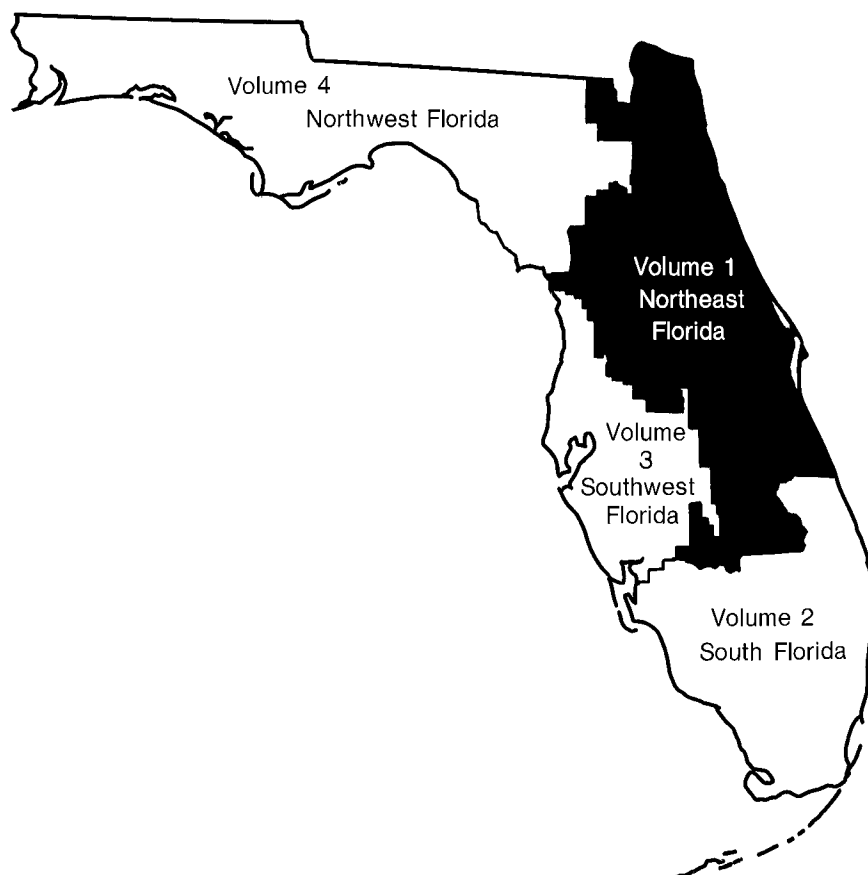


Water Resources Data Florida Water Year 2005

Volume 1B. Northeast Florida Ground Water

Water-Data Report FL-05-1B



Calendar for Water Year 2005

2004

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2005

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April							May							June						
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3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
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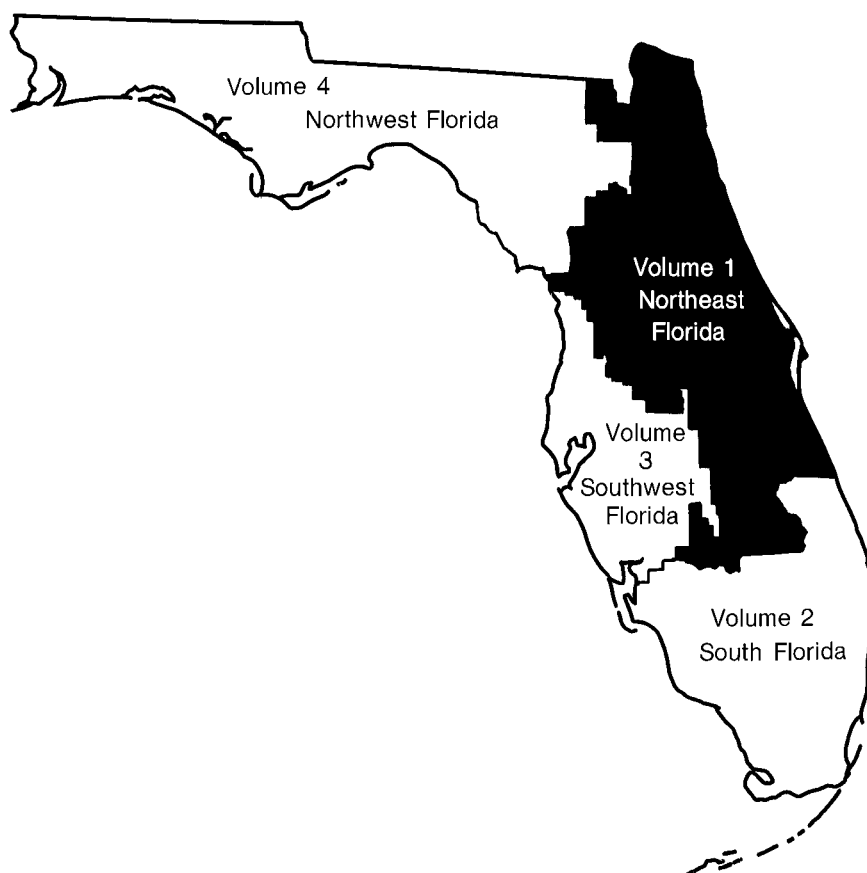
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Florida Water Year 2005

Volume 1B. Northeast Florida Ground Water

By A.P. Nazarian, E.P. Simonds, S.M. Dickerson

Water-Data Report FL-05-1B



Prepared in cooperation with the State of Florida
and with other agencies or cooperators



UNITED STATES DEPARTMENT OF THE INTERIOR

GALE A. NORTON, Secretary

U.S. GEOLOGICAL SURVEY

P. Patrick Leahy, Acting Director

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

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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

This report was prepared under the supervision of James L. Pearman. The following individuals contributed significantly to the collection, processing and tabulation of the data:

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13. ABSTRACT (Maximum 200 words) Water resources data for the 2005 water year in Florida consist of continuous or daily discharge for 429 streams, periodic discharge for 9 streams, continuous or daily stage for 218 streams, periodic stage for 5 streams, peak stage and discharge for 28 streams; continuous or daily elevations for 15 lakes, periodic elevations for 23 lakes; continuous ground-water levels for 401 wells, periodic ground-water levels for 1,098 wells; quality-of-water data for 211 surface-water sites and 208 wells. The data for northeast Florida include continuous or daily discharge for 140 streams, periodic discharge for 4 streams, continuous or daily stage for 58 streams, periodic stage for 3 streams; peak stage and discharge for 0 streams; continuous or daily elevations for 10 lakes, periodic elevations for 20 lakes; continuous ground water levels for 45 wells, periodic ground-water levels for 520 wells; quality-of-water data for 40 surface-water sites and 65 wells. These data represent the National Water Data System records collected by the U.S. Geological Survey and cooperating local, State and Federal agencies in Florida.				
14. SUBJECT TERMS *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.			15. NUMBER OF PAGES 293	
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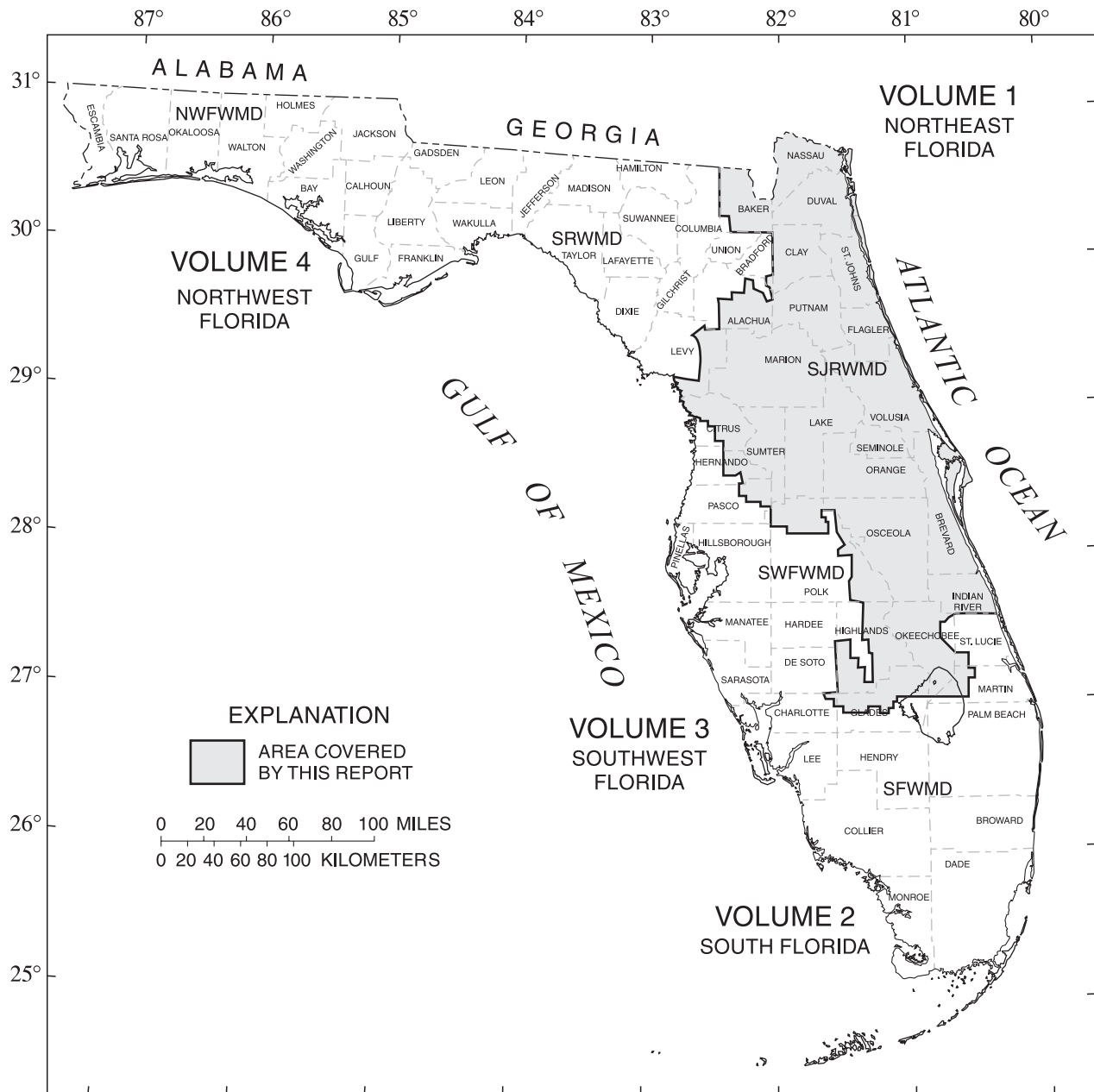


Figure 1.--Geographic area covered by this report.

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State 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. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data - Florida."

This report series includes records of stage, discharge, and water quality of streams, stage, contents, water quality of lakes and reservoirs, and water levels and water quality of ground-water wells. Volume 1B contains records for continuous ground-water elevations at 45 wells; periodic ground-water elevations at 95 wells; miscellaneous ground-water elevations at 415 wells; and water-quality at 67 ground-water sites. The area encompassed in this report is shown in figure 1. The data presented here represent part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Florida.

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. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with stream flow records. 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 Books and Open-File Reports Section, Federal Center, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the USGS 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-05-1B." 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 District Chief at the address given on the back of the title page or by telephone (407)865-7575.

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
Florida Department of Environmental Protection
St. Johns River Water Management District
South Florida Water Management District
Southwest Florida Water Management District
Reedy Creek Improvement District

City of Cocoa
City of Jacksonville
Jacksonville Electric Authority
Lake County Water Authority
Nassau County
Seminole County

Organizations that provided data are acknowledged in station descriptions.

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

SUMMARY OF HYDROLOGIC CONDITIONS

RAINFALL: Rainfall during the 2005 water year was above normal. Based on rainfall data at six National Oceanic and Atmospheric Administration stations, the rainfall for the 12-month period, from October 2004 through September 2005, ranged from 10.32 in. above normal at Ocala to 10.18 in. below normal at Winter Haven. The departure from the 30-year average rainfall in 2005 for the six rainfall stations presented in the table below averaged 1.5 inches above normal. The change in average departure for these six rainfall stations from 2004 to 2005 was -11.4 inches (from an average surplus of 12.9 inches in 2004 to an average surplus of 1.5 inches in 2005 from the 30-year average). The following summary lists departure from the 30-year (1971-2000) normal for each of the stations.

Departure from the 30-year normal rainfall (1971-2000)

Station	October-December		January-March		April-June		July-September		Water Year	
	Total		Total		Total		Total		Total	
	<u>Rainfall</u>	<u>Departure</u>	<u>Rainfall</u>	<u>Departure</u>	<u>Rainfall</u>	<u>Departure</u>	<u>Rainfall</u>	<u>Departure</u>	<u>Rainfall</u>	<u>Departure</u>
Jacksonville AP	6.83	-2.01	9.13	-1.64	22.84	10.85	17.56	-3.18	56.36	4.02
Ocala	8.94	1.11	9.13	-1.55	22.13	8.60	19.80	2.16	60.00	10.32
Daytona Beach	4.51	-5.71	9.36	-0.35	24.81	13.32	14.37	-3.50	53.05	3.76
Orlando	5.18	-2.18	11.00	2.68	23.39	9.88	13.28	-5.88	52.85	4.50
Winter Haven	*2.60	-4.70	10.37	2.05	18.11	5.31	*8.96	-12.84	40.04	-10.18
Vero Beach AP	7.09	-3.18	11.04	1.50	20.09	7.38	10.38	-9.03	48.60	-3.33

*Partial data-appended to average and/or total value computed with 1-2 daily values missing (October and August, Winter Haven)

GROUND-WATER LEVELS: Figure 2 shows the locations of 13 selected ground-water wells which provide a general summary of hydrologic conditions in the the Upper Floridan aquifer in north-central Florida. Mean water levels and the range of water levels for the current water year and for the period of record are listed in table 1.

The average length of record for all 13 selected wells in this summary is 42 years (table 1). The longest period of record among the 13 wells is 66 years (D-122A City of Jacksonville Panama Park well in Duval County, table 1 and g. 2, map no. 13)). The record for three other wells begins as early as the late 1930's and early 1940's. The shortest period of record in this summary is for OK-1 Well at Fort Drum in Okeechobee County (table 1 and g. 2, map no. 8), which includes 29 years of record starting in 1977.

Seasonal Patterns: Water levels in the 13 wells presented in table 1 historically had a mean annual range of about 4.9 ft. The largest range of water levels (8.0 ft) during the period of record was in well OR-47 in Orange County (table 1 and g. 2, map no. 4); the smallest range (3.8 ft) was in D-122A City of Jacksonville Panama Park well in Duval County (table 1 and g. 2, map no. 13). The ranges in water levels in the 13 wells during the current water year averaged 4.9 feet.

Historically, throughout most of the area covered by this report, seasonal water-level maximums are observed in the months of September and October each year and seasonal minimums are observed in the months of May and June. Water levels in wells in the northeast counties included here (table 1 and g. 2, map nos. 10-13) tend to ward seasonal maximums in the months of December through April and seasonal minimums in the later months of summer and early fall (July through October).

Annual Patterns: Over the period of record, the typical altitude of water levels for all 13 selected wells averages about 50.9 ft above the National Geodetic Vertical Datum of 1929 (NGVD of 1929) and ranges from a high of about 127 ft above NGVD of 1929 for the Lake Alfred Deep well in Polk County (table 1 and g. 2, map no. 1), and to a low of about 30 ft above NGVD of 1929 for the DOT-41 Observation well at Inverness in Citrus County (table 1 and g. 2, map no. 6). Generally, water levels in wells in the Upper Floridan aquifer are highest in an area encompassing the northern part of Polk County, the southern part of Lake and Sumter Counties, and the western part of Orange County; levels are lowest in Flagler and Putnam Counties, and northern Lake County.

Average water levels for the current year were lower than averages for the period of record at 2 of the 13 wells shown. Annual water levels for all 13 wells averaged 51.8 ft NGVD of 1929 for the current year, which is higher than the average for the period of record. Water levels in the 13 selected ground-water wells generally showed a increase from 2004 levels. Of the 13 wells presented water levels in 1 well was below the previous water-year mean.

Table 1: Summary of water levels at selected wells for the period of record and water-year 2005. [ft, feet; msl, mean sea level]

Map No.	Well Number and Name	Period of Record			Water-Year 2005			
		Beginning Year	Mean Water Level (ft msl)	Mean Annual Range (ft)	Mean Water Level (ft msl)	Range (ft)	Change From Previous Year (ft)	Departure from Period of Record Mean (ft)
Continuous water- level monitoring								
1.	281008081441801 Lake Alfred Deep Well near Lake Alfred (Polk)	1959	127.2	5.4	128.9	3.6	0.8	1.8
2.	281714081093001 Lake Joel Well near Ashtion (Osceola)	1973	43.5	5.1	44.6	3.4	1.2	1.0
3.	283249081053201 Bithlo-1 Well at Bithlo (Orange)	1960	35.9	4.8	36.7	3.2	1.3	0.7
4.	283253081283401 OR-47 Well at Orlo Vista (Orange)	1947	61.4	8.0	63.5	9.9	3.2	2.1
5.	284842081533001 College Street Well at Leesburg (Lake)	1973	64.3	5.8	67.0	3.2	2.0	2.7
6.	285102082204001 DOT-41 Observation Well at Inverness (Citrus)	1961	30.0	4.0	33.0	2.7	1.7	3.0
Periodic water- level monitoring								
7.	271150081054401 GL-155 Well near Brighton (Glades)	1971	47.0	4.3	47.7	2.9	1.1	0.7
8.	273127080481401 OK-1 Well at Fort Drum (Okeechobee)	1977	43.9	4.1	44.9	2.3	0.9	1.0
9.	274607080493001 IR-189 Well near Yeehaw Junction (Indian River)	1976	41.8	4.3	42.1	3.4	-0.2	0.3
10.	300656081463401 Local Number C-94 USGS Test Well near Orange Park (Clay)	1974	34.7	5.7	35.7	3.1	2.3	0.9
11.	300758081230501 Local Number SJ-5, G. Oesterreicher Well near Palm Valley (St. Johns)	1944	36.8	5.1	32.6	5.5	1.5	-4.2
12.	301535082162001 Local Number B-11 USGS Well at Sanderson (Baker)	1963	54.2	3.9	57.0	2.4	4.3	2.9
13.	302304081383202 Local Number D-122A City of Jacksonville Panama Park Well at Jax (Duval)	1940	40.7	3.8	39.2	2.1	2.3	-1.5

WATER RESOURCES DATA FOR FLORIDA, 2005
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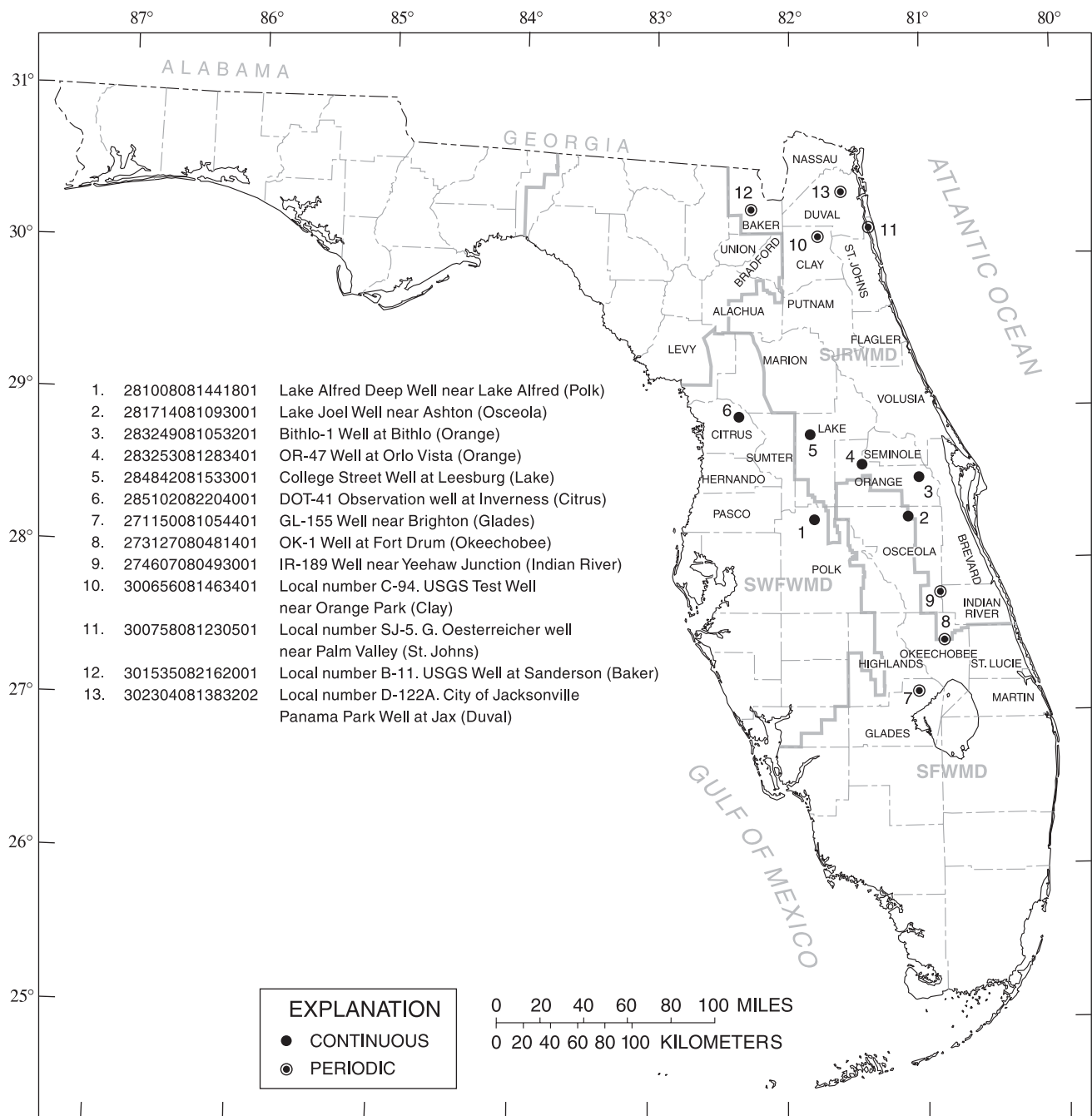


Figure 2.--Location of wells for long-term hydrographs.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent stream flow data representative undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at <http://ny.cf.er.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of five stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 250 precipitation chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities for collaboration among the agencies. Additional information about the NAWQA Program can be found at <http://water.usgs.gov/nawqa/>.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders and periodic wells are published in this report. This basic network contains observations wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

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.

Latitude-Longitude System

The USGS well and miscellaneous site-numbering is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells 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 3.)

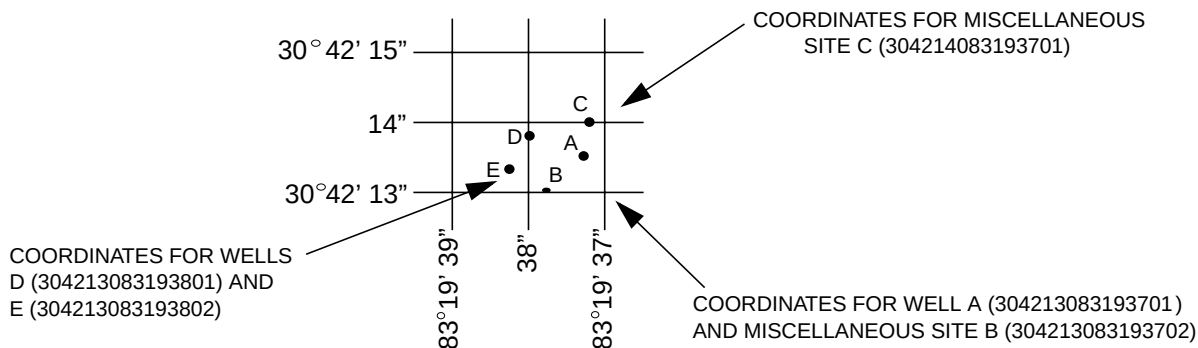


Figure 3.--System for numbering wells and miscellaneous sites. (latitude and longitude)

In addition to the well number that is based on the latitude and longitude for each well another well-numbering system used in Florida utilizes 7 1/2-minute quadrangles within the State. The quadrangles are numbered from west to east, and lettered from south to north, omitting the letters "I" and "O." The designation for each quadrangle is determined by the method "Read Right, Up." Wells are numbered serially within each quadrangle. This local well number is shown immediately after the primary well number.

Well records furnished by the State of Florida also include the well number that is based on an indexing system used by the State Water Control Board.

Records of Ground-Water Levels

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the Onsite Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure 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.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, or an electronic water-stage recorder. The water-level 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 (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, 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. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM). 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 hundredth or 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

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number, an alphanumeric number, derived from the township-range location of the well. Well locations are shown and each well is identified by its local well or county well number on the map in this report (figures 4-24).

Each well record consists of three parts, the well description, the data table of water levels observed during the water year, and for most wells, a hydrograph following the data table. Well descriptions are presented in headings preceding the tabular data. The following comments clarify information presented under the various headings.

LOCATION.--This paragraph follows the well identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as National Geodetic Vertical Datum of 1929 unless otherwise specified.

AQUIFER.--This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing diameter and depth or screened interval, method of construction, use, and 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 continuous, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf and so forth), 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 affect the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.--This entry indicates the time period for which records are published for the well, the month and year of the start of publication of water-level records by the USGS, and the words "to current year" if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or National Geodetic Vertical Datum of 1929 and the dates of their occurrence.

Water-Level Tables

A table of water levels follows the station description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value. For wells equipped with recorders, only abbreviated tables are published; generally, maximums are listed for every fifth day and at the end of the month (EOM). For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water quality data 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 statewide.

Most methods for collecting and analyzing water samples are described in the "Techniques of Water-Resources Investigations of the United States Geological Survey" (TWRI), which may be accessed from <http://water.usgs.gov/pubs/twri/>. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Water Science Center (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfate and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

Remark Codes

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

PRINT 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.
M	Presence of material verified, but not quantified.
ND	Material specifically analyzed for but not detected.
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).
V	Analyte was detected in both the environmental sample and the associated blanks
&	Biological organism estimated as dominant.
cl	Value qualifier code for holding time exceeded by the laboratory.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at:

<http://water.usgs.gov>

Water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the USGS Water Science Center. (See address that is shown on the back of the title page of this report).

DEFINITION OF TERMS

Specialized technical terms related to stream flow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "untreated" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also "Biomass" and "Dry weight")

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "treated" sample.

Annual runoff is the total quantity of water that is discharged ("runs off") from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of poly-chlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also "Substrate")

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

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced stream flows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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 microorganisms, such as bacteria.

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

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also "Phytoplankton" and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3 \pi r^3 \quad \text{cone } 1/3 \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that 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 volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens (*C. perfringens*) is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding an artesian well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(\text{ft}^3/\text{s})/\text{d}]$) 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, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(\text{ft}^3/\text{s})/\text{mi}^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/ cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus fecalis*, *Streptococcus fecium*, *Streptococcus avium*, and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are 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. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that 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. (See also "Bacteria")

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is exceeded. For example, the 90th percentile of river flow is the stream flow exceeded 90 percent of the time in the period of interest.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are unival geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or coating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site: <http://www.csc.noaa.gov/text/glossary.html> (see “High water”)

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \frac{\sum (n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of stream flow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to stream flow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

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

Latent heat flux (often used interchangeably with latent heat flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_0 e^{-\lambda L},$$

where I_0 is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See NOAA Website: <http://www.csc.noaa.gov/text/glossary.html> (see “Low water”)

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "Datum")

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

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) 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 kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where stream flow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or volatile mass of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

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.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) 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, as 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	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of stream flows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** 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, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also “Plankton”)

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedance of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Sea water has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “uvial sediment.” Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-ux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 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.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

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

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 “stream flow” uniquely describes the discharge in a surface stream course. The term “stream flow” is more general than “runoff” as stream flow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

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

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer 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-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Suspended")

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also "Sediment")

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross 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. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydro-logic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions 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 resulting from the mixing of flows proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (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, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that 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 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as “total in bottom material.”

Total length (sh) is the straight-line distance from the anterior point of a sh specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889-00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30-15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30-15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS 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, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

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.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

WELL DESCRIPTIONS AND GROUND-WATER DATA

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

ALACHUA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
292838082073701	05-23-05 09-19-05	1040 1045	A-0725 LK LOCHL00SA AT LOCHL00SA, FL	58.36 58.87
292951082174001	05-24-05 09-20-05	1220 0940	THOMAS 66STA WELL NR MICANOPY	58.13 59.28
293253082055701	05-23-05 09-19-05	1105 1115	DRISCOLL WELL NR LOCHL00SA	71.80 73.33
293539082112601	09-19-05	1230	A-005 OWENS-ILLINOIS NO.1	73.73
293556082043401	05-23-05 09-19-05	1140 1140	A-0071 HAWTHORNE TOWER DEEP	78.29 79.06
293620082362001	05-24-05 09-20-05	1340 1130	USGS WELL NR NEWBERRY, FL	44.49 46.46
293644082244201	05-24-05 09-20-05	1005 1035	A-0016 RUN MONITOR WELL NO1 AT KANAPAHA	50.69 51.47
293723082120102	05-23-05	1220	93721202 10S21E15 DICK SURRENCY	79.42
293943082085901	05-26-05 09-23-05	1404 1436	A-0708 ALACHUA COUNTY F-5 NR ORANGE HEIGHTS, FL	78.60 79.35
294011082260401	05-27-05 09-20-05	1531 1425	A-0713 ALACHUA CO VISA 3 AT GAINESVILLE, FL	51.34 52.73
294028082245301	05-27-05 09-20-05	1514 1425	A-0712 VISA 2 NR GAINESVILLE, FL	51.39 52.79
294105082171501	05-23-05 09-19-05	1350 1530	A-063 ALACHUA FAIRGROUNDS CF IN GAINESVILLE, FL	48.75 50.33
294339082184501	09-21-05	1609	A-0706 ALACHUA COUNTY F-3 IN GAINESVILLE, FL	35.69
294530082232001	05-23-05 09-20-05	1510 0820	DEERHAVEN POWER PLT WELL NR GAINESVILLE	43.54 44.15
294629082181301	05-25-05 09-21-05	1144 1639	A-0704 ALACHUA CO F-1 WELL IN GAINESVILLE, FL	61.41 61.35
294640082064501	05-23-05 09-19-05	1305 1405	ROD REESE NR KEYSTONE HEIGHTS	78.48 78.73
294839082230701	05-24-05 09-20-05	0845 0850	CELLON WELL NR LA CROSSE(A-0053)	46.27 46.53
294928082355301	05-24-05 09-20-05	0730 0750	94923502 08S17E03 CITY HIGH SPRINGS	34.97 34.58
295130082243001	05-16-05 09-13-05	1415 1030	SRWMD DOF - LACROSSE TOWER NR GAINESVILLE, FL	46.48 49.96

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 4
BAKER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	301535082162001	34
2	302620082173501	35

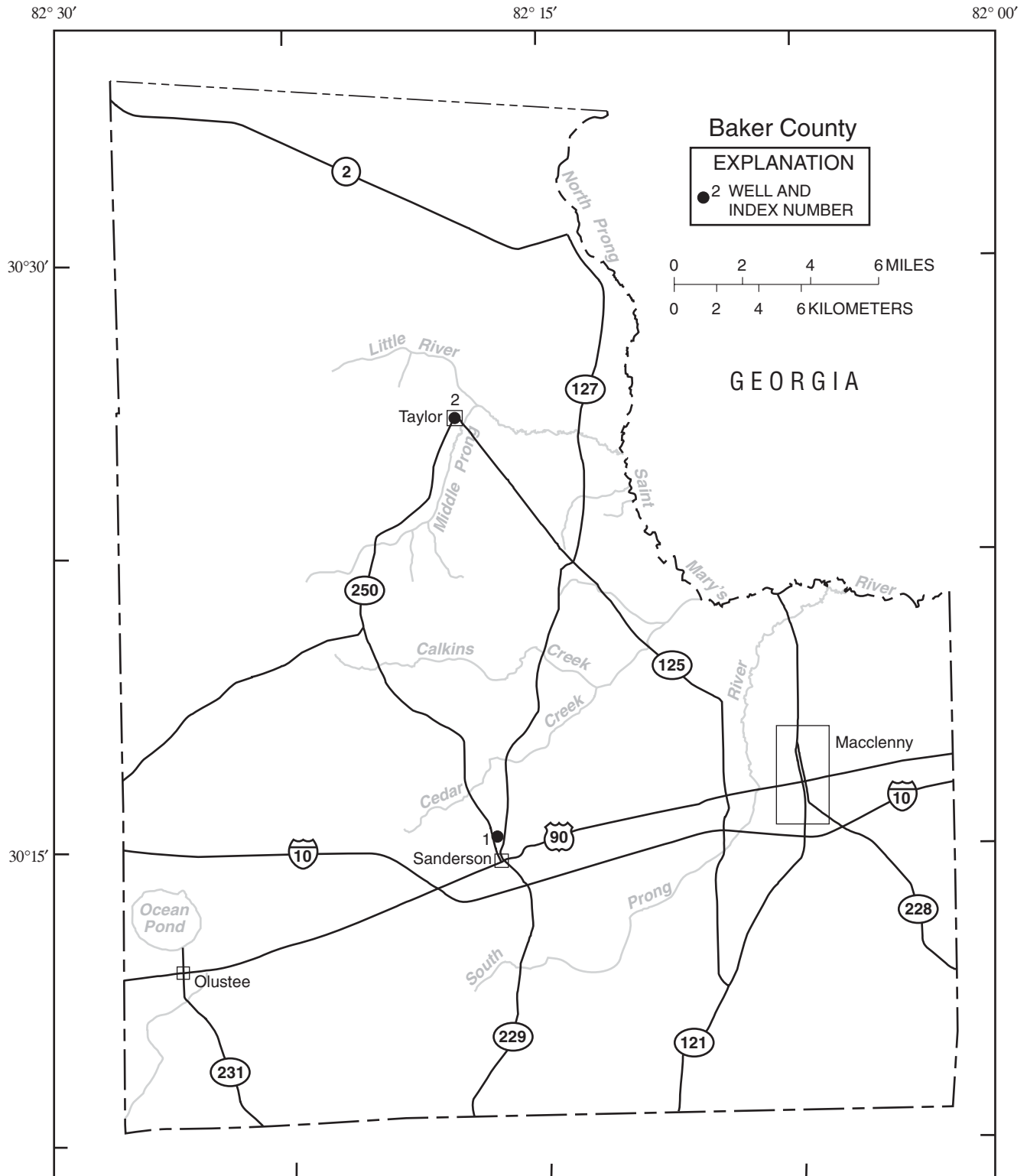


Figure 4.--Location of wells in Baker County.

BAKER COUNTY

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

LOCATION.--Lat 30°15'40", long 82°16'20", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 or electric tape.

DATUM.--Land-surface datum is 157.68 ft above NGVD of 1929. Measuring point: Top of 6 in. coupling, 3.46 ft above land-surface datum. Prior to February 2005, at elevation 1.16 ft lower.

PERIOD OF RECORD.--August 1963 to September 1983 (bimonthly); October 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.05 ft above NGVD of 1929, Mar. 1, 1965; lowest measured, 46.87 ft above NGVD of 1929, June 24, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	57.19	DEC 17	55.88	FEB 22	55.85	APR 28	57.93	JUN 24	57.27	AUG 26	57.64
NOV 18	56.31	JAN 24	55.87	MAR 29	57.19	MAY 23	58.22	JUL 26	58.10	SEP 19	56.89
WATER YEAR 2005 LOWEST 55.85 FEB 22, 2005 HIGHEST 58.22 MAY 23, 2005											



BAKER COUNTY—Continued

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 200 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 or electric tape.

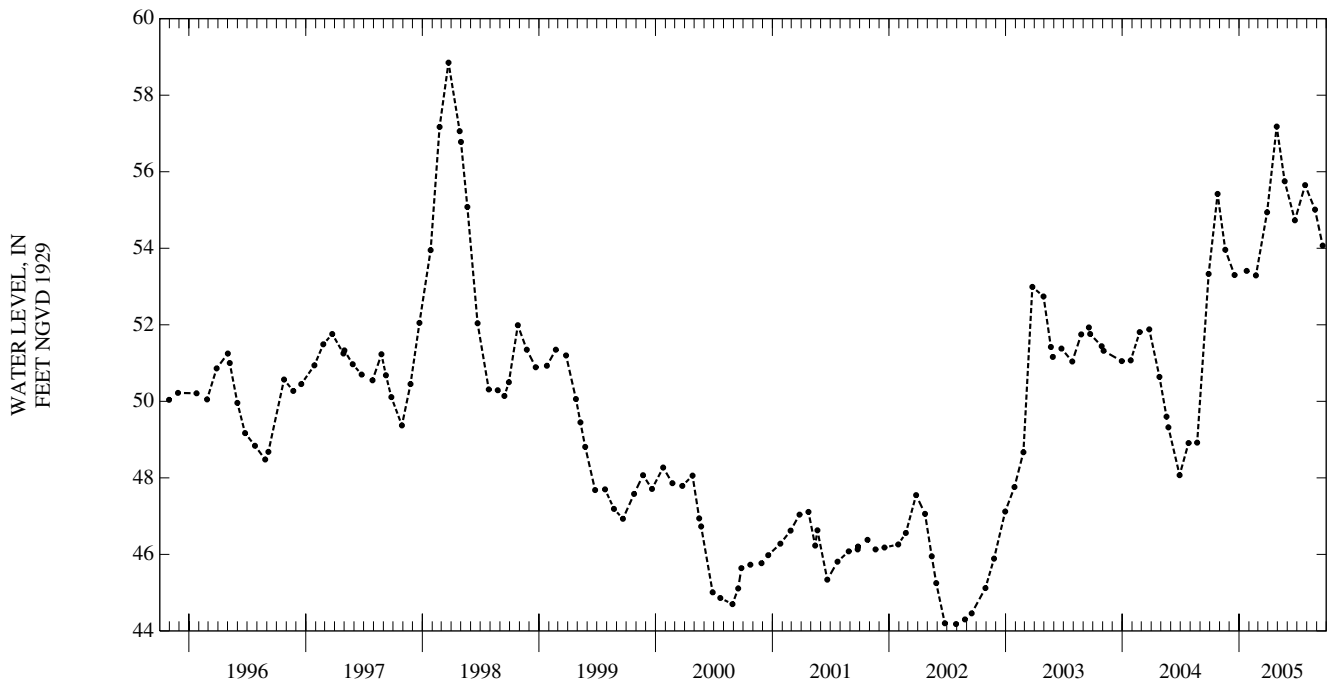
DATUM.--Land-surface datum is 116.30 ft above NGVD of 1929. Measuring point: Top of 6 in. coupling, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to September 1983 (bimonthly); October 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.50 ft above NGVD of 1929, Jan. 1, 1973; lowest measured, 44.18 ft above NGVD of 1929, July 29, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	55.42	DEC 17	53.30	FEB 22	53.29	APR 28	57.18	JUN 24	54.73	AUG 26	55.01
NOV 18	53.96	JAN 24	53.41	MAR 29	54.94	MAY 23	55.75	JUL 26	55.65	SEP 19	54.07
WATER YEAR 2005 LOWEST 53.29 FEB 22, 2005 HIGHEST 57.18 APR 28, 2005											



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

BAKER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
301022082103301	05-23-05 09-19-05	1145 1410	B-17 (BA0019)MANNING WELL NR MANNING,FL	59.97 59.02
301245082233001	05-20-05 09-20-05	0915 1115	SRWMD B-6 US FOREST SERV-OLUSTEE TWR	59.89 58.32
301423082261101	05-23-05 09-19-05	0845 1235	B-15	64.75 62.94
301618082110901	05-23-05 09-19-05	1050 1335	BA0054	58.12 56.80
301635082234001	05-20-05 09-20-05	0720 1155	SRWMD B-0004	59.06 57.33
301702082271401	05-20-05 09-20-05	0650 1140	SRWMD B-0003	61.75 59.59
302115082232201	05-20-05 09-20-05	0750 1220	SRWMD B-2	57.74 55.86
302251082194901	05-23-05 09-19-05	0910 1150	B-25 ONF NO.6 FLORIDAN WELL NEAR TAYLOR,FL.	56.29 54.62
303235082203501	05-23-05 09-19-05	0955 1050	BA-0057 EDDY FIRETOWER FLORIDAN	54.24 52.58

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 5
BREVARD COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	275629080504901	40

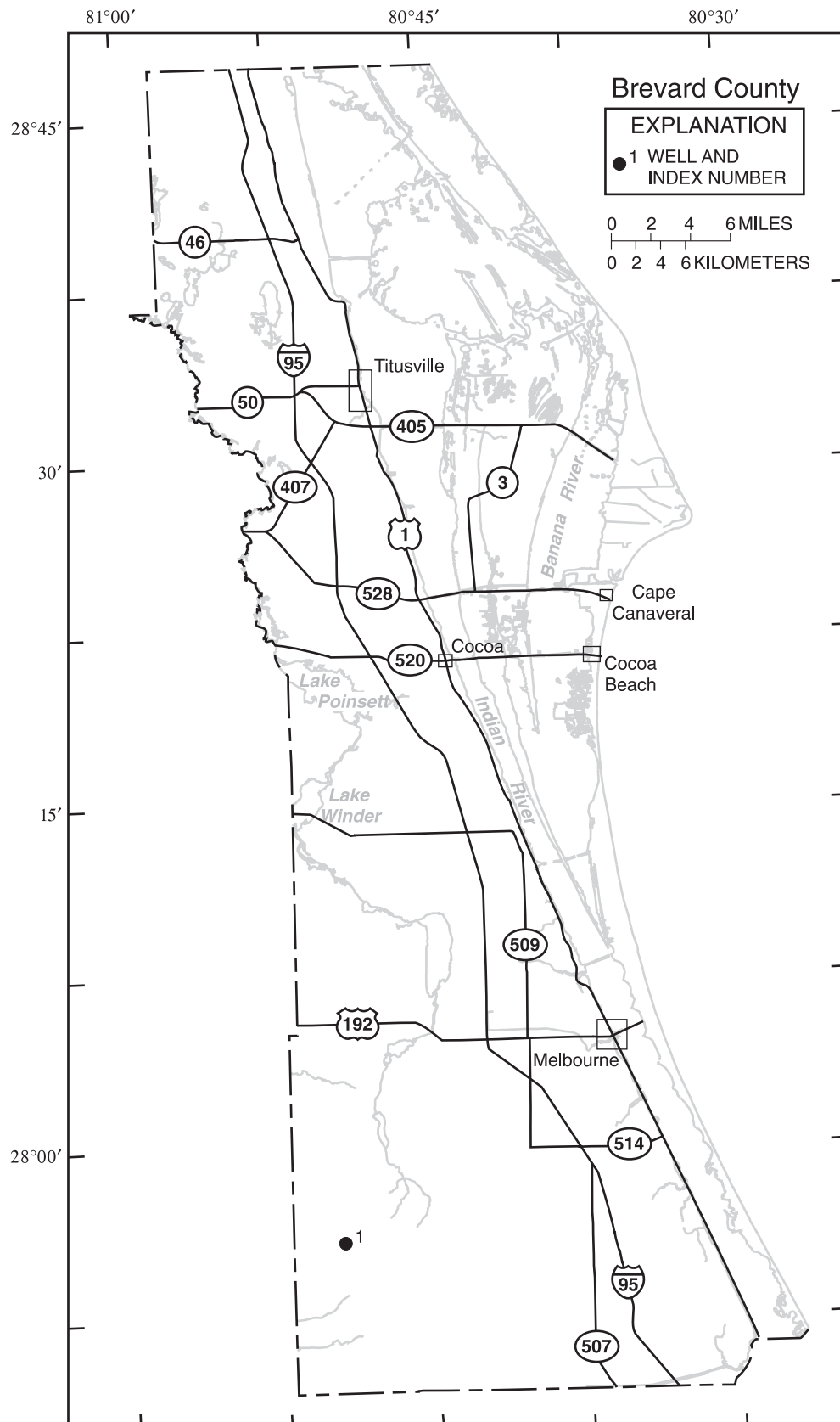


Figure 5.--Location of wells in Brevard County.

BREVARD COUNTY

WELL NUMBER.--275629080504901. Deseret Ranch Well No. 3 near Kenansville, FL.

LOCATION.--Lat 27°56'29", long 80°50'49", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.29 S., R.35 E., Hydrologic Unit 03080101, 1,760 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 2 in., depth 272 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 26.57 ft above NGVD of 1929. Measuring point: Top of 2 in casing, 0.35 ft above land-surface datum. Prior to Sept. 21, 2004, measuring point was top of 2 in elbow, 1.95 ft higher.

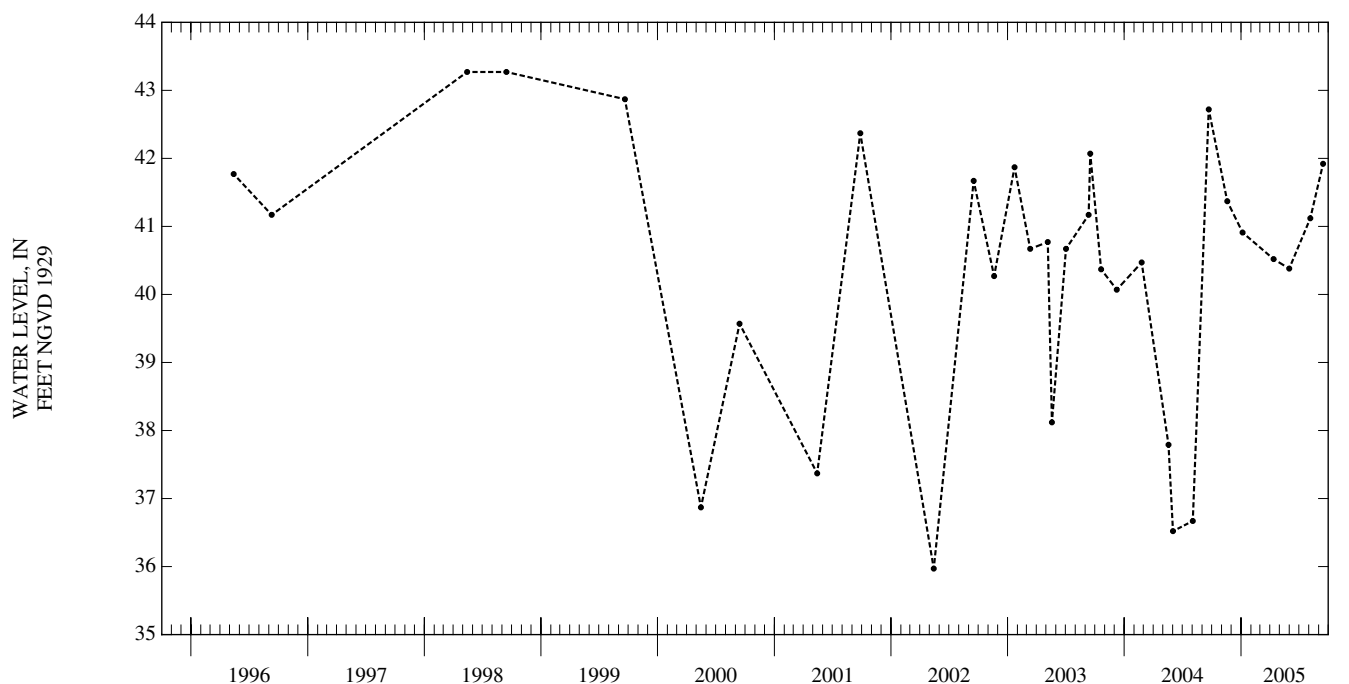
PERIOD OF RECORD.--June 1956, May 1976 (annually); May 1977 to September 2002 (semiannually); November 2002 to September 2003 (bimonthly).

REMARKS.--Replaces Ten-Mile Ranch well near Kenansville (275508080510701).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.82 ft above NGVD of 1929, June 8, 1956; lowest measured, 35.57 ft above NGVD of 1929, May 14, 1977.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	41.37	JAN 05	40.91	APR 12	40.52	MAY 31	40.38	AUG 05	41.12	SEP 14	41.92
WATER YEAR 2005		LOWEST	40.38	MAY 31, 2005	HIGHEST	41.92	SEP 14, 2005				



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

41

BREVARD COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
275003080330201	05-24-05 09-20-05	0739 1021	BR-1559 FLEMING GRANT NR FELLSMERE, FL	40.19 41.14
275138080491801	05-25-05 09-22-05	1001 1509	TUCKER T-6 REPLACEMENT WELL NR KENANSVILLE, FL	42.09 44.69
275210080272202	05-24-05 09-20-05	0958 1304	DR0625 SEB. INLET TW SHALLOW	35.63 36.58
275422080374001	05-24-05	0710	BREVARD GROVES DIESEL BR0288 NR FELLEMER, FL	40.41
275425080283101	05-24-05 09-20-05	0945 1250	754028002	35.67 36.52
275948080393501	05-23-05 09-20-05	1606 0924	759039005 29S37E06 322 37578 FELLSMERE NW TP	38.05 39.45
275955080434601	05-23-05 09-20-05	1544 0907	759-043-02 PLATT WELL NEAR MELBOURNE, FL	41.03 42.28
280008080342601	05-24-05 09-20-05	0848 1137	800034072 28S37E36 424 08182 MELBOURNE EAST TP	32.05 34.05
280256080325601	05-24-05 09-20-05	0917 1221	802032002 28S38E17 432 1645 MELBOURNE EAST 49	29.70 32.25
280532080514501	05-23-05 09-20-05	1450 0832	805051003 27S35E31 331 30139 DEER PARK SE TP	41.70 43.55
280534080465101	05-23-05 09-20-05	1430 0810	805046002 27S35E36 331 37472 DEER PARK SE TP	40.53 42.28
280648080422801	05-23-05	1351	DAN PLATT SARNO RD REPLACEMENT WELL	35.85
281109080373701	05-24-05 09-20-05	1132 1417	811037014 26S37E33 122 18134 EAU GALLIE 09	29.49 30.94
281210080473001	05-23-05 09-19-05	1247 1237	DUDA RANCH L-2 (812047001)	38.60 39.95
281447080392601	05-24-05	1147	814039076 26S36E06 444 37577 EAU GALLIE 79	29.74
281905080375001	05-24-05 09-20-05	1235 1640	819037196 25S37E16 212 27337 COCOA 04	24.55 25.64
281937080442001	05-23-05 09-19-05	1146 1415	BR-1558 KENNEDY HIGH SCHOOL AT COCOA, FL	27.47 28.56
282301080460601	05-23-05 09-19-05	1122 1450	BR-1557 COCOA HIGH SCHOOL AT COCOA, FL	24.72 25.61
282423080353601	05-24-05 09-21-05	1319 0727	824035001 24S37E11 444 15764 CAPE CANAVERAL TP	21.68 23.08
282524080422301	05-24-05 09-21-05	1340 0807	MERRITT ISLAND INJECTION WELL	19.30 20.30
282921080404701	05-24-05 09-21-05	1404 0807	BR0608 NASA UFA NR GATE 2	13.36 16.24
282945080473901	05-23-05 09-19-05	1018 1046	BR-586 TICO AIRPORT	17.42 18.33
283028080403501	05-24-05 09-21-05	1434 0842	BR 1748 RANSOM RD REPLACEMENT NR COURTNEY, FL	13.19 15.09
283627080512001	05-23-05 09-19-05	0827 0846	BR-0001 USGS TEST WELL	16.43 17.10
283644080574903	05-23-05 09-19-05	0800 0818	BR-1526 SEMINOLE RANCH	19.87 20.87
283732080510001	05-23-05 09-19-05	0848 0930	BR0585 ASTRONAUT H.S.CF	12.99 11.21
283835080424501	05-23-05 09-19-05	0937 0952	838042002 21S36E27 MERRITT ISLE WILDLIFE	10.47 11.38

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 6
CITRUS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284508082174601	44
2	285102082204001	45
3	285414082284201	46

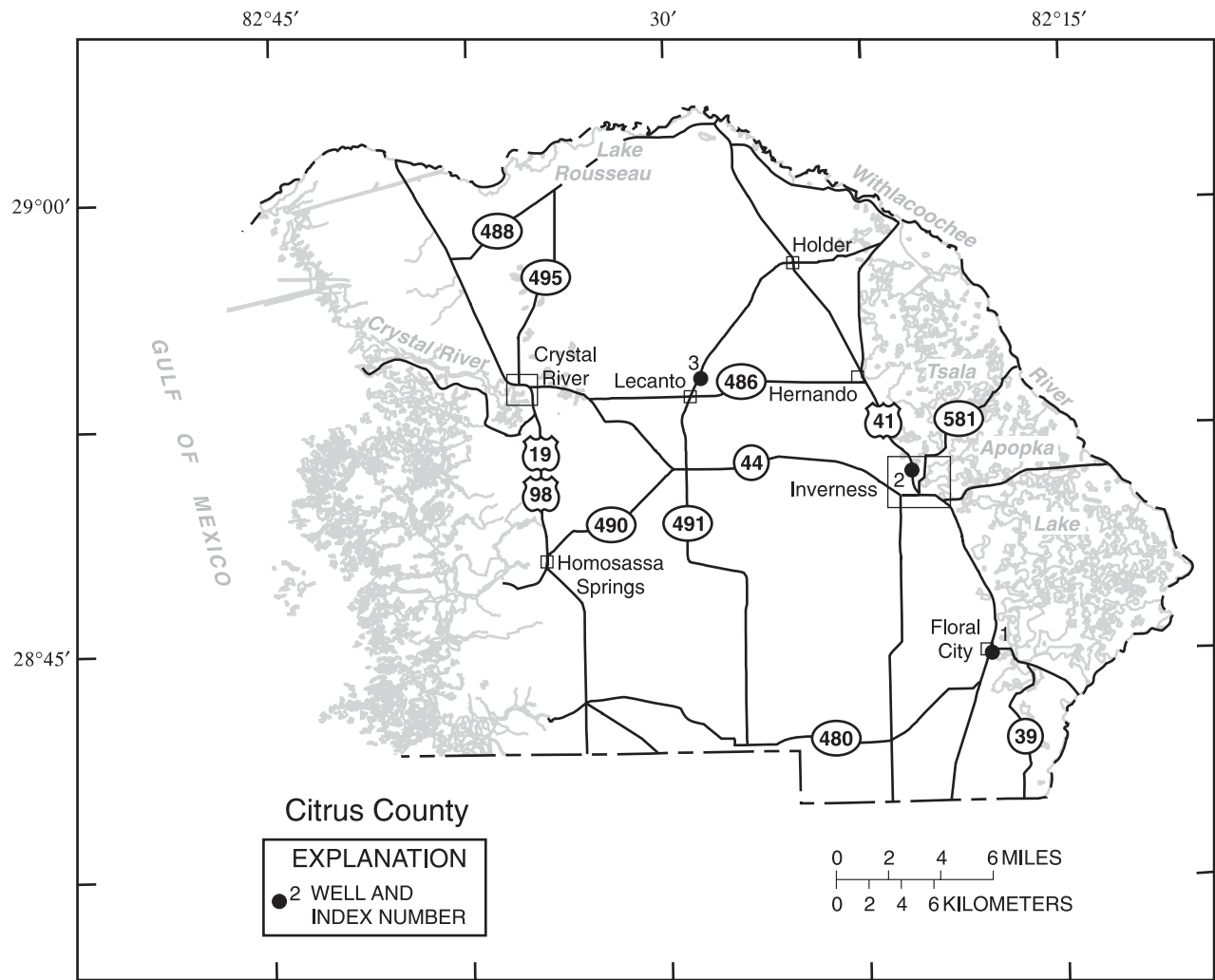


Figure 6.--Location of wells in Citrus County.

CITRUS COUNTY

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

LOCATION.--Lat 28°45'08", long 82°17'46", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 or electric tape.

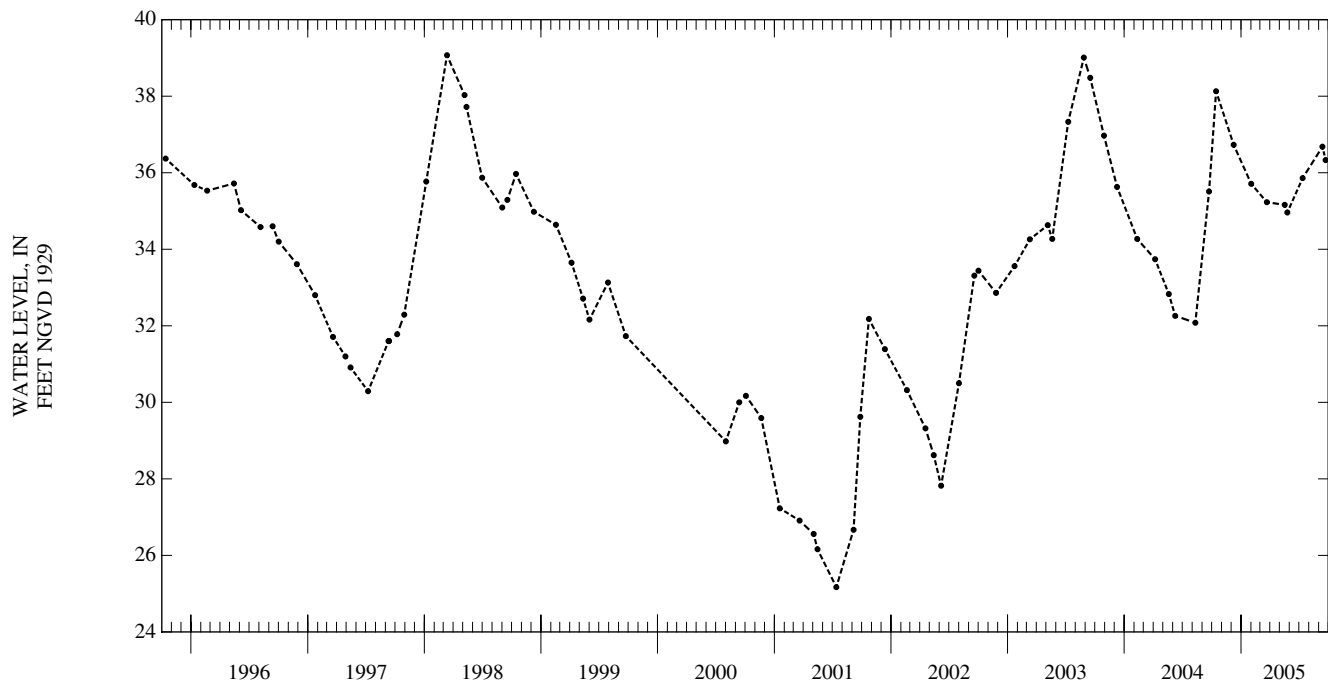
DATUM.--Elevation of land-surface datum is 70.43 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March and May 1961, January 1964 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.32 ft above NGVD of 1929, Aug. 23, 1965; lowest measured, 25.17 ft above NGVD of 1929, July 13, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	38.13	FEB 01	35.71	MAY 17	35.16	JUL 12	35.86	SEP 22	36.33
DEC 08	36.73	MAR 22	35.23	MAY 25	34.96	SEP 12	36.68		
WATER YEAR 2005 LOWEST 34.96 MAY 25, 2005 HIGHEST 38.13 OCT 14, 2004									



CITRUS COUNTY—Continued

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

LOCATION.--Lat 28°51'02", long 82°20'40", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--60-minute interval.

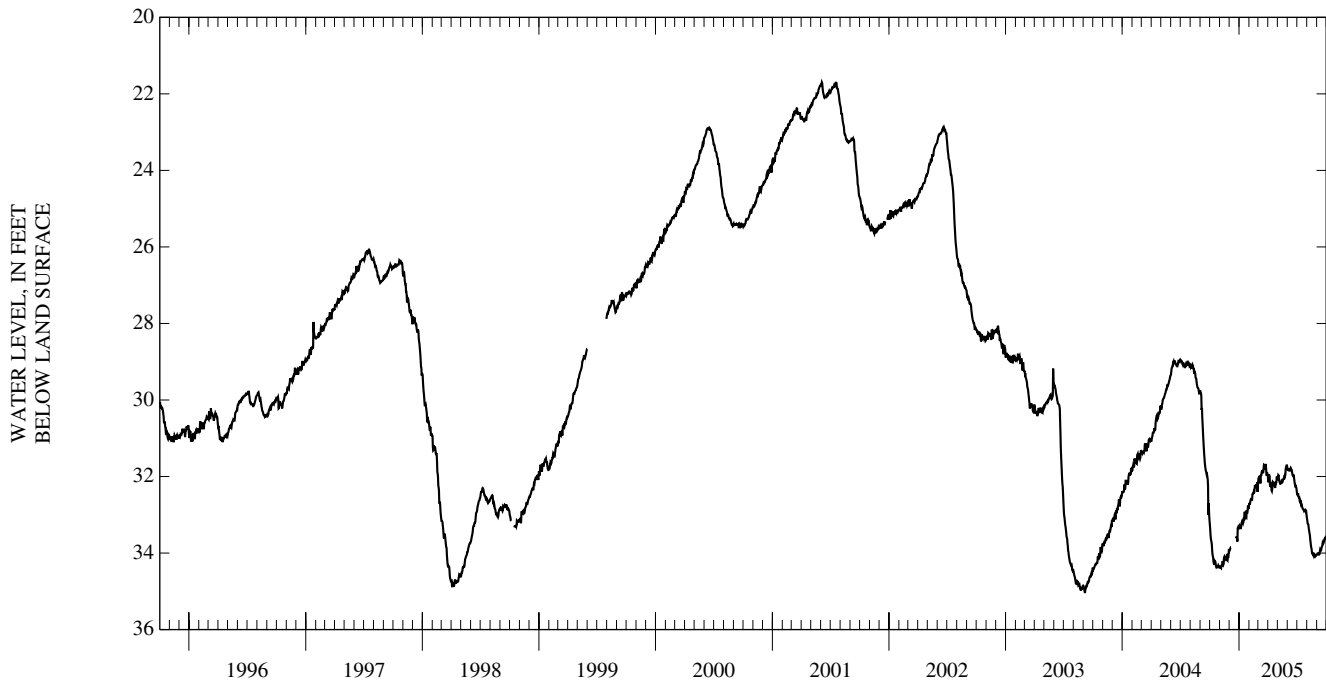
DATUM.--Elevation of land-surface datum is 41.56 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 2.07 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.80 ft above NGVD of 1929, Oct. 14, 1982; lowest, 21.70 ft above NGVD of 1929, June 4, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.68	34.39	33.85	33.35	32.62	32.02	31.97	32.09	31.81	32.50	33.25	33.99
10	34.08	34.21	---	33.21	32.61	31.96	32.22	32.19	31.84	32.66	33.54	33.97
15	34.31	34.10	---	33.07	32.40	31.83	32.24	32.16	31.88	32.74	33.88	33.88
20	34.35	34.14	---	33.09	32.25	31.71	32.21	32.06	31.95	32.86	34.01	33.76
25	34.37	34.19	33.62	32.95	32.23	31.72	32.13	31.96	32.24	32.90	34.04	33.63
EOM	34.36	33.96	33.34	32.78	32.27	31.96	32.05	31.75	32.40	33.04	34.04	33.55
MAX	34.37	34.39	---	33.35	32.73	32.18	32.38	32.19	32.40	33.04	34.09	34.04



CITRUS COUNTY—Continued

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

LOCATION.--Lat 28°54'14", long 82°28'42", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

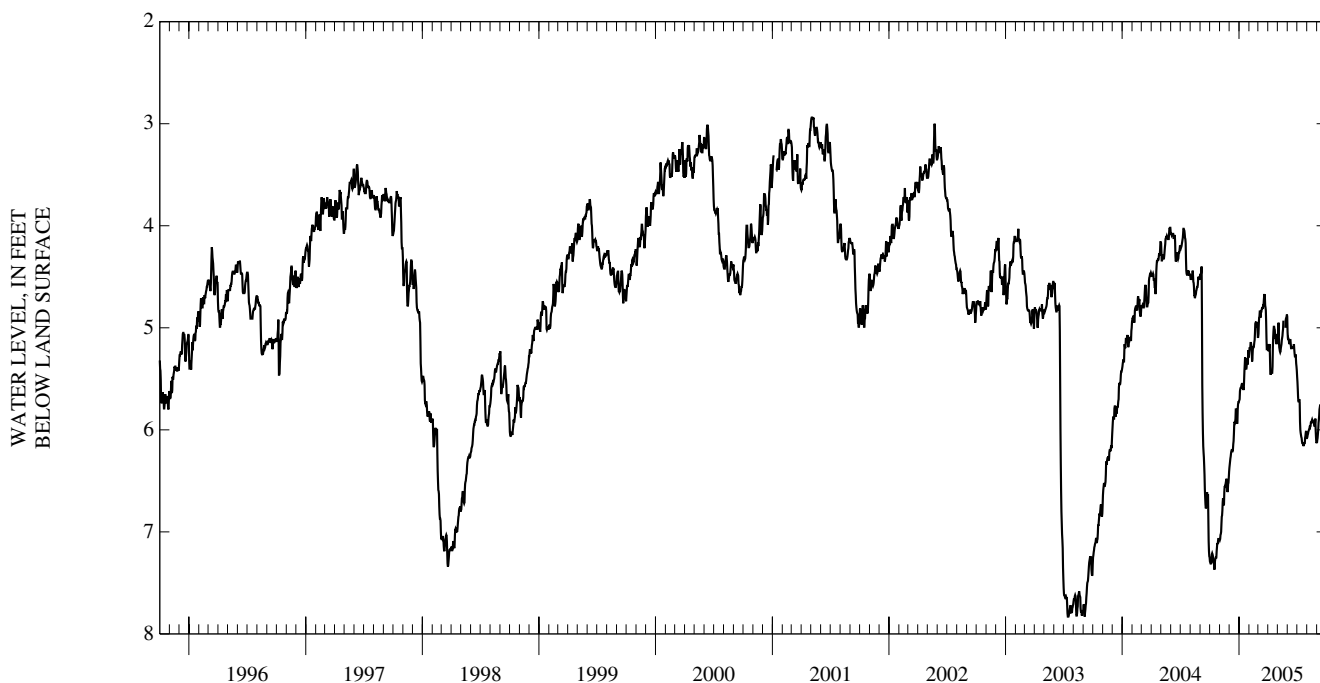
DATUM.--Elevation of land-surface datum is 68.87 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.07 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.10 ft above NGVD of 1929, Oct. 15, 1982; lowest, 2.94 ft above NGVD of 1929, May 3-5, 9, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.30	7.00	6.26	5.59	5.16	4.89	5.17	5.11	5.12	5.72	6.02	6.00
10	7.23	6.71	6.21	5.55	5.33	4.84	5.45	5.23	5.12	5.92	5.96	5.78
15	7.37	6.61	6.04	5.59	5.19	4.80	5.38	5.10	5.19	6.08	5.92	5.80
20	7.25	6.51	5.89	5.33	4.96	4.68	4.99	---	5.18	6.13	5.92	5.75
25	7.12	6.61	5.93	5.30	5.00	4.83	5.10	5.00	5.28	6.13	5.96	5.64
EOM	7.07	6.41	5.72	5.28	5.09	5.18	5.07	4.89	5.42	6.08	6.12	5.63
MAX	7.37	7.08	6.37	5.71	5.33	5.21	5.46	---	5.42	6.16	6.12	6.13
CAL YR	2004	MAX 7.37										



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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CITRUS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
284101082184301	05-25-05 09-22-05	1148 1025	84121801 21S20E04 OAK FOREST SUBMERSIBLE	34.63 35.93
284330082215401	05-25-05 09-22-05	1212 1235	ROMP 109 NEAR FLORAL CITY, FL	18.17 19.81
284439082131401	05-25-05 09-22-05	1247 1203	84421301 TRAILS END FISH CAMP WELL NR FLORAL CITY	40.51 41.25
284519082150701	05-25-05 09-22-05	1301 1140	84521501 20S21E07 HOMER N FISHER	41.23 41.44
284609082163001	05-25-05 09-22-05	1323 1105	DUVAL ISLAND WELL NR FLORAL CITY, FL	40.91 40.93
284752082202501	05-25-05 09-22-05	1427 1421	84722001 19S20E31 HIGHLANDS VFD NR INVERNESS	21.02 24.42
284805082225701	05-25-05 09-22-05	1457 1405	84822201 19S19E26 WSF-HOLDER MINE REC AREA	13.74 15.81
284844082282801	05-25-05 09-22-05	1636 1319	84822801 19S18E22 WSF-PERRYMAN TRACT	7.38 8.44
285037082213801	05-25-05 09-22-05	1531 1351	85022101 19S19E12 INVERNESS VILLAGE EASTW	22.69 25.95
285105082135802	05-26-05 09-22-05	0924 1442	USGS WELL 0.7MI.W OF WITH.R. ON SR 44.47FT N RD	38.25 39.43
285121082245401	10-18-04 05-25-05 09-22-05	1420 1543 1340	ROMP 113 REPLACEMENT NR INVERNESS, FL	10.89 8.13 9.54
285248082183201	05-26-05 09-23-05	1002 0844	85221801 18S20E33 ELMER HEATH	39.20 39.30
285608082233401	05-26-05 09-23-05	1053 0912	856223342A CAMP MINING WELL CE 64 NR HOLDER, FL.	22.76 24.59
285612082294201	05-26-05 09-23-05	1455 1332	85622901 18S18E04 PINE RIDGE NO 3	5.22 6.19
285720082201301	05-26-05 09-23-05	1147 1033	85722001ROMP DEEP WELL 116 NEAR TSALA APOPKA, FL	33.39 34.66
285812082360901	05-26-05 09-23-05	1335 1158	85823601 17S17E29 CE 7 U S GEOL SURVEY	13.68 14.79
285833082233301	05-26-05	1123	85822301 17S19E34 CE 16	18.89
285930082283702	05-26-05 09-23-05	1438 1348	85922803 17S18E22 CITRUS SPRINGS RECORDER	8.49 9.78
285951082350901	05-26-05 09-23-05	1310 1150	85923501 17S17E15 CE 6 U S GEOL SURVEY	20.69 21.76
290023082393601	05-26-05 09-23-05	1355 1230	90023901 17S16E11 CE 89 U S GEOL SURVEY	13.10 14.31
290107082400501	05-26-05 09-23-05	1400 1236	90124001 17S16E11 CE 88 U S GEOL SURVEY	3.15 3.94
290132082324201	05-26-05 09-23-05	1250 1130	90123202 17S17E01 EMORY COWART HOUSE WELL	14.96 15.69
290216082292001	05-26-05 09-23-05	1223 1110	90222901 16S18E33 CE 77 U S GEOL SURVEY	14.80 16.04

WATER RESOURCES DATA FOR FLORIDA, 2005
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KEY TO SITE LOCATIONS ON FIGURE 7
CLAY COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295733081365505	50
2	300656081463401	51
3	300834081421301	52

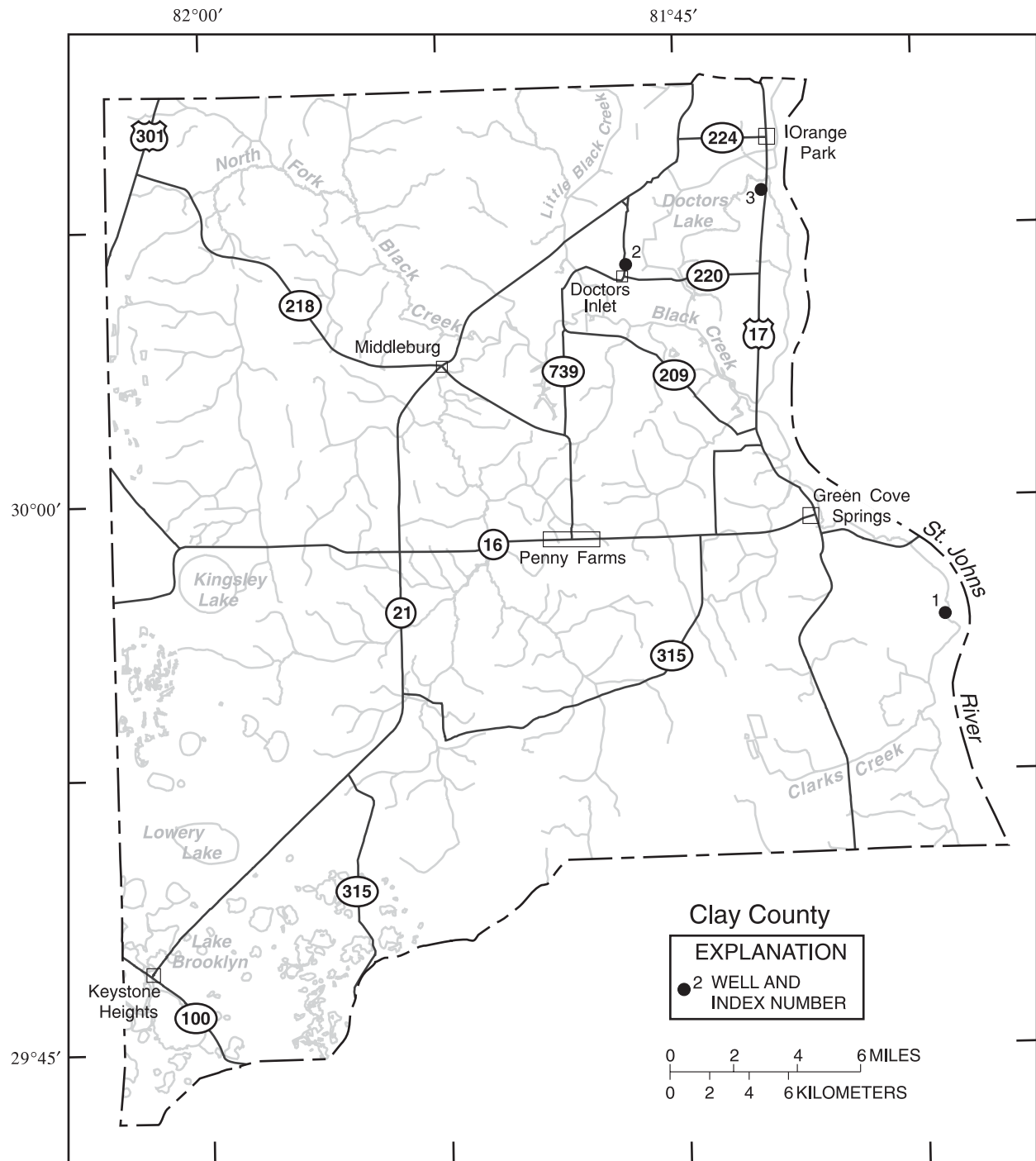


Figure 7.--Location of wells in Clay County.

CLAY COUNTY

WELL NUMBER.--295733081365505. Local Number C-0579. Bayard Point Well near Green Cove Springs, FL.

LOCATION.--Lat 29°57'33", long 81°36'55", in land grant 47, T.6 S., R.27 E., Hydrologic Unit 03080103, 60 ft north of dirt road, 1.6 mi southeast of State Highway 16, and 4.4 mi southeast of Green Cove Springs. 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 6 in., depth 656 ft, cased to 320 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

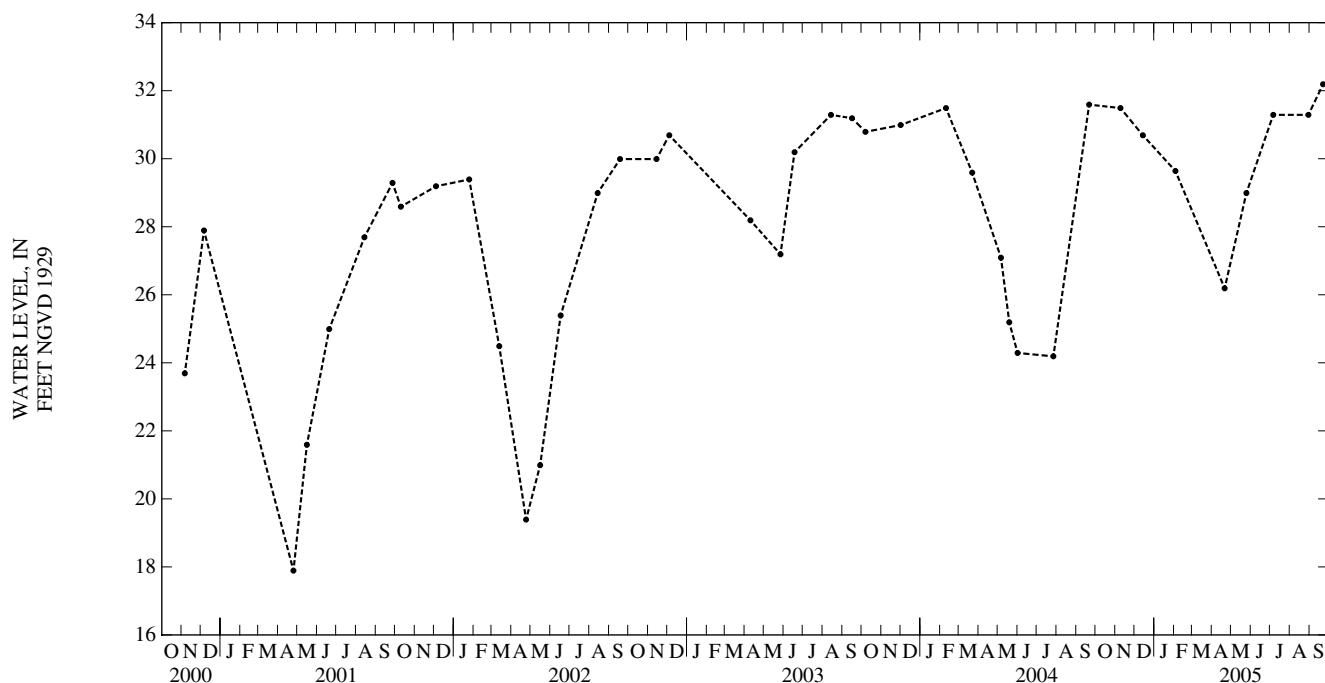
DATUM.--Land-surface datum is 9.64 ft above NGVD of 1929. Measuring point: Top of 6 in. gate valve, 1.55 ft above land-surface datum.

PERIOD OF RECORD.--May 2000 to September 2005 (bimonthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.19 ft above NGVD of 1929, Sept. 22, 2005; lowest measured, 17.89 ft, above NGVD of 1929, Apr. 25, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	31.49	FEB 03	29.64	MAY 25	28.99	AUG 30	31.29
DEC 14	30.69	APR 21	26.19	JUL 06	31.29	SEP 22	32.19
WATER YEAR 2005		LOWEST	26.19 APR 21, 2005	HIGHEST	32.19 SEP 22, 2005		



CLAY COUNTY—Continued

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

LOCATION.--Lat 30°06'56", long 81°46'34", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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, artesian well, diameter 8 in., depth 1,197 ft, cased to 391 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

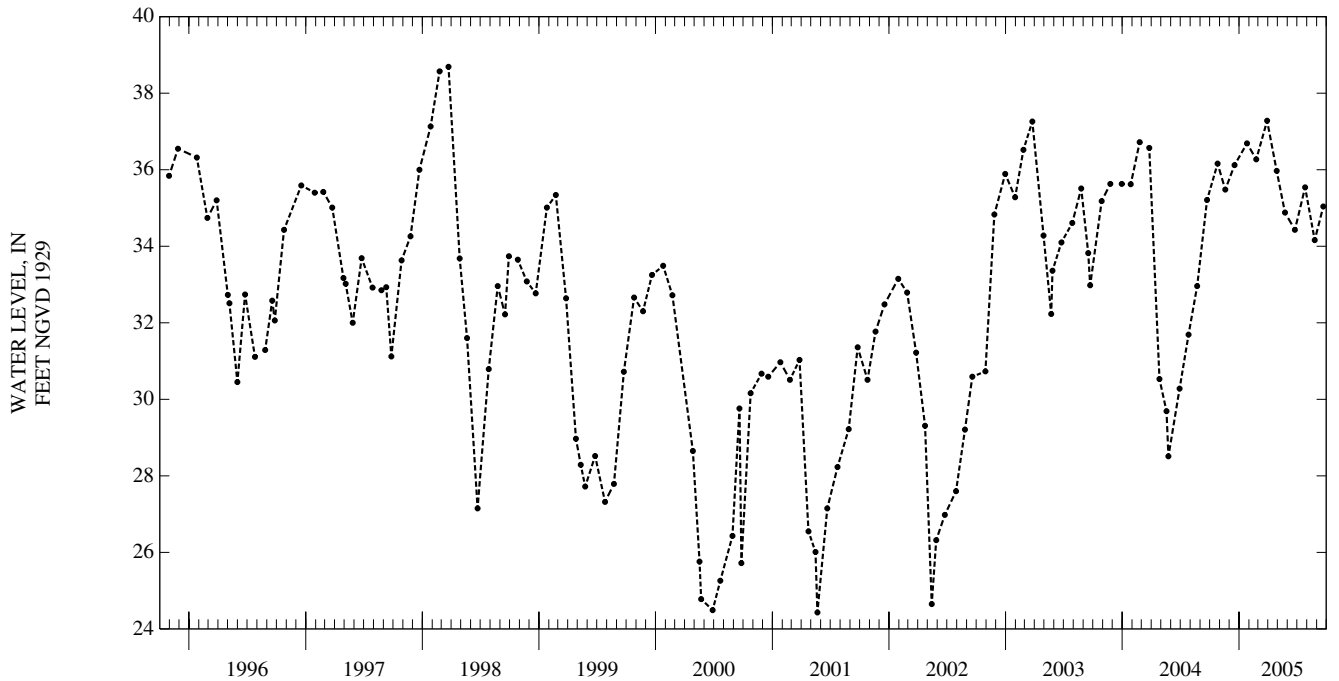
DATUM.--Land-surface datum is 46.22 ft above NGVD of 1929. Measuring point: Top of 2.5 in. coupling, 1.29 ft above land-surface datum.

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 above NGVD of 1929, Feb. 28, 1983; lowest measured, 24.43 ft above NGVD of 1929, May 21, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.16	DEC 17	36.12	FEB 23	36.27	APR 28	35.97	JUN 24	34.43	AUG 25	34.16
NOV 18	35.48	JAN 25	36.69	MAR 29	37.28	MAY 24	34.88	JUL 26	35.54	SEP 21	35.04
WATER YEAR 2005 LOWEST 34.16 AUG 25, 2005 HIGHEST 37.28 MAR 29, 2005											



CLAY COUNTY—Continued

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: Domestic Well.

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.

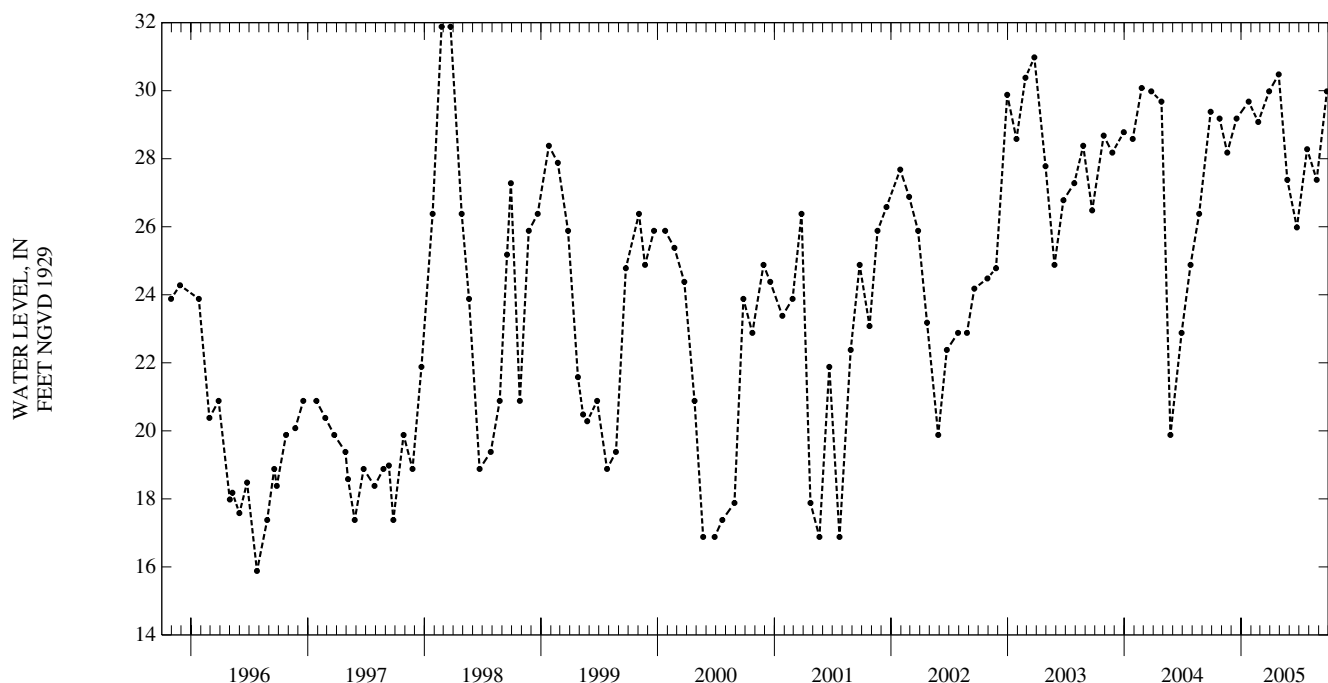
DATUM.--Land-surface datum is 3.88 ft above NGVD of 1929. Measuring point: Top of 3 in. cross, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to September 1980 (semiannually); May 1981 to September 2005 (monthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.08 ft above NGVD of 1929, Mar. 24, 1983; lowest measured, 15.88 ft above NGVD of 1929, July 25, 1996.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	29.18	DEC 17	29.18	FEB 23	29.08	APR 28	30.48	JUN 24	25.98	AUG 25	27.38
NOV 18	28.18	JAN 24	29.68	MAR 29	29.98	MAY 25	27.38	JUL 26	28.28	SEP 26	29.98
WATER YEAR 2005 LOWEST 25.98 JUN 24, 2005 HIGHEST 30.48 APR 28, 2005											



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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CLAY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
294307082020903	05-25-05 09-22-05	0915 1245	C-0009 COUNTYLINE NR MELROSE, FL	83.92 84.87
294728082010901	05-25-05 09-22-05	0940 1310	C-0442	80.81 81.96
294807082020903	05-25-05 09-22-05	1025 1340	9482028 WELL AT KEYSTONE HEIGHTS, FL	81.41 82.79
294911081572601	05-25-05 09-26-05	1120 0720	C-0453 GOLD HEAD	79.69 80.48
295016081433501	05-26-05 09-22-05	0900 0940	C-0123 SUNGARDEN TWR OCALA, FL	71.05 71.79
295222081393501	05-26-05 09-22-05	0925 0905	C-1026 BAYARD WELL NR WALKILL	47.75 49.42
295238081553701	05-25-05 09-26-05	1145 0645	C-1011 AT CAMP BLANDING NO.1 NR JACKSONVILLE, FL	77.08 77.79
295625081410901	05-25-05 09-22-05	1250 0835	C-1056 WALKILL WELL NR GREEN COVE SPGS, FL	48.85 50.15
295835081515001	05-25-05 09-22-05	0830 0650	C-17	72.46 72.85
295851081555301	05-25-05 09-26-05	1210 1145	C-0128 PENNY FARMS TWR	72.12 72.51
300048081414301	05-26-05 09-26-05	0740 1330	C-30	29.17 32.77
300318082015401	05-26-05 09-27-05	1145 0800	C-1017 TRAINING SITE AT CAMP BLANDING NR JAX, FL	63.45 63.04
300338081500301	05-24-05 09-21-05	1100 1310	C-1063 LAKE ASBURY COLLEGE NR MIDDLEBERG, FL	58.57 58.33
300649081485901	05-24-05 09-21-05	1135 1120	C-5 JOHN HUNTLEY WELL NEAR MIDDLEBURG, FL	40.22 41.02
300850081552001	05-24-05 09-21-05	0725 0915	C-29(C-0010)UFA WELL	56.32 55.92
300926081561603	05-23-05 09-21-05	1335 0930	C-0583 YELLOW WATER CR NR HUGH, FL	57.70 56.84

WATER RESOURCES DATA FOR FLORIDA, 2005
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KEY TO SITE LOCATIONS ON FIGURE 8
DUVAL COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number	Index number	Site number	Page number
1	300622081284701	56	21	302130081411802	81
2	300820081354001	57	22	302159081235601	82
3	301157081374301	58	23	302218081360501	83
4	301522081331303	59	24	302227081435001	84
5	301537081441901	60	25	302236081401501	85
6	301551081415701	61	26	302301081295001	86
7	301604081361501	62	26	302301081295002	87
8	301639081330802	63	27	302304081383202	88
9	301648081431801	64	26	302307081293801	89
10	301710081323601	65	28	302339081254702	90
10	301710081323602	66	29	302416081522601	91
10	301710081323603	67	29	302416081522602	92
11	301725081584501	68	30	302502081330701	93
12	301740081361001	69	30	302503081332001	94
13	301743081304701	70	30	302505081331001	95
12	301743081362301	71	30	302511081331201	96
12	301744081363301	72	30	302519081331501	97
12	301752081360501	73	31	302538081392501	98
14	301844081403801	74	32	302550081331501	99
15	301846081350901	75	33	302557081253101	100
16	301852081234201	76	34	302608081354901	101
17	302013081353801	77	34	302608081354902	102
18	302015081384501	78	34	302608081354903	103
19	302022081393501	79	35	302724081244801	104
20	302052081323201	80			

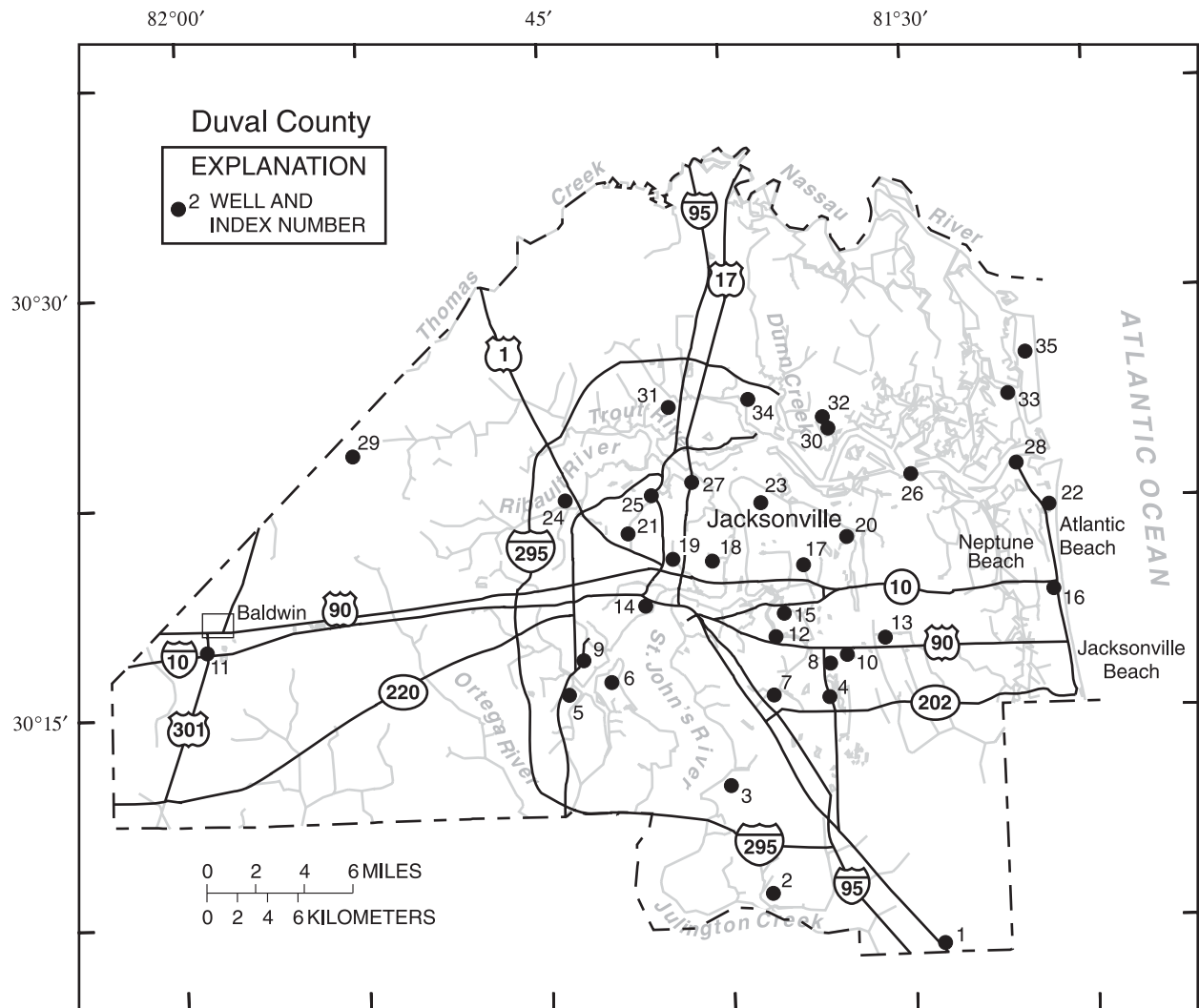


Figure 8.--Location of wells in Duval County.

DUVAL COUNTY

WELL NUMBER.--300622081284701. Local Number D-909. Dee Dot Ranch Well at Jacksonville, FL.

LOCATION.--Lat 30°06'22", long 81°28'47", in land grant 48, T.4 S., R.28 E., Hydrologic Unit 03080103, 300 ft northeast of U.S. Highway 1, 0.10 mi north of Duval-St. Johns County line in Jacksonville. Owner: Dee Dot Ranch.

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

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 4 in., depth 500 ft, casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

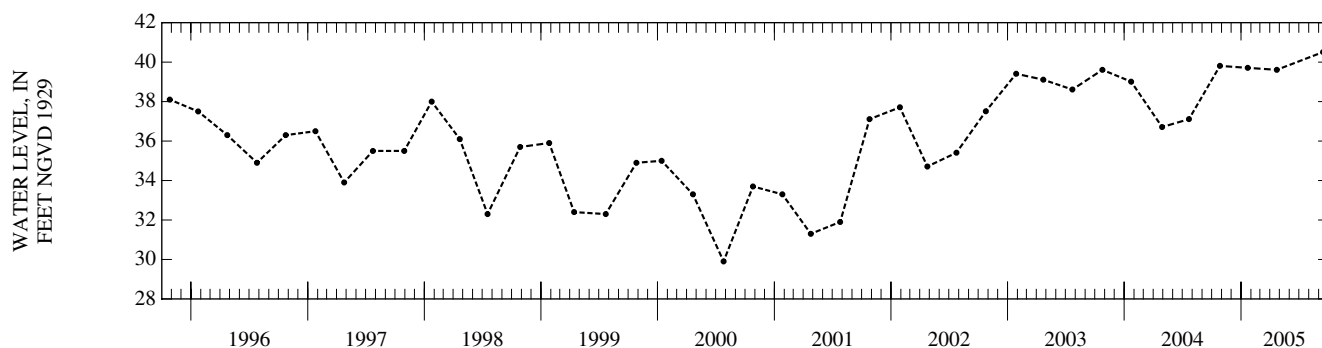
DATUM.--Land-surface datum is 22.81 ft above NGVD of 1929. Measuring point: Top of 4 in. cross pipe, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to September 1983 (semiannually); October 1990 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.91 ft above NGVD of 1929, Jan. 27, 1995; lowest measured, 32.71 ft above NGVD of 1929, July 25, 2000.

ELEVATION IN FEET NGVD 1929. WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	39.81	JAN 21	39.71	APR 22	39.61	SEP 14	40.51
WATER YEAR 2005		LOWEST	39.61	APR 22, 2005		HIGHEST	40.51
						SEP 14, 2005	



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-78, 1990 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 26...	1300	--	--	770	24.0	--	--	--	--	--	--	18.9	--
JAN 21...	1110	--	--	774	24.0	--	--	--	--	--	--	18.9	--
APR 22...	1130	2	7.2	761	23.0	390	90.7	38.1	2.74	15.9	128	18.7	1.0
SEP 14...	1520	--	--	782	27.0	--	--	--	--	--	--	19.1	--
Residue on evap. at 180degC													
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, fltrd, ug/L (01080)				
APR 22...						25.5	236	550	4,720				

DUVAL COUNTY—Continued

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: Domestic Well.

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.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1970, 1972-79, 1983 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 27...	1045	--	--	688	23.0	--	--	--	--	--	--	19.2	--
JAN 25...	1220	--	--	712	23.0	--	--	--	--	--	--	19.2	--
APR 22...	1100	2	7.2	703	24.0	350	66.7	43.9	3.08	14.9	109	18.5	.7

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 22...	22.0	217	489	5,370

DUVAL COUNTY—Continued

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, 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, artesian well, diameter 12 in., depth 1,000 ft, cased to 484 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1983-2001, 2004.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 26...	1400	--	--	1,140	29.0	--	--	--	--	--	--	99.3	--
JAN 25...	1145	--	--	924	24.0	--	--	--	--	--	--	66.7	--
APR 22...	1015	2	7.3	1,140	28.5	570	134	55.8	3.32	31.7	113	99.6	.7
SEP 14...	0800	--	--	1,090	28.0	--	--	--	--	--	--	94.8	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 22...	25.2	318	769	8,120

DUVAL COUNTY—Continued

WELL NUMBER.--301522081331303. Local Number D-4610 (Replacement for D-291). Humphrey's Mining Company Well at Jacksonville, FL.

LOCATION.--Lat 30°15'22", long 81°33'13", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.12, T.3 S., R.27 E., Hydrologic Unit 03080103, 200 ft east of State Highway 115 (Southside Boulevard), and 2.2 mi south of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: St. Johns River Water Management District.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 1,218 ft, cased to 1,009 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 53.88 ft above NGVD of 1929. Prior to September 2002, land-surface datum was 0.41 ft higher. Measuring point: Top of 6 in. casing, 2.81 ft above land-surface datum.

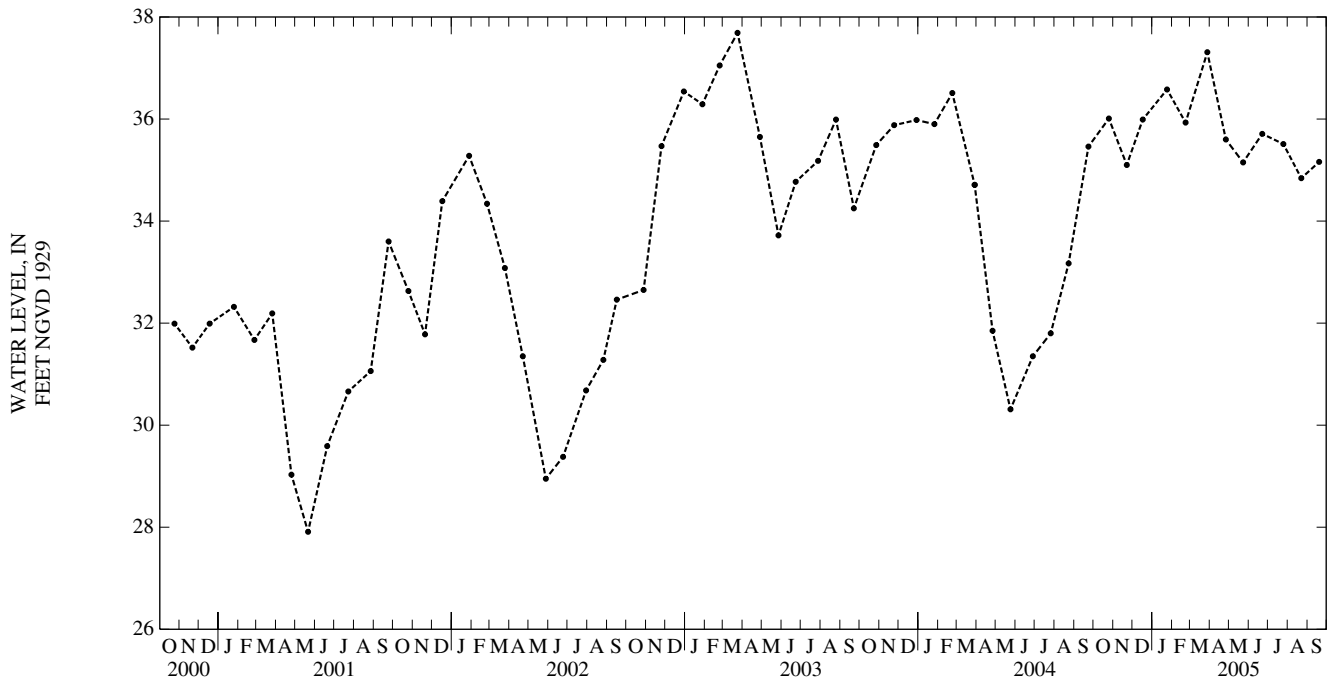
REMARKS.--Prior to September 1999 originally well Local Number D-291 (301522081331301). Well drilled to 1,246 ft in 1957, backplugged to 1,218 ft in 1999.

PERIOD OF RECORD.--October 1999 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.69 ft above NGVD of 1929, Mar. 24, 2003; lowest measured, 27.33 ft above NGVD of 1929, June 27, 2000, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.01	DEC 17	35.99	FEB 22	35.93	APR 26	35.60	JUN 22	35.71	AUG 22	34.84
NOV 22	35.10	JAN 24	36.58	MAR 28	37.31	MAY 23	35.15	JUL 25	35.51	SEP 19	35.16
WATER YEAR 2005		LOWEST	34.84	AUG 22, 2005	HIGHEST	37.31	MAR 28, 2005				



DUVAL COUNTY—Continued

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 970 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

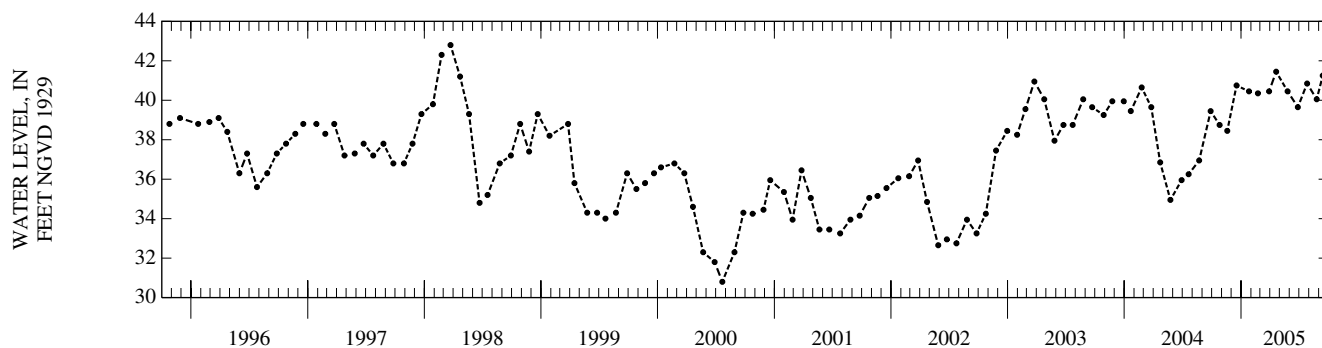
DATUM.--Land-surface datum is 15.45 ft above NGVD of 1929. Prior to September 2002, land-surface datum was considered to be 15.30 ft from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.95 ft above NGVD of 1929, Mar. 23, 1998, present datum; lowest measured, 30.95 ft above NGVD of 1929, July 21, 2000, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	38.75	DEC 17	40.75	FEB 22	40.35	APR 20	41.45	JUN 27	39.65	AUG 25	40.05
NOV 18	38.45	JAN 25	40.45	MAR 29	40.45	MAY 26	40.45	JUL 26	40.85	SEP 13	41.25
WATER YEAR 2005		LOWEST	38.45	NOV 18, 2004	HIGHEST	41.45	APR 20, 2005				



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 27...	0845	--	--	371	24.0	--	--	--	--	--	--	6.89	--
JAN 25...	1100	--	--	366	24.0	--	--	--	--	--	--	6.96	--
APR 20...	1340	5	7.3	365	25.0	180	40.8	17.0	1.85	6.68	104	6.86	.4
SEP 13...	1200	--	--	375	27.0	--	--	--	--	--	--	7.15	--
						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, fltrd, ug/L (01080)				
						Date							
						APR 20...	18.1	62.4	230	3,360			

DUVAL COUNTY—Continued

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: Domestic Well.

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.

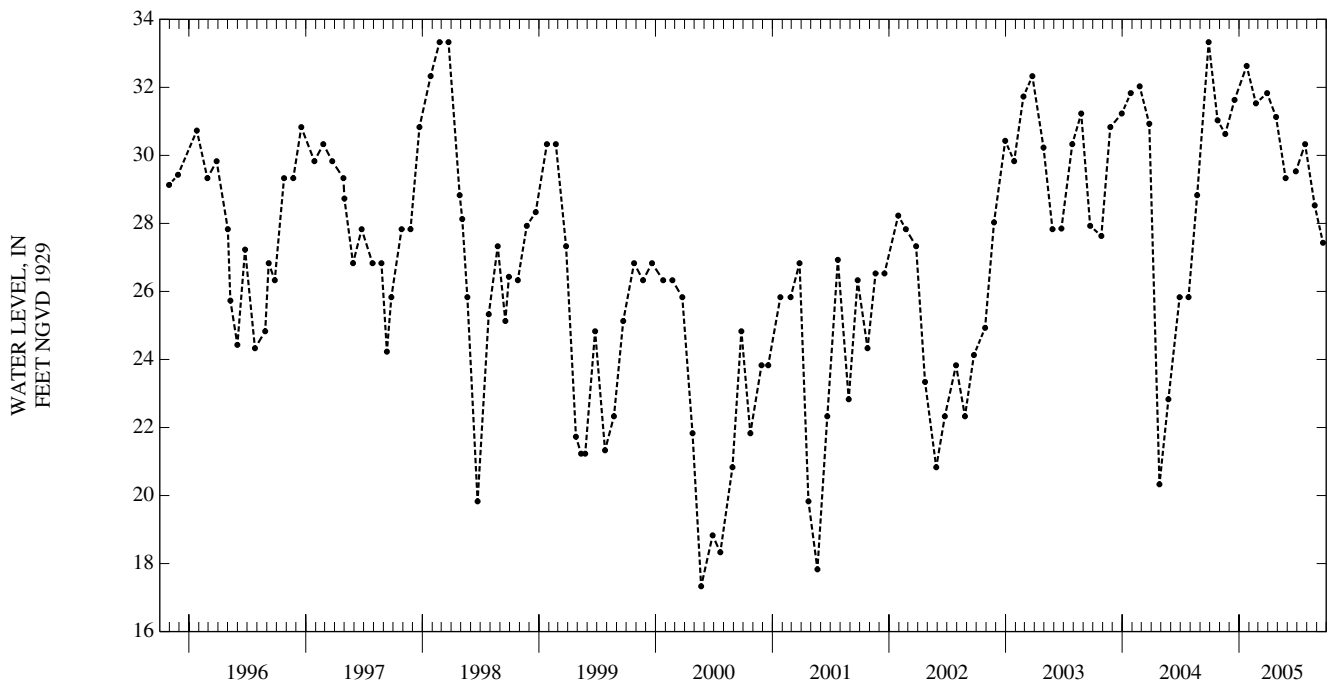
DATUM.--Land-surface datum is 8.63 ft above NGVD of 1929. Measuring point: 0.5 in. corporation cock, 1.20 ft above land-surface datum.

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).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.93 ft above NGVD of 1929, July 9, 1940; lowest measured, 17.33 ft above NGVD of 1929, May 22, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	31.03	DEC 17	31.63	FEB 22	31.53	APR 26	31.13	JUN 27	29.53	AUG 25	28.53
NOV 18	30.63	JAN 24	32.63	MAR 29	31.83	MAY 26	29.33	JUL 26	30.33	SEP 20	27.43
WATER YEAR 2005 LOWEST 27.43 SEP 20, 2005 HIGHEST 32.63 JAN 24, 2005											



DUVAL COUNTY—Continued

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 1,100 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

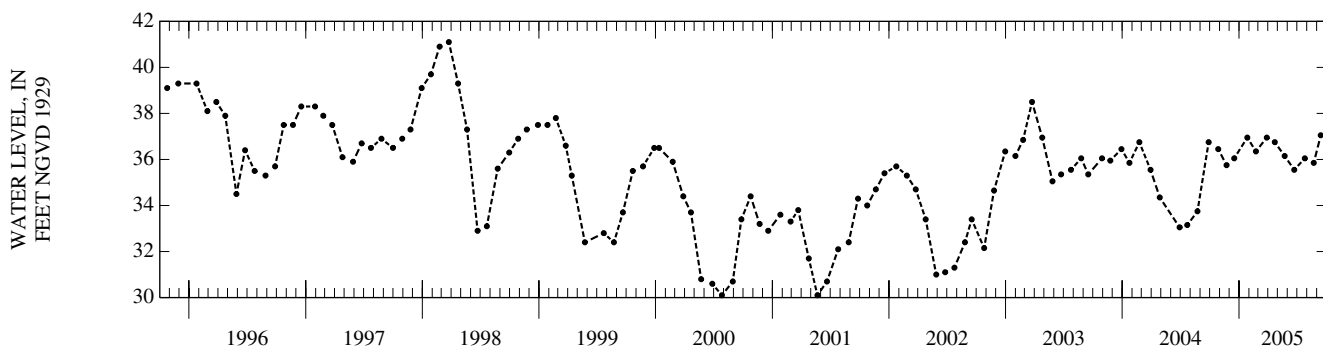
DATUM.--Land-surface datum is 20.05 ft above NGVD of 1929. Prior to September 2002, land-surface datum was considered to be 22.00 ft from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.15 ft above NGVD of 1929, Mar. 24, 1998, present datum; lowest measured, 28.15 ft above NGVD of 1929, July 26, 2000, June 20, 2001, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	36.45	DEC 16	36.05	FEB 22	36.35	APR 22	36.75	JUN 22	35.55	AUG 22	35.85
NOV 22	35.75	JAN 26	36.95	MAR 28	36.95	MAY 23	36.15	JUL 25	36.05	SEP 13	37.05
WATER YEAR 2005 LOWEST 35.55 JUN 22, 2005 HIGHEST 37.05 SEP 13, 2005											



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 27...	1000	--	--	732	24.0	--	--	--	--	--	--	57.7	--
JAN 26...	1430	--	--	750	24.0	--	--	--	--	--	--	62.0	--
APR 22...	1345	12	7.3	748	26.5	340	79.7	32.8	2.18	26.0	139	62.4	.8
SEP 13...	1400	--	--	756	27.5	--	--	--	--	--	--	63.9	--
Residue on evap. at 180degC wat flt mg/L (70300)													
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Strontium, water, fltrd, ug/L (01080)					
APR 22...						25.4	133	468	3,440				

DUVAL COUNTY—Continued

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 SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, sec. 1, T.3 S., R.27 E., Hydrologic Unit 03080103, 40 ft south of Anders Boulevard, 0.35 mi east of State Highway 115 (Southside Boulevard), and 0.60 mi south of U.S. Highway 90 (Beach 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 1,080 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape.

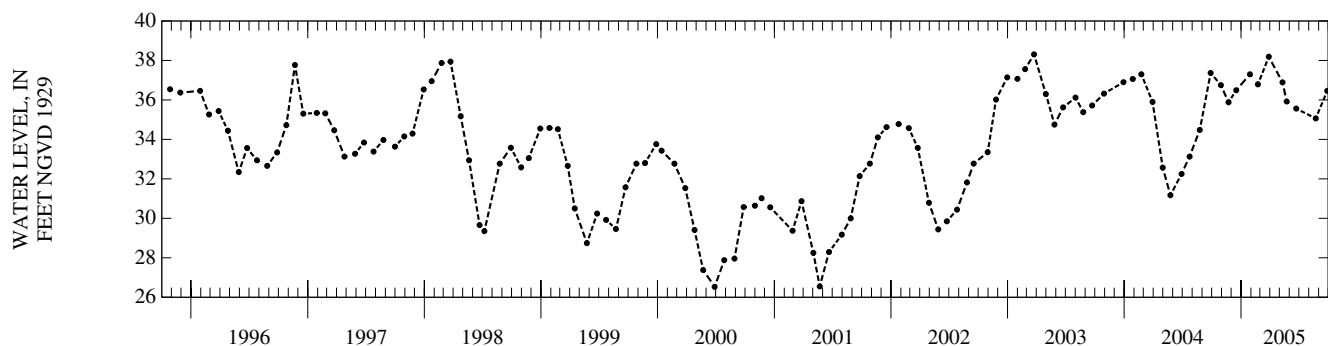
DATUM.--Land-surface datum is 51.68 ft above NGVD of 1929. Measuring point: Top of 2 in. casing, 1.76 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.44 ft above NGVD of 1929, Apr. 21, 1993; lowest measured, 28.21 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	36.75	DEC 16	36.49	FEB 22	36.79	MAY 10	36.89	JUN 22	35.56	SEP 27	36.46
NOV 22	35.88	JAN 28	37.30	MAR 28	38.19	23	35.92	AUG 22	35.06		
WATER YEAR 2005		LOWEST	35.06	AUG 22, 2005	HIGHEST	38.19	MAR 28, 2005				



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 29...	1120	--	--	1,100	28.0	--	--	--	--	--	--	156	--
JAN 28...	1030	--	--	1,010	26.0	--	--	--	--	--	--	127	--
MAY 10...	1115	20	7.3	993	27.5	410	97.1	39.5	2.41	41.9	136	119	.8
SEP 27...	1345	--	--	1,030	28.0	--	--	--	--	--	--	131	--

DUVAL COUNTY—Continued

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, located in Lakeshore pumping station at intersection of Hamilton and Appleton Streets, 0.1 mi south of intersection of State Highway 128 (San Juan Avenue) and U.S. Highway 17 (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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 26...	1140	--	--	465	26.5	--	--	--	--	--	--	9.46	--
JAN 24...	1300	--	--	470	26.0	--	--	--	--	--	--	9.57	--
APR 20...	1430	2	7.2	463	27.0	230	49.5	24.1	2.25	9.45	114	9.55	.7
SEP 13...	1300	--	--	471	27.8	--	--	--	--	--	--	9.90	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 20...	20.8	100	298	3,540

DUVAL COUNTY—Continued

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 NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside 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.--Water-stage recorder--60 minute interval.

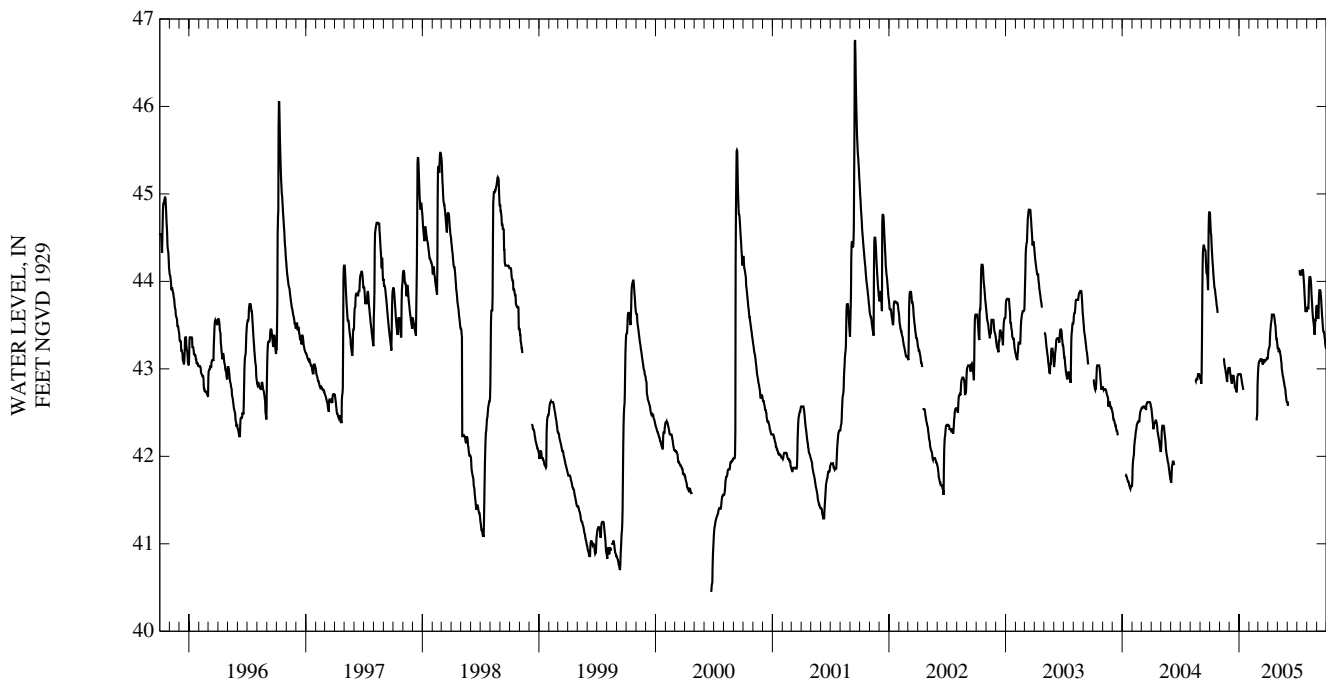
DATUM.--Land-surface datum is 54.65 ft above NGVD of 1929. Measuring point: Top of 2 in. casing at shelter floor, 2.67 ft above land-surface datum.

PERIOD OF RECORD.--February 1989 to June 1991 (bimonthly); June 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 46.76 ft above NGVD of 1929, Sept. 16, 2001; lowest water level measured, 38.31 ft above NGVD of 1929, Aug. 3, 1989.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.53	---	42.91	42.93	---	43.09	43.25	43.20	42.60	---	43.68	43.57
10	44.19	---	42.89	42.83	---	43.11	43.51	43.16	---	44.07	44.05	43.90
15	43.93	43.07	42.89	---	---	43.05	43.62	42.98	---	44.07	43.85	43.74
20	43.80	42.95	42.79	---	---	43.10	43.60	42.86	---	44.11	43.57	43.46
25	43.64	42.95	42.84	---	42.45	43.10	43.44	42.77	---	43.80	43.39	43.36
EOM	---	43.01	42.94	---	42.91	43.12	43.28	42.62	---	43.65	43.72	43.24
MAX	---	---	43.01	---	---	43.12	43.62	43.24	---	---	44.05	43.90



DUVAL COUNTY—Continued

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 NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside Boulevard), next to U.S. Forest 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.--Water-stage recorder--60-minute interval.

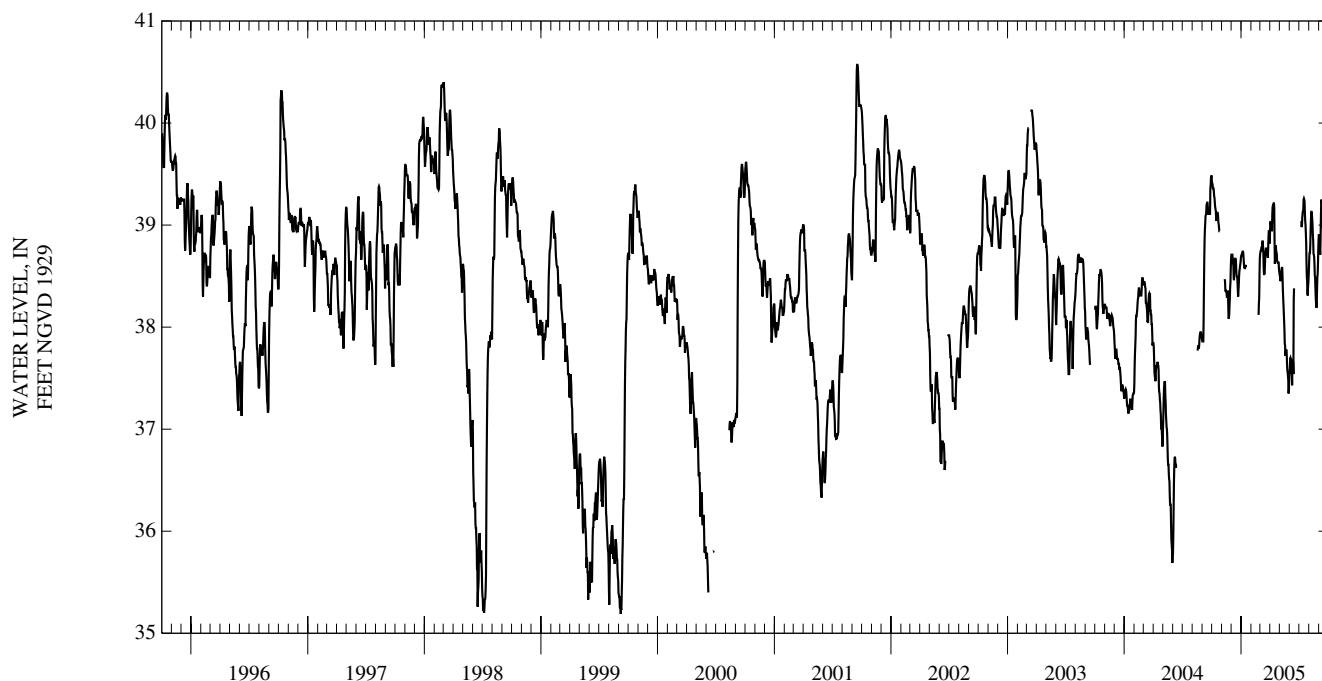
DATUM.--Land-surface datum is 55.10 ft above NGVD of 1929. Measuring point: Top of 4 in. casing at shelter floor, 2.22 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 44.40 ft above NGVD of 1929, Aug. 6-13, 1991; lowest, 35.19 ft above NGVD of 1929, Sept. 7, 1999.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.36	---	38.67	38.74	---	38.78	38.99	38.49	37.69	---	38.81	38.71
10	39.22	38.47	38.60	38.59	---	38.79	39.19	38.50	37.64	39.01	39.10	39.23
15	39.04	38.34	38.66	38.59	---	38.53	38.86	38.06	38.38	39.25	38.72	38.87
20	39.10	38.35	38.45	---	---	38.77	38.75	37.76	---	39.04	38.49	38.38
25	38.94	38.21	38.50	---	38.23	38.68	38.63	37.58	---	38.49	38.20	38.54
EOM	---	38.67	38.69	---	38.68	38.82	38.54	37.52	---	38.51	38.87	38.38
MAX	---	---	38.71	---	---	38.94	39.22	38.58	---	---	39.13	39.25



DUVAL COUNTY—Continued

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 NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside Boulevard), next to U.S. Forest 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.--Water-stage recorder--60-minute interval.

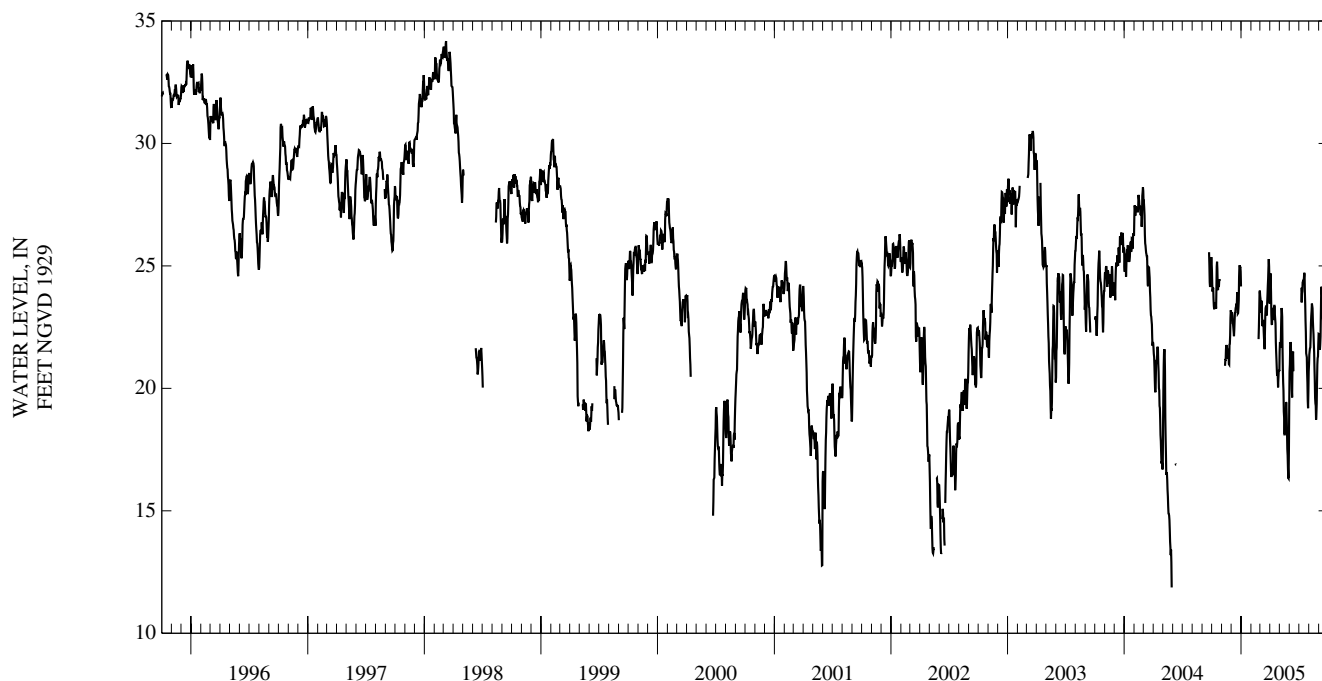
DATUM.--Land-surface datum is 54.97 ft above NGVD of 1929. Measuring point: Top of 6 in. casing at shelter floor, 2.37 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 35.68 ft above NGVD of 1929, Jan. 19, 1995; lowest, 11.02 ft above NGVD of 1929, May 28, 2004.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.11	---	22.65	---	---	23.58	23.04	22.09	21.81	---	21.66	21.79
10	23.28	---	22.40	---	---	22.76	23.18	21.65	20.80	23.88	23.46	24.06
15	24.06	21.77	23.32	---	---	21.60	23.37	18.82	---	24.37	22.21	22.01
20	24.01	21.28	23.81	---	---	23.32	21.50	18.83	---	23.43	19.61	19.65
25	24.39	21.79	24.54	---	22.51	24.20	20.50	17.52	---	21.27	19.36	21.80
EOM	---	23.09	24.16	---	23.99	23.46	20.70	19.36	---	20.69	22.22	21.31
MAX	---	---	25.03	---	---	25.28	24.70	23.28	---	---	23.46	24.15



DUVAL COUNTY—Continued

WELL NUMBER.--301725081584501. Local Number D-254. Seaboard Coastline Well at Baldwin, FL.

LOCATION.--Lat 30°17'25", long 81°58'45", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.26, T.2 S., R.23 E., Hydrologic Unit 03080103, 0.4 mi north of Interstate Highway 10, and 0.5 mi east of U.S. Highway 301, 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 or electric tape.

DATUM.--Land-surface datum is 85.00 ft above NGVD of 1929. Measuring point: 1.25 in. tap in pump base, 1.88 ft above land-surface datum.

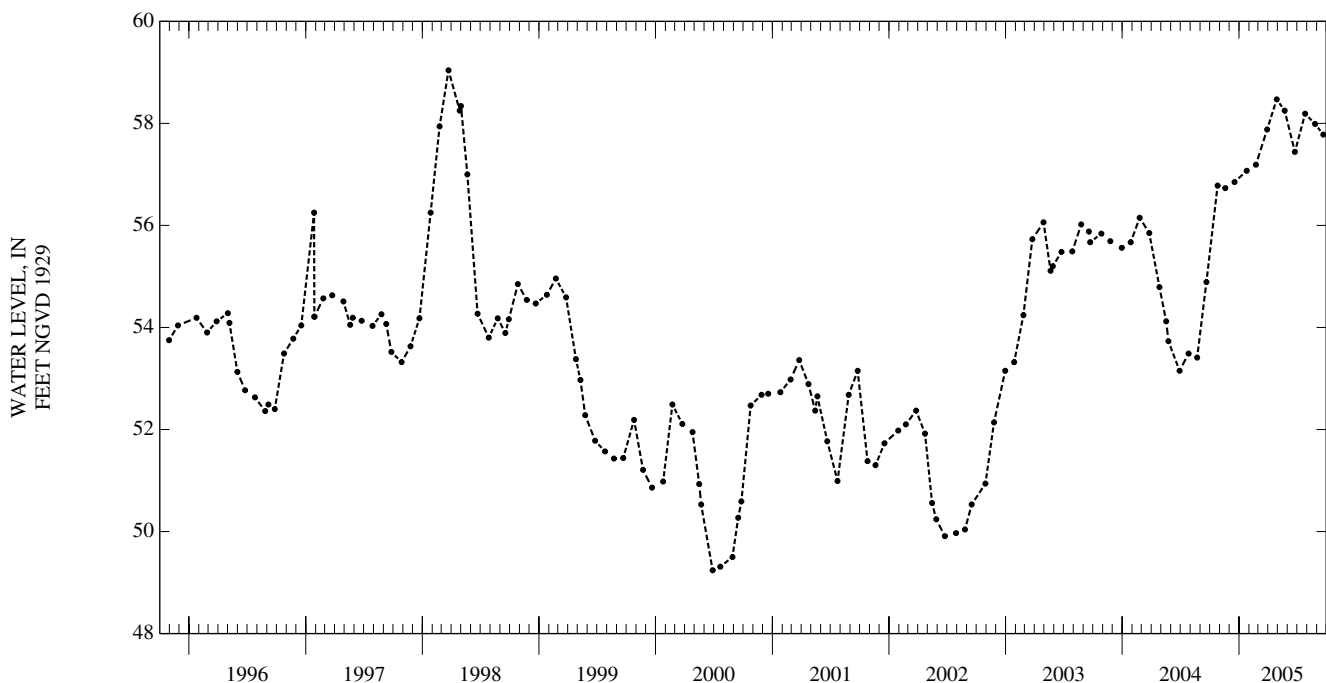
PERIOD OF RECORD.--January 1961 to May 1962, May 1964 to September 1978 (annually); February 1979 to March 1983 (bimonthly); May 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.75 ft above NGVD of 1929, Jan. 11, 1961; lowest measured, 47.62 ft above NGVD of 1929, Sept. 26, 1990.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	56.78	DEC 17	56.85	FEB 22	57.19	APR 28	58.47	JUN 24	57.44	AUG 26	57.99
NOV 18	56.73	JAN 24	57.07	MAR 29	57.88	MAY 23	58.25	JUL 26	58.19	SEP 21	57.78

WATER YEAR 2005 LOWEST 56.73 NOV 18, 2004 HIGHEST 58.47 APR 28, 2005



DUVAL COUNTY—Continued

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, located 300 ft west and 0.15 mi north 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 26...	0915	--	--	1,020	26.5	--	--	--	--	--	--	154	--
NOV 23...	0920	--	--	1,040	28.0	--	--	--	--	--	--	156	--
DEC 16...	0930	--	--	1,030	27.0	--	--	--	--	--	--	155	--
JAN 21...	0830	--	--	1,020	26.0	--	--	--	--	--	--	149	--
FEB 23...	1300	--	--	1,030	28.0	--	--	--	--	--	--	150	--
MAR 29...	0800	--	--	1,010	27.0	--	--	--	--	--	--	149	--
APR 19...	1445	12	7.3	1,020	27.0	420	101	38.9	2.33	45.2	133	153	.7
MAY 26...	1015	--	--	1,050	27.5	--	--	--	--	--	--	153	--
JUN 29...	0800	--	--	997	27.0	--	--	--	--	--	--	129	--
JUL 26...	0910	--	--	1,030	28.0	--	--	--	--	--	--	153	--
AUG 22...	0900	--	--	1,030	28.5	--	--	--	--	--	--	154	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	29.2	134	610	3,450

DUVAL COUNTY—Continued

WELL NUMBER.--301743081304701. Local Number D-224. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'43", long 81°30'47", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T.2 S., R.28 E., Hydrologic Unit 03080103, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 27...	1330	--	--	677	26.0	--	--	--	--	--	--	34.6	--
JAN 21...	1030	--	--	702	25.0	--	--	--	--	--	--	40.7	--
APR 19...	1245	5	7.3	676	25.0	320	76.6	31.5	2.21	20.4	135	33.4	.8
SEP 14...	1030	--	--	656	27.0	--	--	--	--	--	--	27.9	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	27.4	147	444	3,040

DUVAL COUNTY—Continued

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, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)
NOV 23...	0945	979	27.0	135
DEC 16...	1000	943	25.0	117
JAN 21...	1345	904	24.5	107
FEB 23...	1350	997	25.0	104
MAR 29...	1030	969	24.0	102

DUVAL COUNTY—Continued

WELL NUMBER.--301744081363301. Local Number D-2193. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'44", long 81°36'33", land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)
OCT 26...	0930	1,000	26.0	145
NOV 23...	0930	957	27.0	86.7
DEC 16...	0945	941	25.0	126
JAN 21...	1315	978	24.0	113
FEB 23...	1315	683	23.0	109
MAR 29...	1020	708	24.0	103

DUVAL COUNTY—Continued

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, located 50 ft east and 150 ft north of Hart Bridge on-ramp on University Boulevard, and 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 26...	0815	--	--	667	26.0	--	--	--	--	--	--	29.1	--
NOV 23...	0845	--	--	668	25.0	--	--	--	--	--	--	29.3	--
DEC 16...	0915	--	--	678	26.0	--	--	--	--	--	--	29.5	--
JAN 21...	0845	--	--	664	25.0	--	--	--	--	--	--	29.0	--
FEB 23...	1245	--	--	672	26.0	--	--	--	--	--	--	29.1	--
MAR 29...	0815	--	--	632	26.0	--	--	--	--	--	--	29.4	--
APR 19...	0815	2	7.6	645	26.5	320	75.5	31.3	2.10	16.2	130	28.7	.8
MAY 26...	0800	--	--	673	25.5	--	--	--	--	--	--	29.7	--
JUN 29...	0815	--	--	696	26.5	--	--	--	--	--	--	39.1	--
JUL 26...	0900	--	--	677	26.0	--	--	--	--	--	--	29.7	--
AUG 22...	0915	--	--	674	27.0	--	--	--	--	--	--	29.8	--
SEP 13...	1500	--	--	669	27.5	--	--	--	--	--	--	29.5	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	26.6	152	439	3,360

DUVAL COUNTY—Continued

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, 70 ft north of Lomax Street and 350 ft east of Riverside Avenue 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.

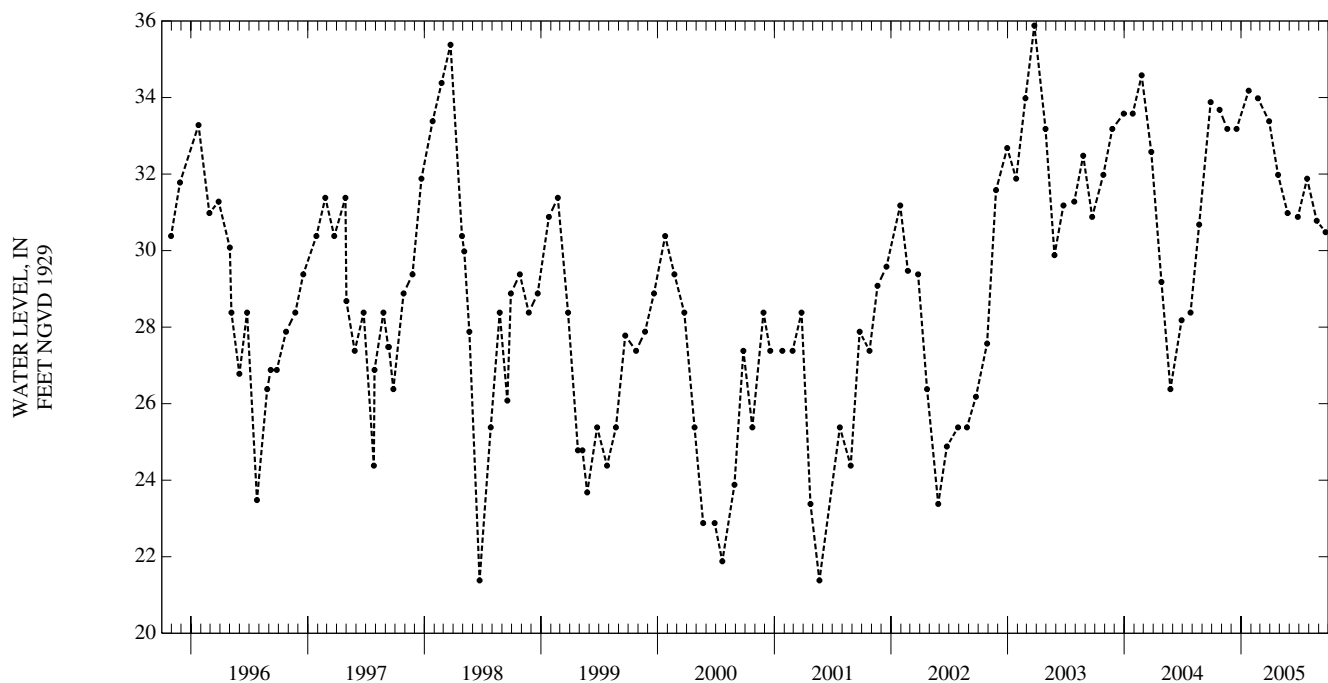
DATUM.--Land-surface datum is 4.48 ft above NGVD of 1929. Measuring point: Top of 8 in. tee, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--November 1938, July 1940 to May 1941, May 1946 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft above NGVD of 1929, Nov. 26, 1968; lowest measured, 21.38 ft above NGVD of 1929, June 22, 1998, May 21, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	33.68	DEC 17	33.18	FEB 22	33.98	APR 26	31.98	JUN 27	30.88	AUG 25	30.78
NOV 18	33.18	JAN 24	34.18	MAR 29	33.38	MAY 26	30.98	JUL 26	31.88	SEP 22	30.48
WATER YEAR 2005		LOWEST	30.48	SEP 22, 2005	HIGHEST	34.18	JAN 24, 2005				



DUVAL COUNTY—Continued

WELL NUMBER.--301846081350901. Local Number D-3544. Healthpoint Medical Center Well at Jacksonville, FL.

LOCATION.--Lat 30°18'46", long 81°35'09", in land grant 50, T.2 S., R.27 E., Hydrologic Unit 03080103, 15 ft south of Atlantic Boulevard, and 0.8 mi east of intersection of Atlantic Boulevard and University Boulevard. Owner: Healthpoint Medical Center.

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

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 2 in., depth 651 ft, cased to 535 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

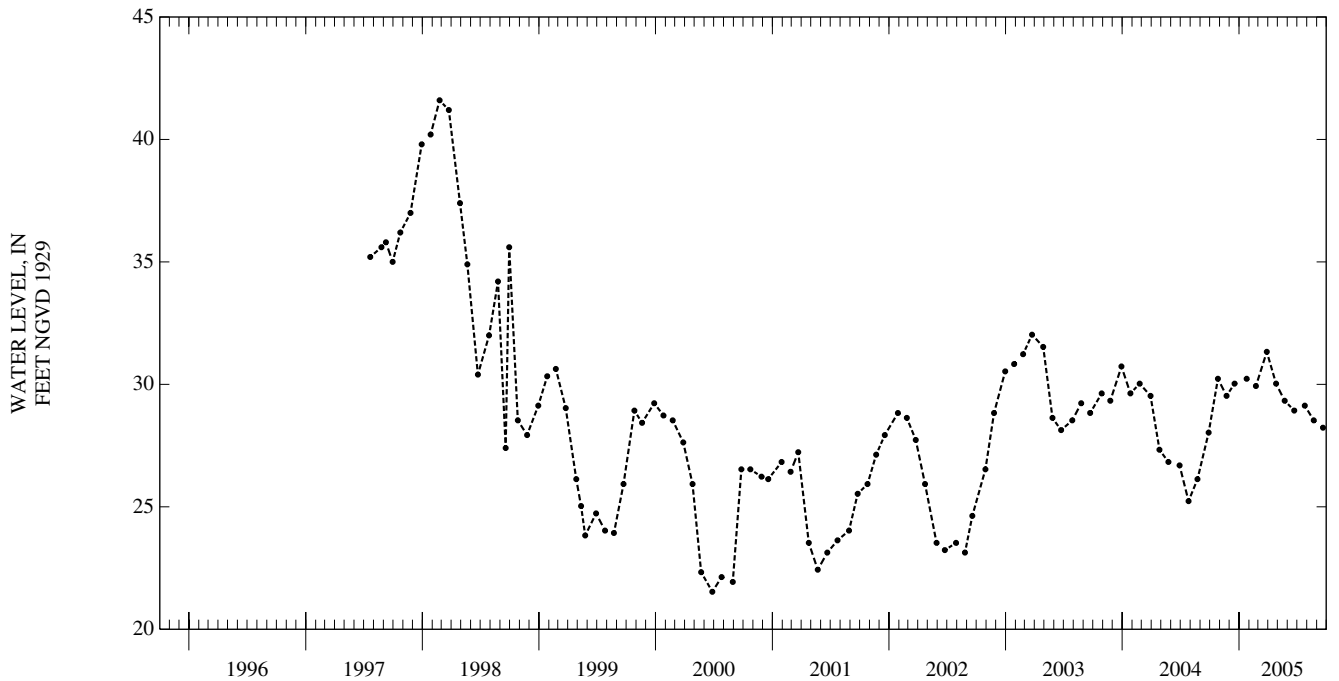
DATUM.--Land-surface datum is 12.93 ft above NGVD of 1929. Measuring point: Top of reducer bushing, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--July 1985, July 1997 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.53 ft above NGVD of 1929, Feb. 23, 1998; lowest measured, 21.53 ft above NGVD of 1929, June 26, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	30.23	DEC 17	30.03	FEB 22	29.93	APR 26	30.03	JUN 22	28.93	AUG 22	28.53
NOV 22	29.53	JAN 24	30.23	MAR 28	31.33	MAY 23	29.33	JUL 25	29.13	SEP 20	28.23
WATER YEAR 2005		LOWEST	28.23	SEP 20, 2005	HIGHEST	31.33	MAR 28, 2005				



DUVAL COUNTY—Continued

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, 400 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.

DATUM.--Land-surface datum is 12.05 ft above NGVD of 1929. Measuring point: Top of 8 in. gate valve flange cover, 2.49 ft below land-surface datum.

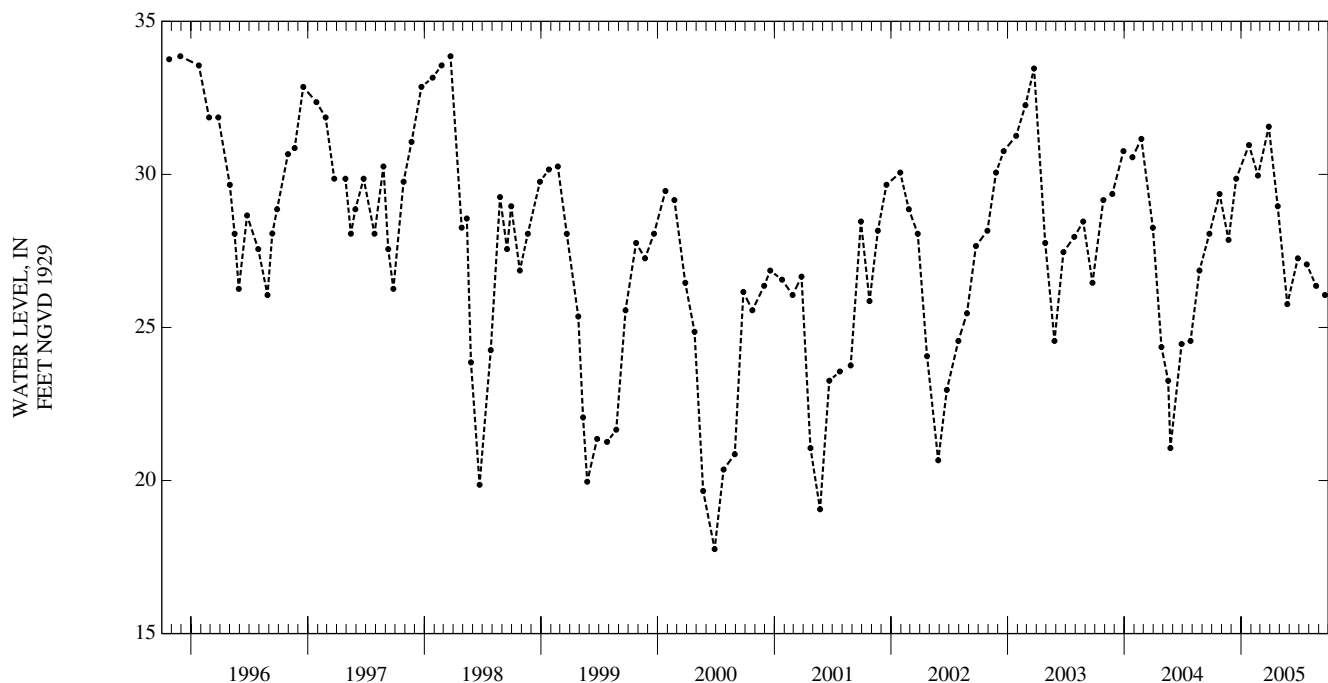
PERIOD OF RECORD.--June 1934, October 1939, September 1940 to February 1942, January 1944 to April 1980 (bimonthly); May 1980 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.75 ft above NGVD of 1929, June 15, 1934; lowest measured, 17.76 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	29.36	DEC 16	29.86	FEB 22	29.96	APR 25	28.96	JUN 27	27.26	AUG 23	26.36
NOV 22	27.86	JAN 25	30.96	MAR 28	31.56	MAY 25	25.76	JUL 25	27.06	SEP 20	26.06

WATER YEAR 2005 LOWEST 25.76 MAY 25, 2005 HIGHEST 31.56 MAR 28, 2005



DUVAL COUNTY—Continued

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, located inside fenced area 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 26...	0845	--	--	1,070	27.0	--	--	--	--	--	--	169	--
NOV 23...	0900	--	--	1,070	27.5	--	--	--	--	--	--	169	--
DEC 16...	0850	--	--	1,070	26.5	--	--	--	--	--	--	167	--
JAN 21...	0900	--	--	1,060	26.0	--	--	--	--	--	--	166	--
FEB 23...	1230	--	--	1,020	28.0	--	--	--	--	--	--	165	--
MAR 30...	1030	--	--	1,060	27.0	--	--	--	--	--	--	165	--
APR 22...	0840	2	7.3	1,040	26.5	420	103	39.6	2.05	46.5	137	162	.6
MAY 26...	0830	--	--	1,080	27.0	--	--	--	--	--	--	165	--
JUN 29...	0840	--	--	1,090	28.0	--	--	--	--	--	--	171	--
JUL 26...	0830	--	--	1,100	27.5	--	--	--	--	--	--	175	--
AUG 22...	0950	--	--	1,100	28.0	--	--	--	--	--	--	174	--
SEP 14...	0900	--	--	1,080	27.5	--	--	--	--	--	--	172	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 22...	29.3	124	611	2,890

DUVAL COUNTY—Continued

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, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 25...	1145	--	--	500	26.0	--	--	--	--	--	--	15.1	--
JAN 24...	1100	--	--	514	26.0	--	--	--	--	--	--	14.9	--
APR 19...	1015	5	7.3	519	26.0	250	61.1	23.1	1.74	12.3	142	14.7	.7
SEP 13...	0900	--	--	545	26.5	--	--	--	--	--	--	15.1	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	28.4	87.1	331	2,100

DUVAL COUNTY—Continued

WELL NUMBER.--302022081393501. Local Number D-176. City of Jacksonville 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 1,280 ft, cased to 800 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

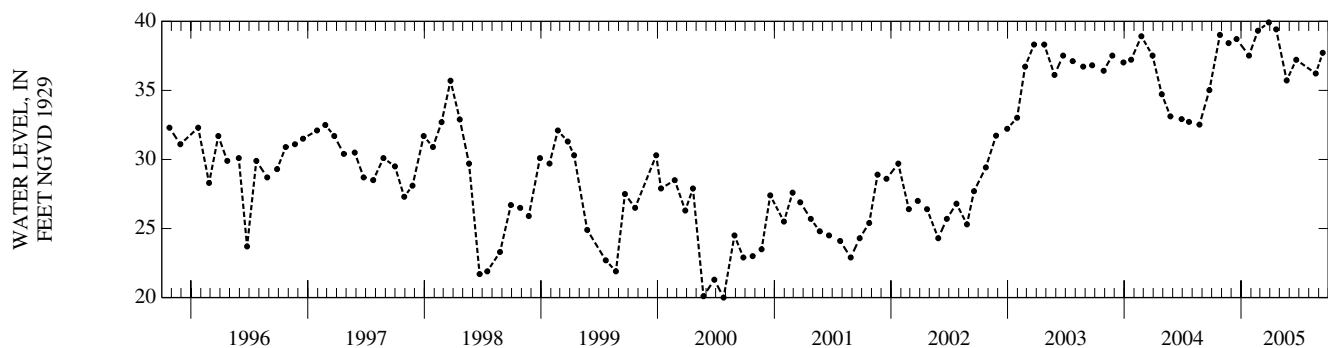
DATUM.--Land-surface datum is 5.42 ft above NGVD of 1929. Prior to September 2002, land-surface datum was considered to be 3.00 ft from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.92 ft above NGVD of 1929, Mar. 28, 2005; lowest measured, 22.42 ft above NGVD of 1929, July 25, 2000, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	39.02	DEC 17	38.72	FEB 22	39.32	APR 20	39.42	JUN 22	37.22	SEP 13	37.72
NOV 22	38.42	JAN 25	37.52	MAR 28	39.92	MAY 23	35.72	AUG 22	36.22		
WATER YEAR 2005 LOWEST 35.72 MAY 23, 2005 HIGHEST 39.92 MAR 28, 2005											



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 26...	1110	--	--	624	25.0	--	--	--	--	--	--	12.5	--
JAN 25...	1030	--	--	624	24.0	--	--	--	--	--	--	12.6	--
APR 20...	1340	15	7.2	610	27.0	320	77.0	29.4	2.05	11.1	130	12.5	.7
SEP 13...	0830	--	--	623	24.8	--	--	--	--	--	--	13.1	--
Residue on evap. at 180degC wat flt mg/L (70300)													
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Strontium, water, fltrd, ug/L (01080)					
APR 20...						23.7	164	417	3.830				

DUVAL COUNTY—Continued

WELL NUMBER.--302052081323201. Local Number D-3060. Arlington East Sewage Treatment Plant Well at Jacksonville, FL.

LOCATION.--Lat 30°20'52", long 81°32'32", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T.2 S., R.28 E., Hydrologic Unit 03080103, 80 ft north of North Plant Road and 900 ft east of Millcove Road. 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 6 in., depth 2,112 ft, cased to 2,050 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage.

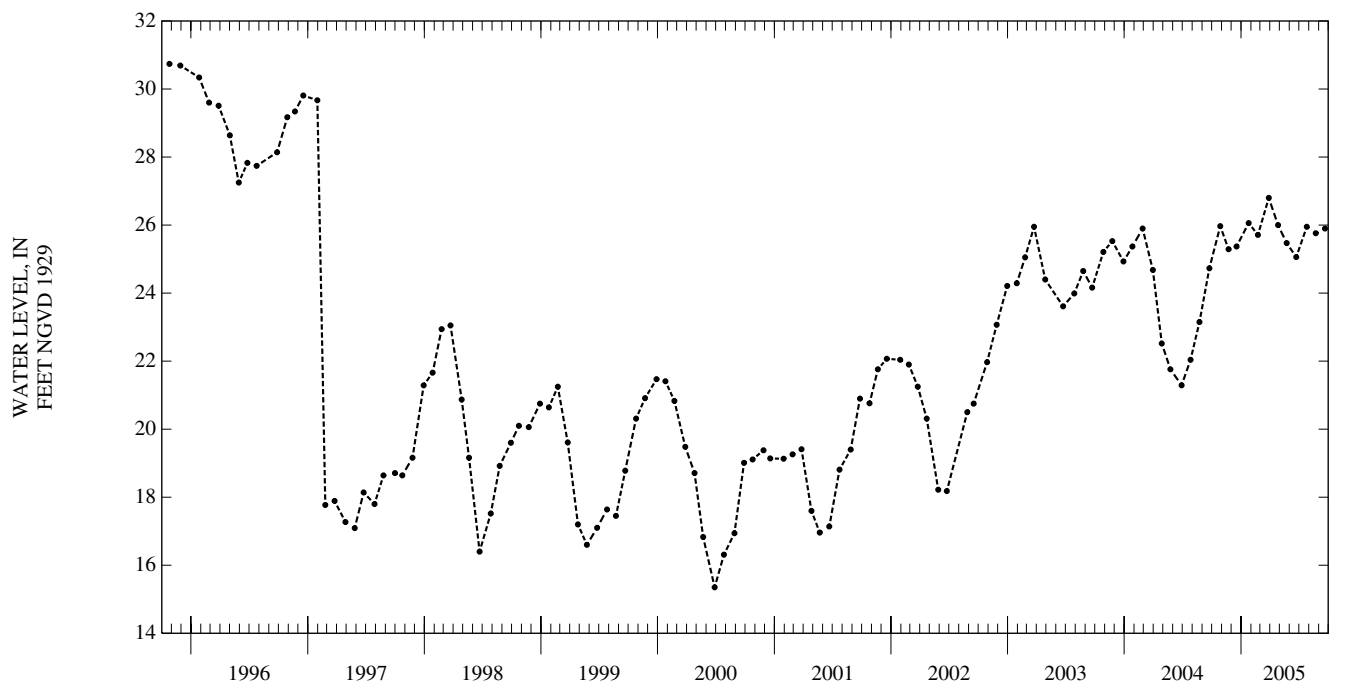
DATUM.--Land-surface datum is 28.44 ft above NGVD of 1929. Measuring point: Top of 6 in. well flange, 3.55 ft, above land-surface datum.

PERIOD OF RECORD.--February 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.39 ft above NGVD of 1929, Apr. 30, 1986; lowest measured, 15.35 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	25.97	DEC 17	25.37	FEB 22	25.71	APR 26	26.00	JUN 22	25.06	AUG 22	25.76
NOV 22	25.29	JAN 24	26.06	MAR 28	26.80	MAY 23	25.47	JUL 25	25.95	SEP 20	25.90
WATER YEAR 2005		LOWEST	25.06 JUN 22, 2005	HIGHEST	26.80 MAR 28, 2005						



DUVAL COUNTY—Continued

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, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 25...	1100	--	--	550	27.0	--	--	--	--	--	--	12.7	--
JAN 25...	0945	--	--	548	25.5	--	--	--	--	--	--	12.8	--
APR 22...	0930	5	7.1	542	27.5	270	66.7	24.5	1.68	11.4	133	12.5	.7
SEP 13...	1000	--	--	558	27.4	--	--	--	--	--	--	13.2	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 22...	25.1	119	361	2,380

DUVAL COUNTY—Continued

WELL NUMBER.--302159081235601. Local Number D-2386. Hanna Park Test Well at Jacksonville, FL.

LOCATION.--Lat 30°21'59", long 81°23'56", in land grant 37, T.2 S., R.29 E., Hydrologic Unit 03080201, 25 ft north of beach front parking lot #8, 0.8 mi east from intersection of Mayport and Wonderwood Road, and 2.6 mi southeast of City of Mayport. 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 6 in., depth 2,026 ft, cased to 1,892 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

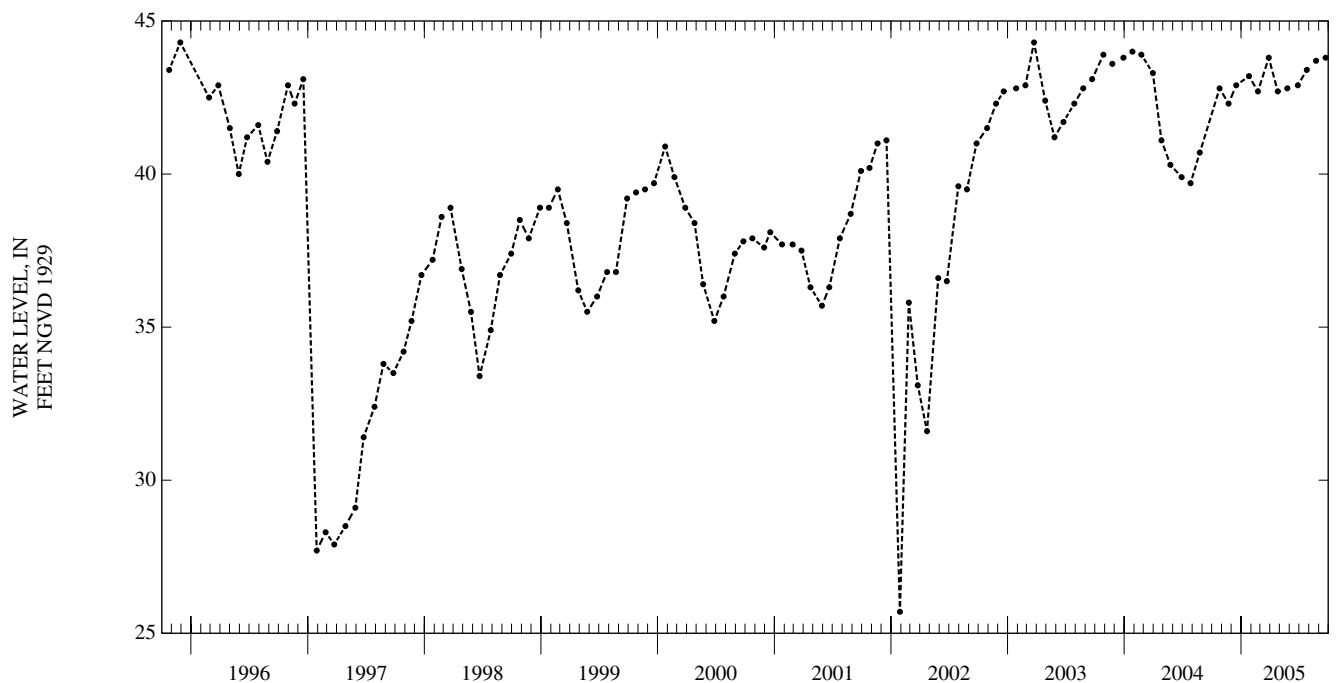
DATUM.--Land-surface datum is 18.94 ft above NGVD of 1929. Measuring point: Top of flange, 1.16 ft above land-surface datum.

PERIOD OF RECORD.--April 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.50 ft above NGVD of 1929, Feb. 21, 1995; lowest measured, 25.70 ft above NGVD of 1929, Jan. 28, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	42.80	DEC 16	42.90	FEB 22	42.70	APR 25	42.70	JUN 27	42.90	AUG 23	43.70
NOV 22	42.30	JAN 25	43.20	MAR 28	43.80	MAY 25	42.80	JUL 25	43.40	SEP 22	43.80
WATER YEAR 2005		LOWEST	42.30	NOV 22, 2004	HIGHEST	43.80	MAR 28, 2005	SEP 22, 2005			



DUVAL COUNTY—Continued

WELL NUMBER.--302218081360501. Local Number D-356. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°22'18", long 81°36'05", in land grant 47, T.1 S., R.27 E., Hydrologic Unit 03080103, located at water treatment plant, 3735 Rubin Road, 0.5 mi east of intersection of University Blvd. and Rubin Road. Owner: Jacksonville Electric Authority. (JEA)

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

WELL CHARACTERISTICS.--Drilled, observation well, diameter 12 in., depth 1,016 ft, cased to 573 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 27...	1245	--	--	546	25.0	--	--	--	--	--	--	15.2	--
JAN 21...	1230	--	--	550	25.0	--	--	--	--	--	--	15.4	--
APR 22...	1300	5	7.1	542	27.0	270	65.9	24.6	1.62	12.3	140	15.0	.7
SEP 14...	0930	--	--	558	26.0	--	--	--	--	--	--	15.4	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 22...	28.5	108	367	1,940

DUVAL COUNTY—Continued

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 1,150 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

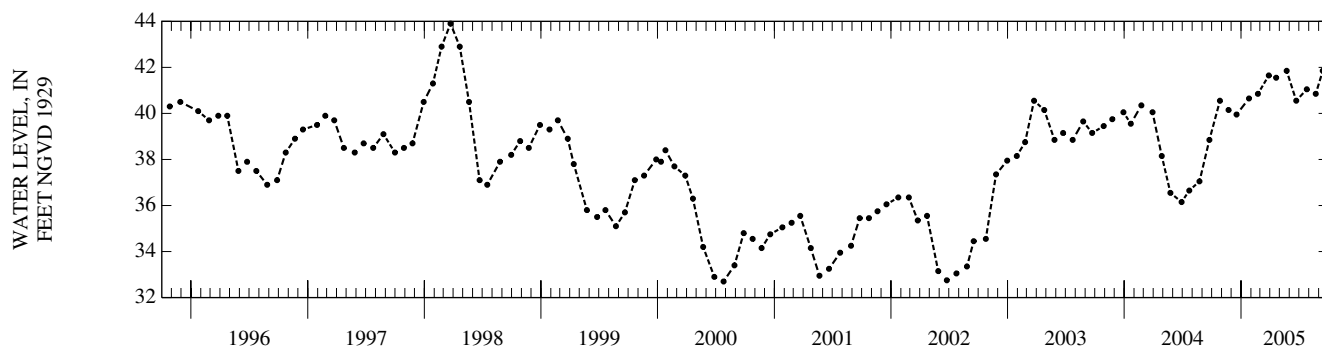
DATUM.--Land-surface datum is 8.85 ft above NGVD of 1929. Prior to September 2002, land-surface datum considered to be 10.00 ft from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.75 ft above NGVD of 1929, Mar. 23, 1998, present datum; lowest measured, 31.55 ft above NGVD of 1929, July 25, 2000, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	40.55	DEC 17	39.95	FEB 22	40.85	APR 20	41.55	JUN 22	40.55	AUG 22	40.85
NOV 22	40.15	JAN 25	40.65	MAR 28	41.65	MAY 23	41.85	JUL 25	41.05	SEP 13	41.85
WATER YEAR 2005 LOWEST 39.95 DEC 17, 2004 HIGHEST 41.85 MAY 23, 2005 SEP 13, 2005											



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 26...	1030	--	--	610	25.0	--	--	--	--	--	--	11.4	--
JAN 25...	0845	--	--	612	24.0	--	--	--	--	--	--	11.3	--
APR 20...	1300	8	7.1	605	26.0	310	76.8	27.3	1.70	10.5	127	11.2	.7
SEP 13...	1030	--	--	621	25.5	--	--	--	--	--	--	11.3	--
Residue on evap. at 180degC wat flt mg/L (70300)													
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Strontium, water, fltrd, ug/L (01080)					
APR 20...						23.9	160	414	2.730				

DUVAL COUNTY—Continued

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, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 25...	1115	--	--	476	27.0	--	--	--	--	--	--	13.4	--
JAN 25...	0920	--	--	478	26.0	--	--	--	--	--	--	13.6	--
APR 19...	0930	5	7.4	476	26.5	230	56.5	21.4	1.56	11.7	141	13.3	.7
SEP 13...	0940	--	--	489	26.8	--	--	--	--	--	--	13.4	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	27.9	71.9	294	1,310

DUVAL COUNTY—Continued

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 03080103, 75 ft west of Fort Caroline Road, and 200 ft southwest of Fort Caroline Park entrance. 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.--Water-stage recorder--60-minute interval.

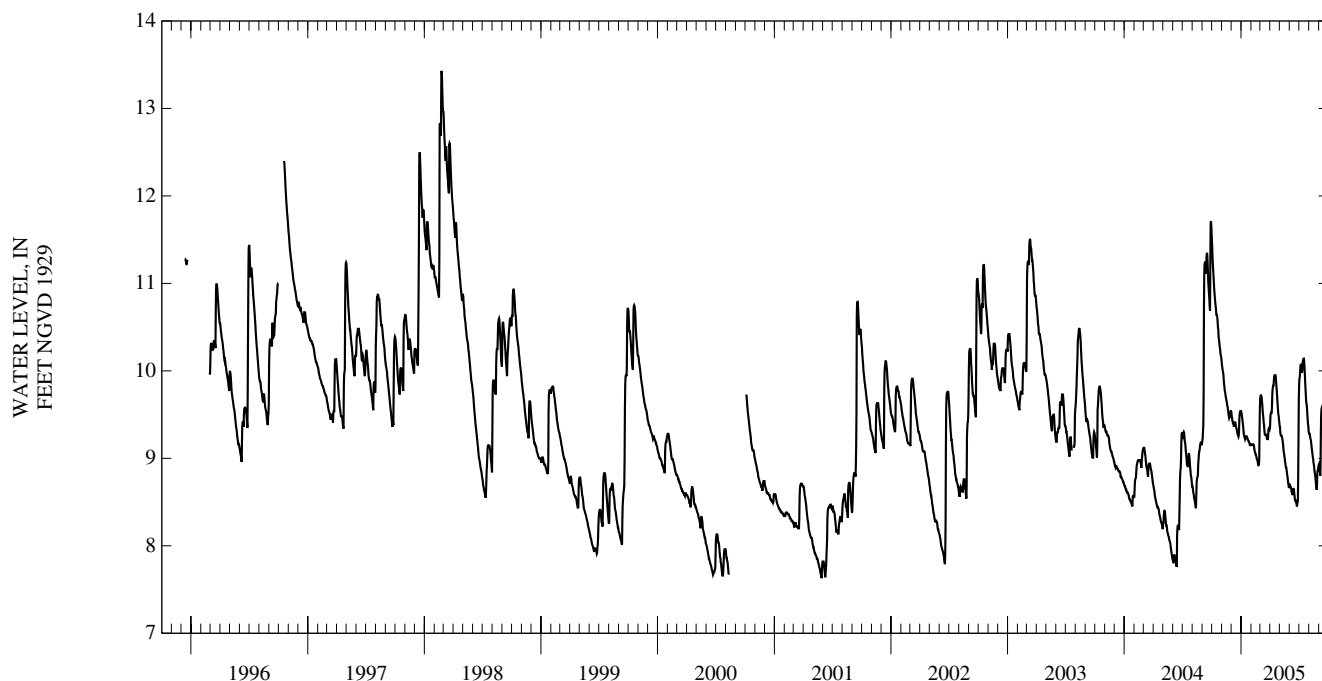
DATUM.--Land-surface datum is 16.58 ft above NGVD of 1929. Measuring point: Shelter floor, 1.22 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to September 2005 (discontinued). Prior to October 1989, published as D-3537 U.S. Park Service Well at Jacksonville.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.99 ft above NGVD of 1929, July 25, 1991; lowest, 6.07 ft above NGVD of 1929, Aug. 22, 1988.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.15	9.98	9.42	9.42	9.16	9.71	9.52	9.26	8.67	10.05	9.23	8.80
10	10.84	9.78	9.39	9.26	9.13	9.50	9.82	9.21	8.58	9.98	9.10	9.58
15	10.64	9.67	9.37	9.25	9.04	9.29	9.95	9.05	8.63	10.14	8.95	9.41
20	10.49	9.56	9.28	9.23	8.98	9.27	9.87	8.91	8.52	9.86	8.81	9.14
25	10.29	9.47	9.33	9.19	8.93	9.21	9.60	8.80	8.47	9.60	8.64	9.03
EOM	10.12	9.54	9.54	9.16	9.56	9.34	9.41	8.68	9.68	9.30	8.92	---
MAX	11.48	10.08	9.54	9.53	9.56	9.72	9.95	9.37	9.68	10.14	9.29	---



DUVAL COUNTY—Continued

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 03080103, 75 ft west of Fort Caroline Road, and 200 ft southwest of Fort Caroline Park entrance. 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.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 16.81 ft above NGVD of 1929. Measuring point: Shelter floor, 1.33 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to September 2005 (discontinued). 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, 10.58 ft above NGVD of 1929, Oct. 15, 1995; lowest, 5.89 ft above NGVD of 1929, June 29, 1989.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.75	7.91	7.48	7.30	7.35	7.36	7.19	7.23	6.92	7.68	7.24	7.02
10	8.74	7.84	7.46	7.22	7.30	7.22	7.41	7.17	6.76	7.63	7.19	7.59
15	8.67	7.76	7.31	7.30	7.17	7.08	7.52	7.02	6.80	7.68	7.07	7.46
20	8.46	7.67	7.26	7.29	6.99	7.16	7.49	6.94	6.76	7.36	6.94	7.30
25	8.22	7.60	7.39	7.22	7.09	7.12	7.29	6.91	6.80	7.44	6.88	7.26
EOM	8.11	7.59	7.40	7.27	7.44	7.16	7.22	6.93	7.49	7.23	7.14	---
MAX	8.80	8.04	7.57	7.38	7.44	7.44	7.54	7.26	7.49	7.70	7.28	---



DUVAL COUNTY—Continued

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, 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.

DATUM.--Land-surface datum is 13.07 ft above NGVD of 1929. Measuring point: Top of flange at land-surface datum.

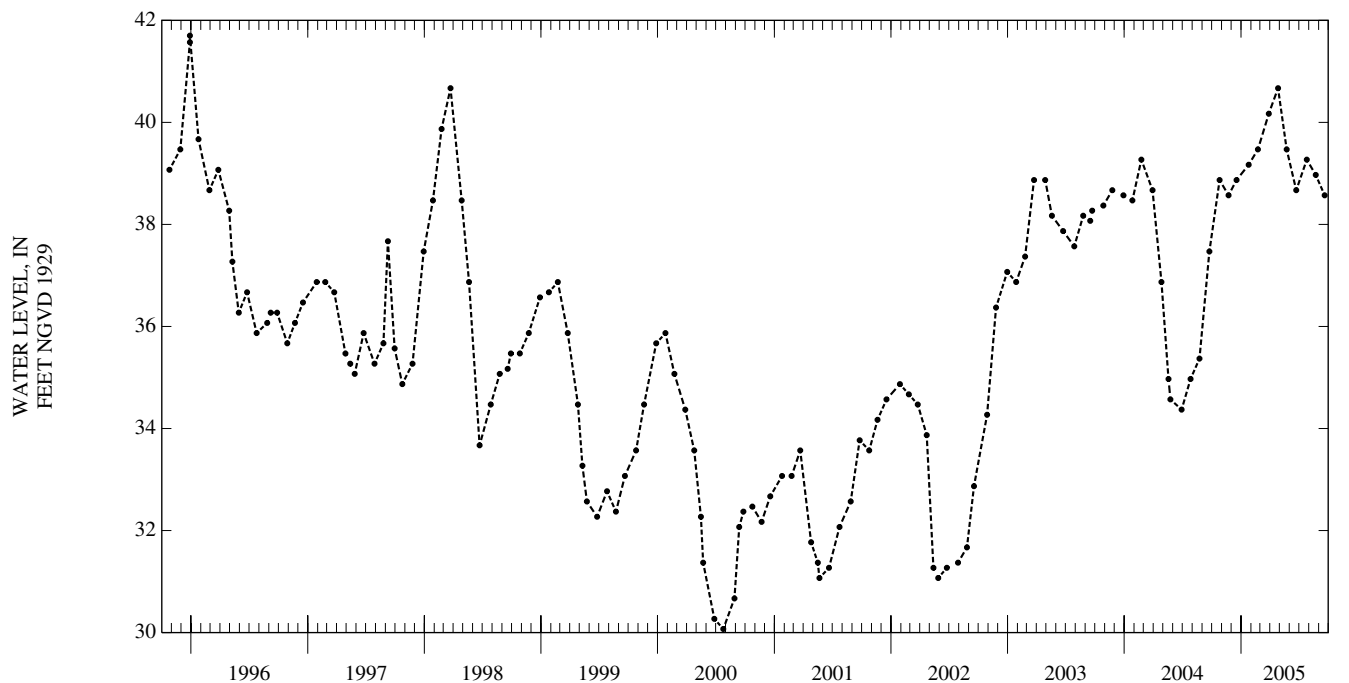
REMARKS.--Well originally drilled to 700 ft in 1914, later drilled to 905 ft in 1925.

PERIOD OF RECORD.--August 1930, June 1938, November 1940 to April 1942, January 1944 to June 1944, August 1945 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.87 ft above NGVD of 1929, Aug. 21, 1930; lowest measured, 29.27 ft above NGVD of 1929, Apr. 24, 1975.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	38.87	DEC 17	38.87	FEB 22	39.47	APR 26	40.67	JUN 22	38.67	AUG 22	38.97
NOV 22	38.57	JAN 24	39.17	MAR 28	40.17	MAY 23	39.47	JUL 25	39.27	SEP 19	38.57
WATER YEAR 2005 LOWEST 38.57 NOV 22, 2004 SEP 19, 2005 HIGHEST 40.67 APR 26, 2005											



DUVAL COUNTY—Continued

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.

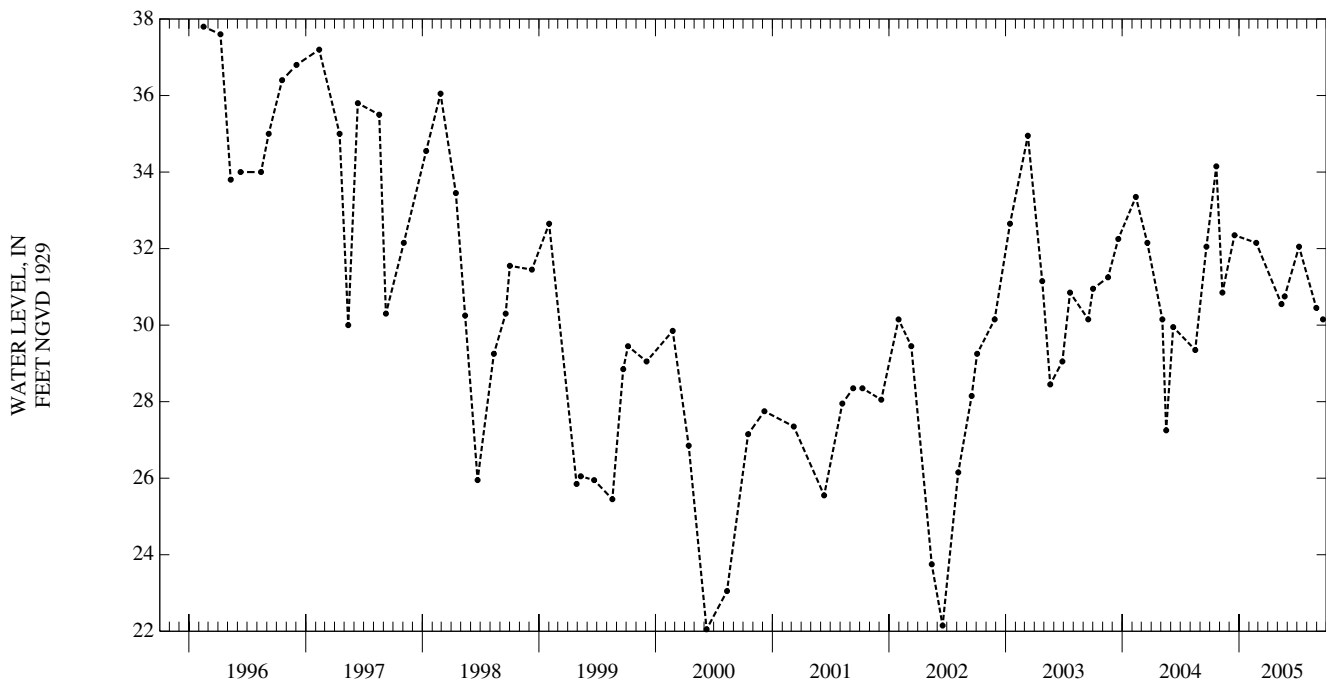
DATUM.--Land-surface datum is 11.25 ft above NGVD of 1929. Measuring point: Top of flange on 6 in. tee, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--December 1966, May 1968 to September 1978 (semiannually); January 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.55 ft above NGVD of 1929, Dec. 19, 1966; lowest measured, 22.05 ft above NGVD of 1929, June 8, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	34.15	DEC 17	32.35	MAY 13	30.55	JUL 07	32.05	SEP 20	30.15
NOV 09	30.85	FEB 23	32.15	23	30.75	AUG 30	30.45		
WATER YEAR 2005		LOWEST	30.15	SEP 20, 2005	HIGHEST	34.15	OCT 21, 2004		



DUVAL COUNTY—Continued

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, in Julia Street pumping station, 1 block east of State Highway A1A and Ocean Street, 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, artesian well, diameter 10 in., depth 1,000 ft, cased to 427 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage.

DATUM.--Land-surface datum is 6.78 ft above NGVD of 1929. Measuring point: Top of 15 in. flange 3.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.08 ft above NGVD of 1929, Sept. 15, 1982; lowest measured, 24.28 ft above NGVD of 1929, May 19, 1989.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Elevation, feet above NGVD (72020)	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)
OCT 25...	1300	--	--	--	572	26.0	--	--	--	--	--	--	13.7
JAN 21...	1000	--	--	--	578	25.0	--	--	--	--	--	--	13.7
APR 19...	1345	--	2	7.4	570	26.5	290	64.4	31.0	1.77	10.8	125	13.5
MAY 25...	1020	28.18	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	1100	--	--	--	576	26.5	--	--	--	--	--	--	13.7
21...	0730	30.18	--	--	--	--	--	--	--	--	--	--	--

Date	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
APR 19...	.8	135	390	1,540

DUVAL COUNTY—Continued

WELL NUMBER.--302416081522601. Local Number D-348. Monticello Drug Company Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

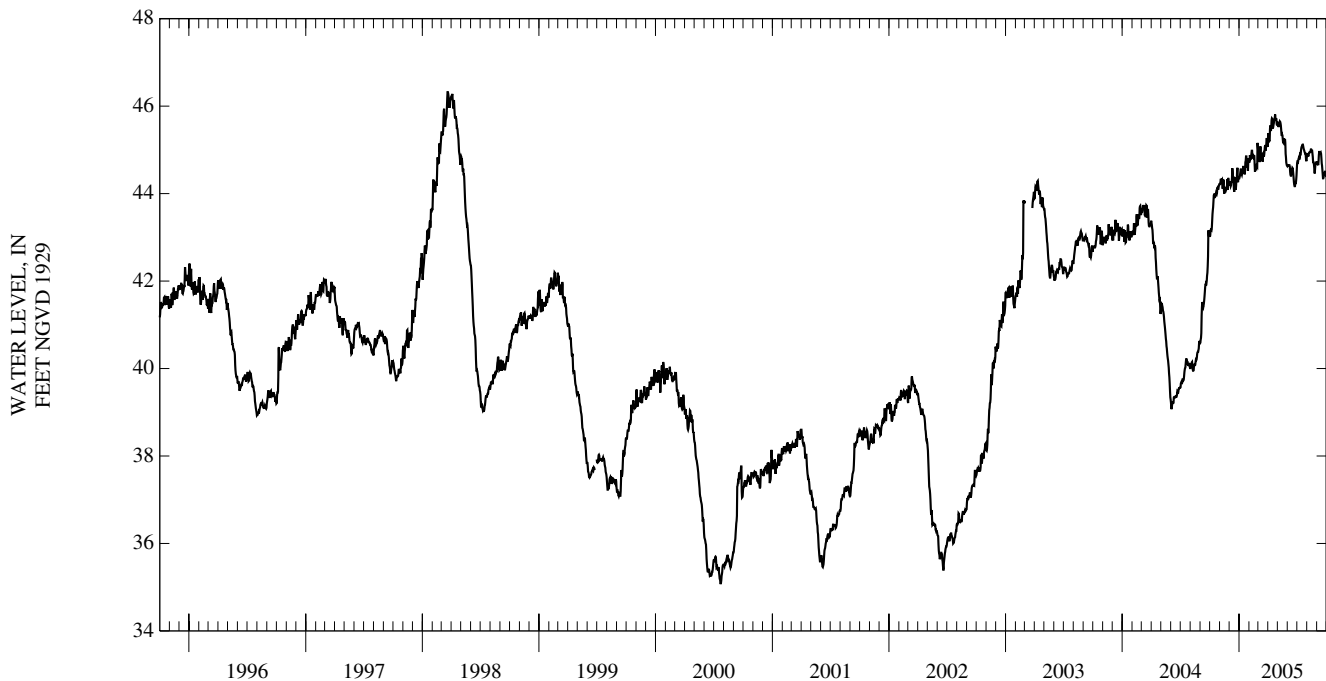
DATUM.--Land-surface datum is 86.78 ft above NGVD of 1929. Measuring point: Shelter floor at top of 11 in. flange, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 46.32 ft above NGVD of 1929, Mar. 20, 21, 1998; lowest, 35.07 ft above NGVD of 1929, July 22, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.18	44.32	44.17	44.53	44.79	44.80	45.20	45.58	44.64	44.78	44.85	44.65
10	43.62	44.11	44.58	44.47	44.98	44.85	45.43	45.61	44.43	44.89	44.95	44.93
15	44.00	44.00	44.10	44.51	44.81	44.73	45.60	45.35	44.56	45.07	44.98	44.81
20	44.01	44.12	44.28	44.72	44.56	44.90	45.67	45.24	44.36	45.08	44.72	44.35
25	44.14	44.33	44.49	44.75	44.62	45.04	45.67	45.16	44.22	44.94	44.46	44.46
EOM	44.21	44.25	44.35	44.79	45.07	45.07	45.60	44.63	44.56	44.82	44.72	44.38
MAX	44.21	44.36	44.59	44.85	45.16	45.27	45.81	45.65	44.65	45.12	45.01	44.97



DUVAL COUNTY—Continued

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 1,986 ft, cased to 444 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 85.66 ft above NGVD of 1929. Measuring point: Top of 10 in. casing, 3.50 ft above land-surface datum.

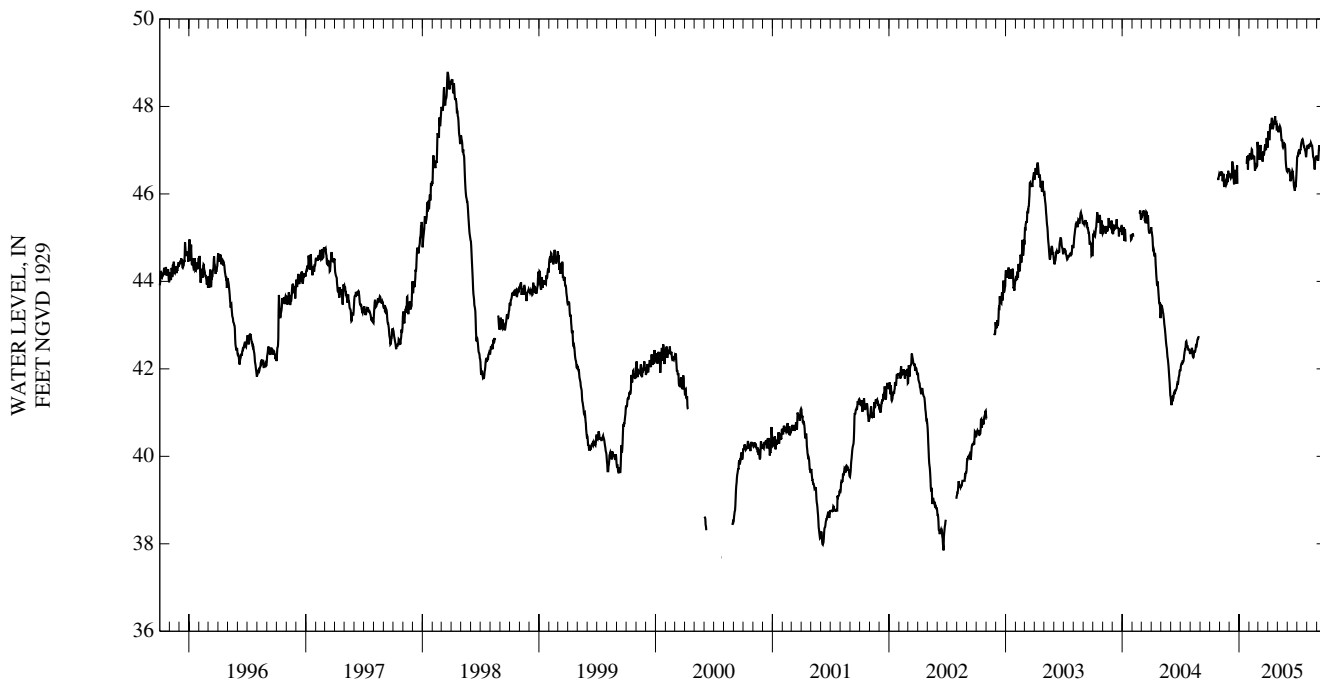
REMARKS.--Well originally drilled to 2,230 ft in 1969.

PERIOD OF RECORD.--March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 56.30 ft above NGVD of 1929, Mar. 10, 1971; lowest, 37.69 ft above NGVD of 1929, July 24,25, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	46.49	46.36	---	46.85	46.85	47.25	47.48	46.55	46.95	47.03	46.76
10	---	46.29	46.74	---	47.01	46.89	47.48	47.51	46.29	47.02	47.12	47.04
15	---	46.16	46.25	---	46.80	46.74	47.61	47.24	46.49	47.19	47.11	46.89
20	---	46.25	46.41	---	46.59	46.94	47.63	47.15	46.29	47.18	46.85	46.45
25	46.35	46.45	46.65	46.81	46.64	47.07	47.59	47.02	46.19	47.03	46.56	46.67
EOM	46.43	46.43	---	46.84	47.09	47.06	47.49	46.51	46.64	47.01	46.86	46.57
MAX	---	46.53	---	---	47.19	47.28	47.78	47.55	46.64	47.25	47.17	47.11



DUVAL COUNTY—Continued

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, 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.

DATUM.--Land-surface datum is 9.43 ft above NGVD of 1929. Measuring point: Top of 16 in. flange, 1.00 ft, above land-surface datum.

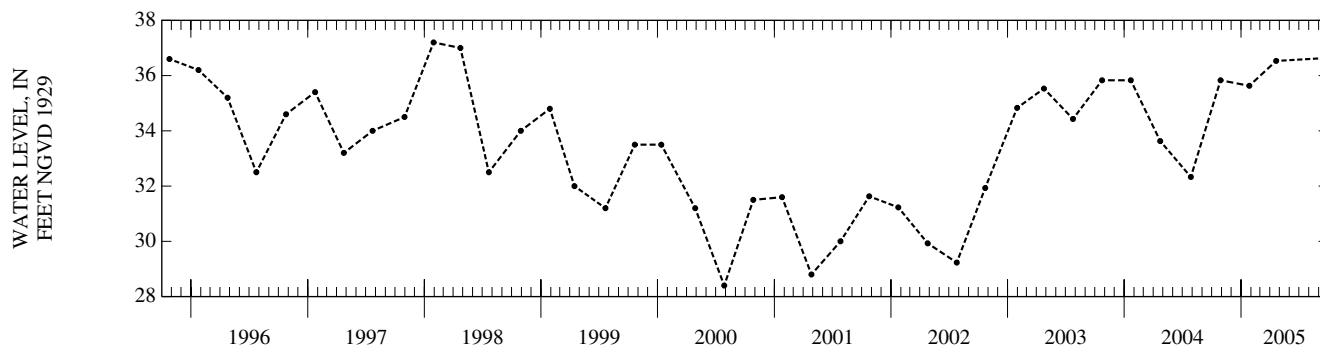
REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--October 1979 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.83 ft above NGVD of 1929, Mar. 9, 1984; lowest measured, 27.83 ft above NGVD of 1929, July 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	35.83	JAN 26	35.63	APR 20	36.53	SEP 15	36.63
WATER YEAR 2005		LOWEST	35.63 JAN 26, 2005	HIGHEST	36.63	SEP 15, 2005	



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976, 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Specif. conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT 28...	1100	420	25.0	36.4
JAN 26...	1115	392	22.0	36.1
APR 20...	1200	368	24.5	36.8
SEP 15...	1045	350	25.0	36.7

DUVAL COUNTY—Continued

WELL NUMBER.--302503081332001. Local Number D-1149. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'03", long 81°33'20", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, 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.

DATUM.--Land-surface datum is 10.94 ft above NGVD of 1929. Prior to July 2002, land-surface datum was considered to be 10.00 ft from topographic map. Measuring point: Top of 16 in. flange, 1.50 ft, above land-surface datum.

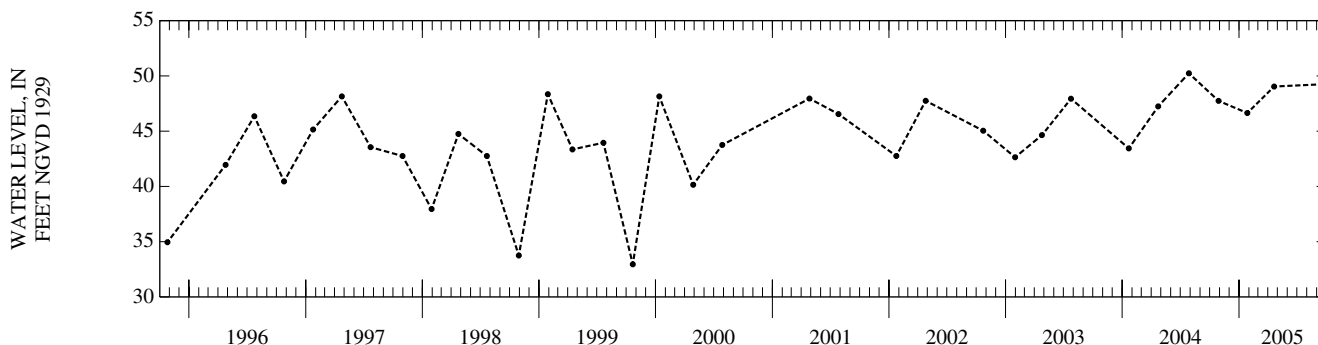
REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--January 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.24 ft above NGVD of 1929, July 27, 2004, present datum; lowest measured, 27.94 ft above NGVD of 1929, July 24, 1981, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	47.74	JAN 26	46.64	APR 20	49.04	SEP 15	49.24
WATER YEAR 2005		LOWEST	46.64	JAN 26, 2005	HIGHEST	49.24	SEP 15, 2005



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)
OCT 28...	1050	521	27.0	20.7
JAN 26...	1100	520	23.5	20.2
APR 20...	1140	512	27.0	20.1
SEP 15...	1030	528	26.5	20.1

DUVAL COUNTY—Continued

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, 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.

DATUM.--Land-surface datum is 9.18 ft above NGVD of 1929. Measuring point: Top of 16 in. flange, 0.70 ft, above land-surface datum.

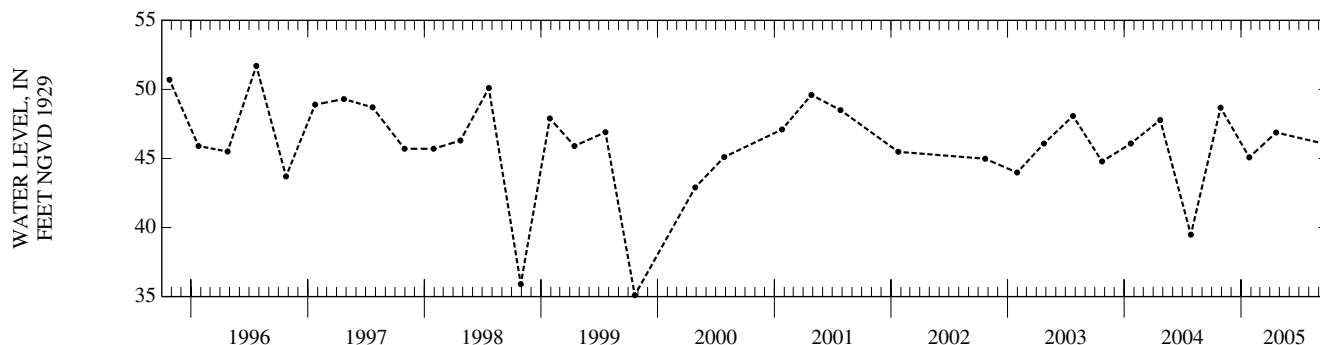
REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--January 1981 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.13 ft above NGVD of 1929, July 20, 1995; lowest measured, 27.78 ft above NGVD of 1929, July 24, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	48.68	JAN 26	45.08	APR 20	46.88	SEP 15	46.08
WATER YEAR 2005		LOWEST	45.08 JAN 26, 2005	HIGHEST	48.68 OCT 28, 2004		



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT 28...	1040	591	27.0	39.0
JAN 26...	1045	597	24.0	40.6
APR 20...	1125	603	27.5	43.3
SEP 15...	1015	608	28.0	39.2

DUVAL COUNTY—Continued

WELL NUMBER.--302511081331201. Local Number D-1151. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'11", long 81°33'12", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, 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.

DATUM.--Land-surface datum is 12.75 ft above NGVD of 1929. Measuring point: Top of 16 in. flange, 1.2 ft above land-surface datum.

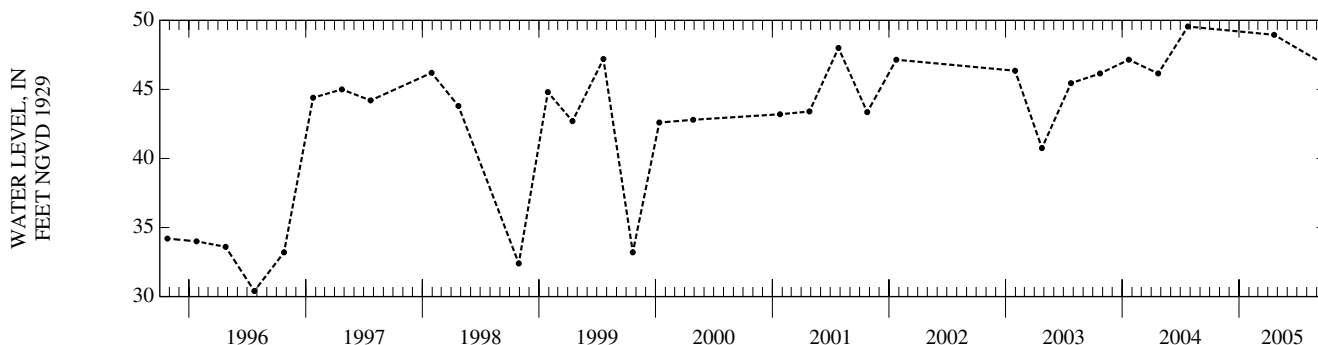
REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--September 1976, July 1979, October 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.75 ft above NGVD of 1929, July 26, 2001; lowest measured, 32.15 ft above NGVD of 1929, Oct. 31, 1990.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 20	48.95	SEP 15	46.95
WATER YEAR 2005 LOWEST 46.95 SEP 15, 2005 HIGHEST 48.95 APR 20, 2005			



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)
OCT 28...	1020	530	26.0	23.0
JAN 26...	1030	530	24.0	22.8
APR 20...	1115	532	27.5	23.0
SEP 15...	0950	535	28.0	23.0

DUVAL COUNTY—Continued

WELL NUMBER.--302519081331501. Local Number D-1152. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'19", long 81°33'15", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, 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.

DATUM.--Land-surface datum is 13.96 ft above NGVD of 1929. Measuring point: Top of concrete slab, at land-surface datum.

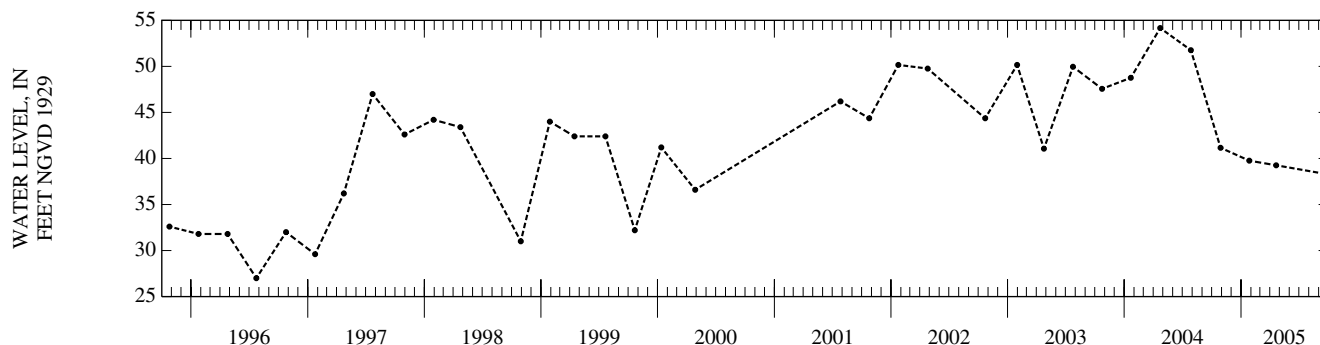
REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--October 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.16 ft above NGVD of 1929, Apr. 22, 2004; lowest measured, 30.26 ft above NGVD of 1929, July 24, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	41.16	JAN 26	39.76	APR 20	39.26	SEP 15	38.36
WATER YEAR 2005		LOWEST	38.36	SEP 15, 2005	HIGHEST	41.16	OCT 28, 2004



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)
OCT 28...	1005	533	25.0	22.9
JAN 26...	1015	515	18.0	23.2
APR 20...	1055	529	25.5	23.2
SEP 15...	0940	538	26.5	22.8

DUVAL COUNTY—Continued

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, 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, 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 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 29...	0915	--	--	522	25.0	--	--	--	--	--	--	19.6	--
JAN 26...	0840	--	--	505	23.0	--	--	--	--	--	--	19.3	--
MAY 09...	1130	10	7.5	531	26.0	250	56.9	25.8	1.69	16.3	154	19.3	.6
SEP 15...	0815	--	--	525	26.0	--	--	--	--	--	--	19.5	--

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	32.9	77.0	329	579

DUVAL COUNTY—Continued

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 SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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: St. Johns River Power Park.

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.--Water-stage recorder with pressure transducer.

DATUM.--Land-surface datum is 13.67 ft above NGVD of 1929. Measuring point: Top of 6 in. pipe flange, 1.12 ft above land-surface datum.

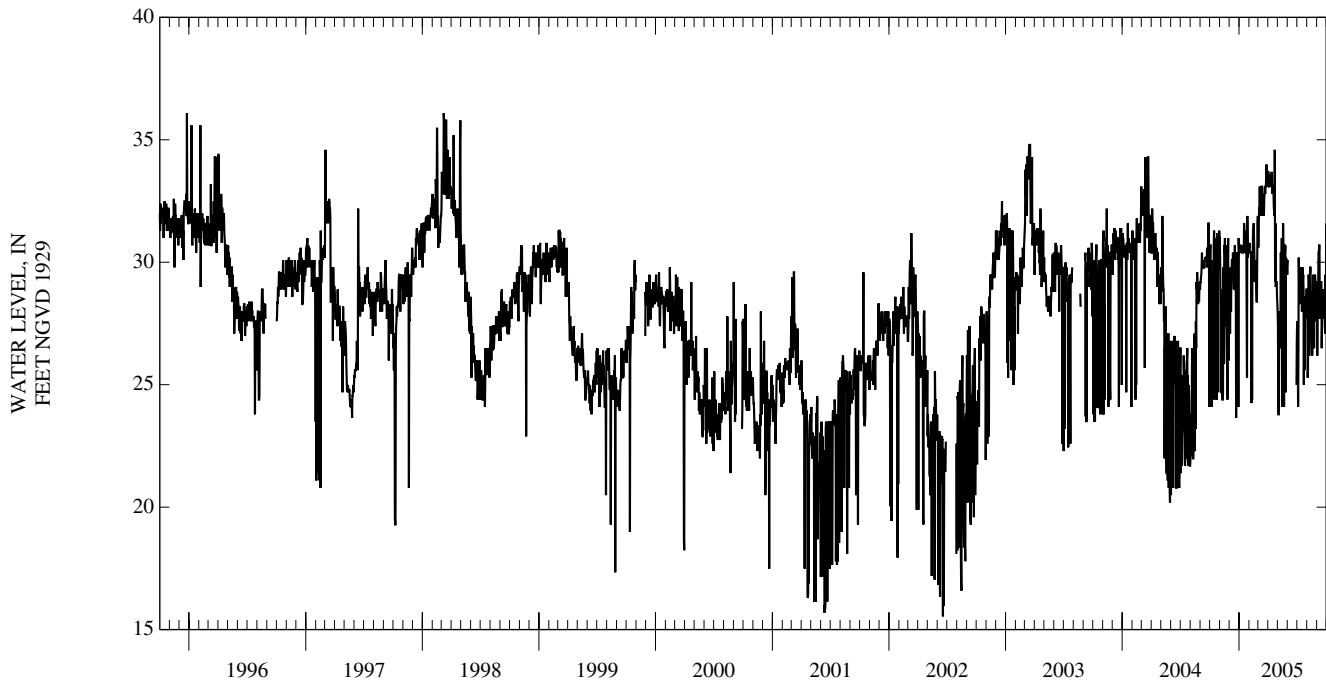
REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for D-2399 (302559081331501), available October 1984 to April 1990.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.29 ft above NGVD of 1929, Feb. 4, 1995; lowest, 15.54 ft above NGVD of 1929, June 18, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.09	28.89	29.79	30.39	30.39	32.19	33.09	23.79	---	26.19	28.29	29.19
10	28.19	24.39	30.09	30.59	24.39	32.79	33.19	27.09	---	29.19	29.49	27.69
15	24.79	30.69	28.89	30.59	31.59	31.89	33.09	30.69	---	29.49	27.69	29.19
20	24.39	29.49	28.89	30.69	30.09	32.59	32.19	30.69	---	29.49	28.89	28.89
25	24.69	24.39	28.89	25.29	28.39	33.09	28.99	30.69	---	27.39	27.99	28.29
EOM	30.99	28.29	30.39	30.69	31.89	33.19	28.29	29.49	26.79	28.89	27.59	31.59
MAX	31.29	30.99	30.99	31.89	31.89	33.99	34.59	31.59	---	30.19	29.79	31.59



WELL NUMBER.--302557081253101. Local Number D-913. Jerri Betz Well at Fort George Island, Jacksonville, FL.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 556 ft, cased to 435 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

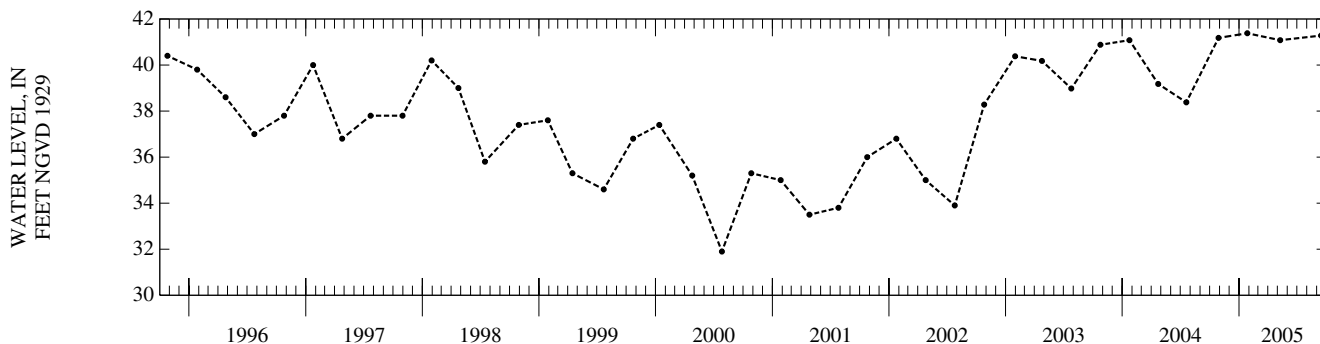
DATUM.--Land-surface datum is 21.38 ft above NGVD of 1929. Prior to July 2002, land-surface datum was considered to be 20.00 ft from topographic map. Measuring point: Top of water spigot handle, 1.4 ft above land-surface datum.

PERIOD OF RECORD.--January 1982, October 1990 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.38 ft above NGVD of 1929, Jan. 25, 1995, present datum; lowest measured, 33.28 ft above NGVD of 1929, July 26, 2000, present datum.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	41.18	JAN 26	41.38	MAY 09	41.08	SEP 14	41.28
WATER YEAR 2005		LOWEST	41.08	MAY 09, 2005	HIGHEST	41.38	JAN 26, 2005



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1987, 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 28...	1200	--	--	1,710	23.0	--	--	--	--	--	--	405	--
JAN 26...	1230	--	--	1,910	22.0	--	--	--	--	--	--	407	--
MAY 09...	1030	40	7.5	1,890	23.0	510	100	62.2	3.82	180	114	403	.6
SEP 14...	1300	--	--	1,770	24.0	--	--	--	--	--	--	412	--
						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)				
Date													
MAY 09...						21.9	165	1.020	1.880				

DUVAL COUNTY—Continued

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: Smurfit-Stone Container Corporation.

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.

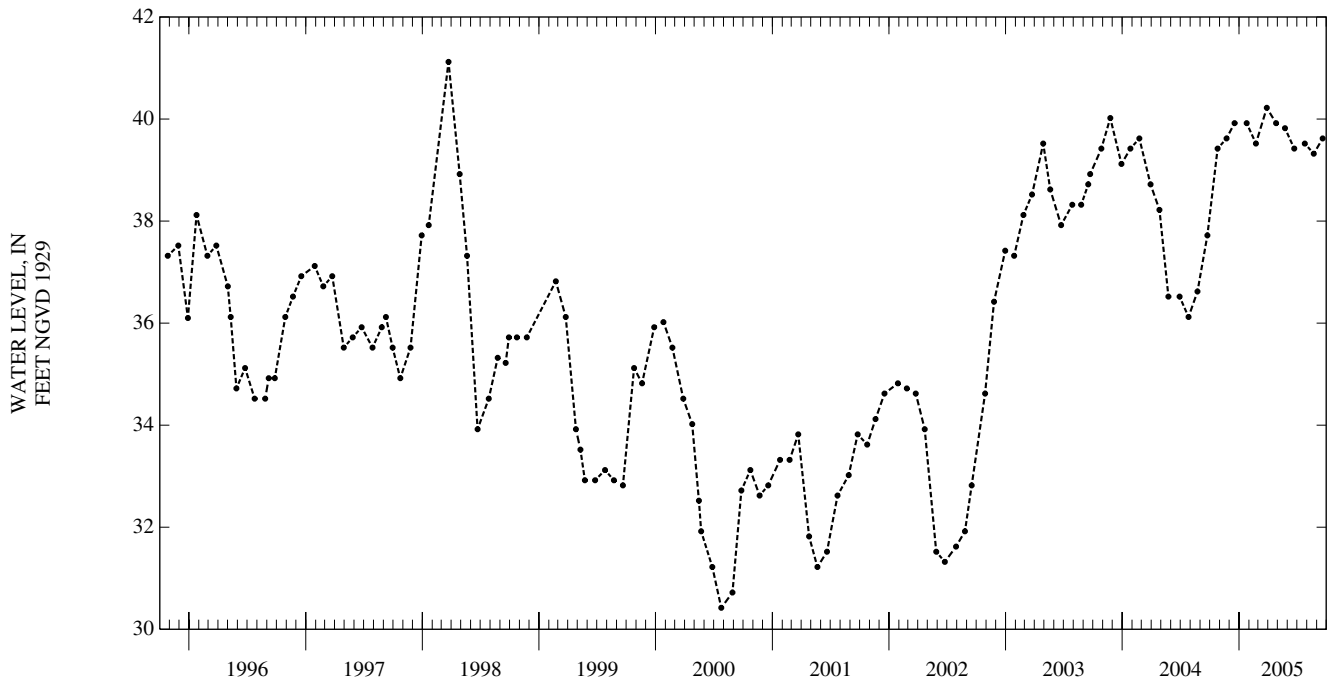
DATUM.--Land-surface datum is 16.32 ft above NGVD of 1929. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1951 to April 1981 (bimonthly); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.32 ft above NGVD of 1929, June 12, 1951; lowest measured, 30.42 ft above NGVD of 1929, July 24, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	39.42	DEC 17	39.92	FEB 22	39.52	APR 26	39.92	JUN 22	39.42	AUG 22	39.32
NOV 22	39.62	JAN 24	39.92	MAR 28	40.22	MAY 24	39.82	JUL 25	39.52	SEP 19	39.62
WATER YEAR 2005		LOWEST	39.32	AUG 22, 2005	HIGHEST	40.22	MAR 28, 2005				



DUVAL COUNTY—Continued

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: Smurfit-Stone Container Corporation.

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.

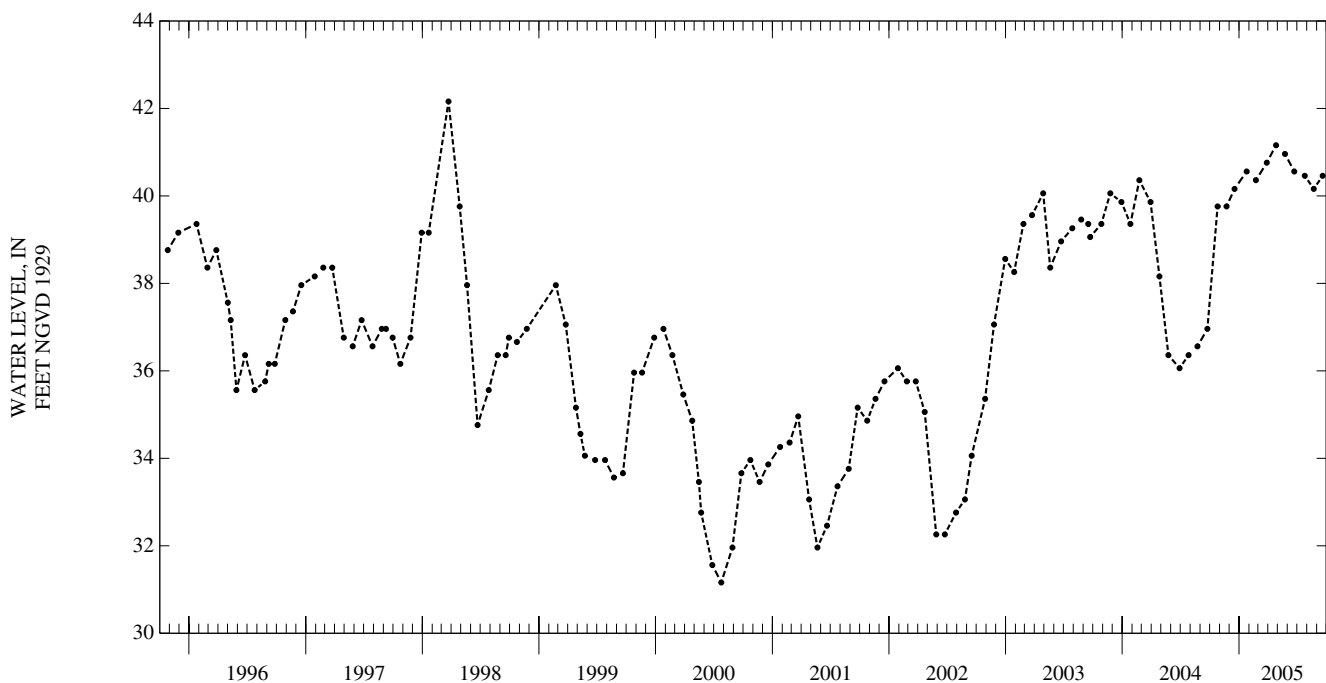
DATUM.--Land-surface datum is 15.96 ft above NGVD of 1929. Measuring point: Top of spigot handle, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to April 1979 (semiannually); January 1980 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.16 ft above NGVD of 1929, Feb. 4, 1954; lowest measured, 31.16 ft above NGVD of 1929, July 24, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	39.76	DEC 17	40.16	FEB 22	40.36	APR 26	41.16	JUN 22	40.56	AUG 22	40.16
NOV 22	39.76	JAN 24	40.56	MAR 28	40.76	MAY 24	40.96	JUL 25	40.46	SEP 19	40.46
WATER YEAR 2005		LOWEST	39.76	OCT 25, 2004	NOV 22, 2004	HIGHEST	41.16	APR 26, 2005			



DUVAL COUNTY—Continued

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: Smurfit-Stone Container Corporation.

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

WELL CHARACTERISTICS.--Drilled, unused, industrial, artesian well, diameter 4 in., depth 654 ft, cased to 574 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

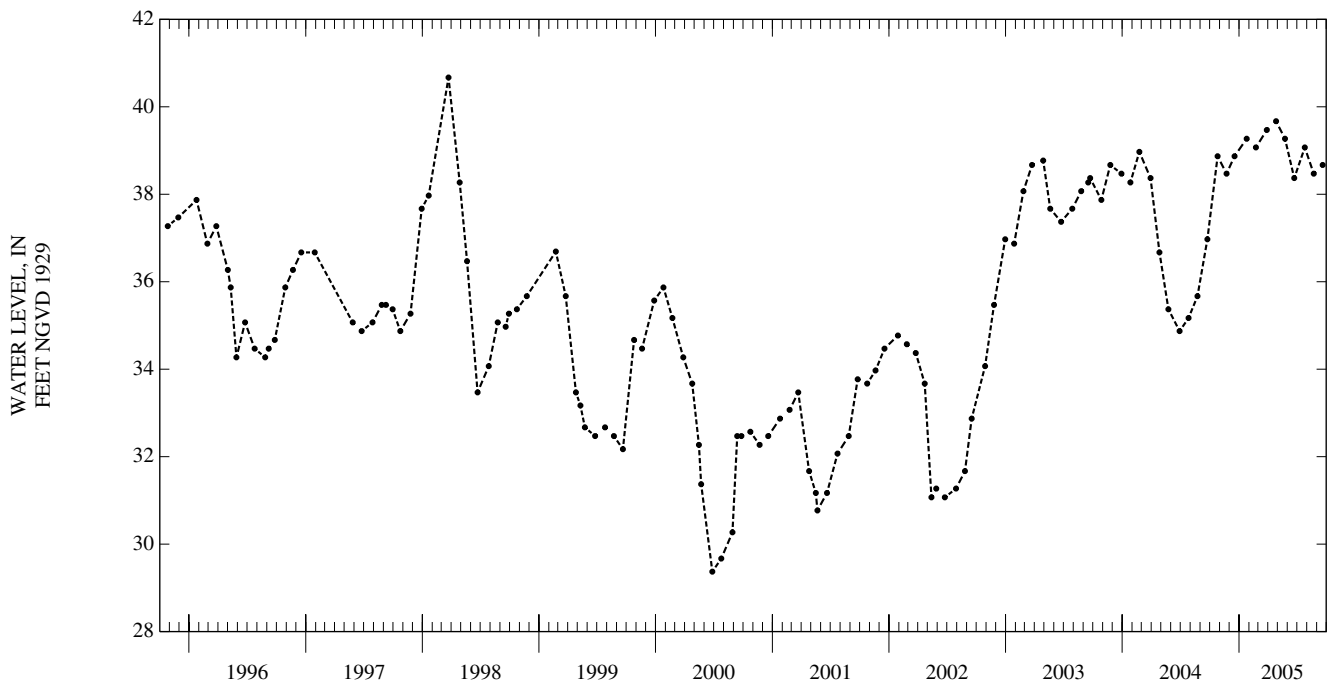
DATUM.--Land-surface datum is 15.87 ft above NGVD of 1929. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1978 (semiannually); February 1979 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.87 ft above NGVD of 1929, Jan. 9, 1952; lowest measured, 29.37 ft above NGVD of 1929, June 26, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	38.87	DEC 17	38.87	FEB 22	39.07	APR 26	39.67	JUN 22	38.37	AUG 22	38.47
NOV 22	38.47	JAN 24	39.27	MAR 28	39.47	MAY 24	39.27	JUL 25	39.07	SEP 19	38.67
WATER YEAR 2005 LOWEST 38.37 JUN 22, 2005 HIGHEST 39.67 APR 26, 2005											



DUVAL COUNTY—Continued

WELL NUMBER.--302724081244801. Local Number D-395. Florida Park Service Well at Jacksonville, FL.

LOCATION.--Lat 30°27'24", long 81°24'48", in land grant 42, T.1 S., R.29 E., Hydrologic Unit 03070205, well located at Little Talbot Island State Park, 2.2 mi north of Ft. George Inlet on State Highway A1A. Owner: Florida Park Service.

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

WELL CHARACTERISTICS.--Drilled, artesian well, diameter unknown, depth and casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

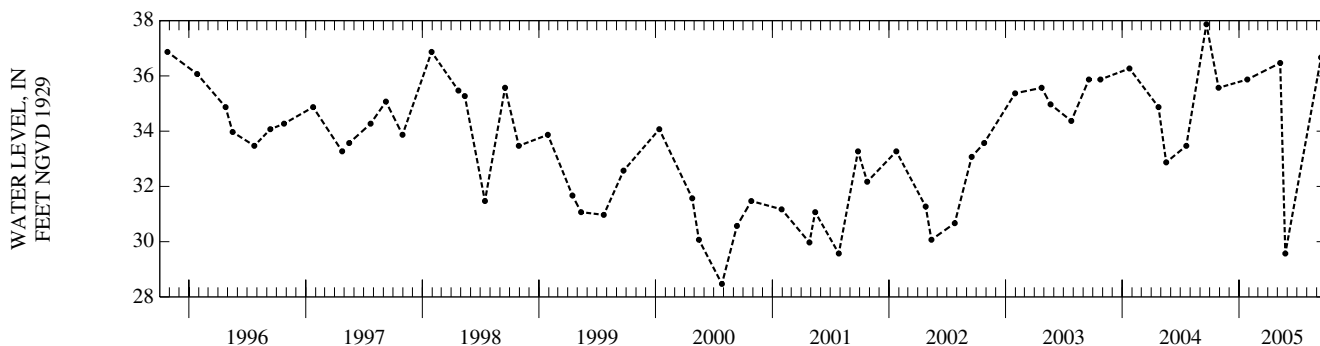
DATUM.--Land-surface datum is 7.57 ft above NGVD of 1929. Measuring point: Top of 4 in. tee, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--Water years 1966, 1969, 1972-76 (annually); 1977-89 (semiannually); 1991 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.17 ft above NGVD of 1929, May 10, 1966; lowest measured, 28.47 ft above NGVD of 1929, July 26, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	35.57	JAN 26	35.87	MAY 09	36.47	MAY 25	29.57	SEP 14	36.67
WATER YEAR 2005 LOWEST 29.57 MAY 25, 2005 HIGHEST 36.67 SEP 14, 2005									



WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-79, 1985 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
OCT 28...	1220	--	--	494	24.0	--	--	--	--	--	--	19.6	--
JAN 26...	1300	--	--	496	23.0	--	--	--	--	--	--	19.5	--
MAY 09...	0915	8	7.3	506	25.0	230	50.1	24.8	1.99	16.3	148	19.3	.7
SEP 14...	1330	--	--	512	25.5	--	--	--	--	--	--	19.6	--
Residue on evap. at 180degC wat flt mg/L (70300)													
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Strontium, water, fltrd, ug/L (01080)					
MAY 09...						31.5	66.1	314	445				

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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DUVAL COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
300926081343002	09-20-05	1440	D-1313 GREENLAND PINES AT GREENLAND, FL	33.80
301157081465201	05-26-05	1300	D-1292 INDIAN TRAILS AT JACKSONVILLE, FL	38.17
301333081324101	05-28-05 09-20-05	1000 1700	D-2847 GOLF COURSE AT DEERWOOD, FL	24.59 28.34
301339081531203	05-26-05 09-20-05	1220 1000	D-0326 J-0391	46.29 49.01
301347081421801	05-26-05 09-20-05	1440 0830	D-1394(D-65)NAS WELL NR JACKSONVILLE, FL	31.29 31.39
301434082021401	09-21-05	0800	D-0085 J-0149 OIL TEST SITE, E. FIVETONE RD, JAX FL	57.52
301617081421601	05-24-05 09-20-05	0845 1205	D-0115 J-0179	31.55 30.25
301652081265001	05-23-05 09-20-05	1310 0850	D-0259 BEACH HAVEN WELL NR JACKSONVILLE BEACH, FL	17.44 17.08
301749081384602	05-23-05 09-19-05	1530 1510	D-1782 J-1819	39.75 38.95
301758081462901	05-24-05 09-19-05	0755 0945	D-0221 ROLLING HILLS WELL NR MARIETTA, FL	43.40 42.40
302330081463001	09-20-05	1220	D-0420 J-0487 WING-LEE FARM; JAX, FL.	42.92
302521081455601	05-23-05 09-19-05	0900 1200	D-1309 DINSMORE ELEM SCHOOL NR DINSMORE, FL	41.88 40.98
302538081253101	05-25-05 09-21-05	1100 0950	D-164 J-228 GOLF COURSE @ FT. GEORGE ISLAND, FL.	39.84 39.74
302709081311601	05-23-05 09-19-05	1100 1245	D-1307 CAMDEN RD NR EASTPORT, FL	38.91 38.11
303209081371801	05-23-05 09-19-05	1040 1320	TISONIA FIRETOWER NR JACKSONVILLE, FL	38.62 36.72
303216081433301	05-25-05 09-20-05	1250 1252	D-0401 J-0468 DUVAL COUNTY PRISON FARM; JAX, FL.	41.07 40.97

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

FLAGLER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
291818081190401	05-23-05 09-19-05	0630 0740	RELAY TOWER DEEP WELL (F0251)	17.75 18.16
291913081224201	05-23-05 09-19-05	0815 0855	F-0257 STRAWN WELL NR DEANVILLE, FL	16.72 17.22
291955081200901	05-23-05 09-19-05	0700 0825	91912003 13S29E36	12.89 13.59
292302081155901	05-23-05 09-19-05	0908 0930	SR304 WELL AT SWEETWATER BRANCH	13.14 13.92
292603081082502	05-26-05 09-20-05	1135 1120	F-176 BULLOW RUINS	8.58 11.56
292604081062401	05-24-05 09-20-05	1553 1040	SJRWMD SHALLOW WELL F174	5.52 6.06
292647081182001	05-23-05 09-19-05	1320 1105	92611803 12S30E19	9.95 10.93
292750081152001	05-23-05 09-19-05	0925 0950	92711501USGS OBSER WELL FLAGLER 14 AT BUNNELL, FL	10.89 14.74
292757081222801	05-23-05 09-19-05	1338 1130	F-0353 WESTSIDE BAPTIST NR BIMINI, FL	10.57 11.99
293128081090501	05-24-05 09-20-05	1530 1015	LENSSEN WELL AT BEVERLY BCH	5.98 6.93
293313081132402	05-24-05 09-20-05	1420 0915	SJ F158 11S31E18 ITTPALMCOASTSTJOEGRADE LW-11	14.89 15.59
293344081232401	05-23-05 09-19-05	1425 1215	F-0294(REP.F-204)TIGER ISLAND DEEP	17.09 17.20
293529081191701	05-23-05 09-19-05	1545 1445	SJ F165 10S30E31 PALMCOASTITT-LW-20 WESTBOUNDR	16.30 17.21
293754081121901	05-24-05 09-20-05	1500 0945	SJ F200 10S31E WASHINGTONOAKSPARKWEATHERSTA	12.46 17.05

KEY TO SITE LOCATIONS ON FIGURE 9
GLADES COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	265529081185201	110
2	271150081054401	111

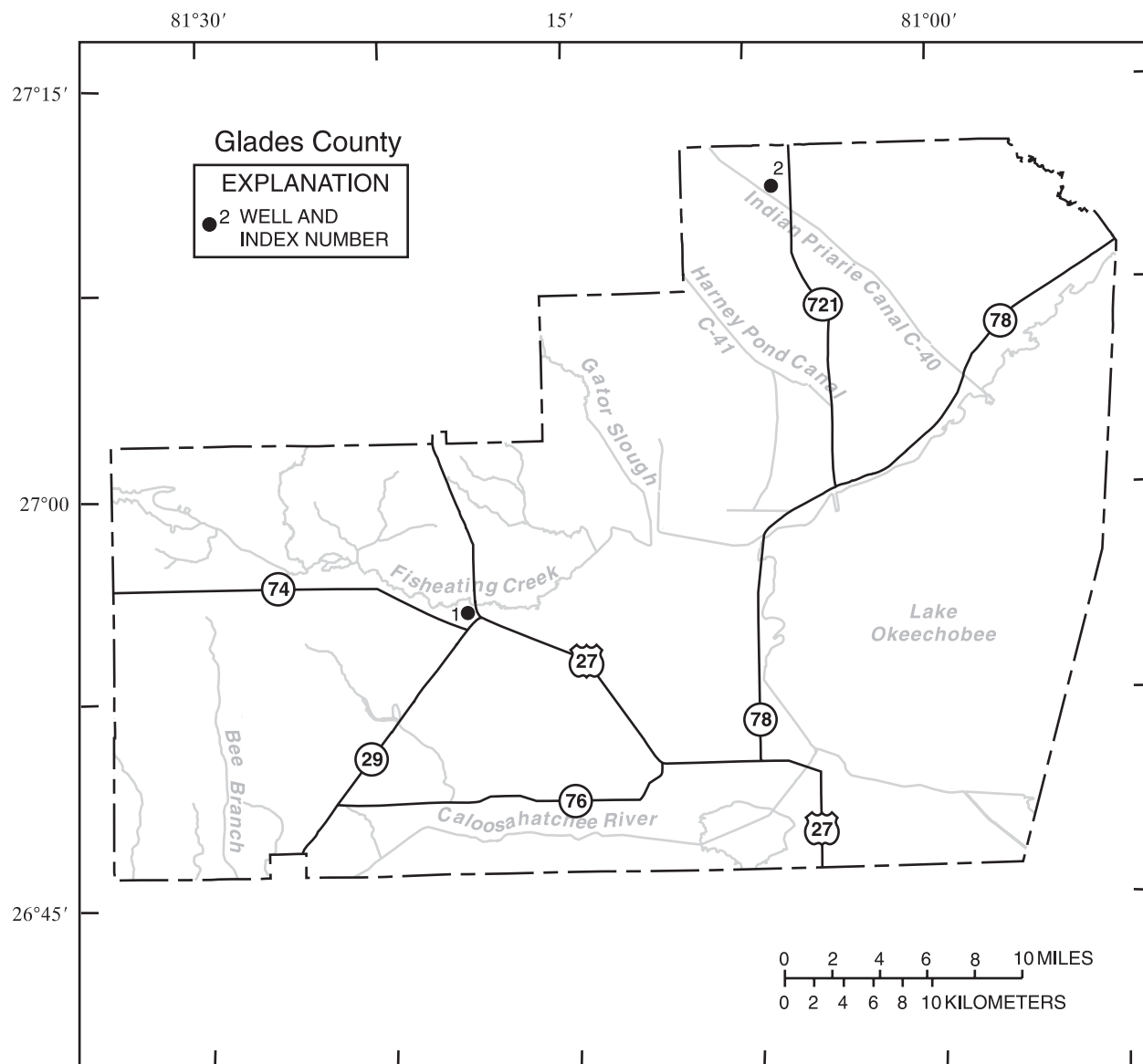


Figure 9.--Location of wells in Glades County.

GLADES COUNTY

WELL NUMBER.--265529081185201. GL-267 Well near Palmdale, FL.

LOCATION.--Lat 26°55'29", long 81°18'52", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ 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, chalked or electric tape.

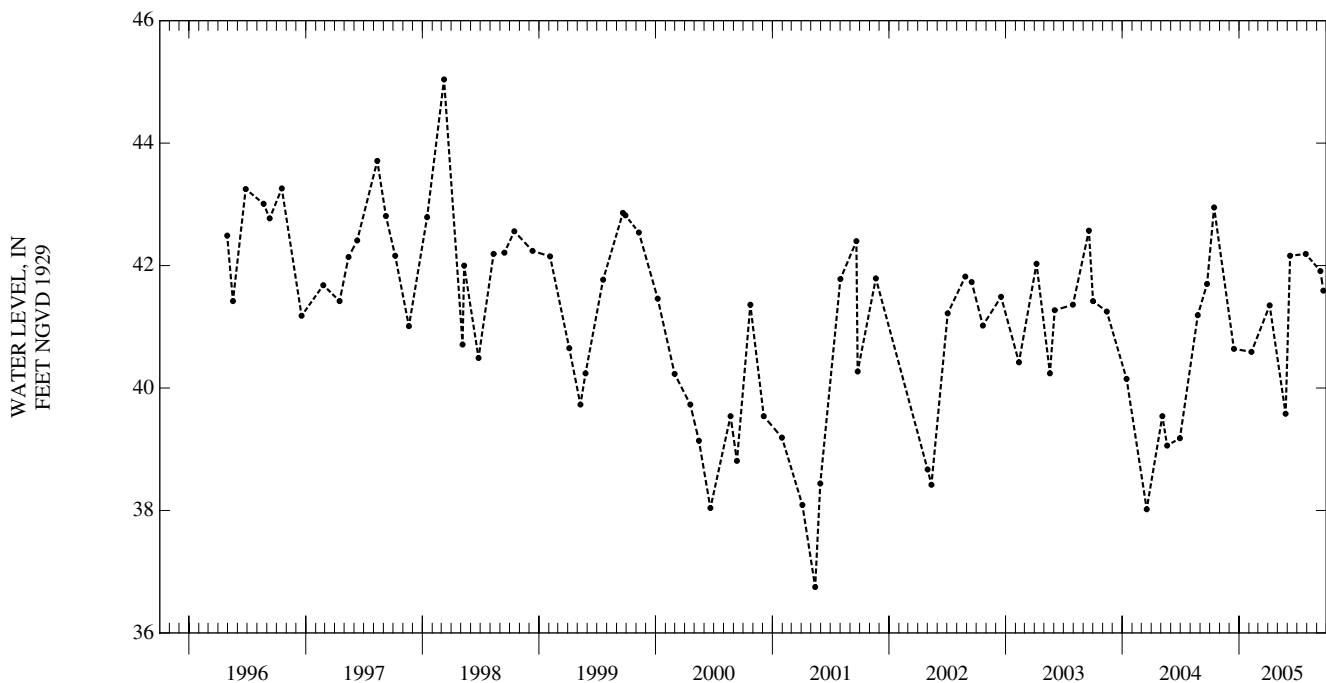
DATUM.--Elevation of land-surface datum is 42.15 ft above NGVD of 1929. Prior to Oct. 1, 1978, land-surface datum was considered to be 41 ft, from topographic map. Oct. 1, 1978 to Mar. 25, 1980 at datum 0.60 ft lower. Measuring point: Top of 3/4 in. tee, 0.89 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to May 1976 (annually); July 1976 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.25 ft above NGVD of 1929, Sept. 7, 1976; lowest measured, 36.11 ft above NGVD of 1929, May 15, 1995.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	42.95	FEB 08	40.59	MAY 26	39.58	JUL 28	42.19	SEP 21	41.59
DEC 15	40.64	APR 06	41.35	JUN 09	42.16	SEP 12	41.91		
WATER YEAR 2005		LOWEST	39.58	MAY 26, 2005	HIGHEST	42.95	OCT 14, 2004		



GLADES COUNTY—Continued

WELL NUMBER.--271150081054401. GL-155 Well near Brighton, FL.

LOCATION.--Lat 27°11'50", long 81°05'44", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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.

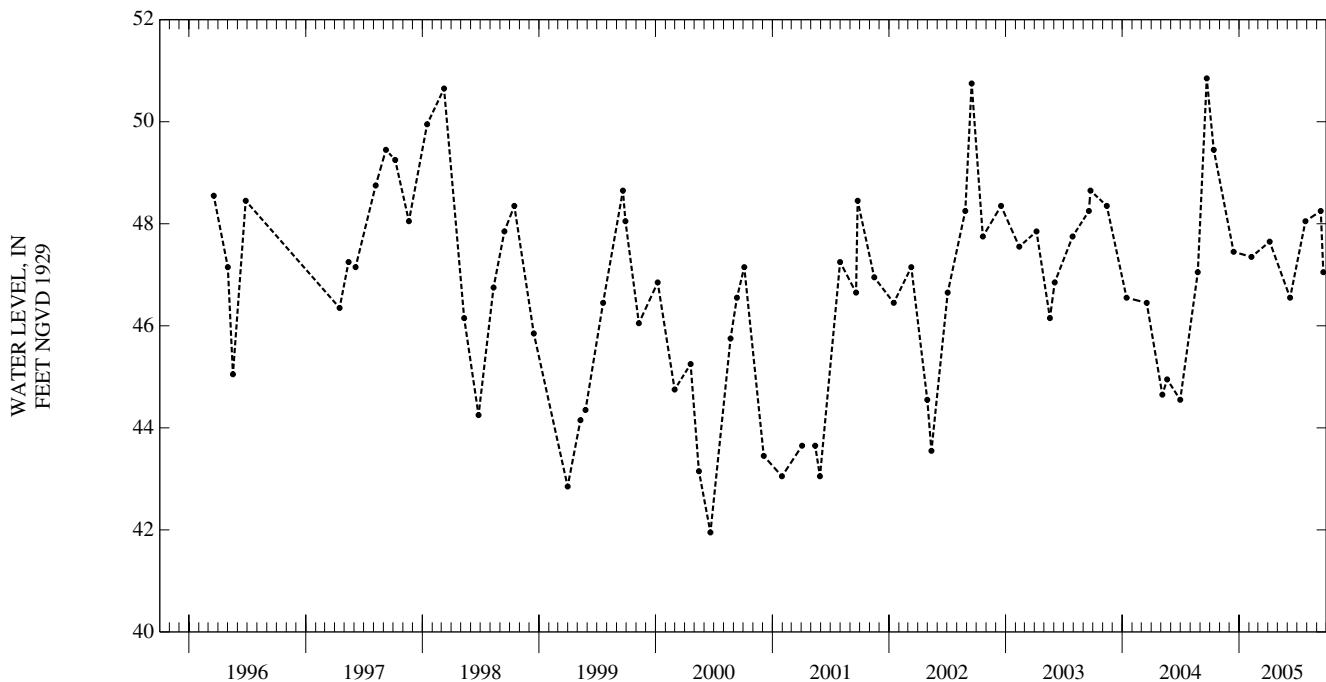
DATUM.--Elevation of land-surface datum is 29.35 ft above NGVD of 1929. Measuring point: Top of 4 in. PVC tee, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.15 ft above NGVD of 1929, Apr. 1, 1983; lowest measured, 38.15 ft above NGVD of 1929, May 11, 1976.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	49.45	FEB 08	47.35	JUN 09	46.55	SEP 13	48.25
DEC 14	47.45	APR 06	47.65	JUL 27	48.05	21	47.05
WATER YEAR 2005		LOWEST	46.55	JUN 09, 2005	HIGHEST	49.45	OCT 13, 2004



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

GLADES COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
265452081165401	05-26-05 09-21-05	1532 1458	65411601 41S30E12 CLEMONS PALMDALE	49.40 51.90

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 10
HERNANDO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	283840082154801	116

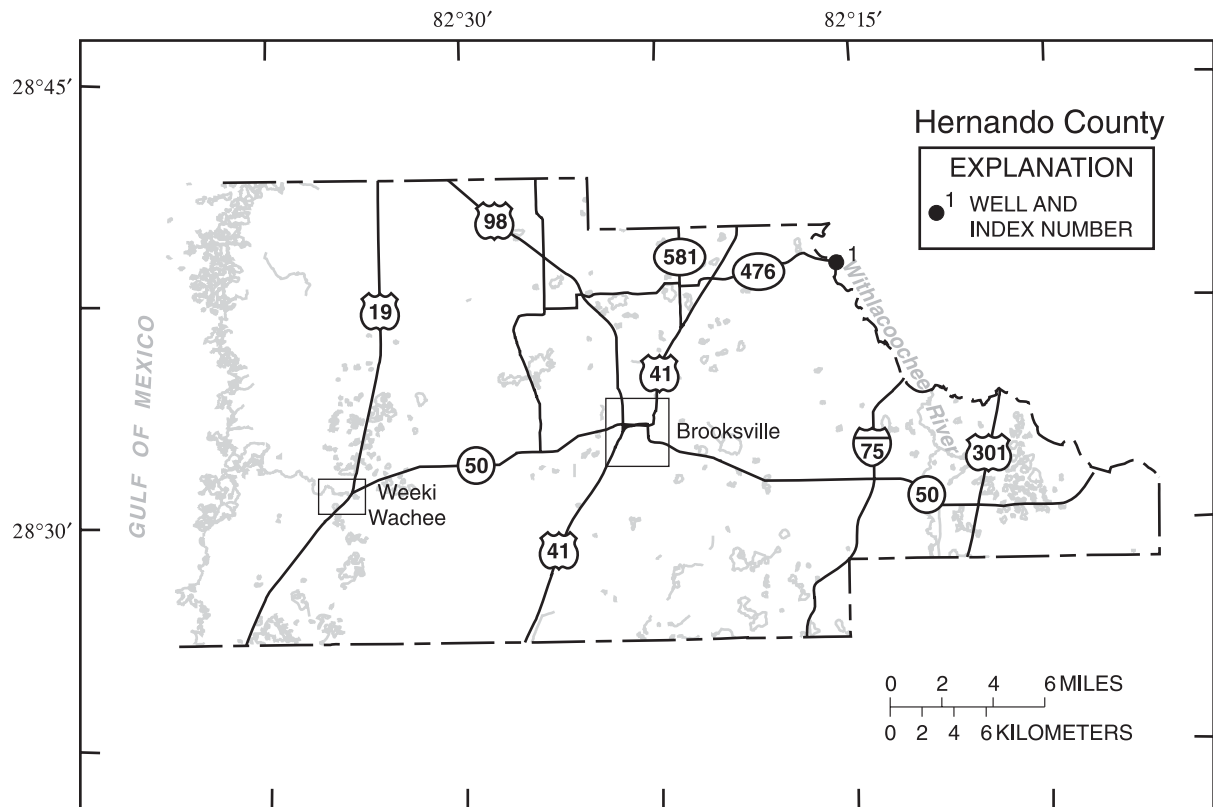


Figure 10.--Location of wells in Hernando County.

HERNANDO COUNTY

WELL NUMBER.--283840082154801. Barnhart Well (CE-25) at Nobleton, FL.

LOCATION.--Lat 28°38'40", long 82°15'48", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.24, T.21 S., R.20 E., Hydrologic Unit 03100208, on Sentinel Street, 200 ft east of Edgewater Avenue in Nobleton. Owner: Domestic Well.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit I20 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 140 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

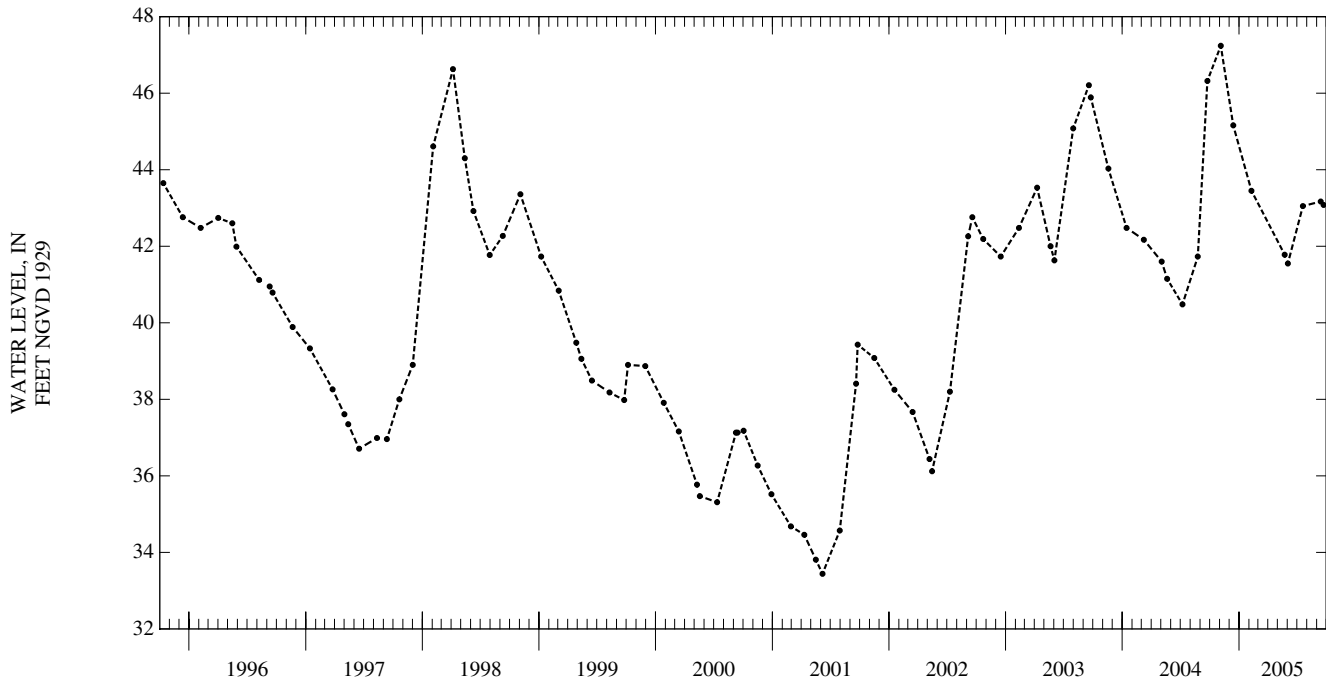
DATUM.--Elevation of land-surface datum is 59.30 ft above NGVD of 1929. Measuring point: Hole in sanitary seal, 0.33 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.33 ft above NGVD of 1929, Aug. 23, 1965; lowest measured, 33.44 ft above NGVD of 1929, June 6, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	47.24	FEB 08	43.45	JUN 02	41.55	SEP 13	43.17
DEC 13	45.16	MAY 23	41.78	JUL 19	43.05	22	43.08
WATER YEAR 2005		LOWEST	41.55 JUN 02, 2005	HIGHEST	47.24 NOV 04, 2004		



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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HERNANDO COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
282620082193801	05-23-05 09-21-05	1026 1216	82621901	84.72 86.49
282839082190801	05-23-05 09-21-05	1110 1252	82821901 RUSSELL BLACKETT LAKE NEFF	85.15 87.88
282851082035301	05-25-05 09-21-05	1039 1037	82820301 23S22E13 E H BOYETTE	82.15 84.18
283001082064702	05-25-05 09-21-05	1018 1021	83020602 23S22E09 WSF-RICHLOAM FIRE TOWER	72.15 74.15
283036082105501	05-25-05 09-21-05	0959 1056	83021001 23S21E02 830210133 RIDGE MANOR NO 1	54.09 56.61
283508082215101	05-23-05 09-21-05	1200 1345	83522101 22S19E12 CLARENCE SMITH	40.84 41.07
283510082133701	05-23-05 09-21-05	1448 1113	CROOM RR SIDING WELL NR CROOM, FL	43.99 45.82
283537082151501	05-23-05 09-21-05	1438 1431	83521501 ROMP DEEP WELL 103 NEAR BROOKSVILLE, FL	42.86 44.28
283613082184301	05-25-05 09-21-05	0931 1410	83621801 22S20E04 DELMAS C NIX	38.89 39.88
283804082211001	05-23-05 09-22-05	1304 0930	RUSSANO WELL AT LAKE LYNDSLEY, FL	24.58 24.97
283957082181001	05-23-05 09-22-05	1350 1000	83921801 21S20E16 W A BLIZZARD	35.96 37.25

KEY TO SITE LOCATIONS ON FIGURE 11
HIGHLANDS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	270157081203101	120
2	272504081120101	121

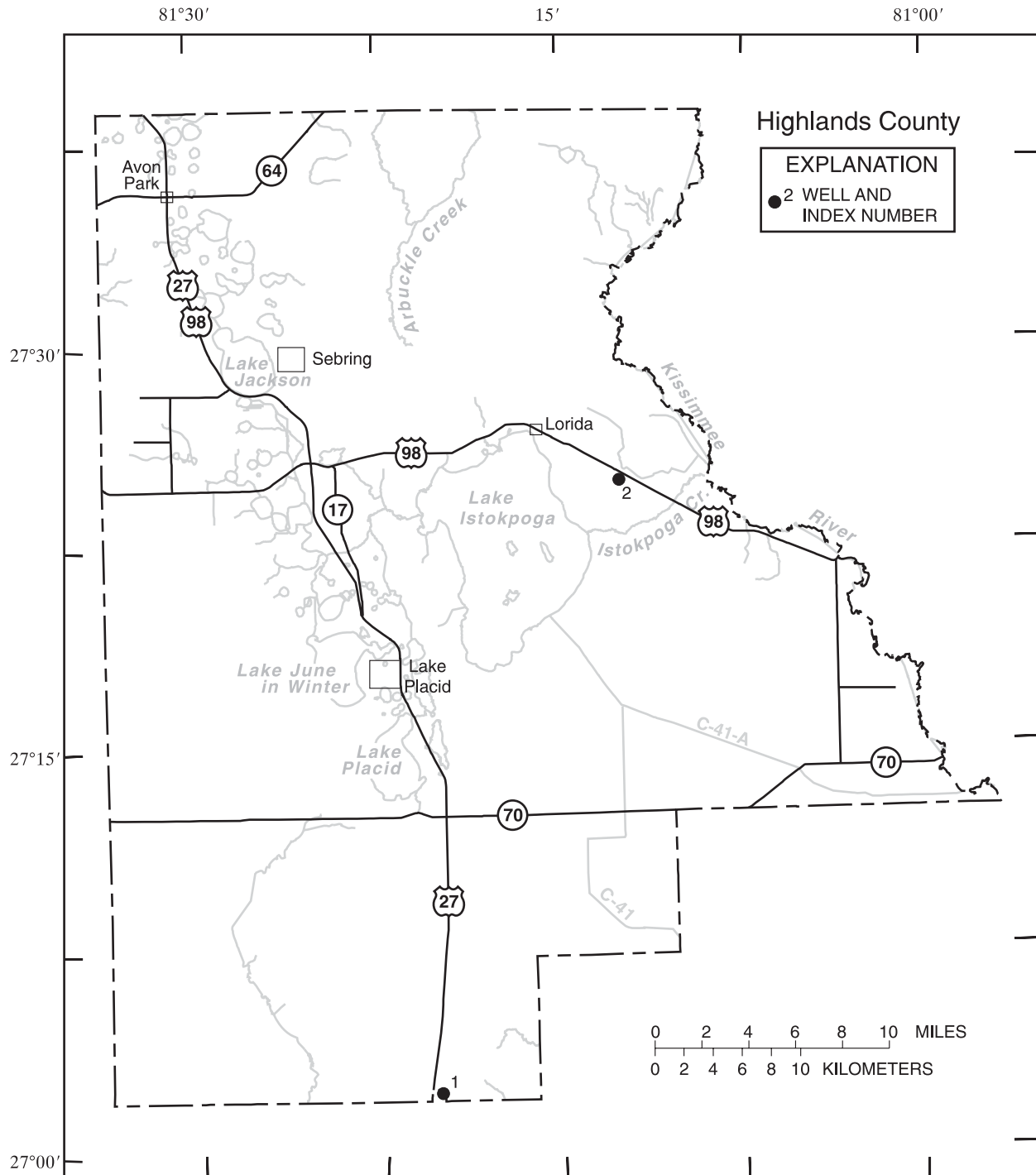


Figure 11.--Location of wells in Highlands County.

HIGHLANDS COUNTY

WELL NUMBER.--270157081203101. H-15A Well near Palmdale, FL.

LOCATION.--Lat 27°02'02", long 81°20'33", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

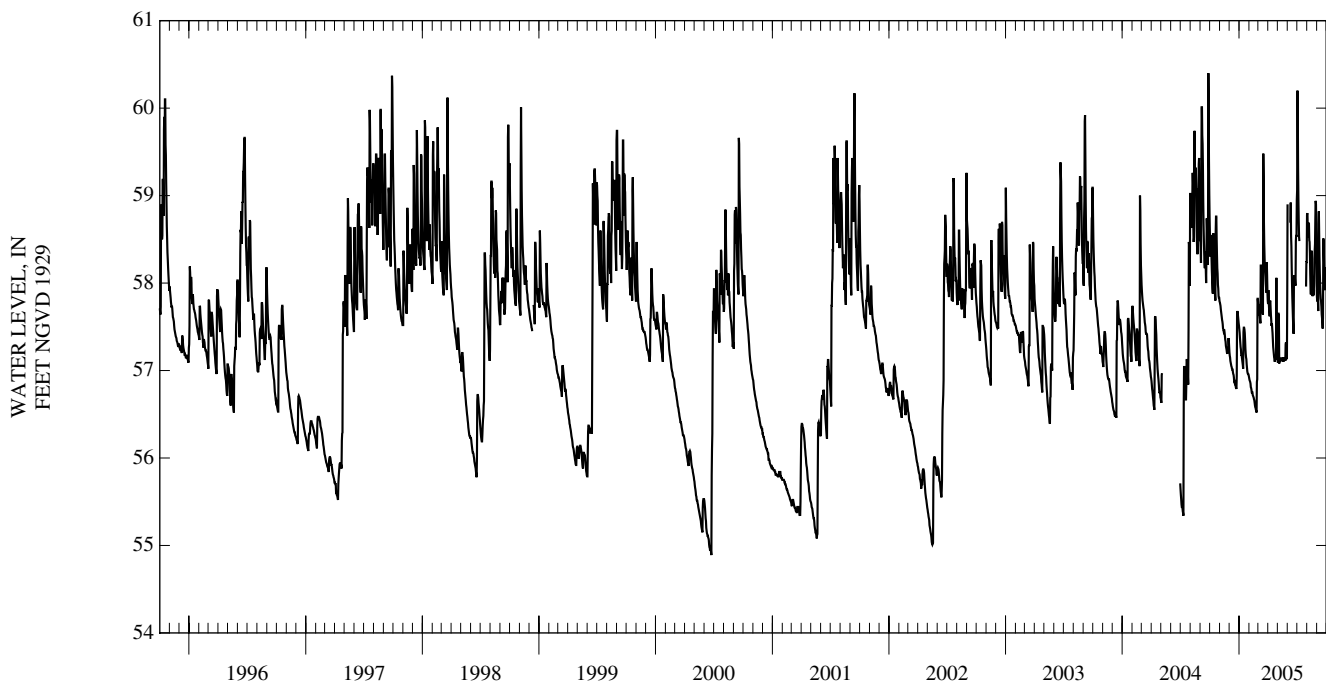
DATUM.--Elevation of land-surface datum is 58.52 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.40 ft above NGVD of 1929, Sept. 26, 2004; lowest, 53.49 ft above NGVD of 1929, June 27, 1956.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.52	57.67	57.09	57.27	56.85	57.70	57.68	57.56	---	58.96	58.53	57.68
10	57.88	57.53	57.01	57.12	56.75	58.20	57.63	57.14	58.69	---	58.34	58.12
15	58.07	57.46	56.92	57.49	56.69	57.67	57.43	57.14	57.99	---	58.37	57.73
20	58.76	57.28	56.84	57.25	56.58	58.44	57.15	57.14	57.42	---	57.91	57.60
25	58.11	57.26	57.65	57.03	56.87	57.99	57.14	57.11	57.99	---	58.37	57.98
EOM	57.79	57.28	57.51	56.93	57.82	57.80	57.14	57.85	58.95	58.24	57.97	58.01
MAX	58.76	57.78	57.68	57.49	57.82	59.48	58.06	57.85	---	---	58.94	58.82



HIGHLANDS COUNTY—Continued

WELL NUMBER.--272504081120101. H-11A Well near Lake Placid, FL.

LOCATION.--Lat 27°25'04", long 81°12'01", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

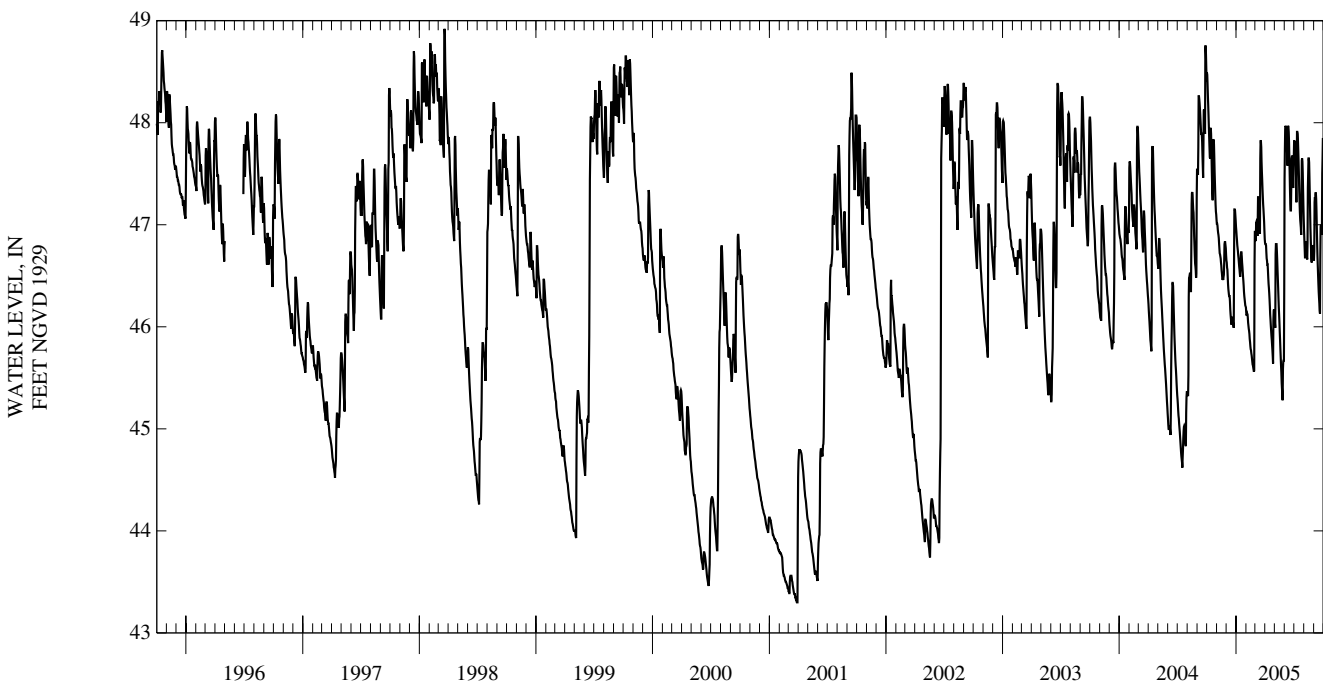
DATUM.--Elevation of land-surface datum is 49.02 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 2.10 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.04 ft above NGVD of 1929, Sept. 10, 1960; lowest, 43.26 ft above NGVD of 1929, June 18, 1975.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.17	46.92	46.49	46.77	46.12	47.03	46.73	46.81	47.96	47.70	46.68	47.24
10	47.66	46.72	46.30	46.59	45.96	47.27	46.55	46.56	47.58	47.91	46.68	46.98
15	47.74	46.60	46.08	46.70	45.78	46.97	46.27	46.12	47.81	47.61	47.65	46.42
20	47.50	46.47	46.09	46.59	45.66	47.76	45.96	45.70	47.14	47.05	47.13	46.13
25	47.52	46.81	46.70	46.34	45.56	47.27	45.71	45.33	47.67	47.63	46.63	46.90
EOM	47.05	46.70	46.98	46.19	46.93	46.86	46.15	46.37	47.67	47.06	46.75	47.84
MAX	48.49	47.01	47.15	46.94	46.93	47.82	46.82	46.81	47.97	47.91	47.65	47.84



WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 12
INDIAN RIVER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273923080471801	124
2	274607080493001	125

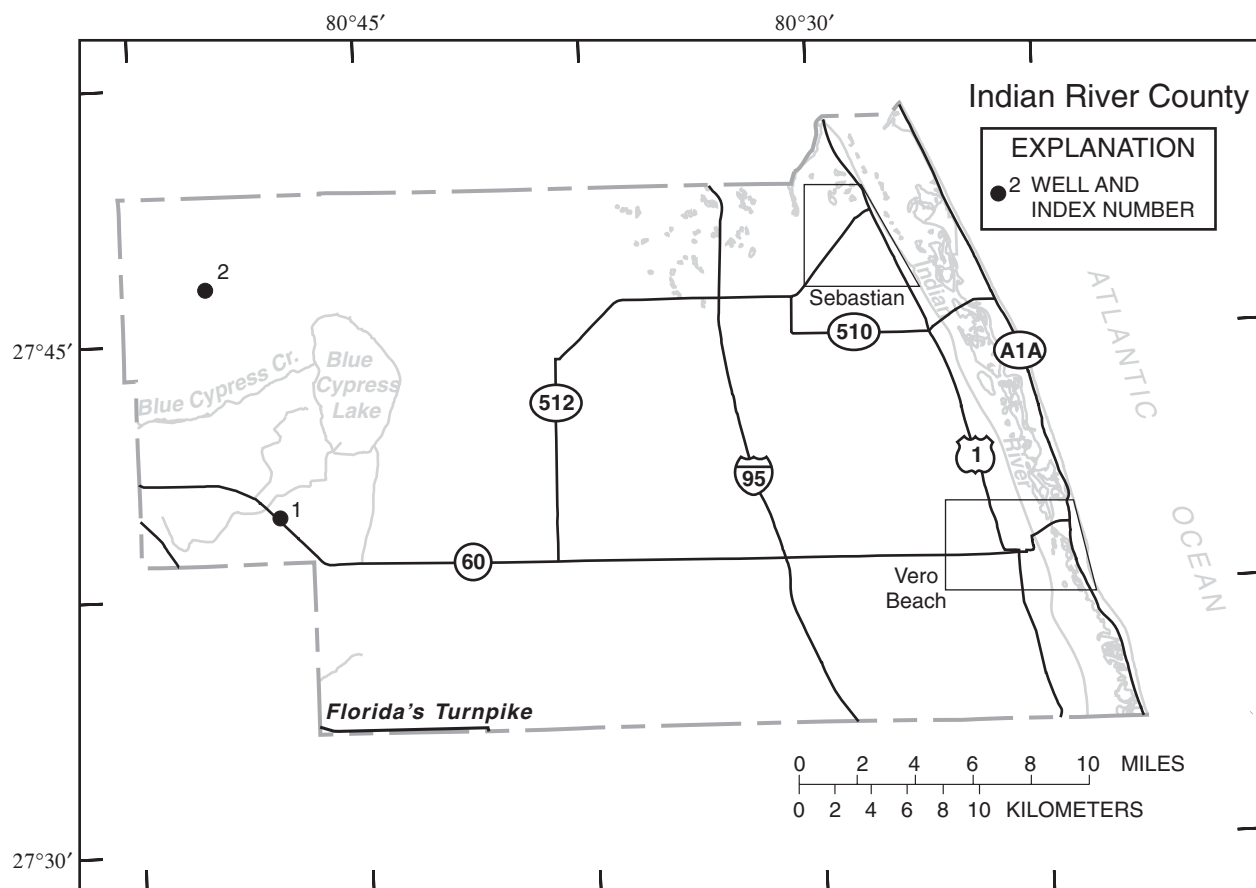


Figure 12.--Location of wells in Indian River County.

INDIAN RIVER COUNTY

WELL NUMBER.--273923080471801. IR-25 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27° 39'23", long 80° 47'18", in NW¹/₄NE¹/₄NW¹/₄ 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.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 30.01 ft above NGVD of 1929. Measuring point: Top of shelf, 2.30 ft above land-surface datum.

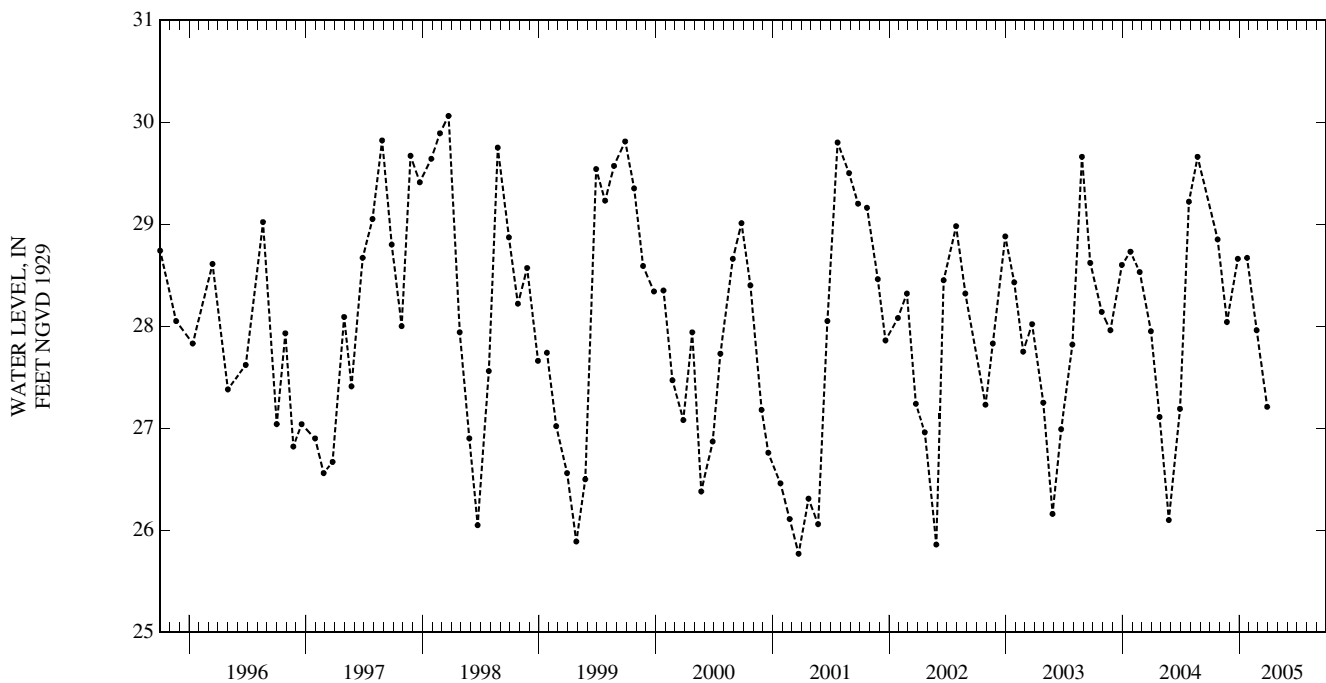
REMARKS.--Well collapsed and will be plugged in late 2005.

PERIOD OF RECORD.--October 1950 to September 1996; October 1996 to March 2005 (monthly) discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 31.99 ft above NGVD of 1929, Sept. 4, 1979; lowest, 25.17 ft above NGVD of 1929, May 31, 1967.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	28.85	NOV 23	28.04	DEC 27	28.66	JAN 25	28.67	FEB 24	27.96	MAR 29	27.21
WATER YEAR 2005		LOWEST	27.21	MAR 29, 2005	HIGHEST	28.85	OCT 25, 2004				



INDIAN RIVER COUNTY—Continued

WELL NUMBER.--274607080493001. IR-189 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27° 46' 07", long 80° 49' 30", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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.

DATUM.--Elevation of land-surface datum is 33.85 ft above NGVD of 1929. Prior to April 1983, land-surface datum was 0.69 ft lower. May 1983 to September 2001 land-surface datum was 0.19 ft lower. Measuring point: Top of 4 in. tee, 1.63 ft above land-surface datum.

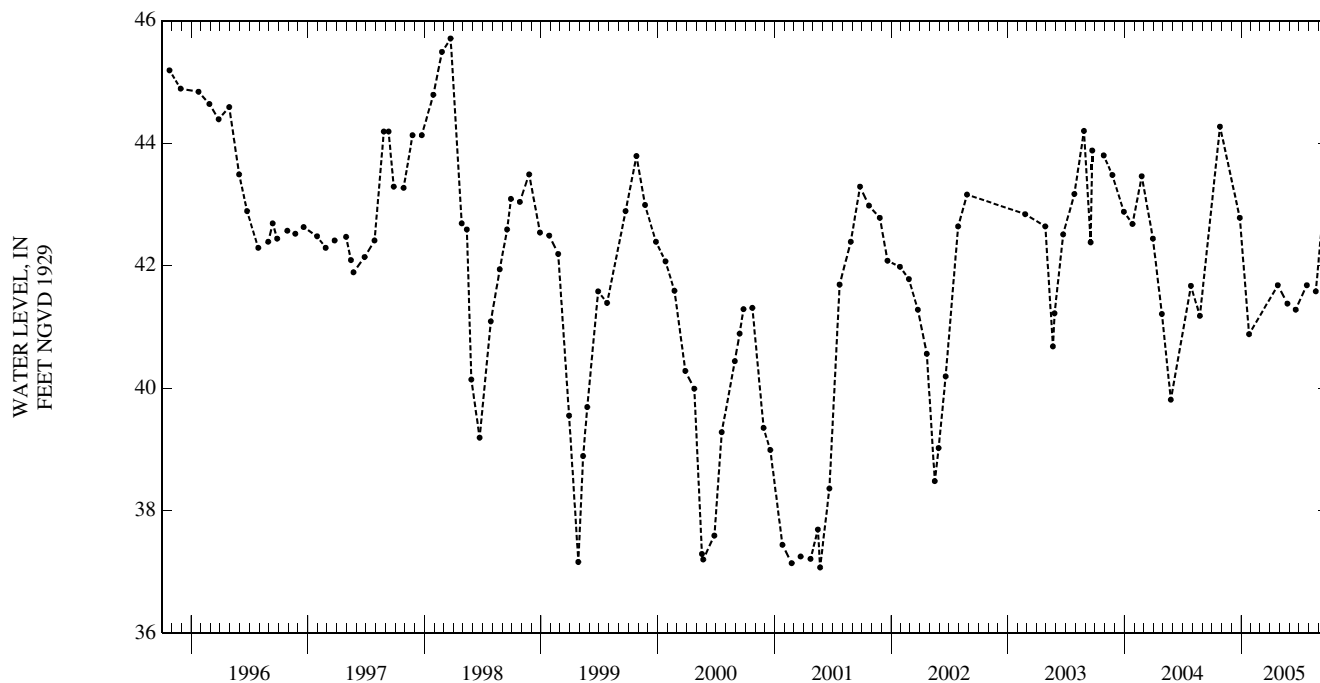
REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--1951, 1957, 1970 (annually); January 1976 to October 1983 (bimonthly); November 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.16 ft above NGVD of 1929, datum then in use, Nov. 13, 1951, July 10, 1957; lowest measured, 36.67 ft above NGVD of 1929, datum then in use, May 6, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	44.27	JAN 25	40.88	MAY 25	41.38	JUL 25	41.68	SEP 22	43.38
DEC 27	42.78	APR 25	41.68	JUN 20	41.28	AUG 22	41.58		
WATER YEAR 2005 LOWEST 40.88 JAN 25, 2005 HIGHEST 44.27 OCT 26, 2004									



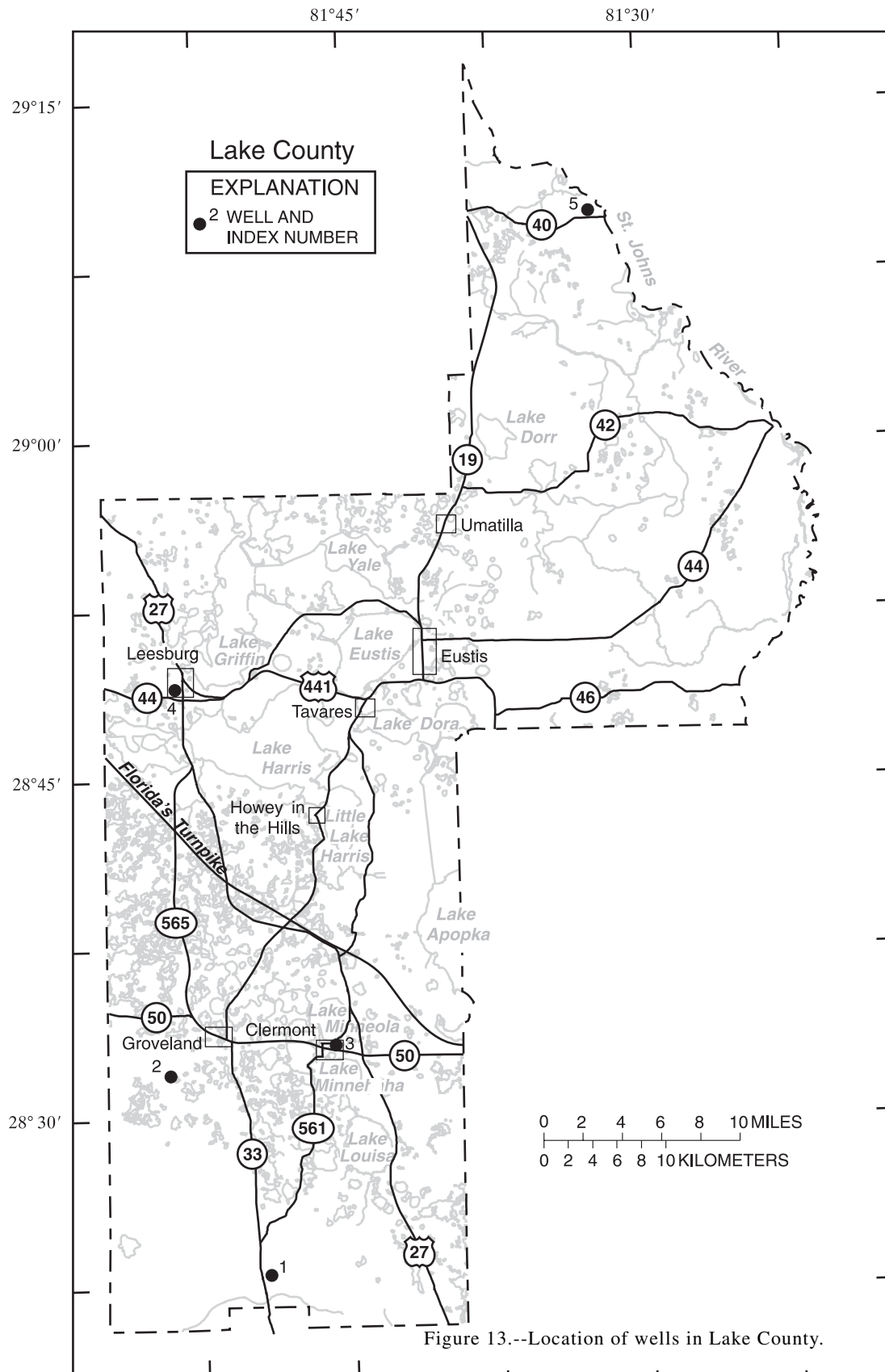
MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

INDIAN RIVER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
273435080255101	05-26-05 09-20-05	0748 1138	73402501 USDA SOUTH WELL 43RD AVE SW OF OSLO	32.71 33.51
273515080344303	05-26-05 09-22-05	1145 0852	IR-0954 SJWCD	42.03 43.53
273536080240201	05-26-05 09-20-05	0838 1210	73502403 REVERSE OSMOSIS MONITOR W OF OSLO	36.74 36.99
273805080223802	05-26-05 09-20-05	0914 1251	IR-1008 VERO BEACH POWER PLANT IN VERO BEACH, FL	36.27 35.97
273847080254703	05-25-05 09-20-05	1558 1321	IR-1006 DODGER STADIUM EAST IN DODGERTOWN, FL	33.67 34.27
273941080375401	05-26-05 09-22-05	1213 0921	IR-0955 DELTA FARMS	42.19 43.89
274055080281301	05-26-05 09-20-05	1031 1345	74002801 IR 210 WALTER POOL LINDSEY RD GIFFORD	34.35 33.95
274126080304803	05-26-05 09-20-05	1106 1433	IR-0963 CORRIGAN RANCH WELL	36.84 38.74
274217080464201	05-25-05 09-21-05	1330 1741	IR-0968 BLUE CYPRESS WELL	42.25 44.95
274916080520701	05-25-05 09-22-05	1100 1400	74905201 USGS TH MACE RANCH FELLSMERE GRADE	52.17 52.72

KEY TO SITE LOCATIONS ON FIGURE 13
LAKE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282245081492601	130
2	283204081544901	131
2	283204081544902	132
3	283314081455501	133
4	284842081533001	134
5	290950081315501	135



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.--Monthly measurement with chalked tape or electric tape.

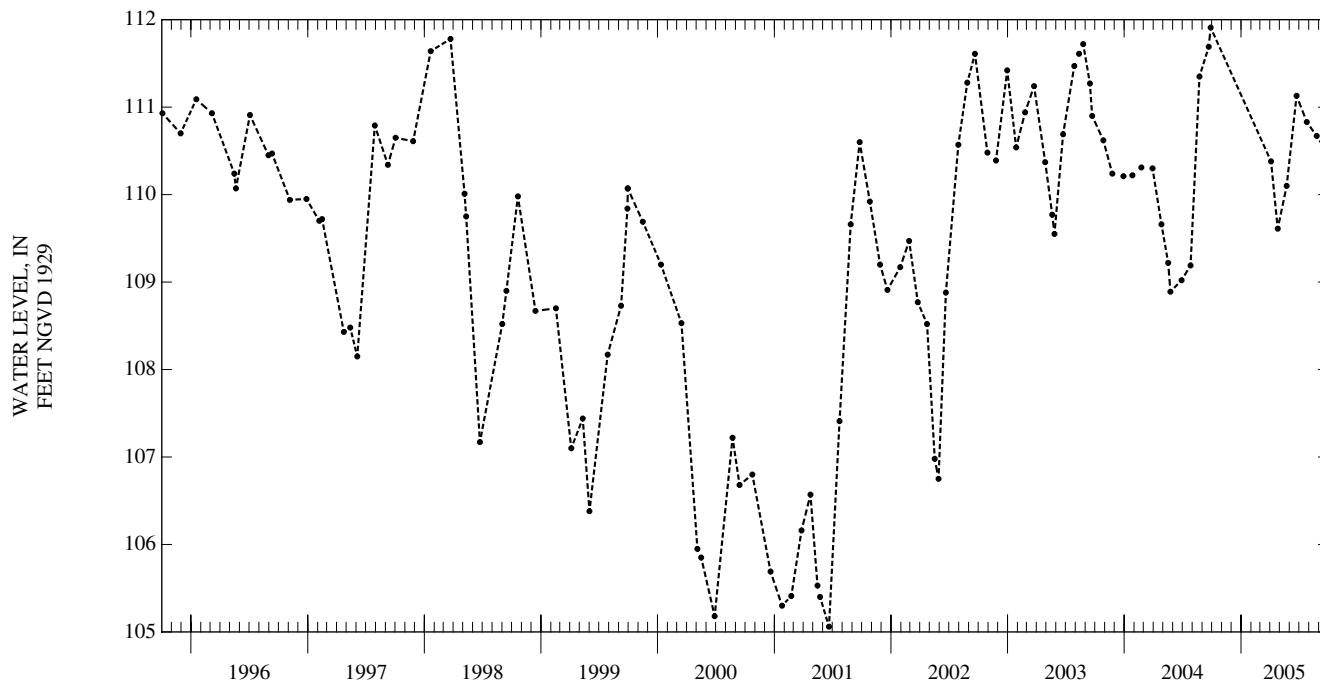
DATUM.--Elevation of land-surface datum is 113.47 ft above NGVD of 1929. Measuring point: Top of 6 in. nipple, 3.22 ft above land-surface datum. Prior to Oct. 1, 2002, measuring point 3.40 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to December 1962; January 1963 to October 2000 (bimonthly); December 2000 to September 2004 (monthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.72 ft above NGVD of 1929, Sept. 10, 1960; lowest measured, 105.06 ft above NGVD of 1929, June 20, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 04	110.38	MAY 23	110.10	JUL 25	110.83	SEP 20	110.52
25	109.61	JUN 23	111.13	AUG 25	110.67		
WATER YEAR 2005		LOWEST	109.61	APR 25, 2005	HIGHEST	111.13	JUN 23, 2005



LAKE COUNTY—Continued

WELL NUMBER.--283204081544901. Mascotte Deep Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--60-minute interval.

DATUM.--Elevation of land-surface datum is 103.51 ft above NGVD of 1929. Measuring point: Top of 6 in. nipple, 2.25 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to September 2003, November 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 102.66 ft above NGVD of 1929, Sept. 10, 1988; lowest, 93.94 ft above NGVD of 1929, June 20,21, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	100.80	100.64	100.28	100.29	100.30	100.02	100.46	101.42	100.99	101.31
10	---	---	100.77	100.55	100.24	100.32	100.12	99.77	100.35	101.67	101.39	101.12
15	---	---	100.57	100.73	100.11	100.19	99.93	100.40	100.75	101.41	101.50	100.91
20	---	---	100.52	100.56	99.98	100.48	99.79	100.08	100.43	101.39	101.28	100.83
25	---	101.17	101.03	100.36	99.97	100.78	99.67	99.84	100.50	101.10	101.10	100.68
EOM	---	100.95	100.73	100.34	100.51	100.56	99.88	99.84	101.47	100.96	101.41	100.99
MAX	---	---	101.07	100.74	100.55	100.89	100.52	100.62	101.47	101.67	101.56	101.63



LAKE COUNTY—Continued

WELL NUMBER.--283204081544902. Mascotte Shallow Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Nonartesian sand of the Surficial Aquifer System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 30 ft, cased to 16 ft.

INSTRUMENTATION.--Water-stage recorder and data-collection platform--60-minute interval.

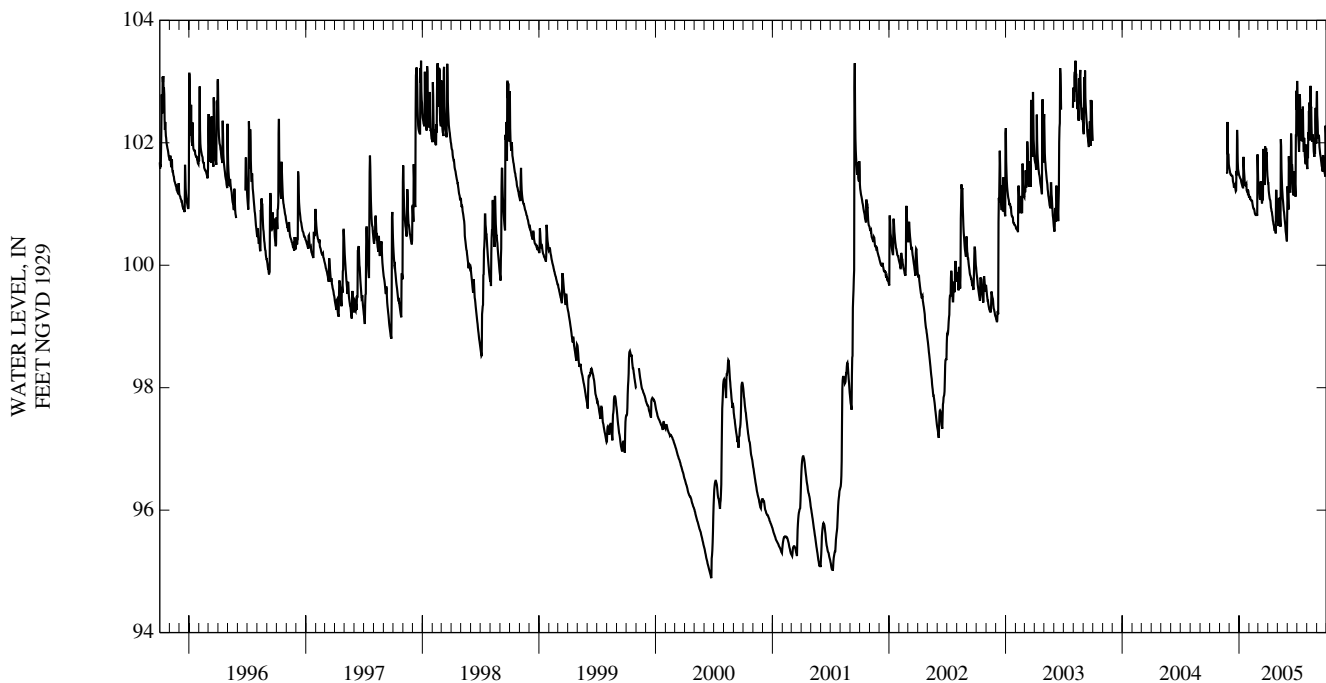
DATUM.--Elevation of land-surface datum is 103.51 ft above NGVD of 1929. Measuring point: Top of casing, 2.38 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to September 2003, November 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 103.51 ft above NGVD of 1929, estimated, Sept. 11, 1960; lowest, 94.89 ft above NGVD of 1929, June 23, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	101.48	101.41	101.08	101.19	101.13	101.10	101.78	102.09	102.17	102.08
10	---	---	101.46	101.30	101.05	101.34	100.94	100.63	101.20	102.72	102.40	101.88
15	---	---	101.28	101.62	100.92	101.06	100.79	101.26	101.65	102.54	102.28	101.67
20	---	---	101.24	101.32	100.83	101.41	100.62	100.90	101.14	102.20	102.08	101.80
25	---	102.34	102.21	101.21	100.84	101.83	100.52	100.65	101.22	101.79	101.88	101.51
EOM	---	101.61	101.48	101.12	101.62	101.41	100.76	100.86	102.54	101.72	102.66	101.79
MAX	---	---	102.21	101.77	101.81	101.94	101.34	102.06	102.85	103.01	102.93	102.84



LAKE COUNTY—Continued

WELL NUMBER.--283314081455501. City Well Replacement at Clermont, FL.

LOCATION.--Lat 28°33'14", long 81°45'55", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.24, T.22 S., R.25 E., Hydrologic Unit 03080102, on Lake Avenue, 0.2 mi north of State Highway 50 in Clermont. Owner: City of Clermont.

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

WELL CHARACTERISTICS.--Drilled, domestic well, diameter 12 in., depth 525 ft, casing length unknown.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

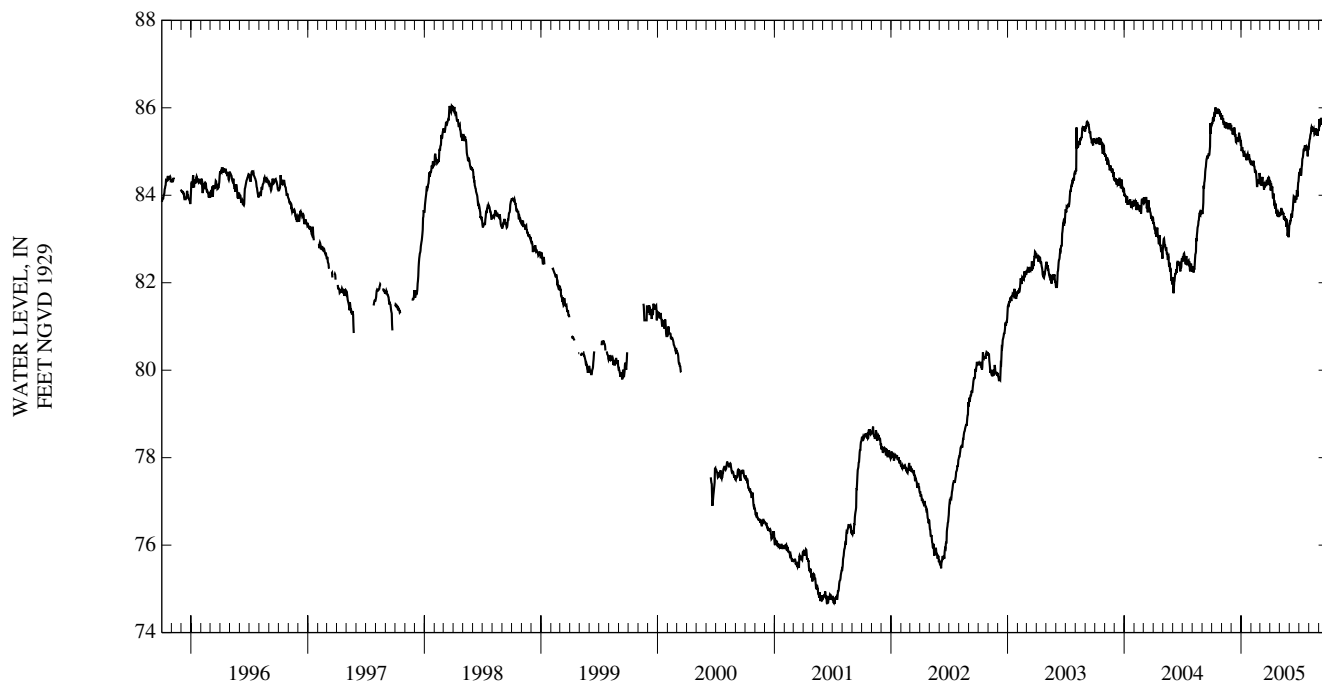
DATUM.--Elevation of land-surface datum is 148.28 ft above NGVD of 1929. Measuring point: Top of casing, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 86.04 ft above NGVD of 1929, Mar. 27, 1998; lowest, 74.65 ft above NGVD of 1929, June 14, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.79	85.76	85.39	85.04	84.71	84.28	84.22	83.65	83.45	84.61	85.37	85.64
10	85.80	85.57	85.55	84.96	84.67	84.24	83.93	83.63	83.64	84.69	85.54	85.69
15	85.96	85.59	85.22	84.90	84.56	84.20	83.83	83.44	83.96	85.04	85.50	85.49
20	85.94	85.57	85.23	84.93	84.21	84.21	83.65	83.48	83.94	85.10	85.42	85.49
25	85.92	85.57	85.43	84.94	84.33	84.37	83.59	83.21	84.07	85.11	85.38	85.34
EOM	85.73	85.61	85.20	84.76	84.46	84.23	83.55	83.29	84.41	85.09	85.47	85.61
MAX	86.01	85.83	85.55	85.12	84.79	84.42	84.32	83.71	84.41	85.14	85.56	85.75



LAKE COUNTY—Continued

WELL NUMBER.--284842081533001. College Street Well at Leesburg, FL.

LOCATION.--Lat 28°48'42", long 81°53'30", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.27, T.19 S., R.24 E., Hydrologic Unit 03080102, on west side of College Street, near water tank, 350 ft north of West Main Street in Leesburg. Owner: City of Leesburg.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 245 ft, cased to 90 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 93.10 ft above NGVD of 1929. Measuring point: Edge of flange, 1.2 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 70.38 ft above NGVD of 1929, Mar. 2, 1998; lowest, 57.29 ft above NGVD of 1929, May 16, 1981.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	68.60	67.73	67.28	66.50	66.53	66.16	66.83	66.34	66.76	68.62	---	---
10	68.13	67.43	67.37	66.55	66.49	66.00	66.51	66.69	66.86	68.65	---	---
15	68.17	67.79	66.97	66.89	66.34	65.76	66.24	66.30	67.23	68.82	---	---
20	68.09	67.46	66.98	66.82	65.78	65.88	65.92	66.16	66.89	68.55	---	---
25	68.35	67.39	67.26	66.79	66.03	66.31	66.11	66.31	67.35	---	---	---
EOM	67.78	67.46	66.94	66.43	66.24	66.61	66.11	66.18	68.12	---	---	---
MAX	68.70	67.90	67.48	66.96	---	66.82	66.96	66.82	68.12	---	---	---



LAKE COUNTY—Continued

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 0.7 mi west of St. Johns River at Astor Park. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 225 ft, casing length 175 ft.

INSTRUMENTATION.--Water-stage recorder-60-minute interval.

DATUM.--Elevation of land-surface datum is 17.78 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--February 1936 to December 1949 (monthly); January 1950 to September 1985 (bimonthly); October 1985 to September 1997 (monthly); October 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.15 ft above NGVD of 1929, October 1945; lowest daily maximum, 9.18 ft above NGVD of 1929, Jan. 3, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.33	15.99	---	---	15.36	14.93	15.37	15.20	15.19	15.73	15.97	16.01
10	16.37	15.78	---	---	15.36	14.90	15.48	15.39	15.23	15.70	16.03	16.47
15	16.44	15.79	---	15.36	15.08	14.76	15.43	15.21	15.40	15.92	15.94	16.29
20	16.32	15.80	---	15.46	14.80	14.94	15.35	15.18	15.47	15.95	15.81	16.10
25	16.30	15.73	---	15.27	14.74	15.24	15.01	15.24	15.53	15.93	15.85	16.24
EOM	16.19	---	---	15.27	15.06	15.40	14.98	14.96	15.57	15.81	16.03	16.28
MAX	16.46	---	---	---	15.37	15.50	15.59	15.43	15.57	15.95	16.10	16.47



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

LAKE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
282241081443901	05-23-05 09-20-05	1055 1025	L-0051 SAND MINE RD DP WELL NR CLERMONT	115.06 115.98
282245081492602	05-23-05 09-20-05	1123 1155	822149213A USGS OBSER W EVA SHALLOW AT EVA, FL.	111.42 111.32
282436081431201	09-20-05	0950	HILOCHEE 12IN UFA NR CLERMONT,FL	114.14
282717081553101	05-23-05 09-20-05	1200 1255	82715502ROMP DEEP WELL 101 NEAR BAY LAKE, FL.	97.76 99.13
283019081455701	05-24-05 09-20-05	1435 1220	LCFD DIST.9 STATION 1	92.09 94.86
283128081404701	05-24-05 09-19-05	1215 1350	JOHNS LAKE WELL NR CLERMONT (SJ L-0052)	83.67 85.97
283232081394101	05-24-05 09-19-05	0955 1415	83213902 EDGEWATER BEACH DEEP	80.97 83.05
283355081411701	05-24-05 09-19-05	1118 1245	L-0199 TURNPIKE	73.87 75.05
283530081514501	05-23-05 09-20-05	1330 1332	DR PHILLIPS & SONS DP	88.45 90.38
283608081403001	05-24-05 09-19-05	1041 1230	L-0658 CITY OF MONTVERDE	74.57 76.19
284122081534401	05-23-05 09-21-05	1454 0925	L-0095 GROVELAND TOWER DEEP	83.40 85.37
284232081533001	05-23-05 09-21-05	1515 0945	842153142 20S24E34	80.67 83.00
284241081402601	05-23-05 09-19-05	1645 1140	KEEN RANCH NR LAKE JEM	58.91 60.67
284445081462101	05-24-05 09-21-05	1540 1117	844146244 LAKE YALE GROVES WELL NR TAVARES, FL.	66.30 67.75
284528081530201	05-23-05 09-21-05	1540 1010	CHURCH OF GOD OF PROPHECY	66.56 68.14
284725081361901	05-26-05 09-19-05	1640 1054	WOLF SINK OBSERVATION WELL NR SORRENTO	48.98 54.20
284757081320701	10-01-04 10-06-04 10-08-04 10-15-04 10-22-04 10-29-04 01-15-05 05-26-05 07-15-05 09-19-05	1900 1800 1600 1600 1650 1530 1245 1530 1630 0950	L KNOWLES DEEP	52.08 52.32 52.39 52.50 52.53 52.27 50.20 47.43 50.87 51.13
284929081294901	05-26-05 09-23-05	1455 1015	ABANDONED FREEFLOW SR46A NR SORRENTO	40.95 44.25

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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LAKE COUNTY---Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
285144081475002	05-25-05	1046	L-0290 LEESBURG FIRETOWER DEEP AT LEESBURG, FL	63.18
285257081434201	05-25-05 09-21-05	1155 1320	852143121 18S26E32 J EICHEL BERGER	57.88 61.21
285357081472801	05-25-05 09-21-05	1125 1215	SJR DEEP NR CABBAGE HAMMOCK L-0620	57.79 60.59
285454081241201	05-27-05 09-23-05	1214 0916	LOWER WEKIWA R. 2IN FREE FLOW	29.08 31.27
285504081405901	05-25-05 09-23-05	1305 1300	855140-- 18S26E14 AUSTIN GROVES	53.40 56.92
285539081262901	05-26-05 09-22-05	1400 1515	PINE LAKES WELL ON SR 44	37.32 40.23
285810081234101	05-27-05 09-23-05	1120 0818	LOWER WEKIVA R 4"FREEFLO	27.13 28.83
285827081331401	05-26-05 09-22-05	1227 1408	PAUL SHOKLEY AT PAISLEY	42.53 44.90
290000081380001	05-26-05 09-21-05	1333 1411	PITTMAN WORK CENTER ABANDONED NR ALTOONA, FL	48.26 50.99
290052081271201	05-26-05 09-22-05	1256 1440	CENTRAL BAPTIST YOUTH CAMP	44.49 46.05
290244081302601	05-26-05 09-21-05	1106 1455	OCALA NF4" NR ALEX.SPGS.CR BOAT LANDING	16.89 18.05
290451081344401	05-26-05 09-21-05	1143 1431	L-0066 OBS WELL ALEXANDER SP NR ASTOR	17.01 18.23
290633081375201	05-25-05 09-22-05	1400 1210	90613701 16S27E18 CAMP OCALA	43.19 45.20
290646081314001	05-25-05 09-22-05	1637 1006	L-0441 USFS WELL NR ASTOR, FL	19.48 20.58
290647081342101	05-26-05 09-21-05	1028 1525	USGS WELL, 2MI N ALEX SPGS, ALTOONA	41.18 42.52
290647081342102	05-26-05 09-21-05	1020 1522	L-0456 ALEXANDER SPS SH	42.18 42.95
290900081342002	05-25-05 09-22-05	1530 1036	909134 15S27E-- ASTOR PARK	34.10 34.76
290910081360001	05-25-05 09-22-05	1502 1123	CAMP MCQUARRIE ABANDONED DP AT CROOKED LAKE	46.64 47.47
291002081330601	05-25-05 09-21-05	1558 1543	L-0455 ASTOR 150 CF	16.32 18.78
291448081381601	05-25-05 09-22-05	1435 1146	JUNIPER HUNT CLUB SUPPLY	1.66 2.21

KEY TO SITE LOCATIONS ON FIGURE 14
LEVY COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	290112082371101	140
2	290230082412501	141
3	290743082341501	142
4	291910082341101	143

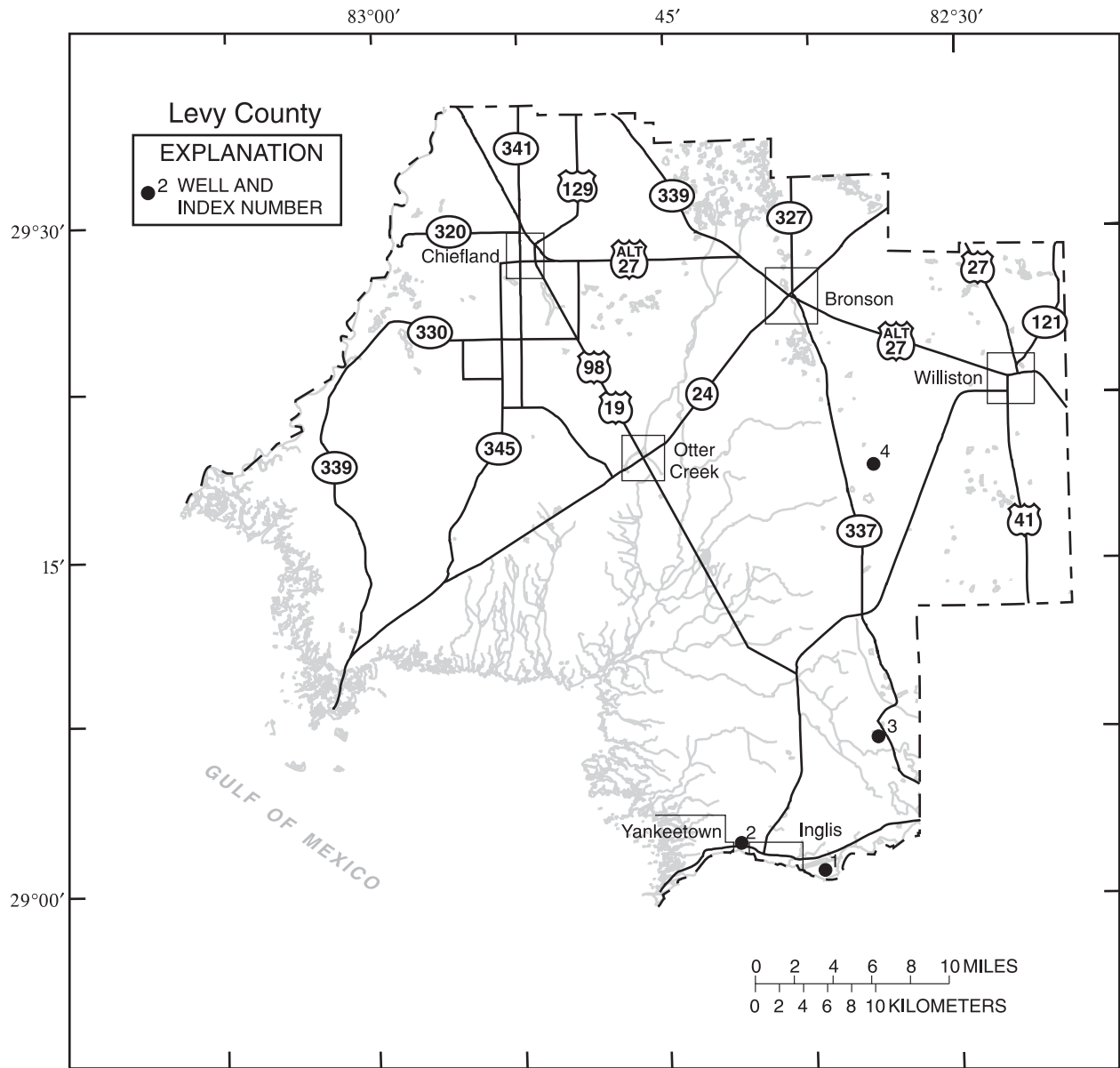


Figure 14.--Location of wells in Levy County.

LEVY COUNTY

WELL NUMBER.--290112082371101. CE-5 Well near Inglis, FL.

LOCATION.--Lat 29°01'12", long 82°37'11", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder--15-minute interval.

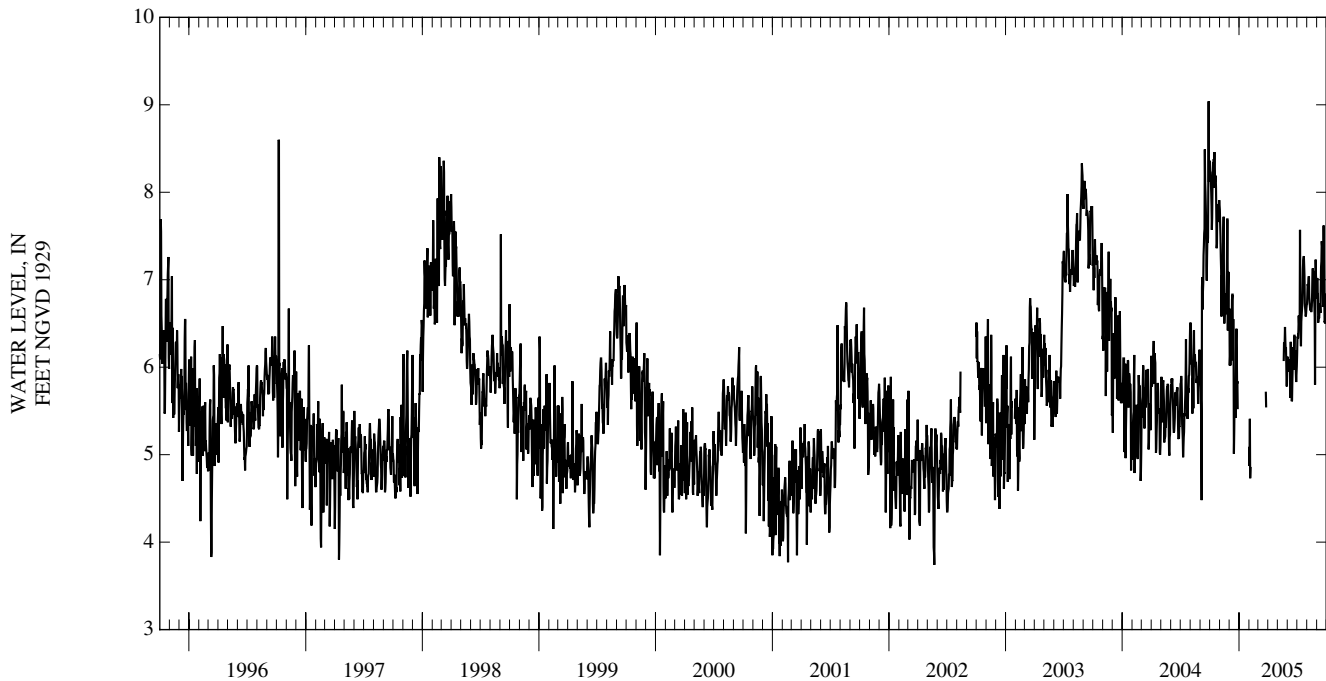
DATUM.--Elevation of land-surface datum is 25.39 ft above NGVD of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.41 ft above NGVD of 1929, Sept. 6, 1968; lowest, 4.38 ft below NGVD of 1929, Dec. 12, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.00	7.11	6.11	---	4.86	---	---	---	6.08	6.42	6.96	6.51
10	8.18	6.90	6.83	---	---	---	---	---	5.65	7.57	6.70	6.73
15	8.46	6.50	5.01	---	---	---	---	---	5.62	6.59	6.65	7.21
20	8.05	6.64	5.42	---	---	---	---	6.07	5.97	7.22	7.09	6.69
25	7.82	7.69	5.81	---	---	5.72	---	6.31	6.19	6.73	6.57	6.51
EOM	7.86	6.50	---	---	---	---	---	5.97	6.01	6.71	6.94	6.84
MAX	8.46	7.80	---	---	---	---	---	---	6.36	7.57	7.23	7.62



LEVY COUNTY—Continued

WELL NUMBER.--290230082412501. ROMP 125 Well at Crackertown, FL.

LOCATION.--Lat 29°02'30", long 82°41'25", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 8.64 ft above NGVD of 1929. Measuring point: Top of flange, 3.50 ft above land-surface datum.

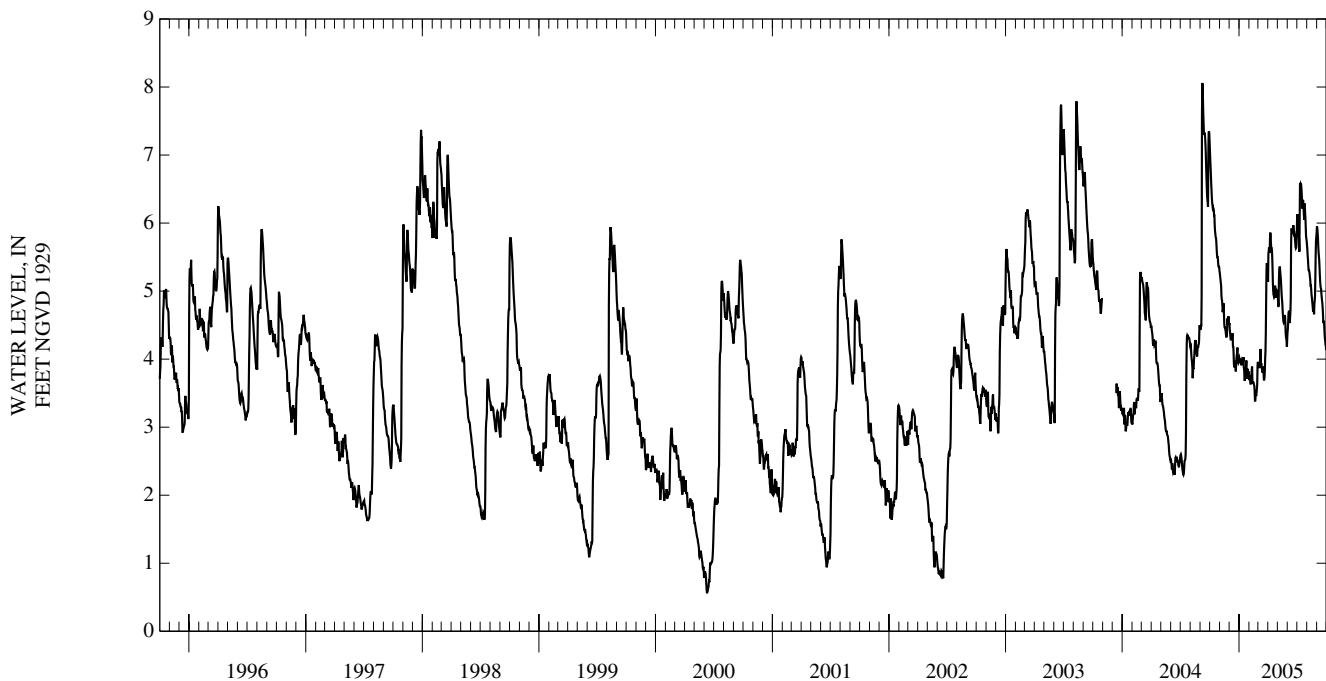
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.29 ft above NGVD of 1929, Sept. 9, 1988; lowest, .57 ft above NGVD of 1929, June 9,10, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.58	5.08	4.29	3.98	3.64	3.90	5.59	5.16	4.70	5.91	5.37	5.67
10	6.22	4.69	4.38	3.94	3.89	3.93	5.70	5.23	4.70	6.57	5.21	5.25
15	6.11	4.51	3.93	3.88	3.65	3.80	5.34	4.86	5.89	6.46	4.95	4.96
20	5.78	4.37	3.90	3.81	3.39	3.70	4.91	4.54	5.91	6.33	4.70	4.66
25	5.50	4.60	4.08	3.80	3.56	4.40	4.90	4.54	5.72	6.26	4.86	4.37
EOM	5.29	4.51	4.03	3.77	3.96	5.22	4.92	4.31	5.87	5.73	5.86	4.13
MAX	7.07	5.26	4.53	4.03	3.96	5.41	5.86	5.35	5.97	6.58	5.86	5.95

e Estimated



LEVY COUNTY—Continued

WELL NUMBER.--290743082341501. Tidewater Number 1 Well near Dunnellon, FL.

LOCATION.--Lat 29°07'43", long 82°34'15", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

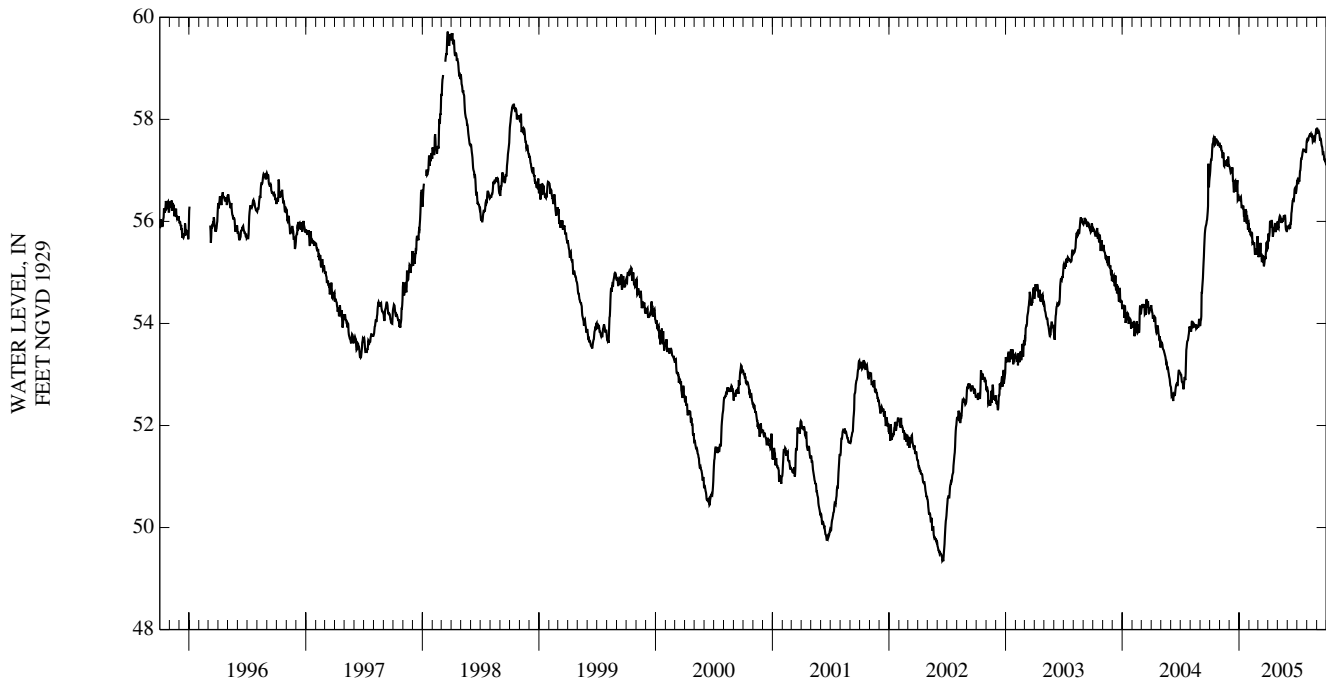
DATUM.--Elevation of land-surface datum is 70.07 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.82 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 61.81 ft above NGVD of 1929, Sept. 26, 1982; lowest, 49.34 ft above NGVD of 1929, June 19, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.21	57.47	56.96	56.47	55.74	55.35	55.72	56.02	55.88	56.77	57.60	57.72
10	57.53	57.24	57.06	56.29	55.77	55.34	55.88	56.08	55.96	56.99	57.71	57.64
15	57.67	57.08	56.57	56.15	55.54	55.20	55.81	56.02	56.28	57.23	57.65	57.52
20	57.61	57.13	56.65	56.24	55.41	55.16	55.86	56.10	56.44	57.41	57.57	57.36
25	57.57	57.22	56.74	56.06	55.43	55.37	55.79	56.06	56.66	57.38	57.58	57.20
EOM	57.49	57.09	56.46	55.89	55.52	55.48	55.93	55.85	56.70	57.57	57.80	57.10
MAX	57.67	57.50	57.08	56.48	55.86	55.59	56.01	56.13	56.70	57.57	57.80	57.82



LEVY COUNTY—Continued

WELL NUMBER.--291910082341101. Bullock-Huber Well near Williston, FL.

LOCATION.--Lat 29°19'10", long 82°34'11", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ 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 or electric tape.

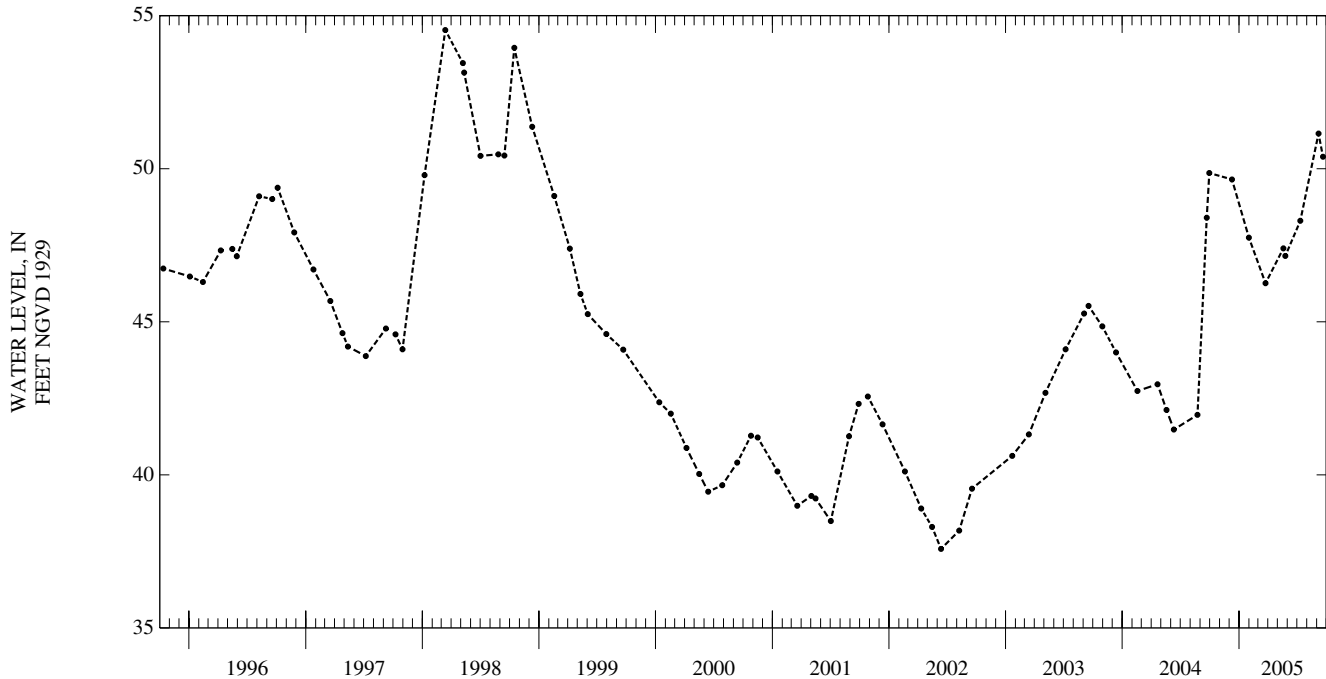
DATUM.--Land-surface datum is 91.40 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum. Prior to Oct. 1995 at elevation 0.60 ft lower.

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, 54.53 ft above NGVD of 1929, Mar. 13, 1998; lowest measured, 37.58 ft above NGVD of 1929, June 12, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 09	49.65	MAR 24	46.26	MAY 25	47.15	SEP 06	51.15
JAN 31	47.75	MAY 19	47.40	JUL 11	48.30	20	50.39
WATER YEAR 2005		LOWEST	46.26 MAR 24, 2005	HIGHEST	51.15	SEP 06, 2005	



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

LEVY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
290503082323101	05-25-05 09-21-05	1540 0930	90523201 16S17E13 SCE 108 T & J RANCH	71.76 72.29
290605082372601	05-25-05 09-21-05	0810 0815	90623701 16S17E07 GEOTHE ROAD	27.70 27.20
291004082382901	05-25-05 09-21-05	1020 0840	91023801 15S16E24 910238433 DIXIE LIME PR	25.03 25.04
291048083011801	05-18-05 09-21-05	1230 1100	15S13E17 910301212	3.50 3.51
291414082560901	05-24-05 09-21-05	1510 1305	ROSEWOOD TOWER WELL NR. CEDAR KEYS FL.	11.41 11.09
291508082432901	05-25-05 09-21-05	0930 1130	GULF HAMMOCK	10.89 11.28
291712082351801	05-25-05 09-20-05	1010 1440	SOUTH OF BONSON-RO	51.81 51.42
291806082545601	05-24-05	1030	918254331 13S14E33 TEST 2 USGS nr ROSEWOOD	20.77
292143082282201	05-25-05 09-20-05	1320 1240	92122801 13S18E11 WILLISTON AIRPORT	49.19 52.23
292310082373701	05-25-05 09-21-05	1230 1050	ERCELL SMITH	55.73 55.50
292430082283001	05-25-05	1410	92422801DEVILS DEN SINK CE8 NR WILLISTON, FL.	49.30
292507082560201	05-17-05 09-22-05	1430 1300	A J MIMMS(121420)SR 347 SW OF CHIEFLAND	9.36 8.18
292615082272601	05-25-05 09-20-05	1450 1220	ROMP 134 NEAR WILLISTON, FL	49.16 53.20
292713082493601	05-25-05 09-22-05	1005 1100	H.E.MILLS NR CHIEFLAND,FL	28.12 26.34
292744082375201	05-05-05 09-07-05	1425 1500	BRONSON HIGH SCHOOL WELL AT BRONSON,FL	50.28 54.80

KEY TO SITE LOCATIONS ON FIGURE 15
MARION COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	290215082152401	148
2	290306082232802	149
3	290514082270701	150
4	290815082025701	151
5	291100082010003	152
6	291110082060001	153
7	291115082102901	154
8	291849081411401	155

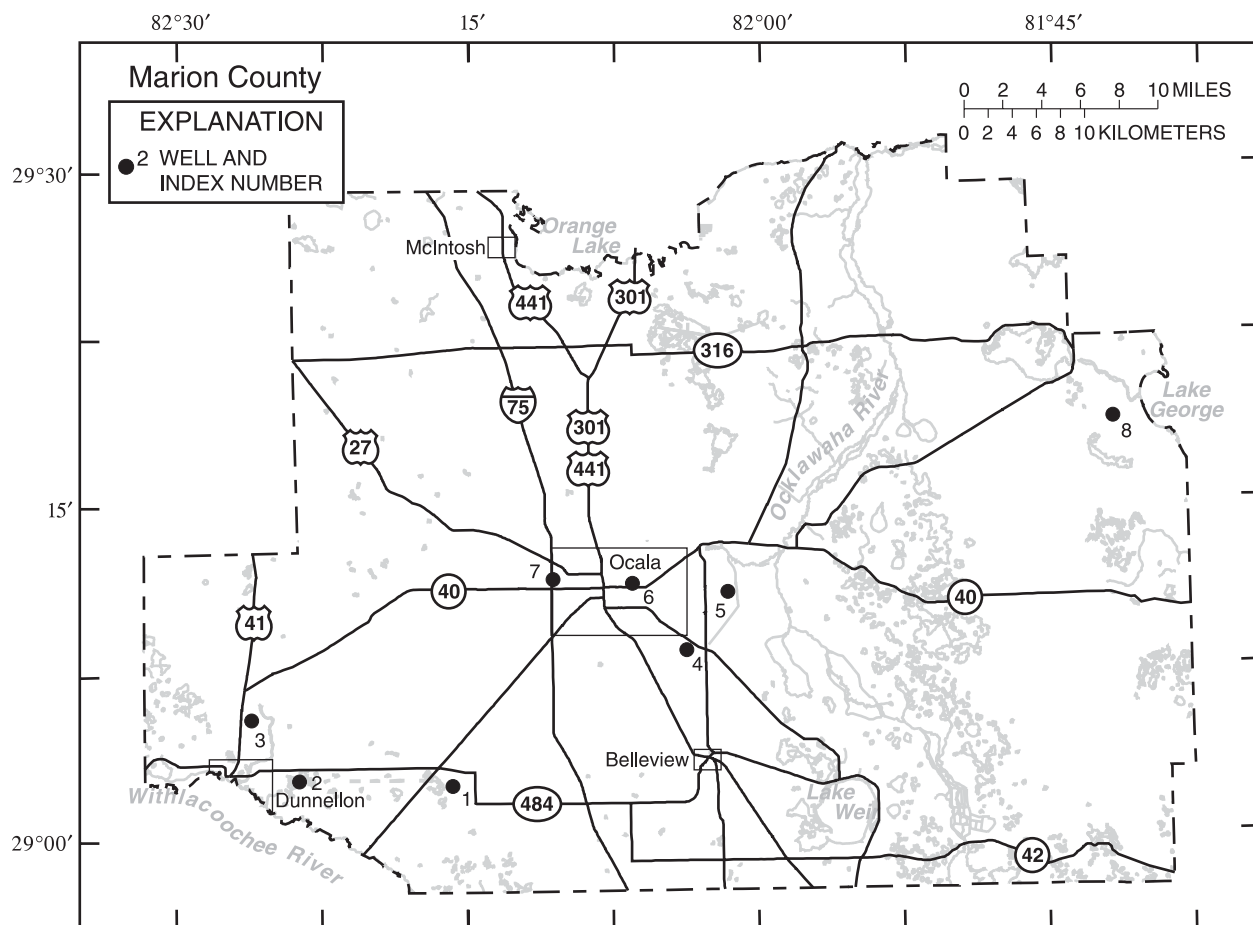


Figure 15.--Location of wells in Marion County.

MARION COUNTY

WELL NUMBER.--290215082152401. CE-74 Well near Ocala, FL.

LOCATION.--Lat 29°02'15", long 82°15'24", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 or electric tape.

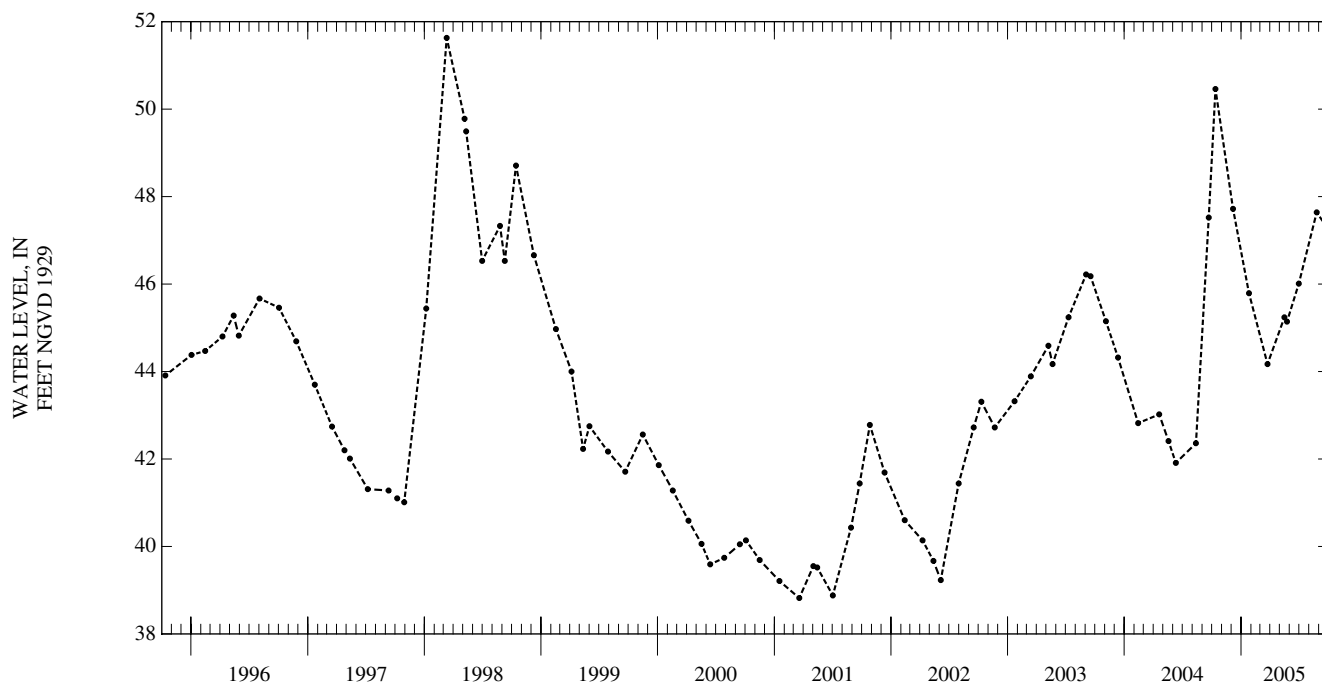
DATUM.--Elevation of land-surface datum is 76.97 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1964 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.63 ft above NGVD of 1929, Mar. 11, 1998; lowest measured, 38.82 ft above NGVD of 1929, March 19, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	50.46	JAN 25	45.79	MAY 16	45.24	JUN 30	46.01	SEP 22	47.34
DEC 06	47.72	MAR 24	44.17	MAY 24	45.14	AUG 25	47.64		
WATER YEAR 2005 LOWEST 44.17 MAR 24, 2005 HIGHEST 50.46 OCT 12, 2004									



MARION COUNTY—Continued

WELL NUMBER.--290306082232802. Fire Tower (CE-73) Well at Dunnellon, FL.

LOCATION.--Lat 29°03'06", long 82°23'28", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 or electric tape.

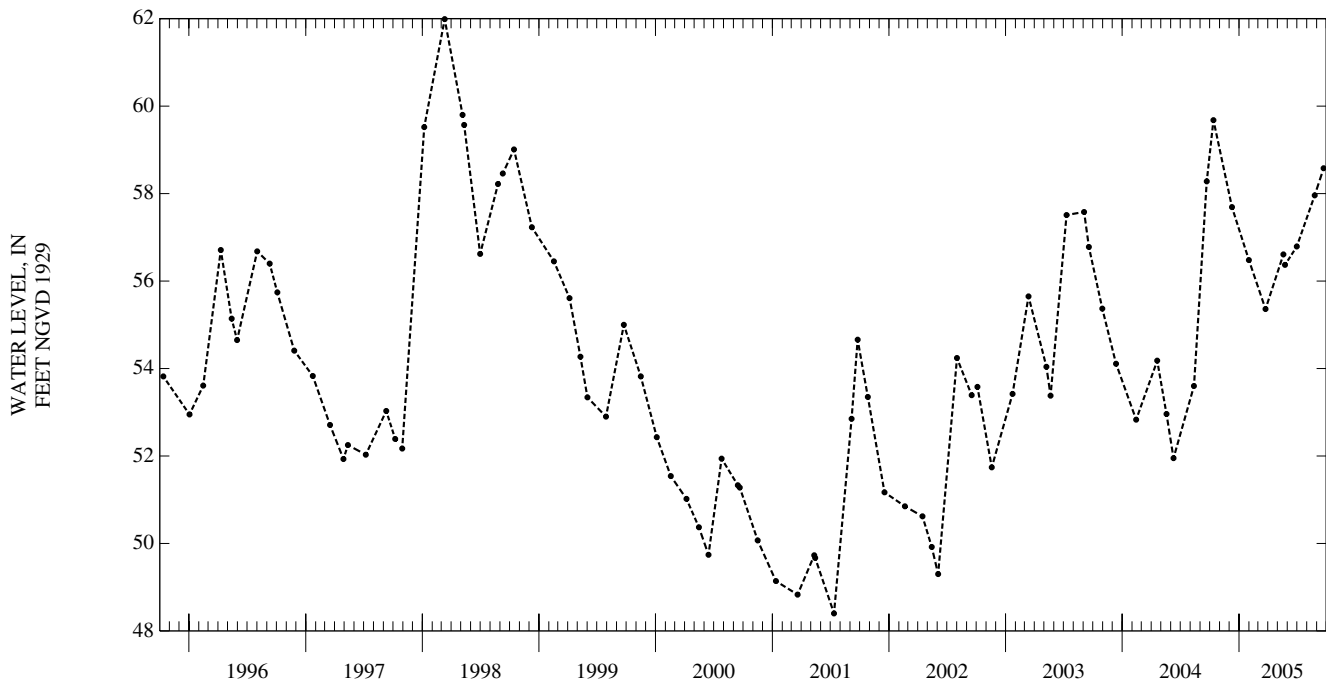
DATUM.--Elevation of land-surface datum is 65.18 ft above NGVD of 1929. Measuring point: Hole in cap, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1964 to May 1966 (monthly), July 1966 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.99 ft above NGVD of 1929, Mar. 11, 1998; lowest measured, 47.91 ft above NGVD of 1929, July 15, 1975.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	59.68	JAN 31	56.48	MAY 19	56.61	JUN 30	56.79	SEP 22	58.58
DEC 09	57.69	MAR 24	55.36	MAY 24	56.37	AUG 25	57.96		
WATER YEAR 2005 LOWEST 55.36 MAR 24, 2005 HIGHEST 59.68 OCT 12, 2004									



MARION COUNTY—Continued

WELL NUMBER.--290514082270701. Rainbow Springs Well near Dunnellon, FL.

LOCATION.--Lat 29°05'14", long 82°27'07", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--60-minute interval.

DATUM.--Elevation of land-surface datum is 113.13 ft above NGVD of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

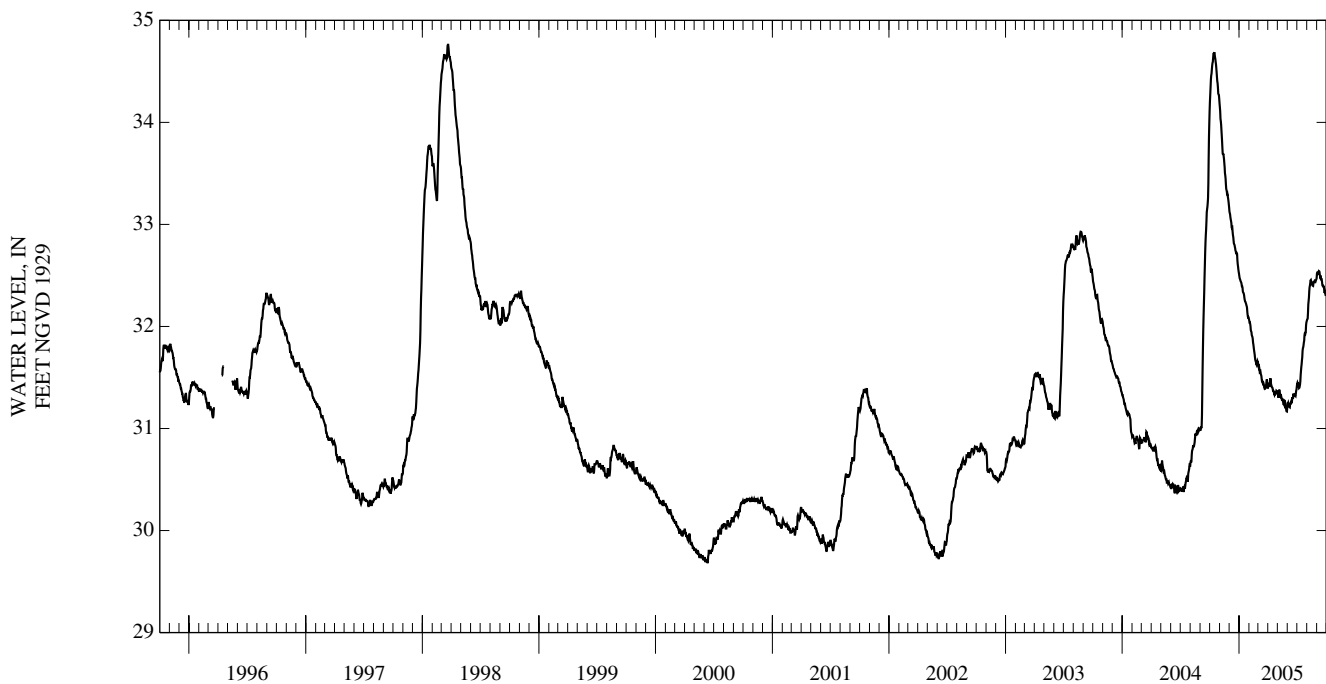
REMARKS.--Well records used to determine flow of Rainbow Springs.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 36.12 ft above NGVD of 1929, Oct. 22, 1964; lowest, 29.68 ft above NGVD of 1929, June 11, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.46	33.98	33.05	32.44	32.00	31.58	31.43	31.36	31.23	31.43	32.22	32.51
10	34.59	33.69	32.97	32.39	31.91	31.53	31.44	31.33	31.25	31.43	32.40	32.51
15	34.69	33.60	32.81	32.32	31.80	31.45	31.40	31.27	31.27	31.63	32.44	32.46
20	34.57	33.39	32.74	32.24	31.67	31.40	31.34	31.24	31.34	31.80	32.40	32.40
25	34.38	33.29	32.71	32.19	31.64	31.40	31.35	31.22	31.32	31.93	32.44	32.33
EOM	34.19	33.17	32.52	32.07	31.65	31.39	31.34	31.20	31.41	32.05	32.47	32.32
MEAN	34.47	33.59	32.83	32.29	31.82	31.48	31.39	31.28	31.29	31.68	32.37	32.44



MARION COUNTY—Continued

WELL NUMBER.--290815082025701. USGS Well CE-40 replacement near Ocala, FL.

LOCATION.--Lat 29°08'15", long 82°02'57", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 or electric tape.

DATUM.--Land-surface datum is 91.45 ft above NGVD of 1929. Measuring point: Top edge of casing, 2.80 ft above land-surface datum.

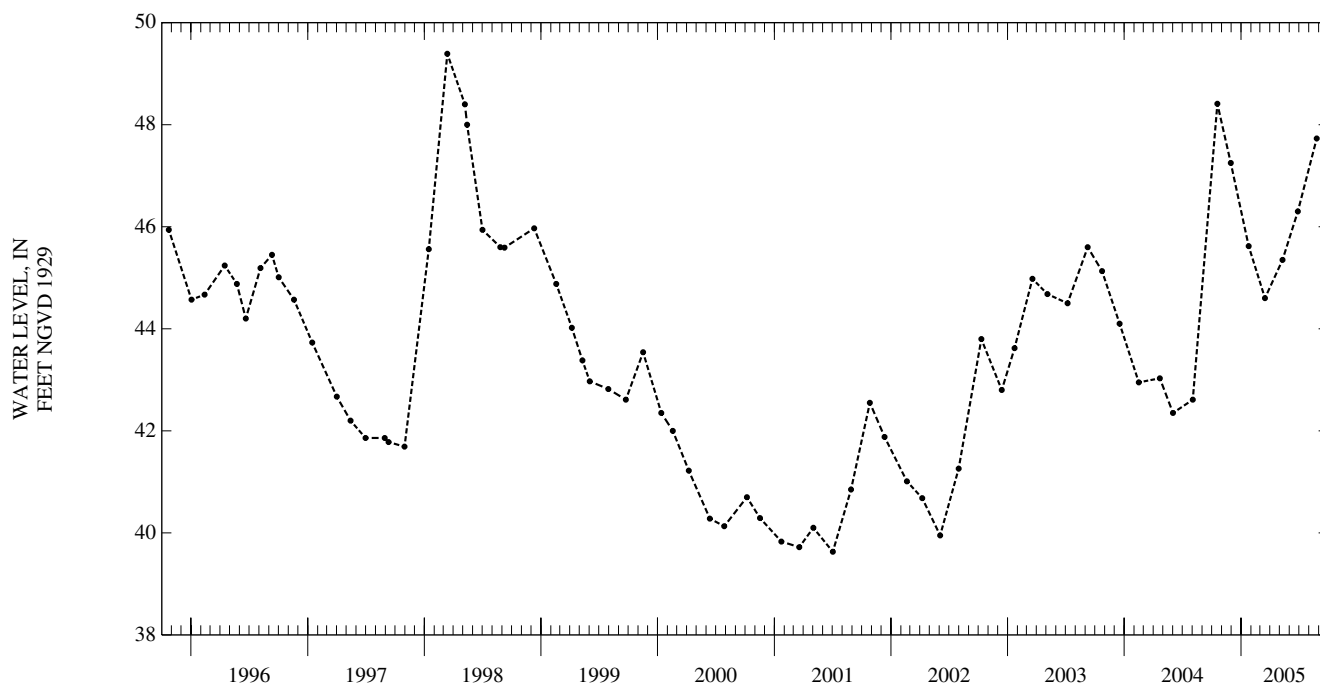
REMARKS.--Record is equivalent to that for CE-40 (290810082025001), available March 1966 to September 1982.

PERIOD OF RECORD.--March 1986 to August 2005 (bimonthly) discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.39 ft above NGVD of 1929, Mar. 13, 1998; lowest measured, 39.63 ft above NGVD of 1929, July 2, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	48.41	JAN 24	45.62	MAY 10	45.35	AUG 25	47.73
NOV 29	47.25	MAR 16	44.60	JUN 27	46.30		
WATER YEAR 2005		LOWEST	44.60	MAR 16, 2005	HIGHEST	48.41	OCT 18, 2004



MARION COUNTY—Continued

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 NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--60 minute interval.

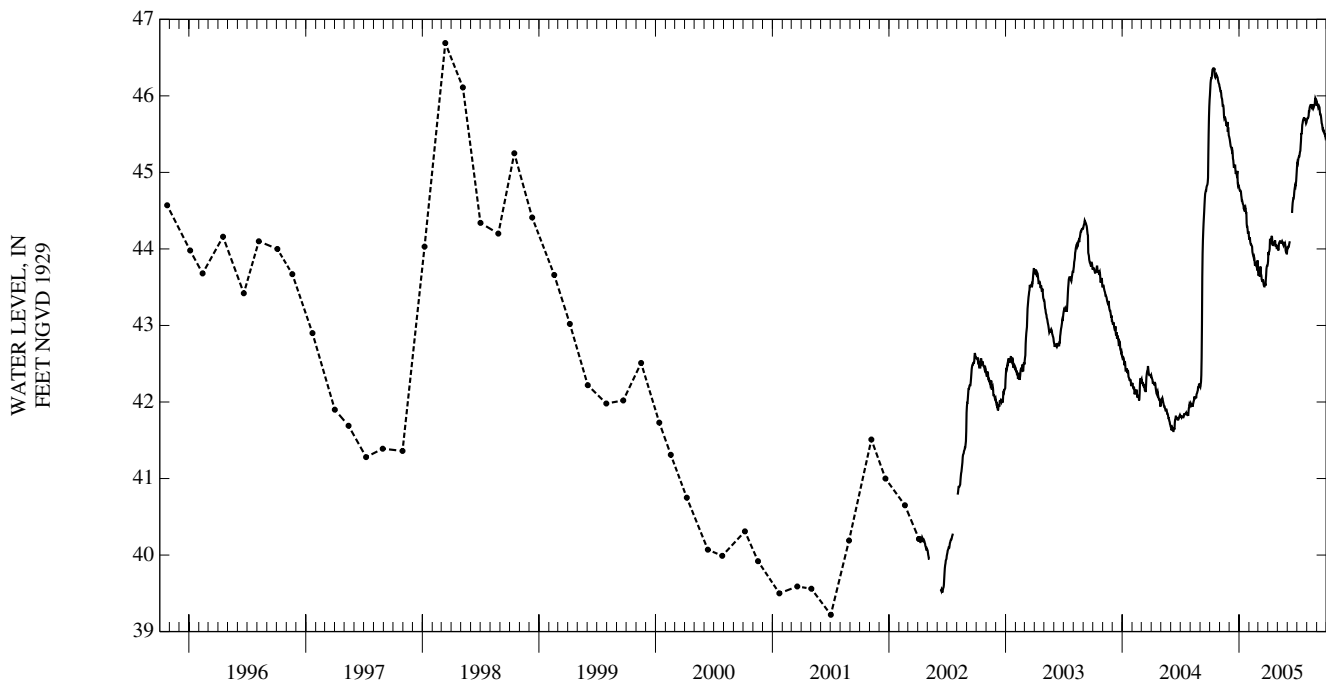
DATUM.--Land-surface datum is 64.51 ft above NGVD of 1929. Measuring point: Top edge of casing, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to September 1977; October 1977 to March 2002 (bimonthly), April 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.78 ft above NGVD of 1929, Apr. 19, 1970; lowest measured, 39.22 ft above NGVD of 1929, July 2, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.23	46.04	45.34	44.76	44.07	43.67	43.97	44.07	44.03	45.18	45.72	45.85
10	46.34	45.87	45.29	44.63	44.03	43.67	44.10	44.09	---	45.27	45.86	45.80
15	46.36	45.71	45.06	44.52	43.89	43.57	44.08	44.10	44.47	45.50	45.86	45.68
20	46.27	45.66	45.02	44.54	43.79	43.51	44.08	44.07	44.66	45.69	45.83	45.55
25	46.24	45.66	44.98	44.29	43.76	43.60	44.03	44.05	44.83	45.70	45.88	45.50
EOM	46.12	45.47	44.81	44.16	43.76	43.80	44.02	43.99	45.03	45.67	45.90	45.45
MAX	46.36	46.11	45.45	44.79	44.15	43.80	44.17	44.10	---	45.71	45.97	45.91



MARION COUNTY—Continued

WELL NUMBER.--291110082060001. USGS Well CE-44 at Ocala, FL.

LOCATION.--Lat 29°11'10", long 82°06'00", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ 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 or electric tape.

DATUM.--Land-surface datum is 102.73 ft above NGVD 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 August 2005 (bimonthly) discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.94 ft above NGVD of 1929, Mar. 13, 1998; lowest measured, 37.36 ft above NGVD of 1929, April 8, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	46.25	JAN 24	43.85	MAY 10	43.53	AUG 25	45.40
NOV 29	45.21	MAR 16	42.98	JUN 27	44.09		
WATER YEAR 2005		LOWEST	42.98	MAR 16, 2005	HIGHEST	46.25	OCT 07, 2004



MARION COUNTY—Continued

WELL NUMBER.--291115082102901. USGS Well CE-31 replacement at Ocala, FL.

LOCATION.--Lat 29°11'15", long 82°10'29", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.14, T.15 S., R.21 E., Hydrologic Unit 03080102, 0.25 mi west of Alternate U.S. Highway 27, and 0.1 mi north of State Highway 40, about 2 mi west 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 4 in., depth 55 ft, cased to 27 feet.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 72.66 ft above NGVD of 1929. Measuring point: Top of casing, 2.4 ft above land-surface datum.

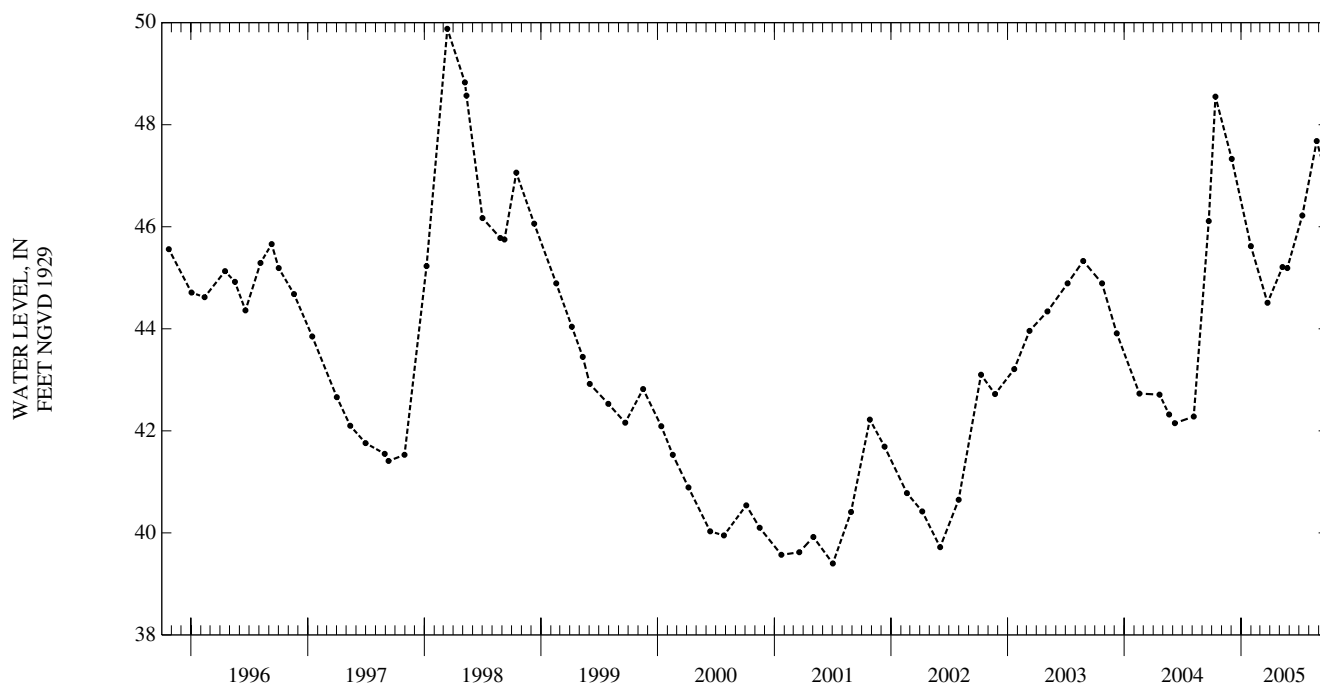
REMARKS.--Record is equivalent to that for CE-31 (291120082102501), available November 1935 to May 1983.

PERIOD OF RECORD.--April 1986 to September 2005 (bimonthly) discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.88 ft above NGVD of 1929, Mar. 13, 1998; lowest measured, 39.40 ft above NGVD of 1929, July 2, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	48.55	JAN 31	45.62	MAY 10	45.21	JUL 11	46.22	SEP 21	47.06
DEC 02	47.33	MAR 24	44.51	MAY 25	45.19	AUG 25	47.68		
WATER YEAR 2005		LOWEST	44.51	MAR 24, 2005	HIGHEST	48.55	OCT 12, 2004		



MARION COUNTY—Continued

WELL NUMBER.--291849081411401. Lake George Well near Salt Springs, FL.

LOCATION.--Lat 29°18'49", long 81°41'14", in SE $\frac{1}{4}$ 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 system 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.--Water-stage recorder--60-minute interval.

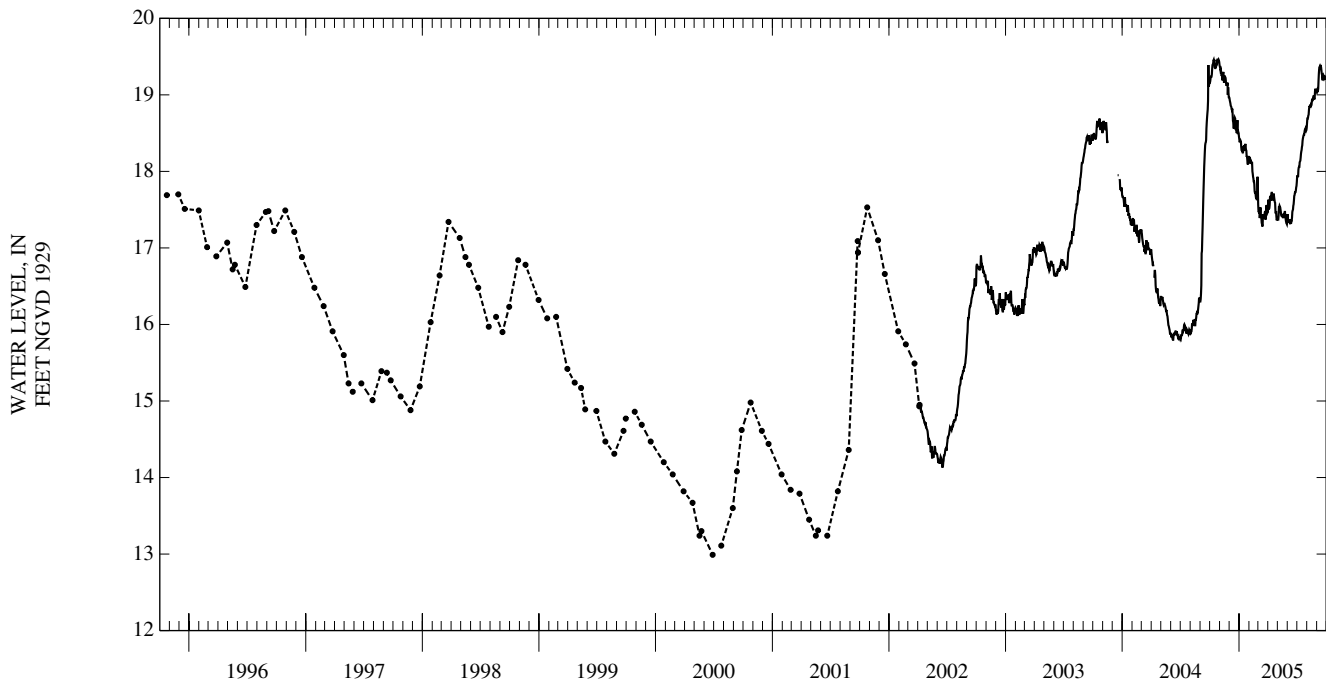
DATUM.--Land-surface datum is 18.92 ft above NGVD of 1929. Measuring point: Top of PVC casing at black mark, 2.68 ft above land-surface datum.

PERIOD OF RECORD.--January 1983 to September 1985 (bimonthly); October 1985 to March 2002 (monthly); April 2002 to September 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.46 ft above NGVD of 1929, Oct. 13, 15, 24, 25, 28, 2004; lowest measured, 12.99 ft above NGVD of 1929, June 27, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.24	19.30	18.86	18.40	18.11	17.46	17.52	17.53	17.33	18.02	18.73	19.08
10	19.40	19.23	18.82	18.29	18.11	17.41	17.63	17.50	17.35	18.13	18.86	19.37
15	19.46	19.20	18.56	18.30	17.87	17.30	17.63	17.42	17.40	18.28	18.87	19.32
20	19.39	19.17	18.58	18.36	17.72	17.42	17.66	17.45	17.57	18.45	18.95	19.25
25	19.46	19.16	18.57	18.20	17.64	17.47	17.45	17.40	17.73	18.54	18.97	19.23
EOM	19.39	18.97	18.45	18.12	17.79	17.47	17.38	17.34	17.86	18.57	19.05	19.20
MAX	19.46	19.37	18.96	18.42	18.19	17.57	17.72	17.55	17.86	18.57	19.08	19.39



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

MARION COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
285900082072001	05-24-05 09-22-05	1150 0730	USGS OBSER WELL CE36 AT PEDRO, FL.	48.24 50.84
285930081430901	05-23-05 09-19-05	0815 1130	SR 42 W OF ALT00NA	53.54 55.83
285933082192501	05-24-05 09-22-05	1345 1015	85921901 17S20E20 CE 24 U S GEOL SURVEY	39.62 41.72
285953081590101	05-23-05 09-19-05	0643 1200	M-0467 LAKE WEIR MIDDLE SCHOOL NR LADY LAKE, FL	50.50 53.91
290106082191001	05-24-05 09-22-05	1315 0930	USGS OBSER WELL CE 23 NR DUNNELLON, FL.	45.14 48.59
290227082250801	05-25-05 09-22-05	0800 1345	90222501 16S19E31 CE 75 U S GEOL SURVEY	57.11 58.79
290306082032101	05-24-05 09-21-05	1130 0630	M-0465 BELLEVIEW ELEM SCHOOL AT BELLEVIEW, FL	48.51 51.27
290312082190601	05-24-05 09-22-05	1420 1250	90321901 16S20E33 CE 22 U S GEOL SURVEY	51.98 54.20
290312082250801	10-12-04 05-25-05 09-22-05	1535 0830 1315	90322501 USGS OBSER WELL CE 14 NEAR DUNNELLON, FL	48.18 42.68 46.51
290327081562001	09-19-05	1615	M-0445 TIGER DEN NR OKLAWAHA, FL	54.27
290400082091001	05-24-05 09-23-05	1215 0815	90420901 USGS OB WELL CE33 NR OCALA FL	46.84 49.18
290447082250901	05-25-05 09-22-05	0920 1400	90422501 16S19E20 CE 13 U S GEOL SURVEY	36.19 38.36
290455081530401	05-24-05	1110	90415301 USGS OBSER WELL AT MOSS BLUFF PARK, FL.	54.24
290628081425301	05-21-05 09-22-05	0900 0830	LOOKOUT TOWER BOMBING RANGE DEEP, ASTOR PARK	50.83 53.70
290739082245701	05-25-05 09-21-05	1000 1400	90722401 15S19E32 CE 12 U S GEOL SURVEY	35.46 37.46
290752082271101	05-25-05 09-21-05	1100 1330	90722701 15S18E35 SCE 116 RAINBOW ACRES	35.36 37.34
290910082315001	05-25-05 09-21-05	1130 1250	90923101 15S18E30 SCE 138 LITTLE LAKE BONABLE	45.37 48.35
290913082245601	05-25-05 09-21-05	1200 1220	90922401 15S19E29 SCE 118 LAKE TROPICANA	37.72 40.19
290953082031301	05-24-05 09-19-05	1030 1446	CE79 (M0038) OB WELL NR SILVER SPRINGS, FL	44.15 44.02

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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MARION COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
291056082263201	05-25-05 09-21-05	1310 1200	91022601 15S18E13 HERSHEL KYPER ROMEO	39.98 42.76
291059082190801	05-25-05 09-21-05	1445 0800	ROMP 120 NR COTTON PLANT	45.51 47.93
291117081540501	05-24-05 09-19-05	0945 1400	REDWATER LAKE DEEP WELL NR LYNNE (SJ M-0044)	50.97 52.18
291130082015001	05-24-05 09-20-05	1015 0845	USGS OBSER WELL CE 47 NEAR OCALA, FL	43.07 44.26
291625082085901	05-25-05 09-20-05	1340 1510	M-0419 MARION CTY SHERRIF NR OCALA, FL	44.66 46.31
291728081390501	05-23-05 09-23-05	0930 1200	PONDEROSA CLUB FREEFLOW	16.35 17.75
291740081562001	05-23-05 09-20-05	1150 1010	USGS OBSER WELL CE54 NEAR OCALA, FL	47.13 48.31
291751081414301	05-23-05 09-23-05	1000 1145	OCALA NF 4IN SHALLOW WELL(M-0413)	19.68 21.84
292200081510001	05-23-05 09-23-05	1130 0905	USGS OBSER WELL CE84 NR SALT SPRINGS, FL.	27.45 29.65
292146082182501	05-26-05 09-21-05	1010 0910	92121801 13S20E09 SR 316 WELL SRWMD	50.62 52.29
292204082022801	05-23-05 09-20-05	1415 1040	FT MCCOY DEEP	52.14 53.14
292310081582201	05-23-05 09-20-05	1220 1100	M-0463 FT MCCOY ELEMENTARY SCHOOL NR FT MCCOY, FL	54.21 54.11
292554082034501	05-23-05 09-20-05	1345 1200	M-0443 CITRA RANCH NR CITRA, FL	57.32 57.14
292622082131801	05-26-05 09-20-05	1230 1245	M-0367 HUFF WELL	53.20 53.63
292718082202601	05-26-05 09-21-05	1200 1030	92722001 12S20E18 MAHAFFEY WELL	55.15 56.65
292816082234501	09-21-05	1010	92822301 12S19E03 SMITH BROTHERS WACAHOOTA	59.05
292817081483602	05-23-05 09-23-05	1100 1000	OCALA NF 6IN DP WELL(M-0410)NR SALT SPRINGS, FL	21.23 22.69
292957081573002	05-23-05 09-20-05	1320 1130	M-0441 G&M CATTLE RANCH NR ORANGE SPRINGS, FL	55.51 55.95

KEY TO SITE LOCATIONS ON FIGURE 16
NASSAU COUNTY, GROUND-WATER LEVELS

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1	303435081271401	160
2	303518081275002	161
3	304005081380201	162
4	304213081270801	163

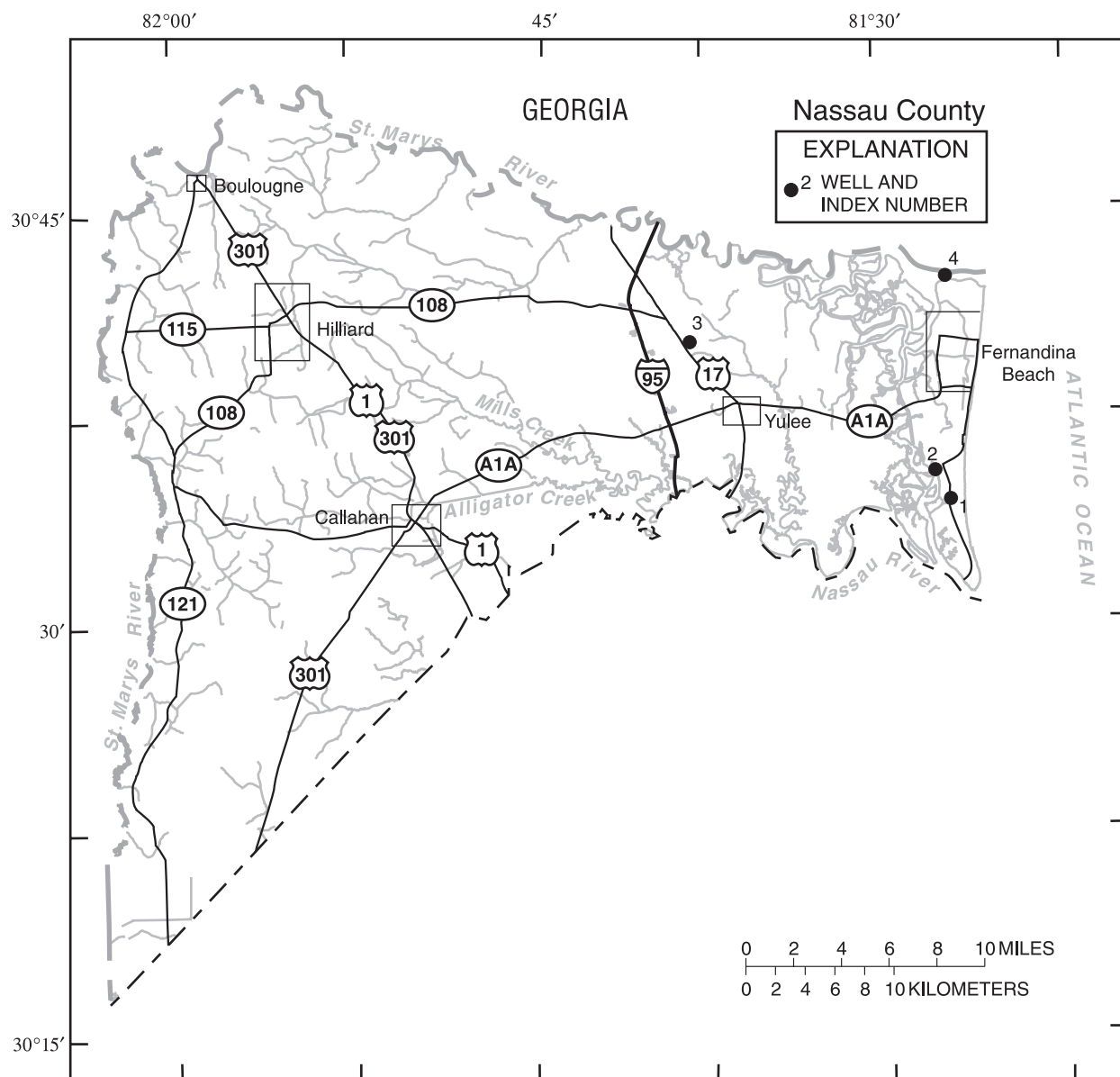


Figure 16.--Location of wells in Nassau County.

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 SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.14, T.2 N., R.28 E., Hydrologic Unit 03070205 at Amelia Island waterworks, 200 ft east of water storage tanks, and 1.1 mi south of intersection of State Highways A1A and 105A at Amelia City. Owner: Nassau-Amelia Utilities 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.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-78, 1983-89 (varied frequencies); 1996 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Color, water, fltrd, Pt-Co units (00080)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 28...	1330	2	7.5	597	26.0	280	60.0	31.6	2.10	17.6	149	23.0	.7
JAN 26...	1320	5	7.5	598	24.0	290	59.2	33.3	2.01	17.4	148	22.9	.7
MAY 09...	1000	2	7.3	610	26.0	280	59.1	33.1	2.00	17.5	142	22.5	.7
SEP 14...	1345	<1	7.3	607	25.0	290	61.8	33.4	2.06	17.3	152	23.1	.7

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
OCT 28...	33.4	123	388	553
JAN 26...	33.1	123	387	559
MAY 09...	33.4	121	391	552
SEP 14...	32.5	123	399	553

NASSAU COUNTY—Continued

WELL NUMBER.--303518081275002. Local Number N-130 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 McCranie residence on Forrest Drive, 0.4 mi west of State Highway A1A at Amelia City. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 515 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 14.76 ft above NGVD of 1929. Measuring point: Top of reducer bushing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for N-3 (303518081275001), available March 1939 to January 2000.

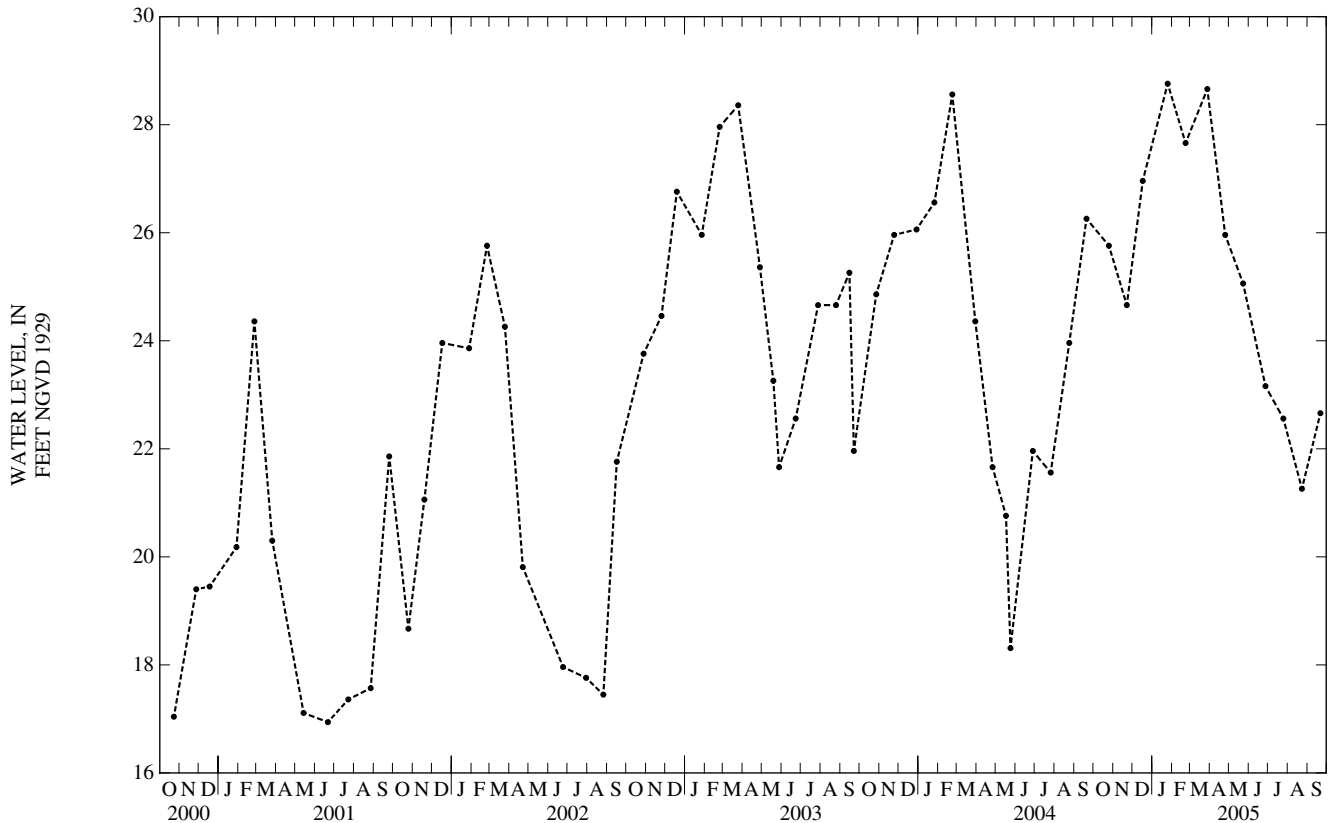
PERIOD OF RECORD.--March 2000 to September 2005 (monthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.76 ft above NGVD of 1929, Jan. 25, 2005; lowest measured, 16.15 ft above NGVD of 1929, May 22, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	25.76	DEC 17	26.96	FEB 22	27.66	APR 25	25.96	JUN 27	23.16	AUG 23	21.26
NOV 22	24.66	JAN 25	28.76	MAR 28	28.66	MAY 23	25.06	JUL 25	22.56	SEP 21	22.66

WATER YEAR 2005 LOWEST 21.26 AUG 23, 2005 HIGHEST 28.76 JAN 25, 2005



NASSAU COUNTY—Continued

WELL NUMBER.--304005081380201. Local Number N-121. Becker Oil Test Supply Well near Yulee, FL.

LOCATION.--Lat 30°40'05", long 81°38'02", in land grant 50, T.3 N., R.27 E., Hydrologic Unit 03070205, 0.2 mi east of Yulee Fire Tower, 0.42 mi southeast of intersection of U.S. Highway 17 and Parker Road, 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, unused, artesian well, diameter 4 in., depth 645 ft, cased to 460 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 21.95 ft above NGVD of 1929. Prior to September 2002, land-surface datum was 0.08 ft higher. Measuring point: Top of casing, 1.82 ft above land-surface datum. Prior to September 2002 measuring point 1.45 ft above land-surface datum.

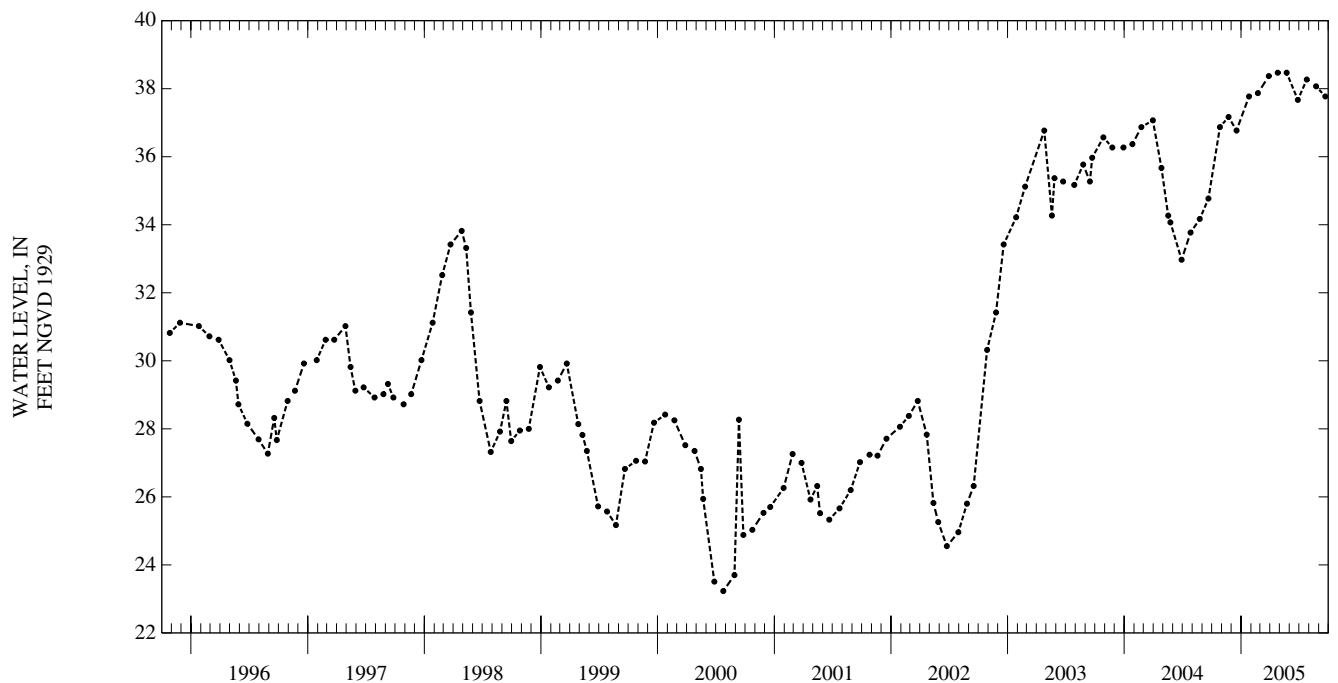
REMARKS.--Record is equivalent to that for N-53 (304002081381201), available February 1940 to June 1994.

PERIOD OF RECORD.--May 1984, August 1985, August 1994 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.47 ft above NGVD of 1929, Apr. 25, May 23, 2005; lowest measured, 23.23 ft above NGVD of 1929, July 24, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	36.87	DEC 17	36.77	FEB 22	37.87	APR 25	38.47	JUN 27	37.67	AUG 23	38.07
NOV 22	37.17	JAN 25	37.77	MAR 28	38.37	MAY 23	38.47	JUL 25	38.27	SEP 21	37.77
WATER YEAR 2005 LOWEST 36.77 DEC 17, 2004 HIGHEST 38.47 APR 25, 2005 MAY 23, 2005											



NASSAU COUNTY—Continued

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 NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 Environmental Protection.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 5 in., depth 710 ft, casing length unknown.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 8.41 ft above NGVD of 1929. Measuring point: Top of 5 in. casing, 1.00 ft above land-surface datum.

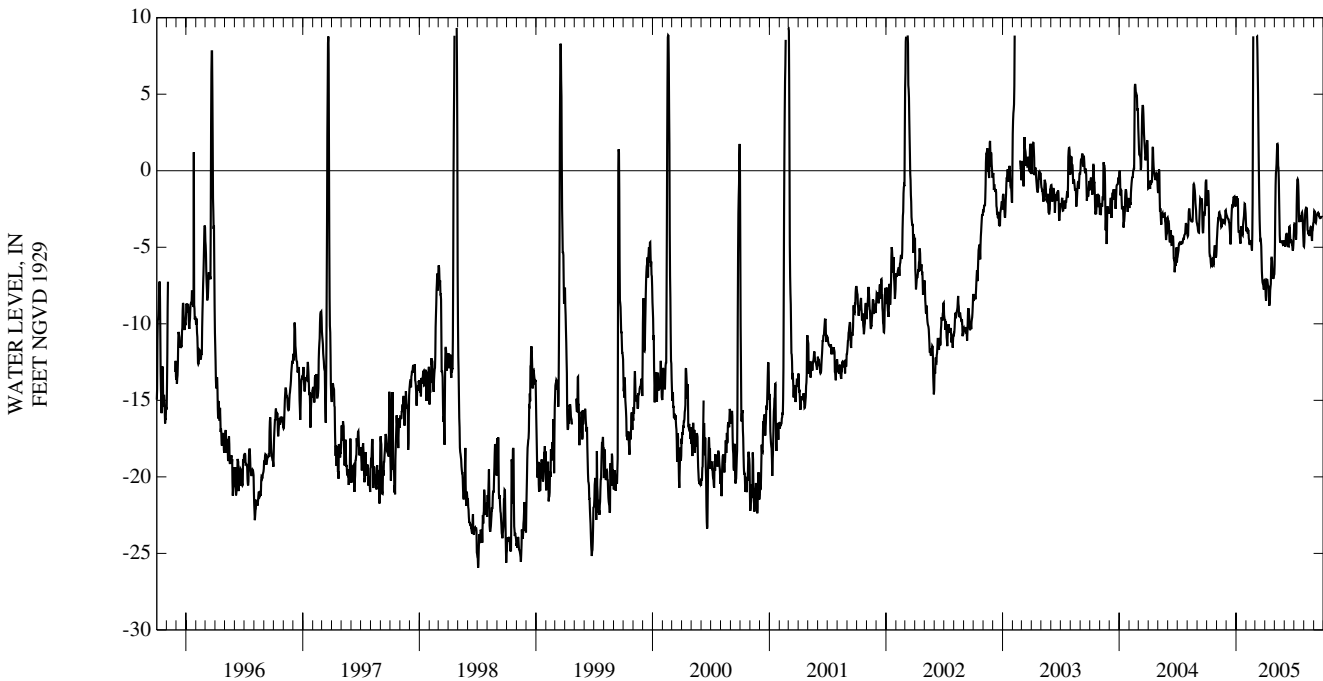
REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1974, December 1974 to December 1975 (monthly); May 1977 to September 1978 (semiannually); April 1979 to September 1981 (bimonthly); May 1982 to September 1985 (semiannually); October 1985 to November 1985 (bimonthly); December 1985 to September 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.33 ft above NGVD of 1929, Apr. 27, 1998, Feb. 27, 28, Mar. 1, 2001; lowest water level measured, 30.30 ft below NGVD of 1929, Sept. 25, 1978.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-1.28	-3.20	-3.11	-1.81	-3.86	---	-8.17	-0.15	-4.40	-3.88	-2.62	-3.25
10	-5.57	-2.87	-3.43	-3.97	-4.54	5.01	-7.50	1.76	-4.70	-1.27	-2.57	-2.89
15	-6.15	-3.68	-4.40	-4.27	-4.80	-3.24	-8.72	-1.86	-4.41	-1.73	-4.16	-2.76
20	-5.88	-3.43	-2.29	-4.18	-4.25	-4.93	-6.28	-4.66	-4.59	-3.14	-3.97	-3.09
25	-4.93	-3.40	-1.71	-2.95	---	-7.37	-7.06	-4.70	-4.77	-2.76	-4.36	-3.02
EOM	-5.23	-2.76	-2.21	-3.34	---	-7.13	-6.76	-4.74	-4.15	-4.93	-3.37	---
MAX	-1.28	-2.58	-1.69	-1.67	---	---	-5.68	1.76	-3.64	-0.55	-2.42	---



Note.--Negative figures indicate water level below NGVD of 1929

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

NASSAU COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
302409081551603	05-23-05 09-22-05	1600 1630	N-0237 CAREY STATE FORREST	40.41 43.19
303357081295601	05-23-05 09-21-05	1300 1120	N-119 CHARLES ALLEN WELL N-100 SUB	29.27 28.57
303541081495001	05-23-05 09-22-05	1400 1200	N-0220 NASSAU COUNTY FAIRGROUNDS	46.05 44.95
303939081312601	05-23-05 09-21-05	1010 1215	N-20	9.57 8.69
304658081571201	05-23-05 09-22-05	1500 1430	N-0221	45.96 44.64

KEY TO SITE LOCATIONS ON FIGURE 17
OKEECHOBEE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273127080481401	168

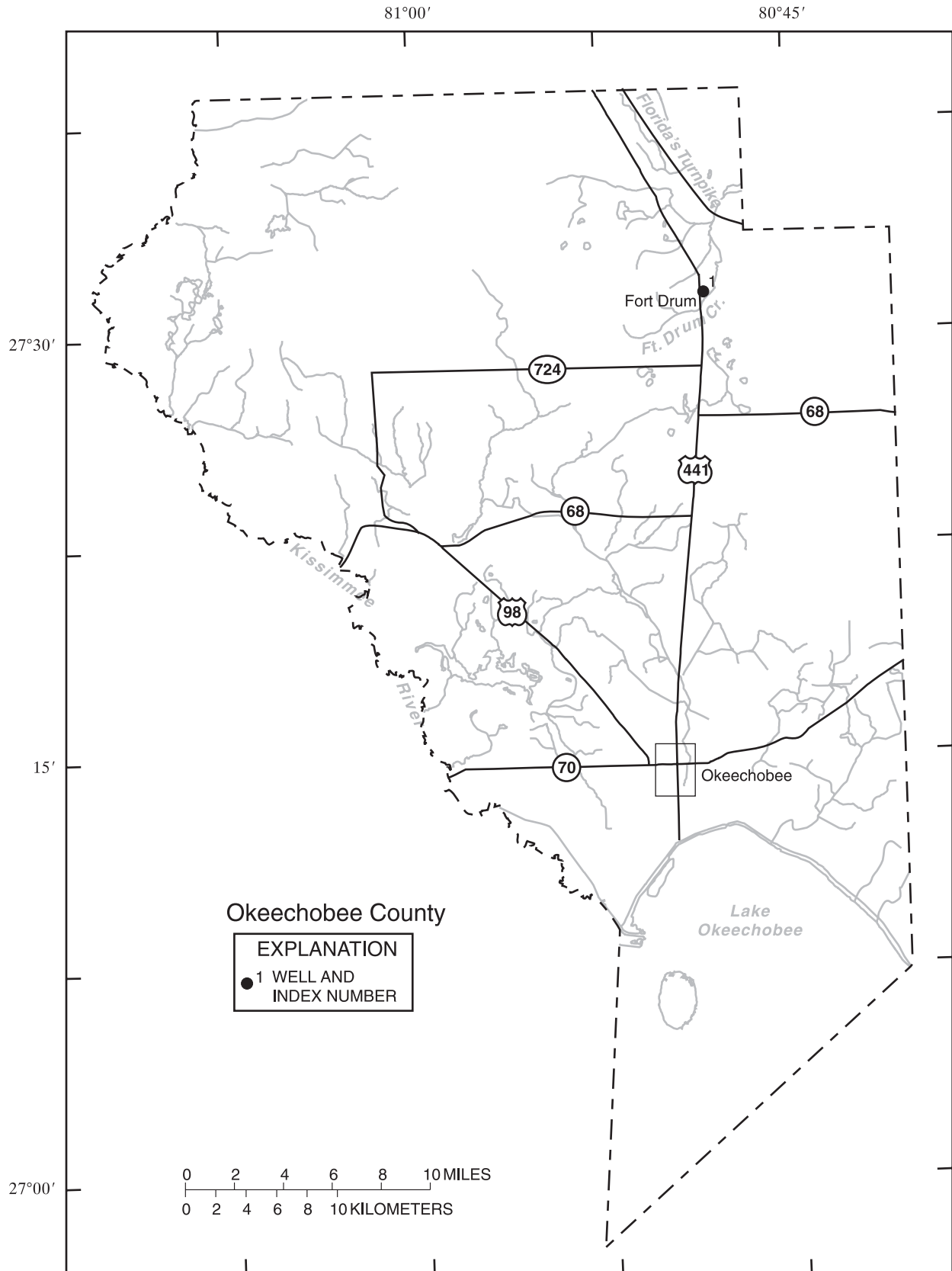


Figure 17.--Location of wells in Okeechobee County.

OKEECHOBEE COUNTY

WELL NUMBER.--273127080481401. OK-1 Well at Fort Drum, FL.

LOCATION.--Lat 27°31'27", long 80°48'14", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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: Domestic Well.

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 or electric tape.

DATUM.--Land-surface datum is 55.67 ft above NGVD of 1929. Measuring point: Top of casing, 0.3 ft above land-surface datum. Prior to Oct. 1, 1990 miscellaneous readings published at datum 0.53 higher.

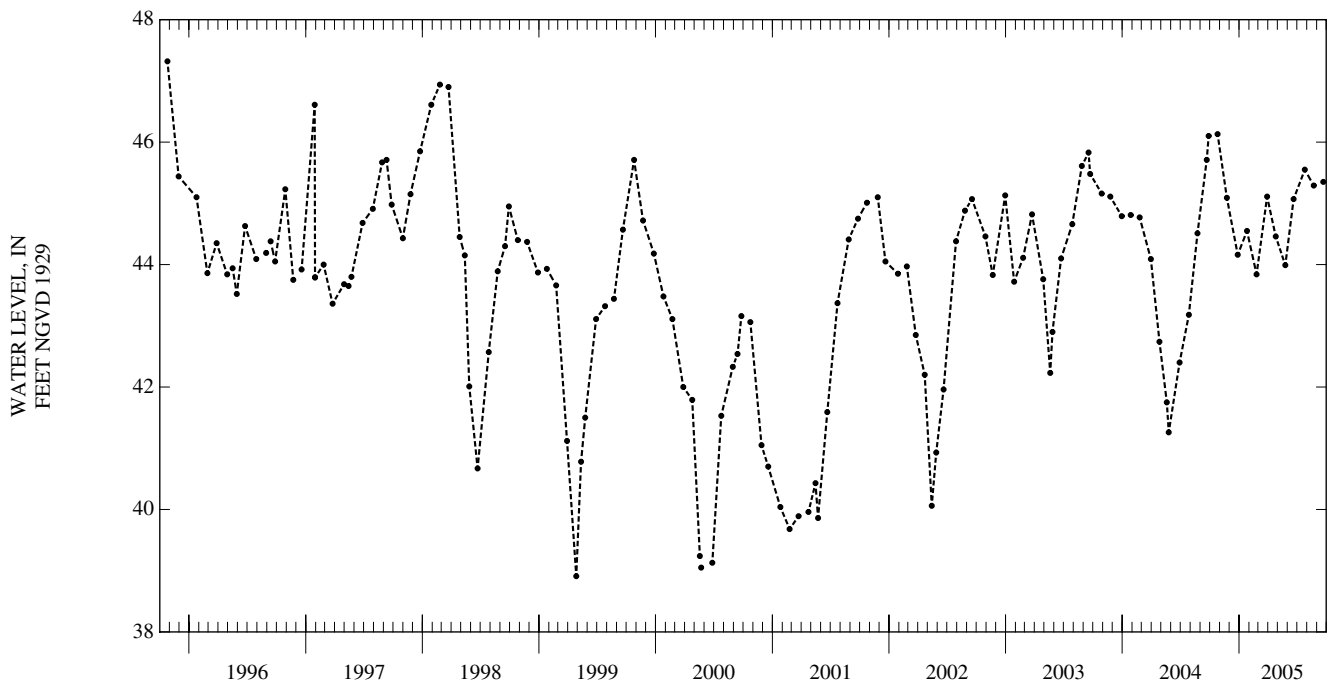
PERIOD OF RECORD.--May 1976, May 1977 to September 1985 (semiannually); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.66 ft above NGVD of 1929, Sept. 18, 1985; lowest measured, 38.91 ft above NGVD of 1929, May 8, 1976, Apr. 27, 1999.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	46.13	DEC 27	44.16	FEB 24	43.84	APR 25	44.46	JUN 20	45.07	AUG 22	45.29
NOV 23	45.09	JAN 25	44.55	MAR 29	45.11	MAY 25	43.99	JUL 25	45.55	SEP 21	45.35

WATER YEAR 2005 LOWEST 43.84 FEB 24, 2005 HIGHEST 46.13 OCT 25, 2004



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

169

OKEECHOBEE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
271340080504001	05-24-05 09-21-05	0840 1040	OKF-31	50.30 51.31
271514080511601	05-24-05 09-21-05	0927 1118	OKF-23 NR LIVESTOCK MARKET	43.93 47.67
272704081053501	05-17-05 09-27-05	0915 0842	727105--	46.94 47.73
272726081003901	05-17-05 09-27-05	0908 0834	727100-- 35S33E02 BASS WELL N OF BASSINGER	46.46 47.49
273007081114601	05-23-05 09-19-05	1118 1141	OKF-42 EXP WELL S65C	46.28 47.61
273217081012601	05-17-05 09-27-05	0950 0825	PEAVINE TRAIL W (OKF-34)	46.40 47.42

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 18
ORANGE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282051081183401	172
2	282202081384601	173
2	282202081384602	174
3	282210081352601	175
4	282341081040101	176
5	282348080564701	178
6	282406081093602	179
7	282434081283102	180
8	282510081054502	181
8	282510081054503	182
9	282528081340901	183
10	282531081054301	184
11	282531081095701	185
12	282532081075601	186
13	282533081082202	187
13	282533081082204	188
13	282533081082205	189
13	282533081082206	190
14	282623081153801	191
15	282738081341401	192
16	282739081054501	193
17	282835081305201	194
18	282847081013701	195
18	282847081013702	196
19	283249081053201	197
19	283249081053202	198
19	283249081053203	199
20	283253081283401	200
21	283333081233501	201
21	283333081233502	202

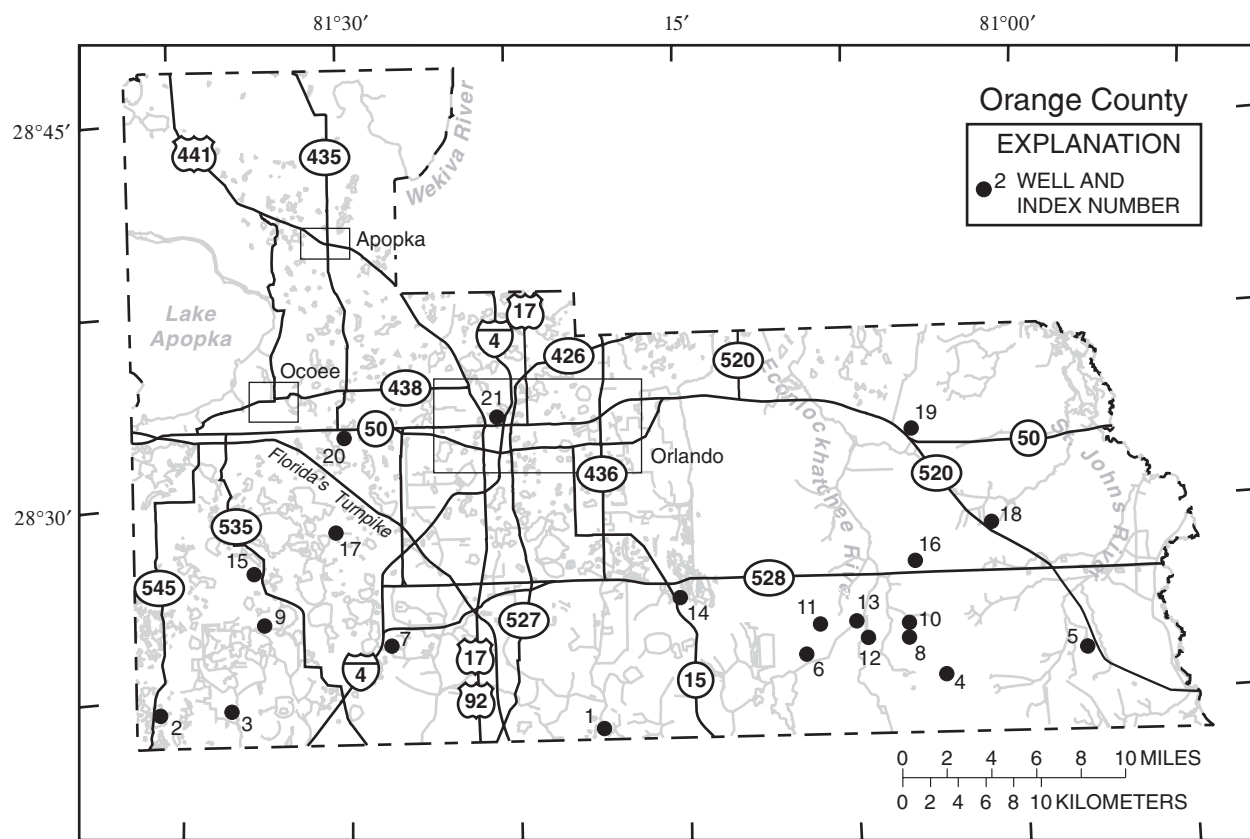


Figure 18.--Location of wells in Orange County.

ORANGE COUNTY

WELL NUMBER.--282051081183401. Boggy Creek Road Well at county line near Taft, FL.

LOCATION.--Lat 28° 20' 51", long 81° 18' 34", in SW¹/₄SW¹/₄SW¹/₄ sec.34, T.24 S., R.30 E., Hydrologic Unit 03090101, 40 ft east of Boggy Creek Road (County Road 527A) and 30 ft north of intersection of County Roads 527A and 530. 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 400 ft, cased to 199 ft.

INSTRUMENTATION.--Water-stage recorder and data-collection platform--60-minute interval.

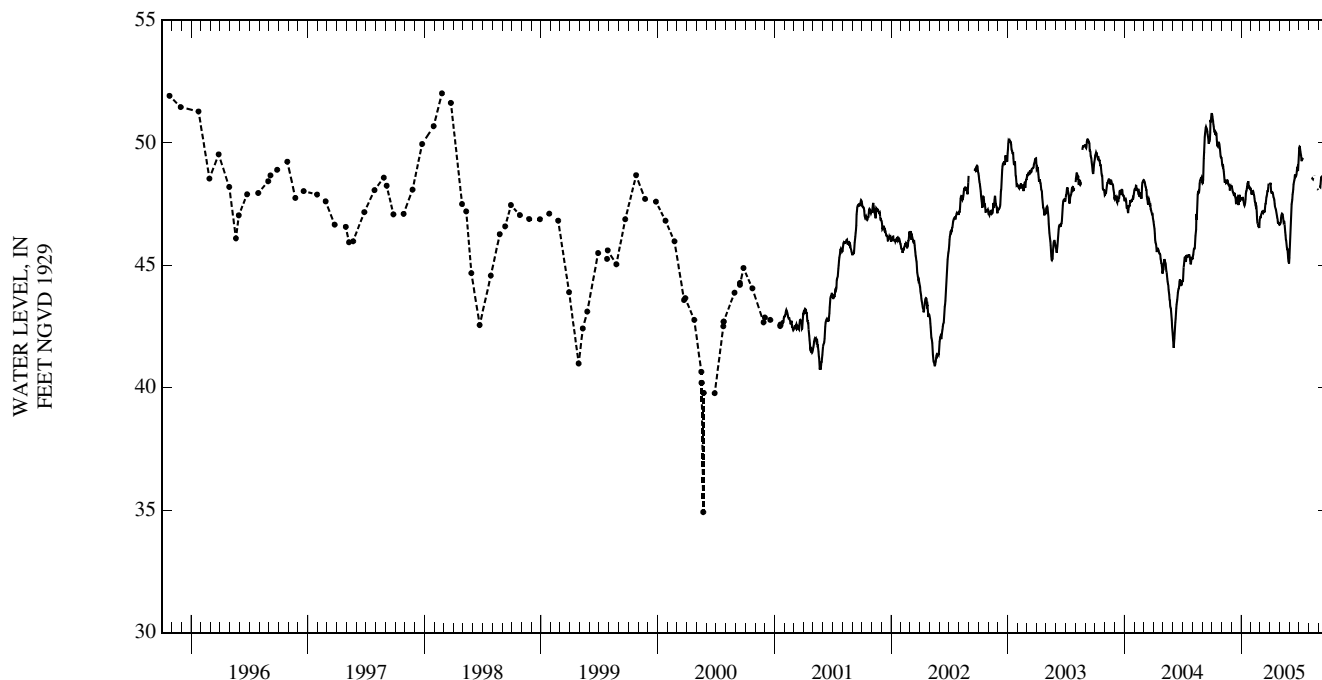
DATUM.--Elevation of land-surface datum is 74.70 ft above NGVD of 1929. Measuring point: Top of flange, 3.25 ft above land-surface datum. Prior to January 2001 measuring point top of casing 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1961 to May 1974 (miscellaneous measurements); May 1977 to September 1991(semiannually); October 1991 to December 2001 (monthly); January 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.92 ft above NGVD of 1929, Dec. 12, 1963, lowest measured, 34.92 ft above NGVD of 1929, May 22, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.75	49.04	48.01	47.76	48.00	47.12	47.99	46.95	46.96	49.63	---	48.19
10	50.44	48.38	47.92	47.47	47.85	47.15	47.89	47.08	47.89	49.29	48.53	48.58
15	50.38	48.37	47.54	47.93	47.42	47.20	47.50	46.78	48.45	---	---	48.35
20	49.99	48.40	47.67	48.34	46.74	47.77	47.18	46.05	48.62	---	---	47.72
25	49.87	48.25	47.70	48.21	46.56	48.05	46.74	45.66	49.00	---	---	48.10
EOM	49.39	48.22	47.74	48.09	46.89	48.31	46.65	45.31	49.58	---	---	48.21
MAX	51.16	49.26	48.23	48.43	48.01	---	48.37	47.11	49.58	---	---	---



ORANGE COUNTY—Continued

WELL NUMBER.--282202081384601. Lake Oliver Deep Well near Vineland, FL.

LOCATION.--Lat 28° 22' 02", long 81° 38' 46", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--30-minute interval.

DATUM.--Elevation of land-surface datum is 117.12 ft above NGVD of 1929. Measuring point: Top of 6 in. nipple, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.73 ft above NGVD of 1929, Sept. 13, 1960; lowest, 103.48 ft above NGVD of 1929, May 19, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	111.28	110.30	109.81	109.53	109.25	109.02	109.03	108.62	108.67	109.67	---	110.06
10	111.08	110.12	109.80	109.44	109.18	108.95	108.73	108.52	108.69	109.78	109.73	109.95
15	110.90	110.03	109.65	109.62	109.09	108.96	108.68	108.56	109.12	109.81	109.72	109.78
20	110.77	109.93	109.60	109.64	109.00	109.21	108.46	108.46	109.00	109.68	109.54	109.46
25	110.56	109.86	109.71	109.39	108.92	109.23	108.54	108.23	109.24	109.56	109.57	109.54
EOM	110.38	109.90	109.56	109.33	109.09	109.14	108.65	108.31	109.56	---	109.65	109.37
MAX	111.45	110.39	109.86	109.64	109.32	109.26	109.16	108.65	109.56	---	---	110.07



ORANGE COUNTY—Continued

WELL NUMBER.--282202081384602. Lake Oliver Shallow Well near Vineland, FL.

LOCATION.--Lat 28° 22' 02", long 81° 38' 46", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--30-minute interval.

DATUM.--Elevation of land-surface datum is 117.06 ft above NGVD 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.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 115.54 ft above NGVD of 1929, Sept. 10, 1960; lowest, 106.16 ft, above NGVD of 1929, June 14, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.23	113.41	112.95	112.61	112.45	112.18	112.19	111.73	111.73	112.77	112.58	113.23
10	114.00	113.30	112.88	112.56	112.39	112.13	112.06	111.68	111.69	112.99	112.82	113.12
15	113.89	113.21	112.79	112.85	112.31	112.12	111.97	111.70	112.30	112.96	112.99	112.91
20	113.75	113.14	112.74	112.74	112.24	112.37	111.90	111.59	112.13	112.86	112.77	112.74
25	113.62	113.06	112.82	112.60	112.17	112.35	111.80	111.50	112.21	112.67	112.73	112.68
EOM	113.50	113.02	112.67	112.51	112.30	112.31	111.81	111.56	112.58	112.57	112.89	112.57
MAX	114.48	113.48	113.01	112.85	112.49	112.39	112.29	111.77	112.58	113.01	113.04	113.23



ORANGE COUNTY—Continued

WELL NUMBER.--282210081352601. Disney Shallow Well at Tree Farm near Vineland, FL.

LOCATION.--Lat 28° 22'10" long 81° 35'26", in SW¹/₄SW¹/₄NW¹/₄ 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.

AQUIFER.--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.--Water-stage recorder--30-minute interval.

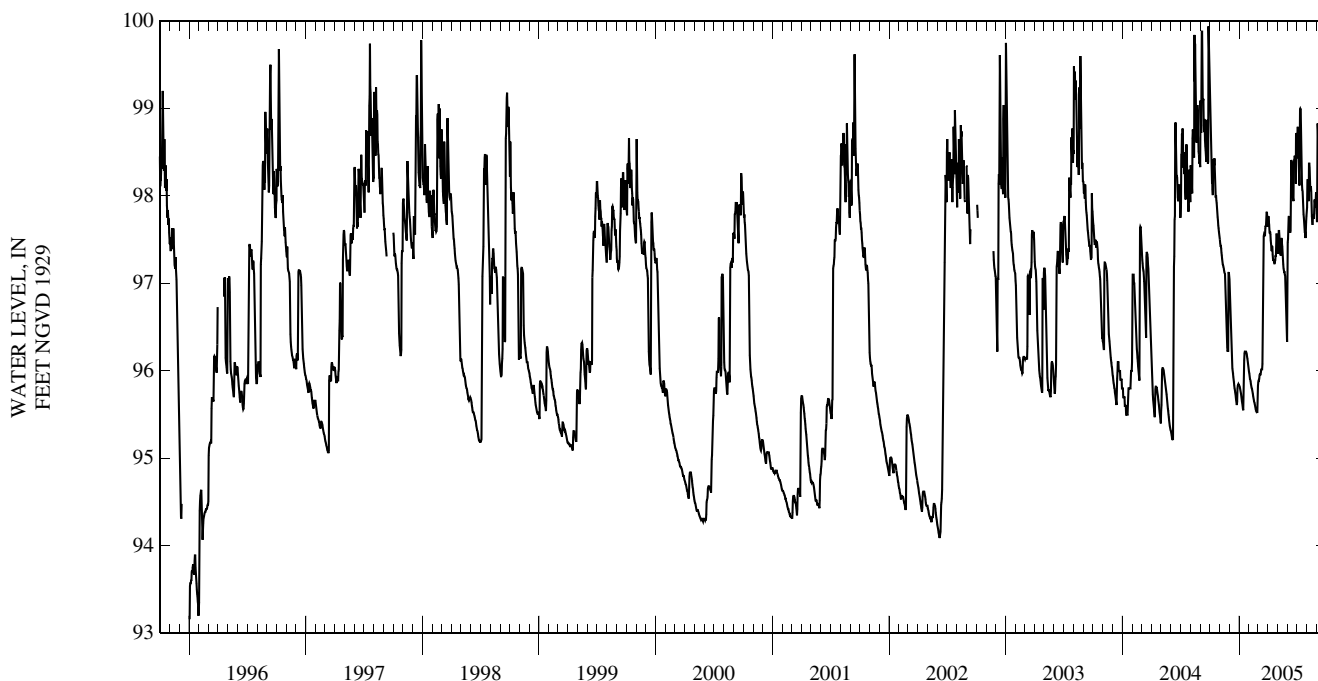
DATUM.--Elevation of land-surface datum is 99.44 ft above NGVD of 1929. Prior to Oct. 1, 1977, land-surface datum was considered to be 99 ft, from topographic map. Measuring point: Top of casing, 2.90 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 99.94 ft above NGVD of 1929, Sept. 26, 2004; well observed dry many days in December 1995.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.31	97.40	96.42	95.76	95.88	95.95	97.60	97.60	97.77	98.46	98.06	98.48
10	98.01	97.22	96.03	95.63	95.78	96.01	97.45	97.32	97.60	98.99	98.18	98.22
15	98.43	97.13	95.87	95.93	95.67	96.28	97.33	97.42	98.16	98.28	97.89	97.78
20	98.01	96.66	95.73	96.22	95.58	97.55	97.23	97.15	98.36	97.86	97.76	97.58
25	97.76	96.22	95.65	96.16	95.53	97.65	97.31	96.97	98.31	97.58	97.96	97.48
EOM	97.53	97.09	95.84	95.99	95.83	97.65	97.41	97.17	98.62	97.82	97.81	97.29
MAX	98.65	97.50	97.05	96.22	95.97	97.82	97.77	97.60	98.72	99.00	98.37	98.83



ORANGE COUNTY—Continued

WELL NUMBER.--282341081040101. Cocoa-A Well near Bithlo, FL.

LOCATION.--Lat 28° 23'41", long 81° 04'01", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

WATER LEVEL RECORDS

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

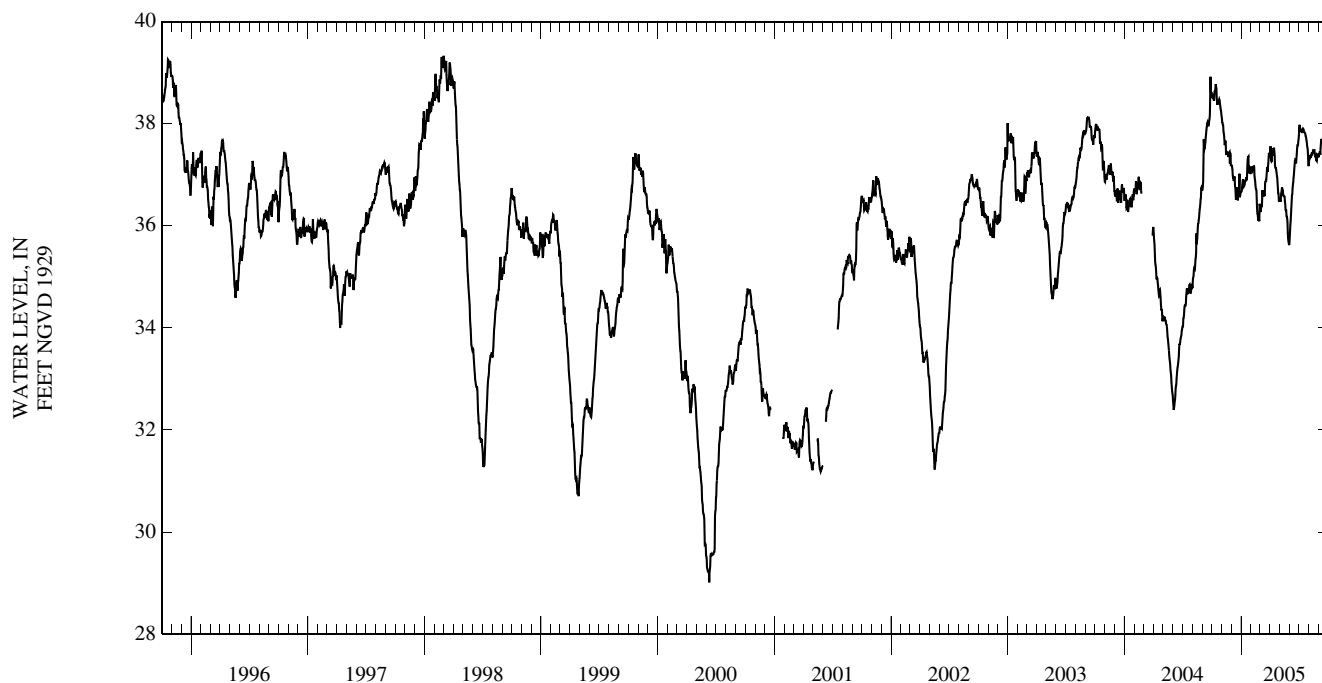
DATUM.--Elevation of land-surface datum is 75.06 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 2.71 ft above land-surface datum.

PERIOD OF RECORD.--March 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 43.59 ft above NGVD of 1929, Sept. 30, Oct. 17, 1960; lowest, 29.01 ft above NGVD of 1929, June 10, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.50	37.97	36.99	36.88	37.10	36.41	37.26	36.62	36.24	37.88	37.34	37.39
10	38.63	37.58	36.97	36.78	37.16	36.61	37.40	36.65	36.74	37.89	37.44	37.67
15	38.69	37.39	36.51	36.89	36.73	36.58	37.38	36.58	37.09	37.86	37.43	37.63
20	38.46	37.42	36.66	37.24	36.24	36.93	37.08	36.30	37.24	37.81	37.36	37.31
25	38.46	37.45	36.81	37.16	36.12	37.15	36.73	36.08	37.58	37.63	37.27	37.41
EOM	38.15	37.19	36.67	37.09	36.38	37.37	36.54	35.64	37.81	37.17	37.38	37.56
MAX	38.78	38.11	37.19	37.36	37.18	37.43	37.56	36.75	37.81	37.98	37.50	37.71



ORANGE COUNTY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 14...	1432	7.3	1,270	23.9	400	129	19.6	3.79	118	262	282	195	.4
MAY 09...	1224	7.3	1,280	24.0	380	119	20.2	3.89	113	268	289	194	.4

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
OCT 14...	26.1	91.9	766	2,360
MAY 09...	26.4	88.8	781	2,170

ORANGE COUNTY—Continued

WELL NUMBER.--282348080564701. Palmetto Well near Bithlo, FL.

LOCATION.--Lat 28° 23'48", long 80° 56'47", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.18, T.24 S., R.34 E., Hydrologic Unit 03080101, 50 ft west of State Road 520, 5 mi southeast of BeeLine Expressway. Owner: U.S. Geological Survey.

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

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 3 in., depth 381 ft, cased to 245 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 40.62 ft above NGVD of 1929. Measuring point: Top of casing, 4.60 ft above land-surface datum. Prior to March 25, 2002 top of casing was 0.33 ft lower.

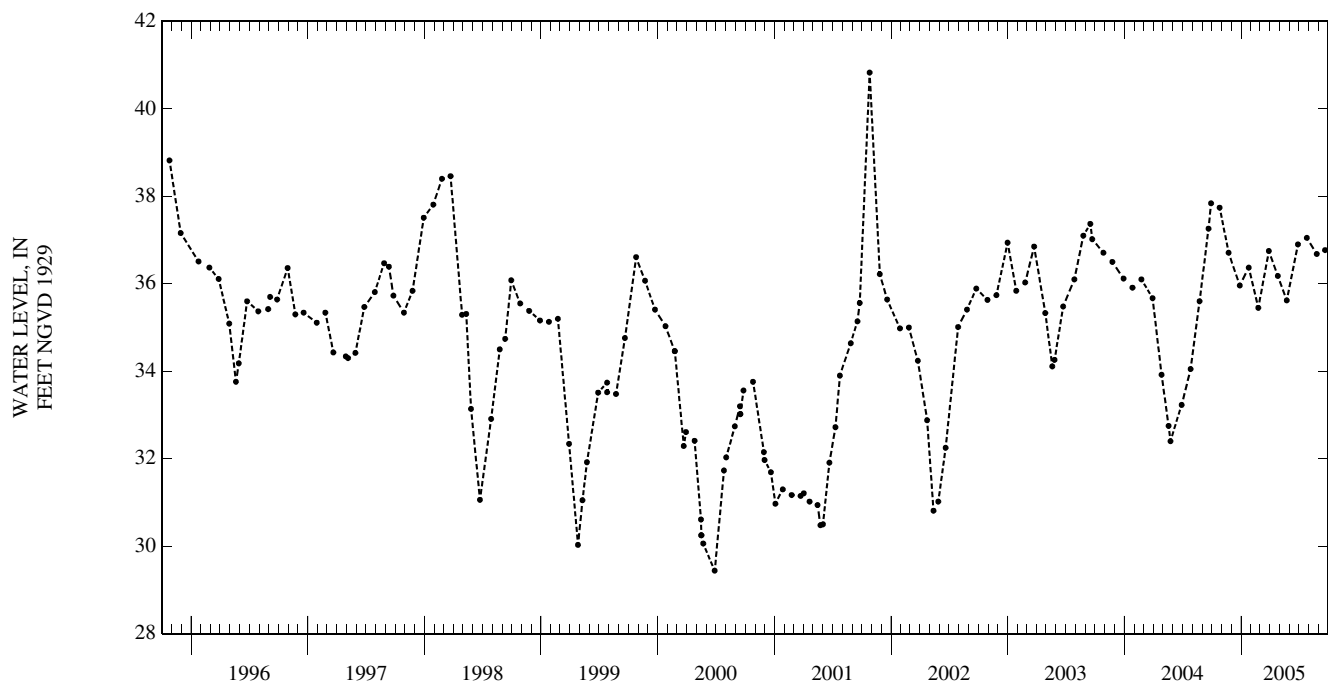
PERIOD OF RECORD.--October 1960 to September 1991 (semiannually); October 1991 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.32 ft above NGVD of 1929, Oct. 25, 1960; lowest measured, 29.44 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	37.74	DEC 27	35.96	FEB 23	35.45	APR 25	36.18	JUN 27	36.90	AUG 25	36.68
NOV 22	36.71	JAN 24	36.37	MAR 28	36.75	MAY 23	35.62	JUL 25	37.05	SEP 20	36.77

WATER YEAR 2005 LOWEST 35.45 FEB 23, 2005 HIGHEST 37.74 OCT 25, 2004



ORANGE COUNTY—Continued

WELL NUMBER.--282406081093602. Cocoa R near Bithlo, FL.

LOCATION.--Lat 28° 24'06" long 81° 09'36", in SW¹/₄SW¹/₄NW¹/₄ sec.18, T.24 S., R.32 E., Hydrologic Unit 03090101, in Cocoa Well field, 50 ft west of private road, 2.5 mi southwest of Magnolia Ranch headquarters and 1.8 mi south of Wewahootee Road. Owner: City of Cocoa.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 1205 ft, cased to 1098 ft.

INSTRUMENTATION.--Quarterly measurement with chalked or electric tape.

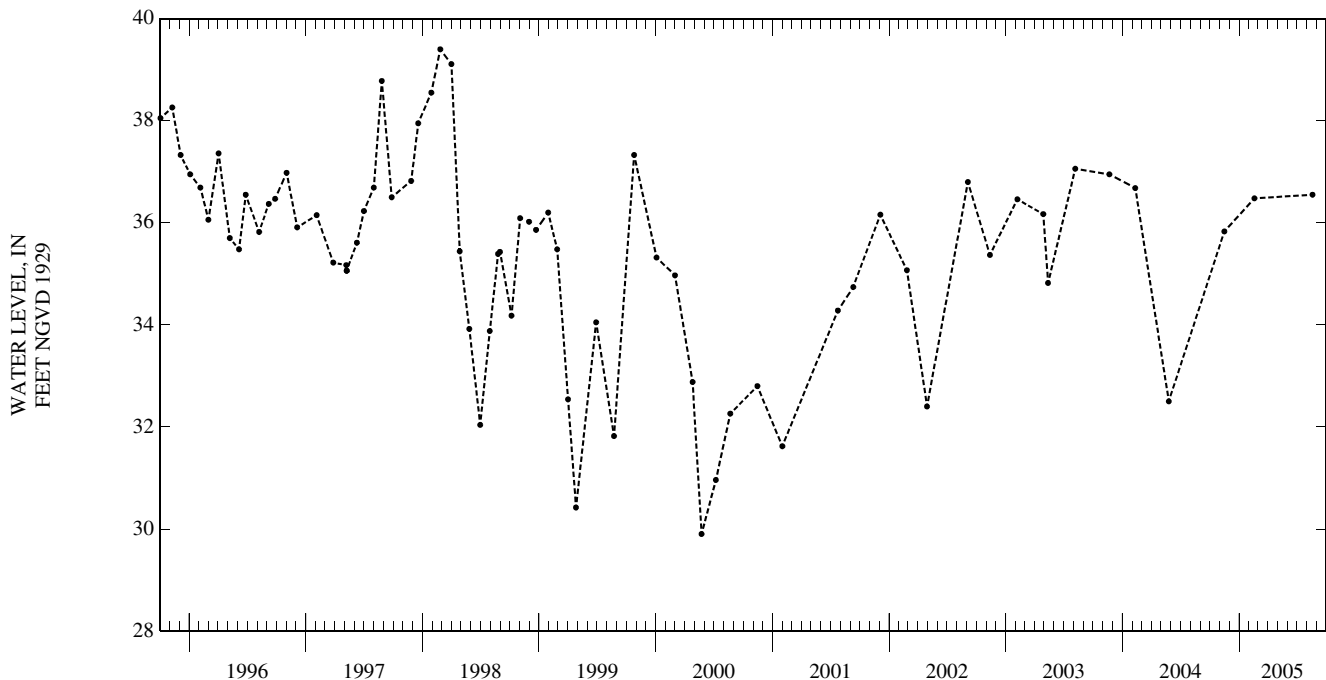
DATUM.--Elevation of land-surface datum is 68.20 ft above NGVD of 1929. Measuring point: Top of threaded coupling, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--September 1993 to February 1999 (monthly); March 1999 to September 2001 (bimonthly); October 2001 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.40 ft above NGVD of 1929, Feb. 25, 1998; lowest measured, 29.90 ft above NGVD of 1929, May 23, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	35.83	FEB 17	36.48	AUG 18	36.55
WATER YEAR 2005		LOWEST	35.83 NOV 15, 2004	HIGHEST	36.55 AUG 18, 2005



ORANGE COUNTY—Continued

WELL NUMBER.--282434081283102. Sea World Drive Replacement Well near Vineland, FL.

LOCATION.--Lat 28° 24' 34", long 81° 28' 31", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 103.16 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.46 ft above land-surface datum. Prior to July 1, 2005 top of coupling was 0.54 ft higher.

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, 67.83 ft above NGVD of 1929, Mar. 2, 3, 1998; lowest water level measured, 49.57 ft above NGVD of 1929, May 27, 2000, may have been lower during period of missing record, May-June 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.85	62.50	61.72	61.45	62.03	60.54	61.13	---	58.91	---	---	61.14
10	65.04	61.69	61.55	61.35	61.51	60.55	61.24	---	60.09	---	---	61.47
15	64.81	61.72	61.47	61.69	61.02	60.29	59.94	---	61.12	---	---	61.11
20	64.32	61.99	61.56	62.57	59.90	60.95	58.87	57.75	---	---	---	60.00
25	63.95	61.53	61.44	62.68	59.64	61.51	58.27	57.03	---	---	60.25	59.87
EOM	63.04	61.96	61.55	62.46	60.28	61.58	---	56.47	---	---	60.62	59.85
MAX	66.31	62.71	61.92	62.85	62.36	61.87	---	---	---	---	---	61.64



ORANGE COUNTY—Continued

WELL NUMBER.--282510081054502. Cocoa-M Well near Bithlo, FL.

LOCATION.--Lat 28° 25'10", long 81° 05'45", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: City of Cocoa.

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.--Quarterly measurement with chalked or electric tape.

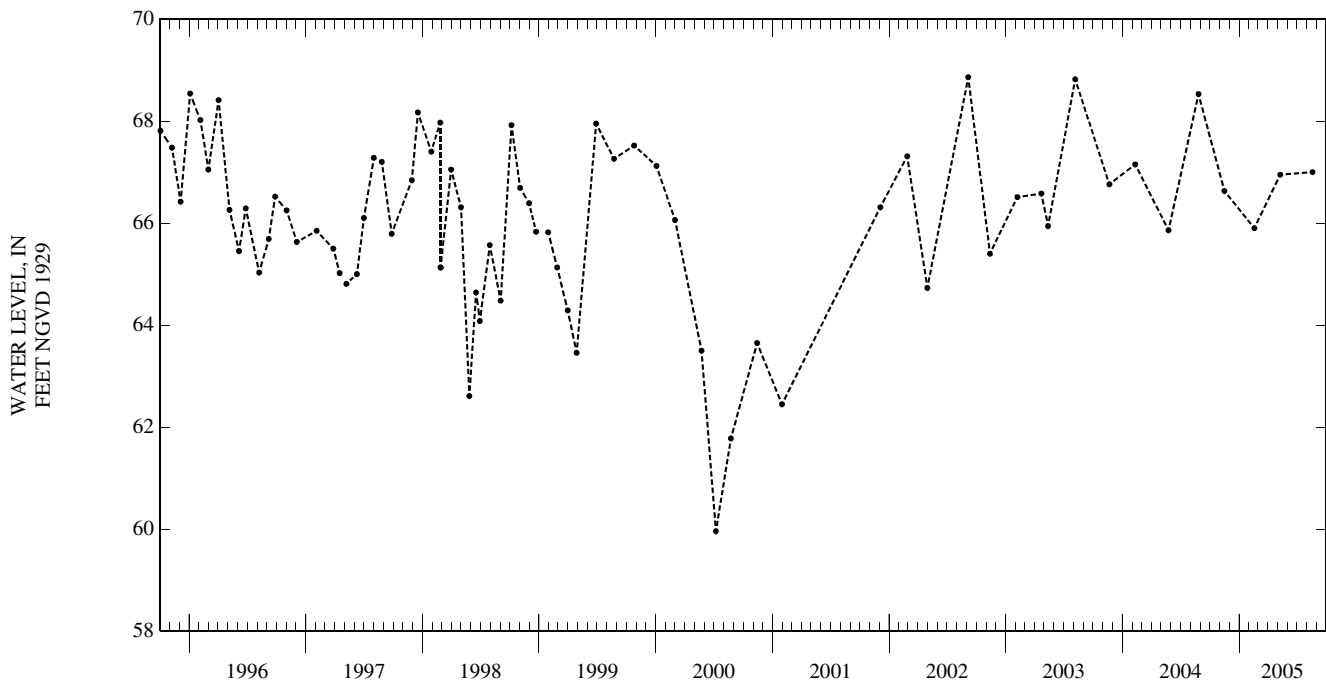
DATUM.--Elevation of land-surface datum is 70.81 ft above NGVD of 1929. Measuring point: Bolt hole in cap, 3.15 ft above land-surface datum.

PERIOD OF RECORD.--February 1969 to January 1977; February 1977 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); November 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 69.94 ft above NGVD of 1929, Nov. 4, 1969; well observed dry August 1981, July 1982, August, October 1984, April 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	66.63	FEB 17	65.90	MAY 09	66.95	AUG 18	67.00
WATER YEAR 2005		LOWEST	65.90 FEB 17, 2005	HIGHEST	67.00	AUG 18, 2005	



ORANGE COUNTY—Continued

WELL NUMBER.--282510081054503. Cocoa-1T Well near Bithlo, FL.

LOCATION.--Lat 28° 25' 10", long 81° 05' 45", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 24 S., R. 32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road 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.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 71.19 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

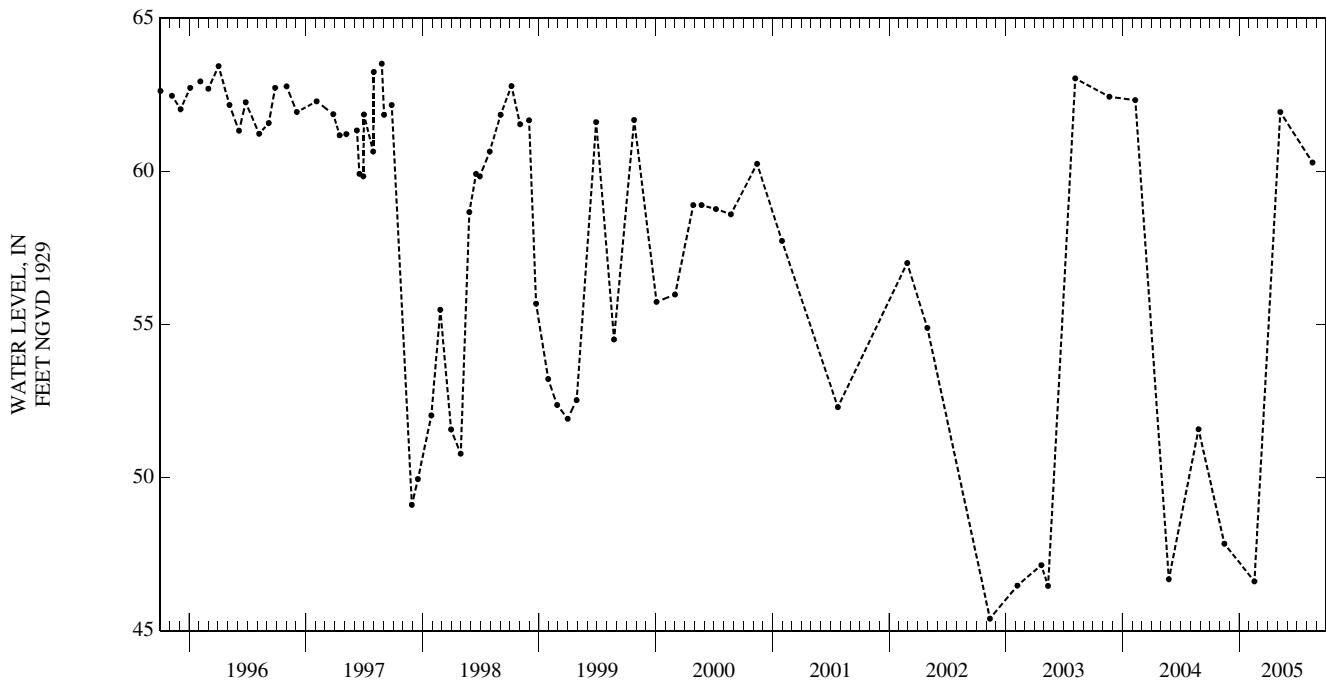
REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--September 1969 to March 1970, January 1971 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); October 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.54 ft above NGVD of 1929, Oct. 1, 1982; lowest measured 44.55 ft above NGVD of 1929, June 7, 1971.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	47.84	FEB 17	46.61	MAY 09	61.94	AUG 18	60.29
WATER YEAR 2005		LOWEST	46.61 FEB 17, 2005	HIGHEST	61.94 MAY 09, 2005		



ORANGE COUNTY—Continued

WELL NUMBER.--282528081340901. Bay Lake Deep Well near Windermere, FL.

LOCATION.--Lat 28° 25' 28", long 81° 34' 09", in SW¹/₄NE¹/₄SW¹/₄ sec.1, T.24 S., R.27 E., Hydrologic Unit 03090101, on north shore of Bay Lake, 0.8 mi northeast of Magic Kingdom Theme Park, and 5.3 mi southwest of Windermere. Owner: Reedy Creek Improvement District.

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.--Water-stage recorder and data-collection platform--15-minute interval.

DATUM.--Elevation of land-surface datum is 97.10 ft above NGVD of 1929. Measuring point: Top of casing, 4.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 96.91 ft above NGVD of 1929, Oct. 31, 1966; lowest, 77.37 ft above NGVD of 1929, June 10, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	89.84	88.14	88.05	87.64	88.10	87.34	86.86	86.22	---	87.37	86.68	87.59
10	89.29	87.71	87.64	87.54	87.57	86.96	86.76	85.95	85.55	---	87.41	88.27
15	89.61	87.51	88.06	87.67	87.04	86.70	86.28	85.79	86.28	87.34	87.33	87.61
20	88.97	87.50	87.82	88.34	86.25	87.45	85.61	84.92	86.43	86.91	86.24	86.95
25	88.88	87.39	87.79	88.33	86.31	87.16	85.25	84.63	87.07	86.58	86.82	87.23
EOM	88.48	88.19	87.28	87.86	87.13	86.88	85.71	---	87.35	86.41	87.20	86.80
MAX	90.16	88.70	88.28	88.39	88.16	87.45	86.86	---	---	---	87.41	88.31



ORANGE COUNTY—Continued

WELL NUMBER.--282531081054301. Cocoa-O Well near Bithlo, FL.

LOCATION.--Lat 28° 25' 31", long 81° 05' 43", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 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.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 68.60 ft above NGVD of 1929. Measuring point: Top of 4 in. casing, 3.00 ft above land-surface datum.

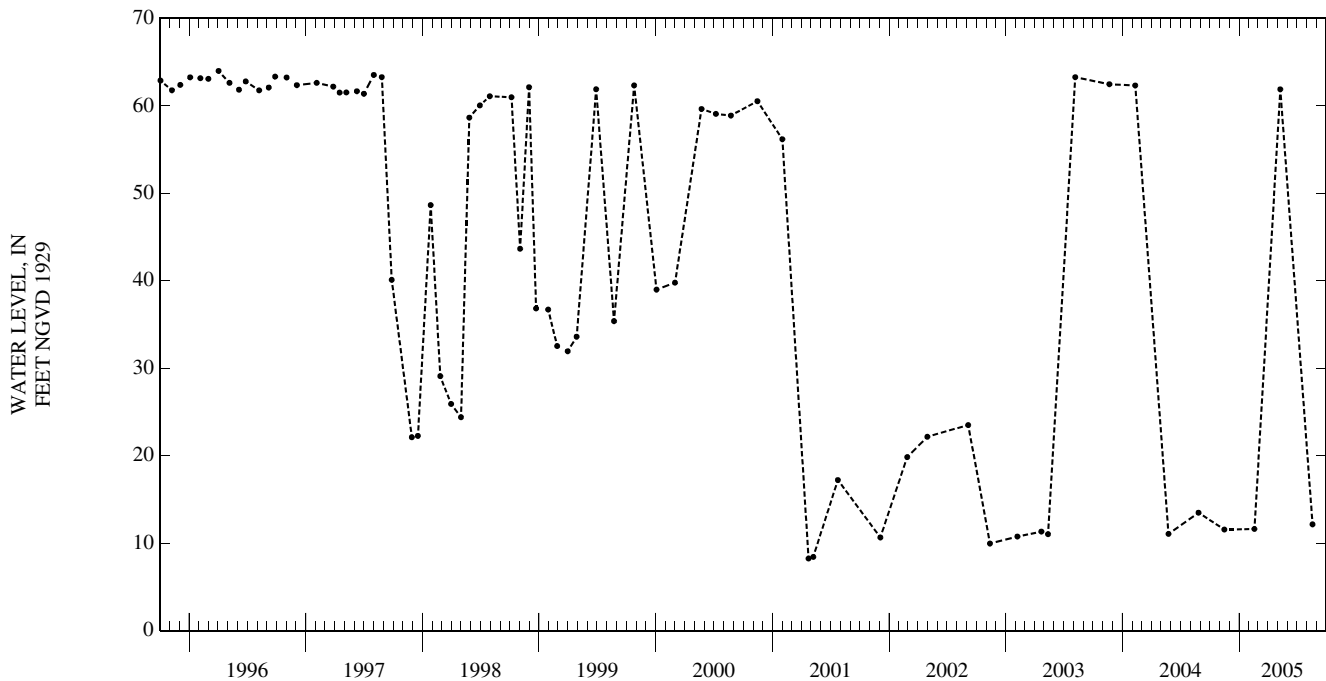
REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--February 1970 to April 1999 (monthly); May 1999 to September 2001 (bimonthly); October 2001 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.77 ft above NGVD of 1929, Oct. 1, 1982; lowest measured, 8.25 ft above NGVD of 1929, April 23, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	11.56	FEB 17	11.63	MAY 09	61.89	AUG 18	12.15
WATER YEAR 2005		LOWEST	11.56	NOV 15, 2004	HIGHEST	61.89	MAY 09, 2005



ORANGE COUNTY—Continued

WELL NUMBER.--282531081095701. Cocoa-D Well near Narcoossee, FL.

LOCATION.--Lat 28° 25' 31", long 81° 09' 57", in NE¹/₄SW¹/₄SE¹/₄ sec.1, T.24 S., R.31 E., Hydrologic Unit 03080101, in Cocoa well field, on south side of Wewahootie 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.

WATER LEVEL RECORDS

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

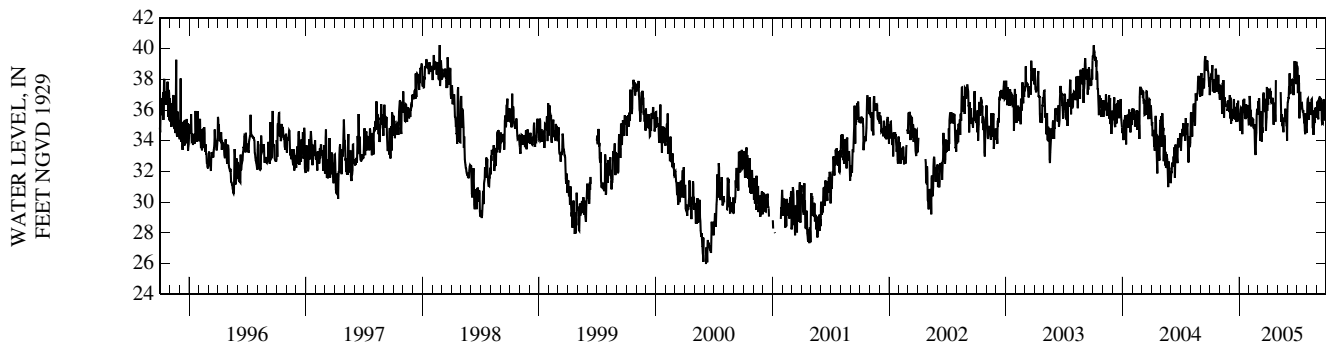
DATUM.--Elevation of land-surface datum is 75.91 ft above NGVD of 1929. Measuring point: Top of casing, 3.57 ft above land-surface datum.

PERIOD OF RECORD.--July 1961 to October 1965 (bimonthly); November 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.04 ft above NGVD of 1929, Dec. 12, 1963; lowest daily maximum water level, 25.97 ft above NGVD of 1929, June 6, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.22	36.77	35.79	36.07	35.84	35.67	37.25	---	37.47	38.29	36.52	35.40
10	37.22	37.78	36.04	34.43	35.52	35.92	36.59	37.17	37.12	37.13	36.22	36.83
15	37.13	36.21	36.73	36.06	34.84	35.72	36.80	35.09	37.97	36.44	36.69	36.34
20	38.56	---	35.36	35.41	33.15	36.38	36.48	35.51	37.79	36.00	35.96	35.92
25	37.60	36.43	36.06	36.21	35.93	34.64	37.96	35.91	38.05	34.68	35.16	36.06
EOM	36.83	36.33	35.61	35.15	35.72	36.73	---	35.91	38.59	34.55	35.89	36.29
MAX	---	---	36.97	36.74	36.92	37.51	---	---	39.19	38.88	36.76	36.84



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1968, 1980, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 10...	0950	7.1	625	23.5	300	113	3.40	.76	19.0	282	316	10.5	.2
							Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)					
Date						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)						
MAY 10...						31.9	.2	401	486				

ORANGE COUNTY—Continued

WELL NUMBER.--282532081075601. Cocoa-B Well near Bithlo, FL.

LOCATION.--Lat 28° 25' 32", long 81° 07' 56", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 24 S., R. 32 E., Hydrologic Unit 03080101, in Cocoa well field, on south side of Wewahootee Road, 7.1 mi west of State Highway 15, 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.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 62.15 ft above NGVD of 1929. Measuring point: Top of casing, 3.70 ft above land-surface datum.

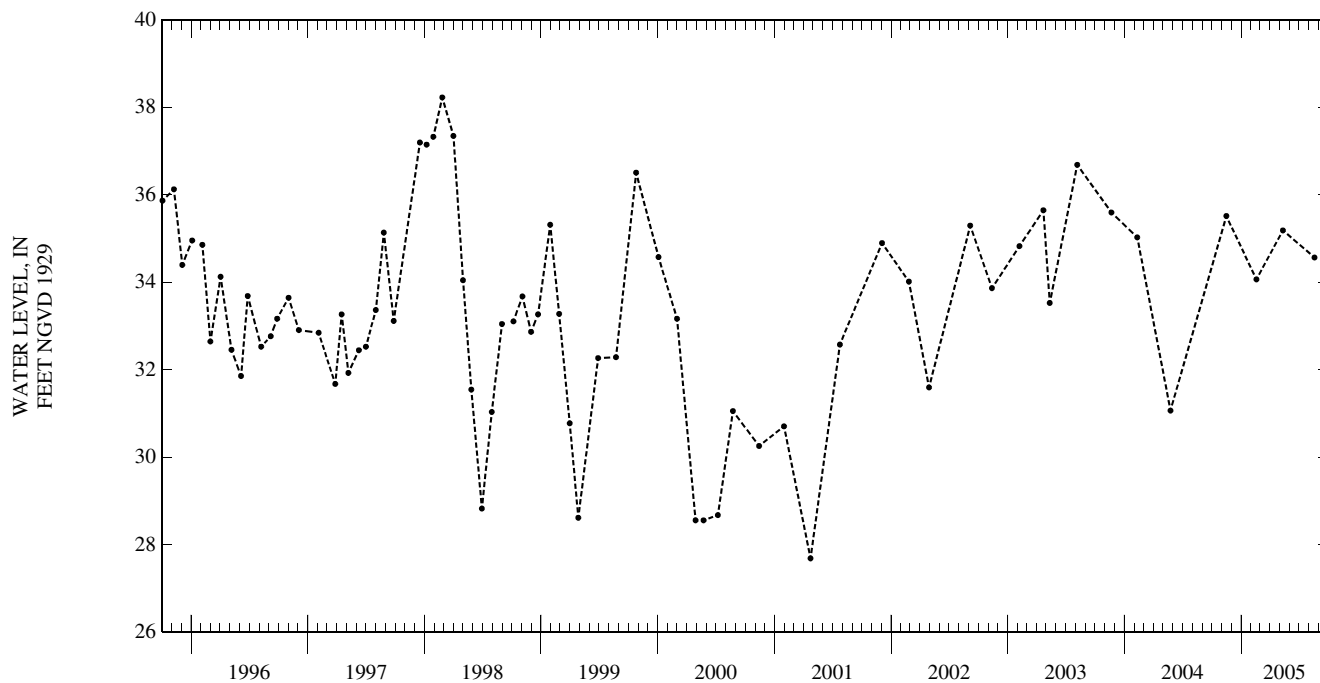
REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--January 1965 (annually); October 1965 to July 1968; August 1968 to April 1999 (monthly); May 1999 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.37 ft above NGVD of 1929, June 23, 1966; lowest water level measured, 21.42 ft above NGVD of 1929, Aug. 5, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	35.52	FEB 17	34.07	MAY 11	35.19	AUG 18	34.57
WATER YEAR 2005		LOWEST	34.07 FEB 17, 2005	HIGHEST	35.52	NOV 15, 2004	



ORANGE COUNTY

WELL NUMBER.--282533081082202. Cocoa-C (Zone 1) Well near Bithlo, FL.

LOCATION.--Lat 28° 25'33", long 81° 08'22", in SW¹/₄NE¹/₄SW¹/₄ 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.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.71 ft above NGVD of 1929. Measuring point: Top of male quick connect coupling, 2.85 ft above land-surface datum.

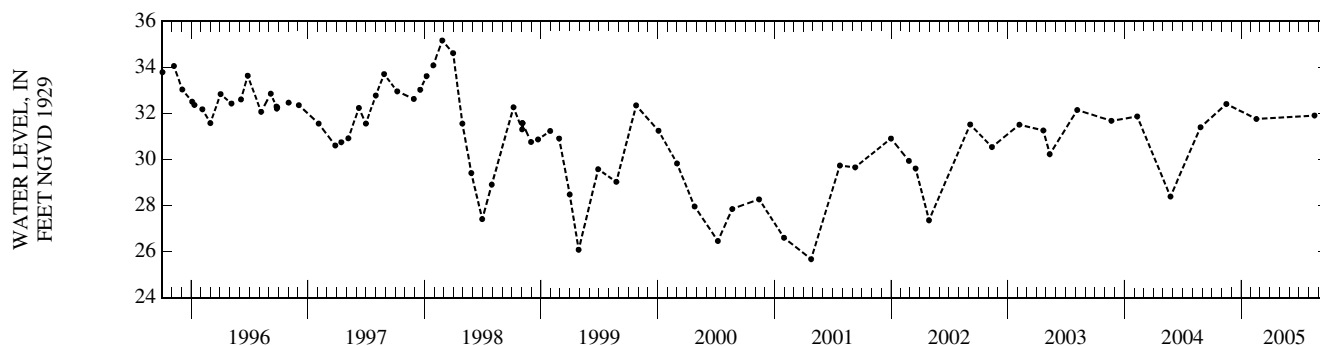
PERIOD OF RECORD.--December 1965 (annually); February 1966 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); November 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.81 ft above NGVD of 1929, Dec. 6, 1965; lowest measured, 25.67 ft above NGVD of 1929, April 25, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	32.41	FEB 17	31.76	AUG 18	31.91

WATER YEAR 2005 LOWEST 31.76 FEB 17, 2005 HIGHEST 32.41 NOV 15, 2004



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 10...	1050	7.5	11,700	22.8	2,100	389	277	65.5	1,750	93	89	3,350	.3
						Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)				
						MAY 10...	7.8	1,280	7,440	11,200			

WELL NUMBER.--282533081082204. Cocoa-C (Zone 3) Well near Bithlo, FL.

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.

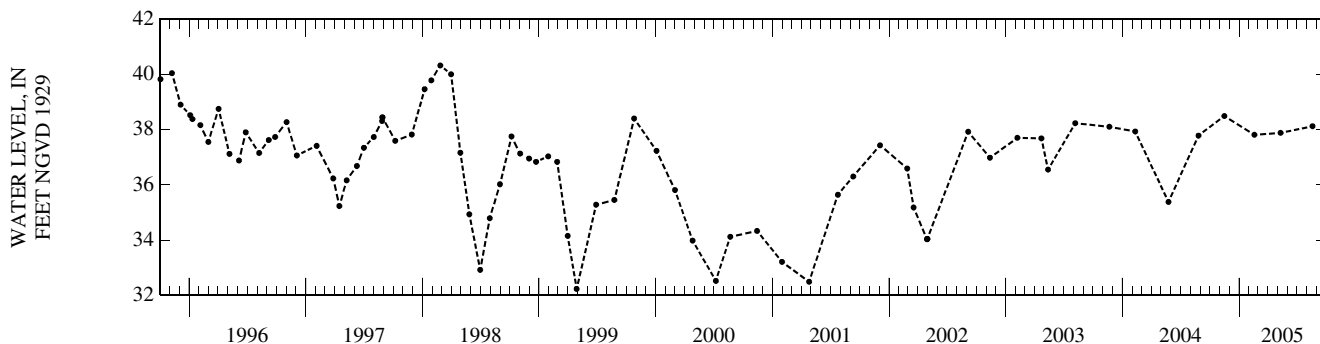
INSTRUMENTATION.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.77 ft above NGVD of 1929. Measuring point: Top of male quick connect coupling 2.81 ft above land-surface datum.

PERIOD OF RECORD.--February 1966 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); November 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft above NGVD of 1929, Feb. 2, 1970; lowest measured, 32.23 ft above NGVD of 1929, April 28, 1999.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	38.49	FEB 17	37.81	MAY 10	37.88	AUG 18	38.12
WATER YEAR 2005		LOWEST	37.81	FEB 17, 2005	HIGHEST	38.49	NOV 15, 2004



PERIOD OF RECORD.--Water years 1966 to current year.

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 10...	0835	7.9	908	23.0	360	110	18.4	2.58	45.5	203	220	81.3	.2

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	20.5	139	585	9,770

ORANGE COUNTY—Continued

WELL NUMBER.--282533081082206. Cocoa-C (Zone 5) Well near Bithlo, FL.

LOCATION.--Lat 28° 25'33", long 81° 08'22", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 8 in., depth 1,004 ft, cased to 248 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.72 ft above NGVD of 1929. Measuring point: Top of male quick coupling, 2.82 ft above land-surface datum.

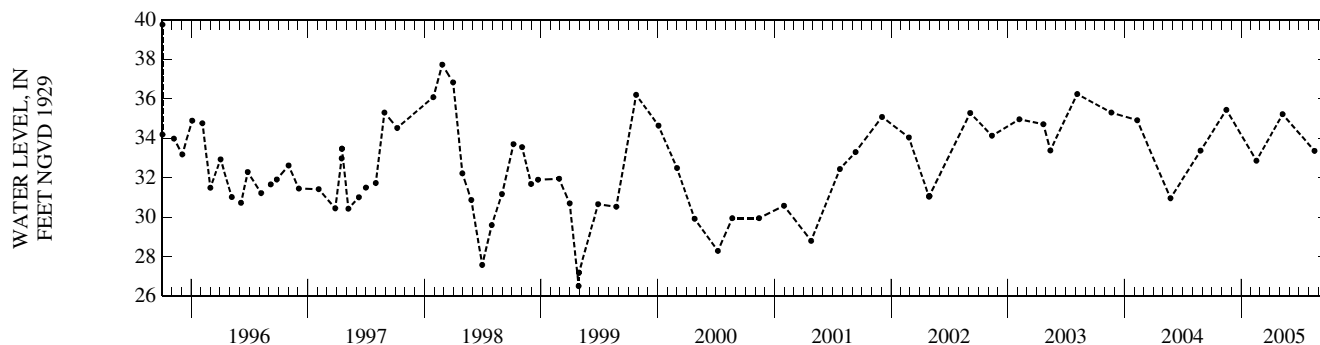
REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--February 1966 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); November 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.18 ft above NGVD of 1929, Dec. 4, 1969; lowest measured, 26.52 ft above NGVD of 1929, April 28, 1999.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	35.45	FEB 17	32.87	MAY 10	35.23	AUG 18	33.37
WATER YEAR 2005		LOWEST	32.87 FEB 17, 2005	HIGHEST	35.45	NOV 15, 2004	



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 10...	1240	8.0	1,020	23.3	370	117	17.4	3.25	68.5	218	265	120	.2
Date					Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)					
MAY 10...					19.7	119	675	3,940					

ORANGE COUNTY—Continued

WELL NUMBER.--282623081153801. Cocoa-P Well near Taft, FL.

LOCATION.--Lat 28° 26' 23", long 81° 15' 38", in NW¹/₄ NW¹/₄ SW¹/₄ sec. 31, T. 23 S., R. 31 E., Hydrologic Unit 03080101, on east side of State Highway 15, 0.4 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.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 94.12 ft above NGVD of 1929. Measuring point: Top of casing, 0.80 ft below land-surface datum. Prior to April 5, 1999, elevation of land-surface datum was 91.48 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 4.03 ft above land-surface datum.

PERIOD OF RECORD.--April 1961 to January 1971 (bimonthly); March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.02 ft above NGVD of 1929, present datum, Apr. 14, 1961; lowest daily maximum water level, 34.45 ft above NGVD of 1929, June 10, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.39	47.34	46.27	45.42	---	---	---	---	---	49.45	46.96	46.47
10	49.61	46.76	45.91	---	---	---	---	---	48.67	48.31	47.19	47.22
15	49.47	47.00	45.83	---	---	---	---	---	49.15	49.00	47.25	46.30
20	49.07	46.72	45.78	---	---	---	---	---	48.64	48.69	46.83	45.66
25	48.56	46.44	45.52	---	---	---	---	---	48.43	47.69	46.39	46.34
EOM	47.84	46.73	45.74	---	---	---	---	---	49.83	46.70	46.38	47.03
MAX	---	47.73	46.64	---	---	---	---	---	---	50.07	47.42	47.32



ORANGE COUNTY—Continued

WELL NUMBER.--282738081341401. Lake Sawyer Well near Windermere, FL.

LOCATION.--Lat 28° 27' 38", long 81° 34' 14", in SW¹/₄NE¹/₄NW¹/₄ 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.--Water-stage recorder and data-collection platform--60-minute interval.

DATUM.--Elevation of land-surface datum is 116.04 ft above NGVD of 1929. Measuring point: Top of coupling, 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, 87.98 ft above NGVD of 1929, Mar. 20, 21, 1998; lowest, 70.36 ft above NGVD of 1929, June 22, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	86.51	84.42	83.83	83.53	83.66	83.52	82.39	82.23	82.23	84.62	83.65	84.26
10	86.05	83.69	83.97	83.63	83.52	82.82	82.28	81.80	82.43	84.31	83.97	84.80
15	86.54	84.15	83.75	84.04	82.96	82.93	81.32	80.80	83.45	84.61	83.65	83.90
20	86.08	83.35	83.86	84.57	82.22	83.63	80.76	81.16	82.98	84.01	83.24	82.48
25	85.50	84.12	84.08	84.30	82.10	83.81	80.96	79.79	83.52	83.68	83.81	83.78
EOM	84.96	84.38	83.89	83.90	83.29	83.51	81.22	80.88	84.48	82.97	83.88	83.68
MAX	87.02	84.72	84.39	84.61	---	84.05	83.23	82.43	84.48	84.77	83.99	84.80



ORANGE COUNTY—Continued

WELL NUMBER.--282739081054501. Cocoa-F Well near Bithlo, FL.

LOCATION.--Lat 28° 27' 39", long 81° 05' 45", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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: Cape Orlando Corporation.

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.--Quarterly measurement with chalked tape.

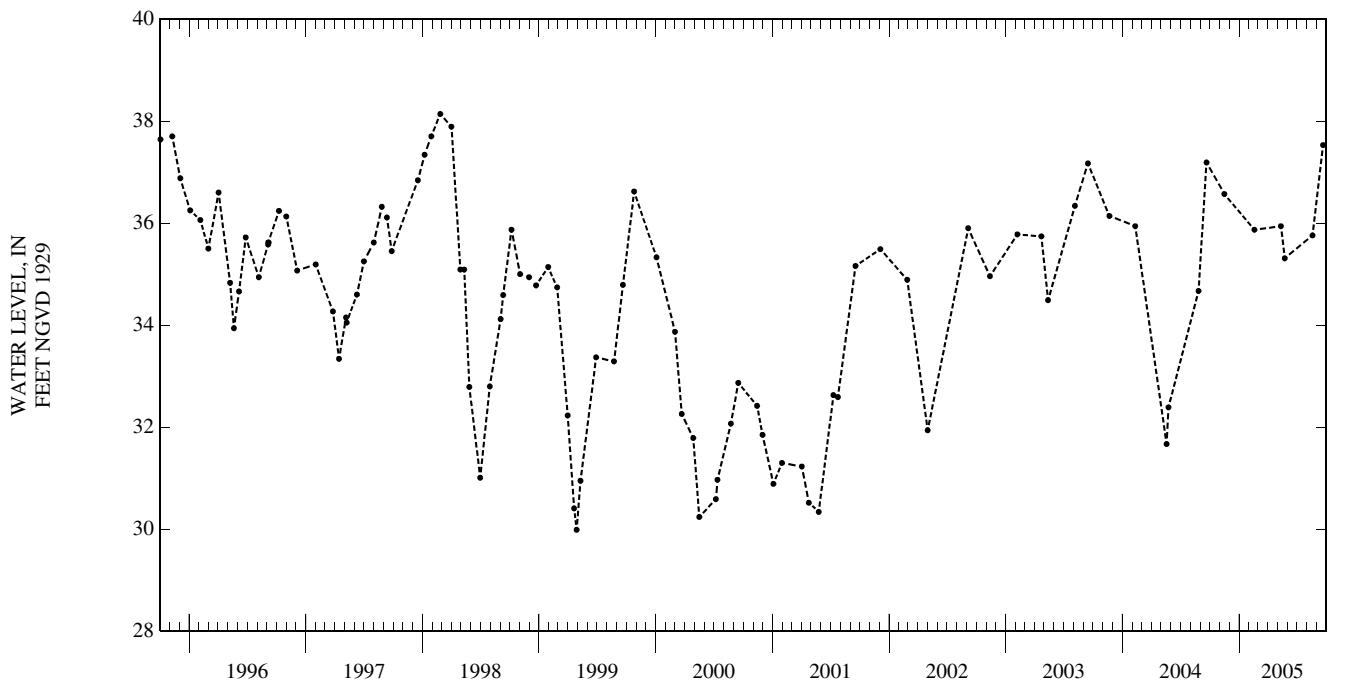
DATUM.--Elevation of land-surface datum is 68.24 ft above NGVD of 1929. Prior to Oct. 1, 2003, land-surface datum was considered to be 67.29 ft above NGVD of 1929. Measuring point: Top of 6 in. coupling, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--1960-70 (annually); October 1970 to April 1999 (monthly); May 1999 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.92 ft above NGVD of 1929, June 24, 1960; lowest measured, 29.99 ft above NGVD of 1929, Apr. 28, 1999.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	36.57	FEB 17	35.87	MAY 11	35.94	MAY 23	35.31	AUG 18	35.76	SEP 20	37.53
WATER YEAR 2005		LOWEST	35.31	MAY 23, 2005	HIGHEST	37.53	SEP 20, 2005				



ORANGE COUNTY—Continued

WELL NUMBER.--282835081305201. Palm Lake Drive Well near Windermere, FL.

LOCATION.--Lat 28° 28'39", long 81° 30'26", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ 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.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 157.10 ft above NGVD 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, 78.55 ft above NGVD of 1929, Sept. 26, 2004; lowest, 57.07 ft above NGVD of 1929, June 15, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	76.06	72.66	71.75	71.62	71.72	70.86	70.84	69.66	70.10	73.98	72.00	72.31
10	75.14	72.25	72.37	71.34	71.44	70.65	70.06	69.37	70.74	73.02	72.05	72.84
15	75.69	72.64	72.15	72.15	70.71	70.51	69.10	68.21	71.78	73.70	71.65	71.27
20	74.93	71.54	71.71	72.77	69.25	71.42	68.82	67.77	71.23	72.56	73.08	70.36
25	74.13	72.37	72.95	72.76	69.90	74.00	67.95	66.82	72.08	71.71	71.80	71.08
EOM	72.96	72.58	72.14	71.61	71.05	71.35	68.11	67.74	74.02	70.69	72.81	71.38
MAX	77.00	73.18	72.95	73.12	71.88	74.00	71.42	70.15	74.48	75.03	73.24	73.52



ORANGE COUNTY—Continued

WELL NUMBER.--282847081013701. Cocoa-H Well near Bithlo, FL.

LOCATION.--Lat 28° 28' 47", long 81° 01' 37", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ 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.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

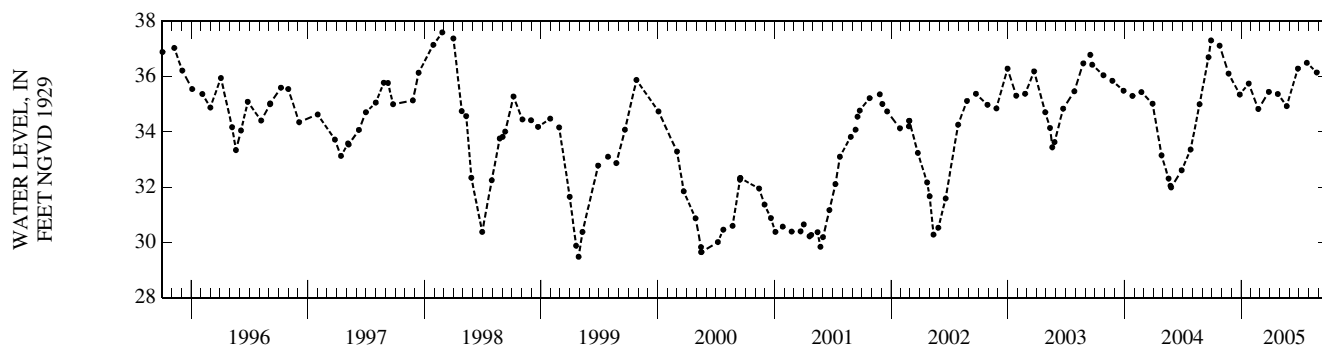
DATUM.--Elevation of land-surface datum is 60.00 ft above NGVD of 1929. Measuring point: Top of casing, 3.13 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to June 1977; July 1977 to April 1999 (monthly); May 1999 to September 2000 (bimonthly); November 2000 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 39.01 ft above NGVD of 1929, Feb. 25, 1970; lowest measured, 29.48 ft above NGVD of 1929, May 13, 1981, Apr. 28, 1999.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	37.12	DEC 27	35.35	FEB 23	34.83	APR 25	35.37	JUN 27	36.29	AUG 25	36.15
NOV 22	36.11	JAN 24	35.75	MAR 28	35.45	MAY 23	34.93	JUL 25	36.50	SEP 20	36.25
WATER YEAR 2005 LOWEST 34.83 FEB 23, 2005 HIGHEST 37.12 OCT 25, 2004											



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1970-72, 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO ₃ (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 11...	1110	7.4	859	24.2	310	68.8	31.7	2.56	53.5	186	188	105	.7
		Residue on evap. at 180degC wat flt mg/L (70300)											
		Silica, water, fltrd, mg/L (00955)		Sulfate water, fltrd, mg/L (00945)		Stront- ium, water, fltrd, ug/L (01080)							
MAY 11...		26.8		80.3		516		2,360					

ORANGE COUNTY—Continued

WELL NUMBER.--282847081013702. Cocoa-K Well near Bithlo, FL.

LOCATION.--Lat 28° 28' 47", long 81° 01' 37", in SW $\frac{1}{4}$ /NW $\frac{1}{4}$ /NW $\frac{1}{4}$ 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.--Quarterly measurement with chalked or electric tape.

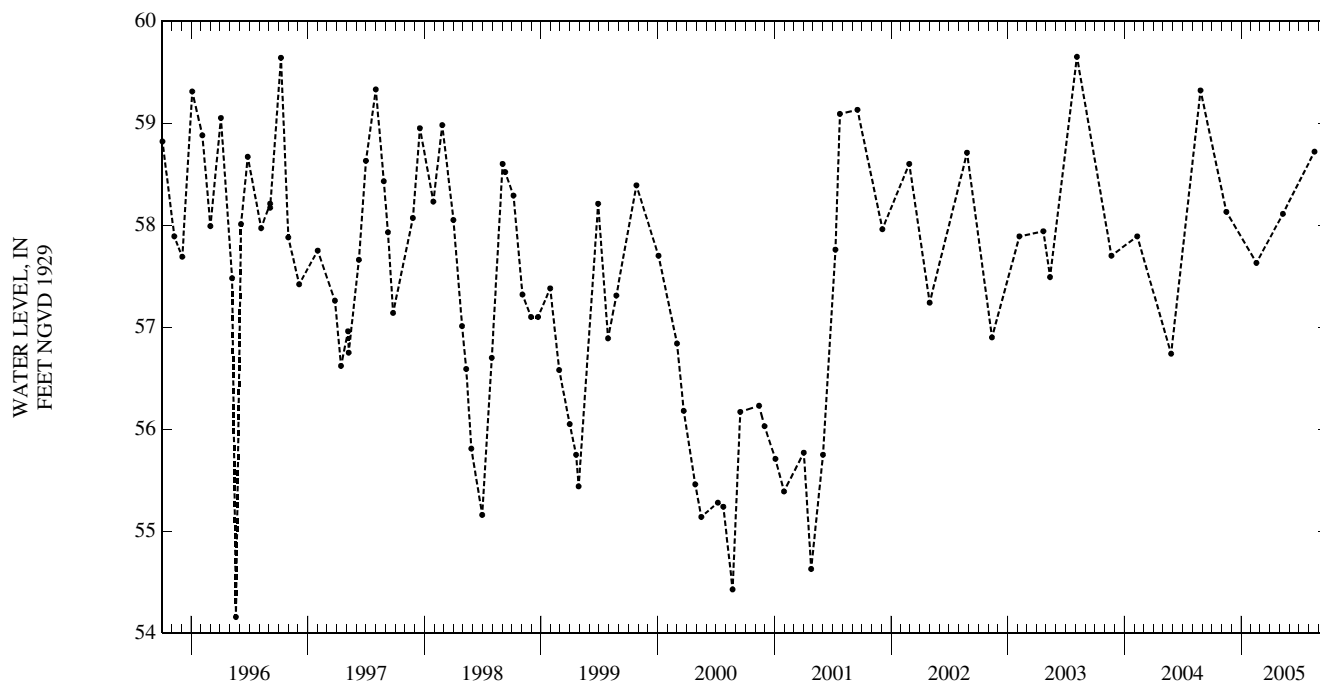
DATUM.--Elevation of land-surface datum is 60.00 ft above NGVD of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to February 1977; March 1977 to April 1999 (monthly); May 1999 to August 2000 (bimonthly); November 2000 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 59.81 ft above NGVD of 1929, Oct. 3, 4, 1969; lowest, 54.16 ft above NGVD of 1929, May 20, 1996.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	58.13	FEB 17	57.63	MAY 11	58.11	AUG 18	58.72
WATER YEAR 2005		LOWEST	57.63 FEB 17, 2005	HIGHEST	58.72	AUG 18, 2005	



ORANGE COUNTY—Continued

WELL NUMBER.--283249081053201. Bithlo-1 Well at Bithlo, FL.

LOCATION.--Lat 28° 32' 49", long 81° 05' 32", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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.

WATER LEVEL RECORDS

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

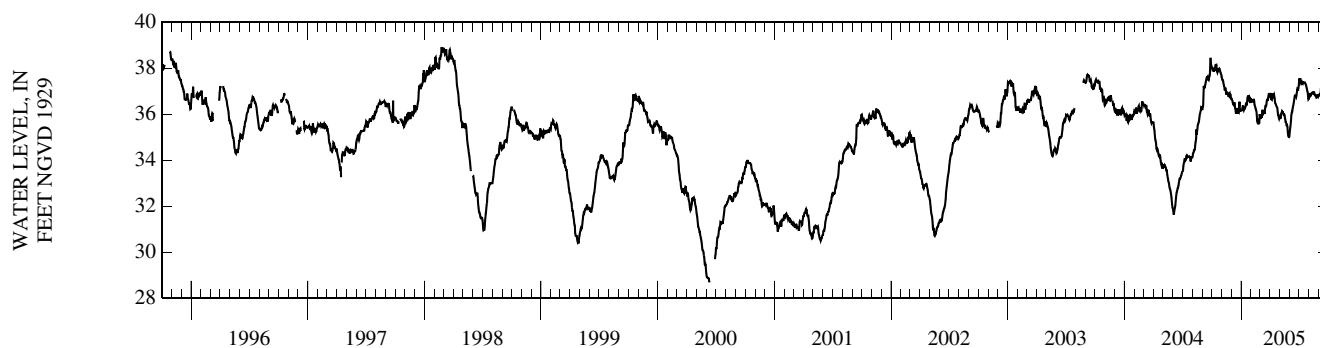
DATUM.--Elevation of land-surface datum is 63.53 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.10 ft above land-surface datum. Prior to October 1, 2001 at elevation 0.05 ft higher.

PERIOD OF RECORD.--October 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.98 ft above NGVD of 1929, Oct. 31, 1960; lowest, 28.70 ft above NGVD of 1929, June 10, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.92	37.44	36.51	36.33	36.58	35.92	36.64	36.00	35.72	37.44	36.81	36.82
10	38.01	37.03	36.51	36.22	36.59	36.09	36.74	36.09	36.24	37.38	36.92	37.23
15	38.13	36.85	36.02	36.42	36.21	36.02	36.68	36.00	36.63	37.38	36.91	37.11
20	37.94	36.89	36.16	36.73	35.69	36.41	36.37	35.66	36.77	37.35	36.81	36.76
25	37.95	36.90	36.32	36.68	35.62	36.64	36.04	35.43	37.10	37.11	36.72	36.86
EOM	37.65	36.70	36.17	36.59	35.94	36.77	35.84	35.03	37.35	36.67	36.80	37.06
MAX	38.17	37.58	36.69	36.81	36.62	36.91	36.92	36.13	37.35	37.55	36.95	37.24



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1965, 1970-72, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
MAY 10...	1242	7.5	578	24.3	210	58.8	14.6	1.94	32.4	159	192	56.7	.3
							Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)					
Date					Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)							
MAY 10...					17.9	43.9	362	1,170					

ORANGE COUNTY—Continued

WELL NUMBER.--283249081053202. Bithlo-2 Well at Bithlo, FL.

LOCATION.--Lat 28° 32'49", long 81° 05'32", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 4 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 or electric tape.

DATUM.--Elevation of land-surface datum is 63.49 ft above NGVD of 1929. Measuring point: Top of casing cap, 3.00 ft above land-surface datum.

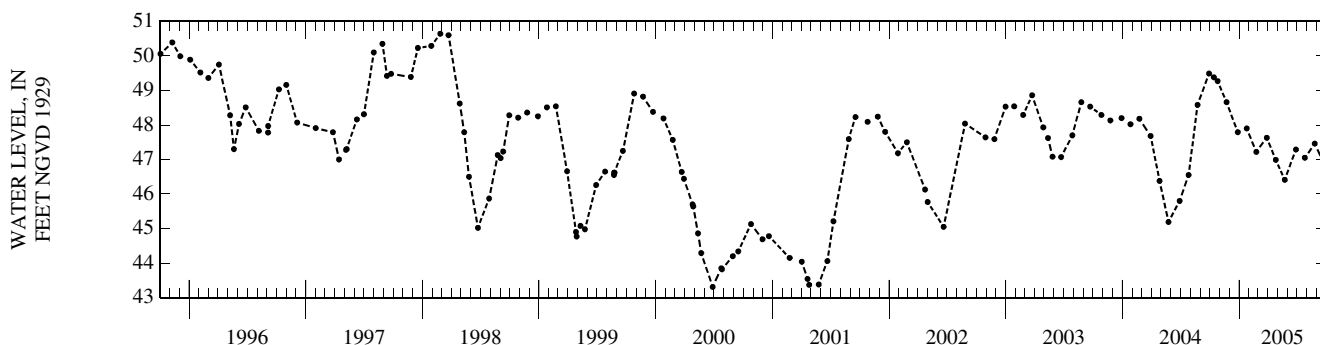
PERIOD OF RECORD.--October 1960 to August 2000 (monthly); October 2000 to September 2002 (bimonthly); October 2002 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.60 ft above NGVD of 1929, Jan. 26, 1971; lowest measured, 43.31 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	49.38	DEC 27	47.79	MAR 28	47.63	JUN 27	47.29	SEP 20	46.94
25	49.27	JAN 24	47.90	APR 25	46.99	JUL 25	47.05		
NOV 22	48.66	FEB 23	47.22	MAY 23	46.41	AUG 25	47.46		

WATER YEAR 2005 LOWEST 46.41 MAY 23, 2005 HIGHEST 49.38 OCT 13, 2004



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1964, 1965-68, 1970-72, 2005.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO ₃ (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 14...	1338	6.9	587	24.1	330	126	2.53	.90	8.30	309	310	8.09	.2
MAY 10...	1336	7.2	598	23.6	300	115	2.47	.82	8.01	310	--	7.83	.1

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
OCT 14...	17.1	<.2	349	622
MAY 10...	18.1	<.2	350	561

ORANGE COUNTY—Continued

WELL NUMBER.--283249081053203. Bithlo-3 Well at Bithlo, FL.

LOCATION.--Lat 28° 32' 49", long 81° 05' 32", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 or electric tape.

DATUM.--Elevation of land-surface datum is 63.14 ft above NGVD of 1929. Measuring point: Top of casing cap, 3.00 ft above land-surface datum.

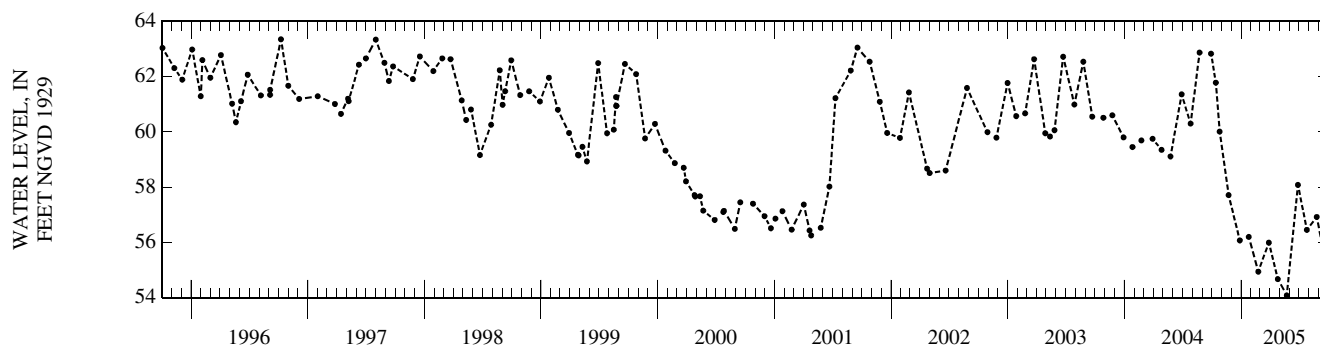
PERIOD OF RECORD.--September 1960 to August 2000 (monthly); October 2000 to September 2002 (bimonthly); October 2002 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.21 ft above NGVD of 1929, Aug. 28, 1964; lowest measured, 54.08 ft above NGVD of 1929, May 23, 2005.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	61.78	DEC 27	56.07	MAR 28	55.99	JUN 27	58.08	SEP 20	55.37
25	60.01	JAN 24	56.20	APR 25	54.67	JUL 25	56.45		
NOV 22	57.71	FEB 23	54.94	MAY 23	54.08	AUG 25	56.92		

WATER YEAR 2005 LOWEST 54.08 MAY 23, 2005 HIGHEST 61.78 OCT 13, 2004



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967-68, 1970-72, 1999, 2005.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
OCT 14...	1243	6.0	186	24.3	63	23.4	1.16	.23	10.2	48	54	14.6	<.1
MAY 10...	1430	6.1	241	24.7	82	30.5	1.35	E.15	9.36	59	61	16.2	<.1

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
OCT 14...	3.1	11.2	110	40.2
MAY 10...	3.1	15.5	138	60.7

ORANGE COUNTY—Continued

WELL NUMBER.--283253081283401. OR-47 Well at Orlo Vista, FL.

LOCATION.--Lat 28° 32'53", long 81° 28'34", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.26, T.22 S., R.28 E., Hydrologic Unit 03080101, on west side of Hiawassee 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.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 81.71 ft above NGVD of 1929. Measuring point: Top of casing, 0.71 ft below land-surface datum.

PERIOD OF RECORD.--July 1930 to May 1933; August 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 80.78 ft above NGVD of 1929, Mar. 20, 1960; lowest, 48.32 ft above NGVD of 1929, May 24, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	67.94	66.08	65.22	63.87	63.06	61.83	61.79	60.36	60.53	64.28	64.75	64.57
10	67.46	65.70	65.07	63.51	62.76	61.79	61.30	60.15	61.01	64.04	64.63	64.80
15	67.48	66.16	64.70	63.99	62.30	61.44	60.76	59.63	61.97	64.91	64.11	64.16
20	67.29	65.76	64.32	63.98	61.75	62.13	60.30	59.27	61.92	66.43	63.89	63.96
25	66.89	65.66	64.47	63.72	61.64	62.20	59.94	58.84	62.47	65.56	63.41	63.68
EOM	66.35	65.65	64.18	63.16	62.21	62.25	59.82	59.05	64.65	65.28	64.35	63.80
MAX	68.37	66.32	65.55	64.10	63.16	62.69	62.22	60.50	64.65	66.46	65.38	64.89



ORANGE COUNTY—Continued

WELL NUMBER.--283333081233501. Lake Adair 9 Deep Well at Orlando, FL.

LOCATION.--Lat 28° 33' 33", long 81° 23' 35", in NW¹/₄ NW¹/₄ SW¹/₄ 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 or electric tape.

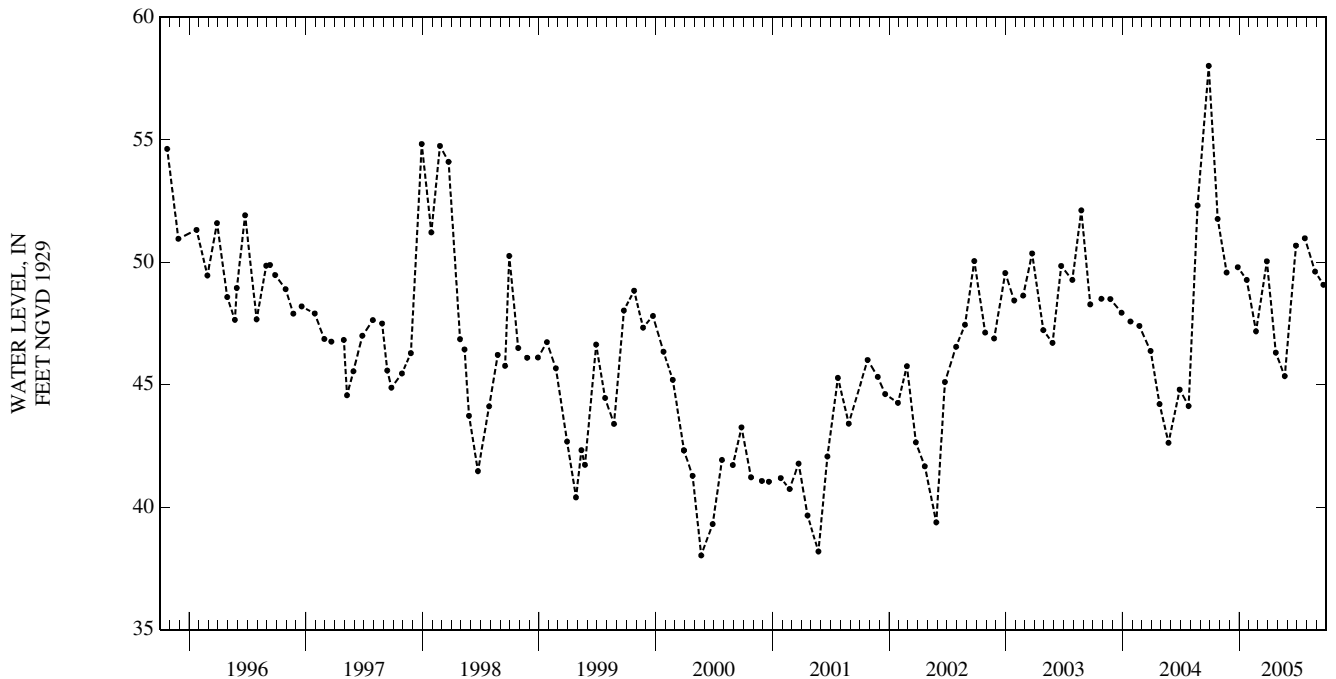
DATUM.--Elevation of land-surface datum is 80.40 ft above NGVD of 1929. Measuring point: Top of casing, 4.00 ft above land-surface datum.

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).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.23 ft above NGVD of 1929, Aug. 9, 1966; lowest water level measured, 38.03 ft above NGVD of 1929, May 22, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	51.77	DEC 27	49.80	FEB 22	47.18	APR 25	46.31	JUN 27	50.68	AUG 26	49.62
NOV 22	49.58	JAN 24	49.28	MAR 28	50.04	MAY 23	45.35	JUL 25	50.98	SEP 21	49.08
WATER YEAR 2005 LOWEST 45.35 MAY 23, 2005 HIGHEST 51.77 OCT 25, 2004											



ORANGE COUNTY—Continued

WELL NUMBER.--283333081233502. Lake Adair 10 Shallow Well at Orlando, FL.

LOCATION.--Lat 28° 33' 33", long 81° 23' 35", in NW¹/₄ NW¹/₄ SW¹/₄ 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 or electric tape.

DATUM.--Elevation of land-surface datum is 80.40 ft above NGVD of 1929. Measuring point: Top of casing, 3.62 ft above land-surface datum.

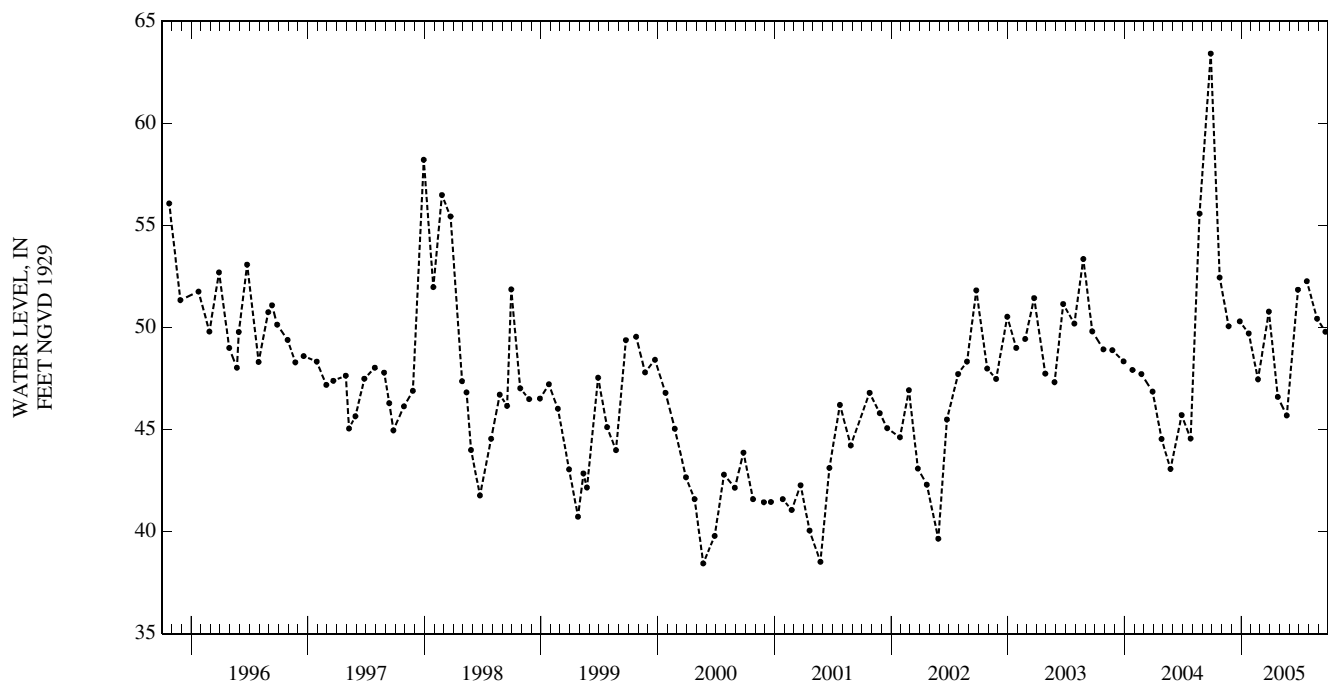
PERIOD OF RECORD.--November 1962 to November 1972; May 1973 to September 1983 (bimonthly); October 1983 to January 1984 (monthly); January 1984 to June 1988; July 1988 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.92 ft above NGVD of 1929, June 28, 1974; lowest measured, 38.44 ft above NGVD of 1929, May 22, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	52.45	DEC 27	50.30	FEB 22	47.46	APR 25	46.60	JUN 27	51.85	AUG 26	50.43
NOV 22	50.06	JAN 24	49.71	MAR 28	50.78	MAY 23	45.69	JUL 25	52.27	SEP 21	49.79

WATER YEAR 2005 LOWEST 45.69 MAY 23, 2005 HIGHEST 52.45 OCT 25, 2004



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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ORANGE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
282241081112801	05-23-05 09-20-05	1153 1248	82211103 24S31E23 MOSS PARK	41.54 42.14
282241081112802	05-23-05 09-20-05	1155 1243	82211104 24S31E23 MOSS PARK SHALLOW	60.11 60.27
282331081370801	05-24-05 09-21-05	1235 1123	82313702 27416 E USGS WELL HARTZOG RD	101.08 103.02
282339081010001	05-23-05 09-20-05	1012 1136	OR-0669 COCOA 13T NR BITHLO, FL	36.17 37.37
282354081313001	05-24-05 09-21-05	1035 1001	82313104 24S28E17 RCID OBSER. WELL NO. 1	77.09 80.02
282530081065601	05-20-05	1310	OR0614	35.42
282543081385801	05-24-05 09-21-05	1252 1113	82513801	97.15 98.41
282718081215101	05-24-05 09-21-05	0942 0740	PINECASTLE POST OFFICE AT PINECASTLE	47.47 48.94
282848080544501	05-24-05	0825	TOSOHATCHEE GAME PRESERVE NR CHRISTMAS, FL	31.80
282923081282801	05-25-05 09-21-05	0724 1332	82912802	62.01 66.65
282936081340201	05-24-05 09-21-05	1338 1046	82913405 23S27E12 ROSS WELL ON LK BUTLER	79.92 83.77
283007081122705	05-23-05 09-20-05	0658 0710	OR-0678 UFA EASTERN WWTP NR UNION PARK, FL	38.79 40.50
283144081254201	05-25-05 09-21-05	0948 1419	83112504 LK MANN DRAIN WELL O-174, ORLANDO	46.72 51.27
283307081300801	05-25-05	0657	83313001 22S28E22 W-5110 LK SHERWOOD D WL	63.57
283340081222803	05-25-05 09-21-05	0901 1500	LAKE IVANHOE UPPER FLORIDAN WELL AT ORLANDO, FL	44.76 49.09
283959081303101	05-25-05 09-22-05	1042 0705	OR-0796 APOPKA CRATE MILL AT APOPKA, FL	47.52 51.15
284230081345301	05-25-05 09-21-05	1109 0725	OR0106 UPPER FL NR APOPKA, FL	53.89 57.77
284238081275803	05-25-05 09-22-05	1203 1338	OR-0548	20.23 21.45

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

282145081053801 -- COCOA 43 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1000	6.9	1,480	24.9	450	136	27.4	4.95	144	245

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	241	258	.3	23.6	136	933	1,860

282250081053801 -- COCOA 40 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1320	7.4	1,030	24.9	330	82.9	28.7	2.86	83.3	182

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	204	159	.6	30.0	84.9	676	1,560

282300081092401 -- COCOA 25 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 11...	0804	7.4	592	24.5	270	90.3	10.1	1.86	23.5	229

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 11...	228	36.9	.2	22.2	24.5	371	649

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

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282304081053901 -- COCOA 39 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	0715	7.3	1,270	25.0	380	115	22.8	3.76	110	215

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	265	209	.3	23.1	117	806	1,990

282315081053801 -- COCOA 38 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1420	7.4	1,120	25.4	350	102	21.9	3.51	92.3	206

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	244	175	.3	21.2	97.7	688	2,250

282315081093601 -- COCOA 24 NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1450	7.1	690	24.6	320	104	13.6	2.29	27.5	231

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	235	43.7	.2	22.2	65.1	443	982

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

282331081093801 -- COCOA 23 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1417	7.4	835	24.6	360	116	17.2	2.34	36.7	223

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	248	59.3	.2	21.6	122	561	1,160

282344081054201 -- 82310501 COCOA 11 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1450	7.5	1,340	25.3	420	123	25.5	4.62	125	205

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	196	232	.2	20.9	141	846	3,350

282356081091901 -- COCOA 22 16IN WELL NR BITHLO, FL

Date	Time	Eleva- tion, feet above NGVD (72020)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
MAY 10...	1325	31.54	7.1	613	24.6	260	86.8	10.1	1.87	25.0

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	229	231	39.6	.2	22.2	31.8	386	661

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

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282406081093601 -- COCOA 21 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1350	7.6	1,080	24.6	450	139	23.4	2.59	58.0	194

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	204	109	.2	20.1	221	772	1,640

282424081093601 -- COCOA 20 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1205	7.1	924	24.8	400	127	19.3	2.19	42.4	200

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	203	75.7	.2	21.2	165	612	1,460

282451081054501 -- 82410503 COCOA 5

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	0830	7.4	903	24.5	330	109	13.5	2.06	61.4	210

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	292	98.6	.3	25.1	53.9	555	2,110

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

282529081073201 -- 82510702 COCOA 7A NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 11...	1030	7.1	1,470	24.5	490	162	19.9	3.26	117	242

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 11...	235	224	.2	22.2	173	924	3,760

282530081054201 -- 82510503 COCOA 7 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1148	7.3	1,100	24.1	390	137	10.5	2.38	84.3	270

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	282	149	.2	25.9	53.4	685	1,140

282530081065601 -- OR0614

Date	Time	Eleva- tion, feet above NGVD (72020)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
MAY 20...	1310	35.42	7.4	2,320	28.0	740	197	56.6	8.26	204

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 20...	157	152	386	.2	18.0	448	1,500	12,300

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

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282530081065603 -- COCOA S OR 613 WELL NR NARCOOSSEE, FL

Date	Time	Elev- ation, feet above NGVD (72020)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
MAY 20...	1036	25.40	7.4	22,300	28.7	3,300	514	492	142	3,630

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 20...	108	141	6,900	.4	12.1	1,580	14,500	14,400

282530081085401 -- 82510802 COCOA 15 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1345	7.5	701	24.5	270	84.2	15.3	2.07	38.1	188

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	172	64.0	.2	19.6	67.8	431	1,200

282530081091701 -- 82510902 COCOA 16 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
OCT 13...	1205	7.4	733	24.6	300	92.9	15.0	2.11	43.0	176
MAY 10...	0936	7.4	861	24.4	340	106	17.7	2.36	47.1	201

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

82530081091701 -- 82510902 COCOA 16 NR BITHLO, FL---CONTINUED

Date	ANC, wat unfiltered, titr., mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L (00955)	Sulfate water, filtered, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, filtered, ug/L (01080)
OCT 13...	178	73.1	.2	19.6	86.5	459	1,320
MAY 10...	224	80.6	.2	20.8	116	584	1,320

282530081094001 -- 82510903 COCOA 17 NR BITHLO, FL

Date	Time	pH, water, unfiltered, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, wat unfiltered, end pt, lab, mg/L as CaCO ₃ (90410)
MAY 10...	1030	7.5	539	24.2	230	69.5	12.4	1.60	21.8	177

Date	ANC, wat unfiltered, titr., mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L (00955)	Sulfate water, filtered, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, filtered, ug/L (01080)
MAY 10...	176	32.1	.2	19.5	52.6	342	845

282531081075602 -- COCOA 13R NR BITHLO, FL

Date	Time	pH, water, unfiltered, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, wat unfiltered, end pt, lab, mg/L as CaCO ₃ (90410)
MAY 09...	1047	7.7	988	24.1	350	120	11.3	2.16	66.5	262

Date	ANC, wat unfiltered, titr., mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L (00955)	Sulfate water, filtered, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, filtered, ug/L (01080)
MAY 09...	277	114	.2	24.3	73.0	608	872

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

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282531081082201 -- 82510801 COCOA 14 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1142	7.4	1,230	25.0	420	136	19.6	3.20	90.8	212

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	220	169	.2	21.3	155	774	2,660

282548081054201 -- 82510504 COCOA 3 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	0940	7.4	1,150	23.6	390	139	11.1	1.99	87.0	236

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	267	161	.2	24.5	72.5	728	1,480

282556081094001 -- COCOA 18 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 10...	1110	7.4	969	24.2	350	104	20.4	2.73	58.9	186

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 10...	220	109	.2	20.3	142	642	1,700

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

282612081054201 -- 82610502 COCOA 2 NR BITHLO, FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	1020	7.4	1,360	24.3	450	152	15.3	2.79	116	268

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
MAY 09...	256	216	.2	23.7	115	892	4,820

282624081090401 -- COCOA 19 NR BITHLO

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
OCT 13...	1425	7.3	874	24.6	380	120	18.5	2.38	48.0	186
MAY 10...	1151	7.4	904	24.3	360	112	19.6	2.33	45.9	189

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Stront- ium, water, fltrd, ug/L (01080)
OCT 13...	194	84.0	.2	20.7	148	560	1,690
MAY 10...	196	79.5	.2	21.0	152	618	1,590

282632081054502 -- COCOA 8 REPLACEMENT WELL NR BITHLO,FL

Date	Time	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)
OCT 13...	0925	7.3	1,250	24.3	440	157	11.4	2.54	101	278
MAY 09...	0825	7.4	1,320	23.2	440	153	12.9	2.77	108	280

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 2004 TO SEPTEMBER 2005

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282632081054502 -- COCOA 8 REPLACEMENT WELL NR BITHLO, FL---CONTINUED

Date	ANC, wat unfiltered, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, fltrd, ug/L (01080)
OCT 13...	286	--	.3	23.4	--	744	1,640
MAY 09...	269	204	.3	23.4	103	839	1,640

282650081054201 -- 82610504 COCOA 9 NR BITHLO, FL

Date	Time	pH, water, unfiltered, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfiltered, end pt, lab, mg/L as CaCO3 (90410)
MAY 09...	0840	7.4	1,130	23.9	370	126	13.8	2.56	87.1	231

Date	ANC, wat unfiltered, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, fltrd, ug/L (01080)
MAY 09...	259	157	.3	24.6	89.8	707	1,570

282716081054501 -- 82710501 COCOA 10 NR BITHLO, FL

Date	Time	pH, water, unfiltered, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfiltered, end pt, lab, mg/L as CaCO3 (90410)
MAY 11...	1330	7.0	965	24.0	340	117	10.9	1.64	63.9	220

Date	ANC, wat unfiltered, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Strontium, water, fltrd, ug/L (01080)
MAY 11...	274	110	.5	29.1	55.7	589	867

KEY TO SITE LOCATIONS ON FIGURE 19
OSCEOLA COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	274149080534801	216
2	274807081115501	217
3	275222081030701	218
4	275609081132001	219
5	275852081030501	220
6	280750081155701	221
7	280826081031801	222
8	280905081270101	223
9	281429081290501	224
10	281443081140501	225
11	281559081260701	226
12	281630080591001	227
13	281630081024401	228
14	281714081093001	229
15	281719081134001	230
16	281722080543001	231

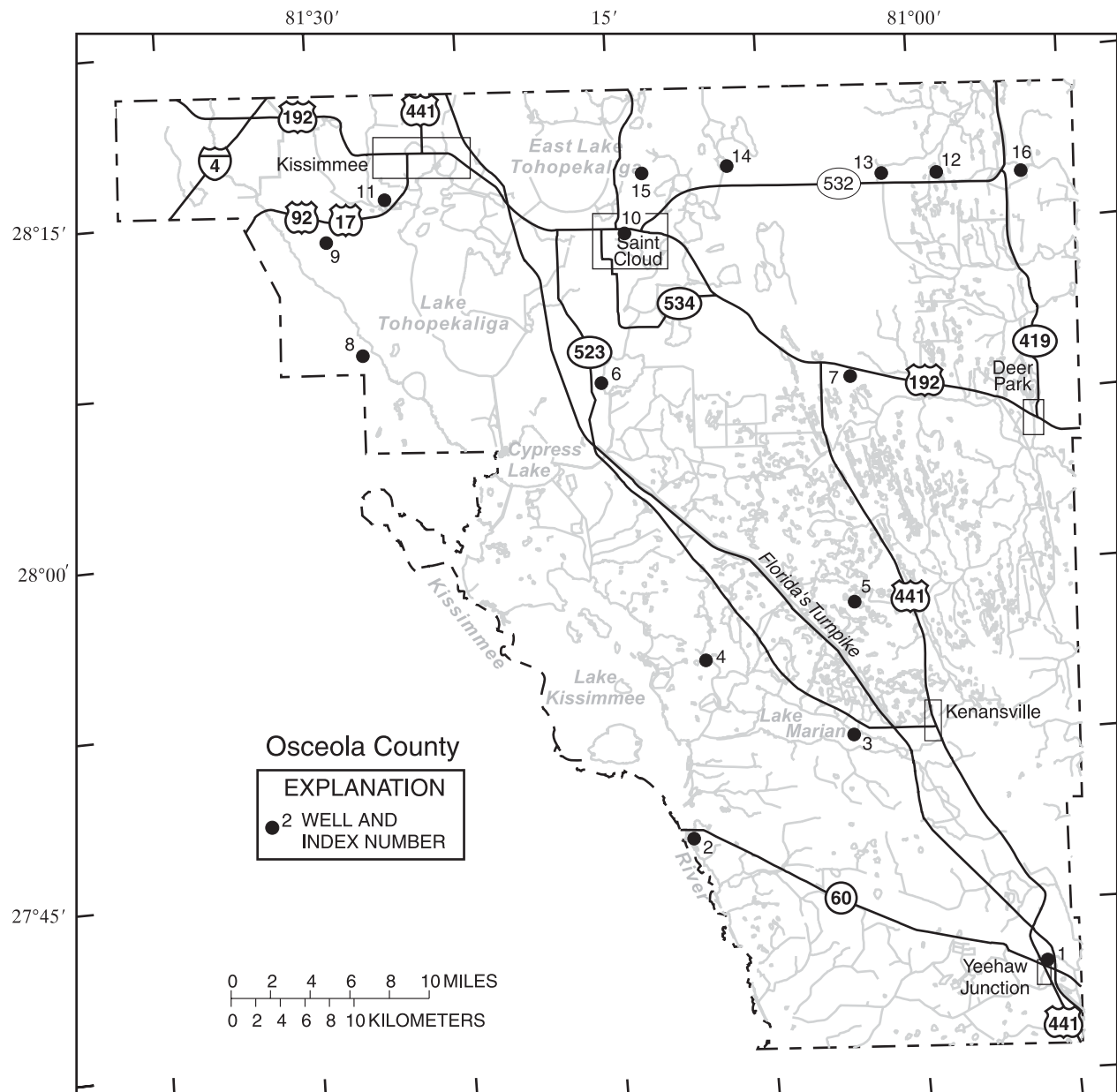


Figure 19.--Location of wells in Osceola County.

OSCEOLA COUNTY

WELL NUMBER.--274149080534801. OSF-60A Test Well at Yeehaw Junction, FL.

LOCATION.--Lat 27° 41' 49", long 80° 53' 48", in SW¹/₄ NW¹/₄ NE¹/₄ sec.4, T.32 S., R.34 E., Hydrologic Unit 03080101, at the northeast corner of the intersection of State Highway 91 (Florida Turnpike) and State Highway 60 at Yeehaw Junction, FL. Owner: South Florida Water Management District.

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

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 8 in., depth 590 ft, cased to 325 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 60.22 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.85 ft above land-surface datum. Prior to October 2004 at elevation 1.85 ft lower.

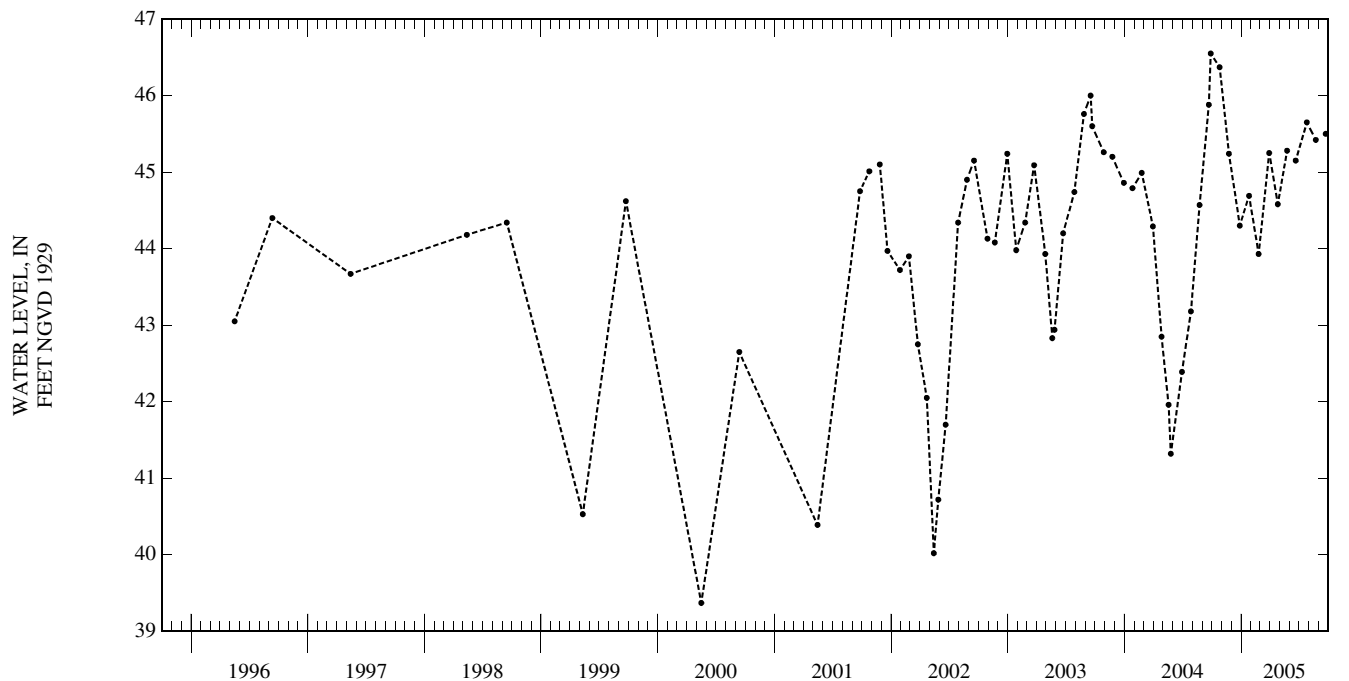
REMARKS.--A 3.09 ft correction was added to all measurements made prior to October 2004 due to corrected land-surface datum.

PERIOD OF RECORD.--October 1992 to September 1995 (monthly); May 1996 to September 2001 (semiannually); October 2001 to September 2005 (monthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.55 ft above NGVD of 1929, Sept. 27, 2004; lowest measured, 39.37 ft above NGVD of 1929, May 16, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	46.37	DEC 27	44.30	FEB 24	43.93	APR 25	44.58	JUN 20	45.15	AUG 22	45.42
NOV 23	45.24	JAN 25	44.69	MAR 29	45.25	MAY 24	45.28	JUL 25	45.65	SEP 22	45.50
WATER YEAR 2005		LOWEST	43.93	FEB 24, 2005	HIGHEST	46.37	OCT 25, 2004				



OSCEOLA COUNTY—Continued

WELL NUMBER.--274807081115501. S65 Well near Kenansville, FL.

LOCATION.--Lat 27° 48'07", long 81° 11'55", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.31 S., R.31 E., Hydrologic Unit 03080101, on the right bank of the Kissimmee River at lock structure S-65, 8 mi east of Indian Lake Estate, and 14 mi southwest of Kenansville. Owner: South Florida Water Management District.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 850 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

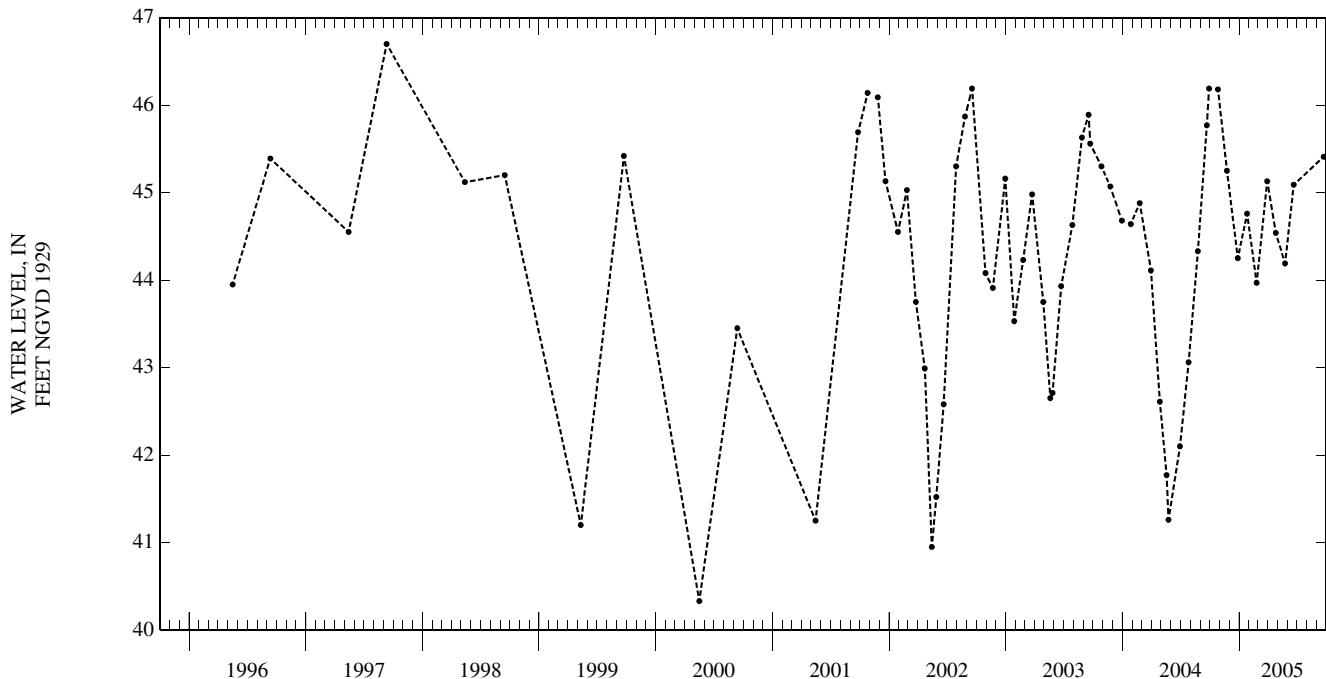
DATUM.--Land-surface datum is 53.86 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.84 ft above land-surface datum.

PERIOD OF RECORD.--May 1983 to September 1992 (semiannually); October 1992 to August 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.39 ft above NGVD of 1929, Sept. 13, 1995; lowest measured, 40.33 ft above NGVD of 1929, May 16, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	46.18	DEC 27	44.25	FEB 24	43.97	APR 25	44.54	JUN 20	45.09
NOV 23	45.25	JAN 25	44.76	MAR 29	45.13	MAY 24	44.19	SEP 22	45.41
WATER YEAR 2005		LOWEST	43.97 FEB 24, 2005	HIGHEST	46.18 OCT 26, 2004				



OSCEOLA COUNTY—Continued

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 or electric tape.

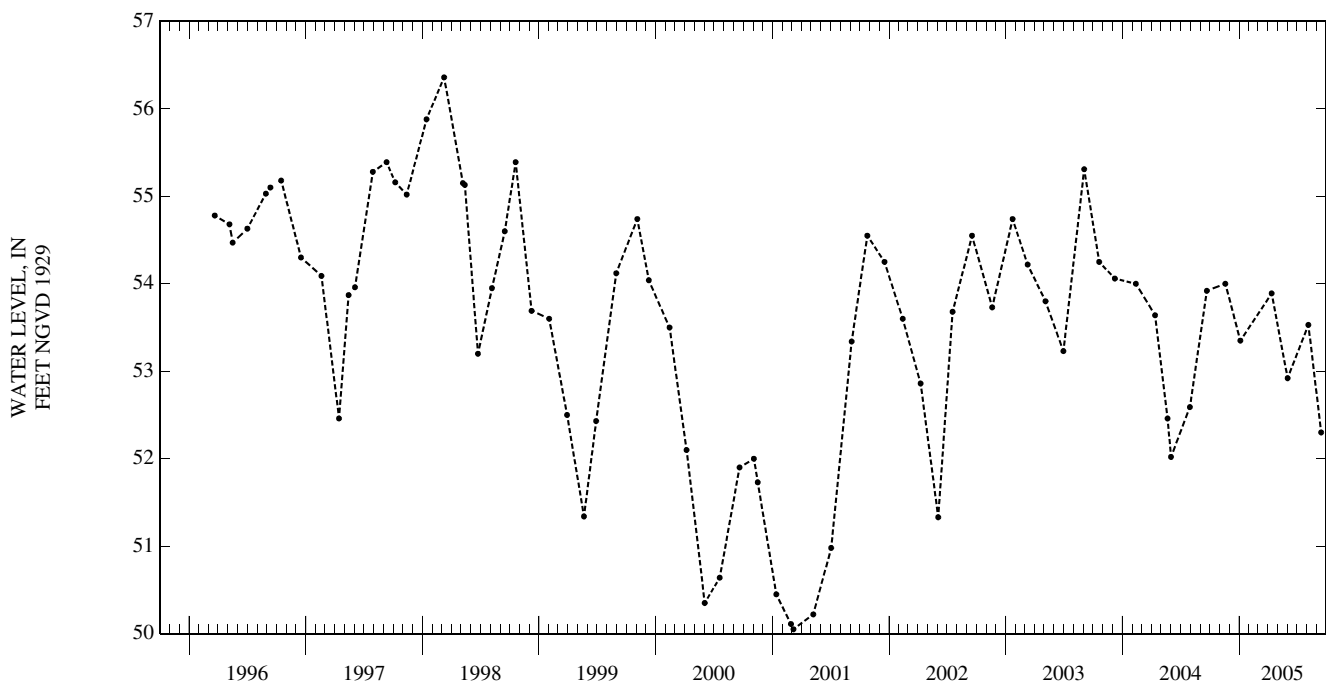
DATUM.--Elevation of land-surface datum is 63.21 ft above NGVD of 1929. Prior to Oct. 1, 1977, datum was considered to be 63.95 ft, Oct. 1, 1977, to Sept. 30, 1978, to be 65.05 ft, and Oct. 1, 1979 to Sept. 30, 1990, to be 62.61 ft above NGVD of 1929. Measuring point: Top of 4 in PVC casing, 1.44 ft above land-surface datum. Prior to January 2005, measuring point was 0.27 ft higher.

PERIOD OF RECORD.--April 1974 to September 1992 (bimonthly); October 1992 to September 1994 (monthly); October 1994 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.83 ft above NGVD of 1929, Sept. 13, 1995; lowest measured, 48.43 ft above NGVD of 1929, present datum, May 8, 1976.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	54.00	JAN 04	53.35	APR 12	53.89	JUN 01	52.92	AUG 05	53.53	SEP 14	52.30
WATER YEAR 2005 LOWEST 52.30 SEP 14, 2005 HIGHEST 54.00 NOV 18, 2004											



OSCEOLA COUNTY—Continued

WELL NUMBER.--275609081132001. Joe Overstreet Well (OSF-4) near St. Cloud, FL.

LOCATION.--Lat 27° 56'09", long 81° 13'20", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.28, T.29 S., R.31 E., Hydrologic Unit 03080101, on south side of Joe Overstreet Road, 5.2 mi southwest of State Highway 523 (Canoe Creek Road), 21 mi southeast of St. Cloud. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 400 ft, cased to 288 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 59.09 ft above NGVD of 1929. Measuring point: Top of sanitary seal, at land-surface datum.

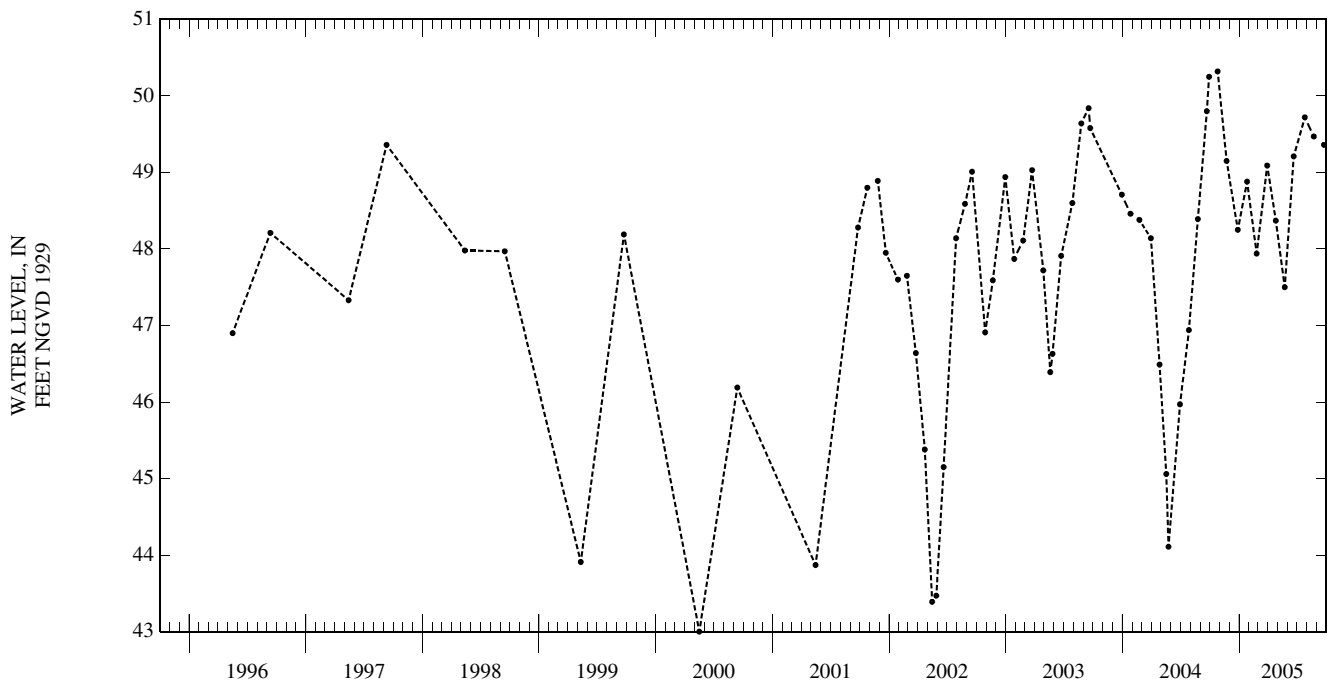
PERIOD OF RECORD.--May 1976 to May 1978 (semiannually); October 1978 to September 1980 (miscellaneous); May 1982 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.32 ft above NGVD of 1929, Oct. 25, 2004; lowest measured, 41.94 ft above NGVD of 1929, May 14, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	50.32	DEC 27	48.25	FEB 24	47.94	APR 25	48.37	JUN 20	49.21	AUG 22	49.47
NOV 22	49.15	JAN 25	48.88	MAR 29	49.09	MAY 23	47.50	JUL 25	49.72	SEP 23	49.36

WATER YEAR 2005 LOWEST 47.50 MAY 23, 2005 HIGHEST 50.32 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--275852081030501. TH-10 Williams Road Well near Holopaw, FL.

LOCATION.--Lat 27° 58'52", long 81° 03'05", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.7, T.29 S., R.33 E., Hydrologic Unit 03080101, on eastern bank of pond, 4.4 mi west of intersection of State Highway 441 and Williams Road, 13.7 mi south of Holopaw, FL. 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 405 ft, cased to 242 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 75.30 ft above NGVD of 1929. Measuring point: Top of PVC pipe, 0.24 ft above land-surface datum.

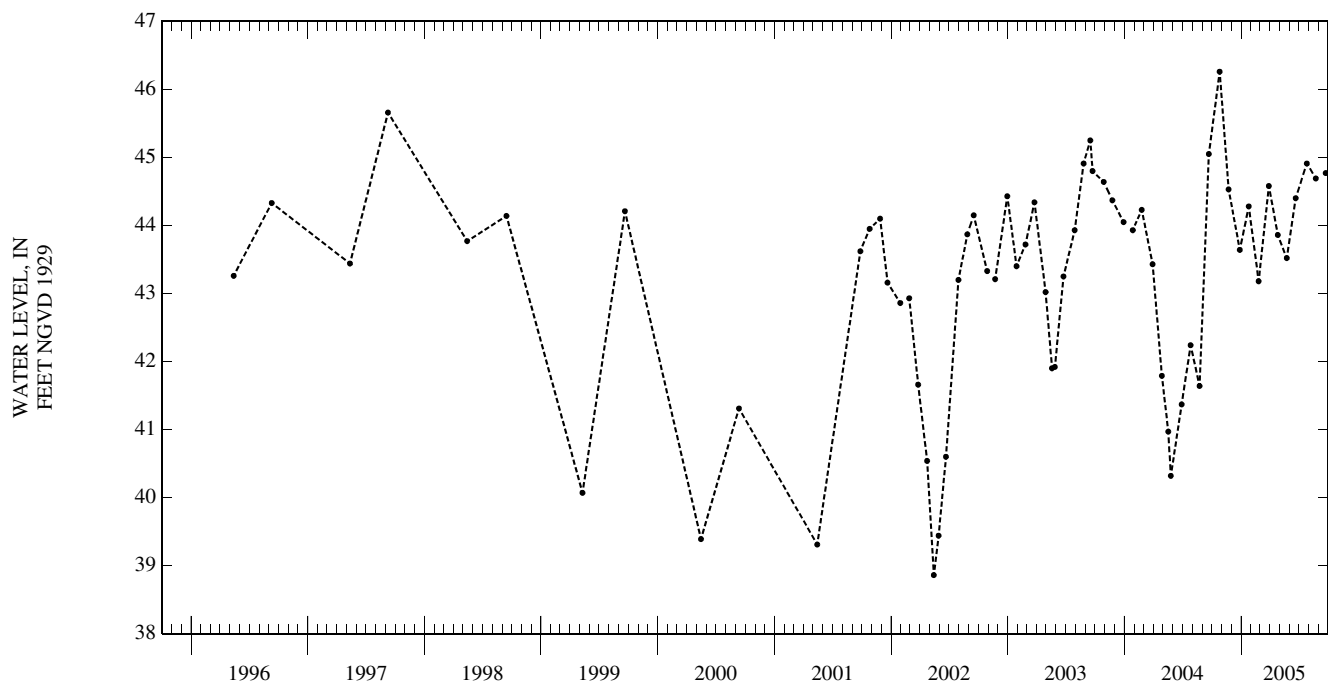
PERIOD OF RECORD.--March 1980 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.48 ft above NGVD of 1929, Sept. 11, 1995; lowest measured, 38.76 ft above NGVD of 1929, May 15, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	46.26	DEC 27	43.64	FEB 24	43.18	APR 25	43.86	JUN 20	44.40	AUG 22	44.69
NOV 22	44.53	JAN 24	44.28	MAR 28	44.58	MAY 23	43.52	JUL 25	44.91	SEP 22	44.77

WATER YEAR 2005 LOWEST 43.18 FEB 24, 2005 HIGHEST 46.26 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--280750081155701. Canoe Creek Road Well near St. Cloud, FL.

LOCATION.--Lat 28° 07' 50", long 81° 15' 57", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.13, T.27 S., R.30 E., Hydrologic Unit 03090101, well is 400 ft east of County Road 523 and 8 mi south of St. Cloud. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 816 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 70 ft above NGVD of 1929. Measuring point: Top of casing 2.30 ft above land-surface datum.

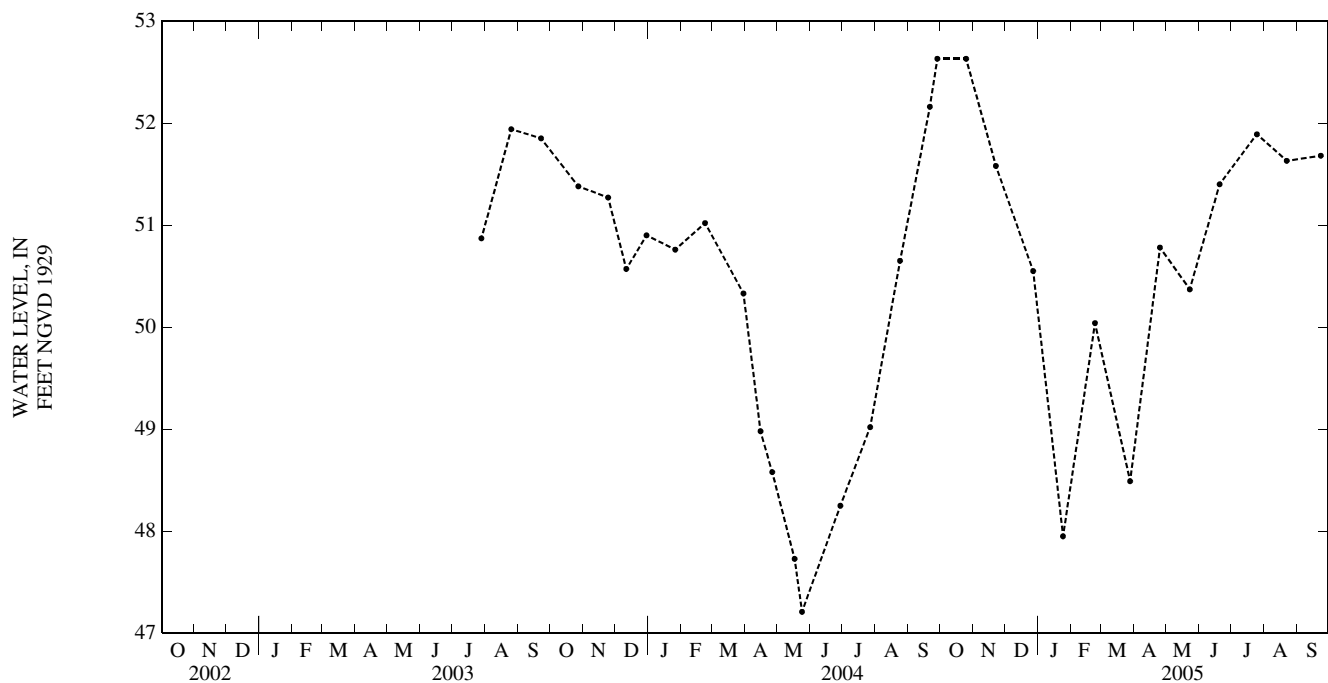
PERIOD OF RECORD.--July 2003 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.63 ft above NGVD of 1929, Sept. 28, Oct. 25, 2004; lowest measured, 47.21 ft above NGVD of 1929, May 24, 2004.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	52.63	DEC 27	50.55	FEB 23	50.04	APR 25	50.78	JUN 20	51.40	AUG 22	51.63
NOV 22	51.58	JAN 24	47.95	MAR 28	48.49	MAY 23	50.37	JUL 25	51.89	SEP 23	51.68

WATER YEAR 2005 LOWEST 47.95 JAN 24, 2005 HIGHEST 52.63 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--280826081031801. Holopaw Test Well No. 1 (OSF-28) near Holopaw, FL.

LOCATION.--Lat 28°08'26", long 81°03'18", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.27 S., R.33 E., Hydrologic Unit 03090101, on south side of U.S. State Highway 192, 1.3 mi east of U.S. 441 and State Highway 192 intersection, 1.3 mi northeast of Holopaw. Owner: South Brevard Water Authority.

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

WELL CHARACTERISTICS.--Drilled, unused, test well, artesian well, diameter 10 in., depth 1097 ft, casing length 322 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 70.06 ft above NGVD of 1929. Measuring point: Top of casing 3.01 ft above land-surface datum.

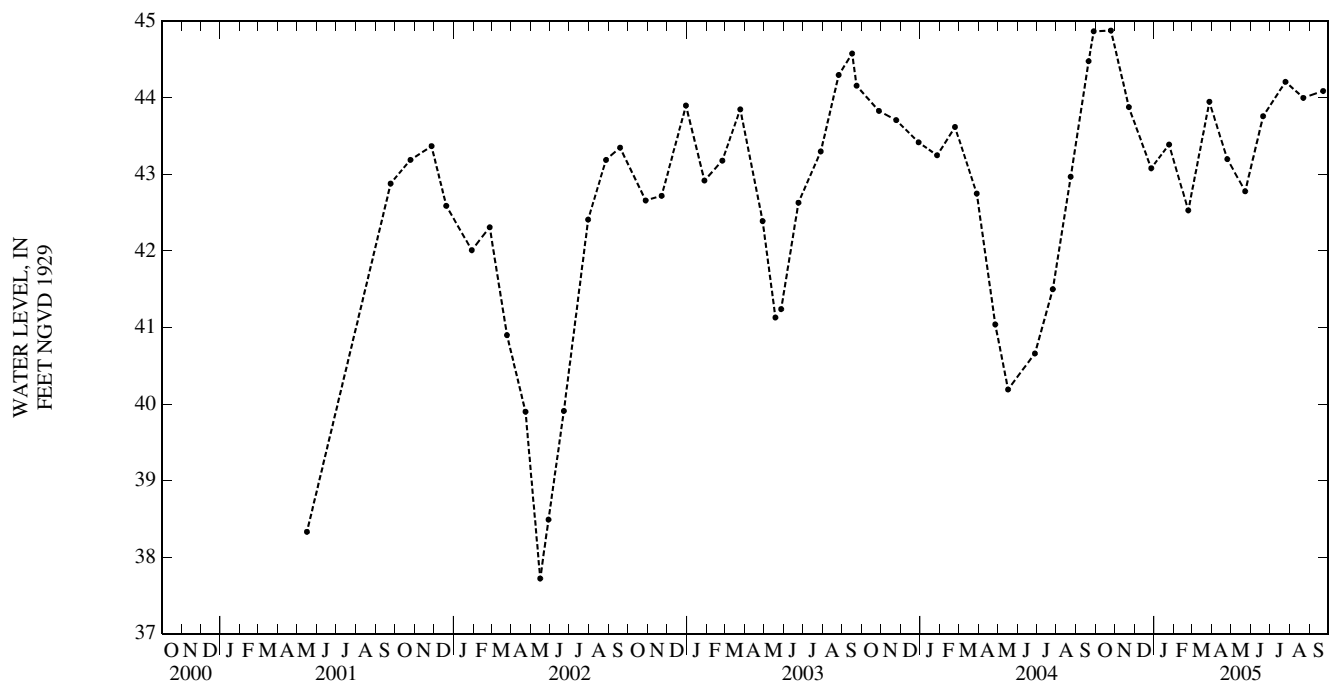
PERIOD OF RECORD.--August 1987 to September 1990; May 1991 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to May 1996, May 2000 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.89 ft above NGVD of 1929, Sept. 15, 1995; lowest measured, 37.26 ft above NGVD of 1929, May 17, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	44.88	DEC 27	43.08	FEB 23	42.53	APR 25	43.20	JUN 20	43.76	AUG 22	44.00
NOV 22	43.88	JAN 24	43.39	MAR 28	43.95	MAY 23	42.78	JUL 25	44.21	SEP 22	44.09

WATER YEAR 2005 LOWEST 42.53 FEB 23, 2005 HIGHEST 44.88 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--280905081270101. Reedy Creek Overlook Well (OSF-11) near Deer Park, FL.

LOCATION.--Lat 28°09'05", long 81°27'01", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.9, T.28 S., R.29 E., Hydrologic Unit 03080101, on Ranch Road, 0.8 mi east of State Highway 419 and 5.5 mi north of Deer Park. Owner: Deseret Ranch.

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

WELL CHARACTERISTICS.--Drilled, unused, observation, diameter 6 in., depth 398 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.57 ft above NGVD of 1929. Measuring point: Top of 6 inch casing, 3.05 ft above land-surface datum.

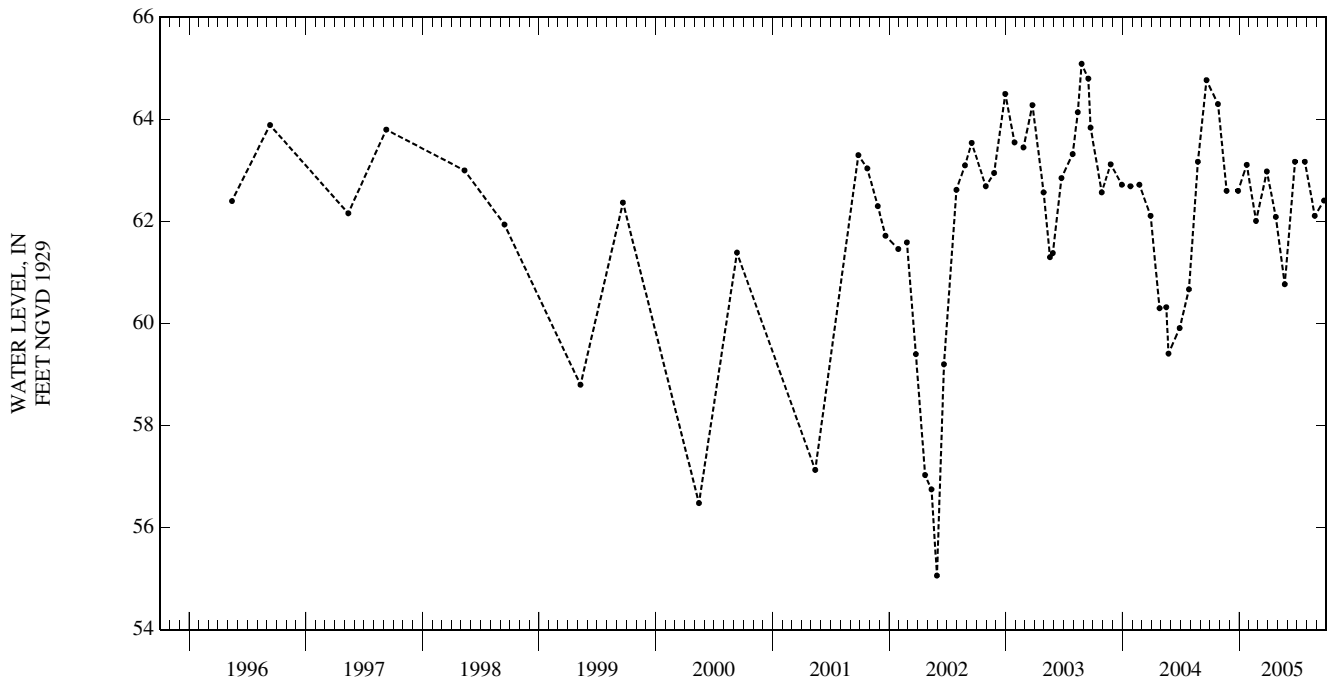
PERIOD OF RECORD.--May 1976 to May 1992 (semiannually); September 1992 to September 1994 (monthly); May 1996 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.50 ft above NGVD of 1929, Sept. 15, 1982; lowest measured, 55.06 ft above NGVD of 1929, May 30, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	64.30	DEC 28	62.60	FEB 22	62.01	APR 25	62.09	JUN 24	63.17	AUG 25	62.11
NOV 22	62.60	JAN 24	63.11	MAR 28	62.98	MAY 23	60.77	JUL 25	63.17	SEP 23	62.41

WATER YEAR 2005 LOWEST 60.77 MAY 23, 2005 HIGHEST 64.30 OCT 26, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--281429081290501. Mercantile Lane (OS254) near Kissimmee, FL.

LOCATION.--Lat 28° 14'29", long 81° 29'05", in NE¹/₄SE¹/₄NW¹/₄ sec. 11, T.26 S., R.28 E., Hydrologic Unit 03080101, 600 ft east of South Poinciana Blvd., 0.9 mi south of U.S. Highway 17-92 and 6.2 mi southwest of Kissimmee. Owner: Domestic Well.

AQUIFER.--Hawthorn limestone aquifer of the Miocene Series, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, 6 in. steel casing, depth 328 ft, cased to 110 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

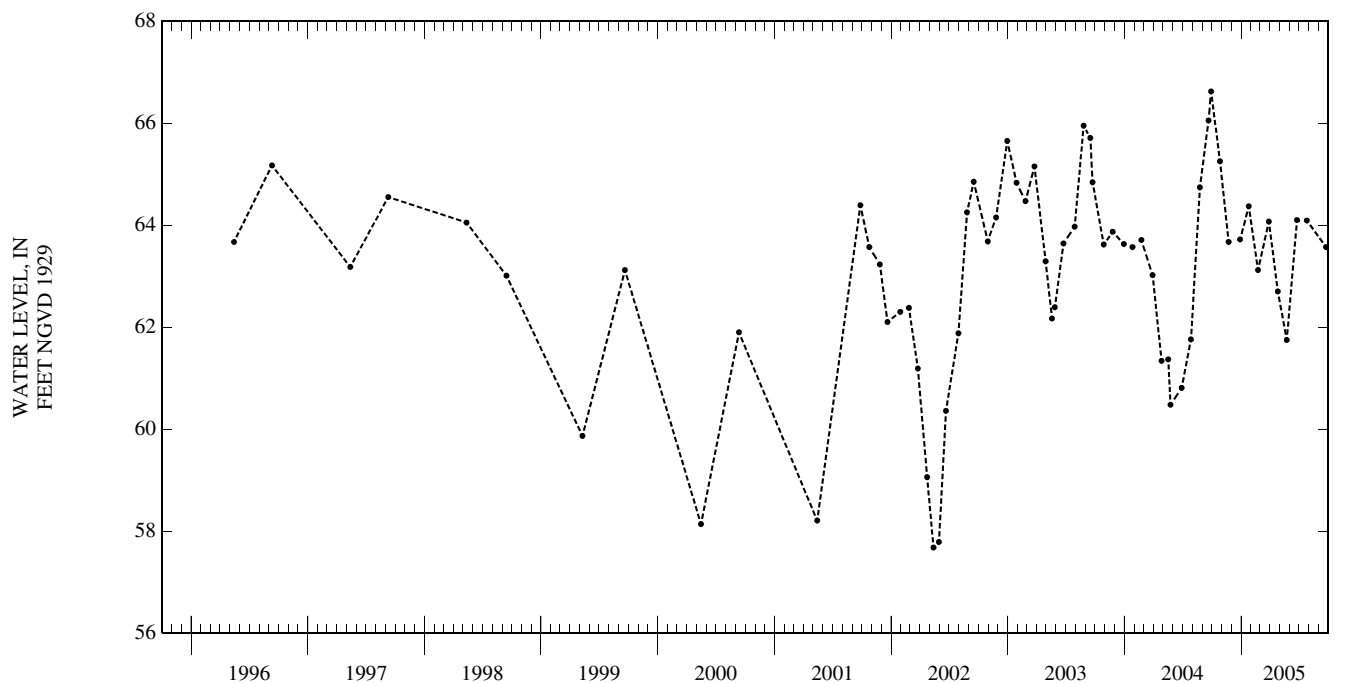
DATUM.--Elevation of land-surface datum is 77.65 ft above NGVD of 1929. Measuring point: Top of 6 in. casing, 1 ft above land-surface datum.

PERIOD OF RECORD.--January 1973 to May 1974; May 1974 to September 1992 (semiannually); September 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.42 ft above NGVD of 1929, Feb. 23, 1973; lowest measured, 57.68 ft above NGVD of 1929, May 13, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	65.25	DEC 28	63.72	FEB 22	63.12	APR 25	62.70	JUN 24	64.10	SEP 23	63.57
NOV 22	63.67	JAN 24	64.37	MAR 28	64.07	MAY 23	61.75	JUL 25	64.09		
WATER YEAR 2005		LOWEST	61.75	MAY 23, 2005	HIGHEST	65.25	OCT 26, 2004				



OSCEOLA COUNTY—Continued

WELL NUMBER.--281443081140501. Ashton Forestry Tower Well at Ashton, FL.

LOCATION.--Lat 28° 14'43", long 81° 14'05", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T.26 S., R.31 E., Hydrologic Unit 03090101, located 301 ft south of U.S. Highway 192, 0.5 mi east of State Highway 15 at Forestry Tower in Ashton. Owner: U.S. Forestry Department.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in, depth 400 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

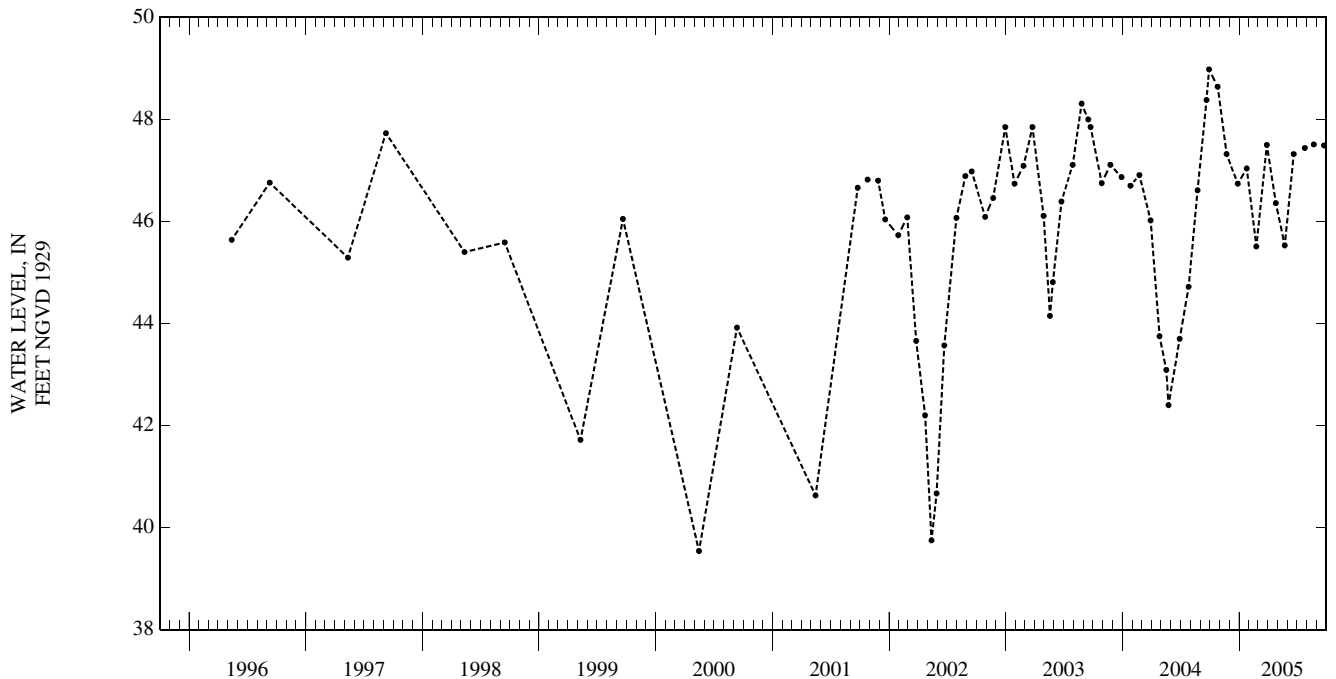
DATUM.--Elevation of land-surface datum is 74.79 ft above NGVD of 1929. Measuring point: Top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--May 1973 to November 1979 (about thrice yearly); September 1980 to September 1992 (semiannually); February 1993 to September 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.10 ft above NGVD of 1929, Nov. 5, 1973; lowest measured, 39.54 ft above NGVD of 1929, May 15, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	48.64	DEC 27	46.74	FEB 23	45.51	APR 25	46.36	JUN 20	47.32	AUG 22	47.51
NOV 22	47.32	JAN 24	47.04	MAR 28	47.50	MAY 23	45.53	JUL 25	47.44	SEP 23	47.49
WATER YEAR 2005 LOWEST 45.51 FEB 23, 2005 HIGHEST 48.64 OCT 25, 2004											



OSCEOLA COUNTY—Continued

WELL NUMBER.--281559081260701. Shingle Creek Well at State Highway 531A near Kissimmee, FL.

LOCATION.--Lat 28° 15' 59", long 81° 26' 07", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T.25 S., R.29 E., Hydrologic Unit 03080101, 365 ft east of Shingle Creek Road (State Highway 531A), 0.4 mi north of U.S. Highway 17-92 and 2.2 mi southwest of Kissimmee. 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 200 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 59.98 ft above NGVD of 1929. Measuring point: Top of casing, 0.8 ft above land-surface datum.

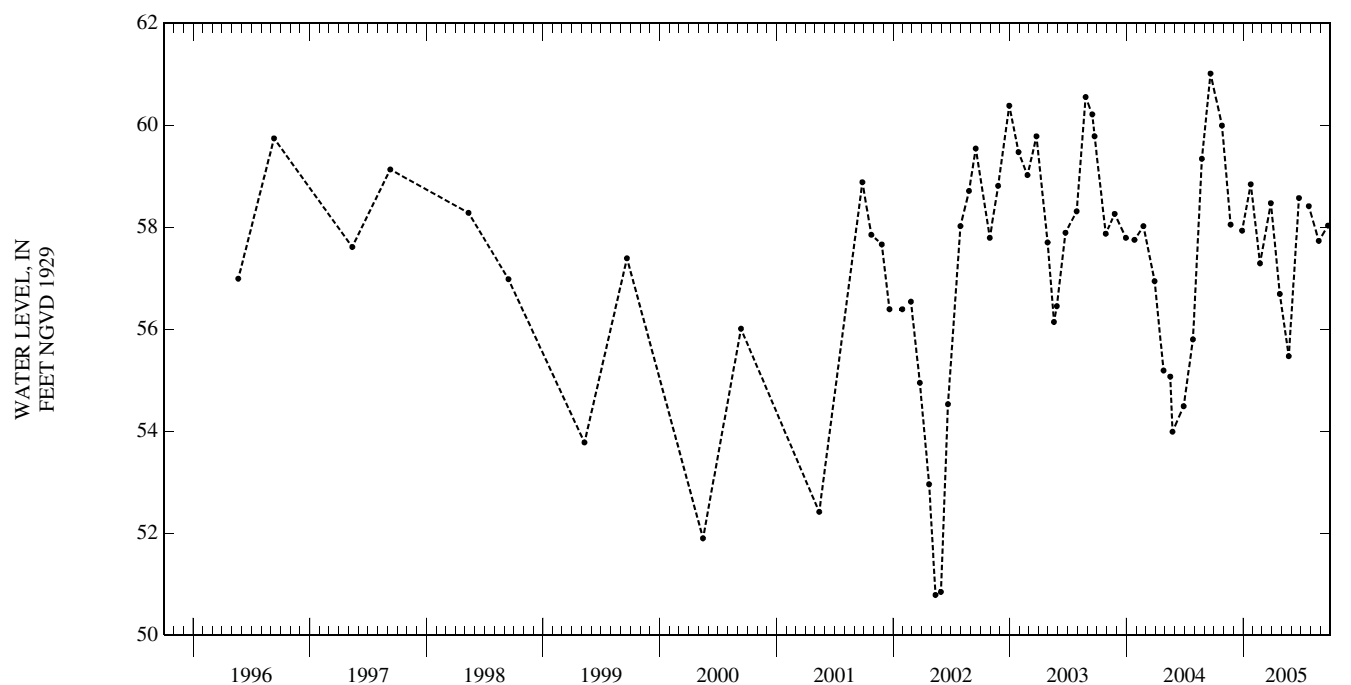
PERIOD OF RECORD.--March 1978 to September 1979 (monthly); May 1979 to September 1992 (semiannually); September 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.50 ft above NGVD of 1929, Sept. 15, 1982; lowest measured, 50.79 ft above NGVD of 1929, May 13, 2002.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	59.99	DEC 28	57.93	FEB 22	57.29	APR 25	56.69	JUN 24	58.57	AUG 25	57.73
NOV 22	58.05	JAN 24	58.84	MAR 28	58.47	MAY 23	55.47	JUL 25	58.41	SEP 23	58.03

WATER YEAR 2005 LOWEST 55.47 MAY 23, 2005 HIGHEST 59.99 OCT 26, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--281630080591001. TH-3 Lake Poinsett SW near New Eden, FL.

LOCATION.--Lat 28° 16'30", long 80° 59'10", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.25 S., R.33 E., Hydrologic Unit 03090101, 40 ft north of County Road 532, 3.9 mi west of intersection of County Road 532 and County Road 419, and 8.7 mi east of New Eden. 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 360 ft, cased to 246 ft.

INSTRUMENTATION.--Monthly measurements with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 59.68 ft above NGVD of 1929. Measuring point: 1.0 ft below land-surface datum. Prior to Sept. 23, 2003, measuring point at land-surface datum.

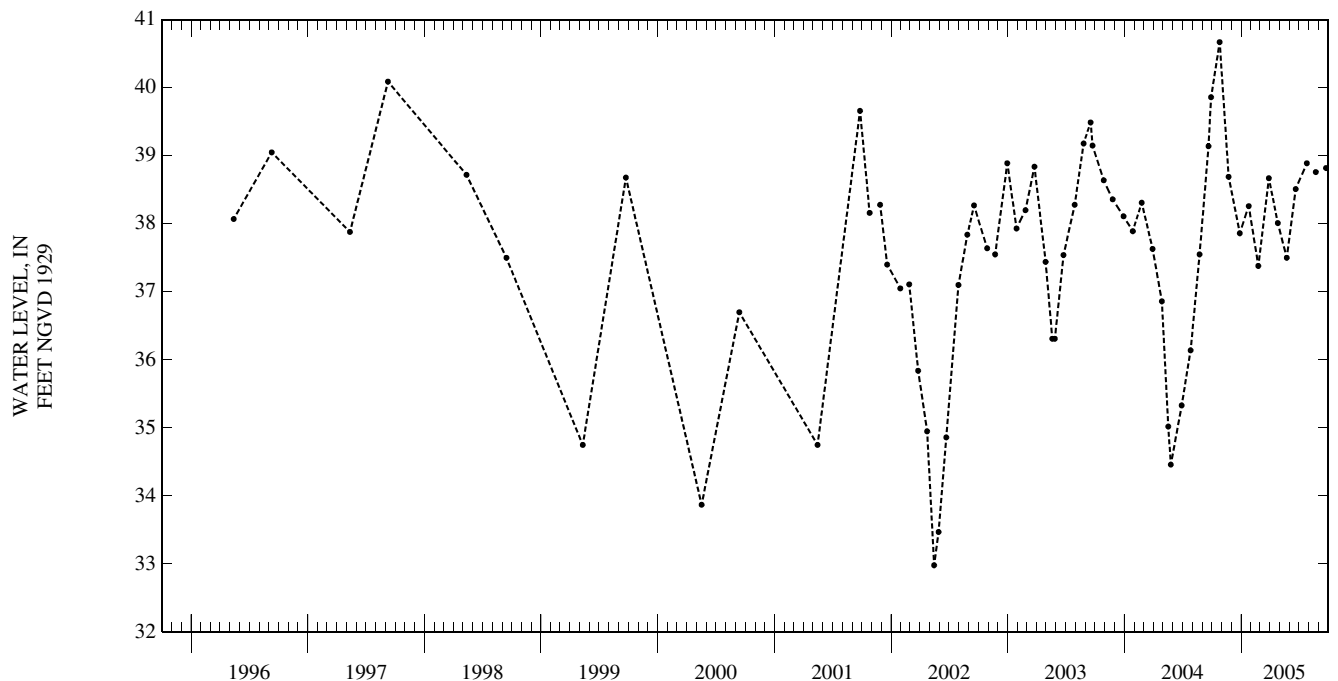
PERIOD OF RECORD.--December 1979 to September 1982, May 1984 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.06 ft above NGVD of 1929, Sept. 11, 1995; lowest measured, 32.24 ft above NGVD of 1929, May 13, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	40.67	DEC 27	37.86	FEB 23	37.38	APR 25	38.01	JUN 20	38.51	AUG 22	38.76
NOV 22	38.69	JAN 24	38.26	MAR 28	38.67	MAY 23	37.50	JUL 25	38.89	SEP 23	38.82

WATER YEAR 2005 LOWEST 37.38 FEB 23, 2005 HIGHEST 40.67 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--281630081024401. TH-9 Nova Road 532 west (OSF-93) near New Eden, FL.

LOCATION.--Lat 28° 16'30", long 81° 02'44", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.29, T.25 S., R.33 E., Hydrologic Unit 03090101, 20 ft north of County Road 532, 7.9 mi west of the intersection of County Road 532 and County Road 419 and 8.2 mi east of New Eden. 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 405 ft, cased to 288 ft.

INSTRUMENTATION.--Monthly measurements with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 76.79 ft above NGVD of 1929. Measuring point: Top of casing 3.31 ft above land-surface datum.

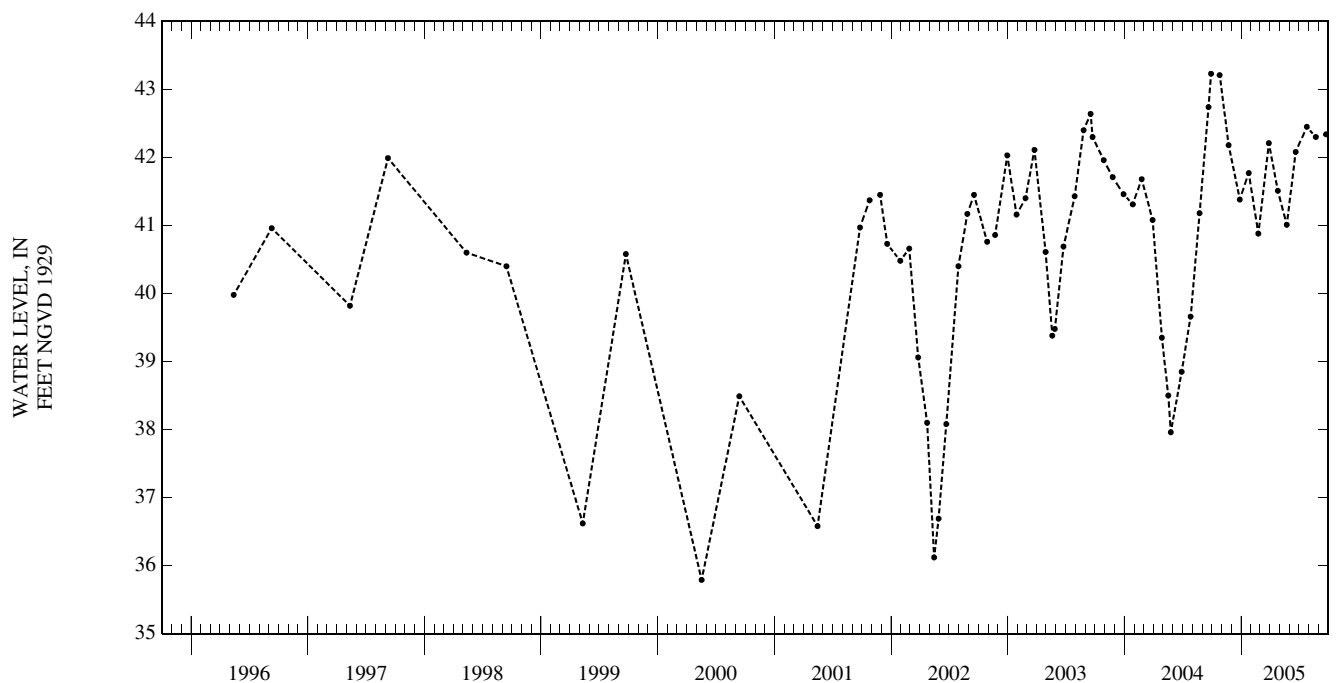
PERIOD OF RECORD.--September 1980 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.23 ft above NGVD of 1929, Sept. 28, 2004; lowest measured, 35.43 ft above NGVD of 1929, May 13, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	43.21	DEC 27	41.38	FEB 23	40.88	APR 25	41.51	JUN 20	42.08	AUG 22	42.30
NOV 22	42.18	JAN 24	41.77	MAR 28	42.21	MAY 23	41.01	JUL 25	42.45	SEP 23	42.34

WATER YEAR 2005 LOWEST 40.88 FEB 23, 2005 HIGHEST 43.21 OCT 25, 2004



OSCEOLA COUNTY—Continued

WELL NUMBER.--281714081093001. Lake Joel Well near Ashton, FL.

LOCATION.--Lat 28° 17'14", long 81° 09'30", in SW¹/₄NW¹/₄NW¹/₄ 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.--Water-stage recorder--60-minute interval.

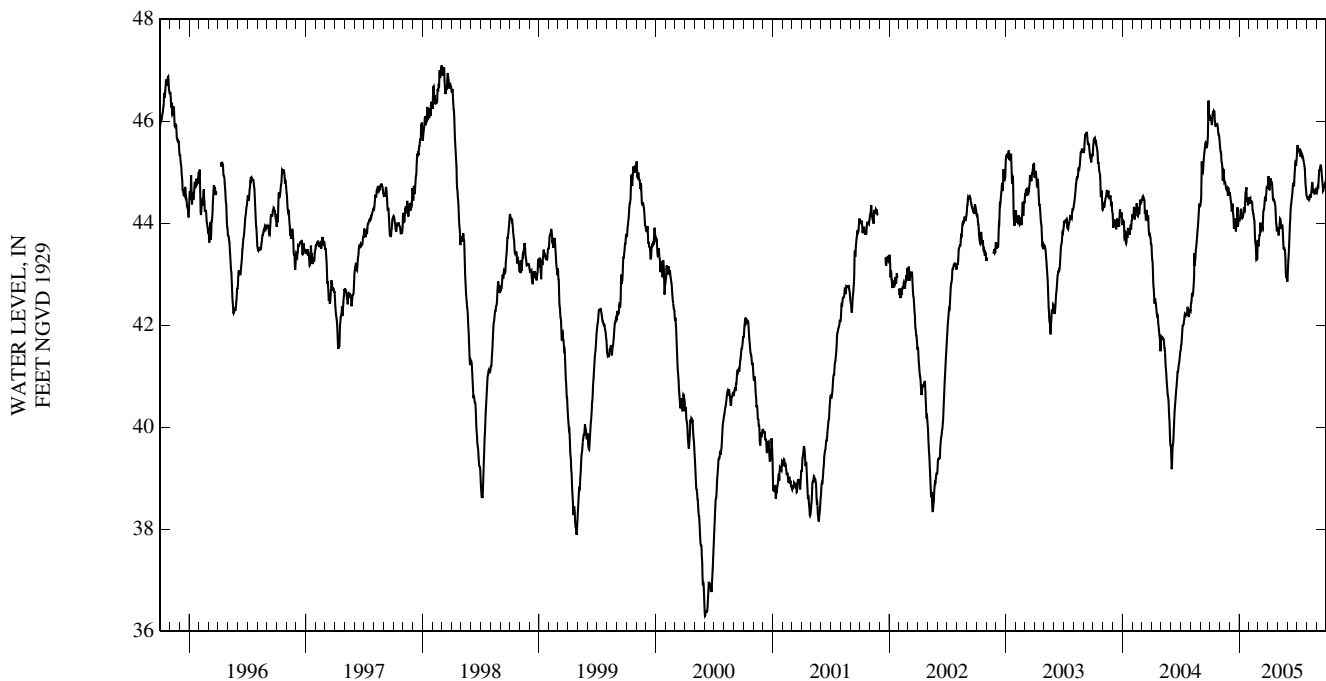
DATUM.--Elevation of land-surface datum is 64.78 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1969, May 1973 to November 1975 (bimonthly); December 1975 to current year. Prior to October 1977, published as (OS 213), Gulf American Co.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft above NGVD of 1929, Nov. 20, 1969; lowest daily maximum water level, 36.30 ft above NGVD of 1929, June 3, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.99	45.35	44.44	44.23	44.41	43.78	44.66	43.87	43.51	45.43	44.47	44.72
10	46.15	44.83	44.38	44.13	44.40	43.86	44.77	44.04	44.26	45.42	44.56	45.06
15	46.20	44.80	43.89	44.29	44.11	43.88	44.57	43.97	44.56	45.36	44.64	45.03
20	45.93	44.70	44.00	44.59	43.61	44.35	44.43	43.51	44.74	45.25	44.59	44.63
25	45.90	44.69	44.13	44.45	43.29	44.52	44.10	43.28	45.19	45.06	44.58	44.75
EOM	45.63	44.58	44.07	44.45	43.60	44.72	43.89	42.85	45.37	44.53	44.59	44.84
MAX	46.20	45.56	44.60	44.70	44.49	44.73	44.92	44.09	45.37	45.53	44.80	45.13



OSCEOLA COUNTY—Continued

WELL NUMBER.--281719081134001. South Eagle Road Grove Well at Narcoossee, FL.

LOCATION.--Lat 28° 17' 19", long 81° 13' 40", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 25 S., R. 31 E., Hydrologic Unit 03090101, in orange grove 0.1 mi southwest of South Eagle Road, in Narcoossee. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 474 ft, cased to 239 ft.

INSTRUMENTATION.--Monthly measurements with chalked or electric tape.

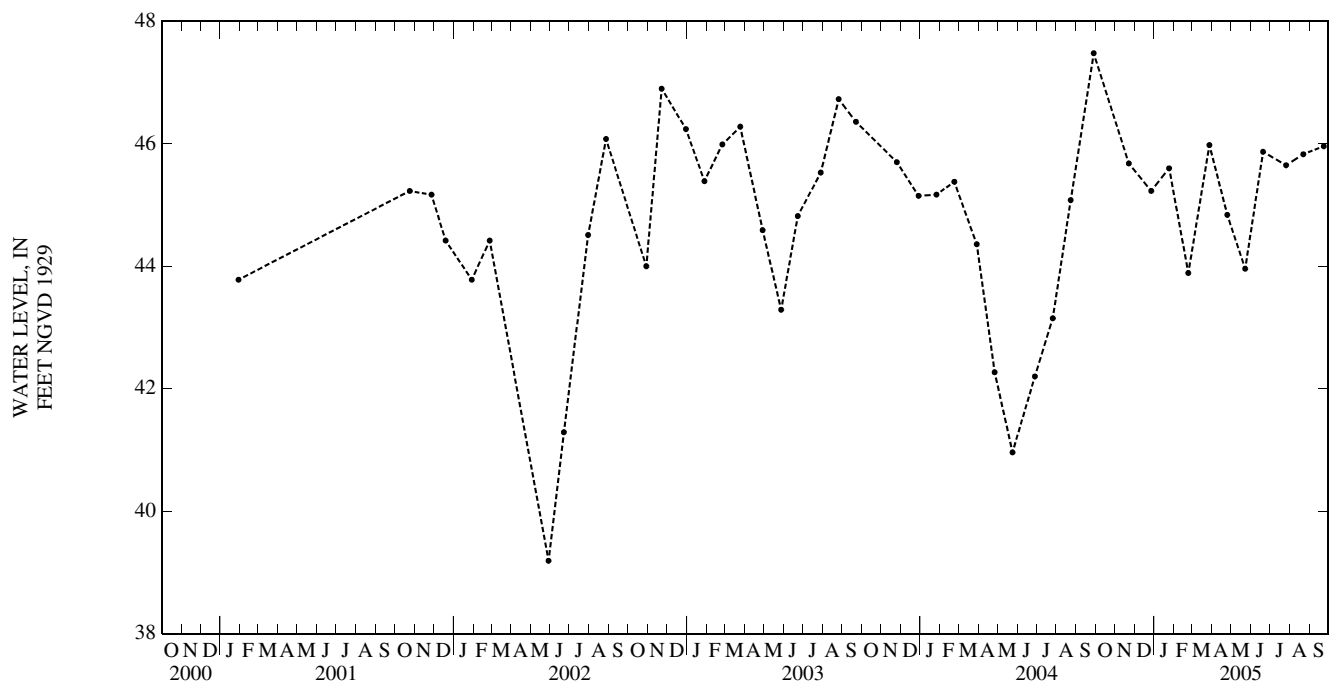
DATUM.--Elevation of land-surface datum is 78.00 ft above NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1979 to September 1992 (semiannually); October 1992 to September 1994 (monthly); May 1995 to May 1996 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.88 ft above NGVD of 1929, May 15, 1980; lowest measured, 38.44 ft above NGVD of 1929, May 18, 1995.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 22	45.68	JAN 24	45.60	MAR 28	45.98	MAY 23	43.96	JUL 26	45.65	SEP 23	45.96
DEC 27	45.23	FEB 23	43.89	APR 25	44.84	JUN 20	45.87	AUG 22	45.83		
WATER YEAR 2005 LOWEST 43.89 FEB 23, 2005 HIGHEST 45.98 MAR 28, 2005											



OSCEOLA COUNTY—Continued

WELL NUMBER.--281722080543001. OS-171 Well near Deer Park, FL.

LOCATION.--Lat 28° 17' 22", long 80° 54' 30", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

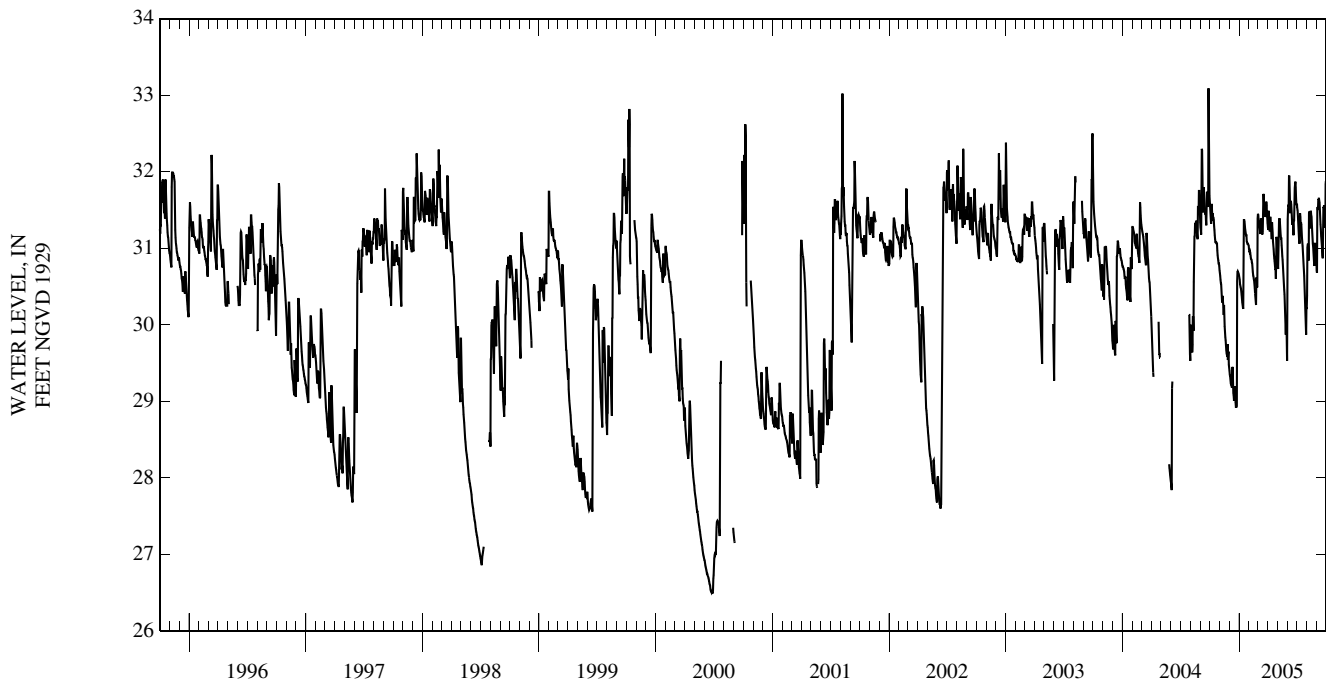
DATUM.--Elevation of land-surface datum is 31.60 ft above NGVD of 1929. Measuring point: Top of casing, 3.32 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.56 ft above NGVD of 1929, Sept. 23, 1960; lowest, 26.32 ft above NGVD of 1929, July 28, 1981.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.38	30.53	29.24	30.49	30.90	31.29	31.28	31.39	31.94	31.26	30.89	31.63
10	31.40	30.34	29.45	30.29	30.80	31.38	31.24	31.17	31.46	31.46	31.34	31.49
15	31.24	30.10	29.02	31.37	30.60	31.22	31.20	30.90	31.31	31.23	31.41	31.10
20	31.09	29.74	28.99	31.22	30.36	31.47	30.87	30.56	31.37	30.86	31.02	31.11
25	30.91	29.75	30.57	31.08	30.50	31.50	30.60	30.02	31.87	30.45	31.06	31.39
EOM	30.71	29.44	30.64	30.99	31.45	31.28	30.86	30.41	31.58	30.22	30.71	31.69
MAX	31.58	30.68	30.70	31.37	31.45	31.71	31.49	31.39	31.95	31.53	31.49	31.88



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

OSCEOLA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
274307080582401	05-24-05 09-22-05	0714 0915	OSF-42	45.88 46.12
274944080573302	05-23-05 09-22-05	1509 1031	OS 231 CAMPBELL RANCH NR KENANSVILLE, FL	44.58 45.78
280036080563801	09-22-05	1312	OS-0019 BULL CR LOOP RD	43.76
280829080574001	05-31-05	0732	808057 27S34E18 TH-6 DEER PARK NW	46.38
281023081075401	05-23-05 09-23-05	1100 1440	OSF-68 TEST WELL	43.04 43.38
281105080541401	05-31-05 09-23-05	0757 1703	811054-- 26S34E34 RODEO FIELD DEER PARK NW	36.16 39.46
281146081211701	05-23-05 09-23-05	0910 0850	CECIL WHALEY WELL	48.48 52.04
281354080563301	05-31-05 09-23-05	0837 1235	813056 26S34E08 TH-4 DEER PARK NW	35.61 41.80
281456081171701	05-23-05 09-23-05	0939 0913	ST.CLOUD POWER PLANT WELL	46.31 48.76
281632080515001	05-31-05 09-23-05	0645 1149	DSR-38 LAKE POINSETT NR ROCKLEDGE, FL	38.03 39.73
281937081245901	05-23-05 09-23-05	0623 0604	81912401 25S29E09 OS U.L	39.09 45.52

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 20
PASCO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	281654082065901	236
2	282259082104101	237

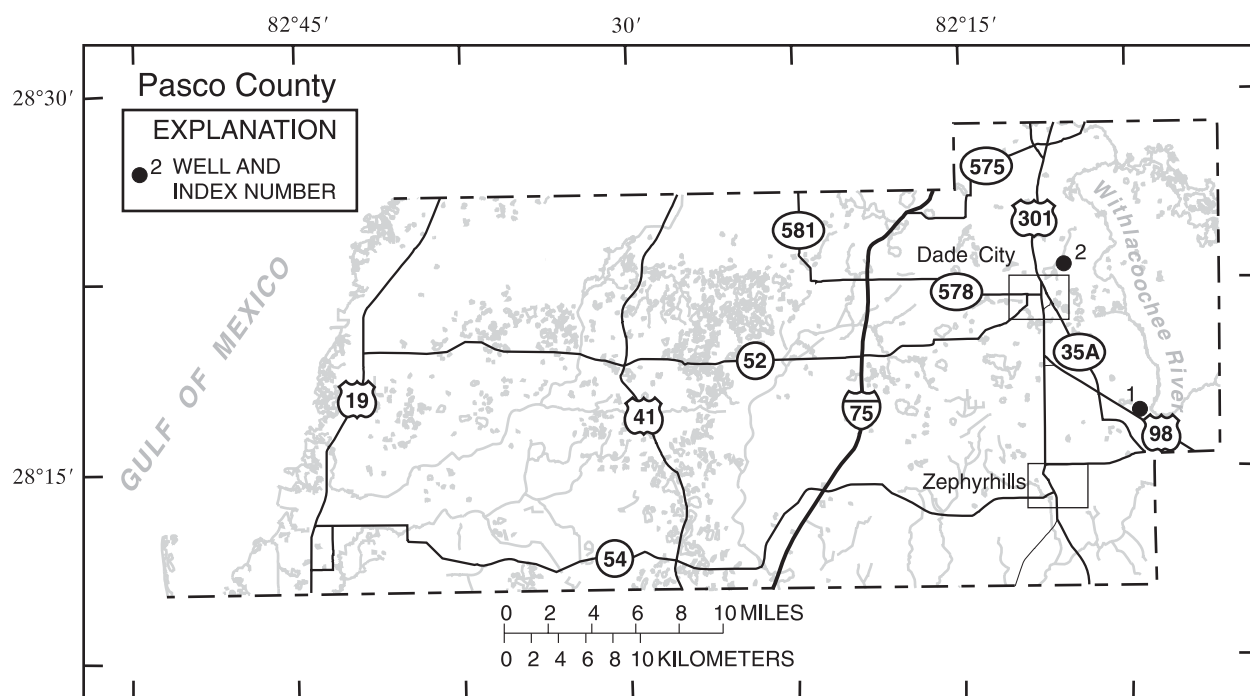


Figure 20.--Location of wells in Pasco County.

PASCO COUNTY

WELL NUMBER.--281654082065901. U.S. Highway 98 Well near Dade City, FL.

LOCATION.--Lat 28°16'54", long 82°06'59", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 or electric tape.

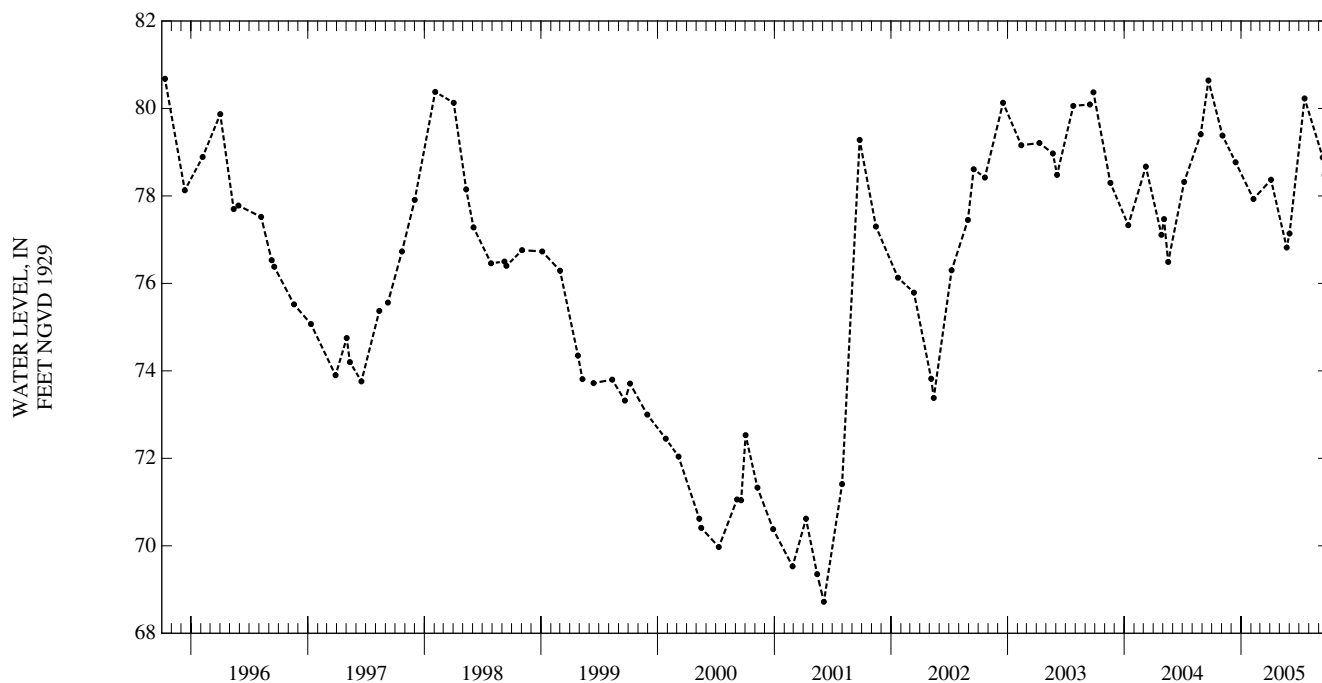
DATUM.--Elevation of land-surface datum is 83.77 ft above NGVD of 1929. Measuring point: Top of casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1976, January 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.68 ft above NGVD of 1929, Oct. 11, 1995; lowest measured, 68.72 ft above NGVD of 1929, June 4, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	79.38	FEB 08	77.93	MAY 23	76.82	JUL 18	80.23	SEP 19	78.47
DEC 14	78.77	APR 04	78.37	JUN 01	77.14	SEP 13	78.88		
WATER YEAR 2005		LOWEST	76.82	MAY 23, 2005	HIGHEST	80.23	JUL 18, 2005		



PASCO COUNTY—Continued

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.--Water-stage recorder and data-collection platform--30 minute interval.

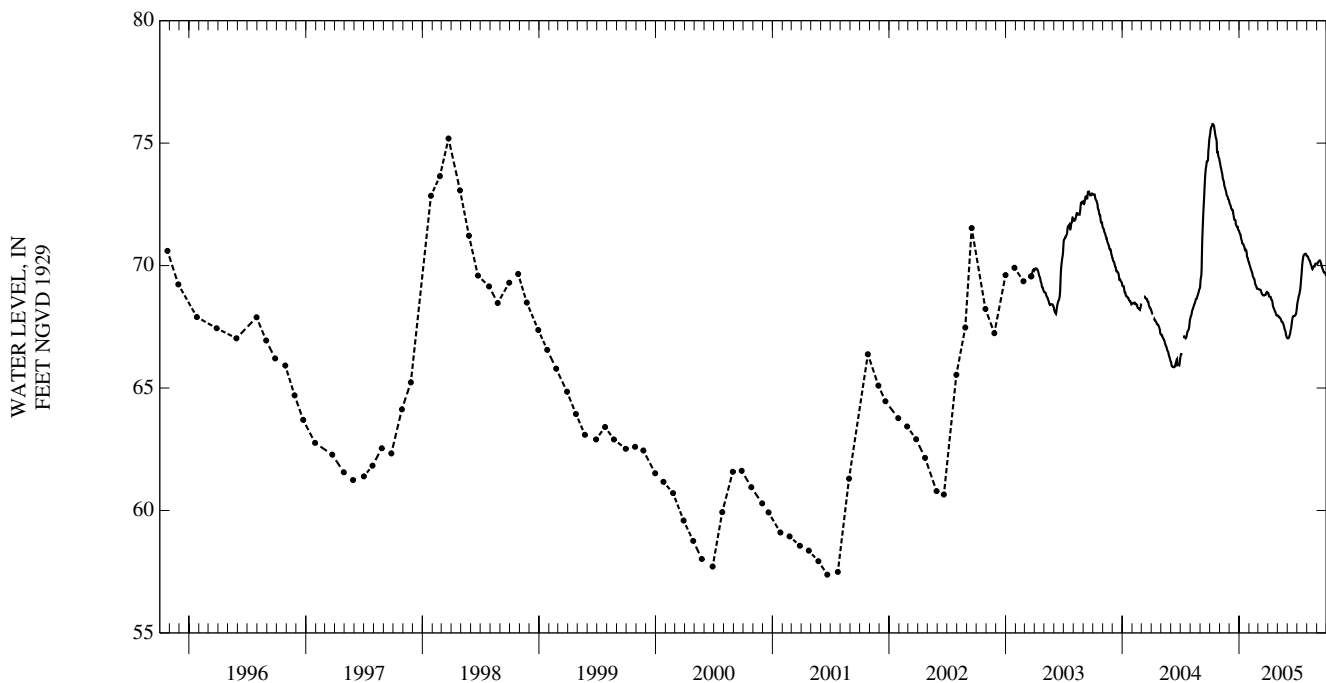
DATUM.--Elevation of land-surface datum is 73.81 ft above NGVD of 1929. Measuring point: Top edge of flange on casing, 4.13 ft above land-surface datum.

PERIOD OF RECORD.--April 1973 to September 1992; October 1992 to February 2003 (monthly), March 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 75.78 ft above NGVD of 1929, Oct. 9, 10, 2004; lowest measured, 57.38 ft above NGVD of 1929, June 21, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.65	73.97	72.44	71.26	69.90	69.02	68.73	67.89	67.05	68.68	70.32	70.14
10	75.78	73.58	72.27	70.91	69.72	68.95	68.67	67.84	67.31	68.97	70.18	70.21
15	75.57	73.27	71.96	70.82	69.49	68.81	68.49	67.70	67.74	69.67	69.97	70.02
20	75.20	73.05	71.85	70.66	69.23	68.78	68.23	67.55	67.93	70.34	69.91	69.81
25	74.68	72.82	71.56	70.36	69.07	68.83	68.05	67.34	67.98	70.47	69.97	69.71
EOM	74.28	72.64	71.42	70.15	69.05	68.89	67.96	67.05	68.26	70.40	70.08	69.60
MAX	75.78	74.22	72.57	71.37	70.07	69.05	68.86	67.96	68.26	70.48	70.39	70.21



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

PASCO COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
281942082112801	05-23-05 09-19-05	1100 1035	MUNBURY DR WELL AT DADE CITY, FL	66.47 69.58
282121082071101	05-23-05 09-19-05	1135 1105	82120702 24S22E32 CUMMER OFFICE WELL	73.21 75.45
282154082142401	05-23-05 09-19-05	1040 1010	82121401 24S21E30 HAYCRAFT WELL	68.63 72.06
282221082103001	05-23-05 09-19-05	1155 1125	82221001 24S21E26 COLLURA WELL NO. 1	67.87 70.84
282428082134501	05-23-05 09-19-05	1015 0955	82421301 24S21E08 LEE WELL	66.06 69.48
282430082112101	05-23-05 09-19-05	0958 0918	82421102 24S21E10 SELF WELL	65.10 68.54
282717082142001	05-23-05 09-19-05	0933 0855	82721401 23S21E30 ROSSINI WELL WEST OF TRILBY	57.63 61.12
282816082123701	05-23-05 09-19-05	0917 0845	82821201 23S21E21 TOMKOW HAY BARN WELL	52.47 55.60

KEY TO SITE LOCATIONS ON FIGURE 21
POLK COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	274812081190301	242
2	274815081130301	243
3	274846081262001	244
4	275135081252601	245
5	275634081211901	245
6	280503081552801	246
7	280531081431601	247
8	280556081532601	248
9	280715081543501	249
10	281008081441801	250
10	281008081441802	251
11	281202081391701	252

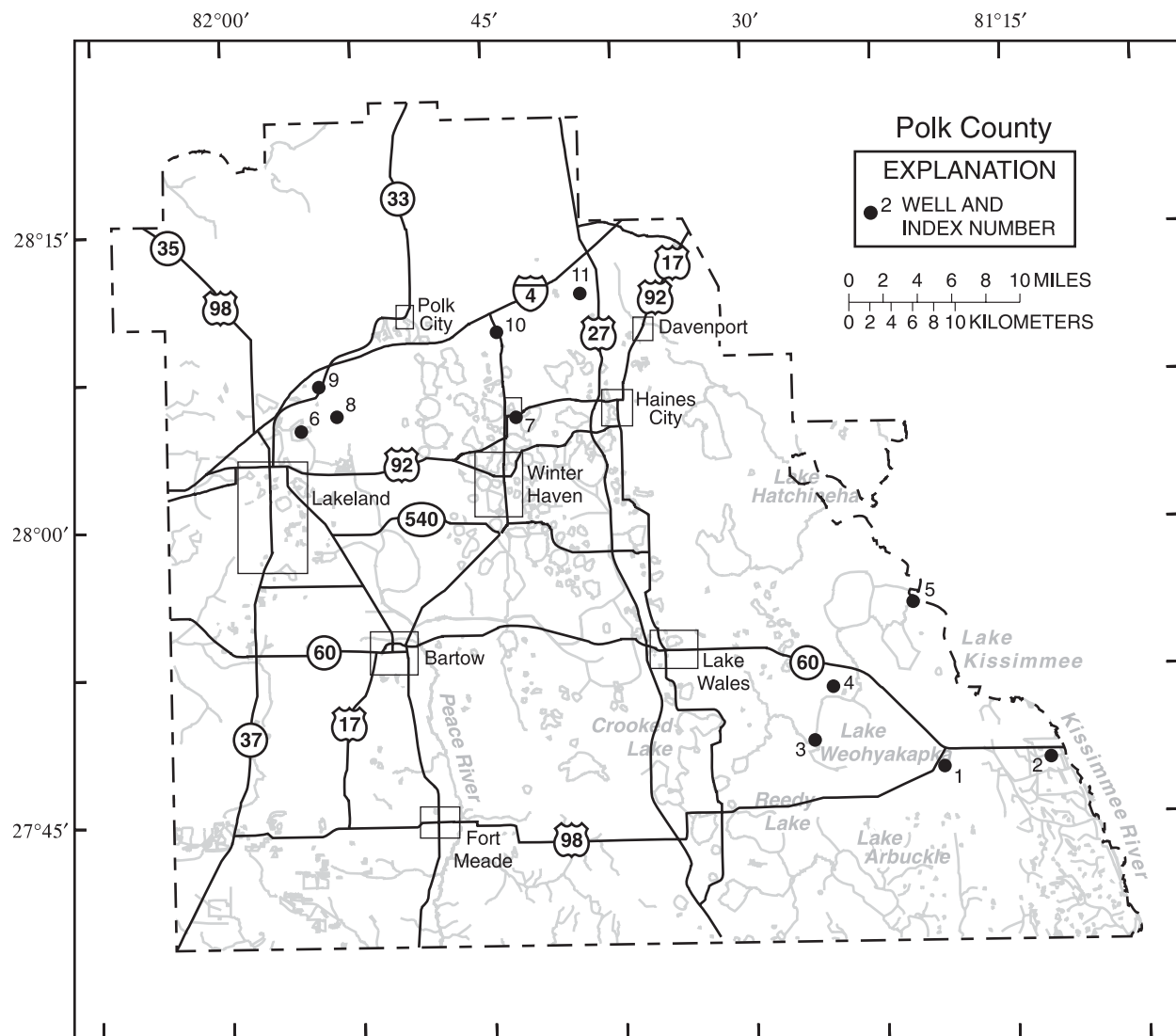


Figure 21.--Location of wells in Polk County.

POLK COUNTY

WELL NUMBER.--274812081190301. P-49 Well near Frostproof, FL.

LOCATION.--Lat 27° 48'12", long 81° 19'03", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--Water-stage recorder--60-minute interval.

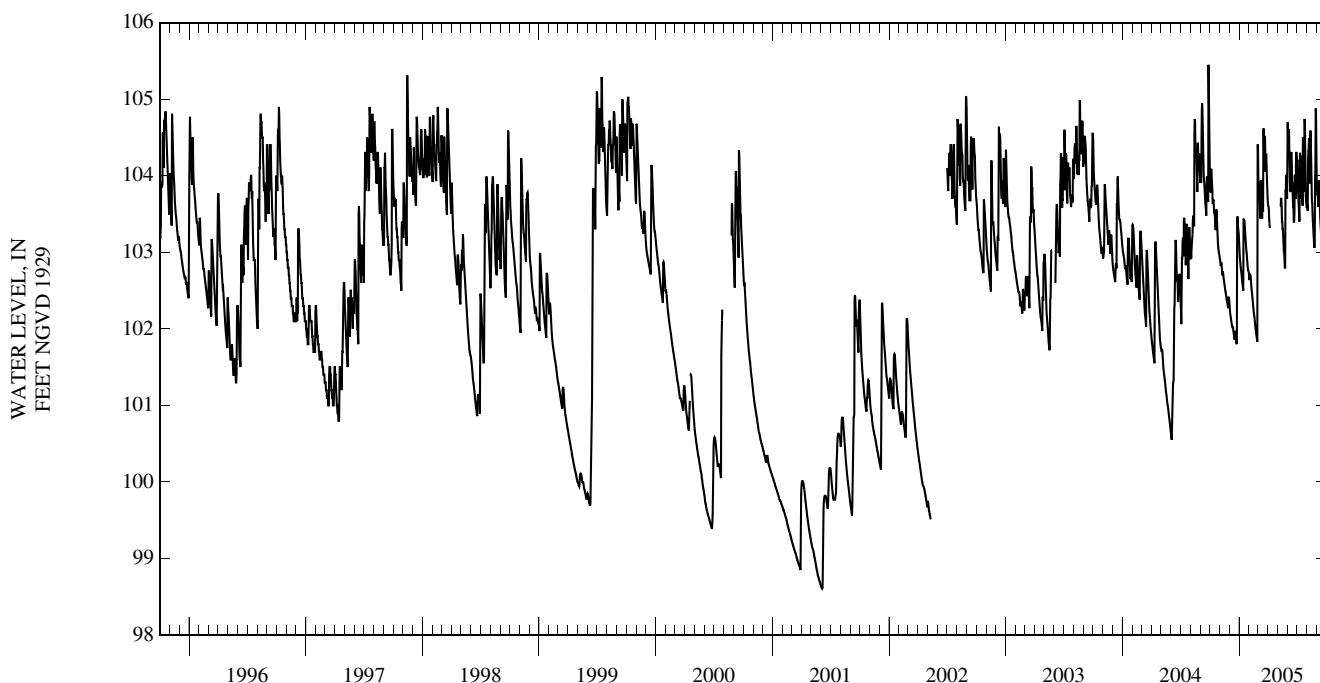
DATUM.--Elevation of land-surface datum is 104.93 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 3.38 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 105.45 ft above NGVD of 1929, Sept. 26, 2004; lowest, 98.61 ft above NGVD of 1929, June 5, 2001.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	104.08	102.86	102.15	102.81	102.70	103.76	103.38	---	104.60	103.70	104.32	103.59
10	103.63	102.75	102.02	102.61	102.44	103.93	---	103.60	103.80	104.30	103.90	103.63
15	103.51	102.59	101.92	103.43	102.21	103.59	---	103.40	103.90	104.26	103.82	103.08
20	103.43	102.45	101.94	103.20	102.02	104.05	---	103.00	103.40	104.48	103.34	103.07
25	103.19	102.32	103.39	102.91	101.86	104.27	---	103.80	103.90	104.73	103.14	103.09
EOM	102.95	102.39	103.14	102.71	104.40	103.65	---	104.30	104.20	103.58	103.95	104.07
MAX	104.08	102.91	103.47	103.43	104.40	104.61	---	---	104.70	104.74	104.88	104.37



POLK COUNTY—Continued

WELL NUMBER.--274815081130301. River Ranch Well near Indian Lake Estates, FL.

LOCATION.--Lat 27° 48' 15", long 81° 13' 03", in NW¹/₄NW¹/₄NW¹/₄ 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 or electric tape.

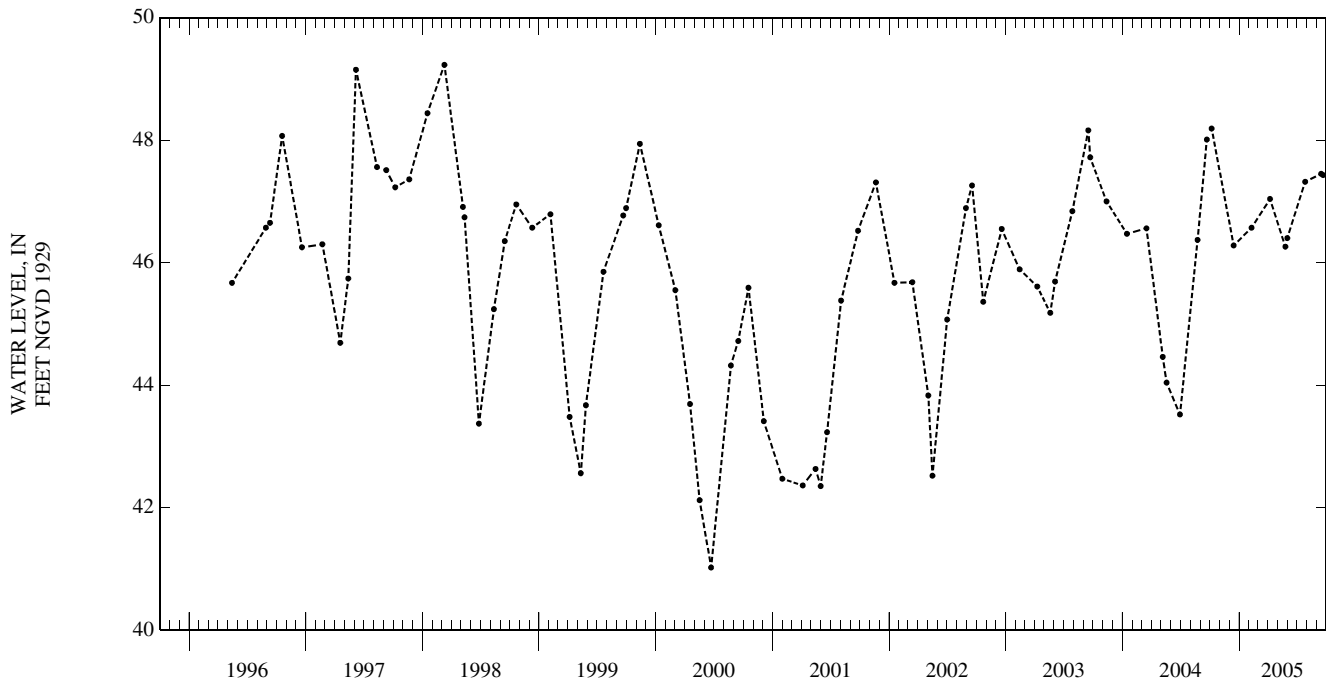
DATUM.--Elevation of land-surface datum is 55.17 ft above NGVD of 1929. Prior to Oct. 1, 1977, datum was considered to be 55.64 ft, and Oct. 1, 1977 to Sept. 30, 1978, at 55.34 ft above NGVD of 1929. Measuring point: Top of casing, 0.37 ft below land-surface datum.

PERIOD OF RECORD.--May 1974 to September 1984 (bimonthly); October 1984 to September 1986 (monthly); October 1986 to September 1995, October 1996 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.23 ft above NGVD of 1929, Mar. 10, 1998; lowest measured, 41.02 ft above NGVD of 1929, June 22, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	48.19	FEB 08	46.57	MAY 25	46.26	JUL 26	47.32	SEP 20	47.43
DEC 14	46.28	APR 07	47.04	MAY 31	46.40	SEP 14	47.45		
WATER YEAR 2005		LOWEST	46.26	MAY 25, 2005	HIGHEST	48.19	OCT 06, 2004		



POLK COUNTY—Continued

WELL NUMBER.--274846081262001. Lake Weohyakapka Well near Frostproof, FL.

LOCATION.--Lat 27° 48' 46", long 81° 26' 20", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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, artesian well, diameter 3 in., depth 199 ft, cased to 153 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

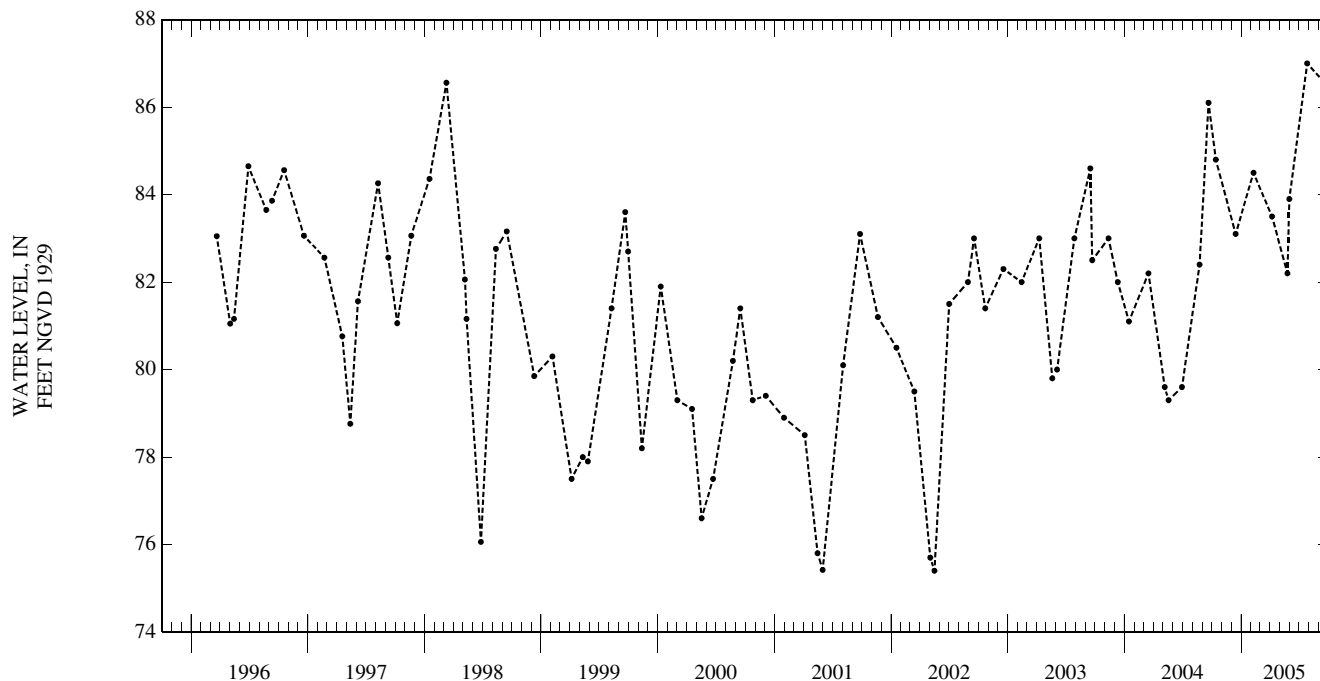
DATUM.--Elevation of land-surface datum is 65.15 ft above NGVD of 1929. Prior to Oct. 1, 1977, datum was considered to be 65 ft, from topographic map, and Oct. 1, 1977, to Sept. 30, 1978, at 65.30 ft above NGVD of 1929. Measuring point: Spigot on discharge line, 1.85 ft above land-surface datum.

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).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.35 ft above NGVD of 1929, present datum, Dec. 15, 1959; lowest measured, 72.27 ft above NGVD of 1929, May 20, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	84.80	FEB 08	84.50	MAY 25	82.20	JUL 26	87.00	SEP 20	85.80
DEC 14	83.10	APR 07	83.50	MAY 31	83.90	SEP 14	86.60		
WATER YEAR 2005		LOWEST	82.20	MAY 25, 2005	HIGHEST	87.00	JUL 26, 2005		



POLK COUNTY—Continued

WELL NUMBER.--275135081252601. East Lake Wales Utilities Shallow Well at Nalcrest, FL.

LOCATION.--Lat 27° 51'35", long 81° 25'26", in NW¹/₄SW¹/₄NE¹/₄ sec.21, T.30 S., R.29 E., Hydrologic Unit 03090101, located at East Lake Wales Utilities water plant, 50 ft north of W. Lesiure Lane, in Nalcrest. Owner: East Lake Wales Utilities.

AQUIFER.--Nonartesian sand of the Surficial Aquifer System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 22 ft, cased to 12 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 67.00 ft above NGVD of 1929. Measuring point: Top of casing, 3.18 ft above land- surface datum.

PERIOD OF RECORD.--April 2004 to September 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 67.19 ft above NGVD of 1929, Sept. 26, 2004; lowest, 61.15 ft above NGVD of 1929, June 2, 2004.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.45	63.91	63.20	64.73	64.84	65.97	65.31	65.85	66.31	65.80	66.37	65.73
10	64.88	64.10	63.14	64.43	64.55	66.34	64.79	64.87	66.01	66.23	66.25	65.29
15	64.81	63.76	62.95	65.79	64.17	65.86	64.26	64.60	65.65	65.98	65.72	64.30
20	65.08	63.51	62.97	65.48	63.93	66.15	63.80	63.87	65.49	65.17	64.60	64.02
25	64.46	63.53	65.44	65.20	63.84	66.19	64.29	64.03	66.07	65.80	64.45	64.48
EOM	64.09	63.36	65.03	64.90	66.31	65.46	64.42	64.79	66.30	65.83	66.39	64.85
MAX	65.95	64.10	65.54	65.91	66.37	66.75	66.04	65.85	66.37	66.26	66.42	66.41

WELL NUMBER.--275634081211901. Lake Kissimmee St. Park Shallow Well near Lake Wales, FL.

LOCATION.--Lat 27° 56'34", long 81° 21'19", in NW¹/₄SW¹/₄SE¹/₄ sec.19, T.29 S., R.30 E., Hydrologic Unit 03090101, in Lake Kissimmee State Park, on a sand trail, 150 ft north of park access road, 3.6 mi southeast of park entrance and Camp Mack Road, and 13.6 mi northeast of Lake Wales. Owner: Florida Park Service.

AQUIFER.--Nonartesian sand of the Surficial Aquifer System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 28 ft, cased to 18 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 56.00 ft above NGVD of 1929. Measuring point: Top of casing, 3.43 ft above land- surface datum.

PERIOD OF RECORD.--April 2004 to September 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 56.08 ft above NGVD of 1929, Sept. 26, 2004; lowest, 49.27 ft above NGVD of 1929, June 3, 2004.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.91	53.53	52.66	52.98	52.64	53.48	53.32	52.95	---	---	---	---
10	54.51	53.38	52.57	52.76	52.52	53.48	53.06	52.63	---	---	54.52	---
15	54.42	53.22	52.43	53.64	53.25	53.07	52.82	52.27	---	---	54.29	---
20	54.05	53.08	52.33	53.21	52.21	53.96	52.56	52.03	---	---	53.63	52.43
25	53.88	52.96	53.85	52.93	52.08	53.84	52.37	52.52	---	---	---	52.32
EOM	53.69	52.80	53.31	52.73	54.08	53.39	52.56	52.59	---	---	---	52.13
MAX	55.35	53.65	53.87	53.64	54.08	54.30	53.67	53.04	---	---	---	---

POLK COUNTY—Continued

WELL NUMBER.--280503081552801. Fish Lake Deep Well near Lakeland, FL.

LOCATION.--Lat 28° 05' 03", long 81° 55' 28", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 or electric tape.

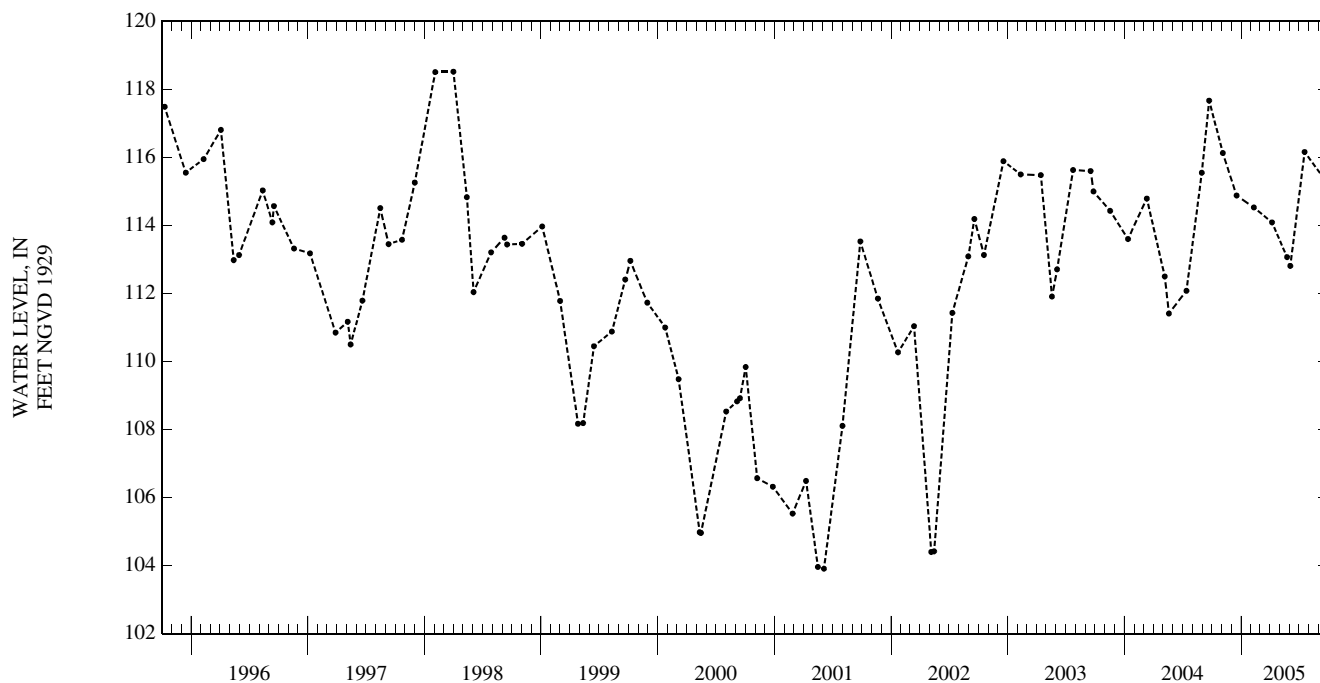
DATUM.--Elevation of land-surface datum is 135.93 ft above NGVD of 1929. Measuring point: Top of casing, .90 ft above land-surface datum. Prior to Aug. 2, 2000, elevation of land-surface datum was 134.84 ft above NGVD of 1929. Measuring Point: Top of casing 3.65 ft above NGVD of 1929.

PERIOD OF RECORD.--December 1955 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.97 ft above NGVD of 1929, Aug. 8, 1960; lowest measured, 103.60 ft above NGVD of 1929, May 10, 1976.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	116.13	FEB 09	114.53	MAY 24	113.07	JUL 18	116.16	SEP 21	114.33
DEC 17	114.88	APR 07	114.09	JUN 03	112.81	SEP 14	115.41		
WATER YEAR 2005 LOWEST 112.81 JUN 03, 2005 HIGHEST 116.16 JUL 18, 2005									



POLK COUNTY—Continued

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 Glenerviten Avenue and Haines Boulevard at Lake Alfred. Owner: City of Lake Alfred.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 555 ft, cased to 282 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

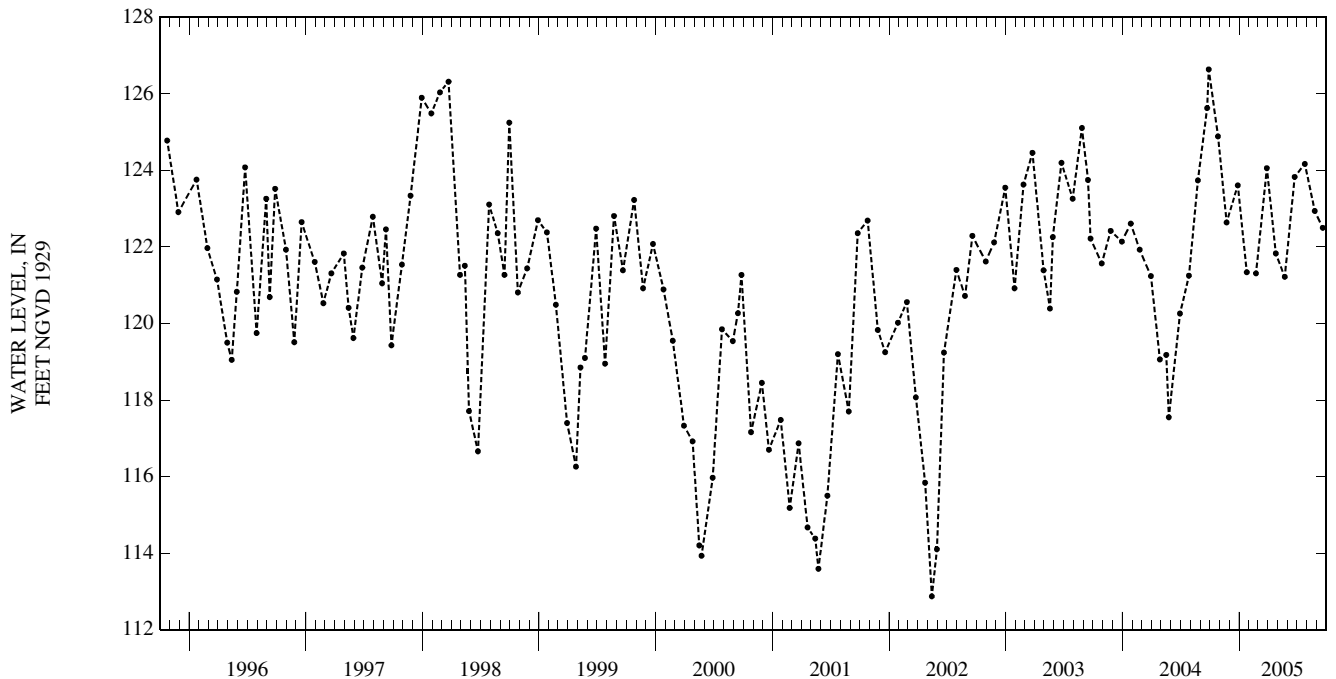
DATUM.--Elevation of land-surface datum is 171.04 ft, above NGVD of 1929. Measuring point: Top of recorder shelter floor, 3.46 ft above land-surface datum. Prior to May 1988, at elevation 3.12 ft lower.

PERIOD OF RECORD.--May 1973 to February 1976 (quarterly), incomplete; March 1976 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 126.64 ft above NGVD of 1929, Sept. 27, 2004; lowest daily maximum water level, 109.13 ft above NGVD of 1929, May 15, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	124.89	DEC 27	123.61	FEB 22	121.31	APR 25	121.83	JUN 23	123.83	AUG 25	122.94
NOV 22	122.64	JAN 24	121.34	MAR 28	124.06	MAY 23	121.22	JUL 25	124.17	SEP 19	122.50
WATER YEAR 2005 LOWEST 121.22 MAY 23, 2005 HIGHEST 124.89 OCT 26, 2004											



POLK COUNTY—Continued

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 or electric tape.

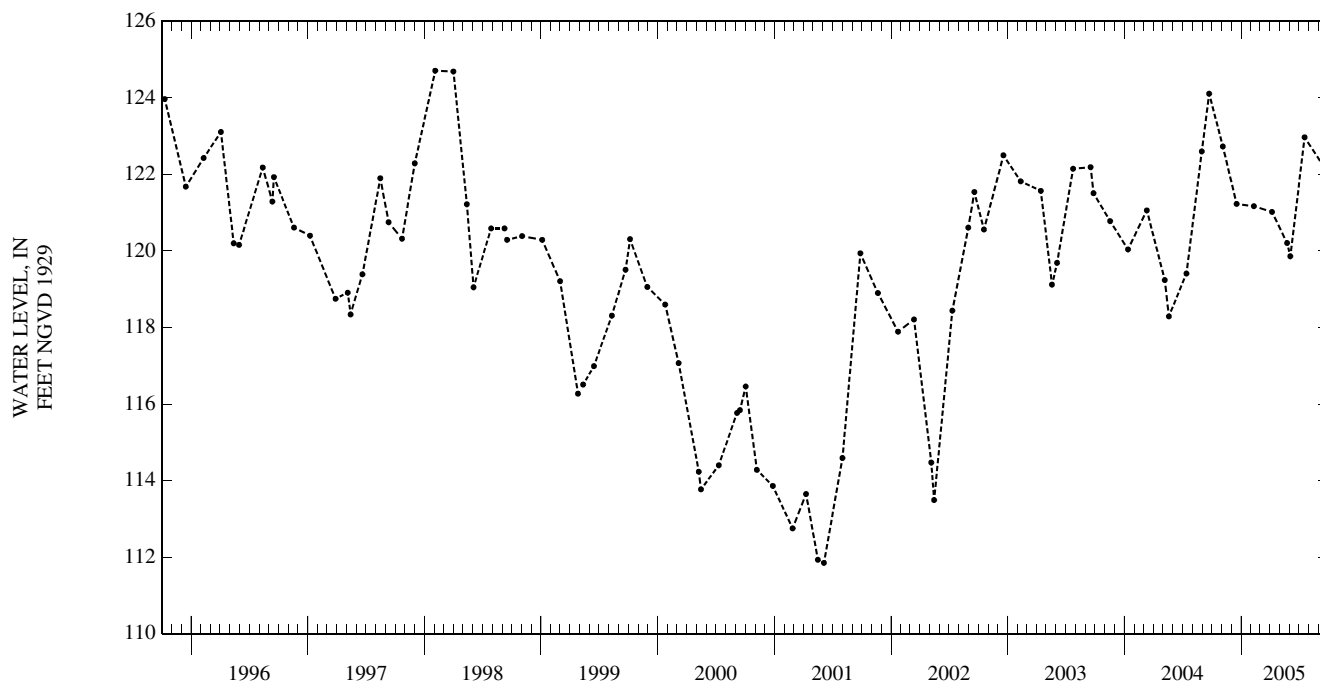
DATUM.--Elevation of land-surface datum is 132.01 ft above NGVD of 1929. Measuring point: Top of casing, 2.30 ft above land-surface datum.

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).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 124.71 ft above NGVD of 1929, Feb 3, 1998; lowest measured, 96.15 ft above NGVD of 1929, May 7, 1968.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	122.73	FEB 09	121.17	MAY 24	120.21	JUL 18	122.97	SEP 21	121.47
DEC 17	121.23	APR 07	121.02	JUN 03	119.86	SEP 14	122.23		
WATER YEAR 2005 LOWEST 119.86 JUN 03, 2005 HIGHEST 122.97 JUL 18, 2005									



POLK COUNTY—Continued

WELL NUMBER.--280715081543501. Combee Road Deep Well near Lakeland, FL.

LOCATION.--Lat 28° 07' 07", long 81° 54' 30", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 or electric tape.

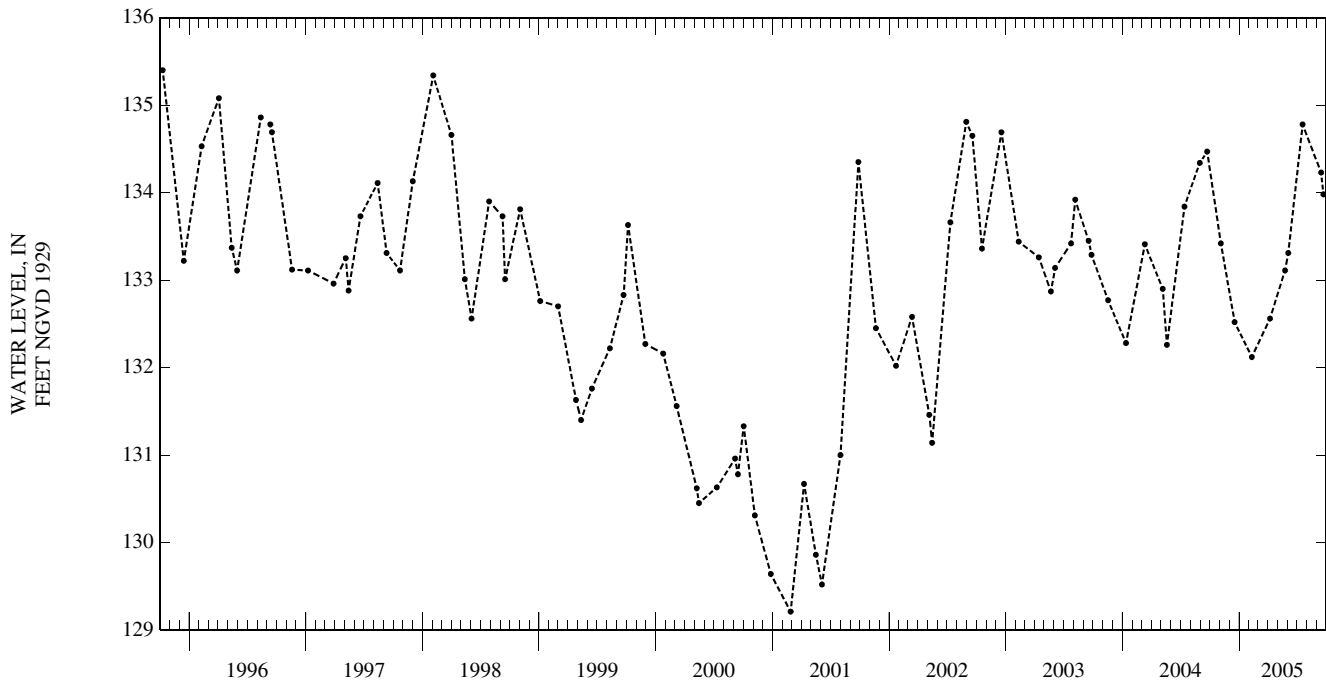
DATUM.--Elevation of land-surface datum is 136.20 ft above NGVD of 1929. Measuring point: Top of casing, 0.86 ft above land-surface datum. Aug. 10, 1999 to May 7, 2000, measuring point 0.18 ft above land-surface datum. June 30, 1991 to Aug. 9, 1999, measuring point 3.41 ft above land-surface datum. Prior to June 30, 1991, measuring point 2.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1956 to September 1977 (thrice yearly); October 1977 to September 2005 (bimonthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.92 ft above NGVD of 1929, July 7, 1959; lowest measured, 118.56 ft above NGVD of 1929, Nov. 6, 1964.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	133.42	FEB 09	132.12	MAY 24	133.11	JUL 18	134.78	SEP 21	133.98
DEC 17	132.52	APR 07	132.56	JUN 03	133.31	SEP 14	134.23		
WATER YEAR 2005		LOWEST	132.12	FEB 09, 2005	HIGHEST	134.78	JUL 18, 2005		



POLK COUNTY—Continued

WELL NUMBER.--281008081441801. Lake Alfred Deep Well near Lake Alfred, FL.

LOCATION.--Lat 28° 10'08", long 81° 44'18", in SW $\frac{1}{4}$ /NW $\frac{1}{4}$ /NW $\frac{1}{4}$ 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.--Water-stage recorder and data-collection platform--60-minute interval.

DATUM.--Elevation of land-surface datum is 137.38 ft above NGVD 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.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 131.18 ft above NGVD of 1929, Mar. 21, 1998; lowest, 119.85 ft above NGVD of 1929, May 3, 1974.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.87	129.14	128.91	128.89	128.84	128.68	128.87	128.58	128.44	129.49	129.17	129.45
10	130.75	129.13	128.92	128.74	128.67	128.66	128.62	128.41	128.67	129.45	129.53	129.42
15	130.63	128.97	128.75	128.93	128.49	128.71	128.37	128.40	129.05	129.62	129.50	129.10
20	130.21	128.58	128.76	129.29	128.00	129.08	127.78	127.91	129.03	129.44	129.08	128.51
25	129.99	128.56	128.75	127.48	127.68	129.20	127.81	127.39	129.25	129.27	128.89	128.83
EOM	129.63	129.03	128.97	128.78	128.44	129.03	128.37	127.76	129.39	128.96	129.27	128.63
MAX	130.91	129.68	129.01	129.30	128.85	129.27	129.00	128.62	129.39	129.65	129.53	129.50



POLK COUNTY—Continued

WELL NUMBER.--281008081441802. Lake Alfred Shallow Well near Lake Alfred, FL.

LOCATION.--Lat 28° 10'08", long 81° 44'18", in SW $\frac{1}{4}$ /NW $\frac{1}{4}$ /NW $\frac{1}{4}$ 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 6 in., depth 9 ft, cased to 6 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

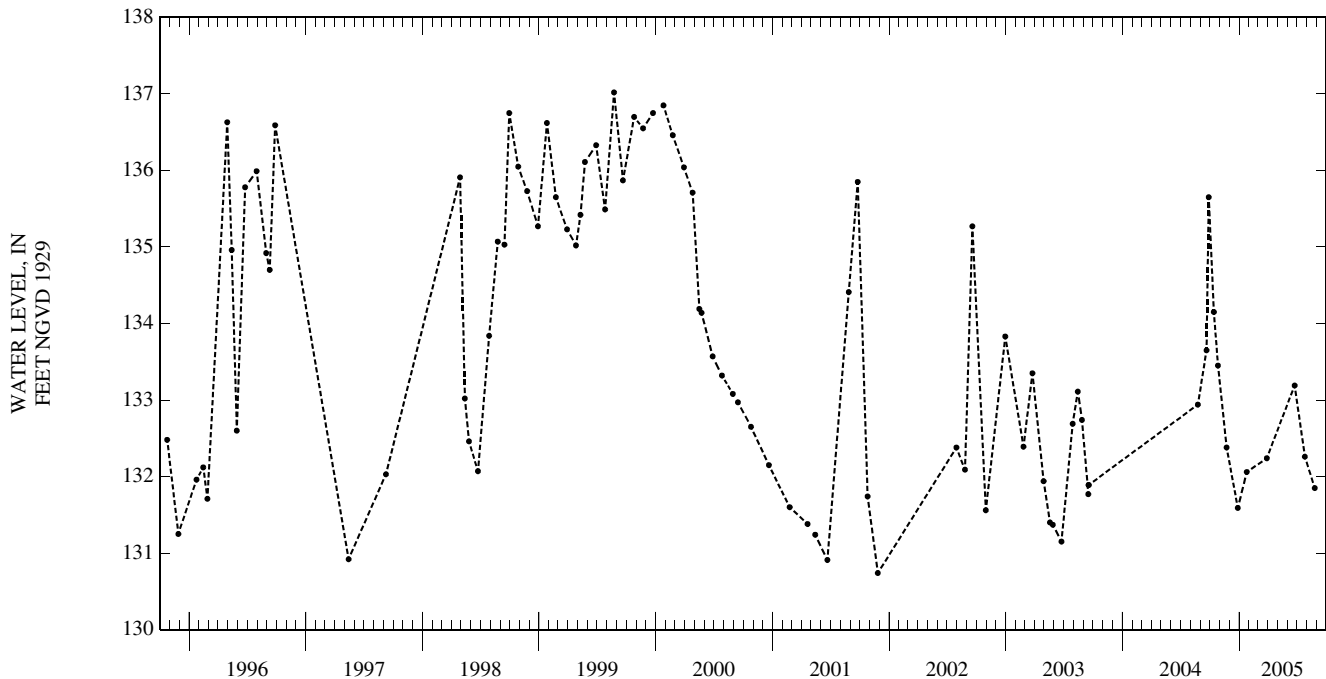
DATUM.--Elevation of land-surface datum is 137.17 ft above NGVD of 1929. Measuring point: Top of casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to September 1977 (monthly); October 1977 to September 1983 (bimonthly); October 1983 to September 1997, April 1998 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 137.02 ft above NGVD of 1929, Aug. 23, 1999; well observed dry on numerous visits.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	134.15	NOV 22	132.38	JAN 24	132.06	JUN 23	133.19	AUG 25	131.85
26	133.45	DEC 27	131.59	MAR 28	132.24	JUL 25	132.26		
WATER YEAR 2005 LOWEST 131.59 DEC 27, 2004 HIGHEST 134.15 OCT 13, 2004									



POLK COUNTY—Continued

WELL NUMBER.--281202081391701. PO-1 Thornhill Deep Well near Davenport, FL.

LOCATION.--Lat 28° 12'02", long 81° 39'17", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 and 4.2 mi northwest of 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.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 133.21 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 2.20 ft above land-surface datum.

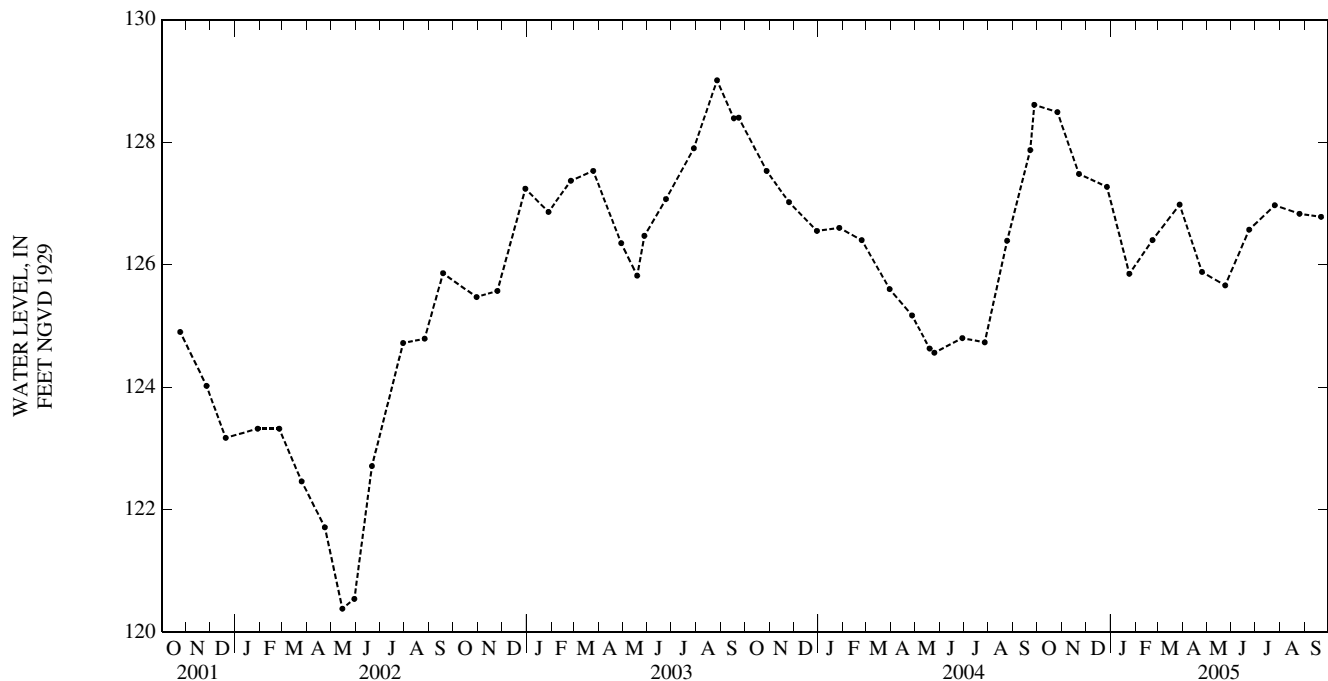
PERIOD OF RECORD.--May 1983 to October 1985 (semiannually); October 1985 to September 1996; October 1996 to September 2001 (semiannually); October 2001 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.06 ft above NGVD of 1929, Sept. 12, 1983; lowest measured, 118.90 ft above NGVD of 1929, May 16, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	128.49	DEC 27	127.27	FEB 22	126.40	APR 25	125.88	JUN 23	126.57	AUG 25	126.83
NOV 22	127.48	JAN 24	125.85	MAR 28	126.98	MAY 24	125.66	JUL 25	126.97	SEP 21	126.78

WATER YEAR 2005 LOWEST 125.66 MAY 24, 2005 HIGHEST 128.49 OCT 26, 2004



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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POLK COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
273903081185201	05-25-05 09-20-05	0905 0935	73911801 33S30E06 USAF AVON PARK #1	72.79 73.89
274552081115201	05-25-05 09-20-05	1203 1207	RIVER RANCH REPLACEMENT WELL	43.75 45.01
274746081202201	05-25-05 09-20-05	1105 1105	747120-- 31S30E08 INDIAN LK ESTATES GOLF COURS	62.84 64.18
275137081252501	10-13-04 12-14-04 02-08-05 04-07-05 05-25-05 05-31-05 07-26-05 09-20-05	1250 0755 0740 1240 1002 1215 1250 1020	751125-- 30S29E21 E. LK. WALES UTILITY	83.28 80.88 80.08 82.28 78.88 82.38 83.78 84.88
275622081252301	05-25-05 09-21-05	1305 1330	756125 29S29E28 L. ROSALIE NW	58.09 60.65
275634081211801	10-13-04 12-13-04 05-25-05 05-31-05 08-04-05 09-20-05	1520 1650 1325 1020 1310 1310	756121-- 29S30E19 KISS STPK NR LK KISSIMMEE	59.36 57.09 56.89 56.62 58.41 58.45
280153081274101	05-24-05 09-21-05	1207 1220	801127-- 28S29E19 LK HATCHI NR HAINES CITY	68.89 70.09
280558081314801	05-24-05 09-21-05	1231 1410	805131-- 27S28E29 KIMBELL WELL NR LK MARION	71.70 72.77
280719081543301	05-24-05 09-21-05	0824 0842	807154433A COMBEE RD SHAL AT SR33 NR LAKELAND,FL	133.78 134.19
281057081495002	05-24-05 09-21-05	0910 0938	81014903 POLK CITY ROMP 76A WELL NR POLK CITY FL	128.63 129.91
281058081495002	05-24-05 09-21-05	0916 0930	USGS 1.75" DRILL PIPE INNER MONITOR AT POLK CITY	128.62 129.80
281058081495003	05-24-05 09-21-05	0921 0928	USGS 4" ANNULAR MONITOR AT POLK CITY	127.48 128.83
281058081495004	05-24-05 09-21-05	0912 0935	USGS CORE HOLE 2 AT POLK CITY	125.91 126.81
281058081495005	05-24-05	0920	ROMP 76 SURFICIAL WELL NR POLK CITY,FL	133.37
281202081391702	05-24-05 09-21-05	1120 1125	PO-2 THORNHILL SH NR DAVENPORT	128.54 130.01
281312082011601	05-23-05 09-19-05	1225 1155	ROMP 87 NR LAKELAND , FL	100.58 103.11
281317081491301	05-24-05 09-21-05	0938 0950	813149423 26S25E16 FUSSELL RD DP	126.32 127.48

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

POLK COUNTY---Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
281317081491302	05-24-05	0945	81314902 26S25E16 FUSSELL RD SH	127.76
281440081431701	05-24-05 09-21-05	1020 1020	814143232 26S26E04 SPREAD EAGLE RNCH DP	126.65 127.88
281440081431702	05-24-05 09-21-05	1027 1030	81414302 26S26E04 SPREAD EAGLE RNCH SH	129.37 130.67
281532081345001	05-24-05 09-21-05	1051 1055	815134134 26S27E02 LOUGHMAN DP WELL NR LOUGHMAN	88.82 90.41
281532081493001	05-24-05 09-21-05	1000 0955	815149233 25S25E32	124.23 125.04
281837081544101	05-27-05 09-20-05	1640 1115	ROMP 88 DEEP NR ROCKRIDGE, FL	101.96 103.82

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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PUTNAM COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
292124081345202	05-24-05 09-23-05	1120 1500	P-0736 MIDDLE RD UPPER DEEP	9.18 9.91
292218081333101	05-24-05 09-23-05	1040 1600	P-0410 POTMAP WELL NR GEORGETOWN, FL	26.41 26.67
292239081282401	05-24-05 09-27-05	1200 1530	P-0255	12.79 13.30
292254081382101	05-24-05 09-27-05	0925 1045	SJ P421 13S27E39 DRAYTON ISLAND EAST SHORELAND IN	12.64 13.14
292435081441301	05-23-05 09-27-05	1125 1135	NR FRONTIER D H NR SALT SPGS	12.12 13.86
292528081383501	05-24-05 09-28-05	1020 1400	92513801 26S12E26 PUTNAM 28	19.05 20.06
292555081305003	05-24-05 09-22-05	1225 1445	P-2037 REPLACEMENT WELL AT LAKE STELLA	24.05 24.93
292628081385501	05-24-05 09-23-05	1000 1220	SJ P396 12S26E23 WELAKA FISH HATCHERY FRUITLAND	12.40 13.33
292824081341501	05-24-05 09-22-05	1250 1400	P-0246 COL. SAULS	32.74 33.97
292824081443301	05-23-05 09-27-05	1100 1155	JOHNSONS FIELD NR WELAKA	8.62 9.96
293103081575501	05-23-05 09-27-05	1540 1030	P-0166 CAMP KATERI NR ORANGE SPRINGS, FL	62.74 63.42
293113081370301	05-24-05 09-22-05	1330 1240	SJ P382 11S27E19 MAINROAD OFFSISCORDEPOMONA PARK	29.48 30.55
293206081351701	05-24-05 09-22-05	1350 1310	P-0817	26.72 27.85
293228081495301	05-23-05 09-26-05	1030 0900	P-0306 GREENWAY REPLACEMENT NEAR RODMAN, FL	31.28 32.61
293554081342601	05-24-05 09-23-05	1430 0930	SAN MATEO TOWER SITE DEEP	17.53 17.87
293633081594601	05-23-05 09-26-05	0915 0940	DRAINAGE WELL COWPEN LAKE PUTNAM CO FL	80.80 81.83
293733081474801	05-23-05 09-27-05	0950 1255	HOLLISTER WORKCTR CF (P-510)	50.69 52.11
293755081412903	05-23-05 09-27-05	1205 1225	P-0891 EH MILLER SCHOOL	29.53 31.09

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

PUTNAM COUNTY---Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
293933081342801	05-25-05 09-22-05	1020 1130	93913411 10S27E04 P-172 CRACKER SWAMP	18.05 20.90
293951081413901	09-27-05	1325	P-0123 DHQ DEEP WELL	32.53
294243081555901	05-23-05 09-26-05	0830 1030	P-0822 FLORIDA ROCK IN PUTNAM CO	80.55 84.23
294255081323501	09-22-05	1045	P-0076 A.J.ROBERTS	23.14
294321081492103	05-25-05 09-26-05	0840 0810	P-4086 EATONIA EAST V ROAD NR PALATKA, FL	75.22 75.97
294553081344301	05-23-05 09-27-05	1325 1400	94513401 08S27E-- RIVERDALE NO 61	26.08 29.08
294816081482201	05-25-05 09-22-05	0930 1025	P-4083 ETONIA SF MANNING RD NR PALATKA, FL	73.99 74.59

WATER RESOURCES DATA FOR FLORIDA, 2005
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KEY TO SITE LOCATIONS ON FIGURE 22
ST. JOHNS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295357081294301	260
2	295713081203401	261
3	300717081381001	262
4	300758081230501	263
5	301132081225801	264

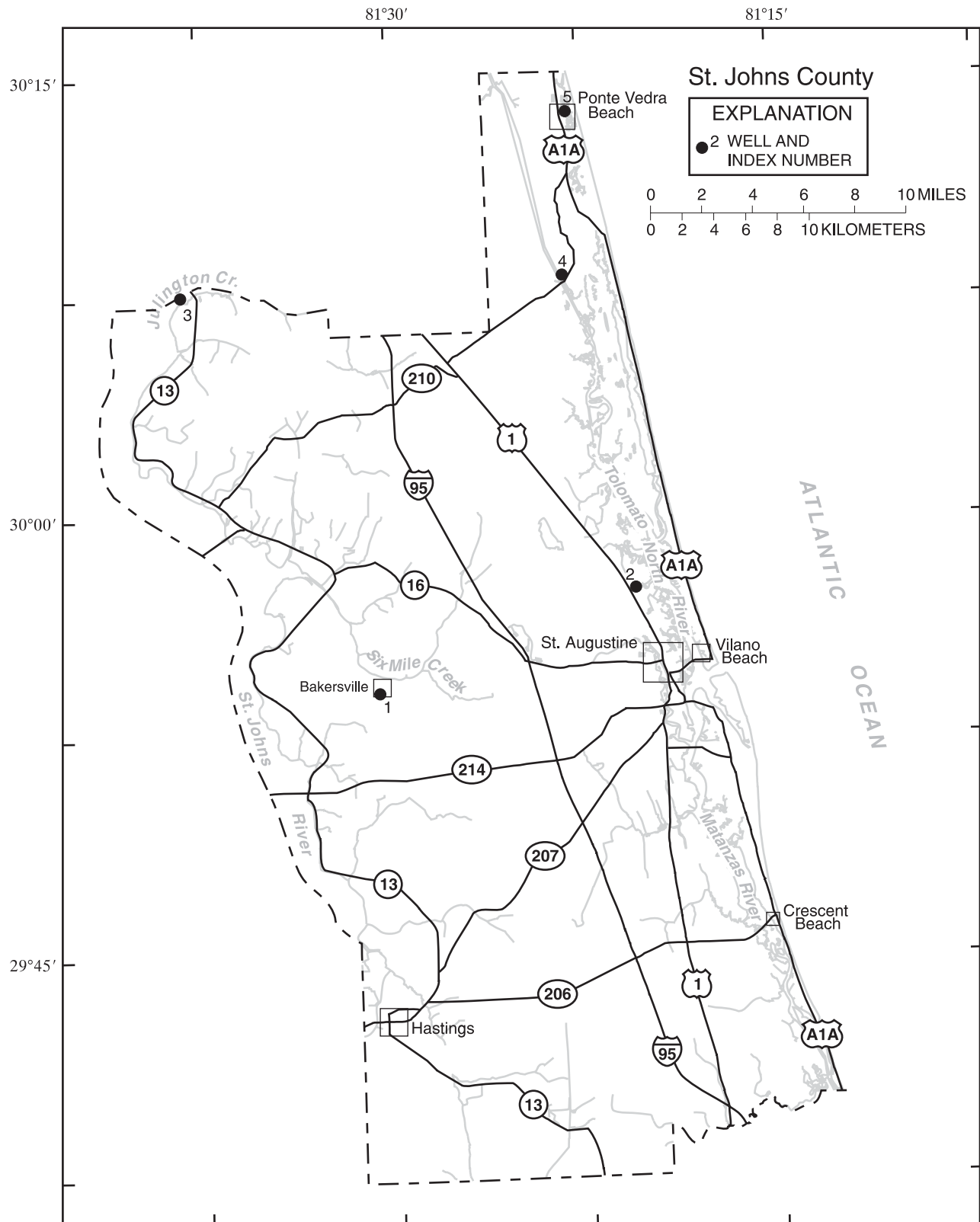


Figure 22.--Location of wells in St. Johns County.

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 NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ 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: Domestic Well.

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.

DATUM.--Land-surface datum is 20.62 ft above NGVD of 1929. Measuring point: Top of 4 in. tee at land-surface datum.

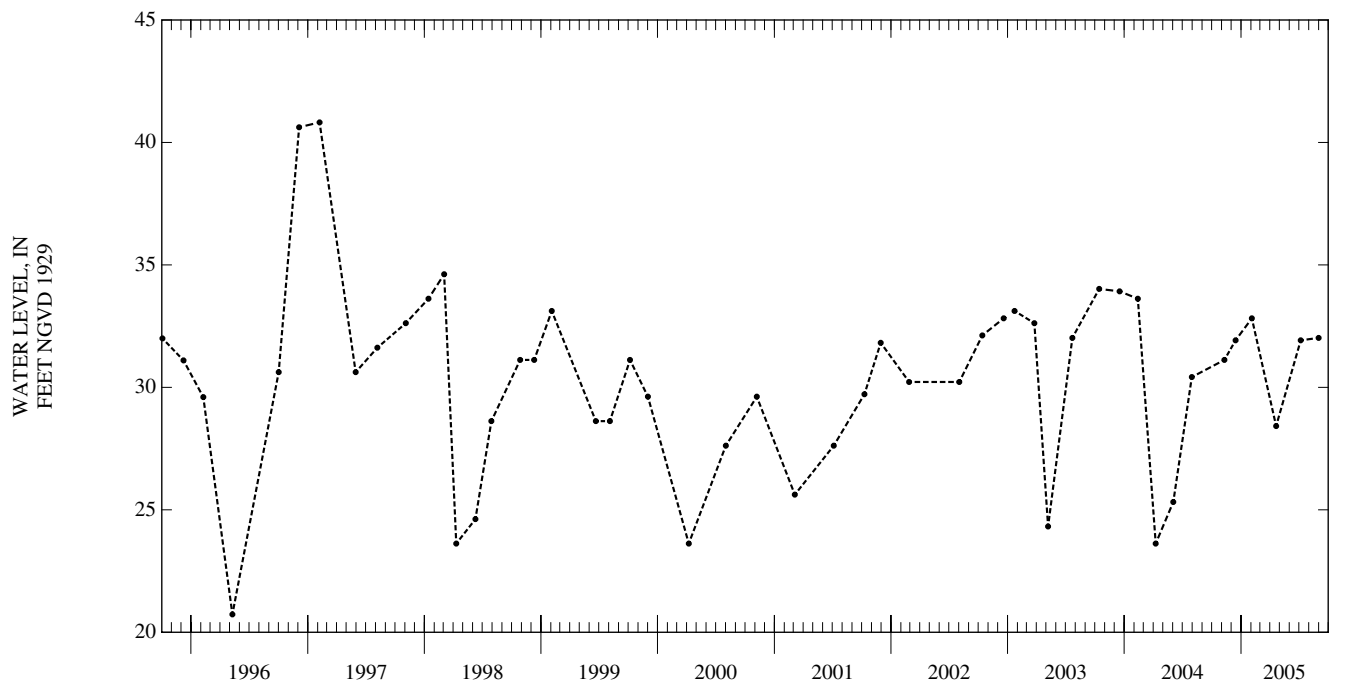
REMARKS.--Water level seasonally affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to August 2005 (bimonthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.82 ft above NGVD of 1929, Feb. 6, 1997; lowest measured, 21.97 ft above NGVD of 1929, Apr. 8, 1991.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	31.12	DEC 14	31.92	FEB 03	32.82	APR 20	28.42	JUL 06	31.92	AUG 31	32.02
WATER YEAR 2005		LOWEST	28.42	APR 20, 2005	HIGHEST	32.82	FEB 03, 2005				



ST. JOHNS COUNTY—Continued

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 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.

DATUM.--Land-surface datum is 9.48 ft above NGVD of 1929. Measuring point: File marks on south side of 9 in flange at land-surface datum.

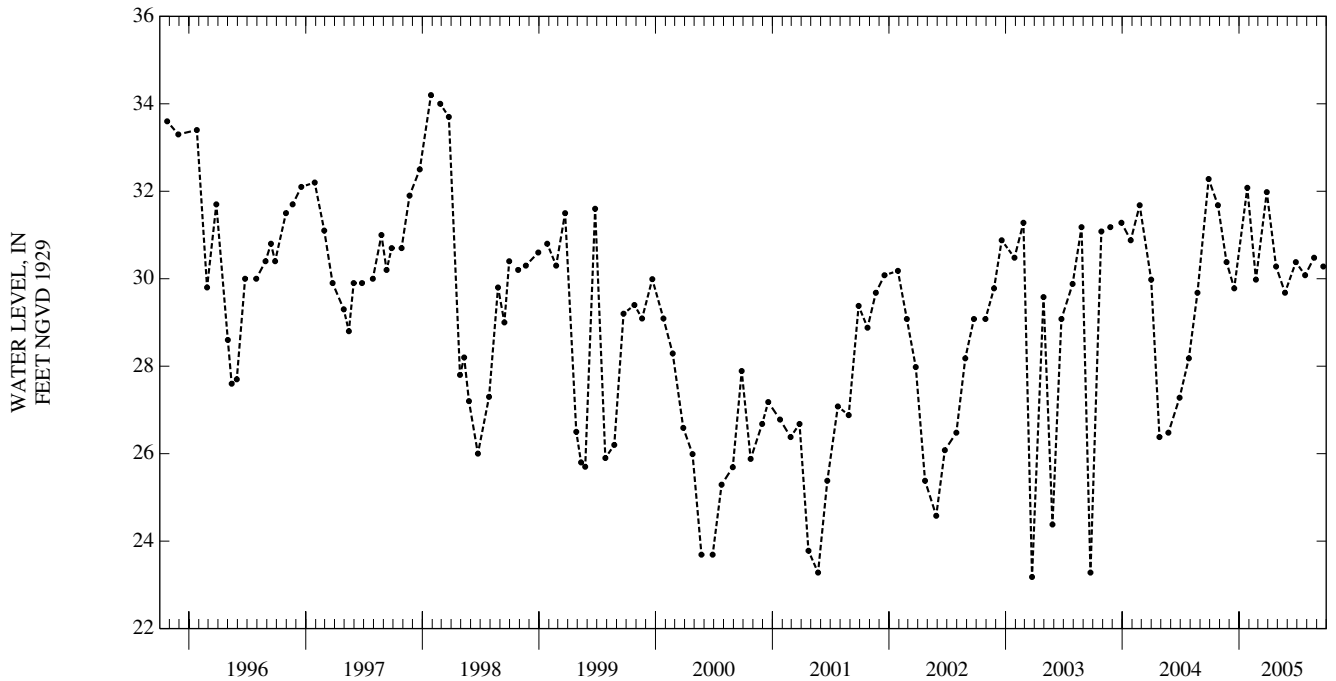
REMARKS.--Water levels affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.98 ft above NGVD of 1929, Dec. 21, 1994; lowest measured, 23.18 ft above NGVD of 1929, May 24, 2003.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	31.68	DEC 16	29.78	FEB 22	29.98	APR 26	30.28	JUN 27	30.38	AUG 23	30.48
NOV 22	30.38	JAN 26	32.08	MAR 28	31.98	MAY 24	29.68	JUL 26	30.08	SEP 21	30.28
WATER YEAR 2005 LOWEST 29.68 MAY 24, 2005 HIGHEST 32.08 JAN 26, 2005											



ST. JOHNS COUNTY—Continued

WELL NUMBER.--300717081381001. Local Number SJ-15. S.L. Chavez Well near Mandarin, FL.

LOCATION.--Lat 30°07'17", long 81°38'10", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T.4 S., R.27 E., Hydrologic Unit 03080103, 300 ft north of Fruit Cove Road, 0.6 mi west of the intersection of State Road 13 and Fruit Cove Road, and 3.7 mi south of old Mandarin Post Office. Owner: Domestic Well.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 to 2 in., depth 580 ft, cased to 300 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

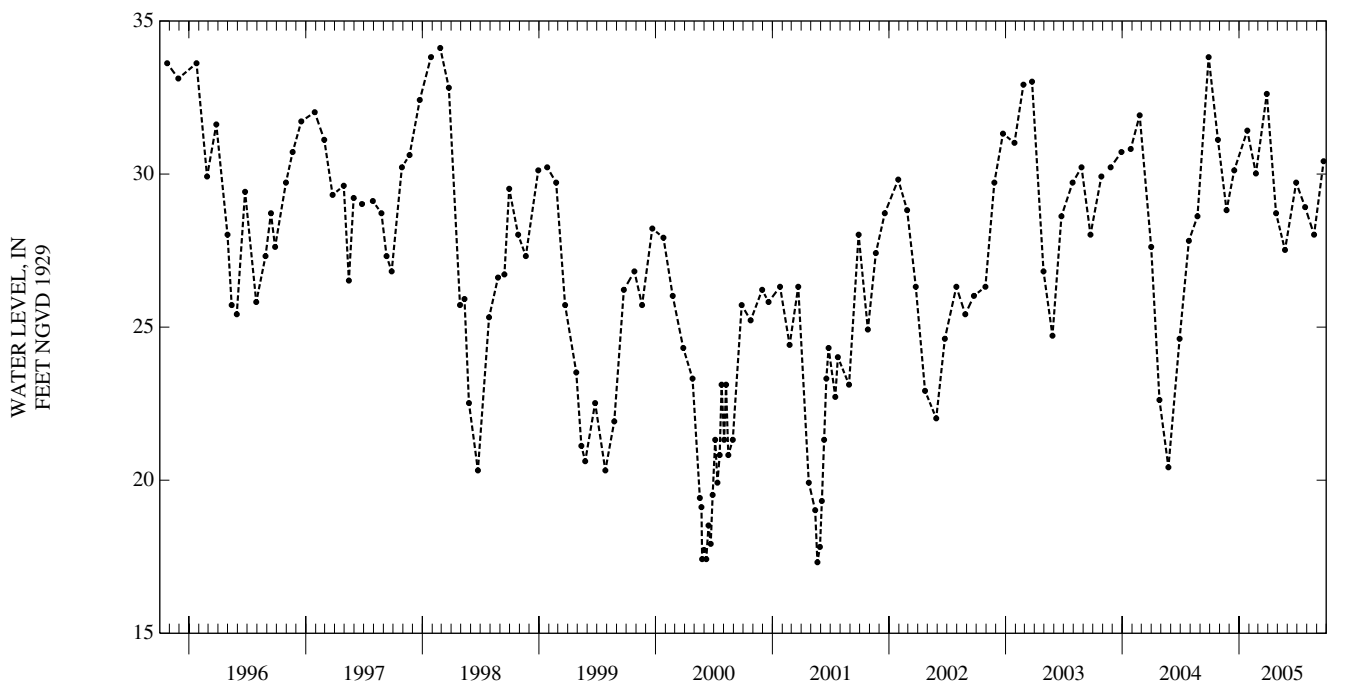
DATUM.--Land-surface datum is 8.12 ft above NGVD of 1929. Measuring point: Top of 3 in. tee, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--1974, 1977 to 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.02 ft above NGVD of 1929 May 12, 1980; lowest measured, 17.32 ft above NGVD of 1929, May 21, 2001.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	31.12	DEC 16	30.12	FEB 22	30.02	APR 26	28.72	JUN 28	29.72	AUG 23	28.02
NOV 22	28.82	JAN 26	31.42	MAR 28	32.62	MAY 24	27.52	JUL 26	28.92	SEP 22	30.42
WATER YEAR 2005		LOWEST	27.52	MAY 24, 2005	HIGHEST	32.62	MAR 28, 2005				



ST. JOHNS COUNTY—Continued

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: Domestic Well.

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.

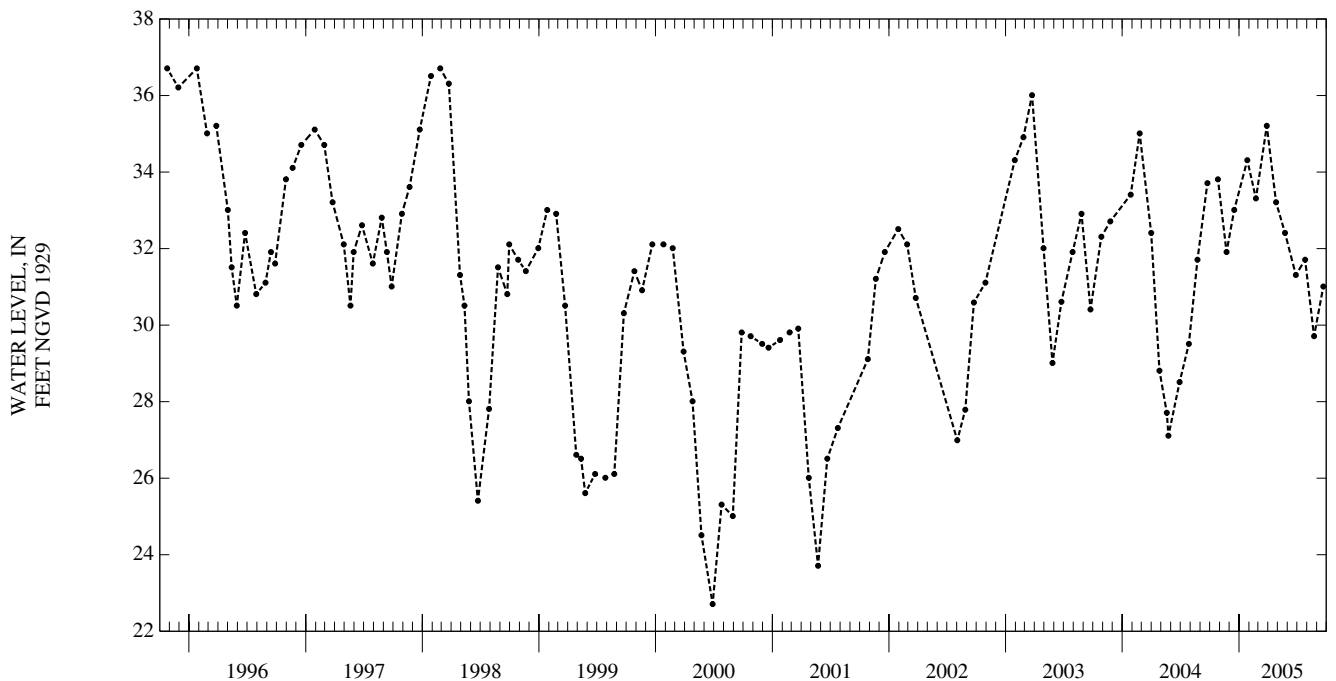
DATUM.--Land-surface datum is 4.53 ft above NGVD of 1929. Measuring point: Top of 4 in. gate valve, 2.18 ft above land-surface datum.

PERIOD OF RECORD.--1934, 1940, 1944 to 1946 (annually); 1947 to 1963 (bimonthly); 1964 to 1980 (annually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.73 ft above NGVD of 1929, Nov. 9, 1948; lowest measured, 22.71 ft above NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	33.81	DEC 16	33.01	FEB 22	33.31	APR 26	33.21	JUN 27	31.31	AUG 23	29.71
NOV 22	31.91	JAN 26	34.31	MAR 28	35.21	MAY 24	32.41	JUL 26	31.71	SEP 21	31.01
WATER YEAR 2005 LOWEST 29.71 AUG 23, 2005 HIGHEST 35.21 MAR 28, 2005											



ST. JOHNS COUNTY—Continued

WELL NUMBER.--301132081225801. Local Number SJ-150. Ponte Vedra Test Well near Ponte Vedra, FL.

LOCATION.--Lat 30°11'28", long 81°23'01", in land grant 70, T.4 S., R.29 E., Hydrologic Unit 03080201, 290 ft west of State Highway 210 behind St. Johns County Courthouse Annex and Library, 1500 ft southwest of junction of State Highways 201 and A1A, and 1.6 mi southwest of Ponte Vedra Post Office. 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 6 in., depth 2,035 ft, cased to 1,980 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

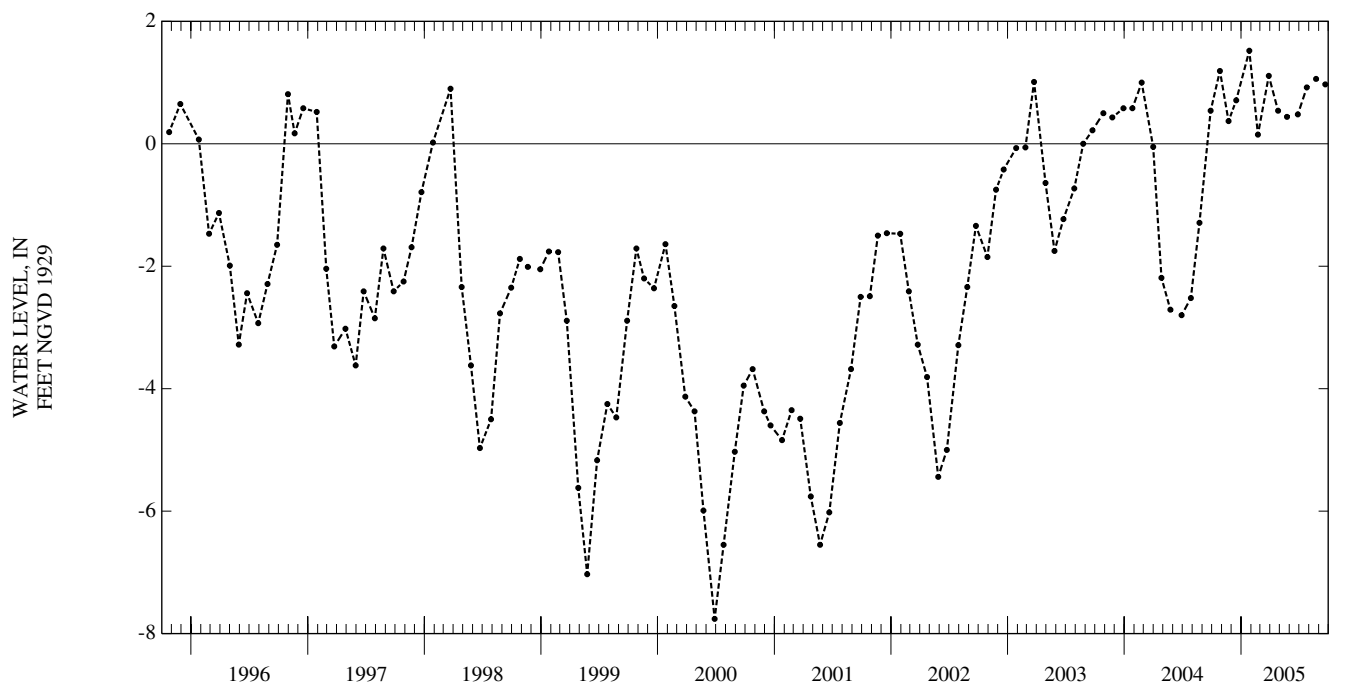
DATUM.--Land-surface datum is 6.34 ft above NGVD of 1929. Measuring point: Top of 6 in. gate valve, 4.56 ft above land-surface datum.

PERIOD OF RECORD.--April 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.63 ft above NGVD of 1929, Mar. 29, 1993; lowest measured, 7.76 ft below NGVD of 1929, June 27, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	1.19	DEC 16	.71	FEB 22	.15	APR 26	.54	JUN 27	.48	AUG 23	1.06
NOV 22	.37	JAN 26	1.52	MAR 28	1.11	MAY 24	.44	JUL 25	.92	SEP 21	.97
WATER YEAR 2005		LOWEST	.15 FEB 22, 2005	HIGHEST	1.52 JAN 26, 2005						



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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ST JOHNS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
293729081221201	05-25-05 09-21-05	1130 1100	SJ-104 MEADOWBRICK WELL	16.75 18.27
294128081291301	05-25-05 09-19-05	1200 0900	SJ-263 D.REID	12.99 16.27
294213081194401	05-25-05 09-21-05	1210 1150	SJ-0602 DOT I95 SOUTH	17.41 18.80
294519081184502	05-25-05 09-21-05	1230 1030	SJ-516 DUPONT CTR FIRE TOWER NR YELVINGTON,FL	17.16 18.06
294701081263301	05-24-05 09-19-05	1300 1300	SJ-317 SIKES WELL NR ELKTON,FL	14.14 23.50
295000081212702	05-24-05 09-19-05	1315 1345	SJ0824 TREATY PARK WELL AT ST AUGUSTINE,FL	27.29 26.78
295039081325401	05-24-05 09-19-05	1100 1240	SJ-133 WILSON	21.80 25.00
295132081164801	05-24-05 09-19-05	1400 1415	SJ-92 ST.JOHNS CO.PARKS-REC OFFICE	16.31 19.11
295427081293101	05-24-05 09-19-05	1030 1615	SJ-0027 BAKERSVILLE TOWER	30.49 32.33
295604081223503	05-25-05 09-21-05	1320 0945	SJ 0331 WOODLAWN RD WELL NR BAKERSVILLE,FL	31.49 32.43
295903081334301	05-25-05 09-21-05	1440 1345	SJ-119 (SUB FOR SJ-11)	27.83 31.13
300340081383901	05-25-05 09-21-05	1520 1510	SJ0508 GREENBRIER RD MIDDLE SCH NR SWITZERLAND,FL	31.61 31.07
300341081395401	05-25-05 09-21-05	1500 1430	SJ-12	32.27 33.37
300507081272701	05-24-05 09-20-05	1240 1400	SJ-163 SJRWMD DURBIN OBSERVATION WELL	38.92 39.93
301212081252401	05-25-05 09-28-05	0930 0900	SJ-63 DEE DOT RANCH AT BULL PEN	40.98 41.78
301408081253101	05-25-05 09-28-05	0900 0830	SJ-60 DEE DOT RANCH AT CRACKER LODGE	18.84 19.84

KEY TO SITE LOCATIONS ON FIGURE 23
SEMINOLE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284147081220201	268

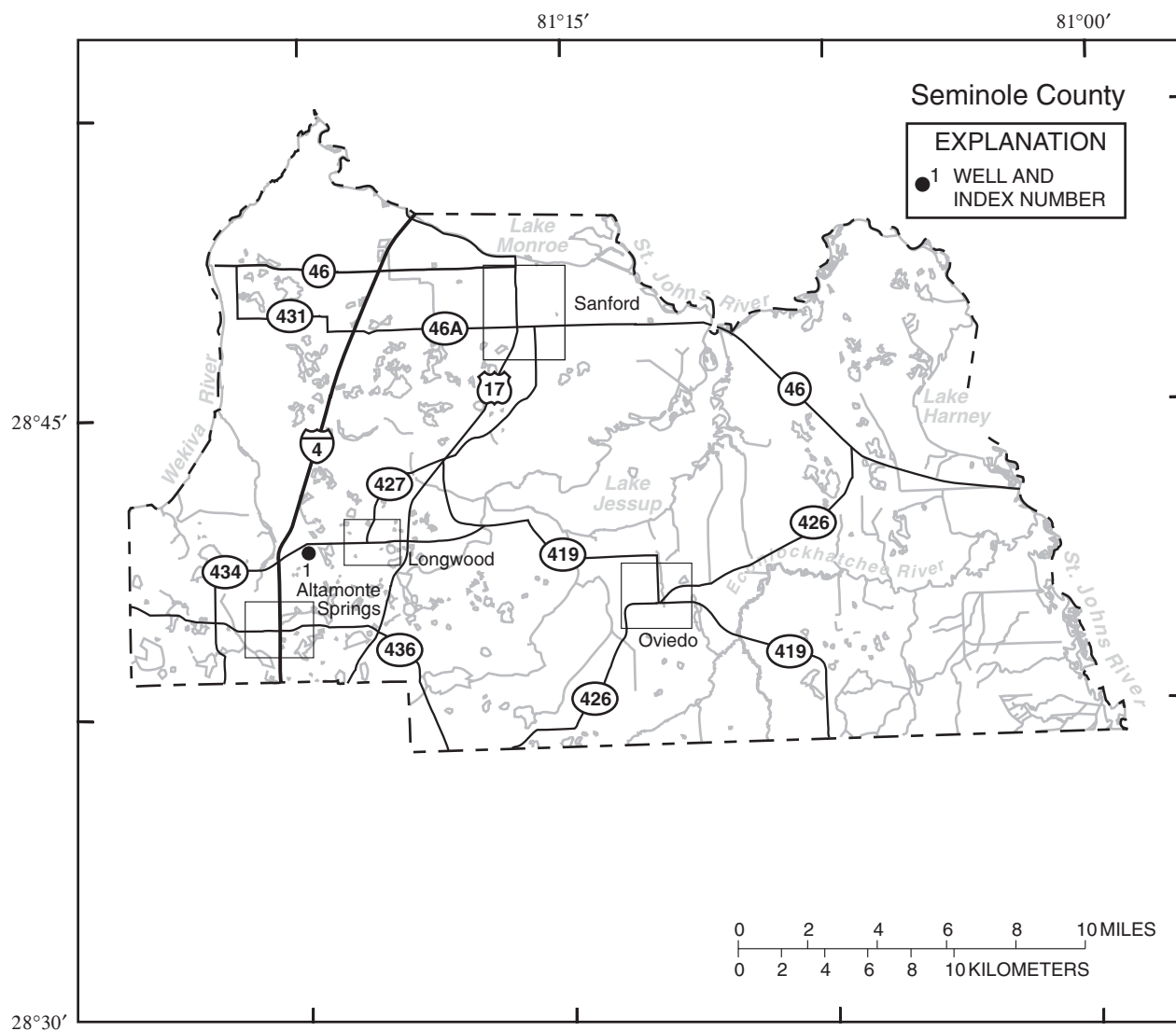


Figure 23.--Location of wells in Seminole County.

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.--Water-stage recorder--15-minute interval.

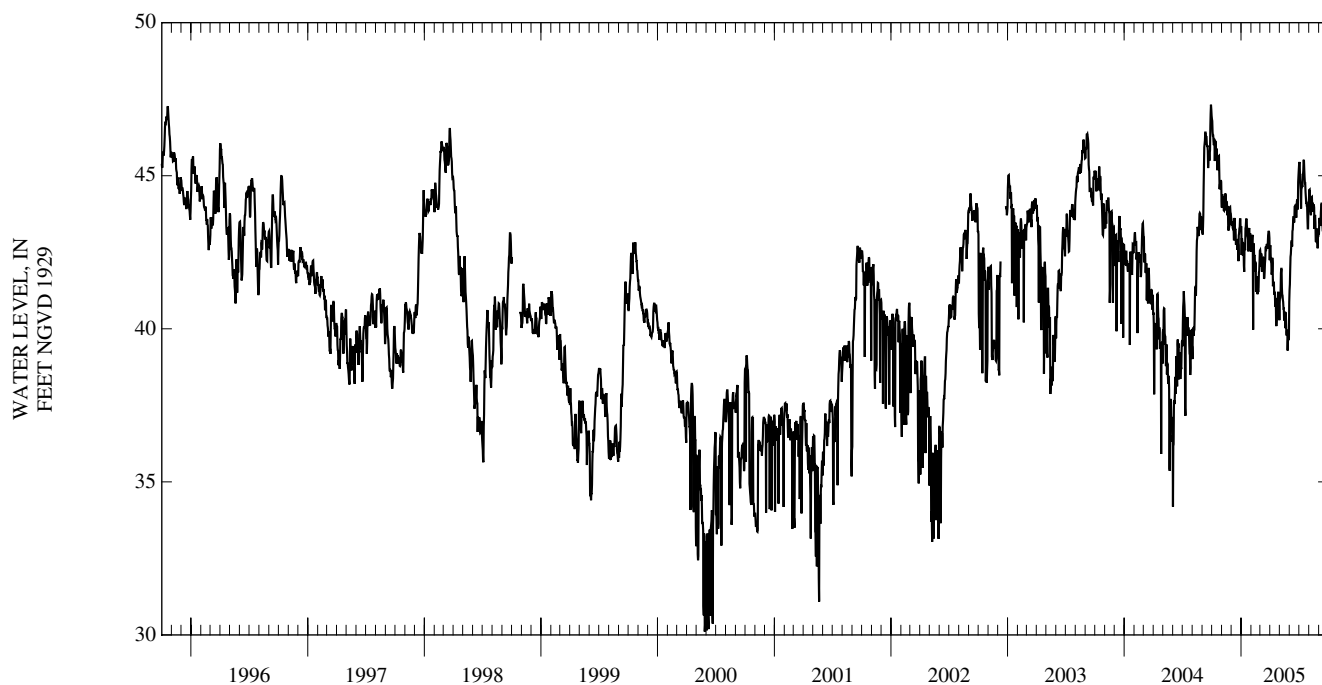
DATUM.--Elevation of land-surface datum is 85.69 ft above NGVD of 1929. Measuring point: Top of recorder shelf, 1.26 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1952 (monthly); November 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.80 ft above NGVD of 1929, Sept. 30, 1960; lowest, 30.11 ft above NGVD of 1929, May 27, 2000.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.31	44.30	43.29	42.43	43.07	42.43	42.14	41.82	42.44	44.72	43.90	43.36
10	45.48	44.01	43.57	41.86	42.41	42.31	41.39	41.09	43.19	44.71	44.31	44.09
15	45.89	43.99	42.75	43.34	42.16	41.85	41.18	40.27	43.47	45.50	43.98	42.77
20	45.56	43.98	42.76	43.04	41.13	42.63	40.12	40.53	43.66	44.76	43.72	42.68
25	44.56	43.42	43.12	43.26	41.84	42.81	40.91	39.94	44.22	44.02	42.96	43.61
EOM	44.18	43.63	43.32	42.52	42.55	42.24	40.28	40.87	45.21	44.04	43.11	44.18
MAX	46.85	44.42	43.62	43.60	43.07	43.20	42.73	41.96	45.21	45.52	44.55	44.19



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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SEMINOLE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
283933081123103	05-26-05 09-22-05	1118 1155	S-1193 AT OVIEDO WTP	34.25 37.21
284052081212601	05-25-05 09-22-05	1257 1256	S-1014 CHARLOTTE STREET	42.49 46.23
284133081105701	05-26-05	1021	FLORIDA AVE WELL NR OVIEDO	19.09
284217081023001	05-26-05 09-22-05	0908 0934	KILBEE #3 TEST NR GENEVA, FL S-0025	9.18 10.78
284247081070801	05-26-05 09-22-05	0724 1043	GENEVA WELL S-0001 NR GENEVA, FL	21.29 22.51
284315081182702	05-25-05 09-22-05	0606 1232	ENVIRONMENTAL CENTER S-0829 NR WINTER SPGS, FL	29.26 32.10
284412081071102	05-26-05 09-22-05	0651 0957	OLD GENEVA FIRE STATION S-1253	18.69 20.33
284533081204801	05-26-05 09-22-05	1220 0826	84512005 20S30E08	32.34 31.82
284715081051802	05-26-05 09-22-05	0811 1018	S-0086 OSCEOLA LANDFILL	12.77 14.35
284923081234802	05-25-05 09-22-05	1346 0758	S-1230 YANKEE LAKE	19.79 21.31

WATER RESOURCES DATA FOR FLORIDA, 2005
Volume 1B: Northeast Florida Ground Water

KEY TO SITE LOCATIONS ON FIGURE 24
SUMTER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282741081585701	272
2	283638082025702	273
3	285119082120601	274

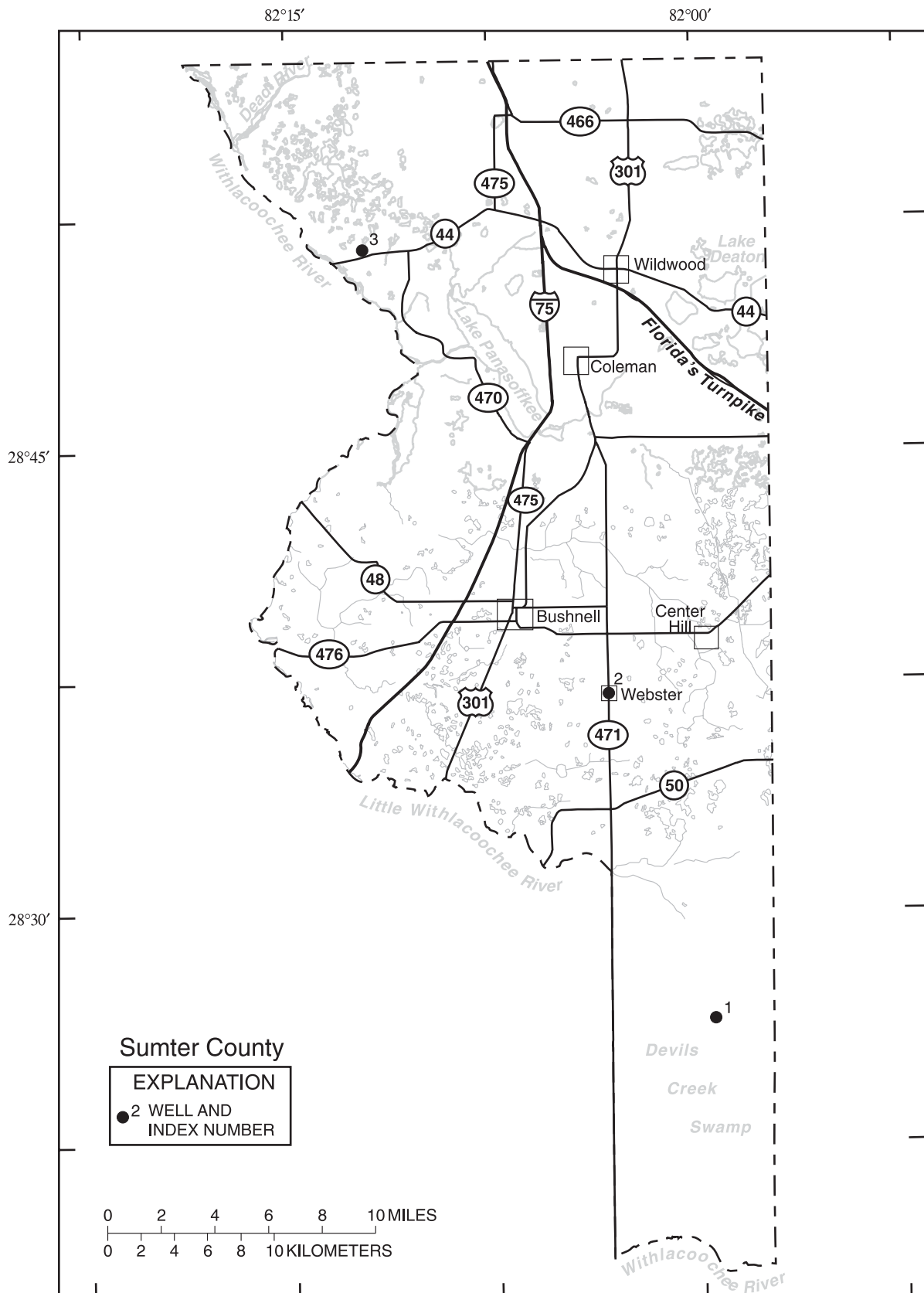


Figure 24.--Location of wells in Sumter County.

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 NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 or electric tape.

DATUM.--Elevation of land-surface datum is 96.94 ft above NGVD of 1929. Measuring point: Top of casing, 1.60 ft above land-surface datum. Prior to June 1991, 3.00 ft above land-surface datum.

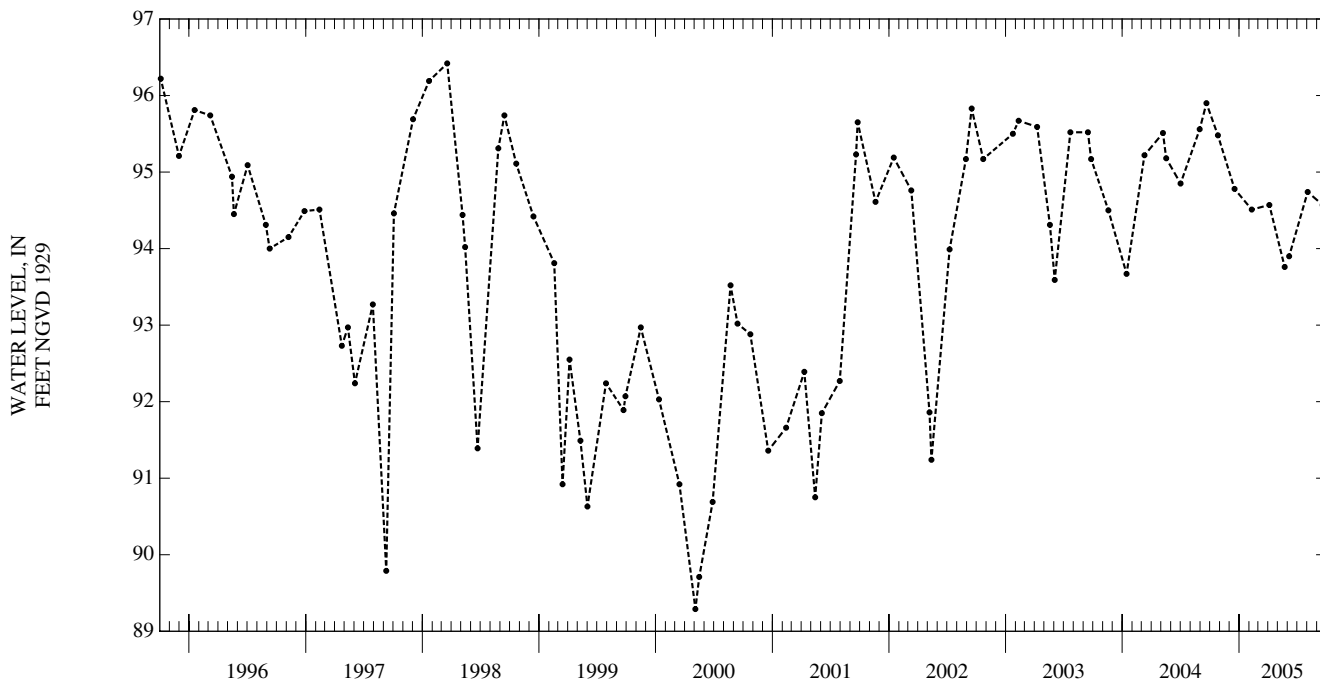
COOPERATION.--Data provided by Southwest Florida Water Management District from October 1983 to September 1985.

PERIOD OF RECORD.--July 1959, September 1964 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.50 ft above NGVD of 1929, July 8, 1974; lowest measured, 89.29 ft above NGVD of 1929, May 4, 2000.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	95.48	FEB 09	94.51	MAY 23	93.76	AUG 03	94.74
DEC 17	94.78	APR 05	94.57	JUN 06	93.90	SEP 19	94.57
WATER YEAR 2005		LOWEST	93.76	MAY 23, 2005	HIGHEST	95.48	OCT 26, 2004



SUMTER COUNTY—Continued

WELL NUMBER.--283638082025702. Webster City Well 2 at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 91.85 ft above NGVD of 1929. Measuring point: Mark on shelter floor, 3.01 ft above land-surface datum. June 1997 to October 2004, measuring point, 2.94 above land-surface datum. Prior to June 1997, .89 ft above land-surface datum.

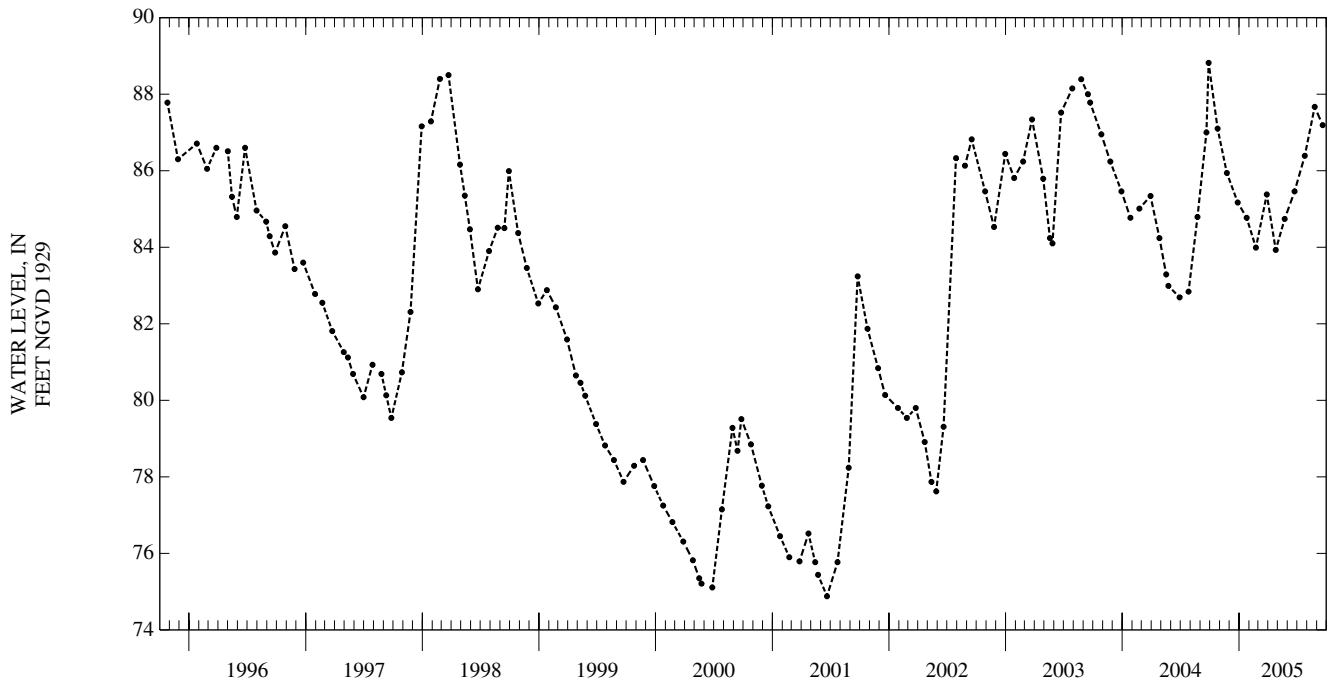
PERIOD OF RECORD.--April to September 1978; October 1979 to September 1992; October 1992 to current year (monthly) discontinued . Prior to October 1992 published as Webster City Recorder Well at Webster, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.82 ft above NGVD of 1929, Sept. 27, 2004; lowest daily maximum water level, 74.45 ft above NGVD of 1929, July 20, 1981.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	87.10	DEC 27	85.17	FEB 22	83.99	APR 25	83.93	JUN 23	85.46	AUG 25	87.67
NOV 23	85.94	JAN 24	84.77	MAR 28	85.38	MAY 23	84.74	JUL 25	86.39	SEP 19	87.19

WATER YEAR 2005 LOWEST 83.93 APR 25, 2005 HIGHEST 87.67 AUG 25, 2005



SUMTER COUNTY—Continued

WELL NUMBER.--285119082120601. Sumter 13 Replacement Well near Wildwood, FL.

LOCATION.--Lat 28°51'19", long 82°12'05", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.10, T.19 S., R.21 E., Hydrologic Unit 03100208, on north side of State Highway 44, 1.2 mi east of Withlacoochee River, and 9.0 mi west of Wildwood. Owner: South 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 33 ft, cased to 28 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

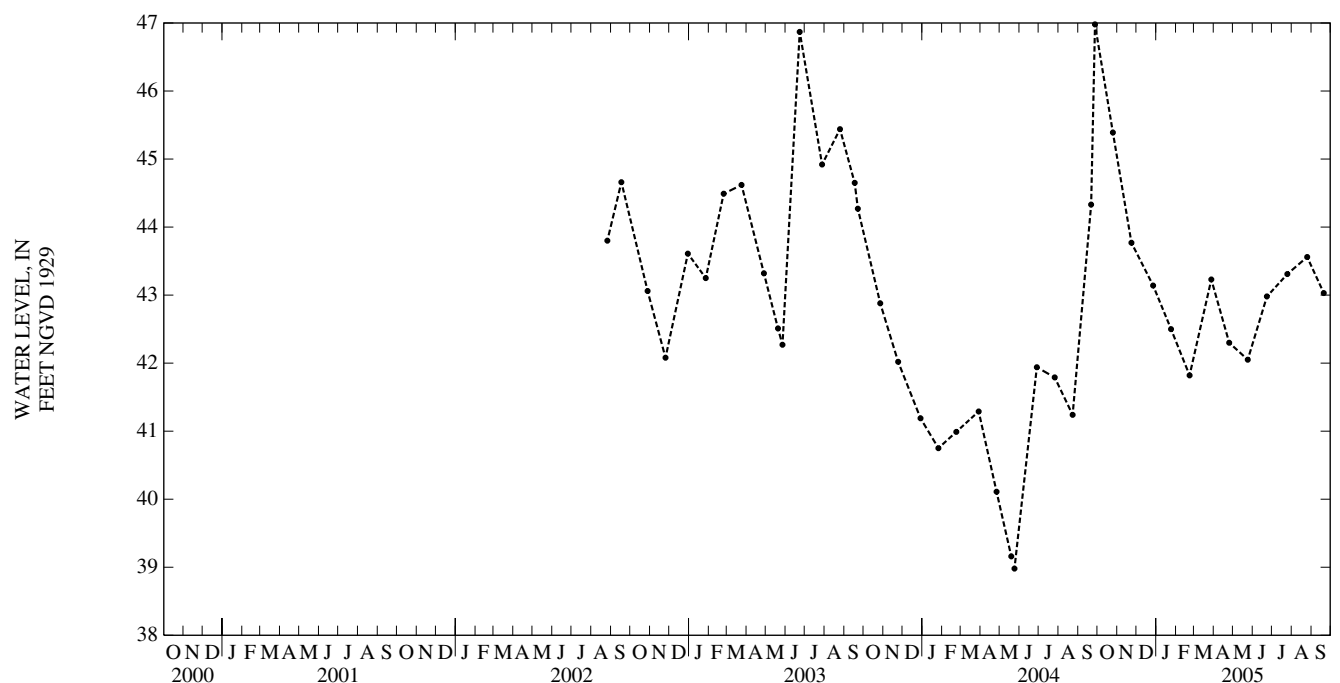
DATUM.--Elevation of land-surface datum is 47.80 ft above NGVD of 1929. Measuring point: Shelter floor, 4.81 ft above land-surface datum.

PERIOD OF RECORD.--August 2002 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.98 ft above NGVD of 1929, Sept. 27, 2004; lowest measured, 38.98 ft above NGVD of 1929, May 24, 2004.

ELEVATION IN FEET NGVD 1929, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	45.39	DEC 27	43.14	FEB 22	41.82	APR 25	42.30	JUN 23	42.98	AUG 25	43.56
NOV 23	43.77	JAN 24	42.50	MAR 28	43.23	MAY 24	42.05	JUL 25	43.31	SEP 20	43.03
WATER YEAR 2005		LOWEST	41.82	FEB 22, 2005	HIGHEST	45.39	OCT 25, 2004				



MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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SUMTER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
281951082012001	05-24-05 09-19-05	1235 0831	81920101GREEN SWAMP L11MD NR DADE CITY, FL	87.94 89.70
281951082012002	05-24-05 09-19-05	1236 0834	81920102GREEN SWAMP L11MM NR DADE CITY, FL	87.97 89.76
281951082012003	05-24-05 09-19-05	1239 0829	81920103 GREEN SWAMP L11MS NR DADE CITY, FL	87.45 89.44
282740082012101	05-23-05 09-19-05	0858 0928	82720101GREEN SWAMP L12BD NR BAY LAKE, FL	89.64 90.71
282740082012102	05-23-05 09-19-05	0903 0927	82720102GREEN SWAMP L12BS NR BAY LAKE, FL	89.59 90.69
283432081592401	05-23-05 09-19-05	0748 0740	83415901 22S23E15 JC 51 HUGH ILEY	90.21 93.09
283539082000301	05-23-05 09-19-05	0933 0957	83520001 25S23E10 JC 67 FLA ROCK IND NO 2	86.35 87.87
283637082081501	05-23-05 09-19-05	1030 1129	83620801 21S22E32 SCL RR USED 155	63.87 65.79
283829082123701	05-23-05 09-19-05	1156 1051	83821202 21S21E21 JC 47 N R DOKE	45.18 47.14
283904082001601	05-24-05 09-19-05	1135 1458	83920001 21S23E22 JC 65 U S GEOL SURVEY	83.03 83.84
283952082022001	05-24-05 09-19-05	1120 1439	83920201 21S23E18 JC 42 PARROT RANCH	79.17 84.91
283953082051401	05-23-05	1312	83920501 21S22E14 JC 36	76.47
284105081594301	05-24-05	1328	STUART RANCH REPLACEMENT NR CENTER HILL	86.71
284115082062601	05-23-05 09-19-05	1220 1205	84120601 21S22E04 JC 27A	60.73 61.66
284119082034501	05-23-05 09-19-05	1328 1428	84120304 21S22E01 JC 44 PARROT RANCH	79.43 82.06
284126082034501	05-23-05 09-19-05	1347 1410	84120305 21S22E01 JC 45 PARROT RANCH	79.50 82.88
284146082061401	05-23-05 09-19-05	1233 1213	84120604 21S22E03 JC 32	59.49 60.82
284147082052801	05-23-05 09-19-05	1250 1230	84120506 21S22E03 JC 34	66.41 67.46
284212082071701	05-25-05 09-19-05	1205 1251	84220702 20S22E32 JC 63 U S GEOL SURVEY	55.22 55.43
284317082142601	05-25-05 09-19-05	1130 1118	84321401 20S21E30 TRAILER PARK NW OF WAH00	40.94 41.71

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

SUMTER COUNTY---Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
284435082011701	05-24-05 09-20-05	1045 1030	BRENTWOOD WELL NR SUMTERVILLE, FL	62.88 68.54
284449082055201	05-24-05 09-20-05	1008 1004	84420502 20S22E15 WOODWARD RESIDENCE	42.59 43.96
284619082035101	05-24-05 09-20-05	1021 1049	84620301ROMP DP WELL 111 AT TOMPKINS PK AN COLEN	50.43 50.99
284703082001701	05-24-05 09-20-05	0853 1105	LOWES BURNED HOUSE WELL NR ADAMSVILLE, FL	55.72 56.28
284809082080701	05-24-05 09-20-05	0952 0944	84820801 19S22E30 HOWARD KENT	40.91 40.01
284955081595801	05-24-05 09-20-05	0838 0857	BYRD TRAILER WELL NR ORANGE HOME, FL	66.05 68.40
285150082044001	05-24-05 09-20-05	0914 0910	85120401 19S22E02 JC 58 U S GEOL SURVEY	48.28 50.10
285207082014501	10-19-04 05-24-05 09-20-05	0709 0825 0843	852201334MASTERS AVENUE CITY WELL AT WILDWOOD, FL	54.97 48.55 53.85
285420081571901	05-24-05 09-20-05	0713 0750	SMITH WELL NO.2 NR CHERRY LAKE, FL	53.41 57.17
285422082001901	05-24-05 09-20-05	0736 0810	HATCHER WELL AT LAKE MIONA NR OXFORD, FL	48.23 51.74
285536082044001	05-24-05 09-20-05	0805 0826	85520401 18S22E14 G N SMITH	47.80 51.82

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

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VOLUSIA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
284840081115701	05-24-05 09-23-05	0848 1315	V-0818 OSTEEN RANCH	17.62 18.83
284859080501002	05-24-05 09-20-05	1035 0955	V-0840 MIGOR SHILOH RD NR OAK HILL, FL	4.72 6.16
285221081095002	05-24-05 09-20-05	0815 0815	85210902 USGS TEST WELL G-2, N. OF OSTEEN, FL	24.61 26.99
285419081041001	05-24-05 09-20-05	0935 0915	V-0198 LAKE ASHBY TWR DEEP	16.10 18.89
285442081181401	05-26-05 09-21-05	0825 1315	V-0196 ORANGE CITY TWR DEEP	21.40 24.12
285513081202801	05-26-05 09-21-05	0915 1345	V-1091 WELL SO OF BLUE SPRINGS NR DEBARY, FL	18.94 20.35
285524081132403	05-26-05 09-21-05	0725 1425	V-0772 GALAXY MIDDLE SCHOOL	12.08 15.01
285638081203101	05-25-05 09-21-05	1542 1248	V-0083 BLUE SPGS WELL SOUTH, ORANGE CITY, FL	7.75 9.95
285745081054001	05-24-05 09-20-05	1250 1200	85710501 USGS OBSER WELL AT ALAMANA, FL.	27.64 29.54
285813081142402	05-26-05	0755	V-0777 LAKE HELEN UPPER	19.29
285934081041801	05-24-05 09-20-05	1235 1150	85910401 USGS TEST WELL 10, S. OF SAMSULA	25.01 26.63
290103080551902	05-24-05 09-20-05	1110 1025	V-0508 NEW SMYRNA BEACH	4.58 5.77
290138081203202	05-25-05 09-19-05	1510 1658	V-0115 USGS J-24 TEST WELL, W. OF DELAND	12.60 17.47
290225081040301	05-24-05 09-20-05	1225 1135	USGS TEST WELL 9(V-0117), NR SAMSULA, FL	19.88 21.80
290230081123401	05-24-05 09-21-05	1540 1150	90211203 USGS TEST HOLE 5, E. OF DELAND	37.55 37.96
290541081132902	05-24-05 09-20-05	1340 1508	90511304 USGS 04 DP TEST W. NR. DELAND, FL. 6" CSG	37.26 37.91
290550081162601	05-23-05 09-20-05	1520 1445	V-0808 WL LAWRENCE 4IN NR LK DAUGHARTY	40.97 42.11
290614081183301	05-23-05 09-20-05	1502 1425	V-0742	36.00 38.06
290737081220301	05-23-05 09-19-05	1445 1525	90712201 HAGSTROM IRRIG WELL, W OF DELEON SPGS	9.57 10.75

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 2004 TO SEPTEMBER 2005

VOLUSIA COUNTY---Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE NGVD (FEET)
290806081013901	05-24-05 09-20-05	1140 1105	V-0162 CITY OBS.WELL #2,WELLFIELD,P.ORANGE	.27 2.55
290828081215103	05-23-05 09-19-05	1425 1510	1030 WELL AT DELEON SPRINGS, FL	20.85 21.91
290834081073802	05-24-05 09-21-05	1521 1100	V-0188	16.06 18.83
291006081101004	05-24-05 09-21-05	1505 1120	91011004 TIGER BAY TEST WELL 4A, W OF DAYTONA	26.90 27.87
291031080590103	05-23-05	1047	V-0200 DAYTONA BEACH SHORES 4INUFA DAYTONA BCH, FL	2.11
291040081143701	05-24-05 09-20-05	1410 1540	V-0700 ORMOND BEACH DAN FORD	33.59 34.28
291150081282501	05-23-05 09-19-05	1355 1425	91112806 15S28E14 HARPERS WELL E OF MURPHY RD	29.55 29.34
291258081313701	05-23-05 09-19-05	1330 1420	91213103 4" SUPPLY WELL,SE L.GEORGE,NR EMPORIA	8.63 9.26
291448081274905	05-23-05 09-19-05	1000 1245	V-0531 PIERSON UPPER	27.89 25.82
291458081294201	05-23-05 09-19-05	1210 1258	91412901 SJRWMD WELL 1.0 MI W OF PIERSON	20.92 19.54
291509081302601	05-23-05 09-19-05	1250 1345	V-4034 SJRWMD 6IN, 2MI W PIERSON, FL	16.22 16.05
291523081095001	05-25-05 09-21-05	1430 1025	91510902 USGS WELL #1, SR40, W.OF ORMOND	15.91 16.82
291705081073502	05-25-05 09-21-05	1410 0935	V-1094 NR ORMOND BEACH, FL	8.26 8.99
291835081324201	05-23-05 09-19-05	1110 1100	91813201 USED 426 PINE ISLAND, W.OF SEVILLE	6.61 7.63
291905081251001	05-23-05 09-19-05	1140 1225	91912501 R. NOLAN WELL NR SEVILE, FL.	20.88 21.12
292038081315302	05-23-05 09-19-05	1030 1105	V-0567	33.00 33.19

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Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter (m)
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.233×10^3	cubic meter (m ³)
	1.233×10^{-3}	cubic hectometer (hm ³)
	1.233×10^{-6}	cubic kilometer (km ³)
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second (m ³ /s)
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton (short)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

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U.S. Geological Survey
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U.S. Geological Survey Water Resources Data -- Florida -- Northeast Florida Ground Water

