |
| 24... | -- | 89.87 | AUG | | |
| FEB | | | 29... | -- | 92.57 |
| 21... | -- | 89.92 | SEP | | |
| MAR | | | 10... | 1005 | 90.07 |
| 21... | -- | 88.42 | 26... | -- | 88.07 |
| APR | | | | | |
| 25... | -- | 86.91 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--281951082012002. Green Swamp Well L11MM near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE&NE&NE& sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpressco, and 12 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 18 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 92.76 ft above National Geodetic Vertical Datum of 1929. Prior to February 1981 at same site at datum 0.21 ft higher. Measuring point: Hole in casing at land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to September 1986 (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.06 ft NGVD, Mar. 30, 1983; lowest measured, 84.43 ft NGVD, June 9, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 25... | -- | 88.77 | 14... | 0950 | 86.11 |
| NOV | | | 23... | -- | 86.07 |
| 29... | -- | 88.29 | JUN | | |
| DEC | | | 20... | -- | 85.97 |
| 20... | -- | 90.04 | JUL | | |
| JAN | | | 25... | -- | 90.30 |
| 24... | -- | 90.11 | AUG | | |
| FEB | | | 29... | -- | 91.15 |
| 21... | -- | 89.79 | SEP | | |
| MAR | | | 10... | 1010 | 89.66 |
| 21... | -- | 88.61 | 26... | -- | 88.77 |
| APR | | | | | |
| 25... | -- | 87.07 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--281951082012001. Green Swamp Well L11MD near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE¼NE¼NE¼ sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpressco, and 12 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 92.80 ft above National Geodetic Vertical Datum of 1929. Prior to February 1981 at same site at datum 0.04 ft higher. Measuring point: Hole in casing at land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 91.84 ft NGVD, Sept. 13, 1985; lowest measured, 84.50 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 25... | -- | 88.47 | 14... | 0900 | 86.27 |
| NOV | | | 23... | -- | 85.79 |
| 29... | -- | 87.62 | JUN | | |
| DEC | | | 20... | -- | 85.67 |
| 20... | -- | 89.75 | JUL | | |
| JAN | | | 25... | -- | 90.01 |
| 24... | -- | 89.84 | AUG | | |
| FEB | | | 29... | -- | 90.86 |
| 21... | -- | 89.49 | SEP | | |
| MAR | | | 10... | 1010 | 89.80 |
| 21... | -- | 88.82 | 26... | -- | 88.46 |
| APR | | | | | |
| 25... | -- | 86.79 | | | |

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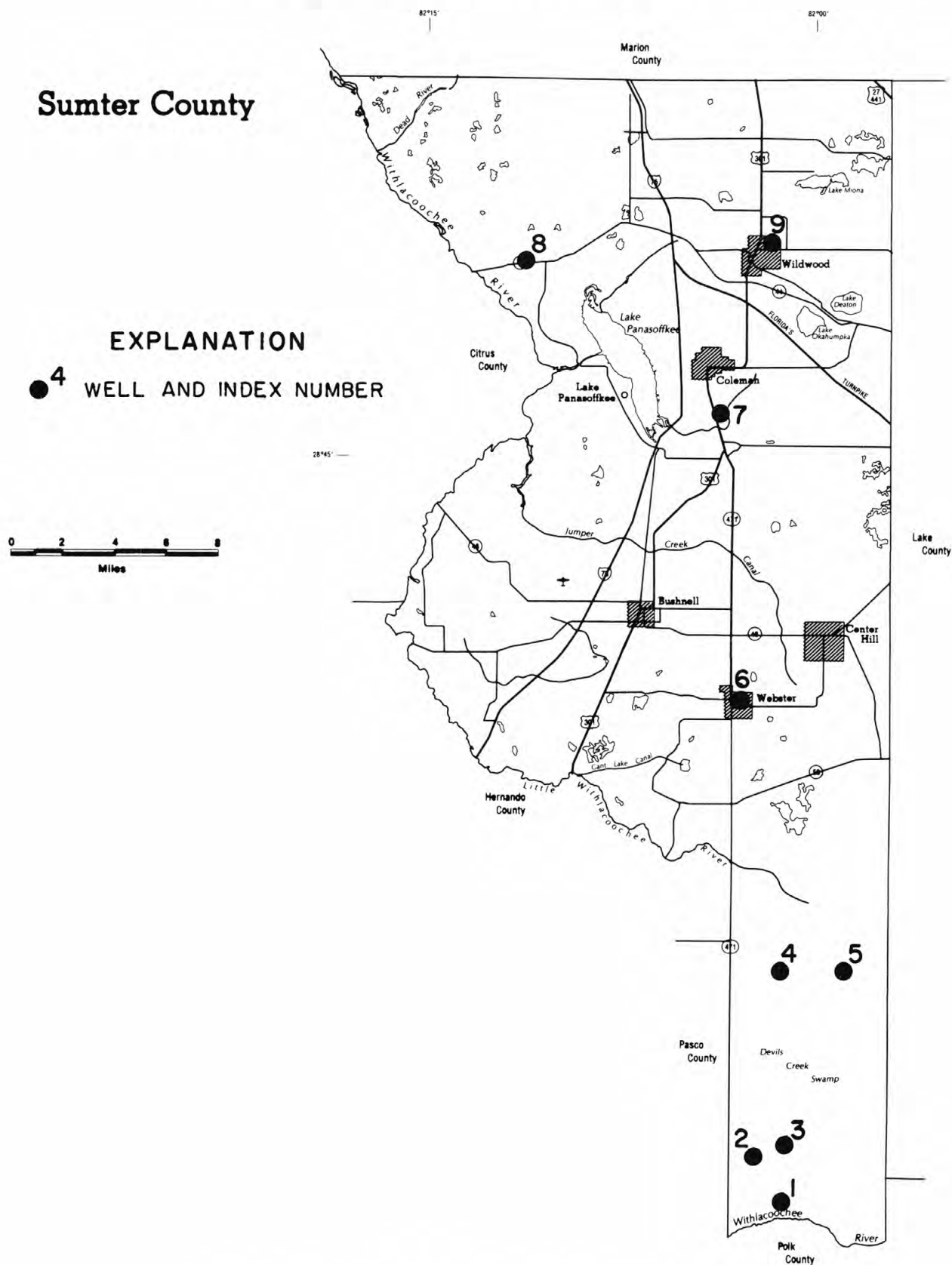


Figure 40.--Location of wells in Sumter County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282127082022501. Cumpressco Ranch Well near Tarrytown, FL.

LOCATION.--Lat 28°21'27", long 82°02'25", in SE¼NE¼NE¼ sec.31, T.24 S., R.23 E., Hydrologic Unit 03100208, in pasture, 600 ft south of Main Line Road, 1.6 mi east of State Highway 471, and 13.6 mi south of Tarrytown. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 143 ft, cased to 20 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 97.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.01 ft above land-surface datum.

PERIOD OF RECORD.--March 1959 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 94.95 ft NGVD, Mar. 30, 1987; lowest, 84.37 ft NGVD, June 12, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 91.53 | 89.35 | 89.53 | 92.57 | 90.92 | 91.62 | 89.77 | 87.96 | 87.23 | 90.56 | 91.84 | 92.87 |
| 10 | 91.04 | 89.16 | 90.43 | 92.23 | 90.81 | 91.25 | 89.40 | 87.76 | 87.09 | 89.53 | 91.75 | 91.89 |
| 15 | 90.71 | 88.97 | 90.59 | 91.79 | 91.34 | 90.92 | 89.12 | 88.02 | 87.03 | 93.09 | 92.65 | 91.49 |
| 20 | 90.26 | 89.63 | 92.34 | 91.58 | 91.03 | 90.55 | 88.68 | 87.87 | 87.05 | 92.07 | 91.70 | 91.16 |
| 25 | 89.97 | 89.53 | 92.80 | 91.37 | 92.55 | 90.13 | 88.48 | 87.57 | 89.48 | 92.31 | 94.02 | 90.71 |
| EQM | 89.65 | 89.75 | 92.14 | 91.07 | 92.16 | 89.92 | 88.24 | 87.39 | 89.82 | 91.48 | 93.44 | 91.22 |
| MAX | 91.84 | 89.78 | 93.10 | 92.61 | 92.64 | 92.07 | 89.98 | --- | 90.20 | 93.09 | 94.02 | 93.47 |
| CAL YR 1989 | MAX 94.21 | | | | | | | | | | | |

WELL NUMBER.--282152082011201. Green Swamp Well L11KD near Dade City, FL.

LOCATION.--Lat 28°21'52", long 82°01'12", in SW¼NW¼NE¼ sec.33, T.24 S., R.23 E., Hydrologic Unit 03100208, 1,800 ft north of East Grade Road, 1.3 mi northeast of Cumpressco, and 11 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 36 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 93.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.72 ft NGVD, Sept. 20, 1979; lowest measured, 85.30 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 25... | -- | 89.63 | 25... | -- | 88.98 |
| NOV | | | MAY | | |
| 29... | -- | 89.93 | 23... | -- | 88.43 |
| DEC | | | JUN | | |
| 20... | -- | 91.16 | 20... | -- | 88.22 |
| JAN | | | JUL | | |
| 24... | -- | 91.21 | 25... | -- | 91.85 |
| FEB | | | AUG | | |
| 21... | -- | 91.13 | 29... | -- | 92.27 |
| MAR | | | SEP | | |
| 21... | -- | 90.69 | 26... | -- | 90.92 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282152082011202. Green Swamp Well L11KS near Dade City, FL.

LOCATION.--Lat 28°21'52", long 82°01'12", in SW¼NW¼NE¼ sec.33, T.24 S., R.23 E., Hydrologic Unit 03100208, 1,800 ft north of East Grade Road, 1.3 mi northeast of Cumpressco, and 11 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 17 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 93.08 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.15 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.23 ft NGVD, May 20, 1987; lowest measured, 85.29 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 25... | -- | 89.62 | 25... | -- | 88.98 |
| NOV | | | MAY | | |
| 29... | -- | 89.92 | 23... | -- | 88.38 |
| DEC | | | JUN | | |
| 20... | -- | 91.13 | 20... | -- | 88.21 |
| JAN | | | JUL | | |
| 24... | -- | 91.19 | 25... | -- | 91.85 |
| FEB | | | AUG | | |
| 21... | -- | 91.13 | 29... | -- | 92.23 |
| MAR | | | SEP | | |
| 21... | -- | 90.68 | 26... | -- | 90.91 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282740082012101. Green Swamp Well L12BD near Bay Lake, FL.

LOCATION.--Lat 28°27'40", long 82°01'21", in SE¼NW¼NE¼ sec.28, T.23 S., R.23 E., Hydrologic Unit 03100208, on south side of Center Grade Road, 2.1 mi east of State Highway 471, 2.8 mi east of Clay Sink, and 7 mi west of Bay Lake. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 30 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 93.12 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.48 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.83 ft NGVD, Feb. 16, 1983; lowest measured, 84.90 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 30... | -- | 88.07 | 14... | 0850 | 86.91 |
| NOV | | | 29... | -- | 86.08 |
| 28... | -- | 87.85 | JUN | | |
| DEC | | | 25... | -- | 90.41 |
| 28... | -- | 90.52 | JUL | | |
| JAN | | | 30... | -- | 90.40 |
| 30... | -- | 89.91 | AUG | | |
| FEB | | | 27... | -- | 91.16 |
| 26... | -- | 91.14 | SEP | | |
| MAR | | | 10... | 0855 | 90.75 |
| 26... | -- | 88.91 | 24... | -- | 90.32 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282740082012102. Green Swamp Well L12BS near Bay Lake, FL.

LOCATION.--Lat 28°27'40", long 82°01'21", in SE¼NW¼NE¼ sec.28, T.23 S., R.23 E., Hydrologic Unit 03100208, on south side of Center Grade Road, 2.1 mi east of State Highway 471, 2.8 mi east of Clay Sink, and 7 mi west of Bay Lake. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 10 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by Southwest Florida Water Management District.

DATUM.--Land-surface datum is 93.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.45 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District since October 1983.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.07 ft NGVD, Sept. 13, 1985; lowest measured, 84.86 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAR | | |
| 16... | -- | 88.81 | 12... | -- | 90.01 |
| 30... | -- | 88.07 | 26... | -- | 88.89 |
| NOV | | | APR | | |
| 13... | -- | 87.54 | 30... | -- | 87.55 |
| 28... | -- | 87.82 | MAY | | |
| DEC | | | 14... | 0845 | 86.89 |
| 11... | -- | 88.73 | 29... | -- | 86.08 |
| 28... | -- | 90.51 | JUN | | |
| JAN | | | 25... | -- | 90.41 |
| 15... | -- | 90.41 | JUL | | |
| 30... | -- | 89.90 | 30... | -- | 90.40 |
| FEB | | | AUG | | |
| 12... | -- | 90.13 | 27... | -- | 91.16 |
| 26... | -- | 91.13 | SEP | | |
| | | | 10... | 0850 | 90.75 |
| | | | 24... | -- | 90.32 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282741081585701. Withlacoochee State Forest Green Swamp Well near Bay Lake, FL.

LOCATION.--Lat 28°27'41", long 81°58'57", in NE¼NE¼NW¼ sec.26, T.23 S., R.23 E., Hydrologic Unit 03100208, in Withlacoochee State Forest, at southwest corner of Center and South Loop Roads, 4.8 mi east of State Highway 471, and 4.8 mi west of Bay Lake. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 175 ft, cased to 99 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 96.94 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

COOPERATION.--Records provided by Southwest Florida Water Management District from October 1983 to September 1985.

PERIOD OF RECORD.--July 1959, September 1964 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1986 to current year (bimonthly). Records prior to January 1974 are unpublished and are available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.50 ft NGVD, July 8, 1974; lowest measured, 90.17 ft NGVD, June 3, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JUN | | |
| 26... | 0955 | 92.43 | 06... | 1035 | 91.79 |
| DEC | | | AUG | | |
| 21... | 1140 | 93.53 | 02... | 1050 | 94.27 |
| FEB | | | SEP | | |
| 15... | 1015 | 93.66 | 10... | 0910 | 94.67 |
| APR | | | 27... | 1015 | 94.01 |
| 19... | 0945 | 92.43 | | | |
| MAY | | | | | |
| 14... | 0850 | 91.64 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--283638082025701. Webster City Well at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW¼SE¼SW¼ sec.31, T.21 S., R.23 E., Hydrologic Unit 03100208, near town water tank at east end of Main Street in Webster. Owner: City of Webster.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 423 ft, cased to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 92.38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in. riser pipe, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.94 ft NGVD, Jan. 8, 1970; lowest measured, 74.48 ft NGVD, July 20, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JUN | | |
| 25... | 1225 | 83.09 | 06... | 0840 | 80.53 |
| DEC | | | AUG | | |
| 20... | 1235 | 82.31 | 01... | 1315 | 81.95 |
| FEB | | | SEP | | |
| 14... | 1340 | 83.11 | 27... | 0930 | 80.48 |
| APR | | | | | |
| 18... | 1210 | 81.91 | | | |

WELL NUMBER.--283638082025702. Webster City Recorder Well at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW¼SE¼SW¼ sec.31, T.21 S., R.23 E., Hydrologic Unit 03100208, 100 ft west of town water tank at east end of Main Street in Webster. Owner: City of Webster.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 341 ft, cased to 174 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 91.85 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 0.94 ft above land-surface datum.

PERIOD OF RECORD.--April to September 1978; October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 88.30 ft NGVD, Apr. 25, 1983; lowest, 74.45 ft NGVD, July 20, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 84.07 | 82.78 | 81.93 | 83.26 | 82.64 | 83.48 | 82.46 | 81.63 | 80.55 | 82.04 | 81.82 | 81.19 |
| 10 | 83.88 | 82.67 | 81.94 | 83.37 | 82.71 | 83.24 | 82.24 | 81.45 | 80.53 | 81.84 | 81.55 | 80.99 |
| 15 | 83.65 | 82.49 | 81.88 | 83.29 | 83.07 | 83.05 | 82.13 | 81.25 | 80.49 | 82.21 | 81.53 | 80.85 |
| 20 | 83.43 | 82.28 | 82.39 | 83.17 | 82.94 | 82.77 | 81.91 | 81.05 | 80.39 | 82.38 | 81.37 | 80.67 |
| 25 | 83.25 | 82.14 | 83.16 | 83.05 | 83.61 | 82.58 | 81.83 | 80.85 | 80.81 | 82.24 | 81.30 | 80.51 |
| EOM | 82.97 | 82.07 | 83.23 | 82.82 | 83.69 | 82.60 | 81.79 | 80.55 | 81.31 | 82.00 | 81.24 | 80.44 |
| MAX | 84.22 | 82.96 | 83.23 | 83.39 | 83.69 | 83.68 | 82.62 | 81.78 | 81.31 | 82.43 | 81.93 | 81.23 |

CAL YR 1989 MAX 85.85
WTR YR 1990 MAX 84.22

WELL NUMBER.--284619082035101. ROMP 111 Well at Tompkins Park near Coleman, FL.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--285121082112201. Sumter 13 Well near Wildwood, FL.

LOCATION.--Lat 28°51'21", long 82°11'22", in NW¼NE¼NE¼ sec.10, T.19 S., R.21 E., Hydrologic Unit 03100208, on south side of State Highway 44, 2.0 mi east of Withlacoochee River, and 9.1 mi west of Wildwood. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 31 ft, cased to 26 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 50.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1964 to July 1973 (bimonthly); August 1973 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 47.16 ft NGVD, Oct. 6, 1982; lowest, 38.41 ft NGVD, Oct. 24, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 42.24 | 40.79 | 40.46 | 42.79 | 41.76 | 42.33 | 41.23 | 40.08 | 39.13 | 39.81 | 40.56 | 42.20 |
| 10 | 41.93 | 40.82 | 40.71 | 43.04 | 41.69 | 42.04 | 41.06 | 39.93 | 39.01 | 39.57 | 41.07 | 41.60 |
| 15 | 41.67 | 40.74 | 40.88 | 42.64 | 41.74 | 41.77 | 40.93 | 39.77 | 38.97 | 39.55 | 41.11 | 41.23 |
| 20 | 41.43 | 40.60 | 41.31 | 42.38 | 41.61 | 41.49 | 40.68 | 39.59 | 38.88 | 39.78 | 40.85 | 40.98 |
| 25 | 41.19 | 40.53 | 42.10 | 42.14 | 42.69 | 41.26 | 40.49 | 39.40 | 39.79 | 40.50 | 41.12 | 40.61 |
| EOM | 40.99 | 40.62 | 41.92 | 41.92 | 42.69 | 41.32 | 40.31 | 39.23 | 39.89 | 40.56 | 42.19 | 40.57 |
| MAX | 42.38 | 40.94 | 42.11 | 43.11 | 42.71 | 42.64 | 41.35 | 40.26 | 39.92 | 40.60 | 42.19 | 42.45 |

CAL YR 1989 MAX 42.94

WTR YR 1990 MAX 43.11

WELL NUMBER.--285207082014501. Masters Avenue City Well at Wildwood, FL.

LOCATION.--Lat 28°52'07", long 82°01'45", in SE¼SE¼NW¼ sec.5, T.19 S., R.23 E., Hydrologic Unit 03100208, 100 ft east of Masters Avenue, and 600 ft north of Cleveland Avenue in Wildwood. Owner: City of Wildwood.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 125 ft, cased to 45 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 82.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Bottom edge of 2 in. vent pipe, 1.48 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to January 1978 (bimonthly); February 1978 to October 1979; November 1979 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.86 ft NGVD, Sept. 15, 1964; lowest measured, 45.18 ft NGVD, Dec. 14, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| NOV | | | MAY | | |
| 07... | 1735 | 47.50 | 18... | 0830 | 46.85 |
| JAN | | | JUN | | |
| 04... | 1520 | 47.02 | 12... | 1315 | 46.68 |
| MAR | | | AUG | | |
| 08... | 1352 | 47.75 | 09... | 1248 | 48.55 |
| APR | | | SEP | | |
| 20... | 1316 | 47.53 | 13... | 1200 | 47.69 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

SUMTER COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 283324082050601 | 05-14-90 09-10-90 | 1035 1050 | 83320501 22S22E23 WILSON IRR WELL AT WILSON CR | 72.53 72.89 |
| 283432081592401 | 05-14-90 09-10-90 | 0820 0825 | 83415901 22S23E15 JC 51 HUGH ILEY | 86.60 85.98 |
| 283539082000301 | 05-14-90 09-10-90 | 1105 1130 | 83520001 25S23E10 JC 67 FLA ROCK IND NO 2 | 84.82 83.60 |
| 283637082081501 | 05-15-90 09-11-90 | 1005 0950 | 83620801 21S22E32 SCL RR USED 155 | 62.24 63.21 |
| 283718081580201 | 05-14-90 09-10-90 | 1230 1325 | THELMA ILEY WELL NR CENTER HILL, FL | 85.23 84.54 |
| 283829082123701 | 05-15-90 09-11-90 | 1025 1010 | 83821202 21S21E21 JC 47 N R DOKE | 42.02 42.20 |
| 283904082001601 | 05-14-90 09-10-90 | 1150 1215 | 83920001 21S23E22 JC 65 USGS | 68.65 67.93 |
| 283904082005301 | 05-14-90 09-10-90 | 1210 1230 | 83920002 21S23E21 JC 69 FLA CRUSHED STONE NO 4 | 73.92 72.09 |
| 283952082022001 | 05-15-90 09-10-90 | 0930 1245 | 83920201 21S23E18 JC 42 PARROT RANCH | 75.28 75.16 |
| 283953082051401 | 05-15-90 09-10-90 | 0940 1250 | 83920501 21S22E14 JC 36 | 73.73 74.34 |
| 284002082064201 | 05-15-90 09-10-90 | 0950 1255 | 84020602 21S22E16 JC 53 BUSHNELL | 64.91 68.25 |
| 284017082033701 | 09-11-90 | 0930 | 84020303 21S22E12 JC 38 | 71.87 |
| 284104082055801 | 05-16-90 09-12-90 | 0815 0835 | 84120505 21S22E03 JC 30 | 63.71 63.74 |
| 284114082080701 | 05-17-90 09-13-90 | 0825 0840 | BEVILLES 50 FT N OF WINDMILL | 55.49 56.08 |
| 284115082062601 | 05-16-90 09-12-90 | 0805 0815 | 84120601 21S22E04 JC 27A | 59.28 58.53 |
| 284119082034501 | 05-15-90 09-11-90 | 0905 0910 | 84120304 21S22E01 JC 44 PARROT RANCH | 75.67 74.66 |
| 284126082034501 | 05-15-90 09-11-90 | 0910 0905 | 84120305 21S22E01 JC 45 PARROT RANCH | 75.67 74.58 |
| 284131082002101 | 05-14-90 09-10-90 | 1135 1200 | STUART RANCH WELL NR CENTER HILL | 77.68 75.89 |
| 284132082092801 | 09-13-90 | 0920 | 84120901 21S21E01 JC 05 C H BEVILLE | 47.27 |
| 284143082050801 | 05-16-90 09-12-90 | 0840 0910 | 84120503 21S22E02 JC 23 C H BEVILLE | 68.76 68.50 |
| 284146082045901 | 05-16-90 09-12-90 | 0850 0915 | 84120401 21S22E02 JC 24 C H BEVILLE | 70.38 70.10 |
| 284146082061401 | 05-16-90 09-12-90 | 0800 0805 | 84120604 21S22E03 JC 32 | 58.23 58.51 |
| 284147082051301 | 05-16-90 09-12-90 | 0835 0905 | 84120507 21S22E02 JC 21 C H BEVILLE | 67.53 67.36 |
| 284147082052801 | 05-16-90 09-12-90 | 0825 0850 | 84120506 21S22E03 JC 34 | 65.02 64.94 |
| 284148082064301 | 05-15-90 09-11-90 | 1120 1100 | 84120603 21S22E04 JC 33 C H BEVILLE | 56.80 56.94 |
| 284155082043901 | 05-16-90 09-12-90 | 0850 0920 | 84120402 20S22E35 JC 25 C H BEVILLE | 72.32 71.86 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

SUMTER COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 284158082045101 | 05-16-90 09-12-90 | 0930 1110 | 84120404 20S22E35 JC 64 | 69.72 69.63 |
| 284159082081601 | 05-17-90 09-13-90 | 0840 0905 | 84120803 20S22E31 JC 62 USGS | 52.11 52.62 |
| 284208082051701 | 05-16-90 09-12-90 | 0910 1120 | 84220501 20S22E34 JC 18 C H BEVILLE | 71.25 71.08 |
| 284208082054601 | 05-16-90 09-12-90 | 0915 1130 | 84220502 20S22E34 JC 19 C H BEVILLE | 68.95 69.37 |
| 284209082060101 | 05-16-90 09-12-90 | 1120 0950 | 84220601 20S22E34 JC 20 C H BEVILLE | 60.15 59.74 |
| 284212082044301 | 05-16-90 09-12-90 | 0940 1105 | 84220403 20S22E35 JC 16 C H BEVILLE | 72.52 72.03 |
| 284212082071701 | 05-17-90 09-13-90 | 0804 0820 | 84220702 20S22E32 JC 63 USGS | 54.37 54.92 |
| 284215082092301 | 05-17-90 09-13-90 | 0905 0935 | 84220901 20S21E36 JC 61 USGS | 44.75 45.49 |
| 284237082044401 | 05-16-90 09-12-90 | 1000 1035 | 84220402 20S22E35 JC 13 C H BEVILLE | 68.02 67.95 |
| 284241082034201 | 05-16-90 09-12-90 | 0950 1050 | 84220301 20S22E36 JC 14 C H BEVILLE | 75.31 75.93 |
| 284242082054401 | 05-16-90 09-12-90 | 1130 1150 | 84220505 20S22E34 JC 09 C H BEVILLE | 60.09 60.21 |
| 284249082053101 | 05-16-90 09-12-90 | 1110 1010 | 84220504 20S22E27 JC 10 C H BEVILLE | 65.61 64.77 |
| 284258082072101 | 05-17-90 09-13-90 | 0955 1015 | 84220701 20S22E29 JC 08 C H BEVILLE | 53.03 53.34 |
| 284259082052101 | 05-16-90 09-12-90 | 1055 1025 | 84220503 20S22E27 JC 11 C H BEVILLE | 70.88 70.31 |
| 284311082081801 | 05-17-90 | 0935 | 84320801 20S22E30 JC 01 C H BEVILLE | 47.31 |
| 284317082142601 | 05-15-90 09-11-90 | 1050 1030 | 84321401 20S21E30 TRAILER PARK NW OF WAHOO | 39.47 39.65 |
| 284323082083601 | 05-17-90 09-13-90 | 0940 1000 | 84320802 20S22E30 JC 02 C H BEVILLE | 47.86 46.73 |
| 284430082063001 | 05-15-90 09-11-90 | 1135 1110 | 84420601 20S22E21 JC 72 GEO ALTMAN IRR | 42.89 42.37 |
| 284435082011701 | 05-15-90 09-11-90 | 0840 0845 | BRENTWOOD WELL NR SUMTERVILLE | 59.71 58.01 |
| 284449082055201 | 05-15-90 09-11-90 | 1100 1030 | 84420502 20S22E15 WOODWARD RESIDENCE | 40.72 40.34 |
| 284521082014901 | 05-15-90 09-11-90 | 1200 0740 | 84520101 20S23E08 JC 55 DIXIE LIME | 46.76 46.49 |
| 284528082030001 | 05-15-90 09-11-90 | 0745 0750 | DIXIE LIME NO 1 | 49.16 48.97 |
| 284531082034301 | 05-15-90 09-11-90 | 0750 0755 | DINOSAUR JUNGLE WELL NR SUMTERVILLE | 47.52 47.49 |
| 284703082001701 | 05-17-90 09-11-90 | 1255 1200 | LOWES BURNED HOUSE WELL NR ADAMSVILLE | 54.03 54.37 |
| 284756082020301 | 05-17-90 09-11-90 | 1245 1140 | 84720201 BOLLING WELL AT ADAMSVILLE | 54.28 54.93 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

SUMTER COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 284809082080701 | 05-18-90 09-13-90 | 0905 1050 | 84820801 19S22E30 HOWARD KENT | 38.54 39.03 |
| 284810082004001 | 05-17-90 09-11-90 | 1235 1150 | HOG EYE SINK WELL NR WILDWOOD | 53.09 53.46 |
| 284921082105701 | 05-17-90 09-13-90 | 1100 1100 | WYSONG DAM WELL NR CARLTON | 36.63 38.16 |
| 284955081595801 | 05-17-90 09-11-90 | 1215 1215 | BYRD TRAILER WELL NR ORANGE HOME | 62.17 63.46 |
| 285112082124001 | 05-17-90 09-13-90 | 1110 1115 | 85121201 19S21E09 JC 60 USGS | 35.05 37.04 |
| 285150082044001 | 05-17-90 09-13-90 | 1200 1140 | 85120401 19S22E02 JC 58 USGS | 45.59 46.02 |
| 285224082054201 | 05-17-90 | 1100 | 85220501 18S22E34 HORNES WELL W OF WILDWOOD | 44.91 |
| 285420081571901 | 05-18-90 09-13-90 | 0735 1250 | SMITH WELL NO 2 NR CHERRY LAKE | 50.20 50.46 |
| 285422082001901 | 05-18-90 09-13-90 | 0750 1235 | HATCHER WELL AT LAKE MIONA NR OXFORD | 44.56 44.94 |
| 285536082044001 | 05-18-90 09-13-90 | 0816 1225 | 85520401 18S22E14 G N SMITH | 44.29 45.30 |

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 41
VOLUSIA COUNTY

| Index number | Site number | Page number |
|-----------------|-----------------|----------------|
| 1 | 285512081202801 | 336 |
| 2 | 285745081054001 | 336 |
| 3 | 290541081132902 | 337 |
| 3 | 290541081132903 | 338 |
| 3 | 290541081132904 | 339 |
| 4 | 290651080582802 | 339 |
| 5 | 290920081063001 | 340 |
| 5 | 290920081063002 | 341 |
| 6 | 291006081101004 | 341 |
| 6 | 291007081101613 | 342 |
| 7 | 291025081050201 | 342 |
| 8 | 291343081254601 | 343 |
| 9 | 291344081155701 | 343 |
| 9 | 291353081160401 | 344 |
| 10 | 291748081290301 | 345 |
| 11 | 291905081251001 | 346 |

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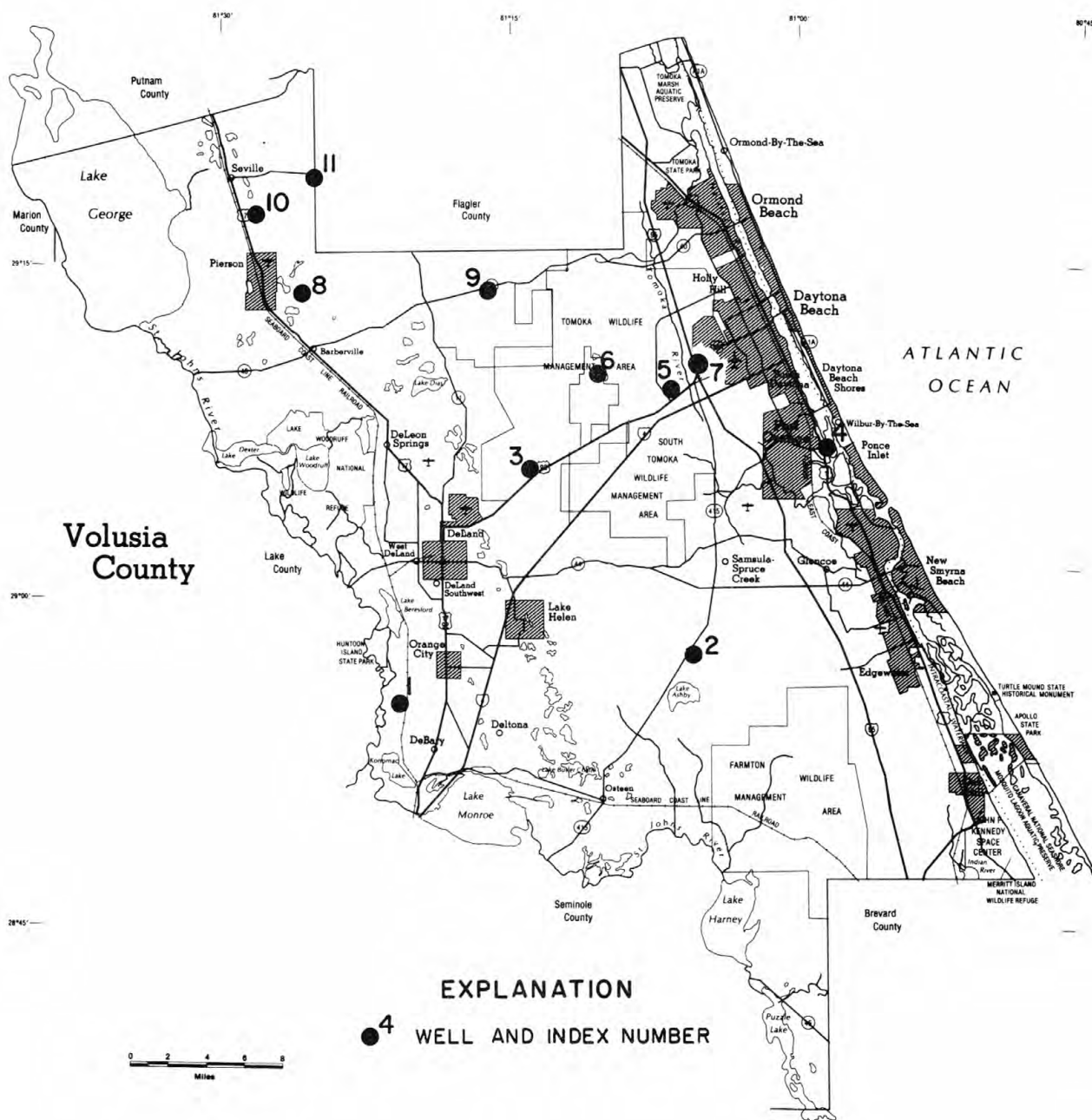


Figure 41.--Location of wells in Volusia County.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--290541081132902. USGS 04 Deep Well near De Land, FL.

LOCATION.--Lat 29°05'41", long 81°13'29", in NW¼NW¼SW¼ sec.20, T.16 S., R.31 E., Hydrologic Unit 03080103, on north side of U.S. Highway 92, and 6.0 mi east of U.S. Highway 17 in De Land. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 639 ft, cased to 85 ft. Original depth of well, 351 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 38.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 3.25 ft above land-surface datum.

PERIOD OF RECORD.--May 1955 to May 1965; June 1965 to December 1981 (bimonthly); February 1982 to September 1988 (monthly); October 1988 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 39.65 ft NGVD, Sept. 30, 1960; lowest measured, 31.99 ft NGVD, June 28, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1535 | 36.11 | 17... | 1548 | 34.87 |
| NOV | | | JUL | | |
| 17... | 1240 | 36.42 | 06... | 1100 | 33.83 |
| JAN | | | AUG | | |
| 24... | 1300 | 36.72 | 21... | 1432 | 36.60 |
| MAR | | | SEP | | |
| 06... | 1627 | 36.87 | 13... | 1100 | 35.81 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--290541081132903. USGS 05 Deep Well near De Land, FL.

LOCATION.--Lat 29°05'41", long 81°13'29", in NW¼NW¼SW¼ sec.20, T.16 S., R.31 E., Hydrologic Unit 03080103, on north side of U.S. Highway 92, and 6.0 mi east of U.S. Highway 17 in De Land. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 1,200 ft, cased to 639 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 38.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 6 in. coupling, 3.25 ft above land-surface datum.

PERIOD OF RECORD.--September 1969 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.34 ft NGVD, Mar. 9, 1970; lowest measured, 26.93 ft NGVD, June 29, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1540 | 29.29 | 01... | 1645 | 28.43 |
| NOV | | | 17... | 1550 | 27.98 |
| 17... | 1245 | 29.96 | JUL | | |
| JAN | | | 06... | 1115 | 27.68 |
| 24... | 1305 | 29.80 | AUG | | |
| MAR | | | 21... | 1442 | 28.82 |
| 06... | 1628 | 29.95 | SEP | | |
| | | | 13... | 1102 | 29.11 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--290541081132904. USGS 06 Deep Well near De Land, FL.

LOCATION.--Lat 29°05'41", long 81°13'29", in NW¼NW¼SW¼ sec.20, T.16 S., R.31 E., Hydrologic Unit 03080103, on north side of U.S. Highway 92, and 6.0 mi east of U.S. Highway 17 in De Land. Owner: U.S. Geological Survey.

AQUIFER.--Oldsmar Limestone of the Eocene Age, Geologic Unit 124 OLDM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,290 ft, cased to 1,275 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 38.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.25 ft above land-surface datum.

PERIOD OF RECORD.--September 1969 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.33 ft NGVD, Mar. 9, 1970; lowest measured, 23.04 ft NGVD, May 13, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1540 | 24.92 | 01... | 1651 | 23.62 |
| NOV | | | 17... | 1550 | 23.20 |
| 17... | 1250 | 24.56 | JUL | | |
| JAN | | | 06... | 1143 | 23.33 |
| 24... | 1610 | 25.12 | AUG | | |
| MAR | | | 21... | 1446 | 24.34 |
| 06... | 1630 | 25.28 | SEP | | |
| | | | 13... | 1105 | 24.55 |

WELL NUMBER.--290651080582802. Harbour Oaks Supply Well near Allandale.

LOCATION.--Lat 29°06'51", long 80°58'28", in sec.14, T.16 S., R.33 E., Hydrologic Unit 03080201, 140 ft north of Farmbrook Road, 200 ft west of intersection of U.S. Highway 1 and Farmbrook Road, and 0.7 mi north of Rose Bay in Harbour Oaks. Owner: Harbour Oaks Assn.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public supply well, diameter 4 in., depth 146 ft, cased to 104 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 3.72 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 6.08 ft above land-surface datum.

PERIOD OF RECORD.--August 1981 to September 1989; 1990 (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.94 ft NGVD, Mar. 18, 1983; lowest, 1.58 ft below NGVD, July 13, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | JUN | | |
| 06... | 1125 | 2.92 | 01... | 1333 | -0.57 |
| NOV | | | AUG | | |
| 16... | 1225 | 4.55 | 20... | 1541 | 0.82 |
| MAR | | | SEP | | |
| 06... | -- | 4.39 | 10... | 1520 | 1.42 |
| MAY | | | | | |
| 14... | 1535 | 0.62 | | | |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS
VOLUSIA COUNTY

WELL NUMBER.--290920081063001. USGS 6-Inch Well near Daytona Beach, FL.

LOCATION.--Lat 29°09'23", long 81°06'12", in SW¼NE¼ sec.33, T.15 S., R.32 E., Hydrologic Unit 03080201, on north side of U.S. Highway 92, 14.9 mi northeast of U.S. Highway 17 in De Land, and 6.0 mi west of Daytona Beach. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 235 ft, cased to 102 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 27.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.08 ft above land-surface datum.

PERIOD OF RECORD.--February 1955 to November 1957; January 1958 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 24.46 ft NGVD, Oct. 18, 1955; lowest measured, 9.21 ft NGVD, July 25, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1652 | 12.88 | 01... | 1606 | 12.87 |
| NOV | | | 17... | 1408 | 11.78 |
| 16... | 1430 | 15.36 | JUL | | |
| JAN | | | 06... | 1023 | 10.65 |
| 25... | 1550 | 14.91 | AUG | | |
| MAR | | | 21... | 1234 | 11.49 |
| 06... | 1545 | 14.82 | SEP | | |
| | | | 14... | 1015 | 12.30 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--290920081063002. USGS 2-Inch Well near Daytona Beach, FL.

LOCATION.--Lat 29°09'23", long 81°06'12", in SW¼NE¼ sec.33, T.15 S., R.32 E., Hydrologic Unit 03080201, on north side of U.S. Highway 92, 14.9 mi northeast of U.S. Highway 17 in De Land, and 6.0 mi west of Daytona Beach.
Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 496 ft, cased to 480 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 27.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.08 ft. above land-surface datum.

PERIOD OF RECORD.--October 1955 (annually); January 1974 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.23 ft NGVD, Oct. 18, 1955; lowest measured, 9.86 ft NGVD, July 25, 1989.

ELEVATION. IN FEET NGVD. WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 04... | 1648 | 13.06 | 01... | 1607 | 13.37 |
| NOV | | | 17... | 1410 | 11.99 |
| 16... | 1435 | 15.37 | JUL | | |
| JAN | | | 06... | 1030 | 11.02 |
| 21... | 1340 | 15.49 | AUG | | |
| MAR | | | 21... | 1243 | 12.28 |
| 06... | 1543 | 14.96 | SEP | | |
| | | | 14... | 1017 | 12.51 |

WELL NUMBER.--291006081101004. Tiger Bay Test Site 4A near Daytona, FL.

LOCATION.--Lat 29°10'06", long 81°10'10", in SE¼NE¼SW¼ sec.26, T.15 S., R.31 E., Hydrologic Unit 03080103, 2.8 mi northwest of intersection of U.S. Highway 92 and Indian Lake Road, and 9 mi west of Daytona Beach. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 222 ft, cased to 122 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 40.42 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1975 to current year. Prior to October 1984, published as Indian Lake Test Site 4A.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 31.45 ft NGVD, Oct. 30,31, Nov. 1, 1975; low-
est, 21.85 ft NGVD, Apr. 30, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 24.11 | 26.94 | 26.06 | 26.55 | 26.26 | 26.51 | 26.15 | 24.80 | 23.17 | 23.38 | 23.15 | 25.39 |
| 10 | 24.36 | 26.81 | 26.17 | 26.72 | 26.00 | 26.26 | 26.03 | 24.61 | 23.38 | 23.25 | 23.93 | 25.36 |
| 15 | 25.24 | 26.20 | 26.30 | 26.53 | 26.19 | 26.02 | 25.87 | 24.45 | 23.09 | 23.77 | 24.87 | 24.56 |
| 20 | 26.45 | 26.30 | 26.95 | 26.39 | 26.25 | 25.76 | 25.54 | 24.00 | 22.98 | 23.72 | 25.32 | 24.46 |
| 25 | 26.72 | 26.26 | 26.73 | 26.33 | 26.49 | 25.51 | 25.33 | 23.80 | 22.60 | 23.83 | 25.65 | 24.24 |
| COM | 27.09 | 26.13 | 26.42 | 26.22 | 26.80 | 26.00 | 25.25 | 23.35 | 23.26 | 23.85 | 25.78 | 24.08 |
| MAX | 27.09 | 27.08 | 26.95 | 26.75 | 26.67 | 26.69 | 26.37 | 25.15 | 23.48 | 24.27 | 26.12 | 25.70 |

WTR YR 1990 MAX 27.09

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291007081101613. Tiger Bay Shallow Test Well near Daytona Beach, FL.

LOCATION.--Lat 29°10'07", long 81°10'16", in NW¼NE¼SW¼ sec.26, T.15 S., R.31 E., Hydrologic Unit 03080103, 2.9 mi northwest of intersection of U.S. Highway 92 and Indian Lake Road, and 9 mi west of Daytona Beach. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 110 NRSD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 20 ft, cased to 18 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 41.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 38.41 ft NGVD, Sept. 28, 29, 1984; lowest, 32.99 ft NGVD, July 16, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 37.00 | 37.36 | 36.60 | 37.32 | 36.60 | 36.89 | 37.06 | 35.77 | 34.23 | 34.07 | 34.04 | 36.08 |
| 10 | 37.41 | 37.20 | 37.01 | 37.28 | 36.52 | 36.74 | 36.77 | 35.57 | 34.21 | 33.79 | 35.45 | 35.76 |
| 15 | 37.52 | 37.04 | 36.99 | 37.10 | 36.73 | 36.56 | 36.76 | 35.20 | 33.99 | 34.12 | 36.62 | 35.43 |
| 20 | 37.42 | 36.90 | 37.25 | 36.98 | 36.61 | 36.36 | 36.50 | 34.93 | 33.75 | 34.13 | 36.77 | 35.15 |
| 25 | 37.39 | 36.79 | 37.44 | 36.85 | 37.14 | 36.09 | 36.38 | 34.58 | 33.71 | 34.45 | 36.53 | 34.80 |
| EOM | 37.50 | 36.74 | 37.23 | 36.67 | 37.12 | 36.99 | 36.10 | 34.24 | 34.27 | 34.39 | 36.39 | 34.66 |
| MAX | 37.54 | 37.46 | 37.44 | 37.38 | 37.14 | 37.12 | 37.13 | 36.03 | 34.27 | 34.50 | 36.83 | 36.32 |
| CAL YR 1989 | MAX 37.54 | | | | | | | | | | | |
| WTR YR 1990 | MAX 37.54 | | | | | | | | | | | |

WELL NUMBER.--291025081050201. Interstate Highway 95 Well at Daytona Beach, FL.

LOCATION.--Lat 29°10'25", long 81°05'02", in SW¼NE¼ sec.27, T.15 S., R.32 E., Hydrologic Unit 03080201, 23 ft north and 75 ft east of intersection of Interstate Highway 95 and U.S. Highway 92 in Daytona Beach. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 220 ft, cased to 152 ft.

INSTRUMENTATION.--Digital recorder--15-minute interval.

DATUM.--Land-surface datum is 26.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.50 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1955 to July 1969; May 1973 to March 1974 (bimonthly); May 1974 to current year. Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 15.26 ft NGVD, Oct. 18, 1955; lowest, 8.52 ft below NGVD, July 14, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 5 | 6.75 | 10.25 | 8.43 | 9.08 | 7.89 | 8.39 | 6.85 | 2.63 | 2.31 | 2.14 | 1.69 | 3.77 |
| 10 | 8.27 | 9.05 | 9.08 | 9.71 | 7.76 | 7.53 | 5.69 | 4.63 | 1.96 | 1.53 | 3.66 | 3.32 |
| 15 | 9.61 | 8.37 | 8.97 | 9.47 | 8.14 | 5.98 | 6.19 | 3.85 | 1.97 | 4.39 | 3.57 | 3.23 |
| 20 | 9.26 | 8.46 | 9.38 | 8.69 | 7.12 | 5.88 | 5.00 | 3.17 | 1.11 | 3.39 | --- | 2.81 |
| 25 | 8.76 | 8.25 | 6.57 | 8.44 | 8.73 | 5.07 | 5.82 | 1.43 | 3.52 | 2.21 | 3.70 | 3.60 |
| EOM | 10.09 | 8.17 | 8.51 | 8.08 | 8.16 | 6.12 | 5.02 | .78 | 3.64 | 1.95 | 3.81 | --- |
| MAX | 10.09 | 10.25 | 9.92 | 9.75 | 8.89 | 9.01 | 6.96 | 4.74 | 4.11 | 4.45 | --- | --- |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291343081254601. Local Number V-89. Jones Well near Pierson, FL.

LOCATION.--Lat 29°13'43", long 81°25'46", in SE¼NE¼NE¼ sec.6, T.15 S., R.29 E., Hydrologic Unit 03080101, 2.3 mi southeast of Pierson, and 2.9 mi north of Barberville. Owner: Ronald Jones.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 6 in., depth 412 ft, cased to 108 ft.

INSTRUMENTATION.--Digital recorder--15-minute interval.

DATUM.--Land-surface datum is 51.88 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.80 ft above land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

COOPERATION.--Since October 1985, records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 35.64 ft NGVD, Sept. 30, Oct. 1, 1979; lowest, 3.39 ft NGVD, Dec. 24, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 29.89 | 30.17 | --- | 29.12 | 29.49 | 30.11 | 29.36 | 28.38 | 27.38 | 28.49 | 27.68 | 28.74 |
| 10 | 30.17 | 29.99 | --- | 29.88 | 29.44 | 29.55 | 28.77 | 28.88 | 27.88 | 27.99 | 27.59 | 28.04 |
| 15 | 29.89 | 29.38 | --- | 27.87 | 29.46 | 29.52 | 29.29 | 28.11 | 26.18 | 28.87 | 28.34 | 27.77 |
| 20 | 29.66 | 30.19 | --- | 29.74 | 29.58 | 28.93 | 28.75 | 28.33 | 26.07 | 28.72 | 28.75 | 28.01 |
| 25 | 29.47 | 30.02 | 9.24 | 29.50 | 30.52 | 28.88 | 28.99 | 27.72 | 28.21 | 28.15 | 29.07 | 27.47 |
| EOM | 30.26 | 29.82 | 27.53 | 29.16 | 30.34 | 29.24 | 28.84 | 26.79 | 27.58 | 27.61 | 28.80 | 28.39 |
| MAX | 30.81 | 30.29 | --- | 30.00 | 30.57 | 30.36 | 29.51 | 28.88 | 28.27 | 28.92 | 29.38 | 29.29 |

WELL NUMBER.--291344081155701. Local Number V-90. Union Camp Deep Well near Barberville, FL.

LOCATION.--Lat 29°13'44", long 81°15'57", in NE¼SW¼NE¼ sec.2, T.15 S., R.30 E., Hydrologic Unit 03080103, 0.5 mi south of State Highway 40, and 9.7 mi east of Barberville. Owner: Union Camp Corp.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 151 ft, cased to 74 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 32.88 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.50 ft above land-surface datum.

COOPERATION.--Since October 1985, records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 29.98 ft NGVD, Sept. 29, 1979; lowest, 23.47 ft NGVD, July 8, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 26.69 | 27.62 | 26.73 | 26.99 | 27.18 | 27.71 | 26.99 | 25.98 | 24.66 | 25.01 | 25.73 | 26.72 |
| 10 | 27.02 | 27.55 | 26.85 | 27.45 | 27.19 | 27.53 | 26.85 | 25.97 | 24.81 | 24.95 | 25.83 | 26.46 |
| 15 | 27.31 | 27.47 | 26.51 | 27.11 | 27.29 | 27.35 | 26.88 | 25.70 | 24.76 | 25.22 | 26.43 | 26.33 |
| 20 | 27.28 | 27.31 | 26.98 | 27.41 | 27.38 | 27.21 | 26.44 | 25.44 | 24.53 | 25.75 | 26.88 | 26.17 |
| 25 | 27.24 | 27.24 | 26.11 | 27.45 | 27.58 | 26.86 | 26.42 | 25.24 | 24.58 | 25.90 | 26.94 | 25.95 |
| EOM | 27.66 | 27.27 | 26.17 | 27.13 | 27.69 | 26.81 | 26.28 | 24.77 | 24.81 | 25.91 | 26.95 | 25.88 |
| MAX | 27.67 | 27.69 | 27.23 | 27.56 | 27.71 | 27.88 | 27.04 | 26.21 | 24.83 | 25.98 | 27.01 | 26.87 |

CAL YR 1989 MAX 27.69
WTR YR 1990 MAX 27.88

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291353081160401. Local Number V-88. Union Camp Shallow Well near Barberville, FL.

LOCATION.--Lat 29°13'53", long 81°16'04", in SW¼NW¼NE¼ sec.2, T.15 S., R.30 E., Hydrologic Unit 03080103, 0.3 mi south of State Highway 40, and 9.7 mi east of Barberville. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 110 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20 ft, cased to 20 ft.

INSTRUMENTATION.--Digital recorder--60-minute interval.

DATUM.--Land-surface datum is 34.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.60 ft above land-surface datum.

COOPERATION.--Since October 1985, records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 34.16 ft NGVD, Sept. 30, 1979; lowest, 23.04 ft NGVD, Aug. 18, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 30.27 | 32.70 | 31.27 | 33.31 | 31.74 | 32.85 | 31.98 | 29.65 | --- | 25.79 | 26.12 | 28.61 |
| 10 | 32.44 | 32.37 | 31.77 | 33.30 | 31.61 | 32.48 | 31.39 | 29.53 | 26.55 | 25.50 | 25.78 | 27.75 |
| 15 | 32.96 | 32.00 | 32.26 | 32.88 | 32.35 | 32.06 | 31.68 | --- | 26.23 | 26.14 | 28.36 | 27.04 |
| 20 | 32.55 | 31.75 | 33.17 | 32.63 | 32.73 | 31.81 | 30.91 | --- | 25.66 | 27.20 | --- | 26.34 |
| 25 | 32.23 | 31.59 | 33.48 | 32.42 | 33.46 | 31.10 | 30.61 | --- | 25.80 | 27.08 | --- | 25.58 |
| EOM | 32.97 | 31.68 | 32.99 | 32.02 | 33.42 | 31.73 | 30.09 | --- | 25.69 | 26.93 | --- | 25.46 |
| MAX | 33.13 | 32.89 | 33.48 | 33.47 | 33.56 | 33.37 | 32.08 | --- | --- | 27.30 | --- | 29.25 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291748081290301. Local Number V-0510. J.C. Mew Well replacement at Seville, FL.

LOCATION.--Lat 29°17'48", long 81°29'03", in NE¼SW¼SW¼ sec.9, T.14 S., R.28 E., Hydrologic Unit 03080101, on west side of U.S. Highway 17, 1,175 ft south of Nolano Road, and 1.35 mi south of Seville. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 130 ft, cased to 85 ft.

INSTRUMENTATION.--Biweekly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 27.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.50 ft above land-surface datum.

COOPERATION.--Records provided by St. Johns Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--June 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.82 ft NGVD, Oct. 31, 1989; lowest measured, 21.07 ft NGVD, June 1, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| JUN | | | AUG | | |
| 01... | 0930 | 21.07 | 29... | 0912 | 23.54 |
| 29... | 0750 | 22.30 | SEP | | |
| JUL | | | 26... | 0735 | 23.61 |
| 27... | 1310 | 23.28 | | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | APR | | |
| 31... | 0900 | 23.82 | 26... | 0804 | 23.20 |
| NOV | | | MAY | | |
| 28... | 1320 | 23.56 | 30... | 0749 | 21.38 |
| DEC | | | JUN | | |
| 20... | 1015 | 22.67 | 26... | 1041 | 22.46 |
| JAN | | | JUL | | |
| 31... | 1010 | 22.93 | 23... | 0815 | 22.97 |
| FEB | | | AUG | | |
| 20... | 0909 | 22.92 | 28... | 1004 | 22.95 |
| MAR | | | SEP | | |
| 27... | 1127 | 22.48 | 26... | 0803 | 21.71 |

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291905081251001. R. Nolan Well near Seville, FL.

LOCATION.--Lat 29°19'05", long 81°25'10", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.13 S., R.28 E., Hydrologic Unit 03080103, 25 ft south of State Highway 305, 100 ft west of Volusia-Flagler County line, and 4.8 mi east of U.S. Highway 17 in Seville. Owner: Robert Nolan.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, stock, artesian well, diameter 6 in., depth 138 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by St. Johns River Water Management District personnel.

DATUM.--Land-surface datum is 23.30 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.21 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985, data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--December 1935 to April 1950 (monthly); July 1950 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.90 ft NGVD, Sept. 1, Oct. 1, 1947; lowest measured, 15.62 ft NGVD, Feb. 27, 1989.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

| DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) | DATE | TIME | ELEV- ATION ABOVE NGVD (FEET) |
|-------|------|---|-------|------|---|
| OCT | | | MAY | | |
| 31... | 0845 | 20.21 | 15... | 1130 | 19.07 |
| NOV | | | 30... | 0733 | 18.39 |
| 28... | 1340 | 19.99 | JUN | | |
| DEC | | | 26... | 1108 | 18.44 |
| 20... | 0950 | 18.54 | JUL | | |
| JAN | | | 23... | 0759 | 19.17 |
| 31... | 0945 | 19.41 | AUG | | |
| FEB | | | 28... | 0946 | 19.33 |
| 20... | 0846 | 20.06 | SEP | | |
| MAR | | | 12... | 1020 | 18.92 |
| 27... | 1139 | 18.87 | 26... | 0746 | 18.54 |
| APR | | | | | |
| 26... | 0751 | 19.29 | | | |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

VOLUSIA COUNTY

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|---|---|
| 284743080520101 | 05-16-90 09-11-90 | 1215 1040 | 84705101 WL CANTRELL N OF COUNTY LINE, S/OAK HILL | 6.45 9.33 |
| 284902081112001 | 05-16-90 09-11-90 | 0910 0820 | 84911101 FLOW WELL, N OF RIVER, S OF OSTEEN | 12.66 13.87 |
| 285016081014101 | 05-16-90 09-11-90 | 1020 0900 | 85010102 USGS WELL NEAR COW CREEK, W OF MAYTOWN | 13.17 13.33 |
| 285040081192101 | 05-18-90 09-14-90 | 1405 1510 | 85011821 STEWART WELL, US 17, S OF DEBARY | 14.12 15.43 |
| 285044081094901 | 05-16-90 09-11-90 | 0930 0840 | 85010903 OSTEEN CONVENIENCE STORE WELL | 16.68 17.33 |
| 285143080521401 | 05-16-90 | 1110 | 85105202 LOOMIS NURSERY WELL W OF OAK HILL | 6.33 |
| 285156081190302 | 05-18-90 09-14-90 | 1600 1505 | 85111902 FLA POWER CO BENSON JUNC, S OF DEBARY | 9.67 10.56 |
| 285221081095002 | 05-16-90 09-11-90 | 1550 0800 | 85210902 USGS TEST WELL G-2, N OF OSTEEN | 19.13 18.50 |
| 285359081161701 | 05-18-90 09-14-90 | 1545 1415 | 85311601 DELTONA P.S. WELL 3, DIAMOND ST, DELTONA | 12.14 13.13 |
| 285437081181401 | 05-18-90 09-14-90 | 1650 1425 | 85411801 SJRWMD TEST ORANGE CITY FIRE TOWER | 15.82 16.59 |
| 285452080551801 | 05-16-90 09-11-90 | 1315 1200 | 85405501 BUERGER WELL N OF VOLCO ROAD, ARIEL | 6.35 7.80 |
| 285655081165601 | 05-18-90 09-14-90 | 1748 1310 | 85611601 USGS TEST WELL A-1, ORANGE CITY EAST | 6.85 7.42 |
| 285655081165602 | 05-18-90 09-14-90 | 1750 1312 | 85611602 USGS TEST WELL A-2, ORANGE CITY EAST | 8.73 9.41 |
| 285700081021001 | 05-17-90 09-11-90 | 0905 1555 | 85710201 USGS TEST WELL 11, E OF LK ASHBY | 15.47 15.81 |
| 285811081130901 | 05-18-90 09-14-90 | 1735 1240 | 85811303 J B EVANS LK HELEN | 30.59 31.19 |
| 285833080571701 | 05-16-90 09-11-90 | 1420 1355 | 85805701 GLENCOE RD SAND MINE RD W OF EDGEWATER | 2.00 3.25 |
| 285859081191001 | 05-18-90 09-14-90 | 1710 1210 | 85811901 MCGREGGOR RD 4-IN WELL SW OF DE LAND | 2.86 3.50 |
| 285904080554601 | 05-16-90 09-11-90 | 1405 1515 | 85905504 EDGEWATER P.S. WELL 1, W OF EDGEWATER | 3.01 4.95 |
| 285906081152002 | 05-18-90 09-14-90 | 1720 1225 | 85911508 3-IN WELL N SIDE OF ORANGE CAMP RD | 27.81 28.29 |
| 285921080541001 | 05-16-90 09-11-90 | 1350 1505 | 85905402 MOORE WELL RIVERSIDE DR, EDGEWATER | 4.61 6.34 |
| 285923081211601 | 05-18-90 09-14-90 | 1435 1150 | 85912012 ST.JOHNS RD & HONTOON RD WELL, SW OF DE LAND | 11.63 12.42 |
| 285934081041801 | 05-17-90 09-11-90 | 0835 1640 | 85910401 USGS TEST WELL 10, S OF SAMSULA | 22.12 26.10 |
| 285950080580101 | 05-16-90 09-11-90 | 1440 1410 | 85905803 4-IN OBS WELL NEXT TO NSB P.S. WELL 7 | 0.52 -2.97 |
| 290038081043801 | 05-17-90 09-11-90 | 0845 1620 | 90010403 4-IN OBS WELL 100FT W OF NSB#S1, SAMSULA | 12.88 14.38 |
| 290047080593101 | 05-17-90 09-11-90 | 0920 1535 | 90005901 SERVICE STA WELL SR44 & I-95, NEW SMYRNA BCH | 3.17 4.58 |
| 290102080564201 | 05-16-90 09-10-90 | 1450 1645 | 90105611 CITY TEST WELL JUNGLE RD, NEW SMYRNA | 4.10 2.03 |
| 290138081203202 | 05-18-90 09-14-90 | 1410 1130 | 90112002 USGS J-2 TEST WELL W OF DE LAND | 7.24 7.84 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

VOLUSIA COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 290225081040301 | 05-17-90 09-10-90 | 0945 1610 | 90210402 17S32E11 USGS TEST WELL 9, N SAMSULA | 18.71 19.74 |
| 290230081123401 | 05-18-90 09-13-90 | 0750 1335 | 90211203 USGS TEST HOLE 5, E OF DE LAND | 32.40 32.77 |
| 290251081001401 | 05-17-90 09-10-90 | 0935 1630 | 90210001 USGS TEST WELL I, NE OF SAMSULA | 10.17 11.47 |
| 290308081182301 | 05-18-90 09-14-90 | 1355 1110 | 90311801 DELAND P.S. WELL 7A, DE LAND | 14.75 14.32 |
| 290325080563401 | 05-16-90 09-10-90 | 1505 1655 | 90305601 NEW SMYRNA AIRPORT WELL, NEW SMYRNA | -0.24 0.96 |
| 290447081102301 | 05-18-90 09-13-90 | 0740 1325 | 90411004 I-4 DEEP WELL, E OF DE LAND | 33.80 34.19 |
| 290456081044401 | 05-14-90 09-10-90 | 1625 1605 | 90410404 USGS TEST WELL 7, W OF ALLANDALE | 17.77 18.07 |
| 290512081213602 | 05-18-90 09-12-90 | 1250 1500 | GLENWOOD 2-IN WELL | 13.24 13.22 |
| 290517081193601 | 05-18-90 09-13-90 | 1305 0815 | 90511902 16S30E19 MCDONALDS 15A&US17 WELL DLSP | 19.42 19.80 |
| 290527081215001 | 05-18-90 09-12-90 | 1240 1455 | 90512109 ADAMS LEMMON ST WELL, GLENWOOD | 13.65 13.66 |
| 290534081175001 | 05-17-90 09-13-90 | 1640 1030 | 90511701 USGS TEST WELL F1, N OF DE LAND, SR11 | 31.96 32.58 |
| 290534081175002 | 05-17-90 09-13-90 | 1642 1032 | 90511702 USGS TEST WELL F2, N OF DE LAND, SR11 | 31.07 32.69 |
| 290550081162601 | 05-17-90 09-13-90 | 1620 1040 | 90511601 LAWRENCE WELL, LAKE DAUGHARTY | 35.57 36.79 |
| 290626081013701 | 05-14-90 09-10-90 | 1605 1545 | 90610102 SERVICE STA WELL AT TAYLOR RD & I-95 | 2.78 2.62 |
| 290708081233101 | 05-18-90 09-13-90 | 1210 0850 | 90712301 SJRWMD 4-IN WELL 2MI SW OF PONCE DE LEON SPGS | 8.93 9.67 |
| 290723081210601 | 05-17-90 09-12-90 | 1720 1530 | 90712103 16S29E39 4-IN WELL, ELEM SCL, DE LEON SPGS | 10.15 10.46 |
| 290737081220301 | 05-18-90 09-12-90 | 1140 1520 | 90712201 HAGSTROM IRRIG WELL, W OF DE LEON SPGS | 7.67 7.84 |
| 290748081184201 | 05-17-90 09-13-90 | 1700 1015 | 90711801 16S30E05 THOMAS WELL 2MI E OF DELEON SPGS | 32.73 34.29 |
| 290806081013901 | 05-14-90 09-10-90 | 1555 1535 | 90810115 CITY OBS WELL 2 ,WELLFIELD,PORT ORANGE | 4.22 2.31 |
| 290813081083201 | 05-17-90 09-13-90 | 1430 1120 | 90810806 4-IN OBS WELL 100FT N OF P.S.WELL, IND.LK.RD | 13.65 11.80 |
| 290842081084601 | 05-17-90 09-13-90 | 1440 1125 | 90810803 USGS TEST WELL K, IND.LK.RD., SW DAYTONA | 29.71 29.90 |
| 290923081174301 | 05-18-90 09-13-90 | 0825 1000 | 90911701 15S30E33 WELL SR11 .7MI S OF L.DIA | 31.89 33.66 |
| 290928080594401 | 05-14-90 09-10-90 | 1515 1500 | 90905904 WELL AT REED CANAL & US1, S DAYTONA | -0.08 -0.44 |
| 290930081230201 | 05-18-90 09-12-90 | 1130 1540 | 90912303 15S29E34 WELL NR SHACK 3MI SE, BARBERVILLE | 15.29 15.93 |
| 291032081065201 | 05-17-90 09-13-90 | 1418 1240 | 91010601 DAYTONA P.S. WELL 49, SW OF DAYTONA | 7.68 10.07 |
| 291036081175801 | 05-18-90 09-13-90 | 0835 0945 | 91011701 HENDRIX WELL ON SR11, E OF BARBERVILLE | 29.01 29.99 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

VOLUSIA COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------------------|--------------|--|---|
| 291052081200901 | 05-18-90 09-13-90 | 0855 0920 | 91012007 15S30E19 CAMP WINONA WELL N OF DE LEON SPGS | 26.36 27.46 |
| 291056081252401 | 05-15-90 09-12-90 | 1605 1555 | 91012502 BARBERVILLE WELL NR NASSERS WELL | 20.70 20.63 |
| 291107081034201 | 05-17-90 09-14-90 | 1055 0920 | AIRPORT WELL AT DAYTONA BEACH (SJ V-0187) | 0.63 1.78 |
| 291113081050601 | 05-17-90 09-13-90 | 1345 1255 | 91110503 CITY WELL 44 AT DAYTONA BEACH | -0.56 -0.16 |
| 291133081040601 | 05-17-90 09-14-90 | 1330 0955 | 91110404 G.E. PLANT 6-IN WELL AT DAYTONA BCH | -1.58 0.50 |
| 291133081040602 | 05-17-90 09-14-90 | 1332 0957 | 91110409 G.E. PLANT 2-IN AT DAYTONA BCH | 8.52 9.44 |
| 291139081032401 | 05-17-90 09-14-90 | 1020 0930 | 91110305 DAYTONA P.S. WELL 34, DAYTONA BCH | -2.11 -1.38 |
| 291149081190801 | 05-18-90 09-13-90 | 0910 0935 | 91111901 15S30E17 L.BLACKWELDERS WELL, CLIFTON RD | 23.62 24.80 |
| 291150081282501 | 05-15-90 | 1505 | 91112806 15S28E14 HARPERS WELL E OF MURPHY RD | 26.91 |
| 291155081022901 | 05-17-90 09-14-90 | 1040 0940 | 91210237 DAYTONA P.S. WELL 32, TUSC., DAYTONA | -2.52 -1.03 |
| 291216081215601 | 05-18-90 09-12-90 | 1048 1615 | 91212101 SJRWMD TEST WELL, SR40, E OF BARBERVILLE | 24.51 25.32 |
| 291221081235101 | 05-18-90 09-12-90 | 1100 1605 | 91212306 15S29E09 RICHARDSONS WELL NE, BARBERVILLE | 22.44 |
| 291258081313701 | 05-15-90 09-12-90 | 1535 1320 | 91213103 4-IN SUPPLY WELL, SE LAKE GEORGE NR EMPORIA | 5.07 5.32 |
| 291302081063801 | 05-14-90 09-10-90 | 1400 1240 | 91310601 USGS WELL, SITE 2, W OF DAYTONA BCH | 7.27 6.75 |
| 291315081270301 | 05-15-90 09-12-90 | 1445 1255 | 91312701 MCLAUGHLINS 2-IN WELL, S PIERSON | 23.77 21.14 |
| 291332081191001 | 05-18-90 09-12-90 | 1035 1630 | 91311903 USED 425 | 28.54 29.48 |
| 291421081012202 | 05-14-90 09-10-90 | 1430 1310 | 91410107 OLD P.S. WELL, SEABREEZE 7, DAYTONA BCH | -3.78 -4.54 |
| 291431081263101 | 05-15-90 09-12-90 | 1425 1235 | 91412611 14S28E35 SJRWMD TURNER RD WELL, PIERSON | 26.94 26.80 |
| 291433081284102 | 05-15-90 09-12-90 | 1405 1220 | 91412818 SJRWMD DEEP TEST WELL NEXT TO 91412801 | 21.26 21.47 |
| 291458081294201 | 05-15-90 09-12-90 | 1340 1210 | 91412901 SJRWMD WELL 1 MI W OF PIERSON | 16.49 16.12 |
| 291508081302801 | 05-15-90 09-12-90 | 1315 1140 | 91513001 SJRWMD WELL 2 MI W OF PIERSON | 12.73 12.77 |
| 291523081095001 | 05-14-90 09-10-90 | 1330 1225 | 91510902 USGS WELL 1, SR40 W OF ORMOND BCH | 13.12 14.91 |
| 291607081042301 | 05-14-90 09-10-90 | 1225 1145 | 91610408 ORMOND P.S. WELL 12, ORMOND BCH | -8.17 -9.03 |
| 291712081032102 | 05-14-90 09-10-90 | 1150 1105 | 91710301 ORMOND, W END OF INTERCOASTAL BRIDGE | -6.08 -7.95 |
| 291715081281801 | 05-15-90 09-12-90 | 1240 1120 | 91712801 J.C. MEW WELL AT SEVILLE | 20.90 20.58 |
| 291737081265501 | 05-15-90 09-12-90 | 1220 1040 | 91712602 14S28E11 BOCKS 4-IN WELL SE SEVILLE | 18.36 18.18 |

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1989 TO SEPTEMBER 1990

VOLUSIA COUNTY--Continued

| STATION NUMBER | DATE | TIME | STATION NAME | ELEV- ATION ABOVE NGVD (FEET) |
|-----------------|----------|------|---|---|
| 291823081290901 | 05-15-90 | 1210 | 91812903 14S28E04 M.MCBRIDES 6-IN WELL S SEVILLE | 21.50 |
| | 09-12-90 | 1030 | | 20.60 |
| 291835081324201 | 09-12-90 | 0950 | 91813201 USED 426 PINE ISLAND, W OF SEVILLE | 4.48 |
| 291903081294601 | 05-15-90 | 1100 | 91912901 13S28E32 OLD SEVILLE WELL | 23.11 |
| | 09-12-90 | 1005 | | 22.09 |
| 291904081055501 | 05-15-90 | 1130 | 91910504 TOMOKA ESTATES 2-IN WELL NW OF ORMOND | 0.75 |
| | 09-10-90 | 1050 | | -0.40 |
| 291949081065901 | 05-15-90 | 1100 | 91910604 PINE TREE DR 6-IN WELL, NATIONAL GARDENS | 5.33 |
| | 09-10-90 | 1025 | | 5.20 |
| 292053081084701 | 05-15-90 | 1110 | 92010803 13S31E26 US1 6-IN WELL, 45 MI FRM FLAGLER CO | 13.78 |
| | 09-10-90 | 1035 | | 13.89 |
| 292105081281201 | 05-15-90 | 1020 | 92112801 13S28E22 WELL NE SEVILLE, NEXT TO OLD BLDG | 12.85 |
| | 09-12-90 | 0930 | | 12.39 |
| 292128081295401 | 05-15-90 | 1005 | 92112902 HERRENS 4-IN WELL, N OF SEVILLE | 30.88 |
| | 09-12-90 | 0915 | | 29.76 |
| 292245081074801 | 05-14-90 | 1040 | 92210701 WELL, S OF ORMOND TOMB, NATL. GARDENS | 4.38 |
| | 09-10-90 | 1005 | | 4.80 |
| 292421081072301 | 05-14-90 | 1025 | 92410701 HALIFAX PLANT WELL 17D, NR NATL. GARDENS | 4.24 |
| | 09-10-90 | 0950 | | 4.88 |

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

VOLUSIA COUNTY

290804081215601 - 90712101 12-IN FLOW W OF DELEON SPRINGS

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|--------------|------|--|---|--|--------------|------|--|---|--|
| MAY 25... | 1300 | 3050 | -- | 820 | SEP 21... | 1330 | 3090 | 22.5 | 840 |

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Volume 1B: Northeast Florida

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

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

| Multiply inch-pound units | By | To obtain SI units |
|--|------------------------|--|
| <i>Length</i> | | |
| inches (in) | 2.54×10^1 | millimeters (mm) |
| | 2.54×10^{-2} | meters (m) |
| feet (ft) | 3.048×10^{-1} | meters (m) |
| miles (mi) | 1.609×10^0 | kilometers (km) |
| <i>Area</i> | | |
| acres | 4.047×10^3 | square meters (m ²) |
| | 4.047×10^{-1} | square hectometers (hm ²) |
| | 4.047×10^{-3} | square kilometers (km ²) |
| square miles (mi ²) | 2.590×10^0 | square kilometers (km ²) |
| <i>Volume</i> | | |
| gallons (gal) | 3.785×10^0 | liters (L) |
| | 3.785×10^0 | cubic decimeters (dm ³) |
| | 3.785×10^{-3} | cubic meters (m ³) |
| million gallons | 3.785×10^3 | cubic meters (m ³) |
| | 3.785×10^{-3} | cubic hectometers (hm ³) |
| cubic feet (ft ³) | 2.832×10^1 | cubic decimeters (dm ³) |
| | 2.832×10^{-2} | cubic meters (m ³) |
| cfs-days | 2.447×10^3 | cubic meters (m ³) |
| | 2.447×10^{-3} | cubic hectometers (hm ³) |
| acre-feet (acre-ft) | 1.233×10^3 | cubic meters (m ³) |
| | 1.233×10^{-3} | cubic hectometers (hm ³) |
| | 1.233×10^{-6} | cubic kilometers (km ³) |
| <i>Flow</i> | | |
| cubic feet per second (ft ³ /s) | 2.832×10^1 | liters per second (L/s) |
| | 2.832×10^1 | cubic decimeters per second (dm ³ /s) |
| | 2.832×10^{-2} | cubic meters per second (m ³ /s) |
| gallons per minute (gal/min) | 6.309×10^{-2} | liters per second (L/s) |
| | 6.309×10^{-2} | cubic decimeters per second (dm ³ /s) |
| | 6.309×10^{-5} | cubic meters per second (m ³ /s) |
| million gallons per day | 4.381×10^1 | cubic decimeters per second (dm ³ /s) |
| | 4.381×10^{-2} | cubic meters per second (m ³ /s) |
| <i>Mass</i> | | |
| tons (short) | 9.072×10^{-1} | megagrams (Mg) or metric tons |

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