

Prepared in cooperation with the State of Florida and other cooperative agencies

# Water Resources Data Florida Water Year 2005

Volume 2B. South Florida Ground Water



Water-Data Report FL-05-2B



## **Calendar for Water Year 2005**

2004

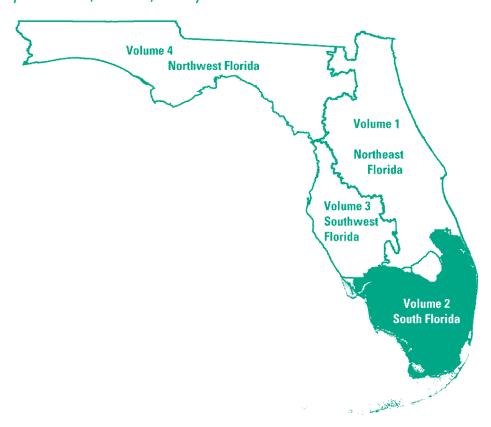
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# Water Resources Data Florida Water Year 2005

Volume 2B. South Florida Ground Water by S. Prinos, R. Irvin, M. Byrne



Water-Data Report FL-05-2B



# **U.S. Department of the Interior** Dirk Kempthorne, Secretary

# U.S. Geological Survey Patrick Leahy, Acting Director

2006

U.S. Geological Survey 3110 S.W. 9th Avenue Ft. Lauderdale, Florida 33315 954 377-5900

Information about the USGS, Florida Integrated Science Center, is available on the Internet at <a href="http://fl.water.usgs.gov">http://fl.water.usgs.gov</a>

Information about all USGS reports and products is available by calling 1-888-ASK-USGS or on the Internet via the World Wide Web at <a href="http://www.usgs.gov/">http://www.usgs.gov/</a>

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#### **VOLUME 2B: SOUTH FLORIDA**

#### PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes. Figure 1 shows the area covered by Volume 2B.

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

#### ACKNOWLEDGEMENT

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. This report was prepared for publication by the Hydrologic Records Section under the supervision of M. H. Murray, K. Overton, J. Woolverton, E. C. Price, and S. Prinos; and by the Hydrologic Studies Section under the supervision of B. Howie, E. Patino, C. D. Hittle. Sheila Guevara, Carolyn Price, Eleanor Seymore, Jose Agis, and Bruce Irvin, were the primary persons responsible for the compilation of the data report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data

#### Florida Integrated Science Center - Water and Restoration Studies

Rene Rodriguez Jose Agis Gene Krupp Clint Lietz Gail Romero Andres Alegria Stephen Bean Jacqueline Lima Eleanor Seymore Michael Byrne Christian Lopez Lars Soderqvist Elizabeth Debiak Ernesto Mangual Rick Solis Linda Elligott Lee Massey Marc Stewart Eduardo Figueroa-Gibson Drew Milewski Craig Thompson Jessica Flanigin Mitch Murray Robert Valderrama Sheila Guevara Michael Oliver Rokhshan Wali Sara Hammermeister Jeffrey Woods Keith Overton Clinton Hittle Eduardo Patino Jon Woolverton Bruce Irvin Shane Ploos Mark Zucker Neil Keppie Carolyn Price Dennis Kluesner Scott Prinos

This report was prepared in cooperation with the State of Florida and with other agencies listed under COOPERATION on page 2.

Michelle Regon

Hydrologic data for south Florida are contained in two volumes

Elizabeth Kozma

Volume 2A: Surface Water Volume 2B: Ground Water

## REPORT DOCUMENTATION PAGE Form Approved OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters 1. AGENCY USE ONLY (Leave blank) 2. REPORT DATE 3. REPORT TYPE AND DATES COVERED July, 2006 Annual Report 4. TITLE AND SUBTITLE 5. FUNDING NUMBERS Water Resources Data Florida, Water Year 2005 Volume 2B: South Florida - Ground Water S. Prinos, R. Irvin, M. Byrne, 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORGANIZATION REPORT NUMBER U.S. Geological Survey 3110 S.W. 9th Avenue USGS-WDR-FL-05-2B Ft. Lauderdale, Florida 33315 10. SPONSORING / MONITORING AGENCY REPORT NUMBER 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) **U.S. Geological Survey** 3110 S.W. 9th Avenue USGS-WDR-FL-05-2B Ft. Lauderdale, Florida 33315 11. SUPPLEMENTARY NOTES Prepared in cooperation with the State of Florida and other agencies. 12b. DISTRIBUTION CODE 12a, DISTRIBUTION / AVAILABILITY STATEMENT No restrictions on distribution: This report may be purchased from: National Technical Information Center, Springfield, VA 22161 13. ABSTRACT (Maximum 200 words) Water resources data for 2005 water year in Florida consists of continuous or daily discharge for 429 streams, periodic discharge for 9 streams, continuous or daily stage for 218 streams, periodic stage for 5 stream, peak discharge for 28 streams, and peak stage 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 South Florida included continuous or daily discharge for 91 streams, continuous or daily stage for 62 streams, no peak stage discharge for streams, 1 continuous elevation for lake, continuous ground-water levels for 248 wells, periodic ground-water levels for 187 wells, water quality for 54 surface-water sites, and 121 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 15. NUMBER OF PAGES \*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. 16. PRICE CODE 17. SECURITY CLASSIFICATION OF REPORT 18. SECURITY CLASSIFICATION OF THIS PAGE 19. SECURITY CLASSIFICATION 20. LIMITATION OF ABSTRACT OF ABSTRACT Unclassified Unclassified Unclassified

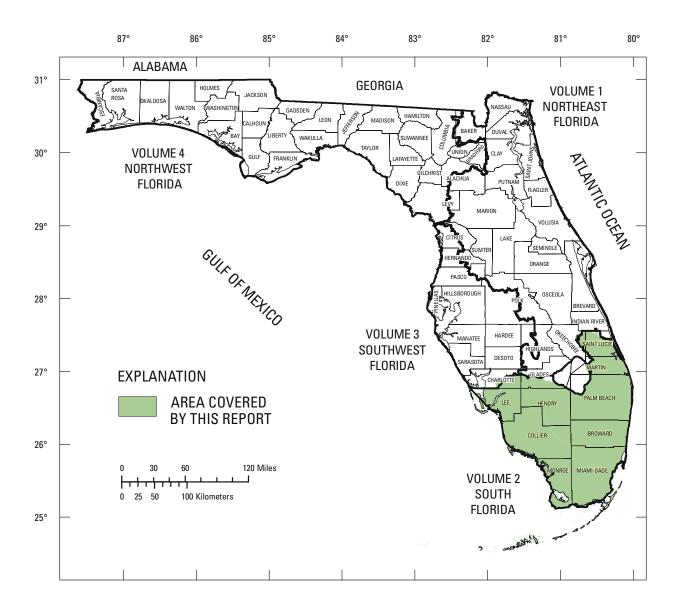


Figure 1. Geographic area covered by this report.

## WATER RESOURCES DATA - FLORIDA, 2005 VOLUME 2B: SOUTH FLORIDA

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#### **VOLUME 2B: SOUTH FLORIDA**

#### INTRODUCTION

The U.S. Geological Survey (USGS), in cooperation with State, County, and other Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the state. 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, Volume 2A: South Florida Surface Water and Volume 2B: South Florida Ground Water".

This report series includes records of stage, discharge, and water quality for streams; stage, contents, and water quality for lakes; and ground-water levels, contents, and water quality of ground-water wells. The data for South Florida include continuous or daily discharge for 91 streams, continuous or daily stage for 62 streams (including stage published at discharge and stage only sites), continuous elevations for 1 lake, continuous ground-water levels for 248 wells, periodic ground-water levels for 187 wells, and quality-of-water data for 54 surface-water sites and 121 wells.

Publication of this series of annual reports for Florida began with the 1961 water year, with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. For the 1975 water year, the report format was modified to one volume presenting data on quantities of surface water, quality of surface and ground water, and ground-water levels. For the 1977 water year, the report format was modified to a two volume set: one volume presenting data on quantity as well as quality of surface water and one volume presenting data on water levels along with quality of ground water.

Prior to introduction of this series and for several concurrent water years, water-resources data for Florida were published in USGS 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 aforementioned Water-Supply Papers may be consulted in the federal repository libraries of the principal cities of the United States and may be purchased from the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80115 (telephone: 888-ASK-USGS).

Similar reports are published annually by the USGS for all of the United States. These official USGS 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-xx-2B," where xx represents the current water year. For archiving and general distribution, reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or microfiche by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. Additional information on the National Technical Information Service may be accessed from <a href="http://www.ntis.gov/">http://www.ntis.gov/</a>. Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (954) 377-5900.

## **VOLUME 2B: SOUTH FLORIDA**

## **COOPERATION**

The USGS and various Federal, State, and local organizations have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data presented in this report through cooperative agreement with the USGS are:

U.S. Fish and Wildlife Service

Broward County
City of Boca Raton
City of Cape Coral
City of Hallandale Beach
City of Hollywood
Everglades National Park
Florida Keys Aqueduct Authority
Lee County

Miami-Dade County Department of Environmental Resource Management Palm Beach County Seminole Tribe of Florida South Florida Water Management District St. Lucie County U.S. Army Corps of Engineers

Organizations that provided data are acknowledged in station manuscripts.

#### SUMMARY OF HYDROLOGIC CONDITIONS

This section summarizes important hydrologic events that occurred during the 2005 water year (October 1, 2004 to September 30, 2005) as well as significant natural and water-management responses to these events. Figure 2 provides a frame of reference for some of the major land areas of hydrologic significance mentioned in the summary.

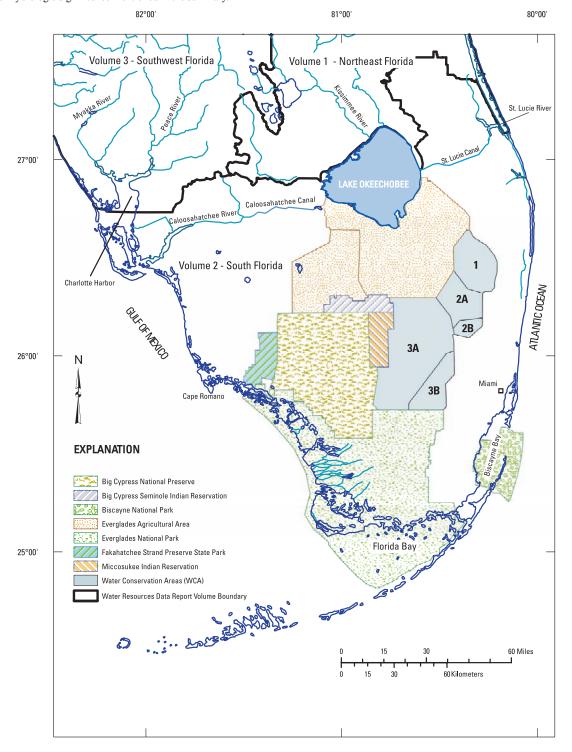


Figure 2. South Florida areas of hydrologic significance.

#### SUMMARY OF HYDROLOGIC CONDITIONS (continued)

#### GROUND-WATER MONITORING NETWORK

The U.S. Geological Survey's cooperative monitoring network is designed to provide the data needed to make informed decisions concerning water resources by water managers, public leaders, scientists, and the public. In southern Florida, data from these networks have been used by water managers to evaluate and make decisions about: the potential for flooding, the affects of drought, sea-water encroachment into aquifers, operation of public water supply utilities, operation of the surface water management system, the ability of local aquifers to meet increasing demands, and appropriate water allocations in the face of these concerns. The data have also been used to support such diverse uses as infrastructure engineering, fire response, business planning, evaluating the effects of hydrologic events on agriculture, scientific research, environmental activism, and legal proceedings.

During the 2005 water year, the Florida Integrated Science Center - Fort Lauderdale (FISC-Fort Lauderdale) monitored 453 wells in southern Florida to assess regional ground-water conditions. This represents a 58-station reduction from water year 2004 monitoring that is part of an ongoing decline since 1995, when the South Florida monitoring network included 994 wells. During approximately the same period, the population in southern Florida increased by an estimated 25 percent (computed from population estimates, U.S. Census Bureau, 2000, 2006). From previous comparisons of ground-water withdrawals and population estimates (Prinos and others, 2000), it is likely that the withdrawal of fresh water from southern Florida aquifers has increased in proportion to the population increase. For example, a comparison of water-use data compiled by R.L. Marella (U.S. Geological Survey, written commun., 1998) to population estimates (Bureau of Economic and Business Research, 1998), indicates that the relative increases in population and water use in southwestern Florida from 1980 to 1998 were 109 and 99 percent, respectively.

The South Florida USGS cooperative network monitors 8 locally-named aquifers. In southeastern Florida the principal aquifers monitored are the Biscayne aquifer in Miami-Dade and Broward Counties (201 wells) and the surficial aquifer system in Palm Beach, St. Lucie, and Martin Counties (50 wells). In southwestern Florida the principal aquifers are the water-table aquifer (59 wells), lower Tamiami aquifer (34 wells), sandstone aquifer (39 wells), mid-Hawthorn aquifer (38 wells), lower Hawthorn aquifer (or lower Hawthorn producing zone) (25 wells), and the Floridan aquifer system (7 wells). The generalized geology and hydrogeology of southern Florida is shown in figure 3.

A thorough assessment of hydrologic conditions for each aquifer would require a statistical evaluation of data from all of the available wells in the network. The USGS has performed a statistical analysis of hydrologic data from each well in its cooperative monitoring network that has sufficient data for the analysis. The more comprehensive results this approach provides are available at "Ground-water conditions in southern Florida", <a href="http://www.sflorida.er.usgs.gov/">http://www.sflorida.er.usgs.gov/</a>.

#### RAINFALL

Water levels in the surficial aquifer system generally respond readily to precipitation. Therefore wells completed in these aquifers monitor the changes caused by rainfall. Because they are within the surficial aquifer system, the water-table aquifer and the lower Tamiami aquifer in southwestern Florida, and the Biscayne aquifer in Miami-Dade and Broward counties, show these changes (fig. 3). Although the lower Tamiami aquifer is confined in some areas, because it is relatively shallow and a portion of the aquifer is unconfined, it is part of surficial aquifer system in southern Florida. In the deep confined aquifers the response of water levels to precipitation in southern Florida is less pronounced. This is because the recharge areas for these aquifers are in central Florida. Water-level responses to rainfall in these aquifers tend to be more muted and delayed than in the surficial aquifers. In the deep confined aquifers the effects of municipal water-supply withdrawals on aquifer water levels are often much more prominent than the water-level variations caused by rainfall events. Regardless of the aquifer depth, all of the monitored wells display a seasonal variation in water levels that corresponds to the seasonal variation in rainfall.

Rainfall data collected and evaluated by the South Florida Water Management District (SFWMD) during the 2005 water year provide a framework for understanding monthly water-level variations (South Florida Water Management District, 2004, 2005). The southern Florida rainfall data provided by the SFWMD are subdivided into 16 geographic areas. Monthly rainfall totals from individual stations within each area are averaged and compared to the historical total monthly rainfall averages. The percentage of average monthly rainfall is then computed for each of the 16 geographic areas. This percentage is used throughout the discussion of ground-water conditions for the 2005 water year. The SFWMD also computes and provides the average rainfall combined from all 16 geographic areas. This statistic is also used throughout the discussion. An example of this rainfall analysis is presented in figure 4.

For the purposes of this report the following terms are used in relation to the percent of average rainfall computed by the SFWMD: "extremely lower than normal" (less than 30 percent), "well below normal" (30 to 59 percent), "slightly below normal" (between 60 and 89 percent), "normal" (90 to 149 percent), "slightly above normal" (150 to 199 percent), "well above normal" (200 to 300 percent), "extremely above normal" (greater than 300 percent).

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## SUMMARY OF HYDROLOGIC CONDITIONS (continued)

Southeastern Geological Society in Florida Bureau of Geology Special Publication 28		This report						
		Southwestern Florida ee, Collier, and Hendry Counties)	_	Southeastern Florida ami-Dade and Broward Counties)	Southeastern Florida (Martin, Palm Beach, and St. Lucie Counties)			
	system	Water-table aquifer	l aquifer system	Biscayne aquifer				
Surficial aquifer system	Surficial aquifer system	Confining beds		Semiconfining unit Gray limestone aquifer	Surficial aquifer system			
		Lower Tamiami aquifer	Surficial	Semiconfining unit				
	stem	Confining unit						
	Sandstone aquifer							
Intermediate aguifer system	aduife	Confining unit	Ir	ermediate confining	Intermediate			
momentud aquilor oyatam	Intermediate aquifer system	Mid-Hawthorn aquifer		unit	confining unit			
	Interi	Confining unit						
	aquifer system	Lower Hawthorn producing zone						
Floridan aquifer system	Floridan aquifer	Remaining portion of the Floridan aquifer system		oridan aquifer system	Floridan aquifer system			

 $Figure\ 3.\ Generalized\ geology\ and\ hydrogeology\ of\ southern\ Florida\ (Prinos\ and\ others,\ 2002)$ 

## SUMMARY OF HYDROLOGIC CONDITIONS (continued)

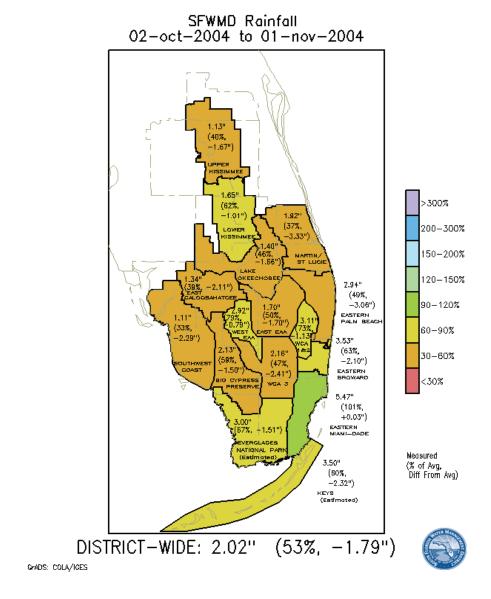


Figure 4. Example of a monthly rainfall map published by the South Florida Water management District (2004)

#### SUMMARY OF HYDROLOGIC CONDITIONS (continued)

#### DATA FROM SELECTED WELLS

The most extensive data are provided by monitoring wells equipped with data recorders that measure hourly water levels. Daily maximum water-level elevations are computed from these hourly measurements and presented in this report. In 2004 there were 264 monitoring wells equipped with recorders. In 2005 there were 248 monitoring wells so equipped.

Seven recorder-equipped wells have been selected as index stations to depict ground-water conditions for the 2005 water year. These wells, monitoring seven municipal water-supply aquifers, are S-196A (fig. 5, Biscayne aquifer), PB-561 (fig. 6, surficial aquifer system), C-496 (fig. 7, water table aquifer), L-2194 (fig. 8, lower Tamiami aquifer), L-729 (fig. 9, sandstone aquifer), L-1993 (fig. 10, mid-Hawthorn aquifer) and L-2434 (fig. 11, lower Hawthorn producing zone). These wells were selected to show localized changes in ground-water levels that occurred in the municipal water-supply aquifers. The data presented for these index wells are only indicative of changes occurring in the aquifers in the vicinity of each well.

For each of the seven index wells examined, two hydrographs are shown (figs. 5-11). The first hydrograph compares the water levels for the 2005 water year to historical water-level data. Daily maximum water levels from the 2005 water year are compared to: (1) normal monthly means of the daily maximum water levels, computed using all data available for each month of the period October 1980 to September 2005; (2) highest and lowest daily maximum water levels for the period of record; and (3) the monthly standard deviation of water levels above and below the normal monthly mean. Data presented in this first graph could be skewed by long-term water-level trends.

The second hydrograph shows (1) all available daily maximum water levels for the period October 1980 to September 2005, (2) the annual (water year) means of daily maximum water levels, and (3) statistical data obtained from the Seasonal Kendall Trend Test (SKTT), which may indicate long-term trends. The SKTT is a nonparametric test for a monotonic trend in a data set - monthly mean values of the daily maximum water levels in this case. The test makes pairwise comparisons of data values from the same seasons to eliminate seasonal variability. The null hypothesis for the test assumes that the random variable (water level) has not changed over time. Two results from this test are the p-value and the Seasonal Kendall Slope Estimator (SKSE). The p-value indicates whether the trend determined by the SKTT is statistically significant. If the null hypothesis is disproven (p-values less than 0.05), there is a statistically significant trend in the data. The SKSE is a positive or negative slope representing a trend in water levels that is either increasing or decreasing. The SKSE is expressed as the change in water level in feet per year.

The statistical analyses used to evaluate the water-level data can be affected by missing data. Almost all of the index stations selected have periods that are missing data. There are a number of reasons for this missing data: (1) cooperative support for ground-water monitoring at some locations has fluctuated, resulting in monitoring at some wells that was terminated, but later resumed; (2) some stations where water levels fluctuate rapidly and extensively experienced mechanical problems that resulted in missing data; and (3) monitoring wells have been destroyed and reinstalled.

Missing data are evident in each of the seven index wells. Two of the most obvious are PB-561 (fig. 6, surficial aquifer system) and L-2434 (fig. 11, lower Hawthorn producing zone). More than half of the data for the 2005 water year from well PB-561 (fig. 6) is missing because during nearby road construction the entire well was removed from the ground twice and reinstalled. Prior to 1997 a great deal of data was lost from well L-2434 (fig. 11) because mechanical systems used to monitor the well slipped or became entangled as water levels fluctuated. This necessitated the deletion of some segments of erroneous data until a submersible pressure transducer was installed during the 1997 water year.

The data analyzed were not completely censored for missing record because certain stations, such as L-2434 (fig. 11), would have provided insufficient data for analysis if all partial monthly or annual records were removed. Despite the missing data from well L-2434 (fig. 11), there is clearly a significant trend toward decreased water levels that is apparent in the record available. This trend must be considered in order to understand why the current water-level data generally are well below the normal monthly mean water levels in this well.

In the second hydrograph presented for each index station, dashed lines indicate periods for which the computed annual means included one or more months that were missing more than 15 days. The SKSE provided for water-level trends that include these periods should also be considered approximate. Within the applicable graphs, the word "approximately" is used to indicate uncertainty for those stations that have excessive periods of missing record.

## LONG-TERM TRENDS

The potential effects of long-term water-level trends must be considered before current ground-water conditions can be reasonably evaluated. Hydrographs showing daily ground-water levels, means, and SKTT statistics (figs. 5-11) show statistically significant (p-value less than 0.05) long-term trends in water-levels at all index wells, except for well PB-561 (fig. 6, surficial aquifer system). Trends were evaluated for the 1981-2005 water-year period for all index stations.

#### SUMMARY OF HYDROLOGIC CONDITIONS (continued)

Wells completed in the Biscayne aquifer in Miami-Dade County (fig. 5, S-196A) and the water-table aquifer in Collier County (fig. 7, C-496) indicate a water-level increase of about 0.02 ft/yr (foot per year) during the water-year period 1981 to 2005.

Wells completed in the lower Tamiami aquifer (fig. 8, L-2194), sandstone aquifer (fig. 9, L-729), mid-Hawthorn aquifer (fig. 10; L-1993), and lower Hawthorn producing zone (fig. 11, L-2434) in Lee County all show long-term water-level declines for the 1981 to 2005 water-year period. A 0.08 ft/yr downward trend in water-level data from well L-2194 was determined. This represents an approximate 2-ft decrease in average water levels (fig. 8). Water-level data from well L-729 indicated a 0.21 ft/yr downward trend that represents an approximate 5-ft decline in average water levels (fig. 9). Water-level data from well L-1993 indicated a 0.71 ft/yr downward trend that represents an approximate 18-ft decline in average water levels (fig. 10). Water-level data from well L-2434 indicated an overall downward trend of 1.60 ft/yr, representing an approximate 40-ft decline in water levels (fig. 11).

Water levels in wells L-2194 and L-1993 during the water years from 2003 to 2005 were not quite as low as during the 2002 water year (figs. 8 and 10). This may indicate that the long-term trend towards declining water levels at these locations may be diminishing. However this may also only be a short term pause in the downward trend. The trend in water levels in well L-2434 has generally resulted in period-of-record extreme minimum water levels that are progressively lower each year during the 1981 to 2004 water-year period. Minimum water levels in 2005, however, were not quite as low as during the 2004 water year (fig. 11). Wells L-2194, L-1993, and L-2434 are all completed in confined aquifers and located in areas affected by municipal water-supply withdrawals.

Because of the effect of substantial long-term declines in water level at wells L-729 (fig. 9, sandstone aquifer), L-1993 (fig. 10, mid-Hawthorn aquifer), and L-2434 (fig. 11, lower Hawthorn producing zone), recent water levels are, on average, below the monthly means of historic water levels (figs. 9-11). These monthly means are influenced by water levels that had been much higher in the past. The effect of the declining water levels on monthly means of historic water levels is most obvious in the hydrograph from well L-1993 (fig. 10) in which no value recorded during the 2005 water year was above one standard deviation below the monthly means. Therefore, comparative analysis of recent and historical water levels is required to develop a comprehensive understanding of water-level data from the current year.

#### GROUND-WATER CONDITIONS DURING THE 2005 WATER YEAR (OCTOBER 2004 TO SEPTEMBER 2005)

#### October

Rainfall throughout southern Florida in October was generally well below to slightly below normal except for eastern Miami-Dade County where it was about normal. Across southern Florida rainfall averaged about 2 inches, which is only about half of the 3.8 in. normally occurring during this month. As a result, water levels in all the index wells except for S-196A (fig. 5, Biscayne aquifer) and L-2434 (fig. 11, lower Hawthorn producing zone) declined during the month. Water levels in well S-196A (fig. 5, Biscayne aquifer) were lower than the monthly mean in the first half of the month but increased to greater than one standard deviation above the mean in the middle of the month. They then receded until by the end of the month they were equivalent to the normal monthly mean. Water levels in well PB-561 (fig. 6, surficial aquifer system) were higher than one standard deviation above the normal monthly mean at the beginning of the month and declined until by mid-october they were nearly equivalent to the normal monthly mean. At that time well PB-561 was removed because of road construction and did not provide data for about 2 months.

Water levels in well C-496 (fig. 7, water table aquifer) were about equivalent to the normal monthly mean during the month and declined only gradually. Water levels in well L-2194 (fig. 8, lower Tamiami aquifer) declined during the month from about one standard deviation above the normal monthly mean to slightly below the monthly mean. Water levels in well L-729 (fig. 9, sandstone aquifer) declined from somewhat higher than the normal monthly mean to lower than one standard deviation below the monthly mean. Water levels in wells L-1993 (fig. 10, mid-Hawthorn aquifer) and L-2434 (fig. 11, lower Hawthorn producing zone) remained lower than one standard deviation below the normal monthly means throughout October.

#### November

On average, in November, rainfall was only about 0.7 in. throughout southern Florida. This was less than a third of the normal amount of rainfall usually received (2.7 in.) Distribution of rainfall varied from well below normal to extremely lower than normal throughout most of southern Florida. The exception was Everglades National Park where rainfall was only slightly below normal. Water levels in S-196A (fig. 5, Biscayne aquifer) declined gradually in the first half of the month but were near normal monthly mean levels. Near the end of the month a period of rainfall caused water levels to briefly rise to about one standard deviation above the normal monthly mean. No data was available from well PB-561 (fig. 6, surficial aquifer system). Water levels in well C-496 (fig. 7, water table aquifer) declined in the beginning of the month and were near the monthly mean, but record is missing for the end of the month for this well. Water levels at L-2194 (fig. 8, lower Tamiami aquifer) also declined during the month from slightly higher than the normal monthly mean to slightly below it.

Of the index wells, L-729 (fig. 9, sandstone aquifer) showed the sharpest decline relative to historic November water levels for this well. Water levels declined by about 5 ft, from about one standard deviation below the normal monthly mean to considerably lower than this level. Examination of long term data shows that water levels in this well used to annually range from about 12 to 24 ft above the National Geodetic Vertical Datum of 1929 (NGVD 1929). Since 2000, water levels in the well annually range from about 2 to 24 ft above NGVD 1929.

Water levels in wells L-1993 (fig. 10, mid-Hawthorn aquifer) and L-2434 (fig. 11, lower Hawthorn producing zone) remained lower than one standard deviation below the normal monthly mean levels for these wells. Water levels in well L-1993 (fig. 10) declined by about 3 ft. Water levels at L-2434 (fig. 11) varied by about 15 ft during the month.

#### SUMMARY OF HYDROLOGIC CONDITIONS (continued)

#### December

Unusually dry conditions persisted in December throughout all of southern Florida except the southwestern coast and the Kissimmee drainage basin areas where rainfall was normal. Total rainfall received was about 1.3 in., which was only about 70% of the normal rainfall (1.9 in.). Rainfall was extremely lower than normal in eastern Miami-Dade and Palm Beach Counties. Water levels in well S-196A (fig. 5, Biscayne Aquifer) declined from one standard deviation above to near the normal monthly mean. Water levels in well L-1993 (fig. 10, mid-Hawthorn aquifer) declined steadily throughout the month and remained well below one standard deviation below the normal monthly mean.

Water level monitoring in well PB-561 (fig. 6, surficial aquifer system) resumed in mid-December. At this time water levels were below the normal monthly mean and continued to decline for the remainder of the month. Water level data also became available for well C-496 (fig. 7, water table aquifer) in the middle of the month and these levels were also below the normal monthly mean and declined for the remainder of the month.

Throughout December, well L-2194 (fig. 8, lower Tamiami aquifer) had water levels that were near the normal monthly mean. Water levels in this well rose slightly during the month. During the month, water levels in wells L-729 (fig. 9, sandstone aquifer) and L-2434 (fig. 11, lower Hawthorn producing zone) varied by about 10 ft and 15 ft respectively, but did not indicate a significant rise or decline. Water levels in both wells were generally lower than one standard deviation below normal monthly mean water levels.

#### January

In southern Florida rainfall continued to be well below normal during January except in the Kissimmee drainage basin, where it ranged from slightly below normal to normal. Across southern Florida rainfall averaged about 1 in. which is less than half the normal amount of rainfall (2.3 in.). As a result water levels declined in all the index wells except L-2434 (figure 11, lower Hawthorn producing zone). Water levels in wells S-196 (fig. 5, Biscayne aquifer) and L-2194 (fig. 8, lower Tamiami aquifer) were near normal mean water levels throughout the month, but water levels in all of the other index wells were below January mean water levels. Of these wells, at L-729 (fig. 9), L-1993 (fig. 10), and L-2434 (fig. 11) water levels were much lower than one standard deviation below monthly mean levels.

#### February

There was little respite for most of southern Florida in February. In some areas the conditions worsened. Rainfall was extremely lower than normal in the water conservation areas, Everglades National Park, Big Cypress National Preserve, the Florida Keys, and eastern Broward and Miami-Dade Counties. Rainfall was well below to slightly below normal in the southwestern Florida coastal area, the Everglades Agricultural Areas, and Martin, Palm Beach, and St. Lucie Counties. Only near Lake Okeechobee, the Kissimmee drainage basin, and the eastern Caloosahatchee drainage basin was rainfall normal to slightly above normal. Average southern Florida rainfall was 1.6 in., only 73 percent of normal (2.2 in.). As would be expected, water levels declined in all of the index wells. By the end of the month most index wells recorded water levels that were about one standard deviation below the normal monthly mean or lower. Well L-729 (fig. 9, sandstone aquifer) recorded the lowest daily maximum water level for its period of record on February 24, 2005, and water levels in well L-2434 (fig. 11, lower Hawthorn producing zone) came to within one foot of its record lowest daily maximum water level, set the previous year.

#### March

March brought a welcome change to southern Florida in the form of rainfall that was normal or greater than normal in all areas. Rainfall across southern Florida averaged about 5.4 in., slightly less than double the normal amount of rainfall. Rainfall was greatest near Lake Okeechobee, the Caloosahatchee drainage basin, the Everglades agricultural areas, the southwestern coast of Florida, and Water Conservation Areas 1 and 2. It was slightly above normal in the Kissimmee drainage basin, Broward, Martin, Palm Beach, and St. Lucie Counties, and the Big Cypress National Preserve.

As a result of increased rainfall, water levels rebounded in most wells. Water levels in wells S-196A (fig. 5, Biscayne aquifer), L-2194 (fig. 8, lower Tamiami aquifer), and L-729 (fig. 9, sandstone aquifer) increased from below monthly mean levels to above them. Water levels in well C-496 (fig. 7, water table aquifer) were almost one standard deviation below the normal monthly mean at the beginning of March. By the middle of the month, water levels in this well briefly rose to the normal monthly mean but then plummeted again until by the end of the month they were once again about one standard deviation below the mean. Unfortunately no data is available from well PB-561 (fig. 6, surficial aquifer system) because it was again removed and not reinstalled until mid-July.

Water levels in well L-1993 (fig. 10, mid-Hawthorn aquifer) which had declined steadily in preceding months leveled off at about 14 ft below the normal monthly mean level. Water levels in well L-2434 (fig. 11, lower Hawthorn producing unit) were slightly higher than in March but continued to vary by about 15 ft.

#### April

Rainfall in April generally varied spatially from normal to slightly below normal. The exception was in southeastern Florida in eastern Palm Beach and Broward Counties, where rainfall was well below normal. Averaged across southern Florida about 2.3 in. of rainfall was received, which is nearly normal for this month of the year. Water levels in S-196A (fig. 5, Biscayne aquifer) and C-496 (fig. 7, water table aquifer), increased near the beginning of the month but then declined for most of the remainder of the month. By the end of the month, water levels in C-496 (fig. 7) and L-729 (fig. 9, sandstone aquifer) declined to about one standard deviation below the normal monthly mean. Water levels in well L-2194 (fig. 8) were well above the normal monthly mean at the beginning of the month but by the end of the month were near the normal monthly mean. Water levels in L-1993 (fig. 10, mid-Hawthorn aquifer) and L-2424 (lower Hawthorn producing zone) varied by about the same amount as normal but did not increase or decrease significantly.

#### SUMMARY OF HYDROLOGIC CONDITIONS (continued)

#### Max

Rainfall in May was similar to that experienced in April. Most of southern Florida received either normal or slightly lower than normal rainfall. The exceptions were Everglades National Park where rainfall was well below normal and the lower Kissimmee drainage basin where it was slightly greater than normal. Averaged across southern Florida, about 4.7 in. of rainfall was received, which is nearly normal for this month of the year. Water levels in well S-196A (fig. 5, Biscayne aquifer) increased slightly near the beginning of the month but remained near the normal monthly mean throughout the month. In wells C-496 (fig. 7, water table aquifer), L-2194 (fig. 8, lower Tamiami aquifer), and L-729 (fig. 9, sandstone aquifer), water levels declined during the month until they were about one standard deviation below the normal monthly mean. Water levels in L-1993 (fig. 10, mid-Hawthorn aquifer) and L-2424 (lower Hawthorn producing zone) varied by about the same amount as normal but did not increase or decrease significantly.

#### Inne

June brought about 14 inches of rainfall to southern Florida. This is nearly double the amount normally received (8.0 in.). This rainfall varied spatially, from slightly above to well above normal throughout all of southern Florida, to close to normal in Everglades National Park, the lower Kissimmee drainage basin, and Water Conservation Areas 1 and 2. Water levels in all operational index wells rebounded as a result of these rains. In wells S-196A (fig. 5, Biscayne aquifer) and L-2194 (fig. 8, lower Tamiami aquifer), water levels rose to greater than one standard deviation above the normal monthly mean. In wells C-496 (fig. 7, water table aquifer) and L-729 (fig. 9, sandstone aquifer), water levels rose from one standard deviation below the monthly mean to well above it. However, well C-496 (fig. 7) had no data for the second half of the month. Water levels increased slightly in well L-1993 (fig. 10, mid-Hawthorn aquifer). Large variations occurred in the water levels in well L-2434 (fig. 11, lower Hawthorn producing zone). Water levels in this well varied from near record low levels to slightly higher than one standard deviation below the monthly mean.

#### July

Average rainfall received in southern Florida in July was 6.5 in., which is 93 percent of normal (7.0 in.). Distribution of this rainfall was relatively even, resulting in most areas receiving either normal or slightly lower than normal rainfall. Data for the first half of the month are not available from wells PB-561(fig. 6, surficial aquifer system) and C-496 (fig. 7, water table aquifer). Water levels declined steadily during the second half of the month in well PB-561 (fig. 6), from one standard deviation above the normal monthly mean, to near the mean. Water levels in well L-2194 (fig. 8, lower Tamiami aquifer) and in well C-496 (fig. 7) for the later part of the month were about one standard deviation above the normal monthly means. Water levels in wells L-729 (fig. 9, sandstone aquifer) and L-1993 (fig. 10, mid-Hawthorn aquifer) increased gradually during the month. Again large water-level variations occurred in well L-2434 (fig. 11, lower Hawthorn producing zone). Water levels in this well nearly reached normal monthly mean level for the only time in the 2005 water year.

#### August

Average August rainfall was similar to July rainfall in that it was about 7 in. which is about 95 percent of normal (7.4 in.) for this month of the year. Again spatial distribution of this rainfall was relatively even, with the exceptions of the Florida Keys, where rainfall was well above normal for the month, and the path of Hurricane Katrina. Hurricane Katrina struck southern Florida near the border of Miami-Dade and Broward Counties as a category 1 hurricane on August 26, 2005 and caused intense localized flooding in Miami-Dade County. As a result of rainfall, variations water levels in well S-196A (fig. 5, Biscayne aquifer) varied tremendously during this month. Water levels in this well were at the normal monthly mean level at the beginning of the month, increased to greater than one standard deviation above the mean in the first quarter of the month, decreased to well below the mean level and then increased again. A new record highest daily maximum water level was recorded for the well (9.81 ft, August 26, 2005) as rainfall from hurricane Katrina caused extensive flooding in its vicinity. Rainfall from Hurricane Katrina was not distributed evenly across southern Florida. As a result, the other index wells do not show any major increases associated with this storm.

Water levels in wells C-496 (fig. 7, water table aquifer) and L-2194 (fig. 8, lower Tamiami aquifer) generally remained about the same as during July and were near about one standard deviation above the normal monthly means. Water levels in well PB-561 (fig. 6, surficial aquifer system) varied from about the mean to somewhat above the normal monthly mean. Water levels in well L-729 (fig. 9, sandstone aquifer) were above the normal monthly mean for the first half of the month but declined in the second half of the month to about one standard deviation below the mean. At well L-1993 (fig. 10, mid-Hawthorn aquifer) water levels continued to increase gradually throughout the month. Generally this trend paralleled the normal monthly means for this well. Portions of the water-level data record for well L-2434 (fig. 11, lower Hawthorn producing zone) were lost. Remaining data do not indicate any major changes in water levels at this well, aside from the normal variation.

#### September

Rainfall was generally slightly lower than normal in southern Florida, except for eastern Miami-Dade and Palm Beach Counties, the Florida Keys, Big Cypress National Preserve, and Water Conservation Area 3, where rainfall was about normal, and in the vicinity of Lake Okeechobee, where rainfall was well below normal. For the southern Florida area rainfall averaged 5.4 in., which is about 80 percent of normal (6.7 in.). Water levels in well S-196A (fig. 5, Biscayne aquifer) receded after Hurricane Katrina but suddenly rose again in response to rainfall that occurred early in September. Following this brief increase, water levels in S-196A (fig. 5) returned to near mean levels and remained close to the normal monthly mean for the remainder of the month. Water levels in well PB-561 (fig. 6, surficial aquifer system) varied from about the mean to somewhat above the normal monthly mean. Water levels in well C-496 (fig. 7, water table aquifer), declined slightly to near mean levels. Water levels in wells L-2194 (fig. 8, lower Tamiami aquifer) and L-729 (fig. 9, sandstone aquifer) decreased sharply, from mean levels to considerably lower than one standard deviation below the normal monthly mean. While water levels in well L-729 (fig. 9) remained near this level, water levels in well L-2194 (fig. 8) sharply increased to near the normal monthly mean by the end of the month. At L-1993 (fig. 10, mid-Hawthorn aquifer) water levels did not increase or decrease very much. Again, portions of the water-level data record for well L-2434 (fig. 11, lower Hawthorn producing zone) were lost. Remaining data does not indicate major changes in water levels at this well beyond the normal variation.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## EXPLANATION FOR PLOTS (FIGURES 5 TO 11) OF SUMMARY STATISTICS AND 2005 WATER YEAR DAILY MAXIMUM WATER LEVELS



Daily maximum water level, recorded during 2005 water year



Monthly mean curve of daily maximum water levels collected, during the month displayed, for the October 1980 to September 2005 period.



One standard deviation (above or below) the monthly mean of daily maximum water levels collected, during the month displayed, for the October 1980 to September 2005 period.

## EXPLANATION FOR PLOTS (FIGURES 5 TO 11) OF DAILY MAXIMUM WATER LEVELS, ANNUAL MEANS OF DAILY MAXIMUM WATER LEVELS, AND RESULTS OF THE SEASONAL KENDALL TREND TEST



Annual mean of daily maximum water levels collected, during the year displayed, for the October 1980 to September 2005 period, wherein no one month is missing more than 15 days of water level record



Annual mean of daily maximum water levels collected, during the year displayed, for the October 1980 to September 2005 period, wherein one or more months is missing 15 or more days of water level record.



Daily maximum water level. Breaks in line represent missing measurements, or measurements that failed quality assurance review.

SKSE

The Seasonal Kendall Slope Estimator (SKSE) represents the median slope of the set of slopes obtained by computing the slope, in feet per year, of all unique pairs of monthly mean daily maximum water levels computed for the site shown.

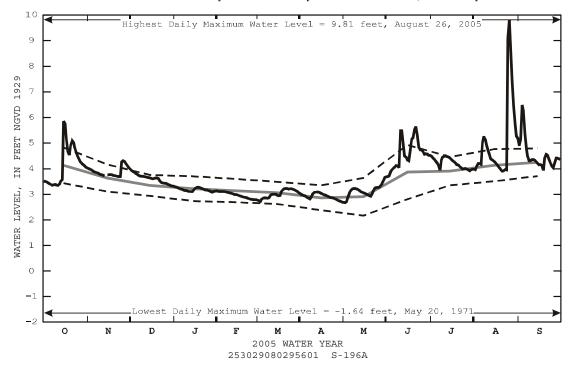
p-value

The p-value represents a measure of the significance level of the Seasonal Kendall Trend Test statistic, computed concurrently with the SKSE, used to determine if there is a trend in the data examined. A p-value less than 0.05 indicates a statistically significant trend.

## SUMMARY OF HYDROLOGIC CONDITIONS (continued)

## LOWER EAST COAST - BISCAYNE AQUIFER

Historical water-level summary and observed daily maximum water levels, 2005 water year



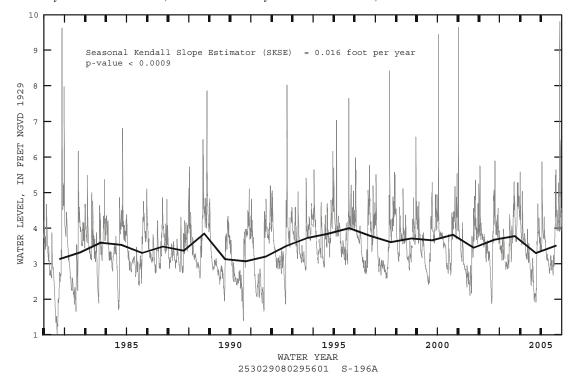
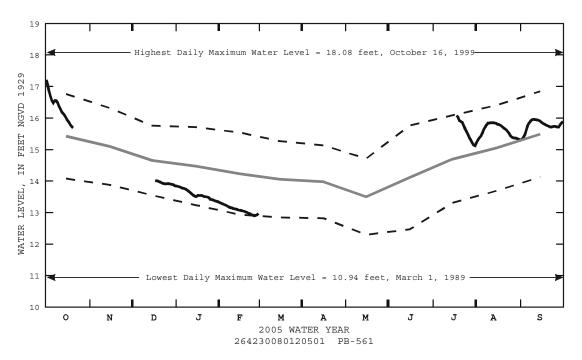


Figure 5. Historical water-level summary curves and annual mean of daily maximum water levels at well S-196A completed in the Biscayne aquifer in Miami-Dade County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## UPPER EAST COAST - SURFICIAL AQUIFER SYSTEM

Historical water-level summary and observed daily maximum water levels, 2005 water year



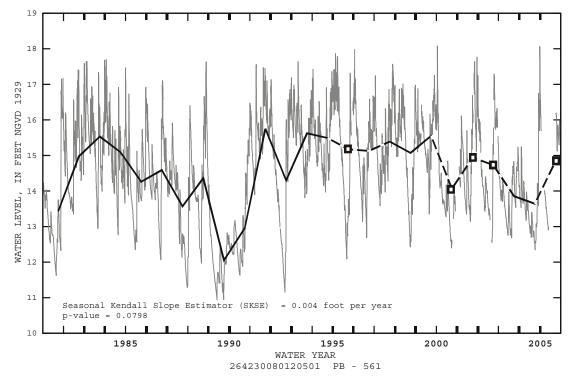
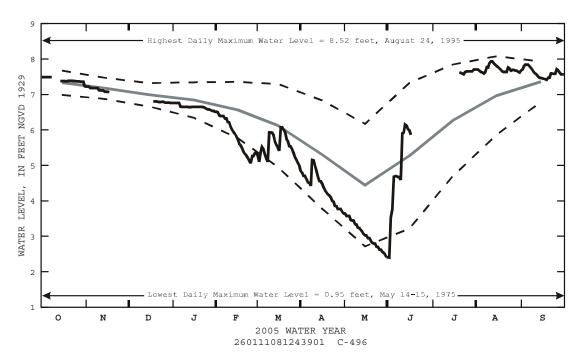


Figure 6. Historical water-level summary curves and annual mean of daily maximum water levels at well PB-561 completed in the surficial aquifer system in Palm Beach County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## LOWER WEST COAST - SURFICIAL AQUIFER

Historical water-level summary and observed daily maximum water levels, 2005 water year



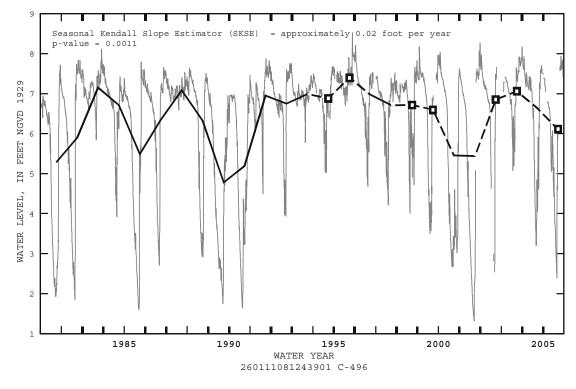
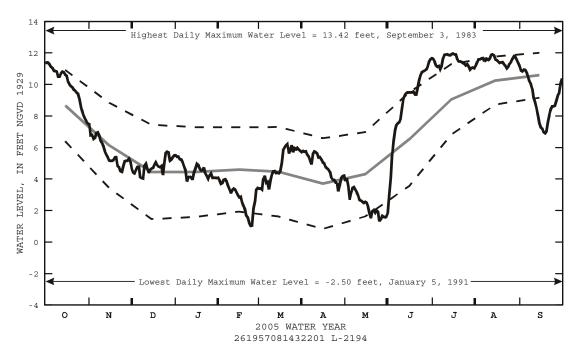


Figure 7. Historical water-level summary curves and annual mean of daily maximum water levels at well C-496 completed in the surficial aquifer system (water-table aquifer) in Collier County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## LOWER WEST COAST - LOWER TAMIAMI AQUIFER

Historical water-level summary and observed daily maximum water levels, 2005 water year



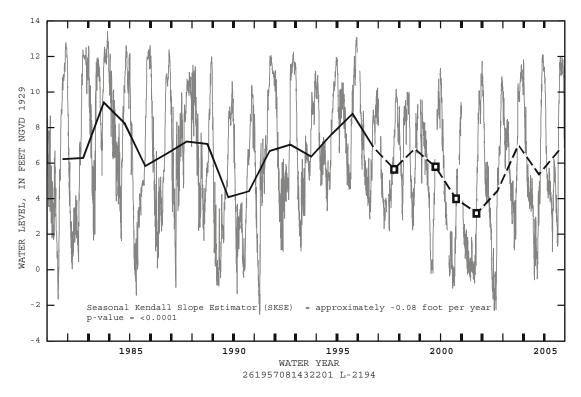
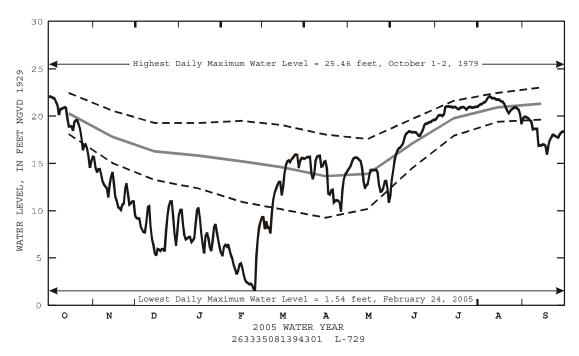


Figure 8. Historical water-level summary curves and annual mean of daily maximum water levels at well L-2194 completed in the lower Tamiami aquifer in Collier County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## LOWER WEST COAST - SANDSTONE AQUIFER

Historical water-level summary and observed daily maximum water levels, 2005 water year



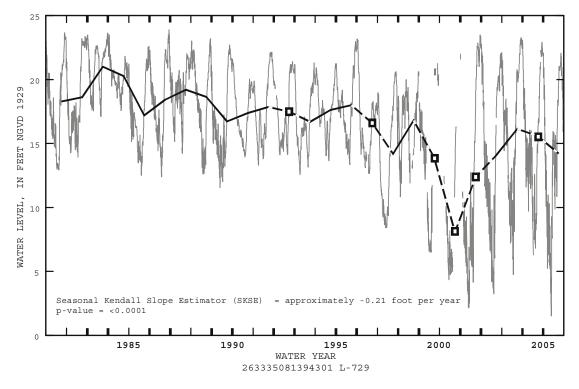
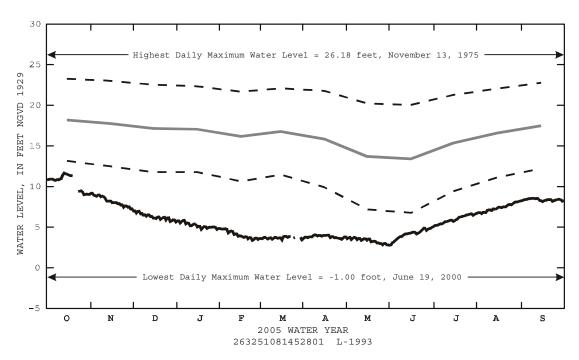


Figure 9. Historical water-level summary curves and annual mean of daily maximum water levels at well L-729 completed in the sandstone aquifer in Lee County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## LOWER WEST COAST - MID-HAWTHORN AQUIFER

Historical water-level summary and observed daily maximum water levels, 2005 water year



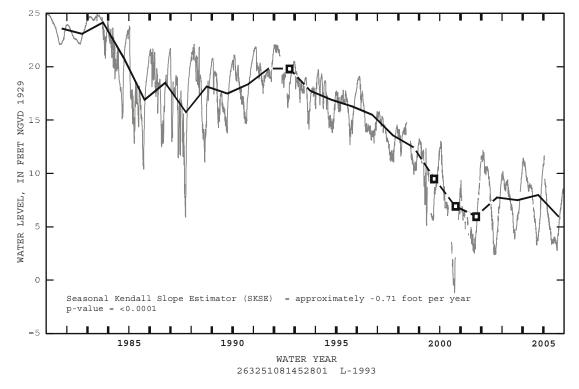
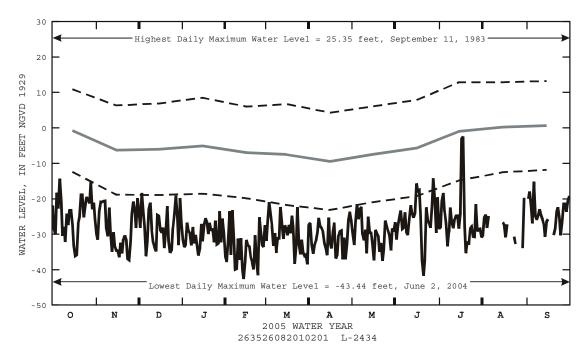


Figure 10. Historical water-level summary curves and annual mean of daily maximum water levels at well L-1993 completed in the mid-Hawthorn aquifer in Lee County. Explanation of symbols and lines precedes figure 5.

## **SUMMARY OF HYDROLOGIC CONDITIONS (continued)**

## LOWER WEST COAST - LOWER HAWTHORN AQUIFER (LOWER HAWTHORN PRODUCING ZONE)

Historical water-level summary and observed daily maximum water levels, 2005 water year



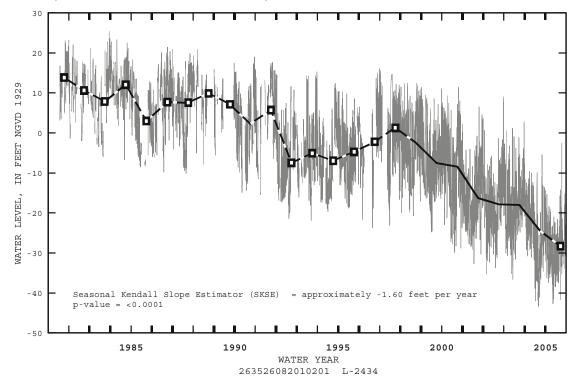


Figure 11. Historical water-level summary curves and annual mean of daily maximum water levels at well L-2434 completed in the lower Hawthorn producing zone in Lee County. Explanation of symbols and lines precedes figure 5.

#### 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 streamflow data representative of 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 may be accessed from <a href="http://nv.cf.er.usgs.gov/hbn/">http://nv.cf.er.usgs.gov/hbn/</a>.

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 was 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 (NAWQA) Program; (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 may be accessed from <a href="http://water.usgs.gov/nasaan/">http://water.usgs.gov/nasaan/</a>.

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 this 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 data from the individual sites, may be accessed from <a href="https://bas.usgs.gov/acidrain/">https://bas.usgs.gov/acidrain/</a>.

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 is 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 may be accessed from <a href="http://water.usgs.gov/nawga/">http://water.usgs.gov/nawga/</a>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <a href="http://water.usgs.gov/nsip/">http://water.usgs.gov/nsip/</a>.

#### EXPLANATION OF THE RECORDS

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

#### **Station Identification Numbers**

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

#### **Downstream Order and Station Number**

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indention in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete eight-digit (or 10-digit) number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins. In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

## Numbering System for Wells and Miscellaneous Sites

The USGS well and miscellaneous site-numbering system 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, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 12). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

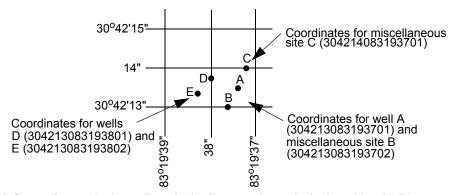


Figure 12. System for numbering wells and miscellaneous sites. (latitude and longitude)

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#### EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

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

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

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

#### **Data Collection and Computation**

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors that are based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations, and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

#### **Data Presentation**

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

## **Station Manuscript**

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<a href="http://water.usgs.gov/nwis/nwis">http://water.usgs.gov/nwis/nwis</a>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the USGS Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

## $Peak\ Discharge\ Greater\ than\ Base\ Discharge$

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

### **Data Table of Daily Mean Values**

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in cubic feet per second per square mile (line headed CFSM); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

#### **Statistics of Monthly Mean Data**

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS \_\_-\_, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The

designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

#### **Summary Statistics**

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS \_\_\_\_, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station.

The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). 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.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

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

Cubic feet per square mile (CFSM) 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.

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge

measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

#### **Identifying Estimated Daily Discharge**

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

#### **Accuracy of Field Data and Computed Results**

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

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1  $\rm ft^3/s$ ; to the nearest tenths between 1.0 and 10  $\rm ft^3/s$ ; to whole numbers between 10 and 1,000  $\rm ft^3/s$ ; and to three significant figures above 1,000  $\rm ft^3/s$ . The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

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

#### Other Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the USGS Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Water Science Center. (see address that is shown on the back of the title page of this report).

#### **EXPLANATION OF PRECIPITATION RECORDS**

#### **Data Collection and Computation**

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

#### **Data Presentation**

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is not published, but is available in the files of the U.S. Geological Survey.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

#### **EXPLANATION OF WATER-QUALITY RECORDS**

## Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

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For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

#### Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from <a href="http://water.uses.gov/pubs/twri/">http://water.uses.gov/pubs/twri/</a>.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

#### SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

#### **Classification of Records**

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

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

# **Accuracy of the Records**

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[ $\leq$ , less than or equal to;  $\pm$ , plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

	Ratings of accuracy (based on combined fouling and calibration drift corrections applied to record)								
Measured physical property	Excellent	Good	Fair	Poor					
Water temperature	≤±0.2 °C	>±0.2 - 0.5 °C	>±0.5 - 0.8 °C	>±0.8 °C					
Specific conductance	≤±3%	>±3 - 10%	>±10 - 15%	> ±15%					
Dissolved oxygen	$\leq \pm 0.3$ mg/L or $\leq \pm 5\%$ , whichever is greater	$> \pm 0.3 - 0.5$ mg/L or $> \pm 5 - 10\%$ , whichever is greater	$> \pm 0.5$ - 0.8 mg/L or $> \pm 10$ - 15% which- ever is greater	>±0.8 mg/L or >±15%, whichever is greater					
pН	≤±0.2 unit	$> \pm 0.2 - 0.5$ unit	$> \pm 0.5 - 0.8$ unit	> ±0.8 unit					
Turbidity	$\leq \pm 5\%$ turbidity units or $\leq \pm$ 5%, whichever is greater	> $\pm 0.5$ - 1.0 turbidity units or > $\pm$ 5 -10%, whichever is greater	> 1.0 - 1.5 turbidity units or > $\pm$ 10 - 15%, whichever is greater	> $\pm$ 1.5 turbidity units or > $\pm$ 15%, whichever is greater					

# Arrangement of Records

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

#### **Onsite Measurements and Sample Collection**

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Water Science Center (see address that is shown on the back of title page in this report).

#### Water Temperature

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the USGS Water Science Center (see address that is shown on the back of title page in this report).

#### Sediment

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

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

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

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

#### **Laboratory Measurements**

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>. These methods are consistent with ASTM standards and generally follow ISO standards.

### **Data Presentation**

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

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

LOCATION.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

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

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INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

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

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<a href="http://waterdata.usgs.gov/nwis">http://waterdata.usgs.gov/nwis</a>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

#### Remark Codes

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

Printed Output	Remark
Е	Value is estimated.
>	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.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.

# Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a nondetection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by a USGS Science Center are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the USGS Science Center (see address that is shown on the back of the title page of this report).

# **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 by this USGS Water Science Center 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.

#### EXPLANATION OF GROUND-WATER LEVEL RECORDS

Generally, only ground-water level data from selected wells with continuous record 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.

# **Site Identification Numbers**

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. (See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for a detailed explanation).

# **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 TWRIs 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 TWRIs 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 <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>. 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. Most of 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. Wells that have very long open intervals (generally 20 ft or greater), were sampled using a down hole sampling device that collects a water sample from the bottom of the well.

Water-level measurements in this report are given in feet with reference to land-surface datum, elevation described in feet above or below National Geodetic Vertical Datum of 1929 (NGVD 29), unless otherwise noted. The elevation of the land-surface datum (lsd) above sea level is also given in the well description. Land-surface datum is a datum plane that is approximately at land surface at each well. 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 of water of several hundred feet, the error in 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 only to a tenth of a foot or a larger unit.

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#### **Accuracy of Ground-Water Level Data**

A number of factors affect the accuracy of the ground-water level data published in this report. These factors can be logically separated into those that are related to ground-water level measurement methods (Method-Related Factors) and those that are independent of the methods.

# **Method-Independent Factors**

Water levels are determined using a specific measuring point (MP) at each well. The elevation of this point for most wells published in this report was determined relative to the National Geodetic Vertical Datum of 1929 (NGVD 1929). Scientific advances in determining vertical elevations have caused the development of the North American Vertical Datum of 1988 (NAVD 1988). The National Geodetic Survey (NGS) has completed an extensive releveling effort that provides elevations referenced to NAVD 1988. The U.S. Geological Survey is currently considering how best to utilize the newer NAVD 1988 and yet maintain the continuity of data in south Florida.

Some stations in this report have been surveyed using a benchmark elevation surveyed in NAVD 1988. In an attempt to publish the elevation of each station within the hydrologic monitoring network in the same datum plane, the elevation of the NAVD 1988 benchmark was converted using the VERTCON or CORPSCON software of the National Geodetic Survey to provide a reference elevation in NGVD 1929. The NGVD 1929 datum determined using VERTCON or CORPSCON is known to differ from the historic NGVD 1929 elevation datum (historic NGVD). Hydrologic model development for some sites has required publication of data in the NAVD 1988 datum. The datum of each station is clearly defined in the DATUM or GAGE section of each station manuscript.

Water levels in wells open to highly transmissive aquifers may be affected by barometric pressure. The water-level data in this publication have not been adjusted for barometric pressure effects. Water levels may also be affected by density differences. For example highly saline water has a greater density than fresh water. Water levels have not been adjusted for density effects.

#### Method-Related Factors

Water-level data are collected using a number of different methods. Each method has inherent factors that affect the accuracy of measured water levels.

STEEL TAPE AND CHALK -- This generally is the most accurate method of measuring the elevation difference between a reference point and the water level in a ground-water well. When the water level is measured using this method, at least two separate measurements are performed. These measurements must agree to within 0.02 ft before the average value is recorded. The precision of this method, is  $\pm$  0.02 ft.

PRESSURE GAGE -- Wells under artesian pressure are monitored using a mechanical pressure gage. These pressure gages are graduated to 0.2 ft. Gages are periodically checked using a pressure manifold to compare gage readings over a range of known pressures. Corrections are applied to the gage readings based on these checks. The reported value is estimated to the nearest tenth of a foot. The precision of this method should be considered to be about  $\pm 0.1$  ft.

FLOAT AND RECORDER -- The accuracy of data recorded using this method is affected by friction within the recorder system as well as friction between the float and the well casing. In large-diameter wells (6 in. or greater), where large floats are used, these effects are minimal; however in small-diameter wells (2 to 6 in.) these effects can be substantial. Friction might significantly affect the data where water-surface fluctuations are very small. Every effort has been made to reduce frictional effects to a minimum.

The accuracy of this method may also be affected by slippage of the float tape or wire, leaks in the float, or biological factors (for example, amphibians crawling on the float). The accuracy of the recorder reading is periodically verified using steel tape and chalk measurements. When the difference between these tape measurements and the recorded value is 0.05 ft or greater, a gage-height correction is applied to the data. Uncertainty in water levels for wells verified by steel tape measurements is generally no greater than  $\pm 0.05$  ft.

PRESSURE TRANSDUCER AND RECORDER -- In wells where artesian pressure, frictional effects, or an extensive range in water levels have made float and recorder systems infeasible, pressure transducers have been installed. Transducers are selected that meet or exceed the float and recorder system accuracy. Water levels may be verified using either steel tape or pressure gage measurements. Uncertainty in those verified by steel-tape measurements is generally considered to be no greater than  $\pm$  0.05 ft and uncertainty for those verified using pressure gage readings is generally considered to be about  $\pm$  0.1 ft.

The type of method used to collect water-level data is identified in the INSTRUMENTATION section of each station manuscript.

#### **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. Well locations are shown and each well is identified on the map by an index number (fig. 13-22) that is cross-referenced to its identification number in a location key preceding the map.

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 the headings preceding the tabular data.

The following comments clarify information presented in these 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 North American Datum of 1927 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, 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 the measuring point. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth).

LAND-SURFACE DATUM.—This is a new section started for water year 2003, to document land-surface datum. The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29), and is estimated from a field measurement to the nearest tenth of a foot. However because land surface varies the precision of this value is considered to be about +/- 0.5 ft.

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 at 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 sea level, and the dates of occurrence.

#### Water-Level Tables

A table of water levels follows the well 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 not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape or pressure gage. 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.

#### RECORDS OF BULK ELECTRICAL CONDUCTIVITY

Bulk electrical conductivity is the combined electrical conductivity of all material (including pore water) within an approximately 8- to 40-inch doughnut-shaped area surrounding an electromagnetic induction probe (McNeill and others, 1990). Bulk electrical conductivity is affected by different physical and chemical properties of the material including the dissolved-solids concentration of the pore water, and the lithology and porosity of the rock. Polyvinyl chloride (PVC) casings do not interfere with these measurements; however, for those wells where a steel or galvanized iron casing extends part way down the well, the probe cannot sense the materials outside of the casing. As the probe is lowered down the well and out of the influence of a metallic casing, a spike is usually created in the data. Metal well centralizers can also affect the data collected and can cause very large spikes in the data at the depths where the centralizers are installed. These spikes are much different than the changes in bulk electromagnetic conductivity caused by natural lithologic or pore water variations and as such are readily recognizable. As the probe passes through different layers of rock, the different physical properties will cause variation in the recorded conductivity values. A clean sand or sandstone will generally produce lower conductivity values than clay or mudstone. Although the properties of the rocks or well construction will remain constant from year to year, those of the pore water may change due to saltwater intrusion. Conductivity values from freshwater-saturated rocks typically are less than 25 mS/m, whereas conductivity values from saltwater-saturated rocks are typically greater than 67 mS/m (Hittle, 1999). Therefore, electromagnetic induction logging can be used to assess increases or decreases in the conductivity of pore waters caused by movement of the saltwater interface.

# **Data Collection and Computation**

Measurements generally are made during the period of lowest aquifer water levels, in April of each year. However, some wells may have additional logs. During periods of decreased water levels, saltwater intrusion into a freshwater aquifer is likely to be at a maximum. In wells where saltwater is detectable, the graphic representation of data from successive years will show any vertical movement of the saltwater-freshwater interface. Measuring this vertical movement of the interface is the primary use of the bulk electrical conductivity logs published in this report. Upward movement of the interface between freshwater and saltwater in a monitoring well indicates that saltwater intrusion is increasing in that area. Downward movement of the interface indicates recession of the saltwater front near the monitoring well.

In the bulk electrical conductivity graphs of some of the wells logged for this report, the interface position can be seen as the point where low values of conductivity increase suddenly to values generally above 67 mS/m (usually near the bottom of the well). However, the interface position is not as apparent in other wells, and in some, there is no interface. Some locations have been identified where saltwater contamination of the aquifer is occurring above the base of the aquifer as a result of seepage of saline water from canals. The bulk electrical conductivity logs detect the changes in fluid conductivity that occur as a result of this seepage.

In wells selected for electromagnetic induction logging, a water sample may be collected and analyzed as a check of the level of salinity. Because bulk electrical conductivity is a function of fluid conductivity, lithology, and porosity, the relationship between the electromagnetic induction logs and the chloride samples may not be as obvious as is the general relationship between fluid conductivity and chloride concentrations. If the rock is not very porous, then the change in bulk electrical conductivity caused by changes in the salinity of the pore water may be smaller than might be expected. Nonetheless, the long-term changes in the bulk electrical conductivity logs are sufficient to assess upward or downward movement of the interface. To aid in interpretation of the bulk electrical conductivity logs, the chloride concentration is shown on the graph of bulk electrical conductivity if water samples have been collected.

The instrument used to collect data for this report is calibrated prior to each field session. The calibration procedure establishes a mathematical constant (calibration factor) that is used to convert raw instrument readings in counts per second (cps) into values of bulk electrical conductivity in millisiemens per meter (mS/m). When data were graphed for the 2000 annual water resources data report, offsets and amplitude

differentials occurred in the calibrated values of bulk electrical conductivity for each well between successive years. Investigation revealed that some of the observed offsets and amplitude differentials were caused by differing calibration factors between years. Most calibration factors differed because of temperature and humidity differences during calibration. The calibration procedures adopted during the 2000 water year were designed to minimize the influence of variable temperature and humidity. Before calibrating, the electromagnetic induction probe was lowered into a well and allowed to equilibrate in the water column. The probe was then removed from the well and the instrument immediately calibrated.

Factors other than variable temperature and humidity also have caused offsets and amplitude differentials. One such example occurred with data collected for the 2000 water year. Prior to logging for the 2000 water year, the instrument firmware and software was updated. After logging, it was found that the data had been truncated at the decimal point. Errors in calibration have also been identified and corrected (see Accuracy of Bulk Electrical Conductivity).

#### **Accuracy of Bulk Electrical Conductivity**

There are two components that affect the quality of the electromagnetic induction logs published in this report: (1) vertical or depth accuracy, and (2) accuracy and precision of measured bulk electrical conductivity. Vertical accuracy, which affects the determined interface position, is the most critical factor in this monitoring effort. A quality control program sets the velocity of the probe at 12 ft/min (feet per minute) while logging. Before logging begins, a spot on the probe, 3.32 feet above the sensing head, is aligned with the measuring point of the well. Where possible, the data recorded as the probe was moved up the well were used to produce the graphs for this report. Depth values from successive water years were adjusted, if needed, to coincide at one or more specific conductivity peak recorded from an upper part of the well. Depth values were interpolated to the nearest tenth of a foot. The precision of depth determinations using this reporting method should be considered to be about ±0.1 foot.

The accuracy and precision of measured bulk electrical conductivity are a function of both the inherent accuracy of the electromagnetic induction probe and its calibration. The inherent precision of the probe is considered by the manufacturer to be  $\pm 5$  percent of the full scale. For the logs collected, the electromagnetic induction probe was set to a full scale of 1,000 mS/m. This translates into a precision of  $\pm 50$  mS/m at full scale. Analysis indicated that the offsets caused by the effects of temperature and humidity on calibration were generally within this range.

In the 1998 water year and for all water years after 2001, the electromagnetic induction probe was calibrated using standards of 0 and 345 mS/m. There are a number of monitoring wells where the measured bulk electrical conductivity exceeds 345 mS/m. For these wells, a calibration standard of 345 mS/m was still used. This is because the probe would have to be set to a full scale of 10,000 mS/m in order to be calibrated using the next available standard (1,301 mS/m). This value would greatly exceed the normal range in bulk electrical conductivity expected. The 345 mS/m calibration constant was also considered to be acceptable because within the range 0 to 1,000 mS/m, the response of the probe is considered to be linear; therefore calibrating the probe to this standard should not significantly reduce accuracy.

In the water years prior to 2002 (excluding 1998), the electromagnetic induction probe generally was calibrated using a 1,301 mS/m standard even though the full scale of the probe was 1,000 mS/m. This caused a calibration error in the data collected. To correct this error, a multiplier of 0.7686 was applied to all of the affected data.

Accuracy of data collected during the 2000 water year may have been affected by the firmware or software update in December 1999. The data collected using this new software and firmware was considerably offset relative to previous electromagnetic induction logs. In addition, the final values were truncated at the decimal point, whereas those collected prior to the update were recorded to the thousandths decimal place. These final values are the result of a multiplication of the raw data from the instrument and a calibration factor. It is unknown whether or not the raw values were truncated at the decimal point. If so, the resulting error could be on the order of 5 mS/m too low. Because the offset data from the 2000 water year are often 5 mS/m lower than the data from other years, truncation of the raw data probably is the explanation.

#### **Data Presentation**

Records of conductivity are published individually on the page immediately following the well manuscript. Data for conductivity are identified by well number. Each record consists of a single graph representing conductivity, a lithologic log, and a brief explanation.

# GROUND-WATER-QUALITY DATA

Records of ground-water quality in this report differ from other types of records in that, for the salinity network sites, they consist of a limited set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, a small number of samples except for a few samples taken seasonally during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for saltwater intrusion. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

# **Data Collection and Computation**

The ground-water-quality data in this report were obtained mostly as a part of the Florida Integrated Science Center - Fort Lauderdale (FISC-Fort Lauderdale) salinity network or as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality in the report area. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey National Field Manual for the collection of Water-Quality Data and the "Laboratory Measurements" sections in this data report and are also described in the TWRIs, which may be accessed from <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4 and Book 9, Chapters A1-A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Science Center. (See address that is shown on the back of the title page of this report.)

The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

# **Laboratory Measurements**

Analysis for sulfide 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; and Book 5, Chapters A1, A3, and A4, which may be accessed from <a href="http://water.usgs.gov/pubs/twri/">http://water.usgs.gov/pubs/twri/</a>.

#### **Data Presentation**

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

# 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 from <a href="http://water.usgs.gov">http://water.usgs.gov</a>.

Water-quality data 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 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 streamflow, 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 <a href="http://water.usgs.gov/glossaries.html">http://water.usgs.gov/glossaries.html</a>.

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 "unfiltered" 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 run-off")

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 "filtered" 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<sup>3</sup>), and periphyton and benthic organisms in grams per square meter (g/m<sup>2</sup>). (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 streamflows. 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 (mm<sup>3</sup>/mL). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm<sup>2</sup>) or biovolume per square centimeter (mm<sup>3</sup>/cm<sup>2</sup>). (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 (mm³) 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:

pi (p) is the ratio of the circumference to the diameter of a circle; pi = 3.14159...

From cell volume, total algal biomass expressed as biovolume (mm<sup>3</sup>/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 warmblooded 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 bound-aries. 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 a flowing 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<sup>3</sup>/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, [(ft<sup>3</sup>/s)/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, (ft<sup>3</sup>/s)/mi<sup>2</sup>] 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 (mm³/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter (mm³/cm²). (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 CaCO<sub>3</sub>) 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 feacalis, Streptococcus feacaim, 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 90<sup>th</sup> percentile of river flow is the streamflow 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 fluvial 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 floating "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 (µm³/mL). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter (mm³/cm²). (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<sub>3</sub>).

**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:

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

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 streamflow 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 streamflow, 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:

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

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

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

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,  $\mu$ 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, µg/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, mg/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,  $\mu$ 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 streamflow, 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: <a href="http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88">http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88</a> (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 (m²), 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 streamflows 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 x 10<sup>-12</sup>) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7 x 10<sup>10</sup> 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 [mg C/(m²/time)] for periphyton and macrophytes or per volume [mg C/(m³/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 [mg O/(m2/time)] for periphyton and macrophytes or per volume [mg O/(m3/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 exceedances 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. Similarly, the 7-day, 10-year low flow (7Q10) 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 7Q10 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 7Q10.

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. Seawater 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 "fluvial 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-flux 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 (7Q10) 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 7Q10 is 10 years; the chance that the annual 7-day minimum flow will be less than the 7Q10 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 "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

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</td>

# WATER RESOURCES DATA - FLORIDA, 2005

#### **VOLUME 2B: SOUTH FLORIDA**

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 (ft<sup>3</sup>/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 hydrologic 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 hierarchial 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:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	Hexagenia
Species:	Hexagenia limbata

**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 flow 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 (fish) is the straight-line distance from the anterior point of a fish 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.

# WATER RESOURCES DATA - FLORIDA, 2005

#### **VOLUME 2B: SOUTH FLORIDA**

**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 <a href="http://water.usgs.gov/owg/FieldManual/Chapter6/6.7\_contents.html">http://water.usgs.gov/owg/FieldManual/Chapter6/6.7\_contents.html</a>.

**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")

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GCTTable? bm=y&-geo id=04000US12&- box head nbr=GCT-T1&-ds name=PEP 2005 EST&- lang=en&-format=ST-2&- sse=on>
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# **Broward County**

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

Key to site locations on figure # 13

# BROWARD COUNTY

Index	Site	Well	Page	Index	Site	Well	Page
Number	Number	Name	Number	Number	Number	Name	Number
1	260010080085001	F 291	64	31	255919080091203	G 2410	61
2	260545080082001	G 561	89	32	260041080093101	G 2425	69
3	260515080202101	G 617	86	33	260041080093102	G 2426	70
4	261434080071901	G 853	114	34	260120080093401	G 2441	74
5	261100080140401	G 1212	107	35	261446080062801	G 2445	116
6	261734080111301	G 1213	123	36	255936080091701	G 2477	62
7	260752080084701	G 1220	99	37	255936080091702	G 2478	63
8	260458080134801	G 1221	85	38	260155080092002	G 2612	75
9	260219080141101	G 1223	76	39	261724080054603	G 2694	122
10	260032080135701	G 1225	67	40	261831080151301	G 2739	125
11	260053080105701	G 1226	71	41	261643080055901	G 2752	120
12	261122080083401	G 1232	108	42	260241080112701	G 2785	77
13	261903080065601	G 1260	126	43	261938080101001	G 2852	127
14	261708080090801	G 1315	121	44	261641080064801	G 2866	119
15	261441080111301	G 1316	115	45	261740080054101	G 2893	124
16	255916080090401	G 1435	58	46	261304080072501	G 2896	111
17	255918080091801	G 1473	59	47	261030080083301	G 2897	105
18	255807080224301	G 1636	54	48	260920080092201	G 2898	103
19	261534080165801	G 2031	118	49	260804080092701	G 2899	100
20	260821080185101	G 2032	102	50	260325080113901	G 2900	79
21	261141080163401	G 2033	109	51	260737080103302	G 2901R	97
22	260653080184901	G 2034	95	52	260638080104801	G 2902	93
23	260040080104401	G 2035	68	53	255843080090901	G 2903	55
24	261501080060701	G 2147	117	54	260534080110801	G 2904	87
25	261403080070801	G 2149	113	55	260101080091501	G 2906	72
26	260342080115902	G 2264	84	56	260326080120301	G 2921	82
27	255910080085802	G 2294	57	57	260026080095801	G 2956	65
28	260547080105801	G 2352	90	58	260551080111901	G 2957	91
29	261147080114501	G 2395	110	59	260657080122301	S 329	96
30	255919080091202	G 2409	60				

# WATER RESOURCES DATA - FLORIDA, 2005 VOLUME 2B: SOUTH FLORIDA

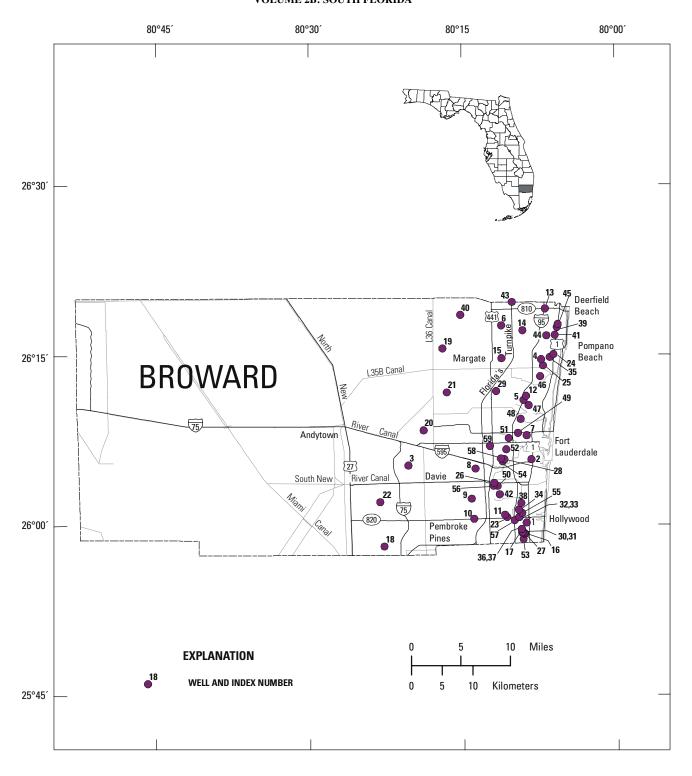


Figure 13: Location of wells on Broward County

# BROWARD COUNTY

WELL NUMBER.--255807080224301. Local Number G 1636. USGS Observation Well in Miramar, FL.

LOCATION.--Lat 25°58'07", long 80°22'43", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.31, T.51 S., R.40 E., Hydrologic Unit 03090202, at radio towers west of SW 172nd Avenue, 3 mi south of State Road 820, 4 mi west of Flamingo Road, and 5.8 mi northwest of Carol City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 24 ft, cased to 24 ft. REVISED RECORDS.--WDR FL-85-2B: 1979.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.17 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 6.0 ft above NGVD. (Corrected).

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

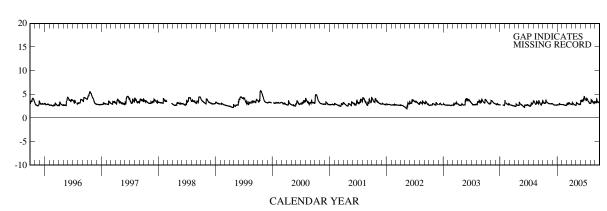
EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 5.77 ft NGVD, Oct. 18, 1999; lowest, 1.79 ft NGVD, May 23, 1985 and June 2, 1992.

REVISIONS.--Revised figures of elevation, in feet NGVD, for the year 2004, superseding those publised in WDR FL-04-2B are given below:

# 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	3.25	3.08	2.94	2.76	2.83	2.89	2.84	3.25	3.63	3.81	3.15	3.35
10	3.12	3.02	2.76	2.76	2.81	3.15	3.14	3.07	3.77	4.08	3.53	3.46
15	3.24	3.01	2.73	3.04	2.74	2.97	2.97	2.97	3.54	3.86	3.47	3.47
20	3.89	2.99	2.72	2.87	2.68	3.14	2.81	2.85	4.10	3.46	3.29	3.36
25	3.41	3.03	2.74	2.84	2.67	2.98	2.73	2.84	4.39	3.22	3.41	3.24
EOM	3.21	2.97	2.80	2.84	2.69	2.86	2.67	2.93	3.97	3.08	3.23	3.28
MAX	3.89	3.19	2.99	3.04	2.83	3.25	3.23	3.26	4.54	4.13	3.85	4.01





WELL NUMBER.--255843080090901. Local Number G 2903. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°58'44", long 80°09'09", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  Se  $\frac{1}{4}$  sec.28, T.51 S., R.42 E., Hydrologic Unit 03090202, 44 ft south of transmit lift station on the east side of SW 4th Avenue and north of SE 6th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 155.5 ft, cased to 145.5 ft, screened 145.5 to 155.5 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 5.06 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 5.1 ft above NGVD.

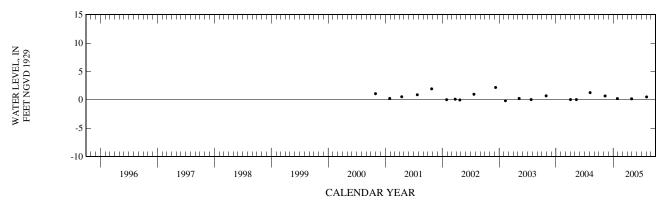
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Quarterly water-level measurements began in October 2000.

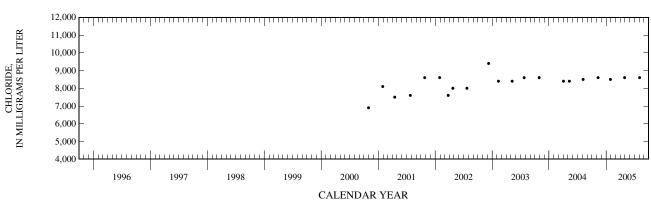
PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.17 ft NGVD, Dec. 9, 2002; lowest, 0.16 ft below NGVD, Feb. 10, 2003.

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

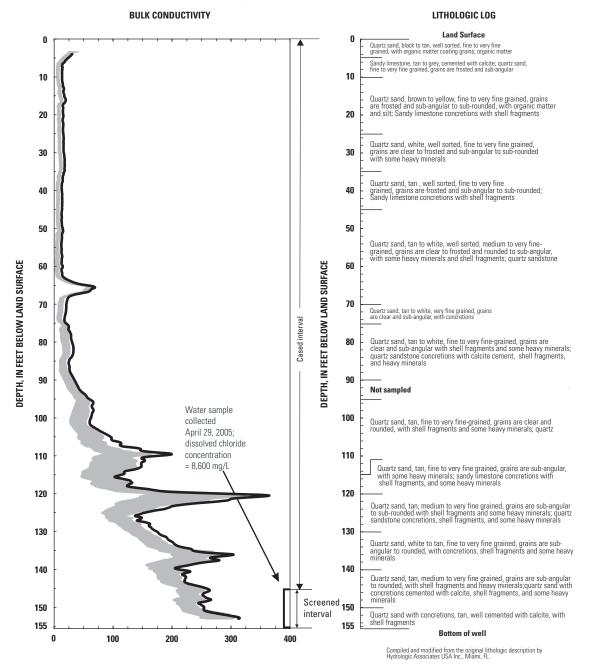
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV	1207	, ,	,	,	APR	4404	,	,	, ,
10 JAN	1305	.68	24,500	8,600	29 AUG	1124	.18	26,400	8,600
28	0841	.22	23,900	8,500	03	1401	.51	25,600	8,600





WELL NUMBER.--255843080090901. Local Number G 2903. USGS Observation Well near Hallandale, FL-Continued

## Induction log for Well 255843080090901, Local Number G-2903



# **BULK CONDUCTIVITY, IN MILLISIEMENS PER METER**

#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 29, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 17, 2000 to May 10, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--255910080085802. Local Number G 2294. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°59'11", long 80°08'59", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.27, T.51 S., R.42 E., Hydrologic Unit 03090202, at intersection, 19 ft north of NW 1st Street and 10 ft west of NW 1st Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 139 ft, cased to 135 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.95 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 9.4 ft above NGVD.

REMARKS .-- Well also used for salinity monitoring.

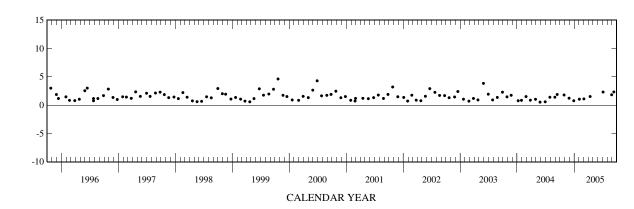
PERIOD OF RECORD .-- July 1991 to current year.

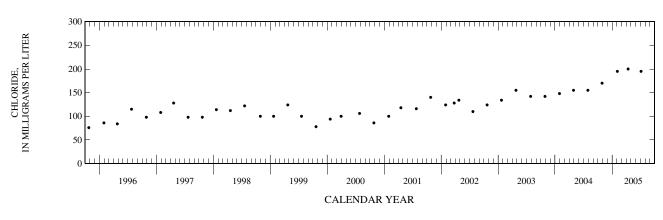
WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.74 ft NGVD, June 27, 1995; lowest, 0.54 ft below NGVD, Feb. 24, 1992.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	1009	1.79	809	170	13	1313	1.52	911	200
NOV					JUL				
29	1037	1.22			05	1244	2.31	959	195
DEC					AUG				
29	1108	.77			29	1012	1.83		
FEB					SEP				
03	1142	1.05	888	195	12	1107	2.33		
MAR									
04	1113	1.10							





WELL NUMBER.--255916080090401. Local Number G 1435. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°59'16", long 80°09'04", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.28, T.51 S., R.42 E., Hydrologic Unit 03090202, 14.5 ft north of NW 2nd Street centerline and 55 ft east of NW 3rd Avenue centerline.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 204 ft, cased to 196 ft. REVISED RECORDS.--WDR FL-99-2B: 1998.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 11.68 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 11.8 ft above NGVD.

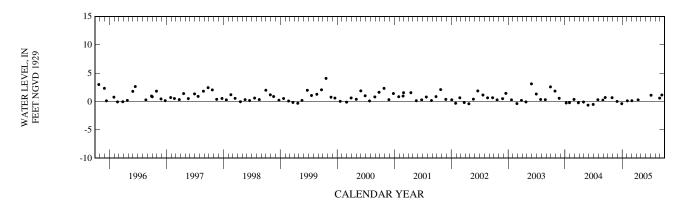
REMARKS.--Well also used since 1969 for salinity monitoring. Previously published figures of water level elevation, as feet NGVD for the 1998 water year are incorrect. Corrected records are available in the files of the U.S. Geological Survey.

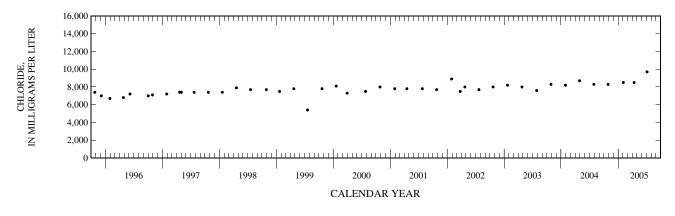
PERIOD OF RECORD.--October 1979, July 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.80 ft NGVD, Oct. 4, 1979; lowest, 0.65 ft below NGVD, May 27, 2004.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	0941	.67	23,800	8,300	13	1252	.28	24,100	8,500
NOV					JUL				
29	1033	.01			05	1223	1.10	24,400	9,700
DEC					AUG				
29	1101	38			29	1003	.59		
FEB					SEP				
03	1104	.11	23,200	8,500	12	1101	1.14		
MAR									
04	1042	.13							





WELL NUMBER.--255918080091801. Local Number G 1473. USGS Observation Well in Hallandale, FL.

LOCATION.--Lat 25°59'18", long 80°09'18", in NE 1/4 NW 1/4 NE 1/4 sec.28, T.51 S., R.42 E., Hydrologic Unit 03090202, near NW 6th Avenue and 2nd Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 132 ft cased to 126 ft. (Corrected).

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 14.58 ft above National Geodetic Vertical Datum of 1929. From October 1977 to October 1980, measuring point was considered to be 14.85 ft above NGVD. Prior to October 1977, measuring point was considered to be 13.63 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 12.1 ft above National Geodetic Vertical Datum of 1929.

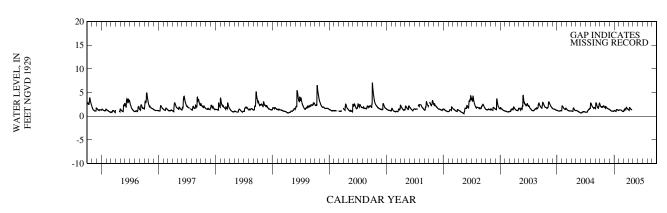
REMARKS.--Well also used for salinity monitoring. Salinity monitoring began in April 25, 1980. The figures of water level as elevation, in feet NGVD, prior to October 1, 1980, are in error. Corrected records are in files of the U.S. Geological Survey. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

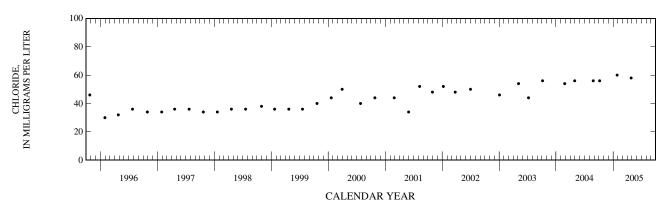
PERIOD OF RECORD.--November 1969 to April 2005. Discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.02 ft NGVD, Oct. 3, 4, 2000; lowest, 0.21 ft NGVD, Apr. 19, 21, 22, 1971.

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

	0.00		DEG			3.5.1.75			** ** *	****		ann
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.23	1.72	1.36	1.17	1.33	1.31	1.31					
10	1.96	1.94	1.18	1.06	1.35	1.59	1.82					
15	2.04	1.75	1.08	1.42	1.30	1.51	1.61					
20	1.94	1.66	1.11	1.38	1.14	1.85	1.45					
25	2.21	1.54	1.11	1.30	1.03	1.66	1.33					
EOM	1.95	1.47	1.20	1.26	1.03	1.43						
3.6.37	2.60	2.07	1.45	1 40	1.25	1.05						
MAX	2.60	2.07	1.45	1.42	1.35	1.85						





WELL NUMBER.--255919080091202. Local Number G 2409. USGS Observation Well in Hallandale, FL.

LOCATION.—Lat 25°59'19", long 80°09'12", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 28, T.51 S., R.42 E., Hydrologic Unit 03090202, 1 ft east of G-2408, 11 ft east of northwest corner of building on southeast corner of NW 3rd Street and NW 5th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 84 ft, cased to 83 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.58 ft above National Geodetic Vertical Datum of 1929. Prior to October 1996, measuring point was incorrectly considered to be 10.64 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 10.9 ft above NGVD.

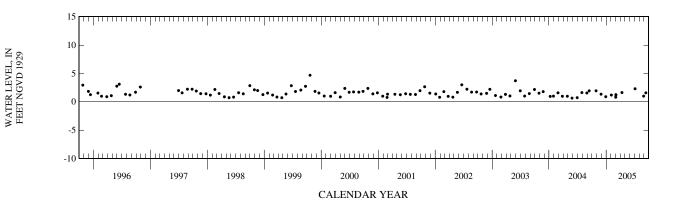
REMARKS.--Well also used for salinity monitoring. The figures of water levels as elevation, in feet NGVD, prior to October 1996 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

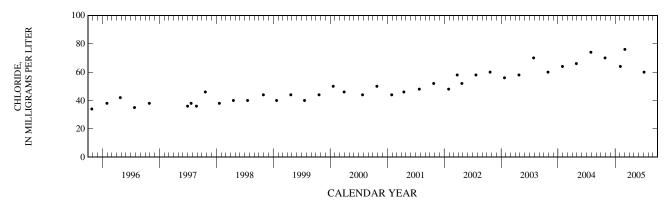
PERIOD OF RECORD.--September 1985 to February 1986 (weekly), March 1986 to September 1990 (intermittent), October 1990 to October 1996, June 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.68 ft NGVD, Oct. 21, 1999; lowest, 0.31 ft NGVD, May 24, 1995.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	0906	1.94	602	70.0	12	0932	1.63		
NOV					JUL				
29	1000	1.34			05	1202	2.30	600	60.0
DEC					AUG				
29	1035	.90			29	0955	1.00		
FEB					SEP				
03	1023	1.19	594	64.0	12	1039	1.58		
MAR									
03	1107	.81							
04	0958	1.24	602	76.0					





WELL NUMBER.--255919080091203. Local Number G 2410. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°59'19", long 80°09'13", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 28, T.51 S., R.42 E., Hydrologic Unit 03090202, 2 ft north of sidewalk and 1 ft west of G-2408, 9 ft east of northwest corner of building on southeast corner of NW 3rd Street and NW 5th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.25 in., depth 206 ft, cased to 205 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 10.55 ft above National Geodetic Vertical Datum of 1929.

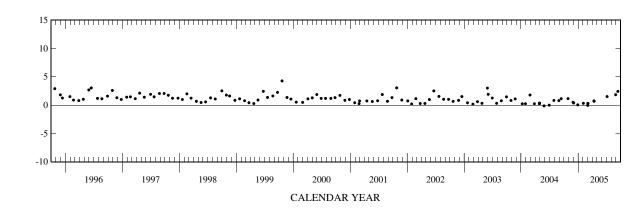
LAND-SURFACE DATUM.--Land surface is approximately 10.8 ft above NGVD.

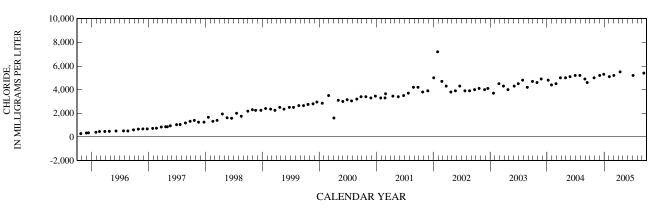
REMARKS.--Well also used for salinity monitoring. Salinity monitoring began in June 1985.

PERIOD OF RECORD.--September 1985 to February 1986 (weekly), March 1986 to November 1986 (intermittent), December 1986 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.76 ft NGVD, June 27, 1995; lowest, 0.13 ft below NGVD, May 27, 2004.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	0914	1.15	13,400	5,000	12	0938	.74		
NOV			*	,	13	1233	.69	14,300	5,500
29	1016	.50			JUL				
DEC					05	1116	1.51	14,500	5,200
03	1054	.38	14,000	5,200	AUG				
29	1039	.05	13,800	5,300	29	0958	1.84		
FEB					SEP				
03	1037	.32	13,700	5,100	12	1040	2.42	14,300	5,400
MAR									
03	1131	04							
04	1131	.30	13.600	5.200					





WELL NUMBER.--255936080091701. Local Number G 2477. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°59'36", long 80°09'19", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 21, T.51 S., R.42 E., Hydrologic Unit 03090202, at northwest corner of intersection of NW 6th Avenue and NW 8th Street, 82 ft west of NW 6th Avenue and 11 ft north of NW 8th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 80 ft, cased to 75 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.69 ft above National Geodetic Vertical Datum of 1929.

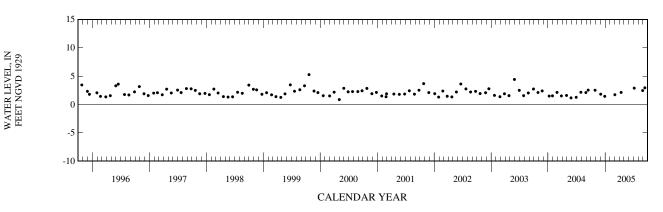
LAND-SURFACE DATUM.--Land surface is approximately 12.9 ft above NGVD.

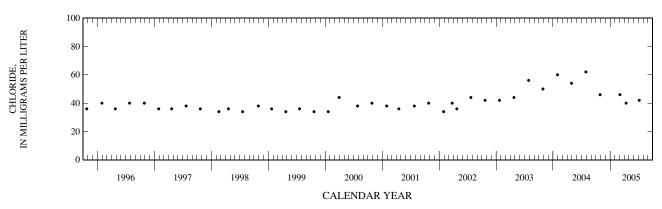
REMARKS .-- Well also used for salinity monitoring.

PERIOD OF RECORD .-- July 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.26 ft NGVD, Oct. 21, 1999; lowest, 0.86 ft NGVD, May 2, 2000.

Date	Time	Elev- ation, feet above NGVD	Specif. conduc- tance, wat unf uS/cm 25 degC	Chloride, water, fltrd, mg/L	Date	Time	Elev- ation, feet above NGVD	Specif. conduc- tance, wat unf uS/cm 25 degC	Chloride, water, fltrd, mg/L
Date	Time	(72020)	(00095)	(00940)	Date	Time	(72020)	(00095)	(00940)
OCT					JUL				
28	1040	2.51	519	46.0	06	1200	2.88	494	42.0
DEC					AUG				
03	1132	1.81			29	1059	2.45		
29	1115	1.44			SEP				
MAR					12	1114	2.94		
04	1159	1.72	524	46.0					
APR									
13	1403	2.12	538	40.0					





WELL NUMBER.--255936080091702. Local Number G 2478. USGS Observation Well near Hallandale, FL.

LOCATION.--Lat 25°59'36", long 80°09'19", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 21, T.51 S., R.42 E., Hydrologic Unit 03090202, at northwest corner of intersection of NW 6th Avenue and NW 8th Street, 60 ft west of NW 6th Avenue and 11 ft north of NW 8th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 200 ft, cased to 195 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.48 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 12.8 ft above NGVD.

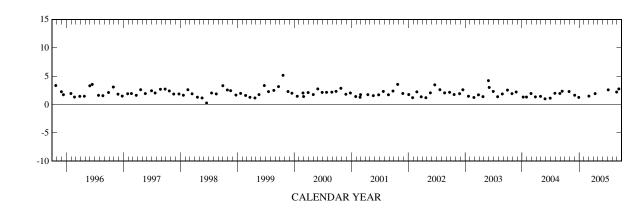
REMARKS .-- Well also used for salinity monitoring.

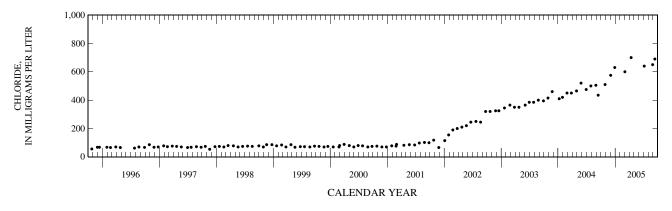
PERIOD OF RECORD .-- August 1991 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.14 ft NGVD, Oct. 21, 1999; lowest, 0.26 ft NGVD, June 18, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					JUL				
28	1045	2.28	1,780	510	06	0931	2.58	2,170	640
DEC					AUG				
03	1128	1.63	1,910	575	29	1024	2.19	1,840	650
29	1117	1.25	1,960	630	SEP				
MAR					12	1115	2.74	1,920	690
04	1138	1.47	2,070	600					
APR									
13	1346	1.91	2,180	700					





WELL NUMBER.--260010080085001. Local Number F 291. USGS Observation Well in Hollywood, FL.

LOCATION.—Lat 26°00'10", long 80°08'50", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.22, T.51 S., R.42 E., Hydrologic Unit 03090202, at South 20th Avenue and Dewey Street, 1.1 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, water-table well, diameter 6 in., depth 107 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of screw, 11.10 ft above National Geodetic Vertical Datum of 1929. From January 20, 1998 to June 20, 2000, measuring point was top of base, 11.08 ft above NGVD. From October 1991 to January 19, 1998, measuring point was top of casing, 11.06 ft above NGVD. From October 1985 to September 1991, top of base was incorrectly considered to be 11.18 ft above NGVD. From January 1948 to September 1985, measuring point was top of casing, 11.06 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 9.2 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

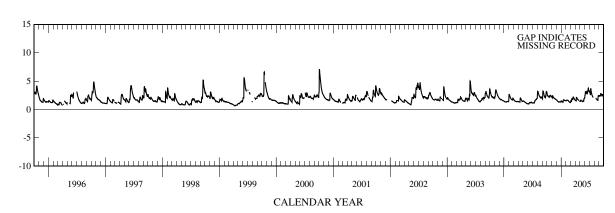
PERIOD OF RECORD .-- January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.26 ft NGVD, Oct. 5, 1948; lowest, 0.16 ft NGVD, July 2, 1952.

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 10 15 20 25 EOM	2.53 2.28 2.37 2.23 2.50 2.25	2.02 2.24 2.05 1.92 1.82 1.73	1.61 1.44 1.33 1.36 1.35 1.49	1.42 1.29 1.69 1.65 1.56	1.61 1.64 1.57 1.40 1.25 1.26	1.57 1.89 1.74 2.19 1.92 1.66	1.54 2.13 1.84 1.70 1.58 1.42	1.62 1.58 1.44 1.38 1.52 1.95	3.12 2.89 2.77 3.34 3.64 3.18	2.85 3.65 2.79 2.36 2.09	1.83 1.66 2.06 2.41	2.43 2.43 2.71 2.58 2.49 2.34
MAX	2.96	2.42	1.70	1.71	1.64	2.20		1.96	3.74			2.81





WELL NUMBER.--260026080095801. Local Number G 2956. USGS Observation Well near Hollywood, FL.

LOCATION.--Lat 26°00'26", long 80°09'58", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.16, T.51 S., R.42 E., Hydrologic Unit 03090202, located in the traffic circle at the intersection of South 29th Terrace and Monroe Street, 200 ft east of U.S. Interstate 95.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 175 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.20 ft above National Geodetic Vertical Datum of 1929.

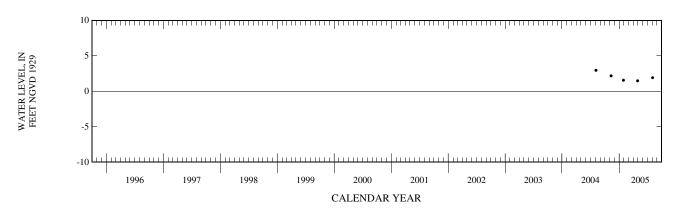
LAND-SURFACE DATUM.--Land surface is approximately 8.2 ft above NGVD.

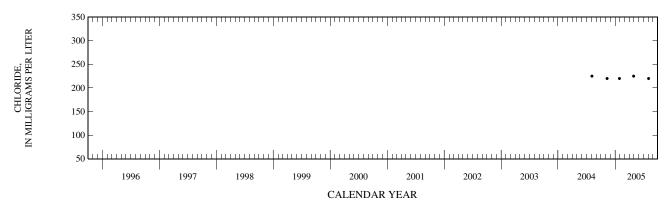
REMARKS.--Well also used for salinity sampling, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. Quarterly water-level measurements began in September 2004. Water-level data are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- August 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.96 ft NGVD, Aug. 5, 2004; lowest, 1.48 ft NGVD, Apr. 29, 2005.

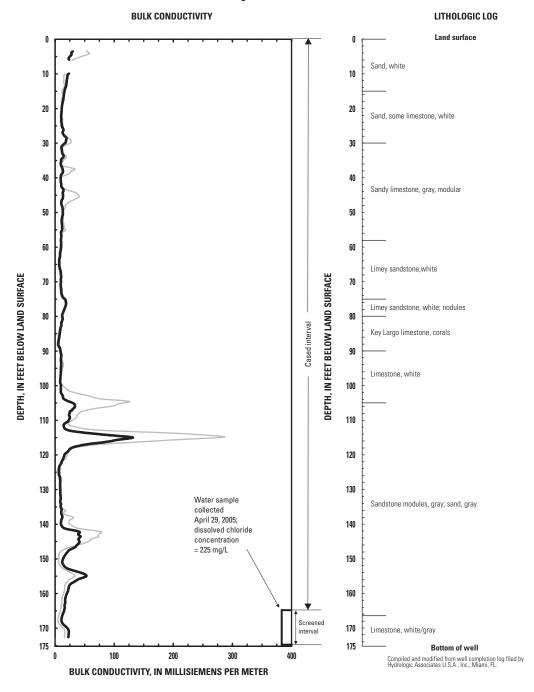
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					APR				
10	1423	2.18	1,160	220	29	1320	1.48	1,230	225
JAN	0000		4.450	220	AUG	1210	4.00	4.400	220
28	0922	1.56	1.150	220	03	1310	1.92	1.190	220





WELL NUMBER.--260026080095801. Local Number G 2956. USGS Observation Well near Hollywood, FL-Continued

# Induction log for Well 260026080095801, Local Number G-2956



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 29, 2005.

Shaded line represents bulk conductivity log collected from August 5, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER .-- 260032080135701. Local Number G 1225. USGS Observation Well in Hollywood, FL.

LOCATION.--Lat 26°00'32", long 80°13'57", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.51 S., R.41 E., Hydrologic Unit 03090202, at corner of Hollywood Boulevard and SW 72nd Avenue in Hollywood.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 20 ft, cased to 11 ft. REVISED RECORDS.--WDR FL-81-2B: 1980.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.66 ft above National Geodetic Vertical Datum of 1929. From October 1992 to January 7, 2004, measuring point was 11.21 ft above NGVD. From June 1982 to October 1992, measuring point was top of base, 11.16 ft above NGVD. From May 1981 to December 1981 measuring point was top of base, 11.70 ft above NGVD. Prior to May 1981, measuring point was top of casing, 11.03 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 9.1 ft above NGVD.

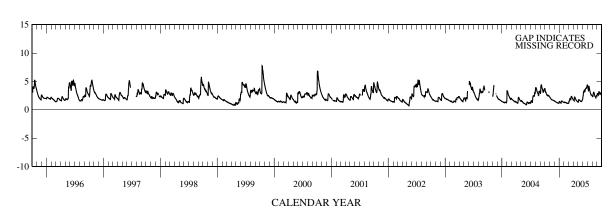
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. In 1982, G-1225 was re-drilled in a location close to the original site. The current well has the same station identifiers as the original and all data are stored as one set of elevations.

PERIOD OF RECORD.--January 1962 to December 1981, (original well), June 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.75 ft NGVD, Oct. 15, 1999; lowest, 0.70 ft NGVD, Apr. 30 and May 1, 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	3.20 2.93 2.65 2.45 2.55	2.09 1.89 1.75 1.72 1.65	1.50 1.40 1.29 1.24 1.19	1.42 1.24 1.51 1.54 1.40	1.37 1.29 1.24 1.17 1.15	1.54 1.91 1.91 2.37 2.14	1.65 2.25 1.99 1.70 1.51	1.72 1.73 1.61 1.46 1.48	2.87 3.34 3.26 3.72 3.96	3.71 4.15 3.54 2.96 2.63	2.36 3.11 2.69 2.29 2.27	2.84 2.57 3.13 2.90 2.81
EOM	2.28	1.59	1.30	1.30	1.15	1.81	1.38	1.84	4.38	2.46	2.45	2.60
MAX	3.76	2.24	1.57	1.56	1.37	2.37	2.25	1.84	4.38	4.36	3.11	3.19





WELL NUMBER.--260040080104401. Local Number G 2035. USGS Observation Well in Hollywood, FL.

LOCATION.--Lat 26°00'40", long 80°10'44", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.17, T.51 S., R.42 E., Hydrologic Unit 03090202, at northeast corner of 35th Avenue and Hollywood Boulevard, 0.7 mi west of U.S. Interstate 95.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Driven, observation, water-table well, diameter 4 in., depth 52 ft, cased to 50 ft. REVISED RECORDS.--WDR FL-85-2B: 1976.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 16.02 ft above National Geodetic Vertical Datum of 1929. From July 1984 to April 2002, measuring point was 16.24 ft above NGVD. From October 1994 to September 1999, measuring point was incorrectly considered to be 16.26 ft above NGVD. From July 1984 to September 1994, measuring point may have incorrectly been considered to be 16.26 ft above NGVD. From July 16, 1981 to July 5, 1984, measuring point was 16.26 ft above NGVD. Prior to July 16, 1981, measuring point was 16.14 ft above NGVD. From October 1973 to September 1975, the measuring point was incorrectly reported to be 15.20 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 13.2 ft above NGVD.

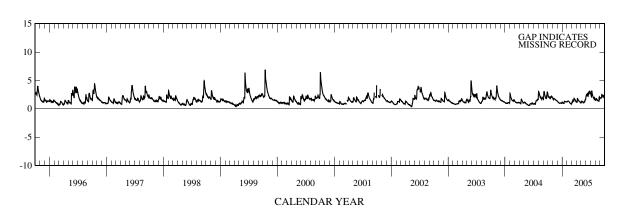
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Unpublished records of water levels for September 1999 are available in files of the U.S. Geological Survey. Records of water levels as elevation for the period July 1984 to September 1994 may be in error and may require a correction of -0.02 ft. Records of water levels as elevation for the period October 1994 to September 1999 are in error and require a correction of -0.02 ft. Water level records for these period have not been corrected. Station rebuilt April 10, 2002. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.88 ft NGVD, Oct. 15, 1999; lowest, 0.22 ft NGVD, Apr. 25, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.13	1.64	1.24	1.07	1.35	1.22	1.18	1.34	2.51	2.38	1.50	1.96
10	2.00	1.77	1.06	0.96	1.34	1.57	1.77	1.28	2.52	3.14	1.71	2.05
15	2.08	1.70	0.96	1.30	1.22	1.34	1.44	1.10	2.32	2.36	1.50	2.38
20	1.96	1.58	1.03	1.29	1.03	1.80	1.35	1.08	2.93	1.96	1.41	2.34
25	2.24	1.47	1.05	1.20	0.90	1.55	1.22	1.24	3.00	1.95	1.89	2.11
EOM	1.93	1.37	1.18	1.23	0.94	1.27	1.05	1.60	2.93	1.67	1.82	1.98
MAX	2.64	1.88	1.35	1.33	1.37	1.85	1.81	1.60	3.06	3.19	2.10	2.54





WELL NUMBER.--260041080093101. Local Number G 2425. USGS Observation Well near Hollywood, FL.

 $LOCATION.--Lat\ 26^{\circ}00'40'', long\ 80^{\circ}09'32'', in\ SW\ {}^{1}\!\!{}^{\prime}_{4}\ SW\ {}^{1}\!\!{}^{\prime}_{4}\ NE\ {}^{1}\!\!{}^{\prime}_{4}\ sec. 16, T.51\ S., R.42\ E., Hydrologic\ Unit\ 03090202, 8\ ft\ south\ of\ G-2426, in\ grassy\ area\ 60\ ft\ east\ of\ parking\ space\ 10\ in\ the\ northeast\ parking\ lot\ on\ City\ Hall\ Circle,\ at\ Hollywood\ Boulevard\ and\ South\ 26th\ Avenue.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 203 ft, cased to 198 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 12.88 ft above National Geodetic Vertical Datum of 1929.

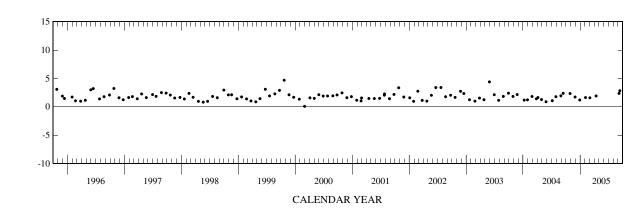
LAND-SURFACE DATUM.--Land surface is approximately 13.2 ft above NGVD.

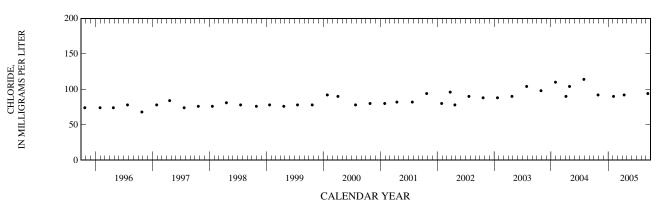
REMARKS.--Well also used for salinity monitoring. Salinity monitoring began in March 1986.

PERIOD OF RECORD.--January 1987 to December 1989 (intermittent), December 1989 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.68 ft NGVD, Oct. 22, 1999; lowest, 0.08 ft NGVD, Mar. 1, 2000.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAR				
28	1139	2.34	628	92.0	04	1332	1.58		
NOV					APR				
29	1124	1.73			13	1449	1.91	690	92.0
DEC					SEP				
29	1147	1.20			07	0900	2.36		
FEB					12	0928	2.83	546	94.0
04	1030	1.63	691	90.0					





WELL NUMBER.--260041080093102. Local Number G 2426. USGS Observation Well near Hollywood, FL.

 $LOCATION.--Lat\ 26^{\circ}00'40", long\ 80^{\circ}09'32", in\ SW\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ NE\ {}^{1}\!\!/_{4}\ sec. 16, T.51\ S., R.42\ E., Hydrologic\ Unit\ 03090202,\ 8\ ft\ north\ of\ G-2425,\ 60\ ft\ east\ of\ parking\ space\ 10\ in\ the\ northeast\ parking\ lot\ on\ City\ Hall\ Circle,\ Hollywood\ Boulevard\ and\ South\ 26th\ Avenue.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 91 ft, cased to 86 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.78 ft above National Geodetic Vertical Datum of 1929.

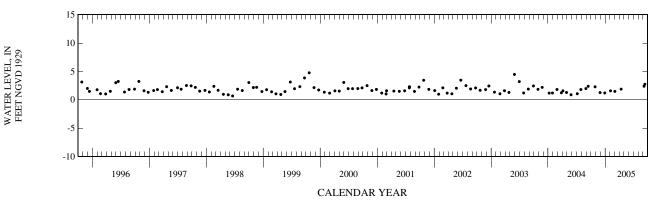
LAND-SURFACE DATUM.--Land surface is approximately 12.8 ft above NGVD.

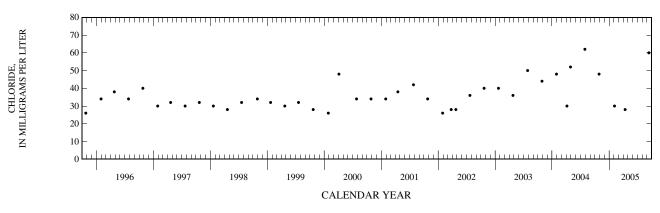
REMARKS.--Well is also used for salinity monitoring. Salinity monitoring began in October 1986.

PERIOD OF RECORD.--January 1987 to May 1993 (intermittent), October 1993 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.76 ft NGVD, Oct. 22, 1999; lowest, 0.65 ft NGVD, Apr. 4, 1988.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAR				
28	1142	2.29	474	48.0	04	1332	1.48		
NOV					APR				
29	1054	1.27			13	1456	1.88	481	28.0
DEC					SEP				
29	1149	1.21			07	1108	2.39		
FEB					12	0932	2.74	504	60.0
04	1006	1.58	464	30.0					





WELL NUMBER.--260053080105701. Local Number G 1226. USGS Observation Well in Hollywood, FL.

LOCATION.--Lat 26°00'53", long 80°10'57", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.17, T.51 S., R.42 E., Hydrologic Unit 03090202, in the center of the median of North Rainbow Drive, 1,500 ft southwest of Johnson Street in Hollywood, 0.3 mi north of Hollywood Boulevard, and 1.7 mi east of U.S. Highway 441.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 20 ft, cased to 14 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.08 ft above National Geodetic Vertical Datum of 1929. From July 5, 1984 to April 10, 1998, measuring point was considered to be top of base, 9.26 ft above NGVD. From July 16, 1981 to July 5, 1984, top of base was 9.26 ft above NGVD. Prior to July 16, 1981, measuring point was top of casing, 9.17 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 9.1 ft above NGVD.

1.25

1.26

1.26

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

1.81

MAX

2.60

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.10 ft NGVD, Oct. 8, 1991; lowest, 0.28 ft NGVD, May 14, 2002.

WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5	2.10	1.57	1.16	1.02	1.25	1.18	1.10	1.27	2.60	2.36	1.46	1.92	
10	1.94	1.70	0.99	0.88	1.25	1.57	1.69	1.19	2.61	3.21	1.70	1.93	
15	2.05	1.58	0.88	1.25	1.16	1.28	1.36	1.06	2.31	2.34	1.50	2.42	
20	1.84	1.48	0.95	1.21	0.97	1.75	1.26	0.99	3.04	1.90	1.35	2.26	
25	2.20	1.36	0.94	1.11	0.80	1.45	1.13	1.17	2.98	1.96	1.79	2.16	
EOM	1.87	1.29	1.15	1.15	0.84	1.16	0.97	1.53	2.96	1.67	1.87	1.96	

1.88

1.81

1.57

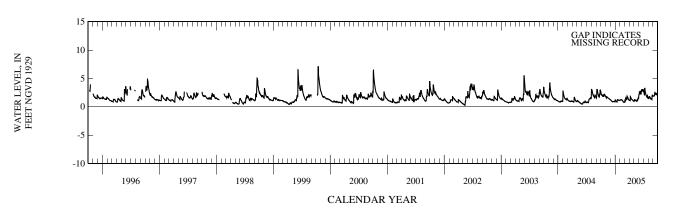
3.11

3.33

2.07

2.56

ELEVATION ABOVE NGVD 1929, FEET



WELL NUMBER.--260101080091501. Local Number G 2906. USGS Observation Well near Hollywood, FL.

LOCATION.--Lat 26°01'01", long 80°09'15", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 16, T.51 S., R.42 E., Hydrologic Unit 03090202, in the parking lot of Lincoln Park, about 180 ft south of Lincoln Street, 0.3 mi west of North Dixie Highway.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 158 ft, cased to 148 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 13.89 ft above National Geodetic Vertical Datum of 1929.

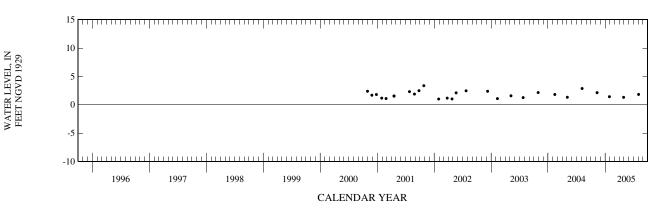
LAND-SURFACE DATUM.--Land surface is approximately 13.9 ft above NGVD.

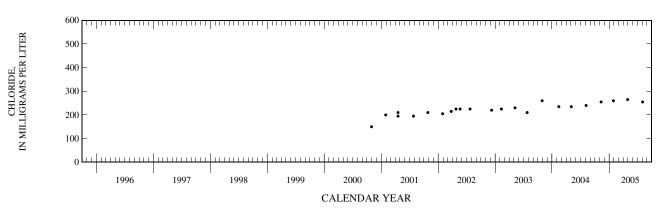
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Induction logging began in April 2001.

PERIOD OF RECORD .-- October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.37 ft NGVD, Oct. 26, 2001; lowest, 1.02 ft NGVD, Jan. 29, 2002.

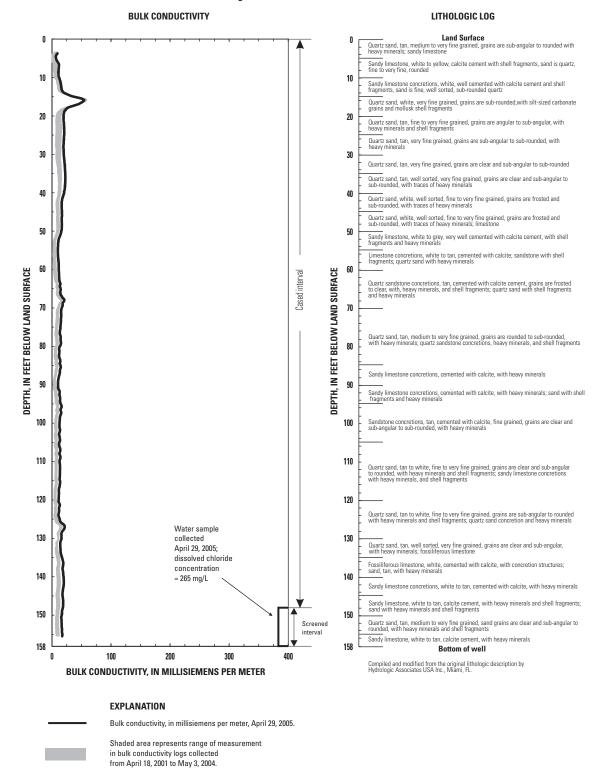
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					APR				
10	1228	2.14	1,170	255	29	1001	1.32	1,310	265
JAN					AUG				
28	0956	1.43	1,210	260	03	1242	1.83	1,230	255





WELL NUMBER .-- 260101080091501. Local Number G 2906. USGS Observation Well near Hollywood, FL-Continued

# Induction log for Well 260101080091501, Local Number G-2906



Bracket represents the interval for which the

well is open to the aquifer.

WATER LEVEL, IN FEET NGVD 1929

# BROWARD COUNTY—Continued

WELL NUMBER .-- 260120080093401. Local Number G 2441. USGS Observation Well near Hollywood, FL.

LOCATION.--Lat 26°01'19", long 80°09'35" in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.9, T.51 S., R.42 E., Hydrologic Unit 03090202, 16.7 ft from the sidewalk of Arthur Street and 36 ft east of North 26th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 181 ft, cased to 180 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.72 ft above National Geodetic Vertical Datum of 1929.

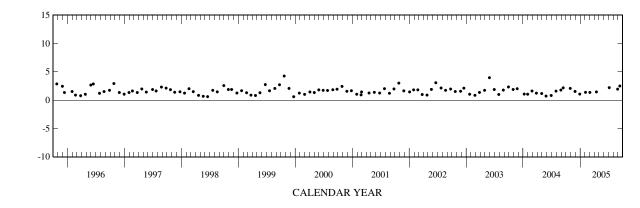
LAND-SURFACE DATUM.--Land surface is approximately 10.7 ft above NGVD.

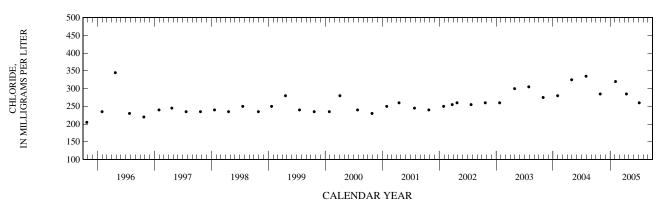
REMARKS.--Well is also used for salinity monitoring. Prior to October 1994 only chloride data was published. See PERIOD OF RECORD.

PERIOD OF RECORD.--September 1986 to July 1994 (intermittent), October 1994 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.25 ft NGVD, Oct. 22, 1999; lowest, 0.60 ft NGVD, Dec. 22, 1999.

Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
				APR				
0941	2.07	1,260	285	15	1051	1.45	1,320	285
1140	1.53			06	1030	2.20	1,210	260
				AUG				
1220	1.07				1129	1.94		
1121	1.20	1.050	220		00.44	2.40		
1131	1.38	1,250	320	12	0944	2.49		
1536	1.36							
	0941	Time ation, feet above NGVD (72020)  0941 2.07  1140 1.53  1220 1.07  1131 1.38	Elevation, feet above NGVD (72020) (00095)  Time NGVD 25 degC (72020) (00095)  0941 2.07 1,260  1140 1.53  1220 1.07  1131 1.38 1,250	Elevation, feet wat unfabove uS/cm fly (72020) (00095) (00940)  Time NGVD 25 degC mg/L (72020) (00095) (00940)  0941 2.07 1,260 285  1140 1.53 1220 1.07 1131 1.38 1,250 320	Elevation, feet wat unf above uS/cm fltrd, (72020) (00095) (00940)  Time NGVD 25 degC mg/L (72020) (00095) (00940)  APR 15 JUL 1140 1.53 06 AUG 29 SEP 1131 1.38 1,250 320 12	Elevation, feet above uS/cm fltrd, NGVD (72020) (00095) (00940)  Time NGVD 25 degC mg/L Date Time  O941 2.07 1,260 285 15 1051  JUL  1140 1.53 06 1030  AUG  1220 1.07 29 1129  SEP  1131 1.38 1,250 320 12 0944	Elevation, feet above Time         conductance, feet wat unf above uS/cm fltrd, (72020)         Chloratide, water, feet wat unf above uS/cm fltrd, (72020)         Date         Time NGVD Time NGVD (72020)           0941         2.07         1,260         285         15 JUL 1051         1.45 JUL 1140           1140         1.53           06 AUG 29 1129         1.94 SEP 13 1051           1220         1.07           29 1129         1.94 SEP 13 1051           1131         1.38         1,250         320         12 0944         2.49	Elevation, feet wat unfabove uS/cm fltrd,   Date   Time   NGVD   25 degC (72020) (00095) (00940)





WELL NUMBER.--260155080092002. Local Number G 2612. USGS Observation Well in Hollywood, FL.

LOCATION.--Lat 26°01'54", long 80°09'21" in SE  ${}^{1}\!\!{}_{4}$  SE  ${}^{1}\!\!{}_{4}$  NW  ${}^{1}\!\!{}_{4}$  sec.8, T.51 S., R.42 E., Hydrologic Unit 03090202, 6 ft from the southwest corner of Boggs Field Park, south of Sheridan Street, 30 ft from NW 24th Avenue, at a ninety degree turn to the west.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 273 ft, cased to 273 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.00 ft above National Geodetic Vertical Datum of 1929.

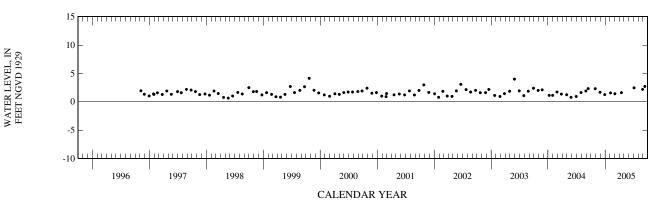
LAND-SURFACE DATUM.--Land surface is approximately 7.0 ft above NGVD.

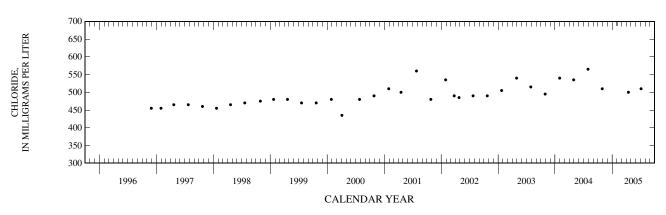
REMARKS.--Well is also used for salinity monitoring. No data for water year 1996. Because of an error on a site photograph, G-2612 was confused with another well. As a result, published records for the 1995 and 1996 water years are in error and have been removed.

PERIOD OF RECORD.--November 1996 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.14 ft NGVD, Oct. 22, 1999; lowest, 0.65 ft NGVD, May 21, 1998.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	1022	2.31	1,950	510	15	1124	1.61	1,870	500
NOV					JUL				
29	1147	1.68			05	1057	2.46	1,940	510
DEC					AUG				
29	1229	1.27			29	1139	2.19		
FEB					SEP				
04	1235	1.57	1,900	700	12	1014	2.71		
MAR			,						
04	1527	1.42							





WATER LEVEL, IN FEET NGVD 1929

#### BROWARD COUNTY—Continued

WELL NUMBER.--260219080141101. Local Number G 1223. USGS Observation Well in Hollywood, FL.

LOCATION.--Lat 26°02'19", long 80°14'11", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.3, T.51 S., R.41 E., Hydrologic Unit 03090202, north of NW 33rd Street on Davie Road Extension, and 0.5 mi south of Stirling Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 20 ft, cased to 12 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.—Measuring point: Top of flange, 8.37 ft above National Geodetic Vertical Datum of 1929. Prior to November 2004, measuring point: Top of base, 8.43 ft above NGVD. From October 1980 to April 2001, measuring point was 8.33 ft above NGVD. Prior to October 1980, measuring point was incorrectly considered to be 7.98 ft above NGVD. See REMARKS.

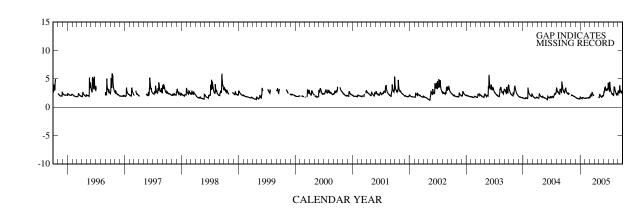
LAND-SURFACE DATUM.--Land surface is approximately 6.3 ft above NGVD.

REMARKS.--Revised measuring point elevation April 2001, is the result of reconstruction at this station. The figures of water level as elevation, in feet NGVD, prior to October 1, 1980, are in error. Corrected records are in files of the U.S. Geological Survey. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.45 ft NGVD, Oct. 8, 1991; lowest, 1.18 ft NGVD, Nov. 11, 1968.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.71	2.04	1.67	1.65	1.58	1.96		2.25	2.97	3.13	2.79	2.62
10 15	2.47 2.51	2.09 2.03	1.58 1.51	1.56 1.71	1.55 1.62	2.27 2.10		2.04 1.83	3.50 2.91	3.93 3.01	3.50 2.75	2.65 2.95
20 25	2.31 2.38	1.94 1.85	1.51 1.45	1.65 1.59	1.62 1.71	2.48 2.16		1.78 1.91	3.17 3.01	2.54 2.24	2.30 2.26	2.71 2.60
EOM		1.79	1.69	1.57	1.70		1.69	2.07	4.29	2.11	2.25	2.45
MAX			1.76	1.79	1.71			2.26	4.29	4.46	3.61	3.76



WELL NUMBER.--260241080112701 Local Number G 2785. USGS Observation Well near Dania, FL.

LOCATION.—Lat  $26^{\circ}02'41''$ , long  $80^{\circ}11'27''$ , in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.6, T.51 S., R.42 E., Hydrologic Unit 03090202, 33 ft east of BellSouth structure, on the west side of North 46th Avenue and 200 ft south of Stirling Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 197 ft, cased to 192 ft, screened 192 to 197 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 6.63 ft above National Geodetic Vertical Datum of 1929. Between March 2, 2001 and June 5, 2002, measuring point was top of base, 10.34 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.6 ft above NGVD.

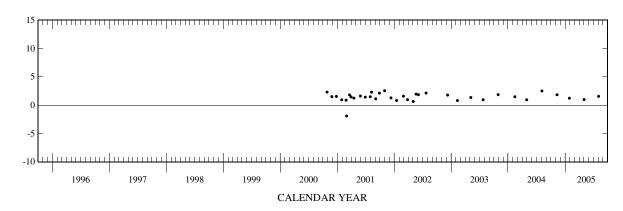
WATER LEVEL, IN FEET NGVD 1929

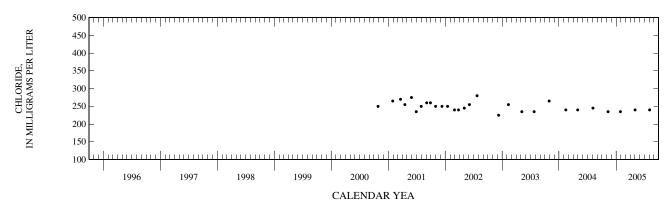
REMARKS.--Well is also used for salinity sampling, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Quarterly water-level measurements began in October, 2000. Between March 2, 2001 and June 5, 2002 the station was temporarily reconstructed for continuous water-level and conductivity data collection. These data are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 2000 to September 2000 (Intermittent), October 2000 to February 2001 (monthly), March 2001 to June 2002 (daily), June 2002 to current year. See REMARKS.

EXTREMES FOR THE PERIOD OF RECORD.--Highest daily maximum water level, 3.97 ft NGVD, Sept. 29, 2001; lowest water level measured, 1.92 ft below NGVD, Mar. 1, 2001.

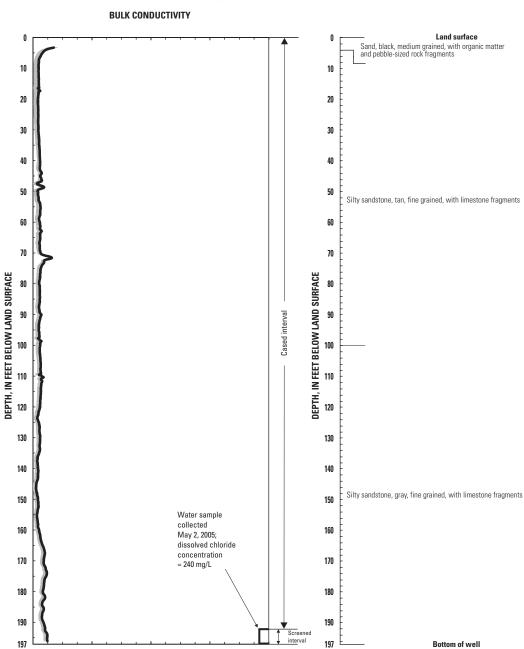
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
10	1149	1.83	1,290	235	02	1413	.99	1,400	240
JAN					AUG				
28	1102	1.22	1,300	235	03	1202	1.55	1,380	240





WELL NUMBER.--2602410801127011. Local Number G 2785. USGS Observation Well near Dania, FL-Continued

# Induction log for Well 260241080112701, Local Number G-2785



400

Compiled and modified from the original lithologic

description by ITC- International Technology Corporation.

# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 2, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 17, 2000 to April 29, 2004.

Bracket represents the interval for which the well is open to the aquifer.

200

BULK CONDUCTIVITY, IN MILLISIEMENS PER METER

WELL NUMBER.--260325080113901. Local Number G 2900. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°03'25", long 80°11'39", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.31, T.50 S., R.42 E., Hydrologic Unit 03090202, 29 ft south of a storm drain on the east side of SW 35th Terrace, 0.45 mi south of Griffin Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 114.5 ft, cased to 104.5 ft, screened 104.5 tt 114.5 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer and conductivity probe.

DATUM.--Measuring point: Top of base, 9.44 ft above National Geodetic Vertical Datum of 1929. Prior to February 15, 2001, measuring point was top of casing 5.98 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.0 ft above NGVD.

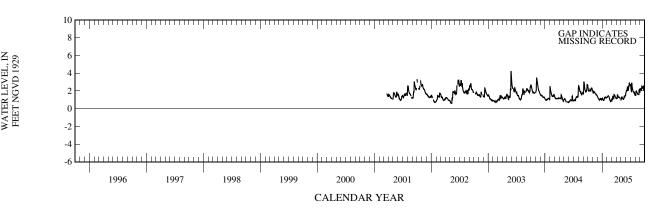
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Station was reconstructed in February 2001, for the collection of continuous water-level, temperature and specific conductance data. Because of the failure of a conductance probe element, specific conductance data, originally collected October 2004 to February 2005, has been removed from the station data record. Temperature records are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--Water Level Measurements: October 2000 to March 2001 (monthly), March 2001 to current year. Induction Logging: April 2000 to current year (annually). Specific Conductance: March 2001 to current year. Chloride concentration: October 2000 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.20 ft NGVD, May 27, 28, 2003; lowest, 0.62 ft NGVD, May 8, 10, 11, 2002. Highest daily mean specific conductance, 11,190 microsiemens, June 2, 2005; lowest, 7,718 microsiemens, Oct. 27, 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 10	2.04 2.01	1.76 1.92	1.24 1.06	1.05 0.93	1.40 1.45	1.06 1.40	1.14 1.55	1.32 1.24	2.03 2.23	2.13 2.85	1.85 1.91	2.20 2.26
15	2.17	1.77	0.98	1.19	1.25	1.17	1.29	1.09	2.12	2.17	1.71	2.37
20 25	2.08 2.34	1.67 1.57	1.11 1.17	1.30 1.21	0.95 0.85	1.55 1.36	1.28 1.20	1.15 1.33	2.53 2.79	1.90 1.84	1.60 2.02	2.49 2.16
EOM	2.07	1.44	1.18	1.29	0.94	1.17	1.00	1.50	2.66	1.52	1.86	2.01
MAX	2.47	2.03	1.41	1.31		1.59		1.51	2.89	2.92	2.16	2.52

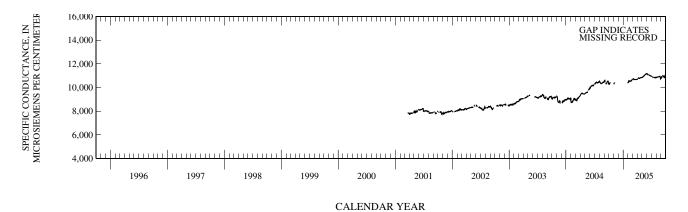


# SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

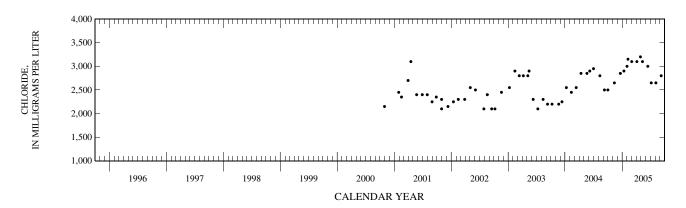
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10,300	10,390			10,570	10,750		10,900	11,140	10,930	10,880	10,900
10	10,440				10,560	10,720	10,800	10,930	11,090	10,880	10,890	11,000
15					10,540	10,680	10,790	10,990	11,050		10,900	10,920
20					10,580	10,690	10,820	11,080	11,050	10,840	10,930	11,000
25					10,630	10,690	10,860	11,110	10,990	10,870	10,960	10,840
EOM				10,410	10,690	10,700	10,840	11,160	10,970	10,830	10,840	10,940
MAX								11,160			10,960	

e Estimated

WELL NUMBER.--260325080113901. Local Number G 2900. USGS Observation Well near Fort Lauderdale, FL.

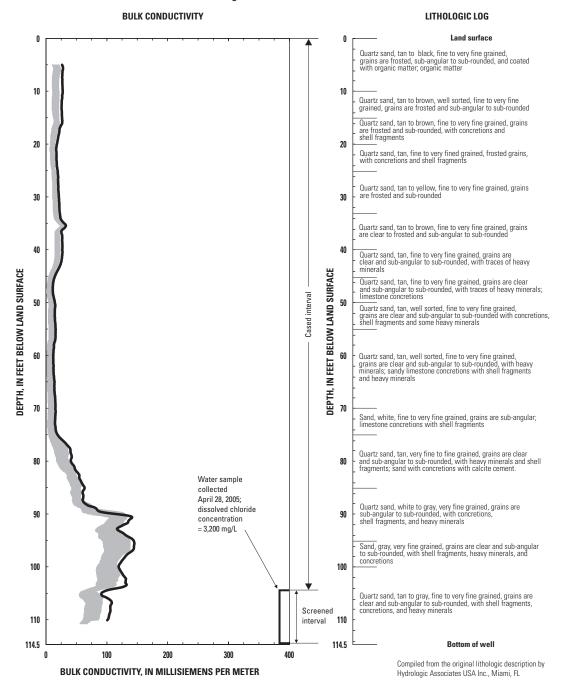


Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT				APR			
01	1049	8,090	2,500	05	1041	10,200	3,100
NOV				28	1533	10,200	3,200
12	0919	8,270	2,650	MAY			
DEC				11	0931	10,500	3,100
20	1138	8,970	2,850	JUN			
JAN				14	0935	9,560	3,000
12	1015	9,230	2,900	JUL			
FEB				06	1050	8,640	2,650
01	1010	9,550	3,000	AUG			
07	0952	9,910	3,150	05	0958	8,630	2,650
MAR				SEP			
03	1047	10,200	3,100	08	1040	9,150	2,800



WELL NUMBER.--25584308009091. Local Number G 2900. USGS Observation Well near Fort Lauderdale, FL-Continued

#### Induction log for Well 260325080113901, Local Number G-2900



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 28, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 19, 2000 to May 20, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WATER LEVEL, IN FEET NGVD 1929

#### BROWARD COUNTY—Continued

WELL NUMBER.--260326080120301. Local Number G 2921. USGS Observation Well near Davie, FL.

LOCATION.--Lat 26°03'26", long 80°12'03", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 36, T.50 S., R.41 E., Hydrologic Unit 03090202, at the northwest corner of the intersection of SW 40th Avenue and 52nd Street, 0.40 mi south of Griffin Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 207 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape. Annual profile by induction logger.

DATUM.--Measuring point: Top of casing, 4.01 ft above National Geodetic Vertical Datum of 1929. Prior to January 23, 2004, measuring point was estimated to be 5 ft from a topographic map. See REMARKS.

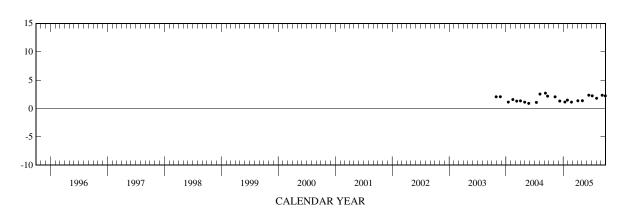
LAND-SURFACE DATUM .-- Land surface is approximately 4.0 ft above NGVD.

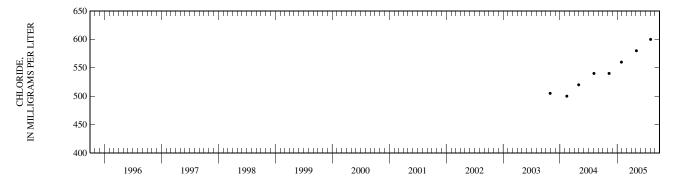
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. The estimated measuring point published prior to January 23, 2004, was not used to compute water-level elevations. All water-level elevation data collected prior to January 23, 2004, were computed using the 4.01 ft measuring point. Water level and chloride concentration monitoring began in October 2003.

PERIOD OF RECORD.--August 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.70 ft NGVD, Sept. 9, 2004; lowest, 0.90 ft NGVD, May 25, 2004.

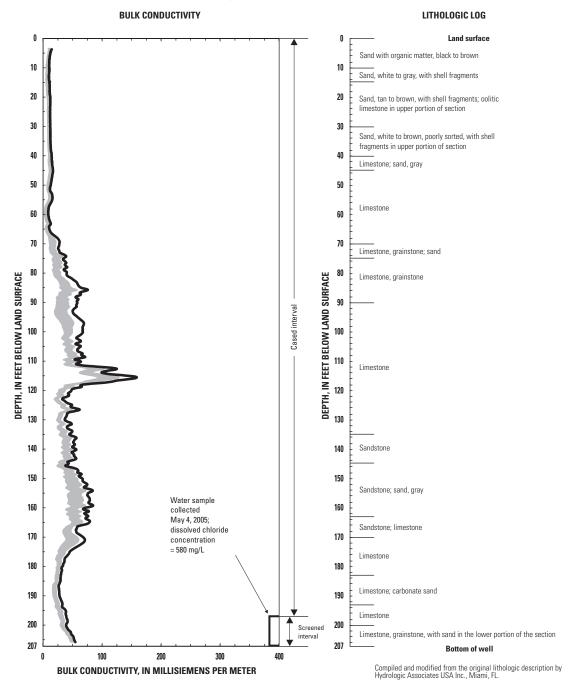
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
10	1131	2.05	2,210	540	04	0907	1.37	2,470	580
DEC					JUN				
10	1017	1.31			14	1135	2.34		
JAN					JUL				
12	1537	1.14			06	1215	2.23		
28	1132	1.47	2,260	560	AUG				
FEB					03	1131	1.80	2,420	600
23	1005	1.12			SEP				
APR					08	1321	2.33		
05	1225	1.36			28	1153	2.21		





WELL NUMBER.--260326080120301. Local Number G 2921. USGS Observation Well near Davie, FL-Continued

# Induction log for Well 260326080120301, Local Number G-2921



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 4, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from August 28, 2000 to April 29, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--260342080115902. Local Number G 2264. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°03'42", long 80°11'59", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 31, T.50 S., R.42 E., Hydrologic Unit 03090202, 34 ft east of center of SW 40th Avenue and south of Griffin Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 203 ft, cased to 196 ft. Open hole 196 to 203 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 4.70 ft above National Geodetic Vertical Datum of 1929. Prior to December 2000, the measuring point was considered to be 3.88 ft above NGVD. SEE REMARKS.

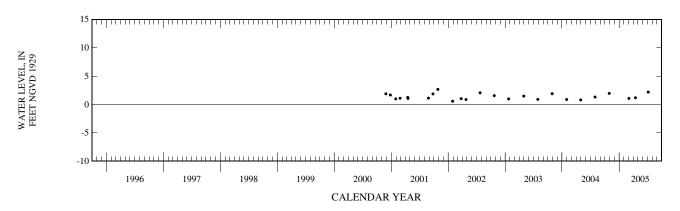
LAND-SURFACE DATUM.--Land surface is approximately 4.7 ft above NGVD.

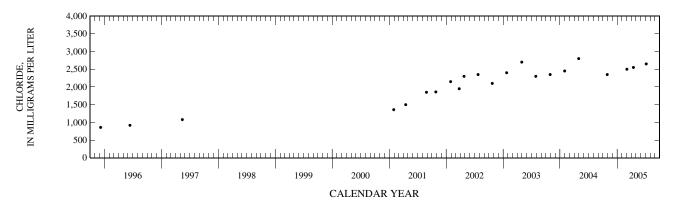
REMARKS.--Well is also used for salinity monitoring. Quarterly water level measurements began in November 2000. Prior to that, well was only monitored for salinity. In December 2000, construction activities altered the land-surface datum and the casing was reconstructed.

PERIOD OF RECORD.--July 1976 to April 2000 (intermittent), October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.66 ft NGVD, Oct. 26, 2001; lowest, 0.57 ft NGVD, Jan. 29, 2002.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	1314	1.95	8,000	2,350	15	1213	1.18	8,300	2,550
MAR					JUL				
04	1448	1.08	7,960	2,500	06	1235	2.18	8,160	2,650





WELL NUMBER.--260458080134801. Local Number G 1221. USGS Observation Well in Davie, FL.

LOCATION.--Lat 26°05'08", long 80°13'47", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 23, T.50 S., R.41 E., Hydrologic Unit 03090202, at southwest corner of Nova Drive and Davie Road Extension, 0.75 mi south of State Road 84, and 1.6 mi west of the Florida Turnpike.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 20 ft, cased to 12 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.58 ft above National Geodetic Vertical Datum of 1929. From October 1982 to November 1983, measuring point was top of shelf, 9.10 ft above NGVD. Prior to March 1979, measuring point was top of casing, 9.53 ft above NGVD.

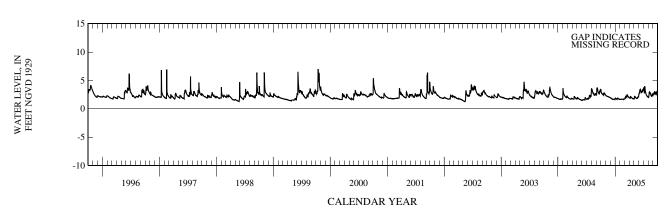
LAND-SURFACE DATUM.--Land surface is approximately 7.1 ft above NGVD. (Corrected).

REMARKS.--Records of water levels prior to October, 1973 are available in files of the U.S. Geological Survey. Station was damaged in March 1979 and November 1983.

PERIOD OF RECORD.--December 1962 to March 1979, October 1982 to November 1983, March 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.02 ft NGVD, June 22, 1992; lowest, 0.67 ft NGVD, Apr. 30, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.81 2.63 2.63 2.80 2.71 2.42	2.28 2.22 2.17 2.10 2.04 1.98	1.87 1.75 1.70 1.69 1.68 1.87	1.82 1.71 1.88 1.80 1.71 1.66	1.66 1.69 1.70 1.69 1.72 1.73	1.93 2.25 2.11 2.42 2.13 1.95	1.89 2.18 1.97 1.87 1.78 1.74	2.20 2.06 1.88 1.81 1.91 2.10	2.88 3.29 2.95 3.02 3.27 3.44	3.17 3.77 2.87 2.43 2.23 2.04	2.33 2.81 2.66 2.27 2.50 2.35	2.79 2.81 2.73 2.87 2.70 2.96
MAX	3.29	2.39	1.95	1.90	1.73	2.49	2.18	2.20	3.44	3.97	2.98	3.01



WATER LEVEL, IN FEET NGVD 1929

# BROWARD COUNTY—Continued

WELL NUMBER.--260515080202101. Local Number G 617. USGS Observation Well in Davie, FL.

LOCATION.--Lat 26°05'15", long 80°20'21", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.15, T.50 S., R.40 E., Hydrologic Unit 03090202, on SW 26th Street, west of SW 142nd Avenue, 1.8 mi north of South New River Canal, 6.5 mi west of Davie and 14.2 mi west of Fort Lauderdale.

AQUIFER.--Biscayne aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 29 ft, cased to 28 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.59 ft above National Geodetic Vertical Datum of 1929.

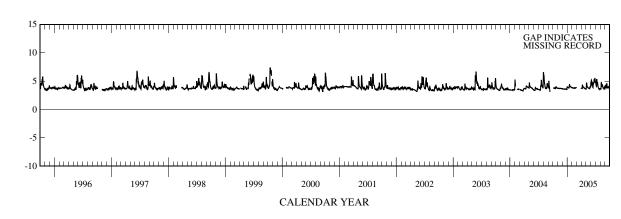
LAND-SURFACE DATUM.--Land surface is approximately 6.6 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.40 ft NGVD, Oct. 15, 1999; lowest, 2.46 ft NGVD, June 7, 1962.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		3.72	3.59	3.93	3.83		3.72	4.72	5.19	4.33	3.64	4.17
10	3.73	3.71	3.61	3.84	3.77		4.18	4.04	4.78	4.95	4.15	4.32
15	3.81	3.73	3.56	4.38	3.85		3.92	3.82	3.86	4.70	4.35	3.97
20	3.94	3.72	3.60	4.05	3.74		3.77	3.72	4.72	3.82	3.75	3.89
25	3.92	3.68	3.60	3.95	3.85		3.65	3.66	4.96	3.53	3.82	3.92
EOM	3.75	3.68	3.97	3.84	3.86	3.74	3.61	3.96	4.71	3.65	3.89	3.94
MAX		3.77	3.97	4.38	3.87		4.35	4.72	5.48	5.37	4.73	4.60



WELL NUMBER.--260534080110801. Local Number G 2904. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°05'36", long 80°11'09", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 17, T.50 S., R.42 E., Hydrologic Unit 03090202, at St. Ambrose Church, 16 ft east of SW 31st Avenue, northeast of the intersection of SW 31st Avenue and SW 23rd Court.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 126 ft, cased to 116 ft, screened 116 to 126 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 5.04 ft above National Geodetic Vertical Datum of 1929.

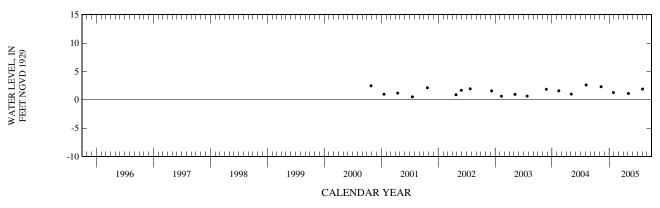
LAND-SURFACE DATUM .-- Land surface is approximately 5.0 ft above NGVD.

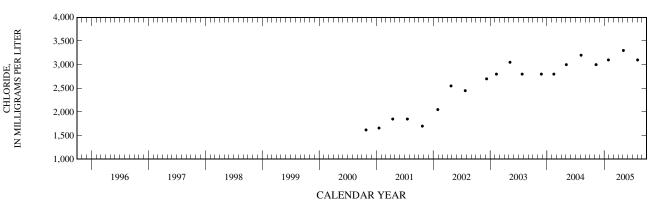
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Quarterly water-level measurements began in October 2000.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level measured, 2.62 ft NGVD, Aug. 6, 2004; lowest, 0.52 ft NGVD, July 19, 2001.

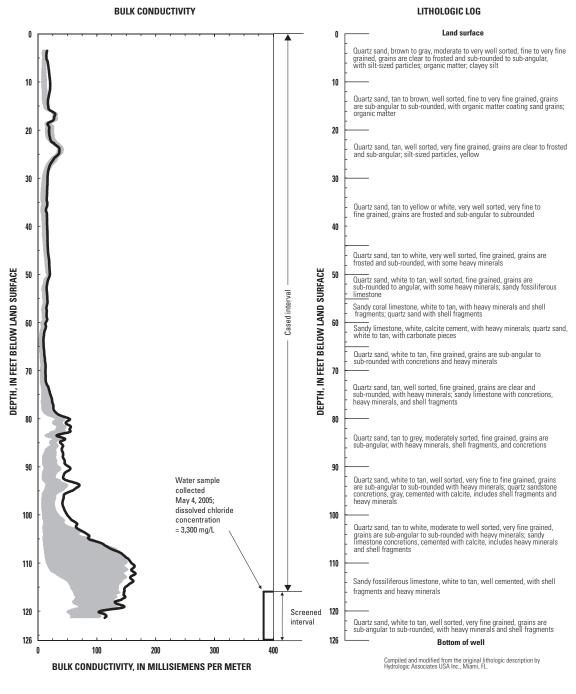
Date	Time	Elev- ation, feet above NGVD	Specif. conduc- tance, wat unf uS/cm 25 degC	Chloride, water, fltrd, mg/L	Date	Time	Elevation, feet above NGVD	Specif. conduc- tance, wat unf uS/cm 25 degC	Chloride, water, fltrd, mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
NOV					MAY				
10	1009	2.30	9,410	3,000	04	1051	1.12	11,000	3,300
JAN					AUG				
28	1308	1.28	9,770	3,100	03	1009	1.90	10,100	3,100





WELL NUMBER.--260534080110801. Local Number G 2904. USGS Observation Well near Fort Lauderdale, FL-Continued

## Induction log for Well 260534080110801, Local Number G-2904



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 4, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 19, 2000 to May 3, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--260545080082001. Local Number G 561. USGS Observation Well at Fort Lauderdale, FL.

LOCATION.--Lat  $26^{\circ}05^{\circ}45^{\circ}$ , long  $80^{\circ}08^{\circ}20^{\circ}$ , in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 15, T.50 S., R.42 E., Hydrologic Unit 03090202, at SE 4th Avenue and 20th Street in Fort Lauderdale, 0.2 mi west of U.S. Highway 1, and 0.3 mi north of State Road 84.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, cased to 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.40 ft above National Geodetic Vertical Datum of 1929. From March 1987 to October 2003, measuring point was considered to be top of base, 10.11 ft above NGVD. From October 1991 to October 1998, measuring point was incorrectly considered to be 10.12 ft above NGVD. From February 24, 1986 to March 1987, measuring point was top of shelf, 9.90 ft above NGVD. From February 9, 1948 to February 24, 1986, measuring point was 9.85 ft above NGVD. Prior to September 1982, measuring point was reported as top of casing, 10.95 ft above NGVD. See REMARKS.

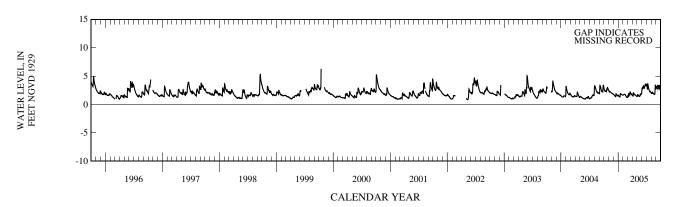
LAND-SURFACE DATUM .-- Land surface is approximately 8.5 ft above NGVD.

REMARKS.--On May 2003, it was noted that the casing of the well at land surface had corroded through and the well casing above land surface was unstable. The station was reconstructed in October 2003 to stabilize the well casing. A check of the measuring point elevation conducted prior to reconstruction indicated that the measuring point elevation was 10.13 ft above NGVD. The measuring point elevation was 10.11 ft above NGVD when surveyed in May 1987. Water-level data collected from March 1987 to October 2003 may be in error by -0.02 ft. An incorrect measuring point elevation was used from October 1991 to October 1998. Published records of water level as elevation from this period are in error by +0.01 ft. Because these changes in the measuring point are minor, historical water level elevation data have not been corrected. Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey. See DATUM and PERIOD OF RECORD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.40 ft NGVD, Oct. 5, 1948; lowest, 0.05 ft NGVD, July 2, 1952.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.52	2.22	1.71	1.51	1.72	1.60	1.49	1.71	3.02	3.11	1.92	2.85
10	2.31	2.21	1.52	1.35	1.80	1.95	2.02	1.64	2.97	3.60	2.08	2.92
15	2.49	2.15	1.37	1.92	1.72	1.73	1.76	1.44	2.88	2.84	1.92	2.99
20	2.73	2.02	1.82	1.82	1.48	2.14	1.67	1.53	3.15	2.39	1.79	3.33
25	2.98	1.93	1.62	1.70	1.27	1.86	1.60	1.74	3.58	2.28	2.56	3.01
EOM	2.53	1.84	1.63	1.67	1.28	1.61	1.42	1.85	3.32	2.14	2.94	2.61
MAX	3.00	2.49	1.89	1.92	1.80	2.19	2.05	1.92	3.59	3.60	3.36	3.45



WELL NUMBER.--260547080105801. Local Number G 2352. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°05'46", long 80°10'58" in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.17, T.50 S., R.42 E., Hydrologic Unit 03090202, 200 ft south of intersection of SW 29th Avenue and SW 19th Court, on western side of SW 29th Avenue, 20 ft from street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 171 ft, cased to 171 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 4.91 ft above National Geodetic Vertical Datum of 1929.

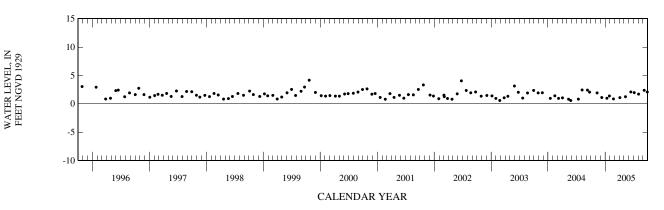
LAND-SURFACE DATUM .-- Land surface is approximately 4.9 ft above NGVD.

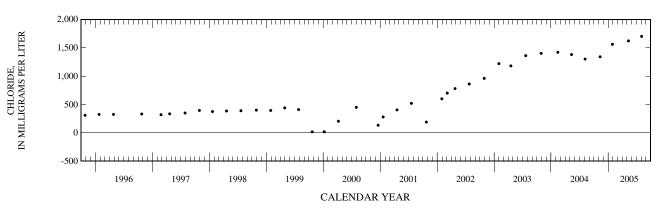
REMARKS.--Well also used for salinity monitoring since June 1981. Water level monitoring began in October 1995. See PERIOD OF RECORD.

PERIOD OF RECORD.--June 1981 to September 1995 (intermittent), October 1995 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.16 ft NGVD, Oct. 22, 1999; lowest, 0.58 ft NGVD, May 25, 2004.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
10	1045	1.92	4,570	1,340	11	1311	1.25	5,780	1,620
DEC					JUN				
10	0956	1.11			14	1225	2.09		
JAN					JUL				
12	1518	.98			06	1250	1.97		
28	1230	1.38	5,180	1,560	AUG				
FEB					03	0916	1.71	5,920	1,700
23	1032	.86			SEP				
APR					08	1339	2.38		
05	1255	1.09			28	1137	2.08		





WELL NUMBER.--260551080111901. Local Number G 2957. USGS Observation Well near Ft. Lauderdale, FL.

LOCATION.--Lat 26°05'51", long 80°11'19", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.18, T.50 S., R.42 E., Hydrologic Unit 03090202, at the northeast corner of the intersection of SW 20th Street and SW 33rd Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 190 ft.

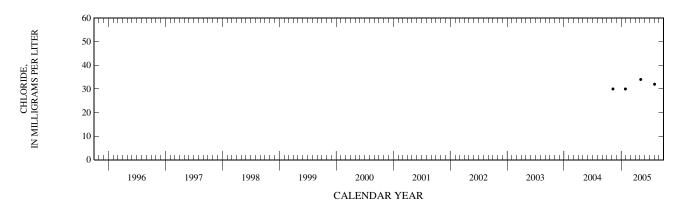
INSTRUMENTATION .-- Quarterly measurement with chalked tape.

LAND-SURFACE DATUM.--Land surface is approximately 6 ft above NGVD, from topographic map.

REMARKS.--Well also used for salinity sampling, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. Quarterly water-level measurements began in November 2004. Water-level data are available in the files of the U.S. Geological Survey.

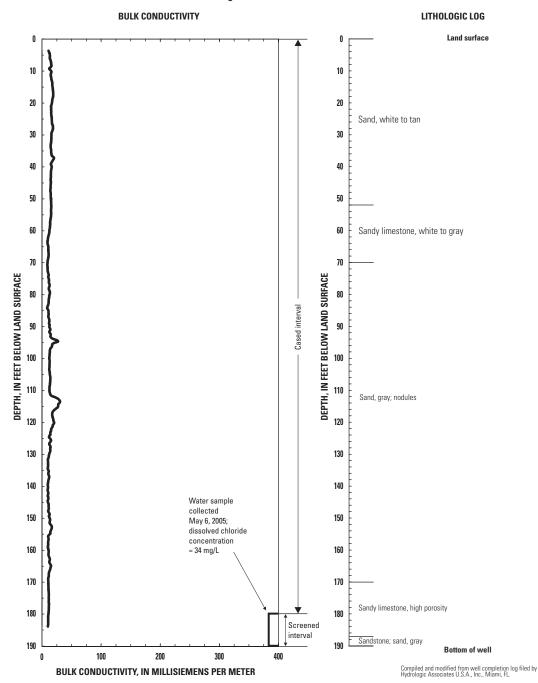
PERIOD OF RECORD.--November 2004 to current year.

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV				MAY			
09	1415	545	30.0	06	1008	570	34.0
JAN	1240	541	20.0	AUG	00.46	5.60	22.0
28	1340	541	30.0	03	0946	562	32.0



WELL NUMBER.--260551080111901. Local Number G 2957. USGS Observation Well near Fort Lauderdale, FL-Continued

# Induction log for Well 260551080111901, Local Number G-2957



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 4, 2005.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--260638080104801. Local Number G 2902. USGS Observation Well near Melrose Park, FL.

LOCATION.--Lat 26°06′38", long 80°10′48", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 8, T.50 S., R.42 E., Hydrologic Unit 03090202, at Triangle Park near the southwest corner of SW 8th Street and SW 28th Avenue, 0.75 mi south of Broward Boulevard.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 190 ft, cased to 180 ft, screened 180 to 190 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.03 ft above National Geodetic Vertical Datum of 1929.

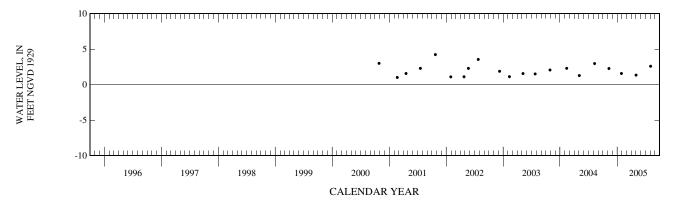
LAND-SURFACE DATUM.--Land surface is approximately 7.0 ft above NGVD.

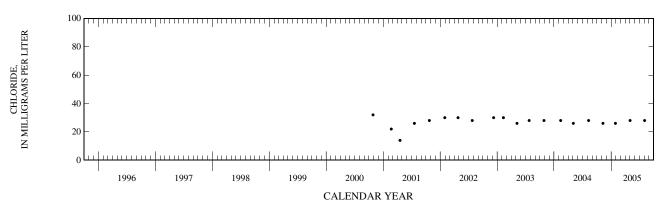
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Induction logging began in April 2001.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.23 ft NGVD, Oct. 23, 2001; lowest, 1.01 ft NGVD, Feb. 21, 2001.

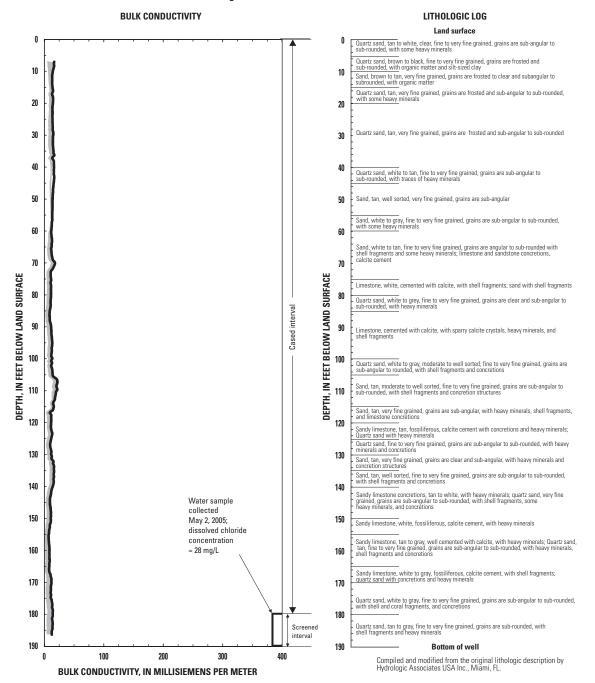
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV 09 JAN	1347	2.27	504	26.0	MAY 02 AUG	1154	1.34	545	28.0
28	1407	1.57	518	26.0	03	0850	2.59	534	28.0





WELL NUMBER.--260638080104801. Local Number G 2902. USGS Observation Well near Melrose Park, FL-Continued

#### Induction log for Well 260638080104801, Local Number G-2902



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 2, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 18, 2001 to May 3, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--260653080184901. Local Number G 2034. USGS Observation Well near Davie, FL.

LOCATION.--Lat  $26^{\circ}02'02''$ , long  $80^{\circ}23'07''$ , in NE  $\frac{1}{4}$  sec.6, T.51 S., R.40 E., Hydrologic Unit 03090202, at SW 178th Avenue (Rolling Oaks Road) and SW 68th Court, 1.9 mi south of Griffin Road and east of Mathus Drive, 7.8 mi west of Davie.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 22 ft, cased to 21 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.44 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.3 ft above NGVD.

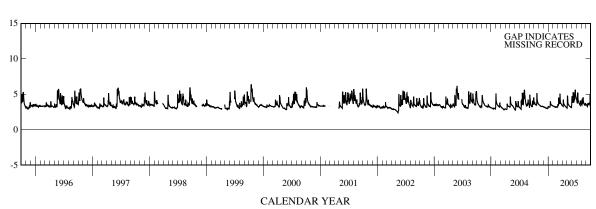
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.40 ft NGVD, Oct. 15, 1999; lowest, 1.49 ft NGVD, May 6, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	3.66 3.57	3.49 3.39	3.18 3.17	3.24 3.21	3.33 3.24	3.48 4.43	3.33 3.73	4.75 3.62	4.73 5.29	3.91 4.96	3.46 3.75	3.44 3.45
15	3.63 5.09	3.33 3.28	3.07 3.05	4.01 3.52	3.24 3.16	3.67 3.96	3.50 3.33	3.42 3.28	3.83 5.09	3.99 3.67	4.01 3.58	3.60 3.74
20 25	3.96	3.31	3.04	3.44	3.24	3.65	3.19	3.18	4.95	3.43	3.62	3.61
EOM	3.60	3.25	3.26	3.36	3.24	3.43	3.09	3.19	4.46	3.74	3.51	3.99
MAX	5.09	3.59	3.26	4.01	3.35	5.04	4.26	4.81	5.64	5.25	4.57	4.91





WELL NUMBER.--260657080122301. Local Number S 329. USGS Observation Well in Fort Lauderdale, FL.

 $LOCATION.--Lat\ 26^{\circ}06'57", long\ 80^{\circ}12'23", in\ SW\ {}^{1}\!\!/_{\!\!4}\ NE\ {}^{1}\!\!/_{\!\!4}\ sec.12, T.50\ S., R.41\ E., Hydrologic\ Unit\ 03090202, 200\ ft\ south\ of\ SW\ 4th\ Street\ on\ west\ side\ of\ Country\ Club\ Circle,\ and\ 0.3\ mi\ west\ of\ U.S.\ Highway\ 441.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, water-table well, diameter 4 in., depth 68 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 12.44 ft above National Geodetic Vertical Datum of 1929. From August 23, 1949 to September 30, 1997, measuring point was top of casing, 12.38 ft above NGVD. Prior to August 23, 1949, measuring point was 10.42 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 9.2 ft above NGVD.

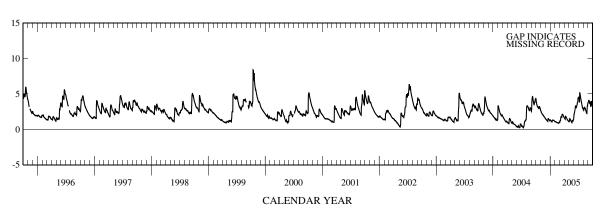
REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.76 ft NGVD, Oct. 17, 1947; lowest, 1.26 ft below NGVD, May 2, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.77	2.40	1.41	1.24	1.10	1.25	1.51	1.48	2.34	4.24	2.75	4.09
10	3.26	2.20	1.28	1.11	1.02	1.68	1.86	1.39	2.93	5.16	3.03	3.64
15	3.11	2.07	1.17	1.31	0.96	1.75	1.64	1.15	3.19	4.49	2.87	3.53
20	3.07	1.92	1.53	1.29	0.90	2.14	1.43	0.94	3.30	3.85	2.44	3.84
25	3.21	1.74	1.38	1.26	0.94	1.98	1.23	1.17	3.81	3.31	2.72	3.64
EOM	2.76	1.57	1.27	1.12	1.03	1.68	1.10	1.37	4.49	2.94	3.71	3.33
MAX	4.36	2.65	1.55	1.34	1.11	2.14	1.86	1.53	4.49	5.16	3.71	4.11





WELL NUMBER.--260737080103302. Local Number G 2901R. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°07'38", long 80°10'33", in NW  $^{1}\!\!/_{4}$  SE  $^{1}\!\!/_{4}$  sec.5, T.50 S., R.42 E., Hydrologic Unit 03090202, 167 ft east of the west parking lot in Reverend Samuel Delevoe Park, southeast of the intersection of Sistrunk Boulevard and NW 27th Avenue. (Corrected).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 205 ft, cased to 195 ft, screened 195 to 205 ft.

INSTRUMENTATION .-- Quarterly measurement by chalked tape.

DATUM.--Measuring point: Top of casing, 4.45 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 4.4 ft above NGVD.

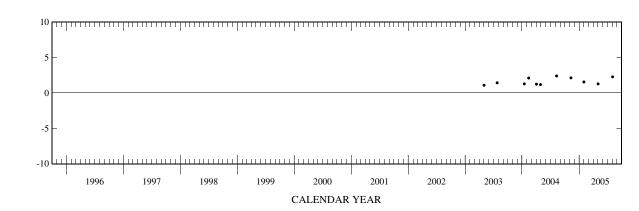
REMARKS.--G-2901R replaces G-2901, which had a separated casing and was 110 ft south-southwest of G-2901R. G-2901R can not be purged sufficiently for chloride-concentration sampling. Sampling was discontinued in January 2004. Induction logs are collected annually. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. Metal well centralizers were installed during well construction. Metal objects interfere with probe operation when present.

PERIOD OF RECORD.--May 2003 to current year.

WATER LEVEL, IN FEET NGVD 1929

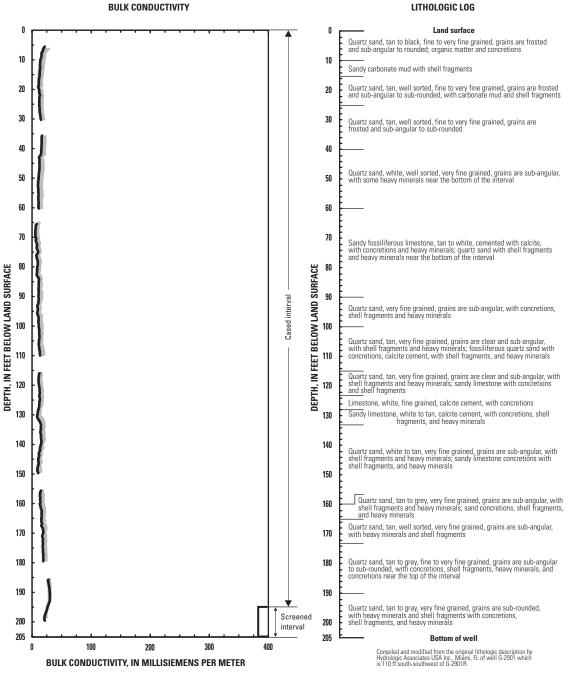
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.40 ft NGVD, Aug. 9, 2004; lowest, 1.09 ft NGVD, May 2, 2003.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
NOV			MAY		
09	1326	2.13	02	0853	1.28
JAN			AUG		
31	1350	1.55	03	0830	2.27



WELL NUMBER.--260737080103302. Local Number G 2901R. USGS Observation Well near Fort Lauderdale, FL-Continued

# Induction log for Well 260737080103301, Local Number G-2901R



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 2, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from May 6, 2003 to April 28, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--260752080084701. Local Number G 1220. USGS Observation Well in Fort Lauderdale, FL.

LOCATION.--Lat  $26^{\circ}07^{\circ}52^{\circ}$ , long  $80^{\circ}08^{\circ}47^{\circ}$ , in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.3, T.50 S., R.42 E., Hydrologic Unit 03090202. At corner of NW 2nd Avenue and NW 7th Street in Fort Lauderdale, and 0.8 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 5 in., depth 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 7.72 ft above National Geodetic Vertical Datum of 1929. From April 17, 2002 to September 30, 2002, top of base was incorrectly considered to be 7.78 ft above NGVD. From October 2000 to April 16, 2002, top of base was 7.77 ft above NGVD. From October 1997 to September 2000, top of base was incorrectly considered to be 7.78 ft above NGVD. From January 1989 to September 1997, top of base was incorrectly considered to be 7.76 ft above NGVD. From October 1980 to January 1989, measuring point was top of casing, 7.76 ft above NGVD. Prior to October 1980, measuring point, top of base, was considered to be 8.76 ft above NGVD. The figures of water level as elevation, in feet NGVD, from January 1989 to October 2000 and from April 17, 2002 to September 30, 2002, are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.0 ft above NGVD.

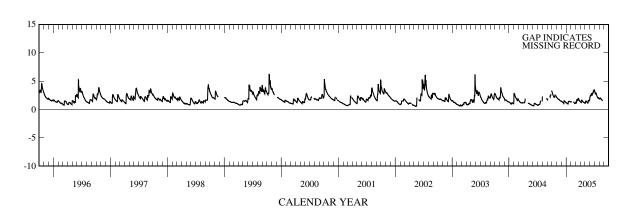
REMARKS.--Because of the 0.01 ft magnitude of error, the published figures of water levels as elevation, in feet NGVD, for January 1989 to September 2000 have been retained. The figures of water level as elevation, in feet NGVD, prior to October 1, 1980 are in error. A -1.00 ft correction has been applied to correct these water-level data. The figures of water level as elevation, in feet NGVD, from April 17, 2002 to September 30, 2002, are in error. A -0.03 ft correction has been applied to correct the data. Corrected records are in files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.37 ft NGVD, Mar. 27, 1986; lowest, 0.40 ft NGVD, May 30, 1965.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.82	1.98	1.38	1.14	1.35	1.37	1.26	1.33	2.44	2.99	1.84	
10	2.44	1.83	1.24	1.00		1.73	1.65	1.49	2.36	2.92	2.00	
15	2.27	1.77	1.11	1.40		1.64	1.46	1.26	2.67	2.56	1.78	
20	2.43	1.63	1.53	1.43	1.23	1.96	1.31	1.13	2.86	2.19	1.63	
25		1.52	1.37	1.35	1.09	1.68	1.26	1.55	3.20	1.97		
EOM	2.21	1.45	1.18	1.33	1.12	1.39	1.13	1.63	3.43	1.92		
MAX		2.15	1.53	1.44		1.96	1.65	1.65	3.43	3.43		



WELL NUMBER.--260804080092701. Local Number G 2899. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°08'05", long 80°09'38", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.4, T.50 S., R.42 E., Hydrologic Unit 03090202, at southeast corner of Joseph Carter Center, 705 ft south of Sunrise Boulevard and 0.5 mi east of U.S. Interstate 95.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 125 ft, cased to 115 ft, screened 115 to 125 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 5.92 ft above National Geodetic Vertical Datum of 1929.

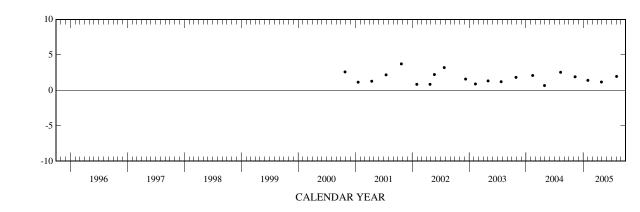
LAND-SURFACE DATUM.--Land surface is approximately 5.9 ft above NGVD.

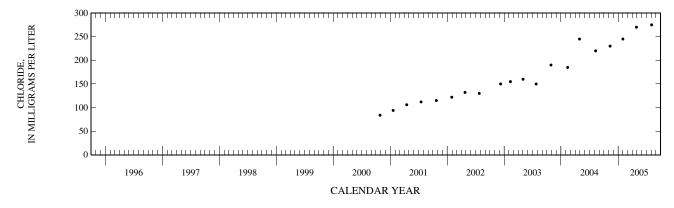
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Annual induction logging began in April 2000. Quarterly water-level measurements began in October 2000.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.72 ft NGVD, Oct. 23, 2001; lowest, 0.67 ft NGVD, Apr. 28, 2004.

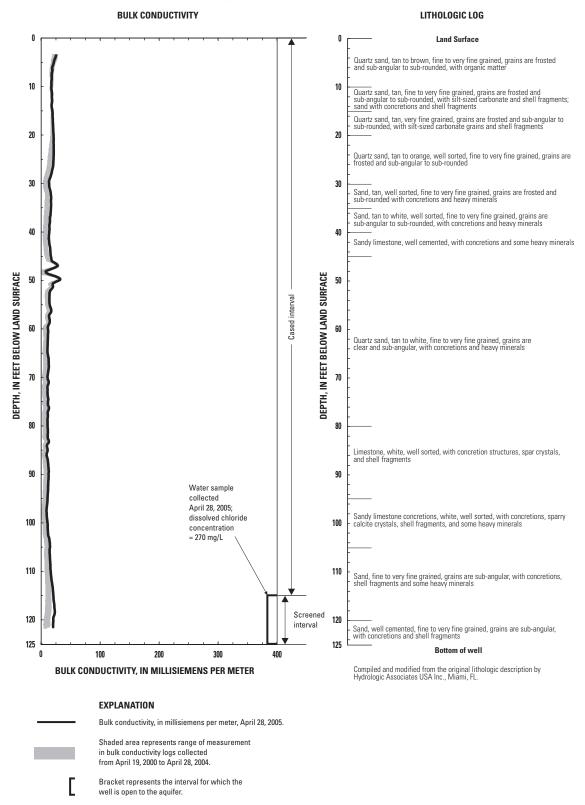
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					APR				
10	0845	1.90	1,080	230	28	1327	1.17	1,310	270
JAN 31	0857	1.40	1,160	245	AUG 03	0757	1.95	1,320	275





WELL NUMBER.--260804080092701. Local Number G 2899. USGS Observation Well near Fort Lauderdale, FL-Continued

# Induction log for Well 260804080092701, Local Number G-2899



WELL NUMBER.--260821080185101. Local Number G 2032. USGS Observation Well in Plantation, FL.

LOCATION.--Lat 26°08'21", long 80°18'51", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.36, T.49 S., R.40 E., Hydrologic Unit 03090202, at northeast corner of NW 12th Street and Flamingo Road, 1.6 mi north of North New River Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 22 ft, cased to 21 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.79 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

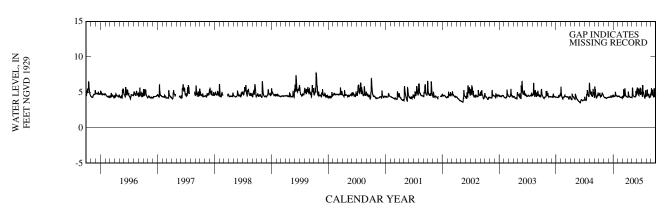
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.71 ft NGVD, Oct. 15, 1999; lowest, 2.85 ft NGVD, May 7, 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 10 15 20 25 EOM	4.59 4.43 4.63 4.63 4.74 4.46	4.27 4.26 4.23 4.18 4.27 4.28	4.29 4.32 4.31 4.41 4.47 4.60	4.41 4.43 5.06 4.53 4.45 4.45	4.45 4.44 4.30 4.24 4.29 4.33	4.43 5.24 4.52 4.72 4.41 4.34	4.30 4.68 4.40 4.28 4.26 4.26	5.56 4.50 4.41 4.35 4.32 4.65	5.68 5.55 4.53 5.22 4.94 4.86	4.70 5.42 5.03 4.32 4.53 4.56	4.41 4.76 4.68 4.29 4.77 4.74	4.93 5.30 4.46 5.39 4.53 4.67
MAX	4.91	4.42	4.60	5.06	4.46	5.56	5.09	5.67	5.68	6.02	5.38	5.56



WELL NUMBER .-- 260920080092201. Local Number G 2898. USGS Observation Well near Fort Lauderdale, FL

LOCATION.--Lat 26°09'20", long 80°09'22", in NE  $^1\!\!/_4$  Set  $^1\!\!/_4$  Sec. 28, T.49 S., R.42 E., Hydrologic Unit 03090202, 0.55 mi south of Oakland Park Boulevard (State Road 816), 0.01 mi west of Powerline Road (State Road 845) at entrance to Mills Pond Park, 27 ft east of parking lot.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 119.5 ft cased to 109.5 ft. See REMARKS.

INSTRUMENTATION .-- Monthly measurement with chalk tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 5.21 ft above National Geodetic Vertical Datum of 1929. Between February 21, 2001 and June 4, 2002, measuring point was top of base, 8.35 ft above NGVD. During this period, measuring point was incorrectly considered to be 8.43 ft above NGVD (also incorrectly reported as 8.44 ft above NGVD in the 2002 Water Resources Data Report). From July 24, 2002 to January 30, 2003, and prior to February 21, 2001, measuring point was incorrectly considered to be 5.20 ft NGVD. See REMARKS.

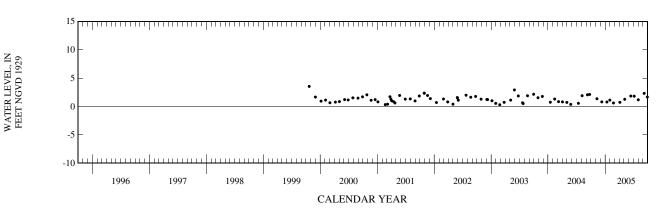
LAND-SURFACE DATUM.--Land surface is approximately 5.2 ft above NGVD.

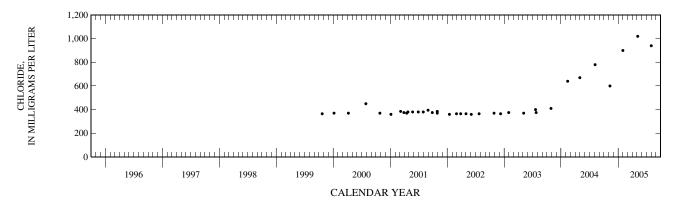
REMARKS--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. The station was temporarily reconstructed between February 21, 2001 and June 4, 2002, to facilitate continuous water-level and conductivity monitoring. The figures of water level as elevation, in feet NGVD, from October 1999 to January 2003 are in error. Corrected records are in the files of the U.S. Geological Survey. Well depth corrected based on reevaluation of construction records and on the depth sounding collected May 6, 2003. See DATUM and WELL CHARACTERISTICS.

PERIOD OF RECORD. --October 1999 to January 2001 (monthly), February 2001 to June 2002 (monthly and daily), July 2002 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 4.25 ft NGVD, Sept. 29, 2001; lowest daily maximum water level, 0.30 ft NGVD, May 8, 2002, and lowest measured, Feb. 25, 2003.

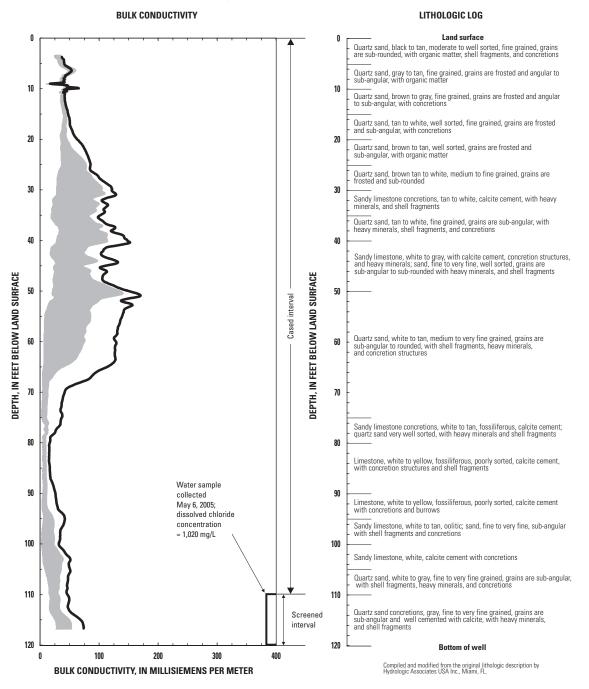
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
09	1258	1.36	2,320	600	06	0930	1.26	3,910	1,020
DEC					JUN				
10	0925	.81			14	1252	1.84		
JAN					JUL				
12	1502	.79			06	1335	1.81		
31	1250	1.12	3,250	900	AUG				
FEB					01	1431	1.18	3,620	940
23	1123	.62			SEP				
APR					08	1403	2.31		
05	1350	.73			28	1107	1.66		





WELL NUMBER.--26060920080092201. Local Number G 2898. USGS Observation Well near Fort Lauderdale, FL-Continued

# Induction log for Well 260920080092201, Local Number G-2898



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 6, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 19, 2000 to April 30, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--261030080083301. Local Number G 2897. USGS Observation Well near Oakland Park, FL.

LOCATION.--Lat 26°10'30", long 80°08'33", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.22, T.49 S., R.42 E., Hydrologic Unit 03090202, 16 ft from edge of NE 3rd Avenue parking lot at Collins Community Center.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 135.5 ft, cased to 125.5 ft, screened 125.5 to 135.5 ft.

INSTRUMENTATION .-- Quarterly measurements with chalked tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 6.42 ft above National Geodetic Vertical Datum of 1929. Prior to February 2001, measuring point was 6.31 ft above NGVD. See REMARKS.

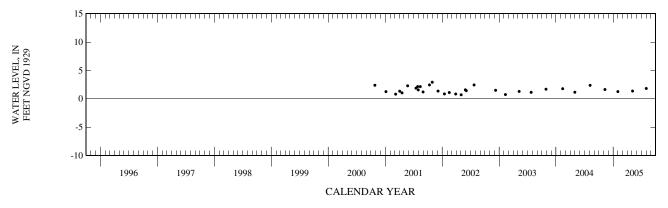
LAND-SURFACE DATUM.--Land surface is approximately 6.4 ft above NGVD.

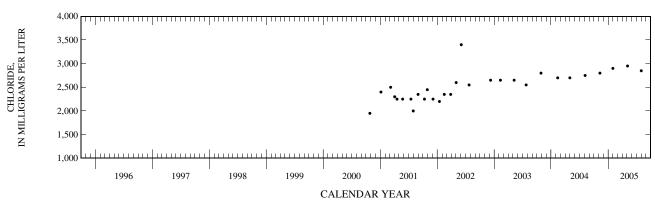
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Station was reconstructed in February 2001, for a salt water intrusion modeling project. Quarterly water-level measurements began in October, 2000. Continuous water-level and conductivity data were collected from March, 2001 through June 2002, as part of an investigative project. Data are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.81 ft NGVD, Sept. 14, 2001; lowest, 0.53 ft NGVD, May 6-11, 2002.

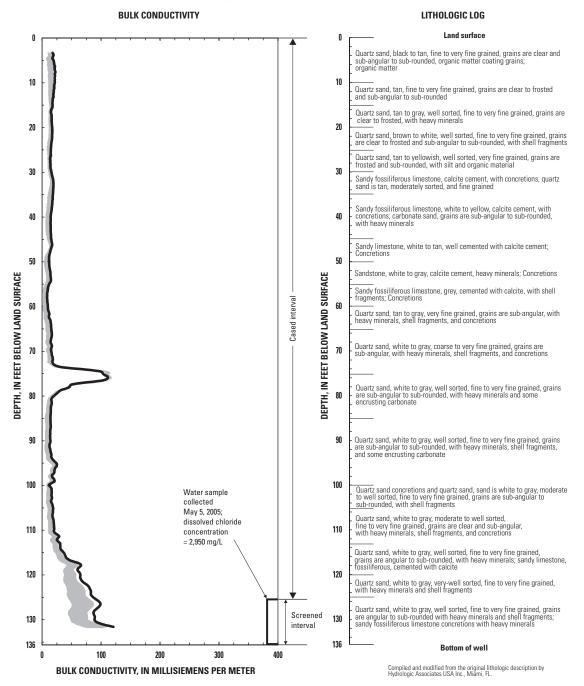
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Specif.   Elev- conduc- Chloration, tance, ide, feet wat unf water, above uS/cm fltrd,
NOV					MAY
09	1234	1.64	8,480	2,800	05 1345 1.37 9,690 2,950
JAN					AUG
31	1150	1.27	9.020	2.900	01 1341 1.82 9.210 2.850





WELL NUMBER.--261030080083301. Local Number G 2897. USGS Observation Well near Oakland Park, FL-Continued

## Induction log for Well 261030080083301, Local Number G-2897



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 5, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 19, 2000 to April 30, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--261100080140401. Local Number G 1212. USGS Observation Well near Fort Lauderdale, FL.

LOCATION.--Lat 26°10'59", long 80°09'04", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.15, T.49 S., R.42 E., Hydrologic Unit 03090202, at the northeast intersection of NW 46th Street and NW 5th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 197.4 ft, cased to 197.4 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 7.32 ft above National Geodetic Vertical Datum of 1929.

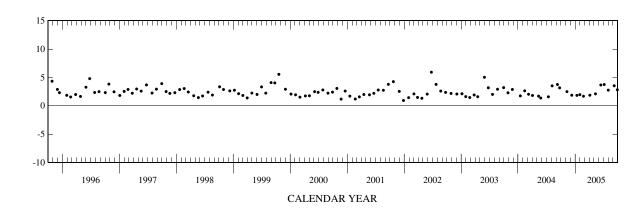
LAND-SURFACE DATUM.--Land surface is approximately 7.8 ft above NGVD.

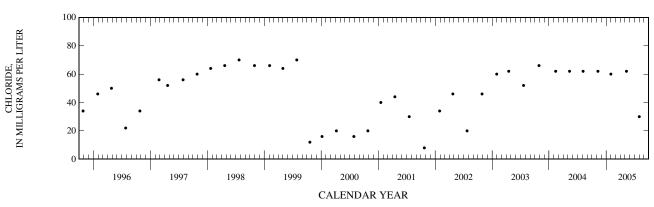
REMARKS.--Well also used for salinity monitoring. Salinity monitoring began in April 1967. Water-level monitoring began in October 1979.

PERIOD OF RECORD.--October 1979 (intermittent), November 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.92 ft NGVD, June 24, 2002; lowest, 0.94 ft NGVD, Dec. 27, 2001.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
NOV					MAY				
09	1153	2.50	517	62.0	11	1212	2.11	562	62.0
DEC					JUN				
10	0912	1.87			14	1310	3.67		
JAN					JUL				
12	1443	1.84			06	1356	3.75		
31	1119	1.96	525	60.0	AUG				
FEB					01	1308	2.76	398	30.0
23	1103	1.69			SEP				
APR					08	1424	3.53		
05	1410	1.87			28	1039	2.82		





WATER LEVEL, IN FEET NGVD 1929

# BROWARD COUNTY—Continued

WELL NUMBER.--261122080083401. Local Number G 1232. USGS Observation Well in Fort Lauderdale, FL.

LOCATION.--Lat 26°11'21", long 80°08'49", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.15, T.49 S., R.42 E., Hydrologic Unit 03090202, 30 ft northwest from intersection at NE 1st Avenue and NE 51st Street in Brentwood Estates.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation water-table well, diameter 2 in., depth 205 ft, cased to 203 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.31 ft above National Geodetic Vertical Datum of 1929.

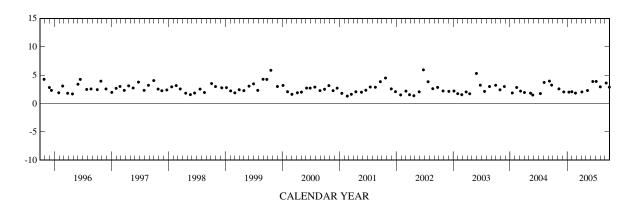
LAND-SURFACE DATUM .-- Land surface is approximately 8.3 ft above NGVD.

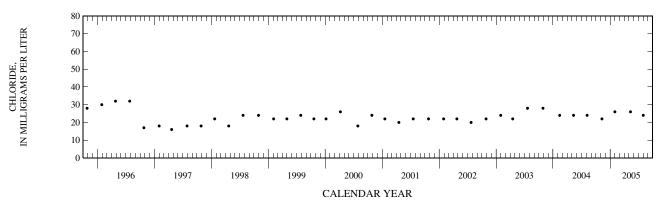
REMARKS.--Well also used for salinity monitoring. Salinity monitoring began in April 1964. Water-level monitoring began in November 1994. See PERIOD OF RECORD.

PERIOD OF RECORD.--April 1964 to September 1994 (intermittent), November 1994 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.93 ft NGVD, June 24, 2002; lowest, 1.30 ft NGVD, Feb. 21, 2001.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
09	1134	2.57	383	22.0	11	1151	2.28	446	26.0
DEC					JUN				
10	0901	2.04			14	1322	3.87		
JAN					JUL				
12	1435	2.00			06	1405	3.88		
31	1055	2.07	409	26.0	AUG				
FEB					01	1225	2.93	407	24.0
23	1052	1.83			SEP				
APR					08	1436	3.60		
05	1420	2.04			28	1016	2.87		





WELL NUMBER.--261141080163401. Local Number G 2033. USGS Observation Well in Tamarac, FL.

LOCATION.--Lat 26°11'41", long 80°16'34", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.8, T.49 S., R.41 E., Hydrologic Unit 03090202, on east side of NW 94th Avenue, 0.1 mi north of Commercial Boulevard, 5.0 mi west of U.S. Highway 441, and 11.0 mi west of Pompano Beach.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 23 ft, cased to 21 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.06 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1986, top of base was considered to be 14.29 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 11.0 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 1, 1986 are in error. Corrected records are in the files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The well was originally open to the aquifer from 21 to 23 ft. The well casing has collapsed or become obstructed at a depth of 10 ft. The well is still in hydrologic communication with the aquifer.

ELEVATION ABOVE NGVD 1929, FEET

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

6.56

6.68

6.82

6.88

6.62

6.97

6.34

6.62

**EOM** 

MAX

6.67

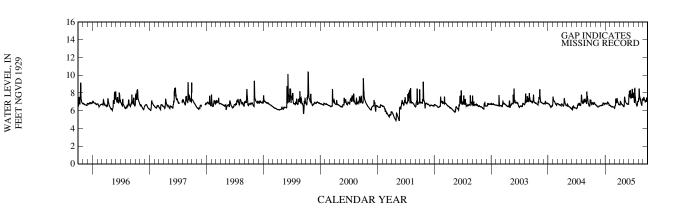
7.08

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.41 ft NGVD, Oct. 15, 1999; lowest, 4.85 ft NGVD, May 22, 2001.

	WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5	6.74	6.61	6.58	6.81	6.52	6.54	6.67	7.52	8.23	7.28	7.18	7.49	
10	6.85	6.49	6.62	6.77	6.45	7.26	6.98	7.12	7.98	8.48	7.62	7.24	
15	6.86	6.43	6.59	6.97	6.44	6.90	6.79	6.88	7.36	7.14	7.25	6.99	
20	6.82	6.43	6.83	6.89	6.42	7.16	6.67	6.76	7.80	6.69	6.79	7.22	
25	6.88	6.53	6.80	6.70	6.42	6.89	6.61	6.74	7.98	6.64	6.94	7.19	

6.68

7.41



6.46

7.05

6.72

7.52

7.67

8.40

7.05

8.48

7.32

8.50

7.09

7.50

WELL NUMBER.--261147080114501. Local Number G 2395. USGS Observation Well near Lauderdale Lakes, FL.

LOCATION.—Lat 26°11'47", long 80°11'45", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.7, T.49 S., R.42 E., Hydrologic Unit 03090202, on the west side of Hawkins Road, 0.25 mi north of Prospect Road and 0.75 mi east of U.S. Highway 441.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 73.0 ft, cased to 71 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of shelter base, 12.47 ft above National Geodetic Vertical Datum of 1929. Prior to November 23, 1990, top of base was 12.05 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 9.5 ft above NGVD.

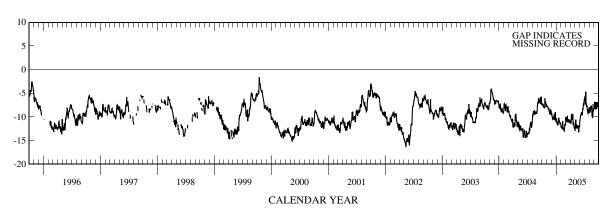
REMARKS.--The well was originally open to the aquifer from 71 to 73 ft. The casing has become obstructed or collapsed at a depth of 66 ft. Well was damaged and reconstructed November 23, 1990. See DATUM.

PERIOD OF RECORD .-- February 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 0.82 ft below NGVD, Sept. 20, 1985; lowest, 16.25 ft below NGVD, May 14, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-7.37	-7.76	-9.75	-11.23	-12.10	-10.54	-11.42	-11.05	-9.95	-5.66	-8.67	-6.81
10	-7.46	-7.99	-10.40	-11.76	-11.55	-10.01	-9.92	-12.13	-9.32	-4.76	-7.85	-8.38
15	-7.88	-8.32	-10.44	-10.47	-12.34	-10.86	-10.26	-11.98	-9.00	-7.89	-7.59	-7.76
20	-6.06	-9.39	-9.77	-10.78	-12.73	-10.72	-11.64	-12.05	-8.35	-8.66	-9.90	-7.02
25	-6.77	-8.56	-9.22	-11.51	-11.71	-10.92	-11.67	-13.27	-7.19	-9.11	-7.33	-7.82
EOM	-7.35	-8.76	-11.09	-11.67	-11.48	-11.26	-12.39	-11.96	-6.29	-8.03	-8.23	-7.83
MAX	-6.06	-7.67	-9.01	-10.27	-10.87	-9.93	-9.36	-10.62	-6.29	-4.76	-7.33	-6.81





WELL NUMBER.--261304080072501. Local Number G 2896. USGS Observation Well near Pompano Beach, FL.

LOCATION.--Lat 26°13′04", long 80°07′26", in NE ½ SE ½ sec. 2, T.49 S., R.42 E., Hydrologic Unit 03090202, at southwest corner of intersection of Cypress Road South and SW 9th Street, 56.5 ft southwest of the fire hydrant.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 100.5 ft, cased to 90.5 ft, screened 90.5 to 100.5 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape. See REMARKS.

DATUM.--Measuring point: Top of casing, 6.79 ft above National Geodetic Vertical Datum of 1929.

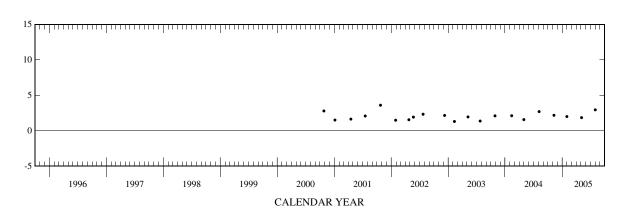
LAND-SURFACE DATUM .-- Land surface is approximately 6.8 ft above NGVD.

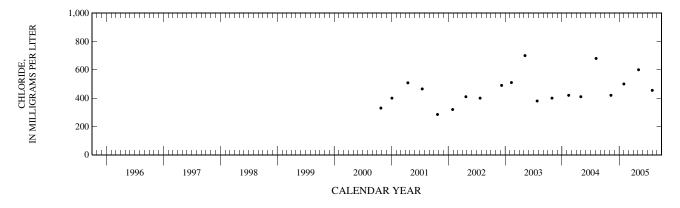
REMARKS.--Well is also monitored for salinity, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Induction logging began in April 2000. Quarterly water-level measurements and salinity monitoring began in October 2000.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.60 ft NGVD, Oct. 24, 2001; lowest, 1.31 ft NGVD, Feb. 10, 2003.

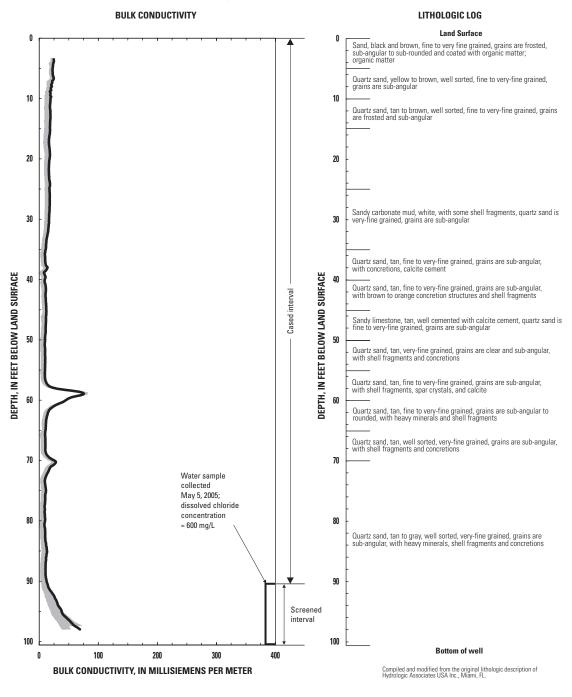
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV	1107	2.10	1.720	120	MAY	1150	1.05	2 400	600
09 JAN	1107	2.18	1,720	420	05 AUG	1159	1.85	2,400	600
31	1020	2.00	1,960	500	01	0905	2.95	1,920	455





WELL NUMBER.--261304080072501. Local Number G 2896. USGS Observation Well near Pompano Beach, FL-Continued

# Induction log for Well 261304080072501, Local Number G-2896



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 5, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 19, 2000 to April 30, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--261403080070801. Local Number G 2149. USGS Observation Well in Pompano Beach, FL.

LOCATION.--Lat 26°14'02", long 80°07'09", in NE  $^1\!\!/_4$  SE  $^1\!\!/_4$  SE  $^1\!\!/_4$  Sec. 35, T.48 S., R.42 E., Hydrologic Unit 03090202, at the NW corner of NE 3rd Street and NE 5th Avenue, 8.8 ft from edge of street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 137 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.39 ft above National Geodetic Vertical Datum of 1929.

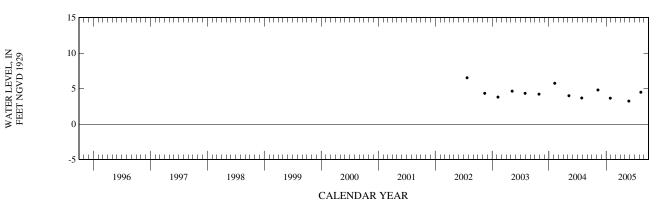
LAND-SURFACE DATUM .-- Land surface is approximately 17.4 ft above NGVD.

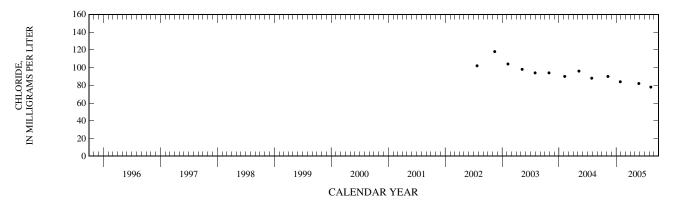
REMARKS.--Well is also used for salinity monitoring. Water-level monitoring began in April 1986, prior to that only salinity was monitored.

PERIOD OF RECORD.--October 1974 to April 1975 (quarterly), October 1975 to September 1977 (monthly), October 1977 to August 1993 (bimonthly), October 1993 to September 1994 (monthly), November 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.08 ft NGVD, Sept. 30, 1994; lowest, 0.51 ft NGVD, June 13, 1989.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date Tim	Elev- ation, feet above e NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY			
09	1018	4.81	601	90.0	26 101	2 3.24	617	82.0
JAN					AUG			
27	1356	3.65	595	84.0	11 100	3 4.49	588	78.0





WELL NUMBER.--261434080071901. Local Number G 853. USGS Observation Well in Pompano Beach, FL.

LOCATION.—Lat 26°14'34", long 80°07'19", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.35, T.48 S., R.42 E., Hydrologic Unit 03090202, on north side of NE 12th Street, 200 ft west of NE 3rd Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 27 ft, cased to 27 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 22.25 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1999, top of base was periodically considered to be 22.14 ft above NGVD. Prior to October 1996, measuring point was top of casing, 22.14 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 19.7 ft above NGVD.

REMARKS.--The figures of water levels as elevation in feet NGVD, prior to October 1, 1998 are in error. Corrected records for the 1997-1999 water years are available in the files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

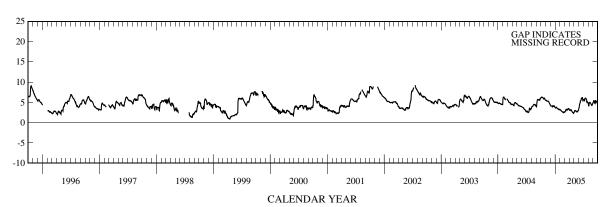
EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.49 ft NGVD, Oct. 31, 1964; lowest, 6.62 ft below NGVD, May 2, 1981.

ELEVATION ABOVE NGVD 1929, FEET

WATER		TOBER 2004 MAXIMUN		MBER 2005		
JAN	FEB	MAR	APR	MAY	JUN	JUL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	6.24 6.27 6.07 6.04 6.04 5.53	5.52 5.30 5.33 5.20 4.79 4.40	4.10 4.07 4.07 4.10 4.14 3.75	3.69 3.74 3.52 3.45 3.27 3.24	3.05 2.86 2.68 2.62 2.57 2.62	2.78 3.21 3.16 3.24 3.42 3.43	3.08 3.20 3.02 2.70 2.48 2.38	2.91 2.99 2.83 2.65 2.80 3.10	4.20 4.90 5.59 6.08 5.80 5.76	5.60 5.87 6.01 5.72 5.19 4.90	4.15 5.01 4.83 4.50 4.25 4.95	5.35 4.93 5.39 5.19 5.22 5.05
MAX	6.32	5.58	4.32	3.83	3.17	3.50	3.20	3.10	6.16	6.06	5.01	5.49





WELL NUMBER.--261441080111301. Local Number G 1316. USGS Observation Well near Margate, FL.

LOCATION.--Lat 26°14'41", long 80°11'13", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec.30, T.48 S., R.42 E., Hydrologic Unit 03090202, at the northwest corner of Lyons Road and Coconut Creek Parkway, 1.0 mi east of Margate.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 15.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 17.07 ft above National Geodetic Vertical Datum of 1929. Prior to November 1997, top of base was 17.08 ft above NGVD. Prior to September 19, 1991, measuring point was top of casing 17.10 ft above NGVD. Prior to September 25, 1985, top of casing was 17.62 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 15.2 ft above NGVD.

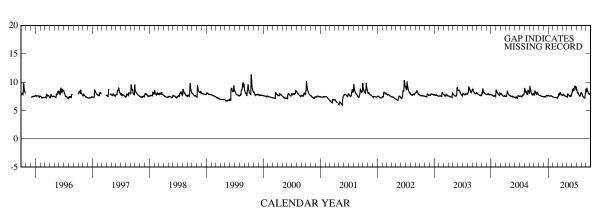
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station was reconstructed on September 30, 1985, September 19, 1991, November 5, 1997. See DATUM.

PERIOD OF RECORD.--April 1969 to October 1979 (daily), October 1979 to October 1983 (intermittent), February 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.35 ft NGVD, Oct. 15, 1999; lowest, 5.93 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.73	7.64	7.43	7.61	7.33	7.52	7.63	7.88	8.72	8.47	7.93	8.75
10	8.36	7.65	7.42	7.54	7.26	7.96	7.87	7.85	8.39	8.20	7.58	8.53
15	7.99	7.56	7.40	7.58	7.30	7.84	7.62	7.60	8.47	7.85	7.37	8.10
20	7.98	7.49	7.62	7.59	7.28	8.12	7.53	7.51	9.05	7.64	7.26	7.93
25	8.13	7.46	7.65	7.48	7.26	7.85	7.49	7.63	9.17	7.60	7.54	7.84
EOM	7.75	7.44	7.64	7.40	7.19	7.68	7.44	7.75	9.03	8.15	8.75	7.76
MAX	8.43	7.72	7.65	7.67	7.37	8.16	7.87	7.93	9.28	8.83	8.75	8.91





WELL NUMBER.--261446080062801. Local Number G 2445. USGS Observation Well in Pompano Beach, FL.

LOCATION.--Lat 26°14'46", long 80°06'28", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 36, T.48 S., R.42 E., Hydrologic Unit 03090202, in the southeast corner of the Pompano Beach Airport, 0.3 mi north of NE 10th Street, 0.4 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 138 ft, cased to 123 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 15.54 ft above National Geodetic Vertical Datum of 1929.

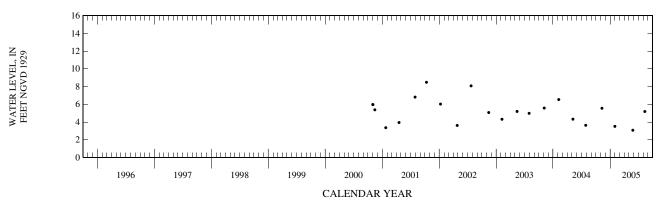
LAND-SURFACE DATUM .-- Land surface is approximately 13.4 ft above NGVD.

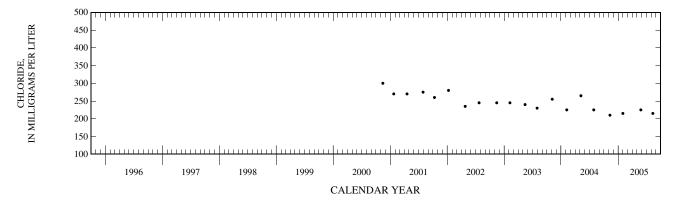
REMARKS.--Well is also used for salinity monitoring. Prior to November 2000 only chloride data published. Well depth and cased depth corrected based on borehole video log of November 28, 1995. Land-surface datum corrected based on field measurement in February 2003.

PERIOD OF RECORD.--November 1986 to July 1994 (intermittent), November 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.49 ft NGVD, Oct. 11, 2001; lowest, 3.08 ft NGVD, May 26, 2005.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV 09 JAN	0934	5.56	1,260	210	MAY 26 AUG	0950	3.08	1,370	225
31	0939	3.52	1,230	215	11	0938	5.19	1,300	215





WELL NUMBER.--261501080060701. Local Number G 2147. USGS Observation Well in Pompano Beach, FL.

LOCATION.--Lat 26°15′01", long 80°06′07", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.30, T.48 S., R.43 E., Hydrologic Unit 03090202, 200 ft west of U.S. Highway 1, and 300 ft north of NE 14th Street, in golf course.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 46 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 11.62 ft above National Geodetic Vertical Datum of 1929. Prior to September 1990, measuring point was top of casing 11.57 ft above NGVD.

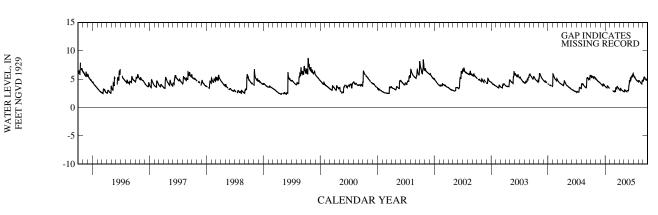
LAND-SURFACE DATUM.--Land surface is approximately 9.1 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.63 ft NGVD, Oct. 15, 1999; lowest, 1.02 ft below NGVD, May 5, 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 10	5.28 5.46	4.92 4.82	4.14 3.99	3.61 3.47		2.97 3.48	3.03 3.36	3.08 3.02	4.72 4.60	5.46 5.26	4.68 4.59	5.06 5.21
15	5.38	4.64	3.82	3.81		3.32	3.12	2.85	4.97	5.04	4.44	5.08
20 25	5.42 5.35	4.51 4.44	4.10 4.02	3.66 3.45	2.91 2.81	3.68 3.45	3.00 2.88	2.74 3.00	5.50 5.56	4.83 4.72	4.24 4.54	5.00 4.85
EOM	5.14	4.30	3.74		2.80	3.19	2.78	3.01	5.90	4.60	4.61	4.64
MAX	5.57	5.18	4.26			3.71	3.38	3.12	6.00	5.83	4.78	5.32



WELL NUMBER.--261534080165801. Local Number G 2031. USGS Observation Well in Coral Springs, FL.

LOCATION.--Lat 26°15'34", long 80°16'58", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 19, T.48 S., R.41 E., Hydrologic Unit 03090202, on west side of Coral Springs Drive, 150 ft north of Royal Palm Boulevard and 4.0 mi west of U.S. Highway 441.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 22 ft, cased to 21 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.67 ft above National Geodetic Vertical Datum of 1929. Prior to October 1995, measuring point was top of casing, 13.57 ft above NGVD.

LAND-SURFACE DATUM .-- Land surface is approximately 12.6 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The well was originally open to the aquifer from 21 to 22 ft. The well has become obstructed at a depth of 12.5 ft, but is in hydrologic communication with the aquifer.

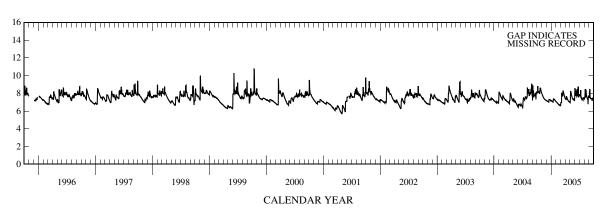
PERIOD OF RECORD .-- January 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.96 ft NGVD, Apr. 25, 1979; lowest, 4.75 ft NGVD, estimated, Sept. 5, 1979

ELEVATION ABOVE NGVD 1929, FEET	
WATER YEAR OCTOBER 2004 TO SEPTEMBER 200	05
DAILY MAXIMUM VALUES	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	8.10 8.12	7.82 7.63	7.13 7.10	7.12 7.05	6.99 6.89	6.95 8.00	7.30 7.60	8.21 7.92	8.22 7.81	7.87 7.51	7.55 7.59	8.28 7.34
15	8.13	7.45	7.03	7.37	6.79	7.70	7.36	7.55	7.65	7.49	7.79	7.40
20	8.22	7.31	7.32	7.32	6.71	8.16	7.16	7.33	8.08	7.35	7.47	7.15
25	8.51	7.24	7.26	7.22	6.67	7.79	7.05	7.27	7.54	7.26	6.78	7.43
EOM	8.06	7.19	7.19	7.09	6.68	7.44	6.99	7.24	7.76	7.47	7.71	7.43
MAX	8.81	8.02	7.32	7.37	7.07	8.27	7.63	8.21	8.71	8.36	8.43	8.49





WELL NUMBER.--261641080064801. Local Number G 2866. USGS Observation Well in Pompano Beach, FL.

LOCATION.--Lat 26°16'41", long 80°06'48", in NE  $^{1}$ / $_{4}$  SE  $^{1}$ / $_{4}$  SW  $^{1}$ / $_{4}$  sec.13, T.48 N., R.42 E., Hydrologic Unit 03090202, on the southwest corner of North Dixie Highway and NE 38th Court.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, cased to 15 ft, screened 15 to 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 20.21 ft above National Geodetic Vertical Datum of 1929. Prior to May 31, 2000, measuring point was 20.11 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 17.2 ft above NGVD.

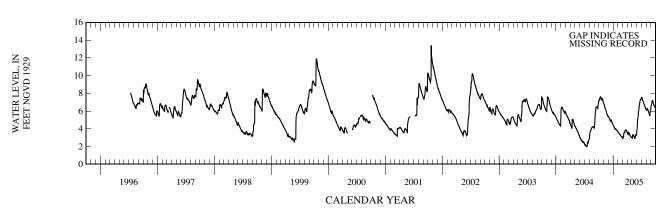
PERIOD OF RECORD .-- July 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.40 ft NGVD, Oct. 22, 2001; lowest, 1.99 ft NGVD, July 14, 16, 2004.

ELEVATION ABOVE NGVD 1929, FEET

	WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES											
NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL				

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.30	6.60	5.27	4.23	3.53	3.11	3.38	3.26	4.67	7.47	6.09	6.83
10	7.58	6.31	5.05	4.08	3.42	3.49	3.60	3.29	5.37	7.15	6.25	7.19
15	7.46	6.11	4.85	4.01	3.32	3.61	3.41	3.12	6.18	6.95	5.96	6.87
20	7.39	5.69	4.99	3.89	3.18	3.84	3.23	2.91	6.90	6.65	5.68	6.64
25	7.33	5.55	4.67	3.81	3.06	3.86	3.10	3.27	7.27	6.42	5.76	6.47
EOM	6.93	5.43	4.45	3.67	3.01	3.62	2.99	3.31	7.49	6.17	6.51	6.24
MAX	7.59	6.89	5.41	4.42	3.64	3.88	3.62	3.35	7.49	7.52	6.51	7.19



WELL NUMBER.--261643080055901. Local Number G 2752. USGS Observation Well near Hillsboro Beach, FL.

LOCATION.--Lat 26°16'43", long 80°05'59", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 18, T.48 S., R.43 E., Hydrologic Unit 03090202, on southeastern corner of NE 39th Street and NE 18th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 253 ft, cased to 248 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 11.35 ft above National Geodetic Vertical Datum of 1929.

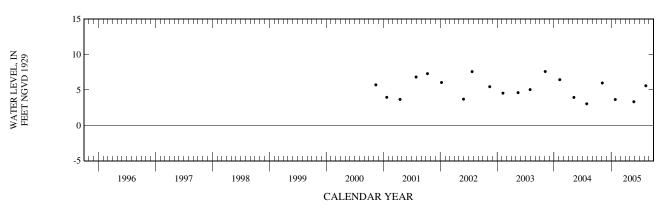
LAND-SURFACE DATUM .-- Land surface is approximately 12.0 ft above NGVD.

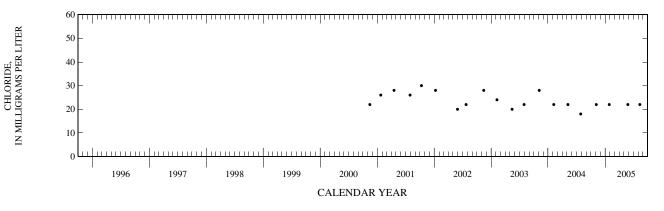
REMARKS .-- Well is also monitored for salinity.

PERIOD OF RECORD.--November 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.60 ft NGVD, Nov. 5, 2003; lowest, 3.05 ft NGVD, July 28, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV 05	1420	5.98	440	22.0	MAY 26	1101	3.34	460	22.0
JAN 27	1215	3.65	443	22.0	AUG 11	1200	5.59	460	22.0





WELL NUMBER.--261708080090801. Local Number G 1315. USGS Observation Well near Pompano Beach, FL.

LOCATION.--Lat 26°17'08", long 80°09'08", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.15, T.48 S., R.42 E., Hydrologic Unit 03090202, 50 ft east of Powerline Road, 0.8 mi north of Sample Road, and 2.3 mi northeast of Coconut Creek.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 14 ft.

REVISED RECORDS .-- WDR FL-85-2B; 1982.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 17.59 ft above National Geodetic Vertical Datum of 1929.

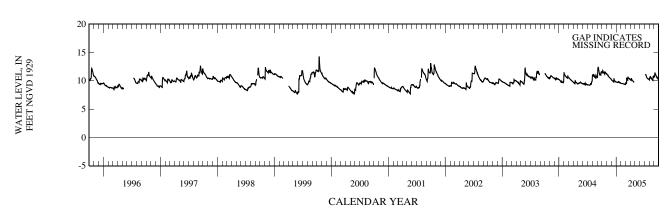
LAND-SURFACE DATUM.--Land surface is approximately 15.4 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.27 ft NGVD, Oct. 15, 1999; lowest, 6.26 ft NGVD, Mar. 30, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.33	11.06	10.08	9.73	9.53	9.64	10.09				10.42	11.08
10	11.56	10.95	9.96	9.71	9.51	10.45	10.26			11.09	10.63	11.12
15	11.51	10.69	9.80	9.85	9.47	10.09	10.08			10.65	10.43	10.75
20	11.55	10.54	10.06	9.70	9.41	10.49	9.88			10.44	10.17	10.67
25	11.43	10.44	9.93	9.65	9.37	10.39	9.73			10.31	10.71	10.37
EOM	11.27	10.25	9.80	9.56	9.42	10.22				10.24	10.76	10.15
MAX	11.81	11.27	10.35	9.85	9.54	10.65					10.81	11.39



WATER LEVEL, IN FEET NGVD 1929

# BROWARD COUNTY—Continued

WELL NUMBER.--261724080054603. Local Number G 2694. USGS Observation Well near Pompano Beach, FL.

LOCATION.--Lat 26°17'24", long 80°05'46", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 7, T.48 S., R.43 E., Hydrologic Unit 03090202, on southeastern corner of NE 49 Street and NE 19 Terrace.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 229 ft.

REVISED RECORDS.--WDR FL-02-2B; 2002. Data published was in error. See REMARKS.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.78 ft above National Geodetic Vertical Datum of 1929.

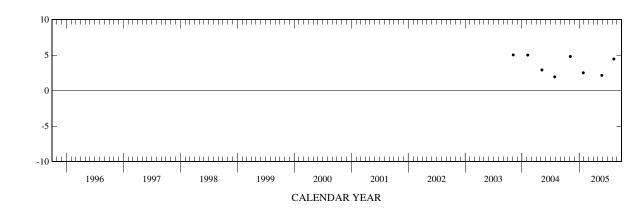
LAND-SURFACE DATUM .-- Land surface is approximately 9.4 ft above NGVD.

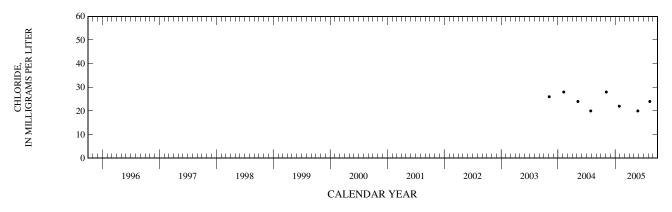
REMARKS.--Well is also used for salinity monitoring. Data published for well G-2694 for the 2000 to 2002 water years was in error. These samples and the samples for the 2003 water year were mistakenly collected from well G-2693 because of an error on a site map. This data has been corrected and moved to the files of the U.S. Geological Survey for well G-2693.

PERIOD OF RECORD .-- October 2003 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.03 ft NGVD, Nov. 5, 2003; lowest, 1.94 ft NGVD, July 28, 2004. See REMARKS.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Specif.   Elev- conduc- Chlor ation, tance, ide, feet wat unf water above uS/cm   Fltrd, NGVD   25 degC   mg/L (72020) (00095) (00940)	r,
NOV					MAY	
05	1340	4.81	343	28.0	26 0856 2.16 337 20.0	)
JAN 27	1146	2.51	320	22.0	AUG 11 1127 4.46 355 24.0	j





WELL NUMBER.--261734080111301. Local Number G 1213. USGS Observation Well near Pompano Beach, FL.

 $LOCATION.--Lat\ 26^{\circ}17'34'', long\ 80^{\circ}11'13'', in\ SE\ {}^{1}\!\!/_{4}\ NE\ {}^{1}\!\!/_{4}\ SE\ {}^{1}\!\!/_{4}\ sec.7, T.48\ S., R.42\ E., Hydrologic\ Unit\ 03090202, at\ southeast\ corner\ of\ Winston\ Park\ Blvd.\ and\ Lyons\ Road,\ 1.0\ mi\ east\ of\ U.S.\ Highway\ 441,\ and\ 7.5\ mi\ northwest\ of\ Pompano\ Beach.\ (Corrected).$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 15 ft, cased to 12 ft.

INSTRUMENTATION .-- Electronic data logger.

MAX

12.07

11.52

11.29

11.30

DATUM.--Measuring point: Top of casing, 20.22 ft above National Geodetic Vertical Datum of 1929. Prior to December 2, 1997, measuring point was top of shelf, 20.60 ft above NGVD. Prior to October 12, 1990, top of shelf was 20.48 ft above NGVD. Prior to July 20, 1987, (previous Well) measuring point was top of casing 17.89 ft above NGVD. Prior to September 1980, top of casing was 17.95 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 18.3 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. This well replaces a 20 ft deep well in the vicinity that was abandoned in 1987. The well name and number were retained for the replacement well. The well is open to the aquifer to a depth of 14.6 ft. In 2003, the well was incorrectly reported as obstructed. The well was damaged and repaired December 1997, January 9, 2002.

PERIOD OF RECORD.--January 1963 to July 1987, (previous well); current well, July 1987 to current year. See REMARKS.

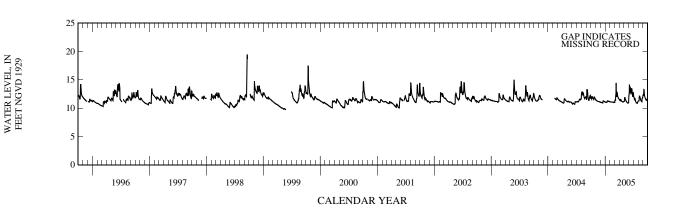
11.12

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.38 ft NGVD, Sept. 19, 20, 1998; lowest, 9.39 ft NGVD, 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	11.66	11.36	11.01	11.04	11.11	11.44	11.37	11.81	14.03	11.81	11.25	12.62
10	12.01	11.26	10.97	11.02	11.06	12.34	11.53	11.62	12.66	11.74	12.10	12.27
15	11.71	11.20	10.93	11.25	11.09	12.06	11.28	11.25	12.45	11.23	11.60	11.75
20	11.70	11.16	11.29	11.23	11.06	12.46	11.14	11.01	13.24	10.95	11.27	11.58
25	11.94	11.13	11.19	11.20	11.00	11.85	11.08	10.92	12.31	10.92	11.50	11.34
EOM	11.49	11.07	11.07	11.14	11.04	11.58	11.16	10.94	12.72	11.23	12.28	11.35

14.44



11.54

11.88

14.03

12.39

12.28

13.30

WELL NUMBER.--261740080054101. Local Number G 2893. USGS Observation Well near Deerfield Beach, FL.

LOCATION.--Lat 26°17'40", long 80°05'41", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.7, T.48 S., R.43 E., Hydrologic Unit 03090202, on NE 52nd Street, 200 ft east of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 176 ft, cased to 166 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.77 ft above National Geodetic Vertical Datum of 1929.

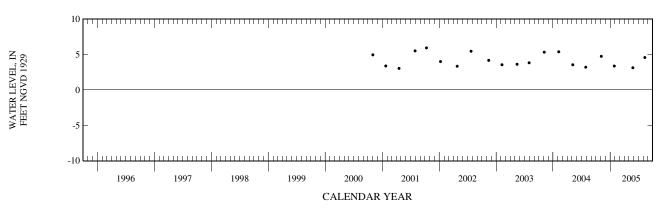
LAND-SURFACE DATUM.--Land surface is approximately 7.8 ft above NGVD.

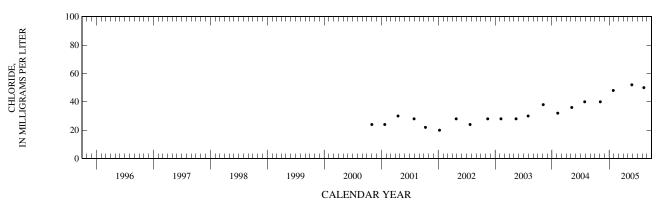
REMARKS.--Well is also used for salinity monitoring.

PERIOD OF RECORD.--November 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.93 ft NGVD, Oct. 11, 2001; lowest, 3.04 ft NGVD, Apr. 18, 2001.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV 05	1301	4.74	381	40.0	MAY 26	0831	3.13	453	52.0
JAN 27	1104	3.37	416	48.0	AUG 11	1109	4.57	432	50.0





WELL NUMBER.--261831080151301. Local Number G 2739. USGS Observation Well in Parkland, FL.

 $LOCATION.--Lat\ 26^{\circ}18'31'', long\ 80^{\circ}15'13'', in\ NE\ \frac{1}{4}\ SE\ \frac{1}{4}\ sec.4, T.48\ S., R.41\ E., Hydrologic\ Unit\ 03090202, east\ of\ University\ Drive\ and\ north\ of\ fenced\ area\ across\ from\ The\ Landings,\ 0.5\ mi\ north\ of\ Sawgrass\ Expressway\ and\ 0.1\ mi\ south\ of\ Holmberg\ Road.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

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

INSTRUMENTATION .-- Electronic data logger.

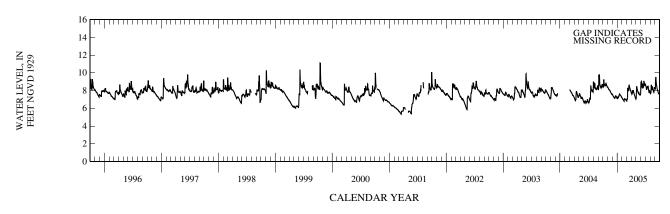
DATUM.--Measuring point: Top of shelf, 15.06 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 12.3 ft above NGVD.

PERIOD OF RECORD.--December 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.11 ft NGVD, Oct. 15, 1999; lowest, 5.34 ft NGVD, Mar. 18, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	8.43 8.73 8.66 8.83 8.64 8.40	8.25 8.09 8.04 7.81 7.65 7.59	7.43 7.27 7.13 7.35 7.38 7.12	7.30 7.26 7.63 7.51 7.39 7.22	7.05 6.92 7.02 7.06 6.98 6.92	7.05 8.26 7.99 8.47 8.15 7.82	7.58 7.94 7.94 7.60 7.32 7.08	8.44 8.14 7.78 7.74 7.50 7.57	9.12 8.32 8.28 8.78 8.71 8.71	8.48 8.22 8.47 8.25 7.78 7.74	7.74 8.16 8.33 7.99 7.91 8.26	9.34 8.61 8.14 7.79 7.64 7.66
MAX	9.26	8.41	7.60	7.63	7.18	8.62	8.02	8.44	9.12	8.70	8.60	9.54



WELL NUMBER.--261903080065601. Local Number G 1260. USGS Observation Well in Deerfield Beach, FL.

LOCATION.--Lat 26°19'03", long 80°06'56", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 1, T.48 S., R.42 E., Hydrologic Unit 03090202, on southeast side of the intersection of State Road 810 and U.S. Interstate 95 at Deerfield Beach, 0.9 mi west of Florida East Coast Railroad.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

 $WELL\ CHARACTERISTICS.\text{--}Drilled, observation, water-table\ well,\ diameter\ 6\ in.,\ depth\ 90\ ft.$ 

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of casing, 12.21 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 10.9 ft above NGVD.

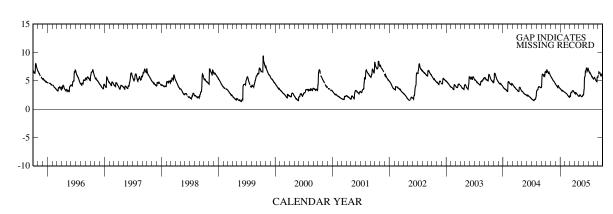
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured (from high-water mark), 13.02 ft NGVD, Oct. 31, 1965; lowest daily maximum water level, 0.71 ft below NGVD, June 20, 23, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.36	5.61	4.28	3.49	2.85	2.33	2.76	2.47	5.16	6.62	5.38	6.26
10	6.79	5.39	4.08	3.31	2.74	2.85	2.93	2.50	5.84	6.40	5.55	
15	6.50	5.13	3.85	3.24	2.56	2.94	2.76	2.27	6.65	6.21	5.22	6.14
20	6.43	4.96	4.12	3.17	2.38	3.24	2.59	2.18	7.20	5.90	4.98	6.17
25	6.26	4.77	3.84		2.21	3.22	2.42	2.35	6.87	5.69	5.27	5.91
EOM	5.85	4.51	3.64	2.96	2.15	2.99	2.26	2.54	7.06	5.42	5.74	5.63
MAX	6.94	5.84	4.48		2.96	3.25	2.94	2.54	7.21	6.95	5.74	





WELL NUMBER.--261938080101001. Local Number G 2852. USGS Observation Well near Boca Raton, FL.

LOCATION.--Lat 26°19'38", long 80°10'10", in NW ½ NW ½ SW ¼ sec.33, T.47 S., R.42 E., Hydrologic Unit 03090202, approximately 12 ft south of Hillsboro Canal, 50 yards east of Florida Turnpike, 0.8 mi west of County Road 845 (Powerline Road), and 1.0 mi south of Camino Real Road, approximately 3.0 mi southwest of Boca Raton.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 140 ft, cased to 130 ft, screened 130 to 140 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 18.79 ft above National Geodetic Vertical Datum of 1929. Prior to August 2000, top of casing was considered to be 18.74 ft above NGVD. Prior to November 1995, top of casing was 16.14 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 17.0 ft above NGVD.

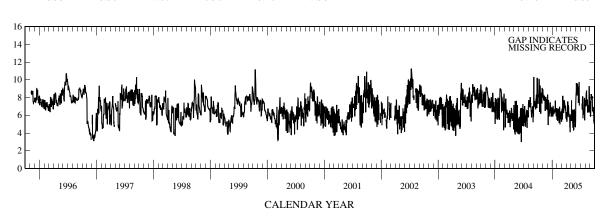
REMARKS.--Well was designated PB 1105 until September 1992 and published under the current station number. Well was also used for salinity monitoring until October 1993. Published figures of water levels as elevation, in ft NGVD, are in error for November 1995 to September 1999. Corrected figures are available in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--October 1988 to May 1990 (semiannual), September 1990 to October 1991 (intermittent), November 1991 to October 1995 (monthly), November 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.27 ft NGVD, July 13, 2002; lowest, 3.00 ft NGVD, June 17, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.23	8.25	6.47	6.35	5.39	6.67	5.28	7.71	9.64		7.03	6.27
10	10.01	8.03	6.80	6.13	6.74	8.20	7.21	5.42	8.24		7.64	8.29
15	9.36	7.94	6.22	6.59	5.43	6.26	7.07	6.52	8.82	8.14	7.05	7.82
20	8.18	8.08	7.33	6.33	5.00	7.67	6.12	5.99	8.59	6.08	6.40	6.94
25	7.60	7.12	5.97	6.59	6.18	7.11	4.54	6.07		7.37	9.12	5.31
EOM	7.98	7.75	6.80	5.55	6.33	5.66	6.10	5.31		7.74	7.60	6.64
MAX	10.11	8.95	8.30	7.66	6.96	8.20	7.58				9.28	8.39





# WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

# BROWARD COUNTY—Continued

# MISCELLANEOUS WATER-LEVEL MEASUREMENTS

Station number	Local ident- i- fier	Lat- i- tude	Long- i- tude Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
260242080101101	G -2697	26 02 42 N 26 02 42 N	080 10 11 W 20041029	1222 1336	2.04	5020 4950	1540 1540
		26 02 42 N	080 10 11 W 20050706	1143	1.60	5090	1580
		26 02 42 N	080 10 11 W 20050829	1201	1.48	4150	1540

# Charlotte County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

Key to site locations on figure # 14

# CHARLOTTE COUNTY

Index	Site	Well	Page
Number	Number	Name	Number
1	265004081581901	CH 311	134
2	264755081460801	СН 323	132
3	264755081460802	CH 324	133

# **VOLUME 2B: SOUTH FLORIDA**

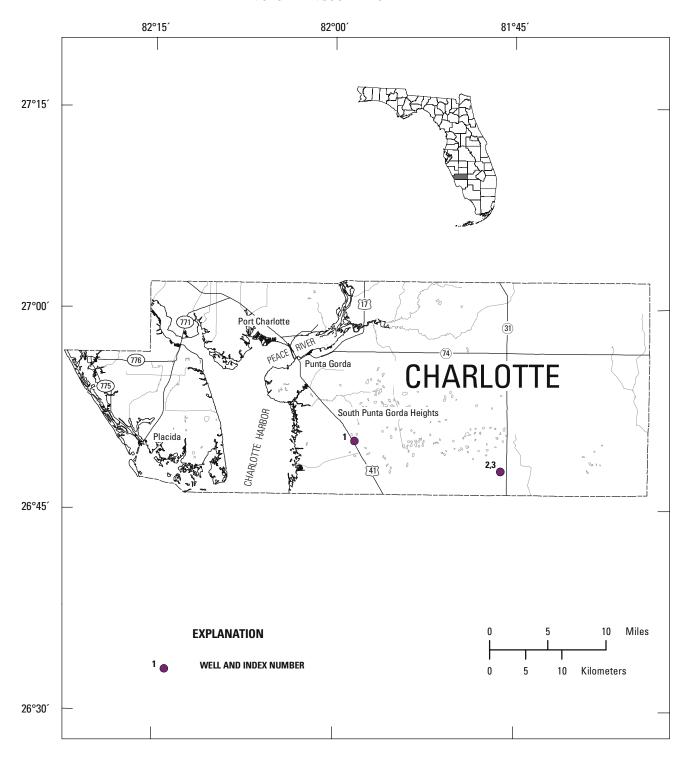


Figure 14: Location of wells in Charlotte County

# CHARLOTTE COUNTY

WELL NUMBER.--264755081460801. Local Number CH 323. USGS Observation Well near Alva, FL.

LOCATION.--Lat 26°47'54", long 81°46'09", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.25, T.42 S., R.25 E., Hydrologic Unit 03090205, 10 ft north of Coral Rock Quarry Road, 75 ft south of Cook Brown Road, 0.6 mi west of State Road 31, 2.0 mi north of Lee/Charlotte County line.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 33 ft, cased to 19 ft, screened from 19 to 33 ft with 0.02 screen. (Corrected).

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

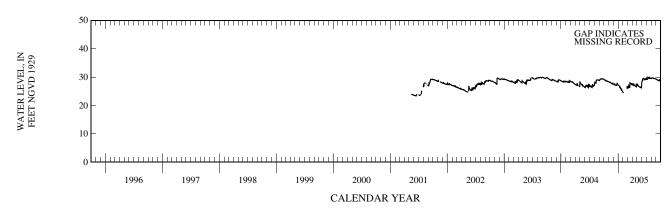
DATUM.--Measuring point: Top of casing, 34.17 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 30.7 ft above NGVD.

PERIOD OF RECORD .-- May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 29.94 ft NGVD, Sept. 6, 2003; lowest, 23.37 ft NGVD, June 15, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	29.04 28.77	28.28 28.26	27.33 27.57	27.07 26.54	24.44	26.26 26.99	27.25 27.24	27.42 26.93	28.81 29.20	29.31 29.62	29.67 29.67	29.13 28.96
15	28.75	28.00	27.17	26.38		26.40	27.04	26.68	29.43	29.74	29.55	28.84
20 25	28.61 28.49	27.76 27.87	27.07 28.00	25.66 25.21	26.13	27.76 27.58	26.80 26.71	26.49 26.49	29.23 29.14	29.64 29.38	29.55 29.44	28.64 28.89
EOM	28.36	27.53	27.28	24.73	26.70	27.41	27.07	26.92	29.32	29.61	29.32	29.21
MAX	29.23	28.35	28.00	27.24		28.06	27.68	27.50	29.55	29.91	29.71	29.28



#### CHARLOTTE COUNTY—Continued

WELL NUMBER.--264755081460802. Local Number CH 324. USGS Observation Well near Alva, FL.

LOCATION.--Lat 26°47'54", long 81°46'09", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.25, T.42 S., R.25 E., Hydrologic Unit 03090205, 10 ft north of Coral Rock Quarry Road, 75 ft south of Cook Brown Road, 0.6 mi west of State Road 31, 2.0 mi north of Lee/Charlotte County line.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 112 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 192 ft, cased to 179 ft, screened from 179 to 188 ft with 0.02 screen, open hole 188 to 192 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 33.69 ft above National Geodetic Vertical Datum of 1929.

21.23

LAND-SURFACE DATUM .-- Land surface is approximately 30.9 ft above NGVD.

21.00

PERIOD OF RECORD .-- May 2001 to current year.

22.96

MAX

24.59

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.64 ft NGVD, Sept. 28, 29, 2003; lowest, 12.22 ft NGVD, May 21, 22, 2001.

					YEAR OCT	ABOVE NO OBER 2004 MAXIMUM	TO SEPTE					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.54	22.58	20.81	21.21	19.64	19.56	22.04	21.32	22.00	23.78	24.58	24.68
10	24.55	22.30	20.91	20.55	19.52	20.17	22.09	21.72	22.87	24.18	24.71	24.03
15	24.54	21.51	20.73	20.05	19.17	20.61	21.84	21.48	23.17	24.29	24.74	23.47
20	24.44	20.93	20.22	20.39		21.29	21.51	21.25	23.13	24.34	24.82	22.69
25	24.08	20.39	20.36	20.65	18.44	21.70	20.07	21.21	23.47	24.29	24.76	22.48
EOM	23.20	20.58	21.00	20.15	18.78	21.92	20.63	20.99	23.73	24.44	24.76	23.13

21.92

22.11

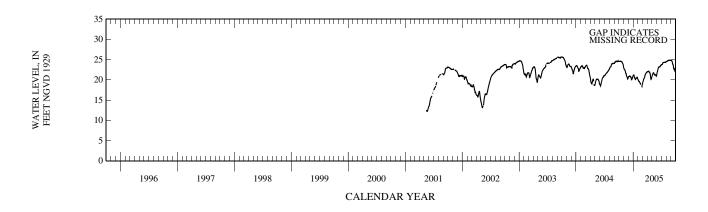
21.76

23.73

24.44

24.85

24.75



WATER LEVEL, IN FEET NGVD 1929

#### CHARLOTTE COUNTY—Continued

WELL NUMBER.--265004081581901. Local Number CH 311. USGS Observation Well near Punta Gorda, FL.

LOCATION.--Lat 26°50'06", long 81°58'18", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.12, T.42 S., R.23 E., Hydrologic Unit 03100103, 30 ft south of fence, 0.1 mi east of U.S. Highway 41, at the Division of Forestry Fire Control Headquarters, 2.8 mi north of Zemel Road.

AQUIFER .-- Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 220 ft, cased to 180 ft, open hole 180 to 200 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. casing, 26.78 ft above National Geodetic Vertical Datum of 1929. Prior to August 2001, measuring point was 26.92 ft above NGVD. See REMARKS.

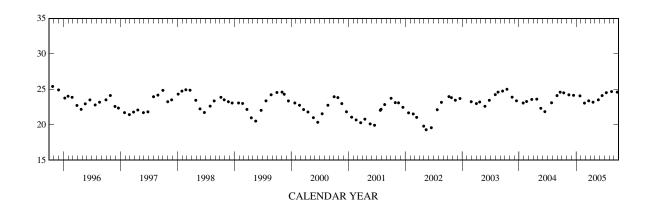
LAND-SURFACE DATUM.--Land surface is approximately 24.8 ft above NGVD.

REMARKS.--Well also used for salinity monitoring from September 1975 to July 2000. Conductivity and chloride profiles are available in the files of the U.S. Geological Survey. Records of water levels prior to October 1991 are available in the files of the U.S. Geological Survey. In August 2001, site was rebuilt due to vehicle accident.

PERIOD OF RECORD.--January 1973 to October 1976 (daily), November 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 32.89 ft NGVD, Mar. 5, 1973; lowest measured, 19.01 ft NGVD, Nov. 23, 1993.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0841	24.50	19	1027	23.18
NOV			MAY		
15	1049	24.22	23	0946	23.51
DEC			JUN		
15	1419	24.15	16	0807	24.11
JAN			JUL		
25	1209	24.07	13	0917	24.52
FEB			AUG		
23	0919	23.05	16	0926	24.68
MAR			SEP		
22	1346	23 37	21	0926	24.60



## **Collier County**

#### WATER RESOURCES DATA - FLORIDA, 2005

#### **VOLUME 2B: SOUTH FLORIDA**

#### **Key to site locations on figure #15**

#### **COLLIER COUNTY**

1         261000080520001         C 54         155         34         262158081283401         C 981         186           2         262521081161901         C 131         197         35         262158081283402         C 982         188           3         262505081245301         C 258         194         36         262158081283402         C 983         187           4         260640081204301         C 296         150         37         261733081285501         C 984         174           5         262507081235201         C 298         195         38         261733081285501         C 985         195           6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470301         C 392         158         41         26144408124901         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 490         163         44	Index	Site	Well	Page	Index	Site	Well	Page
2         262521081161901         C 131         197         35         262158081283403         C 982         188           3         262505081245301         C 296         150         37         261733081285501         C 984         174           5         262507081235201         C 298         195         38         261733081285503         C 985         176           6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         26309081272601         C 986         161           7         261124081470301         C 391         159         40         26309081272601         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         261243081480301         C 490         163         44         26153008144002         C 1004R         173           12         262228081361901         C 492         191         45         <	Number	Number	Name	Number	Number	Number	Name	Number
3         262505081245301         C 258         194         36         262158081283402         C 983         187           4         260640081204301         C 298         195         38         261733081285501         C 984         174           5         262507081235201         C 298         195         38         261733081285503         C 985         176           6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470101         C 392         158         41         2614408124901         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         26123081346901         C 492         191         45         26162008144402         C 1004R         173           13         260111081243901         C 496         140         46 <t< td=""><td>1</td><td>261000080520001</td><td>C 54</td><td>155</td><td>34</td><td>262158081283401</td><td>C 981</td><td>186</td></t<>	1	261000080520001	C 54	155	34	262158081283401	C 981	186
4         260640081204301         C 296         150         37         261733081285501         C 984         174           5         262507081235201         C 298         195         38         261733081285503         C 985         176           6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470101         C 392         158         41         261444081284901         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         261243081480301         C 490         163         44         261530081412001         C 997         171           12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46	2	262521081161901	C 131	197	35	262158081283403	C 982	188
5         262507081235201         C 298         195         38         261733081285503         C 985         176           6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470101         C 392         158         41         261444081284901         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         2612230818361901         C 490         163         44         261530081412001         C 997         171           12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46         261620881448001         C 1059         172           14         26174081235401         C 516         160         48	3	262505081245301	C 258	194	36	262158081283402	C 983	187
6         255430081221001         C 311         138         39         261200081204901         C 986         161           7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470101         C 392         158         41         261444081284901         C 988         170           9         262724081260701         C 462         200         42         26173308128502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         261243081480301         C 490         163         44         261520081464402         C 1004R         173           13         2601110812433901         C 496         140         46         261620081464402         C 1004R         173           13         2601110812433901         C 496         140         46         261620081464402         C 1004R         173           13         2601110812433901         C 503         179         47         2613108148001         C 1059         172           14         26156081475801         C 516         160         48	4	260640081204301	C 296	150	37	261733081285501	C 984	174
7         261124081470301         C 391         159         40         260309081272601         C 987         143           8         261124081470101         C 392         158         41         261444081284901         C 988         170           9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         261243081480301         C 490         163         44         261530081412001         C 997         171           12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46         261620081480901         C 1059         172           14         261741081235401         C 503         179         47         261311081480101         C 1062         153           16         2610180814844101         C 526         156         49         260137081375901         C 1063         141           17         261230081483001         C 575         169         51 <td>5</td> <td>262507081235201</td> <td>C 298</td> <td>195</td> <td>38</td> <td>261733081285503</td> <td>C 985</td> <td>176</td>	5	262507081235201	C 298	195	38	261733081285503	C 985	176
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9         262724081260701         C 462         200         42         261733081285502         C 989         175           10         261302081473901         C 489         164         43         255703081213801         C 995         139           11         261243081480301         C 490         163         44         261530081412001         C 997         171           12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46         261604081480901         C 1059         172           14         261741081235401         C 503         179         47         261311081480101         C 1061         165           15         261156081475801         C 516         160         48         260925081475101         C 1062         153           16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51<	7	261124081470301	C 391	159	40	260309081272601	C 987	143
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11         261243081480301         C 490         163         44         261530081412001         C 997         171           12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46         261604081480901         C 1059         172           14         261741081235401         C 503         179         47         261311081480101         C 1061         165           15         261156081475801         C 516         160         48         260925081475101         C 1062         153           16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51         260314081323101         C 1067R         144           19         260549081441901         C 600         148         52         260314081323102         C 1068R         145           20         261740081235401         C 684         177 <t< td=""><td>9</td><td>262724081260701</td><td>C 462</td><td>200</td><td>42</td><td>261733081285502</td><td>C 989</td><td>175</td></t<>	9	262724081260701	C 462	200	42	261733081285502	C 989	175
12         262228081361901         C 492         191         45         261620081464402         C 1004R         173           13         260111081243901         C 496         140         46         261604081480901         C 1059         172           14         261741081235401         C 503         179         47         261311081480101         C 1061         165           15         261156081475801         C 516         160         48         260925081475101         C 1062         153           16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51         260314081323101         C 1067R         144           19         260549081441901         C 600         148         52         260314081323102         C 1068R         145           20         261740081235401         C 684         177         53         261823081171901         C 1071         182           21         262554081283801         C 687         198         <	10	261302081473901	C 489	164	43	255703081213801	C 995	139
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14         261741081235401         C 503         179         47         261311081480101         C 1061         165           15         261156081475801         C 516         160         48         260925081475101         C 1062         153           16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51         260314081323101         C 1067R         144           19         260549081441901         C 600         148         52         260314081323102         C 1068R         145           20         261740081235401         C 684         177         53         261823081171901         C 1071         182           21         262554081283801         C 687         198         54         261823081171902         C 1072         183           22         261802081354801         C 688         180         55         262519081162102         C 1074         196           23         261740081235402         C 689         178 <t< td=""><td>12</td><td>262228081361901</td><td>C 492</td><td>191</td><td>45</td><td>261620081464402</td><td>C 1004R</td><td>173</td></t<>	12	262228081361901	C 492	191	45	261620081464402	C 1004R	173
15         261156081475801         C 516         160         48         260925081475101         C 1062         153           16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51         260314081323101         C 1067R         144           19         260549081441901         C 600         148         52         260314081323102         C 1068R         145           20         261740081235401         C 684         177         53         261823081171901         C 1071         182           21         262554081283801         C 687         198         54         261823081171902         C 1072         183           22         261802081354801         C 688         180         55         262519081162102         C 1074         196           23         261740081235402         C 689         178         56         262822081213201         C 1075         201           24         260632081324702         C 690         149 <t< td=""><td>13</td><td>260111081243901</td><td>C 496</td><td>140</td><td>46</td><td>261604081480901</td><td>C 1059</td><td>172</td></t<>	13	260111081243901	C 496	140	46	261604081480901	C 1059	172
16         261018081484101         C 526         156         49         260137081375901         C 1063         141           17         261200081483001         C 528         162         50         260137081375902         C 1064         142           18         261438081481001         C 575         169         51         260314081323101         C 1067R         144           19         260549081441901         C 600         148         52         260314081323102         C 1068R         145           20         261740081235401         C 684         177         53         261823081171901         C 1071         182           21         262554081283801         C 687         198         54         261823081171902         C 1072         183           22         261802081354801         C 688         180         55         262519081162102         C 1074         196           23         261740081235402         C 689         178         56         262822081213201         C 1075         201           24         260632081324702         C 690         149         57         262822081213203         C 1077         202           25         261347081351701         C 948         168 <t< td=""><td>14</td><td>261741081235401</td><td>C 503</td><td>179</td><td>47</td><td>261311081480101</td><td>C 1061</td><td>165</td></t<>	14	261741081235401	C 503	179	47	261311081480101	C 1061	165
17       261200081483001       C 528       162       50       260137081375902       C 1064       142         18       261438081481001       C 575       169       51       260314081323101       C 1067R       144         19       260549081441901       C 600       148       52       260314081323102       C 1068R       145         20       261740081235401       C 684       177       53       261823081171901       C 1071       182         21       262554081283801       C 687       198       54       261823081171902       C 1072       183         22       261802081354801       C 688       180       55       262519081162102       C 1074       196         23       261740081235402       C 689       178       56       262822081213201       C 1075       201         24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202	15	261156081475801	C 516	160	48	260925081475101	C 1062	153
18       261438081481001       C 575       169       51       260314081323101       C 1067R       144         19       260549081441901       C 600       148       52       260314081323102       C 1068R       145         20       261740081235401       C 684       177       53       261823081171901       C 1071       182         21       262554081283801       C 687       198       54       261823081171902       C 1072       183         22       261802081354801       C 688       180       55       262519081162102       C 1074       196         23       261740081235402       C 689       178       56       262822081213201       C 1075       201         24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351202       C 951       167       59       262158081283404       C 1079       189         27       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202	16	261018081484101	C 526	156	49	260137081375901	C 1063	141
19       260549081441901       C 600       148       52       260314081323102       C 1068R       145         20       261740081235401       C 684       177       53       261823081171901       C 1071       182         21       262554081283801       C 687       198       54       261823081171902       C 1072       183         22       261802081354801       C 688       180       55       262519081162102       C 1074       196         23       261740081235402       C 689       178       56       262822081213201       C 1075       201         24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351202       C 951       167       59       262158081283404       C 1079       189         27       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202       C 965       185       61       261802081354802       C 1097       181         29       262136081204201<	17	261200081483001	C 528	162	50	260137081375902	C 1064	142
20       261740081235401       C 684       177       53       261823081171901       C 1071       182         21       262554081283801       C 687       198       54       261823081171902       C 1072       183         22       261802081354801       C 688       180       55       262519081162102       C 1074       196         23       261740081235402       C 689       178       56       262822081213201       C 1075       201         24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351202       C 951       167       59       262158081283404       C 1079       189         27       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202       C 965       185       61       261802081354802       C 1097       181         29       262136081204201       C 966       184       62       261023081463702       C 1100       157         30       260334081391601 </td <td>18</td> <td>261438081481001</td> <td>C 575</td> <td>169</td> <td>51</td> <td>260314081323101</td> <td>C 1067R</td> <td>144</td>	18	261438081481001	C 575	169	51	260314081323101	C 1067R	144
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23       261740081235402       C 689       178       56       262822081213201       C 1075       201         24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351202       C 951       167       59       262158081283404       C 1079       189         27       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202       C 965       185       61       261802081354802       C 1097       181         29       262136081204201       C 966       184       62       261023081463702       C 1100       157         30       260334081391601       C 968       146       63       260405081414101       C 1224       147	21	262554081283801	C 687	198	54	261823081171902	C 1072	183
24       260632081324702       C 690       149       57       262822081213203       C 1077       202         25       261347081351701       C 948       168       58       262558081270501       C 1078       199         26       261347081351202       C 951       167       59       262158081283404       C 1079       189         27       261347081351201       C 953       166       60       262228081361902       C 1080       192         28       262136081204202       C 965       185       61       261802081354802       C 1097       181         29       262136081204201       C 966       184       62       261023081463702       C 1100       157         30       260334081391601       C 968       146       63       260405081414101       C 1224       147	22	261802081354801	C 688	180	55	262519081162102	C 1074	196
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26     261347081351202     C 951     167     59     262158081283404     C 1079     189       27     261347081351201     C 953     166     60     262228081361902     C 1080     192       28     262136081204202     C 965     185     61     261802081354802     C 1097     181       29     262136081204201     C 966     184     62     261023081463702     C 1100     157       30     260334081391601     C 968     146     63     260405081414101     C 1224     147	24	260632081324702	C 690	149	57	262822081213203	C 1077	202
27     261347081351201     C 953     166     60     262228081361902     C 1080     192       28     262136081204202     C 965     185     61     261802081354802     C 1097     181       29     262136081204201     C 966     184     62     261023081463702     C 1100     157       30     260334081391601     C 968     146     63     260405081414101     C 1224     147	25	261347081351701	C 948	168	58	262558081270501	C 1078	199
28       262136081204202       C 965       185       61       261802081354802       C 1097       181         29       262136081204201       C 966       184       62       261023081463702       C 1100       157         30       260334081391601       C 968       146       63       260405081414101       C 1224       147	26	261347081351202	C 951	167	59	262158081283404	C 1079	189
29       262136081204201       C 966       184       62       261023081463702       C 1100       157         30       260334081391601       C 968       146       63       260405081414101       C 1224       147	27	261347081351201	C 953	166	60	262228081361902	C 1080	192
30 260334081391601 C 968 146 63 260405081414101 C 1224 147	28	262136081204202	C 965	185	61	261802081354802	C 1097	181
	29	262136081204201	C 966	184	62	261023081463702	C 1100	157
31 260941081324201 C 974 154 64 262248081314101 C 1244 193	30	260334081391601	C 968	146	63	260405081414101	C 1224	147
	31	260941081324201	C 974	154	64	262248081314101	C 1244	193
32 260915081385901 C 976 151 65 262212081312501 C 1245 190	32	260915081385901	C 976	151	65	262212081312501	C 1245	190
33 260915081385902 C 977 152		260915081385902	C 977	152				

### WATER RESOURCES DATA - FLORIDA, 2005

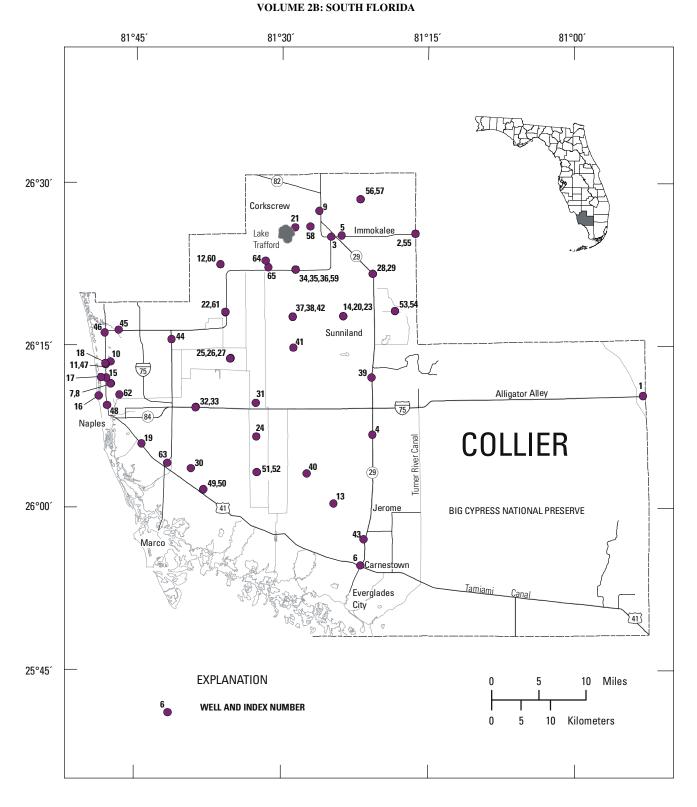


Figure 15: Location of wells in Collier County

#### COLLIER COUNTY

WELL NUMBER.--255430081221001. Local Number C 311.

LOCATION.--Lat 25°54'40", long 81°21'53", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.25, T.52 S., R.29 E., Hydrologic Unit 03090204, 20 ft south of U.S. Highway 41, and 53 ft west of State Road 29, 3 mi south of Copeland and 4 mi west of Ochopee.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 450 ft, cased to 430 ft, open hole 430 to 450 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of gate valve, 6.99 ft above National Geodetic Vertical Datum of 1929. From August 1994 to September 1997, measuring point was considered to be 4.99 ft above NGVD. See REMARKS.

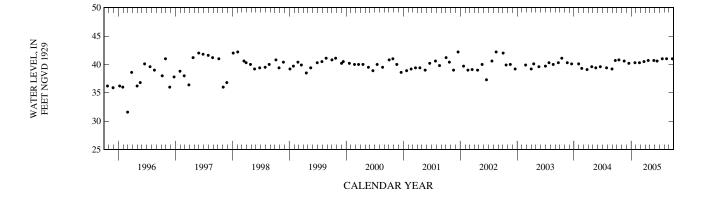
LAND-SURFACE DATUM.--Land surface is approximately 4.94 ft above NGVD.

REMARKS.--Records of water levels prior to October 1982 are available in files of the U.S. Geological Survey. The figures of water levels as elevation, in feet NGVD, for the period August 1994 to September 1997 are in error. A correction of +2.00 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- December 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.0 ft NGVD, Jan. 23, 1995; lowest, 17.2 ft NGVD, May 17, 1978.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
14	1045	40.8	20	1208	40.7
NOV			MAY		
17	1133	40.6	26	1349	40.7
DEC			JUN		
17	1159	40.2	16	1153	40.6
JAN			JUL		
25	1355	40.3	19	1129	41.0
FEB			AUG		
23	1355	40.3	16	1253	41.0
MAR			SEP		
24	1046	40.5	22	1548	41.0



WELL NUMBER.--255703081213801. Local Number C 995.

LOCATION.--Lat 25°57'05", long 81°21'34", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.12, T.52 S., R.29 E., Hydrologic Unit 03090204, in Department of Natural Resources building, 200 ft east of Janes Scenic Drive and 0.4 mi north of Copeland.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 37 ft, cased to 28 ft, open hole 28 to 37 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.22 ft above National Geodetic Vertical Datum of 1929. From March 1985 to September 1993, top of casing was incorrectly considered to be 8.20 ft above NGVD. From October 1988 to September 1991, top of casing was incorrectly reported to be 10.75 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 1993 are in error. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 6.9 ft above NGVD.

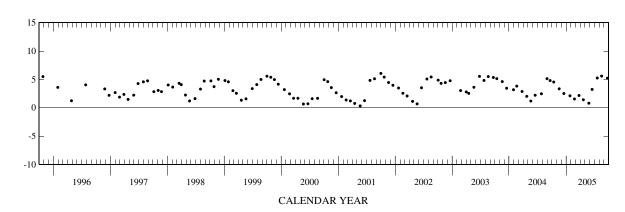
REMARKS.--The figures of water level, as elevation in feet NGVD, prior to October 1993 are in error. A -0.98 ft correction has been applied to correct water-level data from March 1985 to September 1993. Corrected records are in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--March 1985 to September 1994 (monthly), October 1995 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.06 ft NGVD, Oct. 1, 2001; lowest, 0.25 ft NGVD, May 28, 1985.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
13	1323	4.55	21	1116	1.42
NOV			MAY		
17	1311	3.35	26	1155	.81
DEC			JUN		
17	1345	2.52	16	1203	3.24
JAN			JUL		
25	1403	2.12	19	1144	5.25
FEB			AUG		
23	1405	1.56	16	1200	5.59
MAR			SEP		
24	1037	2.17	22	1307	5.22





WELL NUMBER.--260111081243901. Local Number C 496.

LOCATION.--Lat 26°00'23", long 81°24'39", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.28, T.51 S., R.29 E., Hydrologic Unit 03090204, 36 ft east of Janes Scenic Drive, 7.1 mi northwest of Copeland and 6.4 mi northwest of fire lookout tower.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 57 ft, cased to 12 ft, open hole 12 to 57 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 11.85 ft above National Geodetic Vertical Datum of 1929. From October 1981 to September 1982, top of shelf was incorrectly considered to be 14.62 ft above NGVD. Prior to October 1981, top of shelf was 14.62 ft above NGVD. The figures of water level as elevation, in feet NGVD, from October 1981 to September 1982 are in error. See REMARKS.

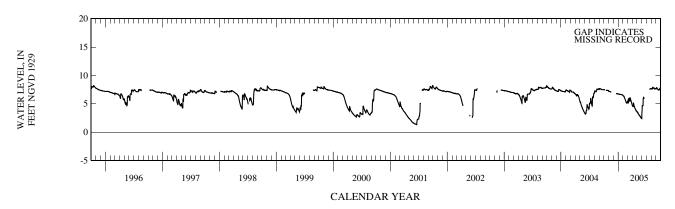
LAND-SURFACE DATUM.--Land surface is approximately 10.8 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, from October 1981 to September 1982 are in error. A correction of -2.77 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. The well was originally open to the aquifer from 12 to 57 ft. The open interval of the well has collapsed at a depth of 36 ft. Water-level data from this well are not considered to be affected by the collapsed interval.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.52 ft NGVD, Aug. 24, 1995; lowest, 0.95 ft NGVD, May 14, 15, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.49	7.18		6.76	6.39	5.45	4.52	3.46	4.69		7.62	7.84
10		7.12		6.65	6.10	5.93	5.00	3.24	5.90		7.88	7.63
15	7.38	7.08		6.65	5.73	5.50	4.49	3.02	5.99		7.80	7.46
20	7.39		6.80	6.65	5.32	5.94	4.15	2.82		7.62	7.63	7.47
25	7.37		6.79	6.58	5.26	5.45	3.85	2.62		7.65	7.67	7.58
EOM	7.23		6.76	6.51	5.34	4.85	3.64	2.41		7.70	7.62	7.57
MAX				6.76	6.50	6.07	5.15	3.64			7.93	7.84



WELL NUMBER.--260137081375901. Local Number C 1063.

LOCATION.—Lat  $26^{\circ}01'40''$ , long  $81^{\circ}37'52''$ , in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 17, T.51 S., R.27 E., Hydrologic Unit 03090204, 50 ft northwest of the end of Hamilton Road 0.45 mi north of U.S. Highway 41, 4.95 mi southeast of State Road 951, 9.0 mi southeast of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 55 ft, cased to 30 ft, open hole from 30 to 55 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 9.58 ft above National Geodetic Vertical Datum of 1929.

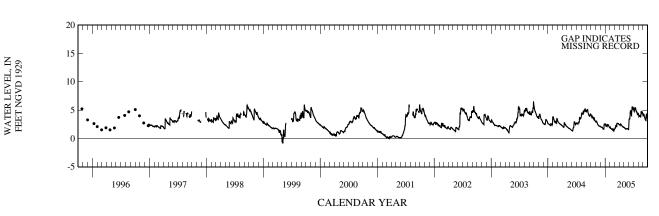
LAND-SURFACE DATUM.--Land surface is approximately 6.3 ft above NGVD.

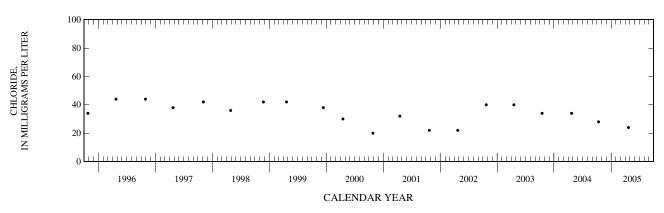
REMARKS.--Well is also used for salinity monitoring. Most of the open-hole portion of this well has collapsed or become obstructed. Chloride samples are being collected from a depth of 37 ft. Data from this well are considered to be unaffected by the collapse/obstruction.

PERIOD OF RECORD.--April 1986 to December 1996 (monthly), December 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.41 ft NGVD, Sept. 29, 2003; lowest, 0.88 ft below NGVD, May 06, 1999.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.98	3.07	2.02	2.40	1.78	1.90	2.36	1.89	3.49	4.85	3.85	4.33
10	3.55	2.83	2.00	2.15	1.71	2.31	2.59	1.73	4.63	5.37	3.91	3.80
15	3.68	2.46	1.88	2.47	1.70	2.11	2.39	1.70	4.61	5.36	3.91	3.30
20	3.36	2.28	1.65	2.41	1.58	2.68	2.17	1.74	4.91	4.85	4.65	4.01
25	3.30	2.20	2.46	2.13	1.51	2.65	2.03	1.71	5.27	4.47	4.46	4.00
EOM	3.00	2.13	2.53	1.90	1.60	2.46	1.98	1.49	5.41	4.44	4.10	4.17
MAX	4.26	3.07	2.57	2.54	1.93	2.70	2.59	1.96	5.53	5.44	4.67	4.34





WELL NUMBER.--260137081375902. Local Number C 1064.

LOCATION.--Lat 26°01'40", long 81°37'58", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.17, T.51 S., R.27 E., Hydrologic Unit 03090204, 50 ft northwest of the end of Hamilton Road, 0.45 mi north of U.S. Highway 41, 4.95 mi southeast of State Road 951, 9.0 mi southeast of Collier County Government Center.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 120 ft, cased to 84 ft, open hole 84 to 120 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.—Measuring point: Top of casing, 9.98 ft above National Geodetic Vertical Datum of 1929. From October 1996 to September 1997, measuring point was incorrectly considered to be top of shelf, 10.07 ft above NGVD. Prior to October 1996, measuring point was top of shelf 10.07 ft above NGVD. The figures of water level as elevation, in feet NGVD, from October 1996 to September 1997 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.1 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, for the period October 1996 to September 1997 are in error. Elevations had been computed based on the top of shelf measuring point after the shelf had been removed. A -0.09 ft correction has been applied to correct water-level data from October 1996 to September 1997. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--November 1986 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level 6.35 ft NGVD, Aug. 24, 25, 1995 and highest water level measured, 6.35 ft NGVD, Oct. 2, 2001; lowest water level measured, 0.12 ft below NGVD, May 22, 2001.

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

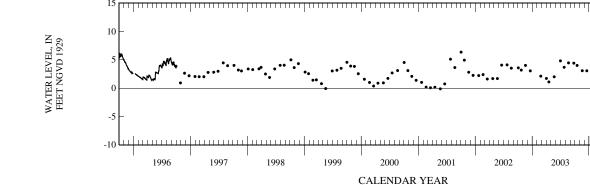
Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1430	3.59	22	0847	1.91
NOV			MAY		
17	1052	2.13	26	1413	1.40
DEC			JUN		
17	1124	2.50	20	1130	4.48
JAN			JUL		
26	1203	1.95	19	1044	4.55
FEB			AUG		
24	1327	1.24	16	1354	3.48
MAR			SEP		
25	0853	2.45	22	1611	3.97

GAP INDICATES MISSING RECORD

2004

2005

2003



WELL NUMBER .-- 260309081272601. Local Number C 987

LOCATION.--Lat 26°03'10", long 81°27'25", in SW  $\frac{1}{4}$  sec.6, T.51 S., R.29 E., Hydrologic Unit 03090204, 35 ft north of Janes Scenic Drive, 35 ft east of canal 5 mi east of Everglades Boulevard and 9.5 mi northwest of Copeland.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 370 ft, cased to 280 ft, open hole 280 to 370 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer. Prior to November 1996, monthly measurement with pressure gauge.

DATUM.--Measuring point: Top of 3/4 PVC elbow, 12.52 ft above National Geodetic Vertical Datum of 1929. Prior to December 2003, measuring point was top of meter box, 9.50 ft NGVD. See REMARKS.

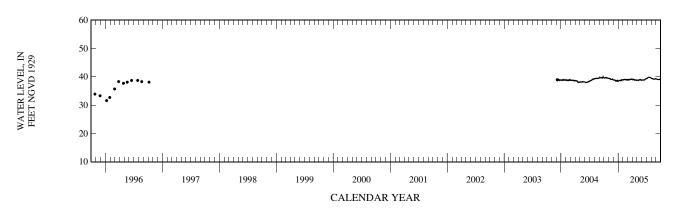
LAND-SURFACE DATUM.--Land surface is approximately 9.4 ft above NGVD.

REMARKS.--Well was destroyed August 2002, well reconstructed December 2003. See DATUM.

PERIOD OF RECORD.--October 1984 to October 1996 (monthly), December 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.30 ft NGVD, Oct. 5, 1988; lowest, 31.70 ft NGVD, May 23, 1994.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	39.58 39.69	39.45 39.20	38.81 38.91	38.66 38.66	38.93 39.12	38.82 39.02	38.88 39.03	38.78 38.80	38.84 38.93	39.39 39.68	39.35 39.29	39.18 39.08
15 20 25	39.77 39.64 39.52	39.01 39.07 39.19	38.49 38.55 38.73	38.78 38.74 38.87	39.03 38.88 39.00	38.97 39.02 39.12	39.00 38.78 38.86	38.89 38.96 38.99	38.84 38.89 39.20	39.77 39.84 39.72	39.15 39.15 39.30	39.02 39.07 39.04
EOM	39.45	38.92	38.42	38.92	39.06	39.04	38.76	38.76	39.34	39.51	39.16	39.17
MAX	39.77	39.45	38.92	38.95	39.12	39.18	39.13	39.00	39.34	39.85	39.51	39.24



WATER LEVEL, IN FEET NGVD 1929

#### COLLIER COUNTY—Continued

WELL NUMBER.--260314081323103. Local Number C 1067R.

LOCATION.--Lat  $26^{\circ}03'15''$ , long  $81^{\circ}31'41''$ , in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.51 S., R.28 E., Hydrologic Unit 03090204, 25 ft south of Stewart Boulevard and 25 ft east of Everglades Boulevard, 6.3 mi south of Alligator Alley (U.S. Interstate 75) on Everglades Boulevard.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in, depth 64 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.20 ft above National Geodetic Vertical Datum of 1929.

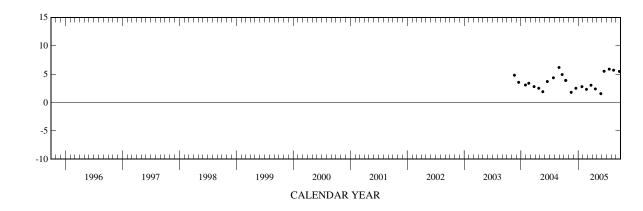
LAND-SURFACE DATUM.--Land surface is approximately 7.3 ft above NGVD.

REMARKS.--Replacement well for C-1067.

PERIOD OF RECORD.--November 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.87 ft above NGVD, July 19, 2005; lowest, 1.55 ft below NGVD, May 26, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1123	3.89	21	1303	2.39
13	1123	3.89	MAY		
NOV			26	1034	1.55
17	1415	1.79	JUN		
DEC			16	1321	5.50
17	1455	2.50	JUL		
JAN			19	1350	5.87
25	1436	2.79	AUG		
FEB			16	1016	5.69
23	1509	2.32	SEP		
MAR			22	1125	5.47
24	0923	3.04			



WELL NUMBER.--260314081323104. Local Number C 1068R.

LOCATION.--Lat  $26^{\circ}03'15''$ , long  $81^{\circ}32'31''$ , in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.51 S., R.28 E., Hydrologic Unit 03090204, 25 ft south of Stewart Boulevard and 25 ft east of Everglades Boulevard, 6.3 mi south of Alligator Alley (U.S. Interstate 75) on Everglades Boulevard.

AQUIFER .-- Lower Tamiami aquifer of the Pleistocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS .-- Drilled, observation, artesian well, diameter 2 in, depth 205 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.87 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.9 ft above NGVD.

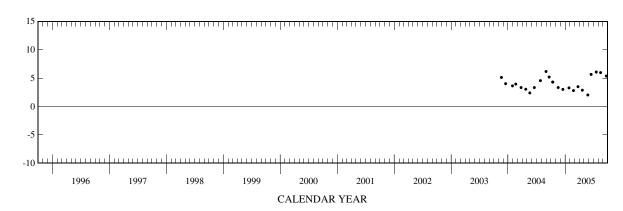
REMARKS.--Replacement well for C-1068.

PERIOD OF RECORD.--November 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.17 ft above NGVD, Aug. 31, 2004; lowest, 2.02 ft NGVD, May 26, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
13	1130	4.30	21	1308	2.87
13	1130	4.30	MAY		
NOV			26	1037	2.02
17	1517	3.34	JUN		
DEC			16	1324	5.65
17	1458	3.01	JUL		
JAN			19	1352	6.06
25	1441	3.28	AUG		
FEB			16	1021	5.97
23	1512	2.80	SEP		
MAR			22	1128	5.36
24	0931	3.49			





WELL NUMBER.--260334081391601. Local Number C 968.

LOCATION.--Lat 26°03'37", long 81°39'15", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 1, T.51 S., R.26 E., Hydrologic Unit 03090204, 150 ft west of Greenway Road, in drainage divide 1.75 mi north of U.S. Highway 41 and 11 mi southeast of Naples.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 23 ft, cased to 8 ft, open hole 8 to 23 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 9.91 ft above National Geodetic Vertical Datum of 1929. Prior to October 2001, measuring point was incorrectly considered to be top of shelf, 9.35 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 2001 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.2 ft above NGVD.

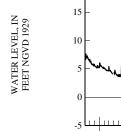
REMARKS.--The figures of water level as elevations, in feet NGVD, prior to October 2001 are in error. A +0.56 ft correction has been applied to correct water level data. Corrected records are in the files of the U.S. Geological Survey. See DATUM. The well was originally open to the aquifer from 8 to 23 ft. The open interval of the well has collapsed or become obstructed at a depth of 9.3 ft. Water-level data from this well are not considered to be affected by the collapsed interval.

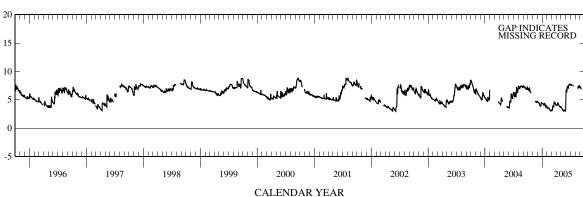
PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.82 ft NGVD (present datum), Sept. 17, 18, 2000; lowest, 2.56 ft NGVD (present datum), June 2, 1989 (estimated).

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	6.94		4.56	4.33	3.54	3.26	4.04	3.59	6.53	7.59		7.11
10	6.50		4.51	4.08	3.55	3.90	4.49	3.29	7.24	7.61		
15	6.46		4.24	4.34	3.38	3.84	4.29	3.15	7.13			
20	6.23	4.69	3.89	3.97	3.17	4.47	3.96	3.20	7.60	7.45	7.26	
25		4.59	4.34	3.86	3.10	4.36	3.79	3.11	7.67		7.38	
EOM		4.70	4.41	3.73	3.16	4.04	3.73	3.08	7.70		7.18	
MAX			4.70	4.40	3.73	4.60	4.50	3.72	7.78			





WELL NUMBER.--260405081414101. Local Number C 1224.

LOCATION.--Lat 26°04'05", long 81°41'41", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.03, T.51 S., R.26 E., Hydrologic Unit 03090204, approximately 500 ft east of State Road 951 and 0.5 mi north of Tamiami Trail (U.S. Highway 41).

AQUIFER .-- Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 157 ft, cased to 123 ft, screened 123 to 157 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of 2 in. PVC casing, 8.29 ft above National Geodetic Vertical Datum of 1929.

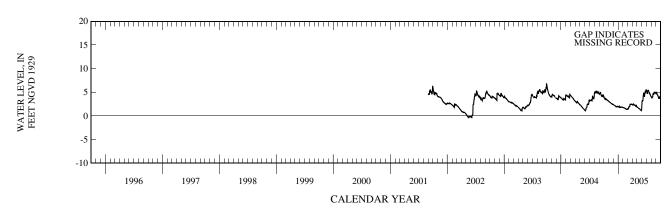
LAND-SURFACE DATUM.--Land surface is approximately 5.8 ft above NGVD.

REMARKS.--Geologic maps available for delineating aquifers in this area are not in agreement concerning the depths of aquifers.

PERIOD OF RECORD .-- August 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.79 ft NGVD, Sept. 29, 2003; lowest, 0.36 ft below NGVD, May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.77	2.97	2.29	1.89	1.74	1.52	2.31	1.83	3.23	4.83	3.81	4.82
10	3.47	2.84	2.20	1.81	1.67	1.90	2.48	1.69	4.17	5.35	3.92	4.43
15	3.58	2.73	2.02	1.87	1.58	1.96	2.33	1.53	4.42	5.32	4.73	3.99
20	3.40	2.59	1.99	1.85	1.46	2.46	2.16	1.42	4.79	4.80	5.01	3.89
25	3.26	2.47	2.02	1.84	1.38	2.47	1.99	1.27	5.05	4.53	4.89	3.73
EOM	3.13	2.43	1.97	1.80	1.48	2.38	1.92	1.22	5.46	4.11	4.75	4.25
MAX	4.04	3.08	2.40	1.98	1.79	2.48	2.53	1.91	5.52	5.44	5.01	4.92



WELL NUMBER.--260549081441901. Local Number C 600.

LOCATION.--Lat 26°05′52″, long 81°44′19″, in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.19, T.50 S., R.26 E., Hydrologic Unit 03090204, at northeast corner of the intersection of Saint Andrews Boulevard and U.S. Highway 41, 4.2 mi northwest of Belle Meade and 5.0 mi southeast of Naples.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 52 ft, cased to 48 ft, slotted 48 to 52 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. PVC coupling, 8.65 ft above National Geodetic Vertical Datum of 1929.

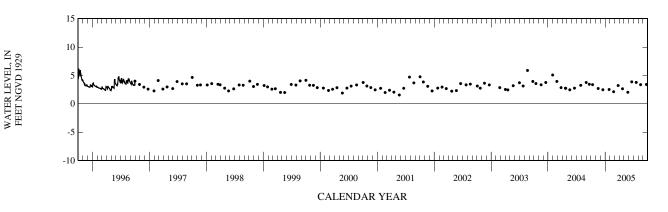
LAND-SURFACE DATUM.--Land surface is approximately 5.4 ft above NGVD.

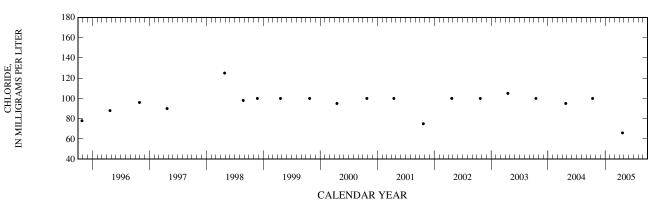
REMARKS.--Well is also used for salinity monitoring. The minimum for period of record in 1988 is a measured water level, not the recorded daily maximum water level.

PERIOD OF RECORD.--October 1980 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.77 ft NGVD, Aug. 24, 1995; lowest water level measured, 0.99 ft NGVD, Aug. 29, 1988 (See REMARKS).

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
12	0956	3.38	879	100	22	0943	2.65	793	66.0
NOV					MAY				
17	0954	2.70			26	1520	2.03		
DEC					JUN				
17	1036	2.48			20	1209	3.87		
JAN					JUL				
26	1221	2.52			19	0956	3.77		
FEB					AUG				
24	1427	2.13			16	1422	3.37		
MAR					SEP				
25	0831	3.22			22	1655	3.41		





WELL NUMBER.--260632081324702. Local Number C 690.

LOCATION.--Lat 26°06'34", long 81°32'35", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 12, T.50 S., R.28 E., Hydrologic Unit 03090204, 30 ft southeast of the intersection of 70th Street and Everglades Boulevard, 3.1 mi south of U.S. Interstate 75, 8.5 mi northeast of Royal Palm Hammock and 15.7 mi east of Naples.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 48 ft, cased to 43 ft, screened 43 to 48 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 11.84 ft above National Geodetic Vertical Datum of 1929. From February 1994 to August 25, 1998, top of shelf was 11.87 ft above NGVD. See REMARKS. From October 1989 to February 1994, measuring point was top of casing, 13.10 ft above NGVD. From October 1980 to September 1989, measuring point was top of shelf, 11.46 ft above NGVD.

LAND-SURFACE DATUM .-- Land surface is approximately 9.1 ft above NGVD.

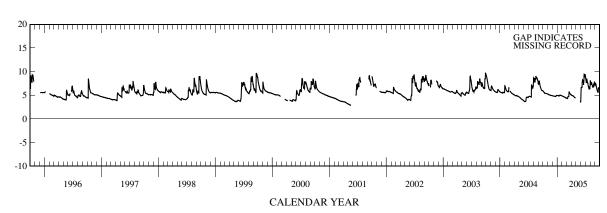
REMARKS.--The station was repaired August 25, 1998. See DATUM.

PERIOD OF RECORD.--October 1980 to June 1992 (daily), July 1992 to January 1994 (monthly), February 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.07 ft NGVD, July 24, 25, 1985; lowest, 2.50 ft NGVD, June 22, 1989, May 15, 20, 21, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.78	5.22	4.87	4.96	4.82	4.35	4.98		6.64	8.03	7.35	7.38
10	5.58	5.09	4.84	4.88	4.73	4.60	4.93		7.80	8.49	7.54	6.64
15	5.42	5.06	4.79	4.97	4.65	4.74	4.84		7.72	7.60	6.95	5.96
20	5.39	5.00	4.77	5.02	4.56	5.65	4.62		7.70	6.86	7.00	5.63
25	5.37	4.95	4.83	4.97	4.43	5.28	4.48		9.12	6.51	7.25	6.56
EOM	5.27	4.92	4.99	4.88	4.42	5.10		3.59	9.22	6.99	7.12	6.38
MAX	5.93	5.26	4.99	5.02	4.86	5.72			9.39	8.95	8.05	7.51





WELL NUMBER.--260640081204301. Local Number C 296.

LOCATION.--Lat 26°06'45", long 81°20'42", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.18, T.50 S., R.30 E., Hydrologic Unit 03090204, west of State Road 29, 3 mi south of U.S. Interstate 75, and 10.8 mi north of Copeland.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 45 ft, cased to 8 ft, open hole 8 to 45 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 18.16 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 14.3 ft above NGVD.

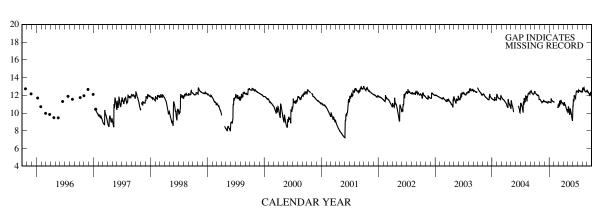
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--June 1959 to November 1984 (daily), November 1984 to December 1996 (monthly), January 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.06 ft NGVD, Sept. 12, 1960; lowest, 6.19 ft NGVD, June 4, 1974.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.24	11.47	11.26	11.21		10.92	10.92	10.70	11.51	12.34	12.65	12.45
10 15	12.12 12.05	11.35 11.22	11.30 11.20	11.18 11.49		11.34 11.04	11.06 10.85	10.19 10.40	11.97 11.87	12.53 12.54	12.89 12.63	12.30 12.13
20	12.00	11.30	11.16	11.38		11.28	10.57	10.06	11.94	12.43	12.43	12.19
25 EOM	11.96 11.54	11.38 11.33	11.31 11.25	11.31 11.25	10.61 10.77	11.17 11.01	10.26 10.16	9.56 9.41	12.38 12.47	12.53 12.36	12.39 12.40	12.12 12.07
MAX	12.38	11.53	11.32	11.64		11.48	11.24	10.70	12.49	12.58	12.89	12.62





WELL NUMBER.--260915081385901. Local Number C 976.

LOCATION.--Lat 26°09'16", long 81°38'47", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.31, T.49 S., R.27 E., Hydrologic Unit 03090204, 32 ft south of U.S. Interstate 75, 1.20 mi east of Naples.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

 $WELL\ CHARACTERISTICS. -- Drilled, observation, water-table\ well,\ diameter\ 6\ in.,\ depth\ 40\ ft,\ cased\ to\ 10\ ft,\ open\ hole\ 10\ to\ 40\ ft.$ 

INSTRUMENTATION.--Monthly measurement with chalked tape.

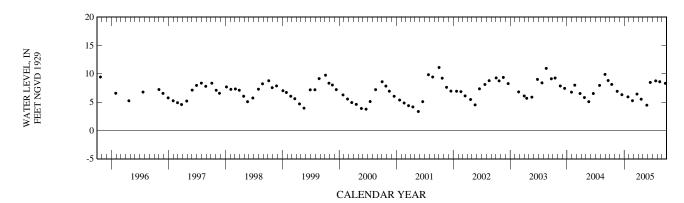
DATUM.--Measuring point: Top of casing, 15.25 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 11.7 ft above NGVD.

PERIOD OF RECORD.--October 1984 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.20 ft NGVD, Aug. 28, 1995; lowest, 2.24 ft NGVD, May 23, 1994.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1442	8.13	20	1344	5.52
NOV			MAY		
17	1222	6.91	26	1254	4.46
DEC			JUN		
17	1252	6.31	17	1524	8.47
JAN			JUL		
25	1311	5.93	22	1109	8.75
FEB			AUG		
23	1301	5.26	17	1540	8.60
MAR			SEP		
24	1146	6.42	22	1513	8.32



WATER LEVEL, IN FEET NGVD 1929

#### COLLIER COUNTY—Continued

WELL NUMBER.--260915081385902. Local Number C 977.

LOCATION.—Lat 26°09'15", long 81°38'48", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.31, T.49 S., R.27 E., Hydrologic Unit 03090204, 32 ft south of U.S. Interstate 75 and 9 mi east of Naples.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 140 ft, cased to 75 ft, open hole 75 to 140 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 15.94 ft above National Geodetic Vertical Datum of 1929.

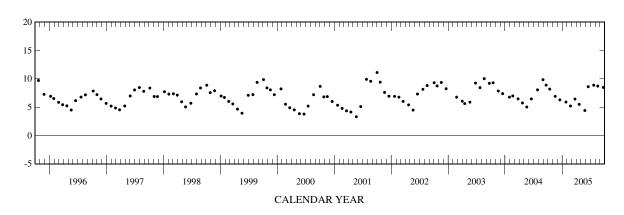
LAND-SURFACE DATUM .-- Land surface is approximately 11.3 ft above NGVD.

REMARKS.--Well was monitored for salinity until September 2004. This well is obstructed at a depth of 128 ft making it impossible to collect a sample from the bottom of the well. Samples were collected from a depth of 128 ft. Sampling procedures for this well were reassessed in the 2001 water year. Data collected prior to 2001 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.21 ft NGVD, Aug. 28, 1995; lowest, 3.31 ft NGVD, May 22, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1445	8.18	20	1345	5.49
NOV			MAY		
17	1220	6.90	26	1253	4.41
DEC			JUN		
17	1254	6.28	17	1523	8.60
JAN			JUL		
25	1310	5.90	22	1010	8.87
FEB			AUG		
23	1259	5.20	17	1537	8.71
MAR			SEP		
24	1144	6.42	22	1509	8.48



WELL NUMBER.--260925081475101. Local Number C 1062.

LOCATION.--Lat 26°09'25", long 81°47'52", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.34, T.49 S., R.25 E., Hydrologic Unit 03090204, 15 ft south of Golf Drive and 100 ft west of U.S. Highway 41, 2.8 mi northwest of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 24 ft, cased to 10 ft, screened 10 to 24 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 13.97 ft above National Geodetic Vertical Datum of 1929.

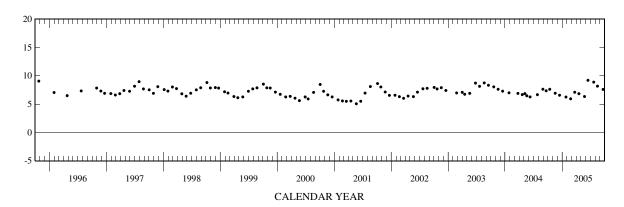
LAND-SURFACE DATUM .-- Land surface is approximately 10.8 ft NGVD.

PERIOD OF RECORD.--April 1986 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft NGVD, July 26, 1995; lowest, 4.31 ft NGVD, May 26, 1987.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1014	7.62	18	1019	6.84
NOV			MAY		
17	1002	6.92	24	1152	6.34
DEC			JUN		
15	0926	6.57	15	1323	9.20
JAN			JUL		
25	1019	6.25	22	1304	8.88
FEB			AUG		
24	0835	5.94	15	1121	8.17
MAR			SEP		
22	0853	7.10	20	1154	7.59





WELL NUMBER.--260941081324201. Local Number C 974.

LOCATION.--Lat 26°09'40", long 81°32'40", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.31, T.49 S., R.28 E., Hydrologic Unit 03090204, 30 ft south of 38th Avenue SE, 100 ft west of Everglades Boulevard, 0.5 mi north of U.S. Interstate 75 and 15.75 mi east of Naples.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 460 ft, cased to 400 ft, open hole 400 to 460 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

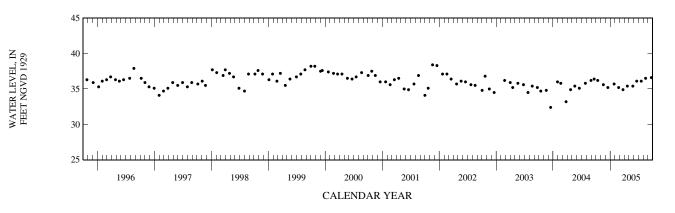
DATUM.--Measuring point: Top of casing, 10.10 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 10.0 ft above NGVD.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.7 ft NGVD, Jan. 28, 1991; lowest, 29.1 ft NGVD, June 17, 1991.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1035	36.2	21	1348	35.4
NOV			MAY		
18	1030	35.6	26	1000	35.4
DEC			JUN		
17	1331	35.2	20	1001	36.1
JAN			JUL		
26	0958	35.7	19	1428	36.1
FEB			AUG		
24	1213	35.2	16	0943	36.5
MAR			SEP		
24	0853	34.9	22	1050	36.6



WELL NUMBER.--261000080520001. Local Number C 54.

LOCATION.--Lat 26°10'21", long 80°53'00", in SW  ${}^{1}\!\!/_{4}$  sec.36, T.49 S., R.34 E., Hydrologic Unit 03090204, on the south side of U.S. Interstate 75, 0.3 mi west of Broward/Collier Line, 2.4 mi west of pump station 140 and 6.0 mi south of Big Cypress Indian Reservation.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 8.5 ft, cased to 7.2 ft, gravel-packed 7.2 to 8.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 15.70 ft above National Geodetic Vertical Datum of 1929. Prior to June 2002, measuring point was 15.74 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 12.8 ft above NGVD.

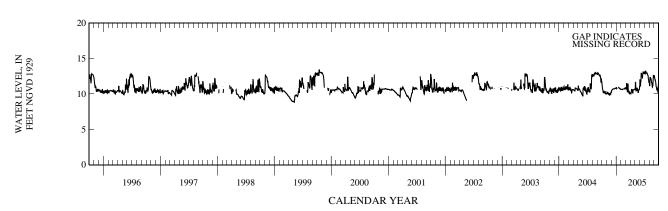
REMARKS.--Station was damaged on May 21, 2002, and was reconstructed on June 21, 2002. See DATUM.

PERIOD OF RECORD.--February 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.81 ft NGVD, Oct. 9, 1953; lowest, 7.81 ft NGVD, June 13, 1962.

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 10	10.78 10.24	10.07 10.07	10.57 10.67	10.80	10.64 10.65	10.82 11.44	10.02 10.64	11.63 10.46	11.18 12.91	12.87 13.12	12.07 11.97	12.22 11.79
15	10.30	10.14	10.71	10.95	10.70	10.60	10.40	10.60	12.60	12.94	11.66	11.00
20 25	10.23 10.05	9.83 9.95	10.73 10.78	10.85 10.73	10.71 10.82	10.35 10.08	10.53 10.59	10.49 10.57	12.87 12.92	12.78 12.40	11.05 11.56	10.62 10.36
EOM	10.12	10.18	10.89	10.64	10.78	10.08	10.67	11.10	12.95	11.79	12.36	11.56
MAX	11.58	10.28	10.89		10.82	11.46	10.69	11.63	13.10	13.27	12.61	12.57



WELL NUMBER.--261018081484101. Local Number C 526.

LOCATION.--Lat 26°10'18", long 81°48'42", in NW  $^{1}\!\!/_{4}$  SW  $^{1}\!\!/_{4}$  SE  $^{1}\!\!/_{4}$  sec.28, T.49 S., R.25 E., Hydrologic Unit 03090204, at the southeast corner of Gulf Shore Boulevard and Mooring Line Drive, 1.3 mi northwest of the Naples Post Office.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 68 ft, cased to 63 ft, open hole 63 to 68 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

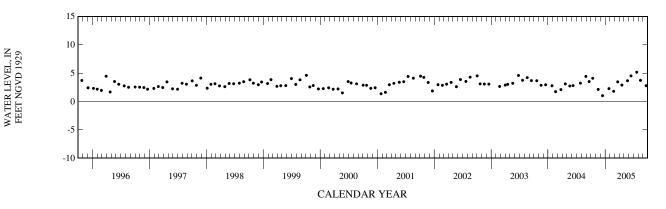
DATUM.--Measuring point: Top of casing, 5.71 ft above National Geodetic Vertical Datum of 1929.

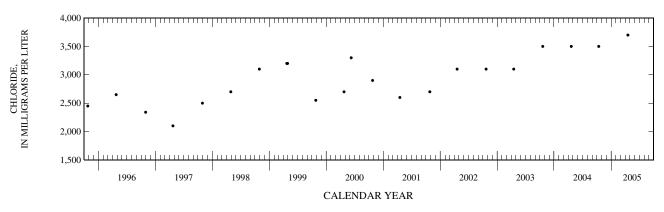
LAND-SURFACE DATUM.--Land surface is approximately 6.7 ft above NGVD.

REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey. PERIOD OF RECORD.--September 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.16 ft NGVD, July 22, 2005; lowest, 0.47 ft below NGVD, May 7, 1974.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					APR				
13	1110	4.09	11,900	3,500	18	1114	2.89	12,200	3,700
NOV					MAY				
17	1010	2.13			24	1159	3.66		
DEC					JUN				
15	0941	1.02			15	1341	4.51		
JAN					JUL				
25	1026	2.26			22	1310	5.16		
FEB					AUG				
24	0845	1.80			15	1129	3.73		
MAR					SEP				
22	0900	3.46			20	1203	2.78		





WELL NUMBER.--261023081463702. Local Number C 1100.

LOCATION.--Lat 26°10'23", long 81°46'37", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.26, T.49 S., R.25 E., Hydrologic Unit 03090204, 7.5 ft south of Golden Gate Parkway, (County Road 886), and 0.75 mi west of County Road 31, 3.2 mi north of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 16 ft, screened 11 to 16 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. PVC casing, 6.33 ft above National Geodetic Vertical Datum of 1929.

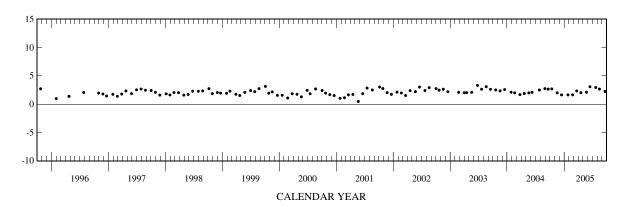
LAND-SURFACE DATUM.--Land surface is approximately 6.8 ft above NGVD.

PERIOD OF RECORD.--September 1993 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.30 ft NGVD, June 25, 2003; lowest, 0.48 ft NGVD, May 22, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1002	2.68	18	1006	2.01
NOV			MAY		
17	0950	1.99	24	1143	2.10
DEC			JUN		
15	0911	1.63	15	1313	3.07
JAN			JUL		
25	1004	1.63	22	1219	2.93
FEB			AUG		
24	0823	1.64	15	1108	2.66
MAR			SEP		
22	0831	2.33	20	1144	2.23





WATER LEVEL, IN FEET NGVD 1929

#### COLLIER COUNTY—Continued

WELL NUMBER .-- 261124081470101. Local Number C 392.

LOCATION.--Lat 26°11'24", long 81°47'29", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.22, T.49 S., R.25 E., Hydrologic Unit 03090204, 30 ft east of County Road 851, 1.4 mi south of County Road 896, and 4.7 mi northeast of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 8 in., depth 30 ft, casing 28 ft, open hole 28 to 30 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 10.10 ft above National Geodetic Vertical Datum of 1929. Prior to October 2000, measuring point was 9.98 ft above NGVD. See REMARKS.

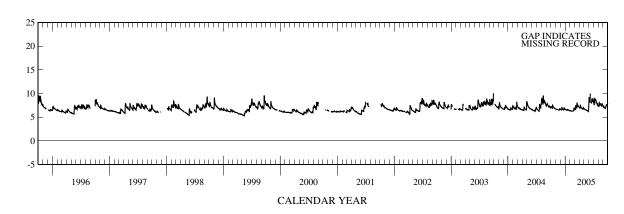
LAND-SURFACE DATUM.--Land surface is approximately 9.7 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station was reconstructed in October 2000. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.09 ft NGVD, Sept. 29, 2003; lowest, 3.00 ft NGVD, May 24, 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 6.79 6.70 6.59 6.37 6.91 6.73 9.00 7.69 7.06 6.60 7.29 7.35 10 6.94 6.63 7.09 6.54 6.33 7.43 7.26 6.60 9.21 8.87 7.75 7.03 6.97 15 7.31 6.63 6.74 6.66 6.31 6.96 6.50 8.69 7.65 6.86 20 7.01 6.55 6.63 6.56 6.32 7.61 6.82 6.43 8.65 8.20 7.49 7.56 25 6.89 6.64 7.00 6.46 6.68 7.38 6.72 6.35 8.43 7.76 7.87 7.52 EOM 6.74 6.74 6.68 6.38 6.87 7.10 6.84 6.48 8.53 7.40 7.36 8.04 MAX 7.56 6.82 7.09 6.67 6.92 8.02 7.48 6.85 8.93 8.05 8.04



WELL NUMBER .-- 261124081470301. Local Number C 391.

LOCATION.--Lat 26°11'24", long 81°47'32", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.22, T.49 S., R.25 E., Hydrologic Unit 03090204, 10 ft east of North 14th Street, 1.4 mi south of County Road 896, and 4.7 mi northeast of Collier County Government Center.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 75 ft, cased to 70 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 12.23 ft above National Geodetic Vertical Datum of 1929. Prior to March 23, 2004, top of base was 11.16 ft above NGVD. Prior to April 11, 1997, top of base was 11.13 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 9.7 ft above NGVD.

0.94

-0.54

3.19

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station reconstructed April 1997 and March 2004. See DATUM.

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

1.48

EOM

MAX

2.97

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.70 ft NGVD, May 24, 1991; lowest, 6.21 ft below NGVD, May 5, 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 0.85 0.54 6.59 2.83 3.47 3.16 1.90 3.71 3.38 4.17 2.86 2.23 6.99 10 4.01 1.34 2.25 2.97 0.83 -0.69 4.31 4.86 3.35 5.68 3.31 1.38 15 3.46 0.97 1.74 -0.68 2.47 4.73 2.01 4.68 6.40 2.46 0.37 2.08 20 3.23 1.92 2.67 0.62 -1.045.08 3.17 3.67 5.72 4.49 1.80 25 3.51 0.68 1.81 0.56 2.96 2.94 1.58 5.77 3.96 2.71 2.01

4.69

3.47

2.83

5.87

2.60

1.91

4.57

5.06 3.16 2.97 1.74 3.22 5.20 5.09 4.42 7.57 6.81 5.03 4.57 GAP INDICATES MISSING RECORD 15 WATER LEVEL, IN FEET NGVD 1929 10 0 -5 1996 1998 1999 2001 2002 2003 2004 2005

CALENDAR YEAR

WELL NUMBER .-- 261156081475801. Local Number C 516.

LOCATION.--Lat 26°11'56", long 81°47'58", in SW ½ SW ½ sec.15, T.49 S., R.25 E., Hydrologic Unit 03090204, 18 ft south of Morningside Drive, 300 ft east of U.S. Highway 41 in Naples.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 63 ft, cased to 46 ft, open hole 46 to 63 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.41 ft above National Geodetic Vertical Datum of 1929. From October 1992 to September 2000, top of casing was incorrectly considered to be 10.38 ft above NGVD. From October 1988 to September 1992, top of casing was considered to be 8.78 ft above NGVD. Prior to September 1988, top of casing was considered to be 11.93 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 2000 are considered to be in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 10.7 ft above NGVD.

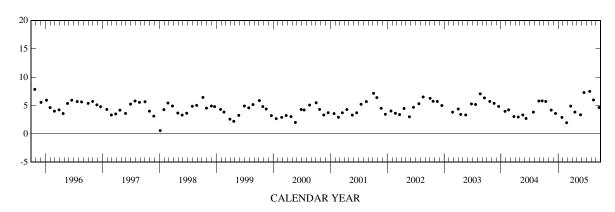
REMARKS.--Well is also used for salinity monitoring. The figures of water level as elevation, in feet NGVD, published prior to October 2000 are considered to be in error, based on a re-survey of the well in December 2001. A correction of +0.03 ft has been applied to water-level data from October 1979 to September 2000. Corrected records are in the files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1984 are available in files of the U.S. Geological Survey.

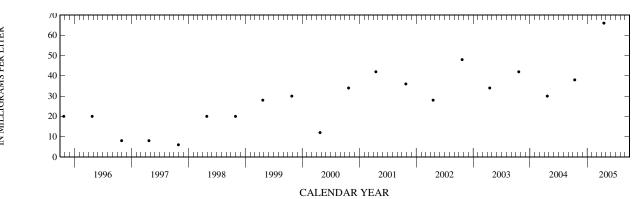
PERIOD OF RECORD .-- October 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.84 ft NGVD, Aug. 30, Oct. 25, 1995; lowest, 3.88 ft below NGVD, May 7, 1974.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
13	1304	5.72	618	38.0	18	1155	3.84	583	66.0
NOV					MAY				
17	1026	4.18			24	1107	3.36		
DEC					JUN				
15	0955	3.59			15	1357	7.28		
JAN					JUL				
25	1041	2.90			22	1329	7.48		
FEB					AUG				
24	0904	1.96			15	1149	5.98		
MAR					SEP				
22	0915	4.89			20	1230	4.64		





CHLORIDE, IN MILLIGRAMS PER LITER

WATER LEVEL, IN FEET NGVD 1929

WELL NUMBER.--261200081204901. Local Number C 986.

LOCATION.--Lat 26°12′03", long 81°20′48", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.18, T.49 S., R.30 E., Hydrologic Unit 03090204, 30 ft south of Fakahatchee Conservancy Club Road, 71 ft west of State Road 29, 3.4 mi north of U.S. Interstate 75 and 15.5 mi south of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 40 ft, cased to 28 ft, open hole 28 to 40 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 20.39 ft above National Geodetic Vertical Datum of 1929.

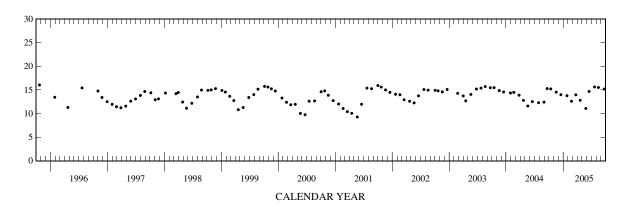
LAND-SURFACE DATUM.--Land surface is approximately 16.4 ft above NGVD.

PERIOD OF RECORD.--October 1984 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.06 ft NGVD, Oct. 23, 1995; lowest, 8.16 ft NGVD, June 26, 1989.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1418	15.22	20	1514	12.81
NOV			MAY		
17	1156	14.53	26	1229	11.08
DEC			JUN		
17	1226	14.00	16	1106	14.69
JAN			JUL		
25	1240	13.79	21	1509	15.63
FEB			AUG		
23	1233	12.61	15	1551	15.52
MAR			SEP		
23	1505	13.97	22	1346	15.19





WATER LEVEL, IN FEET NGVD 1929

#### COLLIER COUNTY—Continued

WELL NUMBER.--261200081483001. Local Number C 528.

LOCATION.--Lat 26°11'59", long 81°48'30", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 16, T.49 S., R.25 E., Hydrologic Unit 03090204, 15 ft east and 15 ft north of the intersection of Crayton Road and Turtle Hatch Road and 2.25 mi northwest of the Naples Post Office.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 80 ft, cased to 63 ft, open hole 63 to 80 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 4.39 ft above National Geodetic Vertical Datum of 1929.

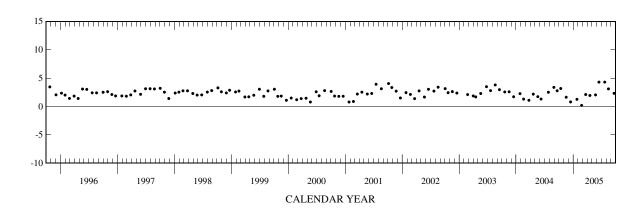
LAND-SURFACE DATUM.--Land surface is approximately 5.4 ft above NGVD.

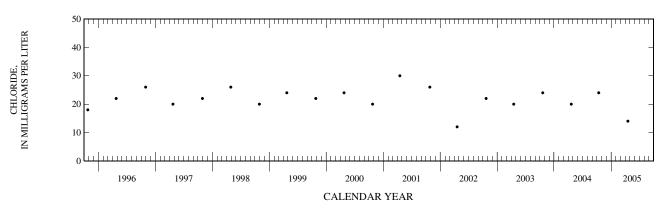
REMARKS.--Well is also used for salinity monitoring. The well was originally open to the aquifer from 63 to 80 ft. The open interval collapsed or became obstructed at a depth of 66 ft. During the 2001 water year chloride samples were collected using a pump. The exact depth from which the chloride-containing water emanated could not be further delineated.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, well flowing above 4.39 ft NGVD, July 29, 1985; lowest, 0.19 ft NGVD, February 24, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
13	1239	3.17	419	24.0	18	1135	1.94	417	14.0
NOV					MAY				
17	1017	1.63			24	1207	2.04		
DEC					JUN				
15	0948	.80			15	1350	4.29		
JAN					JUL				
25	1035	1.26			22	1320	4.29		
FEB					AUG				
24	0854	.19			15	1139	3.10		
MAR					SEP				
22	0908	2.11			20	1210	2.32		





WELL NUMBER.--261243081480301. Local Number C 490.

LOCATION.--Lat 26°13'14", long 81°48'01", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.10, T.49 S., R.25 E., Hydrologic Unit 03090204, 1.5 ft west of Trail Boulevard, 10 ft north of Center Street, 100 ft east of U.S. Highway 41 and northwest of the Naples Post Office.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 71 ft, cased to 70 ft, open hole 70 to 71 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 16.55 ft above National Geodetic Vertical Datum of 1929.

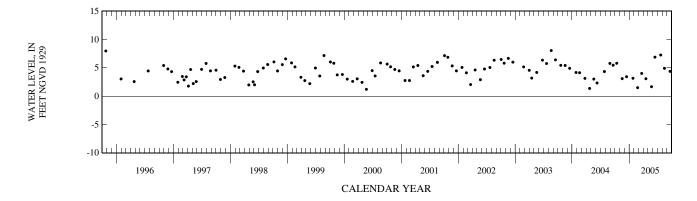
LAND-SURFACE DATUM .-- Land surface is approximately 16.6 ft above NGVD.

REMARKS.--Well was also used for salinity monitoring from October 1975 to April 1999. Chloride and conductivity profiles are available in the files of the U.S. Geological Survey. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1975 to April 1982 (semiannual), October 1982 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.18 ft NGVD, Oct. 4, 1994; lowest, 0.32 ft below NGVD, May 13, 1976.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1544	5.80	18	1348	3.07
NOV			MAY		
17	1142	3.09	24	1100	1.66
DEC			JUN		
15	1112	3.42	15	1251	6.87
JAN			JUL		
25	0940	3.15	22	1433	7.25
FEB			AUG		
24	1017	1.49	15	1033	4.90
MAR			SEP		
22	1027	4 00	20	1109	4 37



WATER LEVEL, IN FEET NGVD 1929

#### COLLIER COUNTY—Continued

WELL NUMBER.--261302081473901. Local Number C 489.

LOCATION.--Lat 26°13'25", long 81°47'32", in NE  $^{1}$ / $_{4}$  NE  $^{1}$ / $_{4}$  NW  $^{1}$ / $_{4}$  sec. 10, T.49 S., R.25 E., Hydrologic Unit 03090204, 15 ft west of Ridge Drive, 300 ft south of North Street in Naples.

AQUIFER .-- Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 83 ft, cased to 63 ft, open hole 63 to 83 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

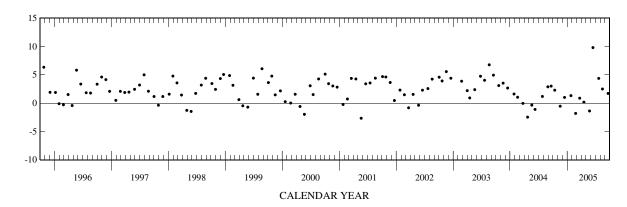
DATUM.--Measuring point: Top of casing, 18.66 ft above National Geodetic Vertical Datum of 1929. Prior to December 1986, measuring point was top of base, 18.70 ft above NGVD.

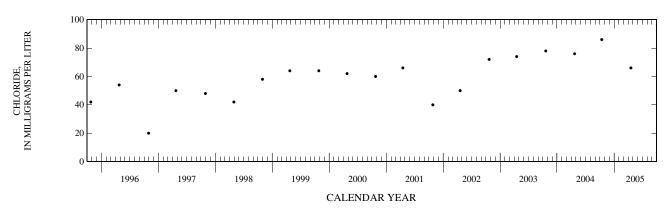
LAND-SURFACE DATUM.--Land surface is approximately 15.2 ft above NGVD.

REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. PERIOD OF RECORD.--May 1970 to November 1986 (daily), December 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.20 ft NGVD, Sept. 24, 1970; lowest, 4.47 ft below NGVD, Apr. 30, 1976.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
13	1530	2.28	635	86.0	18	1331	.17	659	66.0
NOV					MAY				
17	1137	54			24	1054	-1.38		
DEC					JUN				
15	1106	1.01			15	1255	9.79		
JAN					JUL				
25	0946	1.32			22	1428	4.36		
FEB					AUG				
24	1010	-1.81			15	1041	2.49		
MAR					SEP				
22	1016	.87			20	1104	1.71		





WELL NUMBER.--261311081480101. Local Number C 1061.

LOCATION.--Lat 26°13'11", long 81°48'01", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.10, T.49 S., R.25 E., Hydrologic Unit 03090204, 150 ft south of Center Street and 200 ft east of U.S. Highway 41, 6.6 mi northwest of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 10 ft, screened 10 to 25 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.78 ft above National Geodetic Vertical Datum of 1929.

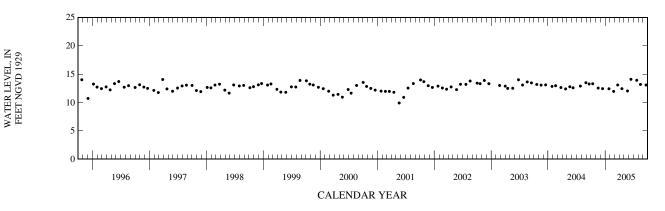
LAND-SURFACE DATUM .-- Land surface is approximately 14.9 ft above NGVD.

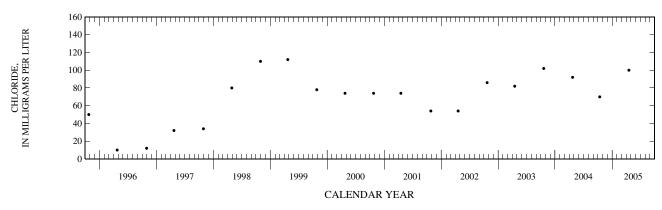
REMARKS .-- Well is also used for salinity monitoring.

PERIOD OF RECORD .-- April 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.95 ft NGVD, July 23, 1992; lowest, 9.91 ft NGVD, May 21, 2001.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
13	1518	13.30	380	70.0	18	1321	12.43	763	100
NOV					MAY				
17	1131	12.54			24	1049	12.03		
DEC					JUN				
15	1054	12.44			15	1249	14.08		
JAN					JUL				
25	0950	12.42			22	1421	13.91		
FEB					AUG				
24	1001	11.96			15	1049	13.18		
MAR					SEP				
22	1011	13.08			20	1058	13.08		





WELL NUMBER.--261347081351201. Local Number C 953.

LOCATION.--Lat 26°13'48", long 81°35'13", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.11, T.49 S., R.27 E., Hydrologic Unit 03090204, at southwest corner of 10th Street SE and Golden Gate Boulevard, 2.3 mi west of Everglades Boulevard and 12.9 mi northeast of the Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 40 ft, cased to 12 ft, open hole 12 to 40 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 16.46 ft above NVGD of 1929. Prior to September 2005, measuring point was top of casing, 16.25 ft above NGVD. Prior to November 2004, measuring point was top of shelf, 16.43 ft above NGVD. Prior to January 2004, measuring point was top of shelf, 16.34 ft above NGVD. Prior to October 1995, measuring point was top of shelf, 16.69 ft above NGVD. See REMARKS.

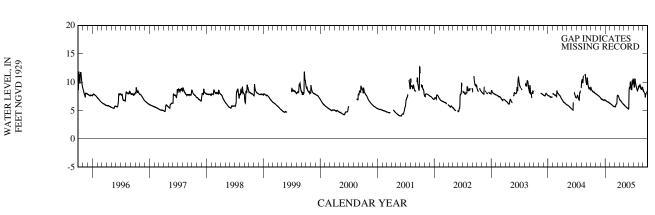
LAND-SURFACE DATUM.--Land surface is approximately 12.4 ft above NGVD.

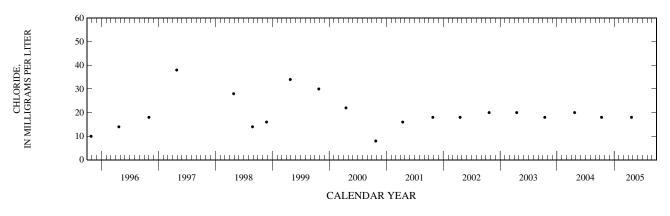
REMARKS.--Well is also used for salinity monitoring. Station damaged, repaired September 2005. Station damaged, repaired November 2004. Station damaged, repaired January 1995. See DATUM.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.05 ft NGVD, Aug. 27, 1995; lowest, 4.03 ft NGVD, June 2, 2001.

DAY	OCT	NOV	DEC	TANT	EED	MAD	A DD	M 4 37	IIINI	11.11	ALIC	CED
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.71	7.89	7.10	6.72	6.16	5.68	6.88	5.92	9.06	9.32	9.10	8.43
10	8.43	7.76	6.98	6.61	6.06	5.90	6.73	5.77	9.82	10.62	9.31	8.09
15	8.36	7.68	6.90	6.55	5.94	6.15	6.56	5.63	9.30	9.73	9.06	7.28
20	8.25	7.57	6.82	6.47	5.80	7.63	6.33	5.48	8.59	9.07	8.92	8.04
25	8.16	7.45	6.79	6.37	5.71	7.61	6.19	5.37	9.84	8.62	8.88	8.12
EOM	7.95	7.29	6.85	6.26	5.72	7.22	6.02	5.24	10.48	8.89	8.64	8.49
MAX	9.07	7.93	7.26	6.85	6.23	7.68	7.14	5.99	10.51	10.62	9.53	





WELL NUMBER.--261347081351202. Local Number C 951.

LOCATION.--Lat 26°13′48", long 81°35′13", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.11, T.49 S., R.27 E., Hydrologic Unit 03090204, at southwest corner of 10th Street SE and Golden Gate Boulevard, 2.3 mi west of Everglades Boulevard and 12.9 mi northeast of the Collier County Government Center.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 170 ft, cased to 120 ft, open hole 120 to 170 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of recorder shelf, 16.27 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 12.4 ft above NGVD.

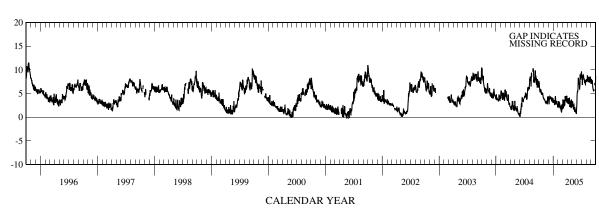
PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 12.21 ft NGVD, Sept. 6, 1985; lowest, 0.25 ft below NGVD, May 20, 2001.

# ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JU

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	6.34 5.26 5.64 4.84 4.96	3.80 3.45 2.99 2.97 3.05	2.77 4.42 3.97 3.77 4.18	3.24 2.90 4.45 3.15 2.73	2.72 3.10 2.45 1.40 2.56	2.85 3.63 2.53 4.43 4.13	3.17 3.72 4.16 2.19 2.62	3.38 1.93 1.54 2.10 1.23	5.45 7.91 6.92 6.29 8.90	8.30 8.90 8.57 7.47 7.86	8.02 8.54 8.15 7.73 7.65	7.50 7.29 5.75 5.60 7.01
EOM	4.03	3.48	4.01	2.12	2.22	3.57	2.44	1.99	8.93	7.73	7.09	8.72
MAX	7.67	4.36	4.42	4.45	3.41	4.45	4.16	3.38	9.31	9.70	8.87	





WELL NUMBER.--261347081351701. Local Number C 948.

LOCATION.—Lat 26°13'47", long 81°35'17", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.11, T.49 S., R.27 E., Hydrologic Unit 03090204, 30 ft east of canal, 500 ft west of 10th Street SE, 100 ft south of Golden Gate Boulevard, 12.9 mi northwest of Collier County Government Center.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 420 ft, cased to 370 ft, open hole 370 to 420 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

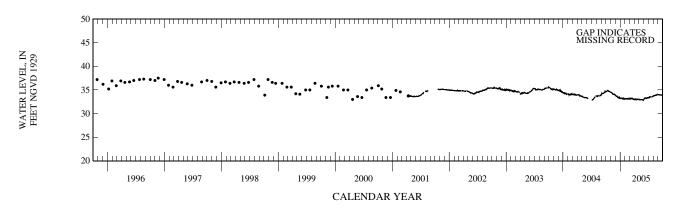
DATUM.--Measuring point: Top of 4 in. plug, 15.20 ft above National Geodetic Vertical Datum of 1929. Prior to May 2001, measuring point was top of gate valve, 12.35 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 12.4 ft above NGVD.

PERIOD OF RECORD.--October 1984 to April 2001 (Monthly), May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.6 ft NGVD, Nov. 25, 1987, Jan. 28, 1988 and Sept. 28, 1995; lowest, 32.6 ft NGVD, Aug. 26, 1994.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	34.65 34.85 34.90 34.74 34.67 34.53	34.50 34.28 34.07 34.08 34.11 33.90	33.70 33.73 33.38 33.43 33.51 33.22	33.27 33.23 33.25 33.20 33.17 33.13	33.10 33.19 33.12 33.04 33.20 33.25	33.11 33.21 33.15 33.19 33.02 33.00	32.93 33.02 33.05 32.96 33.02 32.97	32.95 32.94 32.95 32.95 32.97 32.81	33.14 33.33 33.25 33.19 33.37 33.38	33.34 33.56 33.55 33.52 33.58 33.70	33.75 33.79 33.81 33.84 34.05 34.00	34.01 33.96 33.94 34.07 33.85 33.75
MAX	34.92	34.50	33.87	33.32	33.27	33.30	33.10	33.00	33.38	33.70	34.09	



WELL NUMBER.--261438081481001. Local Number C 575.

LOCATION.—Lat 26°13'17", long 81°48'04", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.9, T.49 S., R.25 E., Hydrologic Unit 03090204, 112 ft west of U.S. Highway 41, 0.75 mi north of Pine Ridge Road and 7 mi north of Naples.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 652 ft, cased to 352 ft, open hole 352 to 652 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 4 in. PVC elbow, 17.51 ft above National Geodetic Vertical Datum of 1929. From March 16, 1987 to April 2003, measuring point was top of 3 in. by 1.5 in. reducer pipe, 15.52 ft above NGVD. Prior to March 16, 1987, measuring point was 15.74 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 14.5 ft above NGVD.

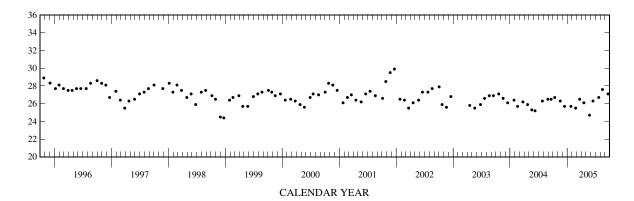
REMARKS.--The well was reconstructed after being damaged: March 1987, April 2003. See DATUM. Records of water levels prior to October 1981 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--March 1979 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.2 ft NGVD, Sept. 27, 1982; lowest, 23.3 ft NGVD, Apr. 29, 1994.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
13	1550	26.7	18	1353	26.1
NOV			MAY		
17	1149	26.3	24	1045	24.7
DEC			JUN		
15	1127	25.7	15	1240	26.3
JAN			JUL		
25	0936	25.7	22	1439	26.7
FEB			AUG		
24	1021	25.5	15	1028	27.6
MAR			SEP		
22	1033	26.5	20	1055	27.1





WELL NUMBER.--261444081284901. Local Number C 988.

LOCATION.--Lat 26°14'47", long 81°28'49", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 2, T.49 S., R.28 E., Hydrologic Unit 03090204, 100 ft west of farm road, 3.6 mi south of intersection of County Road 858 and Oil Grade Road and 12.7 mi south of Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 160 ft, cased to 95 ft, open hole 95 to 160 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 20.41 ft above National Geodetic Vertical Datum of 1929.

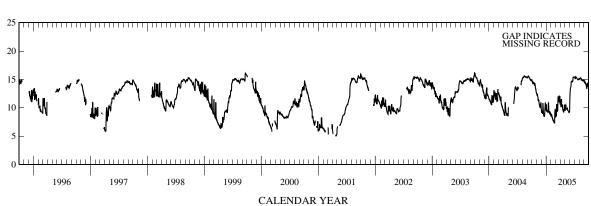
LAND-SURFACE DATUM .-- Land surface is approximately 15.7 ft above NGVD.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 16.16 ft NGVD, Sept. 30, 2003; lowest, 3.87 ft NGVD, Apr. 3, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	14.53 14.32	12.43 11.31	9.21 10.19	9.38 9.32	8.78 8.12	9.41 10.63	10.29 10.60	10.43 9.91	13.41 14.58	15.17 15.46	15.22 15.26	14.68 14.21
15	14.32	11.31	8.84	10.83	7.76	9.47	10.16	9.81	14.70	15.28	15.01	13.87
20 25	14.28 13.46	10.26 10.75	8.38 10.18	9.20 9.12	7.48 9.04	11.28 11.86	9.45 9.55	9.55 9.25	14.74 15.43	15.09 14.95	14.88 14.77	14.10 13.73
EOM	12.50	9.97	10.31	8.71	9.69	10.73	9.45	9.36	15.41	15.12	14.69	14.34
MAX	14.88	12.59	10.92	10.83	9.69	12.12	11.46	10.49	15.43	15.49	15.29	14.74





WELL NUMBER.--261530081412001. Local Number C 997.

LOCATION.--Lat 26°15'31", long 81°41'18", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec.27, T.48 S., R.26 E., Hydrologic Unit 03090204, 75 ft east of County Road 951, 1.0 mi south of County Road 846 and 9.5 mi northeast of Naples.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 22 ft, cased to 12 ft, screened 12 to 22 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 16.92 ft above National Geodetic Vertical Datum of 1929. Prior to April 11, 2003, top of base was 16.76 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 14.3 ft above NGVD.

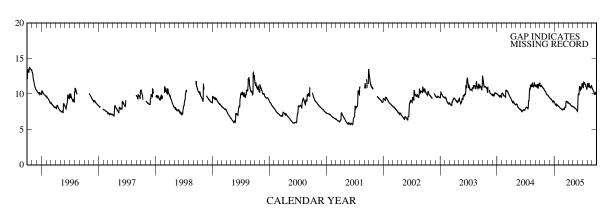
REMARKS.--Well damaged during nearby construction activities, repaired April 2003. See DATUM.

PERIOD OF RECORD.--March 1985 to September 1985 (monthly), October 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.67 ft NGVD, Oct. 19, 1995; lowest, 5.53 ft NGVD, June 18, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	11.20 11.10	10.33 10.13	9.41 9.31	8.66 8.51	8.11 7.98	7.86 8.13	8.71 8.64	8.19 8.10	10.00 10.53	10.93 11.67	11.22 11.33	10.66 10.42
15	11.03	9.94	9.17	8.56	7.89	8.13	8.53	8.01	10.97	11.48	11.07	10.15
20 25	10.87 10.81	9.85 9.69	9.01 8.97	8.44 8.35	7.81 7.85	8.97 8.90	8.34 8.26	7.88 7.73	10.56 10.82	11.34 11.04	10.90 11.03	10.02 10.10
EOM	10.52	9.52	8.89	8.22	7.92	8.78	8.23	7.65	11.48	10.86	10.85	10.48
MAX	11.52	10.50	9.49	8.87	8.20	8.97	8.80	8.22	11.48	11.67	11.48	10.85





WELL NUMBER.--261604081480901. Local Number C 1059.

LOCATION.--Lat 26°16′04″, long 81°48′09″, in NE ½ SW ½ NE ½ sec.28, T.48 S., R.25 E., Hydrologic Unit 03090204, 20 ft behind Fire House on 106th Avenue and 300 ft west of U.S. Highway 41, 9.7 mi northwest of Collier County Government Center.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 10 ft, screened 10 to 25 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.82 ft above National Geodetic Vertical Datum of 1929.

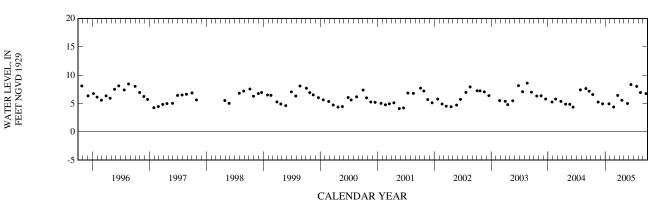
LAND-SURFACE DATUM.--Land surface is approximately 9.3 ft above NGVD.

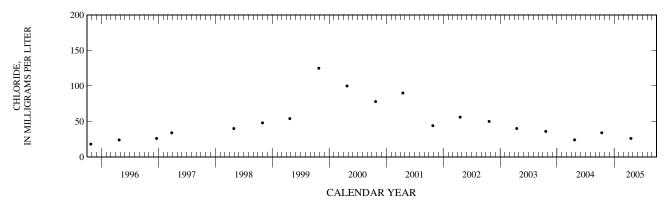
REMARKS .-- Well is also used for salinity monitoring.

PERIOD OF RECORD .-- April 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.21 ft NGVD, Aug. 29, 1995; lowest, 3.17 ft NGVD, Apr. 23, 1987.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					APR				
13	1606	6.58	493	34.0	18	1430	5.57	449	26.0
NOV					MAY				
17	1204	5.25			24	1032	5.00		
DEC					JUN				
15	1149	4.94			15	1225	8.33		
JAN					JUL				
25	1101	4.94			22	1453	8.01		
FEB					AUG				
24	1040	4.38			15	1012	6.92		
MAR					SEP				
22	1051	6.42			20	1044	6.74		





WELL NUMBER.--261620081464402. Local Number C 1004R.

LOCATION.--Lat 26°16'22", long 81°46'44", in SW  ${}^{1}\!\!/_{4}$  SE  ${}^{1}\!\!/_{4}$  sec.23, T.48 S., R.25 E., Hydrologic Unit 03090204, 20 ft east of Palm River Boulevard, 40 ft south of Piper Boulevard, 200 ft north of Immokalee Road (County Road 846), and 7.8 mi north of Naples.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 60 ft, cased to 52 ft, open hole 52 to 60 ft.

INSTRUMENTATION .-- Satellite data collection platform, with pressure transducer.

DATUM.--Measuring point: Top of base, 12.38 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 10.5 ft above NGVD.

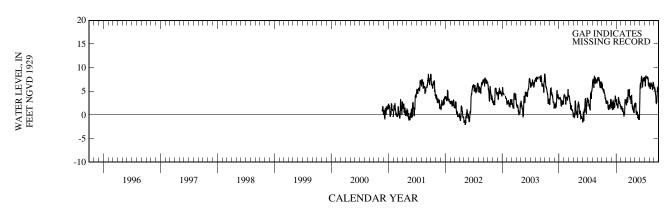
REMARKS.--Replacement well for C-1004. Well is also used for salinity monitoring.

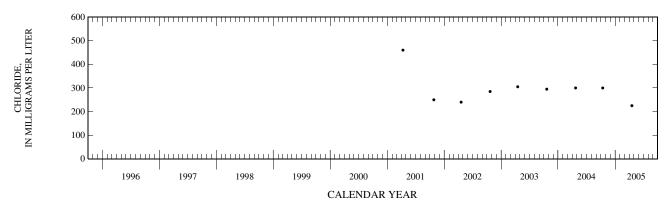
PERIOD OF RECORD.--November 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.62 ft NGVD, Sept. 30, 2003; lowest, 2.14 ft below NGVD, May 9, 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 10	5.51 5.08	2.81 1.43	1.50 2.35	2.32 2.26	1.76 0.69	3.03 3.38	2.90 4.14	1.73 0.44	6.56 7.39	7.13 8.30	5.98 6.46	5.83 4.37
15	5.15 4.06	1.25 2.06	1.15 2.10	3.70 2.68	0.63 -0.35	2.94 4.94	1.93 1.28	0.24 -0.52	7.52 6.29	7.99 7.76	6.34 6.27	2.49 4.27
20 25	3.59	2.46	3.59	2.38	1.96	5.42	0.50	-1.01	7.61	7.57	6.89	5.66
EOM	3.02	3.14	3.04	1.40	3.24	3.26	1.83	1.24	7.94	5.86	5.56	5.67
MAX	6.80	3.28	3.95	3.70	3.25	5.42	4.14	2.43	8.09	8.30	6.89	5.92





WELL NUMBER.--261733081285501. Local Number C 984.

LOCATION.--Lat 26°17'38", long 81°28'54", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 23, T.48 S., R.28 E., Hydrologic Unit 03090204, at southeast corner of Oil Grade Road and County Road 858, 7 mi east of County Road 846 and 9.4 mi south of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 40 ft, cased to 30 ft, open hole 30 to 40 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 23.38 ft above National Geodetic Vertical Datum of 1929. Prior to February 1995, top of casing was 23.50 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 20.3 ft above NGVD.

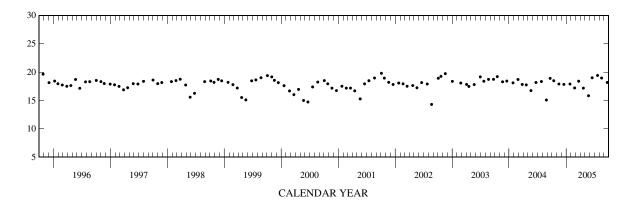
REMARKS.--Station damaged, repaired February 3, 1995. See DATUM.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.08 ft NGVD, Sept. 1, 1995; lowest, 14.04 ft NGVD, May 28, 1986.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1406	18.48	21	1312	17.18
NOV			MAY		
15	1143	17.90	24	1047	15.84
DEC			JUN		
17	1423	17.83	16	1041	19.00
JAN			JUL		
25	1443	17.90	21	1309	19.41
FEB			AUG		
24	1110	17.21	16	1029	18.96
MAR			SEP		
22	1056	18.40	21	1009	18.18





WELL NUMBER.--261733081285502. Local Number C 989.

LOCATION.--Lat 26°17'38", long 81°28'54", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.23, T.48 S., R.28 E., Hydrologic Unit 03090204, at southeast corner of Oil Grade Road and County Road 858, 7 mi east of County Road 846 and 9.4 mi south of Immokalee.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 270 ft, cased to 240 ft, open hole 240 to 270 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 24.30 ft above National Geodetic Vertical Datum of 1929. From October 1996 to September 1999, measuring point was incorrectly considered to be top of flange, 24.44 ft above NGVD. Prior to October 1996, measuring point was top of flange, 24.44 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 20.3 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, from October 1996 to September 1999 are in error. A -0.14 ft correction has been applied to correct water-level data from October 1996 to September 1999. Corrected records are in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--October 1984 to September 1996 (daily), November 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 17.30 ft NGVD, July 24, 1991; lowest, 3.96 ft below NGVD, Apr. 3, 1989.

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

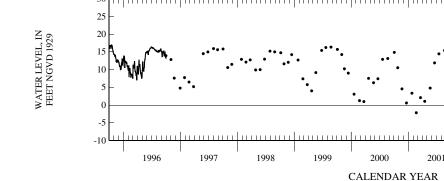
Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1352	13.79	21	1307	6.80
NOV			MAY		
15	1127	6.58	24	1041	8.31
DEC			JUN		
17	1413	3.56	16	1036	15.20
JAN			JUL		
25	1440	3.98	21	1303	15.94
FEB			AUG		
24	1103	2.29	16	1025	15.62
MAR			SEP		
22	1034	10.75	21	1003	13.10

2002

2003

2004

2005



WELL NUMBER.--261733081285503. Local Number C 985.

LOCATION.--Lat 26°17'38", long 81°28'54", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.23, T.48 S., R.28 E., Hydrologic Unit 03090204, at southeast corner of Oil Grade Road and County Road 858, 7 mi east of County Road 846 and 9.4 mi south of Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 160 ft, cased to 80 ft, open hole 80 to 160 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 6 in. coupling, 24.63 ft above National Geodetic Vertical Datum of 1929. From August 2002 to May 2003, top of coupling was 24.66 ft above NGVD. From October 5, 1993 to July 2002, top of coupling was 24.63 ft above NGVD. Prior to October 1993, measuring point was top of casing, 24.88 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 20.3 ft above NGVD.

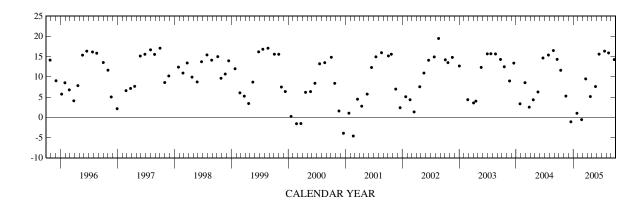
REMARKS.--Station repaired October 5, 1993, August 2002, May 2003. See DATUM.

PERIOD OF RECORD .-- October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.46 ft NGVD, Aug. 20, 2002; lowest, 7.11 ft below NGVD, Mar. 29, 1990.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1358	11.61	21	1312	5.13
NOV			MAY		
15	1146	5.25	24	1045	7.60
DEC			JUN		
17	1418	-1.10	16	1039	15.59
JAN			JUL		
25	1443	1.01	21	1307	16.33
FEB			AUG		
24	1108	56	16	1027	15.89
MAR			SEP		
22	1052	9 49	21	1014	14 26





WELL NUMBER .-- 261740081235401. Local Number C 684.

LOCATION.--Lat 26°17'42", long 81°23'43", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.23, T.48 S., R.29 E., Hydrologic Unit 03090204, 25 ft south of County Road 858, 3.4 mi west of State Road 29, and 4.0 mi northwest of Sunniland.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 490 ft, cased to 440 ft, open hole 440 to 490 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of PVC casing, 22.37 ft above National Geodetic Vertical Datum of 1929. Prior to October 1982, measuring point was incorrectly considered to be 21.02 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 1982 are in error. See REMARKS.

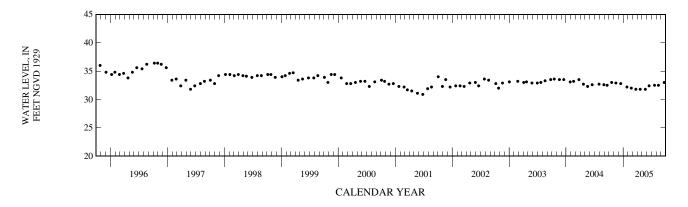
LAND-SURFACE DATUM .-- Land surface is approximately 19.5 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, prior to October 1982 are in error. A correction of +1.4 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1981 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--November 1980 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.4 ft NGVD, Oct. 9, 30, 1996; lowest, 30.9 ft NGVD, June 26, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
19	0918	33.0	20	1008	31.8
NOV			MAY		
15	1527	32.9	23	1509	31.8
DEC			JUN		
16	1513	32.8	16	1045	32.4
JAN			JUL		
25	1223	32.2	21	1406	32.5
FEB			AUG		
22	1459	32.0	15	1533	32.5
MAR			SEP		
23	1434	31.8	21	1251	33.0



WELL NUMBER.--261740081235402. Local Number C 689.

 $LOCATION.-Lat\ 26^{\circ}17'42'',\ long\ 81^{\circ}23'43'',\ in\ NW\ {}^{1}\!\!/_{\!\!4}\ sec.23,\ T.\ 48\ S.,\ R.29\ E.,\ Hydrologic\ Unit\ 03090204,\ 25\ ft\ south\ of\ County\ Road\ 858,\ 3.4\ mi\ west\ of\ State\ Road\ 29,\ and\ 4.5\ mi\ northwest\ of\ Sunniland.$ 

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 265 ft, cased to 230 ft, open hole 230 to 265 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 23.37 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 19.3 ft above NGVD.

REMARKS.--Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1981 (intermittent), October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.83 ft NGVD, Aug. 29, 1983; lowest, 0.38 ft below NGVD, Mar. 30, 1989.

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

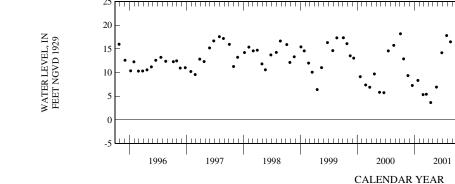
Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
19	0909	13.02	20	1000	11.84
NOV			MAY		
15	1525	9.86	23	1513	9.37
DEC			JUN		
16	1515	7.82	16	1041	16.48
JAN			JUL		
25	1225	8.84	21	1400	17.61
FEB			AUG		
22	1458	6.76	15	1531	18.28
MAR			SEP		
23	1446	14.13	21	1249	14.50

2002

2003

2004

2005



WELL NUMBER.--261741081235401. Local Number C 503.

LOCATION.--Lat 26°17'42", long 81°23'43", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.23, T.48 S., R.29 E., Hydrologic Unit 03090204, 25 ft south of County Road 858, 3.4 mi west of State Road 29 and 4.0 mi northwest of Sunniland.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20.4 ft, cased to 8 ft, open hole 8 to 20.4 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 22.30 ft above National Geodetic Vertical Datum of 1929. From October 1979 to September 1982, measuring point was incorrectly considered to be 20.97 ft above NGVD. See REMARKS.

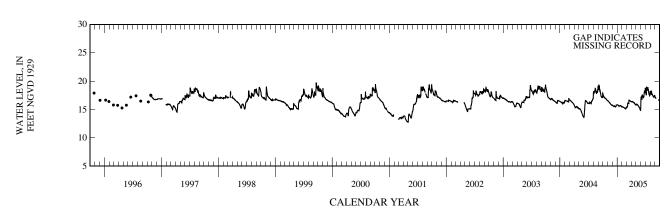
LAND-SURFACE DATUM.--Land surface is approximately 19.2 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The figures of water level as elevation, in feet NGVD, between October 1979 and September 1982 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM. Prior to October 1975, station record was reported under well number 261744081235401.

PERIOD OF RECORD.--January 1972 to October 1984 (daily), October 1984 to September 1996 (monthly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.67 ft NGVD, Sept. 20, 21, 1999; lowest, 12.78 ft NGVD, May 2, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.26	16.46	15.64	15.80	15.46	15.44	16.35	15.94	17.01	17.71	17.75	17.00
10	17.13	16.29	15.60	15.66	15.40	16.14	16.33	15.86	17.60	18.82	17.94	
15	17.03	16.13	15.58	15.64	15.29	16.09	16.29	15.69	17.18	18.40	17.58	
20	16.89	15.93	15.47	15.65	15.17	16.61	16.17	15.46	17.34	18.24	17.33	
25	16.74	15.77	15.64	15.66	15.22	16.50	15.96	15.22	18.25	17.66	17.09	16.63
EOM	16.57	15.77	15.81	15.48	15.37	16.41	15.77	14.85	18.82	18.27	17.34	16.67
MAX	17.83	16.52	15.81	15.81	15.48	16.65	16.41	15.95	18.82	18.92	18.32	



WELL NUMBER.--261802081354801. Local Number C 688.

LOCATION.--Lat 26°18'03", long 81°35'47", in SE ½ NE ½ sec.15, T.48 S., R.27 E., Hydrologic Unit 03090204, 50 ft south and 200 ft west of the intersection of 37th Avenue NW and County Road 846, 0.65 mi north of the intersection of County Road 858 and County Road 846, 14 mi southwest of the Immokalee Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 242 ft, cased to 220 ft, open hole 220 to 242 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of coupling, 18.48 ft above National Geodetic Vertical Datum of 1929.

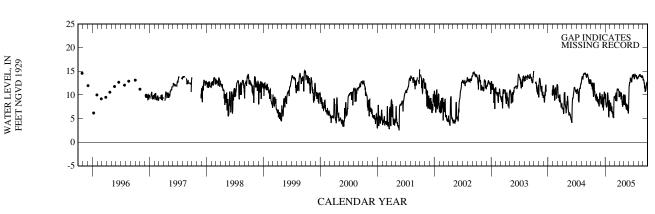
LAND-SURFACE DATUM.--Land surface is approximately 15.6 ft above NGVD.

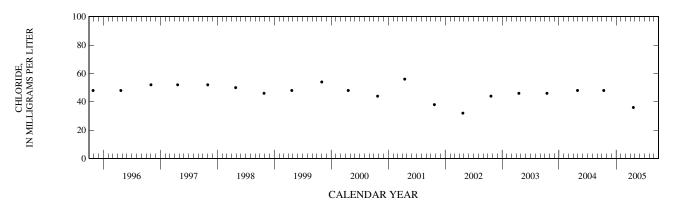
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1981 (intermittent), December 1982 to November 1996 (monthly), December 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.81 ft NGVD, June 29, 1982; lowest, 1.95 ft NGVD, Mar. 29, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	12.03 11.32 10.87 12.29 10.74 9.39	10.11 8.62 8.50 8.81 9.62 9.29	8.37 8.76 7.74 8.44 10.17 9.14	8.14 7.64 9.98 8.77 7.55 6.96	8.35 6.53 6.31 5.26 7.49 9.61	9.75 10.16 10.04 11.27 11.23 10.72	10.41 10.53 10.35 8.74 8.75 9.81	9.43 9.59 7.15 8.10 6.61 8.06	12.11 12.97 13.25 12.70 14.08 14.28	13.63 14.39 14.10 13.90 13.63 13.84	14.04 14.13 13.94 13.94 13.91 13.48	13.20 11.39 10.75 11.19 12.18 12.78
MAX	13.02	10.38	10.58	10.42	9.61	11.27	10.64	10.05	14.28	14.39	14.32	13.29





WELL NUMBER.--261802081354802. Local Number C 1097.

LOCATION.--Lat 26°18'03", long 81°35'47", in SE ½ SE ½ SE.15, T.48 S., R.27 E., Hydrologic Unit 03090204, 50 ft south and 200 ft west of the intersection of 37th Avenue NW and County Road 846, 0.65 mi north of the intersection of County Road 858 and County Road 846, 14 mi southwest of the Immokalee Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 18 ft, screened 15 to 18 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

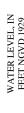
DATUM.--Measuring point: Top of 4 in. PVC casing, 18.44 ft above National Geodetic Vertical Datum of 1929.

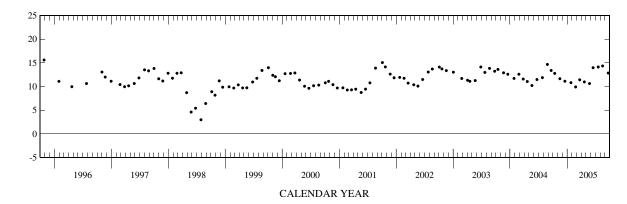
LAND-SURFACE DATUM.--Land surface is approximately 15.7 ft above NGVD.

PERIOD OF RECORD.--September 1993 to September 1994 (monthly), October 1994 to July 1996 (quarterly), November 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.63 ft NGVD, Oct. 27, 1995; lowest, 2.99 ft NGVD, July 29, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1506	12.80	21	1434	10.99
NOV			MAY		
15	1022	11.67	24	0908	10.65
DEC			JUN		
17	1313	11.14	16	1000	14.00
JAN			JUL		
25	1351	10.84	19	1000	14.15
FEB			AUG		
24	0934	9.94	16	1101	14.37
MAR			SEP		
22	0831	11.44	21	0917	12.88





WELL NUMBER.--261823081171901. Local Number C 1071.

LOCATION.—Lat 26°18'11", long 81°18'24", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.48 S., R.30 E., Hydrologic Unit 03090204, 15 ft south of County Road 858, 2.2 mi east of State Road 29, 11.0 mi southeast of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 35 ft, cased to 20 ft, screened 20 to 35 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 22.98 ft above National Geodetic Vertical Datum of 1929.

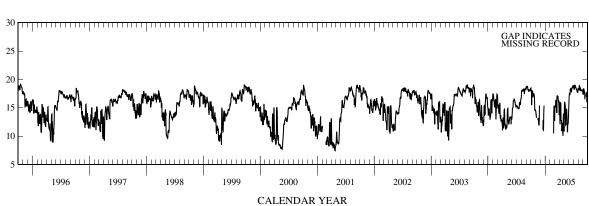
LAND-SURFACE DATUM .-- Land surface is approximately 19.6 ft above NGVD.

PERIOD OF RECORD .-- November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.21 ft NGVD, Aug. 24, 25, 27, 1995; lowest, 6.83 ft NGVD, Apr. 12, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.82	13.41				15.24	12.90	15.86	17.50	18.36	18.18	18.21
10	17.93					16.28	15.85	15.24	18.13	18.99	18.60	17.74
15	17.39					15.58	12.43	14.71	18.21	18.60	18.41	
20	17.45	12.22	11.93			17.09	12.26	13.64	18.27	18.28	18.23	17.50
25	15.55	15.34	15.40		14.30	16.49	10.09	11.94	18.67	17.85	18.01	16.08
EOM	14.44				15.24	14.57	11.87	14.02	18.91	18.37	17.34	17.19
MAX	18.48					17.11	15.88	15.94	18.91	19.06	18.89	





WELL NUMBER.--261823081171902. Local Number C 1072.

LOCATION.—Lat 26°18'11", long 81°18'24", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.48 S., R.30 E., Hydrologic Unit 03090204, 15 ft south of County Road 858, 2.2 mi east of State Road 29, 11.0 mi southeast of Immokalee.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 260 ft, cased to 140 ft, screened from 140 to 220 ft with 0.02 screen.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of base, 23.03 ft above National Geodetic Vertical Datum of 1929.

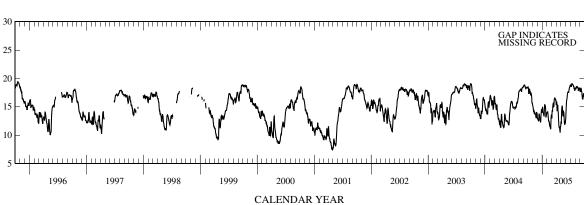
LAND-SURFACE DATUM.--Land surface is approximately 19.2 ft above NGVD.

PERIOD OF RECORD .-- November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 20.41 ft NGVD, Nov. 27, 1987; lowest, 7.40 ft NGVD, Apr. 28, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	18.29 18.12 17.48 17.27 16.89 15.35	14.53 14.07 13.97 13.54 13.81 13.72	12.81 12.64 13.32 12.60 13.73 13.98	14.35 13.79 14.73 15.22 13.11 13.91	14.09 12.68 12.31 11.48 11.37 13.45	14.08 15.06 15.60 16.41 16.46 15.74	15.41 15.36 13.03 11.49 10.65 11.72	14.21 15.10 13.77 13.84 11.85 12.65	15.61 16.84 17.59 17.60 18.40 18.81	18.60 19.06 18.98 18.71 18.10 18.28	18.15 18.58 18.41 18.12 18.18 17.75	18.15 17.72 16.61 16.76 17.10 17.15
MAX	18.53	15.21	14.58	15.37	14.09	16.54	15.76	15.12	18.81	19.07	18.58	18.26





WELL NUMBER.--262136081204201. Local Number C 966.

LOCATION.--Lat 26°21'38", long 81°20'41", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.29, T.47 S., R.30 E., Hydrologic Unit 03090204, 98 ft north of Motorola Road, 55 ft west of State Road 29, 4.0 mi north of County Road 858, 5.7 mi south of State Road 29A and 6.5 mi south of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 40 ft, cased to 30 ft, open hole 30 to 40 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 22.31 ft above National Geodetic Vertical Datum of 1929. Prior to April 1998, top of casing was 27.55 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 21.3 ft above NGVD.

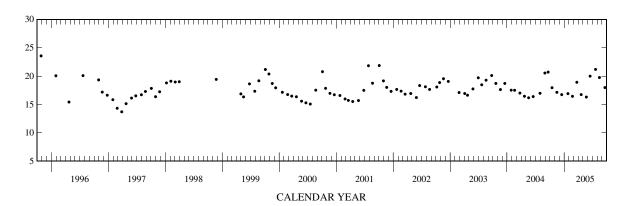
REMARKS.--Station reconstructed on April 30, 1999. See DATUM.

PERIOD OF RECORD.--October 1984 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.56 ft NGVD, Oct. 27, 1995; lowest, 13.71 ft NGVD, Mar. 27, 1997.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1608	17.95	20	1107	16.74
NOV			MAY		
15	1509	17.14	23	1449	16.31
DEC			JUN		
16	1501	16.73	16	0935	19.99
JAN			JUL		
25	1158	16.91	21	1335	21.18
FEB			AUG		
23	1218	16.44	15	1515	19.74
MAR			SEP		
23	1352	18.91	19	1425	17.98





WELL NUMBER.--262136081204202. Local Number C 965.

LOCATION.--Lat 26°21'38", long 81°20'41", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.29, T.47 S., R.30 E., Hydrologic Unit 03090204, 98 ft north of Motorola Road, 55 ft west of State Road 29, 4.0 mi north of County Road 858, 5.7 mi south of State Road 29A and 6.5 mi south of Immokalee.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 460 ft, cased to 438 ft, open hole 438 to 460 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 6 in. casing, 23.41 ft above National Geodetic Vertical Datum of 1929. Prior to April 30, 1999, top of casing was 26.96 ft above NGVD. See REMARKS.

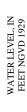
LAND-SURFACE DATUM.--Land surface is approximately 21.4 ft above NGVD.

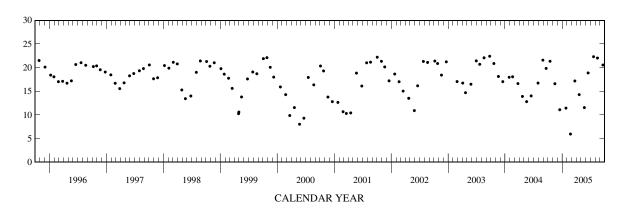
REMARKS.--Station reconstructed because of road construction on April 30, 1999. See DATUM.

PERIOD OF RECORD.--October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.41 ft NGVD, Sept. 24, 2003; lowest, 5.96 ft NGVD, Feb. 23, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1605	21.35	20	1106	14.29
NOV			MAY		
15	1507	16.60	23	1450	11.55
DEC			JUN		
16	1459	11.10	16	0943	18.88
JAN			JUL		
25	1156	11.44	21	1333	22.31
FEB			AUG		
23	1214	5.96	15	1513	22.03
MAR			SEP		
23	1350	17.18	19	1423	20.56





WELL NUMBER .-- 262158081283401. Local Number C 981.

LOCATION.--Lat  $26^{\circ}22^{\circ}00^{\circ}$ , long  $81^{\circ}28^{\circ}36^{\circ}$ , in SE  $\frac{1}{4}$  Sec. 24, T.47 S., R.28 E., Hydrologic Unit 03090204, 30 ft north of County Road 846, 2.8 mi east of Oil Grade Road and 4.5 mi southwest of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 60 ft, cased to 40 ft, open hole 40 to 60 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 24.84 ft above National Geodetic Vertical Datum of 1929. From October 1, 2001 to September 30, 2002, top of shelf was incorrectly considered to be 24.87 ft above NGVD. From October 24, 1996 to October 2001, top of shelf was incorrectly considered to be 18.79 ft above NGVD. From October 1994 to October 24, 1996, measuring point was top of casing, incorrectly considered to be 20.24 ft above NGVD. Prior to October 1994, top of casing was incorrectly considered to be 20.34 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 2002 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 21.3 ft above NGVD.

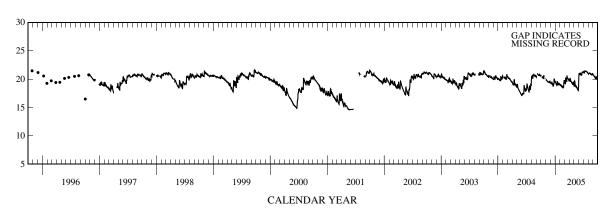
REMARKS.--The figures of water level as elevation, in feet NGVD, prior to October 2001, are in error. A +6.05 ft correction has been applied to correct water-level data prior to October 2001. A correction of -0.03 ft has been applied to water-level data from October 2001 to September 2002. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD. -- October 1984 to September 1996 (monthly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.65 ft NGVD, Sept. 29, 2001; lowest, 14.53 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	20.30	19.89 19.66	19.20 19.48	19.30 19.04	18.91 18.84	19.48 20.20	19.74 19.70	19.68 18.95	20.87 21.06	21.15 21.44	20.98 21.04	20.61 20.45
15	20.27	19.56	19.06	19.57	18.73	19.60	19.40	18.78	20.88	21.36	20.94	20.16
20 25	20.61	19.43 19.66	19.03 20.02	19.04 19.09	18.40 19.32	20.18 19.98	19.24 19.15	18.54 18.19	20.78 21.22	21.35 21.22	20.75 20.80	20.37 20.14
EOM		19.43	19.63	19.07	19.60	19.87	18.96	18.63	21.24	21.02	20.76	20.69
MAX			20.02	19.62	19.80	20.62	20.11	19.68	21.26	21.44	21.09	20.74





WELL NUMBER .-- 262158081283402. Local Number C 983.

LOCATION.--Lat  $26^{\circ}22^{\circ}00^{\circ}$ , long  $81^{\circ}28^{\circ}36^{\circ}$ , in SE  $\frac{1}{4}$  Sec. 24, T.47 S., R.28 E., Hydrologic Unit 03090204, 30 ft north of County Road 846, 2.8 mi east of Oil Grade Road and 4.5 mi southwest of Immokalee.

AQUIFER.--Mid-hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 520 ft, cased to 480 ft, open hole 480 to 520 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: "X" on top of carriage bolt, 24.61 ft above National Geodetic Vertical Datum of 1929. From October 1984 to September 18, 2002, measuring point was "X" on top of 2 in. reducer, 21.04 ft above NGVD. From October 1, 1986 to October 2001, top of reducer was incorrectly considered to be 16.70 ft above NGVD. Prior to October 1, 1986, top of reducer was considered to be 20.68 ft above NGVD. See REMARKS.

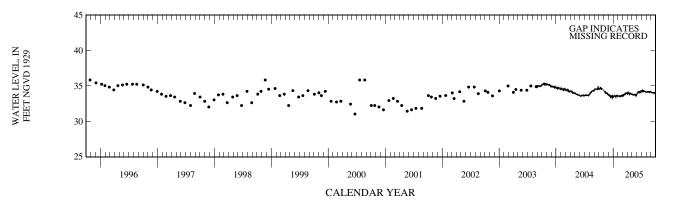
LAND-SURFACE DATUM.--Land surface is approximately 21.0 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, prior to October 2001 are in error. A +4.34 ft correction has been applied to correct water-level data from October 1986 to September 2001. A +0.36 ft correction has been applied to correct water-level data prior to October 1986. Corrected records are in files of the U.S. Geological Survey. Extremes for the period of record have been adjusted to present datum. See DATUM.

PERIOD OF RECORD.--October 1984 to August 2003 (monthly), September 2003 to current.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.1 ft NGVD, Nov. 25, 1987; lowest, 20.56 ft NGVD, May 28, 1985.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.59	34.29	33.66	33.57	33.57	33.63	33.87	33.81	33.99	34.20	34.11	34.06
10	34.71	34.08	33.72	33.57	33.62	33.81	33.97	33.78	34.19	34.36	34.18	34.08
15	34.69	33.91	33.36	33.56	33.55	33.79	33.92	33.81	34.20	34.30	34.16	34.03
20	34.63	33.95	33.43	33.59	33.52	33.91	33.91	33.81	34.08	34.28	34.09	34.05
25	34.47	33.96	33.64	33.64	33.65	33.96	33.90	33.77	34.28	34.20	34.20	33.98
EOM		33.75	33.44	33.58	33.75	33.90	33.84	33.65	34.26	34.12	34.13	34.07
MAX			33.76	33.65	33.80	34.00	34.07	33.85	34.28	34.40	34.23	34.11



WELL NUMBER.--262158081283403. Local Number C 982.

LOCATION.—Lat 26°22'00", long 81°28'36", in SE  $\frac{1}{4}$  Sw  $\frac{1}{4}$  sec.24, T.47 S., R.28 E., Hydrologic Unit 03090204, 30 ft north of County Road 846, 2.8 mi east of Oil Grade Road and 4.5 mi southwest of Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 160 ft, cased to 150 ft, open hole 150 to 160 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of flange, 25.41 ft above National Geodetic Vertical Datum of 1929. From October 2001 to September 18, 2002, measuring point was top of casing, 26.32 ft above NGVD. From March 1987 to October 2001, top of casing was incorrectly considered to be 20.25 ft above NGVD. Prior to March 1987, top of casing was 26.64 ft above NGVD, but incorrectly considered to be 20.57 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 2001 are in error. See REMARKS.

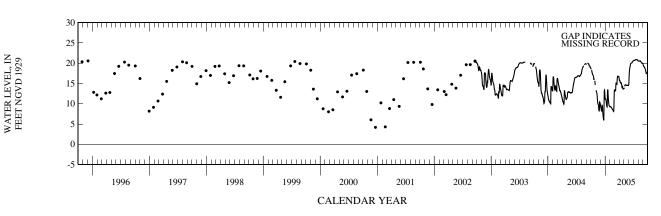
LAND-SURFACE DATUM.--Land surface is approximately 21.6 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 1, 2001, are in error. A +6.07 ft correction has been applied to correct water-level data prior to October 2001. Corrected records are in the files of the U.S. Geological Survey. Extremes for period of record have been adjusted to present datum. See DATUM.

PERIOD OF RECORD.--October 1984 to August 2002 (monthly), September 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.27 ft NGVD, July 24, 1991; lowest, 0.84 ft below NGVD, Mar. 31, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	17.53	13.06 12.13	9.09 8.24	11.01 9.68	9.28 9.07	13.27 14.32	15.68 15.29	 14.70	18.01 19.34	20.70 20.74	20.51 20.58	19.24 18.94
15	17.06	10.03	8.80	12.04	8.71	14.99	14.98	14.56	20.00	20.88	20.56	18.52
20	15.91	8.92	6.47	11.87	8.40	16.55	13.88	14.56	20.06	20.89	20.20	17.60
25		8.95	11.35	9.65	8.19	16.75	13.68	14.55	20.35	20.85	19.98	17.63
EOM		10.05	11.44	9.28	13.09	16.30	13.77	14.53	20.61	20.58	19.88	17.57
MAX			13.41	13.51	13.09	16.80	16.05		20.61	20.89	20.60	19.70



WELL NUMBER.--262158081283404. Local Number C 1079.

LOCATION.—Lat 26°22'00", long 81°28'36", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.24, T.47 S., R.28 E., Hydrologic Unit 03090204, 30 ft north of County Road 846, 2.8 mi east of Oil Grade Road and 4.5 mi southwest of Immokalee.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 390 ft, cased to 298 ft, 92 ft of open hole.

INSTRUMENTATION .-- Satellite Data Collection Platform. (Corrected).

DATUM.--Measuring point: Top of base, 22.74 ft above National Geodetic Vertical Datum of 1929. From December 1986 to September 2001, top of base was incorrectly considered to be 16.67 ft above NGVD. Prior to December 1986, measuring point was top of casing, 21.41 ft above NGVD, but incorrectly considered to be 15.34 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 2001 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 21.1 ft above NGVD.

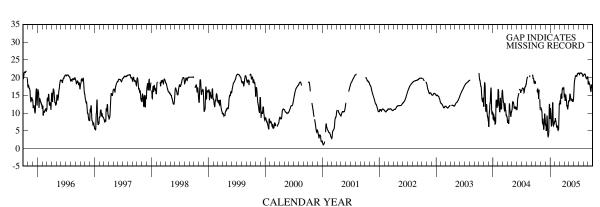
REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 2001, are in error. A +6.07 ft correction has been applied to correct water level data from October 1985 to September 2001. Corrected records are available in the files of the U.S. Geological Survey. See DATUM. Records of water levels prior to December 1986 are available in the files of the U.S. Geological Survey. Extremes for period of record have been adjusted to present datum. See DATUM.

PERIOD OF RECORD.--April 1985 to September 1986 (semiannual), December 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.05 ft NGVD, Aug. 28-31, 1995; lowest, 0.77 ft below NGVD, Apr. 26, 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	16.13	10.71 9.35	6.51 7.48	9.73 6.41	7.97 6.34	13.48 14.68	14.77 14.77	14.33 15.12	18.62 20.10	21.11 21.17	20.73 20.99	18.80 17.93
15	15.73	8.35	5.97	11.42	6.38	14.63	13.65	13.67	20.58	21.26	20.67	17.10
20 25	15.28	5.31 8.65	3.81 10.41	7.14 6.62	5.16 7.16	16.87 16.94	11.84 11.89	13.87 13.16	20.35 21.07	21.16 21.00	19.93 19.92	16.17 17.50
EOM		8.42	8.30	7.81	12.38	15.43	13.24	14.30	21.23	20.34	19.36	17.75
MAX			12.57	13.01	12.38	17.14	15.45	15.33	21.23	21.29	20.99	18.81





WELL NUMBER.--262212081312501. Local Number C 1245.

 $LOCATION.-Lat\ 26^{\circ}22'12'', long\ 81^{\circ}31'25, in\ SE\ {}^{1}\!\!/_{4}\ SE\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ sec. 21,\ T.47\ S.,\ R.28\ E.,\ Hydrologic\ Unit\ 03090204,\ 20\ ft\ east\ of\ Oil\ Well\ Grade\ Road,\ .5\ mi\ north\ of\ County\ Road\ 846,\ 2\ mi\ east\ of\ Everglades\ Boulevard.$ 

AQUIFER.--Lower Tamiami aquifer of Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 82.4 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer (Corrected).

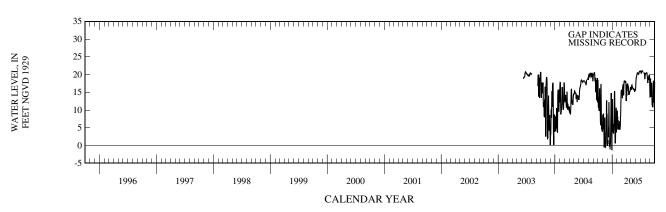
DATUM.--Measuring point: Top of casing, 26.39 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 23.9 ft above NGVD.

PERIOD OF RECORD .-- June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.06 ft above NGVD, July 10, 2005; lowest, 1.32 ft below NGVD, Dec. 30, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	10.64 9.72	8.27 0.91	0.40 9.93	5.99 3.34	8.05 5.92	15.63 16.86	13.98 17.33	16.53 16.58	19.33 20.37	20.46 21.06	20.27 20.51	16.78 17.38
15	10.84	7.89		14.81	4.97	14.11	16.05	15.99	20.37	20.82	18.78	11.46
20 25	16.64 6.75	-0.12 11.43	13.67	0.60 9.65	4.45 11.85	18.22 18.05	14.28 15.34	15.81 15.38	20.09 20.85	20.45	18.80 19.63	15.42 12.18
EOM	4.07	2.61	8.51	6.60	15.48	13.87	15.95	15.91	20.99	19.69	13.72	17.82
MAX	18.51	12.70		15.30	15.48	18.22		17.05	21.02		20.52	18.90



WELL NUMBER.--262228081361901. Local Number C 492.

LOCATION.--Lat 26°22'28", long 81°36'19", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.22, T.47 S., R.27 E., Hydrologic Unit 03090204, Corkscrew Swamp Sanctuary, north of service road, 0.01 mi west of parking lot, 1 mi west and 0.55 mi north of County Road 846 on County Road 849 and 12 mi north of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD. See REMARKS

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 64 ft, cased 60 ft, open hole 60 to 64 ft. See REMARKS.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 21.46 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 18.4 ft above NGVD.

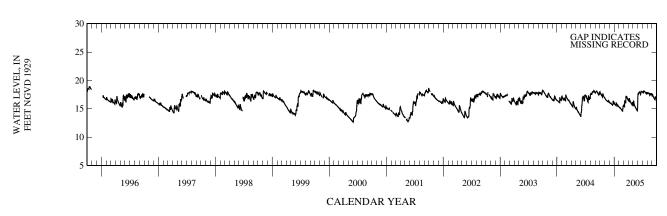
REMARKS.--Well was used for salinity monitoring until September 2004. Borehole camera inspection indicates that this well is open to the aquifer at a depth of 19 ft and is currently 21 ft deep. It is unknown whether or not the cased depth and well depth that were initially reported for this well were incorrect. It is possible that the casing has separated and the well has filled in with rock from the formation. See WELL CHARACTERISTICS.

PERIOD OF RECORD.--October 1973 to September 1984 (daily), October 1984 to October 1986 (intermittent), November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.88 ft NGVD, Oct. 19, 1995; lowest, 12.35 ft NGVD, May 6, 1990.

# ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.76	16.76	16.00	15.83	15.26	15.59	16.41	16.31	17.57	17.86	17.78	17.43
10	17.43	16.53	16.03	15.64	15.07	16.40	16.57	15.76	17.97	18.16	17.77	17.08
15	17.24	16.46	15.79	16.00	14.93	16.05	16.26	15.38	17.83	18.03	17.49	16.76
20	17.65	16.28	15.69	15.65	14.69	17.00	15.94	15.09	17.74	17.91	17.57	17.08
25	17.28	16.40	16.32	15.51	15.05	16.91	15.70	14.83	17.98	17.81	17.54	16.94
EOM	16.96	16.21	16.13	15.37	15.51	16.54	15.85	15.00	18.03	17.89	17.35	17.48
MAX	18.03	16.93	16.33	16.09	15.51	17.21	16.88	16.31	18.08	18.16	17.82	17.57



WELL NUMBER.--262228081361902. Local Number C 1080.

LOCATION.--Lat 26°22'28", long 81°36'19", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.22, T.47 S., R.27 E., Hydrologic Unit 03090204, at Corkscrew Swamp Sanctuary, next to C-492 north of service road, 0.1 mi west of parking lot, 1 mi west and 0.55 mi north of County Road 846 on County Road 849 and 12 mi southwest of Immokalee and 15 mi northeast of East Naples.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 309 ft, cased to 238 ft, open hole 238 to 309 ft.

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

DATUM.--Measuring point: Top of 2 3/4 in. bushing, 23.46 ft above National Geodetic Vertical Datum of 1929. Prior to October 1992, measuring point was top of casing, 21.86 ft above NGVD.

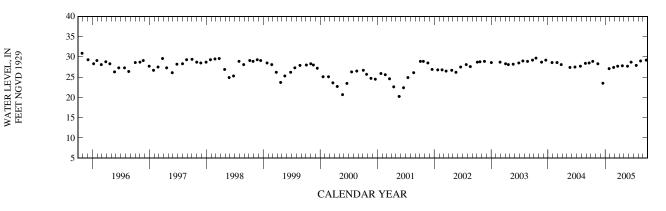
LAND-SURFACE DATUM.--Land surface is approximately 18.9 ft above NGVD.

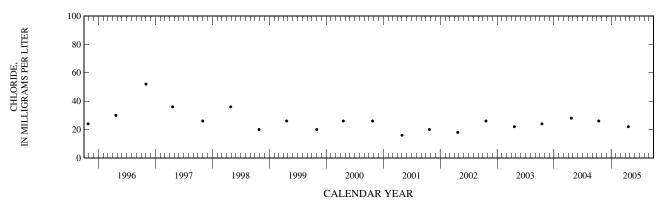
REMARKS.--Well is also used for salinity monitoring. This well is open to the aquifer for 71 ft. The exact depth from which the chloride-containing water is emanating cannot be further delineated.

PERIOD OF RECORD .-- October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.90 ft NGVD, Oct. 27, 1995; lowest, 11.76 ft NGVD, Feb. 22, 1989.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
13	1532	28.9	442	26	21	0908	27.8	438	22
NOV					MAY				
15	1004	28.30			24	0920	27.7		
DEC					JUN				
17	1243	23.5			16	1015	28.7		
JAN					JUL				
26	1405	27.10			19	1020	27.9		
FEB					AUG				
24	0955	27.4			16	1048	29.0		
MAR					SEP				
22	0910	27.70			21	0940	29.2		





WELL NUMBER.--262248081314101. Local Number C 1244.

 $LOCATION.--Lat\ 26^{\circ}22'48", long\ 81^{\circ}31'41", in\ NW\ {}^{1}\!\!/_{4}\ SE\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ sec. 21, T.47\ S., R.28\ E., Hydrologic\ Unit\ 03090204, 250\ ft\ west\ of\ Oil\ Well\ Grade\ Road, 1.5\ mi\ north\ of\ County\ Road\ 846, 2\ mi\ east\ of\ Everglades\ Boulevard.$ 

AQUIFER.--Lower Tamiami aquifer of Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 70 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer. (Corrected).

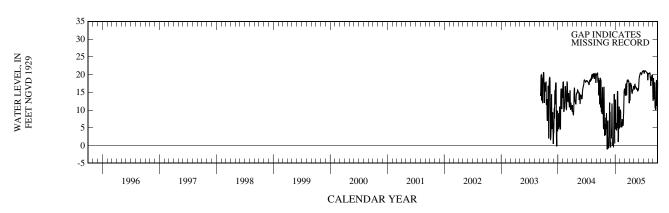
DATUM.--Measuring point: Top of casing, 25.89 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 22.7 ft above NGVD.

PERIOD OF RECORD .-- June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.09 ft above NGVD, June 29, 2005; lowest, 1.10 ft below NGVD, Nov. 11, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.38	8.35	0.67	5.95	9.59	15.87	12.98	16.71	19.35	20.49	20.27	16.81
10	9.98	0.34	9.56	4.51	6.47	17.09	17.56	16.84	20.37	21.08	20.47	17.52
15	9.29	6.99		14.87	5.44	14.14	16.62	16.23	20.37	20.86	18.46	10.91
20	15.81	-0.62		1.00	5.52	18.46	14.60	15.94	20.12	20.73	18.64	15.55
25	5.12	10.88	13.42	10.07	12.17	18.34	15.65	15.52	20.86	20.45	19.68	11.13
EOM	3.14	1.61	8.61	8.02	15.63	13.57	16.16	16.03	21.06	19.70	12.62	17.94
MAX	18.57	12.11		15.33	15.63	18.46	17.56	17.22	21.09		20.47	19.00



WELL NUMBER.--262505081245301. Local Number C 258.

LOCATION.--Lat 26°25'03", long 81°24'58", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.3, T.47 S., R.29 E., Hydrologic Unit 03090204, 100 ft south of County Road 29, 500 ft east of State Road 846 and 0.10 mi east southeast of the Immokalee Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS .-- Drilled, observation, artesian well, diameter 4 in., depth 783 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 4 in. steel cap, 36.46 ft above National Geodetic Vertical Datum of 1929. Prior to September 1991, measuring point was incorrectly considered to be 37.06 ft above NGVD. See REMARKS.

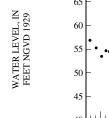
LAND-SURFACE DATUM .-- Land surface is approximately 33.7 ft above NGVD.

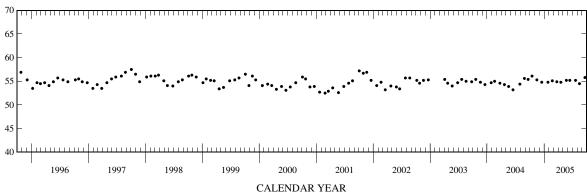
REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to September 1991 are in error. A correction of -0.60 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1981 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.50 ft NGVD, Oct. 03, 1997; lowest, 51.50 ft NGVD, May 29, 1984 and June 24, 1987.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
15	1344	56.1	18	1139	54.8
NOV			MAY		
15	1041	55.3	23	1058	55.2
DEC			JUN		
16	1053	54.8	14	1029	55.2
JAN			JUL		
25	0949	54.8	21	1152	55.2
FEB			AUG		
22	1237	55.1	15	1141	54.5
MAR			SEP		
23	0916	54.9	19	1410	55.8





WELL NUMBER.--262507081235201. Local Number C 298.

LOCATION.--Lat 26°25'09", long 81°23'54", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.2, T.47 S., R.29 E., Hydrologic Unit 03090204, 30 ft north of County Road 846, 0.75 mi east of State Road 29, and 1.4 mi east of the Immokalee Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 303 ft, cased to 254 ft, open hole 254 to 303 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 33.38 ft above National Geodetic Vertical Datum of 1929. Prior to October 25, 2002, measuring point was 33.41 ft above NGVD. See DATUM.

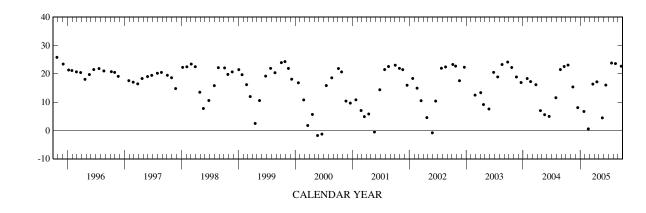
LAND-SURFACE DATUM.--Land surface is approximately 31.9 ft above NGVD.

REMARKS.--Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey. The well was damaged on October 25, 2002, and was repaired on November 25, 2003. See DATUM.

PERIOD OF RECORD.--October 1981 (annual), October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.80 ft NGVD, Oct. 26, 1995; lowest, 1.76 ft below NGVD, May 23, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1532	23.06	18	1318	17.15
NOV			MAY		
15	1224	15.35	23	1230	4.46
DEC			JUN		
16	1215	8.06	14	1214	16.00
JAN			JUL		
25	1048	6.71	21	1311	23.78
FEB			AUG		
22	1418	.58	15	1327	23.59
MAR			SEP		
23	1101	16.36	21	1128	22.65



WATER LEVEL, IN FEET NGVD 1929

WELL NUMBER.--262519081162102. Local Number C 1074.

LOCATION.—Lat 26°25'20", long 81°16'19", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 1, T.47 S., R.30 E., Hydrologic Unit 03090204, 50 ft south of County Road 846 at the Collier/Hendry County line southwest corner of County Road 846 and County Road 858, 9 mi east of Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 130 ft, cased to 100 ft, open hole 100 to 130 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 29.71 ft above National Geodetic Vertical Datum of 1929. Prior to November 25, 1997, measuring point was top of shelf, 29.94 ft NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 26.2 ft above NGVD.

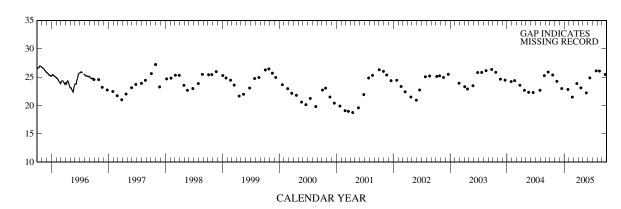
REMARKS.--Data logger enclosure and shelf removed, site re-surveyed April 30, 1998. See DATUM.

PERIOD OF RECORD.--November 1986 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 27.22 ft NGVD, Oct. 30, 1997; lowest, 18.76 ft NGVD, Apr. 16, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
19	1032	25.36	18	1340	23.10
NOV			MAY		
15	1240	24.25	23	1241	22.22
DEC			JUN		
16	1227	22.98	14	1227	24.87
JAN			JUL		
25	1101	22.82	25	1335	26.10
FEB			AUG		
22	1430	21.47	15	1338	26.06
MAR			SEP		
23	1110	23.87	21	1139	25.47





WELL NUMBER .-- 262521081161901. Local Number C 131.

LOCATION.--Lat 26°25′20″, long 81°16′19″, in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.1, T.47 S., R.30 E., Hydrologic Unit 03090204, 50 ft northeast of the intersection of County Road 846 and County Road 858, at the Collier/Hendry County line and 9 mi east of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 54 ft, cased to 22 ft, open hole 22 to 54 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of recorder shelf, 29.65 ft above National Geodetic Vertical Datum of 1929. From October 1975 to September 1980, measuring point was incorrectly reported to be top of casing, 29.71 ft above NGVD. Prior to October 1975, measuring point was considered to be top of casing, 29.60 ft above NGVD. The figures of water level as elevation, in feet NGVD, prior to October 1975 are considered to be in error. The figures of water level as elevation, in feet NGVD, from October 1975 to September 1980 may also be in error. See REMARKS.

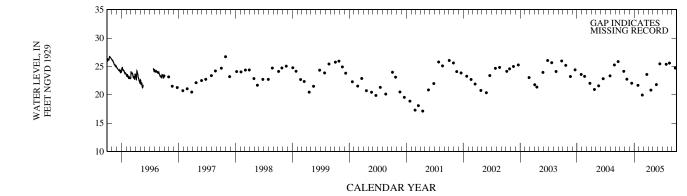
LAND-SURFACE DATUM.--Land surface is approximately 29.2 ft above NGVD.

REMARKS.--Water levels affected by nearby irrigation. The figures of water level as elevation, in feet NGVD, prior to October 1975 are considered to be in error. A correction of +0.05 ft may be required to correct water-level data. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--June 1952 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 26.83 ft NGVD, present datum, Oct. 9, 1953; lowest, 15.73 ft NGVD, Apr. 14, 1989.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
26	1200	24.14	18	1343	20.83
NOV			MAY		
15	1245	22.75	23	1247	21.79
DEC			JUN		
16	1231	22.04	14	1240	25.46
JAN			JUL		
25	1135	21.67	25	1531	25.38
FEB			AUG		
22	1435	19.96	15	1348	25.59
MAR			SEP		
23	1117	23.58	21	1144	24 72



WELL NUMBER.--262554081283801. Local Number C 687.

LOCATION.--Lat  $26^{\circ}25'54''$ , long  $81^{\circ}28'39''$ , in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.36, T.46 S., R.28 E., Hydrologic Unit 03090204, in island of Tippins Terrace Road, 0.1 mi south of County Road 890, 3.2 mi west of the Immokalee Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 310 ft, cased to 290 ft, open hole 290 to 310 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of casing, 26.49 ft above National Geodetic Vertical Datum of 1929. From March 17, 1998 to July 11, 2005, top of casing was 27.06 ft above NGVD. From October 1989 to March 17, 1998, top of casing was 25.92 ft above NGVD. From October 1985 to September 1989, top of casing was 26.24 ft above NGVD. Prior to October 1985, top of casing was incorrectly considered to be 9.81 ft above NGVD. See REMARKS.

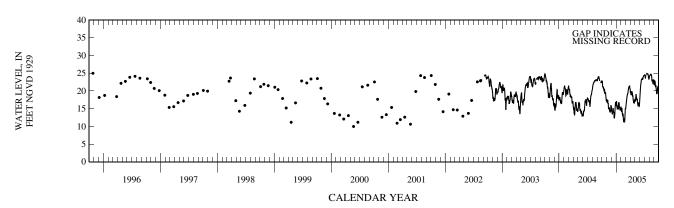
LAND-SURFACE DATUM .-- Land surface is approximately 23.6 ft above NGVD.

REMARKS.--Well was rebuilt and resurveyed July 12, 2005. The figures of water level as elevation, in feet NGVD, prior to October 1985 are in error. A correction of +15.43 ft has been applied to correct water-level data. Corrected records are in the files of the U.S. Geological Survey. See DATUM. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1981 to September 1982 (intermittent), October 1982 to July 2002 (monthly), August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.38 ft NGVD, Aug. 31, 1995; lowest, 4.03 ft NGVD, Apr. 24, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.22	16.64	14.47	15.88	14.60	16.12	19.11	17.44	20.68	24.19	24.37	22.56
10 15	21.00 19.87	16.53 14.85	14.01 13.89	15.80 15.54	13.67 12.48	17.79 19.12	19.73 19.18	18.30 17.71	22.78 23.38	24.44 24.83	24.67 24.42	21.08 20.15
20 25	19.22 19.58	14.25 14.76	12.34 15.27	16.24 14.48	12.16 11.89	20.51 21.30	17.63 16.83	16.01 16.04	23.33 24.14	24.81 24.54	22.79 21.93	19.13 21.21
EOM	17.68	15.41	15.90	15.36	14.79	20.62	17.02	16.66	24.45	23.50	22.79	20.04
MAX		17.51	16.88	17.12	15.61	21.42	20.36	19.09	24.45		24.74	22.79



WELL NUMBER.--262558081270501. Local Number C 1078.

LOCATION.--Lat  $26^{\circ}25^{\circ}59^{\circ}$ , long  $81^{\circ}27^{\circ}07^{\circ}$ , in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 31, T.46 S., R.29 E., Hydrologic Unit 03090204, 25 ft north of County Road 890, 1.1 mi west of State Road 29 on County Road 890, 2.0 mi west of Immokalee Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 38 ft, cased to 13 ft, screened 13 to 38 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

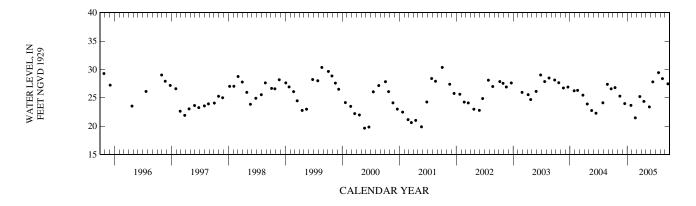
DATUM.--Measuring point: Top of 4 in. casing, 34.99 ft above National Geodetic Vertical Datum of 1929. Prior to August 6, 1995, top of casing was 34.71 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 31.4 ft above NGVD.

PERIOD OF RECORD.--April 1986 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.17 ft NGVD, Sept. 1, 1988; lowest, 19.65 ft NGVD, May 23, 2000.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1205	26.79	18	1009	24.37
NOV			MAY		
15	1000	25.29	23	1023	23.40
DEC			JUN		
16	0957	23.98	14	0957	27.81
JAN			JUL		
25	0937	23.67	21	1108	29.43
FEB			AUG		
22	1148	21.47	15	1100	28.38
MAR			SEP		
23	0845	25.22	19	1320	27.46



WELL NUMBER.--262724081260701. Local Number C 462.

LOCATION.--Lat 26°27'26", long 81°26'12", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.20, T.46 S., R.29 E., Hydrologic Unit 03090204, in pasture 0.1 mi west of State Road 29, 1.7 mi north of County Road 850 and 2.5 mi northwest of Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 110 ft, cased to 50 ft, slotted casing 50 to 110 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of recorder base, 37.11 ft above National Geodetic Vertical Datum of 1929.

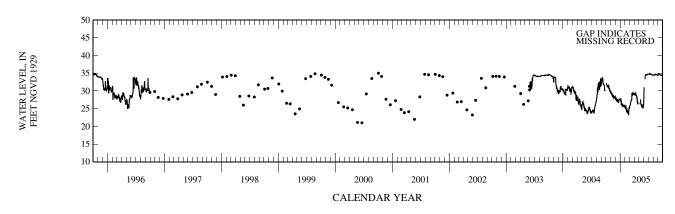
LAND-SURFACE DATUM .-- Land surface is approximately 33.8 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--November 1968 to September 1996 (daily), October 1996 to May 2003 (monthly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 35.13 ft NGVD, Sept. 2, 1983; lowest water level measured, 21.02 ft NGVD, June 20, 2000.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.05	29.35	27.79	27.49	25.33	25.94	29.12			34.70	34.44	34.73
10	31.34	29.19	27.48	26.49	24.19	26.92	29.44	27.58	34.18	34.91	34.67	34.59
15	31.05	28.78	26.94	25.88	23.86	27.39	28.74	26.28	34.60	34.70	34.70	34.53
20	31.36	27.91	27.15	25.75	24.31	28.80	27.83	25.73	34.50	34.65	34.57	34.42
25	30.62	28.08	27.56	25.76	24.18	29.36	27.02	25.83	34.69	34.53	34.45	34.39
EOM	29.87	28.15	27.72	25.84	25.32	29.02		26.03	34.72	34.46	34.44	34.45
MAX		29.91	28.17	27.75	25.63	29.49				34.95	34.70	34.76



WELL NUMBER.--262822081213201. Local Number C 1075.

LOCATION.--Lat 26°28'31", long 81°21'57", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.18, T.46 S., R.30 E., Hydrologic Unit 03090205, 3.8 mi north of County Road 846 and 4.5 mi east of State Road 29, 5.0 mi northeast of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20 ft, cased to 8 ft, screened 8 to 20 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

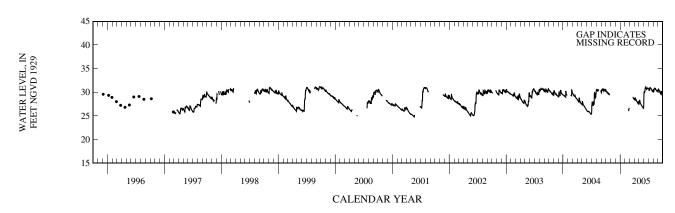
DATUM.--Measuring point: Top of base, 33.36 ft above National Geodetic Vertical Datum of 1929. From October 30, 1996 to March 27, 1998, measuring point was top of casing, 33.38 ft above NGVD. Prior to October 30, 1996, top of casing was 33.94 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 30.6 ft above NGVD.

PERIOD OF RECORD.--April 1986 to October 1996 (monthly), February 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 31.17 ft NGVD, Sept. 24, 1999; lowest, 24.79 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.11						28.46	28.29	30.25	30.48	30.34	30.55
10	29.90						28.57	27.74	30.91	30.93	30.85	30.28
15	29.78						28.21	27.38	31.04	30.84	30.79	29.88
20	29.79						27.96	27.11	30.67	30.68	30.49	30.17
25	29.43				26.43	28.84	27.66	26.85	30.90	30.31	30.30	29.66
EOM						28.57	27.64	26.71	30.77	30.20	30.05	30.45
MAX							28.88	28.29	31.12	31.01	30.85	30.68



WELL NUMBER.--262822081213203. Local Number C 1077.

 $LOCATION.--Lat~26^{\circ}28'31'', long~81^{\circ}21'58'', in~SW~^{1}\!\!/_{\!\!4}~NE~^{1}\!\!/_{\!\!4}~SW~^{1}\!\!/_{\!\!4}~sec.18, T.46~S., R.30~E., Hydrologic~Unit~03090205, 3.8~mi~north~of~County~Road~846, and~4.5~mi~east~of~State~Road~29, 5~mi~northeast~of~Immokalee.$ 

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 210 ft, cased to 170 ft, screened 170 to 210 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

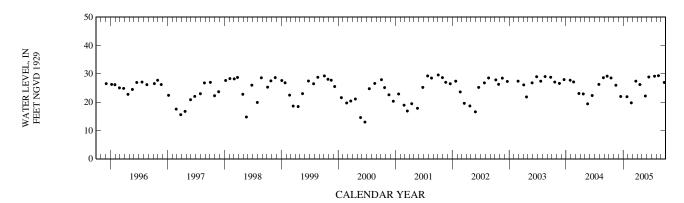
DATUM.--Measuring point: Top of casing, 35.14 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 31.1 ft above NGVD.

PERIOD OF RECORD .-- April 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.67 ft NGVD, Mar. 31, 1987; lowest, 12.98 ft NGVD, June 20, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1422	28.52	18	1212	26.19
NOV			MAY		
15	1117	25.95	23	1134	22.17
DEC			JUN		
16	1120	21.99	14	1132	28.86
JAN			JUL		
25	1015	21.91	21	1249	29.14
FEB			AUG		
22	1307	19.76	15	1246	29.32
MAR			SEP		
23	0953	27.40	21	1056	26.94



# WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

# COLLIER COUNTY—Continued

# MISCELLANEOUS WATER-LEVEL MEASUREMENTS

Station number	Local ident- i- fier	Lat- i- tude	Long- i- tude	Date	Time	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chlor- ide, water, fltrd, mg/L (00940)
261002081483701	C - 525	26 09 59 N 26 09 59 N		20041013 20050418	1100 1045	3560 3630	900

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# Glades County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

Key to site locations on figure # 16

#### GLADES COUNTY

Index	Site	Well	Page
Number	Number	Name	Number
1	264941081321301	GL 328	209
2	264623081213601	HE 517	208

# WATER RESOURCES DATA - FLORIDA, 2005

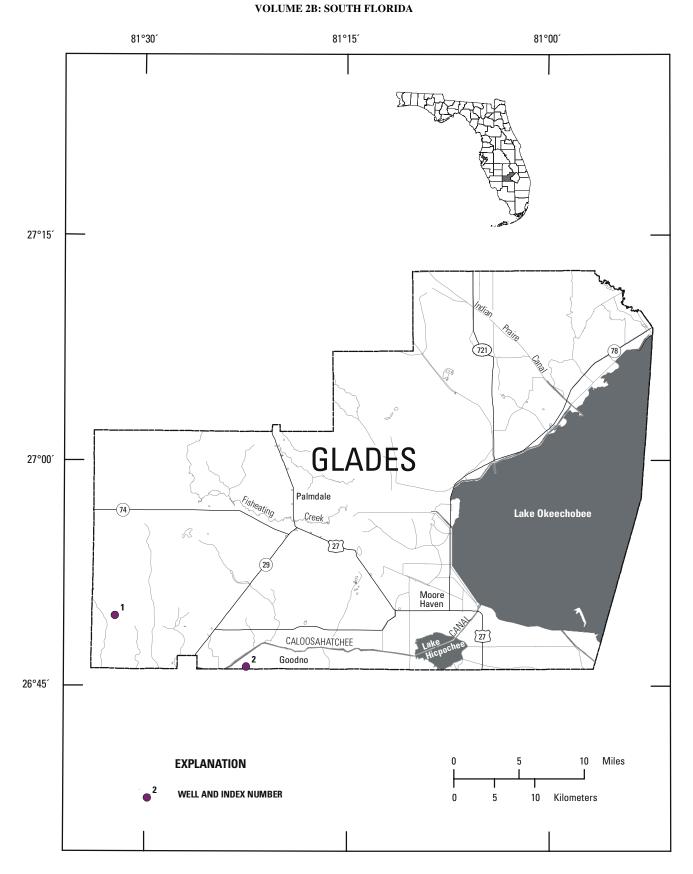


Figure 16: Location of wells in Glades County

#### GLADES COUNTY

WELL NUMBER.--264623081213601. Local Number HE 517.

LOCATION.—Lat  $26^{\circ}46'14''$ , long  $81^{\circ}22'28''$ , in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 36, T.42 S., R.29 E., Hydrologic Unit 03090205, at Port La Belle Golf Course maintenance shop, 4.8 mi east of Birchwood Parkway, 0.7 mi north of State Road 80.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 138 ft, cased to 128 ft, screened 128 to 138 ft.

REVISED RECORDS .-- WDR FL-79-2B:1977-78.

INSTRUMENTATION.--Electronic data logger with pressure transducer.

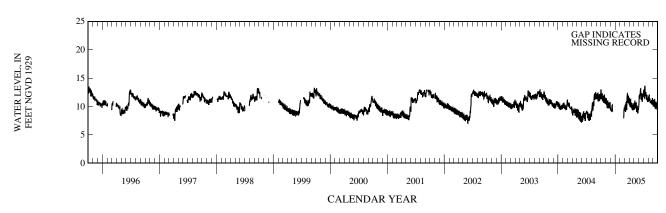
DATUM.--Measuring point: Top of recorder shelf, 18.14 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 16.0 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.29 ft NGVD, June 25, 1982; lowest, 6.97 ft NGVD, June 1, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.64	11.35	9.30			10.22	10.17	9.93	11.96	11.91	11.77	10.23
10	12.20	9.87	9.31			9.83	11.24	9.99	12.29	13.58	11.00	11.13
15	11.35	9.93	9.06			9.47	10.20	10.60	11.72	11.83	10.81	9.79
20	10.75	10.58				12.19	9.60	9.03	12.26	11.28	10.52	9.61
25	10.89	9.94			8.19	11.58	9.31	8.92	11.92	11.10	10.42	10.60
EOM	11.44	9.85			9.67	10.35	10.51	9.69	11.84	11.46	10.48	9.61
MAX	12.91	11.35				12.23	11.41	11.03	13.13	13.58	12.01	11.17



#### GLADES COUNTY—Continued

Well Number.--264941081321301. Local Number GL 328. USGS Observation Well near La Belle, FL.

LOCATION.-- Lat 26°49'40", long 81°32'11", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.11, T.42 S., R.28 E., Hydrologic Unit 03090205, 30 ft south of County Road 720, 2 mi east of the intersection of Muse Road and County Road 720.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS .-- Drilled, observation, artesian well, diameter 8 in., depth 125 ft.

INSTRUMENTATION.--Satellite data collection platform with a pressure transducer.

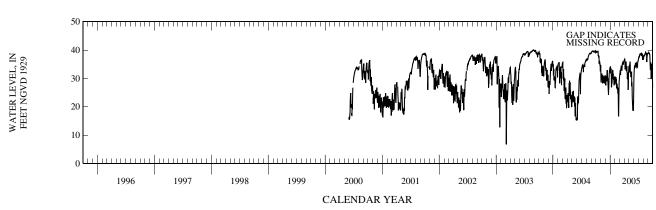
DATUM.--Measuring point: Top of 8 in. iron pipe, 41.63 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 41.0 ft above NGVD.

PERIOD OF RECORD .-- June 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 40.06 ft NGVD, Aug. 26, 2003; lowest, 6.74 ft NGVD, Mar. 7, 2003.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	39.54 39.44 39.52 37.48 36.13	30.80 29.65 31.09 28.37 29.65	29.95 30.43 29.72 25.92 30.88	33.03 27.03 31.46 31.66 27.57	29.65 27.02 26.98 25.56 22.57	32.02 33.27 32.76 35.25 34.87	36.44 35.71 33.60 32.04 32.03	34.58 33.08 30.60 28.65 20.20	33.88 33.99 34.02 34.40 34.09	37.61 38.50 38.49 38.61 38.79	38.16 38.27 39.01 38.59 37.50	39.09 38.42 33.33 29.80 34.62
EOM	34.34	29.08	33.84	30.71	29.30	36.21	33.60	24.19	36.64	37.79	38.96	26.81
MAX	39.58	34.70	33.84	34.25	30.46	36.21	36.76	35.89	36.64	38.79	39.10	39.09



GLADES COUNTY—Continued

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# Hendry County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

Key to site locations on figure # 17

#### HENDRY COUNTY

Index	Site	Well	Page
Number	Number	Name	Number
1	263845081260701	HE 555	225
2	263845081260702	HE 556	226
3	264235081310601	HE 557	230
4	264235081310602	HE 558	231
5	263845081260703	HE 851	227
6	263035081073501	HE 855	221
7	263035081073502	HE 856	222
8	262735081044602	HE 859	220
9	262735081044601	HE 860	219
10	261735080534001	HE 861	214
11	261735080534002	HE 862	215
12	262214081113001	HE 1042	218
13	261746081061803	HE 1062	216
14	261746081061804	HE 1063	217
15	264046081022801	HE 1068	228
16	264046081022802	HE 1069	229
17	263840081203901	HE 1076	224
18	263839081203901	HE 1077	223

### **VOLUME 2B: SOUTH FLORIDA**

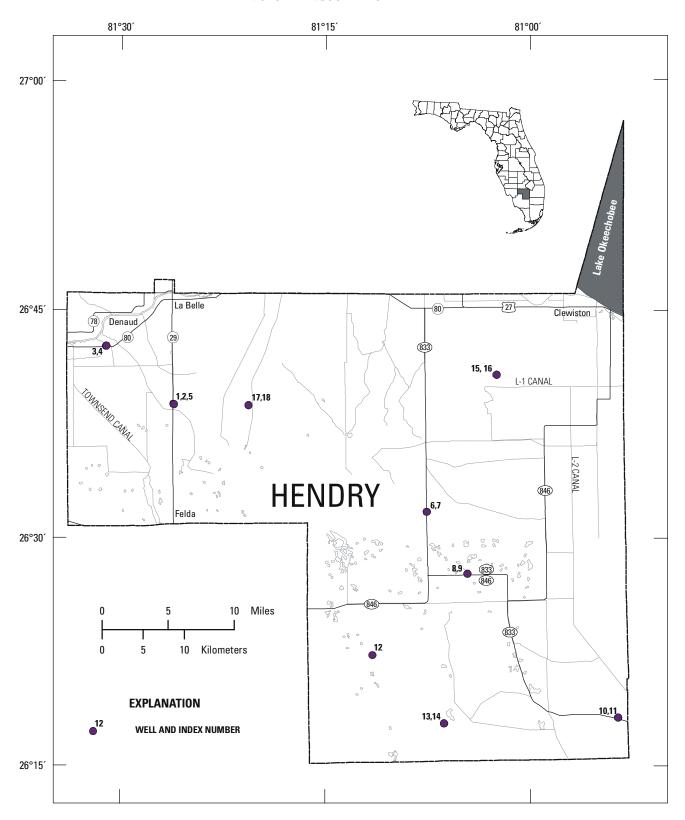


Figure 17: Location of wells in Hendry County

#### HENDRY COUNTY

WELL NUMBER.--261735080534001. Local Number HE 861. USGS Observation Well near Immokalee, FL.

LOCATION.--Lat 26°18'09", long 80°53'35", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.24, T.48 S., R.34 E., Hydrologic Unit 03090202, 35 ft south of County Road 833, 0.75 mi west of the Broward County line and 5.2 mi east of the Big Cypress Forest Office.

AQUIFER .-- Tamiami formation, limestone aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 70 ft, cased to 37 ft, open hole 37 to 70 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 17.96 ft above National Geodetic Vertical Datum of 1929. From October 1987 to January 25, 19994, measuring point was top of casing, 17.20 ft above NGVD. Prior to October 1987 top of casing was incorrectly considered to be 17.78 ft above NGVD. See REMARKS.

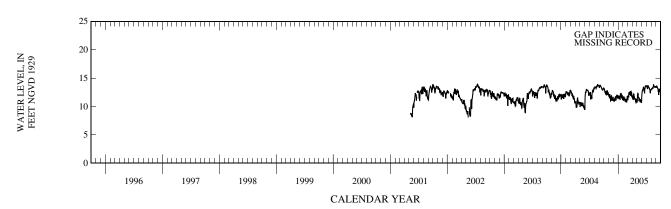
LAND-SURFACE DATUM.--Land surface is approximately 14.4 ft above NGVD.

PERIOD OF RECORD.--September 1977 to November 1977 (monthly), December 1977 to September 1983 (daily), November 1985 to September 1994 (monthly), October 1994 to July 1995 (quarterly), May 2001 to current year.

REMARKS.--Measuring point elevations prior to October 1988 are based on a land-surface elevation estimated from a topographic map. The figures of water level as elevation, in feet NGVD, prior to September 1987 are in error. A -0.58 ft correction is required to correct the water-level data. See DATUM. Records of water levels prior to October 1985 are available in files of the U.S. Geological Survey. Station reconstructed January 25, 1994.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 15.75 ft NGVD, Aug. 24, 25, 1978 (present datum); lowest, 6.94 ft NGVD, May 31, 1981 (present datum).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	12.99 12.44	11.89 11.55	11.03 11.43	11.50 11.58	11.56 11.22	11.89 12.28	11.33 12.19	12.15 11.51	12.74 13.17	13.38 13.69	13.05 13.25	13.54 13.27
15 20	12.14 12.49	11.42 11.49	11.33 11.77	12.18 12.26	10.90 11.03	12.31 12.66	11.67 11.05	11.03	13.08 12.92	13.42 13.15	13.82 13.52	12.65 12.97
25	12.64	11.39	11.93	11.98	11.14	12.54	10.54	11.13	13.60	12.82	13.37	12.76
EOM	12.03	11.60	11.58	11.74	11.74	11.64	10.80	10.95	13.64	13.02	13.39	12.96
MAX	13.23	12.18	11.97	12.26	11.77	12.66			13.64	13.69	13.84	13.57



WELL NUMBER.--261735080534002. Local Number HE 862.

LOCATION.--Lat 26°18'09", long 80°53'35", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.24, T.48 S., R.34 E., Hydrologic Unit 03090202, 35 ft south of County Road 833, 0.75 mi west of the Broward County line and 5.2 mi east of the Big Cypress Forest Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 11 ft, cased to 7 ft, 3 ft of screen.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of shelf, 17.13 ft above National Geodetic Vertical Datum of 1929. From October 1984 to October 1990, measuring point was incorrectly considered to be 17.71 ft above NGVD. Prior to October 1984, measuring point was incorrectly considered to be 17.69 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 14.4 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, published prior to September 1990 are in error. See DATUM. The well went dry in April 2003 because of construction-related dewatering in the immediate area.

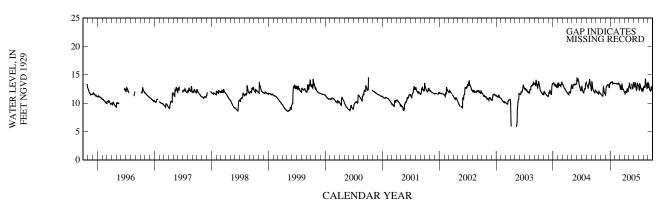
PERIOD OF RECORD.--September 1977 to November 1977 (monthly), December 1977 to September 1983 (daily), October 1983 to September 1988 (monthly), October 1988 to current year.

 $EXTREMES\ FOR\ PERIOD\ OF\ RECORD. -- Highest\ daily\ maximum\ water\ level,\ 14.62\ ft\ NGVD,\ Aug.\ 23,\ 1978;\ lowest,\ 5.89\ ft\ NGVD,\ Apr.\ 7,\ 2003.\ Well\ Meriod and Meriod and$ was dry during the period of Apr. 8 to May 10, 2003. See REMARKS.

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	11.98	11.49	12.46	13.62	13.48	12.78	11.80	13.49	13.01	12.49	13.03	13.46
10	11.87	11.31	13.05	13.70	13.45	13.03	12.03	12.73	13.23	13.41	13.13	12.50
15	11.77	11.24	13.19	13.72	13.40	12.71	11.97	12.88	12.80	12.66	14.23	12.20
20	12.10	12.70	13.24	13.50	13.39	12.76	12.50	13.31	12.48	12.33	13.27	12.69
25	11.87	11.83	12.77	13.49	13.40	12.44	12.00	12.54	13.51	12.09	12.60	12.38
EOM	11.67	11.53	13.44	13.47	13.35	12.08	12.85	13.47	13.20	12.50	12.88	12.90
MAX	12.23	12.85	13.44	13.84	13.48	13.38	12.85		13.70	13.42	14.23	13.56



WELL NUMBER.--261746081061803. Local Number HE 1062.

LOCATION.--Lat 26°17'46", long 81°06'18", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.23, T.48 S., R.32 E., Hydrologic Unit 03090202, 20 ft south of Lemon Grove Road (BIA Highway 182), 2 mi west of Feeder Canal, 7 mi west of County Road 833, 32 mi south of Clewiston.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 10 ft, cased to 5 ft, 5 ft of 2 in. screen.

INSTRUMENTATION .-- Electronic data logger with pressure transducer. See REMARKS.

DATUM.--Measuring point: Top of 2 in. PVC casing 20.05 ft above National Geodetic Vertical Datum of 1929. From October 1987 to September 1995, measuring point was top of casing, 18.34 ft above NGVD.

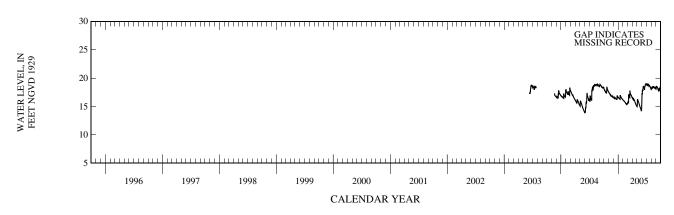
LAND-SURFACE DATUM.--Land surface is approximately 18.3 ft above NGVD.

REMARKS.--Well was reconstructed on May 30, 2003, to accommodate a pressure transducer that is connected to the data logger on HE-1063. See DATUM and INSTRUMENTATION.

PERIOD OF RECORD.--October 1987 to September 1994 (monthly), October 1994 to October 1995 (quarterly), June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.04 ft NGVD, July 9, 2005; lowest water level measured, 11.66 ft NGVD, June 25, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.92	17.37	16.45	16.48	16.03	15.81	16.35	16.22	17.95	18.73	18.18	18.51
10	17.64	17.10	16.61	16.34	15.87	17.07	16.35	15.90	18.50	18.94	18.32	18.33
15	17.72	16.98	16.41	16.78	15.67	16.61	16.04	15.47	18.29	18.66	18.54	17.90
20	18.39	16.79	16.29	16.63	15.49	17.23	15.67	15.01	18.50	18.69	18.36	18.23
25	17.96	16.79	16.87	16.38	15.36	16.96	15.32	14.60	18.92	18.39	18.24	17.80
EOM	17.58	16.62	16.64	16.18	15.56	16.61	15.06	14.44	18.97	18.27	18.24	18.27
MAX	18.39	17.53	16.87	16.98	16.14	17.77	16.56	16.22	19.00	19.04	18.54	18.55



WELL NUMBER.--261746081061804. Local Number HE 1063.

LOCATION.--Lat 26°17'46", long 81°06'18", in NW  $^{1}\!\!/_{4}$  NW  $^{1}\!\!/_{4}$  sec.23, T.48 S., R.32 E., Hydrologic Unit 03090202, 20 ft south of Lemon Grove Road (BIA Highway 182), 2 mi west of Feeder Canal, 7 mi west of County Road 833, 32 mi south of Clewiston.

AQUIFER .-- Tamiami formation, limestone aquifer of the Miocene Age, Geologic Unit 122 TMIMN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 123 ft, cased to 78 ft, 45 ft of 2 in. screen.

INSTRUMENTATION.--Electronic data logger with pressure transducer. See REMARKS.

DATUM.--Measuring point: Top of 2 in. PVC casing 22.31 ft above National Geodetic Vertical Datum of 1929. From October 1987 to September 1995, measuring point was top of casing, 18.42 ft above NGVD. See REMARKS.

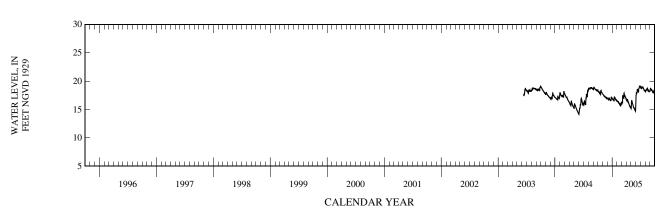
LAND-SURFACE DATUM.--Land surface is approximately 18.3 ft above NGVD.

REMARKS.--Well was reconstructed on May 30, 2003, to accommodate electronic data logger and pressure transducer. Data logger is also connected to the pressure transducer for well HE-1062. See DATUM and INSTRUMENTATION.

PERIOD OF RECORD.--October 1987 to September 1994 (monthly), October 1994 to October 1995 (quarterly), June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.16 ft NGVD, June 27, 2005; lowest water level measured, 12.72 ft NGVD, May 24, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20	18.14 17.97 17.91 18.37	17.59 17.37 17.33 17.12	16.85 16.96 16.80 16.63	16.72 16.66 17.19 16.93	16.44 16.20 16.11 15.98	16.35 17.49 16.98 17.56	16.62 16.62 16.21 15.86	16.53 16.17 15.65 15.32	17.97 18.43 18.31 18.67	18.88 19.00 18.73 18.69	18.33 18.37 18.70 18.47	18.67 18.49 18.25 18.20
25 EOM	18.07 17.76	17.12 17.11 17.02	16.75 17.02	16.69 16.57	15.79 16.19	17.25 16.83	15.52 15.36	14.94 14.90	19.01 19.09	18.38 18.35	18.13 18.27	18.04 18.26
MAX	18.44	17.72	17.16	17.19	16.53	17.88	16.83	16.56	19.16	19.03	18.70	18.67



WELL NUMBER.--262214081113001. Local Number HE 1042.

LOCATION.--Lat  $26^{\circ}22'16''$ , long  $80^{\circ}11'32''$ , in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.26, T.47 S., R.31 E., Hydrologic Unit 03090202, near windmill 325 ft east of dirt path, 5 mi east of County Road 858, 11 mi east of State Road 29.

AQUIFER .-- Tamiami formation, limestone aquifer of the Miocene Age, Geologic Unit 122 TMIMN.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 80 ft, cased to 40 ft, 40 ft of 2 in. screen.

INSTRUMENTATION.--Electronic data logger with pressure transducer. (Corrected).

DATUM.--Measuring point: Top of casing, 25.57 ft above National Geodetic Vertical Datum of 1929. From July 28, 2003 to September 30, 2004, measuring point was incorrectly considered to be 25.57 ft above NGVD. Prior to July 2003, measuring point was 23.11 ft above NGVD. See REMARKS.

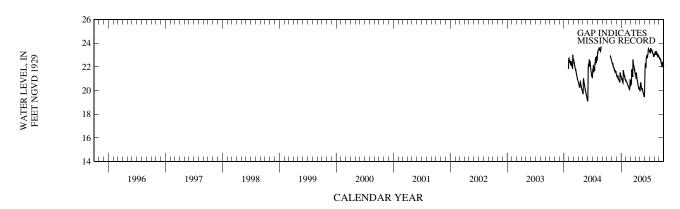
LAND-SURFACE DATUM.--Land surface is approximately 23.4 ft above NGVD.

REMARKS.--The published figures as water level data from July 28, 2003 to September 30, 2004 are in error. A -0.30 ft correction is required to correct the water-level data. See DATUM.

PERIOD OF RECORD.--October 1987 to September 1995 (monthly), January 2004 to current year. (Corrected).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.91 ft NGVD, Oct. 7, 1992; lowest, 18.02 ft NGVD, Apr. 23, 1990. (Corrected).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		22.30	21.21	20.91	20.75	20.70	21.18	20.66	22.29	23.28	23.15	22.68
10		22.17	21.26	20.78	20.55	21.79	21.25	20.35	22.67	23.53	23.11	22.60
15		21.93	20.91	21.69	20.38	21.29	20.78	20.15	22.98	23.37	23.29	22.27
20		21.70	20.80	21.31	20.20	22.22	20.41	19.89	23.05	23.29	23.10	22.39
25	22.86	21.71	21.47	21.06	20.33	21.82	20.14	19.65	23.54	23.08	22.84	22.08
EOM	22.53	21.44	21.22	20.90	20.91	21.46	20.04	19.89	23.35	23.02	22.84	21.98
MAX		22.50	21.53	21.72	20.92	22.60	21.52	20.66	23.54	23.59	23.29	22.82



WELL NUMBER.--262735081044601. Local Number HE 860.

LOCATION.--Lat 26°27'37", long 81°04'36", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.46 S., R.33 E., Hydrologic Unit 03090204, 20 ft north of County Road 833, 3 mi east of County Road 846, and 23 mi east of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 14 ft, cased to 9 ft, 5 ft of screen.

INSTRUMENTATION .-- Electronic data logger.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 29.33 ft above National Geodetic Vertical Datum of 1929. From September 1977 to September 1987, measuring point was incorrectly considered to be 27.70 ft above NGVD. See REMARKS.

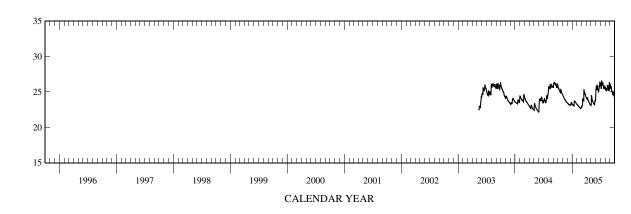
REMARKS.--Figures of water level as elevation, in feet NGVD, published for the period September 1977 to September 1987 are in error. A correction of +1.63 ft is required to correct this water-level data. Correction is based on an elevation survey completed on September 7, 1988. The station datum used for the period September 1977 to September 1987 was also incompletely described in Water Resources Data Reports, for the 1993 to 1995 water years. This error would suggest that the measuring point elevation used from September 1977 to September 1987 was 28.03 ft, rather than the measuring point elevation of 27.70 ft which had been used. See DATUM. Well was also used for salinity monitoring from February 1978 to April 1993. Chloride and conductivity profiles are available in the files of the U.S. Geological Survey. Land-surface datum has been corrected based on field observations. Because the correction does not affect the measuring point elevation from preceding years are unaffected. Records of water levels prior to November 1985 are available in the files of the Geological Survey.

LAND-SURFACE DATUM.--Land surface is approximately 26.9 ft above NGVD.

PERIOD OF RECORD.--September 1977 to September 1979, November 1985 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 26.60 ft NGVD, July 9, 2005; lowest water level measured, 21.04 ft NGVD, May 24, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.44	24.36	23.37	23.15	23.16	23.11	24.04	24.48	25.88	25.64	25.26	25.82
10 15	25.31 25.03	24.13 23.94	23.22 23.21	23.07 23.72	23.01 22.87	24.04 23.76	24.06 23.76	23.83 23.56	25.89 25.29	26.29 25.90	25.44 25.93	25.39 24.86
20 25	25.34 24.97	23.78 23.60	23.12 23.39	23.63 23.45	22.76 22.67	24.85 24.70	23.49 23.25	23.33 23.31	25.24 25.68	25.69 25.50	25.81 25.19	24.93 24.51
EOM	24.63	23.49	23.32	23.27	22.82	24.28	23.15	23.88	26.23	25.45	25.49	24.42
MAX	25.83	24.59	23.53	23.72	23.24	25.31	24.24	24.48	26.47	26.60	26.40	26.06



WELL NUMBER.--262735081044602. Local Number HE 859.

LOCATION.--Lat 26°27'35", long 81°04'46", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.46 S., R.32 E., Hydrologic Unit 03090204, 20 ft north of County Road 833, 3 mi east of County Road 846, and 23 mi east of Immokalee.

AQUIFER.--Tamiami formation, limestone aquifer of the Miocene Age, Geologic Unit 121 TMIM. (Corrected).

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 59 ft, cased to 58 ft, open hole 58 to 59 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 29.10 ft above National Geodetic Vertical Datum of 1929. From September 1977 to September 1987, measuring point was incorrectly considered to be 27.80 ft above NGVD. See REMARKS.

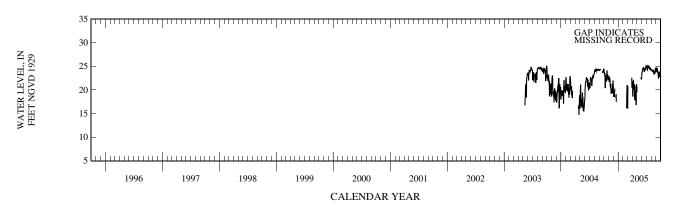
LAND-SURFACE DATUM.--Land surface is approximately 26.6 ft above NGVD. See REMARKS.

REMARKS.--Station was surveyed during the 1988 water year and the land-surface datum and height of the measuring point were corrected. The figures of water levels as elevation, in feet NGVD, from September 1977 to September 1987 are in error. A correction of +1.30 ft is required to correct this water-level data. Well was also used for salinity monitoring from February 1978 to April 1993. Chloride and conductivity profiles are available in the files of the U.S. Geological Survey. Records of water levels prior to November 1985 are available in the files of the U.S. Geological Survey. See DATUM and PERIOD OF RECORD.

PERIOD OF RECORD.--September 1977 to September 1979, November 1985 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.19 ft NGVD, Aug. 30, 1988; highest daily maximum water level, 25.19 ft NGVD, July 10, 2005; lowest daily maximum water level, 15.44 ft NGVD, May 25, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.16	22.42	18.88				18.59		24.11	24.73	24.10	24.50
10	20.39	21.79	20.28				20.99		24.63	25.19	23.97	23.84
15	22.10	21.28					19.06		24.37	24.71	24.25	22.96
20	23.73	20.35	17.48				17.72		24.10	24.65	23.72	23.70
25	23.30	20.11			19.35		19.28		24.58	24.60	23.96	22.98
EOM	22.45	20.93			21.02	21.15	19.52	22.50	25.09	24.35	23.95	22.59
MAX	24.41	22.87					21.99		25.15	25.19	24.68	24.60



WELL NUMBER.--263035081073501. Local Number HE 855.

LOCATION.--Lat 26°31'42", long 81°07'35", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.34, T.45 S., R.32 E., Hydrologic Unit 03090202, 17 ft east of County Road 833, .3 mi south of Dobley Grade Road and 19 mi northeast of Immokalee.

AQUIFER.--Tamiami formation of the Miocene Age, Geologic Unit 121 TMIM. (Corrected).

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 90 ft, cased to 70 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 30.13 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 27.6 ft above NGVD.

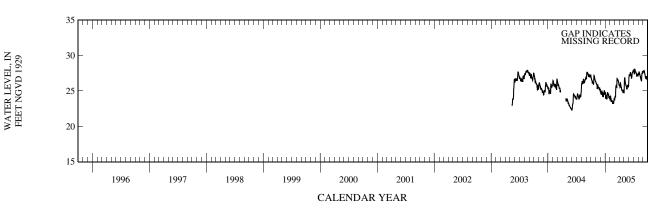
REMARKS.--Well was also used for salinity monitoring from February 1978 to April 1993. Chloride and conductivity profiles are available in the files of the U.S. Geological Survey. The well was originally open to the aquifer from 70 to 90 ft. The well has become obstructed at a depth of 77 ft but is in hydrologic communication with the aquifer. Records of water levels prior to September 1980 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1978 to November 1984 (daily), March 1984 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.28 ft NGVD, Aug. 30, 1988; lowest daily maximum water level, 18.58 ft NGVD, May 1, 1981.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.63	26.07	24.77	24.20	24.21	24.21	25.60	26.80	27.23	27.59	27.59	27.71
10	26.18	25.79	24.95	24.12	23.69	25.40	25.93	26.19	27.50	28.07	27.39	27.62
15	26.10	25.78	24.37	24.74	23.56	25.54	25.37	25.75	27.28	27.68	27.02	26.96
20	26.98	25.45	24.13	24.54	23.41	26.63	25.04	25.31	26.93	27.33	26.51	26.99
25	26.88	25.45	24.86	24.15	23.46	26.51	24.84	25.62	27.60	27.36	27.46	26.70
EOM	26.32	25.27	24.63	24.19	23.95	25.85	24.88	25.79	27.88	27.32	27.59	26.49
MAX	27.21	26.32	25.05	24.77	24.24	26.75	26.16	26.84	27.88	28.07	27.75	27.89



WELL NUMBER.--263035081073502. Local Number HE 856.

LOCATION.--Lat 26°31'42", long 81°07'35", in SW ½ NW ½ sec.34, T.45 S., R.32 E., Hydrologic Unit 03090202, 17 ft east of County Road 833, .3 mi south of Dobley Grade Road and 19 mi northeast of Immokalee.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 11 ft, screened 6 to 11 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 29.65 ft above National Geodetic Vertical Datum of 1929. Prior to March 1985 measuring point was top of shelf, 29.87 ft above NGVD. See REMARKS.

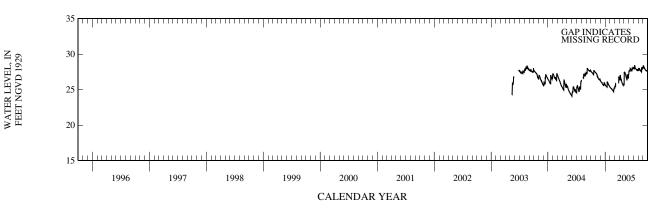
LAND-SURFACE DATUM.--Land surface is approximately 27.3 ft above NGVD.

REMARKS.--Station was reconstructed in March 1985 when the water level recorder was destroyed. Figures of water levels as elevation, in feet NGVD published prior to January 27, 1982 are in error. Records of water levels prior to September 1980 are available in the files of the U.S. Geological Survey. Well was also used for salinity monitoring from February 1978 to April 1993, chloride and conductivity profiles are available in the files of the U.S. Geological Survey. See DATUM and PERIOD OF RECORD.

PERIOD OF RECORD.--August 1977 to November 1977 (intermittent), December 1977 to September 1978 (daily), October 1979 to November 1983 (daily), November 1983 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year. See PERIOD OF RECORD.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.44 ft NGVD, Oct. 31, 1986; lowest, 23.16 ft NGVD, May 24, 1990. (Corrected).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.48	27.28	26.09	25.52	25.24	25.52	26.40	27.45	27.64	27.94	27.90	28.17
10	27.35	27.01	26.03	25.43	25.14		26.66	27.25	27.97	28.25	27.83	27.99
15	27.23	26.77	25.78	26.02	24.97		26.25	26.79	27.82	27.96	27.73	27.81
20	27.74	26.51	25.64	25.81	24.85		25.93	26.38	27.63	27.82	27.54	27.72
25	27.57	26.54	25.92	25.58	25.03		25.69	26.79	28.00	27.79	27.86	27.61
EOM	27.41	26.35	25.74	25.39	25.25	26.69	25.74	27.10	28.19	27.71	28.13	27.53
MAX	27.74	27.39	26.31	26.13	25.35		27.00	27.45	28.19	28.43	28.14	28.42



WELL NUMBER.--263839081203901. Local Number HE 1077.

LOCATION.--Lat 26°38'42", long 81°20'39", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.20, T.44 S., R.30 E., Hydrologic Unit 03090205, 600 ft south of Sears Road, 5 mi east of State Road 29, 9 mi southeast of La Belle.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 10 ft, cased to 5 ft, 5 ft of screen.

INSTRUMENTATION .-- Electronic data logger. (Corrected).

DATUM.--Measuring point: Top of shelf, 30.20 ft above National Geodetic Vertical Datum of 1929. Prior to Mary 2003, measuring point was 30.26 ft above NGVD. (Corrected).

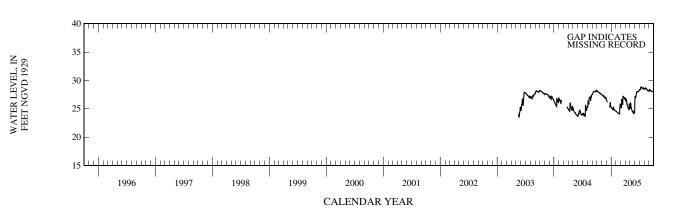
LAND-SURFACE DATUM.--Land surface is approximately 27.5 ft above NGVD.

REMARKS.--Well used for salinity monitoring during the period of April 1988 through April 1993.

PERIOD OF RECORD.--January 1988 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 28.86 ft NGVD, July 10, 2005; lowest water level measured, 23.50 ft NGVD, May 30, 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 27.39 27.24 27.19 25.05 24.46 27.03 28.11 26.34 25.47 26.37 26.08 28.41 28.50 28.37 24.35 24.25 27.96 27.45 10 24.95 26.63 26.21 25.12 28.86 28.69 28.25 15 27.87 25.27 25.80 25.53 24.68 28.02 28.73 28.51 28.13 24.15 25.15 20 27.78 26.98 24.86 26.97 24.39 28.01 28.62 28.31 28.03 25 26.08 25.14 27.67 26.97 24.72 26.91 24.87 24.30 28.03 28.69 28.17 28.04 25.77 EOM 27.53 26.73 25.31 24.60 26.65 25.23 24.30 28.34 28.53 28.14 28.07 MAX 28.21 27.52 25.28 25.89 27.27 26.92 26.08 28.34 28.86 28.70 28.42



**EOM** 

MAX

24.88

21.58

24.95

#### HENDRY COUNTY—Continued

WELL NUMBER.--263840081203901. Local Number HE 1076.

LOCATION.--Lat 26°38'42", long 81°20'39", in NW \(^1\)/4 Sec.20, T.44 S., R.30 E., Hydrologic Unit 03090205, 500 ft south of Sears Road, 5.7 mi east of State Road 29, 9 mi southeast of La Belle.

AQUIFER .-- Tamiami formation, shell-marl aquifer of the Miocene Age, Geologic Unit 122 TMIMR.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 6 in., depth 340 ft, cased to 300 ft, 40 ft of screen.

INSTRUMENTATION.--Electronic data logger. Prior to October 1995, quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of shelf, 30.10 ft above National Geodetic Vertical Datum of 1929. Prior to May 2003, measuring point was 27.86 ft above NGVD. (Corrected).

LAND-SURFACE DATUM.--Land surface is approximately 27.6 ft above NGVD.

REMARKS.--Well also sampled for water quality during the 1988-1993 water years.

21.95

22.40

19.62

22.22

20.97

21.37

PERIOD OF RECORD.--January 1988 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 28.09 ft NGVD, Sept. 29, 2004; lowest water level measured, 16.34 ft NGVD, May 23, 1990.

#### 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 22.24 21.49 22.18 23.94 20.74 21.44 24.74 23.86 23.83 26.35 26.92 26.90 23.91 23.11 21.37 24.32 10 ---20.65 22.35 24.88 24.81 26.72 27.10 26.91 15 21.84 19.78 19.59 23.16 24.25 22.73 25.46 26.72 27.03 26.79 22.35 22.68 21.62 25.64 20 ---21.65 21.14 19.32 23.93 22.45 26.68 26.88 26.17 25 22.62 21.19 20.28 20.06 24.39 20.84 25.90 26.81 26.84 25.16

24.67

24.67

23.14

24.96

22.30

24.32

26.19

26.19

26.86

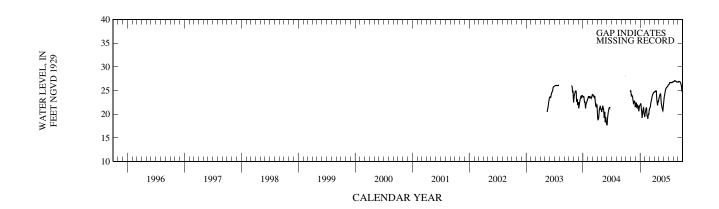
26.86

26.78

27.10

24.69

26.94



25.74

#### HENDRY COUNTY—Continued

WELL NUMBER.--263845081260701. Local Number HE 555.

**EOM** 

MAX

25.18

22.30

LOCATION.--Lat 26°38'47", long 81°26'09", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.21, T.44 S., R.29 E., Hydrologic Unit 03090205, at southeast corner of intersection of State Road 29 and Sears Road, and 3.6 mi west of Sears.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 270 ft, cased to 250 ft, screened 250 to 270 ft.

14.61

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 32.83 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 30.3 ft above NGVD.

16.53

15.88

REMARKS.--Records of water levels prior to October 1980 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1975 to October 1983 (daily), November 1983 to September 1995 (monthly), December 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.10 ft NGVD, Nov. 9, 1992; lowest daily maximum water level, 8.58 ft NGVD, May 27, 1981.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.96	20.49	15.83	15.88	13.71	15.29	20.56	19.83	20.87	24.17	25.60	25.60
10	23.97	20.00	14.84	14.42	14.10	16.53	20.65	20.53	21.84	24.60	25.80	25.69
15	23.89	18.02	14.58	13.61	13.11	17.43	19.50	19.47	22.35	24.84	25.74	25.22
20	23.52	16.57	14.20	15.04	13.05	18.68	17.97	19.02	22.83	25.01	25.81	23.55
25	23.37	16.85	14.31	14.58	13.31	19.24	17.88	18.69	23.42	25.31	25.56	22.71
EOM	22.22	16.67	15.15	13.25	14.61	20.14	18.66	19.62	23.86	25.51	25.61	22.32

20.14

20.81

20.55

23.86

25.51

25.83

GAP INDICATES MISSING RECORD 35 WATER LEVEL, IN FEET NGVD 1929 30 25 20 15 10 0 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 CALENDAR YEAR

WELL NUMBER.--263845081260702. Local Number HE 556.

LOCATION.--Lat 26°38'47", long 81°26'09", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.21, T.44 S., R.29 E., Hydrologic Unit 03090205, at southeast corner of intersection of State Road 29 and Sears Road, and 3.6 mi west of Sears.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 175 ft, cased to 135 ft, screened 135 to 155 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 32.77 ft above National Geodetic Vertical Datum of 1929. From October 1986 to October 1991, measuring point was 32.83 ft above NGVD. From October 1979 to September 1986, measuring point was incorrectly considered to be 30.84 ft above NGVD. Prior to October 1979, measuring point was incorrectly considered to be 35.63 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 30.3 ft above NGVD.

REMARKS.--Station reconstructed February 27, 1992. The figures of water levels as elevation, in feet NGVD, from October 1979 to September 1986 are estimated to require a correction of approximately +2 ft. The figures of water level as elevation, in feet NGVD, prior to October 1979 are estimated to require a correction of approximately -2 ft. See DATUM.

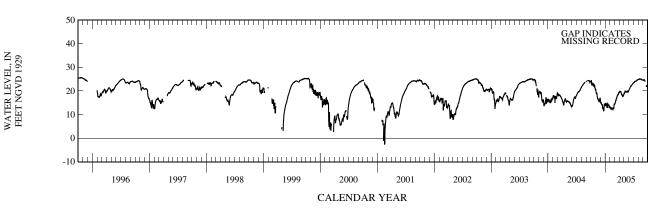
PERIOD OF RECORD.--October 1975 to December 1975 (monthly), January 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.99 ft NGVD, Sept. 25, 1995; lowest 2.67 ft below NGVD, Feb. 16, 2001.

ELEVATION ABOVE NGVD 1929, FEET

# WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JUL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.03	18.99	14.80	14.46	12.65	14.69	19.75	19.33	20.81	23.64	24.87	24.66
10	22.86	18.19	14.28	13.90	12.69	16.04	19.74	19.87	21.54	23.99	25.10	24.71
15	22.51	16.98	12.80	13.34	12.86	16.81	18.72	19.58	22.01	24.13	25.00	23.93
20	22.15	15.71	12.70	13.95	12.36	18.15	18.21	19.78	22.45	24.26	25.04	22.26
25	22.26	16.21	13.71	13.23	12.77	18.43	18.14	19.57	22.95	24.66	24.60	22.30
EOM	20.70	16.62	13.75	13.37	14.49	19.35	18.38	19.86	23.33	24.78	24.61	21.94
MAX	24.33	20.69	16.35	14.94	14.49	19.40	19.87	20.00	23.33	24.78	25.14	



WELL NUMBER.--263845081260703. Local Number HE 851. USGS Observation Well near Sears, FL.

LOCATION.--Lat 26°38'45", long 81°26'07", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.21, T.44 S., R.29 E., Hydrologic Unit 03090205, southeast corner of intersection of State Road 29 and Sears Road, and 3.6 mi west of Sears.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 10 ft. (Corrected).

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 32.26 ft above National Geodetic Vertical Datum of 1929. From October 1980 to September 1991, measuring point was 32.28 ft above NGVD. From October 1986 to September 1989, measuring point was top of shelf, 32.30 ft above NGVD. From October 1979 to September 1986, top of shelf was 30.45 ft above NGVD.

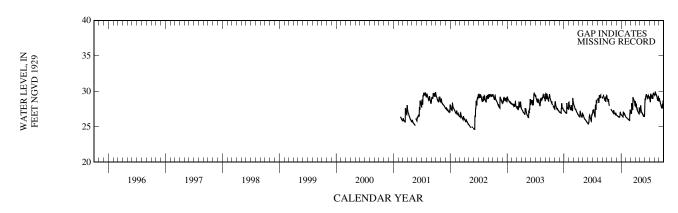
LAND-SURFACE DATUM.--Land surface is approximately 29.6 ft above NGVD.

REMARKS.--Records of water levels prior to October 1979 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1977 to October 1984 (daily), October 1984 to September 1995 (monthly), February 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.49 ft NGVD, Aug. 29, 1990; lowest daily maximum water level, 22.59 ft NGVD, May 26, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	28.93 28.49	27.17 26.98	26.57 26.52	26.60 26.43	26.26 26.16	27.08 28.26	27.86 27.70	28.02 27.23	28.88 29.48	28.79 29.50	29.49 29.70	28.75 28.27
15	28.16	27.26	26.39	27.07	26.05	27.40	27.31	26.88	29.34	29.15	29.50	27.82
20		26.85	26.35	26.75	25.95	28.89	27.05	26.67	29.05	29.30	28.99	27.94
25		26.84	26.98	26.66	26.80	28.60	26.83	26.53	29.38	29.62	28.69	27.58
EOM	27.32	26.70	26.73	26.37	27.34	28.00	27.20	26.77	29.01	29.58	28.69	28.76
MAX		27.31	27.02	27.07	27.41	29.18	28.59	28.02	29.59	29.69	29.96	28.95



WELL NUMBER.--264046081022801. Local Number HE 1068.

LOCATION.--Lat 26°40"44", long 81°02"28", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 9, T.44 S., R.33 E., Hydrologic Unit 03090202, 500 ft south of dirt road, 1.3 mi east of Flaghole Road, 5 mi south of U.S. Highway 27.

AQUIFER .-- Tamiami formation, shell-marl aquifer of the Miocene Age, Geologic Unit 122 TMIMR.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 6 in., depth 160 ft, cased to 60 ft, 100 ft screen.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 21.08 ft above National Geodetic Vertical Datum of 1929. Prior to June 2003, measuring point was top of casing 19.78 ft above NGVD.

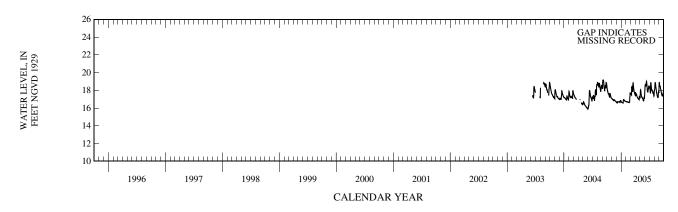
LAND-SURFACE DATUM.--Land surface is approximately 19.6 ft above NGVD.

REMARKS.--Well used for salinity monitoring during the period of October 1987 through April 1993.

PERIOD OF RECORD.-- October 1987 to September 1994 (monthly), October 1994 to September 1995 (quarterly), June 2003 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.14 ft NGVD, Sept. 6, 2004; lowest water level measured, 15.14 ft NGVD, May 24, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.98	17.00	16.59	16.63	16.72	17.62	17.53	18.06	18.65	17.95	18.59	18.52
10	17.62	16.90	16.73	16.60	16.71	18.37	17.45	17.44	18.63	18.84	18.50	18.18
15	17.44	16.95	16.68	16.91	16.63	17.89	17.21	17.21	18.49	18.07	17.81	17.74
20	17.57	16.84	16.70	16.90	16.64	18.52	17.05	17.00	17.83	17.91	17.38	17.42
25	17.40	16.80	16.70	16.78	17.26	17.86	16.95	16.80	18.23	17.72	17.18	17.34
EOM	17.10	16.70	16.78	16.74	17.71	17.49	17.23	17.36	18.24	17.40	18.41	17.81
MAX	18.45	17.07	16.84	16.96	17.71	18.83	17.74	18.06	19.00	18.84	18.86	18.88



WELL NUMBER.--264046081022802. Local Number HE 1069.

LOCATION.--Lat 26°40"44", long 81°02"28", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 9, T.44 S., R.33 E., Hydrologic Unit 03090205, 500 ft south of dirt road, 1.3 mi east of Flaghole Road, 5 mi south of U.S. Highway 27.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 13 ft, cased to 3 ft, 10 ft of 2 in. screen.

INSTRUMENTATION.--Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of casing, 21.67 ft above National Geodetic Vertical Datum of 1929.

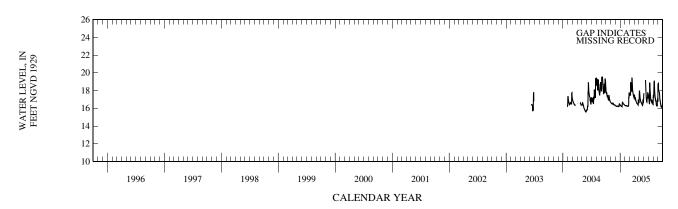
LAND-SURFACE DATUM.--Land surface is approximately 19.7 ft above NGVD.

REMARKS.--Well used for salinity monitoring during the period of October 1987 through April 1993. The water-level data for the 2003 water year was not published due to the amount of missing record. The water-level data for the 2003 water year is available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1987 to September 1994 (monthly), October 1994 to September 1995 (quarterly), June 2003 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.58 ft NGVD, Sept. 8, 2004; lowest water level measured, 14.95 ft NGVD, Dec. 28, 1988.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	17.65 17.31 17.11 17.45 17.01 16.71	16.59 16.49 16.60 16.43 16.40 16.34	16.25 16.26 16.24 16.24 16.36 16.40	16.27 16.23 16.66 16.54 16.44 16.36	16.30 16.30 16.24 16.24 17.31 17.68	17.66 18.87 17.93 18.54 17.62 17.16	17.08 16.97 16.69 16.51 16.40 16.71	17.94 17.00 16.70 16.49 16.35 17.11	17.75 16.75 17.22 17.14	16.80 18.59 17.05 16.77 16.85 16.42	18.35 17.79 17.03 16.46 16.44 18.79	17.90 17.62 16.72 16.14 16.04 16.48
MAX	18.23	16.68	16.51	16.69	17.78	19.47	17.55	18.00		18.90	19.05	



WELL NUMBER.--264235081310601. Local Number HE 557.

LOCATION.--Lat 26°43"36", long 81°40"04", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 28, T.43 S., R.28 E., Hydrologic Unit 03090205, 25 ft west of Fort Denaud Road (County Road 78A), 0.1 mi north of State Road 80, and 6.1 mi southwest of La Belle.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 100 ft, cased to 80 ft, screened 80 to 100 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 20.21 ft above National Geodetic Vertical Datum of 1929.

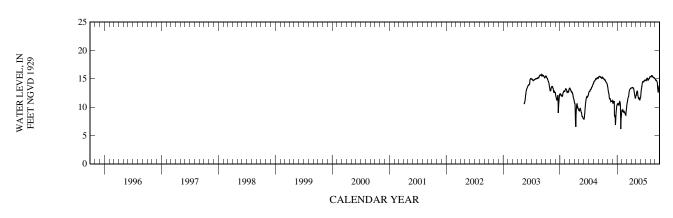
LAND-SURFACE DATUM .-- Land surface is approximately 17.7 ft above NGVD.

REMARKS.--Records of water levels prior to October 1976 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.-- October 1975 to September 1994 (monthly), October 1994 to September 1995 (quarterly), May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.71 ft NGVD, Aug. 18, 1992; lowest daily maximum water level, 6.14 ft NGVD, Jan. 24, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.08	12.76	10.81	10.48	9.27	10.67	13.36	12.49	13.17	14.83	15.32	14.76
10	14.86	11.99	10.79	10.65	9.12	11.41	13.44	12.83	14.12	15.05	15.55	14.68
15	14.82	11.42	8.46	10.80	9.20	11.83	13.34	11.87	14.50	15.08	15.48	14.30
20	14.48	11.09	7.36	10.65	8.90	12.86	12.68	11.50	14.44	14.94	15.28	12.56
25	14.27	11.02	9.09	7.49	8.57	13.21	11.90	11.34	14.72	14.99	15.18	13.40
EOM	13.70	11.06	10.35	9.39	9.44	13.38	11.88	11.66	14.74	15.37	14.99	13.83
MAX	15.17	13.56	11.14	11.00	9.48	13.38	13.47	12.84	14.76	15.37	15.56	14.96



WELL NUMBER.--264235081310602. Local Number HE 558.

LOCATION.--Lat 26°42"36", long 81°31"04", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 28, T.43 S., R.28 E., Hydrologic Unit 03090205, 25 ft west of Fort Denaud Road (County Road 78A), 0.1 mi north of State Road 80, and 6.2 mi southwest of La Belle.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 13.0 ft, cased to 3.0 ft, screened 3 to 13 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 20.27 ft above National Geodetic Vertical Datum of 1929. (Corrected).

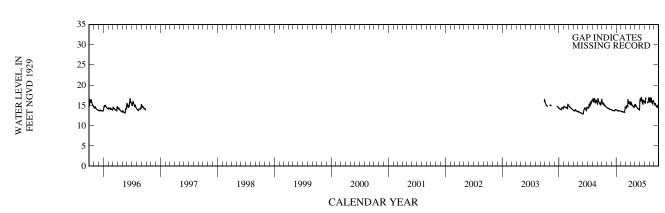
LAND-SURFACE DATUM .-- Land surface is approximately 17.70 ft above NGVD.

REMARKS.--Latitude and longitude corrected using GPS during the 1995 water year. Records of water levels prior to October 1976 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.-- October 1975 to October 1983 (daily), November 1983 to February 1987 (intermittent), March 1987 to September 1996 (daily), October 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 17.23 ft NGVD, June 30, 1992; lowest daily maximum water level, 12.50 ft NGVD, June 1, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.65 15.23	14.37 14.25	13.84 13.78	13.82 13.66	13.52 13.44	14.51 15.02	15.41 15.34	15.18 14.77	16.19 16.89	15.79 16.52	16.08 16.17	15.40 15.36
10 15	15.25	14.23	13.78	13.70	13.44	13.02	13.34	14.77	15.95	10.32	16.17	14.79
20	15.08	14.11	13.68	13.63	13.33	15.86	14.70	14.22	15.35	15.66	15.56	14.55
25	14.76	14.00	13.89	13.66	13.89	15.70	14.50	14.02	16.04	15.85	15.87	14.47
EOM	14.55	13.94	13.95	13.60	14.58	15.30	14.96	14.05	15.82	16.59	15.65	15.01
MAX	16.44	14.50	14.00	13.94	14.58	16.52	15.80	15.18	16.89		16.91	15.54



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# Lee County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

# Key to site locations on figure # 18

#### LEE COUNTY

Index	Site	Well	Page	Index	Site	Well	Page
Number	Number	Name	Number	Number	Number	Name	Number
_		¥ =04	20-				•00
1 2	263532081592201 262710082005301	L 581 L 585	305 263	56 57	263127081351602	L 2215	280
3	262538082045701	L 588	203 249	57 58	264608081454101 264608081454102	L 2216 L 2217	343 344
4	264101081443001	L 652	326	50 59	263242081572101	L 2217 L 2244	284
5	264153082022301	L 032 L 721	329	60	263718081485003	L 2292	311
6	263850081365401	L 727	317	61	262552081485702	L 2292 L 2295	251
7	263712081461201	L 728	308	62	263344081361704	L 2311	300
8	263335081394301	L 729	297	63	262703081340203	L 2311 L 2313	259
9	263138081545801	L 730	281	64	263004082111701	L 2315	272
10	262703081340201	L 731	257	65	264608081454103	L 2328	345
11	262839081503100	L 735	269	66	264517081513201	L 2341	339
12	262022081464201	L 738	239	67	263526082010201	L 2434	304
13	263323081522401	L 742	293	68	263307081555901	L 2435	292
14	263834082005301	L 781	316	69	262622082074401	L 2524	253
15	264517082022101	L 1059	340	70	263117082051001	L 2525	278
16	264241081582401	L 1110	330	71	264517082022102	L 2526	341
17	264147081562701	L 1111	328	72	263955082083101	L 2527	321
18	264120082022101	L 1113	327	73	263907081592701	L 2528	318
19	263327081512001	L 1121	294	74	262944081560801	L 2529	271
20	263532081592202	L 1136	306	75	264308081405402	L 2530	331
21	263950081355402	L 1137	320	<b>76</b>	264427081362601	L 2531	337
22	262703081340202	L 1138	258	77	263955082083103	L 2549	323
23	262549082035301	L 1403	250	78	262711081413701	L 2550	264
24	263630081375301	L 1418	307	79	263813081552801	L 2640	314
25	263233081550301	L 1598	283	80	263257081585701	L 2642	291
26	263329081394302	L 1625	296	81	263253082014201	L 2643	290
27	262435081535101	L 1634	245	82	263440082022001	L 2644	302
28	262435081535001	L 1635	244	83	263743082041201	L 2645	312
29	262042081455001	L 1691	240	84	264537081552202	L 2646	342
30	262706081435401	L 1853	260	85	264002082012801	L 2700	324
31	263344081361701	L 1963	298	86	263819081585801	L 2701	315
32 33	263353081335801	L 1965 L 1968	301 313	87 88	263955082083102	L 2820 L 2821	322 279
33 34	263807081430301 263718081485001	L 1908 L 1973	309	89	263117082051002 263440082022002	L 3207	303
34 35	263718081485002	L 1973 L 1974	310	90	264053081572501	L 4820	325
36	264359081424701	L 1975	335	90 91	263115081483501	L 5641	276
37	264359081424701	L 1975 L 1976	336	92	263249081474401	L 5648	285
38	264320081365701	L 1977	332	93	262934081495801	L 5649	270
39	263041081433101	L 1983	273	94	262514081393402	L 5664	248
40	262713081414701	L 1985	266	95	262513081432601	L 5667	246
41	263251081452801	L 1993	287	96	262513081472001	L 5669R	247
42	263251081452802	L 1994	288	97	262331082383202	L 5673	242
43	263251081452803	L 1995	289	98	264433081360601	L 5708	338
44	263041081433102	L 1998	274	99	263249081474402	L 5720	286
45	263041081433103	L 1999	275	100	262351081485401	L 5730	243
46	263344081361703	L 2186	299	101	262755082090902	L 5734	267
47	263950081355401	L 2187	319	102	262706082080201	L 5735	261
48	262659081382501	L 2192	256	103	262706082080202	L 5737	262
49	262713081414401	L 2193	265	104	261926081454702	L 5745R	236
50	261957081432201	L 2194	237	105	262258081471802	L 5747	241
51	261957081432202	L 2195	238	106	263138082112801	L 5766	282
52	264329081340401	L 2200	333	107	263115081483502	L 5801	277
53	264329081340402	L 2202	334	108	262630081484802	L 5808	255
54	263329081394301	L 2204	295	109	262630081484801	L 5844	254
55	262831081575901	L 2212	268	110	262605081425901	L 5874	252

# WATER RESOURCES DATA - FLORIDA, 2005 VOLUME 2B: SOUTH FLORIDA

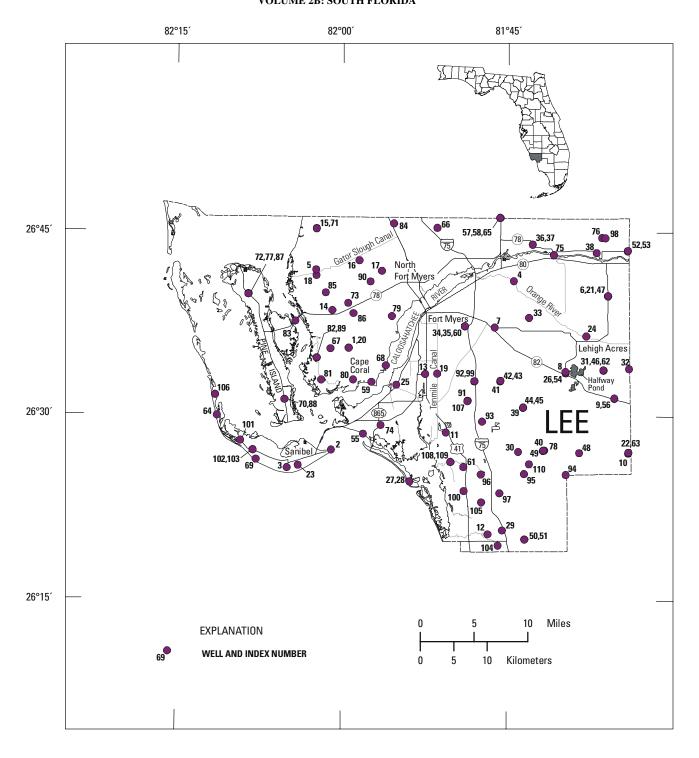


Figure 18: Location of wells in Lee County

#### LEE COUNTY

WELL NUMBER.--261926081454702. Local Number L 5745R.

LOCATION.--Lat 26°19'25", long 81°45'46", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.1, T.48 S., R.25 E., Hydrologic Unit 03090204, in the median on Imperial Street, 150 ft south of the intersection of Imperial Street and Dellwood Lane, 0.5 mi north of Lee/Collier County Line.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., measured depth 108 ft, well construction information unavailable.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.45 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 15.8 ft above NGVD.

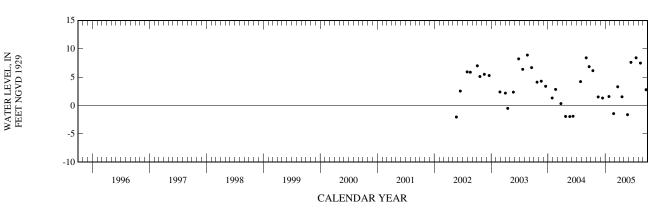
REMARKS.--Well is also used for salinity monitoring. Well replaces L 5745.

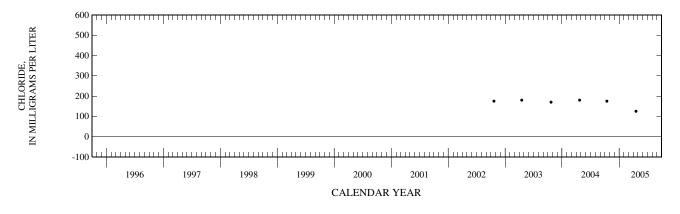
PERIOD OF RECORD .-- May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.88 ft NGVD, Aug. 21, 2003; lowest, 2.04 ft below NGVD, May 23, 2002.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
14	1150	6.14	1,160	175	19	1045	1.53	1,180	125
NOV					MAY				
17	1222	1.51			24	1014	-1.62		
DEC					JUN				
15	1230	1.31			15	1207	7.60		
JAN					JUL				
25	0912	1.58			18	1141	8.40		
FEB					AUG				
24	1103	-1.43			15	1215	7.47		
MAR					SEP				
22	1118	3.30			20	1023	2.78		





WELL NUMBER.--261957081432201. Local Number L 2194.

LOCATION.--Lat 26°19'57", long 81°43'22", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$ 

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS .-- Drilled, observation, artesian well, diameter 4 in., depth 137 ft, cased to 81 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of shelf, 17.29 ft above National Geodetic Vertical Datum of 1929. Prior to February 27, 1995, top of shelf was 17.27 ft above NGVD. See REMARKS.

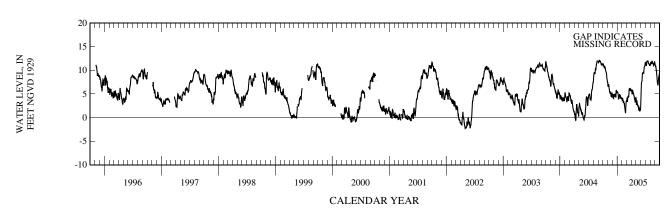
LAND-SURFACE DATUM.--Land surface is approximately 14.6 ft above NGVD.

REMARKS:--Station repaired February 27, 1995. See DATUM.

PERIOD OF RECORD.--August 1975 to September 1978 (monthly), October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.42 ft NGVD, Sept. 3, 1983; lowest 2.50 ft below NGVD, Jan. 5, 1991.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.11	6.61	4.76	5.24	3.99	4.21	5.44	3.13	7.09	11.12	11.66	10.92
10	10.49	6.30	4.85	4.10	3.29	4.28	5.70	2.95	8.52	11.88	11.56	9.71
15	10.62	5.18	4.67	4.68	2.84	4.36	5.04	2.55	9.49	11.93	11.58	7.54
20	9.83	5.38	4.78	4.55	1.67	6.14	4.45	1.96	9.36	11.47	11.42	7.01
25	9.08	4.79	5.65	4.23	2.14	5.70	3.78	1.32	10.83	11.21	11.31	8.61
EOM	7.50	5.10	5.50	4.09	3.44	5.71	4.21	1.86	11.60	11.03	11.35	10.07
MAX	11.40	7.48	5.74	5.51	3.99	6.22	5.78	4.04	11.60	11.96	11.91	11.19



WELL NUMBER.--261957081432202. Local Number L 2195.

LOCATION.--Lat 26°19'57", long 81°43'22", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$ 

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 15 ft, cased to 14 ft, open hole 14 to 15 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of flange, 17.26 ft above National Geodetic Vertical Datum of 1929. From October 1989 to February 27, 1995, measuring point was top of shelf, 17.36 ft above NGVD. Prior to October 1989, measuring point was top of casing 17.34 ft above NGVD. See REMARKS.

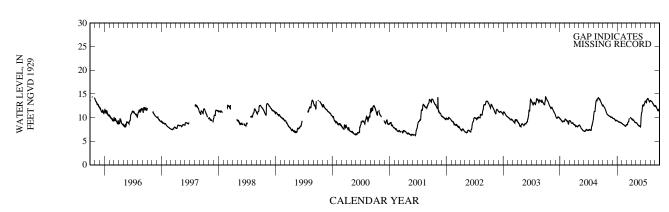
LAND-SURFACE DATUM.--Land surface is approximately 14.7 ft above NGVD.

REMARKS.--Well resurveyed to current measuring point February 27, 1995. See DATUM.

PERIOD OF RECORD.--August 1975 to February 1978 (monthly), February 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.83 ft NGVD, July 1-3, 1992; lowest, 6.16 ft NGVD, June 16, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.49	10.50	9.86	9.24	8.64	8.54	9.68	8.86	10.73	13.32	13.48	12.49
10	12.20	10.35	9.78	9.09	8.52	8.92	9.68	8.68	11.64	13.78	13.41	12.17
15	11.84	10.28	9.66	9.09	8.37	9.11	9.43	8.45	12.70	13.87	13.13	11.74
20	11.40	10.11	9.48	9.00	8.24	9.80	9.26	8.25	12.47	13.83	12.88	11.41
25	10.99	10.07	9.40	8.92	8.28	9.99	8.98	8.15	12.92	13.47	12.58	11.74
EOM	10.62	10.06	9.35	8.79	8.49	9.87	8.91	8.10	13.51	13.50	12.46	11.84
MAX	12.68	10.59	9.97	9.32	8.76		9.82	8.96	13.51	14.06	13.60	12.50



WELL NUMBER.--262022081464201. Local Number L 738.

LOCATION.--Lat 26°20'23", long 81°46'41", in SW ½ SW ½ NE ½ sec.35, T.47 S., R.25 E., Hydrologic Unit 03090204, at northwest corner of Felts Street and Childer Street in Bonita Springs.

AQUIFER .-- Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 75 ft, cased to 61 ft, open hole 61 to 75 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 11.37 ft above National Geodetic Vertical Datum of 1929. Prior to May 16, 2005, measuring point was top of casing, 11.31 ft above NGVD. See REMARKS.

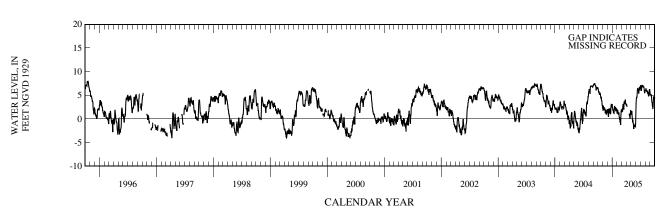
LAND-SURFACE DATUM.--Land surface is approximately 9.2 ft above NGVD.

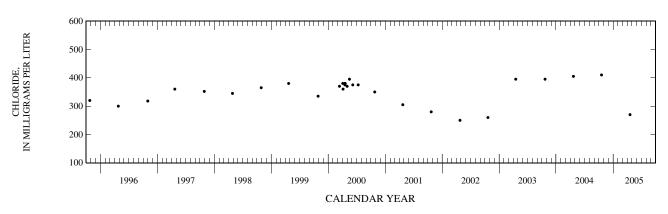
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1975 are in the files of the U.S. Geological Survey. The station was reconstructed and resurveyed May 16, 2005. See DATUM.

PERIOD OF RECORD.--November 1968 to June 1973 (daily), July 1974 to March 1992 (monthly), April 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.97 ft NGVD, Oct. 20, 1995; lowest water level measured, 5.51 ft below NGVD, Jan. 12, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	5.95 5.31 5.45 4.46 3.93 2.34	2.65 2.03 2.11 1.83 1.01 1.91	1.18 1.88 1.35 1.36 2.82 3.02	1.98 1.35 2.48 1.98 1.78 1.69	1.88 0.90 0.30 -0.62 0.15 1.86	2.05 2.55 2.12 3.65 4.02 2.86	2.68  1.13 0.13 1.76	0.89 0.08 -0.80 -1.36 -1.55 -1.12	4.35 5.47 6.29 5.36 6.65 6.86	6.33 7.11 7.08 6.76 6.12 5.85	6.40 6.06 5.70 5.59 5.62 5.67	5.21 4.93 2.92 2.68 4.69 4.65
MAX	6.56	2.65	3.10	3.02	1.90	4.02		1.55	6.86	7.11	6.40	5.21





WELL NUMBER.--262042081455001. Local Number L 1691.

LOCATION.—Lat  $26^{\circ}20'43''$ , long  $81^{\circ}45'23''$ , in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 36, T.47 S., R.25 E., Hydrologic Unit 03090204, on East Terry Street, 1.5 mi east of Business U.S. Highway 41, (County Road 887), and 1.4 mi east of Bonita Springs Post Office.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 69 ft, cased to 58 ft, open hole 58 to 69 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of recorder shelf, 15.48 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 14.3 ft above NGVD.

REMARKS.--Well was monitored for salinity until September 2004. Records of water levels, prior to October 1973, are available in files of the U.S. Geological Survey.

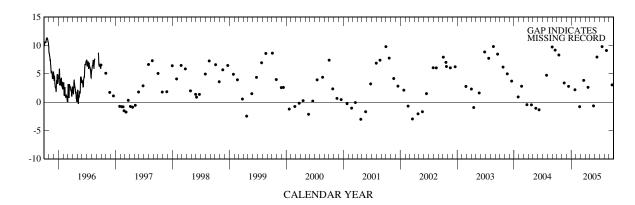
PERIOD OF RECORD.--June 1973 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.92 ft NGVD, Aug. 16, 17, 1974; lowest, 6.58 ft below NGVD, Jan. 7, 1989

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

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1038	8.31	19	1207	2.61
NOV			MAY		
17	1326	3.38	24	0916	66
DEC			JUN		
15	1313	2.78	15	1131	7.95
JAN			JUL		
25	0857	2.18	18	1055	9.79
FEB			AUG		
24	1223	80	15	1350	9.10
MAR			SEP		
22	1305	3 84	20	1007	3.04





WELL NUMBER.--262258081471802. Local Number L 5747.

LOCATION.--Lat 26°22'59", long 81°47'16", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.47 S., R.25 E., Hydrologic Unit 03090204, 25 ft west of Stillwell Parkway and 50 ft north of Strike Lane, 1.3 mi east of old U.S. Highway 41, (County Road 887), 3.5 mi north of Bonita Springs.

AQUIFER.--Lower Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 105 ft, cased to 59 ft, 46 ft of open hole.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of casing, 15.66 ft above National Geodetic Vertical Datum of 1929.

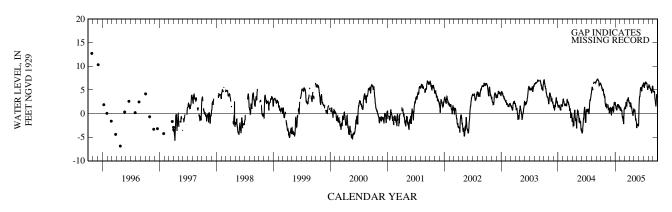
LAND-SURFACE DATUM.--Land surface is approximately 13.9 ft above NGVD.

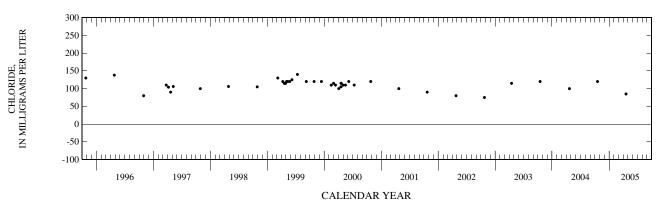
REMARKS .-- Well is also used for salinity monitoring.

PERIOD OF RECORD.--July 1987 to September 1994 (monthly), October 1994 to September 1995 (quarterly), October 1995 to March 1997 (monthly), April 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.73 ft NGVD, Oct. 25, 1995; lowest, 6.87 ft below NGVD, Apr. 25, 1996.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	5.80 5.11 5.15 4.01 3.47 1.55	2.03 1.63 1.84 1.17 0.31 1.23	0.57 0.95 0.72 0.30 2.13 2.34	1.62 0.86 1.76 1.50 1.26 1.16	1.26 0.47 -0.68 -1.44 -1.24 1.02	1.43 1.82 1.70 2.94 3.35 2.43	2.18 2.25 1.33 0.45 -0.49 0.97	0.25 -0.52 -1.51 -2.42 -2.30 -2.49	3.11 4.58 5.54 4.73 6.00 6.25	5.85 6.49 6.69 6.50 5.70 5.43	6.10 5.80 5.26 5.02 5.04 5.41	4.67 4.68 2.49 1.97 4.03 3.76
MAX	6.27		2.39	2.33	1.26	3.35	2.38	0.71	6.25	6.69	6.10	4.74





WELL NUMBER.--262331082383202. Local Number L 5673.

LOCATION.--Lat 26°23'45", long 81°45'38", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.8, T.47 S., R.26 E., Hydrologic Unit 03090204, 4.85 mi north of Bonita Beach Road, 0.75 mi east of U.S. Interstate 75 and 3.5 mi east of Bonita Springs Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 135 ft, open hole 130 to 135 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

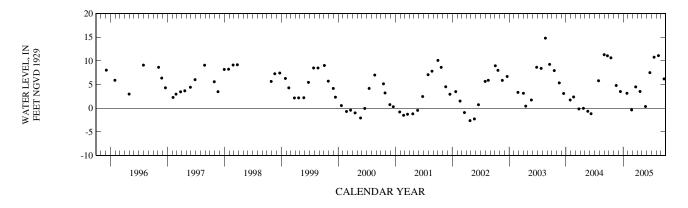
DATUM.--Measuring point: Top of casing, 18.22 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 16.2 ft above NGVD.

PERIOD OF RECORD.--May 1983 to April 1993 (semiannual), May 1993 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.83 ft NGVD Aug. 21, 2003; lowest, 2.62 ft below NGVD, Apr. 25, 2002.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1125	10.67	19	1142	3.55
NOV			MAY		
17	1309	4.82	24	0942	.37
DEC			JUN		
14	1355	3.53	21	0959	7.53
JAN			JUL		
25	0833	3.17	18	1335	10.80
FEB			AUG		
24	1154	35	15	1327	11.13
MAR			SEP		
22	1235	4.52	20	0937	6.21



WELL NUMBER.--262351081485401. Local Number L 5730.

 $LOCATION.--Lat~26^{\circ}23'52'', long~81^{\circ}48'53'', in~NE~\frac{1}{4}~SW~\frac{1}{4}~sec.9, T.47~S., R.25~E., Hydrologic~Unit~03090204, 100~ft~south~of~Coconut~Road, 0.15~mi~west~of~U.S.~Highway~41, 5~mi~north~of~Bonita~Springs.$ 

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 40 ft, cased to 27 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

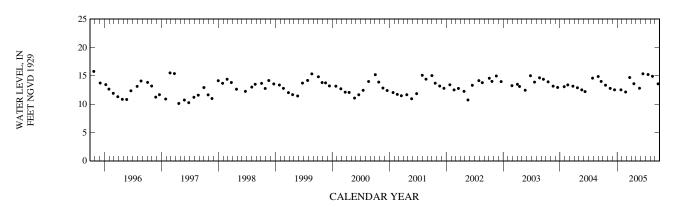
DATUM.--Measuring point: Top of casing, 16.34 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 16.2 ft above NGVD.

PERIOD OF RECORD .-- October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.77 ft NGVD, Oct. 25, 1995; lowest, 9.64 ft NGVD, May 22, 1990.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
18	0957	13.34	18	1502	13.60
NOV			MAY		
17	1400	12.78	24	0831	12.80
DEC			JUN		
15	1353	12.52	15	1048	15.35
JAN			JUL		
25	1137	12.52	18	1016	15.22
FEB			AUG		
24	1330	12.14	15	0948	14.91
MAR			SEP		
22	1344	14.69	20	0835	13.58



WELL NUMBER.--262435081535001. Local Number L 1635.

LOCATION.--Lat 26°24'38", long 81°53'48", in NE ½ SW ½ sec.3, T.47 S., R.24 E., Hydrologic Unit 03090204, at Bay Beach Golf Course, 120 ft north of golf shop, 0.2 mi east of Estero Boulevard on Bay Beach Lane, 0.5 mi southeast of Matanzas Pass Bridge and 4.5 mi southeast of Fort Myers Beach Post Office.

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 620 ft, cased to 360 ft, open hole 360 to 620 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of flange on gate valve, 1.6 ft above National Geodetic Vertical Datum of 1929.

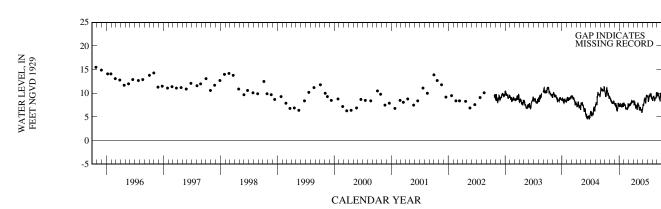
LAND-SURFACE DATUM.--Land surface is approximately 3.5 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of U.S. Geological Survey.

PERIOD OF RECORD.--February 1975 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to September 2002 (monthly), October 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.7 ft NGVD, Sept. 27, 1979; lowest daily maximum water level, 4.47 ft NGVD, June 23, 2004. (Corrected).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	9.69 9.77 10.59 9.58 9.69 9.14	8.87 8.32 8.10 8.05 8.27 7.90	7.55 7.82 6.50 6.20 7.89 7.54	7.46 7.39 7.49 7.46 7.35 7.88	7.68 7.15 6.74 6.69 6.94 7.76	7.52 7.60 7.52 8.19 8.19 8.41	8.17 8.22 7.43 7.13 6.78 7.94	7.38 6.72 6.99 6.60 6.22 6.59	7.76 8.34 8.98 7.88 9.67 9.47	9.06 8.93 9.60 9.68 9.56 9.06	8.87 9.29 8.66 8.98 8.94 9.41	10.09 9.57 8.98 8.30 9.62 9.02
MAX	11.15	9.26	7.89	8.03	7.77	8.41	8.50	7.95	9.67	9.96	10.14	10.17



WELL NUMBER.--262435081535101. Local Number L 1634.

LOCATION.--Lat 26°24′38″, long 81°53′48″, in NE ½ NE ½ SW ½ sec.3, T.47 S., R.24 E., Hydrologic Unit 03090204, at Bay Beach Golf Course 100 ft north of golf shop, 0.2 mi east of Estero Boulevard on Bay Beach Lane, 5 mi southeast of Matanzas Pass Bridge and 4.5 mi southeast of Fort Myers Beach Post Office.

AQUIFER .-- Suwannee aquifer of the Oligocene Age, Geologic Unit 123 SWNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 950 ft, cased to 740 ft, open hole 740 to 950 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 6 in. elbow, 5.88 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 3.3 ft above NGVD.

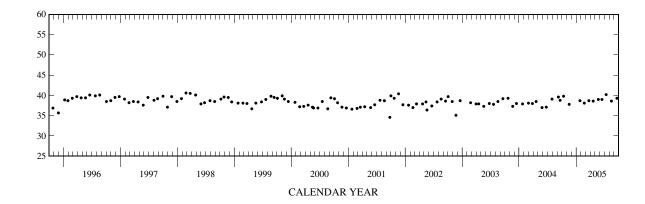
REMARKS.--Records of water levels, prior to October 1975, are available in the files of the U. S. Geological Survey.

PERIOD OF RECORD.--January 1975 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.3 ft NGVD, July 27, 1988; lowest, 27.6 ft NGVD, July 23, 1991.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			MAY		
12	1328	39.8	23	1540	39.0
NOV			JUN		
17	1254	37.8	15	1508	39.0
JAN			JUL		
25	1139	38.7	12	1403	40.2
FEB			AUG		
22	1313	38.1	15	1335	38.6
MAR			SEP		
23	1250	38.7	19	1536	39.3
APR					
20	1339	38.6			





WELL NUMBER.--262513081432601. Local Number L 5667.

LOCATION.--Lat 26°25'17", long 81°43'26", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.33, T.46 S., R.26 E., Hydrologic Unit 03090204, 2.4 mi south of Corkscrew Road, 5.35 mi east of U.S. Highway 41, and 6.0 mi east of Estero Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 32 ft, open hole 22 to 32 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 20.10 ft above National Geodetic Vertical Datum of 1929. From October 1992 to October 2001, measuring point was incorrectly considered to be 19.09 ft above NGVD. From April 1983 to September 1992, measuring point was incorrectly considered to be 18.80 ft above NGVD. See REMARKS.

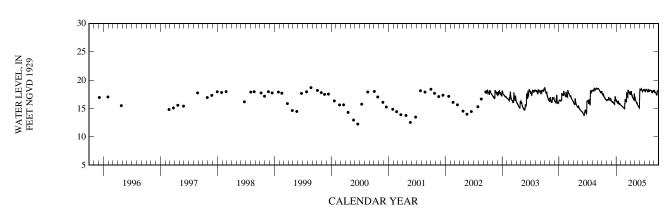
LAND-SURFACE DATUM.--Land surface datum is approximately 18.2 ft above NGVD.

REMARKS.--Well was monitored for salinity until April, 1993. The figures of water levels as elevation, in ft NGVD, from April 1983 to October 2001, are in error. +1.01 ft correction has been applied to water-level records, from October 1992 to September 2001. A +1.30 ft correction has been applied to water-level records from April 1983 to September 1992. See DATUM. Corrected records are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1983 to April 1993 (semiannual), October 1993 to September 1994 (monthly), October 1994 to September 1996 (quarterly), February 1997 to August 2002 (monthly), September 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.67 ft (present datum) NGVD, Aug. 24, 1999; lowest, 12.25 ft (present datum) NGVD, June 19, 2000.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	17.55 17.26	16.58 16.49	16.17 16.21	16.19 15.98	15.47 15.33	16.42 17.66	17.47 17.48	16.52 16.11	18.38 18.35	18.11 18.32	18.25 18.12	18.07 17.79
15	17.12 16.84	16.86 16.51	15.91 15.79	16.28 15.84	15.19 15.04	16.97 17.93	17.08 16.81	16.02 15.53	18.25 18.14	18.32 18.10	17.99 17.79	17.51 18.01
20 25	16.63	16.86	17.14	15.77	15.88	17.81	16.48	15.28	18.19	18.30	17.94	17.86
EOM	16.47	16.38	16.62	15.59	16.39	17.54	16.74	16.34	18.29	18.08	17.92	18.18
MAX	17.97	17.02	17.14	16.51	16.43	18.15	18.00	17.13	18.45	18.38	18.25	18.18



WELL NUMBER.--262513081472001. Local Number L 5669R.

LOCATION.--Lat 26°25'13", long 81°47'20", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.2, T.7 S., R.25 E., Hydrologic Unit 03090204, 20 ft south of Williams Road, 1.3 mi east of U.S. Highway 41 (Tamiami Trail).

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 33 ft, cased to 25 ft, screened 25 to 30 ft, open hole 30 to 33 ft. INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. casing, 18.06 ft above National Geodetic Vertical Datum of 1929.

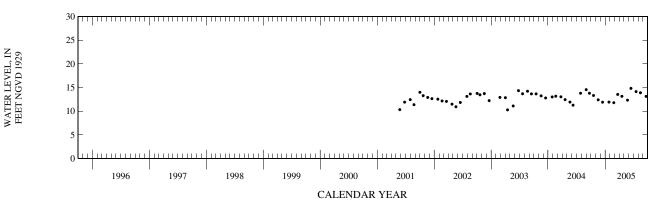
LAND-SURFACE DATUM .-- Land surface is approximately 15.8 ft above NGVD.

REMARKS.--Replacement for well L-5669, which was destroyed by road construction.

PERIOD OF RECORD .-- May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.84 ft NGVD, June 15, 2005; lowest, 10.30 ft NGVD, Apr. 16, 2003.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
18	0938	13.34	18	1513	13.16
NOV			MAY		
17	1410	12.42	24	0824	12.35
DEC			JUN		
15	1428	11.92	15	1010	14.84
JAN			JUL		
25	1152	11.94	18	1009	14.16
FEB			AUG		
25	0817	11.82	15	0940	13.91
MAR			SEP		
22	1354	13.56	20	0826	13.14



WATER LEVEL, IN FEET NGVD 1929

#### LEE COUNTY—Continued

WELL NUMBER.--262514081393402. Local Number L 5664.

LOCATION.--Lat 26°25′16″, long 81°39′38″, in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$ 

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 300 ft, cased to 180 ft, open hole 180 to 300 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 21.28 ft above National Geodetic Vertical Datum of 1929. From October 1991 to January 1998, measuring point was top of coupling 24.12 ft above NGVD. Prior to October 1991, top of coupling was considered to be 22.92 ft above NGVD. See REMARKS.

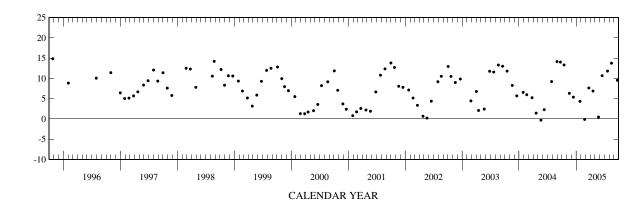
LAND-SURFACE DATUM.--Land surface is approximately 21.2 ft above NGVD.

REMARKS.--Records of water levels, prior to October 1983, are available in the files of the U.S. Geological Survey. The figures of water levels, as elevation in feet NGVD, prior to October 1991, are in error. Corrected records are in the files of the U.S. Geological Survey. See DATUM. Well was monitored for salinity from October 1982 to April 1993.

PERIOD OF RECORD.--November 1982 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.55 ft NGVD, July 31, 1984; lowest, 0.27 ft below NGVD, May 20, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
15	1348	13.34	19	1505	6.90
NOV			MAY		
18	1118	6.34	24	1438	.49
DEC			JUN		
14	1623	5.39	16	1606	10.68
JAN			JUL		
25	0745	4.37	21	1635	11.83
FEB			AUG		
24	1555	09	15	1508	13.77
MAR			SEP		
23	1049	7.66	22	1237	9.56



WELL NUMBER.--262538082045701. Local Number L 588.

LOCATION.--Lat 26°25'43", long 82°04'55", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 35, T.46 S., R.22 E., Hydrologic Unit 03100103, 15 ft south of interpretive sign, 0.1 mi west of Tarpon Bay Road at Ding Darling Wildlife Refuge-Bailey Tract and 0.7 mi south of Sanibel Post Office.

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 557 ft, cased to 403 ft, open hole 403 to 557 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point:"X" on 10 in. casing, 4.14 ft above National Geodetic Vertical Datum of 1929. From January 6, 1999 to May 23, 2002, measuring points were top of faucet and center of pressure transducer, 6.40 ft and 6.15 ft above NGVD respectively. From February 14, 1977 to January 6, 1999, measuring point was top of 2 in. elbow, 4.59 ft above NGVD. From January 1964 to February 1977, measuring point was top of 6 in. steel coupling, 4.09 ft above NGVD. See REMARKS.

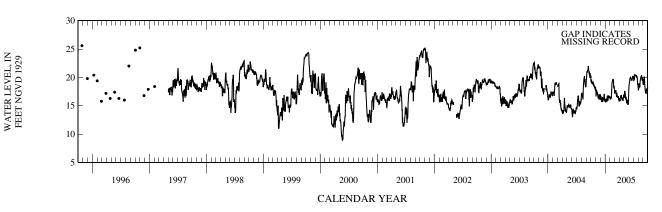
LAND-SURFACE DATUM.--Land surface is approximately 2.7 ft above NGVD.

REMARKS.--Water levels affected by nearby pumping. Records of water levels prior to October 1978 are available in the files of the U.S. Geological Survey. Changes in measuring point elevation, February 1997, January 1999, and May 2002, were the result of station reconstruction.

PERIOD OF RECORD.--January 1964 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to February 1997 (monthly), May 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.80 ft NGVD, Oct. 7, 1992; lowest, 4.6 ft NGVD, Apr. 18, 1977.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	19.46 18.93	17.39 16.99	16.32 16.50	15.73 16.26	16.20 17.10	17.73 17.59	15.93 16.67	17.25 17.00	19.07 20.00	19.59 20.59	18.29 18.87	18.78 19.64
15	19.29	16.65	15.68	16.46	19.20	16.54	16.58	16.47	19.85	20.36	19.61	17.58
20 25	18.77 18.12	16.35 16.60	16.06 17.10	16.59 16.69	19.57 18.26	16.68 16.50	16.05 15.89	16.13 15.59	19.50 20.05	20.27 20.06	20.20 19.48	17.09 17.92
EOM	18.20	17.02	15.79	16.63	18.06	15.84	16.39	16.80	20.19	18.26	18.78	18.28
MAX	19.55	17.84	17.10	16.83	19.66	17.97	16.99	17.63	20.19	20.59	20.42	20.14



WELL NUMBER.--262549082035301. Local Number L 1403.

LOCATION.--Lat 26°25′55″, long 82°03′55″, in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.25, T.46 S., R.22 E., Hydrologic Unit 03100103, 10 ft north of Casa Ybel Road, 0.9 mi south of intersection of Periwinkle Way and Casa Ybel Road and 1.1 mi southeast of Sanibel Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 12 ft, cased to 3.0 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 8.58 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 4.6 ft above NGVD.

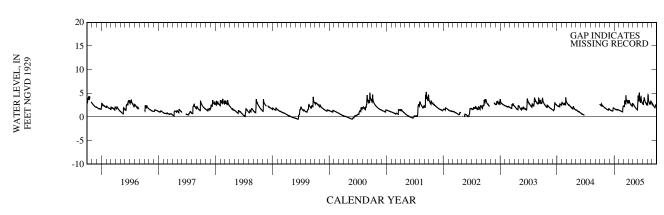
REMARKS.--Records of water levels, prior to October 1973, are available in the files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 5.30 ft NGVD, Sept. 14, 2001; lowest, 0.62 ft below NGVD, June 17, 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	2.53	1.85	1.49	1.67	1.37	2.33	3.07	2.61	3.69	2.69	4.48	2.64
10	2.33	1.72	1.41	1.57	1.28	3.39	3.09	2.31	4.77	3.56	3.37	2.38
15	2.50	1.61	1.31	1.58	1.20	2.85	2.74	2.06	3.52	3.65	2.93	2.11
20	2.25	1.50	1.26	1.49	1.13	3.47	2.47	1.83	4.07	3.11	2.69	1.98
25	2.15	1.69	1.82	1.55	1.82	3.23	2.27	1.65	3.44	2.75	3.31	2.46
EOM	1.96	1.67	1.81	1.45	2.31	3.14	2.61	2.07	2.94	2.68	2.75	2.55
MAX	2.76	1.92	1.93	1.79	2.31	4.57	3.50	2.79	5.14	4.13	4.69	2.76



WELL NUMBER.--262552081485702. Local Number L 2295.

 $LOCATION.--Lat\ 26^{\circ}25'53'', long\ 81^{\circ}48'54'', in\ SW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec. 33, T.46\ S., R.25\ E., Hydrologic\ Unit\ 03090204, at entrance\ to\ Koreshan\ State\ Park,\ 0.3\ mi\ west\ of\ U.S.\ Highway\ 41,\ and\ 2.1\ mi\ southeast\ of\ Estero\ Post\ Office.$ 

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 610 ft, cased to 300 ft, open hole 300 to 610 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of 4 in. cap, 15.32 ft above National Geodetic Vertical Datum of 1929. Prior to March 2000, measuring point was top of casing, 18.01 ft above NGVD. See REMARKS.

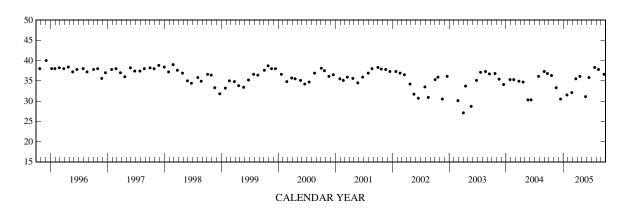
LAND-SURFACE DATUM.--Land surface is approximately 15.7 ft above NGVD.

REMARKS.--Records of water levels, prior to October 1976, are available in files of the U.S. Geological Survey. Well was monitored for salinity from June 1978 to April 1993. Well casing cut for curb box installation, February 25, 2000. See DATUM.

PERIOD OF RECORD.--July 1976 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.3 ft NGVD, Oct. 29, 1987; lowest, 27.1 ft NGVD, Apr. 2, 2003.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
18	0926	36.3	18	1530	36.1
NOV			MAY		
17	1422	33.3	24	0815	31.1
DEC			JUN		
15	1440	30.5	15	1001	35.8
JAN			JUL		
25	1205	31.5	22	1525	38.3
FEB			AUG		
25	0804	32.1	15	0931	37.8
MAR			SEP		
23	0839	35.5	20	0818	36.6



WELL NUMBER.--262605081425901. Local Number L 5874.

LOCATION.—Lat  $26^{\circ}26'05$ ", long  $81^{\circ}42'59$ ", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.33, T.46 S., R.26 E., Hydrologic Unit 03090204, 0.3 mi south of Corkscrew Road, 1 mi southwest of Alico Road, 10 mi west of U.S. Interstate 75, near Immokalee.

AQUIFER.--Lower Tamiami aquifer of the Pleistocene Age, Geologic Unit 121 TMIM. See REMARKS.

WELL CHARACTERISTICS.--Drilled, observation, diameter 2 in., depth 60 ft. See REMARKS.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 19.26 ft above National Geodetic Vertical Datum of 1929.

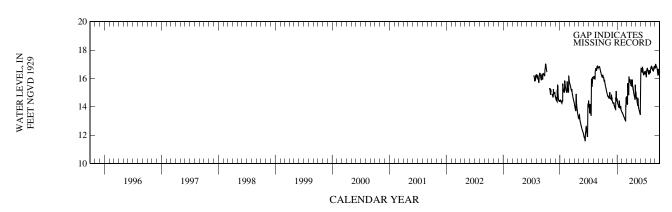
LAND-SURFACE DATUM.--Land surface is approximately 15.8 ft above NGVD.

REMARKS.--Well construction information was not available. Well depth and diameter are based on field measurements. The open interval of the well is unknown. The well may be partially open to the lower Tamiami aquifer but the bottom of the well is below the base of the lower Tamiami aquifer and above the top of the sandstone aquifer of Miocene age (Geologic unit 122 SNDS). See AQUIFER and WELL CHARACTERISTICS.

PERIOD OF RECORD .-- July 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 17.02 ft NGVD, Sept. 3, 2005; lowest, 11.58 ft NGVD, June 9, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	16.00 15.78 15.64 15.36 15.09 14.81	14.75 14.60 14.92 14.58 14.87 14.44	14.25 14.28 13.99 13.87 15.11 14.57	14.21 14.03 14.32 13.91 13.81 13.64	13.54 13.39 13.24 13.10 14.09 14.45	14.40 15.62 14.86 15.81 15.74 15.52	15.45 15.45 15.10 14.81 14.52 14.79	14.63 14.27 14.57 13.82 13.67 15.08	16.70 16.67 16.58 16.30 16.37 16.48	16.24 16.62 16.66 16.37 16.58 16.47	16.78 16.83 16.63 16.53 16.63 16.77	16.99 16.82 16.56 16.67 16.35 16.52
MAX	16.23	15.02	15.11	14.48	14.67	16.14	15.92	15.08	16.79	16.74	16.88	17.02



WELL NUMBER.--262622082074401. Local Number L 2524.

LOCATION.--Lat 26°26′23", long 82°07′44", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.29, T.46 S., R.21 E., Hydrologic Unit 03100103, at end of West Gulf Drive, north of road, 4.0 mi south of Sanibel Post Office.

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 625 ft, cased to 512 ft, open hole 512 to 625 ft.

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

DATUM.--Measuring point for pressure gage: Top of 8 in. casing, 7.66 ft above National Geodetic Vertical Datum of 1929. Measuring point for tapedown with chalked tape: Top of well cap, 7.86 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 5.2 ft above NGVD.

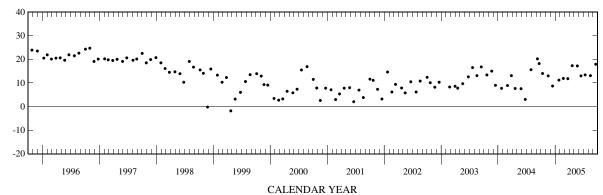
REMARKS.--Records of water levels, prior to October 1983, are available in the files of the U.S. Geological Survey. There is uncertainty as to the measuring point used prior to 1999.

PERIOD OF RECORD.--October 1977 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.2 ft NGVD, June 7, 1978; lowest, 1.81 ft below NGVD, Apr. 23, 1999.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
12	1049	14.0	20	1045	17.3
NOV			MAY		
17	1003	13.0	23	1417	17.2
DEC			JUN		
15	1026	8.7	15	1104	13.0
JAN			JUL		
25	1019	11.2	12	1022	13.4
FEB			AUG		
22	1048	11.9	15	1058	13.1
MAR			SEP		
23	0946	11.8	18	1221	17.9





WELL NUMBER.--262630081484801. Local Number L 5844.

LOCATION.--Lat 26°26'17", long 81°50'04", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 29, T.46 S., R.24 E., Hydrologic Unit 03090204, 0.25 mi southwest of intersection of Park Place and Coconut Drive, 300 ft west of Coconut Drive, 500 ft east of Park Place and 1.8 mi west of Estero Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 35 ft, cased to 25 ft, screened from 25 to 35 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer. Prior to October 2004, satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of base, 10.00 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.9 ft above NGVD.

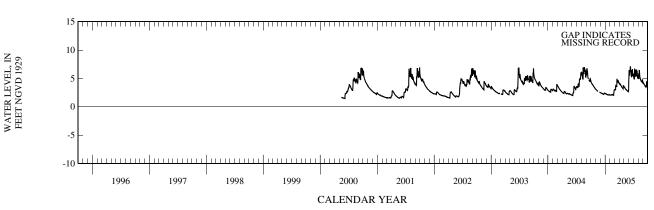
PERIOD OF RECORD .-- May 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.13 ft NGVD, June 11, 2005; lowest, 1.46 ft NGVD, June 7, 2000.

ELEVATION ABOVE NGVD 1929, FEET

		WATER		TOBER 2004 MAXIMUN		MBER 2005				
VOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEI
2.99	2.43	2.28	2.08	3.04	3.94	3.42	5.76	4.97	5.92	4.10
2.84	2.38	2.20	2.14	3.75	3.86	3.18	6.77	6.52	5.52	3.87
2.76	2.30	2.17	2.10	3.54	3.60	3.03	6.32	6.47	4.85	3.65

DAI	OCI	NOV	DEC	JAN	FEB	MAK	APK	MAY	JUN	JUL	AUG	SEP
5	4.22	2.99	2.43	2.28	2.08	3.04	3.94	3.42	5.76	4.97	5.92	4.10
10	3.95	2.84	2.38	2.20	2.14	3.75	3.86	3.18	6.77	6.52	5.52	3.87
15	3.79	2.76	2.30	2.17	2.10	3.54	3.60	3.03	6.32	6.47	4.85	3.65
20	3.57		2.22	2.07	2.10	4.58	3.39	2.88	5.55	5.88	4.52	3.58
25	3.37	2.57	2.30	2.14	2.45	4.51	3.22	2.78	6.22	5.88	4.34	4.30
EOM	3.13	2.52	2.38	2.08	2.98	4.16	3.61	2.77	5.85	5.29	4.29	4.34
MAX	4.51		2.50	2.37	2.98	4.84	4.12	3.55	7.13	6.58	6.48	4.41



2.26

## LEE COUNTY—Continued

WELL NUMBER.--262630081484802. Local Number L 5808.

LOCATION.--Lat 26°26′16″, long 81°50′04″, in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 29, T.46 S., R.25 E., Hydrologic Unit 03090205, 0.25 mi southwest of intersection of Park Place and Coconut Drive, 300 ft west of Coconut Drive, 500 ft east of Park Place and 1.8 mi west of Estero Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 208 ft, cased to 192 ft, screened from 192 to 208 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer. Prior to October 2004, satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 8.61 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.9 ft above NGVD.

-4.04

-3.50

-4.34

PERIOD OF RECORD .-- May 2000 to current year.

-2.57

3.74

MAX

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.78 ft NGVD, Sept. 29, 2001, Oct. 3, 2001; lowest, 15.04 ft below NGVD, May 29, 2000.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.53	-2.57	-4.81	-4.38	-4.86	-3.95	-2.45	-6.20	-4.65	0.43	3.01	1.95
10	1.68	-3.80	-4.04	-4.44	-5.64	-3.32	-2.40	-6.95	-2.95	1.21	3.60	1.89
15	1.59	-4.17	-5.56	-3.93	-6.10	-3.80	-3.07	-7.79	-1.75	1.81	3.16	-1.81
20	0.37	-4.13	-6.32	-4.05	-5.45	-2.78	-5.25	-8.30	-1.90	2.05	1.51	-2.58
25	-0.64	-4.50	-4.50	-3.50	-4.80	-2.50	-5.76	-8.14	-0.48	2.34	1.32	-0.61
EOM	-2.13	-4.36	-4.22	-4.71	-4.34	-2.46	-5.60	-8.73	0.23	2.82	1.26	0.02

-2.46

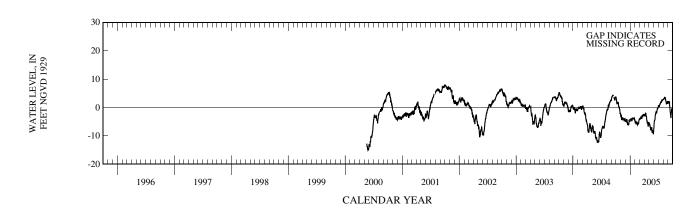
-1.88

-5.36

0.23

2.82

3.63



WATER LEVEL, IN FEET NGVD 1929

## LEE COUNTY—Continued

WELL NUMBER.--262659081382501. Local Number L 2192.

LOCATION.--Lat 26°27′01", long 81°38′27", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.29, T.46 S., R.27 E., Hydrologic Unit 03090204, 10 ft south of Corkscrew Road, 8.45 mi east of U.S. Interstate 75, and 11.6 mi east of Estero Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 184 ft, cased to 155 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 31.22 ft above National Geodetic Vertical Datum of 1929. From September 1992 to June 2002, measuring point was 31.06 ft above NGVD. Prior to September 1992, top of casing was 30.06 ft above NGVD.

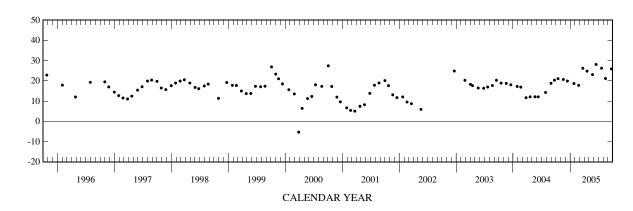
LAND-SURFACE DATUM.--Land surface is approximately 27.3 ft above NGVD.

REMARKS.--Well was damaged in June 2002 and repaired December 2002. The well was originally open to the aquifer from 155 to 184 ft. The cased interval has collapsed or become obstructed at a depth of 28 ft.

PERIOD OF RECORD.--August 1975 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.09 ft NGVD, June 16, 2005; lowest, 5.32 ft below NGVD, Mar. 27, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
15	1344	21.06	19	1513	24.78
NOV			MAY		
18	1130	20.66	24	1445	23.07
DEC			JUN		
14	1630	19.88	16	1615	28.09
JAN			JUL		
25	0751	18.66	21	1642	26.22
FEB			AUG		
24	1604	17.76	15	1515	21.15
MAR			SEP		
23	1056	26.19	22	1228	25.88



WELL NUMBER.--262703081340201. Local Number L 731.

LOCATION.--Lat 26°27'03", long 81°33'59", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.25, T.46 S., R.27 E., Hydrologic Unit 03090204, 21 ft south of Corkscrew Road, 5.6 mi south of State Road 82 and County Road 850 intersection, and 11.7 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 243 ft, cased to 165 ft, open hole 165 to 243 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 27.58 ft above National Geodetic Vertical Datum of 1929. Prior to October 1995, measuring point was top of shelf, 27.61 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is aproximately 24.4 ft above NGVD.

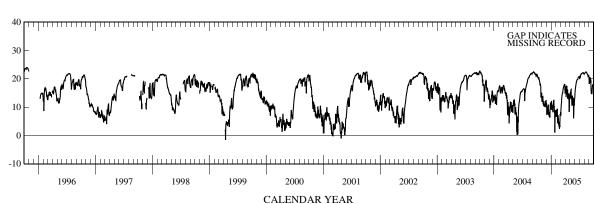
REMARKS.--Water levels affected by pumping wells. Records of water levels, prior to October 1973, are available in the files of the U.S. Geological Survey. PERIOD OF RECORD.--August 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 24.62 ft NGVD, Oct. 5, 1969; lowest, 7.86 ft below NGVD, Mar. 30, 1990.

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 10 15 20 25 EOM	20.92 20.34 19.87 18.38 17.74 14.89	12.04 12.37 11.80 10.72 10.57 11.08	9.55 7.53 9.06 8.29 9.64 9.12	10.79 9.43 11.30 10.35 4.82 9.02	8.09 5.85 5.62 3.11 3.06 7.54	9.55 13.32 14.89 16.85 17.76 16.74	17.24 17.29 15.84 14.42 13.45 14.45	15.03 12.90 13.40 13.31 7.45 12.75	16.56 18.57 19.51 19.82 20.60 20.86	20.66 21.50 21.78 22.06 22.06 21.56	22.01 22.37 22.25 21.73 20.98 19.77	20.38 18.56 14.73 15.99 17.82 18.26
MAX	21.49	15.04	11.46	12.39	9.45	18.14	17.47	16.27	20.86	22.11	22.40	20.42





WELL NUMBER.--262703081340202. Local Number L 1138.

LOCATION.--Lat 26°27'03", long 81°33'59", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec.25, T.46 S., R.27 E., Hydrologic Unit 03090204, 21 ft south of Corkscrew Road, 5.6 mi south of intersection of State Road 82 and County Road 850, and 11.7 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20 ft, cased to 15 ft, screened 15 to 20 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of cap, 27.69 ft above National Geodetic Vertical Datum of 1929.

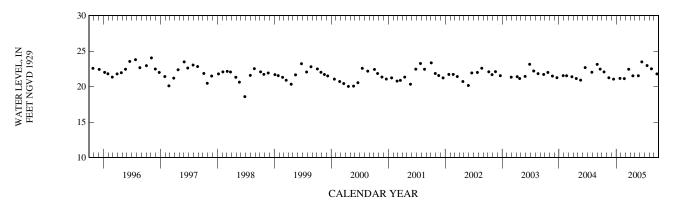
LAND-SURFACE DATUM .-- Land surface is approximately 24.4 ft above NGVD.

REMARKS.--Records of water levels, prior to October 1975, are available in the files of the U. S. Geological Survey.

PERIOD OF RECORD.--June 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft NGVD, Aug. 27, 1970; lowest, 18.59 ft NGVD, June 26, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
15	1004	22.07	18	0815	21.52
NOV			MAY		
15	0932	21.25	23	1001	21.53
DEC			JUN		
15	1033	21.06	14	0933	23.49
JAN			JUL		
25	0917	21.16	18	1006	22.97
FEB			AUG		
22	1000	21.13	15	1039	22.51
MAR			SEP		
22	0845	22.45	19	1128	21.79



WELL NUMBER.--262703081340203. Local Number L 2313.

LOCATION.--Lat 26°27'03", long 81°33'59", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.25, T.46 S., R.27 E., Hydrologic Unit 03090204, 21 ft south of Corkscrew Road, 5.6 mi south of intersection of State Road 82 and County Road 850, and 11.7 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 670 ft, cased to 400 ft, open hole 400 to 670 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. casing, 27.66 ft above National Geodetic Vertical Datum of 1929.

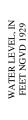
LAND-SURFACE DATUM .-- Land surface is approximately 24.4 ft above NGVD.

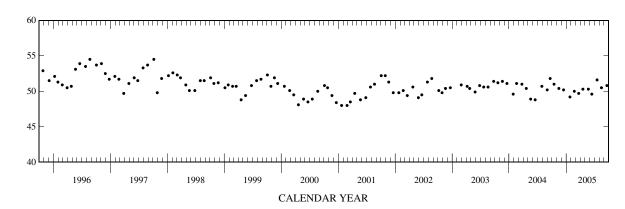
REMARKS.--Records of water levels, prior to October 1982, are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--August 1976 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.5 ft NGVD, Nov. 24, 1987 and Aug. 22, 1996; lowest, 46.6 ft NGVD, June 28, 1978.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1003	51.0	18	0826	50.3
NOV			MAY		
15	0934	50.4	23	0959	50.3
DEC			JUN		
15	1035	50.2	14	0929	49.6
JAN			JUL		
25	0914	49.2	18	1002	51.6
FEB			AUG		
22	1002	50.0	15	1036	50.5
MAR			SEP		
22	0847	49.7	19	1133	50.8





WELL NUMBER.--262706081435401. Local Number L 1853.

LOCATION.--Lat 26°27'07", long 81°43'57", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.20, T.46 S., R.26 E., Hydrologic Unit 03090204, 17 ft north of Corkscrew Road, 3.2 mi east of U.S. Interstate 75, and 6.0 mi east of Estero Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 210 ft, cased to 130 ft, open hole 130 to 210 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 24.80 ft above National Geodetic Vertical Datum of 1929. Prior to October 2000, measuring point was considered to be 24.73 ft above NGVD.

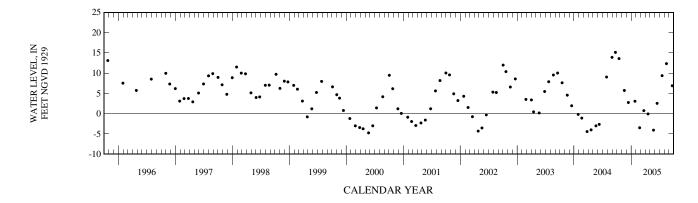
LAND-SURFACE DATUM .-- Land surface is approximately 22.0 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in the files of the U.S. Geological Survey. Well was monitored for salinity from May 1981 to 1992. The casing is cracked at approximately 15 ft. In January 2002, the well was resurveyed. The figures of water level as elevation, in feet NGVD, prior to October 2000, are in error. A correction of +0.07 ft is required to correct the water-level data. See DATUM.

PERIOD OF RECORD.--November 1974 to September 1995 (monthly), October 1995 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.13 ft NGVD, Sept. 22, 2004; lowest, 4.66 ft below NGVD, May 23, 2000 (present datum).

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	0857	13.59	19	1324	06
NOV			MAY		
18	0911	5.74	24	1256	-4.06
DEC			JUN		
14	1643	2.76	16	1302	2.55
JAN			JUL		
25	0727	3.07	18	1426	9.38
FEB			AUG		
24	1242	-3.47	15	1447	12.35
MAR			SEP		
23	0851	.75	21	1158	6.90



WELL NUMBER.--262706082080201. Local Number L 5735.

LOCATION.--Lat 26°27'09", long 82°08'01", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.20, T.46 S., R.22 E., Hydrologic Unit 03100103, 1.8 mi northwest of intersection of Sanibel-Captiva Road and Rabbit Road.

AQUIFER .-- Upper Floridan Aquifer of the Oligocene Age, Geologic Unit 120 UFAQ.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1 \( \frac{1}{4} \) in., depth 770 ft, cased to 740 ft, open hole 740 to 770 ft.

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

DATUM.--Measuring points: For pressure gage, top of flange, 4.50 ft above National Geodetic Vertical Datum of 1929; for chalked tape, top of 1 in. pipe casing, 5.34 ft above NGVD. Prior to May 2005, measuring point for chalked tape, 5.37 ft above NGVD. See REMARKS.

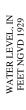
LAND-SURFACE DATUM.--Land surface is approximately 2.7 ft above NGVD.

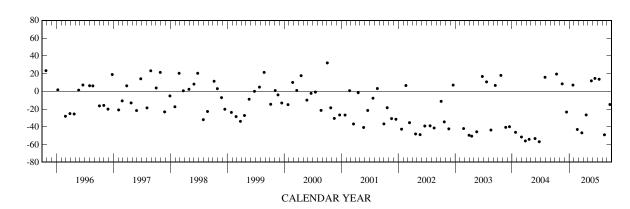
REMARKS .-- In April 2005, the well was resurveyed. See DATUM.

PERIOD OF RECORD.--March 1987 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.33 ft NGVD, Mar. 23, 1995; lowest, 56.86 ft below NGVD, June 23, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1038	19.4	20	0832	-26.65
NOV			MAY		
17	0946	8.4	23	1323	11.8
DEC			JUN		
15	1005	-23.39	15	1140	14.5
JAN			JUL		
25	1008	7.00	12	1007	13.6
FEB			AUG		
22	1033	-43.06	15	1039	-49.06
MAR			SEP		
23	0929	-46.88	19	1158	-14.9





WELL NUMBER.--262706082080202. Local Number L 5737.

LOCATION.--Lat 26°27'09", long 82°08'01", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.20, T.46 S., R.22 E., Hydrologic Unit 03100103, 1.8 mi northwest of intersection of Sanibel-Captiva Road and Rabbit Road on Sanibel Island.

AQUIFER .-- Upper Floridan aquifer of the Oligocene Age, Geologic Unit 120 UFAQ.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 700 ft, cased to 665 ft, open hole 665 to 700 ft.

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

DATUM.--Measuring points: For pressure gage, top of steel flange, 4.50 ft above National Geodetic Vertical Datum of 1929; for chalked tape, top of 1 in. pipe, 5.82 ft above NGVD. Prior to May 2005, measuring point for chalked tape, 5.85 ft above NGVD. See REMARKS.

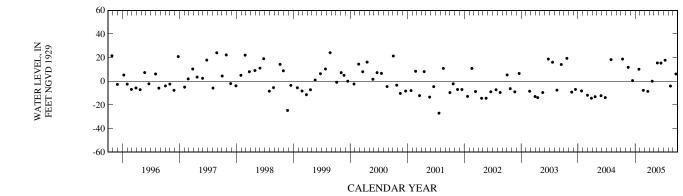
LAND-SURFACE DATUM .-- Land surface is approximately 2.7 ft above NGVD.

REMARKS.--In April 2005, the well was resurveyed. See DATUM.

PERIOD OF RECORD.--March 1987 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.7 ft NGVD, May 22, 1995; lowest, 26.95 ft below NGVD, July 23, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1039	18.8	20	0852	.07
NOV			MAY		
17	0947	11.8	23	1357	15.5
DEC			JUN		
15	1000	.58	15	1040	15.4
JAN			JUL		
25	1003	10.20	12	1008	17.8
FEB			AUG		
22	1033	-7.63	15	1035	-4.04
MAR			SEP		
23	1033	-8.53	19	1200	6.2



WELL NUMBER.--262710082005301. Local Number L 585.

 $LOCATION.--Lat\ 26^{\circ}27'11'', long\ 82^{\circ}00'55'', in\ SW\ ^{1}\!\!/_{4}\ sec. 21,\ T.46\ S.,\ R.23\ E.,\ Hydrologic\ Unit\ 03100103,\ 200\ ft\ west\ of\ Sanibel\ Island\ Lighthouse, along\ trail\ from\ lighthouse\ to\ beach\ at\ Point\ Ybel,\ 7\ mi\ east\ of\ Sanibel\ Post\ Office.$ 

AQUIFER.--Lower Hawthorn aquifer of the Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 475 ft, cased to 335 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Reference mark on 3 in. brass exhaust for gate valve, 4.78 ft above National Geodetic Vertical Datum of 1929. From June 9, 1994 to November 2, 1998, reference mark was on northwest corner of meter box, 3.24 ft above NGVD. From March 24, 1993 to June 9, 1994, measuring point was top of plug, 3.66 ft above NGVD. From October 1990 to March 24, 1993, measuring point was base of faucet, 2.93 ft above NGVD. Prior to October 1990, measuring point was top of 6 in. plug, 4.83 ft above NGVD.

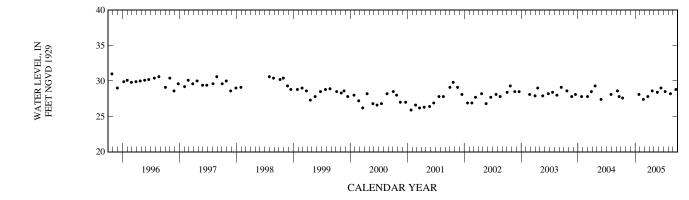
LAND-SURFACE DATUM.--Land surface is approximately 2.3 ft above NGVD.

REMARKS.--Records of water levels, prior to October 1981, are in the files of the U.S. Geological Survey. The well was also used for salinity monitoring from October 1982 to October 1997.

PERIOD OF RECORD.--January 1964 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.3 ft NGVD, July 26, 1988; lowest, 21.2 ft NGVD, Jan. 28, 1988.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			MAY		
12	1219	27.6	23	1452	28.4
JAN			JUN		
25	1040	28.1	15	1344	29.0
FEB			JUL		
22	1202	27.40	12	1235	28.5
MAR			AUG		
23	1141	27.8	15	1219	28.2
APR			SEP		
20	1248	28.6	19	1329	28.8



WELL NUMBER.--262711081413701. Local Number L 2550.

LOCATION.--Lat 26°27'12", long 81°41'37", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 22, T.46 S., R.26 E., Hydrologic Unit 03050204, 0.75 mi east of Alico Road, 0.05 mi north of Corkscrew Road, 1.8 mi east of U.S. Interstate 75, and 8.2 mi east of Estero Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 134 ft, cased to 67 ft, open hole 67 to 134 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of flange, 21.11 ft above National Geodetic Vertical Datum of 1929. Prior to October 2002, measuring point was incorrectly considered to be 21.07 ft above NGVD. The figures of water level as elevation, in ft NGVD, from March 1992 to October 2002, are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 18.6 ft above NGVD.

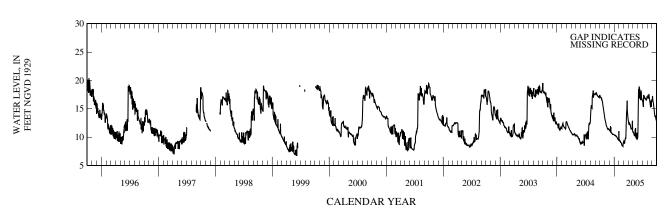
REMARKS.--The figures of water as elevation, in ft NGVD, from March 1992 to October 2002, are in error. A correction of +0.04 ft is required to correct water-level data. See DATUM.

PERIOD OF RECORD .-- March 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 20.37 ft NGVD, Oct. 13, 1995; lowest, 6.71 ft NGVD, June 7, 1999.

# ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JUL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.07	12.89	11.10	10.34	9.42	9.29	12.25	10.82	16.82	15.84	17.30	16.66
10	16.85	12.24	11.76	10.30	9.17	9.24	12.33	10.31	18.80	17.34	17.07	15.81
15	16.51	11.85	10.78	10.17	8.98	9.84	11.89	11.29	16.98	16.94	16.77	14.51
20	15.63	11.42	10.53	9.92	8.58	13.01	11.43	9.95	16.53	16.82	15.78	13.65
25	14.82	11.46	10.50	9.62	8.42	16.36	11.42	10.76	16.68	16.64	16.43	13.28
EOM	13.58	11.28	10.42	11.06	8.95	13.22	10.96	9.78	16.50	17.00	16.62	13.03
MAX	17.45	13.43	11.94	11.06	9.53	16.36	13.00	11.62	18.80	17.43	17.52	17.24



WELL NUMBER.--262713081414401. Local Number L 2193.

LOCATION.—Lat  $26^{\circ}27'12''$ , long  $81^{\circ}41'43''$ , in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 22, T.46 S., R.26 E., Hydrologic Unit 03050204, 0.75 mi east of Alico Road, 50 ft north of Corkscrew Road, 1.8 mi east of U.S. Interstate 75, and 8.2 mi east of Estero Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 292 ft, cased to 220 ft, screened 220 to 292 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of flange, 22.03 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 19.5 ft above NGVD.

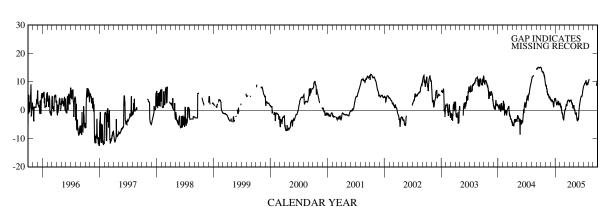
REMARKS.--Records of water levels prior to March 1992 may be available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1975 to January 1978 (monthly), March 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.07 ft NGVD, Sept. 26, 1975; lowest daily maximum water level, 16.10 ft below NGVD, June 2, 1992.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
												~
5	14.61	8.50	3.72	3.47	1.11	0.01	3.38	-0.19	1.45	8.82	10.65	
10	13.50	7.11	3.24	2.44	0.14	1.05	3.41	-1.34	3.34	9.49		
15	13.54	5.65	3.24	2.22	-1.34	1.91	3.10	-1.12	4.58	10.00		
20	12.75	5.00	1.81	3.05	-2.79	3.04	2.50	-3.21	4.87	9.33		
25	11.78	4.18	2.75	1.68	-3.06	3.47	1.03	-3.63	6.11	9.52		9.49
EOM	8.86	3.73	3.76	2.38	-1.43	3.33	1.77	-2.84	7.95	9.58		10.68
MAX	15.03	9.07	3.99	4.10	2.17	3.59	3.61	1.01	7.95	10.52		





WATER LEVEL, IN FEET NGVD 1929

#### LEE COUNTY—Continued

WELL NUMBER.--262713081414701. Local Number L 1985.

LOCATION.--Lat 26°27'12", long 81°41'42", in NW  ${}^{1}\!\!/_{4}$  SE  ${}^{1}\!\!/_{4}$  sec.22, T.46 S., R.26 E., Hydrologic Unit 03090204, 20 ft north of Corkscrew Road, 5.55 mi east of U.S. Interstate 75, and 8.2 mi east of Estero Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 50 ft, cased to 43 ft, open hole 43 to 50 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. PVC, 20.95 ft above National Geodetic Vertical Datum of 1929. From September 21, 1993 to October 2001, measuring point was 20.96 ft above NGVD. From October 1, 1992 to September 21, 1993, top of casing was 23.32 ft above NGVD. From October 1980 to September 30, 1992, measuring point was top of shelf, 23.38 ft above NGVD. From October 1978 to September 1980, top of shelf was 23.46 ft above NGVD.

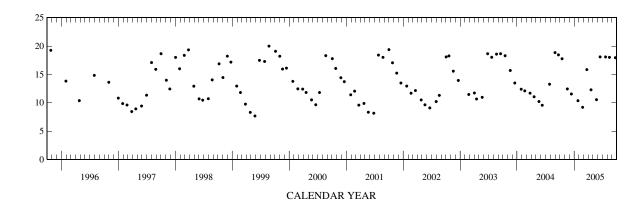
LAND-SURFACE DATUM.--Land surface is approximately 20.8 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. Well was monitored for salinity until April 1993.

PERIOD OF RECORD.--December 1974 to September 1978 (monthly), February 1978 to September 1992 (daily), October 1992 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.73 ft NGVD, Aug. 2, 1991;lowest, 7.33 ft NGVD, May 7, 1990 (Corrected).

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
15	1408	17.76	19	1456	12.29
NOV			MAY		
18	1137	12.45	24	1430	10.55
DEC			JUN		
14	1638	11.55	16	1625	18.09
JAN			JUL		
25	0735	10.37	21	1649	18.08
FEB			AUG		
24	1547	9.21	15	1454	18.01
MAR			SEP		
23	1042	15.85	22	1255	17.95



WELL NUMBER.--262755082090902. Local Number L 5734.

LOCATION.--Lat 26°27'56", long 82°09'09", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.18, T.46 S., R.22 E., Hydrologic Unit 03100103, 200 ft south of Sanibel-Captiva Road and 40 ft east of Bowman's Beach Road.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 608 ft, cased to 440 ft, open hole 440 to 608 ft.

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

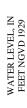
DATUM.--Measuring point: Top of 8 in. casing, 4.44 ft above National Geodetic Vertical Datum of 1929. Prior to January 1992, measuring point was top of cap, 5.49 ft above NGVD.

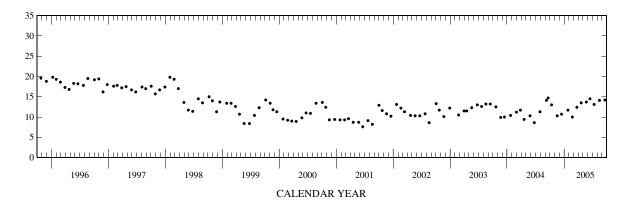
LAND-SURFACE DATUM.--Land surface is approximately 4.1 ft above NGVD.

PERIOD OF RECORD.--October 1989 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.4 ft NGVD, Oct. 7, 1992; lowest, 17.17 ft below NGVD, Mar. 20, 1991.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1020	13.0	20	1032	13.5
NOV			MAY		
17	0932	10.30	23	1332	13.7
DEC			JUN		
15	0934	10.7	15	1034	14.5
JAN			JUL		
25	0952	11.7	12	0951	13.1
FEB			AUG		
22	1011	10.0	15	1009	14.1
MAR			SEP		
23	0910	12.4	19	1138	14.2





WELL NUMBER.--262831081575901. Local Number L 2212.

 $LOCATION.--Lat\ 26^{\circ}28'33'', long\ 81^{\circ}58'01'', in\ NW\ \frac{1}{4}\ NW\ \frac{1}{4}\ sec. 13, T.46\ S., R.23\ E., Hydrologic\ Unit\ 03090205, at\ Bunch\ Beach, 400\ ft\ east\ of\ John\ Morris\ Road\ at\ San\ Carlos\ Bay,\ 1.2\ mi\ south\ of\ Summerlin\ Road,\ 2\ mi\ northwest\ of\ Ft.\ Myers\ Beach\ Post\ Office.$ 

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 236 ft, cased to 135 ft, open hole 135 to 236 ft.

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

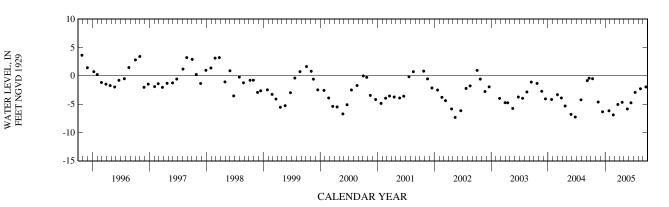
DATUM.--Measuring point: Top of 4 in. steel cap, 1.62 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 1.1 ft above NGVD.

PERIOD OF RECORD.--February 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.82 ft NGVD, Aug. 30, 1989; lowest, 7.34 ft below NGVD, May 15, 2002.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1253	52	20	1312	-4.68
NOV			MAY		
17	1227	-4.63	23	1512	-5.84
DEC			JUN		
15	1248	-6.35	15	1400	-4.76
JAN			JUL		
25	1109	-6.17	12	1314	-2.93
FEB			AUG		
22	1230	-6.89	15	1233	-2.29
MAR			SEP		
23	1200	-5.06	19	1359	-1.97



WELL NUMBER.--262839081503100. Local Number L 735.

LOCATION.—Lat 26°28'40", long 81°50'31", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.18, T.46 S., R.25 E., Hydrologic Unit 03090204, 13 ft south of Park Road, 0.2 mi west of U.S. Highway 41, and 1.5 mi northwest of Estero Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 270 ft, cased to 223 ft, open hole 223 to 270 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of casing, 8.92 ft above National Geodetic Vertical Datum of 1929. From June 22, 1999 to September 2002, measuring point was 7.32 ft above NGVD. Prior to June 22, 1999, measuring point was top of cap, 7.52 ft above NGVD.

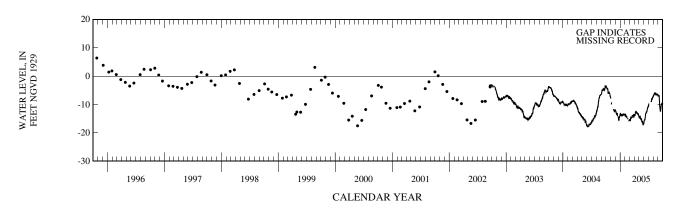
LAND-SURFACE DATUM.--Land surface is approximately 5.2 ft above NGVD.

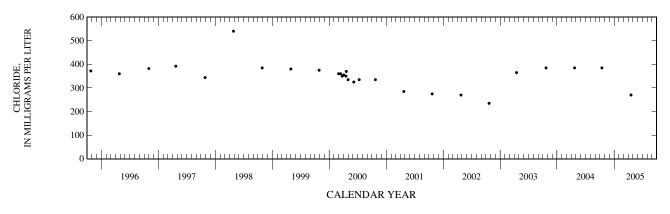
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. In September 2002, the station was reconstructed with a new measuring point elevation. See DATUM.

PERIOD OF RECORD.--August 1968 to November 1974 (bimonthly), December 1974 to August 2002 (monthly), September 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.4 ft NGVD, Oct. 31, 1969; lowest maximun daily water level, 17.81 ft below NGVD, June 6, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-3.80	-9.98	-12.78	-13.68	-14.00	-15.90	-13.40	-14.75	-15.46		-6.61	-7.04
10	-4.37	-9.90	-13.28	-13.58	-14.00	-14.43	-12.47	-14.79	-14.83		-6.09	-9.12
15	-6.00		-14.19	-13.89		-14.60	-12.82	-14.94	-13.17		-6.32	-12.48
20	-5.62	-11.81	-14.54	-13.75		-13.81	-13.01	-15.89	-12.66	-9.14	-6.56	-10.43
25	-6.08	-12.38	-14.82	-13.45			-13.17	-16.24	-11.41	-8.04	-6.51	-9.78
EOM	-7.52	-12.22	-13.55	-13.62	-15.43	-13.82	-14.17	-16.85	-10.63	-7.19	-6.78	-9.45
MAX	-3.65			-13.13			-12.41	-14.12	-10.63		-5.97	-6.79





WELL NUMBER.--262934081495801. Local Number L 5649.

LOCATION.--Lat 26°29'35", long 81°47'14", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.10, T.46 S., R.25 E., Hydrologic Unit 03090204, on the north side of Alico Road, 0.3 mi east of U.S. Interstate 75, and 12 mi southeast of Ft. Myers Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 128 ft, cased to 118 ft, screened 118 to 128 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 26.42 ft above National Geodetic Vertical Datum of 1929. From September 2001 to October 22, 2004, measuring point was 24.94 ft NGVD. From August 1994 to September 2001, measuring point was incorrectly considered to be 25.10 ft above NGVD. From October 1982 to August 1994, measuring point was 22.56 ft above NGVD, but was incorrectly considered to be 22.73 ft above NGVD. See REMARKS.

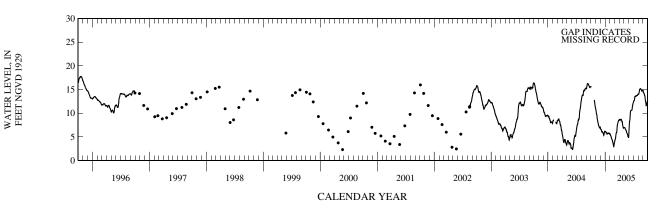
LAND-SURFACE DATUM.--Land surface is approximately 22.7 ft above NGVD.

REMARKS.--The station was reconstructed October 22, 2004. In the 2002 water year the well was re-surveyed and the land-surface datum and height of the measuring point were corrected. The figures of water levels as elevation, in feet NGVD, from October 1982 to October 2001, are in error. A -0.17 ft correction is required to correct the water-level data. See DATUM.

PERIOD OF RECORD.--October 1982 to September 1996 (daily), October 1996 to July 2002 (monthly), August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.24 ft NGVD, Sept. 12, 13, 1986 (present datum); lowest water level measured, 2.15 ft NGVD, May 23, 2000 (present datum).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		9.98	6.60	6.07	5.28	4.41	8.68	6.94	7.96	12.71	14.18	14.36
10		9.11	6.11	5.89	4.71	5.19	8.71	6.67	9.59	13.48	15.03	13.82
15		8.11	6.02	5.65	4.29	5.93	8.58	6.36	10.57	13.54	15.20	12.76
20		7.39	5.73	5.75	3.71	7.56	8.04	5.80	10.66	13.73	15.03	11.60
25	12.41	6.92	5.69	5.72	2.96	8.26	7.16	5.35	11.59	13.75	14.68	12.14
EOM	11.05	6.99	6.13	5.75	3.64	8.56	7.00	4.82	12.28	14.03	14.92	12.72
MAX		10.90	6.93	6.13	5.63	8.57	8.73	7.00	12.28	14.03	15.20	14.73



WELL NUMBER.--262944081560801. Local Number L 2529.

LOCATION.--Lat 26°29'15", long 81°56'24", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 7, T.46 S., R.24 E., Hydrologic Unit 03090204, on south side of Pine Ridge Road, east of State Road 865, and 2.6 mi north of Ft. Myers Beach Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 545 ft, cased to 304 ft, open hole 304 to 545 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of meter box, west side, 6.04 ft above National Geodetic Vertical Datum of 1929. From January 1978 to September 1990, measuring point was top of casing, 6.11 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 5.8 ft above NGVD.

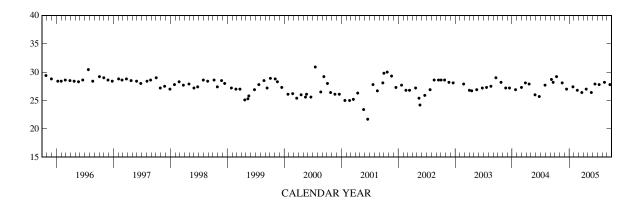
REMARKS.--Records of water levels prior to October 1980 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1978 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.0 ft NGVD, Nov. 30, 1981; lowest, 21.7 ft NGVD, June 19, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1513	29.2	20	1423	27.0
NOV			MAY		
17	1327	28.1	23	1601	26.4
DEC			JUN		
15	1302	27.0	15	1540	27.9
JAN			JUL		
25	1207	27.4	12	1432	27.8
FEB			AUG		
22	1415	26.8	15	1438	28.2
MAR			SEP		
23	1415	26.4	19	1518	27.8





WATER LEVEL, IN FEET NGVD 1929

## LEE COUNTY—Continued

WELL NUMBER.--263004082111701. Local Number L 2315.

LOCATION.--Lat 26°29'58", long 82°11'16", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.3, T.46 S., R.21 E., Hydrologic Unit 03100103, 25 ft north of private drive, 125 ft west of Sanibel-Captiva Road, 1.1 mi north of Blind Pass bridge and 1.8 mi south of Captiva.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 600 ft, cased to 535 ft, open hole 535 to 600 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 6 in. plug, 9.55 ft above National Geodetic Vertical Datum of 1929.

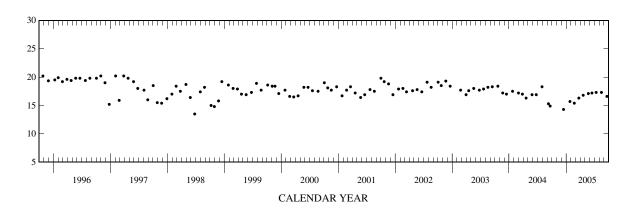
LAND-SURFACE DATUM.--Land surface is approximately 7.8 ft above NGVD.

REMARKS .-- Landowner uses well for irrigation.

PERIOD OF RECORD.--March 1987 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.8 ft NGVD, Aug. 30, 1989; lowest, 13.5 ft NGVD, June 25, 1998.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
DEC			MAY		
15	0859	14.3	23	1323	17.1
JAN			JUN		
25	0941	15.7	15	1007	17.2
FEB			JUL		
22	0958	15.4	12	0938	17.3
MAR			AUG		
23	0900	16.3	15	0957	17.3
APR			SEP		
20	1020	16.8	19	1122	16.6



WELL NUMBER.--263041081433101. Local Number L 1983.

LOCATION.--Lat 26°30'42", long 81°43'32", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 33, T.45 S., R.26 E., Hydrologic Unit 03090204, 1.25 mi north of Alico Road, 1.85 mi east of Airport Haul Road, 2.5 mi west of U.S. Interstate 75 and 7.2 mi northeast of Estero Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 345 ft, cased to 321 ft, open hole 321 to 345 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of cap, 28.92 ft above National Geodetic Vertical Datum of 1929.

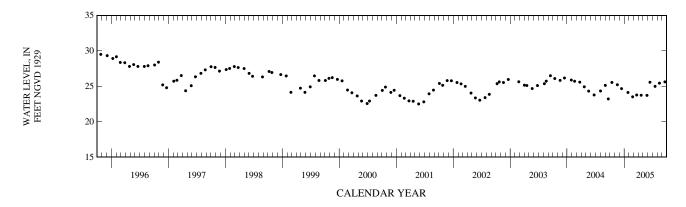
LAND-SURFACE DATUM.--Land surface is approximately 26.7 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. Prior to 1996, monthly measurements were made using a pressure gage. Well was also used for salinity monitoring from October 1985 to April 1993.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.1 ft NGVD, Oct. 29, 1975; lowest, 22.51 ft NGVD, May 24, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1312	25.54	20	1433	23.74
NOV			MAY		
18	1242	25.22	27	0935	23.72
DEC			JUN		
15	1444	24.67	15	0813	25.57
JAN			JUL		
25	0848	24.13	18	1401	24.99
FEB			AUG		
24	1526	23.52	15	1012	25.44
MAR			SEP		
22	0915	23.77	19	1105	25.62



WATER LEVEL, IN FEET NGVD 1929

#### LEE COUNTY—Continued

WELL NUMBER.--263041081433102. Local Number L 1998.

LOCATION.--Lat 26°30'42", long 81°43'32", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.33, T.45 S., R.26 E., Hydrologic Unit 03090204, 1.25 mi north of Alico Road, 1.85 mi east of Airport Haul Road, 2.5 mi west of U.S. Interstate 75, and 7.2 mi northeast of Estero Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 160 ft, cased to 100 ft, open hole 100 to 160 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 29.14 ft above National Geodetic Vertical Datum of 1929. Prior to March 2001, measuring point was 29.21 ft above NGVD.

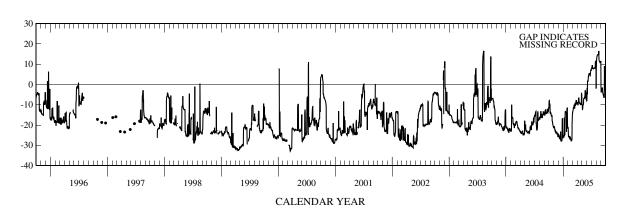
LAND-SURFACE DATUM .-- Land surface is approximately 26.6 ft above NGVD.

REMARKS.--In March 2001, the well was reconstructed and resurveyed. See DATUM. Water levels affected by pumping of nearby wells. Revised water levels for July 1997 to September 1997 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--November 1974 to September 1996 (daily), October 1996 to June 1997 (monthly), July 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.98 ft NGVD, Dec. 12, 1975; lowest, 32.88 ft below NGVD, Mar. 18, 2000.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	-9.27 -14.04 -14.35 -15.32 -18.99 -21.22	-20.84 -22.75 -23.02 -23.61 -24.03 -25.67	-25.91 -26.71 -23.26 -27.72 -20.86 -26.29	-25.15 -24.76 -13.12 -14.13 -12.16 -21.44	-25.84 -25.75 -25.92 -27.43 -27.35 -16.75	-12.71 -11.59 -11.89 -10.55 -7.70 -9.34	-9.87 -6.81 -9.00 -9.29 -9.87 -5.06	-12.21 -9.76 -6.76 -6.49 -3.73 -7.72	-0.79 2.79 5.21 5.30 6.20 7.76	8.44 7.88 7.70 8.23 8.32 -2.05	13.59 14.67 14.81 11.76 10.86 -1.32	-2.63 -2.33 -5.15 -6.63 -1.57 -2.04
MAX	-7.97	-20.60	-16.69	-11.42	-16.75	-7.70	-4.15	-3.02	7.76	11.45	16.57	9.03



WELL NUMBER.--263041081433103. Local Number L 1999.

LOCATION.--Lat 26°30'42", long 81°43'32", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 33, T.45 S., R.26 E., Hydrologic Unit 03090204, 1.25 mi north of Alico Road, 1.85 mi east of Airport Haul Road, 2.5 mi west of U.S. Interstate 75 and 7.2 mi northeast of Estero Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 26 ft, cased to 16 ft, open hole 16 to 26 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of shelf, 28.92 ft above National Geodetic Vertical Datum of 1929. Prior to March 2001, measuring point was top of casing, 29.92 ft above NGVD. See REMARKS.

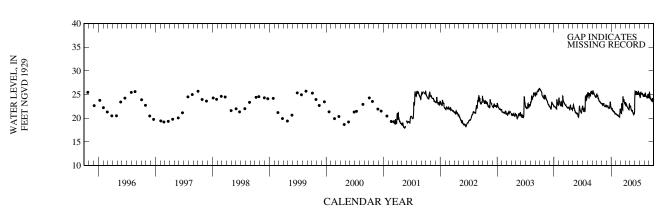
LAND-SURFACE DATUM.--Land surface is approximately 26.9 ft above NGVD.

REMARKS.--In March 2001, the well was reconstructed and resurveyed. See DATUM. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--November 1974 to February 2001 (monthly), March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 26.28 ft NGVD, Sept. 29, 2003; lowest, 17.94 ft NGVD, May 17, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.52	22.82	22.53	22.07	20.78	21.44	22.78	22.57	25.65	24.42	25.25	25.02
10	24.06	22.95	22.64	21.77	20.64	23.07	22.72	21.76	25.59	25.51	25.01	24.08
15	23.72	23.10	22.25	21.40	20.48	21.79	22.38	21.61	25.35	25.12	24.51	23.79
20	23.57	22.49	22.19	21.40	20.35	23.78	22.06	21.16	25.19	25.29	24.32	24.13
25	23.28	22.60	23.40	20.98	21.09	23.53	21.77	20.78	25.64	24.93	24.36	23.71
EOM	23.16	22.64	22.18	20.96	21.93	23.00	22.35	21.53	25.39	24.70	24.44	23.96
MAX	25.15	23.12	23.41	22.16	21.93	24.63	23.40	22.57	25.76	25.51	25.25	25.60



WELL NUMBER.--263115081483501. Local Number L 5641.

LOCATION.--Lat 26°31'14", long 81°48'34", in NW \( \frac{1}{4} \) SE \( \frac{1}{4} \) NE \( \frac{1}{4} \) sec.33, T.45 S., R.25 E., Hydrologic Unit 03090204, at golf course in Fiddlesticks Country Club, 0.75 mi west of U.S. Interstate 75 on Daniels Road and 1.5 mi south on Palomino Street to gate house, 0.25 mi west on Fiddlesticks Boulevard to Cannongate Drive, 0.1 mi south to Tweedale Circle. Golf cart path is behind lot 300.

AQUIFER.--Upper Floridan aquifer of the Oligocene Age, Geologic Unit 120 UFAQ.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 1,410 ft, cased to 950 ft, open hole 950 to 1,410 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 4 in. reducer, 20.23 ft above National Geodetic Vertical Datum of 1929. Prior to October 2004, measuring point was top of 4 in. coupling, 20.08 ft above NGVD, but was incorrectly considered to be 27.80 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 26.1 ft above NGVD.

REMARKS.--In the 2005 water year the well was destroyed, reconstructed and re-surveyed. The land-surface datum and height of the measuring point were corrected. The figures of water as elevation, in ft NGVD, from May 1984 to October 2004, are in error. A correction of -7.72 ft is required to correct water-level data. See DATUM.

PERIOD OF RECORD.--May 1984 to October 1991 (semiannual), January 1992 to October 1993 (monthly), December 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.3 ft NGVD, Sept. 14, 1992 and Jan. 30, 1998; lowest, 39.3 ft Dec. 21, 1993. (Corrected).

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

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
DEC			JUN		
14	1454	43.3	15	1444	44.2
JAN			JUL		
26	1327	43.9	18	1253	44.4
FEB			AUG		
24	1632	42.9	18	1225	45.2
MAR			SEP		
22	0958	44.2	20	1115	45.5
MAY					
2.7	1023	44.3			

2001

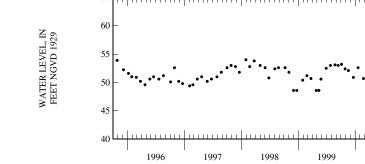
CALENDAR YEAR

2005

2004

2003

2002



WELL NUMBER.--263115081483502. Local Number L 5801.

LOCATION.--Lat 26°31'14", long 81°48'34", NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  in sec.33, T.45 S., R.25 E., Hydrologic Unit 03090204, at golf course in Fiddlesticks Country Club, 0.75 mi west of U.S. Interstate 75 on Daniels Road and 1.5 mi south on Palomino Street to gate house, 0.25 mi west on Fiddlesticks Boulevard to Cannongate Drive, 0.1 mi south to Tweedale Circle. Golf cart path is behind lot 300.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1 in., depth 635 ft, cased to 450 ft, open hole 450 to 635 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of 4 in. reducer, 20.23 ft above National Geodetic Vertical Datum of 1929. Prior to October 2004, measuring point was top of 4 in. coupling, on well L 5641, 20.08 ft above NGVD, but was incorrectly considered to be 27.80 ft above NGVD. See REMARKS.

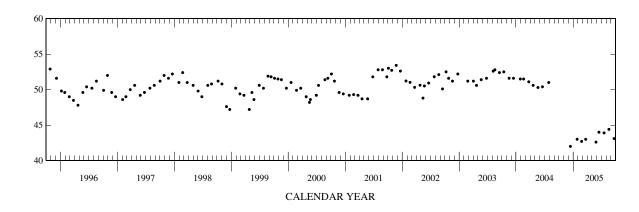
LAND-SURFACE DATUM.--Land surface is approximately 26.1 ft above NGVD.

REMARKS.--In the 2005 water year the well was destroyed, reconstructed and resurveyed. The land-surface datum and height of the measuring point were corrected. The figures of water as elevation, in ft NGVD, from May 1984 to October 2004, are in error. A correction of -7.72 ft is required to correct water-level data. See DATUM.

PERIOD OF RECORD.--March 1992 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.7 ft NGVD, Oct. 7, 1993; lowest, 39.5 ft NGVD, Dec. 22, 1998 and Apr. 26, 1999. (Corrected).

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
DEC			JUN		
14	1456	42.0	15	1447	44.0
JAN			JUL		
26	1335	43.0	18	1250	43.9
FEB			AUG		
24	1628	42.7	18	1223	44.4
MAR			SEP		
22	1000	43.0	20	1118	43.1
MAY					
27	1020	42.6			



WELL NUMBER.--263117082051001. Local Number L 2525.

LOCATION.--Lat 26°31'17", long 82°05'10", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.26, T.45 S., R.22 E., Hydrologic Unit 03100103, 32 ft west of H. Stringfellow Road (County Road 767) and 6.6 mi south of Pine Island Road and 0.9 mi north of Saint James City Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 645 ft, cased to 405 ft, open hole 405 to 645 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer. Prior to October 2004, satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of 5/16 in. carriage bolt, securing base to flange, 6.44 ft above National Geodetic Vertical Datum of 1929. From October 1977 to August 2002, measuring point was top of casing, 6.19 ft above NGVD.

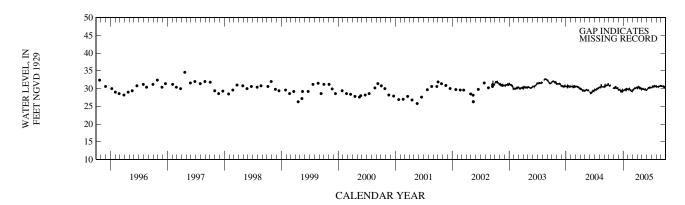
LAND-SURFACE DATUM.--Land surface is approximately 3.9 ft above NGVD.

REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--October 1977 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to August 2002 (monthly), August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.6 ft NGVD, Apr. 22, 1997; lowest, 25.4 ft NGVD, Aug. 28, 1980.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.82	30.26	29.58	29.61	29.75	29.46	30.17	29.94	29.80	30.32	30.57	30.67
10	30.90	30.15	29.79	29.60	30.13	29.81	30.31	30.03	30.23	30.90	30.50	30.67
15		30.73	29.12	29.63	29.64	29.99	30.20	29.87	30.25	30.56	30.57	30.65
20		30.04	29.32	29.84	29.28	29.99	30.08	29.76	30.24	30.79	30.65	30.41
25		30.27	29.68	29.79	29.38	30.19	30.00	29.85	30.40	30.67	30.59	30.36
EOM	30.11	29.74	29.33	29.89	29.58	30.26	29.92	29.57	30.27	30.56	30.70	30.34
MAX		30.73	29.81	30.05	30.13	30.37	30.53	30.03	30.40	30.90	30.91	30.76



WELL NUMBER.--263117082051002. Local Number L 2821.

LOCATION.--Lat 26°31'17", long 82°05'10", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.26, T.45 S., R.22 E., Hydrologic Unit 03100103, 32 ft west of H. Stringfellow Road (County Road 767) and 6.6 mi south of Pine Island Road and 0.9 mi north of Saint James City Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 340 ft, cased to 290 ft, open hole 290 to 340 ft.

INSTRUMENTATION.--Electronic data logger with pressure transducer. Prior to October 2004, satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of 8 in. casing, 6.55 ft above National Geodetic Vertical Datum of 1929.

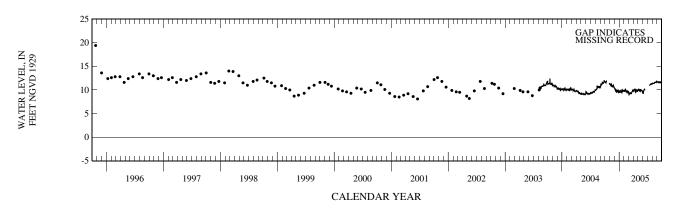
LAND-SURFACE DATUM .-- Land surface is approximately 3.4 ft above NGVD.

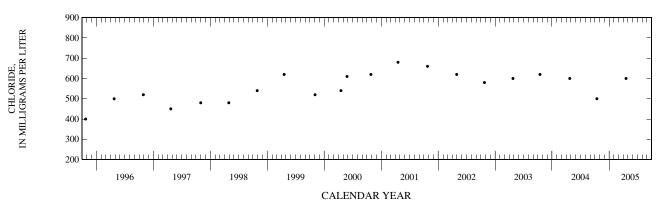
REMARKS.--Well is also used for salinity monitoring. This well is open to the aquifer for 50 ft. The exact depth from which the chloride-containing water is emanating cannot be further delineated.

PERIOD OF RECORD.--October 1978 to August 2003 (monthly), August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.4 ft NGVD, Oct. 24, 1995; lowest, 8.1 ft NGVD, June 18, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	11.67 11.76	11.25 10.82	10.15 9.90	9.35 9.72	9.85 10.17	9.14 9.30	9.87 10.05	10.05 10.03	9.51 10.09		11.36 11.38	11.67 11.55
15		10.79	9.58	9.56	9.80	9.24	10.02	10.08	10.14	10.96	11.51	11.63
20 25		10.81 11.01	9.74 9.93	9.63 9.76	9.45 9.58	9.22 9.68	9.76 9.93	9.81 9.88		11.22 11.19	11.63 11.60	11.49 11.56
EOM	11.34	10.46	9.63	9.82	9.71	9.74	9.93	9.35		11.28	11.77	11.53
MAX		11.26	10.44	10.00	10.17	9.90	10.18	10.14			11.86	11.73





WELL NUMBER.--263127081351602. Local Number L 2215.

LOCATION.--Lat 26°31'28", long 81°35'17", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.35, T.45 S., R.27 E., Hydrologic Unit 03090205, 66 ft east of Eisenhower Boulevard, 68 ft north of State Road 82, and 7.6 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 149 ft, cased to 99 ft, screened 99 to 149 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 31.54 ft above National Geodetic Vertical Datum of 1929.

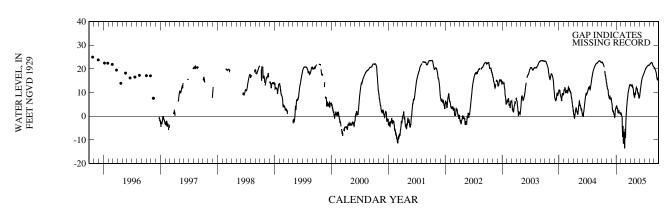
LAND-SURFACE DATUM .-- Land surface is approximately 30.2 ft above NGVD.

REMARKS.--In 1999 and 2000, hydrologic profiles and water quality samples were collected for a drought alert project and the well was sampled for water quality for a saltwater intrusion project.

PERIOD OF RECORD.--October 1975 to October 1996 (monthly), November 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.97 ft NGVD, Aug. 30, 1978; lowest daily maximum water level, 13.55 ft below NGVD, Feb. 24, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.67	11.79	5.25	4.09	0.14	-0.39	13.22	10.08	11.15	19.41	21.92	20.26
10	22.11	11.10	2.13	3.15	-7.11	4.43	13.04	12.20	13.83	20.22	22.45	19.52
15	21.10	8.63	1.42	2.02	-9.85	7.81	12.64	11.54	15.80	20.75	22.70	18.08
20	18.62	8.46	0.41	1.74	-6.78	10.55	11.59	9.61	16.73	21.23	22.44	15.73
25	17.23	7.51	1.52	0.98	-9.83	12.17	9.70	8.52	17.61	21.49	21.37	15.83
EOM	14.13	7.59	3.69	1.47	-5.33	13.18	8.65	8.21	18.55	21.57	20.80	16.36
MAX		14.03	7.00	4.37	1.33	13.33	13.30	12.29	18.55	21.57	22.76	20.71



WELL NUMBER.--263138081545801. Local Number L 730.

LOCATION.--Lat 26°31'28", long 81°35'17", in NW \(^1/\_4\) NE \(^1/\_4\) sec.35, T.45 S., R.27 E., Hydrologic Unit 03090205, 21 ft east of Eisenhower Boulevard, 68 ft north of State Road 82, and 7.6 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 19 ft, cased to 18.7 ft, open hole 18.7 to 19 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of recorder base, 33.90 ft above National Geodetic Vertical Datum of 1929. Prior to July 1991, measuring point was 33.95 ft above NGVD.

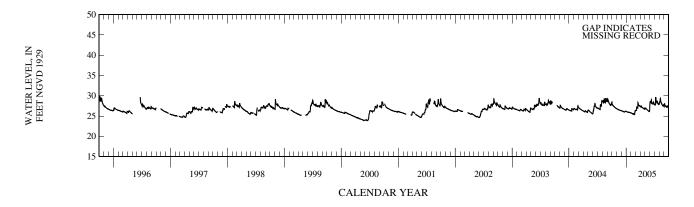
LAND-SURFACE DATUM.--Land surface is approximately 31.5 ft above NGVD.

REMARKS.--Well was monitored for salinity until September 2004. Records of water levels prior to October 1974 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 30.48 ft NGVD, Oct. 30, 1969; lowest, 23.87 ft NGVD, June 17, 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 27.81 27.48 27.28 27.22 27.83 26.25 26.05 25.70 26.95 26.73 26.44 28.64 28.52 27.87 25.54 25.44 27.48 27.25 26.60 29.44 10 26.19 25.96 27.21 26.77 28.91 28.69 25.96 26.96 15 27.33 26.5426.08 27.06 26.56 28.26 28.44 28.15 25.88 25.53 20 27.15 26.45 26.00 27.80 26.91 26.38 27.99 28.59 27.72 27.52 25 25.97 27.31 26.99 26.39 26.17 25.84 27.59 26.75 26.22 28.37 28.09 27.53 27.38 EOM 26.82 26.33 26.14 25.78 26.32 27.41 26.85 26.22 27.87 27.95 27.19 MAX 28.47 26.79 26.31 26.14 26.32 28.34 27.43 26.97 28.99 29.68 29.30 28.04



WELL NUMBER.--263138082112801. Local Number L 5766.

LOCATION.--Lat 26°31'38", long 82°11'27", in NE ½ NW ½ SW ½ sec.26, T.45 S., R.21 E., Hydrologic Unit 03100103, behind two storage sheds, 350 ft southwest of the South Seas Plantation Dive Shop, 0.05 mi southeast of South Seas Plantation Road, northeast of Captiva Road, northeast of Captiva Post Office

AQUIFER.--Upper Florida aquifer of the Oligocene Age, Geologic Unit 120 UFAQ.

WELL CHARACTERISTICS.--Driven, observation, artesian well, diameter 4 in., depth 730 ft, cased to 686 ft, open hole 686 to 730 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

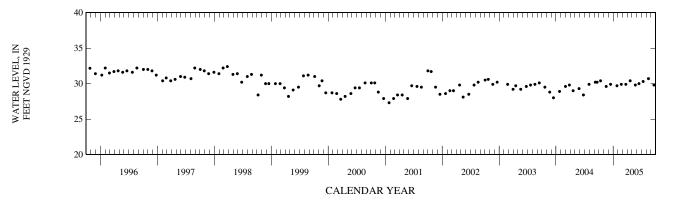
DATUM.--Measuring point: Top of 4 in. by 2 in. reducer, 7.57 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 4.3 ft above NGVD.

PERIOD OF RECORD.--April 1989 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.3 ft NGVD, Oct. 5, 1989; lowest, 27.3 ft NGVD, Jan. 25, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	0949	30.4	20	1012	30.4
NOV			MAY		
17	0907	29.6	23	1313	29.8
DEC			JUN		
15	0839	29.9	15	0958	30.0
JAN			JUL		
25	0929	29.7	12	0917	30.3
FEB			AUG		
22	0924	29.9	15	0941	30.7
MAR			SEP		
23	0848	29.9	19	1109	29.8



WELL NUMBER.--263233081550301. Local Number L 1598.

LOCATION.--Lat 26°32'32", long 81°55'02", in SW \(^1/\_4\) NW \(^1/\_4\) SW \(^1/\_4\) sec.21, T.45 S., R.24 E., Hydrologic Unit 03090205, 400 ft west of intersection of South Town and River Drive and McGregor Boulevard (State Road 867), 17 ft north of South Town and River Drive, and 2.1 mi southeast of Cape Coral Post Office

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 176 ft, cased to 137 ft, open hole 137 to 176 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.02 ft above National Geodetic Vertical Datum of 1929.

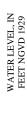
LAND-SURFACE DATUM.--Land surface is approximately 6.5 ft above NGVD.

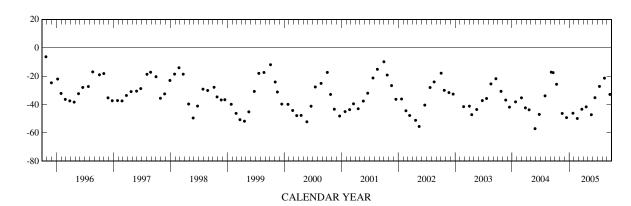
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.87 ft NGVD, Mar. 30, 1978; lowest, 57.03 ft below NGVD, May 27, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1553	-25.75	20	1505	-41.68
NOV			MAY		
17	1345	-46.31	23	1617	-47.21
DEC			JUN		
15	1422	-49.28	15	1610	-35.22
JAN			JUL		
25	1226	-46.19	14	1300	-27.27
FEB			AUG		
22	1449	-49.86	15	1458	-21.46
MAR			SEP		
23	1532	-43.35	19	1620	-32.93





WATER LEVEL, IN FEET NGVD 1929

## LEE COUNTY—Continued

WELL NUMBER.--263242081572101. Local Number L 2244.

 $LOCATION.--Lat\ 26^{\circ}32'43", long\ 81^{\circ}57'18", in\ SE\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec. 19, T.45\ S., R.24\ E., Hydrologic\ Unit\ 03090205, in\ front\ yard\ of\ 931\ Dolphin\ Drive, 4.5\ ft\ north\ of\ Dolphin\ Drive, 0.5\ mi\ west\ of\ Driftwood\ Parkway\ and\ 1.5\ mi\ southwest\ of\ Cape\ Coral\ Post\ Office.$ 

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 207 ft, cased to 150 ft, open hole 150 to 207 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 4.58 ft above National Geodetic Vertical Datum of 1929.

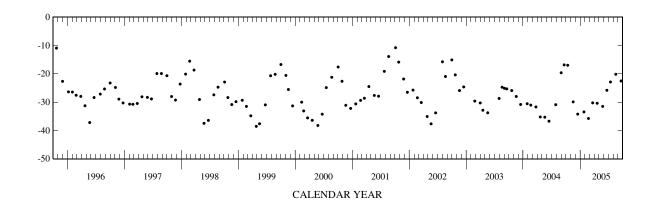
LAND-SURFACE DATUM.--Land surface is approximately 5.4 ft above NGVD.

REMARKS.--No salinity monitoring for the current year. Well was previously used for salinity monitoring from April 1978 to April 2002. During the 2003 water year salinity monitoring was discontinued because of an obstruction that prevents sampling the well. Conductivity and chloride profiles for previous water years are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1977 to April 1988 (intermittent), May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.29 ft below NGVD, Sept. 25, 1979; lowest, 44.97 ft below NGVD, May 25, 1994.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1533	-16.99	20	0921	-30.39
NOV			MAY		
17	1140	-29.90	25	1028	-31.50
DEC			JUN		
16	1002	-34.22	21	1345	-25.82
JAN			JUL		
25	0850	-33.45	14	1215	-22.90
FEB			AUG		
23	1523	-35.76	17	1223	-20.18
MAR			SEP		
2.2	1129	-30.25	20	1217	-22.54



WELL NUMBER.--263249081474401. Local Number L 5648.

LOCATION.--Lat 26°32'50", long 81°47'58", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 22, T.45 S., R.24 E., Hydrologic Unit 03090204, on the north side of Daniels Road, 113 ft east of Danport Boulevard, 600 ft west of U.S. Interstate 75, and 6.5 mi southeast of Ft. Myers Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 123 ft, cased to 118 ft, screened 118 to 123 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of PVC threaded coupling, 23.70 ft above National Geodetic Vertical Datum of 1929. Prior to October 2002, measuring point was 24.01 ft above NGVD. See REMARKS.

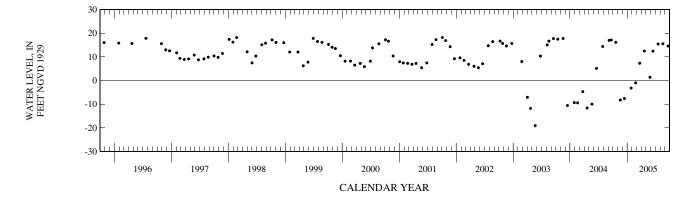
LAND-SURFACE DATUM.--Land surface is approximately 23.9 ft above NGVD.

REMARKS.--Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey. The well measuring point was altered due to construction sometime between the months of October 2002 to September 2003, the exact date cannot be determined. This alteration caused the measuring point to change by -0.31 ft. Water level elevations between October 2002 and September 2003 may be in error by 0.31 ft.

PERIOD OF RECORD.--June 1982 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.57 ft NGVD, Sept. 28, 1983; lowest, 19.04 ft below NGVD, May 22, 2003.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
20	1055	16.20	21	1540	12.51
NOV			MAY		
18	1332	-8.20	27	1002	1.43
DEC			JUN		
14	1507	-7.57	15	0920	12.46
JAN			JUL		
26	1349	-3.15	18	1233	15.50
FEB			AUG		
24	1644	96	18	1210	15.58
MAR			SEP		
22	1016	7.36	20	1053	14.62



WATER LEVEL, IN FEET NGVD 1929

## LEE COUNTY—Continued

WELL NUMBER.--263249081474402. Local Number L 5720.

LOCATION.--Lat 26°32′50", long 81°47′58", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.22, T.45 S., R.24 E., Hydrologic Unit 03090204, on the north side of Daniels Road, 105 ft east of Danport Boulevard, 600 ft west of U.S. Interstate 75, and 6.5 mi southeast of Ft. Myers Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 30 ft, cased to 20 ft, screened 20 to 30 ft, with 0.02 in. slot. INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 24.12 ft above National Geodetic Vertical Datum of 1929. Prior to October 2002, measuring point was 24.40 ft above NGVD. See REMARKS.

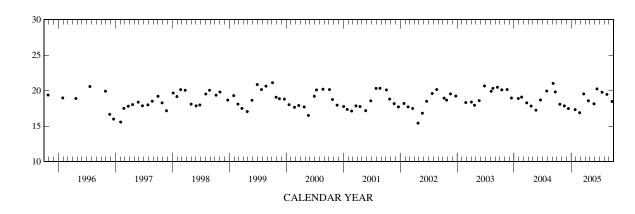
LAND-SURFACE DATUM.--Land surface is approximately 24.2 ft above NGVD.

REMARKS.--The well measuring point was altered due to construction sometime between the months of October 2002 to September 2003, the exact date cannot be determined. The alteration caused the measuring point to change by -0.28 ft. Water level elevation between October 2002 and September 2003 may be in error by 0.28 ft. See DATUM.

PERIOD OF RECORD.--April 1986 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.47 ft NGVD, Oct. 23, 1992; lowest, 15.42 ft NGVD, Apr. 25, 2002.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	1059	18.08	21	1542	18.57
NOV			MAY		
18	1335	17.85	27	1006	18.14
DEC			JUN		
14	1510	17.47	15	0922	20.24
JAN			JUL		
26	1351	17.32	18	1235	19.77
FEB			AUG		
24	1645	16.89	18	1212	19.47
MAR			SEP		
22	1039	19.54	20	1056	18.47



WELL NUMBER.--263251081452801. Local Number L 1993.

LOCATION.--Lat 26°32'52", long 81°45'37", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.45 S., R.25 E., Hydrologic Unit 03090204, 2 mi east of intersection of U.S. Interstate 75 and Daniels Road, 0.3 mi north of airport access road on dirt road and 9.6 mi southeast of Fort Myers Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 242 ft, cased to 190 ft, open hole 190 to 242 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of 4 in. casing, 25.19 ft above National Geodetic Vertical Datum of 1929. From October 1, 2001 to October 22, 2004, measuring point was top of recorder shelf, 27.37 ft NGVD. From March 15, 2001 to September 30, 2001, measuring point was incorrectly considered to be 28.06 ft above NGVD. From January 3, 1985 to March 15, 2001, top of shelf was 27.22 ft above NGVD, but was incorrectly considered to be 27.91 ft above NGVD. From March 19, 1983 to January 2, 1985, top of shelf was 27.24 ft above NGVD, but was incorrectly considered to be 27.93 ft above NGVD. Prior to March 18, 1983, top of shelf was 27.29 ft above NGVD, but was incorrectly considered to be 27.98 ft above NGVD. The figures of water levels as elevation, in feet NGVD, prior to October 1, 2001 are in error. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 24.0 ft above NGVD.

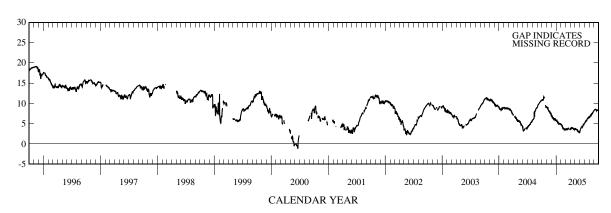
REMARKS.--On December 11, 2002, the well was re-leveled and the land-surface datum was found to be 23.95 ft above National Geodetic Vertical Datum of 1929. A -0.69 ft correction has been applied to daily maximum values data prior to October 1, 2001. Corrected records are available in the files of the U.S. Geological Survey. The station was reconstructed on March 9, 1978, March 19, 1983, January 3, 1985, March 15, 2001 and October 22, 2004. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 26.10 ft NGVD Nov. 13, 1975 (present datum); lowest, 1.15 ft below NGVD, June 19, 2000 (present datum).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.90	8.81	6.96	5.82	4.75	3.64	3.82	3.65	3.54	5.35	6.83	8.42
10	10.89	8.73	6.35	5.17	4.10	3.63	3.91	3.61	4.08	5.68	7.13	8.53
15	11.53	8.22	6.12	5.03	3.92	3.69	3.97	3.39	4.30	5.72	7.33	8.26
20		7.87	5.94	5.09	3.56	3.76	3.83	3.28	4.26	6.25	7.49	8.41
25	9.47	7.61	6.14	5.00	3.66	3.73	3.62	3.00	4.87	6.52	7.74	8.31
EOM	9.03	7.27	5.64	4.84	3.60	3.59	3.80	2.78	4.98	6.67	8.20	8.19
MAX		9.19	7.01	5.84	4.81		4.06	3.75	4.98	6.67	8.20	8.54





WELL NUMBER.--263251081452802. Local Number L 1994.

LOCATION.--Lat 26°32'52", long 81°45'37", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.45 S., R.25 E., Hydrologic Unit 03090204, 2 mi east of intersection of U.S. Interstate 75 and Daniels Road, 0.3 mi north of airport access road on dirt road and 9.6 mi southeast of Fort Myers Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 155 ft, cased 0 to 70 ft and 100 to 125 ft, screened 70 to 100 ft, open hole 125 to 155 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.—Measuring point: Top of recorder shelf, 25.52 ft above National Geodetic Vertical Datum of 1929. From September 30, 2001 to April 7, 2004, the measuring point was 26.93 ft above NGVD. From May 10, 2000 to September 30, 2001, measuring point was incorrectly considered to be 27.62 ft above NGVD. From July 28, 1981 to May 9, 2000, top of shelf was 27.83 above NGVD, but was incorrectly considered to be 28.52 ft above NGVD. Prior to July 28, 1981, top of shelf was 27.86 ft above NGVD, but was incorrectly considered to be 28.55 ft above NGVD. The figures of water levels as elevation, in feet NGVD, prior to October 1, 2001 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 24.3 ft above NGVD.

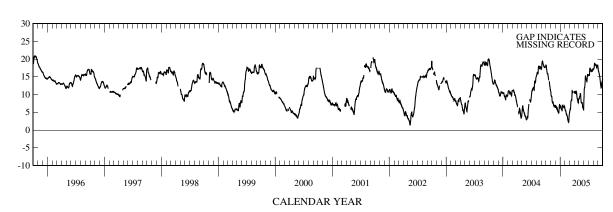
REMARKS.--On December 11, 2002, the well was releveled and land-surface datum was found to be 23.95 ft above National Geodetic Vertical Datum of 1929. A -0.69 ft correction has been applied to daily maximum values data prior to October 1, 2001. Corrected records are available in the files of the U.S. Geological Survey. See DATUM. The station was reconstructed on March 9, 1978, July 27, 1981, May 9, 2000 and April 7, 2004.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.46 ft NGVD, Oct. 7, 1975 and April 7, 2004; lowest, 1.50 ft NGVD, May 14, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.43	9.56	6.78	6.61	5.50	5.88	10.84	9.26	11.85	15.54	17.32	16.55
10	15.89	8.35	6.29	5.90	4.58	7.44	10.82	10.29	14.10	17.40	18.81	15.51
15	15.37	7.91	5.47	6.69	3.92	8.42	10.37	7.98	14.45	16.73	18.37	13.67
20		7.05	5.11	6.61	2.66	10.94	9.02	7.79	13.80	16.96	18.35	11.76
25	12.97	6.67	6.14	6.30	2.30	10.78	8.14	6.40	15.65	16.71	18.09	13.41
EOM MAX	11.04	6.79 10.95	6.33 7.21	6.09 7.05	4.39 5.93	10.72	8.86 11.00	5.54 10.29	15.38 15.67	17.26 17.42	17.81 18.81	14.34 17.36





WELL NUMBER.--263251081452803. Local Number L 1995.

LOCATION.--Lat 26°32'52", long 81°45'37", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.45 S., R.25 E., Hydrologic Unit 03090204, 2 mi east of intersection of U.S. Interstate 75 and Daniels Road, 0.3 mi north of airport access road on dirt road and 9.6 mi southeast of Fort Myers Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 24 ft, cased to 14 ft, screened 14 to 24 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 27.87 ft above National Geodetic Vertical Datum of 1929. From December 19, 1985 to September 30, 2001, measuring point was incorrectly considered to be 28.57 ft above NGVD. From May 15, 1981 to December 16, 1983, top of shelf was 27.88 ft above NGVD, but was incorrectly considered to be 28.58 ft above NGVD. Prior to May 15, 1981, measuring point was 27.94 ft above NGVD, but was incorrectly considered to be 28.64 ft above NGVD. The figures of water levels as elevation, in feet NGVD, prior to October 1, 2001, are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 23.9 ft above NGVD.

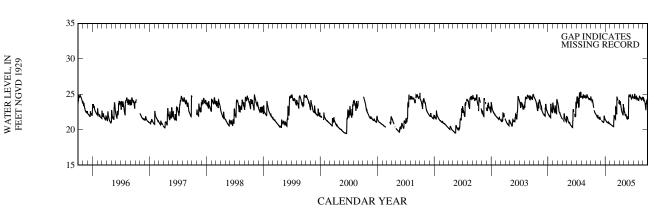
REMARKS.--On December 11, 2002, the well was releveled and the land-surface datum was found to be 23.94 ft above National Geodetic Vertical Datum of 1929. A -0.70 ft correction has been applied to daily maximum values data prior to October 1, 2001. Corrected records are available in the files of the U.S. Geological Survey. See DATUM. The station was reconstructed on March 9, 1978, May 15, 1981 and December 16, 1983.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.34 ft NGVD, July 28, 2004; lowest, 17.86 ft NGVD, Mar. 30, 1990 (present datum).

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 10 15 20 25 EOM	24.27 23.87 23.67  22.54 22.25	22.07 21.85 22.00 21.62 21.80 21.56	21.29 21.13 21.05 21.91 21.49	21.29 21.13 21.05 20.94 20.97 20.83	20.75 20.66 20.56 20.47 21.36 21.93	21.71 23.18 22.23 24.37 24.15 23.74	23.64 23.54 22.78 22.42 22.08 22.82	22.51 22.01 22.07 21.62 21.83 22.91	24.77 24.84 24.58 24.34 24.93 24.51	24.91 24.45 24.73 24.49 24.25	24.38 24.59 24.53 24.25 24.32 24.30	24.41 24.09 23.49 23.39 24.07 24.30
MAX		22.22		21.47	22.05		24.17	23.12	24.98		24.73	24.52



WELL NUMBER.--263253082014201. Local Number L 2643.

LOCATION.--Lat 26°32'56", long 82°01'50", in SW  ${}^{1}\!\!/_{4}$  SE  ${}^{1}\!\!/_{4}$  sec.17, T.45 S., R.23 E., Hydrologic Unit 03100103, in the median of El Dorado Boulevard West, 100 ft east of Sands Boulevard, and 5.3 mi west of the Cape Coral Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 200 ft, cased to 141 ft, open hole 141 to 200 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.28 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.5 ft above NGVD.

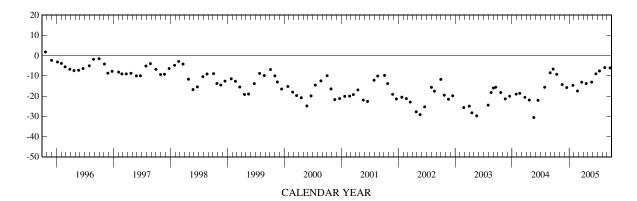
REMARKS.--Well was monitored for salinity until September 2004. Conductivity and chloride profiles for previous water years are available in the files of the U.S. Geological Survey. Records of water levels, prior to October 1980, are available in the files of the U.S. Geological Survey. The well was originally open to the aquifer from 141 to 200 ft. The well's open interval has collapsed or become obstructed at a depth of 145 ft.

PERIOD OF RECORD.--May 1978 to September 1979 (bimonthly), October 1979 to September 1980 (semiannual), October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.31 ft NGVD, Sept. 28, 1978; lowest, 30.56 ft below NGVD, May 19, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1506	-9.25	20	0857	-13.79
NOV			MAY		
17	1107	-14.31	25	1007	-13.13
DEC			JUN		
16	0935	-15.79	21	1302	-9.01
JAN			JUL		
25	0818	-14.70	14	1039	-7.60
FEB			AUG		
23	1458	-17.50	17	1151	-5.94
MAR			SEP		
22	1106	-13.15	20	1106	-6.09





WELL NUMBER.--263257081585701. Local Number L 2642.

 $LOCATION.--Lat\ 26^{\circ}32'58'', long\ 81^{\circ}58'56'', in\ SE\ \frac{1}{4}\ SW\ \frac{1}{4}\ sec.14, T.45\ S., R.23\ E., Hydrologic\ Unit\ 03090205, in\ the\ median\ of\ Pelican\ Boulevard,\ 150\ ft\ north\ of\ El\ Dorado\ Parkway\ West,\ 1\ mi\ south\ of\ Cape\ Coral\ Parkway\ and\ 2.5\ mi\ southwest\ of\ the\ Cape\ Coral\ Post\ Office.$ 

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 160 ft, cased to 108 ft, open hole 108 to 160 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.82 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 5.4 ft above NGVD.

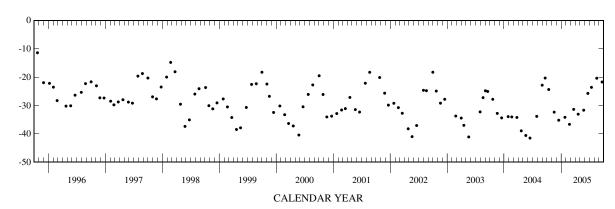
REMARKS.--Well was monitored for salinity until September 2004. Conductivity and chloride profiles for previous water years are available in the files of the U.S. Geological Survey. Records of water level, prior to October 1980, are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--May 1978 to August 1979 (bimonthly), October 1979 to October 1980 (semiannual), January 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.14 ft below NGVD, Aug. 1, 1978; lowest, 41.49 ft below NGVD, June 15, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1521	-24.38	20	0841	-33.07
NOV			MAY		
17	1117	-32.36	25	1018	-31.67
DEC			JUN		
16	0948	-35.20	21	1318	-25.75
JAN			JUL		
25	0832	-34.17	14	1154	-23.61
FEB			AUG		
23	1509	-36.64	17	1204	-20.40
MAR			SEP		
22	1117	-31.37	20	1119	-21.72





WELL NUMBER.--263307081555901. Local Number L 2435.

LOCATION.--Lat  $26^{\circ}34^{\circ}07^{\circ}$ , long  $81^{\circ}55^{\circ}59^{\circ}$ , in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.8, T.45 S., R.24 E., Hydrologic Unit 03090205, at intersection of 20th Place and 44th Street, 15 ft east of 20th Place, 37 ft south of 44th Street, and 0.6 mi northeast of Cape Coral Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 704 ft, cased to 352 ft, open hole 352 to 704 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 10 in. casing, 6.19 ft above National Geodetic Vertical Datum of 1929.

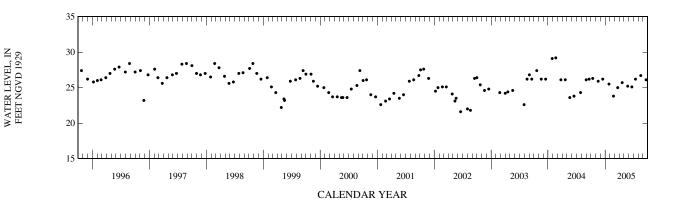
LAND-SURFACE DATUM.--Land surface is approximately 5.7 ft above NGVD. See REMARKS.

REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--March 1977 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.8 ft NGVD, Sept. 27, 1979; lowest, 21.6 ft NGVD, June 19, 2002.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
13	1542	26.3	20	0831	25.7
NOV			MAY		
17	1237	25.9	25	1049	25.2
DEC			JUN		
16	1032	26.2	21	1348	25.1
JAN			JUL		
25	0906	25.5	14	1250	26.2
FEB			AUG		
23	1546	23.8	17	1306	26.7
MAR			SEP		
22	1217	25.0	20	1232	26.1



WELL NUMBER.--263323081522401. Local Number L 742.

LOCATION.--Lat 26°33′26", long 81°52′24", in SE  ${}^{1}\!\!/_{4}$  SE  ${}^{1}\!\!/_{4}$  sec.14, T.45 S., R.24 E., Hydrologic Unit 03090205, 175 ft north of College Parkway, 0.1 mi west of U.S. Highway 41, and 6.0 mi south of Fort Myers Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 225 ft, cased to 138 ft, open hole 138 to 225 ft.

INSTRUMENTATION .-- Satellite data collection platform, with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 11.44 ft above National Geodetic Vertical Datum of 1929. Prior to October 1989, top of shelf was 11.47 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 10.3 ft above NGVD.

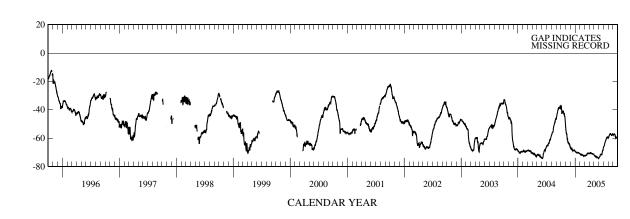
REMARKS.--Well was also used for salinity monitoring until September 2004. Records of water levels, prior to October 1973, are available in the files of the U.S. Geological Survey.

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

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.02 ft NGVD, Dec. 15, 1968; lowest, 78.61 ft below NGVD, May 16, 1974.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	-38.54 -41.96 -41.02 -42.40 -44.12 -51.98	-56.22 -58.97 -62.28 -63.41 -65.04 -66.14	-67.21 -67.20 -68.59 -68.66 -68.38 -69.01	-69.90 -70.31 -70.03 -70.32 -70.43 -71.05	-71.19 -71.63 -71.89 -72.11 -72.42 -72.22	-72.37 -72.10 -72.13 -70.70 -70.48 -70.90	-70.74 -70.30 -70.57 -71.14 -71.35 -71.16	-72.54 -72.66 -72.69 -73.24 -73.73 -74.49	-73.38 -71.88 -71.55 -71.70 -68.81 -67.03	-65.59 -63.53 -61.63 -60.21 -59.14 -59.41	-58.68 -57.35 -56.75 -57.54 -57.84 -57.53	-57.43 -57.01 -58.87 -59.78 -59.65 -59.73
MAX	-37.64	-52.22	-66.27	-69.01	-71.11	-70.48		-71.54	-67.03	-59.10	-56.70	-57.01



WELL NUMBER.--263327081512001. Local Number L 1121.

LOCATION.--Lat 26°33'28", long 81°51'19", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.13, T.45 S., R.23 E., Hydrologic Unit 03090205, 120 ft east of the intersection of Fordham Street and Gorham Avenue, 65 ft east of backyard fence of house at 8766 Fordham Street, and 2 mi south of Ft. Myers Post Office at Page Field.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 220 ft, cased to 147 ft, open hole 147 to 220 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

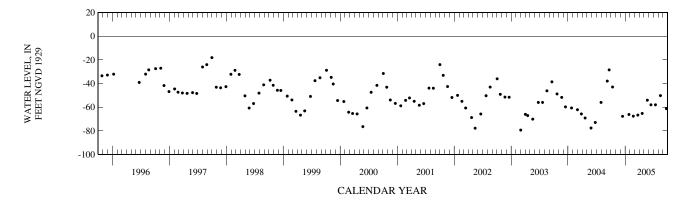
DATUM.-- Measuring point: Top of casing, 16.16 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is 15.7 ft above NGVD.

PERIOD OF RECORD.--August 1970 to March 1971 (semiannual), May 1973 to April 1974 (annual), May 1975 to April 1978 (semiannual), June 1978 to August 1979 (bimonthly), September 1979 to May 1985 (semiannual), June 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.20 ft NGVD, Oct. 20, 1970; lowest, 79.31 ft below NGVD, Mar. 3, 2003.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			MAY		
12	1620	-42.87	23	1628	-54.02
DEC			JUN		
15	1530	-67.67	15	1630	-57.91
JAN			JUL		
25	1300	-66.10	14	1428	-57.91
FEB			AUG		
22	1543	-67.52	15	1530	-50.14
MAR			SEP		
23	1548	-66.61	22	0851	-61.17
APR					
20	1550	-65.22			



WELL NUMBER.--263329081394301. Local Number L 2204.

LOCATION.--Lat 26°33'30", long 81°39'42", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.13, T.45 S., R.26 E., Hydrologic Unit 03090205, at southeast corner of intersection of State Road 82 and Alabama Road, and 3.3 mi south of Lehigh Acres Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 26 ft, cased to 23 ft, open hole 23 to 26 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 30.65 ft above National Geodetic Vertical Datum of 1929.

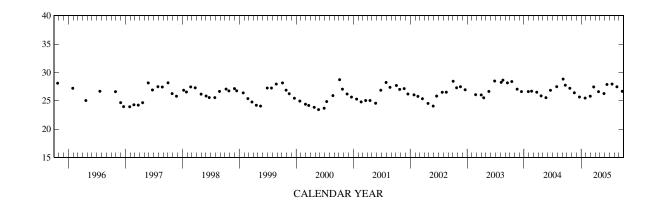
LAND-SURFACE DATUM .-- Land surface is approximately 30.2 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1975 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.44 ft NGVD, Sept. 27, 1979; lowest, 18.31 ft NGVD, Nov. 25, 1985.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	1408	27.21	22	1426	26.61
NOV			MAY		
18	1404	26.41	27	1129	26.28
DEC			JUN		
21	1523	25.67	15	1038	27.88
JAN			JUL		
26	1515	25.48	18	1610	27.95
FEB			AUG		
28	1040	25.81	18	1130	27.47
MAR			SEP		
22	1622	27.45	21	0926	26.67



WATER LEVEL, IN FEET NGVD 1929

WELL NUMBER.--263329081394302. Local Number L 1625.

LOCATION.—Lat 26°33'30", long 81°39'42", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 13, T.45 S., R.26 E., Hydrologic Unit 03090205, at southeast corner of intersection of State Road 82 and Alabama Road, and 3.3 mi south of Lehigh Acres Post Office.

AQUIFER.--Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 218 ft, cased to 162 ft, open hole 162 to 218 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 31.48 ft above National Geodetic Vertical Datum of 1929. From September 1975 to September 7, 2004, the measuring point was 31.82 ft above NGVD. See REMARKS.

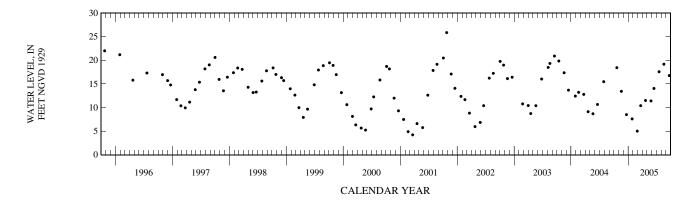
LAND-SURFACE DATUM.--Land surface is approximately 30.3 ft above NGVD.

REMARKS.--Records of water levels, prior to October 1982, are available in the files of the U.S. Geological Survey. Well was was surveyed September 23, 2004. See DATUM.

PERIOD OF RECORD.--September 1975 to September 1994 (monthly), October 1994 to September 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.49 ft NGVD, Nov. 25, 1985; lowest, 4.24 ft NGVD, Mar. 21, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	1404	18.44	22	1420	11.50
NOV			MAY		
18	1401	13.44	27	1126	11.41
DEC			JUN		
21	1520	8.51	15	1036	14.05
JAN			JUL		
26	1514	7.61	18	1608	17.59
FEB			AUG		
28	1045	5.03	18	1127	19.18
MAR			SEP		
22	1621	10.41	21	0928	16.77



WELL NUMBER.--263335081394301. Local Number L 729.

LOCATION.--Lat  $26^{\circ}33'37''$ , long  $81^{\circ}39'43''$ , in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 13, T.45 S., R.26 E., Hydrologic Unit 03090205, at northwest corner of intersection of State Road 82 and Alabama Road, 56 ft west of Alabama Road and 215 ft north of State Road 82 and 3.2 mi south of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 103 ft, cased to 81 ft, open hole 81 to 103 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 31.80 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 29.3 ft above NGVD.

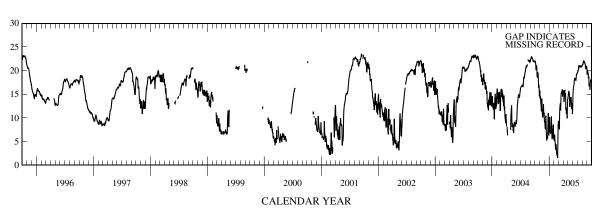
REMARKS.--Records of water levels prior to May 1977 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--August 1968 to May 1977 (monthly), May 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.46 ft NGVD, Oct. 1, 2, 1979; lowest, 1.54 ft NGVD, Feb. 24, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	21.84 20.76 18.91 19.55 16.40 15.20	14.38 12.56 14.09 10.28 12.90 10.98	8.33 10.34 5.50 5.93 10.51 7.89	7.37 6.67 10.32 7.31 6.78 5.52	6.45 3.77 3.97 2.22 5.21 8.85	8.20 11.94 11.63 15.30 15.94 15.47	13.98 15.79 15.22 12.21 10.91 14.03	15.54 15.23 12.83 14.29 12.05 11.64	16.37 17.70 18.31 17.95 19.20 19.54	20.10 21.03 20.96 20.94 20.90 20.98	21.43 22.06 21.74 21.25 20.70 20.14	19.85 18.64 16.87 16.80 17.89 18.37
MAX	22.07	15.71	10.97	10.32	8.85	15.94	15.81	15.62	19.54	21.04	22.06	19.94





WELL NUMBER.--263344081361701. Local Number L 1963.

LOCATION.--Lat 26°33'44", long 81°36'17", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.45 S., R.27 E., Hydrologic Unit 03090205, at northeast corner of Alexander Graham Bell Boulevard and Milwaukee Boulevard, and 4.0 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 74 ft, cased to 68 ft, screened 68 to 74 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 33.41 ft above National Geodetic Vertical Datum of 1929.

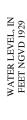
LAND-SURFACE DATUM .-- Land surface is approximately 30.9 ft above NGVD.

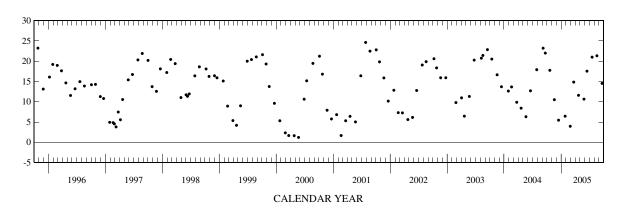
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.53 ft NGVD, Sept. 26, 1975; lowest, 1.21 ft NGVD, May 23, 2000.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
20	1350	17.76	22	1349	11.59
NOV			MAY		
18	1158	10.51	27	1116	10.65
DEC			JUN		
15	1153	5.45	15	1018	17.55
JAN			JUL		
26	1502	6.44	18	1543	21.01
FEB			AUG		
28	1027	3.95	18	1112	21.35
MAR			SEP		
22	1607	14.85	20	1324	14.53





WELL NUMBER.--263344081361703. Local Number L 2186.

LOCATION.--Lat 26°33'44", long 81°36'17", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.45 S., R.27 E., Hydrologic Unit 03090205, at northeast corner of Alexander Graham Bell Boulevard and Milwaukee Boulevard, and 14.0 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 160 ft, cased to 133 ft, screened 133 to 160 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of recorder shelf, 33.30 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 31.1 ft above NGVD.

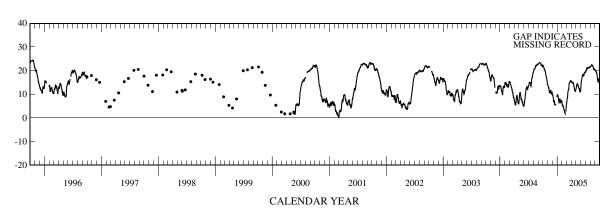
REMARKS--Records of water levels prior to October 1977 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--August 1975 to September 1996 (daily), October 1996 to April 2000 (monthly), May 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.30 ft NGVD, Sept. 30, 1979; lowest, 0.09 ft NGVD, Mar. 1, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	21.88 20.68	12.99 11.84	9.17 6.87	9.57 7.88	5.10 4.55	7.78 10.27	15.27 15.01	13.63 14.40	15.59 17.49	20.19 21.17	21.93 22.50	20.03 19.11
15	19.80 18.01	11.12 11.66	5.94 5.73	7.49 7.84	3.19	12.10 14.80	14.33 12.78	13.43 12.49	18.35 17.79	21.26 21.21	22.05 21.58	17.28 15.21
20 25	16.94	10.12	5.73	6.40	2.15	15.61	11.50	12.49	17.79	21.21	20.52	16.29
EOM	14.29	10.52	9.48	6.95	5.10	15.53	11.78	11.32	19.40	21.40	20.33	16.50
MAX	22.28	14.29		9.76		15.77	15.55	14.43	19.40	21.54	22.50	20.09





WELL NUMBER.--263344081361704. Local Number L 2311.

LOCATION.--Lat 26°33'44", long 81°36'17", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.45 S., R.27 E., Hydrologic Unit 03090205, at northeast corner of Alexander Graham Bell Boulevard and Milwaukee Boulevard, and 14 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 625 ft, cased to 300 ft, open hole 300 to 625 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. casing, 33.35 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 31.2 ft above NGVD.

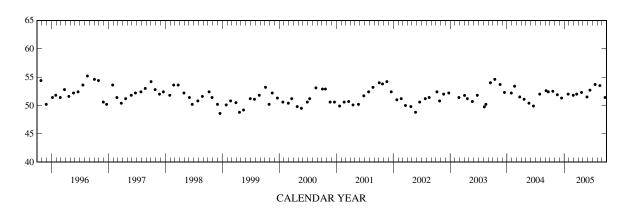
REMARKS.--Records of water levels prior to October 1980 are available in files of the U.S. Geological Survey. Well was also used for salinity monitoring from October 1982 to June 2000.

PERIOD OF RECORD.--August 1976 to September 1993 (monthly), October 1993 to September 1994 (semiannual), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.2 ft NGVD, Sept. 1, 1988, Aug. 19,1996; lowest, 48.1 ft NGVD, June 28, 1978.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	1328	52.5	22	1343	52.3
NOV			MAY		
18	1154	51.9	27	1114	51.5
DEC			JUN		
15	1156	51.3	15	1015	52.7
JAN			JUL		
26	1458	52.0	18	1540	53.7
FEB			AUG		
28	1025	51.8	18	1110	53.5
MAR			SEP		
22	1615	52.0	20	1323	51.4





WELL NUMBER.--263353081335801. Local Number L 1965.

LOCATION.--Lat 26°33'52", long 81°33'58", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.13, T.45 S., R.27 E., Hydrologic Unit 03090205, at intersection of Naples Avenue and Milwaukee Boulevard, 18 ft west of Naples Avenue and 158 ft north of Milwaukee Boulevard, 5.7 mi southeast of Lehigh Acres Post Office.

AQUIFER.--Tamiami aquifer of the Pliocene Age, Geologic Unit 121 TMIM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 225 ft, cased to 50 ft, screened 50 to 83 ft, screened 127 to 137 ft, open hole 156 to 225 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 32.07 ft above National Geodetic Vertical Datum of 1929.

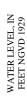
LAND-SURFACE DATUM.--Land surface is approximately 29.7 ft above NGVD.

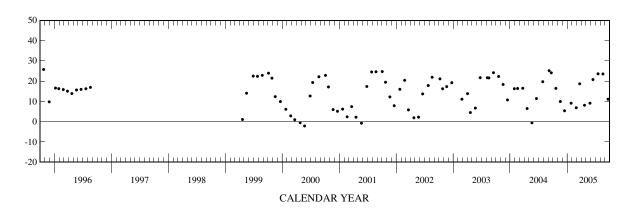
REMARKS.--Records of water levels prior to October 1976 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1965 to August 1996, April 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.26 ft NGVD, Aug. 30, 1978; lowest, 2.13 ft below NGVD, May 23, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	1311	16.42	22	1332	8.11
NOV			MAY		
18	1147	9.95	27	1106	9.12
DEC			JUN		
15	1141	5.38	15	1006	20.78
JAN			JUL		
26	1449	9.12	18	1532	23.63
FEB			AUG		
28	1018	6.90	18	1104	23.57
MAR			SEP		
22	1545	18.70	20	1245	11.09





WELL NUMBER.--263440082022001. Local Number L 2644.

LOCATION.--Lat 26°34'43", long 82°02'15", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.5, T.45 S., R.23 E., Hydrologic Unit 03100103, in the median of Surfside Boulevard, at the intersection of 39th Terrace, and 5.5 mi west of the Cape Coral Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 180 ft, cased to 128 ft, open hole 128 to 180 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of flange, 10.71 ft above National Geodetic Vertical Datum of 1929.

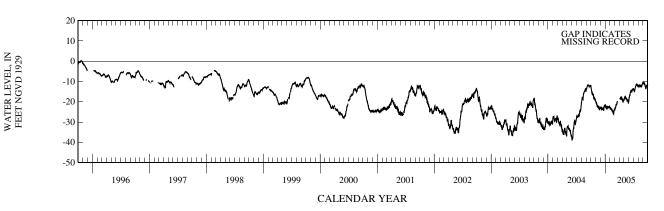
LAND-SURFACE DATUM .-- Land surface is approximately 8.4 ft above NGVD.

REMARKS.--Well was monitored for salinity until September 2004. The well was originally open to the aquifer from 128 to 180 ft. The well's open interval has collapsed or become obstructed at 140 ft. Salinity samples were collected at a depth of 140 ft. Records of water levels prior to October 1980 are available in the files of the U.S. Geological Survey. Conductivity profiles for previous water years are available in the files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.28 ft NGVD, Sept. 22, 1986; lowest, 39.06 ft below NGVD, June 3, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	-14.32 -16.08 -16.54 -18.57 -18.52 -19.51	-20.42 -22.10 -22.36 -22.39 -23.85 -22.80	-23.14 -23.16 -23.80 -23.83 -22.35 -21.60	-22.67 -23.16 -22.57 -23.07 -22.42 -22.97	-23.07 -24.03 -24.63 -25.17 -25.36 -23.89	-22.98 -22.30 -21.46 -20.07	-18.50 -18.53 -18.34 -18.54 -20.45 -19.03	-18.42 -17.69 -18.92 -19.15 -19.06 -20.25	-17.77 -15.68 -14.46 -15.20 -13.78 -13.91	-14.19 -14.05 -12.40 -11.25 -12.17 -12.38	-12.84 -11.63 -12.50 -11.97 -11.86 -10.48	-10.87 -10.95 -12.50 -13.12 -11.95
MAX	-19.51	-19.85	-21.60	-22.97	-23.07		-19.03	-20.23 -17.45	-13.61	-12.36	-10.48	-11.44 -10.59



WELL NUMBER.--263440082022002. Local Number L 3207.

LOCATION.--Lat 26°34'43", long 82°02'15", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.5, T.45 S., R.23 E., Hydrologic Unit 03100103, in the median of Surfside Boulevard, at the intersection of 39th Terrace, and 5.5 mi west of the Cape Coral Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 1.25 in., depth 18 ft, cased to 8 ft, screened 8 to 18 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.91 ft above National Geodetic Vertical Datum of 1929.

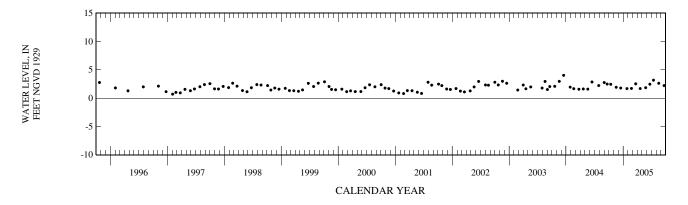
LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

REMARKS.--Records of water levels prior to October 1980 are available in files of the U.S. Geological Survey. The well was also used for salinity monitoring from October 1986 to April 1999.

PERIOD OF RECORD.--May 1978 to September 1979 (bimonthly), May 1980 to October 1980 (semiannual), January 1981 to September 1995 (monthly), October 1995 to October 1996 (quarterly), November 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.02 ft NGVD, Dec. 16, 2003; lowest, 0.57 ft below NGVD, Nov. 28, 1978.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1428	2.44	20	1018	1.69
NOV			MAY		
17	1052	1.92	25	1001	1.84
DEC			JUN		
16	0926	1.78	21	1252	2.46
JAN			JUL		
25	0811	1.68	14	1011	3.17
FEB			AUG		
23	1449	1.71	17	1132	2.62
MAR			SEP		
22	1058	2.53	20	1058	2.22



WATER LEVEL, IN FEET NGVD 1929

## LEE COUNTY—Continued

WELL NUMBER.--263526082010201. Local Number L 2434.

LOCATION.--Lat 26°35'26", long 82°01'02", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.4, T.45 S., R.23 E., Hydrologic Unit 03100103, at the southwest corner of 32nd Street and SW 20th Avenue and 5 mi northwest of Cape Coral Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 700 ft, cased to 353 ft, open hole 353 to 700 ft.

INSTRUMENTATION.--Electronic data logger with a pressure transducer.

DATUM.--Measuring point: Top of recorder shelf, 17.33 ft above National Geodetic Vertical Datum of 1929. From May 1980 to September 15, 1993, top of shelf was 25.47 ft above NGVD. Prior to May 1980, measuring point was top of casing, 7.84 ft above NGVD. See REMARKS.

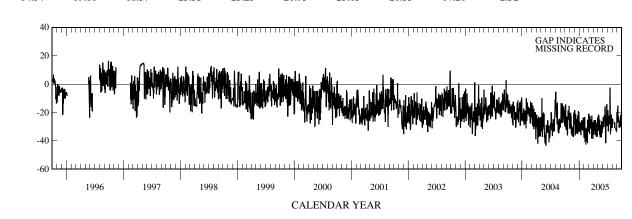
LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD. See REMARKS.

REMARKS.--Water levels affected by nearby pumping. Land-surface datum has been corrected based on field observations. Because the correction does not affect the measuring point elevation, the figures of water levels as elevation from preceding years are unaffected. Water level elevations prior to May 1980 were measured using a pressure gage. See DATUM. Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--March 1977 to September 1980 (monthly), April 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.35 ft NGVD, Sept. 11, 1983; lowest, 43.44 ft below NGVD, June 2, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-22.72	-20.89	-27.65	-29.05	-23.25	-27.51	-31.87	-25.72	-28.50	-23.64	-24.85	-26.97
10	-32.16	-22.46	-28.80	-30.21	-37.21	-31.13	-29.33	-28.73	-25.79	-26.76		-22.94
15	-27.32	-34.61	-24.83	-32.04	-31.62	-28.45	-32.58	-32.68	-15.69	-28.42	-26.65	-26.53
20	-25.07	-31.49	-29.26	-26.80	-39.95	-27.98	-35.77	-34.91	-41.67	-35.30		-30.27
25	-19.53	-32.08	-28.24	-32.89	-28.96	-35.69	-30.94	-27.49	-28.12	-30.61		-30.33
EOM	-25.75	-19.81	-26.66	-36.32	-27.42	-27.40	-26.21	-26.67	-19.58	-30.83		-20.59
MAX	-14.34	-19.81	-18.37	-23.55	-23.25	-20.93	-23.65	-21.55	-14.20	-2.52		



WELL NUMBER.--263532081592201. Local Number L 581.

 $LOCATION.--Lat\ 26^{\circ}35'32'', long\ 81^{\circ}59'22'', in\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec.2,\ T.45\ S.,\ R.23\ E.,\ Hydrologic\ Unit\ 03090205,\ 0.1\ mi\ east\ of\ intersection\ of\ Skyline\ Boulevard\ and\ Gleason\ Parkway,\ in\ median\ of\ Gleason\ Parkway\ and\ 3.5\ mi\ northwest\ of\ Cape\ Coral\ Post\ Office.$ 

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 177 ft.

INSTRUMENTATION .-- Satellite data collection platform. (Corrected).

DATUM.--Measuring point: Top of shelf, 12.98 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 9.6 ft above NGVD.

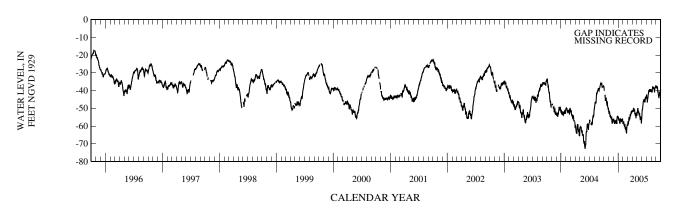
REMARKS.--Water levels affected by pumping of nearby wells. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.77 ft below NGVD, Sept. 10, 1960; lowest, 72.73 ft below NGVD, June 3, 2004

ELEVATION ABOVE NGVD 1929, FEET	
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2	2005
DAILY MAXIMUM VALUES	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	 -44.79 -44.54 -47.75 -48.75 -50.60	-51.99 -54.63 -54.95 -55.24 -57.95 -56.58	-57.30 -57.22 -57.98 -58.37 -55.26 -54.88	-56.47 -58.08 -56.09 -56.99 -56.72 -58.16	-57.63 -60.43 -60.86 -61.95 -61.14 -59.17	-57.59 -56.32 -56.00 -54.13 -51.92 -52.17	-51.26 -50.94 -51.33 -52.81 -55.56 -52.55	-51.11 -51.52 -53.69 -54.68 -54.99 -56.50	-50.77 -46.35 -45.16 -46.69 -43.98 -43.80	-44.50 -44.17 -40.14 -39.65 -40.62 -40.19	-40.06 -37.88 -38.94 -38.86 -38.71 -37.19	-38.35 -38.21 -42.26 -42.98 -41.12 -39.32
MAX		-51.80	-54.50	-54.85	-57.63	-51.46	-50.10	-50.04	-43.38	-39.37	-37.19	-37.74



WELL NUMBER.--263532081592202. Local Number L 1136.

LOCATION.--Lat 26°35'32", long 81°59'22", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.2, T.45 S., R.23 E., Hydrologic Unit 03090205, 0.1 mi east of intersection of Skyline Boulevard and Gleason Parkway, in median of Gleason Parkway and 3.5 mi northwest of Cape Coral Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20 ft, cased to 15 ft, screened 15 to 20 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of 4 in. casing, 12.36 ft above National Geodetic Vertical Datum of 1929. From April 1996 to September 30, 1997, measuring point was incorrectly considered to be top of 4 in. cap, 12.71 ft above NGVD. Prior to April 1996, measuring point was top of 4 in. cap, 12.71 ft above NGVD. See REMARKS.

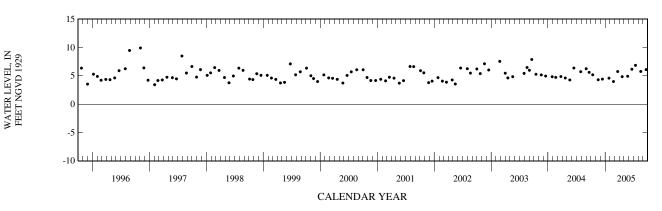
LAND-SURFACE DATUM.--Land surface is approximately 9.7 ft above NGVD.

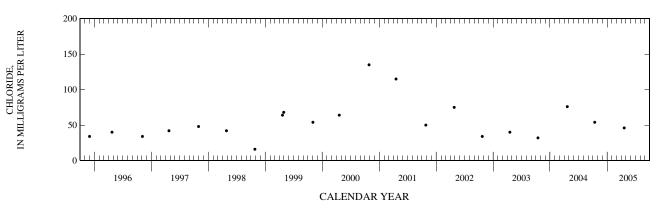
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. The figures of water levels, as elevation in feet NGVD, for the period April 1996 to September 30, 1997 are in error. A -0.35 ft correction has been applied to correct the water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- June 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.90 ft NGVD, Nov. 4, 1996; lowest, 2.01 ft NGVD, Apr. 29, 1974.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					APR				
13	1157	5.17	618	54.0	20	1127	4.84	641	46.0
NOV					MAY				
17	1009	4.30			25	0916	4.91		
DEC					JUN				
14	1416	4.41			21	1129	6.15		
JAN					JUL				
25	0801	4.58			14	0908	6.84		
FEB					AUG				
23	1348	3.99			17	0917	5.76		
MAR					SEP				
22	0958	5.75			20	0958	6.09		





WELL NUMBER.--263630081375301. Local Number L 1418.

LOCATION.—Lat  $26^{\circ}36'31$ ", long  $81^{\circ}37'51$ ", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.32, T.44 S., R.27 E., Hydrologic Unit 03090205, 20 ft north of Davis Road, 0.1 mi west of Texas Road, 0.5 mi north of intersection of Leeland Heights Boulevard and Texas Road and 1.0 mi northeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 62 ft, cased to 55 ft, open hole 55 to 62 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of flange, 25.28 ft above National Geodetic Vertical Datum of 1929. From March 10, 1989 to September 30, 2001, measuring point was top of shelf, 25.31 ft above NGVD. Prior to March 1989, measuring point was top of flange, 25.23 ft above NGVD.

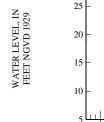
LAND-SURFACE DATUM.--Land surface is approximately 23.7 ft above NGVD.

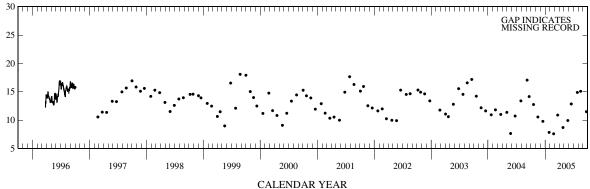
REMARKS.--Water levels affected by pumping at nearby wells. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1971 to October 1988, March 1989 to September 1996 (daily), February 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 23.05 ft NGVD, June 20, 1971; lowest water level measured, 7.60 ft NGVD, Feb. 24, 2005.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
18	0931	12.76	25	0903	8.71
NOV			MAY		
15	1320	10.56	26	1321	9.94
DEC			JUN		
17	1557	9.79	17	1151	12.86
JAN			JUL		
26	1032	7.85	26	1041	14.89
FEB			AUG		
24	1240	7.60	16	0921	15.09
MAR			SEP		
22	1350	10.90	22	1140	11.50





WELL NUMBER.--263712081461201. Local Number L 728.

LOCATION.--Lat 26°37'13", long 81°46'10", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.25, T.44 S., R.25 E., Hydrologic Unit 03090204, 40 ft east of State Road 82 and 0.2 mi north of County Road 884, 6.6 mi southeast of Fort Myers Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 19 ft, cased to 18 ft, open hole 18 to 19 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 23.34 ft above National Geodetic Vertical Datum of 1929. Prior to August 2002, measuring point was top of 4 in. casing, 22.65 ft above NGVD. See REMARKS.

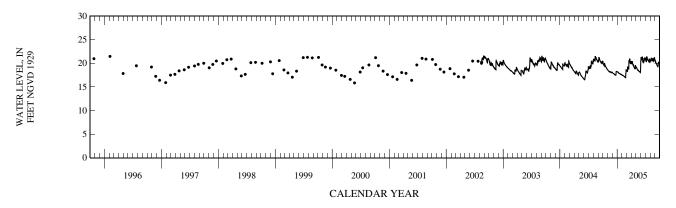
LAND-SURFACE DATUM.--Land surface is approximately 21.0 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. In the 2002 water year the instrumentation changed to an electronic data logger from a tape-down well. The height of the measuring point was changed as part of the station construction. See DATUM.

PERIOD OF RECORD.--July 1968 to February 1972 (bimonthly), March 1972 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to July 2002 (monthly), August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.62 ft NGVD, Aug. 29, 2002; lowest water level measured, 15.85 ft NGVD, May 23, 2000.

#### ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES DAY OCT NOV DEC JUL SEP FEB MAR APR MAY JUN AUG JAN 19.81 18.45 17.90 18.13 17.46 18.43 19.93 19.07 20.85 20.49 20.51 20.27 10 19.47 18.25 17.78 17.97 17.34 19.22 19.92 18.72 21.17 21.27 20.90 19.86 18.27 15 19.60 17.63 17.86 17.23 18.76 19.53 18.51 20.26 20.77 20.97 19.48 20 19.24 18.10 17.52 17.75 17.06 20.34 19.14 18.32 20.45 20.64 20.54 19.42 25 18.96 18.11 18.22 17.67 17.89 20.05 18.83 18.24 20.82 20.44 20.82 19.94 18.61 **EOM** 18.65 18.11 18.23 17.55 19.93 19.14 18.88 21.04 20.80 20.57 20.43 MAX 20.41 18.61 18.29 18.23 18.64 21.00 20.49 19.29 21.40 21.45 21.18 20.50



WELL NUMBER.--263718081485001. Local Number L 1973.

LOCATION.--Lat 26°37'19", long 81°48'50", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.28, T.44 S., R.25 E., Hydrologic Unit 02090205, at Eastwood Golf Course, 176 ft south of Vince Smith Drive, 0.15 mi west of Ortiz Avenue, 3.9 mi southeast of Fort Myers Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 225 ft, cased to 172 ft, open hole 172 to 225 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 22.51 ft above National Geodetic Vertical Datum of 1929. Prior to April 1981, top of casing was 22.54 ft above NGVD. From April 1981 to September 1997, top of casing was considered to be 22.54 ft above NGVD. See DATUM.

LAND-SURFACE DATUM.--Land surface is approximately 19.8 ft above NGVD.

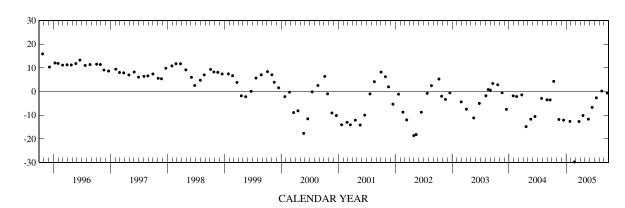
REMARKS.--Conductivity and chloride profiles for previous years are available in files of the U.S. Geological Survey. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. A correction of -0.03 ft is required to correct water-level data from April 1981 to September 1997. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.50 ft NGVD, Sept. 17, 1974; lowest, 29.75 ft below NGVD, Feb. 23, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0739	4.34	19	1109	-10.10
NOV			MAY		
15	0946	-11.78	23	0840	-11.64
DEC			JUN		
15	0701	-12.06	16	1510	-6.67
JAN			JUL		
25	1337	-12.60	13	1000	-2.62
FEB			AUG		
23	0804	-29.75	17	1630	.23
MAR			SEP		
24	1047	-12.64	21	1549	62





WELL NUMBER.--263718081485002. Local Number L 1974.

LOCATION.--Lat 26°37'19", long 81°48'50", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.28, T.44 S., R.25 E., Hydrologic Unit 03090205, at Eastwood Golf Course, 193 ft south of Vince Smith Drive and 0.15 mi west of Ortiz Boulevard, 3.9 mi southeast of Fort Myers Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 135 ft, cased to 85 ft, screened 85 to 135 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 22.64 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 19.9 ft above NGVD.

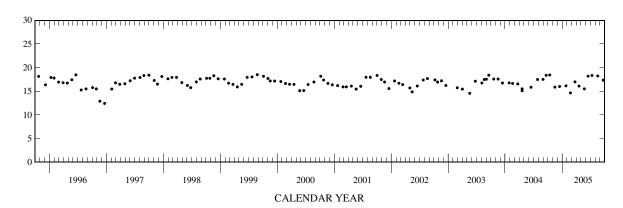
REMARKS.--Conductivity and chloride profiles for previous years are available in the files of the U.S. Geological Survey. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.13 ft NGVD, Sept. 26, 1975; lowest, 12.43 ft NGVD, Dec. 20, 1996.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0746	18.45	19	0911	16.10
NOV			MAY		
15	0949	15.87	23	0842	15.52
DEC			JUN		
15	0708	16.01	16	1510	18.20
JAN			JUL		
25	1342	16.15	11	1600	18.35
FEB			AUG		
23	0807	14.66	17	1630	18.24
MAR			SEP		
24	1052	16.99	21	1535	17.35





WELL NUMBER.--263718081485003. Local Number L 2292.

LOCATION.--Lat 26°37'19", long 81°48'50", in SW  ${}^{1}\!\!/_{4}$  NE  ${}^{1}\!\!/_{4}$  sec.28, T.44 S., R.25 E., Hydrologic Unit 03090205, at Eastwood Golf Course, 159 ft south of Vince Smith Drive, 0.15 mi west of Ortiz Avenue, 3.9 mi southeast of Fort Myers Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 616 ft, cased to 302 ft, open hole 302 to 616 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. casing, 22.30 ft above National Geodetic Vertical Datum of 1929.

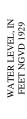
LAND-SURFACE DATUM.--Land surface is approximately 20.1 ft above NGVD.

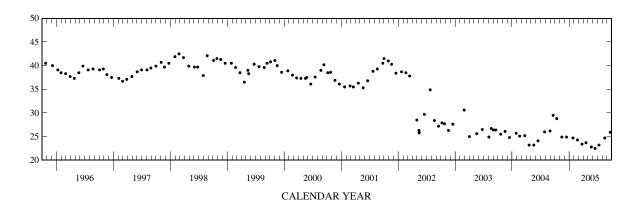
REMARKS.--Records of water levels prior to October 1982 are available in files of the U.S. Geological Survey. The approximately 10 ft decrease in water levels that occurred in May 2002 is believed to have resulted from shift of water usage in this area from the Caloosahatchee River to the lower Hawthorn aquifer.

PERIOD OF RECORD.--August 1976 to June 1978 (intermittent), October 1981 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.9 ft NGVD, Sept. 13, 1993 and Aug. 28, 1995; lowest, 22.5 ft NGVD, June 16, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
13	0754	28.8	19	0916	23.7
NOV			MAY		
15	0942	24.9	23	0846	22.8
DEC			JUN		
15	0711	24.9	16	1506	22.5
JAN			JUL		
25	1346	24.7	11	1615	23.2
FEB			AUG		
23	0809	24.3	17	1630	24.7
MAR			SEP		
24	1049	23.4	21	1525	25.9





WELL NUMBER.--263743082041201. Local Number L 2645.

LOCATION.--Lat 26°37'42", long 82°04'13", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.24, T.44 S., R.22 E., Hydrologic Unit 03100103, across the street from the Matlacha Fire House at Matlacha Park and 0.1 mi south of Matlacha Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 210 ft, cased to 160 ft, open hole 160 to 210 ft.

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

DATUM.--Measuring point: For pressure gage, top of 8 in. casing, 8.24 ft above National Geodetic Vertical Datum of 1929; for chalked tape, top of cap, 8.64 ft above NGVD.

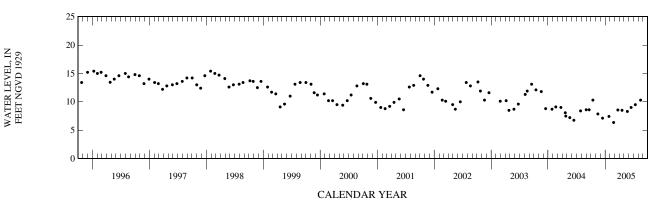
LAND-SURFACE DATUM.--Land surface is approximately 5.5 ft above NGVD.

REMARKS.--Well was monitored for salinity until September 2004. This well is open to the aquifer from 160 to 210 ft. The exact depth from which the chloride-containing water is emanating cannot be further delineated. Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.4 ft NGVD, Nov. 26, 1986; lowest, 6.36 ft NGVD, Feb. 24, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	0752	10.3	19	1154	8.5
NOV			MAY		
15	1332	7.86	23	1202	8.3
DEC			JUN		
15	0910	7.12	16	1058	9.0
JAN			JUL		
25	1052	7.42	13	1222	9.5
FEB			AUG		
24	0729	6.36	16	1230	10.3
MAR					
23	1202	8 56			



WELL NUMBER.--263807081430301. Local Number L 1968.

LOCATION.--Lat 26°37'59", long 81°43'04", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 21, T.44 S., R.26 E., Hydrologic Unit 03090205, at northwest corner of Centennial Boulevard and Gunnery Road, and 4.8 mi northwest of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 165 ft, cased to 70 ft, open hole 70 to 165 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 25.93 ft above National Geodetic Vertical Datum of 1929.

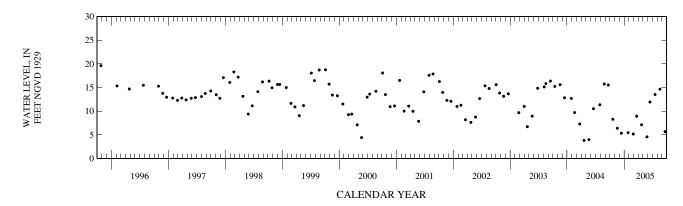
LAND-SURFACE DATUM.--Land surface is approximately 23.1 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1974 to September 1994 (monthly), October 1994 to June 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.01 ft NGVD, Sept. 27, 1979; lowest, 3.83 ft NGVD, Apr. 19, 2004.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
20	0935	8.30	22	1653	7.14
NOV			MAY		
18	1443	6.40	27	1142	4.59
DEC			JUN		
14	1404	5.36	15	1050	11.96
JAN			JUL		
26	1425	5.48	18	1137	13.54
FEB			AUG		
28	1100	5.19	18	1147	14.67
MAR			SEP		
22	1107	8.96	20	1143	5.68



WELL NUMBER.--263813081552801. Local Number L 2640.

LOCATION.--Lat 26°38′08″, long 81°55′27″, in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.20, T.44 S., R.24 E., Hydrologic Unit 03090205, in median at intersection of SE 24th Avenue and Birkdale Avenue, 1 mi south of Hancock Bridge Parkway and 5.2 mi north of Cape Coral Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 180 ft, cased to 128 ft, open hole 128 to 180 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of casing, 10.14 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.5 ft above NGVD.

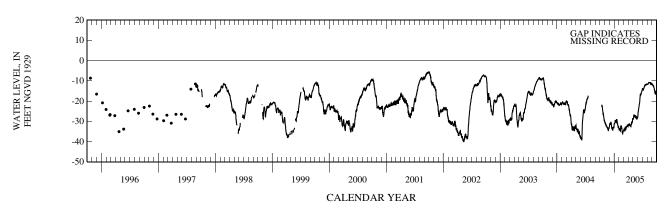
REMARKS.--Well is also used for salinity monitoring. The well was originally open to the aquifer from 128 to 180 ft. The open interval has collapsed or become obstructed at a depth of 168 ft. Chloride samples are being collected from a depth of 140 ft and 165 ft. Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey. Documentation of the highest water level measured on September 5, 1978, is poor. However, the water level is consistent when compared to L-581. Conductivity and chloride profiles for previous years are available in the files of the U. S. Geological Survey.

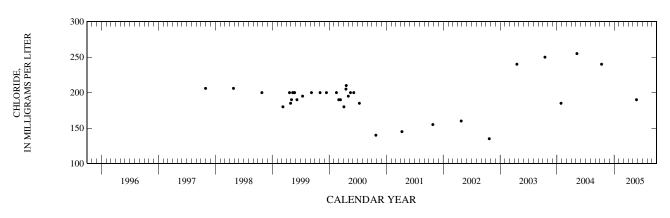
PERIOD OF RECORD.--May 1978 to September 1997 (monthly), September 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.94 ft below NGVD, Sept. 5, 1978; lowest, 42.89 ft below NGVD, June 10, 1985.

#### 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		-30.78	-30.98	-30.67	-33.53	-33.82	-31.87	-28.02	-24.51	-14.20	-11.77	-12.17
10		-32.13	-30.42	-30.13	-34.73	-34.20	-31.37	-27.49	-21.88	-13.80	-10.85	-12.47
15	-22.73	-32.79	-32.75	-29.21	-32.40	-33.80	-32.17	-27.54	-18.43	-12.24	-10.89	-14.16
20	-25.46	-33.00	-34.11	-30.85	-34.20	-32.48	-31.52	-27.74	-16.97	-11.89	-10.82	-16.28
25	-27.33	-34.46	-33.07	-32.34	-35.48	-32.34	-31.08	-28.49	-15.54	-11.92	-11.90	-15.37
EOM	-29.53	-32.81	-31.86	-33.58	-34.96	-32.38	-28.53	-28.29	-14.39	-11.75	-11.36	-14.66
MAX		-30.36	-30.42	-29.11	-32.22	-32.04	-28.53	-26.85	-14.39	-11.61	-10.76	-11.61





WELL NUMBER.--263819081585801. Local Number L 2701.

LOCATION.--Lat 26°38'18", long 81°58'58", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.14, T.44 S., R.23 E., Hydrologic Unit 03090205, in the median of Nicholas Parkway West, at the intersection of SW 7th Terrace, 5.3 mi northwest of the Cape Coral Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 206 ft, cased to 175 ft, open hole 175 to 206 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of shelf, 15.13 ft above National Geodetic Vertical Datum of 1929. Prior to September 16, 2005, measuring point was top of casing, 15.65 ft above NGVD. Prior to May 12, 1999, measuring point was top of shelf, 15.72 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 13.0 ft above NGVD.

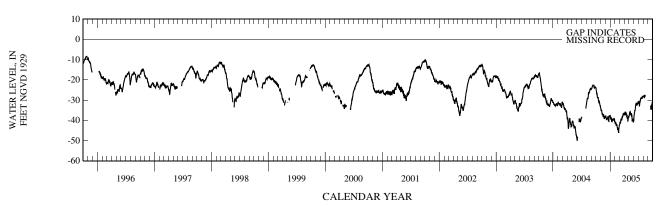
REMARKS.--Well is also used for salinity monitoring. Conductivity and chloride for previous years are available in the files of U.S. Geological Survey. Revised measuring point May 1999, for installation of new recorder shelf. Records of water levels prior to October 1980 are available in files of the U.S. Geological Survey. See DATUM.

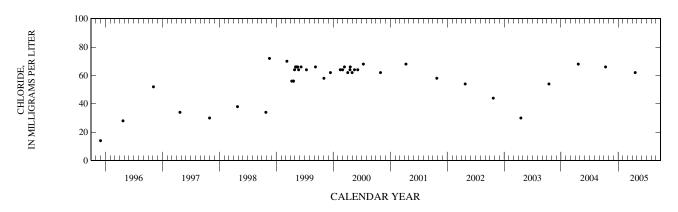
PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 2.81 ft below NGVD, Sept. 11, 1986; lowest, 49.98 ft below NGVD, 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	-25.97	-34.97	-38.56	-39.52	-41.06	-40.92	-36.27	-36.30	-36.40	-31.13	-28.23	
10	-27.95	-36.96	-38.99	-40.38	-42.65	-40.02	-36.69	-36.02	-34.97	-31.33	-27.63	
15	-28.77	-37.43	-39.28	-39.55	-43.45	-39.75	-36.86	-37.69	-31.91	-29.35	-27.93	
20	-31.18	-37.26	-39.74	-39.80	-44.22	-38.74	-37.63	-38.18	-32.51	-28.99		-34.12
25	-31.58	-38.90	-38.33	-39.64	-44.64	-36.77	-40.26	-40.04	-31.98	-28.91		-32.27
EOM	-33.40	-37.96	-37.80	-40.81	-42.49	-36.91	-38.03	-40.26	-31.42	-28.35		-30.32
MAX	-24.04	-34.06	-37.73	-37.71	-40.94	-36.54	-36.08	-35.90	-30.89	-28.24		





WELL NUMBER.--263834082005301. Local Number L 781.

LOCATION.--Lat 26°38'36", long 82°00'51", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.16, T.44 S., R.23 E., Hydrologic Unit 03100103, 0.4 mi north of State Road 78 and 0.45 mi west of Chiquita Boulevard, and 3.5 mi northeast of Matlacha Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 290 ft, cased to 82 ft, open hole 82 to 290 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of flange, 12.28 ft above National Geodetic Vertical Datum of 1929. Prior to October 1996, the measuring point was top of shelf, 12.31 ft above NGVD. From October 1997 to September 1998, the measuring point was incorrectly considered to be top of shelf, 12.31 ft above NGVD. See REMARKS.

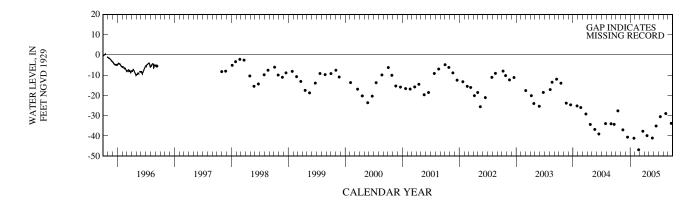
LAND-SURFACE DATUM .-- Land surface is approximately 10.0 ft above NGVD.

REMARKS.--Conductivity and chloride profiles for the previous years are available in the files of the U.S. Geological Survey. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The figures of water level as elevation, in feet NGVD, from October 1997 to September 1999 are in error. A correction of -0.03 ft is required to correct water level data for the period October 1997 to September 1999. See DATUM.

PERIOD OF RECORD.--October 1971 to September 1996 (daily), October 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.24 ft NGVD, Oct. 14, 1977; lowest, 51.01 ft below NGVD, Feb. 25, 1991.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1247	-27.61	19	1151	-39.85
NOV			MAY		
15	1322	-36.99	23	1124	-41.03
DEC			JUN		
15	0840	-40.59	16	1356	-35.09
JAN			JUL		
25	0954	-41.13	13	1400	-30.48
FEB			AUG		
24	0712	-46.81	17	1106	-28.94
MAR			SEP		
23	1136	-37.68	21	1252	-33.78



WELL NUMBER.--263850081365401. Local Number L 727.

LOCATION.--Lat 26°39′49", long 81°35′53", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.11, T.44 S., R.27 E., Hydrologic Unit 03090205, 20 ft east of Joel Boulevard, 3.1 mi south of intersection of State Road 80 and Joel Boulevard and 5.1 mi northeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 71 ft, cased to 67 ft, open hole 67 to 71 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 24.08 ft above National Geodetic Vertical Datum of 1929. Prior to January 1981, top of shelf was 24.14 ft above NGVD. From January 1981 to September 1989, top of shelf was erroneously reported as 24.14 ft above NGVD, but measurement point of 24.08 ft above NGVD was used. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 22.3 ft above NGVD.

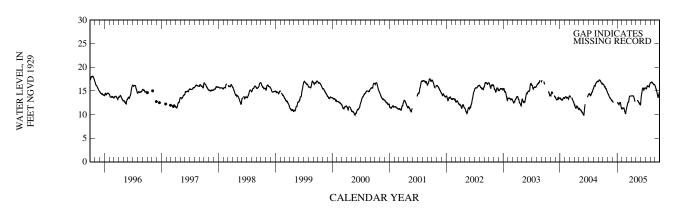
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station reconstructed January 1981. See DATUM.

PERIOD OF RECORD.--July 1968 to October 1996 (daily), November 1996 to February 1997 (monthly), March 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.53 ft NGVD, Mar. 30, 1970; lowest, 9.89 ft NGVD, May 26, 2000 and May 31, 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	16.40	14.32	12.66	12.50	11.40	11.88	13.96		13.99	15.57	16.71	15.66
10	15.99	13.93		12.21	11.35	12.48	13.96	12.96	15.13	15.73	16.88	15.13
15	15.92	13.54		12.42	11.12	12.69	13.95	12.85	15.63	16.10	16.68	14.36
20	15.47	13.40		12.50	10.55	13.78	13.44	12.57	15.23	15.98	16.52	13.56
25	15.23	12.97		11.70	10.40	13.92	12.73	12.18	15.60	15.83	16.38	14.17
EOM	14.69	12.88		11.19	10.96	13.95		12.16	15.59	16.64	16.17	14.72
MAX	16.43	14.57			11.44	13.95			15.66	16.64	16.88	16.06



WELL NUMBER.--263907081592701. Local Number L 2528.

LOCATION.—Lat 26°39′09", long 81°59′27", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.11, T.44 S., R.23 E., Hydrologic Unit 03100103, 200 ft northeast of intersection of Embers Parkway and Nelson Road NW and 6.8 mi northwest of Cape Coral Post Office.

AQUIFER .-- Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 625 ft, cased to 420 ft, open hole 420 to 625 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 3/4 in. reducer, 12.22 ft above National Geodetic Vertical Datum of 1929. From October 1995 to September 2000, measuring point was incorrectly considered to be 12.27 ft above NGVD. From October 25, 1993 to September 1995, measuring point was top of north side of meter box, 12.65 ft above NGVD. From October 1989 to October 25, 1993, the top of meter box was 12.74 ft above NGVD. From October 1987 to September 1989, measuring point was top of casing, 14.81 ft above NGVD. From January 1978 to September 1987, top of casing was 14.66 ft above NGVD. The figures of water level as elevation, in ft NGVD, from October 1995 to September 2000 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 12.2 ft above NGVD.

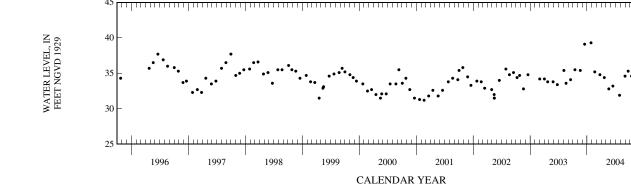
REMARKS.--Records of water levels prior to October 1980 are available in the files of the U.S. Geological Survey. The figures of water level as elevation, in ft NGVD, from October 1995 to September 2000 are in error. A correction of -0.05 ft is required to correct water-level data. Station damaged and reconstructed in 1988, October 1990, October 25, 1993. See DATUM.

PERIOD OF RECORD.--January 1978 to September 1989 (monthly), September 1990 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to October 1995 (monthly), April 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.3 ft NGVD, Jan. 26, 2004; lowest, 31.2 ft NGVD, Feb. 20, 2001.

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

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
12	1405	34.6	20	0756	34.3
NOV			MAY		
15	1302	34.3	23	1111	34.1
DEC			JUN		
15	0755	35.1	16	1032	33.0
JAN			JUL		
25	0949	34.7	18	1200	32.5
FEB			AUG		
24	0656	34.1	16	1205	32.5
MAR			SEP		
22	1244	33.7	2.1	1227	33.4



2005

WELL NUMBER.--263950081355401. Local Number L 2187.

LOCATION.--Lat 26°39'49", long 81°35'53", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.11, T.44 S., R.27 E., Hydrologic Unit 03090205, 20 ft east of Joel Boulevard, 3.1 mi south of intersection of State Road 80 and Joel Boulevard and 5.1 mi northeast of Lehigh Acres Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 154 ft, cased to 136 ft, open hole 136 to 154 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 24.50 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 21.9 ft above NGVD.

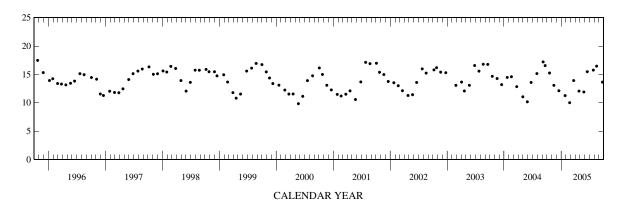
REMARKS.--Records of water levels prior to October 1982 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.88 ft NGVD, Sept. 27, 1979; lowest, 9.84 ft NGVD, May 22, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
18	0913	15.25	25	0936	12.06
NOV			MAY		
15	1334	13.08	26	1304	11.91
DEC			JUN		
17	1617	12.12	17	1109	15.48
JAN			JUL		
26	1049	11.27	26	1025	15.76
FEB			AUG		
24	1325	10.02	16	0902	16.46
MAR			SEP		
22	1403	13.92	22	1111	13.64





WELL NUMBER.--263950081355402. Local Number L 1137.

LOCATION.—Lat  $26^{\circ}39'49$ ", long  $81^{\circ}35'53$ ", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 11, T.44 S., R.27 E., Hydrologic Unit 03090205, 20 ft east of Joel Boulevard, 3.1 mi south of intersection of State Road 80 and Joel Boulevard and 5.1 mi northeast of Lehigh Acres Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20 ft, cased to 15 ft, slotted 15 to 20 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of flange, 24.14 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 22.1 ft above NGVD.

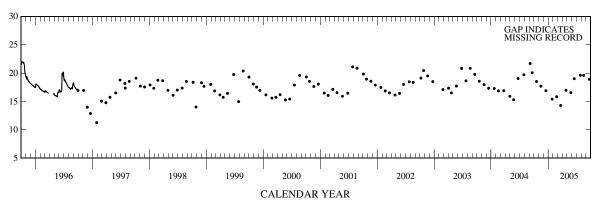
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--June 1970 to September 1996 (daily), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 22.20 ft NGVD, Sept. 25, 1995; lowest water level measured, 11.27 ft NGVD, Jan. 28, 1997.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
18	0913	18.52	25	0930	16.98
NOV			MAY		
15	1333	17.70	26	1303	16.55
DEC			JUN		
17	1613	16.89	17	1112	19.01
JAN			JUL		
26	1047	15.41	26	1023	19.63
FEB			AUG		
24	1322	15.84	16	0901	19.60
MAR			SEP		
22	1403	14.29	22	1108	18.91





WELL NUMBER.--263955082083101. Local Number L 2527.

LOCATION.--Lat 26°39'53", long 82°08'31", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.44 S., R.22 E., Hydrologic Unit 03100103, 19 ft west of H. Stringfellow Road (County Road 767), 3.95 mi north of Pine Island Road and 3.0 mi southeast of Bokeelia Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 605 ft, cased to 360 ft, open hole 360 to 605 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of 8 in. casing, 10.74 ft above National Geodetic Vertical Datum of 1929.

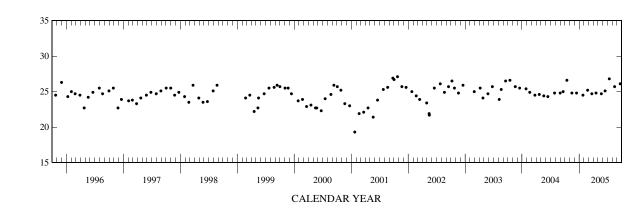
LAND-SURFACE DATUM .-- Land surface is approximately 8.2 ft above NGVD.

REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1978 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.2 ft NGVD, Sept. 30, 1981; lowest, 19.3 ft NGVD, Jan. 23, 2001.

Time	Elevation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
		APR		
1012	26.6	19	1302	24.8
		MAY		
1502	24.8	23	1329	24.7
		JUN		
1042	24.8	16	1220	25.1
		JUL		
1029	24.5	13	1239	26.8
		AUG		
0758	25.2	16	1306	25.7
		SEP		
1218	24.7	21	1339	26.1
	1012 1502 1042 1029 0758	Time Reet above NGVD (72020)  1012 26.6 1502 24.8 1042 24.8 1029 24.5 0758 25.2	ation, feet above Time NGVD (72020)  APR 1012 26.6 19 MAY 1502 24.8 23 JUN 1042 24.8 16 JUL 1029 24.5 13 AUG 0758 25.2 16 SEP	ation, feet above Time NGVD (72020)  APR 1012 26.6 19 1302 MAY 1502 24.8 23 1329 JUN 1042 24.8 16 1220 JUL 1029 24.5 13 1239 O758 25.2 16 1306 SEP



WELL NUMBER.--263955082083102. Local Number L 2820.

LOCATION.--Lat 26°39′53", long 82°08′31", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.44 S., R.22 E., Hydrologic Unit 03100103, 10 ft west of H. Stringfellow Road (County Road 767) and 3.95 mi north of Pine Island Road, and 3.0 mi southwest of Bokeelia Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 241 ft, cased to 192 ft, open hole 192 to 241 ft.

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

DATUM.--Measuring point: For pressure-gage measurements, top of 8 in. casing, 10.56 ft above National Geodetic Vertical Datum of 1929. For chalked-tape measurements, top of cap 11.04 ft above NGVD.

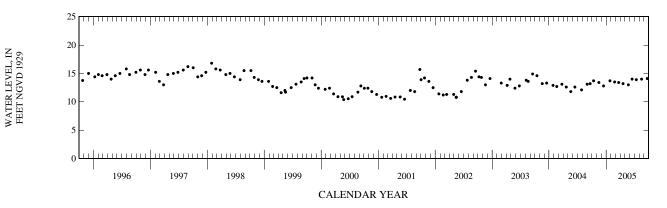
LAND-SURFACE DATUM.--Land surface is approximately 7.6 ft above NGVD.

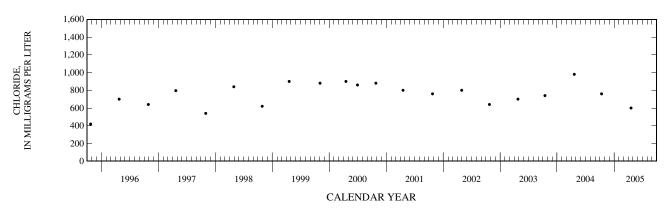
REMARKS.--Well is also used for salinity monitoring. This well is open to the aquifer from 192 to 241 ft. The exact depth from which the chloride-containing water is emanating cannot be further delineated.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.6 ft NGVD, Nov. 26, 1985; lowest, 10.38 ft NGVD, May 24, 2000.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
12	1003	13.7	2,940	760	19	1255	13.2	2,010	600
NOV					MAY				
15	1506	13.4			23	1335	13.0		
DEC					JUN				
15	1045	12.8			16	1223	14.0		
JAN					JUL				
25	1027	13.7			13	1245	13.9		
FEB					AUG				
24	0749	13.5			16	1309	14.0		
MAR					SEP				
22	1234	13.4			21	1342	14.1		





WELL NUMBER.--263955082083103. Local Number L 2549.

LOCATION.--Lat 26°39'53", long 82°08'31", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.44 S., R.22 E., Hydrologic Unit 03100103, 19 ft west of H. Stringfellow Road (County Road 767), 3.95 mi north of Pine Island Road, 3.0 mi southeast of Bokeelia Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 80 ft, cased to 58 ft, open hole 58 to 80 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.88 ft above National Geodetic Vertical Datum of 1929.

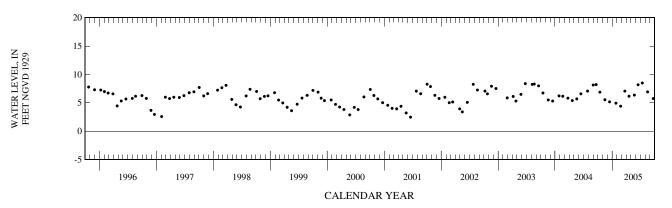
LAND-SURFACE DATUM .-- Land surface is approximately 8.2 ft above NGVD.

REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.49 ft NGVD, July 13, 2005; lowest, 2.15 ft NGVD, June 22, 1994.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	0955	6.88	19	1304	6.16
NOV			MAY		
15	1508	5.54	23	1339	6.36
DEC			JUN		
15	1040	5.17	16	1231	8.18
JAN			JUL		
25	1033	4.94	13	1236	8.49
FEB			AUG		
24	0743	4.41	16	1309	6.93
MAR			SEP		
23	1229	7.06	21	1336	5.75



WATER LEVEL, IN FEET NGVD 1929

#### LEE COUNTY—Continued

WELL NUMBER.--264002082012801. Local Number L 2700.

LOCATION.--Lat 26°40′02", long 82°01′29", in SE ½ SE ¼ sec.5, T.44 S., R.23 E., Hydrologic Unit 03100103, at intersection of Tropicana Parkway and NW 24th Place in median, 2 mi north of Pine Island Road and 3.8 mi northeast of Matlacha Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 205 ft, cased to 165 ft, open hole 165 to 205 ft.

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

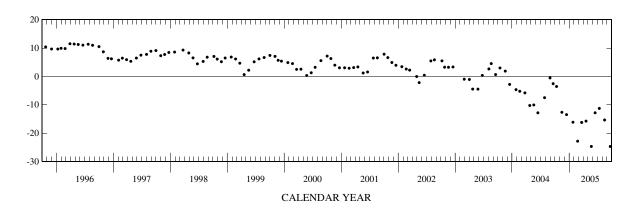
DATUM.--Measuring point: Top of 4 in. steel cap, 9.54 ft above National Geodetic Vertical Datum of 1929. Prior to October 1989, measuring point was top of casing, 9.16 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 7.1 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.0 ft NGVD, Sept. 27, 1979; lowest, 24.69 ft below NGVD, Sept. 21, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1305	-3.54	19	1139	-15.75
NOV			MAY		
15	1147	-12.65	23	1039	-24.67
DEC			JUN		
15	1532	-13.47	16	1042	-12.82
JAN			JUL		
25	1105	-16.14	13	1127	-11.27
FEB			AUG		
24	1137	-22.83	16	1146	-15.35
MAR			SEP		
22	1255	-16.22	21	1215	-24.69



WELL NUMBER.--264053081572501. Local Number L 4820.

LOCATION.—Lat  $26^{\circ}40'57''$ , long  $81^{\circ}57'25''$ , in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 6, T.44 S., R.24 E., Hydrologic Unit 03090205, at the southeast corner of Andalusia Boulevard and East Diplomat Parkway, and 4.5 mi northwest of North Ft. Myers Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 190 ft, cased to 128 ft, open hole 128 to 190 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring Point: Top of recorder shelf, 16.67 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 14.2 ft above NGVD.

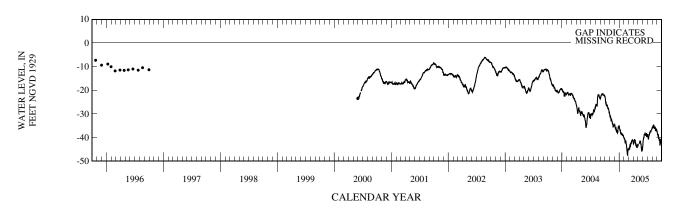
REMARKS.--Well also used for salinity monitoring. Continuous conductivity records for water years 2000 to 2002 and chloride sample results for previous years are available in the files of the U.S. Geological Survey. Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey. Conductivity probe discontinued September 30, 2002.

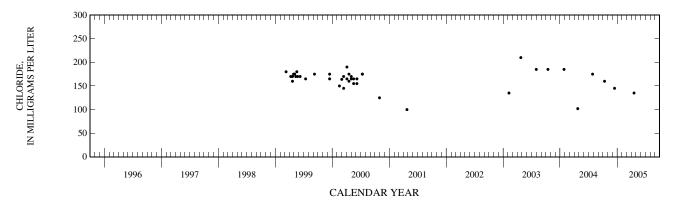
PERIOD OF RECORD.--April 1981 to September 1981 (monthly), October 1983 to September 1996 (monthly), April 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.15 ft NGVD, Sept. 28, 1984; lowest daily maximum water level, 47.68 ft below NGVD, Feb. 24, 2005.

#### 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 10 15 20	-24.37 -26.00 -26.53 -27.80	-31.31 -32.69 -33.14 -34.08	-35.38 -36.10 -37.81 -37.88	-36.58 -37.81 -38.07 -38.86	-40.57 -42.44 -42.71 -45.53	-44.58 -43.65 -43.22 -42.51	-42.28 -41.32 -42.35 -42.95	-42.62  -41.64 -42.89	-40.80 -38.83 -38.21 -38.83	-39.77 -39.41 -38.05 -37.16	-35.17 -35.26 -36.29 -35.69	-38.69 -39.31 -41.25 -43.04
EOM	-28.09 -29.96	-35.19 -34.87	-35.85 -35.44	-39.04 -39.94	-46.13 -44.63	-41.03 -41.54	-44.15 -43.24	-45.86 -44.43	-38.49 -39.06	-36.06	-36.81 -37.16	-40.93 -39.91
MAX	-22.59	-30.26	-34.86	-35.35	-40.16	-40.95	-40.68		-38.12		-34.92	-37.65





WELL NUMBER.--264101081443001. Local Number L 652.

LOCATION.--Lat 26°41'00", long 81°44'27", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.5, T.44 S., R.26 E., Hydrologic Unit 03090205, at J. Hudson House, 0.30 mi east of Orange River Loop Road, 0.50 mi north of Orange River Road, and 8.5 mi northeast of Fort Myers Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 598 ft, cased to 188 ft, open hole 188 to 598 ft.

INSTRUMENTATION.--Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of 2 in. plug on pressure gage 8.84 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 6.8 ft above NGVD.

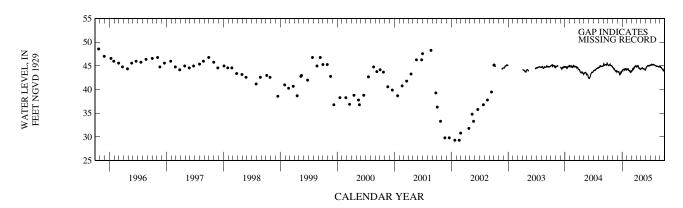
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. Records of water levels from May 1998 to September 27, 2002, are considered to be estimates because of problems identified with the pressure gage and precise measuring point used. Well was also used for salinity monitoring, May 1980 to April 1993.

PERIOD OF RECORD.--October 1967 to October 1969 (semiannual), February 1970 to August 1971 (quarterly), October 1971 to December 1974 (bimonthly), January 1975 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to August 2002 (monthly), September 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.6 ft NGVD, Oct. 24, 1995; lowest, 29.3 ft NGVD (estimated), Jan. 24 and Feb. 21, 2002.

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

D 4 37	OCT	NON	DEG	7.4.3.7	EED	3.64 D	4 DD	3.5.4.37	****	** **	4.110	CED
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.16	44.62	43.78	43.87	44.23	43.94	44.76	44.51	44.67	45.13	44.98	44.69
10	45.20	44.33	43.77	44.27	44.33	44.41	44.96	44.65	45.00	45.40	44.96	44.62
15	45.36	44.04	43.23	44.25	44.03	44.37	44.93	44.39	45.04	45.26	44.90	44.35
20	45.09	43.94	43.19	44.31	43.75	44.70	44.53	44.41	45.03	45.26	44.82	44.09
25	45.09	43.99	43.82	44.35	43.80	44.90	44.35	44.31	45.16	45.22	44.84	44.14
EOM	44.76	43.78	44.00	44.27	44.00	44.86	44.33	44.23	45.19	45.10	44.83	44.59
MAX	45.36	44.73	44.00	44.57	44.38	45.00	45.06	44.65	45.19	45.40	45.11	45.00



WELL NUMBER.--264120082022101. Local Number L 1113.

WATER LEVEL, IN FEET NGVD 1929

LOCATION.--Lat  $26^{\circ}41^{\circ}25^{\circ}$ , long  $82^{\circ}02^{\circ}20^{\circ}$ , in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 32, T.43 S., R.23 E., Hydrologic Unit 03100103, 100 ft northeast of intersection of Van Buren Parkway and Burnt Store Road (County Road 765), 3.5 mi north of Pine Island Road, and 5.1 mi northeast of Matlacha Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 230 ft, open hole 126 to 230 ft.

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

DATUM.--Measuring point: Top of 2 in. casing, 10.90 ft above National Geodetic Vertical Datum of 1929. From April 1993 to September 2000, the measuring point was considered to be 10.54 ft above NGVD. See REMARKS.

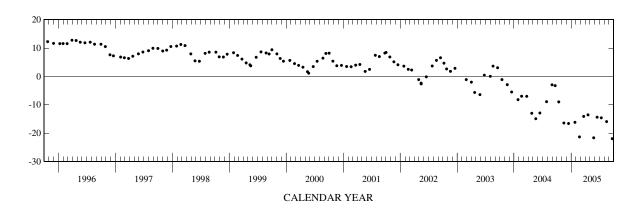
LAND-SURFACE DATUM.--Land surface is approximately 7.6 ft above NGVD.

REMARKS.--The figures of water level as elevation, in ft NGVD, from April 1993 to September 2000, are incorrect. Corrected records are available in the files of the U.S. Geological Survey. This well is open hole 126 to 230 ft. Well has collapsed or is obstructed to 128 ft. It is considered that this does not affect the water levels. See DATUM.

PERIOD OF RECORD.--February 1970 to September 1993 (intermittent), October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.4 ft NGVD, Oct. 12, 1976; lowest, 21.93 ft below NGVD, Sept. 21, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0923	-8.97	19	1109	-13.54
NOV			MAY		
15	1128	-16.41	25	0753	-21.63
DEC			JUN		
15	1524	-16.59	16	0919	-14.36
JAN			JUL		
25	1119	-16.17	13	1000	-14.58
FEB			AUG		
23	0955	-21.31	16	1036	-15.91
MAR			SEP		
22	1309	-14.08	21	1038	-21.93



WELL NUMBER.--264147081562701. Local Number L 1111.

LOCATION.--Lat 26°41'49", long 81°56'23", in SW  $^{1}\!\!/_{\!\!4}$  SW  $^{1}\!\!/_{\!\!4}$  SW  $^{1}\!\!/_{\!\!4}$  sec.29, T.43 S., R.24 E., Hydrologic Unit 03100103, 500 ft northeast of intersection of Del Prado Boulevard N and Kismet Parkway E.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 165 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of thread of 2 in. PVC casing, 20.59 ft above National Geodetic Vertical Datum of 1929.

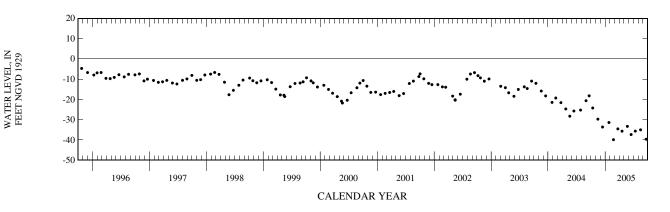
LAND-SURFACE DATUM.--Land surface is approximately 16.8 ft above NGVD.

REMARKS.--Conductivity and chloride profiles for previous water years are available in the files of the U.S. Geological Survey. Records of water levels prior to February 1976 are available in the files of the U.S. Geological Survey

PERIOD OF RECORD.--May 1970 to July 1985 (intermittent), August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.26 ft NGVD, May 15, 1980; lowest, 39.87 ft below NGVD, Feb 23, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1058	-24.24	19	1127	-35.66
NOV			MAY		
15	1212	-29.74	23	1059	-33.30
DEC			JUN		
15	1339	-33.63	16	0956	-37.33
JAN			JUL		
25	1236	-31.40	13	1035	-35.63
FEB			AUG		
23	1013	-39.87	16	1104	-35.01
MAR			SEP		
23	1034	-34.53	21	1128	-39.63



WELL NUMBER.--264153082022301. Local Number L 721.

LOCATION.--Lat 26°41'53", long 82°02'22", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.30, T.43 S., R.23 E., Hydrologic Unit 03100103, at northwest corner of County Road 765 and Delilah Drive, 4.2 mi north of Pine Island Road and 5.1 mi northeast of Matlacha Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 18 ft, cased to 9 ft, slotted 9 to 18 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.85 ft above National Geodetic Vertical Datum of 1929. Prior to October 1990, measuring point was top of cap, 8.98 ft above NGVD.

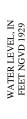
LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

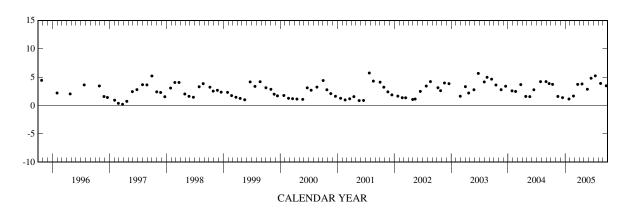
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--July 1968 to September 1994 (monthly), October 1994 to September 1996 (quarterly), September 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.72 ft NGVD, July 25, 2001; lowest, 0.20 ft NGVD, Mar. 26, 1997.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1339	3.72	19	1103	3.79
NOV			MAY		
15	1119	1.59	23	1011	2.86
DEC			JUN		
15	1517	1.38	16	0909	4.80
JAN			JUL		
25	1128	1.14	13	0954	5.22
FEB			AUG		
23	0951	1.66	16	1030	3.88
MAR			SEP		
22	1316	3.72	21	1013	3.47





WELL NUMBER.--264241081582401. Local Number L 1110.

LOCATION.--Lat  $26^{\circ}42'41''$ , long  $81^{\circ}58'25''$ , in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.25, T.43 S., R.23 E., Hydrologic Unit 03100103, northeast corner of Juanita Boulevard and Jacaranda Parkway, 1 mi north of Kismet Parkway, 2 mi west of Del Prado Boulevard, 2 mi north of Pine Island Road, 2 mi west of U.S. Highway 41, and 3.25 mi north of Ft. Myers Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 238 ft, open hole 147 to 238 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 19.92 ft above National Geodetic Vertical Datum of 1929.

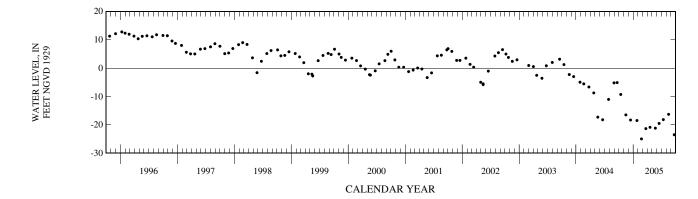
LAND-SURFACE DATUM .-- Land surface is approximately 15.8 ft above NGVD.

REMARKS.--Conductivity and chloride profiles for previous water years are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--February 1970 to September 1993 (intermittent), October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.38 ft NGVD, Oct. 12, 1976; lowest, 24.95 ft below NGVD, Feb. 23, 2005.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	1013	-9.28	19	1134	-20.87
NOV			MAY		
15	1158	-16.49	23	1048	-21.17
DEC			JUN		
15	1346	-18.31	16	0935	-19.50
JAN			JUL		
25	1243	-18.47	13	1019	-18.15
FEB			AUG		
23	1001	-24.95	16	1117	-16.29
MAR			SEP		
23	1045	-21.33	21	1100	-23.48



WELL NUMBER.--264308081405402. Local Number L 2530.

LOCATION.--Lat 26°43'08", long 81°40'49", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.23, T.43 S., R.26 E., Hydrologic Unit 03090205, 0.25 mi north of State Road 80, 0.30 mi east on Werner Drive and 4.3 mi west of Alva Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 614 ft, cased to 475 ft, 2 in. diameter open hole 475 to 614 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. casing, 9.90 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.2 ft above NGVD.

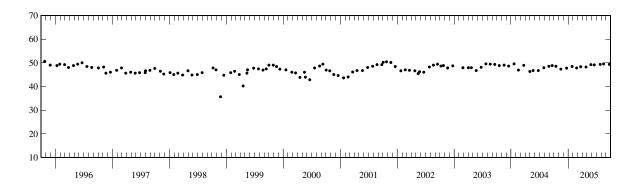
REMARKS.--Records of water levels prior to October 1979 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1978 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.9 ft NGVD, Oct. 29, 1981; lowest, 35.7 ft NGVD, Nov. 25, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1534	48.6	25	0830	48.3
NOV			MAY		
15	1405	47.4	26	1344	49.3
DEC			JUN		
22	0957	47.8	17	1048	49.2
JAN			JUL		
26	1109	48.5	25	1652	49.4
FEB			AUG		
24	1346	47.9	16	0840	49.6
MAR			SEP		
22	1457	48.4	22	0757	49.4





WELL NUMBER.--264320081365701. Local Number L 1977.

LOCATION.--Lat 26°43'19", long 81°36'56", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.21, T.43 S., R.27 E., Hydrologic Unit 03090205, 11.5 ft west of Parkinson Road, 300 ft north of State Road 78, and 0.7 mi northwest of Alva Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 185 ft, cased to 65 ft, screened 65 to 85 ft and cased 85 to 122 ft, open hole 122 to 185 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.20 ft above National Geodetic Vertical Datum of 1929. From January 1999 to March 2000, top of casing was 17.79 ft above NGVD. Prior to May 1998, top of casing was 19.89 ft above NGVD.

LAND-SURFACE DATUM .-- Land surface is approximately 17.1 ft above NGVD.

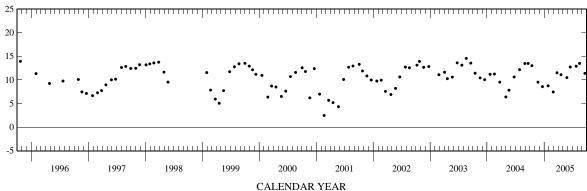
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1974 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.18 ft NGVD, Sept. 1, 1988; lowest, 2.50 ft NGVD, Feb. 20, 2001.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
14	1219	13.02	19	1354	11.11
NOV			MAY		
22	1039	9.53	26	0859	10.50
DEC			JUN		
21	1152	8.59	17	0907	12.74
JAN			JUL		
26	0917	8.76	25	1114	12.91
FEB			AUG		
28	0957	7.47	16	0737	13.50
MAR			SEP		
24	0918	11.51	19	1213	11.39





WELL NUMBER.--264329081340401. Local Number L 2200.

LOCATION.--Lat 26°43'30", long 81°34'06", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.24, T.43 S., R.27 E., Hydrologic Unit 03090205, west side of the Lee/Hendry County Line and south side of State Road 78, and 2.8 mi northeast of Alva Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 163 ft, cased to 122 ft, screened 122 to 163 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 20.00 ft above National Geodetic Vertical Datum of 1929.

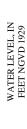
LAND-SURFACE DATUM .-- Land surface is approximately 17.3 ft above NGVD.

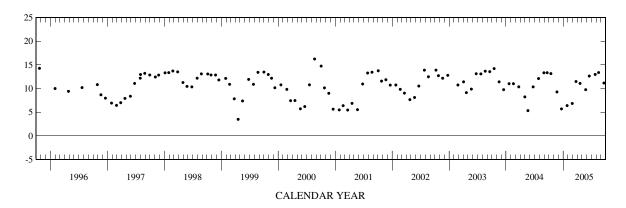
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1975 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.32 ft NGVD, Sept. 23, 1986; lowest, 3.51 ft NGVD, Apr. 19, 1999.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1307	13.18	19	1434	11.10
NOV			MAY		
22	1105	9.30	25	0930	9.78
DEC			JUN		
21	1221	5.72	17	0939	12.66
JAN			JUL		
26	0959	6.41	25	1149	13.00
FEB			AUG		
28	1025	6.86	16	0808	13.40
MAR			SEP		
24	1000	11.50	19	1343	11.18





WELL NUMBER.--264329081340402. Local Number L 2202.

LOCATION.--Lat 26°43'30", long 81°34'06", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.24, T.43 S., R.27 E., Hydrologic Unit 03090205, west side of the Lee/Hendry County Line and south side of State Road 78, and 2.8 mi northeast of Alva Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 17.4 ft, cased to 7.4 ft, screened 7.4 to 17.4 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.-- Measuring point: Top of casing, 20.03 ft above National Geodetic Vertical Datum of 1929.

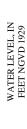
LAND-SURFACE DATUM .-- Land surface is approximately 17.3 ft above NGVD.

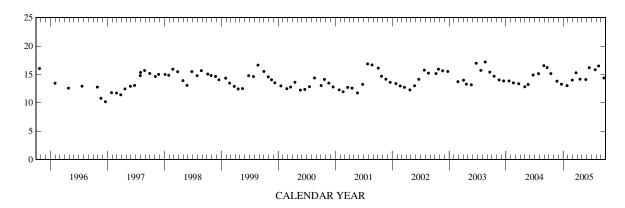
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1975 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.20 ft NGVD, Aug. 20, 2003; lowest, 10.19 ft NGVD, Dec. 19, 1996.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1314	15.14	19	1435	14.16
NOV			MAY		
22	1105	13.81	26	0930	14.10
DEC			JUN		
21	1221	13.28	17	0942	16.19
JAN			JUL		
26	1000	13.03	25	1151	15.83
FEB			AUG		
28	1029	13.99	16	0807	16.49
MAR			SEP		
24	1001	15.29	19	1341	14.38





WELL NUMBER.--264359081424701. Local Number L 1975.

LOCATION.--Lat 26°43′59", long 81°42′45", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.16, T.43 S., R.26 E., Hydrologic Unit 03090205, at northwest corner of State Road 78 and North Olga Drive, and 6.5 mi west of Alva Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 168 ft, cased to 102 ft, screened 102 to 142 ft, cased 142 to 158 ft, open hole 158 to 168 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape. (Corrected).

DATUM.--Measuring point: Top of 4 in. cap, 15.59 ft above National Geodetic Vertical Datum of 1929. Prior to October 1995, measuring point was top of casing, 15.52 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 13.1 ft above NGVD.

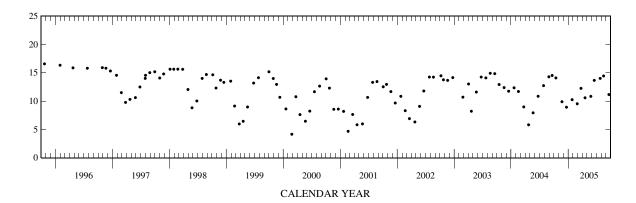
REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1974 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.02 ft NGVD, Nov. 29, 1979; lowest, 4.17 ft NGVD, Feb. 25, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
14	1152	14.09	19	1326	10.59
NOV			MAY		
22	1026	9.90	26	0845	10.84
DEC			JUN		
21	1132	8.93	17	0854	13.66
JAN			JUL		
26	0906	10.26	25	1101	14.01
FEB			AUG		
28	0943	9.54	16	0722	14.44
MAR			SEP		
24	0902	12 25	19	1149	11 16





WELL NUMBER.--264359081424702. Local Number L 1976.

LOCATION.—Lat 26°43′59", long 81°42′45", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec.16, T.43 S., R.26 E., Hydrologic Unit 03090205, at northwest corner of State Road 78 and North Olga Drive, and 6.5 mi west of Alva Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

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

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 15.54 ft above National Geodetic Vertical Datum of 1929.

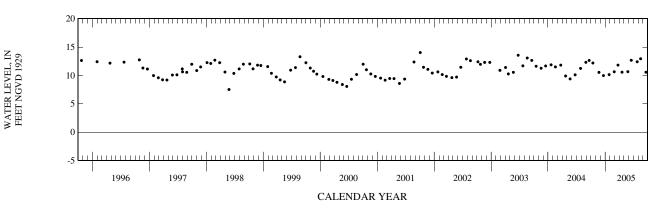
LAND-SURFACE DATUM .-- Land surface is approximately 13.1 ft above NGVD.

REMARKS.--Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1974 to September 1994 (monthly), October 1994 to July 1996 (quarterly), October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.03 ft NGVD, Oct. 3, 2001; lowest, 7.52 ft NGVD, May 26, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1152	12.19	19	1326	10.57
NOV			MAY		
22	1026	10.54	26	0845	10.66
DEC			JUN		
21	1133	9.97	17	0856	12.67
JAN			JUL		
26	0907	10.14	25	1102	12.41
FEB			AUG		
28	0943	10.65	16	0725	12.94
MAR			SEP		
24	0904	11.82	19	1152	10.56



WELL NUMBER.--264427081362601. Local Number L 2531.

LOCATION.--Lat 26°44'35", long 81°36'23", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.10, T.43 S., R.27 E., Hydrologic Unit 03090205, 2 mi north of Alva on Persimmon Ridge Road, on west side of road and 1.2 mi north of State Road 78.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 605 ft, cased to 345 ft, open hole 345 to 605 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. PVC casing, 20.66 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 19.7 ft above NGVD.

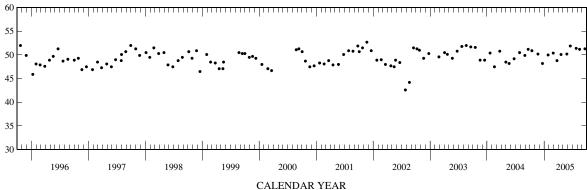
REMARKS.--Records of water levels prior to October 1983 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--March 1978 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.6 ft NGVD, Sept. 1, 1988; lowest, 42.6 ft NGVD, July 26, 2002.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1245	50.9	19	1422	50.1
NOV			MAY		
22	1058	50.2	26	0908	50.2
DEC			JUN		
21	1210	48.2	17	0918	51.9
JAN			JUL		
26	0942	50.0	25	1123	51.4
FEB			AUG		
28	1014	50.4	16	0747	51.2
MAR			SEP		
24	0947	48.8	19	1248	51.3





WELL NUMBER.--264433081360601. Local Number L 5708.

LOCATION.--Lat 26°44'31", long 81°36'09", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 10, T.43 S., R.27 E., Hydrologic Unit 03090205, 250 ft west of Frank Green House, 700 ft south of Persimmon Ridge Road, 1.6 mi north then east of intersection of State Road 78 and Persimmon Ridge Road and 1.9 mi north of Alva.

AQUIFER.--Upper Floridan aquifer of the Oligocene Age, Geologic Unit 120 UFAQ.

WELL CHARACTERISTICS.--Driven, observation, artesian well, diameter 6 in., depth 920 ft, cased to 620 ft, open hole 620 to 920 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

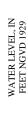
DATUM.--Measuring point: Top of 4 in. by 2 in. reducer, 21.55 ft above National Geodetic Vertical Datum of 1929.

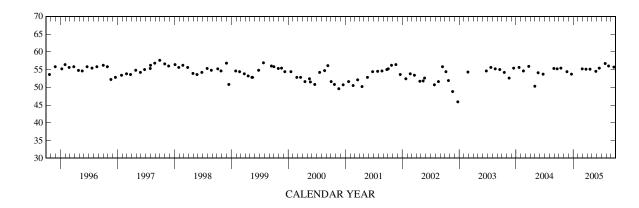
LAND-SURFACE DATUM .-- Land surface is approximately 19.4 ft above NGVD.

PERIOD OF RECORD.--May 1984 to September 1988 (semiannual), September 1989 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.6 ft NGVD, Sept. 30, 1986, Sept. 29, 1997; lowest, 45.9 ft NGVD, Dec. 23, 2002

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			MAY		
14	1232	55.4	26	0920	54.5
NOV			JUN		
22	1048	54.4	17	0925	55.4
DEC			JUL		
21	1202	53.7	25	1134	56.7
FEB			AUG		
28	1008	55.2	16	0754	56.0
MAR			SEP		
24	0942	55.1	19	1258	55.7
APR					
19	1406	55.1			





WELL NUMBER.--264517081513201. Local Number L 2341.

LOCATION.--Lat 26°45'18", long 81°51'24", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.7, T.43 S., R.25 E., Hydrologic Unit 03100103, at southeast corner of intersection of Nalle Grade Road and Huber Road, 15 ft east of Huber Road, 47 ft south of Nalle Grade Road, 0.4 mi west of Slater Road, 4 mi north of State Road 78 and 6.1 mi northeast of North Fort Myers Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 585 ft, cased to 300 ft, open hole 300 to 585 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 8 in. casing, 25.17 ft above National Geodetic Vertical Datum of 1929.

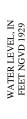
LAND-SURFACE DATUM.--Land surface is approximately 23.6 ft above NGVD.

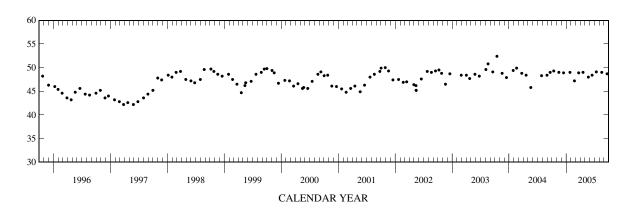
REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1976 to October 1993 (monthly), April 1994 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.4 ft NGVD, Oct. 15, 2003; lowest, 42.2 ft NGVD, Mar. 26 and May 28, 1997.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0818	49.3	19	0957	49.0
NOV			MAY		
15	1019	49.0	23	0911	48.0
DEC			JUN		
15	0756	48.9	16	1417	48.4
JAN			JUL		
25	1311	49.0	13	1502	49.1
FEB			AUG		
23	0849	47.2	17	1600	49.0
MAR			SEP		
22	1416	48.9	20	1345	48.7





WELL NUMBER.--264517082022101. Local Number L 1059.

LOCATION.--Lat 26°45'15", long 82°02'21", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.7, T.43 S., R.23 E., Hydrologic Unit 03100103, 48 ft west of County Road 765, 8.0 mi north of Pine Island Road (State Road 78), and 8.8 mi northeast of Matlacha Post Office.

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in.,depth 189 ft, cased to 156 ft, open hole 156 to 189 ft.

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

DATUM.--Measuring point: Top of bushing, 13.95 ft above National Geodetic Vertical Datum of 1929. From September 1994 to September 1997, measuring point was incorrectly considered to be 14.17 ft above NGVD. From October 1993 to September 1994, measuring point was 13.81 ft above NGVD. From October 1980 to September 1993, measuring point was top of casing, 12.89 ft above NGVD. Prior to October 1980, top of casing was 10.71 ft above NGVD. See REMARKS.

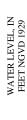
LAND-SURFACE DATUM.--Land surface is approximately 10.6 ft above NGVD.

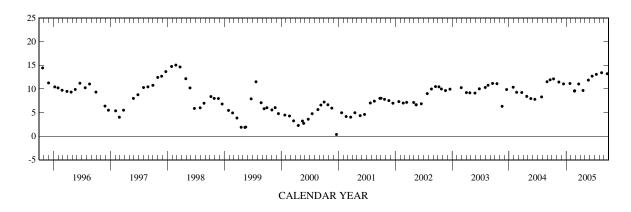
REMARKS.--Well was monitored for salinity until September 2004. The well was originally open to the aquifer from depth of 156 to 189 ft. The open-hole portion of the well has collapsed or become obstructed. Chloride concentration samples were collected from a depth of 156 ft. Records of water levels prior to October 1975 are available in files of the U.S. Geological Survey. The figures of water level as elevation, in feet NGVD, from September 28, 1994 to September 1997 are in error. A +0.25 ft correction has been applied to correct the records. Corrected records are in files of the U.S. Geological Survey. Station rebuilt September 1994. See DATUM.

PERIOD OF RECORD.--May 1970 to December 1974 (bimonthly), January 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.9 ft NGVD, Jan. 30, 1980; lowest, 0.38 ft NGVD, Dec. 20, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1323	12.13	19	1051	9.68
NOV			MAY		
15	1105	11.46	23	0959	11.87
DEC			JUN		
15	1452	11.07	16	0849	12.71
JAN			JUL		
25	1146	11.16	13	0946	13.09
FEB			AUG		
23	0941	9.55	16	1004	13.43
24	1336	9.61	SEP		
MAR			21	0951	13.22
22	1331	11.05			





WELL NUMBER.--264517082022102. Local Number L 2526.

LOCATION.--Lat 26°45'14", long 82°02'18", in NE \(^1\)/4 sec.7, T.43 S., R.23 E., Hydrologic Unit 03100103, 48 ft west of State Road 765, 8 mi north of State Road 78, and 8.8 mi northeast of Matlacha Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 605 ft, cased to 300 ft, open hole 300 to 605 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.—Measuring point: Top of casing, 12.06 ft above National Geodetic Vertical Datum of 1929. From November 23, 1999 to April 2003, measuring point was 13.54 ft above NGVD. From September 28, 1999 to November 22, 1999, measuring point was top of bucket, 11.64 ft above NGVD. From September 1997 to September 1999, measuring point was top of faucet, 13.61 ft above NGVD. From October 1990 to September 1997, measuring point was top of bushing, 13.63 ft above NGVD. From October 1982 to September 1990, measuring point top of casing, 13.64 ft above NGVD. Prior to October 1982, top of casing was 12.81 ft above NGVD. See REMARKS.

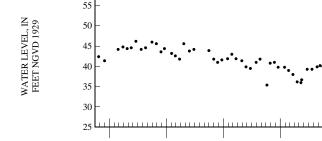
LAND-SURFACE DATUM.--Land surface is approximately 10.7 ft above NGVD.

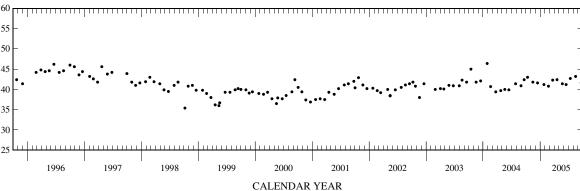
REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey. Site was repaired and releveled in April 2003.

PERIOD OF RECORD.--January 1978 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.4 ft NGVD, Jan. 27, 2004; lowest, 35.4 ft NGVD, Oct. 7, 1998.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
12	1316	43.0	19	1055	42.4
NOV			MAY		
15	1109	41.8	23	1001	41.4
DEC			JUN		
15	1458	41.6	16	0854	41.2
JAN			JUL		
25	1141	41.2	13	0943	42.7
FEB			AUG		
23	0944	40.8	16	1021	43.2
MAR			SEP		
22	1326	42.3	21	0956	41.6





WELL NUMBER.--264537081552202. Local Number L 2646.

LOCATION.--Lat 26°45'37", long 81°55'21", in NW ½ SW ½ sec.4, T.43 S., R.24 E., Hydrologic Unit 03100103, at intersection of Lakeville Drive and Dalewood Road, 14 ft east of Dalewood Road, 20 ft south of Lakeville Drive, 0.2 mi east of U.S. Highway 41, and 6.9 mi northwest of North Fort Myers Post Office

AQUIFER.--Mid-Hawthorn aquifer of the Miocene Age, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 220 ft, cased to 170 ft, open hole 170 to 220 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 23.41 ft above National Geodetic Vertical Datum of 1929. From October 1995 to September 1997, measuring point was incorrectly considered to be 23.16 ft above NGVD. See REMARKS.

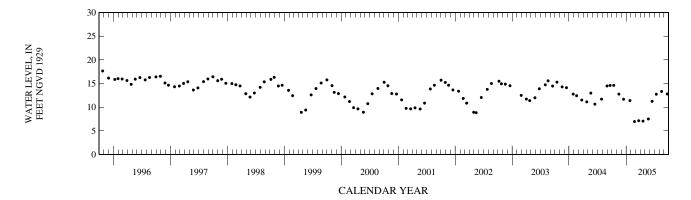
LAND-SURFACE DATUM.--Land surface is approximately 20.8 ft above NGVD.

REMARKS.--Records of water levels prior to October 1978 are available in files of the U.S. Geological Survey. The figures of water levels, as elevation in feet NGVD, for the period October 1995 to September 1997 are in error. A correction of + 0.25 ft has been applied to correct water-level data. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.36 ft NGVD, Sept. 28, 1978; lowest, 6.98 ft NGVD, Feb. 23, 2005.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
13	0828	14.64	19	1015	7.07
NOV			MAY		
15	1037	12.78	23	0929	7.52
DEC			JUN		
15	1406	11.70	16	0752	11.26
JAN			JUL		
25	1223	11.42	13	0900	12.76
FEB			AUG		
23	0850	6.98	16	0910	13.35
MAR			SEP		
22	1359	7.15	21	0905	12.81



WELL NUMBER.--264608081454101. Local Number L 2216.

LOCATION.--Lat 26°46'09", long 81°45'41", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.1, T.43 S., R.25 E., Hydrologic Unit 03090205, west side of State Road 31 at Lee/Charlotte County Line, and 10.0 mi northwest of Alva Post Office.

AQUIFER.--Sandstone aquifer of the Miocene Age, Geologic Unit 122 SNDS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 150 ft, cased to 130 ft, screened 130 to 150 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 28.46 ft above National Geodetic Vertical Datum of 1929. Prior to October 2000, top of casing was considered to be 28.61 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 26.3 ft above NGVD.

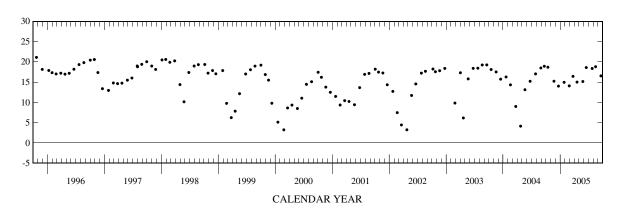
REMARKS.--Well was also used for salinity monitoring, May 1981 to January 2000.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.16 ft NGVD, Oct. 6, 1992; lowest, 3.24 ft NGVD, Feb. 25, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1019	18.68	19	1310	15.02
NOV			MAY		
22	1009	15.23	26	0822	15.16
DEC			JUN		
21	1104	14.02	17	0807	18.60
JAN			JUL		
26	0837	14.96	25	1004	18.37
FEB			AUG		
28	0924	14.08	16	0705	18.81
MAR			SEP		
24	0821	16.43	19	1114	16.55





WATER LEVEL, IN FEET NGVD 1929

#### LEE COUNTY—Continued

WELL NUMBER.--264608081454102. Local Number L 2217.

LOCATION.--Lat 26°46'09", long 81°45'41", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.1, T.43 S., R.25 E., Hydrologic Unit 03090205, west side of State Road 31 at Lee/Charlotte County Line, and 10.0 mi northwest of Alva Post Office.

AQUIFER.--Surficial aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 18 ft, cased to 10 ft, screened 10 to 18 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

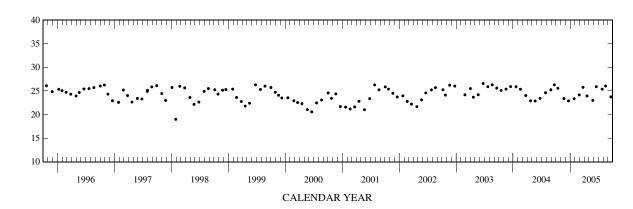
DATUM.--Measuring point: Top of casing, 28.63 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 26.2 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.75 ft NGVD, Aug. 30, 1977; lowest, 19.00 ft NGVD, Jan. 29, 1998.

Date	Time	Elevation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			APR		
14	1019	25.57	19	1310	23.94
NOV			MAY		
22	1009	23.39	26	0822	23.01
DEC			JUN		
21	1104	22.90	17	0804	25.90
JAN			JUL		
26	0839	23.35	25	1002	25.39
FEB			AUG		
28	0924	24.17	16	0710	26.05
MAR			SEP		
24	0822	25.76	19	1110	23.75



WELL NUMBER.--264608081454103. Local Number L 2328.

LOCATION.--Lat 26°46′09", long 81°45′41", in NE  $\frac{1}{4}$  sec.1, T.43 S., R.25 E., Hydrologic Unit 03090205, west side of State Road 31 at Lee/Charlotte County Line, and 10.0 mi northwest of Alva Post Office.

AQUIFER.--Lower Hawthorn aquifer of Oligocene to Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 600 ft, cased to 300 ft, open hole 300 to 600 ft.

INSTRUMENTATION .-- Monthly measurement with pressure gage.

DATUM.--Measuring point: Top of 4 in. casing, 28.13 ft above National Geodetic Vertical Datum of 1929. Prior to October 2000, top of casing was considered to be 28.52 ft above NGVD.

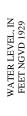
LAND-SURFACE DATUM.--Land surface is approximately 25.5 ft above NGVD.

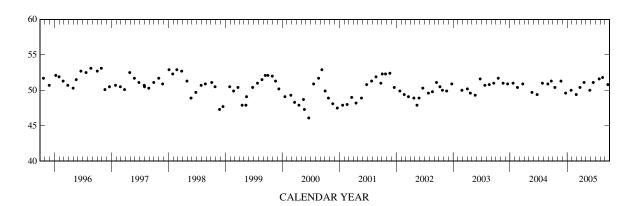
REMARKS.--Records of water levels prior to October 1982 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD. -- September 1976 to September 1993 (monthly), October 1993 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.3 ft NGVD, July 31 and Oct. 31, 1979; lowest, 46.1 ft NGVD, June 19, 2000.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elev- ation, feet above NGVD (72020)
OCT			APR		
14	1019	50.4	19	1310	51.1
NOV			MAY		
22	1009	51.3	26	0822	50.0
DEC			JUN		
22	1104	49.6	17	0812	51.1
JAN			JUL		
26	0840	50.0	25	1007	51.6
FEB			AUG		
28	0924	49.4	16	0708	51.8
MAR			SEP		
24	0823	50.4	19	1125	50.8





# WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

# LEE COUNTY—Continued

# MISCELLANEOUS WATER-LEVEL MEASUREMENTS

Station number	Local identifier	Latitude	Longitude	Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chlor- ide, water, fltrd, mg/L (00940)
262513081472002	L -5668R	26 25 13 N	081 47 20 W	20041018	0945	2670	720
		26 25 13 N	081 47 20 W	20050418	1517	2690	760
263125081511801	L - 331	26 33 26 N	081 51 21 W	20041012	1432	2810	640
		26 33 26 N	081 51 21 W	20050420	1444	2910	720

# Martin County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

# Key to site locations on figure # 19

# MARTIN COUNTY

Index	Site	Well	Page
Number	Number	Name	Number
1	270835080105801	M 1004	354
2	265822080052701	M 1024	351
3	270124080280202	M 1048	352
4	265725080141801	M 1234	350
5	270913080284901	M 1255	355
6	270609080163401	M 1261	353

# **VOLUME 2B: SOUTH FLORIDA**

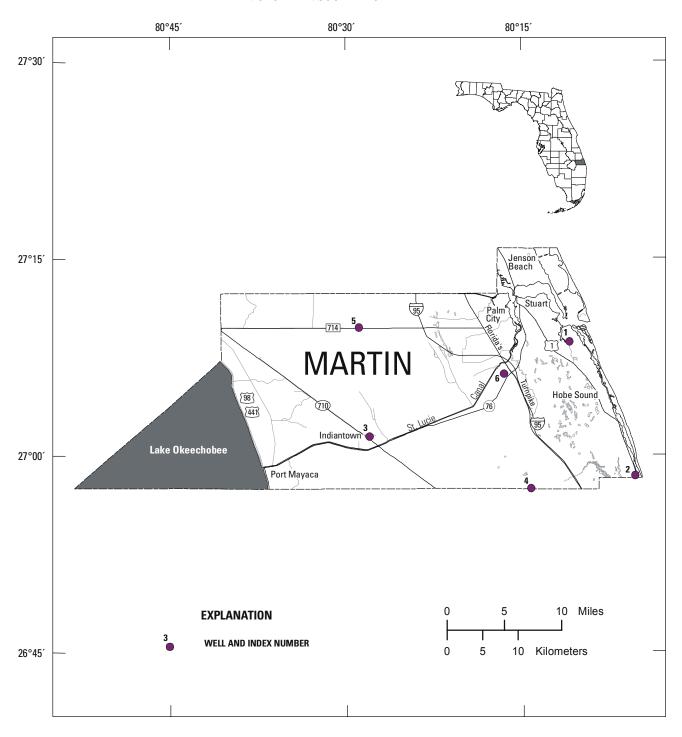


Figure 19: Location of wells in Martin County

# MARTIN COUNTY

WELL NUMBER.--265725080141801. Local Number M 1234. USGS Observation Well near Jupiter, FL.

 $LOCATION.--Lat\ 26^{\circ}57'25", long\ 80^{\circ}14'18", in\ SW\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ sec. 27, T. 40\ S., R. 41\ E., Hydrologic\ Unit\ 03090202, located\ on\ Old\ Indiantown\ Road,\ 0.6\ mi\ northwest\ of\ Mellen\ Lane,\ 4.6\ mi\ west\ of\ the\ junction\ of\ State\ Road\ 706\ and\ Florida\ Turnpike\ near\ Jupiter,\ Fl.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Driven, observation, water-table well, diameter 6 in., depth 18 ft, cased to 18 ft.

INSTRUMENTATION .-- Electronic data logger.

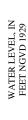
DATUM.--Measuring point: Top of base, 23.65 ft above National Geodetic Vertical Datum of 1929.

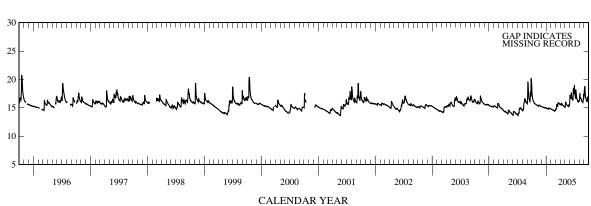
LAND-SURFACE DATUM .-- Land surface is approximately 21.2 ft above NGVD.

PERIOD OF RECORD.--October 1988 to August 1989 (semiannual), August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 20.71 ft NGVD, Oct. 17, 18, 1995; lowest, 13.46 ft NGVD, May 29, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	16.81 16.20	15.41 15.31	15.17 15.12	14.89 14.81	14.74 14.67	14.84 15.58	15.62 15.79	16.01 15.70	17.03 16.57	17.29 18.19	17.50 16.65	18.71 16.98
15	15.90	15.47	15.05	14.94	14.58	15.33	15.55	15.45	16.69	16.88	16.37	16.37
20 25	15.73 15.64	15.40 15.32	15.01 15.03	14.93 14.82	14.47 14.49	15.84 15.75	15.38 15.25	15.29 15.25	16.36 18.37	16.33 16.23	16.08 16.08	16.08 16.61
EOM	15.51	15.25	14.98	14.81	14.59	15.61	15.16	15.63	18.82	16.15	16.90	16.24
MAX	18.25	15.48	15.24	14.97	14.79	15.90	15.79	16.01	18.82	18.87	17.50	18.72





WELL NUMBER.--265822080052701. Local Number M 1024. USGS Observation Well near Tequesta, FL.

LOCATION.--Lat 26°58'22", long 80°05'27", in NE \(^1\)4 SW \(^1\)4 SW \(^1\)4 sec.19, T.40 S., R.43 E., Hydrologic Unit 03090202, in Tequesta Park, 0.2 mi north of County Line Road.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 83 ft, cased to 80 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 26.02 ft above National Geodetic Vertical Datum of 1929. From February 1993 to September 1993, the measuring point was incorrectly considered to be 25 ft above NGVD. Prior to February 1993, measuring point was top of casing, 26.10 ft above NGVD. See REMARKS.

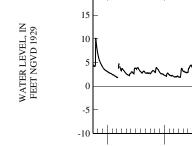
LAND-SURFACE DATUM.--Land surface is approximately 24.5 ft above NGVD.

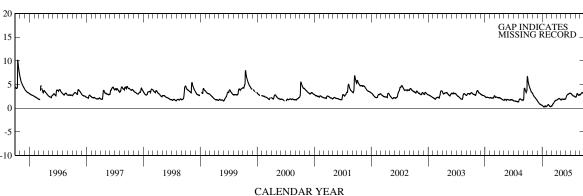
REMARKS.--Well is affected by pumping in area. The well was originally open to the aquifer from 80 to 83 ft. The casing interval has collapsed or become obstructed at a depth of 69 ft. The published figures of water level as elevation, in feet NGVD, from February 1993 to September 1993, are in error. A +1.02 ft correction has been applied to the water-level data. Corrected records are in files of the U.S. Geological Survey. Records of water levels from October 1978 to May 1982 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1975 to April 1979 (daily), May 1982 (intermittent), February 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.14 ft NGVD, Oct. 18, 19, 1995; lowest, 0.24 ft NGVD, Jan. 13, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	5.30 4.69	2.76 2.49	1.38 1.15	0.47 0.32	0.66 0.78	0.59 0.82	1.74 1.86	1.82 1.98	2.46 2.81	3.07 2.94	2.40 2.81	2.96 3.24
15	4.19	2.30	0.90	0.33	0.57	1.05	1.97	1.91	2.93	2.74	3.12	3.30
20	3.71	2.11	0.85	0.47	0.39	1.36	2.06	1.87	3.05	2.61	2.82	3.16
25	3.40	1.85	0.69	0.32	0.35	1.56	1.96	1.89	3.14	2.56	2.71	3.29
EOM	3.17	1.63	0.62	0.45	0.50	1.70	1.79	1.96	3.15	2.41	2.89	3.36
MAX	6.05	3.10	1.57	0.60	0.78	1.70	2.07	1.98	3.19	3.17	3.12	3.36





WELL NUMBER.--270124080280202. Local Number M 1048. USGS Observation Well in Indiantown, FL.

LOCATION.--Lat 27°01'24", long 80°28'02", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.40 S., R.39 E., Hydrologic Unit 03090202, near intersection of SW Washington Avenue and SW Osceola Street, 0.1 mi northeast of State Road 710.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 80 ft, cased to 25 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.—Measuring point: Top of base, 35.70 ft above National Geodetic Vertical Datum of 1929. From September 1992 to May 4, 2001, top of base was 35.63 ft above NGVD. Prior to October 1992, measuring point was top of casing, 35.61 ft above NGVD. Prior to October 1990, top of casing was considered to be 35.83 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 32.8 ft above NGVD.

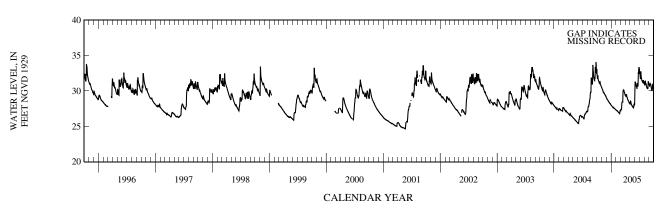
REMARKS.--The well was originally open to the aquifer from 25 to 80 ft. The open interval has collapsed or become obstructed at a depth of 23 ft. The figures of water levels as elevation, in feet NGVD, prior to October 1, 1990 are in error. A -0.22 ft correction is required to correct the data prior to October 1990. The station was reconstructed May 4, 2001. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 34.05 ft NGVD, Sept. 26, 2004; lowest, 24.65 ft NGVD, May 22, 2001.

	YEAR OCT	ABOVE NO TOBER 2004 MAXIMUM	TO SEPTE	FEET MBER 2005		
JAN	FEB	MAR	APR	MAY	JUN	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.82	30.25	28.87	27.88	27.25	27.41	29.27	28.55	31.19	32.15	30.79	30.76
10	31.58	29.92	28.73	27.73	27.16	28.18	29.35	28.15	30.67	32.76	31.03	30.99
15	31.26	29.81	28.51	27.71	27.02	28.43	28.91	27.90	30.29	31.64	30.70	30.38
20	31.29	29.53	28.36	27.55	26.92	30.07	28.65	27.72	30.76	31.40	30.33	30.12
25	30.90	29.36	28.21	27.46	26.96	29.93	28.41	27.83	32.43	31.51	30.75	30.70
EOM	30.53	29.11	28.02	27.36	27.28	29.45	28.24	28.07	33.00	31.26	30.92	30.27
MAX	33.00	30.48	29.08	27.98	27.32	30.13	29.53	28.55	33.30	32.99	31.38	31.02



WELL NUMBER.--270609080163401. Local Number M 1261. USGS Observation Well near Stuart, FL

LOCATION.--Lat 27°06′09", long 80°16′34", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.6, T.39 S., R.41 E., Hydrologic Unit 03090202, on SW Locks Road, approximately 0.5 mi west of State Road 76 and 1.1 mi west of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6.0 in., depth 20 ft, open from 16.8 to 19.8 ft.

INSTRUMENTATION .-- Satellite data collection platform.

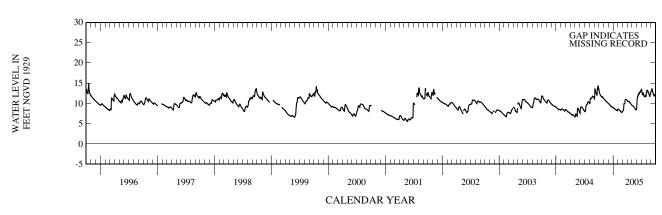
DATUM.--Measuring point: Top of base, 18.54 ft above National Geodetic Vertical Datum of 1929. Prior to January 1993, measuring point was top of casing, 18.47 ft above NGVD.

LAND-SURFACE DATUM .-- Land surface is 14.9 ft above NGVD.

PERIOD OF RECORD.--May 1989 to April 1992 (semiannual), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.78 ft NGVD, Oct. 18, 1995; lowest, 5.53 ft NGVD, May 23, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.69	11.00	9.86	8.82	8.54	8.26	10.52	9.37	11.40	12.63	13.19	13.40
10	12.07	10.78	9.64	8.66	8.38	9.38	10.51	9.32	11.85	12.52	13.19	13.00
15	11.79	10.57	9.42	8.49	8.14	9.99	10.35	9.09	12.35	12.25	12.74	12.33
20	11.53	10.41	9.20	8.40	7.91	11.03	10.11	8.79	12.79	11.71	12.10	11.83
25	11.56	10.21	9.06	8.26	7.75	10.99	9.82	8.44	12.96	11.95	11.73	12.24
EOM	11.22	10.03	8.97	8.53	7.99	10.74	9.59	8.53	13.40	12.01	12.97	12.29
MAX	13.40	11.17	10.00	8.94	8.57	11.03	10.66	9.54	13.40	13.48	13.24	13.63



WELL NUMBER.--270835080105801. Local Number M 1004. USGS Observation Well in Port Salerno, FL.

LOCATION.--Lat 27°08'35", long 80°10'58", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.30, T.38 S., R.42 E., Hydrologic Unit 03090202, 5.0 mi southeast of Stuart, 0.7 mi east of U.S. Highway 1 Alternate A1A on Cove Road.

AQUIFER .-- Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 17 ft, cased to 17 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 10.83 ft above National Geodetic Vertical Datum of 1929. From October 1991 to March 15, 1999, measuring point was top of shelf, 10.76 ft above NGVD. Prior to October 1991, top of shelf was considered to be 10.73 ft above NGVD. Prior to 1977, measuring point was top of casing, reported as 23.00 ft above NGVD.

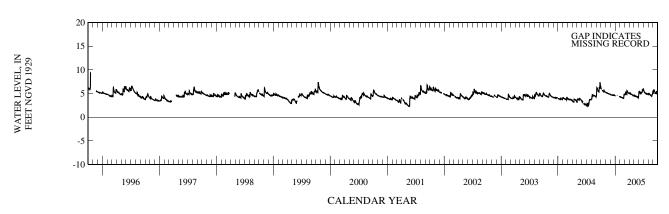
LAND-SURFACE DATUM.--Land surface is approximately 7.8 ft above NGVD.

REMARKS .-- Station reconstructed March 15, 1999.

PERIOD OF RECORD.--October 1973 to December 1976, October 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.34 ft NGVD, Oct. 17, 1995; lowest, 2.29 ft NGVD, July 7, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	5.96 5.69 5.50 5.78 5.46	5.22 5.09 5.06 5.00 4.90	4.78 4.71 4.63 4.66 4.74	4.61 	4.29 4.18 4.10 4.10 4.25	4.91 5.32 4.91 5.39 5.13	5.01 5.04 4.86 4.76 4.55	4.69 4.41 4.47 4.33 4.38	5.33 5.01 5.03 5.27 5.64	5.44 5.27 5.02 5.00 4.96	5.02 4.84 4.70 4.50 4.65	5.81 5.50 5.14 4.99 5.30
EOM MAX	5.29	4.80 5.29	4.59 4.81	4.37	4.82 4.84	4.99 5.67	4.57 5.15	4.46 4.69	6.01 6.01	4.79 5.95	5.54 5.54	5.10 5.81



WELL NUMBER.--270913080284901. Local Number M 1255. USGS Observation Well near Indiantown, FL.

 $LOCATION.--Lat~27^{\circ}09'43'', long~80^{\circ}28'54'', in~SW~^{1}\!\!/_{4}~SW~^{1}\!\!/_{4}~SW~^{1}\!\!/_{4}~sec.18, T.38~S., R.39~E., \\ Hydrologic~Unit~03090202, 50~ft~northeast~of~intersection~of~County~Road~714~and~County~Road~609, approximately~10~mi~west~of~Palm~City~and~5~mi~north~of~Indiantown.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4.0 in., depth 35.0 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 31.15 ft above National Geodetic Vertical Datum of 1929. Prior to January 13, 1993, measuring point was top of casing, 31.06 ft above NGVD. See REMARKS.

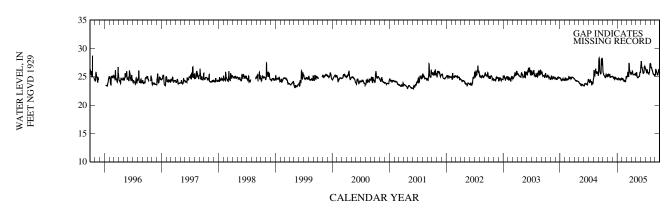
LAND-SURFACE DATUM.--Land surface is approximately 29.6 ft above NGVD.

REMARKS.--Well located near agricultural area. Data logger installed January 13, 1993. See DATUM.

PERIOD OF RECORD.--May 1989 to November 1992 (semiannual), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 28.72 ft NGVD, Oct. 18, 1995; lowest, 22.81 ft NGVD, July 8, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	25.48 25.17 24.89 25.34 25.14	25.44 25.26 25.38 25.00 25.06	24.94 24.94 24.66 24.93 24.76	24.68 24.78 24.63 24.42 24.49	24.66 24.43 24.25 24.15 24.43	25.08 25.74 25.05 26.64 25.66	25.64 25.71 25.41 25.36 25.38	25.80 24.90 24.86 25.06 25.63	27.67 26.60 25.68 25.77 26.52	26.20 26.16 25.78 25.63 25.84	26.72 26.57 26.05 25.49 25.41	26.26 25.88 25.39 25.62 26.04
EOM	25.29	24.96	24.57	24.72	25.06	25.32	25.26	25.77	26.48	27.32	25.18	25.60
MAX	26.13	25.49	25.08	24.78	25.06	27.43	26.10	25.82	27.76	27.32	27.33	26.39



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# Miami-Dade County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

# Key to site locations on figure # 20

# MIAMI-DADE COUNTY

Number   N	Index	Site	Well	Page	Index	Site	Well	Page
2								_
2								
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5         2528299808285101         F 358         377         70         254158980294501         G 3552         432           6         254959080188081         G 3         480         71         254138980274501         G 3552         428           7         254435980170501         G 548         472         73         254152080274501         G 3554         429           9         25415208021501         G 553         417         74         254111080272501         G 3554         429           11         2590208022501         G 553         417         74         254111080272501         G 3555         427           12         220208022501         G 553         417         77         25411408021301         G 5557         427           12         224100080180100         G 586         412         78         254145980295901         G 3555         442           12         23425808264301         G 613         368         79         254108080231301         G 3561         418           15         23528080264301         G 614         395         80         25402280263601         G 3561         418           16         2345228080260000         G 618         452         81								
6 254990080180801 G 3 480 71 254139800284401 G 3552 428 7 254353080170501 G 4432 443 72 254152805274501 G 3555 430 8 254855080163701 G 548 472 73 254152805274501 G 3555 425 8 254855080163701 G 5551 427 74 254112805272501 G 3555 425 10 2589020802020501 G 553 411 75 25421118050272501 G 3555 425 11 2589020802020501 G 553 411 75 2542112805281501 G 3555 425 12 25400080181002 G 550.4 411 75 2542112805281501 G 3555 425 12 25400080181002 G 550.4 412 77 254314280524401 G 3557 426 12 2540008018000 G 613 343 87 75 254314980284401 G 3558 442 15 25425808320401 G 613 395 80 254022808025801 G 3560 424 15 25425808320401 G 618 452 81 2551280515901 G 3561 418 16 254500808360001 G 618 452 81 25511280515901 G 3561 418 17 254000808160001 G 620 415 82 254348080303601 G 3563 444 18 2525380820401 G 757 A 401 83 25491780514301 G 3563 444 19 252928080333401 G 789 380 84 2541280802303601 G 3563 444 19 252928080333401 G 8852 497 85 25491780514301 G 3563 444 19 252928080333401 G 8852 497 85 25491780514301 G 3563 444 19 252928080333401 G 8852 497 85 25491808014301 G 3563 444 19 252928080333401 G 8852 497 85 25491808014901 G 3566 481 21 2540380802001 G 8852 497 85 254951808014901 G 3566 481 22 25471808012201 G 8852 497 85 254951808104901 G 3566 481 23 25261208000701 G 8864 43 370 88 254556080172601 G 3567 496 24 25401080172001 G 864 43 370 88 2545657808172601 G 3567 496 25 25271808022701 G 804 43 39 9 125444608095591 G 3577 435 25 25400808021001 G 968 49 9 9 2 2542667808021401 G 3568 436 25 252508080274001 G 968 49 9 9 2 254266808072601 G 3577 435 30 255208080274001 G 970 40 433 9 1 25444608095591 G 3577 435 30 255208080274001 G 970 40 470 470 470 470 470 470 470 470 47								
7         254335880170501         C 432         443         72         254120800274501         G 3554         429           9         254130800234501         G 551         427         73         254110800274501         G 3555         425           10         2590208020201         G 553         411         75         25411080021401         G 3555         427           11         254841080164401         G 571         471         76         2541108002401         G 3555         426           12         25400080181002         G 580A         414         77         25433490024401         G 3557         426           13         253977080304001         G 6 13         368         79         254310800253101         G 3566         422           14         252425808026401         G 6 14         392         80         2554208026001         G 3566         424           15         25325808026401         G 6 14         392         80         255420802600301         G 3564         418           18         25337080024401         G 7 78         30         84         2543080000301         G 3564         474           18         25337808024401         G 7 78         30         84								
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27	25		G 896	421		254432080240401		446
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32         255344080195600         G 1166R         493         97         255358080114101         G 3601         494           33         252944080233401         G 1179         382         98         255116080120601         G 3602         489           34         252947080233201         G 1180         383         99         254722080152201         G 3604         458           35         252918080234201         G 1183         379         100         254629080143101         G 3605         454           36         2519220803440701         G 1251         362         101         254608080170601         G 3608         422           37         254940080172001         G 1282         475         102         254005080171601         G 3609         416           38         254813080155801         G 1354         468         104         25347080184701         G 3611         406           39         25482308030155801         G 1362         506         105         253214080215401         G 3612         399           40         26362080264801         G 1362         506         105         253214080231001         G 3615         386           42         25495080171202         G 1368A         479								
33         252944080233401         G 1179         382         98         255116080120601         G 3602         489           34         252947080235301         G 1180         383         99         254722080152001         G 3604         458           35         252918080234201         G 1183         379         100         254629080143101         G 3605         454           36         251922080340701         G 1251         362         101         254108080176001         G 3608         422           37         254940080172001         G 1282         475         102         2540080171601         G 3609         416           38         254813080161501         G 1351         461         103         253710080184701         G 3611         406           39         25483308015801         G 1362         506         105         253214080215401         G 3612         399           41         253233080301001         G 1363         394         106         253024080231001         G 3615         386           42         254950080171202         G 1368A         479         107         252243080323501         G 3619         365           43         253012080261401         G 1487         420 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
34         252947080235301         G 1180         383         99         254722080152201         G 3604         458           35         252918080234201         G 1183         379         100         254629080143101         G 3605         454           36         251922080340701         G 1251         362         101         2546108080176061         G 3608         422           37         254940080172001         G 1282         475         102         254005080171601         G 3609         416           38         25481308016501         G 1351         461         103         253710080184701         G 3611         406           39         254833080155801         G 1354         468         104         253457080195501         G 3612         399           40         26363080264801         G 1362         506         105         253214080215401         G 3613         391           41         253233080301001         G 1368A         479         107         252243080335501         G 3619         365           43         253012080261401         G 1486         385         108         252312080230301         G 3620         366           44         25405468080295401         G 1488         4								
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39         254833080155801         G 1354         468         104         253457080195501         G 3612         399           40         263630080264801         G 1362         506         105         253214080215401         G 3615         386           41         253233080301001         G 1363         394         106         253024080231001         G 3615         386           42         254950080171202         G 1368A         479         107         252243080335501         G 3619         365           43         253012080261401         G 1486         385         108         252312080320301         G 3620         366           44         254054080295401         G 1488         466         110         252955080340701         G 3621         364           45         254830080284201         G 1488         466         110         252955080340701         G 3622         384           46         25265080330301         G 1502         374         111         253708080304201         G 3626         405           47         255707080255001         G 1637         504         112         25362808032101         G 3628         402           48         25415708021402         G 3074         431<		254940080172001	G 1282	475	102	254005080171601	G 3609	416
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42         254950080171202         G 1368A         479         107         252243080335501         G 3619         365           43         253012080261401         G 1486         385         108         252312080320301         G 3620         366           44         254054080295401         G 1487         420         109         252115080293701         G 3621         364           45         254830080284201         G 1488         466         110         252955080340701         G 3622         384           46         252656080350301         G 1502         374         111         253708080304201         G 3626         405           47         255707080255001         G 1637         504         112         253632080321101         G 3627         404           48         254157080214002         G 3074         431         113         253539080320501         G 3628         402           49         254457080160301         G 3229         451         114         254720080253002         G 3676         457           50         254946080172601         G 3250         477         115         252814080244101         G 3698         375           51         255027080245501         G 3253         4								
43         253012080261401         G 1486         385         108         252312080320301         G 3620         366           44         254054080295401         G 1487         420         109         252115080293701         G 3621         364           45         254830080284201         G 1488         466         110         252955080340701         G 3622         384           46         252656080350301         G 1502         374         111         253708080304201         G 3626         405           47         255707080255001         G 1637         504         112         253632080321101         G 3627         404           48         254157080214002         G 3074         431         113         253539080320501         G 3628         402           49         254457080160301         G 3229         451         114         254720080253002         G 3676         457           50         254946080172601         G 3253         484         116         252652080244301         G 3698         375           51         255027080245501         G 3253         484         116         252652080244301         G 3699         372           52         255026080240302         G 3353         48								
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45         254830080284201         G 1488         466         110         252955080340701         G 3622         384           46         252656080350301         G 1502         374         111         253708080304201         G 3626         405           47         255707080255001         G 1637         504         112         253632080321101         G 3627         404           48         254157080214002         G 3074         431         113         2535339080320501         G 3628         402           49         254457080160301         G 3229         451         114         254720080253002         G 3676         457           50         254946080172601         G 3250         477         115         252814080244101         G 3698         375           51         255027080245501         G 3253         484         116         252652080244301         G 3699         372           52         255026080240302         G 3272         413         118         253214080224601         G 3700         388           53         253952080321501         G 3272         413         118         253214080224601         G 3701         392           54         253831080180206         G 3313E								
46         252656080350301         G 1502         374         111         253708080304201         G 3626         405           47         255707080255001         G 1637         504         112         253632080321101         G 3627         404           48         254157080214002         G 3074         431         113         253539080320501         G 3628         402           49         254457080160301         G 3229         451         114         254720080253002         G 3676         457           50         254946080172601         G 3250         477         115         252814080244101         G 3698         375           51         255027080245501         G 3253         484         116         252652080244301         G 3699         372           52         255026080240302         G 3259A         483         117         253027080234701         G 3700         388           53         253952080321501         G 3272         413         118         253214080224601         G 3701         392           54         253831080180206         G 3313E         409         119         253334080213601         G 3702         396           55         254823080163701         G 3327								
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60       252332080300501       G 3355       367       125       255526080143001       S 18       498         61       252502080253901       G 3356       369       126       254832080175001       S 19       467         62       253400080340401       G 3437       398       127       254857080171101       S 68       473         63       254421080260201       G 3439       445       128       253549080214101       S 182A       403         64       254823080175201       G 3465       465       129       253029080295601       S196A       390								
61       252502080253901       G 3356       369       126       254832080175001       S 19       467         62       253400080340401       G 3437       398       127       254857080171101       S 68       473         63       254421080260201       G 3439       445       128       253549080214101       S 182A       403         64       254823080175201       G 3465       465       129       253029080295601       S196A       390								
62       253400080340401       G 3437       398       127       254857080171101       S 68       473         63       254421080260201       G 3439       445       128       253549080214101       S 182A       403         64       254823080175201       G 3465       465       129       253029080295601       S196A       390								
64 254823080175201 G 3465 465 129 253029080295601 S196A 390	62		G 3437		127			473
65 254834080171601 G 3466 469					129	253029080295601	S196A	390
	65	254834080171601	G 3466	469				

# **VOLUME 2B: SOUTH FLORIDA**

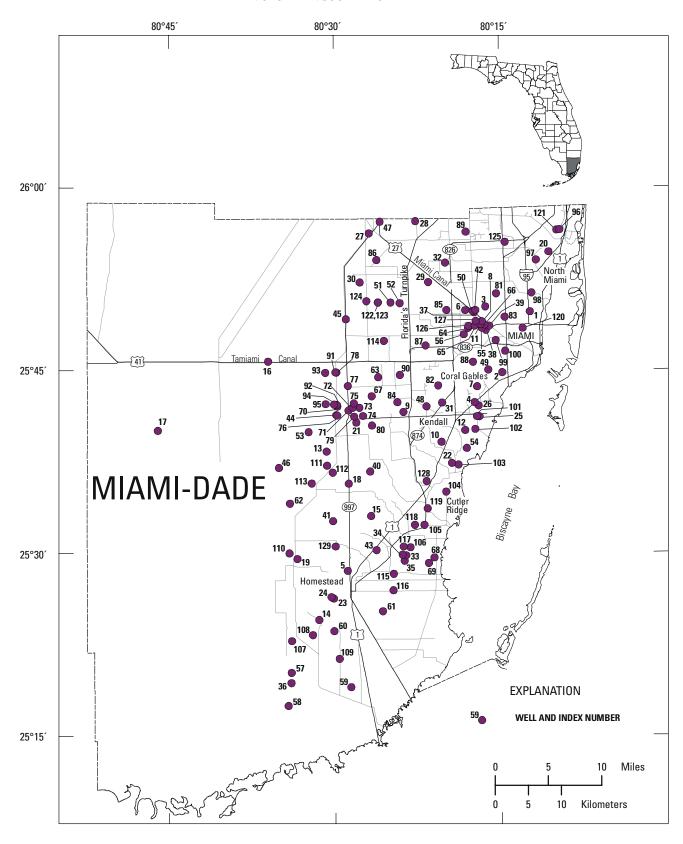


Figure 20: Location of wells in Miami-Dade County

# MIAMI-DADE COUNTY

WELL NUMBER.--251724080341401. Local Number G 3353. USGS Observation Well near Florida City, FL.

 $LOCATION.--Lat\ 25^{\circ}17'14'', long\ 80^{\circ}34'08'', in\ SW\ {}^{1}\!\!/_{4}\ SW\ {}^{1}\!\!/_{4}\ sec. 18, T.59\ S., R.38\ E., Hydrologic\ Unit\ 03090202, in\ C-111\ drainage\ basin,\ 2.5\ mi\ south\ of\ L-31W\ canal\ and\ 7\ mi\ west\ of\ U.S.\ Highway\ 1,\ 12.5\ mi\ southwest\ of\ Florida\ City.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 4 in., depth 8 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 4.73 ft above National Geodetic Vertical Datum of 1929. Prior to July 11, 1997, measuring point was 4.71 ft above NGVD.

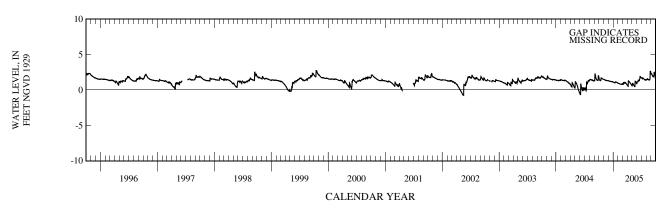
LAND-SURFACE DATUM.--Land surface is approximately 0.9 ft above NGVD.

PERIOD OF RECORD.--September 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 2.73 ft NGVD, Oct. 17, 1999; lowest, 0.84 ft below NGVD, May 18, 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 10	1.45 1.34	1.47 1.38	1.26 1.24	1.08 1.02	0.94 0.88	0.93 1.06	0.57 1.25	0.93 0.80	1.17 1.38	1.63 1.71	1.45 1.53	2.27 1.99
15	1.69	1.38	1.20	1.14	0.82	0.95	1.13	0.60	1.30	1.61	1.45	1.91
20 25	1.62 1.56	1.33 1.32	1.18 1.16	1.10 1.05	0.82 0.80	1.03 0.91	0.97 0.83	0.44 1.12	1.57 1.80	1.46 1.40	1.39 1.76	2.45 2.17
EOM	1.49	1.31	1.12	0.96	0.82	0.73	0.64	0.89	1.74	1.44	2.32	2.14
MAX	1.76	1.48	1.30	1.15	0.94	1.08	1.28	1.22	1.91	1.72	2.64	2.49



WELL NUMBER.--251855080283401. Local Number G 3354. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°18'42", long 80°28'39", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 7, T.59 S., R.39 E., Hydrologic Unit 03090202, in C-111 drainage basin between C-109 and C-110 canals, 1.6 mi west of U.S. Highway 1 and 1.15 mi north of C-111 canal, 8.9 mi south of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 4 in., depth 8 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 7.27 ft above National Geodetic Vertical Datum of 1929. Prior to destruction of the well, August 24, 1992, top of base was 7.26 ft above NGVD. From September 1992 to September 1993, top of base was incorrectly considered to be 7.03 ft above NGVD. From October 1993 to September 1994, top of base was incorrectly considered to be 7.30 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 1.2 ft above National Geodetic Vertical Datum of 1929.

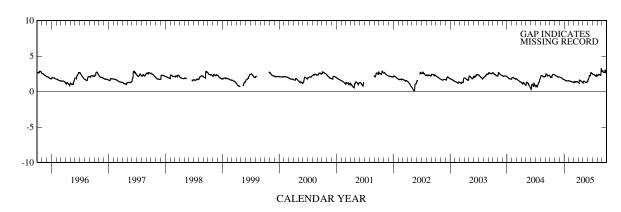
REMARKS.--The figures of water level as elevation, in feet NGVD, from September 1992 to September 1994 are in error. Revised records for 1993 and 1994 water years are in files of the U.S. Geological Survey. The figures of water level as elevation, in feet NGVD, from the period of September 3 to September 30, 2002, are in error due to a misapplication of the datum correction. Corrected records are in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.24 ft NGVD, Aug. 15, 1988, Aug. 27, 2005; lowest, 0.07 ft NGVD, May 18,19, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.09	2.28	2.04	1.62	1.49	1.34	1.21	1.47	1.76	2.41	2.28	2.93
10	2.00	2.20	1.99	1.56	1.48	1.41	1.61	1.44	2.25	2.42	2.42	2.71
15	2.28	2.19	1.90	1.53	1.41	1.38	1.56	1.34	2.25	2.33	2.38	2.74
20	2.42	2.09	1.84	1.51	1.38	1.40	1.47	1.24	2.58	2.21	2.29	3.03
25	2.44	2.05	1.77	1.51	1.35	1.40	1.36	1.33	2.60	2.16	2.84	2.77
EOM	2.36	2.07	1.69	1.51	1.33	1.32	1.25	1.48	2.51	2.24	2.85	2.66
MAX	2.44	2.35	2.07	1.67	1.50	1.41	1.63	1.49	2.69	2.47	3.24	3.03





WELL NUMBER.--251922080340701. Local Number G 1251. USGS Observation Well near Homestead, FL.

 $LOCATION.--Lat~25^{\circ}19'16'', long~80^{\circ}33'58'', in~SE~\frac{1}{4}~NE~\frac{1}{4}~SW~\frac{1}{4}~sec.6, T.59~S., R.38~E., Hydrologic~Unit~03090202, 2.5~mi~southwest~of~S-18-C, 5.5~mi~south~of~State~Road~9336~(Ingraham~Highway), 7~mi~west~of~U.S.~Highway~1, and 11.0~mi~southwest~of~Homestead.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 59 ft, cased to 5 ft.

REVISED RECORDS .-- WDR FL-84-2B:1983.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 4.81 ft above National Geodetic Vertical Datum of 1929. From October 1, 1984 to October 1, 2003, top of base was incorrectly considered to be 4.79 ft NGVD. Prior to October 1, 1984, measuring point was incorrectly considered to be 4.99 ft NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 3.2 ft NGVD.

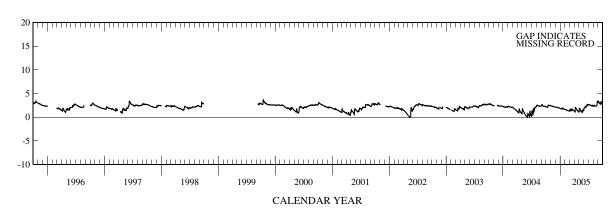
REMARKS.--Well was also used for salinity monitoring until October 1998. The figures of water level as elevation, in feet NGVD, prior to October 1, 2003 are in error. Corrected records prior to October 1984 are in files of the U.S. Geological Survey. The estimated error in water-level elevations from 1985 to 2003 is -0.02 ft. Because this is less than the published accurate of record no corrections have been applied. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1965 to September 1998, September 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.68 ft NGVD, Oct. 16, 1999; lowest, 1.76 ft below NGVD, May 30, 1965.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.17 2.12 2.57 2.52 2.52 2.47	2.39 2.34 2.30 2.25 2.19 2.16	2.14 2.12 2.06 2.02 1.98 1.89	1.82 1.73 1.97 1.84 1.75 1.66	1.64 1.55 1.45 1.40 1.35 1.41	1.52 1.71 1.44 1.67 1.51 1.34	1.20 2.06 1.71 1.45 1.26 1.11	1.88 1.54 1.22 1.04 1.33 1.45	1.96 2.31 2.21 2.39 2.68 2.68	2.63 2.60 2.57 2.44 2.40 2.38	2.43 2.41 2.38 2.39 2.69 3.16	3.28 2.95 2.85 3.35 3.05 3.01
MAX	2.57	2.45	2.16	1.97	1.64	1.79	2.09	1.88	2.73	2.67	3.37	3.35





WELL NUMBER.--252007080335701. Local Number G 3336. USGS Observation Well near Florida City, FL.

 $LOCATION.--Lat~25^{\circ}20'15", long~80^{\circ}33'57", in~NW~\frac{1}{4}~NW~\frac{1}{4}~SE~\frac{1}{4}~sec. 31, T.58~S., R.38~E., Hydrologic~Unit~03090202, 18~ft~east~of~centerline~of~Aerojet~Road~and~66~ft~southwest~of~Florida~Power~and~Light~power~pole~491, 4.4~mi~south~of~State~Road~9336.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 38 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of base, 8.04 ft above National Geodetic Vertical Datum of 1929. Prior to July 2, 2003, measuring point was top of casing, 4.53 ft above NGVD.

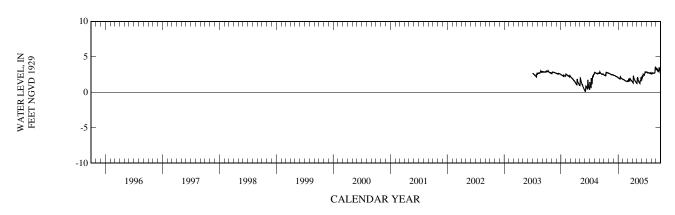
LAND-SURFACE DATUM.--Land surface is approximately 4.5 ft above NGVD.

REMARKS.--Well was used for salinity monitoring until September 1995.

PERIOD OF RECORD.--November 1984 to April 1986 (monthly), February 1990 to September 1993 (quarterly), November 1993 to September 1995 (monthly), July 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.68 ft NGVD, Sept. 24, 1985; lowest daily maximum water level, 0.11 ft NGVD, June 4, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.39	2.65	2.39	1.98	1.80	1.66	1.37	2.13	2.12	2.81	2.73	3.38
10	2.34	2.59	2.35	1.90	1.72	1.87	2.10	1.67	2.55	2.80	2.64	3.08
15	2.88	2.54	2.29	2.19	1.63	1.60	1.81	1.41	2.47	2.76	2.71	2.99
20	2.78	2.47	2.23	1.99	1.57	1.81	1.58	1.24	2.64	2.68	2.70	3.47
25	2.75	2.47	2.18	1.91	1.52	1.71	1.40	1.51	2.84	2.73	2.99	3.18
EOM	2.70	2.43	2.08	1.83	1.57	1.54	1.26	1.71	2.85	2.62	3.27	3.14
MAX	2.88	2.69	2.42	2.19	1.81	1.97	2.33	2.13	2.89	2.86	3.54	3.47



WELL NUMBER .-- 252115080293701. Local Number G 3621. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°21'42", long 80°29'36", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.26, T.58 S., R.38 E., Hydrologic Unit 03090202, 2.0 mi southeast of S-18-C, 0.9 mi south of SW 424th Street, 1.85 mi west of U.S. Highway 1, on west side of C-110 Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 9 ft.

INSTRUMENTATION .-- Satellite data collection platform.

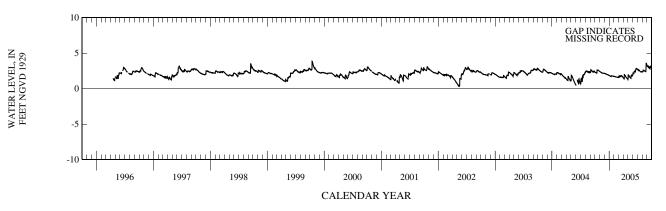
DATUM.--Measuring point: Top of base, 6.56 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.1 ft above NGVD.

PERIOD OF RECORD .-- April 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.84 ft NGVD, Oct. 15, 1999; lowest, 0.30 ft above NGVD, May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.28 2.20 2.61 2.62 2.55 2.43	2.37 2.28 2.23 2.18 2.17 2.15	2.12 2.09 2.01 1.99 1.95 1.86	1.79 1.73 1.81 1.78 1.75 1.73	1.72 1.68 1.64 1.62 1.59 1.63	1.70 1.81 1.69 1.82 1.74 1.57	1.42 1.92 1.78 1.58 1.44 1.34	1.88 1.75 1.56 1.45 1.78 1.88	2.18 2.42 2.40 2.66 2.80 2.71	2.62 2.65 2.51 2.39 2.37 2.39	2.39 2.55 2.51 2.41 3.11 3.27	3.19 2.94 2.94 3.10 2.99 2.90
MAX	2.62	2.42	2.15	1.85	1.72	1.86	2.04	1.98	2.84	2.80	3.58	3.20



WELL NUMBER.--252243080335501. Local Number G 3619. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°22'43", long 80°33'57", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.18, T.58 S., R.38 E., Hydrologic Unit 03090202, 1.5 mi south of State Road 9336 (Ingraham Highway) and 200 feet east of Aerojet Road, 1.0 mi east of entrance to Everglades National Park.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 9 ft.

INSTRUMENTATION.--Satellite data collection platform.

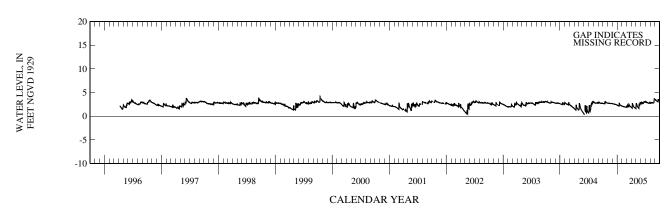
DATUM.--Measuring point: Top of base, 6.41 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.7 ft above NGVD.

PERIOD OF RECORD .-- April 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.24 ft NGVD, Oct. 15, 1999; lowest, 0.44 ft NGVD, June 4, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.68 2.66 3.21 2.97 2.85 2.78	2.76 2.76 2.72 2.69 2.74 2.69	2.63 2.60 2.55 2.52 2.47 2.37	2.28 2.19 2.73 2.37 2.25 2.17	2.13 2.05 1.99 1.97 1.92 1.99	2.08 2.35 2.01 2.27 2.13 1.93	1.76 2.59 2.15 1.88 1.76 1.63	2.56 2.12 1.86 1.69 2.13 2.60	2.69 2.98 2.74 2.94 3.01 2.98	2.94 2.98 2.84 2.78 2.85 2.77	2.90 2.88 2.91 2.80 3.24	3.51 3.24 3.16 3.55 3.31 3.27
MAX	3.21	2.78	2.67	2.75	2.14	2.57	2.77		3.17	3.16		



WELL NUMBER .-- 252312080320301. Local Number G 3620. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°23'12", long 80°32'02", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.16, T.58 S., R.38 E., Hydrologic Unit 03090202, 1.1 mi south of State Road 9336 (Ingraham Highway) and SW 217th Avenue, 4 mi west of U.S. Highway 1, and 2.0 mi east of entrance to Everglades National Park.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 9 ft.

INSTRUMENTATION .-- Satellite data collection platform

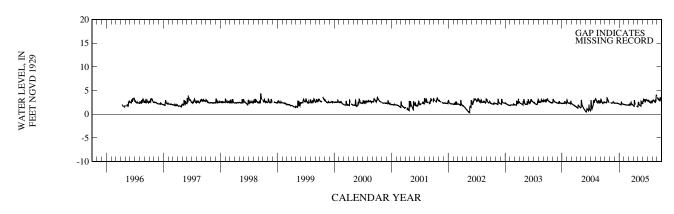
DATUM.--Measuring point: Top of base, 7.04 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.5 ft above NGVD.

PERIOD OF RECORD .-- April 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.30 ft NGVD, Sept. 16, 17, 1998; lowest, 0.41 ft NGVD, May 13, 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.49 2.42 3.48 3.07 2.65	2.41 2.35 2.48 2.57 2.36	2.35 2.35 2.33 2.33 2.29 2.19	2.11 2.04 2.58 2.19 2.14 2.08	2.07 2.00 1.96 1.97 1.92 1.96	2.05 2.17 2.00 2.22 2.09 1.89	1.73 2.62 2.09  1.68 1.57	2.53 2.01 1.85 1.71 2.13 2.34	2.78 3.13 2.67 3.10 3.03 2.96	2.72 2.97 2.57 2.42 2.88 2.66	2.93 2.94 2.75 2.49 3.39	3.47 3.23 3.02 3.49 3.15 3.19
MAX			2.36	2.58	2.07	2.53		2.75	3.16	2.99		



WELL NUMBER .-- 252332080300501. Local Number G 3355. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°23'35", long 80°30'05", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 11, T.58 S., R.38 E., Hydrologic Unit 03090202, in C-111 drainage basin, 3.8 mi south of Palm Drive on SW 192nd Avenue, in the parking lot of the Everglades Alligator Farm, 2 mi west of U.S. Highway 1, and 4.1 mi southwest of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 13 ft.

INSTRUMENTATION .-- Satellite data collection platform.

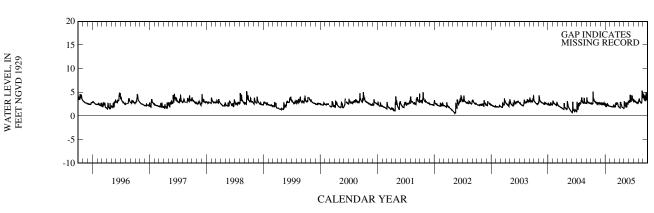
DATUM.--Measuring point: Top of base, 7.73 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 5.6 ft above NGVD.

PERIOD OF RECORD .-- August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 5.34 ft NGVD, Aug. 26, 2005; lowest, 0.54 ft NGVD, May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.75 2.42 5.16 3.55 3.06 2.83	2.88 2.62 2.59 2.60 2.68 2.67	2.36 2.59 2.56 2.48 2.57 2.47	2.47 1.99 2.60 2.20 2.07 2.05	2.03 1.99 1.94 1.92 2.34 1.93	2.05 2.70 2.58 2.73 2.10 1.86	1.71 2.90 2.35 1.82 1.70 1.58	2.84 2.08 1.87 2.08 2.64 2.94	3.17 4.46 3.07 4.26 3.47 3.14	3.06 3.22 2.97 2.76 2.89 2.82	3.21 3.14 2.95 2.70 5.23 3.86	4.49 3.59 3.44 4.96 3.34 3.85
MAX	5.16	2.88	2.79	2.60	2.34	2.81	2.96	3.07	4.46	3.60	5.34	4.96



WELL NUMBER.--252425080320001. Local Number G 613. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°24'27", long 80°31'27", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  in sec.3, T.58 S., R.38 E., Hydrologic Unit 03090202, on north side of SR 9336 (Ingraham Highway), and 4 mi southwest of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20.5 ft, cased to 17.9 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.29 ft above National Geodetic Vertical Datum of 1929 (converted from NAVD88 survey levels through VERTCON to NGVD 1929). From April 24, 1950 to July 6,1995, the measuring point was top of casing, 9.22 ft above historic NGVD. Prior to October 2003, the top of base was considered to be 9.13 ft above historic NGVD and the top of casing was considered to be 9.06 ft above historic NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.1 ft above NGVD.

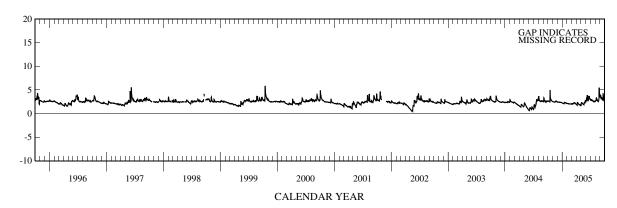
REMARKS.--On March 23, 2004, the station was resurveyed to a benchmark that provided a NGVD 1929 elevation reference determined from the North American Vertical Datum of 1988, using the VERTCON software of the National Geodetic Survey. The NGVD 1929 datum determined using VERTCON is known to differ from the historic NGVD 1929 elevation datum (historic NGVD). The measuring point for the station has been adjusted by 0.16 ft to the NGVD VERTCON elevation datum. The figures of water level as elevation for the period October 1974 to September 2003 have also been adjusted to NGVD VERTCON elevation datum and are available in the files of the U.S. Geological Survey. The figures of water levels as elevation, in feet historic NGVD, prior to October 1974 have not been adjusted.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.27 ft NGVD, Sept. 23, 1960; lowest, 1.33 ft below NGVD, May 14, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.63	2.49	2.43	2.17	2.15	2.11	1.82	2.33	2.79	2.78	2.74	3.79
10	2.52	2.46	2.43	2.11	2.08	2.14	2.35	2.14	3.89	2.96	3.06	3.42
15	5.00	2.44	2.40	2.38	2.06	2.09	2.07	2.01	2.71	2.71	2.84	3.02
20	2.94	2.58	2.41	2.30	2.06	2.32	1.90	1.85	3.74	2.55	2.53	4.19
25	2.74	2.61	2.38	2.23	2.01	2.20	1.80	2.25	3.39	2.58	5.14	2.99
EOM	2.56	2.45	2.26	2.15	2.05	1.98	1.69	2.45	2.91	2.61	3.52	3.21
MAX	5.00	2.63	2.45	2.39	2.15	2.33	2.38	2.68	3.89	3.03	5.49	4.19





WELL NUMBER.--252502080253901. Local Number G 3356. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°25'07", long 80°25'41", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.34, T.57 S., R.39 E., Hydrologic Unit 03090202, on north side of dirt road approximately 200 ft northeast of Florida Power and Light power pole 267, 2.0 mi south of Palm Drive, and 1.0 mi west of Tallahassee Road, 3.7 mi southeast of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 13 ft.

INSTRUMENTATION .-- Satellite data collection platform.

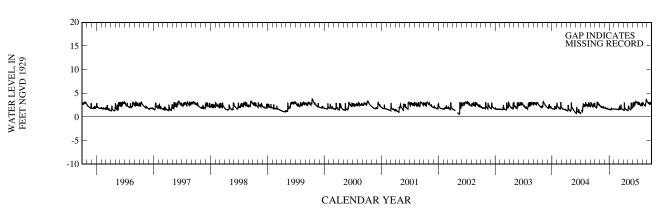
DATUM.--Measuring point: Top of base, 5.09 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.3 ft above NGVD.

PERIOD OF RECORD .-- October 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.81 ft NGVD, Oct. 16, 1999; lowest, 0.60 ft NGVD, May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.07	2.22	1.83	1.59	1.68	1.78	1.41	2.39	2.79	2.67	2.91	3.13
10	1.94	2.18	1.78	1.49	1.68	2.19	2.00	1.80	3.13	3.09	2.65	2.97
15	3.22	2.14	1.66	1.82	1.64	1.66	1.65	1.60	2.59	2.62	2.51	2.75
20	3.14	1.96	1.73	1.67	1.60	1.83	1.52	1.54	3.16	2.52	2.30	3.17
25	2.66	2.14	1.68	1.66	1.57	1.66	1.41	2.04	3.06	2.43	3.29	2.75
EOM	2.40	1.98	1.61	1.68	1.61	1.51	1.32	2.00	2.90	2.46	3.36	2.72
MAX	3.22	2.51	1.95	1.84	1.68	2.51	3.06	3.01	3.19	3.13	3.76	3.26



WATER LEVEL, IN FEET NGVD 1929

# MIAMI-DADE COUNTY—Continued

WELL NUMBER.--252612080300701. Local Number G 864. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°26'12", long 80°30'07", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.26, T.57 S., R.38 E., Hydrologic Unit 03090202, on SW 192nd Avenue, 0.8 mi south of SW 344th Street, and 2 mi southwest of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.34 ft above National Geodetic Vertical Datum of 1929. Prior to October 1985, measuring point was top of casing, 11.6 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 8.9 ft above NGVD.

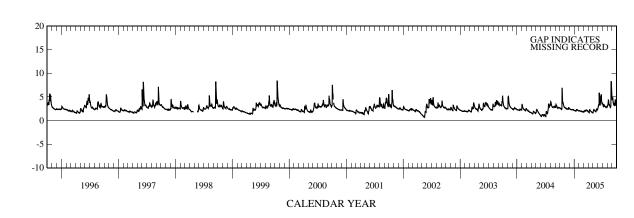
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD .-- April 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.45 ft NGVD, Oct. 15, 1999; lowest, 1.20 ft below NGVD, May 13, 1971.

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	2.58	2.63	2.39	2.08	2.07	2.01	1.76	2.26	3.04	3.18	3.22	4.82
10	2.42	2.62	2.33	2.07	1.98	2.14	2.31	2.25	5.89	3.41	3.94	3.48
15	6.92	2.51	2.28	2.28	2.01	2.00	2.07	1.98	3.38	3.18	3.24	3.35
20	3.66	2.41	2.35	2.27	1.92	2.26	1.88	1.85	5.17	2.89	2.80	4.20
25	3.28	2.65	2.33	2.14	1.88	2.12	1.77	2.35	4.46	2.77	7.78	3.38
EOM	2.79	2.60	2.17	2.08	1.95	1.89	1.63	2.39	3.48	3.03	4.82	3.60
MAX	6.92	2.76	2.54	2.35	2.08	2.26	2.31	2.40	5.89	3.69	8.33	4.82



WELL NUMBER.--252619080310201. Local Number G 864A. USGS Observation Well near Florida City, FL.

LOCATION.--Lat 25°26′20", long 80°30′31", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.26, T.57 S., R.38 E., Hydrologic Unit 03090202, near G-864, 0.5 mi west of SW 192nd Avenue, 0.6 mi south of SW 344th Street, and 2.1 mi southwest of Florida City.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 9 in., depth 20 ft, cased to 7 ft.

REVISED RECORDS .-- WDR FL-85-2B:1982.

 $INSTRUMENTATION. \hbox{--Electronic data logger}.$ 

DATUM.--Measuring point: Top of base, 9.35 ft above National Geodetic Vertical Datum of 1929. From January 1982 to December 1990 the measuring point was 9.40 ft above NGVD. Prior to January 1982 the measuring point was 9.79 ft above NGVD. From January 1982 to September 1984 the measuring point was alternately and incorrectly cosidered to be 9.79 ft or 9.74 ft above NGVD. From October 1981 to January 1982 the measuring point was incorrectly considered to be 9.74 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD.

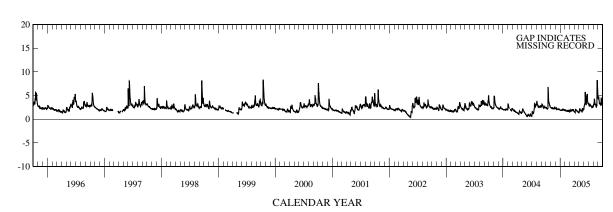
REMARKS.--The figures of water levels as elevation, in feet NGVD from October 1, 1981 to September 30, 1984 are in error. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.-Highest daily maximum water level, 8.41 ft NGVD, Aug. 18, 1981; lowest, 1.11 ft below NGVD, May 6, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.32 2.20 6.83 3.39 3.04 2.51	2.39 2.54 2.26 2.19 2.44 2.36	2.20 2.16 2.12 2.18 2.15 1.96	1.90 1.87 2.06 2.04 1.93 1.86	1.88 1.73 1.98 1.70 1.88 1.92	1.82 2.00 1.77 2.06 1.89 1.63	1.51 2.10 1.88 1.68 1.56 1.38	1.97 2.02 1.69 1.81 2.10 2.18	2.88 5.78 3.10 4.98 4.21 3.21	2.91 3.22 2.93 2.65 2.53 2.80	2.98 3.76 3.06 2.55 7.80 4.74	4.73 3.20 3.11 4.04 3.22 3.41
MAX	6.83	2.58	2.41	2.25	2.07	2.10	2.10	2.33	5.78	3.37	8.28	4.73





WELL NUMBER.--252652080244301. Local Number G 3699. USGS Observation Well near Homestead, FL.

LOCATION.—Lat 25°26′52", long  $80^{\circ}24'43$ ", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.23, T.57 S., R.39 E., Hydrologic Unit 03090202, 40 ft northeast of east bridge abutment north of SW 344th Street and 0.2 mi east of SW 137th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 88 ft, cased to 83 ft, screened 83 to 88 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 5.80 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 5.8 ft above NGVD.

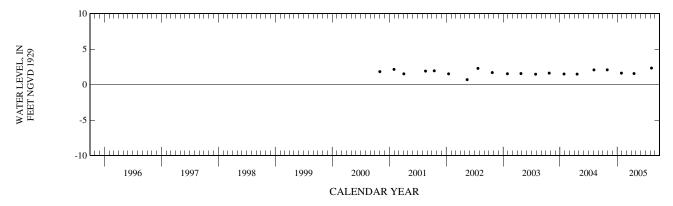
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Water-level measurements began in November 2000. Salinity monitoring began in October 2002.

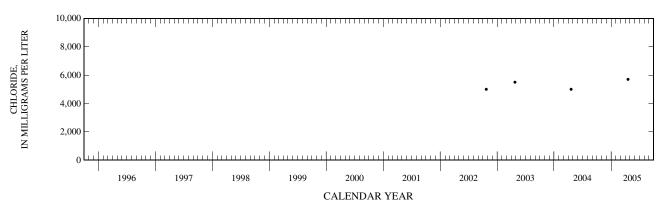
PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.33 ft NGVD, Aug. 9, 2005; lowest, 0.70 ft NGVD, May 15, 2002.

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

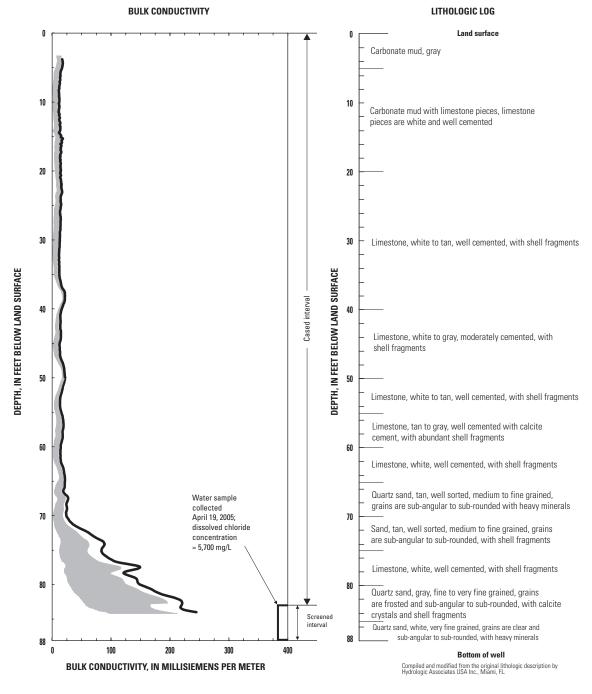
		Elev- ation,	Specif. conductance,	Chlor- ide,			Elev- ation,	Specif. conduc- tance,	Chlor- ide,
Date	Time	feet above NGVD	wat unf uS/cm 25 degC	water, fltrd, mg/L	Date	Time	feet above NGVD	wat unf uS/cm 25 degC	water, fltrd, mg/L
Date	Time	(72020)	(00095)	(00940)	Date	Time	(72020)	(00095)	(00940)
OCT 29 JAN	1045	2.09			APR 19 AUG	1117	1.56	20,700	5,700
28	0948	1.62			09	1216	2.33		





WELL NUMBER .-- 252652080244301. Local Number G 3699. USGS Observation Well near Homestead, FL-Continued

# Induction log for Well 252652080244301, Local Number G-3699



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 19, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 18, 2000 to April 19, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WATER LEVEL, IN FEET NGVD 1929

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--252656080350301. Local Number G 1502. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°36′56″, long 80°35′03″, in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.25, T.55 S., R.37 E., Hydrologic Unit 03090202, in Grossman Hammock, 11.5 mi northwest of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 31 ft, cased to 11 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 2000, top of base was incorrectly considered to be 8.98 ft above NGVD. Prior to October 1992, measuring point was top of casing, 8.98 ft above NGVD. See REMARKS.

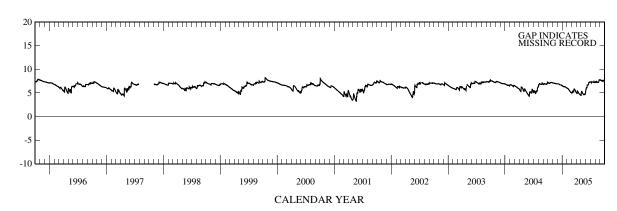
LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The figures of water level as elevation in ft NGVD from October 1992 to September 2001 are in error. Because the error (-0.02 ft), is within the accuracy of the instrumentation, records have not been corrected. See DATUM.

PERIOD OF RECORD .-- May 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.24 ft NGVD, Oct. 15, 16, 1999 (current datum); lowest, 0.49 ft NGVD, May 14, 1971.

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	7.14	7.10	6.93	6.41	5.98	5.14	4.93	5.32	6.15	7.21	7.22	7.71
10	7.04	7.07	6.90	6.34	5.79	5.42	5.40	5.12	6.69	7.36	7.37	7.59
15	7.19	7.02	6.74	6.36	5.56	5.18	5.06	4.77	6.67	7.31	7.26	7.55
20	7.25	6.98	6.72	6.30	5.32	5.83	4.80	4.60	7.17	7.24	7.24	7.68
25	7.23	6.94	6.69	6.17	5.15	5.58	4.70	4.74	7.30	7.32	7.72	7.57
EOM	7.13	6.94	6.54	6.06	5.11	5.14	4.52	5.09	7.34	7.30	7.69	7.54
MAX	7.25	7.12	6.94	6.53	6.03	5.85	5.43	5.33	7.35	7.41	7.79	7.78



WELL NUMBER.--252814080244101. Local Number G 3698. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°28'14", long 80°24'41", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.14, T.57 S., R.39 E., Hydrologic Unit 03090202, at the northeast corner of the intersection of SW 137th Avenue and SW 320th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 85 ft, cased to 80 ft, screened 80 to 85 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 5.82 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 5.8 ft above NGVD.

REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began in October 1999. Water-level measurements began in November 1999.

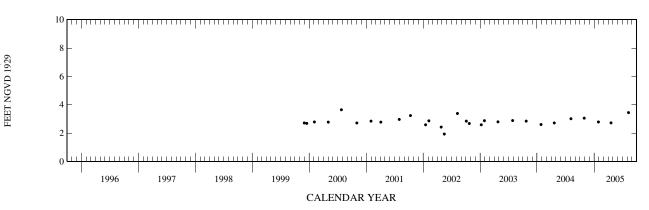
PERIOD OF RECORD.--October 1999 to current year.

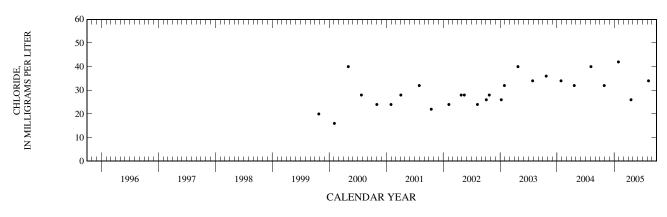
WATER LEVEL, IN

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.65 ft NGVD, July 25, 2000; lowest, 1.94 ft NGVD, May 16, 2002.

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

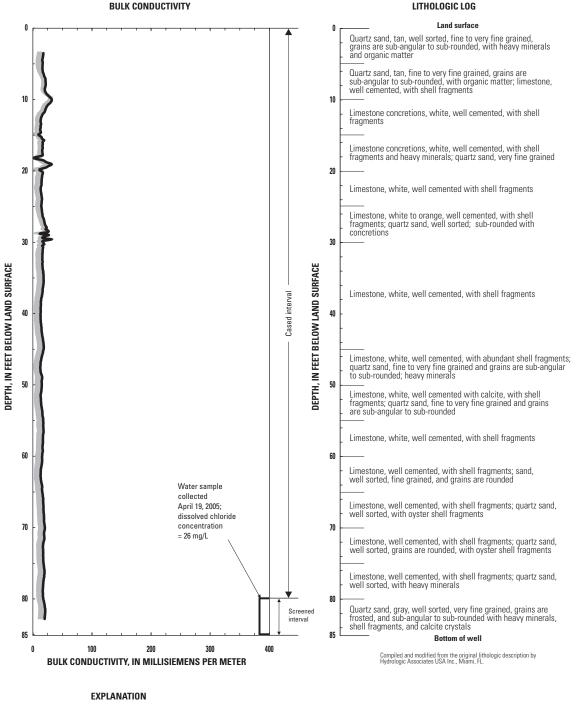
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT 29	1100	3.06	357	32.0	APR 19	1328	2.73	370	26.0
JAN 28	1005	2.79	377	42.0	AUG 09	1245	3.45	377	34.0





WELL NUMBER.--252814080244101. Local Number G 3698. USGS Observation Well near Homestead, FL-Continued

# Induction log for Well 252814080244101. Local Number G-3698



Bulk conductivity, in millisiemens per meter, April 19, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 11, 2000 to April 20, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--252829080285101. Local Number F 358. USGS Observation Well in Homestead, FL.

LOCATION.--Lat 25°28'29", long 80°28'51", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.13, T.57 S., R.38 E., Hydrologic Unit 03090202, near NW 6th Street and NW 2nd Avenue in Homestead, 0.2 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 54 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.01 ft above National Geodetic Vertical Datum of 1929. From December 1990 to February 15, 1991, top of base was 8.83 ft above NGVD. From February 29, 1984 to November 27, 1990, top of base was 8.99 ft above NGVD. From January 1962 to February 28, 1984, measuring point was 10.58 ft above NGVD. From May 1940 to December 1961 the measuring point was top of casing, 10.74 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

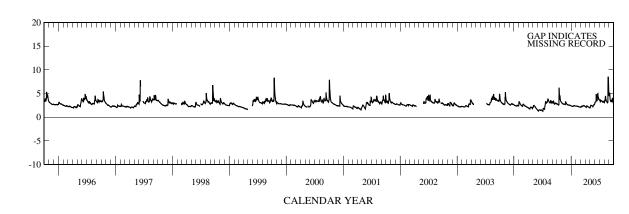
PERIOD OF RECORD .-- May 1940 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.57 ft NGVD, Aug. 26, 2005; lowest, 1.18 ft below NGVD, June 13, 1971.

FLEVATION ABOVE NGVD 1929 FFFT

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.76	2.93	2.74	2.33	2.36	2.25	2.15	2.43	3.23	3.44	3.48	5.10
10	2.61	2.83	2.64	2.30	2.33	2.36	2.41	2.52	4.82	3.54	4.13	3.45
15	6.23	2.79	2.56	2.41	2.28	2.31	2.32	2.34	3.52	3.50	3.44	3.40
20	4.56	2.72	2.60	2.43	2.22	2.47	2.18	2.20	4.99	3.30	3.10	3.81
25	3.49	3.27	2.51	2.40	2.16	2.44	2.10	2.61	3.98	3.26	8.30	3.39
EOM	3.11	2.98	2.40	2.38	2.16	2.28	2.00	2.76	3.68	3.30	4.67	3.52
MAX	6.23	3.27	2.92	2.45	2.37	2.48	2.42	2.76	5.01	3.69	8.57	5.20



WATER LEVEL, IN FEET NGVD 1929

# MIAMI-DADE COUNTY—Continued

WELL NUMBER.--252906080213101. Local Number G 3550. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°29'07", long 80°21'30", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.8, T.57 S., R.40 E., Hydrologic Unit 03090202, east of Homestead Air Force Base on SW 304th Street (Kings Highway), 0.5 mi east of SW 107th Avenue, 7.5 mi east of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 13 ft, cased to 8 ft, screened 8 to 13 ft.

INSTRUMENTATION .-- Electronic data logger.

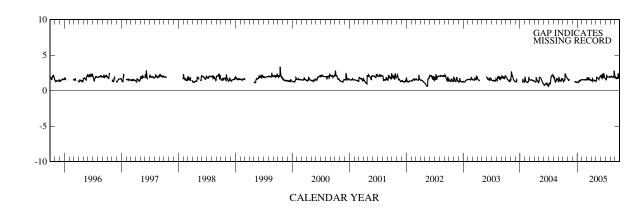
DATUM.--Measuring point: Top of base, 5.79 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.1 ft above NGVD.

PERIOD OF RECORD .-- March 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.40 ft NGVD, Oct. 15, 1999; lowest, 0.59 ft NGVD, May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	1.24 1.42	1.48 1.58		1.18 1.14	1.55 1.55	1.68 1.82	1.41 1.59	1.89 1.81	2.06 2.30	1.53 2.09	2.00 1.99	1.88 1.74
15	2.42	1.36	1.17	1.44	1.55	1.54	1.41	1.70	1.77	1.91	1.87	1.73
20 25	2.11 1.87		1.24 1.23	1.44 1.48	1.52 1.50	1.59 1.55	1.43 1.37	1.57 1.85	2.38 1.92	1.94 1.89	1.86 2.57	2.36 1.86
EOM	1.69		1.20	1.53	1.53	1.47	1.30	2.07	1.72	1.94	1.82	1.86
MAX	2.42			1.53	1.55	1.82	1.71	2.09	2.38	2.12	2.74	2.38



WELL NUMBER.--252918080234201. Local Number G 1183. USGS Observation Well in Homestead, FL.

LOCATION.—Lat 25°29'18", long 80°23'42", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 12, T.57 S., R.39 E., Hydrologic Unit 03090202, on Homestead Air Force Base, 3.0 mi southeast of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 9 in., depth 47 ft.

INSTRUMENTATION .-- Satellite data collection platform and rain gage. See REMARKS.

DATUM.--Measuring point: Top of base, 8.06 ft above National Geodetic Vertical Datum of 1929. From October 1992, to March 26, 2001, top of base was 8.05 ft above NGVD. From March 12, 1963, to July 23, 1992, top of base was 8.17 ft above NGVD. From October 3, 1962 to March 12, 1963, the measuring point was 7.92 ft above NGVD. From October 1961 to October 3, 1962, the measuring point was 6.09 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

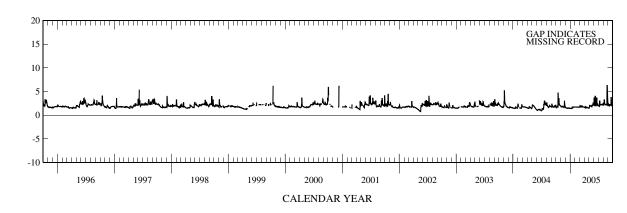
REMARKS.--Well also used for salinity monitoring since May 1965. Salinity monitoring discontinued during the 2005 water year. A tipping bucket rain gage was installed on April 26, 2001 and removed in April 2003. Records of water levels prior to October 1973, are available in files of the U.S. Geological Survey. Station was reconstructed October 3, 1962, March 12, 1963, March 10, 1993 and March 26, 2001. See DATUM.

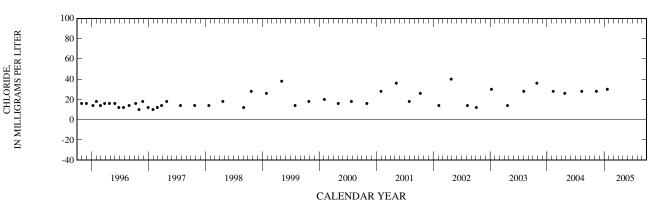
PERIOD OF RECORD .-- October 1961 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.38 ft NGVD, Aug. 26, 2005; lowest, 0.83 ft below NGVD, May 12, 1971 and May 18, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	1.59 1.75 4.77 3.62 2.18 1.96	1.77 1.92 1.86 1.69 3.05 1.80	1.59 1.55 1.49 1.51 1.52 1.48	1.45 1.43 1.66 1.72 1.74 1.74	1.75 1.74 1.74 1.73 1.71 1.73	1.82 2.02 1.75 1.78 1.78 1.70	1.63 1.77 1.62 1.61 1.56 1.49	2.10 2.00 1.96 1.79 2.11 2.32	2.63 4.11 2.03 3.74 2.10 2.03	1.95 2.68 2.27 2.30 2.21 2.27	2.35 2.49 2.23 2.19 6.30 2.11	2.29 2.28 2.11 3.86 1.99 2.11
MAX	4.77	3.05	1.75	1.75	1.75	2.02	1.83	2.55	4.11	3.11	6.38	3.86





WELL NUMBER.--252928080332401. Local Number G 789. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°29'25", long 80°33'13", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 8, T.57 S., R.38 E., Hydrologic Unit 03090202, in agricultural field at Homestead General Airport, 3.5 mi northwest of Homestead, and 4.9 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 30 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.35 ft above National Geodetic Vertical Datum of 1929. Prior to October 1996, measuring point was top of casing, 9.33 ft above NGVD. From April 1956 to June 1967, the measuring point was 9.70 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 7.6 ft above NGVD.

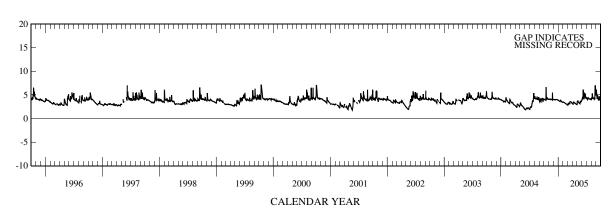
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1956 to June 1967, September 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.73 ft NGVD, Aug. 18, 1981; lowest, 0.90 ft below NGVD, May 8, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.06	4.04	4.00	3.77	3.45	3.11	3.07	3.71	4.30	4.14	4.25	5.30
10	3.94	4.05	4.03	3.68	3.37	3.27	3.52	3.54	6.12	4.07	4.56	4.98
15	6.66	4.06	4.00	3.90	3.25	3.16	3.36	3.27	4.24	4.31	4.35	4.06
20	4.42	4.03	4.04	3.73	3.13	3.59	3.23	3.11	5.39	4.19	4.06	4.72
25	4.21	5.49	4.03	3.49	2.99	3.52	3.07	3.44	4.38	4.05	6.85	4.12
EOM	4.07	4.03	3.90	3.53	2.99	3.23	2.96	3.80	4.41	4.20	4.87	4.34
MAX	6.66	5.49	4.04	3.90	3.52	3.60	3.52	3.81	6.12	4.47	6.96	6.03





WELL NUMBER.--252933080210001. Local Number G 3549. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°29'33", long 80°20'57", in SE ½ SE ½ SE ½ SE ½ SE.5, T.57 S., R.40 E., Hydrologic Unit 03090202, east of Homestead Air Force Base, 0.23 mi north of Military Canal and 0.2 mi west of L-31 East Canal, 0.9 mi east of SW 107th Avenue, 8.5 mi northeast of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 11 ft, cased to 6 ft, screened 6 to 11 ft.

INSTRUMENTATION .-- Electronic data logger.

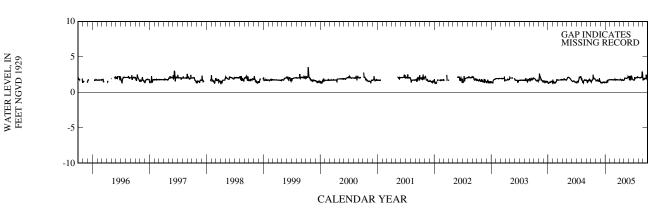
DATUM.--Measuring point: Top of base, 7.03 ft above National Geodetic Vertical Datum of 1929. Prior to June 27, 2002, measuring point was 7.02 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 3.9 ft above NGVD.

PERIOD OF RECORD .-- March 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 3.53 ft NGVD, Oct. 15, 1999; lowest, 1.20 ft NGVD, May 4, 1994.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	1.41 1.72	1.59 1.74	1.33 1.37	1.39 1.38	1.78 1.78	1.77 1.82	1.74 1.78	2.00 2.01	1.83 2.31	1.72 1.96	2.09 2.04	1.96 1.88
15 20 25	2.47 2.09 1.93	1.70 1.57 1.99	1.34 1.38 1.42	1.48 1.69 1.75	1.76 1.76 1.75	1.76 1.75 1.76	1.70 1.73 1.72	1.96 1.93 2.06	1.76 2.15 1.88	2.02 2.08 2.12	2.06 2.08 2.72	1.91 2.48 1.89
EOM	1.74	1.53	1.41	1.76	1.76	1.75	1.69	2.13	1.74	2.11	1.76	1.84
MAX	2.47	1.99	1.49	1.76	1.78	1.84	1.83	2.22	2.37	2.15	2.84	2.48



WELL NUMBER.--252944080233401. Local Number G 1179. USGS Observation Well in Homestead, FL.

LOCATION.--Lat 25°29'44", long 80°23'34", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 1, T.57 S., R.39 E., Hydrologic Unit 03090202, 23 mi southwest of Miami, 3 mi southeast of U.S. Highway 1, in field southeast of Sandia and St. Lo intersection at Homestead Air Force Base.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

 $WELL\ CHARACTERISTICS.\text{--}Drilled, observation, water-table\ well,\ diameter\ 9\ in.,\ depth\ 80\ ft.$ 

INSTRUMENTATION.--Semiannual measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.57 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 8.0 ft above NGVD.

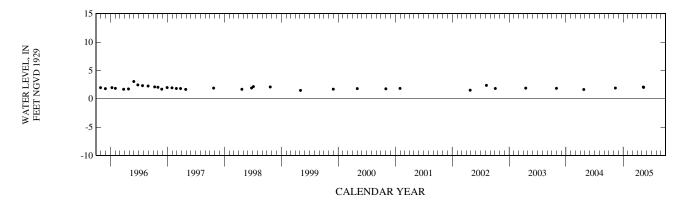
REMARKS.--Well has been used for salinity monitoring intermittently from December 1961 to February 1967, monthly since May 1971. The well casing has become obstructed at a depth of 55 ft. A sampling tube has been inserted into the well to its full depth for the collection of chloride samples. The well remains in hydrologic communication with the aquifer.

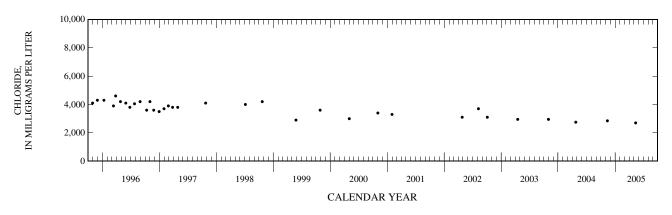
PERIOD OF RECORD .-- June 1983 to March 1997 (monthly), April 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.22 ft NGVD, May 31, 1985; lowest, 0.87 ft NGVD, Mar. 27, 1985.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Specif.   Elevation, tance, ide,   feet   wat unf   water,   above   uS/cm   fltrd,   Time   NGVD   25 degC   mg/L   (72020)   (00095)   (00940)
NOV 12	1346	1.90	9,070	2,850	MAY 10 1125 2.07 12 1336 2.01 8.480 2.700





WELL NUMBER.--252947080235301. Local Number G 1180. USGS Observation Well in Homestead, FL.

LOCATION.--Lat 25°29'52", long  $80^{\circ}24'14$ ", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.2, T.57 S., R.39 E., Hydrologic Unit 03090202, 23 mi southwest of Miami, 3 mi southeast of U.S. Highway 1, at Homestead Air Force Base.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 9 in., depth 67 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.91 ft above National Geodetic Vertical Datum of 1929. Prior to May 7, 2001, measuring point was top of casing, 6.46 ft above NGVD. Prior to October 1999, measuring point was incorrectly considered to be 5.46 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.5 ft above NGVD.

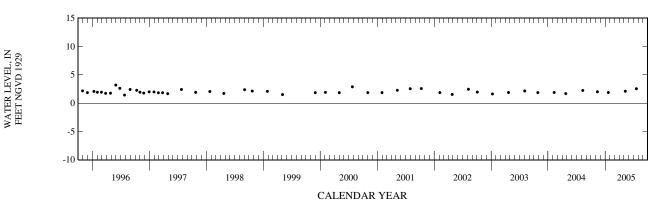
REMARKS.--Well also used for salinity monitoring intermittently from December 1961 to July 1971, monthly since February 1973. Revised measuring point May 7, 2001, is from top of well reconstruction. Figures of water levels as elevation, in ft NGVD, prior to October 1999, are in error. Corrected records are available in the files of the U.S. Geological Survey. Chloride samples are collected 57 ft below land surface because of an obstruction at 58 ft. See DATUM.

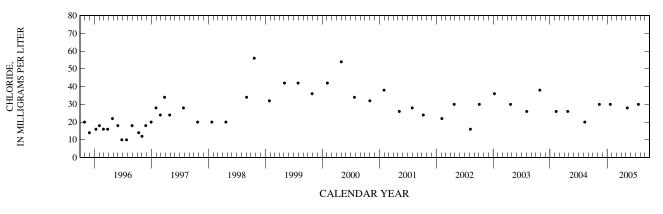
PERIOD OF RECORD.--November 1979 (intermittently), June 1983 to March 1997 (monthly), April 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.70 ft NGVD, July 28, 1983; lowest, 0.50 ft below NGVD, Feb. 25, 1985.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
NOV					MAY				
12	1213	2.00	536	30.0	10	1048	2.10	541	28.0
JAN					JUL				
21	1104	1.87	543	30.0	20	0851	2.54	541	30.0





WATER LEVEL, IN FEET NGVD 1929

# MIAMI-DADE COUNTY—Continued

WELL NUMBER.--252955080340701. Local Number G 3622. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°29'55", long 80°34'07", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.6, T.57 S., R.38 E., Hydrologic Unit 03090202, 0.7 mi west of Homestead General Airport, south of SW 288th Street, 3.5 mi northwest of Homestead, and 5.0 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 9 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.16 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 2001, measuring point was 8.94 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 5.6 ft above NGVD.

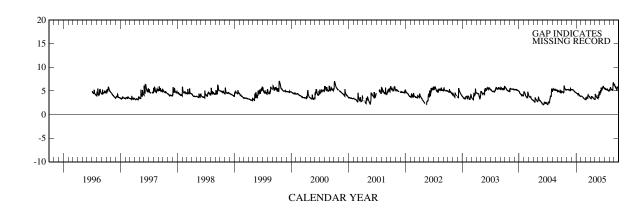
REMARKS.--Well was destroyed June 29, 2001, and rebuilt with new base July 18, 2001. See DATUM.

PERIOD OF RECORD.--June 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.04 ft NGVD, Oct. 16, 17, 1999; lowest, 2.08 ft NGVD, June 3, 2004.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.80	5.30	5.24	4.47	3.88	3.43	3.39	4.13	4.79	5.37	5.08	6.28
10	4.65	5.27	5.22	4.35	3.76	3.67	3.84	3.85	5.71	5.39	5.69	5.93
15	6.14	5.26	5.18	4.56	3.59	3.48	3.68	3.56	5.21	5.31	5.35	5.47
20	5.55	5.12	4.90	4.20	3.41	3.99	3.53	3.37	5.79	5.33	5.15	5.64
25	5.28	5.71	4.79	3.93	3.27	3.88	3.31	3.65	5.81	5.10	6.29	5.74
EOM	5.26	5.28	4.62	3.95	3.24	3.57	3.22	4.35	5.61	5.06	6.25	5.75
MAX	6.14	5.71	5.28	4.59	3.94	4.21	3.85	4.91	5.98	5.61	6.74	6.41



WELL NUMBER.--253012080261401. Local Number G 1486. USGS Observation Well near Homestead, FL.

 $LOCATION.--Lat~25^{\circ}30'09", long~80^{\circ}26'14", in~NE~\frac{1}{4}~SW~\frac{1}{4}~NW~\frac{1}{4}~sec.4, T.57~S., R.39~E., \\ Hydrologic~Unit~03090202, at the southwest corner of SW~284th~Street~and~SW~152nd~Avenue, 0.3~mi~east~of~U.S.~Highway~1, and 3.0~mi~northeast~of~Homestead.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 32 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.07 ft above National Geodetic Vertical Datum of 1929. From October 1, 1977 to August 24, 1992, the measuring point was top of casing, 12.89 ft above NGVD. From May 1970 to December 1976, top of casing was 14.04 ft above NGVD.

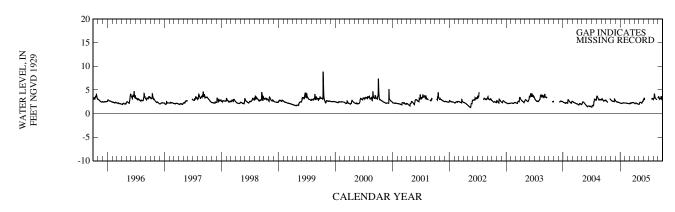
LAND-SURFACE DATUM.--Land surface is approximately 10.4 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--May 1970 to December 1976, October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.87 ft NGVD, Aug. 18, 1981; lowest, 0.82 ft below NGVD, May 13, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.68	2.77	2.61	2.18	2.23	2.19	2.13	2.26	3.14		3.17	3.58
10	2.45	2.65	2.47	2.13	2.22	2.27	2.25	2.40			3.85	3.24
15		2.61	2.40	2.24	2.19	2.22	2.20	2.28			3.27	3.21
20		2.54	2.42	2.26	2.14	2.35	2.09	2.21			3.04	3.69
25		3.10	2.34	2.26	2.11	2.34	2.04	2.54		3.20		3.00
EOM	2.98	2.82	2.24	2.25	2.12	2.23	1.96	2.92		3.10	3.54	3.11
MAX		3.10	2.77	2.27	2.24	2.35	2.25	2.92				3.69



WELL NUMBER.--253024080231001. Local Number G 3615. USGS Observation Well near Homestead, FL.

LOCATION.—Lat 25°30'24", long 80°23'10", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.1, T.57 S., R.39 E., Hydrologic Unit 03090202, approximately 0.9 mi west of SW 112th Avenue on SW 280th Street, 17 ft east of Homestead Air Force Base perimeter fence.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 80 ft, cased to 75 ft, screened 75 to 80 ft.

INSTRUMENTATION .-- Annual profile using an induction logger.

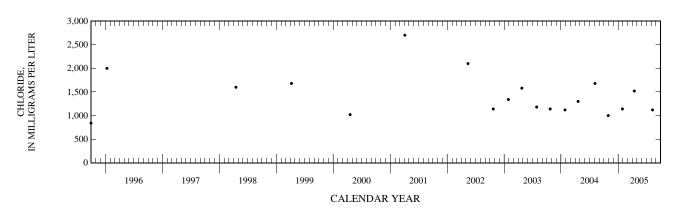
DATUM.--Measuring point: Top of casing, 4.54 ft above National Geodetic Vertical Datum of 1929. Prior to March, 2000, measuring point was estimated to be 5 ft above NGVD using a topographic map. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 4.5 ft above NGVD.

REMARKS.--Well also used for salinity monitoring. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began in September 1995. Water level measurements began in April 2000. Water level elevation data collected prior to March 14, 2000, has been computed using the measuring point established on March 14, 2000, and it is in the files of the U.S. Geological Survey.

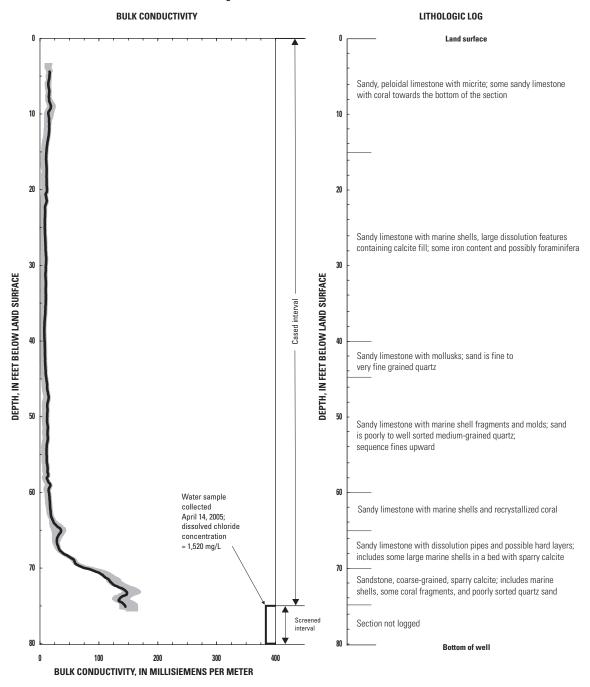
PERIOD OF RECORD.--September 1995 to current year.

Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT				APR			
29	1132	3,070	1,000	14	0800	5,040	1,520
JAN 28	1056	3,700	1,140	AUG 09	1058	3,830	1,120



WELL NUMBER .-- 253024080231001. Local Number G 3615. USGS Observation Well near Homestead, FL-Continued

#### Induction log for Well 253024080231001. Local Number G-3615



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 14, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 17, 1996 to April 19, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--253027080234701. Local Number G 3700. USGS Observation Well near Homestead, FL.

LOCATION.—Lat 25°30'27", long 80°23'47", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.35, T.56 S., R.39 E., Hydrologic Unit 03090202, in the sidewalk 37 ft north of SW 280th Street and 200 ft west of SW 127th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 82.5 ft, cased to 77.5 ft, screened 77.5 to 82.5 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.-- Measuring point: Top of casing, 9.35 ft above National Geodetic Vertical Datum of 1929.

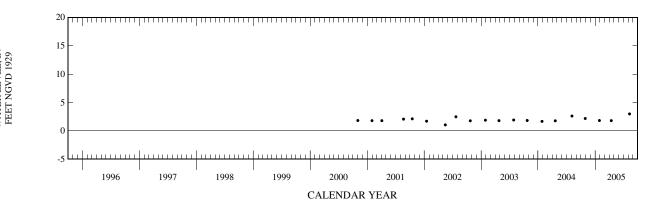
LAND-SURFACE DATUM .-- Land surface is approximately 9.4 ft above NGVD.

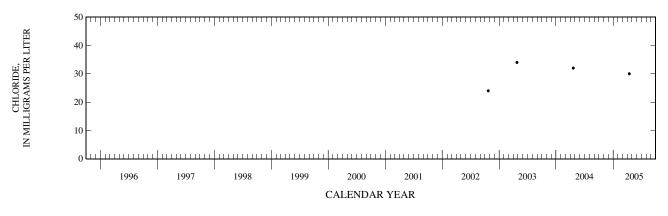
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Annual induction logs began in April 2000. The induction logs published in the 2001 water year were in error. Water-level measurements began in November 2000. Salinity monitoring began in October 2002.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft NGVD, Aug. 9, 2005; lowest, 1.05 ft NGVD, May 16, 2002.

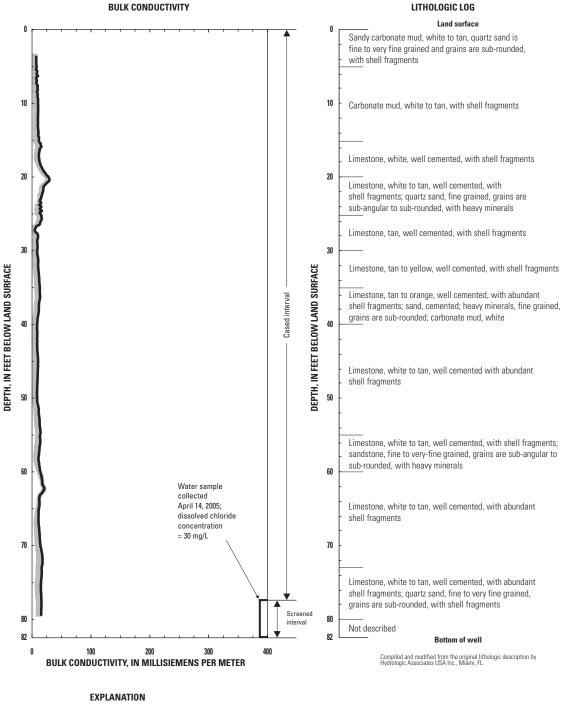
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	1200	2.18			14	1003	1.80	498	30.0
JAN	4440	4.00			AUG	44.50	• • • •		
28	1140	1.82			09	1150	2.98		





WELL NUMBER .-- 253027080234701. Local Number G 3700. USGS Observation Well near Homestead, FL-Continued

#### Induction log for Well 253027080234701. Local Number G 3700



Bulk conductivity, in millisiemens per meter, April 14, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 11, 2000 to April 20, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--253029080295601. Local Number S 196A. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°30'29", long 80°29'56", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.35, T.56 S., R.38 E., Hydrologic Unit 03090202, at Institute of Food and Agricultural Science Station on Waldin Drive (SW 280th Street), 3.3 mi northwest of Homestead, and 4.3 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

 $WELL\ CHARACTERISTICS.\text{--}Drilled, observation, water-table\ well,\ diameter\ 8\ in.,\ depth\ 20\ ft.$ 

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 13.68 ft above National Geodetic Vertical Datum of 1929. From July 26, 2000 to May 25, 2001, measuring point was 13.54 ft above NGVD. From October 1972 to July 26, 2000, measuring point was 13.48 ft above NGVD. From February 7, 1962 to September 1972, measuring point was 12.94 ft above NGVD. From October 1956 to February 2, 1962, measuring point was 13.41 ft NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 10.3 ft above NGVD.

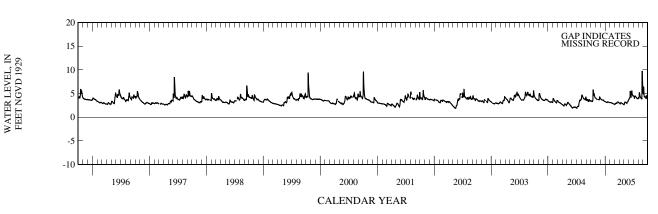
REMARKS.--Revised measuring point because of station re-construction. See DATUM. This well replaced S-196 in January 1956.

PERIOD OF RECORD.--January 1932 to September 1956, S-196. October 1956 to current year, S-196A.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.81 ft NGVD, Aug. 26, 2005; lowest, 1.64 ft below NGVD, May 20, 1971.

# ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES EC JAN FEB MAR APR MAY JUN JUL .81 3.22 3.10 2.85 2.88 3.05 4.02 4.30

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.41	3.90	3.81	3.22	3.10	2.85	2.88	3.05	4.02	4.30	4.20	6.25
10	3.36	3.77	3.70	3.14	3.05	2.95	3.07	3.21	5.48	4.46	4.92	4.31
15	5.86	3.76	3.64	3.17	2.97	2.96	3.03	3.05	4.34	4.41	4.30	4.21
20	4.93	3.73	3.64	3.24	2.88	3.22	2.91	2.92	5.53	4.15	3.96	4.42
25	4.48	4.26	3.43	3.15	2.80	3.21	2.82	3.26	4.74	4.00	9.10	4.10
EOM	4.05	4.04	3.32	3.13	2.79	3.03	2.69	3.68	4.52	3.98	5.27	4.39
MAX	5.86		3.98	3.31	3.12	3.23	3.09	3.68	5.64	4.52	9.81	6.48



WELL NUMBER.--253214080215401. Local Number G 3613. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°32'14", long 80°21'54", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.19, T.56 S., R.40 E., Hydrologic Unit 03090202, approximately 60 ft east of Florida Turnpike, 20 ft north of SW 248th Street, approximately 160 ft north of Goulds Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 60 ft, cased to 55 ft, screened 55 to 60 ft.

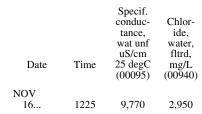
INSTRUMENTATION .-- Annual profile using an induction logger.

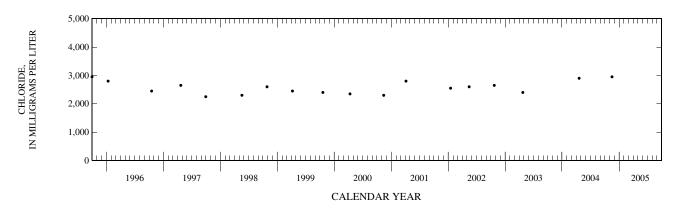
DATUM.-- Measuring point: Top of casing, 4.42 ft above National Geodetic Vertical Datum of 1929. Prior to March, 2000, measuring point was estimated to be 5 ft above NGVD from a topographic map.

LAND-SURFACE DATUM.--Land surface is approximately 4.4 ft above NGVD.

REMARKS.--Well was used for semiannual salinity monitoring, including an annual induction log until the 2005 water year. Salinity monitoring began in September 1995. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Corrected records are available in the files of the U.S. Geological Survey. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. Salinity and water level monitoring were discontinued during the 2005 water year. No electromagnetic induction log was collected in the 2005 water year.

PERIOD OF RECORD.--September 1995 to April 2005. Discontinued.





WELL NUMBER.--253214080224601. Local Number G 3701. USGS Observation Well near Goulds, FL.

LOCATION.--Lat 25°32'14", long 80°22'46", in SW ½ SW ½ SW ½ SW ½ Sec.19, T.56 S., R.40 E., Hydrologic Unit 03090202, 35 ft north of SW 248th Street and 190 ft east of SW 117th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 83 ft, cased to 78 ft, screened 78 to 83 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.64 ft above National Geodetic Vertical Datum of 1929.

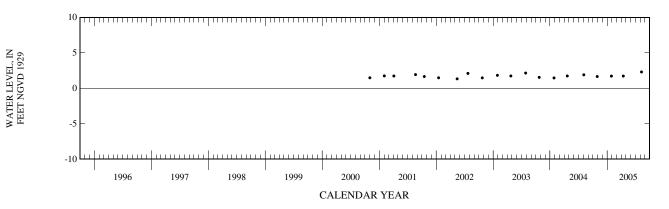
LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

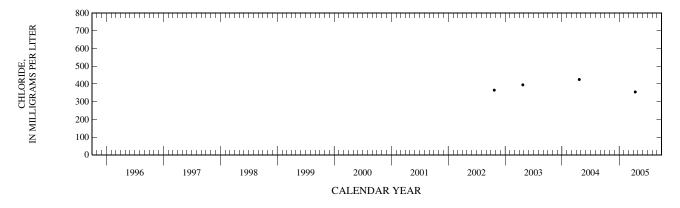
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Annual induction logging began in April 2000. Salinity monitoring began in October 2002. Water-level measurements began in November 2000.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.30 ft NGVD, Aug. 9, 2005; lowest, 1.33 ft NGVD, May 15, 2002.

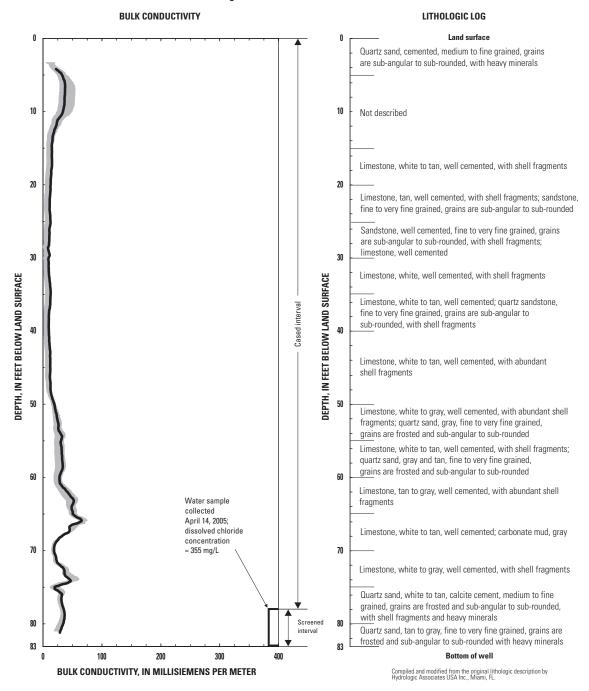
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	1020	1.66			14	1152	1.72	1,430	355
JAN					AUG				
28	0915	1.72			09	1005	2.30		





WELL NUMBER.--253214080224601. Local Number G 3701. USGS Observation Well near Goulds, FL-Continued

#### Induction log for Well 253214080224601. Local Number G-3701



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 14, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 13, 2000 to April 20, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WATER LEVEL, IN FEET NGVD 1929

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--253233080301001. Local Number G 1363. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°32'33", long 80°30'10", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.23, T.56 S., R.38 E., Hydrologic Unit 03090202, on Tower Road, 1.5 mi west of State Road 997 (Krome Avenue), and 5.4 mi northwest of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 33 ft, cased to 12 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.63 ft above National Geodetic Vertical Datum of 1929. Prior to August 16, 1997, the measuring point was top of casing, 12.44 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.8 ft above NGVD.

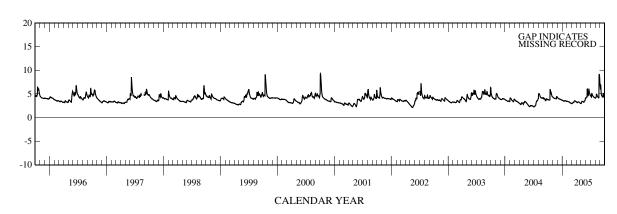
REMARKS.--Station reconstructed August 28, 1997. See DATUM. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The open interval of the well has become obstructed or has collapsed at a depth of 23.6 ft. The well remains in communication with the aquifer from 12 to 23.6 ft.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.80 ft NGVD (estimated), Aug. 18, 1981; lowest, 0.70 ft below NGVD, May 15, 1971.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAXIMUM MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.77	4.22	4.13	3.60	3.43	3.03	3.21	3.23	4.30	4.50	4.29	6.88
10	3.70	4.10	4.01	3.50	3.37	3.14	3.26	3.45	6.03	5.11	4.94	4.72
15	5.90	4.04	3.91	3.49	3.29	3.22	3.33	3.35	4.82	4.68	4.52	4.45
20	5.16	4.02	3.86	3.59	3.16	3.51	3.24	3.24	5.82	4.40	4.23	5.00
25	4.86	4.33	3.78	3.49	3.05	3.53	3.10	3.53	5.23	4.29	8.70	4.56
EOM	4.37	4.34	3.68	3.45	3.03	3.36	2.99	4.15	4.69	4.14	6.88	4.58
MAX	5.90	4.46	4.28	3.68	3.45	3.55	3.34	4.15	6.10	5.11	9.12	6.92



WELL NUMBER.--253258080264301. Local Number G 614. USGS Observation Well in Goulds, FL.

LOCATION.--Lat 25°32'58", long 80°26'43", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 21, T.56 S., R.39 E., Hydrologic Unit 03090202, at southeast corner of Newton Road and Silver Palm Drive, 3.0 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, cased to 18 ft.

REVISED RECORDS .-- WDR FL-85-2B:1981.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 14.40 ft above National Geodetic Vertical Datum of 1929. From September 1995 to October 1997, the measuring point was 14.39 ft above NGVD. Prior to September 1995, the measuring point was 14.15 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 11.1 ft above NGVD.

REMARKS.--Revised measuring point elevations, September 1995 and October 2, 1997, are the result of station reconstruction. Records of water levels prior to January 1957 are available in the files of the U.S. Geological Survey.

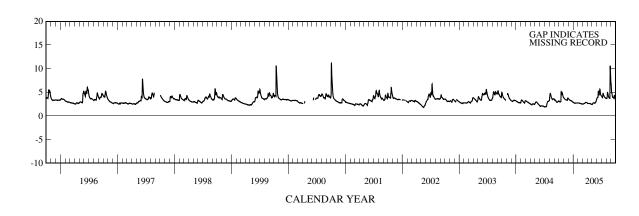
PERIOD OF RECORD .-- January 1950 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.24 ft NGVD, Oct. 4, 2000; lowest, 0.62 ft below NGVD, May 14, 1971.

ELEVATION ABOVE NGVD 1929, FEET

#### WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES DAY OCT NOV DEC **FEB** JUN JUL AUG SEP JAN MAR APR MAY 3.06 3.68 3.51 2.78 2.74 2.54 2.65 3.93 4.02 3.78 4.86 10 2.96 3.51 3.34 2.69 2.69 2.60 2.64 2.75 4.89 4.57 4.89 3.98 4.94 3.42 3.25 2.72 2.64 2.63 2.76 4.49 4.45 4.17 3.90 15 2.64 20 4.42 3.35 3.22 2.73 2.60 2.83 2.59 2.66 5.47 4.04 3.78 4.08 25 4.55 3.58 3.07 2.75 2.53 2.86 2.53 2.93 4.61 3.85 7.76 3.92 **EOM** 3.89 3.71 2.88 2.74 2.54 2.77 2.44 3.50 4.26 3.72 6.80 4.41 5.10 6.79 3.86 2.74 3.50 4.79 MAX 3.67 2.87 2.86 2.74 5.67 10.60



WELL NUMBER.--253334080213601. Local Number G 3702. USGS Observation Well near Cutler Ridge, FL.

LOCATION.--Lat 25°33'34", long 80°21'36", in SE ½ SW ¼ NW ¼ sec.17, T.56 S., R.40 E., Hydrologic Unit 03090202, 32 ft west of Black Creek Canal and 183 ft north of Old Cutler Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 83 ft, cased to 78 ft, screened 78 to 83 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 4.49 ft above National Geodetic Vertical Datum of 1929.

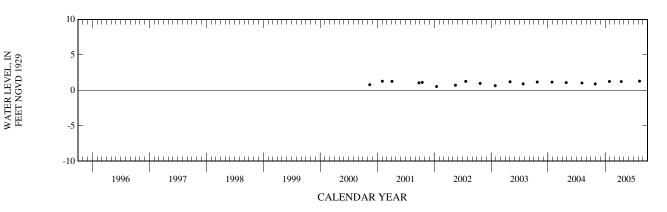
LAND-SURFACE DATUM.--Land surface is approximately 4.5 ft above NGVD.

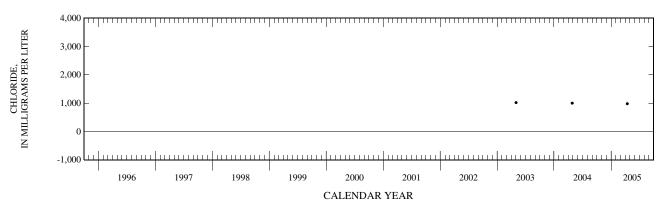
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Annual induction logs began in April 2000. Water-level measurements began in November 2000. Salinity monitoring began in May 2003.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level measured, 1.29 ft NGVD, Aug. 9, 2005; lowest, 0.53 ft NGVD, Jan. 16, 2002.

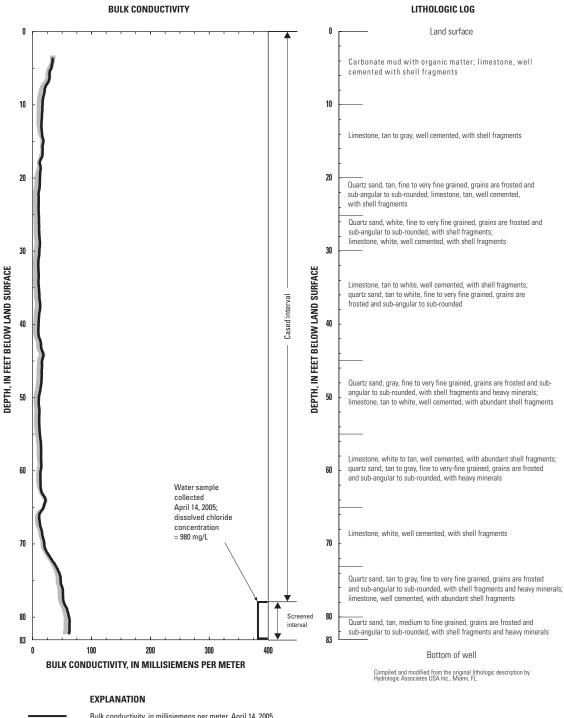
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	0838	.90			14	1404	1.23	3,470	980
JAN					AUG				
28	0845	1.24			09	0915	1.29		





WELL NUMBER.--253334080213601. Local Number G 3702. USGS Observation Well near Cutler Ridge, FL-Continued

#### Induction log for Well 253334080213601. Local Number G-3702



Bulk conductivity, in millisiemens per meter, April 14, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 13, 2000 to April 26, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--253400080340401. Local Number G 3437. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°34′00", long 80°34′04", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.7, T.56 S., R.38 E., Hydrologic Unit 03090202, 1.5 mi west of Levee 31, 0.15 mi north of SW 216th Street and 10 mi northwest of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 12.5 ft, cased to 12.5 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.63 ft above National Geodetic Vertical Datum of 1929. Prior to April 9, 2002, measuring point was 7.89 ft above NGVD. From April 1, 1988 to February 14, 1996, measuring point was incorrectly considered to be top of base 7.82 ft above NGVD. See REMARKS.

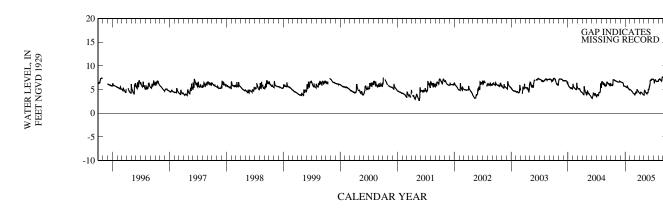
LAND-SURFACE DATUM.--Land surface is approximately 6.8 ft above NGVD.

REMARKS.--During a major storm that occurred on October 3-4, 2000, heavy rains caused flooding that caused the float to come out of the well. The extreme water level shown for the period of record, on October 5, 2000, was determined by a manual depth to water measurement made from the measuring point. The actual highest water level that occurred could not be determined. On April 9, 2002, the shelter was rebuilt to prevent water from rising over the base in case of an extreme rain event. The figures of water level as elevation, in feet NGVD, between the period April 1, 1988 to September 30, 1995 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.69 ft NGVD, Aug. 27, 2005; lowest, 1.61 ft NGVD, May 23, 1990.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.91	6.78	6.60	5.60	4.92	4.18	4.18	4.85	5.81	6.84	7.07	7.56
10	5.88	6.70	6.56	5.46	4.78	4.50	4.46	4.55	6.96	7.00	7.26	7.28
15	7.06	6.64	6.49	5.87	4.55	4.30	4.37	4.26	6.98	7.04	7.06	7.16
20	7.06	6.61	6.25	5.33	4.31	4.93	4.22	4.10	7.21	6.74	6.89	7.39
25	6.95	6.81	5.77	5.08	4.15	4.72	3.98	4.31	7.23	6.76	7.36	7.28
EOM	6.85	6.68	5.72	5.06	4.07	4.38	3.87	4.96	7.17	6.80	7.54	7.30
MAX	7.10	6.83	6.66	5.87	5.02	5.08	4.47	5.05	7.23	7.17	7.69	7.66



WELL NUMBER.--253457080195501. Local Number G 3612. USGS Observation Well near Cutler Ridge, FL.

LOCATION.--Lat 25°34′57″, long 80°19′55″, in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.3, T.56 S., R.40 E., Hydrologic Unit 03090202, at St. Timothy's Church, east of intersection of SW 86th Avenue and SW 198th Street, 6 ft south of SW 198th Street, 2.2 mi east of U.S. Highway 1 and the Florida Turnpike.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 62 ft, cased to 56 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.07 ft above National Geodetic Vertical Datum of 1929. Prior to the 2000 water year, measuring point was estimated to be 5 ft above NGVD from the topographic map.

LAND-SURFACE DATUM.--Land surface is approximately 8.1 ft above NGVD.

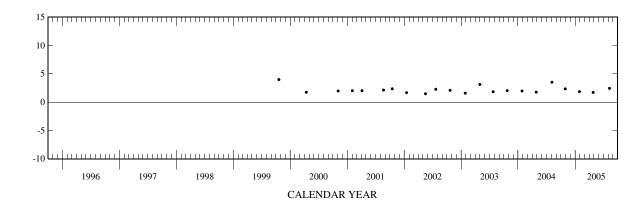
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began September 1995. Water-level measurements began October 1999. The 5 ft estimated measuring point elevation was never used for water level elevation calculations.

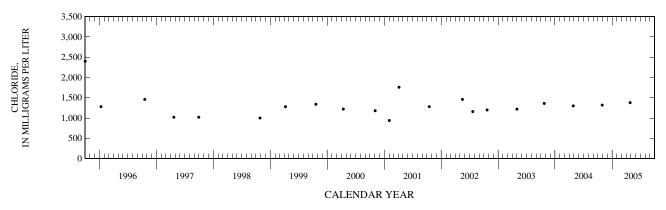
PERIOD OF RECORD.--September 1995 to current year. See REMARKS.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.97 ft NGVD, Oct. 20, 1999; lowest, 1.48 ft NGVD, May 17, 2002.

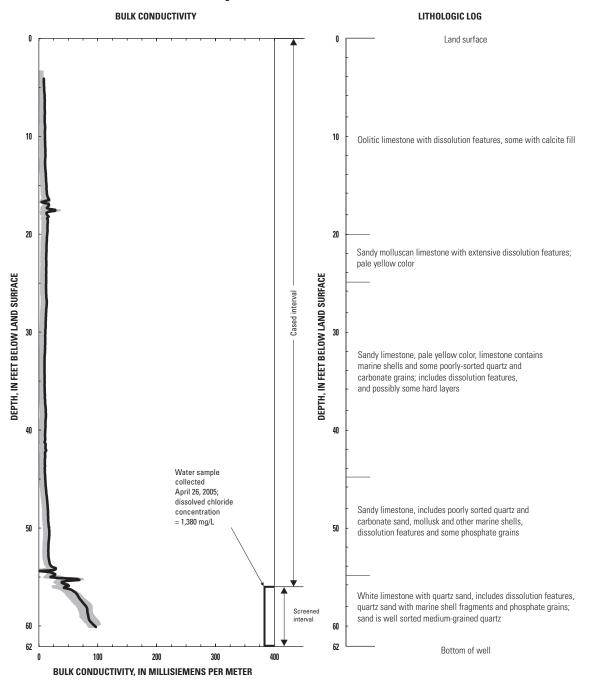
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
29	0810	2.34	4,110	1,320	26	0823	1.72	4,660	1,380
JAN	0020	1.04			AUG	0050	2.42		
28	0820	1.84			09	0850	2.43		





WELL NUMBER.--253457080195501. Local Number G 3612. USGS Observation Well near Cutler Ridge, FL-Continued

#### Induction log for Well 253457080195501. Local Number G-3612



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 26, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 16, 1995 to April 26, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--253537080284401. Local Number G 757A. USGS Observation Well near Homestead, FL.

LOCATION.—Lat 25°35'37", long  $80^{\circ}28'44$ ", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 1, T.56 S., R.38 E., Hydrologic Unit 03090202, at southwest corner of Eureka Drive and State Road 997 (Krome Avenue), 8.7 mi north of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 33 ft, cased to 12.4 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 12.56 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 9.9 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The well was originally open to 33 ft. The open interval has collapsed or become obstructed at a depth of 12.5 ft. Tests indicate the well is in good communication with the aquifer.

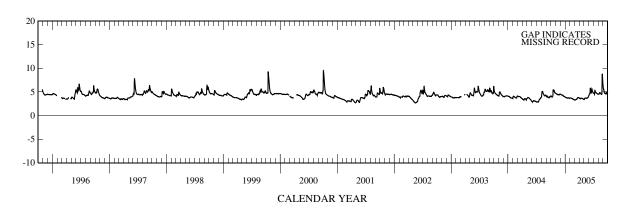
PERIOD OF RECORD .-- January 1956 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.60 ft NGVD, Sept. 10, 1960; lowest, 0.02 ft NGVD, May 13, 14, 1971.

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	4.08	4.62	4.44	3.85	3.72	3.30	3.64	3.58	4.55	4.66	4.55	5.56	
10	3.92	4.51	4.37	3.76	3.69	3.40	3.63	3.72	5.74	5.37	4.88	4.76	
15	5.41	4.43	4.32	3.71	3.60	3.46	3.68	3.69	5.07	4.91	4.74	4.67	
20	5.27	4.41	4.19	3.76	3.47	3.74	3.65	3.65	5.45	4.75	4.54	4.82	
25	4.99	4.47	4.05	3.69	3.38	3.83	3.54	3.78	5.10	4.63	6.72	4.61	
EOM	4.74	4.55	3.93	3.72	3.35	3.72	3.44	4.15	4.78	4.56	6.56	5.03	
MAX	5.43	4.74	4.54	3.90	3.72	3.83	3.70	4.15	5.77	5.37	8.74	6.20	



WELL NUMBER.--253539080320501. Local Number G 3628. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°35'39", long 80°32'05", SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.33, T.55 S., R.38 E. Hydrologic Unit 03090202, located 1.7 mi south on first road west of SW 205th Avenue southwest of SW 168th Street, 0.7 mi west of pump station S-331. The station is located 0.5 mi west of the L-31 levee, 20 ft north of the red gate in the field by the curve in the road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 12 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 10.51 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.1 ft above NGVD.

REMARKS.--Landnet information is not available on U.S. Geological Survey topographic maps. Landnet was determined using a map prepared by Metropolitan Dade County, Public Works Department, 1989.

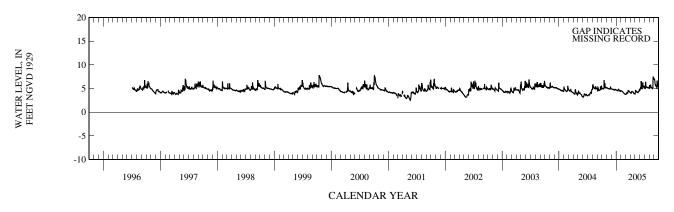
PERIOD OF RECORD .-- July 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.85 ft NGVD, Oct. 15, 1999; lowest, 2.52 ft NGVD, May 22, 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	5.01	5.10	4.90	4.65	4.50	3.87	4.04	4.61	5.02	5.16	5.15	6.78
10	4.98	5.02	4.86	4.55	4.38	4.18	4.39	4.40	6.59	5.74	5.63	5.81
15	6.79	4.99	4.85	4.87	4.19	4.03	4.33	4.22	5.16	5.29	5.26	5.40
20	6.11	4.94	4.67	4.70	4.00	4.57	4.22	4.13	6.29	5.27	5.01	6.70
25	5.18	5.45	4.86	4.46	3.86	4.43	3.96	4.38	5.40	5.18	7.24	5.53
EOM	5.23	4.98	4.78	4.59	3.80	4.19	3.91	4.79	5.38	5.14	6.90	5.61
MAX	6.79	5.45	4.94	4.88	4.56	4.60	4.40	4.83	6.59	6.44	7.47	7.05



WELL NUMBER.--253549080214101. Local Number S 182A. USGS Observation Well near Peters, FL.

LOCATION.--Lat 25°35'49", long 80°21'41", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.5, T.56 S., R.40 E., Hydrologic Unit 03090202, on SW 185th Terrace west of SW 104th Avenue, 0.1 mi north of Quail Roost Drive, 0.4 mi west of U.S. Highway 1, and 16.4 mi southwest of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 33 ft, cased to 8.7 ft.

REVISED RECORDS .-- WDR FL-84-2B:1983

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.47 ft above National Geodetic Vertical Datum of 1929. From May 31, 1995 to May 23, 2000, top of base was 13.62 ft above NGVD. From May 31, 1995 to September 1995, top of base was incorrectly considered to be 13.53 ft above NGVD. From October 1994 to May 1995, top of base was 13.53 ft NGVD. From July 1981 to October 1994, measuring point was top of casing, 13.53 ft above NGVD. Prior to July 1981, top of casing was 14.14 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 11.0 ft above NGVD.

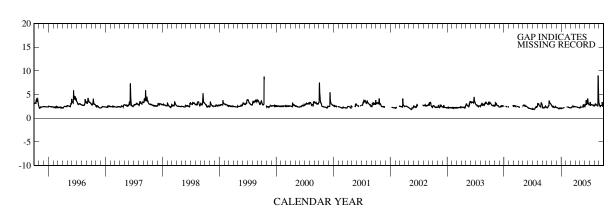
REMARKS.—Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey. The well was published as S-182 prior to the 1975 water year. The well was damaged May 23, 1995, reconstructed May 31, 1995; also damaged in February 2000, reconstructed on May 23, 2000. The figures of water levels as elevation, in ft NGVD, from June 1995 to September 1995 are in error. Corrected records are in the files of the U. S. Geological Survey. See DATUM. The well was originally open to the aquifer from 9 to 51 ft. The open interval has collapsed or become obstructed at a depth of 28 ft. Measured well depth at 32.7 ft, below NGVD, in October 17, 1940 and 30.4 ft below top of base on May 27, 2003.

PERIOD OF RECORD .-- January 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.70 ft NGVD, Sept. 10, 1960; lowest, 0.44 ft below NGVD, June 21, 1945.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	2.20 2.62	2.41 2.58	2.25 2.19	2.10 2.13	2.37 2.37	2.24 2.39	2.41 2.39	2.35 2.35	2.86 3.81	3.18 2.71	2.72 2.91	2.74 2.65
15	3.77	2.36	2.03	2.21	2.35	2.39	2.32	2.35	3.10	2.91	2.83	2.68
20 25	3.25 3.06	2.34 2.61	2.15 2.13	2.24	2.29 2.22	2.55 2.42	2.30 2.26	2.37 2.54	4.08 3.15	2.81 2.69	2.67 8.83	3.45 2.61
EOM	2.78	2.30	2.16		2.21	2.48	2.19	2.58	2.80	2.65	3.19	2.86
MAX	3.77	2.70	2.27			2.57	2.46	2.81	4.08	3.44	9.05	3.45





MAX

WATER LEVEL, IN FEET NGVD 1929 5.80

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--253632080321101. Local Number G 3627. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°36'32", long 80°30'11", NE  $^{1}\!\!/_{4}$  NE  $^{1}\!\!/_{4}$  NW  $^{1}\!\!/_{4}$  sec.35 T.55 S., R.38 E., Hydrologic Unit 03090202, located on the southwest corner of SW 168th Street and SW 192nd Avenue, 1.5 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 12 ft, cased to 10.8 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 10.95 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.9 ft above NGVD.

4.47

4.36

4.23

REMARKS.--The well was reported as originally open to the aquifer from 10.8 to 12 ft. The open interval of this well has become collapsed or obstructed at a depth of 9.6 ft.

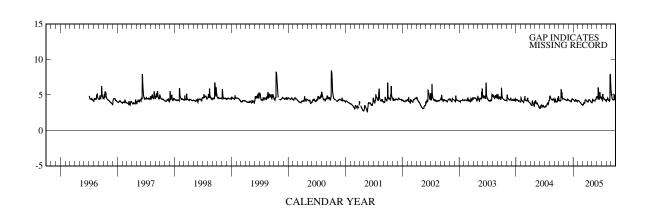
PERIOD OF RECORD .-- July 1996 to current year.

4.45

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.27 ft NGVD, Oct. 15, 1999; lowest, 2.65 ft NGVD, May 22, 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	4.22	4.40	4.24	4.26	4.21	3.68	4.01	4.40	4.62	4.37	4.33	4.94
10	4.14	4.32	4.18	4.14	4.09	3.88	4.31	4.24	6.06	5.13	4.58	4.37
15	5.80	4.28	4.15	4.27	3.95	3.84	4.30	4.19	4.53	4.45	4.29	4.32
20	5.25	4.24	4.08	4.28	3.80	4.31	4.19	4.14	5.33	4.39	4.21	5.01
25	4.52	4.41	4.47	4.09	3.65	4.27	4.03	4.35	4.73	4.26	7.57	4.39
EOM	4.46	4.33	4.38	4.23	3.62	4.10	3.92	4.70	4.70	4.21	5.76	4.56

4.31



4.34

4.72

6.06

5.13

7.88

5.38

WELL NUMBER.--253708080304201. Local Number G 3626. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°37'06", long 80°30'41", SW  $^{1}\!\!/_{4}$  NW  $^{1}\!\!/_{4}$  sec. 26 T.55 S., R.38 E., Hydrologic Unit 03090202, located 20 ft east of SW 197th Avenue, 1.3 mi south of Howard Drive (SW 136th Street), 2.1 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 10 in., depth 12 ft, cased to 10.8 ft.

INSTRUMENTATION.--Satellite data collection platform.

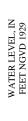
DATUM.--Measuring point: Top of base, 10.74 ft above National Geodetic Vertical Datum of 1929.

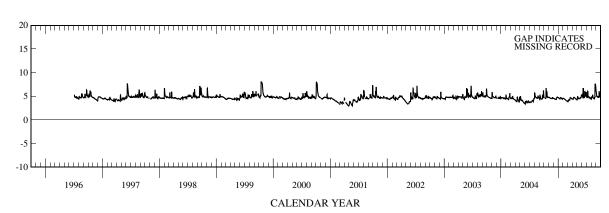
LAND-SURFACE DATUM.--Land surface is approximately 7.3 ft above NGVD.

REMARKS.--The well was reported originally open to the aquifer from 10.8 to 12 ft. The open interval has become obstructed or collapsed at a depth of 9.2 ft. PERIOD OF RECORD.--July 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.03 ft NGVD, Oct. 15, 1999; lowest, 2.96 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	4.62 4.54 6.72 5.93 4.87	4.73 4.63 4.59 4.54 4.73	4.51 4.45 4.40 4.39 4.83	4.63 4.49 4.70 4.64 4.45	4.55 4.42 4.28 4.14 3.99	4.08 4.27 4.18 4.70 4.63	4.37 4.77 4.70 4.55 4.41	4.92 4.58 4.54 4.48 4.71	4.97 6.75 4.72 6.00 5.12	4.76 5.98 4.86 4.74 4.66	4.75 5.25 4.61 4.56 7.54	5.13 4.86 4.79 6.05 4.91
EOM	4.76	4.60	4.74	4.59	3.96	4.45	4.27	5.07	5.50	4.54	6.25	4.97
MAX		4.79	4.84	4.75	4.58	4.72	4.78	5.15	6.75	6.04	7.58	6.05





WELL NUMBER.--253710080184701. Local Number G 3611. USGS Observation Well near Cutler, FL.

LOCATION.--Lat 25°37'10", long 80°18'47", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 26, T.55 S., R.40 E., Hydrologic Unit 03090202, adjacent to Deering Estate, 6 ft east of SW 74th Avenue, 40 ft north of SW 163rd Street, 0.1 mi west of Old Cutler Road, 2 mi east of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 100 ft, cased to 95 ft, screened 95 to 100 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.98 ft above National Geodetic Vertical Datum of 1929. Prior to March 2000, measuring point was estimated to be 9 ft above NGVD from a topographic map. See REMARKS.

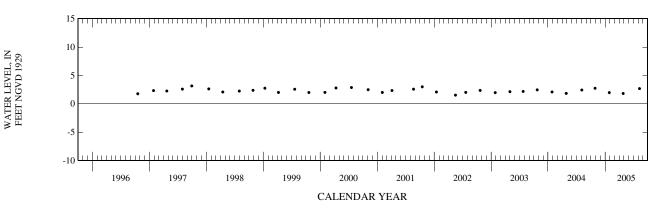
LAND-SURFACE DATUM.--Land surface is approximately 7.0 ft above NGVD.

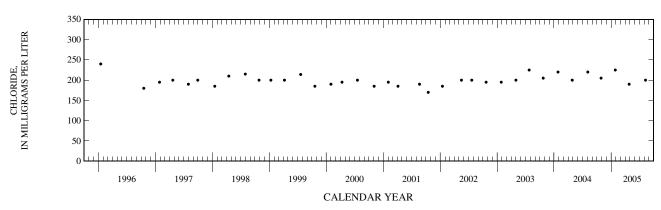
REMARKS.--Well is also used for quarterly salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began August 1995. Water-level measurements began in October 1996. Water-level elevation data collected prior to March 14, 2000, have been computed using the measuring point established on March 14, 2000 and are in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--August 1995 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.00 ft NGVD, Oct. 16, 2002; lowest, 1.53 ft NGVD, May 17, 2002.

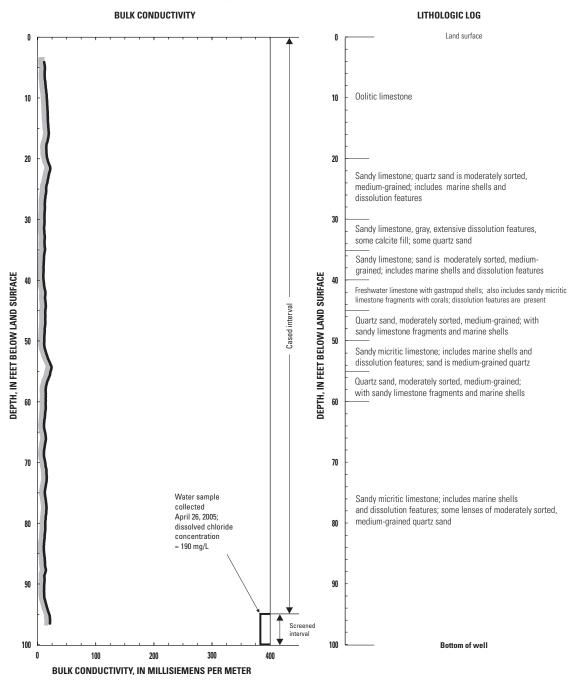
Specif.   Elev- conduc- tation, tance, ide, ide, atic above uS/cm fltrd,   Date   Time   NGVD   25 degC mg/L   Date   Time   NGVD   (72020) (00095) (00940)	on, tance, ide, et wat unf water, ove uS/cm fltrd, VD 25 degC mg/L
OCT APR	
28 1409 2.74 925 205 26 1020 1.8	32 981 190
JAN AUG 27 1405 1.97 952 225 09 0815 2.6	58 947 200





WELL NUMBER.--253710080184701. Local Number G 3611. USGS Observation Well near Cutler, FL-Continued

#### Induction log for Well 253710080184701. Local Number G-3611



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 26, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 9, 1995 to April 26, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--253718080192301. Local Number G 860. USGS Observation Well near Perrine, FL.

LOCATION.--Lat 25°37′18″, long 80°19′23″, in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.27, T.55 S., R.40 E., Hydrologic Unit 03090202, at Kahn Road and SW 160th Street, 1.2 mi east of U.S. Highway 1, 1.7 mi northeast of Perrine, and 13 mi southwest of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, cased to 10.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 12.95 ft above National Geodetic Vertical Datum of 1929. Prior to October 1982 measuring point was top of casing, 12.93 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 11.0 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

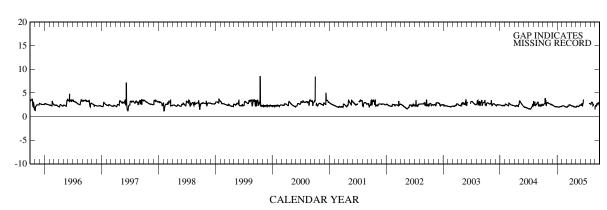
PERIOD OF RECORD.--March 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.45 ft NGVD, Sept. 23, 1960; lowest, 0.38 ft NGVD, May 22, 1971.

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 10	2.46 2.68	2.85 2.76	2.37 2.25	2.04 2.01	2.26 2.28	2.08 2.25	2.23 2.27	2.18 2.20	2.35 2.71		2.58 3.04	2.35 2.52
15 20 25	3.93 3.51 2.69	2.69 2.59 2.60	2.15 2.10 2.09	2.05 2.10 2.10	2.22 2.12 2.01	2.23 2.51 2.46	2.08 2.11 2.05	2.15 2.13 2.40	2.78	 2.70	2.92 2.41	2.75 2.97 2.93
EOM	2.96	2.49	2.08	2.22	2.01	2.33	1.99	2.42		2.73	1.61	3.09
MAX	3.93	2.96	2.46	2.22	2.28	2.51	2.32	2.42				3.09





WELL NUMBER.--253831080180206. Local Number G 3313E. USGS Observation Well near Pinecrest, FL.

LOCATION.--Lat 25°38'31", long 80°18'02", in NW \(^1\)/4 NW \(^1\)/4 NW \(^1\)/4 Sec.24, T.55 S., R.40 E., Hydrologic Unit 03090202, at USDA Agricultural Station, 50 ft east of fence along SW 67th Avenue, 75 ft north of intersection of SW 67th Avenue and SW 138th Terrace, 2.1 mi east of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 8.25 in. to a depth of 32 ft, diameter 7.5 in. from 32 to 114 ft, depth 114 ft, cased to 32 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.70 ft above National Geodetic Vertical Datum of 1929. Prior to March, 2000 measuring point was estimated to be 12 ft NGVD, from topographic map. See REMARKS.

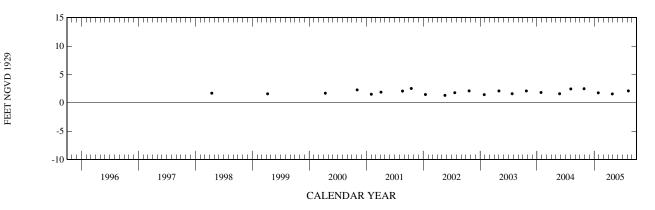
LAND-SURFACE DATUM.--Land surface is approximately 12.7 ft above NGVD.

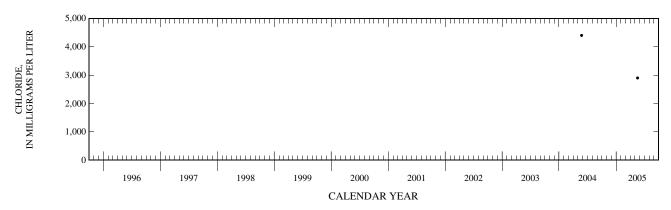
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the freshwater/salt-water interface in ground water. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1995 and 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. The incorrect plot of bulk conductivity was published in Water Resources Data, Florida, Water Year 2000, Volume 2B. The correct plot is in the files of the U.S. Geological Survey. Water-level elevation data collected prior to March 14, 2000, have been computed using the measuring point established on March 14, 2000, and are in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.64 ft NGVD, Oct. 18, 1996; lowest, 1.31 ft NGVD, May 20, 2002.

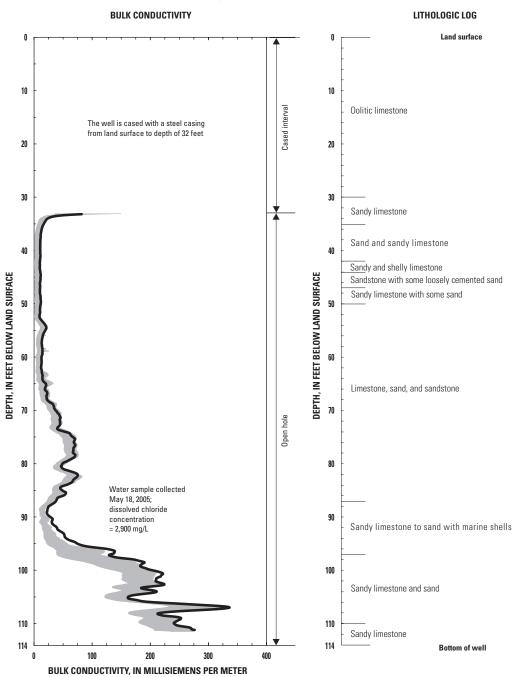
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
28	1330	2.48			18	1005		14,800	2,900
JAN					AUG				
27	1343	1.76			08	1340	2.10		
APR									
27	1050	1.57							





WELL NUMBER.--253831080180206. Local Number G 3313E. USGS Observation Well near Pinecrest, FL-Continued

### Induction log for Well 253831080180206. Local Number G-3313E



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 27, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from June 19, 1995 to April 23, 2004.

WELL NUMBER.--253902080202501. Local Number G 553. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°39'02", long 80°20'19", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.16, T.55 S., R.40 E., Hydrologic Unit 03090202, on the south side of SW 128th Street, 0.5 mi west of US Highway 1, 13 mi southwest of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in. from a depth of 0 to 79 ft, 5 in. from 79 to 91 ft. Depth 91 ft, cased to 36 ft, slotted casing 36 to 79 ft, open hole from 79 to 91 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 14.87 ft above National Geodetic Vertical Datum of 1929. From October 29, 1992 to November 23, 1999, top of base was 12.50 ft above NGVD. From October 29, 1992 to September 1995 measuring point was incorrectly considered to be top of casing, 12.76 ft above NGVD. From July 1970 to October 29, 1992, measuring point was top of casing, 12.76 ft above NGVD. From October 1975 to September 1979, top of casing was incorrectly reported as 15.11 ft above NGVD. Prior to June 25, 1970, measuring point was top of casing, 12.41 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 12.3 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey. Based on a review of historical records, the published records of water level, in ft NGVD, from October 29, 1992 to April 12, 1996 are in error. Station was reconstructed June 1970, November 1992 and November 23, 1999. This well was originally open to the aquifer from 36 to 91 ft. The open interval has collapsed or become obstructed with sand at a depth of 30 ft. Well is still considered in good hydrologic communication with the aquifer.

PERIOD OF RECORD .-- July 1947 to current year.

3.69

2.88

2.57

2.55

4.40

MAX

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.06 ft NGVD, Oct. 5, 1948; lowest, 0.81 ft NGVD, May 14, 15, 1971.

ELEVATION ABOVE NGVD 1929, FEET

					YEAR OCT	OBER 2004 MAXIMUM	TO SEPTE	MBER 2005				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.83	3.50	2.81	2.47	2.54	2.33	2.62	2.49	3.58	3.37	3.20	3.92
10	3.49	3.33	2.73	2.42	2.51	2.55	2.64	2.54	4.40	3.38	3.69	3.60
15	4.34	3.17	2.68	2.43	2.45	2.53	2.60	2.48	3.53	3.40	3.54	3.44
20	4.40	3.01	2.59	2.43	2.37	2.82	2.52	2.49	5.49	3.39	3.17	3.58
25	4.16	2.98	2.54	2.42	2.30	2.82	2.43	2.62	3.81	3.28	7.25	3.46
EOM	3.75	2.89	2.50	2.55	2.28	2.74	2.34	2.75	3.32	3.34	5.75	3.55

2.82

2.72

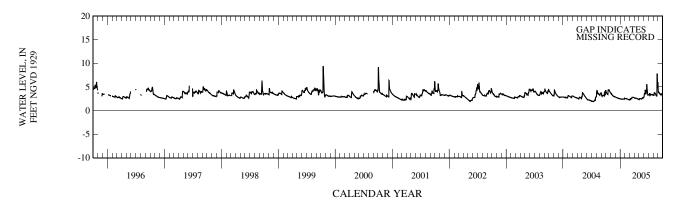
2.75

5.49

3.71

7.84

4.50



WELL NUMBER.--253937080304001. Local Number G 596. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°38'16", long 80°30'44", in SW  $\frac{1}{4}$  sec.14, T.55 S., R.38 E., Hydrologic Unit 03090202, on SW 197th Avenue, 70 ft north of Howard Drive, 2 mi west of State Road 997 (Krome Avenue), and 15.5 mi north of Homestead.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

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

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of flange, 10.76 ft above National Geodetic Vertical Datum of 1929. From October 21, 1992 to September 1, 1994, the measuring point was top of shelf, 10.45 ft above NGVD. From October 1990 to October 20, 1992, top of shelf was 10.62 ft above NGVD. From November 21, 1986 to October 1, 1990, measuring point was top of base 10.59 ft above NGVD. Measuring point of original well G-596, in service prior to November 20, 1986 was top of shelf, 9.10 ft above NGVD. Prior to October 1978, measuring point was incorrectly considered to be 10.32 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.0 ft above NGVD.

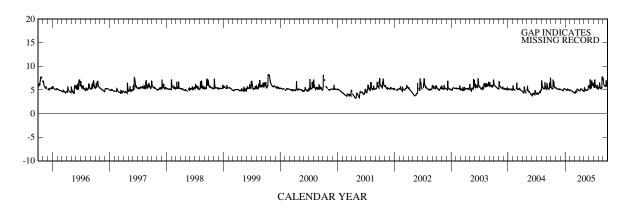
REMARKS.--The figures of water levels as elevation, in ft NGVD, prior to October 1978 are in error. Corrected records are in files of the U.S. Geological Survey. Current well is a replacement well, drilled 250 ft east of original site and surveyed on November 21, 1986. Data for this well is published under the original well name and station ID number. The station at the current site was destroyed and reconstructed October 22, 1992 and September 2, 1994. Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--January 1949 to November 1986 (orginal site), November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.37 ft NGVD, Oct. 12, 1994; lowest, 0.56 ft NGVD, May 14, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.45	5.38	5.04	5.11	4.97	4.56	4.82	5.48	5.51	5.60	5.52	6.26
10	5.24	5.24	4.96	4.96	4.85	4.75	5.25	4.97	7.22	7.11	6.26	5.91
15	7.17	5.19	4.90	5.20	4.71	4.63	5.17	4.93	5.40	5.94	5.37	5.73
20	6.76	5.10	4.88	5.10	4.60	5.18	4.99	4.87	6.98	5.60	5.25	7.04
25	5.66	5.23	5.28	4.93	4.45	5.07	4.90	5.10	6.02	6.00	7.71	5.90
EOM	5.41	5.15	5.21	5.02	4.44	4.87	4.72	5.54	6.24	5.28	7.33	5.97
MAX	7.17	5.47	5.28	5.21	5.00	5.20	5.25	5.73	7.22	7.11	7.79	7.40





WELL NUMBER.--253952080321501. Local Number G 3272. USGS Observation Well near Homestead, FL.

LOCATION.--Lat 25°39'52", long 80°32'21", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.9, T.55 S., R.38E., Hydrologic Unit 03090202, on north side of 104th Street, 2 mi north and 0.5 mi west of intersection of Howard Drive and SW 207th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 10 ft, cased to 7.5 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.43 ft above National Geodetic Vertical Datum of 1929. From February 1985 to April 22, 2000, measuring point was top of base, 9.40 ft above NGVD. Prior to February 1985, measuring point was top of base, 9.33 ft above NGVD. See REMARKS.

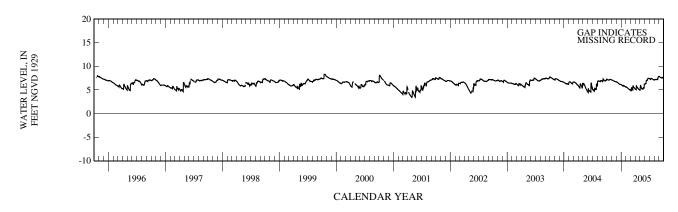
LAND-SURFACE DATUM.--Land surface is approximately 7.0 ft above NGVD.

REMARKS.--Station reconstructed April 23, 2000. See DATUM.

PERIOD OF RECORD.--June 1983 to February 1985 (daily), October 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.42 ft NGVD, Oct. 15, 1999; lowest, 3.42 ft NGVD, Apr. 30, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.19	7.07	6.64	6.03	5.60	5.16	5.11	5.95	6.32	7.26	7.16	7.80
10	7.12	6.97	6.52	5.87	5.45	5.48	5.77	5.48	6.92	7.47	7.25	7.64
15	7.16	6.89	6.35	5.97	5.28	5.08	5.48	5.24	7.05	7.39	7.20	7.56
20	7.25	6.82	6.24	5.87	5.14	5.75	5.28	5.15	7.41	7.30	7.17	7.69
EOM EOM	7.23	6.76	6.20	5.71	5.00	5.50	5.12	5.37	7.47	7.19	7.63	7.59
	7.14	6.73	6.13	5.71	5.02	5.20	4.98	6.14	7.43	7.14	7.83	7.59
MAX	7.28	7.11	6.72	6.12	5.68	5.89	5.91	6.17	7.47	7.47	7.83	7.88



WELL NUMBER.--254000080181002. Local Number G 580A. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°40'00", long 80°18'10", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.11, T.55 S., R.40 E., Hydrologic Unit 03090202, at northwest corner of Ludlam Road and Killian Drive, 1.2 mi east of U.S. Highway 1, and 10.5 mi southwest of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 22 ft, cased to 8 ft, open hole 8 to 22 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of recorder shelf, 11.70 ft above National Geodetic Vertical Datum of 1929. From February 23, 1981 to May 10, 1991, the measuring point was top of casing, 11.90 ft above NGVD. From January 1969 to February 23, 1981, the measuring point was reported as 12.42 ft above NGVD, but during the period from October 1978 to February 1981 the measuring point was incorrectly considered to be 12.42 ft above NGVD. The correct measuring point elevation from March 18, 1968 to September 1975, was 12.10 ft above NGVD, from September 15, 1960 to March 16, 1968, was 12.42 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 9.2 ft above NGVD.

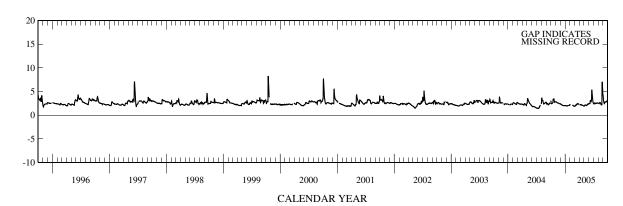
REMARKS.--G-580A (254000080181002) replaced the 100 ft deep, 6 in. diameter well G-580 (254000080181001) in September 1960. G-580 was destroyed on June 12, 1960. The data for G-580A has been published under the site ID of G-580 until the water year 1995 and under both the site ID and local name G-580 for the water years 1993 and 1994. The well has been damaged and reconstructed on March 1968, February 23, 1981 and May 10, 1991. See DATUM. Based on July 2002 soundings, the open hole interval is obstructed at 12 ft below land-surface datum. Measured well depth was 14.9 ft, top of base, on October 2, 2003.

PERIOD OF RECORD.--September 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.34 ft, Sept. 23, 1960; lowest, 0.58 ft NGVD, May 10, 1971.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.44 2.55 3.34 3.44 2.75 2.86	2.79 2.68 2.60 2.54 2.46 2.44	2.30 2.20 2.09 2.06 2.05 2.05	2.04 1.99 2.00 2.06 2.07 2.25	2.10 1.94 1.93	2.00 2.18 2.22 2.47 2.43 2.29	2.21 2.27 2.22 2.13 2.07 1.96	2.08 2.19 2.09 2.05 2.34 2.37	2.47 3.07 2.89 5.29 3.70 2.57	2.54 2.56 2.53 2.53 2.55 2.56	2.47 2.69 2.59 2.24 6.13 4.32	2.84 2.49 2.84 2.89 2.97 2.89
MAX	3.45	2.86	2.43	2.25		2.47		2.37	5.31	2.61	7.07	4.18





WELL NUMBER .-- 254000080460001. Local Number G 620. USGS Observation Well in Everglades National Park, FL.

LOCATION.--Lat 25°40′00″, long 80°46′00″, in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.30, T.55 S., R.36 E., Hydrologic Unit 03090202, at look-out tower in Everglades National Park, 6.5 mi south of U.S. Highway 41, and 18.9 mi southwest of the intersection of U.S. Highway 41 and State Road 997.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

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

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 9.85 ft above National Geodetic Vertical Datum of 1929. Prior to September 2005, measuring point was 9.86 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 6.8 ft above NGVD.

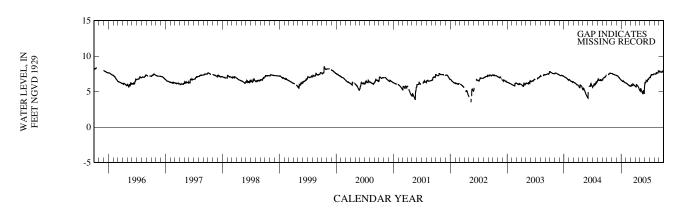
REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--January 1950 to September 1980, November 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.51 ft NGVD, Oct. 16, 1999; minimum water level recorded, 1.86 ft NGVD, May 30, 1965.

ELEVATION ABOVE NOVD 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 10 15 20 25 EOM	7.40 7.53 7.61 7.58 7.56	7.54 7.45 7.42 7.36 7.33 7.30	7.24 7.21 7.04 6.95 6.81 6.64	6.53 6.46 6.46 6.38 6.25 6.22	6.15 6.06 5.96 5.90 5.80 5.76	5.88 5.96 5.87 5.97 5.92 5.78	5.69 5.94 5.86 5.70 5.46 5.19	5.41 5.24 4.89 4.65 5.05 5.75	6.29 6.59 6.51 6.72 6.75 7.00	7.01 7.21 7.41 7.37 7.40 7.48	7.48 7.46 7.66 7.61 7.69 7.86	7.91 7.77 7.73 7.82 7.81 7.82
MAX		7.56	7.29	6.62	6.21	6.10	6.04	5.75	7.00	7.48	7.93	7.91



WELL NUMBER.--254005080171601. Local Number G 3609. USGS Observation Well near Pinecrest, FL.

LOCATION.--Lat 25°40′05", long 80°17′16", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.12, T.55 S., R. 40 E., Hydrologic Unit 03090202, across the street from Pinecrest Gardens, 76 ft east of SW 59th Avenue and 6 ft south of SW 111th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 85 ft, cased to 80 ft, screened 80 to 85 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 14.75 ft above National Geodetic Vertical Datum of 1929. Prior to March 2000, measuring point was estimated to be 15 ft above NGVD from a topographic map. See REMARKS.

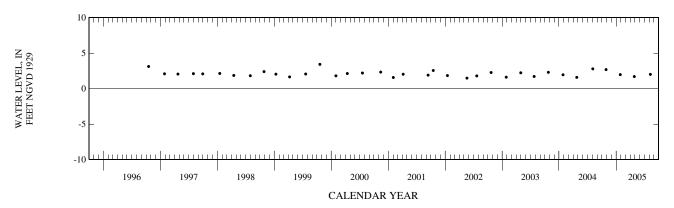
LAND-SURFACE DATUM .-- Land surface is approximately 14.8 ft above NGVD.

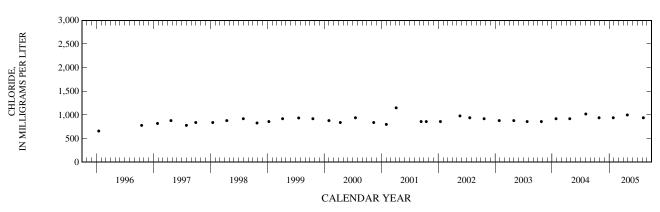
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began in September 1995. Water-level measurements began October 1996. Water-level elevation data collected prior to March 14, 2000, have been computed using the measuring point established on March 14, 2000, and are in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--September 1995 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.42 ft NGVD, Oct. 20, 1999; lowest, 1.48 ft NGVD, May 20, 2002.

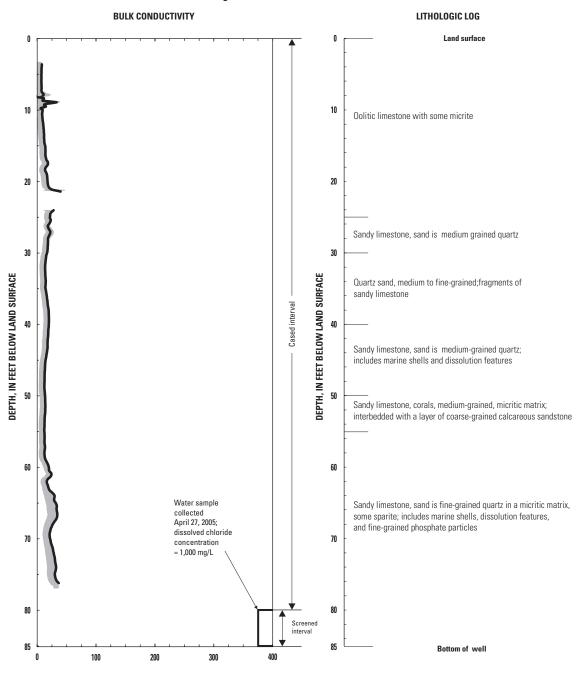
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	ation, tance, feet wat unf above uS/cm Date Time NGVD 25 degC	Chloride, water, fltrd, mg/L (00940)
OCT					APR	
28	1305	2.68	3,080	940	27 0840 1.70 3,410	1,000
JAN					AUG	
27	1301	1.97	3.180	940	08 1250 2.01 3.210	940





WELL NUMBER.--254005080171601. Local Number G 3609. USGS Observation Well near Pinecrest, FL-Continued

#### Induction log for Well 254005080171601. Local Number G-3609



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 27, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 17, 1996 to April 23, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254022080263601. Local Number G 3561. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°40′23", long 80°26′36", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.4, T.55 S., R.39 E., Hydrologic Unit 03090202, in the northeast corner of the Metro-Dade Hammocks fire station, on Hammocks Boulevard, 0.2 mi north of SW 104th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19 ft, cased to 14 ft, screened 14 to 19 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 13.24 ft above National Geodetic Vertical Datum of 1929.

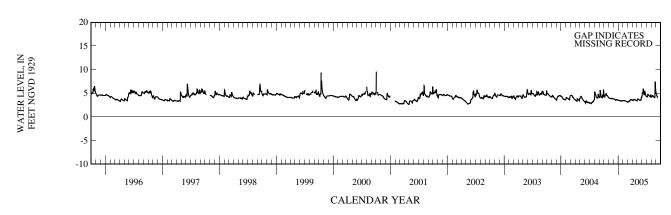
LAND-SURFACE DATUM.--Land surface is approximately 10.6 ft above NGVD.

PERIOD OF RECORD.--February 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.58 ft NGVD, Oct. 3, 2000; lowest, 2.64 ft NGVD, Apr. 30, and May 1, 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	4.32	3.97	3.80	3.51	3.46	3.19	3.52	3.79	5.12	4.25	4.24	4.63
10	4.61	3.95	3.71	3.44	3.44	3.27	3.65	3.77	6.01	4.78	4.53	4.28
15	4.97	3.89	3.57	3.42	3.38	3.33	3.67	3.63	4.74	4.64	4.33	
20	4.59	3.84	3.63	3.43	3.31	3.63	3.59	3.53	5.44	4.42	4.11	
25	4.40	3.90	3.62	3.39	3.23	3.67	3.51	3.54	4.77	4.39	6.34	
EOM	4.12	3.88	3.56	3.43	3.21	3.59	3.42	4.17	4.35	4.36	5.15	
MAX	4.97	4.08	3.86	3.55	3.46	3.70	3.68	4.17	6.01	4.78	7.45	



WELL NUMBER.--254038080280201. Local Number G 855. USGS Observation Well near Kendall, FL.

LOCATION.—Lat 25°40'38", long 80°28'02", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.6, T.55 S., R.39 E., Hydrologic Unit 03090202, 0.9 mi east of State Road 997 (Krome Avenue), 0.4 mi south of State Road 94 (Kendall Drive), and 9.2 mi west of Kendall.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 20 ft.

REVISED RECORDS .-- See REMARKS.

INSTRUMENTATION .-- Electronic data logger.

DATUM.—Measuring point: Top of base, 10.67 ft above National Geodetic Vertical Datum of 1929. From July 29, 1993 to July 1999, top of base was 9.45 ft above NGVD. From August 1986 to July 29, 1993, top of base was 9.52 ft above NGVD. From September 1978 to August 1986, top of base was 10.88 ft above NGVD. From June 24, 1970 to August 7, 1978, measuring point was top of shelf 10.39 ft above NGVD. Prior to June 24, 1970 measuring point was top of base 10.90 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.9 ft above NGVD.

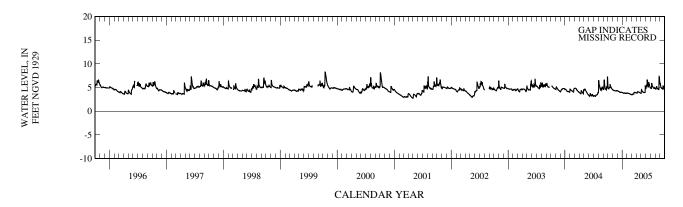
REMARKS.--The published figures of water levels as elevation, in feet NGVD, for October 1969 to November 1978 are in error. Previous corrections published prior to water year 2001 are in error. Corrected records are in the files of the U.S. Geological Survey. Well was reconstructed July 1970, September 1978, August 1986, July 29, 1993 and July 1999. The well was originally reported open to the aquifer from 10 to 20 ft. The open interval has since become obstructed or collapsed at a depth of 11.7 ft. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.37 ft NGVD, Oct. 15, 1999; lowest, 0.52 ft NGVD, present datum, May 14, 1971.

ELEVATION ABOVE NGVD 1929, FEET	
WATER YEAR OCTOBER 2004 TO SEPTEMBER 20	05
DAILY MAXIMUM VALUES	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	4.85 4.94 5.72 5.13 4.84 4.58	4.44 4.40 4.35 4.30 4.38 4.33	4.26 4.19 4.06 4.02 4.03 3.98	3.90 3.84 3.87 3.84 3.78 3.85	3.83 3.79 3.73 3.64 3.59 3.56	3.51 3.66 3.63 4.00 3.98 3.89	3.86 4.13 4.09 4.01 3.92 3.82	4.58 4.20 4.04 3.94 3.97 4.87	5.41 6.70 5.24 6.07 5.48 5.04	4.82 5.90 5.23 4.96 4.92 4.86	4.70 5.22 4.83 4.61 6.91 5.90	5.31 4.86 4.74 5.36 4.85 5.22
MAX	5.72	4.52	4.32	3.97	3.85	4.00	4.13	5.46	6.70	5.96	7.32	5.94



WELL NUMBER.--254054080295401. Local Number G 1487. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41'15", long 80°29'50", in SE ½ sec.35, T.54 S., R.38 E., Hydrologic Unit 03090202, west of levee on west side of L-31N Canal, 5.1 mi south of U.S. Highway 41, 3.5 mi north of Howard Drive, and 1 mi west of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 9.0 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of flange, 9.40 ft above National Geodetic Vertical Datum of 1929. Prior to November 18, 1999, measuring point was top of base, 8.38 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 6.8 ft above NGVD.

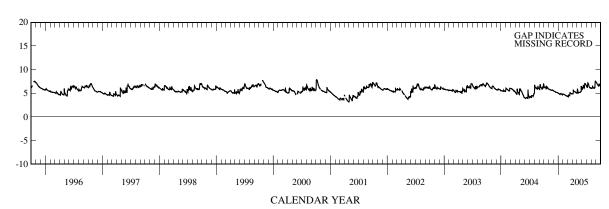
REMARKS.--The published figures of water levels as elevation, in feet NGVD, for August 13, 1999 to September 30, 1999 are in error. The corrected records are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1970 to May 1976, June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.67 ft NGVD, Oct. 15, 1999 (estimated from high water mark in shelter); lowest daily maximum water level, 1.59 ft NGVD, May 7, 8, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	6.31 6.19	5.83 5.74	5.46 5.37	4.97 4.81	4.80 4.71	4.47 4.67	4.90 5.46	5.84 5.11	5.96 6.62	6.30 7.18	6.00 6.43	7.18 6.83
15	6.52	5.70	5.29	4.93	4.60	4.51	5.38	5.19	6.27	6.89	6.11	6.66
20	6.37	5.63	5.18	4.87	4.54	5.08	5.25	5.16	7.02	6.32	6.06	6.96
25	6.26	5.69	5.17	4.73	4.40	4.94	5.14	5.31	6.96	6.10	6.98	6.72
EOM	5.91	5.60	5.05	4.84	4.38	4.86	5.04	5.76	6.68	6.07	7.35	6.72
MAX	6.73	5.88	5.57	5.03	4.84	5.14	5.77	6.55	7.09	7.18	7.57	7.33





WELL NUMBER.--254107080165201. Local Number G 896. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41'07", long 80°16'52", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.6, T.55 S., R.41 E., Hydrologic Unit 03090202, 3 ft south of rock wall, 0.25 mi west of SW 52nd Avenue (School House Road), 0.5 mi south of Kendall Drive.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 74 ft, cased to 60 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 11.25 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.3 ft above NGVD.

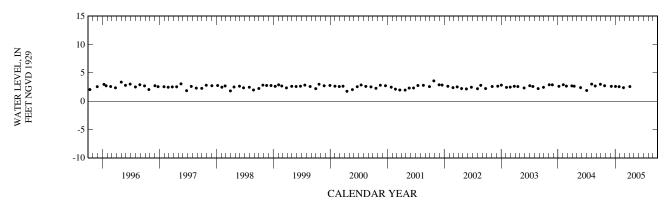
REMARKS .-- Well also used for salinity monitoring.

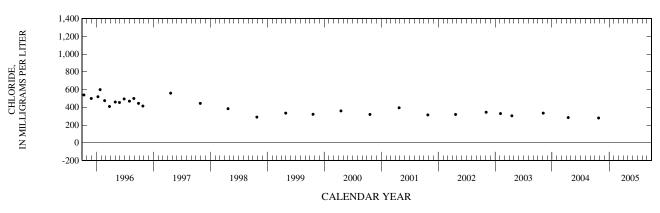
PERIOD OF RECORD.--May 1978 to May 1990 (semiannual), August 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.71 ft NGVD, Sept. 30, 1993; lowest, 1.52 ft NGVD, Apr. 18, 1991.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					FEB				
25	1238	2.71	1,290	280	23	1040	2.37		
DEC					APR				
07	1040	2.61			05	1116	2.57		
JAN									
03	1042	2.59							
26	1217	2.55							





WELL NUMBER.--254108080170601 Local Number G 3608. USGS Observation Well near Kendall, FL.

 $LOCATION.--Lat~25^{\circ}41'08", long~80^{\circ}17'06", in~NW~\frac{1}{4}~SW~\frac{1}{4}~NW~\frac{1}{4}~sec.6, T.55~S., R.41~E., Hydrologic~Unit~03090202, 16~ft~east~of~SW~57th~Avenue~and~700~ft~north~of~SW~94th~Street, across the street from 9320~SW~57th~Avenue, west~of~Snapper~Creek.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 100 ft, cased to 95 ft, screened 95 to 100 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.95 ft above National Geodetic Vertical Datum of 1929. Prior to March 2000, measuring point was estimated to be 11 ft above NGVD from a topographic map. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 11.0 ft above NGVD.

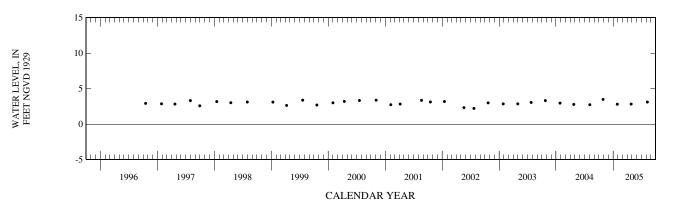
REMARKS.--Well is also used for quarterly salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity measurements began in August 1995. Water-level measurements began in October 1996. Water-level elevation data collected prior to March 14, 2000, have been computed using the measuring point established on March 14, 2000, and are in the files of the U.S. Geological Survey.

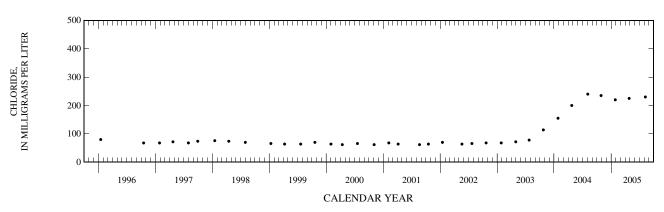
PERIOD OF RECORD.--August 1995 to current year. See REMARKS.

EXTREMES FOR PERIODS OF RECORD.-Highest water level measured, 3.48 ft NGVD, Oct. 28, 2004; lowest, 2.21 ft NGVD, July 23, 2002.

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

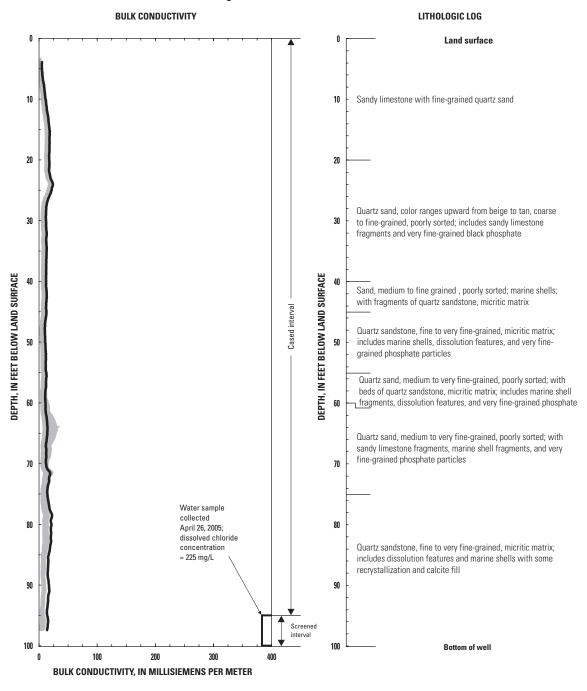
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	1245	3.48	1,030	235	26	1255	2.82	1,040	225
JAN					AUG				
27	1230	2.80	1,000	220	08	1216	3.11	1,060	230





WELL NUMBER.--254108080170601 Local Number G 3608. USGS Observation Well near Kendall, FL-Continued

# Induction log for Well 254108080170601. Local Number G-3608



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 26, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 9, 1996 to April 23, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254108080231301. Local Number G 3560. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41'08", long 80°28'13", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.31, T.55 S., R.39 E., Hydrologic Unit 03090202, on the north side of SW 88th Street (Kendall Drive) about 0.75 mi west of SW 162nd Avenue.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.5 ft, cased to 14.5 ft, screened 14.5 to 19.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 10.16 ft above National Geodetic Vertical Datum of 1929. From October 16, 1996 to August 20, 1998, top of shelf was 10.58 ft above NGVD. The measuring point elevation, 10.57 ft above NGVD, which had been published for the period October 16, 1996 to August 20, 1998 was incorrect. From September 25, 1995 to September 30, 1996, top of shelf was 10.74 ft above NGVD. From September 25, 1995 to September 30, 1995, measuring point was considered to be 11.60 ft above NGVD. The figures of water level as elevation, in feet NGVD, from September 25, 1995 to September 30, 1995 are in error. From April 1994 to September 25, 1995, top of shelf was 10.04 ft above NGVD. See REMARKS

LAND-SURFACE DATUM.--Land surface is approximately 7.2 ft above NGVD.

4.46

4.08

4.02

REMARKS.--The well was reconstructed September 25, 1995, October 16, 1996 and August 27, 1998. The figures of water level as elevation, in feet NGVD, from September 25, 1995 to September 30, 1995 are in error. A -0.87 ft correction has been applied to correct the short period of water-level data from September 25, 1995 to September 30, 1995. Corrected records are in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- April 1994 to current year.

4.76

6.01

MAX

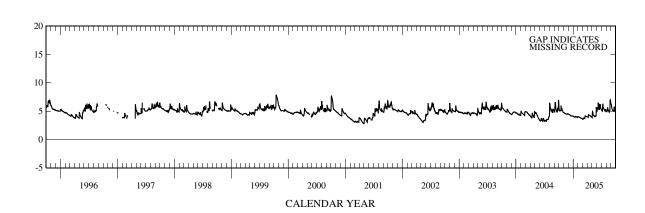
WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.82 ft NGVD, Oct. 15, 16, 1999; lowest, 2.79 ft NGVD, Apr. 29 to May 1, 2001.

ELEVATION ABOVE NGVD 1929, FEET

	DAILY MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5	5.14	4.66	4.42	4.05	3.98	3.64	3.95	4.95	5.48	5.05	4.89	5.64	
10	5.04	4.57	4.33	3.98	3.93	3.81	4.37	4.31	6.49	6.22	5.59	5.19	
15	5.97	4.53	4.23	4.05	3.85	3.73	4.27	4.15	5.39	5.51	5.07	5.04	
20	5.48	4.47	4.16	4.01	3.76	4.17	4.15	4.02	6.14	5.19	4.82	5.80	
25	5.05	4.54	4.18	3.94	3.69	4.08	4.05	4.10	5.72	5.17	6.80	5.09	
EOM	4.78	4.48	4.09	4.03	3.67	3.98	3.95	5.05	5.33	5.11	6.26	5.32	

4.17



4.37

5.71

6.49

6.22

6.98

6.24

WELL NUMBER.--254111080272501. Local Number G 3555. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41'11", long 80°27'25", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.32, T.54 S., R.39 E., Hydrologic Unit 03090202, at northwest corner of a lake near the northwest corner of SW 162nd Avenue and SW 88th Street (Kendall Drive).

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19 ft, cased to 14 ft, screened 14 to 19 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 10.87 ft above National Geodetic Vertical Datum of 1929.

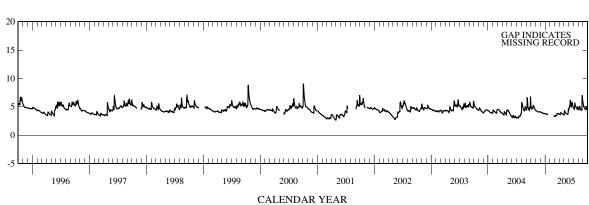
LAND-SURFACE DATUM.--Land surface is approximately 8.2 ft above NGVD.

PERIOD OF RECORD .-- March 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.99 ft NGVD, Oct. 3, 4, 2000; lowest, 2.66 ft NGVD, Apr. 30, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	4.76 4.71	4.28 4.21	4.04 3.97	3.76 3.70		3.38 3.49	3.65 3.95	4.31 4.03	5.15 6.11	4.65 5.62	4.50 5.08	5.12 4.70
15	5.25	4.14	3.88	3.73		3.47	3.89	3.83	5.13	5.10	4.67	4.55
20	4.97	4.09	3.85			3.82	3.78	3.71	5.80	4.81	4.35	5.04
25	4.75	4.14	3.83		3.42	3.79	3.70	3.71	5.41	4.74	6.36	4.71
EOM	4.43	4.11	3.79		3.39	3.71	3.61	4.54	4.88	4.74	5.72	4.99
MAX	5.57	4.38	4.08			3.82	3.95	4.62	6.11	5.62	6.95	5.52





EOM

MAX

WATER LEVEL, IN FEET NGVD 1929 5.86

6.51

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254112080294201. Local Number G 3557. USGS Observation Well near Miami, FL.

 $LOCATION.--Lat~25^{\circ}41'14'', long~80^{\circ}29'46'', in~NW~\frac{1}{4}~sec. 32, T.54~S., R.38~E., Hydrologic~Unit~03090202, 5.2~mi~south~of~Tamiami~Trail~(U.S.~Highway~41)~and~100~ft~east~of~L-31N~Canal.$ 

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.5 ft, cased to 14.5 ft, screened 14.5 to 19.5 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of casing, 9.30 ft above National Geodetic Vertical Datum of 1929. Prior to May 24, 2004, measuring point was top of shelf, 9.37 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 6.6 ft above NGVD.

4.99

5.50

4.77

4.96

PERIOD OF RECORD .-- April 1994 to current year.

5.54

5.84

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.17 ft NGVD, Oct. 15, 1999; lowest, 3.18 ft NGVD, Apr. 30, 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	6.11	5.80	5.44	4.88	4.72	4.43	4.82	5.77	5.91	6.10	5.90	6.80	
10	6.03	5.72	5.38	4.75	4.65	4.67	5.42	5.05	6.58	6.97	6.30	6.40	
15	6.44	5.64	5.27	4.90	4.56	4.46	5.36	5.18	6.15	6.53	5.97	6.27	
20	6.25	5.57	5.20	4.77	4.45	4.98	5.22	5.13	6.74	6.13	5.89	6.61	
25	6.11	5.67	5.13	4.66	4.37	4.86	5.10	5.29	6.52	5.99	6.84	6.26	

4.81

5.08

4.35

4.77

4.96

5.62

5.69

6.40

6.31

6.80

5.93

6.97

7.08

7.45

6.30

7.04

CED

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254130080234501. Local Number G 551. USGS Observation Well near South Miami, FL.

LOCATION.--Lat 25°41'30", long 80°23'45", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.36, T.54 S., R.39 E., Hydrologic Unit 03090202, on the east side of SW 125th Avenue, 0.6 mi south of Sunset Drive and 6.5 mi west of South Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in. depth 80 ft, cased to 71 ft, slotted 29 to 71 ft, open hole 71 to 80 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 10.12 ft above National Geodetic Vertical Datum of 1929. Prior to May 11, 1992, top of shelf was 10.26 ft above NGVD. From December 1947 to April 1961, measuring point was top of casing, 8.62 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.7 ft above NGVD.

REMARKS.--Water levels affected by pumping. Station rebuilt May 1992.

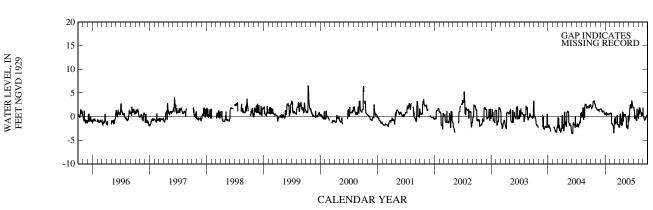
PERIOD OF RECORD.--December 1947 to April 1961 (daily), May 1976 to May 1980 (semiannual), March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.77 ft NGVD, Oct. 5, 1948; lowest, 3.58 ft below NGVD, June 3, 4, 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 5 1.91 1.83 1.61 0.72 0.77 -0.23 -0.04 0.48 0.04 1.61 10 1.99 1.53 1.16 0.32 0.57 -1.30 -1.47 0.42 2.41 0.09

DAY	OCT	NOV	DEC	JAN	FEB	MAK	APK	MAY	JUN	JUL	AUG	SEP
5	1.91	1.83	1.61	0.72	0.77	-0.23	-0.04	0.48	0.04	1.61	1.37	0.09
10	1.99	1.53	1.16	0.32	0.57	-1.30	-1.47	0.42	2.41	0.09	1.94	-0.69
15	3.12	1.33	1.16	0.51	-1.51	-1.25	-1.83	-0.22	2.19	-0.11	1.18	-0.53
20	3.18	1.38	1.16	0.60	-1.89	-1.39	-1.79	-2.21	3.23	-0.66	0.55	-0.04
25	2.84	1.44	0.78	0.42	-3.49	-1.67	0.79	-2.07	2.38	1.61	0.71	0.01
EOM	2.36	1.50	0.42	0.64	-2.25	-2.14	0.23	-1.00	2.01	0.22	1.91	-0.49
MAX	3.32	1.96	1.62	0.88	0.77	0.31	1.07	0.48	3.31	1.90	1.94	0.18



WELL NUMBER.--254138080284401. Local Number G 3552. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41'38", long 80°28'44", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.31, T.54 S., R.39 E., Hydrologic Unit 03090202, 1,900 ft north of SW 88th Street (Kendall Drive) on west side of SW 177th Avenue (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.4 ft, cased to 14.4 ft, screened 14.4 to 19.4 ft.

INSTRUMENTATION.--Satellite data collection platform, prior to October 13, 2004, electronic data logger.

DATUM.--Measuring point: Top of flange, 9.95 ft above National Geodetic Vertical Datum of 1929. Prior to October 13, 2004, measuring point was top of base, 10.01 ft NGVD.

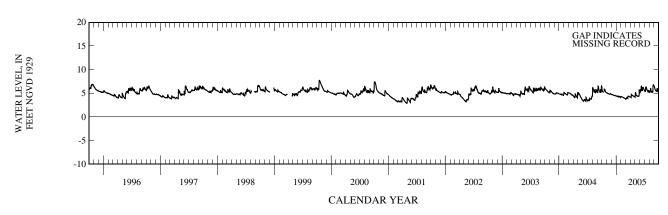
LAND-SURFACE DATUM.--Land surface is approximately 7.4 ft above NGVD.

PERIOD OF RECORD .-- April 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.73 ft NGVD, Oct. 17, 1999; lowest, 2.85 ft NGVD, Apr. 30, 2001.

		YEAR OCT	I ABOVE NO TOBER 2004 MAXIMUM	TO SEPTE	MBER 2005	í	
DEC	JAN	FEB	MAR	APR	MAY	JUN	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.45	5.03	4.73	4.37	4.25	3.87	4.18	5.17	5.52	5.37	5.19	6.11
10	5.27	4.93	4.69	4.35	4.21	4.09	4.66	4.59	6.35	6.41	5.93	5.66
15	6.00	4.89	4.61	4.40	4.11	3.93	4.53	4.46	5.67	5.99	5.36	5.48
20	5.88	4.82	4.52	4.33	4.03	4.38	4.43	4.35	6.22	5.53	5.16	6.09
25	5.34	4.93	4.53	4.21	3.92	4.31	4.34	4.37	6.05	5.37	6.64	5.48
EOM	5.10	4.78	4.43	4.32	3.89	4.19	4.22	5.18	5.72	5.36	6.56	5.65
MAX		5.09	4.77	4.45	4.32	4.39	4.72	5.78	6.37	6.41	6.82	6.54



WELL NUMBER.--254152080274501. Local Number G 3554. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41′52″, long 80°27′45″, in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.32, T.54 S., R.39 E., Hydrologic Unit 03090202, at southeast corner of SW 72nd Street (Sunset Drive) and SW 167th Avenue.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 20 ft, cased to 15 ft, screened 15 to 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 10.61 ft above National Geodetic Vertical Datum of 1929. Prior to October 22, 2004, top of shelf was 10.60 ft above NGVD. Prior to April 21, 1994, measuring point was 10.03 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.4 ft above NGVD.

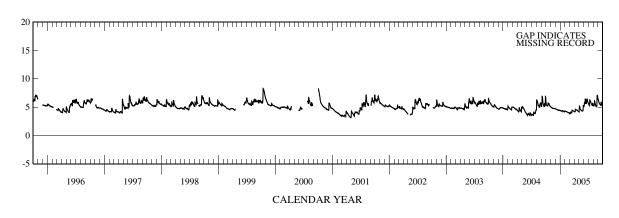
REMARKS.--Station destroyed August 21, 1994, rebuilt June 19, 1995.

PERIOD OF RECORD .-- February 1994 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.25 ft NGVD, Oct. 3, 2000; lowest, 3.14 ft NGVD, Apr. 29, 30, 2001.

					YEAR OC	I ABOVE NO TOBER 2004 MAXIMUM	TO SEPTE	FEET EMBER 2005				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.41	4.95	4.65	4.36	4.25	3.93	4.18	5.19	5.65	5.38	5.22	6.01
10	5.21	4.86	4.60	4.34	4.21	4.12	4.59	4.63	6.43	6.35	6.05	5.58
15	5.82	4.80	4.52	4.40	4.13	4.02	4.53	4.49	5.77	5.92	5.41	5.42
20	5.64	4.74	4.46	4.31	4.06	4.43	4.42	4.32	6.35	5.55	5.10	5.94
25	5.35	4.79	4.47	4.18	4.01	4.34	4.31	4.32	6.15	5.36	6.86	5.44
EOM	5.08	4.72	4.39	4.32	3.98	4.24	4.18	5.15	5.70	5.45	6.48	5.61
MAX	6.16	5.05	4.70	4.41	4.31	4.45	4.62	5.28	6.45	6.35	7.07	6.34



WELL NUMBER.--254152080282101. Local Number G 3553. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41′52″, long 80°28′21″, in NW ½ NE ½ NW ½ sec.31, T.54 S., R.39 E., Hydrologic Unit 03090202, on SW 72nd Street (Sunset Drive) west of SW 172nd Avenue.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.9 ft, cased to 14.9 ft, screened 14.9 to 19.9 ft.

INSTRUMENTATION.--Satellite data collection platform and tipping bucket rain gage.

DATUM.--Measuring point: Top of shelf, 8.83 ft above National Geodetic Vertical Datum of 1929.

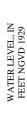
LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

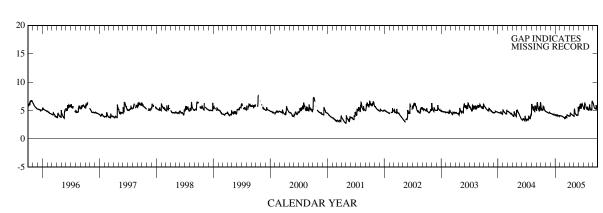
REMARKS.--Rainfall data is not published but is available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- February 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.64 ft NGVD, Oct. 17, 18, 1999; lowest, 2.72 ft NGVD, Apr. 30, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	5.23 5.04	4.77 4.70	4.46 4.43	4.11 4.18	4.06 4.03	3.70 4.01	4.03 4.45	5.21 4.46	5.43 6.16	5.22 6.25	5.06 5.86	5.92 5.43
15	5.86	4.64	4.31	4.23	3.95	3.76	4.33	4.30	5.54		5.20	5.30
20 25	5.69 5.10	4.55 4.68	4.24 4.27	4.11 4.00	3.87 3.80	4.19 4.10	4.22 4.11	4.12 4.13	6.11 5.97	5.38 5.22	5.05 6.59	5.97 5.30
EOM	4.86	4.50	4.18	4.11	3.76	4.02	4.00	4.99	5.63	5.22	6.31	5.45
MAX	5.97	4.83	4.49	4.27	4.10	4.25	4.61	5.64	6.17		6.63	6.31





WELL NUMBER.--254157080214002. Local Number G 3074. USGS Observation Well near South Miami, FL.

LOCATION.--Lat 25°41'57", long 80°21'40", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.32, T.54 S., R.40 E., Hydrologic Unit 03090202, on north side of Snapper Creek Canal, 0.25 mi southeast of the intersection of SW 107th Avenue and Sunset Drive, and 4.6 mi west of South Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 40 ft, cased to 40 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.22 ft above National Geodetic Vertical Datum of 1929. Prior to October 1994, measuring point was top of flange, 8.17 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 5.0 ft above NGVD.

REMARKS.--Cased interval is obstructed at a depth of 36 ft. The well remains in good communication with the aquifer.

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

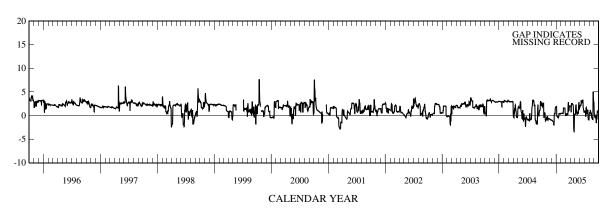
EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.68 ft NGVD, Oct. 15, 1999; lowest, 3.78 ft below NGVD, May 8, 1987.

ELEVATION ABOVE NGVD 1020 FEET

	YEAR OCT	OBER 2004 MAXIMUM	TO SEPTE	MBER 2005	
IAN	EEB	MAD	A DD	MAV	HIN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.85	-0.18	-0.96	-0.07	0.44	0.20	1.97	1.53	2.13	0.90	0.61	-0.24
10	2.65	-0.90	-1.18	-0.25	0.53	0.32	2.58	1.18	3.24	0.49	0.49	-0.23
15	0.62	-0.61	-1.39	-0.37	0.84	0.21	2.50	0.11	2.63	0.69	0.61	-1.58
20	0.35	-0.74	0.35	0.45	1.62	2.86	2.26	0.54	3.29	0.53	-0.65	0.16
25	-1.13	-0.84	0.49	0.37	1.57	1.42	-3.33	2.59	1.29	-0.77	4.21	0.86
EOM	-0.87	-0.96	1.88	0.49	0.37	2.03	0.30	1.71	0.70	-0.48	2.54	0.91
MAX	2.65	-0.18	1.88	1.91	1.62	2.86	2.58	2.74	3.29	1.71	5.07	1.00





WATER LEVEL, IN FEET NGVD 1929

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254158080294501. Local Number G 3551. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°41′58″, long 80°29′45″, in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec.36, T.54 S., R.38 E., Hydrologic Unit 03090202, 4.2 mi south of Tamiami Trail (U.S. Highway 41) and 100 ft east of L-31N Canal.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.3 ft, cased to 13.3 ft, screened 13.3 to 18.3 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.18 ft above National Geodetic Vertical Datum of 1929.

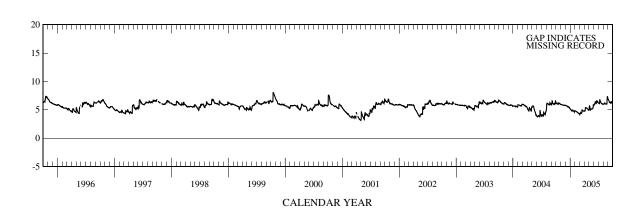
LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

PERIOD OF RECORD .-- April 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.03 ft NGVD, Oct. 15, 16, 1999; lowest, 3.15 ft NGVD, Apr. 30, 2001.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.13	5.92	5.74	5.02	4.77	4.38	4.79	5.68	5.95	6.17	5.99	6.68
10	6.09	5.88	5.69	4.87	4.68	4.55	5.38	5.07	6.43	6.82	6.21	6.29
15	6.25	5.84	5.61	4.97	4.56	4.39	5.33	5.15	6.19	6.44	6.05	6.25
20	6.17	5.81	5.55	4.83	4.47	4.92	5.20	5.10	6.58	6.15	5.99	6.45
25	6.13	5.81	5.43	4.69	4.35	4.82	5.10	5.26	6.44	6.02	6.61	6.22
EOM	5.96	5.79	5.16	4.84	4.32	4.77	4.95	5.76	6.24	6.02	6.91	6.25
MAX	6.33	5.97	5.77	5.14	4.83	4.96	5.38	5.88	6.67	6.82	7.31	6.84



WELL NUMBER.--254201080173001. Local Number G 901. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°42'01", long 80°16'56", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.31, T.54 S., R.41 E., Hydrologic Unit 03090202, at southwest corner of intersection of SW 76th Street and SW 54th Avenue. (Corrected).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 96 ft, cased to 94.8 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 7.91 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.9 ft above NGVD.

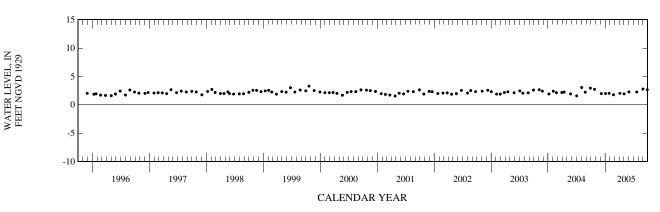
REMARKS .-- Well also used for salinity monitoring.

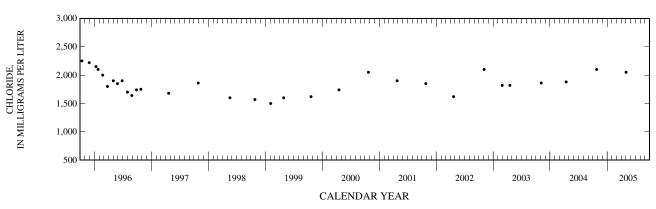
PERIOD OF RECORD.--October 1975 to October 1981, May 1992 to November 1992 (intermittent), February 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.51 ft NGVD, Oct. 28, 1993; lowest, 1.16 ft NGVD, May 2, 1977.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
25	1143	2.73	6,490	2,100	02	1123	1.93	6,830	2,050
DEC					JUN				
07	1030	1.98			02	1005	2.27		
JAN					JUL				
03	1025	1.99			22	1110	2.25		
26	1207	2.02			AUG				
FEB					31	1240	2.78		
23	1030	1.77			SEP				
APR					28	1306	2.65		
05	1102	2.02							





DAY

WATER LEVEL, IN FEET NGVD 1929 OCT 6.70

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254206080294701. Local Number G 3575. USGS Observation Well near Miami, FL.

LOCATION.—Lat 25°42′06", long 80°29′47", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.35, T.54 S., R.38 E., Hydrologic Unit 03090202, 4.07 mi south of U.S. Highway 41 (Tamiami Trail), next to levee on west side of L-31N Canal.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 4 in., depth 8.9 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 9.09 ft above National Geodetic Vertical Datum of 1929. Prior to August 23, 2001, the measuring point was incorrectly considered to be 8.94 ft above NGVD. The figures of water level as elevation, in ft NGVD, from February 1995 to September 2000 are in error. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 6.1 ft above National Geodetic Vertical Datum of 1929

REMARKS.--On August 23, 2001, the measuring point elevation was found to be in error. See DATUM. The published figures of water level as elevation, in feet NGVD, from February 1995 to September 2000, are in error. Corrected data can be found in the files of the U.S. Geological Survey.

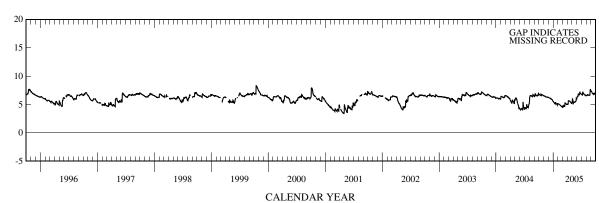
PERIOD OF RECORD.--February 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.31 ft NGVD, Oct. 15, 16, 1999; lowest, 3.40 ft NGVD, Apr. 30, 2001.

ELEVATION ABOVE NGVD 1929, FEET

	WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES													
Т	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
0	6.49	6.18	5.38	5.07	4.66	5.03	5.93	6.38	6.74	6.57	7.23			
	6.43	6.13	5.20	4.98	4.85	5.64	5.35	6.82	7.24	6.73	6.93			
7	6.36	6.06	5.34	4.84	4.64	5.59	5.42	6.71	6.94	6.64	6.84			
1	6.30	6.00	5.16	4.75	5.19	5.47	5.38	7.12	6.74	6.60	7.00			

10 6.66 15 6.77 20 25 6.71 7.14 6.92 6.69 6.31 5.85 5.00 4.62 5.07 5.34 5.54 6.62 6.82 **EOM** 6.53 6.26 5.55 5.17 4.58 5.02 5.18 5.99 6.82 6.60 7.44 6.84 6.54 MAX 6.80 6.24 5.52 5.15 5.30 5.70 6.10 7.17 7.24 7.65 7.33



WELL NUMBER.--254207080300201. Local Number G 3577. USGS Observation Well near Miami, FL.

 $LOCATION.--Lat~25^{\circ}42'07'', long~80^{\circ}30'02'', NW~^{1}\!\!/_{4}~NE~^{1}\!\!/_{4}~sec.~35, T.54~S., R.38~E., Hydrologic~Unit~03090202, 4.08~mi~south~of~U.S.~Highway~41~(Tamiami~Trail)~and~0.24~mi~west~of~levee~on~west~side~of~L-31N~Canal.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 8.0 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 8.99 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.0 ft above NGVD.

6.10

5.84

6.47

5.17

5.21

5.80

4.67

4.61

5.21

REMARKS.--The published figures of water level as elevation, in feet NGVD, for the 2000 water year are in error. Corrected data are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- March 1995 to current year.

6.51

6.49

6.90

**EOM** 

MAX

WATER LEVEL, IN FEET NGVD 1929 6.97

6.90

6.98

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.33 ft NGVD, Oct. 19, 1999; lowest, 3.25 ft NGVD, Apr. 30, 2001.

				YEAR OCT	ABOVE NO TOBER 2004 MAXIMUN	TO SEPTE	FEET MBER 2005				
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
6.94	6.82	6.42	5.66	5.13	4.73	4.95	5.87	6.49	7.16	6.88	7.68
6.91	6.71	6.33	5.47	5.04		5.55	5.58	6.96		7.02	7.52
6.91	6.64	6.28	5.52	4.93	4.65	5.52	5.42	7.05		7.00	7.42
6.95	6.59	6.23	5.33	4.85	5.19	5.45	5.38	7.32	7.16		

5.04

4.93

20
GAP INDICATES
MISSING RECORD

10
5
10
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005

CALENDAR YEAR

5.28

5.16

5.57

5.56

6.10

6.10

7.35

7.32

7.35

7.04

7.00

7.69

WELL NUMBER.--254210080304801. Local Number G 3578. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°42'10", long 80°30'48", NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 34, T.54 S., R.38 E., Hydrologic Unit 03090202, 4.02 mi south of U.S. Highway 41 (Tamiami Trail) and 1.01 mi west of levee on west side of L-31N Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 6.0 ft.

INSTRUMENTATION.--Satellite data collection platform.

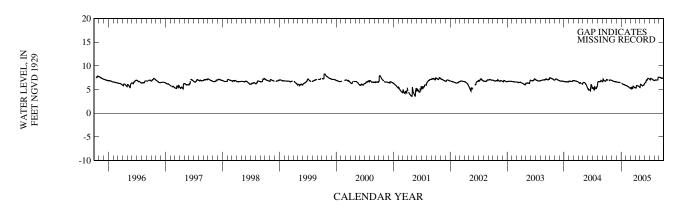
DATUM.--Measuring point: Top of base, 8.94 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.0 ft above NGVD.

PERIOD OF RECORD .-- March 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.39 ft NGVD, Oct. 18, 1999: lowest, 3.55 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	7.04 7.00 6.99 7.03 7.04 6.96	6.89 6.82 6.74 6.69 6.67 6.65	6.61 6.56 6.55 6.52 6.48	6.30 6.20 6.11 6.06 5.94 5.90	5.83 5.73 5.63 5.49 5.35 5.28	5.37 5.49 5.26 5.68 5.52 5.40	5.38 5.84 5.81 5.77 5.64 5.49	6.13 6.03 5.83 5.83 5.98 6.31	6.52 6.97 7.00 7.36 7.38 7.25	7.17 7.39 7.28 7.20 7.04 6.97	6.91 7.05 7.02 7.01 7.49 7.62	7.62 7.50 7.41 7.45 7.42 7.42
MAX		6.93			5.89	5.73	5.84	6.31	7.39	7.39	7.62	7.62



WELL NUMBER.--254213080281501. Local Number G 3556. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°42'13", long 80°28'15", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.30, T.54 S., R.39 E., Hydrologic Unit 03090202, east of SW 172nd Avenue and approximately 0.4 mi north of SW 72nd Street (Sunset Drive).

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.1 ft, cased to 14.1 ft, screened 14.1 to 19.1 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 7.86 ft above National Geodetic Vertical Datum of 1929.

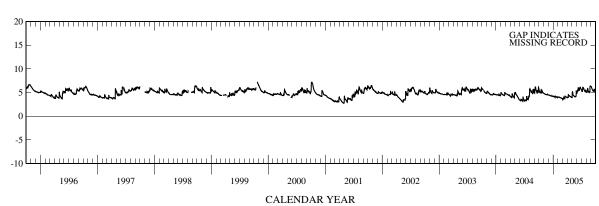
LAND-SURFACE DATUM.--Land surface is approximately 5.1 ft above NGVD.

PERIOD OF RECORD .-- August 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.29 ft NGVD, Oct. 22, 1999; lowest, 2.74 ft NGVD, Apr. 29, 30, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	5.23 4.97 5.62 5.53 5.09 4.87	4.77 4.70 4.62 4.55 4.67 4.52	4.46 4.43 4.35 4.26 4.29 4.18	4.14 4.17 4.24 4.12 4.01 4.10	4.04 4.03 3.93 3.87 3.80 3.76	3.71 3.98 3.76 4.18 4.07 3.95	3.97 4.42 4.32 4.19 4.13 3.97	5.17 4.43 4.28 4.14 4.14 4.92	5.34 5.95 5.59 5.98 6.01 5.66	5.28 6.09 5.89 5.49 5.19 5.26	5.04 5.84 5.26 4.99 6.36 6.29	5.98 5.56 5.33 5.80 5.32 5.47
MAX	5.83	4.85	4.51	4.25	4.08	4.25	4.64	5.44	6.14	6.12	6.38	6.26





WELL NUMBER.--254215080201503. Local Number G 1074B. USGS Observation Well in South Miami, FL.

LOCATION.--Lat 25°42'15", long 80°20'15", in SE  $^{1}\!\!/_{4}$  SE  $^{1}\!\!/_{4}$  sec.28, T.54 S., R.40 E., Hydrologic Unit 03090202, 0.15 mi west of Galloway Road and 0.20 mi north of Sunset Drive.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 39.0 ft, cased to 17.0 ft.

INSTRUMENTATION .-- Electronic data logger.

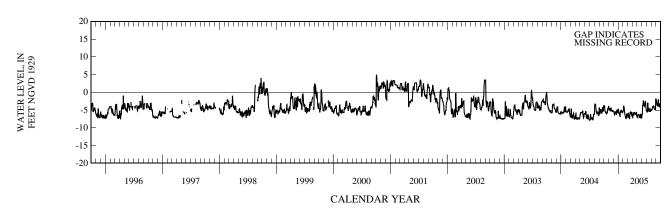
DATUM.--Measuring point: Top of PVC casing, 13.47 ft above National Geodetic Vertical Datum of 1929. Prior to October 1997, measuring point was top of base, 13.48 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 10.5 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.92 ft NGVD, Oct. 4, 2000; lowest, 9.61 ft below NGVD, Sept. 21, 1992.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	-3.84 -5.50 -5.49 -5.82 -4.93 -4.00	-4.82 -4.74 -4.52 -5.23 -5.29	-5.53 -5.55 -5.75 -6.35 -5.79 -5.59	-5.74 -6.24 -5.50 -5.23 -5.75 -5.39	-3.97 -5.20 -6.57 -7.43 -6.49 -6.13	-6.03 -6.54 -7.44 -6.00 -6.16 -6.74	-6.58 -6.55 -5.81 -5.94 -6.26 -6.53	-6.65 -6.28 -6.94 -7.13 -6.35	-5.81 -2.72 -3.74 -3.29 -2.57 -5.11	-5.52 -2.93 -5.24 -5.34 -5.35 -4.95	-4.91 -4.05 -3.83 -4.40 -4.94 -1.86	-3.21 -3.80 -2.17 -3.33 -4.03
MAX	-3.74	-3.83	-4.98	-4.83	-3.81	-5.61	-5.54	-6.10	-2.30	-2.93	-1.86	-4.27



WELL NUMBER.--254217080171801. Local Number F 319. USGS Observation Well in South Miami, FL.

LOCATION.--Lat 25°42'17", long 80°17'18", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.25, T.54 S., R.40 E., Hydrologic Unit 03090202, in parking lot, on west side of SW 58th Avenue, north of Sunset Drive in South Miami, 0.1 mi south of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 17 ft, cased to 13 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.81 ft above National Geodetic Vertical Datum of 1929. Prior to October 1980, measuring point was top of casing, 13.81 ft above NGVD.

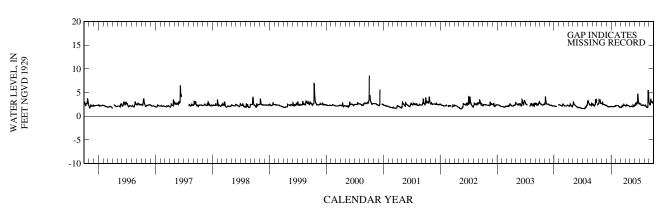
LAND-SURFACE DATUM.--Land surface is approximately 12.2 ft above NGVD.

REMARKS.--In 1953, F-319 replaced a destroyed well of similar depth 250 ft south of current location. Both wells were published under the designation of F-319. Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--August 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.86 ft NGVD, Oct. 11, 1947; lowest, 0.47 ft NGVD, May 17, 1945.

#### 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 2.59 2.61 2.25 2.27 2.23 2.20 2.06 2.08 1.98 2.15 2.08 2.56 2.31 2.66 2.27 2.54 2.59 2.33 2.40 2.32 2.59 2.09 10 2.01 2.16 2.88 2.30 2.56 15 3.49 2.50 2.00 2.07 2.06 2.06 2.61 1.99 3.11 2.33 2.45 2.02 2.24 20 3.12 2.03 2.08 2.31 2.01 4.64 1.86 3.07 25 2.38 2.17 2.35 2.76 2.04 2.10 1.85 2.35 3.05 5.32 2.85 2.28 2.25 2.25 **EOM** 2.74 2.09 1.89 2.27 2.04 2.29 2.78 3.04 2.76 MAX 3.10 2.27 2.27 2.27 2.48 2.45 2.40 4.67 2.78 5.54 3.61



WELL NUMBER.--254218080241801. Local Number G 3565. USGS Observation Well near Miami, FL.

 $LOCATION.--Lat~25^{\circ}42'18'', long~80^{\circ}24'18'', in~SW~\frac{1}{4}~NW~\frac{1}{4}~SE~\frac{1}{4}~sec. 26, T.54~S., R.39~E., Hydrologic~Unit~03090202, 9~ft~from~edge~of~pavement~in~the~northeast~corner~of~the~cul-de-sac~at~SW~68th~Terrace~and~SW~131st~Court.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19 ft, cased to 14 ft, open hole 14 to 19 ft.

INSTRUMENTATION .-- Electronic data logger.

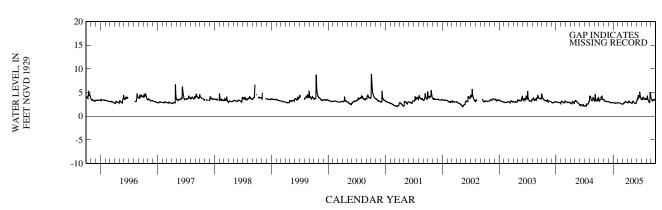
DATUM.--Measuring point: Top of base, 11.82 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 8.5 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.84 ft NGVD, Oct. 3, 2000; lowest, 1.98 ft NGVD, May 13, 14, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	3.19 3.51 4.08 4.22 3.54 3.51	3.45 3.11 3.18 3.14 3.10 3.08	3.08 2.95 2.86 2.87 2.89 2.87	2.85 2.80 2.79 2.83 2.78 2.86	2.86 2.82 2.75 2.69 2.58 2.55	2.66 2.82 2.81 3.14 3.03 2.93	2.88 3.22 3.12 2.95 2.88 2.73	3.16 3.12 2.85 2.73 2.71 3.12	3.84 4.38 3.85 5.07 4.11 3.58	3.61 4.00 3.86 3.63 3.68 3.52	3.60 3.81 3.29 2.95 4.53 3.91	3.55 3.31 3.37 3.52 3.43 3.52
MAX	4.26	3.51	3.08	2.87	2.86	3.14	3.22	3.19	5.07	4.00	5.12	3.81



6.42

5.39

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254248080263801. Local Number G 3473. USGS Observation Well near South Miami, FL.

LOCATION.--Lat 25°42'48", long 80°26'38", in SW  $\frac{1}{4}$  sec.21, T.54 S., R.39 E., Hydrologic Unit 03090202, on north side of Miller Drive at SW 154th Court and 0.3 mi west of SW 152nd Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 20.4 ft, cased to 20.4 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 10.69 ft above National Geodetic Vertical Datum of 1929. From October 29, 1994 to October 1996, measuring point was top of base, 10.75 ft above NGVD. From October 29, 1991 to October 2, 1994, measuring point was top of casing, 11.80 ft above NGVD. Prior to October 1993, top of casing was incorrectly considered to be 10.76 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.6 ft above NGVD.

3.81

3.58

3.53

REMARKS.--The published figures of water levels as elevation, in feet NGVD, prior to October 1993, are in error. Corrected figures are available in the files of the U.S. Geological Survey. Station reconstructed October 29, 1994. See DATUM.

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

PERIOD OF RECORD .-- October 1991 to current year.

4.26

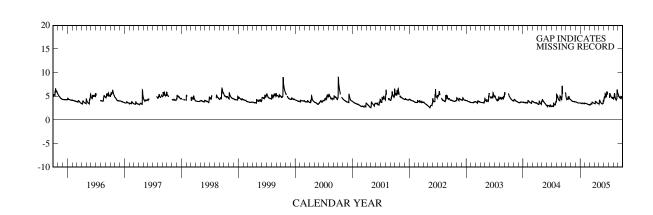
MAX

WATER LEVEL, IN FEET NGVD 1929 5.12

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.05 ft NGVD, Oct. 15, 1999; lowest, 2.07 ft NGVD, June 2, 1992.

					DAILY	MAXIMUM	I VALUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	4.55 4.39	4.15 3.98	3.79 3.73	3.55 3.49	3.50 3.45	3.26 3.42	3.45 3.93	4.18 3.84	4.89 5.54	5.67	4.66 5.40	5.07 4.71
15	4.82	3.93	3.64	3.58	3.38	3.35	3.74	3.58	5.00	5.16	4.55	4.64
20	4.98	3.88	3.58	3.52	3.31	3.75	3.59	3.44	5.86	4.81	4.17	4.94
25	4.52	3.90	3.60	3.44	3.23	3.59	3.50	3.40	5.36	4.60	5.97	4.64
EOM	4.28	3.82	3.57	3.55	3.21	3.50	3.47	4.13		4.61	5.57	4.77

3.76



3.94

4.18

MAX

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254334080284401. Local Number G 3558. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°43'39", long 80°28'47", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.18, T.54 S., R.39 E., Hydrologic Unit 03090202, at the northeast corner of Florida Power and Light service road next to Bird Drive extension canal and SW 177th Avenue (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19 ft, cased to 14 ft, screened 14 to 19 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 9.93 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.1 ft above NGVD.

4.69

4.46

4.28

PERIOD OF RECORD .-- April 1994 to current year.

5.03

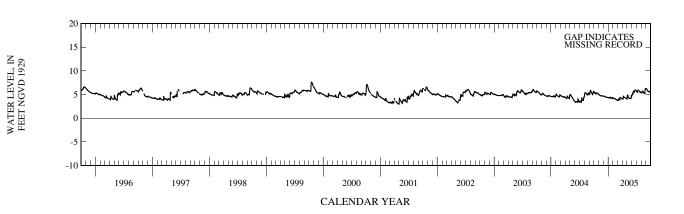
5.70

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.62 ft NGVD, Oct. 17-19, 1999; lowest, 2.98 ft NGVD, Apr. 29, 30, 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	5.44	4.95	4.64	4.35	4.24	3.89	4.08	4.94	5.12	5.56	5.35	6.18	
10	5.29	4.83	4.61	4.28	4.17	4.08	4.57	4.44	5.59	5.97	5.73	5.86	
15	5.33	4.77	4.53	4.44	4.09	3.93	4.41	4.26	5.64	5.94	5.51	5.72	
20	5.36	4.73	4.44	4.28	4.01	4.34	4.32	4.20	5.81	5.67	5.22	5.64	
25	5.31	4.74	4.44	4.20	3.86	4.22	4.24	4.18	6.00	5.47	5.84	5.57	
EOM	5.08	4.69	4.38	4.29	3.82	4.09	4.10	4.81	5.77	5.54	6.30	5.66	

4.40

4.66



4.94

6.00

5.97

6.30

6.30

WELL NUMBER.--254335080170501. Local Number G 432. USGS Observation Well near Coral Gables, FL.

LOCATION.--Lat 25°43'35", long 80°17'05", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sw  $\frac{1}{4}$  Sec.19, T.54 S., R.41 E., Hydrologic Unit 03090202, at the northwest corner of intersection of Blue Road and Alhambra Circle, 28 ft west of Alhambra Circle and 6 ft north of Blue Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 99.5 ft, cased to 97.5 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 11.54 ft above National Geodetic Vertical Datum of 1929. Prior to October 2005, measuring point was 11.99 ft NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 11.5 ft above NGVD. See REMARKS.

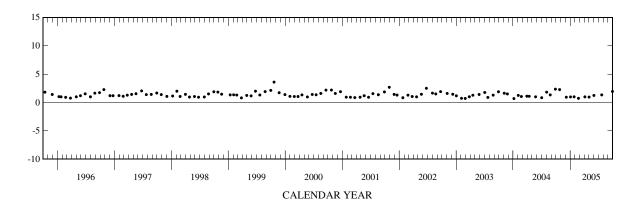
REMARKS.--Well also used for salinity monitoring. The well casing was severed approximately 5 inches from top of casing. This was the result of clean up activity in the area after Hurricane Katrina. The well was reconstructed on September 29, 2005. New set of levels were run and a new measuring point was set at 11.54 ft top of casing. See DATUM.

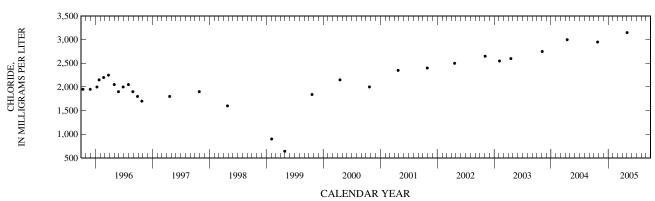
PERIOD OF RECORD.--October 1983 to October 1984 (semiannual), February 1985 to April 1985 (weekly), January 1986 to April 1986 (monthly), October 1986 to October 1990 (semiannual), November 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.37 ft NGVD, Nov. 28, 1994; lowest, 0.11 ft NGVD, Apr. 15, 1985.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
25	1046	2.27	9,250	2,950	02	1054	.95	9,630	3,150
DEC					JUN				
07	1010	.93			02	0950	1.24		
JAN					JUL				
03	1005	.98			22	1050	1.34		
26	1155	1.00			SEP				
FEB					29	0820	1.94		
23	1012	.73							
APR									
05	1041	.99							





WELL NUMBER.--254340080203601. Local Number G 3563. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°43'43", long 80°20'38", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.21, T.54 S., R.40 E., Hydrologic Unit 03090202, at SW 92nd Avenue between SW 43rd Street and SW 43rd Terrace, 7 ft west of curb.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.1 ft, cased to 13.1 ft, open hole 13.1 to 18.1 ft.

INSTRUMENTATION .-- Electronic data logger.

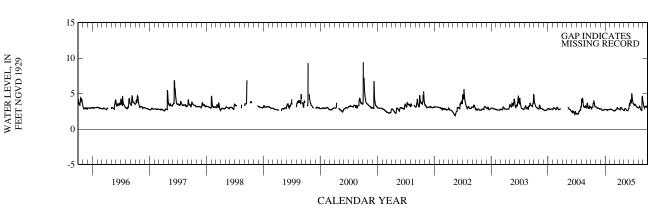
DATUM.--Measuring point: Top of base, 11.97 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 9.3 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.42 ft NGVD, Oct. 3, 2000; lowest, 1.88 ft NGVD, May 15, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.85 3.09 3.61 3.94 3.38 3.14	3.10 2.97 2.98 2.93 2.88 2.82	2.87 2.72 2.66 2.68 2.72 2.76	2.78 2.74 2.65 2.75 2.74 2.79	2.81 2.78 2.72 2.65 2.59 2.57	2.62 2.72 2.76 3.03 2.86 2.84	2.78 3.05 3.01 2.83 2.73 2.63	2.77 2.90 2.76 2.62 2.59 2.81	3.57 3.83 3.67 4.97 4.09 3.60	3.41 3.50 3.39 3.17 3.09 3.01	3.00 3.23 2.88 2.64 4.33 3.84	3.27 2.96 3.17 3.15 3.15 3.24
MAX	3.94	3.12	2.87	2.79	2.81	3.03	3.05	2.90	4.97	3.60	4.61	3.77



WELL NUMBER.--254421080260201. Local Number G 3439. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°44'21", long 80°26'02", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 16, T.54 S., R.39 E., Hydrologic Unit 03090202, on north side of SW 30th Street, 500 ft west of SW 147th Avenue, 0.75 mi north of Bird Road, 15 mi west of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 12 ft, cased to 10 ft, open hole 10 ft to 12 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of flange, 8.51 ft above National Geodetic Vertical Datum of 1929. From October 5, 1999 to March 14, 2002, the measuring point was 7.49 ft above NGVD. From June 22, 1999 to October 5, 1999, the measuring point was top of base 7.56 ft above NGVD. From April 30, 1987 to March 23, 1994, top of base was 7.89 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 5.9 ft above NGVD.

REMARKS.--Station reconstructed June 1994, October 5, 1999, March 14, 2002. See DATUM.

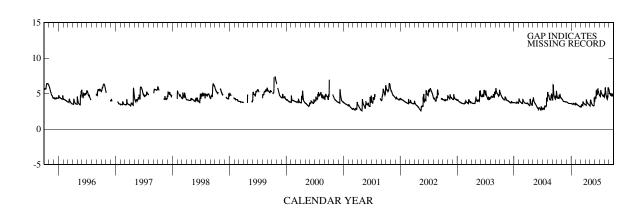
PERIOD OF RECORD .-- April 1987 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.44 ft NGVD, Oct. 16, 1999; lowest, 2.15 ft NGVD, May 23, 1990.

ELEVATION AROVE NOVD 1020 FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAXIMUM MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.46	4.18	3.80	3.58	3.46	3.27	3.41	4.10	4.49	4.65	4.91	5.03
10	4.40	3.95	3.71	3.51	3.42	3.46	3.95	3.73	5.36	5.44	5.37	4.72
15	4.70	3.91	3.63	3.64	3.33	3.34	3.71	3.47	4.88	5.00	4.58	4.76
20	4.91	3.87	3.61	3.57	3.25	3.75	3.55	3.31	5.64	4.80	4.21	4.90
25	4.48	3.84	3.61	3.46	3.16	3.56	3.42	3.27	5.28	4.61	5.72	4.67
EOM	4.30	3.82	3.59	3.61	3.15	3.45	3.29	3.96	4.83	4.57	5.63	4.82
MAX	4.91	4.29	3.80	3.66	3.58	3.85	4.18	4.45	5.66	5.44	5.88	5.38



WELL NUMBER.--254432080240401. Local Number G 3572. USGS Observation Well near Miami, FL.

LOCATION.—Lat 25°44'32", long 80°24'04", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec.14, T.54 S., R.39 E., Hydrologic Unit 03090202, 6 ft from edge of pavement in southwest corner of cul-de-sac at SW 27th Terrace and SW 127th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.4 ft, cased to 14.4 ft, open hole 14.4 to 19.4 ft.

INSTRUMENTATION .-- Electronic data logger.

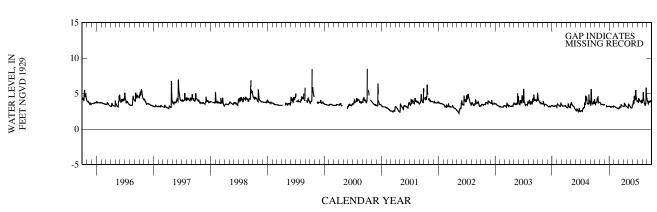
DATUM.--Measuring point: Top of base, 11.01 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.50 ft NGVD, Oct. 3, 2000; lowest, 2.20 ft NGVD, May 14, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20	3.46 3.77 4.26 4.54	3.71 3.43 3.49 3.45	3.14 3.17	3.19 3.14 3.18 3.18	3.16 3.12 3.03 2.97	3.00 3.15 3.09 3.43	3.17 3.59 3.42 3.25	3.53 3.39 3.15 2.99	3.97 4.70 4.03 5.50	3.86 4.28 4.07 3.91	4.10 4.21 3.59 3.29	3.91 3.70 3.79 3.96
25 EOM	3.72 3.75	3.44 3.42	3.20 3.22	3.12 3.23	2.92 2.88	3.26 3.22	3.13 3.01	2.97 3.37	4.33 3.83	3.82 3.76	5.56 4.29	3.83 3.89
MAX	4.55	3.75		3.24	3.22	3.46	3.63	3.53	5.50	4.36	5.83	4.14



WELL NUMBER.--254442080305201. Local Number G 3576. USGS Observation Well near Miami, FL.

 $LOCATION.--Lat~25^{\circ}44'44'', long~80^{\circ}30'51'', NE~\frac{1}{4}~sec.~13, T.54~S., R.38~E., Hydrologic~Unit~03090202,~1.1~mi~south~of~U.S.~Highway~41~(Tamiami~Trail)~and~1.03~mi~west~of~levee~on~west~side~of~L-31N~Canal.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 9.6 ft.

INSTRUMENTATION .-- Satellite data collection platform.

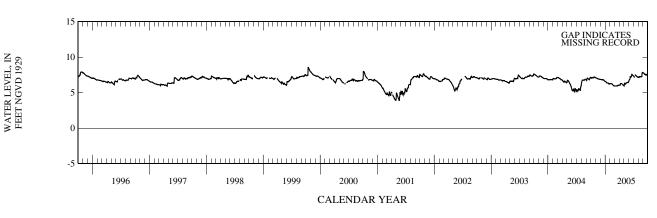
DATUM.--Measuring point: Top of base, 9.51 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.0 ft above NGVD.

PERIOD OF RECORD .-- March 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.55 ft NGVD, Oct. 16, 1999; lowest, 3.85 ft NGVD, May 22, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	7.11 7.07 7.14 7.15 7.20 7.10	7.06 7.00 6.96 6.92 6.88 6.88	6.84 6.84 6.80 6.72 6.60	6.52 6.41 6.36 6.34 6.23 6.26	6.26 6.26 6.21 6.07 5.96 5.96	5.95 5.94 5.94 6.00 6.02 6.05	6.05 6.26 6.27 6.21 6.10 5.98	6.33 6.21 6.35 6.39 6.44 6.52	6.80 7.23 7.18 7.55 7.46 7.36	7.23  7.44 7.33 7.20 7.17	7.13 7.23 7.25 7.24 7.68 7.79	7.77 7.59 7.56 7.57 7.55 7.57
MAX	7.21	7.09	6.86	6.58	6.26	6.07	6.27	6.52	7.58		7.85	7.77



WELL NUMBER.--254444080144801. Local Number F 179. USGS Observation Well near South Miami, FL.

 $LOCATION.-Lat~25^{\circ}44'44'', long~80^{\circ}14'48'', in~SE~\frac{1}{4}~NW~\frac{1}{4}~sec.16, T.54~S., R.41~E., Hydrologic~Unit~03090202, at northwest corner of SW~24th~Terrace~and~SW~32nd~Avenue, 0.5~mi~north~of~U.S.~Highway~1, and 3.8~mi~northeast~of~South~Miami.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 77 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of plywood base, 11.26 ft above National Geodetic Vertical Datum of 1929. Prior to December 1982, measuring point was top of casing, 11.17 ft above NGVD.

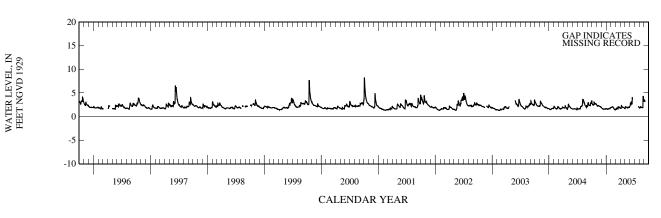
LAND-SURFACE DATUM.--Land surface is approximately 9.5 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--May 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.16 ft NGVD, Oct. 4, 2000; lowest, 0.69 ft NGVD, Mar. 18, 1943.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.54	2.24	1.76	1.64	1.96	1.67	1.69	2.12	2.86		1.84	3.44
10	2.44	2.31	1.65	1.53	2.09	1.83	2.24	1.98	3.09		2.10	
15	3.07	2.24	1.55	1.65	1.97	1.67	1.97	1.87	2.59		1.97	
20	2.63	2.18	1.61	1.72	1.68	1.96	1.95	1.81			1.89	
25	2.72	2.11	1.64	1.68	1.45	2.05	1.88	1.96		2.18	4.20	
EOM	2.54	1.94	1.69	1.94	1.49	1.84	1.70	2.07		1.93	3.23	
MAX	3.10	2.50	1.91	1.94	2.09	2.09	2.32	2.12			4.35	



WELL NUMBER.--254445080295001. Local Number G 3559. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°44′45", long 80°29′50", in SE  $^{1}\sqrt{_{4}}$  SE  $^{1}\sqrt{_{4}}$  SE  $^{1}\sqrt{_{4}}$  sec.11, T.54 S., R.38 E., Hydrologic Unit 03090202, 1 mi south of Tamiami Trail (U.S. Highway 41) and 100 ft east of L-31N Canal.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 19.5 ft, cased to 14.5 ft, screened 14.5 to 19.5 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of shelf, 11.11 ft above National Geodetic Vertical Datum of 1929. During the 1994 water year the measuring point was incorrectly considered to be 11.38 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.6 ft above NGVD.

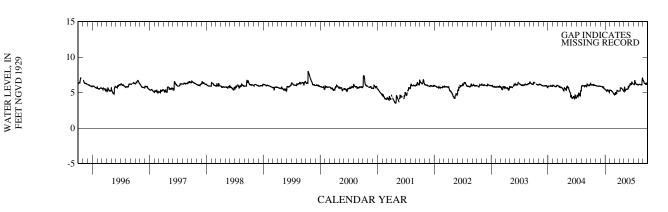
REMARKS.--The figures of water levels as elevation, in feet NGVD, published for the 1994 water year are in error. Corrected records are in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- April 1994 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.97 ft NGVD, Oct. 15, 1999; lowest, 3.51 ft NGVD, Apr. 27-29, 2001.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.08	5.96	5.87	5.37	5.33	4.86	5.21	5.77	5.97	6.15	6.08	6.58
10	6.08	5.93	5.86	5.25	5.29	5.01	5.68	5.26	6.29	6.75	6.16	6.30
15	6.18	5.92	5.81	5.39	5.11	4.84	5.63	5.45	6.13	6.40	6.13	6.26
20	6.11	5.91	5.75	5.29	5.01	5.27	5.51	5.43	6.47	6.19	6.09	6.36
25	6.06	5.92	5.58	5.14	4.81	5.23	5.35	5.52	6.31	6.10	6.56	6.18
EOM	5.98	5.90	5.47	5.34	4.76	5.23	5.20	5.67	6.22	6.09	6.75	6.20
MAX	6.18	6.00	5.89	5.46	5.34	5.33	5.68	5.78	6.56	6.75		6.69



WELL NUMBER.--254446080295501. Local Number G 3574. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°44'46", long 80°29'55", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.14, T.54 S., R.38 E., Hydrologic Unit 03090202, 1.06 mi south of U.S. Highway 41 (Tamiami Trail) next to levee on west side of L-31N Canal.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 6.8 ft.

INSTRUMENTATION .-- Satellite data collection platform.

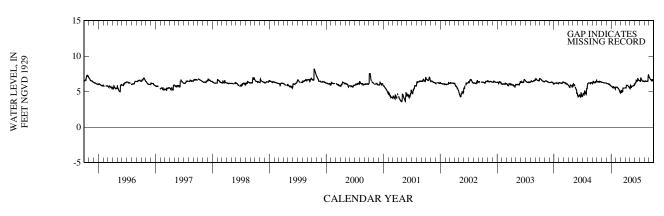
DATUM.--Measuring point: Top of base, 8.88 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

PERIOD OF RECORD .-- February 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.18 ft NGVD, Oct. 15, 16, 1999; lowest, 3.58 ft NGVD, Apr. 27-29, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	6.38 6.39 6.51 6.44 6.40 6.32	6.30 6.27 6.25 6.23 6.23 6.19	6.14 6.12 6.10 6.03 5.92 5.79	5.75 5.58 5.70 5.60 5.46 5.63	5.65 5.59 5.44 5.31 5.02 4.88	5.00 5.17 4.98 5.51 5.51 5.52	5.53 5.90 5.88 5.77 5.65 5.46	5.94 5.57 5.77 5.78 5.85 5.95	6.24 6.62 6.46 6.83 6.66 6.54	6.48 6.99 6.71 6.51 6.42 6.43	6.41 6.48 6.46 6.44 6.90 7.08	6.96 6.70 6.62 6.71 6.55 6.57
MAX	6.51	6.32	6.18	5.78	5.65	5.52	5.90	6.01	6.88	6.99	7.37	7.02



WELL NUMBER.--254457080160301. Local Number G 3229. USGS Observation Well near Coral Gables, FL.

LOCATION.--Lat 25°44'57", long 80°16'03", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.8, T.54 S., R.41 E., Hydrologic Unit 03090202, near intersection of Coral Way and Segovia at east end of golf course.

AQUIFER.--Biscayne limestone aquifer of Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 85 ft.

INSTRUMENTATION .-- Monthly measurement with chalk tape.

DATUM.--Measuring point: Top of casing, 6.92 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 6.9 ft above NGVD.

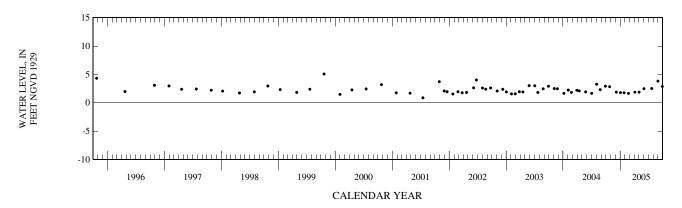
REMARKS.--Well is also used for salinity monitoring.

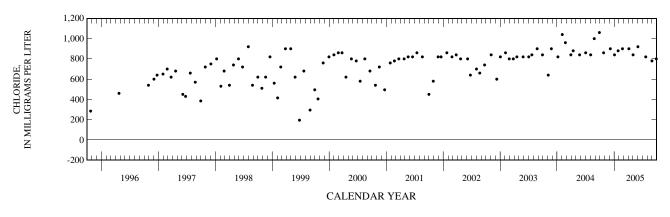
PERIOD OF RECORD.--October 1993 to April 1996 (semiannual); October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.08 ft NGVD, Oct. 21, 1999; lowest, 0.88 ft NGVD, July 16, 2001.

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

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					MAY				
25	1020	2.84	3,090	860	02	1012	1.88	3,040	840
DEC					JUN			,	
07	0920	1.88	3,400	900	02	0910	2.48	3,110	920
JAN					JUL				
03	0915	1.79	3,140	840	22	1005	2.52	2,980	820
26	1122	1.77	2,970	880	AUG				
FEB					31	1100	3.82	2,160	780
23	0937	1.66	3,180	900	SEP				
APR					28	1037	2.87	2,980	800
05	1011	1.88	3,050	900					





WELL NUMBER.--254500080360001. Local Number G 618. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°45'40", long 80°36'00", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 12, T.54 S., R.37 E., Hydrologic Unit 03090202, on south side of U.S. Highway 41, 7.4 mi west of State Road 997 (Krome Avenue), and 25 mi west of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, cased to 11 ft.

INSTRUMENTATION .-- Electronic data recorder.

DATUM.--Measuring point: Top of base, 10.17 ft above National Geodetic Vertical Datum of 1929.

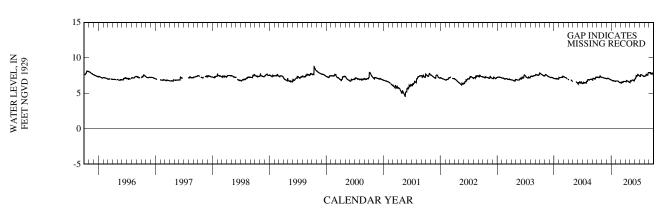
LAND-SURFACE DATUM.--Land surface is approximately 7.4 ft above NGVD.

REMARKS.--Records of water levels prior to January 1957 are available in the files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.52 ft NGVD, Nov. 2, 1960; lowest, 2.56 ft NGVD, May 2, 1962.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	7.24 7.24	7.24 7.20	7.05 7.12	6.84 6.78	6.74 6.73	6.52 6.58	6.64 6.78	6.78 6.71	7.06 7.48	7.42 7.64	7.39 7.47	7.93 7.79
15 20 25	7.27 7.43 7.35	7.17 7.13 7.11	7.09 7.02 6.95	6.80 6.74 6.70	6.70 6.60 6.51	6.50 6.63 6.67	6.72 6.68 6.59	6.86 6.85 6.76	7.42 7.68 7.54	7.59 7.52 7.42	7.61 7.53 7.80	7.79 7.82 7.79
EOM	7.26	7.11	6.89	6.70	6.49	6.65	6.52	6.91	7.34	7.42	7.80	7.79
MAX	7.45	7.26	7.12	6.88	6.74	6.67	6.80	6.91	7.68	7.64	7.93	7.93



WELL NUMBER.--254536080172601. Local Number G 3570. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°45'36", long 80°17'26", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 12, T.54 S., R.40 E., Hydrologic Unit 03090202, at the northeast corner of SW 11th Street and SW 58th Avenue, 10 ft south of SW 11th Street and 22 ft west of SW 58th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.7 ft, cased to 13.7 ft, open hole 13.7 to 18.7 ft.

INSTRUMENTATION .-- Electronic data logger.

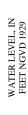
DATUM.--Measuring Point: Top of base, 13.28 ft above National Geodetic Vertical Datum of 1929.

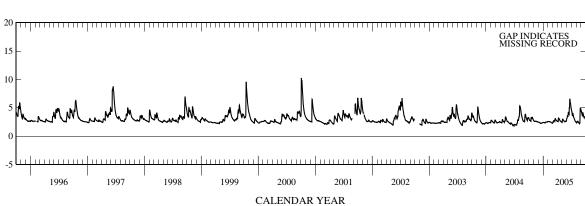
LAND-SURFACE DATUM .-- Land surface is approximately 10.3 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.16 ft NGVD, Oct. 3, 2000; lowest, 1.78 ft NGVD, June. 28, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	2.87 2.73 3.24 3.10 3.24 2.80	2.61 2.62 2.63 2.59 2.55 2.48	2.46 2.35 2.28 2.30 2.35 2.40	2.42 2.36 2.46 2.49 2.48 2.59	2.58 2.56 2.53 2.44 2.34 2.30	2.54 2.75 2.70 3.10 2.78 2.65	2.59 3.21 2.95 2.70 2.57 2.44	2.98 2.86 2.64 2.52 2.63 2.96	3.55 4.08 3.84 6.44 5.85 4.69	3.96 4.02 3.38 3.00 2.64 2.45	2.44 2.64 2.46 2.24 3.82 4.60	4.16 3.48 3.82 3.37 3.19 2.96
MAX	3.33	2.73	2.47	2.59	2.59	3.10	3.21	3.00	6.48	4.65	4.97	4.60





WATER LEVEL, IN FEET NGVD 1929

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254629080143101. Local Number G 3605. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°46′29", long 80°14′31", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.4, T.54 S., R.41 E., Hydrologic Unit 03090202, at northwest corner of Dade County Auditorium parking lot, northwest of the intersection of NW 29th Avenue and Flagler Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 110 ft, cased to 105 ft, screened 105 to 110 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 13.17 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 13.2 ft above NGVD.

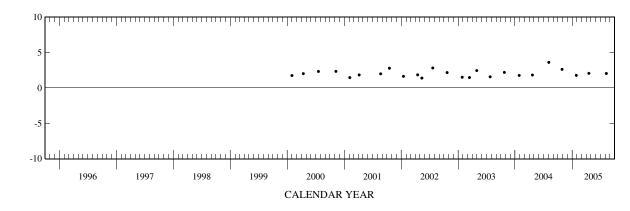
REMARKS.--Well is also used for quarterly salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. The induction log for the 2002 water year was not published because the data was considered questionable. This data may be published in subsequent years pending continued assessment of data quality. Salinity monitoring began September 1995. Water-level measurements began January 2000.

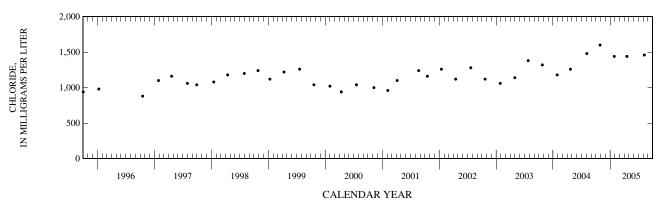
PERIOD OF RECORD.--September 1995 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.61 ft NGVD, Aug. 4, 2004; lowest, 1.39 ft NGVD, May 13, 2002.

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

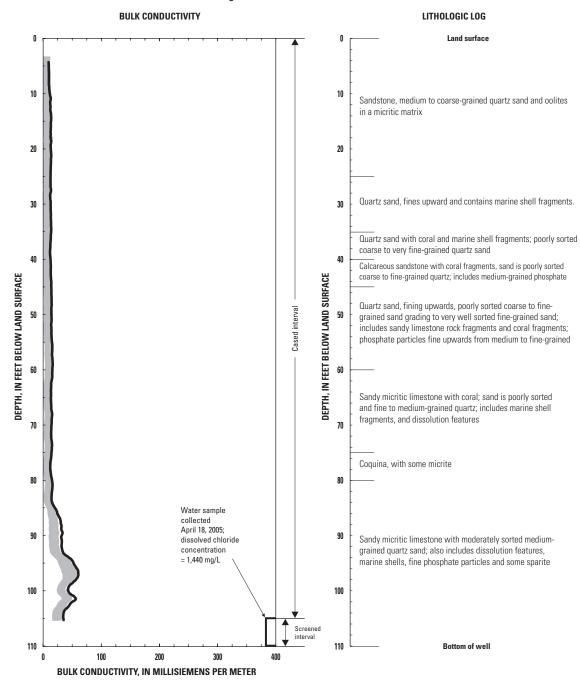
Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	1118	2.62	5,250	1,600	18	1246	2.06	4,750	1,440
JAN					AUG				
27	1042	1.78	4,890	1,440	08	1045	2.04	5,120	1,460





WELL NUMBER.--254629080143101. Local Number G 3605. USGS Observation Well near Miami, FL-Continued

# Induction log for Well 254629080143101. Local Number G-3605



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 14, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 16, 1996 to April 21, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254657080214401. Local Number G 3568. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°46'57", long 80°21'44", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.32, T.53 S., R.40 E., Hydrologic Unit 03090202, 10 ft south of edge of NW 12th Street and 1,742 ft east of NW 107th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 16.8 ft, cased to 11.8 ft, open hole 11.8 to 16.8 ft.

INSTRUMENTATION .-- Electronic data logger.

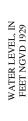
DATUM.--Measuring point: Top of base, 11.15 ft above National Geodetic Vertical Datum of 1929.

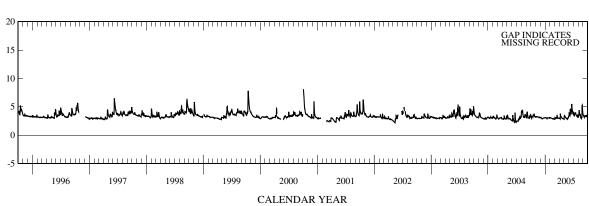
LAND-SURFACE DATUM.--Land surface is approximately 7.8 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.05 ft NGVD, Oct. 3, 4, 2000; lowest, 2.17 ft NGVD, May 14, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	3.02 3.21 3.54 3.66 3.37 3.19	3.30 3.21 3.25 3.13 3.18 3.08	3.16 2.91 2.89 3.01 3.04 3.10	3.07 3.02 3.08 3.05 3.00 3.11	3.04 3.00 2.92 2.87 2.87 2.84	2.98 3.12 3.02 3.24 2.99 2.97	2.94 3.38 3.17 2.98 2.89 2.85	3.45 3.19 2.98 2.93 2.88 3.21	3.71 4.55 3.65 5.50 4.20 4.11	3.46 3.87 4.00 3.47 3.26 3.26	3.84 3.66 3.32 2.92 5.23 3.68	3.50 3.37 3.32 3.48 3.37 3.50
MAX	3.78	3.30	3.16	3.13	3.09	3.49	3.82	3.45	5.50	4.06	5.28	3.56





WELL NUMBER.--254720080253002. Local Number G 3676. USGS Observation Well near Miami, FL.

 $LOCATION.--Lat~25^{\circ}47'20'', long~80^{\circ}25'30'', in~NW~\frac{1}{4}~NW~\frac{1}{4}~SE~\frac{1}{4}~sec.34, T.53~S., R.39~E., Hydrologic~Unit~03090202, on north side of service road and north side of conveyor belt, on Rinker Materials property, 0.4 mi west of NW~137th~Avenue~1.7 mi north of U.S. Highway~41~(Tamiami Trail).$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 33 ft, cased to 23 ft, screened 23 to 33 ft.

INSTRUMENTATION .-- Electronic data logger.

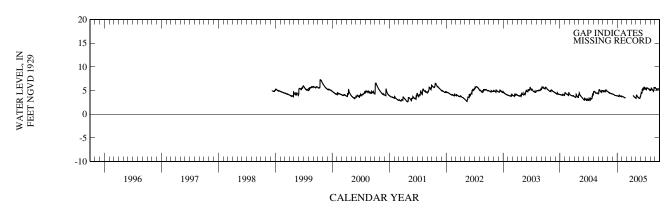
DATUM.--Measuring point: Top of shelf, 10.90 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 8.3 ft above NGVD.

PERIOD OF RECORD.--December 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.30 ft NGVD, Oct. 16, 17, 1999; lowest, 2.63 ft NGVD, Apr. 29, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.85	4.68	4.26	3.87	3.74			4.06	4.51	5.32	5.18	5.48
10 15	4.84 4.96	4.53 4.52	4.16 4.06	3.81 4.06	3.67 3.56		3.87	3.81 3.58	5.13 5.10	5.59 5.55	5.45 5.17	5.25 5.29
20	5.18	4.39	3.98	3.86	3.47		3.66	3.44	5.60	5.38	4.91	5.38
25	4.99	4.38	3.95	3.76			3.56	3.36	5.58	5.26	5.66	5.34
EOM	4.83	4.30	3.92	3.82			3.41	3.80	5.54	5.15	5.68	5.31
MAX	5.18	4.81	4.29	4.13				4.06	5.72	5.59	5.68	5.64



WELL NUMBER.--254722080152201. Local Number G 3604. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°47'22", long 80°15'22", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.32, T.53 S., R.41 E., Hydrologic Unit 03090202, at north side of parking lot of Stephen Clark Building, at intersection of NW 37th Avenue and NW 17th Street, 57 ft west of sidewalk, 0.3 mi north of State Road 836.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 120 ft, cased to 115 ft, screened 115 to 120 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring Point: Top of casing, 5.03 ft above National Geodetic Vertical Datum of 1929.

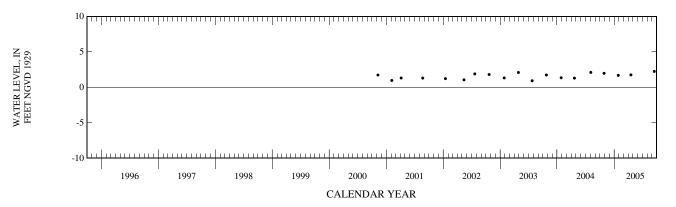
LAND-SURFACE DATUM .-- Land surface is approximately 5.0 ft above NGVD.

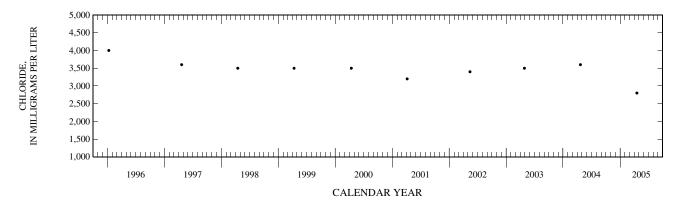
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998 and 2000) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began August 1995. Water-level measurements began November 2000.

PERIOD OF RECORD .-- August 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.24 ft NGVD, Sept. 15, 2005; lowest, 0.96 ft NGVD, Feb. 5, 2001.

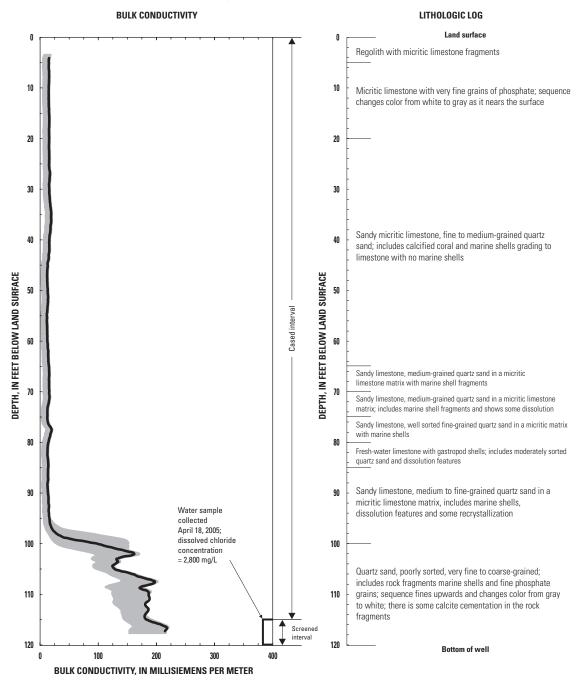
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	1059	1.97			18	1029	1.75	11,300	2,800
JAN					SEP				
27	1027	1.68			15	1300	2.24		





WELL NUMBER.--254722080152201. Local Number G 3604. USGS Observation Well near Miami, FL-Continued

# Induction log for Well 254722080152201. Local Number G-3604



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 18, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from August 29, 1995 to April 21, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254752080181501. Local Number G 3329. USGS Observation Well near Miami Springs, FL.

LOCATION.—Lat 25°47′52", long 80°18′15", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.25, T.53 S., R.40 E., Hydrologic Unit 03090202, on the west side of Miami International Airport, 314 ft north of NW 25th Street, 0.5 mi east of Milam Dairy Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 54.6 ft, cased to 53 ft.

INSTRUMENTATION .-- Electronic data logger.

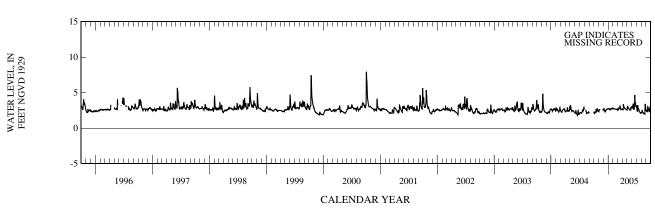
DATUM.--Measuring point: Top of plywood base, 9.30 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

PERIOD OF RECORD .-- January 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.86 ft NGVD, Oct. 4, 2000; lowest, 1.63 ft NGVD, Feb. 12, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	2.05 2.23 2.63 2.37 2.53	2.61 2.65  	2.75 2.38 2.36 2.60 2.68	2.72 2.66 2.73 2.72 2.70	2.73 2.70 2.69 2.65 2.65	2.79 2.84 2.77 2.90 2.62	2.60 3.11 2.86 2.73 2.65	3.07 2.87 2.68 2.61 2.62	3.10 3.40 2.62 4.61 3.58	2.50 3.15 2.68 2.34 2.17	2.27 2.19 2.11 2.02 3.00	2.38 2.47 2.65 2.59 2.39
EOM	2.35	2.62	2.76	2.80	2.58	2.63	2.57	2.98	3.08	2.18	2.49	2.78
MAX	2.72		2.76	2.84	2.77	3.10	3.37	3.07	4.66	3.22	3.41	3.04



WELL NUMBER.--254813080161501. Local Number G 1351. USGS Observation Well near Miami Springs, FL.

LOCATION.--Lat 25°48'13", long 80°16'15", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 29, T.53 S., R.41 E., Hydrologic Unit 03090202, approximately 3 ft north of access road between canal and fence, behind the former Eastern Airlines hanger, west of Le Jeune Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 103 ft, cased to 100 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 6.80 ft above National Geodetic Vertical Datum of 1929. Prior to November 22, 2002, measuring point was 6.52 ft above NGVD. See REMARKS.

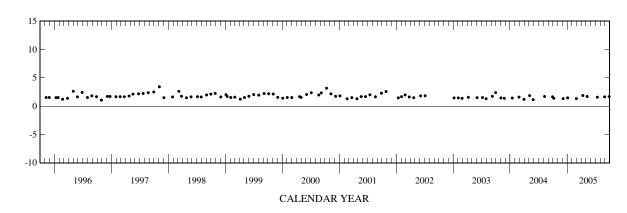
LAND-SURFACE DATUM.--Land surface is approximately 6.8 ft above NGVD. Prior to November 22, 2002, land surface was approximately 6.5 ft above NGVD. See REMARKS.

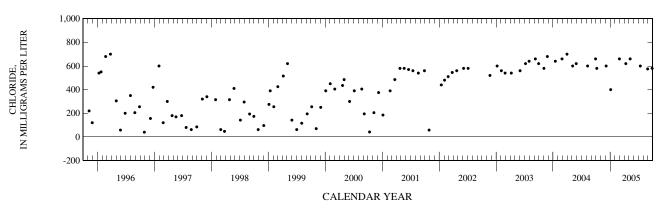
REMARKS.--Well also used for salinity monitoring. The well was buried by road construction in August 2002. In November 22, 2002, the well was uncovered and reconstructed. As a result both land surface and the measuring point changed. See DATUM and LAND-SURFACE DATUM.

PERIOD OF RECORD.--October 1975 to September 1990 (intermittent), October 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.41 ft NGVD, Nov. 4, 1997; lowest, 1.18 ft below NGVD, Oct. 7, 1986.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
07	1357	1.38	2,410	580	09	1304	1.70	2,300	660
DEC					JUL				
06	1312	1.32	2,520	600	13	1230	1.58	2,240	600
JAN					AUG				
04	1320	1.46	2,420	400	29	1005	1.63	1,710	575
MAR					SEP				
01	1432	1.33	2,110	660	27	1058	1.68	2,220	580
APR			•					•	
11	1340	1.87	2 320	620					





WELL NUMBER.--254822080125501. Local Number G 3704. USGS Observation Well in Miami, FL.

LOCATION.--Lat 25°48'22", long 80°12'55", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.26, T.53 S., R.41 E., Hydrologic Unit 03090202, in the southeast corner of the Metrorail parking lot, 36 ft north of NW 32nd Street and 55 ft west of NW 11th Place.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 112 ft, cased to 107 ft, screened 107 to 112 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.36 ft above National Geodetic Vertical Datum of 1929.

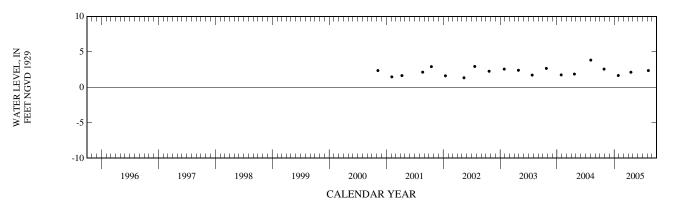
LAND-SURFACE DATUM.--Land surface is approximately 10.4 ft above NGVD.

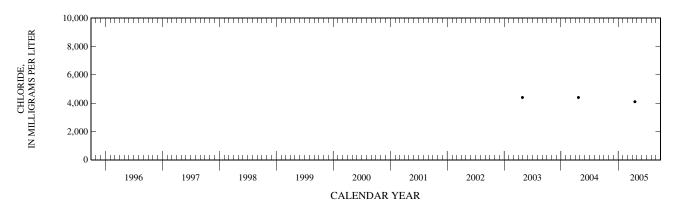
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of the book. Induction logging began April 2000. Water-level measurements began November 2000. Salinity monitoring began in April 2003.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.83 ft NGVD, Aug. 4, 2004; lowest, 1.34 ft NGVD, May 14, 2002.

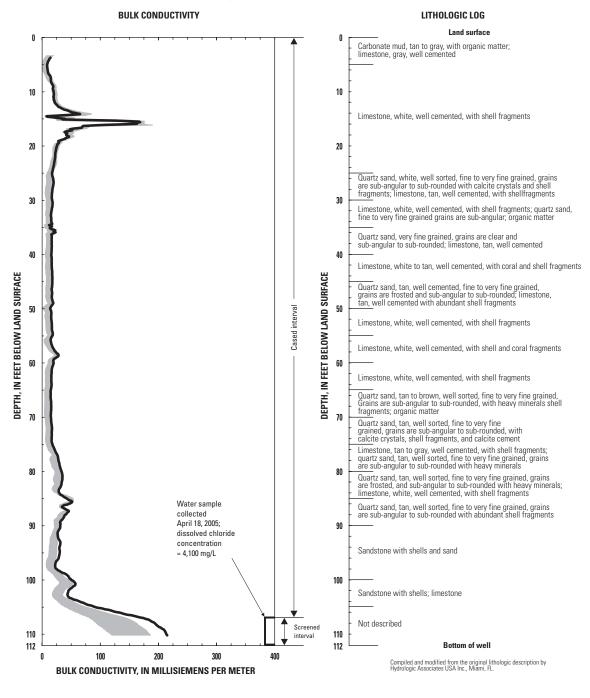
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	1000	2.56			18	0820	2.12	15,400	4,100
JAN					AUG				
27	1005	1.66			08	1011	2.36		





WELL NUMBER.--254822080125501. Local Number G 3704. USGS Observation Well in Miami, FL-Continued

#### Induction log for Well 254822080125501. Local Number G-3704



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 18, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 18, 2000 to April 21, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254823080163701. Local Number G 3327. USGS Observation Well near Miami Springs, FL.

LOCATION.—Lat 25°48'23", long 80°16'37", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.30, T.53 S., R.41 E., Hydrologic Unit 03090202, near the intersection of NW 36th Street and Le Jeune Road, 0.2 mi south of NW 36th Street, 1.3 mi west of Le Jeune Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 54 ft, cased to 53 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.06 ft above National Geodetic Vertical Datum of 1929.

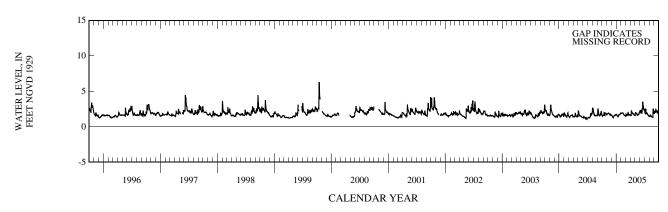
LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD. See REMARKS.

REMARKS.--Because of construction around well, the land surface was lowered during the 2003 water year.

PERIOD OF RECORD .-- May 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.30 ft NGVD, Oct. 15, 1999; lowest, 0.85 ft NGVD, Feb. 10, 11, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.52	1.81	1.62	1.66	1.94	1.69	1.58	1.99	2.25	1.91	1.55	2.17
10	1.61	1.88	1.34	1.50	1.95	1.77	2.16	1.91	2.32	2.38	1.51	2.21
15	2.00	1.87	1.31	1.55	1.90	1.62	1.91	1.66	1.92	2.02	1.43	2.20
20	1.62	1.76	1.58	1.74	1.68	1.88	1.87	1.64	3.51	1.83	1.37	2.22
25	1.92	1.80	1.65	1.70	1.54	1.65	1.71	1.74	2.71	1.62	2.43	1.92
EOM	1.74	1.60	1.74	1.91	1.56	1.64	1.58	2.06	2.41	1.51	1.92	2.04
MAX	2.00	1.92	1.74	1.92	1.96	2.02	2.30	2.06	3.51	2.55	2.54	2.43



WELL NUMBER.--254823080175201. Local Number G 3465. USGS Observation Well near Virginia Gardens, FL.

LOCATION.--Lat 25°48'23", long 80°17'52", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.25, T.53 S., R.40 E., Hydrologic Unit 03090202, on the north side of the USDA parking lot on NW 62nd Avenue, 600 ft south of NW 36th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 28.8 ft, cased to 28.8 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 10.36 ft above National Geodetic Vertical Datum of 1929. Prior to January 26, 1998, the measuring point was top of base 10.35 ft NGVD.

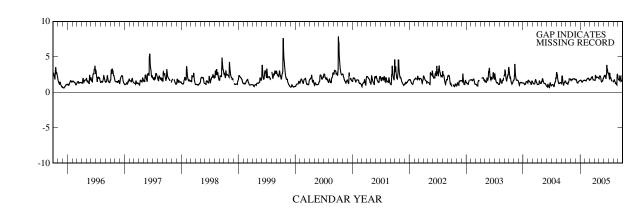
LAND-SURFACE DATUM.--Land surface is approximately 8.2 ft above NGVD.

PERIOD OF RECORD .-- January 1988 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.79 ft NGVD, Oct. 4, 2000; lowest, 0.18 ft NGVD, Feb. 12, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.26	1.80	1.83	1.71	1.64	1.83	1.70	2.30	2.38	2.23	1.64	1.80
10	1.23	1.79	1.51	1.53	1.71	1.81	2.35	2.27	2.33	2.69	1.59	1.81
15	1.39	1.89	1.32	1.48	1.89	2.08	2.06	1.66	1.94	2.05	1.25	2.16
20	1.54	1.92	1.47	1.63	1.99	2.19	2.14	1.51	3.76	1.71	1.28	1.56
25	1.90	1.89	1.59	1.68	1.85	1.74	2.10	1.62	3.20	1.53	2.15	1.67
EOM	1.78	1.76	1.68	1.71	1.73	1.74	1.95	2.04	2.67	1.47	2.06	2.37
MAX	1.90	1.92	1.83	1.71	2.00	2.20	2.38	2.30	3.86		2.54	2.43



WATER LEVEL, IN FEET NGVD 1929

# MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254830080284201. Local Number G 1488. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°49'07", long 80°28'57", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 30, T.53 S., R.39 E., Hydrologic Unit 03090202, 20 ft east of State Road 997 (Krome Avenue), 4 mi north of U.S. Highway 41, and 13.0 mi west of Miami.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.98 ft above National Geodetic Vertical Datum of 1929. Prior to January 3, 2001, the top of base was 9.93 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 7.4 ft above NGVD.

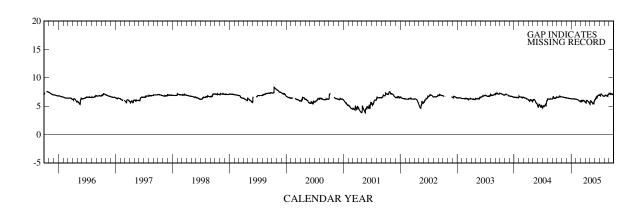
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station reconstructed January 3, 2001.

PERIOD OF RECORD .-- May 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.33 ft NGVD, Oct. 15, 1999; lowest, 2.74 ft NGVD, May 23, 1990.

				WATER		TOBER 2004 MAXIMUN		EMBER 2005				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.55	6.63	6.43	6.29	6.20	5.90	5.60	5.96	6.26	6.87	6.82	7.17
10	6.55	6.60	6.41	6.27	6.14	6.00	6.00	5.81	6.50	7.13	6.92	7.24
15	6.65	6.56	6.37	6.30	6.07	5.92	5.95	5.60	6.50	7.09	6.84	7.18
20	6.78	6.52	6.35	6.29	5.96	6.02	5.82	5.52	6.84	6.92	6.74	7.15
25	6.65	6.50	6.34	6.24	5.86	5.94	5.64	5.43	6.91	6.74	7.01	7.02
EOM	6.62	6.47	6.31	6.23	5.84	5.75	5.37	5.97	6.95	6.79	7.10	7.03
MAX	6.78	6.64	6.47	6.31	6.22	6.05	6.02	5.97	6.95	7.13	7.10	7.29

ELEVATION ABOVE NGVD 1929, FEET



WELL NUMBER.--254832080175001. Local Number S 19. USGS Observation Well in Virginia Gardens, FL.

LOCATION.--Lat 25°48'32", long  $80^{\circ}17'50$ ", in NW $^{1}_{4}$  NE $^{1}_{4}$  sec.25, T.53 S., R.40 E., Hydrologic Unit 03090202, at intersection of NW 62nd Avenue and NW 39th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 95 ft, cased to 91 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.44 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.9 ft above NGVD.

REMARKS.--Water levels affected by pumping. Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

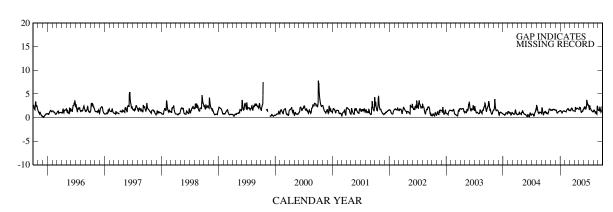
PERIOD OF RECORD .-- January 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.74 ft NGVD, Oct. 3, 4, 2000; lowest, 1.44 ft below NGVD, June 18-21, 1945.

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	0.99	1.64	1.62	1.45	1.28	1.55	1.36	2.18	2.23	1.99	1.49	1.57
10	0.86	1.41	1.10	1.13	1.50	1.53	2.03	2.11	2.07	2.51	1.33	1.59
15	1.01	1.75	0.96	1.18	1.71	1.88	1.84	1.19	1.87	1.92	0.83	1.81
20	1.45	1.72	1.23	1.37	1.89	1.83	2.01	1.27	3.66	1.53	0.95	1.25
EOM	1.78	1.75	1.35	1.43	1.52	1.46	1.87	1.35	3.09	1.33	1.65	1.49
EOM	1.61	1.54	1.45	1.33	1.48	1.41	1.75	1.80	2.60	1.29	1.79	2.31
MAX	1.81	1.77	1.62	1.47	1.89	1.96	2.13	2.18	3.75	2.61	2.43	2.41





WATER LEVEL, IN FEET NGVD 1929

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254833080155801. Local Number G 1354. USGS Observation Well in Miami Springs, FL.

LOCATION.-Lat 25°48'33", long 80°15'58", SW  ${}^{1}\!\!/_{\!\!4}$  SE  ${}^{1}\!\!/_{\!\!4}$  sec.20, T.53 S., R.41 E., Hydrologic Unit 03090202, on west side of Coolidge Drive, 400 ft south of South Royal Poinciana Boulevard, in concrete meter box in line with the fourth bank teller driveway from the north.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 104 ft, cased to 91 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.61 ft above National Geodetic Vertical Datum of 1929.

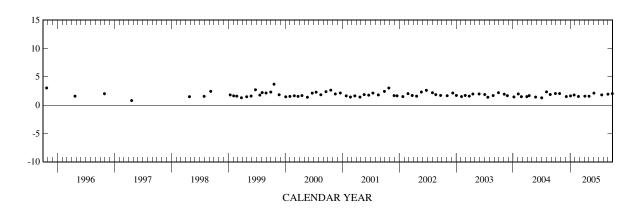
LAND-SURFACE DATUM .-- Land surface is approximately 6.6 ft above NGVD.

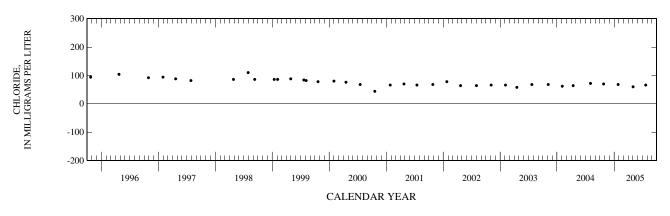
REMARKS.--Well also used for salinity monitoring. Because of an error on site maps, G-1354 was confused with another well. As a result, the figures of water level as elevation, in feet NGVD, and water-quality data from October 1994 to September 1997 are in error. Corrected data are in files of the U.S. Geological Survey.

PERIOD OF RECORD.--May 1976 to July 1997 (semiannual), April 1998 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.69 ft NGVD, Oct. 21, 1999; lowest, 3.11 ft below NGVD, Oct. 11, 1994.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
25	0906	2.04	569	70.0	02	0910	1.57	538	60.0
DEC					JUN				
07	0850	1.51			02	0840	2.11		
JAN					JUL				
03	0857	1.63			22	0902	1.81	539	66.0
26	0905	1.79	529	68.0	AUG				
FEB					31	1036	1.93		
23	0910	1.53			SEP				
APR					28	0959	2.02		
05	0942	1.58							





WELL NUMBER.--254834080171601. Local Number G 3466. USGS Observation Well in Miami Springs, FL.

 $LOCATION.-Lat~25^{\circ}48'34'', long~80^{\circ}17'16'', in~SW~\frac{1}{4}~SW~\frac{1}{4}~sec.19, T.53~S., R.41~E., Hydrologic~Unit~03090202, located~0.25~mi~north~of~Fairway~Drive~on~the~east~side~of~Eldron~Drive, on~the~north~side~of~the~parking~lot~at~Miami~Springs~Golf~Course.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 19.5 ft, cased to 19.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 10.64 ft above National Geodetic Vertical Datum of 1929. Prior to July 2002, measuring point was 10.63 ft above NGVD.

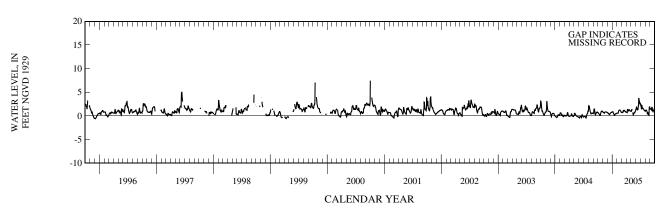
LAND-SURFACE DATUM.--Land surface is approximately 8.3 ft above NGVD.

PERIOD OF RECORD .-- January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.46 ft NGVD, Oct. 3, 2000; lowest, 0.74 ft below NGVD, Jan. 30, 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	0.57	0.74	0.63	0.89	0.58	0.74	0.76	1.27	1.83	1.98	1.18	1.52
10	0.33	0.69	0.44	0.49	0.86	0.73	1.34	1.35	1.30	2.23	1.08	1.26
15	0.19	0.81	0.31	0.16	1.22	1.17	1.12	0.36	1.53	1.69	0.34	1.57
20	0.66	0.85	0.55	0.35	1.21	1.19	1.33	0.59	3.67	1.43	0.49	0.88
25	0.99	0.81	0.71	0.47	0.98	0.96	1.08	0.67	3.05	1.21	0.46	1.22
EOM	0.93	0.71	0.83	0.58	0.80	0.82	0.98	1.14	2.46	1.06	1.53	1.68
MAX	1.02	0.89	0.83	0.89	1.25	1.19	1.34		3.77	2.56	1.92	1.82



**EOM** 

MAX

1.51

#### MIAMI-DADE COUNTY—Continued

WELL NUMBER.--254839080162301. Local Number G 3467. USGS Observation Well in Miami Springs, FL.

LOCATION.—Lat 25°48'39", long 80°16'23", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.20, T.53 S., R.41 E., Hydrologic Unit 03090202, at East Drive Park, 0.10 mi south of Labaron Drive on East Drive. Located on east side of street next to the parking lot.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 27.5 ft, cased to 27.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of shelf, 7.07 ft above National Geodetic Vertical Datum of 1929. Prior to March 2002, measuring point was 5.99 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 4.3 ft above NGVD.

1.38

1996

1997

1998

1999

1.56

1.25

REMARKS.--The well was reconstructed March 26, 2002. See DATUM.

PERIOD OF RECORD .-- January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 5.95 ft NGVD, Oct. 15, 16, 1999; lowest, 0.68 ft NGVD, Feb. 11, 12, 1995.

ELEVATION ABOVE NGVD 1929, FEET

#### WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES OCT DAY NOV DEC **FEB** MAR APR MAY JUN JUL AUG SEP JAN 1.33 1.46 1.36 1.59 1.38 1.33 1.69 2.13 1.92 1.40 2.11 1.05 10 1.38 1.48 1.17 1.62 1.46 1.89 1.64 2.19 2.39 1.37 2.09 15 1.71 1.48 1.00 1.16 1.60 1.41 1.63 1.39 1.85 1.92 1.25 2.09 20 1.42 1.43 1.20 1.34 1.44 1.64 1.59 1.37 3.64 1.69 1.18 2.08 25 1.62 1.42 1.34 1.34 1.25 1.43 1.44 1.45 2.75 1.53 2.19 1.81

1.38

1.29

1.80

2.49

2002

1.38

2003

1.78

2004

2005

1.92

1.71 1.56 1.62 1.75 2.01 1.80 3.64 2.56 2.37 2.32 GAP INDICATES MISSING RECORD 15 WATER LEVEL, IN FEET NGVD 1929 10 -5

2000

CALENDAR YEAR

2001

WELL NUMBER.--254841080164401. Local Number G 571. USGS Observation Well in Miami Springs, FL.

LOCATION.--Lat 25°48'41", long 80°16'44", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.19, T.53 S., R.41 E., Hydrologic Unit 03090202, at northeast corner of intersection of Labaron and De Leon Drive, 60 ft north of Labaron Drive and 20 ft east of De Leon Drive.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.5 in., depth 94.5 ft, cased to 94.5 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.00 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 6.0 ft above NGVD.

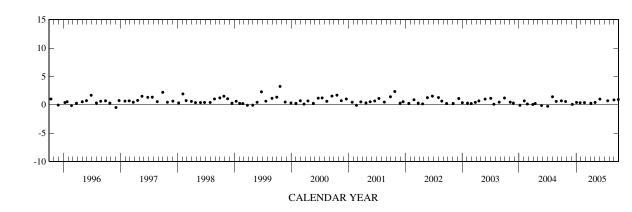
REMARKS .-- Well also used for salinity monitoring.

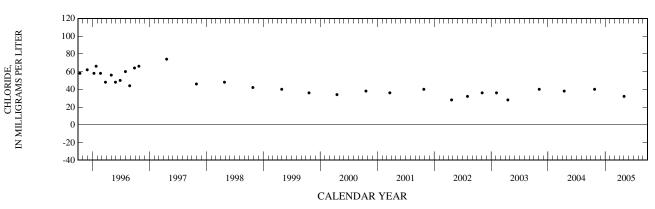
WATER LEVEL, IN FEET NGVD 1929

PERIOD OF RECORD.--October 1975 to September 1990 (intermittent), October 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.24 ft NGVD, Oct. 21, 1999; lowest, 1.00 ft below NGVD, May 16, 1983.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
25	0815	.58	509	40.0	02	0828	.42	451	32.0
DEC					JUN				
07	0835	.08			02	0825	1.01		
JAN					JUL				
03	0840	.42			22	0845	.71		
26	0851	.36			AUG				
FEB					31	1007	.86		
23	0852	.38			SEP				
APR					28	0932	.93		
05	0915	28							





WELL NUMBER.--254855080163701. Local Number G 548. USGS Observation Well in Miami Springs, FL.

LOCATION.--Lat 25°48'55", long 80°16'37", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.19, T.53 S., R.41 E., Hydrologic Unit 03090202, at the northwest corner of intersection of Pinecrest Drive and La Villa Drive, 58 ft west of center of La Villa Drive and 30 ft north of center of Pinecrest Drive.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 97.3 ft, cased to 91.4 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.35 ft above National Geodetic Vertical Datum of 1929.

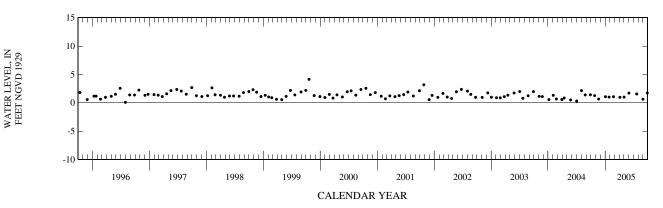
LAND-SURFACE DATUM.--Land surface is approximately 6.4 ft above NGVD.

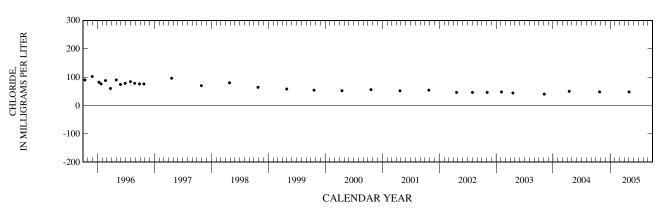
REMARKS .-- Well also used for salinity monitoring.

PERIOD OF RECORD.--October 1975 to September 1990 (intermittent), October 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.13 ft NGVD, Oct. 21, 1999; lowest, 0.08 ft below NGVD, July 27, 1994.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					MAY				
25	0842	1.27	517	48.0	02	0850	1.01	509	48.0
NOV					JUN				
20	0840	.67			02	0830	1.71		
JAN					JUL				
03	0846	1.07			22	0855	1.56		
26	0858	1.00			AUG				
FEB					31	1026	.64		
23	0901	1.07			SEP				
APR					28	0949	1.73		
05	0928	.97							





WELL NUMBER.--254857080171101. Local Number S 68. USGS Observation Well in Miami Springs, FL.

LOCATION.--Lat 25°48'57", long 80°17'11", in NW  $^1\!/_4$  SW  $^1\!/_4$  sec.19, T.53 S., R.41 E., Hydrologic Unit 03090202, in center median of Curtiss Parkway, 75 ft northeast of Deer Run. (Corrected).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 61 ft, cased to 51 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of recorder shelf, 9.68 ft above National Geodetic Vertical Datum of 1929.

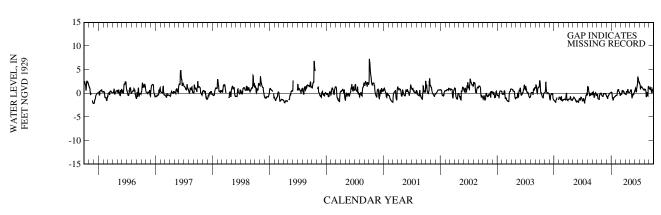
LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

REMARKS.--Water levels affected by pumping. Records of water levels prior to January 1957 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- January 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.18 ft NGVD, Oct. 3, 4, 2000; lowest, 4.39 ft below NGVD, May 5, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-0.29	-0.59	-0.75	0.02	-0.44	-0.22	-0.21	0.68	1.01	1.72	0.88	1.07
10	-1.18	-0.71	-0.82	-0.93	0.44	-0.08	0.40	0.70	0.29	1.54	0.68	0.79
15	-1.30	-0.07	-0.50	-1.21	0.79	0.56	0.57	-1.04	1.36	1.36	-0.41	0.45
20	-0.30	-0.08	-0.15	-0.84	0.39	0.50	0.43	-0.26	3.30	1.10	-0.25	0.06
25	-0.05	-0.09	0.04	-0.68	-0.10	0.08	0.10	-0.24	2.80	0.86	-0.01	0.58
EOM	-0.26	-0.39	0.19	-0.49	-0.42	-0.13	0.24	0.32	2.21	0.69	1.13	1.24
MAX	0.04	-0.07	0.19	0.24	0.80	0.58	0.76	0.73	3.38	2.24	1.45	1.24



WELL NUMBER.--254917080143301. Local Number G 3564. USGS Observation Well near Miami, FL.

LOCATION.--Lat 25°49'17", long 80°14'33", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.21, T.53 S., R.41 E., Hydrologic Unit 03090202, in Metrorail station parking lot at NW 52nd Street and NW 29th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.8 ft, cased to 13.8 ft, open hole 13.8 to 18.8 ft.

INSTRUMENTATION .-- Electronic data logger.

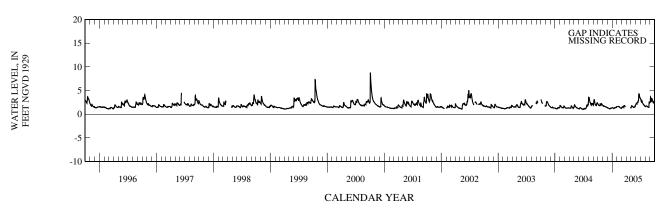
DATUM.--Measuring point: Top of base, 12.90 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 10.2 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.71 ft NGVD, Oct. 3, 4, 2000; lowest, 0.96 ft NGVD, Feb. 11, 12, 1995.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	1.96 1.85	1.70 1.72	1.33 1.24	1.35 1.22	1.61 1.65	1.50 1.62		1.81 1.70	2.30 2.52	2.85 2.95	1.67 1.75	3.53 2.83
15	2.19	1.62	1.16	1.33	1.60	1.49		1.52	2.40	2.37	1.62	3.05
20 25	1.93 2.22	1.58 1.50	1.24 1.31	1.43 1.40	1.44 1.28	1.86 1.65		1.48 1.50	4.12 3.93	2.09 1.88	1.50 2.31	2.70 2.39
EOM	1.92	1.40	1.38	1.61	1.28		1.36	1.91	3.37	1.68	2.61	2.54
MAX	2.26	1.88	1.39	1.61	1.65			1.91	4.22	3.38	2.61	3.68



WELL NUMBER.--254940080172001. Local Number G 1282. USGS Observation Well near Miami Springs, FL.

LOCATION.--Lat 25°49'40", long 80°17'20", SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.18, T.53 S., R.41 E., Hydrologic Unit 03090202, 100 ft south of Miami Canal, in green meter box 18.5 ft north of cement post holding the west end of the guard rail. (Corrected).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 84 ft, cased to 56.8 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.30 ft above National Geodetic Vertical Datum of 1929. Prior to March 24, 1997 measuring point was 10.20 ft above NGVD. From September 1990 to September 1996, measuring point was incorrectly considered to be 9.31 ft above NGVD (measuring point of G-1283). See REMARKS.

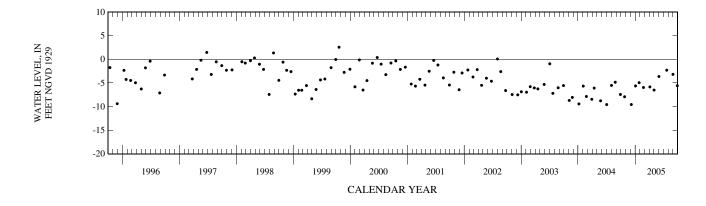
LAND-SURFACE DATUM .-- Land surface is approximately 6.3 ft above NGVD.

REMARKS.--Data collected at this site was published under well ID 254940080172002 (G-1283) from September 1990 to September 1996. The published figures of water level as elevation, in feet NGVD, for this period, are in error. Corrected figures are in the files of the U.S. Geological Survey. See DATUM. The well was originally open to the aquifer from 56.8 to 84 ft. The cased interval is collapsed or obstructed at a depth of 48.1 ft. The well remains in communication with the aquifer.

PERIOD OF RECORD.--January 1966 to June 1984 (daily), October 1984 to May 1985 (semiannual), September 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.55 ft NGVD, Sept. 12, 1971 and May 29, 1984; lowest, 13.31 ft below NGVD, May 10, 1983.

Date	Time	Elev- ation, feet above NGVD (72020)	Date	Time	Elevation, feet above NGVD (72020)
OCT			MAY		
25	0802	-7.92	02	0815	-6.51
DEC			JUN		
07	0822	-9.56	02	0810	-3.64
JAN			JUL		
03	0830	-5.63	22	0832	-2.30
26	0843	-4.94	AUG		
FEB			31	0955	-3.18
23	0842	-5.96	SEP		
APR			28	0924	-5.58
05	0903	-5.84			



WELL NUMBER.--254943080121501. Local Number F 45. USGS Observation Well in Miami, FL.

LOCATION.--Lat 25°49'43", long 80°12'15", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.13, T.53 S., R.41 E., Hydrologic Unit 03090202, at corner of NW 58th Street and NW 5th Avenue in Miami, 1.3 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 84.9 ft.

REVISED RECORDS .-- WDR FL-85-2B:1984.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 12.24 ft above National Geodetic Vertical Datum of 1929. Prior to August 4, 2000, measuring point was top of base 11.97 ft above NGVD.

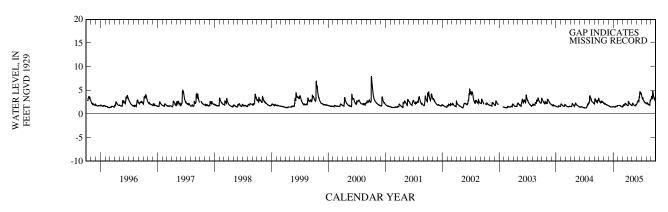
LAND-SURFACE DATUM.--Land surface is approximately 9.8 ft above NGVD.

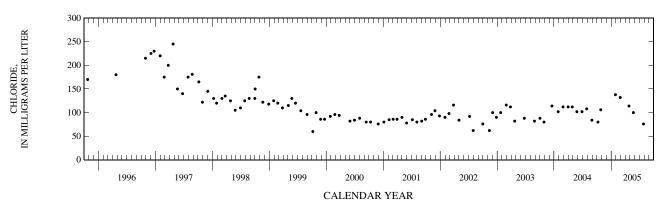
REMARKS.--The station was reconstructed August 4, 2000. Well is also used for salinity monitoring. Records of water levels prior to October 1973 are available in the files of the U.S. Geological Survey.

PERIOD OF RECORD .-- September 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.10 ft NGVD, Sept. 10, 24, 1960; lowest, 1.10 ft NGVD, Apr. 14, 15, 1979.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.75	2.12	1.66	1.52	1.78	1.81	1.78	2.25	2.55	3.49	2.12	3.63
10	2.41	2.15	1.59	1.46	1.79	2.00	2.63	2.06	2.87	3.43	2.17	3.62
15	2.73	2.01	1.48	1.61	1.76	1.88	2.23	1.84	2.75	2.85	2.01	4.11
20	2.43	1.93	1.47	1.62	1.62	2.22	2.05	1.78	4.49	2.51	1.91	3.43
25	2.58	1.83	1.49	1.63	1.51	2.08	1.91	1.73	4.43	2.45	2.68	2.93
EOM	2.31	1.77	1.57	1.78	1.48	1.82	1.76	2.01	4.18	2.32	3.08	3.37
MAX	3.25	2.27	1.75	1.79	1.79	2.22	2.63	2.26	4.60	4.17	3.08	4.83





WELL NUMBER.--254946080172601. Local Number G 3250. USGS Observation Well in Miami Springs, FL.

LOCATION.--Lat 25°49'46", long 80°17'26", in NE  ${}^{1\!\!/}_4$  SE  ${}^{1\!\!/}_4$  sec.13, T.53 S., R.40 E., Hydrologic Unit 03090202, approximately 20 ft west of the intersection of Dove Avenue and North Royal Poinciana Boulevard and 3 ft east of Miami Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 116 ft, cased to 106 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 5.73 ft above National Geodetic Vertical Datum of 1929.

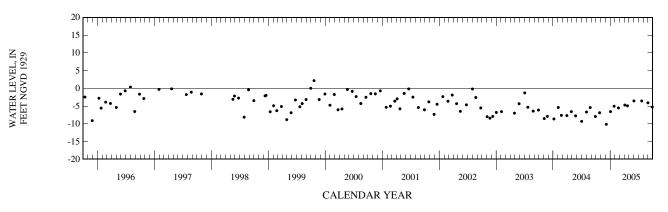
LAND-SURFACE DATUM.--Land surface is approximately 5.7 ft above NGVD.

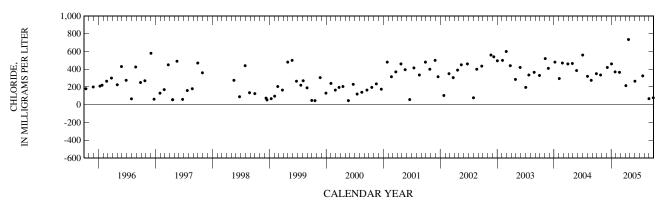
REMARKS.--Well also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book.

PERIOD OF RECORD.--August 1981 to September 1994 (intermittent), October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.16 ft NGVD, Oct. 21, 1999; lowest, 10.15 ft below NGVD, Dec. 7, 2004.

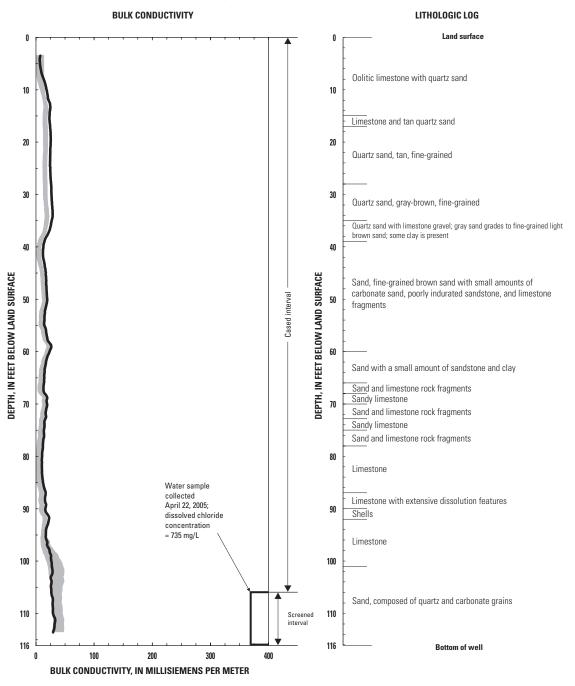
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
25	0738	-6.89	1,540	335	05	0840	-4.72	1,140	215
DEC					22	1230	-4.95	1,450	735
07	0750	-10.15	2,030	420	JUN				
JAN					02	0740	-3.56	1,310	265
03	0802	-6.58	1,940	460	JUL				
26	0810	-5.05	1,670	370	22	0815	-3.57	1,520	325
FEB					AUG				
23	0815	-5.55	1,720	365	31	0915	-4.09	476	68.0
					SEP				
					28	0855	-5.30	680	78.0





WELL NUMBER.--254946080172601. Local Number G 3250. USGS Observation Well in Miami Springs, FL-Continued

# Induction log for Well 254946080172601. Local Number G-3250



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 22, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 21, 1997 to April 27, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--254950080171202. Local Number G 1368A. USGS Observation Well in Hialeah, FL.

LOCATION.—Lat 25°49′50", long 80°17′12", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.18, T.53 S., R.41 E., Hydrologic Unit 03090202, near West 2nd Avenue, 0.3 mi east of Red Road.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 39 ft, cased to 38.4 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 11.49 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 8.8 ft above NGVD.

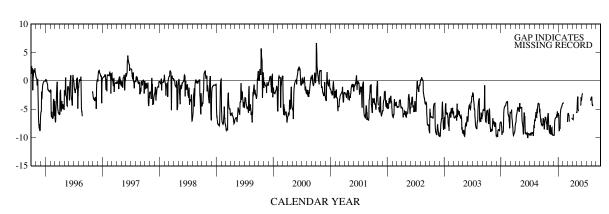
REMARKS .-- Water levels affected by pumping.

WATER LEVEL, IN FEET NGVD 1929

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.75 ft NGVD, Oct. 9, 1991; lowest, 14.01 ft below NGVD, Apr. 28, 29, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-8.11	-8.97	-9.56	-6.96	-3.86	-5.80	-6.79	-2.87	-2.20		-3.40	
10	-6.36	-9.04	-7.04	-8.42		-6.18		-5.10			-4.33	
15	-6.91	-9.23	-6.56	-5.70								
20	-8.01	-8.39	-6.37	-4.79								
25	-6.58	-9.48	-5.92	-4.46				-4.25				
EOM	-7.08	-9.61	-6.16	-3.97		-6.65	-5.57	-3.34		-3.06		
MAX	-5.70	-7.80	-5.39	-3.97								



WELL NUMBER.--254950080180801. Local Number G 3. USGS Observation Well in Miami Springs, FL.

LOCATION.--Lat 25°49'50", long 80°18'08", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.13, T.53 S., R.40 E., Hydrologic Unit 03090202, at northwest corner of Hammond Drive and Ibis Avenue. (Corrected).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.20 ft above National Geodetic Vertical Datum of 1929. From January 25, 1983 to October 30, 1987, measuring point was 6.67 ft NGVD. Prior to January 25, 1983, measuring point was 6.30 ft NGVD.

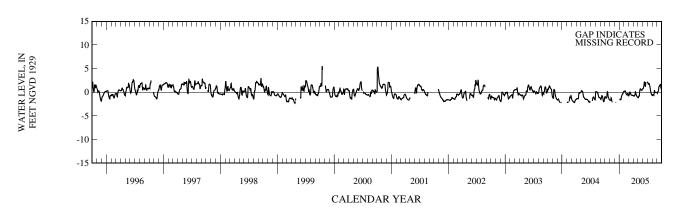
LAND-SURFACE DATUM.--Land surface is approximately 6.2 ft above NGVD.

REMARKS.--Water levels affected by pumping. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The well was originally open to the aquifer from 6 to 20 ft. The well has collapsed or become obstructed at a depth of 8.5 ft. Attempts to clear the obstruction have failed; however, water-level data for water-level elevations above -2.24 ft NGVD are unaffected by the obstruction.

PERIOD OF RECORD .-- February 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.68 ft NGVD, Oct. 11, 1947; lowest, 3.77 ft below NGVD, Apr. 14, 1978.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	-0.99 -1.23	-1.66 -1.15	-2.13	-1.68 -1.53	0.23 0.18	-0.50 0.04	-0.76 -0.60	-1.01 -0.78	0.87 2.05	1.90 1.90	-0.47 -0.58	0.07 0.28
15	-0.25	-1.89		-1.05	-0.37	-0.25	0.12	0.68	1.67	1.50	0.36	1.29
20 25	-0.38 -1.17			-0.51 -0.28	-0.57 -0.25	-0.58 -0.64	-0.50 -0.90	0.56 0.41	1.85	0.48 -0.22	-0.04 -0.07	1.59 1.11
EOM	-1.61			0.18	-0.40	-0.70	-1.07	0.68	2.26	-0.65	-0.09	0.99
MAX	0.12				0.30	0.04	0.12	0.74		2.15	0.36	1.64



WELL NUMBER.--254951080194901. Local Number G 3566. USGS Observation Well near Medley, FL.

LOCATION.--Lat 25°49'51", long 80°19'49", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.15, T.53 S., R.40 E., Hydrologic Unit 03090202, 15 ft west of NW 82nd Avenue and 403 ft north of NW 62nd Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18 ft, cased to 13.2 ft, open hole 13.2 to 18 ft.

INSTRUMENTATION .-- Electronic data logger.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of base, 9.92 ft above National Geodetic Vertical Datum of 1929. Prior to January 8, 1998, measuring point was 9.90 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.9 ft above NGVD.

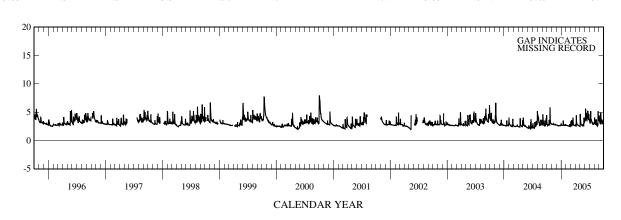
REMARKS .-- Station reconstructed January 8, 1998. See DATUM.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.87 ft NGVD, Oct. 4, 2000; lowest, 1.93 ft NGVD, May 13, 2002.

				WATER		TOBER 2004 MAXIMUM		MBER 2005				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.60	2.86	2.73	2.67	2.68	2.77	2.57	3.64	3.52	3.07	3.25	3.29
10	2.73	2.83	2.62	2.66	2.65	3.41	3.13	2.80	4.86	4.09	2.96	3.96
15	3.62	2.87	2.60	3.35	2.58	2.72	2.79	2.67	3.37	3.42	2.92	3.22
20	3.67	2.76	2.60	2.71	2.51	2.90	2.65	2.74	5.24	3.03	2.59	3.56
25	3.19	2.81	2.63	2.67	2.62	2.67	2.58	2.57	3.94	2.89	5.09	3.43
EOM	2.90	2.72	2.92	2.70	2.53	2.60	2.49	3.24	3.60	3.02	3.57	2.98
MAX	5.83	2.94	2.92	3.51	2.90	4.04	4.44	4.67	5.59	5.17	5.09	4.87

ELEVATION ABOVE NGVD 1929, FEET



WELL NUMBER.--255008080161801. Local Number F 239. USGS Observation Well in Hialeah, FL.

LOCATION.--Lat 25°50′08", long 80°16′18", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.17, T.53 S., R.41 E., Hydrologic Unit 03090202, 20 ft north of East 15th Street and 50 ft east of East 5th Avenue, 1.3 mi east of NW 57th Avenue.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 52.8 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.22 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 8.8 ft above NGVD.

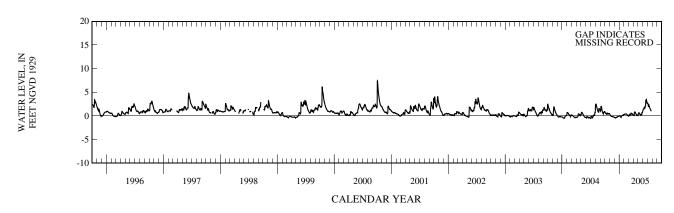
REMARKS.--Water levels affected by pumping. Records of water levels prior to October 1973 are available in the files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.58 ft NGVD, Oct. 9, 1991; lowest, 1.44 ft below NGVD, Apr. 23, 1979.

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	0.62	0.16	-0.38	0.06	0.37	0.20	0.15	0.63	1.43	2.34		
10	0.42	-0.03	-0.39	-0.24	0.39	0.39	0.82	0.61	1.84	2.37		
15	0.63	-0.09	-0.28	-0.08	0.42	0.28	0.68	0.33	1.69	1.83		
20	0.42	-0.17	-0.19	0.08	0.29	0.59	0.36	0.30	3.16	1.36		
25	0.51	-0.20	-0.12	0.14	0.11	0.44	0.22	0.29	3.32	1.01		
EOM	0.48	-0.27	0.04	0.31	0.02	0.24	0.10	0.86	2.68			
MAX	0.89	0.41	0.04	0.31	0.42	0.59	0.83	0.86	3.50			



WELL NUMBER.--255026080240302. Local Number G 3259A. USGS Observation Well near Hialeah, FL.

LOCATION.--Lat 25°50'26", long 80°24'03", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec.11, T.53 S., R.39 E., Hydrologic Unit 03090202, on north side of NW 74th Street Extension, 0.8 mi west of Snapper Creek Canal Extension, and 1.0 mi north of NW 58th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 60 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.08 ft above National Geodetic Vertical Datum of 1929. From March 27, 2002 to July 11, 2004, measuring point was 9.07 ft NGVD. From July 25, 1989 to March 27, 2002, measuring point was 7.43 ft above NGVD. Prior to July 25, 1989, measuring point was 7.52 ft NGVD. (Corrected). See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 5.1 ft above NGVD. (Corrected).

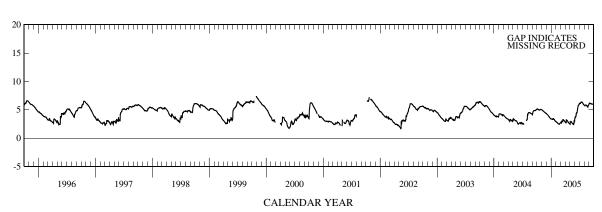
REMARKS.--Water levels affected by pumping. The station was destroyed by wildfire on July 11, 2004, and reconstructed on July 26, 2004. Record of maximum water levels that occurred during Hurricane Irene October 1999, is incomplete because of equipment failure. Well reconstructed for a higher measuring point March 27, 2002.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, greater than 7.43 ft NGVD, Oct. 15-27, 1999; lowest, 1.57 ft below NGVD, June 5, 1989

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.14	4.94	4.23	3.35	2.80	2.76	2.73	2.96	3.80	6.16	5.69	6.18
10	5.07	4.80	4.09	3.31	2.71	3.00	3.20	2.87	4.30	6.30	5.83	6.08
15	4.99	4.70	3.89	3.46	2.55	2.94	3.02	2.66	4.49	6.39	5.81	6.09
20	4.98	4.56	3.74	3.31	2.47	3.23	2.81	2.48	5.33	6.26	5.60	5.99
25	5.07	4.44	3.56	3.06	2.57	3.10	2.63	2.50	5.81	6.03	5.69	6.00
EOM	5.00	4.36	3.40	2.95	2.69	2.88	2.52	2.93	6.10	5.86	5.93	5.92
MAX	5.16	4.99	4.34	3.52	2.94	3.29	3.31	3.13	6.10	6.39	5.93	6.18





WELL NUMBER.--255027080245501. Local Number G 3253. USGS Observation Well near Hialeah, FL.

LOCATION.--Lat 25°50'28", long 80°24'59", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec.11, T.53 S., R.39 E., Hydrologic Unit 03090202, on the south side of NW 74th Street, 1.8 mi west of the Florida Turnpike and the Snapper Creek Canal Extension, and 1.0 mi north of NW 58th Street.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 34.5 ft, cased to 18 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 9.46 ft above National Geodetic Vertical Datum of 1929. Prior to October 1993, measuring point was top of casing, 9.29 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 5.3 ft above NGVD.

REMARKS .-- Water levels affected by pumping.

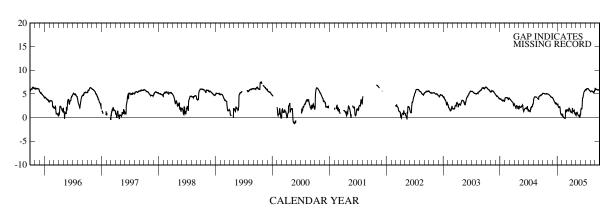
PERIOD OF RECORD.--December 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.38 ft NGVD, Oct. 16, 1999; lowest, 4.78 ft below NGVD, June 4, 1992.

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	5.12	4.93	4.01	2.79	0.63	1.49	1.05	1.01	1.89	5.96	5.45	6.03
10 15	5.08 5.01	4.80 4.68	3.67 3.31	2.20 2.30	0.12 -0.09	1.66 1.40	1.72 1.34	1.02 0.52	2.80 4.22	6.11 6.16	5.62 5.58	5.93 5.91
20 25	5.00 5.06	4.46 4.31	3.00 3.00	1.83 0.71	-0.06 1.45	1.91 1.55	1.49 0.77	0.31 0.13	5.14 5.58	6.07 5.82	5.35 5.46	5.83 5.85
EOM	5.00	4.25	2.80	0.78	1.67	1.18	0.59	0.52	5.88	5.63	5.79	5.73
MAX	5.13	4.99	4.23	2.79	1.67	2.02	1.92	1.10	5.88	6.16	5.79	6.18





WELL NUMBER.--255035080255401. Local Number G 3760. USGS Observation Well near Hialeah Gardens, FL.

LOCATION.--Lat 25°50'29", long 80°26'02", in SW \(^1\)/4 SW \(^1\)/4 SW \(^1\)/4 sec.10, T.53 S., R.39 E., Hydrologic Unit 03090202, 0.3 mi north of NW 41st Street and 2.96 mi west of State Road 821.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 8 in., depth 72.7 ft, cased to 70.7 ft, open hole 70.7 to 72.7 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.20 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 4.3 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, prior to January 2002 are in error. A - 1.80 ft correction has been applied to correct the data. Corrected records are available in files of the U.S. Geological Survey.

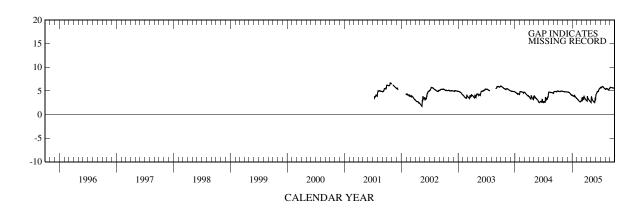
PERIOD OF RECORD.--July 2001 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.70 ft NGVD, Oct. 22, 23, 2001; lowest, 1.72 ft NGVD, May 14, 2002.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.96	4.87	4.76	3.99	3.23	3.28	2.93	3.74	4.39	5.73	5.35	5.77
10	4.91	4.85	4.71	3.88	3.03	3.60	3.64	3.19	4.83	5.86	5.50	5.70
15	4.89	4.83	4.61	4.10	2.83	3.24	3.27	2.87	4.86	5.94	5.43	5.69
20	4.97	4.81	4.42	3.84	2.71	3.65	3.04	2.66	5.19	5.78	5.23	5.63
25	4.98	4.80	4.22	3.57	2.82	3.40	2.80	2.63	5.48	5.60	5.38	5.61
EOM	4.92	4.79	4.14	3.39	2.94	3.06	2.66	3.23	5.73	5.43	5.59	5.53
MAX	4.98	4.91	4.77	4.13	3.35	3.90	3.91	3.76	5.73	5.94	5.59	5.77



WELL NUMBER.--255035080255402. Local Number G 3761. USGS Observation Well near Hialeah Gardens, FL.

LOCATION.--Lat 25°50'29", long 80°26'02", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.10, T.53 S., R.39 E., Hydrologic Unit 03090202, 0.3 mi north of NW 41st Street and 2.96 mi west of State Road 821.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 8 in., depth 16.3 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.11 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 4.8 ft above NGVD.

REMARKS.--The figures of water level as elevation, in feet NGVD, prior to December 2001 are in error. A -1.89 ft correction has been applied to correct the data. Corrected records are available in files of the U.S. Geological Survey.

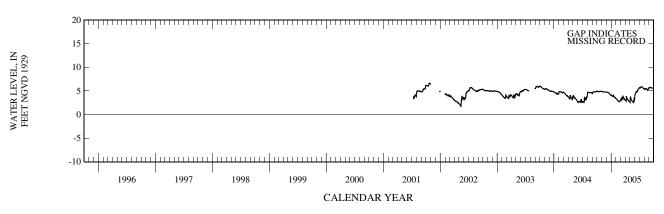
PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.66 ft NGVD, Oct. 22-24, 2001; lowest, 1.74 ft NGVD, May 14, 2002.

ELEVATION ABOVE NGVD 1929, FEET

# WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JUL 3 97 3 26 3 26 2 94 3 73 4 43 5 70

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.93	4.85	4.73	3.97	3.26	3.26	2.94	3.73	4.43	5.70	5.34	5.77
10	4.87	4.83	4.69	3.87	3.08	3.59	3.63	3.18	4.80	5.82	5.48	5.70
15	4.86	4.81	4.62	4.13	2.88	3.24	3.27	2.87	4.81	5.91	5.44	5.67
20	4.93	4.78	4.46	3.81	2.75	3.63	3.04	2.66	5.15	5.78	5.25	5.61
25	4.94	4.78	4.24	3.60	2.84	3.39	2.82	2.62	5.44	5.58	5.38	5.59
EOM	4.89	4.76	4.17	3.42	2.94	3.06	2.67	3.22	5.69	5.44	5.59	5.52
MAX	4.95	4.88	4.75	4.17	3.38	3.89	3.90	3.73	5.69	5.91	5.59	5.77



WELL NUMBER.--255036080270501. Local Number G 3818. USGS Observation Well near Pennsuco, FL.

LOCATION.--Lat 25°50'36", long 80°27'05", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 8, T.53 S., R.39 E., Hydrologic Unit 03090202, 2.0 mi east of State Road 997 (Krome Avenue).

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 20 ft, screened from 15 to 20 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 13.29 ft above National Geodetic Vertical Datum of 1929. See REMARKS.

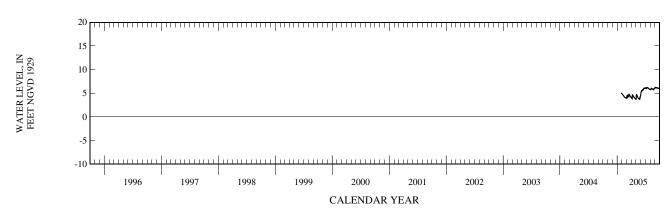
LAND-SURFACE DATUM .-- Land surface is approximately 5.1 ft above NGVD.

REMARKS.--Station constructed on January 25, 2005. See DATUM.

PERIOD OF RECORD.--January 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.25 ft NGVD, Sept. 1, 2005; lowest, 3.71 ft NGVD, May 2, 3, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5					4.74	4.37	3.97	4.72	5.44	6.06	5.84	6.18
10					4.50	4.63	4.63	4.36	5.64	6.20	6.00	6.14
15					4.27	4.34	4.34	4.02	5.68	6.18	5.92	6.16
20					4.11	4.70	4.12	3.88	6.02	6.08	5.77	6.10
25					4.02	4.44	3.91	3.75	6.06	5.90	6.00	6.04
EOM				4.94	4.07	4.11	3.76	4.41	6.17	5.81	6.10	6.01
MAX					4.91	4.78	4.75	4.72	6.17	6.21	6.10	6.25



WELL NUMBER.--255112080151901. Local Number G 3562. USGS Observation Well near Hialeah, FL.

LOCATION.--Lat 25°51'12", long 80°15'19", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.4, T.53 S., R.41 E., Hydrologic Unit 03090202, at northeast corner of intersection of NW 87th Terrace and NW 35th Court, 10 ft east of NW 35th Court curb, 0.9 mi west of State Road 9.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.9 ft, cased to 13.6 ft, screened 14.1 to 18.9 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.14 ft above National Geodetic Vertical Datum of 1929. Prior to December 7, 2003, the measuring point was top of base, 13.30 ft above NGVD.

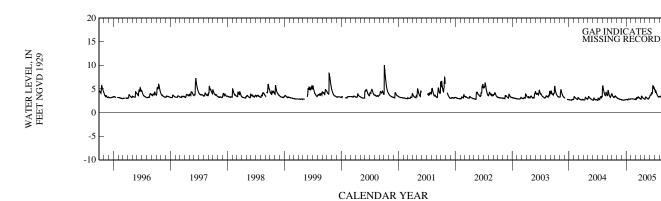
LAND-SURFACE DATUM.--Land surface is approximately 10.3 ft above NGVD.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.94 ft NGVD, Oct. 3, 4, 2000; lowest, 2.59 ft NGVD, July 3, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	3.67 3.30 3.36 3.30 3.48	3.06 2.98 2.88 2.83 2.79	2.68 2.65 2.63 2.65 2.71	2.76 2.71 2.88 2.83 2.82	2.92 2.91 2.89 2.84 2.83	3.01 3.18 3.09 3.33 3.13	2.88 3.47 3.24 3.04 2.95	3.30 3.22 3.02 2.90 2.90	3.69 3.96 3.98 5.42 5.48	4.65 4.62 4.04 3.66 3.35	3.39 3.37 3.15 3.00 3.29	4.98 4.69 4.73 4.08 3.87
EOM	3.22	2.74	2.77	2.92	2.79	2.97	2.83	3.24	5.16	3.31	3.71	3.85
MAX	3.99	3.20	2.77	2.92	2.92	3.34	3.47	3.31	5.60	4.95	3.83	5.23



WELL NUMBER.--255116080120601. Local Number G 3602. USGS Observation Well near El Portal, FL.

LOCATION.--Lat 25°51'16", long 80°12'06", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.1, T.53 S., R.41 E., Hydrologic Unit 03090202, 29 ft west of intersection of NW 2nd Avenue and NW 87th Street, near Horace Mann Middle School.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 160 ft, cased to 155 ft, screened 155 to 160 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 5.23 ft above National Geodetic Vertical Datum of 1929.

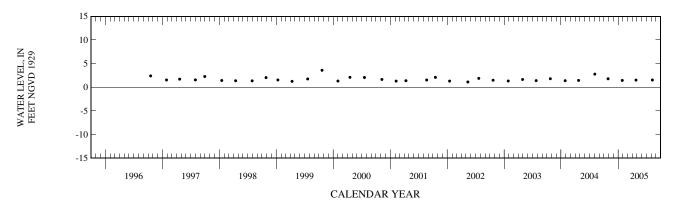
LAND-SURFACE DATUM.--Land surface is approximately 5.2 ft above NGVD.

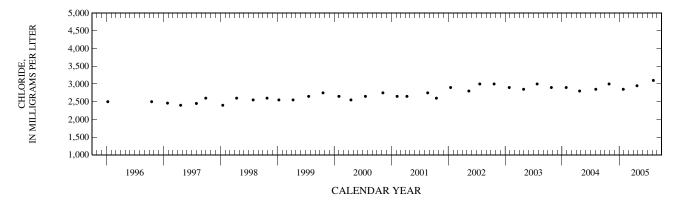
REMARKS.--Well is also used for quarterly salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Salinity monitoring began in September 1995. Water-level measurements began in October 1996.

PERIOD OF RECORD.--September 1995 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.60 ft NGVD, Oct. 21, 1999; lowest, 1.13 ft NGVD, May 13, 2002.

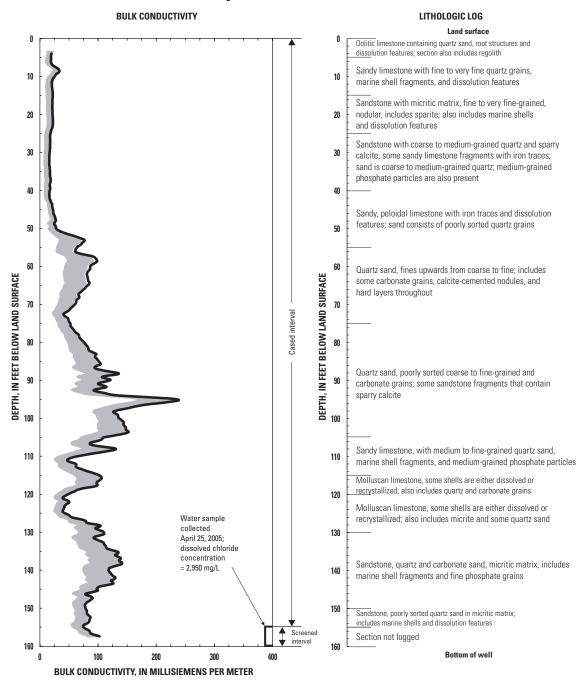
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT	0025	1.00	0.140	2 000	APR	1010	1.50	0.240	2.050
28 JAN	0925	1.80	9,140	3,000	25 AUG	1018	1.52	9,340	2,950
27	0917	1.45	8,950	2,850	08	0945	1.54	9,930	3,100





WELL NUMBER.--255116080120601. Local Number G 3602. USGS Observation Well near El Portal, FL-Continued

# Induction log for Well 255116080120601. Local Number G-3602



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 25, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 9, 1996 to April 22, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--255208080274001. Local Number G 975. USGS Observation Well near Pennsuco, FL.

LOCATION.--Lat 25°52'08", long 80°27'40", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.5, T.53 S., R.39 E., Hydrologic Unit 03090202, 1.0 mi southwest of junction of Pennsuco Canal and Dade/Broward Levee, 5.5 mi southwest of Pennsuco, and 7.5 mi north of U.S. Highway 41.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 15 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 14.38 ft above National Geodetic Vertical Datum of 1929. Between December 13, 2001 and May 1, 2002, the measuring point gradually shifted to the current elevation. Prior to December 13, 2001, measuring point was 14.53 ft above NGVD. See REMARKS.

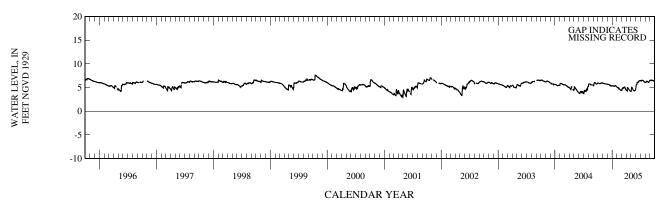
LAND-SURFACE DATUM.--Land surface is approximately 7.4 ft above NGVD.

REMARKS.--Station reconstructed on May 1, 2002 to stabilize the well. Data for the period December 13, 2001 to May 1, 2002, has been corrected to the extent possible but should be considered poor. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.78 ft NGVD, Oct. 14, 1960; lowest, 2.07 ft NGVD, June 2, 1962.

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	5.97	5.90	5.69	5.40	4.98	4.75	4.38	4.99	5.60	6.47	6.06	6.57
10	5.88	5.86	5.68	5.33	4.87	4.97	5.00	4.90	6.11	6.55	6.36	6.49
15	5.84	5.82	5.56	5.33	4.72	4.94	4.79	4.53	6.10	6.54	6.30	6.57
20	5.91	5.78	5.47	5.42	4.54	5.16	4.51	4.35	6.27	6.45	6.11	6.47
25	6.04	5.75	5.42	5.31	4.47	4.92	4.32	4.38	6.48	6.24	6.21	6.44
EOM	5.94	5.74	5.39	5.13	4.46	4.49	4.22	4.55	6.47	6.11	6.48	6.41
MAX	6.04	5.93	5.73	5.43	5.11	5.16	5.00	5.07	6.48	6.56	6.48	6.59



WELL NUMBER.--255209080212801. Local Number G 973. USGS Observation Well near Medley, FL.

LOCATION.--Lat 25°52'09", long 80°21'28", in NW  $^{1}\!\!/_{\!\!4}$  NE  $^{1}\!\!/_{\!\!4}$  NE  $^{1}\!\!/_{\!\!4}$  sec.5, T.53 S., R.40 E., Hydrologic Unit 03090202, on Russian Colony Road, 0.5 mi north of Medley, and 1.0 mi west of Miami Canal.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 15 ft, cased to 10 ft.

REVISED RECORDS .-- WDR FL-85-2B:1978.

INSTRUMENTATION.--Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of casing, 6.87 ft above National Geodetic Vertical Datum of 1929. Prior to November 2001, measuring point was 9.30 ft above NGVD. See REMARKS.

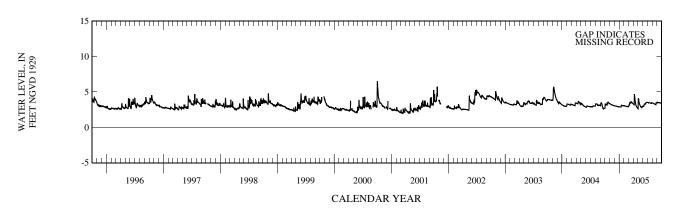
LAND-SURFACE DATUM.--Land surface is approximately 6.9 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Station reconstructed and pressure transducer installed December 19, 2001. This well has collapsed or become obstructed at a depth of 9 ft. Water-level data for elevations above -2.1 ft NGVD are unaffected by the obstruction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.45 ft NGVD, Oct. 3, 4, 2000; lowest, 0.92 ft NGVD, May 31, 1962.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2.11												
5	3.26	3.30	3.04	2.90	3.04	3.17	3.23	4.04	2.97	3.50	3.42	3.53
10	3.19	3.24	3.01	2.88	3.01	3.48	4.37	3.41	3.29	3.49	3.36	3.48
15	3.43	3.18	2.99	3.12	2.98	3.43	3.45	3.10	3.29	3.48	3.31	3.49
20	3.51	3.14	2.95	3.09	2.95	3.60	3.03	2.90	3.44	3.43	3.25	3.46
25	3.50	3.09	2.92	3.06	2.94	3.48	2.83	2.77	3.53	3.38	3.45	3.43
EOM	3.37	3.07	2.91	3.07	2.93	3.34	2.66	2.90	3.52	3.46	3.42	3.38
MAX	3.57	3.36	3.06	3.12	3.06	3.63	4.69	4.05	3.53	3.53	3.46	3.55



WELL NUMBER.--255344080195600. Local Number G 1166R. USGS Observation Well in Hialeah, FL.

LOCATION.--Lat 25°53'44", long 80°19'56", in SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 27, T.52 S., R.40 E., Hydrologic Unit 03090202, on the east side of West 24th Avenue, 0.3 mi south of NW 138th Street, 0.5 mi west of State Road 826.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 18 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.66 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.5 ft above NGVD.

REMARKS.--Replacement well for G-1166.

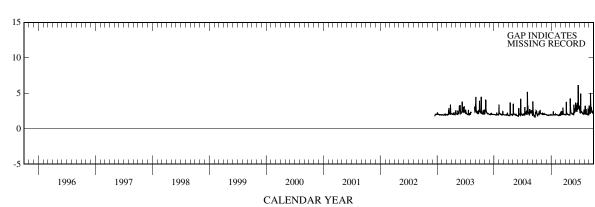
WATER LEVEL, IN FEET NGVD 1929

PERIOD OF RECORD.--December 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.16 ft NGVD, June 23, 2005; lowest, 1.70 ft NGVD, Sept. 17,20,2004.

#### 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	1.86	2.03	1.95	1.92	1.98	2.05	1.97	2.87	2.87	2.27	2.13	2.62
10	2.05	2.06	1.92	1.93	1.96	2.37	2.25	2.19	3.34	2.76	2.26	5.01
15	2.44	2.04	1.88	2.46	1.91	2.03	2.05	2.09	2.39	2.48	2.09	2.46
20	2.50	2.03	1.91	1.96	1.94	2.09	2.01	2.04	3.69	2.22	2.02	2.57
25	2.16	2.03	1.96	1.95	1.95	2.03	1.97	1.99	3.05	2.07	2.75	2.29
EOM	2.11	1.99	2.03	1.99	2.01	1.98	1.94	2.19	3.22	2.23	2.10	2.17
MAX	2.66	2.25	2.03	2.46	2.11	2.99	3.79	4.27	6.16	4.95	3.23	5.01



WELL NUMBER.--255358080114101. Local Number G 3601. USGS Observation Well near North Miami, FL.

 $LOCATION.--Lat~25^{\circ}53'58", long~80^{\circ}11'41", in~SW~\frac{1}{4}~SW~\frac{1}{4}~SW~\frac{1}{4}~Sec. 19, T.52~S., R.42~E., Hydrologic~Unit~03090202, 300~ft~north~of~NW~135th~Street, 28~ft~west~of~Memorial~Boulevard, along~east~bank~of~Biscayne~Canal.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 190 ft, cased to 185 ft, screened 185 to 190 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 6.83 ft above National Geodetic Vertical Datum of 1929. Prior to the 2000 water year measuring point was estimated to be 5 ft above NGVD from topographic map. See REMARKS.

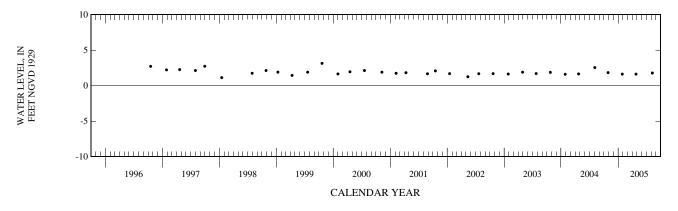
LAND-SURFACE DATUM.--Land surface is approximately about 6.8 ft above NGVD.

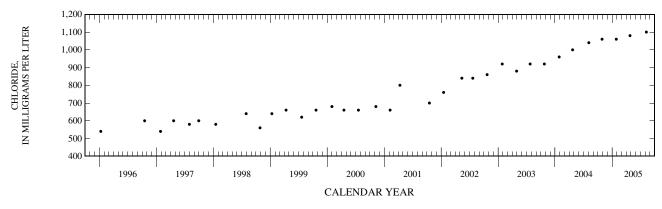
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been (with the exception of 1998) calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. Quarterly chloride sampling began in September 1995. Quarterly water-level measurement began in October 1996. Water-level elevation data collected prior to March 14, 2000, have been computed using the measuring point established on March 14, 2000 and are in the files of the U.S. Geological Survey

PERIOD OF RECORD .-- September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.14 ft NGVD, Oct. 21, 1999; lowest, 1.13 ft NGVD, Jan. 16, 1998.

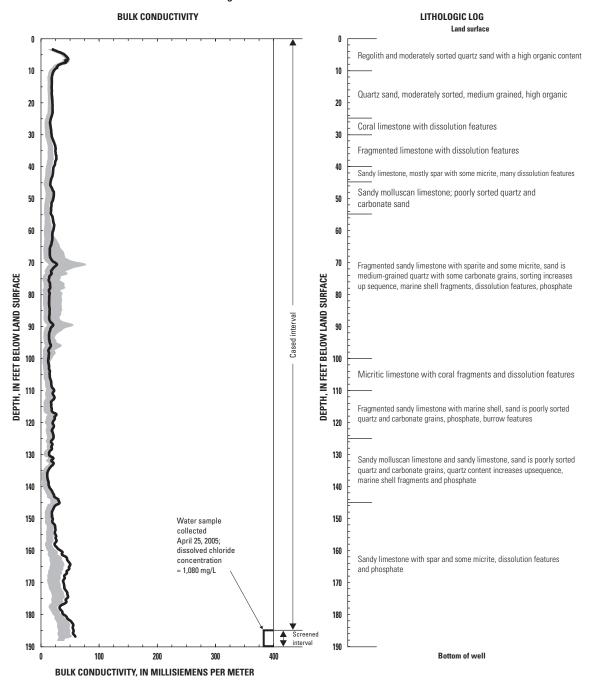
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	0850	1.83	3,400	1,060	25	0841	1.62	3,870	1,080
JAN 27	0846	1.62	3,610	1,060	AUG 08	0915	1.78	3,870	1,100
41	0040	1.02	5,010	1,000	00	0913	1./0	5,670	1,100





WELL NUMBER.--255358080114101. Local Number G 3601. USGS Observation Well near North Miami, FL-Continued

#### Induction log for Well 255358080114101. Local Number G-3601



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 25, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from January 10, 1996 to April 22, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--255358080260901. Local Number G 3567. USGS Observation Well near Miami, FL.

 $LOCATION.-Lat~25^{\circ}53'58", long~80^{\circ}26'09", in~NW~\frac{1}{4}~SW~\frac{1}{4}~SW~\frac{1}{4}~SW~\frac{1}{4}~Sec. 22, T.52~S., R.39~E., Hydrologic~Unit~03090202, on~dirt~road~next~to~power~pole~27, 6.0~mi~north~of~NW~41st~Street, 2.7~mi~south~of~U.S.~Highway~27, and 2.8~mi~west~of~NW~117th~Avenue~(State~Road~821).$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.7 ft, cased to 13.7 ft, open hole 13.7 to 18.7 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.14 ft above National Geodetic Vertical Datum of 1929.

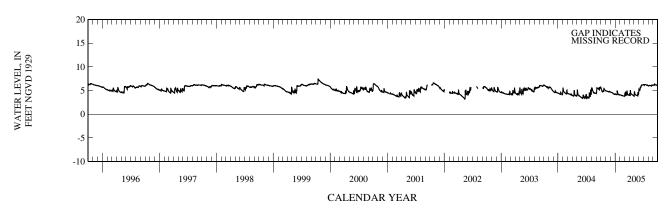
LAND-SURFACE DATUM.--Land surface is approximately 6.6 ft above NGVD.

PERIOD OF RECORD.--September 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.46 ft NGVD, Oct. 15, 1999; lowest, 3.21 ft NGVD, May 13, 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	5.23	4.93	4.65	4.19	4.09	4.19	4.01	4.72	5.26	6.19	5.98	6.19
10	4.76	4.87	4.60	4.16	4.02	4.68	4.55	4.13	5.61	6.30	6.11	6.41
15	5.05	4.82	4.51	4.82	3.95	4.05	4.26	4.05	5.74	6.26	6.10	6.25
20	5.49	4.75	4.35	4.24	3.89	4.38	4.13	3.97	6.21	6.19	5.97	6.20
25	5.18	4.84	4.26	4.11	3.87	4.12	4.02	3.89	6.18	6.11	6.17	6.14
EOM	4.99	4.71	4.32	4.10	3.87	4.03	3.86	4.25	6.28	6.05	6.12	6.12
MAX	5.68	4.98	4.70	5.01	4.09	4.92	5.08	4.74	6.28	6.30	6.17	6.41



WELL NUMBER.--255437080103201. Local Number G 852. USGS Observation Well in North Miami Beach, FL.

LOCATION.--Lat 25°54'37", long 80°10'32", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.20, T.52 S., R.42 E., Hydrologic Unit 03090202, at corner of NE 12th Avenue and NE 147th Street in North Miami Beach, 1.3 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in, depth 20 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 8.38 ft above National Geodetic Vertical Datum of 1929. From October 1997 to September 2000, measuring point was incorrectly considered to be 8.40 ft above NGVD. From November 1988 to July 1989, measuring point was 8.52 ft above NGVD. From March 1983 to November 1988, measuring point was 8.56 ft above NGVD. From March 1983 to October 1997, top of base measuring point was reported as top of casing. Prior to March 1983, measuring point was top of casing, 8.64 ft above NGVD. The figures of water level as elevation, in feet NGVD, from October 1997 to September 2000 are in error. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 6.1 ft above NGVD.

1.81

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The figures of water level as elevation, in feet NGVD, from October 1997 to September 2000, are in error. A correction of -0.02 ft is required to correct water-level data. Because the correction is close to the recorder accuracy, records have not been corrected. See DATUM.

ELEVATION ABOVE NGVD 1929, FEET

PERIOD OF RECORD .-- April 1959 to current year.

2.43

MAX

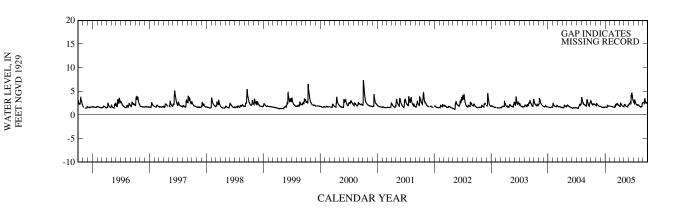
2.97

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.28 ft NGVD, Oct. 3, 4, 2000; lowest, 0.17 ft NGVD, May 31, 1962.

WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.63	1.95	1.75	1.62	1.83	1.95	1.83	2.22	2.41	2.58	1.94	2.66
10	2.17	2.32	1.63	1.57	1.80	2.27	2.50	2.06	2.62	3.20	1.82	2.99
15	2.37	2.07	1.58	2.04	1.76	2.09	2.17	1.84	2.49	2.55	1.72	2.93
20	2.22	1.93	1.62	1.90	1.68	2.42	1.96	1.74	4.56	2.22	1.69	2.59
25	2.30	1.85	1.61	1.83	1.62	2.20	1.84	1.73	3.64	2.06	2.14	2.62
EOM	2.09	1.82	1.68	1.86	1.63	1.95	1.73	2.02	3.01	2.21	2.64	2.32

2.43

1.85



2.50

2.25

4.60

3.27

2.64

3.41

WELL NUMBER.--255526080143001. Local Number S 18. USGS Observation Well near Opa-Locka, FL.

 $LOCATION.--Lat\ 25^{\circ}55'26'', long\ 80^{\circ}14'30'', in\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec.15, T.52\ S., R.41\ E., Hydrologic\ Unit\ 03090202, in\ parking\ lot\ of\ the\ North\ Dade\ Regional\ Library,\ 0.2\ mi\ south\ of\ the\ Palmetto\ Expressway\ (State\ Road\ 826),\ 0.2\ mi\ east\ of\ NW\ 27th\ Avenue,\ and\ 1.3\ mi\ north\ of\ Opa-Locka.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 8 in., depth 52 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.18 ft above National Geodetic Vertical Datum of 1929. Prior to October 1992, the measuring point was top of casing, 10.12 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 9.1 ft above NGVD.

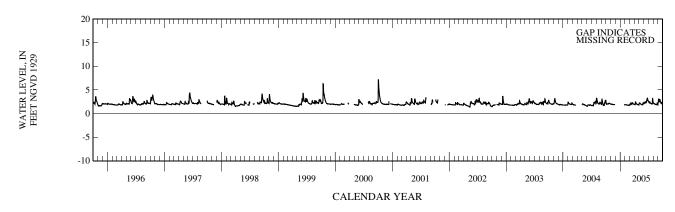
REMARKS.--Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--December 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.54 ft NGVD, Oct. 12, 1947; lowest, 0.05 ft NGVD, June 3, 1945.

#### 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	2.10	1.96			1.89	2.02	1.91	2.26	2.21	2.35	2.11	2.89
10	2.02	1.97			1.86	2.22	2.41	2.09	2.42	2.49	2.06	2.69
15	2.14	1.93			1.81	2.04	2.10	1.99	2.26	2.19	1.93	2.61
20	2.13	1.92			1.78	2.27	1.95	1.89	2.81	2.11	1.90	2.31
25	2.15	1.91			1.77	2.08	1.89	1.89	3.25	2.02	2.08	2.31
EOM	2.04			1.89	1.79	1.96	1.82	2.12	2.65	2.46	2.24	2.32
MAX	2.73				1.89	2.33	2.47	2.26	3.25	3.19	2.34	3.05



WELL NUMBER.--255600080270001. Local Number G 968. USGS Observation Well near Hialeah Gardens, FL.

LOCATION.--Lat 25°56′10″, long 80°26′50″, in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.9, T.52 S., R.39 E., Hydrologic Unit 03090202, 150 ft from the northwest side of Levee 30, 0.6 mi southwest of Miami Canal, 1.3 mi south of Miami-Dade and Broward County Line, and 9 mi northwest of Hialeah Gardens.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 16 in., depth 50 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.-- Measuring point: Top of base, 10.87 ft above National Geodetic Vertical Datum of 1929. Prior to October 1997, measuring point was 10.85 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 5.2 ft above NGVD.

REMARKS.--For an unknown period of time, the transite well casing was cracked, allowing the surface water from the conservation area to combine with the water inside the well. Ground water level records may be affected. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

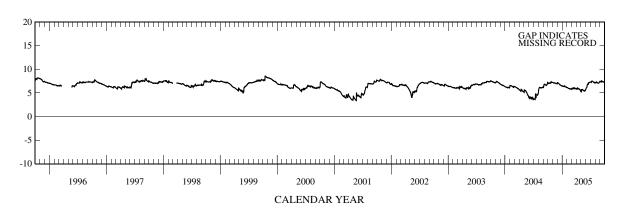
PERIOD OF RECORD .-- April 1960 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.57 ft NGVD, Oct. 15, 1999; minimum water level recorded, 1.70 ft NGVD, May 31, 1962.

ELEVATION ABOVE NGVD 1929, FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAXIMUM MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.01	7.15	7.14	6.42	6.13	5.91	5.77	5.73	6.10	7.31	7.10	7.37
10	7.11	7.15	6.99	6.37	5.97	6.04	6.06	5.66	6.65	7.53	7.27	7.59
15	7.12	7.14	6.82	6.52	5.92	5.94	5.92	5.60	6.78	7.47	7.17	7.43
20	7.22	7.03	6.68	6.35	5.84	6.02	5.74	5.43	7.17	7.29	7.05	7.39
25	7.23	6.99	6.57	6.21	5.89	6.00	5.70	5.40	7.19	7.14	7.18	7.28
EOM	7.22	6.96	6.48	6.19	5.83	5.89	5.30	5.66	7.29	7.18	7.36	7.26
MAX	7.34	7.22	7.19	6.52	6.16	6.13	6.09	5.74	7.29	7.53	7.38	7.59



WELL NUMBER.--255616080180301. Local Number G 3571. USGS Observation Well near Miami Lakes, FL.

LOCATION.--Lat 25°56′16″, long 80°18′03″, in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.12, T.52 S., R.40 E., Hydrologic Unit 03090202, in Mediterranean Gardens, between NW 61st Avenue and NW 60th Court, 10 ft north of edge of pavement, 0.13 mi south of Miami Gardens Drive.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 5 in., depth 18.5 ft, cased to 13.5 ft, open hole 13.5 to 18.5 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.32 ft above National Geodetic Vertical Datum of 1929.

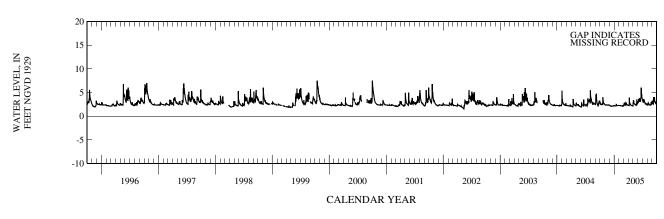
LAND-SURFACE DATUM .-- Land surface is approximately 7.4 ft above NGVD.

PERIOD OF RECORD.--November 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.52 ft NGVD, Oct. 15, 1999; lowest, 1.54 ft NGVD, Feb. 14, 15, 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 10 15 20 25 EOM	2.57 2.47 2.75 4.02 2.81 2.56	2.38 2.38 2.39 2.36 2.39 2.32	2.28 2.11 2.13 2.16 2.20 2.30	2.20 2.20 2.46 2.27 2.26 2.29	2.29 2.27 2.20 2.15 2.21 2.18	2.44 2.77 2.39 2.70 2.41 2.31	2.29 2.87 2.48 2.31 2.24 2.16	3.32 2.66 2.45 2.31 2.37 2.79	3.01 3.71 3.08 3.70 4.36 3.67	3.02 3.50 3.04 2.67 2.48 2.51	2.40 2.69 2.41 2.34 2.92 2.47	2.79 4.06 3.08 3.03 2.81 2.60
MAX	4.02	2.53	2.34	2.50	2.29	2.94	3.91	3.56	6.04	3.67	2.93	4.06



WELL NUMBER.--255625080094901. Local Number G 3705. USGS Observation Well near North Miami Beach, FL.

LOCATION.--Lat 25°56′25", long 80°09′49", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.9, T.52 S., R.42 E., Hydrologic Unit 03090202, 15 ft north of NE 179th Street and 175 ft west of NE 19th Avenue, 0.90 mi west of U.S. Highway 1.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 135 ft, cased to 125 ft, screened 125 to 135 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.06 ft above National Geodetic Vertical Datum of 1929.

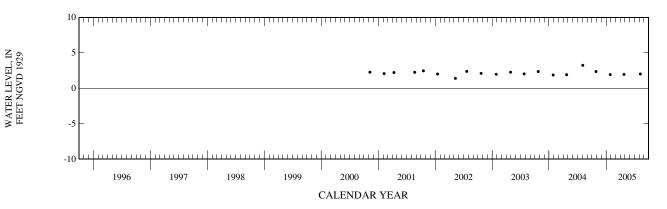
LAND-SURFACE DATUM .-- Land surface is approximately 9.1 ft above NGVD.

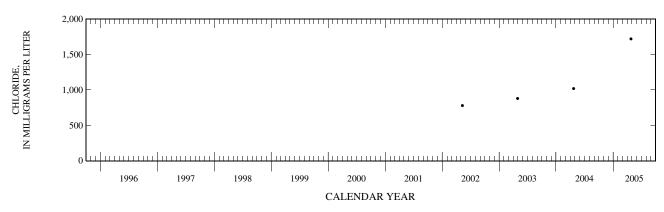
REMARKS.--Well is also used for annual salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the freshwater/salt-water interface in ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. Annual induction logs began in April 2000. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Induction logging began in April 2000. Salinity monitoring began in May 2002. Water-level measurements began in November 2000.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.24 ft NGVD, Aug. 4, 2004; lowest, 1.40 ft NGVD, May 10, 2002.

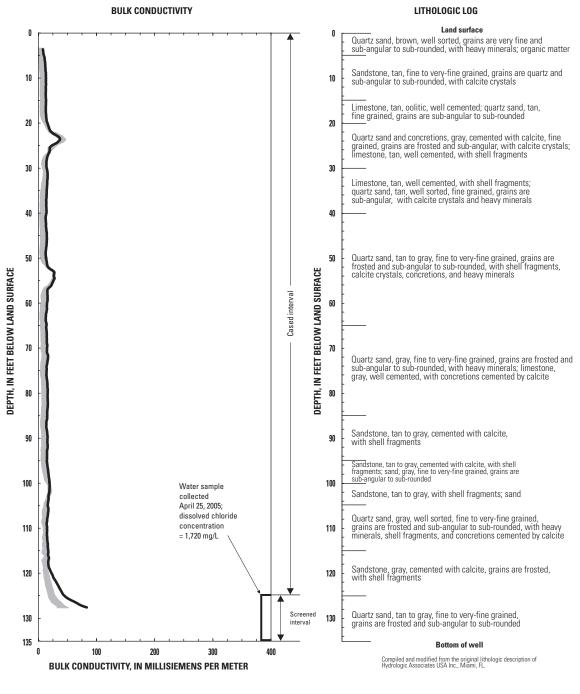
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
28	0827	2.36			25	1300	1.95	5,780	1,720
JAN					AUG				
27	0825	1.93			08	0854	2.02		





WELL NUMBER.--255625080094901. Local Number G 3705. USGS Observation Well near North Miami Beach, FL-Continued

#### Induction log for Well 255625080094901. Local Number G-3705



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 25, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from April 18, 2000 to April 22, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--255626080093201. Local Number G 3600. USGS Observation Well near North Miami Beach, FL.

LOCATION.--Lat 25°56'26", long 80°09'32", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.9, T.52 S., R.42 E., Hydrologic Unit 03090202, 500 ft east of NW 20th Avenue on south side of NW 179th Street, 0.6 mi west of U.S. Highway 1, near a golf course.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 200 ft, cased to 195 ft, screened 195 to 200 ft.

INSTRUMENTATION .-- Quarterly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 9.24 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 9.2 ft above NGVD.

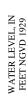
REVISED RECORDS.--WDR-FL-00B and WDR-FL-01B - Figures of bulk conductivity were affected by an error in calibration. See REMARKS. WDR-FL-02B WDR-FL-03B - Published figures of historical bulk conductivity (water years 1996 to 2001 excluding 1998) were affected by an errant correction for a calibration error. See REMARKS. These corrections are incorporated in the graph of bulk conductivity published in the 2004 Water Resources Data Report (WDR-FL-04B).

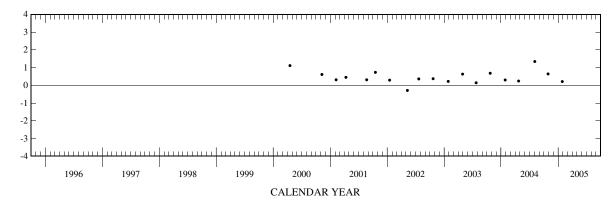
REMARKS.--Well was monitored for salinity until the 2004 water year. Figures of historical bulk conductivity published for the 2002 and 2003 water years were in error. These historical data (water years 1996 to 2001 excluding 1998) had been overcorrected by a factor of two for the calibration error previously discussed for these years. The proper corrections have been applied to these historical data and these records are available in the files of the U.S. Geological Survey. Water-level measurements began in April 2000. Salinity monitoring began in August 1995. Salinity induction log and water level monitoring were discontinued during the 2005 water year. No electromagnetic induction log was collected in the 2005 water year. See REVISED RECORDS.

PERIOD OF RECORD.--August 1995 to April 2005. Discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.34 ft NGVD, Aug. 4, 2004; lowest, 0.29 ft below NGVD, May 10, 2002.







WELL NUMBER.--255707080255001. Local Number G 1637. USGS Observation Well near Hialeah, FL.

 $LOCATION.-Lat~25^{\circ}57'07'', long~80^{\circ}25'50'', in~SW~\frac{1}{4}~NE~\frac{1}{4}~sec.3, T.52~S., R.39~E., Hydrologic~Unit~03090202, at entrance~of~Opa-Locka~West~Training~Airport, 0.2~mi~northeast~of~the~intersection~of~U.S.~Highway~27~and~State~Road~997~(Krome~Avenue), and 10~mi~northwest~of~Hialeah.$ 

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 26 ft, cased to 26 ft.

REVISED RECORDS .-- WDR FL-85-2B:1979.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 8.90 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 5.9 ft above NGVD.

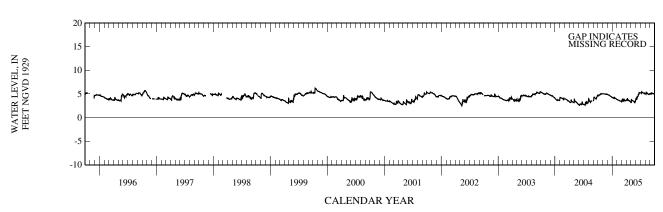
REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.21 ft NGVD, Oct. 15, 1999; lowest, 2.19 ft NGVD, Apr. 26, 1973.

### ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FER MAR APR MAY JUN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.67	5.02	4.86	4.20	3.76	3.65	3.61	3.85	3.99	5.21	4.95	5.07
10 15	4.77 4.90	5.03 5.01	4.76 4.72	4.13 4.28	3.72 3.59	3.89 3.50	3.88 3.62	3.60 3.52	4.38 4.43	5.38 5.30	5.14 5.09	5.24 5.14
20 25	5.08 5.04	4.97 4.96	4.53 4.45	4.08 3.99	3.53 3.51	3.71 3.60	3.60 3.44	3.40 3.15	5.04 5.20	5.21 5.06	4.93 5.00	5.10 5.04
EOM	5.04	4.91	4.30	3.84	3.48	3.63	3.20	3.56	5.24	5.09	4.96	5.05
MAX	5.08	5.05	4.92	4.38	3.83	3.92	4.10	3.92	5.30	5.45	5.33	5.25



WELL NUMBER.--255709080223701. Local Number G 970. USGS Observation Well near Miami Lakes, FL.

LOCATION.--Lat 25°57'09", long 80°22'37", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.6, T.52 S., R.40 E., Hydrologic Unit 03090202, 0.5 mi south of Snake Creek, 3.5 mi east of U.S. Highway 27, and 4.7 mi west of Miami Lakes.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 15 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 10.75 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 3.8 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

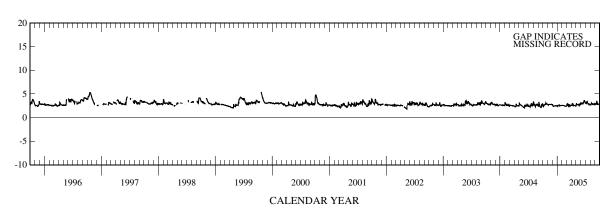
PERIOD OF RECORD .-- January 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 5.55 ft NGVD, Nov. 22, 1959; minimum water level recorded, 1.35 ft NGVD, May 31, 1962.

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	2.30	2.61	2.48	2.52	2.59	2.69	2.61	2.97	2.90	3.08	2.69	2.94
10	2.72	2.80	2.43	2.51	2.57	2.90	2.82	2.77	3.13	3.36	2.98	3.17
15	2.91	2.78	2.48	2.66	2.49	2.36	2.50	2.74	2.95	3.16	2.91	3.05
20	3.13	2.78	2.49	2.54	2.45	2.59	2.57	2.58	3.32	2.91	2.81	2.86
25	2.89	2.82	2.50	2.55	2.41	2.44	2.50	2.58	3.61	2.74	2.98	2.85
EOM	2.85	2.74	2.58	2.56	2.41	2.57	2.43	2.76	3.12	2.68	2.79	2.86
MAX	3.13	2.83	2.76	2.78	2.59	2.93	3.07	2.97	3.63	3.36	3.09	3.44





WELL NUMBER.--263630080264801. Local Number G 1362. USGS Observation Well near Perrine, FL.

LOCATION.--Lat 25°36'37", long 80°26'47", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 33, T.55 S., R.39 E., Hydrologic Unit 03090202, 30 ft east of SW 157th Avenue and SW 170th Street, 1.0 mi north of Eureka Drive, 2.0 mi east of State Road 997 (Krome Avenue), and 5 mi west of Perrine.

AQUIFER.--Biscayne limestone aquifer of the Pleistocene Age, Geologic Unit 112 BSCNN.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 33 ft, cased to 11 ft.

REVISED RECORDS .-- WDR FL-85-2B:1980.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.56 ft above National Geodetic Vertical Datum of 1929. Prior to June 6, 1996, measuring point was top of recorder shelf, 14.08 ft above NGVD.

LAND-SURFACE DATUM .-- Land surface is approximately 11.5 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The well was originally open to the aquifer from 11 to 33 ft. The open interval has collapsed or become obstructed at a depth of 17 ft.

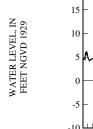
ELEVATION ABOVE NGVD 1929, FEET

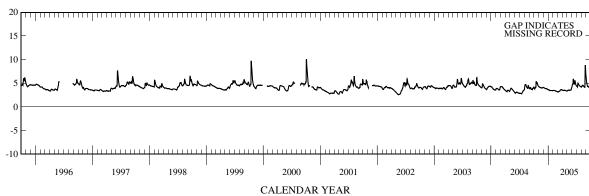
PERIOD OF RECORD .-- November 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.09 ft NGVD, Oct. 4, 2000; lowest, 0.29 ft NGVD, May 15, 1971.

WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES										
JAN	FEB	MAR	APR	MAY	JUN	JUL				
3.60	2.50	2 10	2 52	2 11	160	121				

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.97	4.19	4.06	3.60	3.50	3.18	3.52	3.44	4.68	4.34	4.34	5.07
10	4.03	4.11	3.95	3.51	3.48	3.24	3.49	3.56	5.83	5.06	4.59	4.35
15	5.33	4.06	3.85	3.45	3.42	3.32	3.53	3.53	5.06	4.75	4.43	4.25
20	4.84	4.02	3.89	3.49	3.35	3.56	3.50	3.50	5.32	4.50	4.22	4.29
25	4.79	4.04	3.77	3.46	3.26	3.65	3.44	3.57	4.96	4.33	6.23	4.34
EOM	4.37	4.14	3.66	3.48	3.22	3.61	3.36	4.01	4.50	4.26	6.62	4.96
MAX	5.34	4.33	4.11	3.64	3.50	3.66	3.57	4.01	5.86	5.08	8.83	6.24





#### WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

#### MIAMI-DADE COUNTY—Continued

#### MISCELLANEOUS WATER-LEVEL MEASUREMENTS

Station number	Local ident- i- fier	Lat- i- tude	Long- i- tude	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chlor- ide, water, fltrd, mg/L (00940)
253202080232601	G -3162	25 31 32 N 25 31 32 N	080 23 25 W 080 23 25 W	20041112 20050512	1518 1258		3110 3430	920 960
253652080183701	G - 939	25 36 52 N 25 36 52 N	080 18 37 W 080 18 37 W	20041028 20050429	1426 1327		7430 8420	2350 2750
253819080183201	G -3610	25 38 19 N 25 38 19 N	080 18 32 W 080 18 32 W	20041028 20050429	1344 1301		533 568	52.0 50.0
253831080180204	G -3313C	25 38 31 N	080 18 02 W	20050512	0845		13100	3300
254106080174601	G -1009B	25 41 06 N	080 17 46 W	20050429	0935		504	42.0
254156080172101	G -3607	25 41 56 N 25 41 56 N 25 41 56 N 25 41 56 N	080 17 21 W 080 17 21 W 080 17 21 W 080 17 21 W	20050429	1219 1205 0905 1155	  	603 621 642 637	74.0 76.0 70.0 70.0
254341080174001	G -3606	25 43 41 N 25 43 41 N 25 43 41 N 25 43 41 N	080 17 40 W 080 17 40 W 080 17 40 W 080 17 40 W	20041028 20050127 20050429 20050808	1153 1125 0830 1125	  	552 567 584 590	46.0 50.0 44.0 44.0
254828080161501	G - 354	25 48 28 N 25 48 28 N 25 48 28 N 25 48 28 N	080 16 15 W 080 16 15 W 080 16 15 W 080 16 15 W	20050502	0926 1315 0935 0925	1.82 1.68 1.48 1.63	535 535 543 529	56.0 66.0 58.0 64.0
254908080125201	G -3603	25 49 13 N 25 49 13 N	080 13 00 W 080 13 00 W	20041028 20050429	1007 0730	 	587 626	60.0 66.0
255222080123001	G -3224	25 52 22 N 25 52 22 N	080 12 30 W 080 12 30 W	20041026 20050503	0802 0738	 	608 632	52.0 48.0
255315080111501	F - 279	25 53 15 N 25 53 15 N	080 11 15 W 080 11 15 W	20041026 20050503	0930 0805		10500 10400	2900 2600
255350080105801	G - 894	25 53 50 N 25 53 50 N	080 10 58 W 080 10 58 W	20041026 20050503	0850 0900		492 491	28.0 28.0

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### Palm Beach County

#### WATER RESOURCES DATA - FLORIDA, 2005

#### **VOLUME 2B: SOUTH FLORIDA**

#### Key to site locations on figure # 21

#### PALM BEACH COUNTY

Index	Site Number	Well	Page
Number	Number	Name	Number
1	264005080233501	PB 99	536
2	263328080085201	PB 445	530
3	264230080120501	PB 561	539
4	265812080053901	PB 565	549
5	263524080124301	PB 683	532
6	264208080192201	PB 685	538
7	265633080203001	PB 689	548
8	262218080070101	PB 732	515
9	264123080053801	PB 809	537
10	265106080241402	PB 831	544
11	262435080042904	PB 948	519
12	263044080035102	PB 1195	526
13	262313080044401	PB 1457	516
14	262317080074601	PB 1491	517
15	263255080133601	PB 1576	529
16	263021080070102	PB 1628	525
17	263656080033502	PB 1639	535
18	265233080054001	PB 1642	545
19	262410080090801	PB 1661	518
20	264839080115001	PB 1662	542
21	262209080044702	PB 1669	514
22	262159080054201	PB 1680	513
23	262130080080701	PB 1684	512
24	262755080040101	PB 1707	522
25	262713080041901	PB 1710	521
26	262803080041101	PB 1714	523
27	263453080031501	PB 1717	531
28	263633080031401	PB 1723	533
29	264643080033401	PB 1726	540
30	264717080033501	PB 1727	541
31	265550080070701	PB 1732	546
32	265611080080201	PB 1733	547
33	264858080044801	PB 1734	543
34	263053080034401	PB 1736	528

#### **VOLUME 2B: SOUTH FLORIDA**

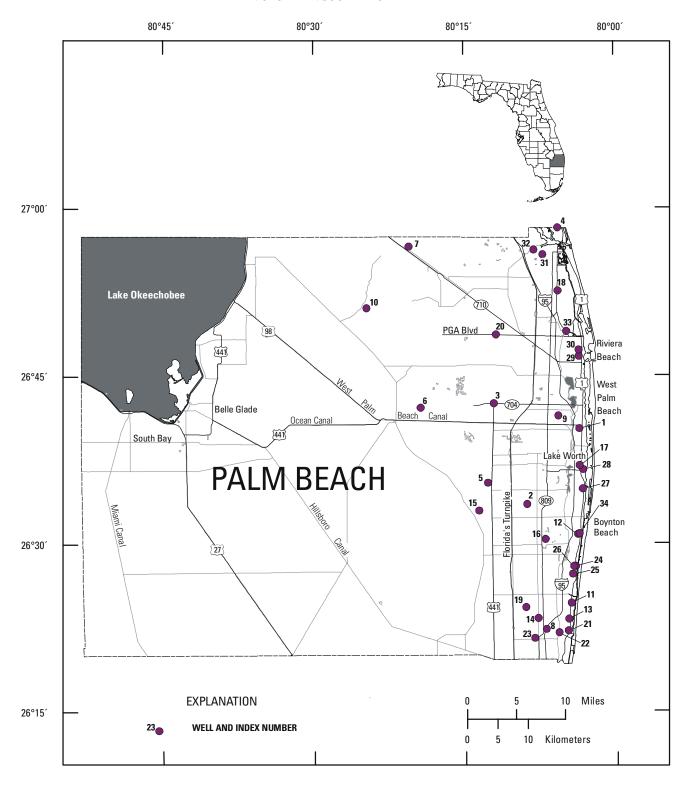


Figure 21: Location of wells in Palm Beach County

#### PALM BEACH COUNTY

WELL NUMBER.--262130080080701. Local Number PB 1684. USGS Observation Well near Boca Raton, FL.

LOCATION.--Lat 26°21'30", long 80°08'07", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 23, T.47 S., R.42 E., Hydrologic Unit 03090202, 35 ft south of Verde Trail, 0.10 mi east of St. Andrews Road, 0.5 mi south of Glades Road and 0.6 mi west of Military Trail.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4.0 in., depth 40 ft, cased to 35 ft, screened 35 to 40 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 18.85 ft above National Geodetic Vertical Datum of 1929. Prior to October 1994, top of base was considered to be 20.00 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 16.8 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 1994 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

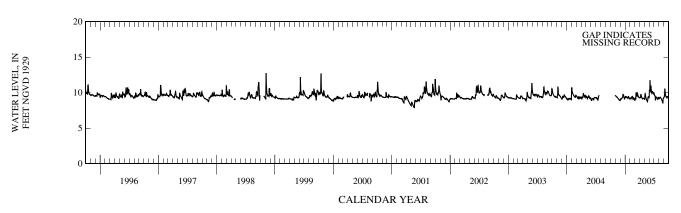
ELEVATION ABOVE NGVD 1929, FEET

PERIOD OF RECORD .-- October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 12.75 ft NGVD, Nov. 5, 1998; lowest, 7.82 ft NGVD, May 22, 2001.

### WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		9.49	9.17	9.36	9.23	9.23	9.30	9.81	11.76	9.58	9.29	9.79
10		9.36	9.17	9.33	9.31	9.98	9.73	9.34	10.05	8.91	9.35	9.75
15		9.26	9.32	9.31	9.44	9.50	9.33	9.02	10.06	9.39	9.11	9.43
20		9.12	9.74	9.45	9.27	9.75	9.17	8.73	10.16	9.18	8.89	9.44
25		8.98	9.31	9.27	9.02	9.45	9.21	9.36	9.83	9.07	8.48	9.41
EOM	9.57	8.87	9.32	9.19	8.97	9.30	9.12	9.42	9.97	9.22	9.30	9.24
MAX		9.56	9.75	9.46	9.47	9.98	9.74	9.85	11.76	9.86	9.36	10.50



WELL NUMBER.--262159080054201. Local Number PB 1680. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat 26°21'59", long 80°05'42", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 18, T.47 S., R.43 E., Hydrologic Unit 03090202, 100 yards east of El Rio Canal at NW 17th Street, 0.25 mi north of Glades Road, 1.5 mi east of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4.0 in., depth 40 ft, cased to 35 ft, screened 35 to 40 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 10.79 ft above National Geodetic Vertical Datum of 1929. Prior to October 2004, top of base was 10.80 ft above NGVD. From September 1993 to July 1998, top of base was 10.81 ft above NGVD. Prior to October 1994, top of base was considered to be 20.00 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 8.7 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 1994 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

ELEVATION ABOVE NGVD 1929, FEET

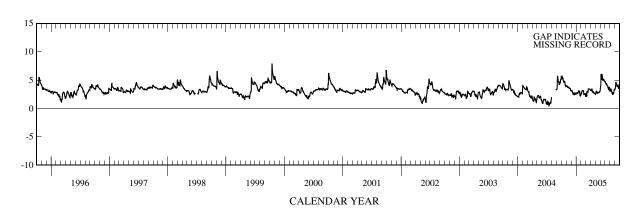
PERIOD OF RECORD.--September 1993 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 7.92 ft NGVD, Oct. 15, 1999; lowest, 0.52 ft NGVD, July 15, 2004.

## WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JUL 2.77 2.05 2.67 2.18 2.87 (.08 4.50

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	5.49 5.08	3.87 3.74	3.19 2.81	2.77 2.70	2.95 3.16	2.67 3.03	3.18 3.39	2.87 2.98	6.08 5.04	4.50 4.26	3.36 2.90	3.99 4.23
15	4.79	3.74	2.64	2.97	3.09	3.02	2.95	2.85	5.00	4.02	2.60	3.85
20 25	4.72 4.09	3.56 3.51	2.42 2.60	2.97 2.30	2.56 2.64	3.47 3.40	2.91 2.67	2.80 2.76	5.15 4.91	3.75 3.54	2.79 3.03	4.14 3.55
EOM	4.06	3.18	2.60	2.61	2.44	3.28	2.57	3.13	4.67	3.23	3.32	3.48
MAX	5.79	4.04	3.19	3.11	3.17	3.47	3.43	3.13	6.08	4.70	3.42	4.64



WELL NUMBER.--262209080044702. Local Number PB 1669. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat 26°22'09", long 80°04'47", in NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 17, T.47 S., R.43 E., Hydrologic Unit 03090202, 20 ft south and 4 ft east of the junction of NE 5th Avenue and NE 4th Way, 0.1 mi north of NE 20th Street and 0.2 mi west of U.S. Highway 1, in downtown Boca Raton.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2.0 in., depth 131 ft, cased to 131 ft, open end.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 11.34 ft above National Geodetic Vertical Datum of 1929. Prior to October 1994, top of casing was considered to be 20.00 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 11.6 ft above NGVD.

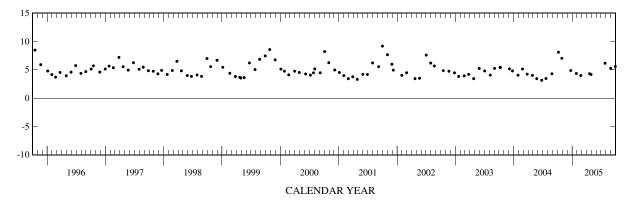
REMARKS.--Well also used for salinity monitoring. The figures of water levels as elevation, in feet NGVD, prior to October 1994 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM. The well was originally open to the aquifer at a depth of 131 ft. The well is obstructed at a depth of 108 ft by sediment heaving into well. Well remains in communication with aquifer.

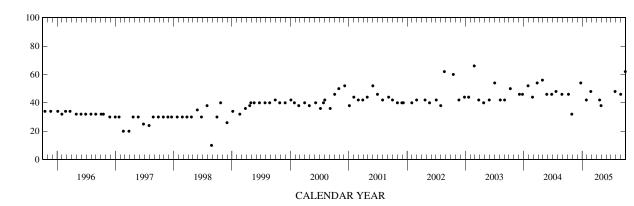
PERIOD OF RECORD .-- October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.17 ft NGVD, Oct. 1, 2001; lowest, 3.15 ft NGVD, June 24, 2004.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					APR				
07	1635	8.09	476	46.0	20	0950	4.31	488	42.0
28	1509	7.02	476	32.0	29	1527	4.16	480	38.0
DEC					JUL				
23	1013	4.87	472	54.0	26	1311	6.15	469	48.0
JAN					AUG				
27	1529	4.35	465	42.0	30	1011	5.24	379	46.0
FEB					SEP				
05	1234				28	1335	5.57	509	62.0
24	1331	3.99	469	48.0					





WATER LEVEL, IN FEET NGVD 1929

CHLORIDE, IN MILLIGRAMS PER LITER

WELL NUMBER.--262218080070101. Local Number PB 732. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat 26°22'18", long 80°06'58", in NE \(^1\_4\) SW \(^1\_4\) sec.13, T.47 S., R.42 E., Hydrologic Unit 03090202, 25 ft east of Airport Road, 0.35 mi north of Glades Road.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in. to 19 ft, 2 in. from 19 to 100 ft, depth 100 ft, cased to 100 ft, open end. INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 13.43 ft above National Geodetic Vertical Datum of 1929. From September 1990 to September 1993 top of base was considered to be 13.38 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 12.3 ft above NGVD.

REMARKS.--Because the difference in reported measuring points is equivalent to the estimate of error for the measurement, the figures of water levels, in feet NGVD, from September 1990 to September 1993, have not been corrected to the 13.43 ft measuring point elevation.

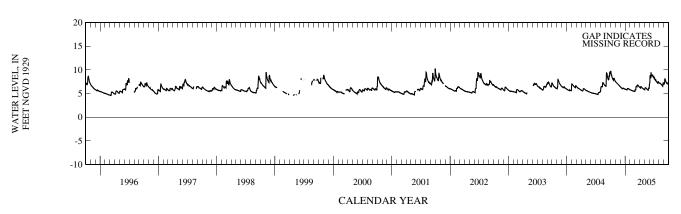
ELEVATION ABOVE NGVD 1929, FEET

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.30 ft NGVD, Sept. 29, 2001; lowest, 3.43 ft NGVD, May 6, 1981.

# WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	9.05 8.56	7.41 7.21	6.33 6.17	5.89 5.82	5.75 5.69	5.80 6.48	6.23 6.48	6.20 6.21	8.75 8.24	8.07 7.79	7.25 7.11	7.41 7.85
15	8.14	7.04	6.02	6.08	5.61	6.49	6.31	6.04	8.66	7.64	6.95	7.39
20	8.20	6.89	6.14	6.08	5.54	6.83	6.11	5.85	8.93	7.36	6.74	7.26
25	8.15	6.71	6.06	5.95	5.49	6.63	5.98	5.72	8.51	7.30	6.83	7.04
EOM	7.64	6.51	5.95	5.82	5.49	6.37	5.86	6.15	8.33	7.26	7.02	6.85
MAX	9.70	7.59	6.48	6.10	5.81	6.83	6.49	6.25	9.49	8.40	7.27	8.13



WATER LEVEL, IN FEET NGVD 1929

CHLORIDE, IN MILLIGRAMS PER LITER

#### PALM BEACH COUNTY—Continued

WELL NUMBER.--262313080044401. Local Number PB 1457. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat  $26^{\circ}23^{\circ}13^{\circ}$ , long  $80^{\circ}04^{\circ}44^{\circ}$ , in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.8, T.47 S., R.43 E., Hydrologic Unit 03090202, approximately 0.05 mi north and 0.1 mi west of the intersection of Spanish River Boulevard and U.S. Highway 1.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 193 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 15.97 ft above National Geodetic Vertical Datum of 1929.

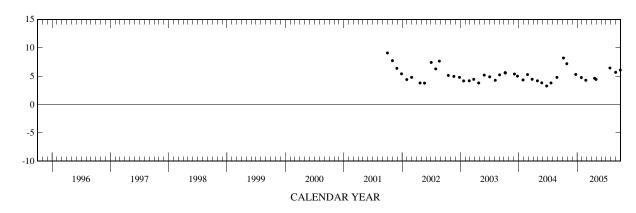
LAND-SURFACE DATUM.--Land surface is approximately 16.0 ft above NGVD.

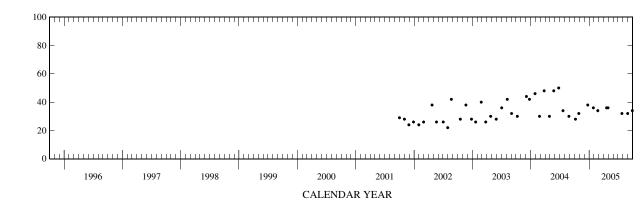
REMARKS .-- Well also used for salinity monitoring.

PERIOD OF RECORD.--April 1983 to October 1993, October 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.08 ft NGVD, Oct. 1, 2001; lowest, 2.24 ft NGVD, Mar. 29, 1990.

			Specif.					Specif.	
		Elev-	conduc-	Chlor-			Elev-	conduc-	Chlor-
		ation,	tance,	ide,			ation,	tance,	ide,
		feet	wat unf	water,			feet	wat unf	water,
		above	uS/cm	fltrd,			above	uS/cm	fltrd,
Date	Time	NGVD	25 degC	mg/L	Date	Time	NGVD	25 degC	mg/L
		(72020)	(00095)	(00940)			(72020)	(00095)	(00940)
OCT					APR				
07	1545	8.19	415	28.0	20	1010	4.61	439	36.0
28	1422	7.18	421	32.0	29	1457	4.42	422	36.0
DEC					JUL				
23	1041	5.30	425	38.0	25	1241	6.43	437	32.0
JAN					AUG				
27	1449	4.75	428	36.0	30	1033	5.67	338	32.0
FEB					SEP				
24	1226	4.27	429	34.0	28	1223	6.07	438	34.0





WELL NUMBER.--262317080074601. Local Number PB 1491. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat 26°23'17", long 80°07'46", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.11, T.47 S., R.42 E., Hydrologic Unit 03090202, on the east bank of E-3 canal approximately 0.5 mi south of NW 51st Street (Yamato Road) at Boca Raton.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 138 ft, cased to 88 ft, screened 88 to 138 ft.

INSTRUMENTATION .-- Satellite data collection platform with pressure transducer.

DATUM.--Measuring point: Top of casing, 18.20 ft above National Geodetic Vertical Datum of 1929. Prior to March 7, 2000, measuring point was top of base, 20.31 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 18.7 ft above NGVD.

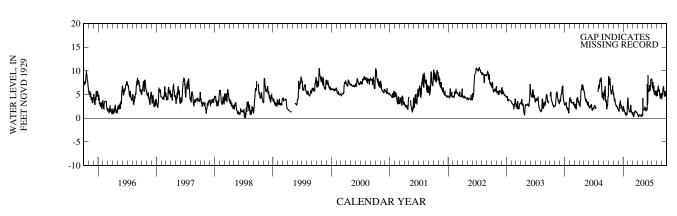
REMARKS.--The well is obstructed or collapsed at a depth of 84 ft as of September 18, 2001.

PERIOD OF RECORD.--April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.72 ft NGVD, July 13, 14, 2002; lowest, 3.04 ft below NGVD, Apr. 14, 1989.

ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES								
JAN	FEB	MAR	APR	MAY	JUN	JU		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	7.97 8.43	4.23 4.14	1.51 3.08	1.93 1.38	2.14 1.35	0.45 0.65	0.46 0.58	1.97 1.91	9.12 5.56	6.35 5.76	5.71 6.86	4.99 6.76
15	5.99	2.85	3.08	0.92	1.42	1.33	0.69	1.79	6.98	5.30	5.92	5.39
20 25	5.45 5.96	2.61 2.41	2.37 2.02	0.91 0.71	1.55 1.06	1.50 1.23	0.59 0.36	1.74 1.74	6.68 8.19	4.86 5.64	4.46 5.27	5.43 5.11
EOM	5.00	2.01	1.48	4.34	0.89	0.93	0.79	1.82	8.09	5.56	4.38	5.72
MAX	8.80	5.48	3.56	4.34	3.52	1.50	0.84	4.29	9.12	7.56	6.86	6.76



WELL NUMBER.--262410080090801. Local Number PB 1661. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat 26°24'16", long 80°08'59", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.3, T.47 S., R.42 E., Hydrologic Unit 03090202, at sewage lift station near junction of NW 31st Way and NW 61st Street within Seasons of Boca Raton development, off Jog Road, 0.10 mi south of Clint Moore Road, in Boca Raton.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 15 ft, screened from 15 to 25 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 23.10 ft above National Geodetic Vertical Datum of 1929.

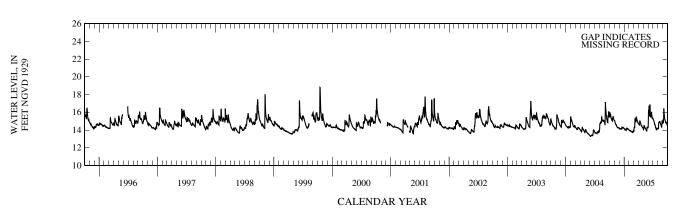
LAND-SURFACE DATUM .-- Land surface is approximately 20.1 ft above NGVD.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.83 ft NGVD, Oct. 15, 1999; lowest, 13.28 ft NGVD, June 4, 5, 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	15.45	14.87	14.13	14.10	13.93	14.30	14.61	14.53	16.77	15.11	14.75	15.34
10	15.46	14.60	14.14	14.03	13.92	15.28	15.01	14.27	15.53	14.67	14.89	15.53
15	15.16	14.44	14.13	14.16	13.83	14.93	14.71	14.14	15.59	14.43	14.79	15.08
20	15.33	14.30	14.26	14.19	13.80	15.31	14.48	13.94	15.99	14.10	14.52	14.89
25	15.44	14.26	14.32	14.13	13.78	15.00	14.30	14.25	15.39	14.24	14.71	14.71
EOM	15.09	14.21	14.19	14.02	13.86	14.69	14.14	14.31	15.32	14.14	14.79	14.42
MAX	15.96	15.09	14.33	14.19	14.01	15.45	15.03	14.53	16.90	15.23	15.05	16.44



WELL NUMBER.--262435080042904. Local Number PB 948. USGS Observation Well in Boca Raton, FL.

LOCATION.--Lat  $26^{\circ}24'38''$ , long  $80^{\circ}04'28''$ , in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.32, T.46 S., R.43 E., Hydrologic Unit 03090202, about 570 ft east of U.S. Highway 1 and 800 ft north of Coventry Street.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in., depth 175 ft, cased to 170 ft, screened 170 to 175 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 15.25 ft above National Geodetic Vertical Datum of 1929. Prior to September 2000, measuring point was 15.38 ft above NGVD.

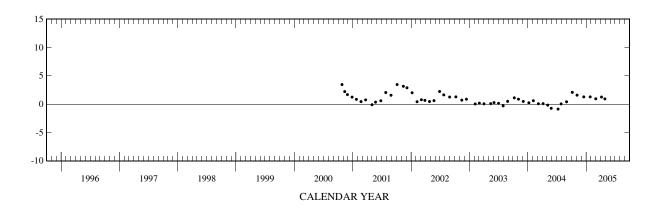
LAND-SURFACE DATUM.--Land surface is approximately 12.5 ft above NGVD.

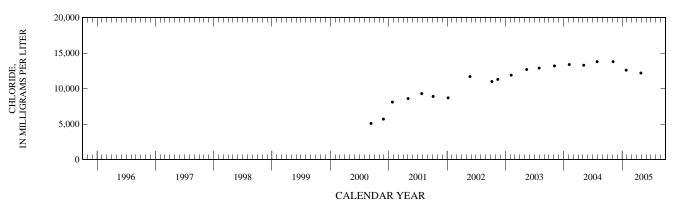
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface on ground water. See EXPLANATION OF RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Measured well depth at 163.5 ft from top of casing on May 5, 2004. Well is filling with sand from the aquifer but because the well is cased to 170 ft the samples collected are considered to be representative of the aquifer at this depth. Well was found abandoned in June 2005.

PERIOD OF RECORD.--November 1976 to September 1978 (monthly), October 1978 to January 1982 (quarterly), November 1982 to September 1994 (monthly), October 2000 to April 2005. Discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.02 ft NGVD, Jan. 17, 1977; lowest, 0.87 ft below NGVD, July 9, 2004.

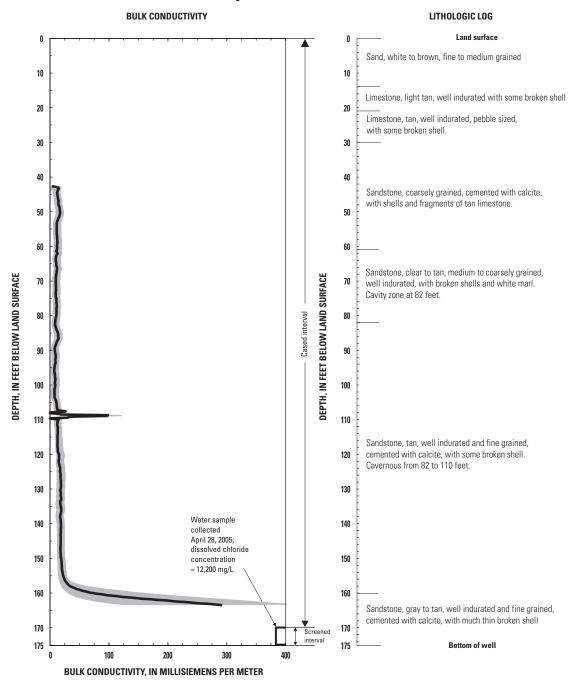
Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAR				
06	0820	2.08			02	1225	.95		
NOV					APR				
05	1121	1.58	36,300	13,800	07	1325	1.25		
DEC					28	1006	.93	35,600	12,200
17	1500	1.28							
JAN									
26	1509	1.28	34,900	12,600					





WELL NUMBER.--262435080042904. Local Number PB 948. USGS Observation Well near Boca Raton, FL-Continued

#### Induction log for Well 262435080042904, Local Number PB-948



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 28, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from September 11, 2000 to May 5, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--262713080041901. Local Number PB 1710. USGS Observation Well near Delray Beach, FL.

 $LOCATION.-Lat\ 26^{\circ}27'13'', long\ 80^{\circ}04'19'', in\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec. 21, T.46\ S., R.43\ E., Hydrologic\ Unit\ 03090202, on\ north\ side\ of\ SE\ 5th\ Street,\ next\ to\ guardrail,\ between\ SE\ 3rd\ Avenue\ and\ railroad\ tracks,\ 0.3\ mi\ west\ of\ U.S.\ Highway\ 1.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 222 ft, casing to 103 ft, screened 103 to 222 ft. See REMARKS. INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.22 ft above National Geodetic Vertical Datum of 1929. Prior to October 2002, measuring point was incorrectly considered to be 17.00 ft above NGVD. See REMARKS.

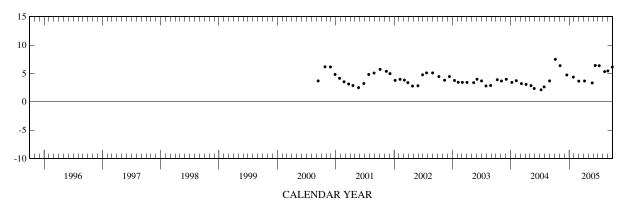
LAND-SURFACE DATUM.--Land surface is approximately 17.2 ft above NGVD.

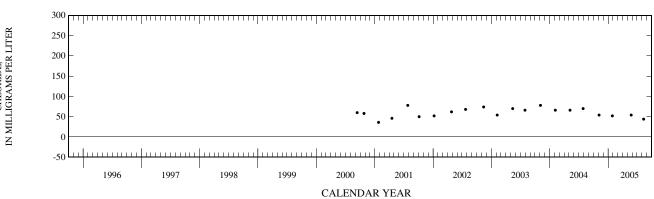
REMARKS.--Well is also used for salinity monitoring. Only salinity was measured prior to October 2000. The figures of water level as elevation, in ft NGVD, prior to October 2002 are in error. A correction of +0.22 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM. The well was examined with a borehole camera on December 3, 2004. The well has an obstruction at a depth of 111 ft. Because of the obstruction chloride concentrations in water samples are not representative of the chloride concentration at the bottom of the well but most likely represent a composite of water from 103 to 222 ft. Discontinuation of monitoring in being considered. See WELL CHARACTERISTICS.

PERIOD OF RECORD.--September 1997 to September 2000 (intermittent), October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.49 ft NGVD, Oct. 6, 2004; lowest, 2.12 ft NGVD, July 9, 2004.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	0835	7.49			25	0835	3.33	687	54.0
NOV					JUN				
05	0830	6.37	654	54.0	13	1313	6.40		
DEC					JUL				
17	1140	4.73			08	1139	6.36		
JAN					AUG				
27	0820	4.35	643	52.0	11	0828	5.32	640	44.0
MAR					31	0844	5.44		
02	1200	3.64			SEP				
APR					28	0814	6.13		
07	1307	3.67							





WATER LEVEL, IN FEET NGVD 1929

CHLORIDE, IN MILLIGRAMS PER LITER

WATER LEVEL, IN FEET NGVD 1929

#### PALM BEACH COUNTY—Continued

WELL NUMBER.--262755080040101. Local Number PB 1707. USGS Observation Well near Delray Beach, FL.

LOCATION.--Lat 26°27'54", long 80°04'01", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.16, T.46 S., R.43 E., Hydrologic Unit 03090202, on NE 6th Avenue, 1 block east of U.S. Highway 1, on south side of NE 2nd Street.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 182.7 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 12.17 ft above National Geodetic Vertical Datum of 1929. Prior to October 2002, measuring point was incorrectly considered to be 12.20 ft above NGVD. See REMARKS.

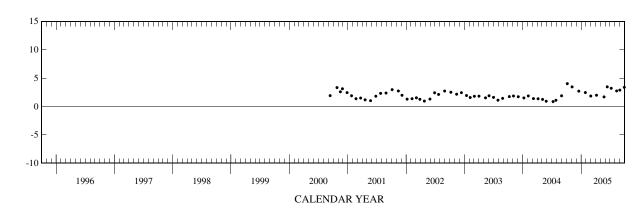
LAND-SURFACE DATUM.--Land surface is approximately 12.2 ft above NGVD.

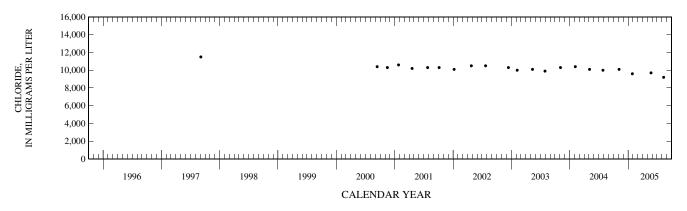
REMARKS.--Well is also used for salinity monitoring. Only salinity was measured prior to September 2000. The figures of water level as elevation, in ft NGVD, prior to October 2002 are in error. A correction of -0.03 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--September 1997 to September 2000 (intermittent), October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.02 ft NGVD, Oct. 6, 2004; lowest, 0.86 ft NGVD, July 9, 2004.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	0910	4.02			24	1609	1.69	27,300	9,700
NOV					JUN				
05	0935	3.45	26,700	10,100	13	1301	3.46		
DEC					JUL				
17	1347	2.70			08	1121	3.21		
JAN					AUG				
27	0940	2.45	26,300	9,600	11	1328	2.74	26,600	9,200
MAR					31	0905	2.88		
02	1148	1.84			SEP				
APR					28	0841	3.37		
07	1250	1.98							





WELL NUMBER.--262803080041101. Local Number PB 1714. USGS Observation Well near Delray Beach, FL.

LOCATION.--Lat 26°27'56", long 80°04'12", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.16, T.46 S., R.43 E., Hydrologic Unit 03090202, 16 ft east of the Florida East Coast Railroad and 22 ft north of the centerline of NE 2nd Street, 0.10 mi west of U.S. Highway 1.

AQUIFER .-- Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS .-- Drilled, observation well, diameter 2 in., depth 159 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 17.85 ft above National Geodetic Vertical Datum of 1929. Prior to June 10, 2003, measuring point was incorrectly considered to be 18.10 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM .-- Land surface is approximately 17.9 ft above NGVD.

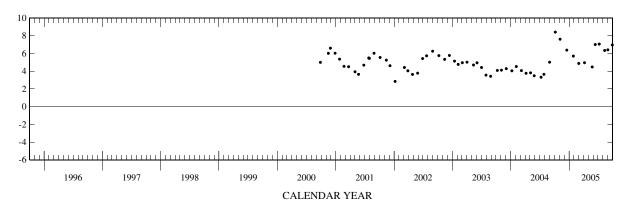
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface on ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. Induction log data contains spikes that occur at 40 ft increments. The spike data could be caused by well centralizers. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the water year 2002 had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. The figures of water level as elevation, in feet NGVD, prior to October 2003 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

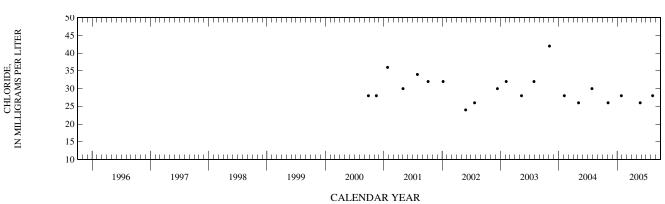
PERIOD OF RECORD.--September 2000 to current year.

WATER LEVEL, IN FEET NGVD 1929

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.41 ft NGVD, Oct. 6, 2004; lowest, 2.85 ft NGVD, Jan. 7, 2002.

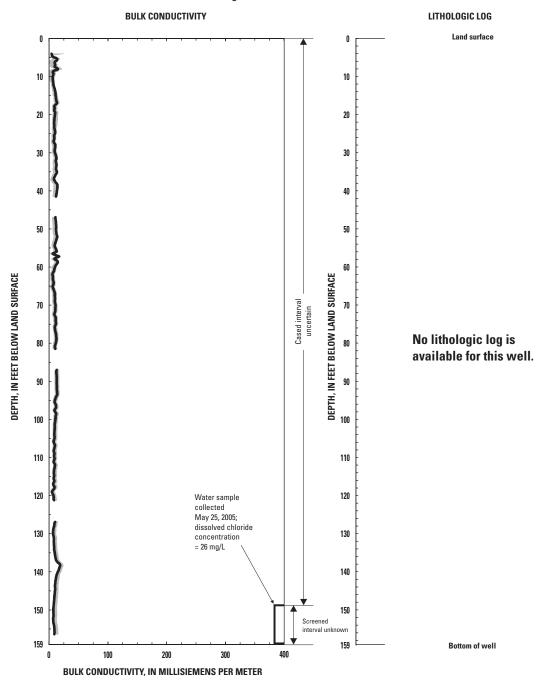
Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	0850	8.41			25	0958	4.48	498	26.0
NOV					JUN				
05	0905	7.61	478	26.0	13	1249	7.01		
DEC					JUL				
17	1340	6.38			08	1103	7.06		
JAN					AUG				
27	0857	5.71	476	28.0	11	1303	6.34	495	28.0
MAR					31	0855	6.41		
02	1134	4.88			SEP				
APR					28	0825	6.96		
07	1239	4.96							





WELL NUMBER.--262803080041101. Local Number PB 1714. USGS Observation Well near Delray Beach, FL-Continued

#### Induction log for Well 262803080041101, Local Number PB-1714



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 25, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from September 26, 2000 to May 4, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--263021080070102. Local Number PB 1628. USGS Observation Well near Boynton Beach, FL.

LOCATION.--Lat 26°30'21", long 80°07'01", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.36, T.45 S., R.42 E., Hydrologic Unit 03090202, 33 ft north of Golf Road, 0.4 mi east of Military Trail, 0.38 mi south of Woolbright Road and 3.15 mi west of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 109 ft, cased to 104 ft, screened from 104 to 109 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.—Measuring point: Top of base, 21.26 ft above National Geodetic Vertical Datum of 1929. Prior to August 2000, measuring point was top of casing, 18.42 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 18.9 ft above NGVD.

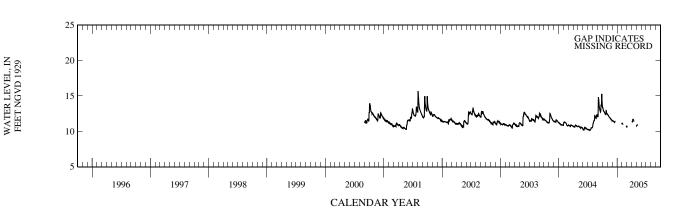
REMARKS .-- Station built and re-levelled August 14, 2000.

PERIOD OF RECORD.--May 1988 to April 1993 (semiannual), November 1993 to July 1995 (quarterly), August 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 15.68 ft NGVD, Aug. 3, 2001; lowest, 10.17 ft NGVD, July 12, 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	13.12	12.29	11.51		11.03	10.79	11.33	10.89				
10	12.82	12.11	11.41				11.72					
15	12.62	11.96	11.30				11.45					
20	12.52	11.83	11.41									
25	12.90	11.67			10.71							
EOM	12.44	11.49		11.09	10.71		10.83					
MAX	13.40	12.44										



WATER LEVEL, IN FEET NGVD 1929

#### PALM BEACH COUNTY—Continued

WELL NUMBER.--263044080035102. Local Number PB 1195. USGS Observation Well in Boynton Beach, FL.

LOCATION.--Lat 26°30'47", long 80°03'47", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.33, T.45 S., R.43 E., Hydrologic Unit 03090202, about 500 ft southwest of the intersection of the Florida East Coast Railroad and East Woolbright Road, 0.5 mi east of U.S. Interstate 95, about 400 ft south of East Woolbright Road and about 350 ft east of Seacreast Boulevard.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, diameter 4 in., depth 325 ft, cased to 300 ft, screened 300 to 320 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing: Elevation needs to be surveyed. Prior to July 2005, top of casing was 20.13 ft above National Geodetic Vertical Datum of 1929. See REMARKS.

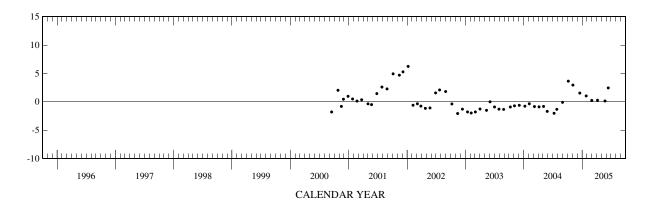
LAND-SURFACE DATUM.--Land surface is approximately 19.0 ft above NGVD.

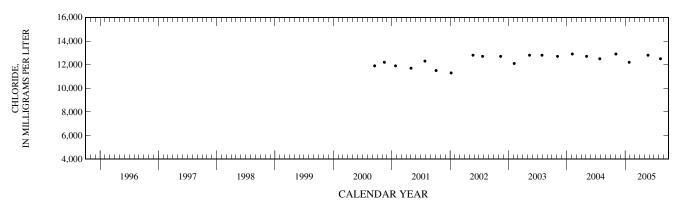
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface on ground water. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the water year 2002 had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Records of water-level elevation prior to October 2001, are available in the files of the U.S. Geological Survey. Top of casing measuring point was altered during reconstruction of the well shelter in 2005. The measuring point has not be resurveyed as of this publication. See DATUM.

PERIOD OF RECORD .-- September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.24 ft NGVD, Jan. 7, 2002; lowest, 2.06 ft below NGVD, Nov. 13, 2002.

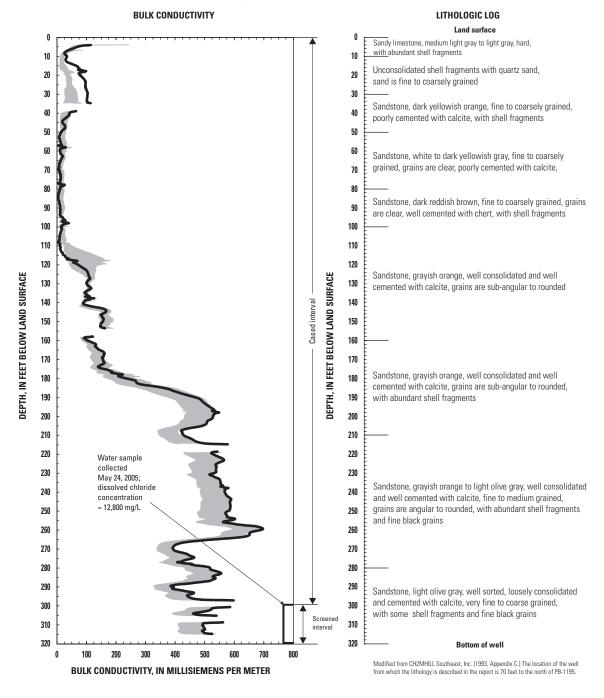
Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	0950	3.64			24	1352	.15	37,100	12,800
NOV					JUN				
04	1602	2.95	34,600	12,900	13	1232	2.45		
DEC					JUL				
17	1430	1.54			08	1041			
JAN					AUG				
26	1322	1.04	34,700	12,200	10	1503		35,500	12,500
MAR					31	0931			
02	1120	.25			SEP				
APR					28	0914			
07	1055	.28							





WELL NUMBER.--263044080035102. Local Number PB 1195. USGS Observation Well near Boynton Beach, FL-Continued

#### Induction log for Well 263044080035102, Local Number PB-1195



#### **EXPLANATION**

Bulk conductivity, in millisiemens per meter, May 24, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from September 15, 2000 to May 4, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WATER LEVEL, IN FEET NGVD 1929

#### PALM BEACH COUNTY—Continued

WELL NUMBER.--263053080034401. Local Number PB 1736. USGS Observation Well near Boynton Beach, FL.

LOCATION.—Lat 26°30'53", long 80°03'36", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.33, T.45 S., R.43 E., Hydrologic Unit 03090202, on SE 15th Avenue and U.S. Highway 1, on sidewalk at southwest corner, 80 ft east of entrance to mall parking lot.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 178 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 10.71 ft above National Geodetic Vertical Datum of 1929.

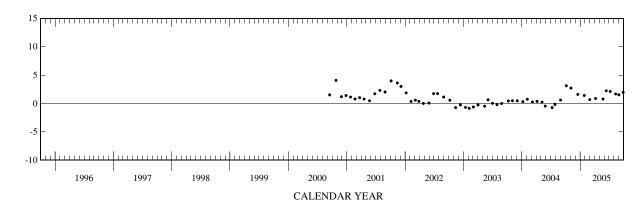
LAND-SURFACE DATUM.--Land surface is approximately 10.7 ft above NGVD.

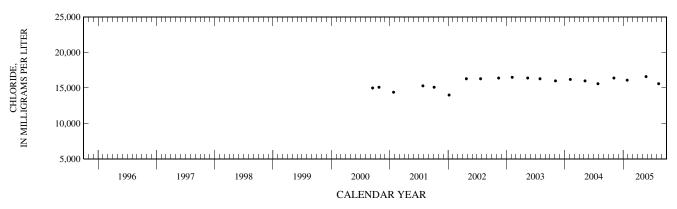
REMARKS .-- Well is also used for salinity monitoring.

PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.07 ft NGVD, Oct. 25, 2000; lowest, 0.86 ft below NGVD, Feb. 6, 2003.

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	0936	3.13			24	1537	.78	46,000	16,600
NOV					JUN				
04	1707	2.71	43,200	16,400	13	1220	2.24		
DEC					JUL				
17	1413	1.60			08	1031	2.12		
JAN					AUG				
26	1248	1.41	43,300	16,100	11	0750	1.69	45,000	15,600
MAR					31	0919	1.53		
02	1055	.68			SEP				
APR					27	1327	1.95		
07	1040	88							





WELL NUMBER.--263255080133601. Local Number PB 1576. USGS Observation Well near Greenacres, FL.

LOCATION.--Lat 26°32'55", long 80°13'36", in NE ½ NW ½ SE ½ sec.14, T.45 S., R.41 E., Hydrologic Unit 03090202, 200 ft north of Eagle Nest Drive and 1,400 ft west of 116th Terrace South, 1.3 mi southwest of intersection of Osprey Pond Lane and U.S. Highway 441, 3 mi south of State Road 812, 8 mi southwest of Greenacres.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Observation, water-table well, diameter 2 in., depth 160 ft, cased to 60 ft, screened 60 to 160 ft.

INSTRUMENTATION .-- Electronic data logger with pressure transducer.

DATUM.--Measuring point: Top of base, 21.03 ft above National Geodetic Vertical Datum of 1929. Prior to the 2004 water year, measuring point was incorrectly considered to be 20.73 ft.

LAND-SURFACE DATUM.--Land surface is approximately 17.5 ft above NGVD.

REMARKS.--Well was originally open to the aquifer from 60 to 160 ft. The open interval has collapsed or the well has become obstructed at a depth of 51 ft. Well remains in communication with the aquifer. Water-level data for water years 2001, 2002, were published in WDR FL-03-2B. The figures of water level as elevation, in ft NGVD, prior to October 2003 are in error. A correction of +0.30 ft has been applied to correct water-level data. Corrected records are in files of the U.S. Geological Survey. See DATUM

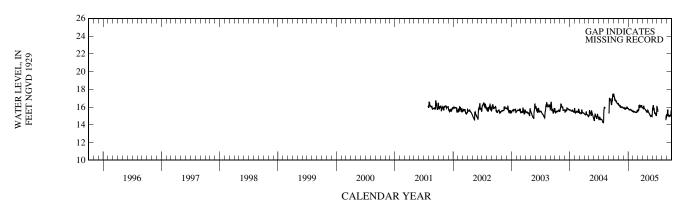
PERIOD OF RECORD.--November 1993 to July 1995 (quarterly), July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 17.44 ft NGVD, Sept. 27, and Oct. 2, 3, 2004; lowest, 14.23 ft NGVD, July 30, 2004.

ELEVATION ABOVE NGVD 1929, FEET

# WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JU

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.13	16.24	15.84	15.74	15.51	15.64	15.81	15.59	15.86	15.75		15.62
10	16.89	16.07	15.83	15.67	15.48	16.18	15.94	15.36	15.61			15.04
15	16.72	16.09	15.76	15.72	15.44	15.96	15.78	15.20	15.31			15.10
20	16.63	15.99	15.85	15.64	15.40	16.03	15.65	14.97	15.29			14.93
25	16.39	15.97	15.99	15.60	15.52	16.01	15.51	14.94	14.98		14.52	15.13
EOM	16.40	15.92	15.84	15.53	15.52	15.94	15.47	15.03	16.05		15.15	15.36
MAX	17.44	16.39	16.06	15.83	15.63	16.22	16.14	15.63	16.21			15.71



WELL NUMBER.--263328080085201. Local Number PB 445. USGS Observation Well near Boynton Beach, FL.

LOCATION.--Lat 26°33'28", long 80°08'49", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.10, T.45 S., R.42 E., Hydrologic Unit 03090202, approximately 80 ft from the east side of Jog Road, 1.0 mi south of Hypoluxo Road and 2.2 mi west of Military Trail (State Road 809), 9.5 mi southwest of West Palm Beach.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 11.4 ft, cased to 11.4 ft, gravel packed from 9.4 to 11.4 ft.

REVISED RECORDS .-- WDR FL-81-2B:1980.

INSTRUMENTATION.--Electronic data logger.

DATUM.--Measuring point: Top of base, 21.52 ft above National Geodetic Vertical Datum of 1929. Prior to April 1999, measuring point was considered to be 22.86 ft above NGVD. Prior to October 1975, measuring point was considered to be 21.66 ft above NGVD. See REMARKS.

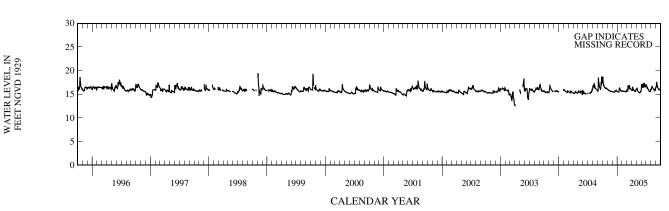
LAND-SURFACE DATUM.--Land surface is approximately 19.6 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. Published figures of water levels as elevation, in feet NGVD, prior to October 1998 are in error. Corrected records are in files of the U.S. Geological Survey. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.49 ft NGVD, Nov. 5, 1998; lowest, 12.58 ft NGVD, Apr. 2, 2003.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.38	15.97	15.52	15.50	15.64	15.91	15.82	16.37	16.87	16.70	16.52	17.53
10	16.81	15.80	15.53	15.51	15.65	16.86	16.33	15.72	16.41	16.41	16.50	16.67
15	16.45	15.78	15.47	16.36	15.61	16.27	15.93	15.49	16.56	15.99	16.17	16.23
20	16.30	15.64	15.65	16.00	15.53	16.52	15.67	15.33	17.26	15.66	15.90	16.04
25	16.31	15.63	15.89	15.75	15.61	16.16	15.58	15.36	16.70	15.53	15.91	15.95
EOM	16.07	15.57	15.62	15.69	15.73	15.89	16.06	15.71	16.90	16.08	16.50	16.03
MAX	18.64	16.11	15.89	16.36	15.77	16.86	16.47	16.37	17.33	17.01	16.70	17.53



WELL NUMBER.--263453080031501. Local Number PB 1717. USGS Observation Well near Lantana, FL.

 $LOCATION.--Lat\ 26^{\circ}34'53'', long\ 80^{\circ}03'15'', in\ SE\ {}^{1}\!\!{}^{\prime}_{4}\ SW\ {}^{1}\!\!{}^{\prime}_{4}\ NW\ {}^{1}\!\!{}^{\prime}_{4}\ sec.3, T.45\ S., R.43\ E., Hydrologic\ Unit\ 03090202, on\ southside\ of\ Wickline\ Road\ west of\ U.S.\ Highway\ 1, in\ planter\ in\ northeast\ corner\ of\ apartment\ building\ \#330\ parking\ lot,\ well\ is\ most\ western\ of\ two\ wells.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 148 ft, cased to 138 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 13.26 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 13.3 ft above NGVD.

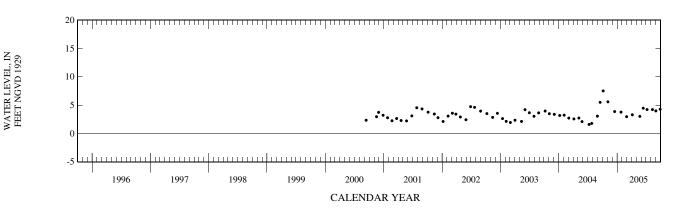
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey. Only salinity was measured prior to October 2000.

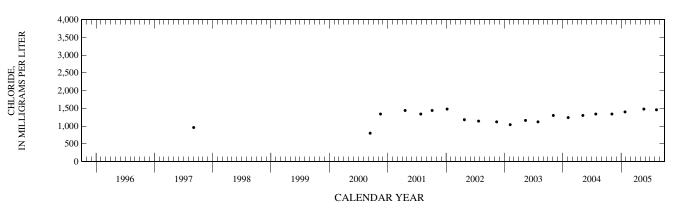
PERIOD OF RECORD.--September 1997 to September 2000 (intermittent), October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.51 ft NGVD, Oct 5, 2004; lowest, 1.60 ft NGVD, July 9, 2004.

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

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
05	1212	7.51			23	1122	3.02	4,840	1,480
NOV					JUN				
04	1523	5.58	4,340	1,340	13	1123	4.46		
DEC					JUL				
16	1122	3.87			07	1041	4.22		
JAN					AUG				
25	1107	3.77	4,410	1,400	10	1428	4.22	4,810	1,460
MAR					31	0955	3.99		
01	1139	2.97			SEP				
APR					27	1302	4.27		
06	1101	3.30							





WELL NUMBER.--263524080124301. Local Number PB 683. USGS Observation Well near West Palm Beach, FL.

LOCATION.--Lat 26°35'24", long 80°12'43", in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.37, T.44  $\frac{1}{2}$  S., R.41 E., Hydrologic Unit 03090202, 0.3 mi west of U.S. Highway 441, south of Lantana Road near TV tower, and 11 mi southwest of West Palm Beach.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 17 ft, cased to 17 ft, open end.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 20.85 ft above National Geodetic Vertical Datum of 1929. Prior to October 1989, measuring point was considered to be 18.95 ft above NGVD. See REMARKS.

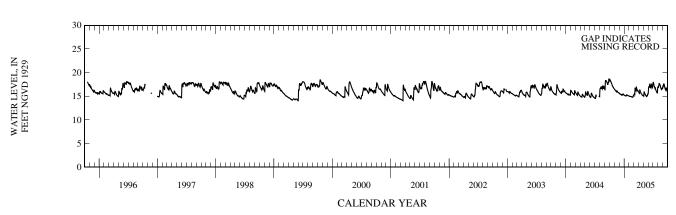
LAND-SURFACE DATUM.--Land surface is approximately 18.4 ft above NGVD.

REMARKS.--The figures of water levels as elevation, in feet NGVD, prior to October 1989 are in error. Corrected records are in the files of the U.S. Geological Survey. The well has become obstructed at a depth of 13 ft. A review of water-level records indicates that the well remains in good hydrologic communication with the aquifer. See DATUM.

PERIOD OF RECORD.--June 1973 to May 1977, May 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.67 ft NGVD, Sept. 27, 28, 2004; lowest, 13.61 ft NGVD, May 5-8, 1975.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	18.48 18.09	16.35 16.10	15.52 15.42	15.15 15.08	15.01 14.97	15.53 16.72	15.68 16.26	15.92 15.59	16.94 17.11	17.68 17.02	17.18 17.55	17.55 17.27
15	17.69	16.17	15.28	15.29	14.91	16.21	15.76	15.23	16.99	16.76	17.23	16.56
20 25	17.17 16.91	15.97 15.78	15.41 15.48	15.22 15.14	14.84 14.92	16.63 16.17	15.44 15.23	15.00 15.08	17.33 16.99	16.20 15.81	16.64 16.51	16.64 16.35
EOM	16.55	15.67	15.27	15.06	15.21	15.93	15.09	15.57	17.73	16.98	17.16	16.41
MAX	18.51	16.51	15.62	15.33	15.21	16.90	16.34	15.94	17.73	17.79	17.71	17.63



WELL NUMBER.--263633080031401. Local Number PB 1723. USGS Observation Well in Lake Worth, FL.

LOCATION.--Lat 26°36′34″, long 80°03′14″, in SE  $^{1}V_{4}$  SE  $^{1}V_{4}$  NW  $^{1}V_{4}$  sec.27, T.44 S., R.43 E., Hydrologic Unit 03090202, at the northwest corner of the intersection of South M Street and 5th Avenue, 3 ft west of well MW-3, 0.9 mi east of U.S. Interstate 95.

AQUIFER .-- Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 318 ft, cased to 310 ft, screened 310 to 315 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 11.33 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 11.3 ft above NGVD.

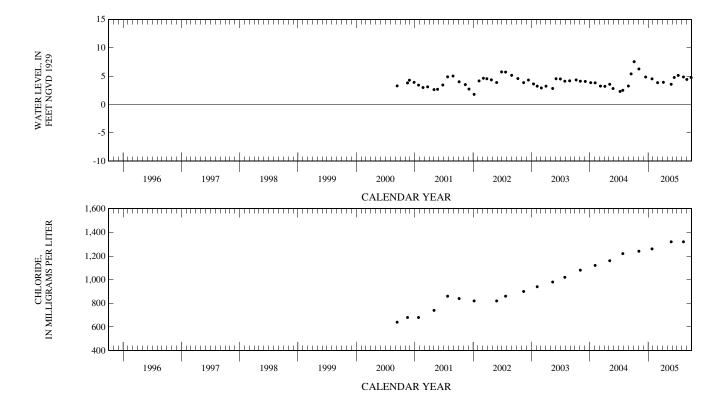
REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of the fresh-water/salt-water interface on ground water. Instrument calibration procedures, accuracy, and precision of induction logs are explained in detail in the RECORDS OF BULK CONDUCTIVITY section. See EXPLANATION OF THE RECORDS SECTION, RECORDS OF BULK CONDUCTIVITY in the front of this book. A calibration error was found to have affected some of the historical bulk conductivity logs. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Well logged with the bore hole camera in August 2000. Something is obstructing well at 307 ft depth. Induction logger does fit past this obstruction.

PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.54 ft NGVD, Oct. 5, 2004; lowest, 1.78 ft NGVD, Jan. 7, 2002.

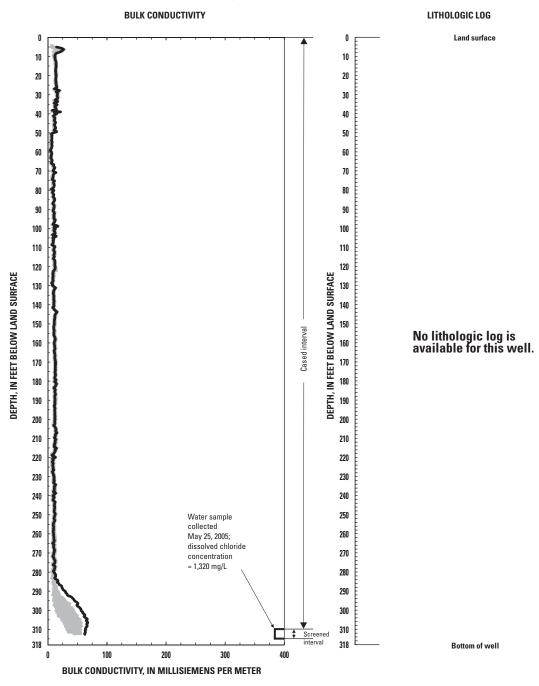
# WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elev- ation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
05	1226	7.54			25	1237	3.56	4,470	1,320
NOV					JUN				
04	1455	6.26	4,130	1,240	13	1111	4.76		
DEC					JUL				
16	1135	4.84			08	0954	5.12		
JAN					AUG				
25	1133	4.52	4,100	1,260	10	1358	4.85	4,540	1,320
MAR					31	1011	4.41		
01	1151	3.84			SEP				
APR					27	1250	4.73		
06	1112	3 91							



WELL NUMBER.--263633080031401. Local Number PB 1723. USGS Observation Well in Lake Worth, FL-Continued

# Induction log for Well 263633080031401, Local Number PB-1723



# **EXPLANATION**

Bulk conductivity, in millisiemens per meter, April 28, 2005.

Shaded area represents range of measurement in bulk conductivity logs collected from September 12, 2000 to May 5, 2004.

Bracket represents the interval for which the well is open to the aquifer.

WELL NUMBER.--263656080033502. Local Number PB 1639. USGS Observation Well in Lake Worth, FL.

LOCATION.--Lat 26°36′56″, long 80°03′35″, in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 28, T.44 S., R.43 E., Hydrologic Unit 03090202, on east right of way of Florida East Coast Railroad and south side of Lake Avenue, near City Hall in Lake Worth.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 20 ft, screened from 20 to 25 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 19.73 ft above National Geodetic Vertical Datum of 1929. Prior to June 5, 1996, measuring point was 18.45 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 17.6 ft above NGVD.

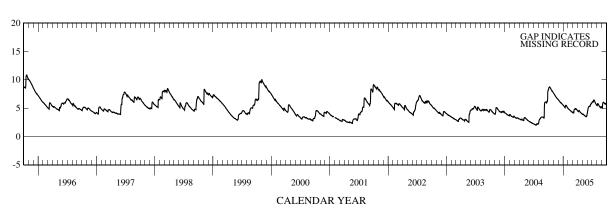
REMARKS .-- Station reconstructed June 5, 1996.

PERIOD OF RECORD.--May 1989 (semiannual), August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.83 ft NGVD, Oct. 21, 22, 1995; lowest, 1.97 ft NGVD, July 15, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.64	7.51	6.37	5.38	4.81	4.34	4.39	3.96	4.80	6.16	5.79	5.72
10	8.67	7.29	6.20	5.18	4.70	4.68	4.61	3.81	5.21	6.39	5.66	6.04
15	8.46	7.04	5.97	5.38	4.55	4.78	4.41	3.68	5.35	6.36	5.36	5.88
20	8.14	6.85	5.89	5.47	4.43	4.92	4.21	3.56	5.57	6.06	5.16	5.80
25	8.01	6.70	5.75	5.23	4.29	4.79	4.09	3.57	5.78	5.73	5.07	5.71
EOM	7.71	6.53	5.55	4.97	4.27	4.58	3.96	3.96	5.97	5.53	5.13	5.92
MAX	8.73	7.67	6.49	5.53	4.92	4.92	4.61	3.96	5.97	6.44	5.80	6.04





WELL NUMBER.--264005080233501. Local Number PB 99. USGS Observation Well in West Palm Beach, FL.

LOCATION.-Lat 26°40'14", long 80°03'35", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.4, T.44 S., R.43 E., Hydrologic Unit 03090202, at Garden Avenue, 19 ft north of Bradley Street and 0.2 mi west of U.S. Highway 1 in West Palm Beach.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS .-- Drilled, observation, water-table well, diameter 6 in., depth 20 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 16.69 ft above National Geodetic Vertical Datum of 1929. Prior to October 1993, measuring point was top of casing, 16.63 ft above NGVD. Prior to 1977 water year, measuring point was top of casing, 16.93 ft above NGVD. See REMARKS.

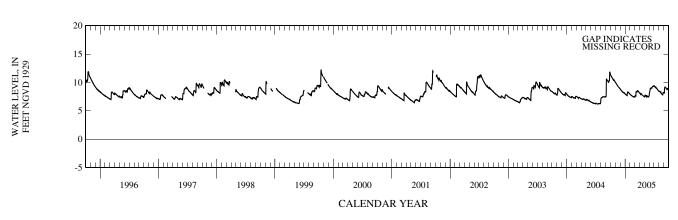
LAND-SURFACE DATUM.--Land surface is approximately 14.8 ft above NGVD.

REMARKS.--In 1977, PB-99 replaced a well of similar depth, 55 ft north of current location. Both wells were published under the designation PB-99. Records of water levels prior to January 1957 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--July 1948 to 1977 (original well), 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.06 ft NGVD, Oct. 6, 1948; lowest, 5.01 ft NGVD, Mar. 23, 1972.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.12	9.84	8.69	7.86	7.79	7.66	8.02	7.75	8.54	9.28	8.40	9.01
10	10.89	9.61	8.51	7.75	7.69	8.33	8.07	7.66	8.90	9.22	8.22	9.16
15	10.65	9.41	8.36	8.21	7.59	8.36	7.85	7.68	9.03	9.02	8.06	8.96
20	10.49	9.21	8.25	8.28	7.49	8.54	7.73	7.54	9.28	8.85	7.89	8.72
25	10.37	9.03	8.20	8.11	7.46	8.39	7.60	7.44	9.31	8.64	7.94	8.91
EOM	10.07	8.89	8.00	7.94	7.48	8.18	7.49	7.71	9.40	8.48	8.20	8.73
MAX	11.39	10.02	8.84	8.31	7.91	8.54	8.12	7.76	9.41	9.40	8.43	9.18



WELL NUMBER.--264123080053801. Local Number PB 809. USGS Observation Well in West Palm Beach, FL.

LOCATION.—Lat  $26^{\circ}41^{\circ}23^{\circ}$ , long  $80^{\circ}05^{\circ}41^{\circ}$ , in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 31, T.43 S., R.43 E., Hydrologic Unit 03090202, on 8th Street in West Palm Beach, 1 mi north of State Road 98, and 2.5 mi west of U.S. Highway 1.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in. from 0 to 58 ft, 2 in. from 58 to 150 ft, depth 150 ft, cased to 145 ft, screened from 145 to 150 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 17.35 ft above National Geodetic Vertical Datum of 1929. Prior to March 7, 2005, measuring point was 16.65 ft above NGVD. See REMARKS.

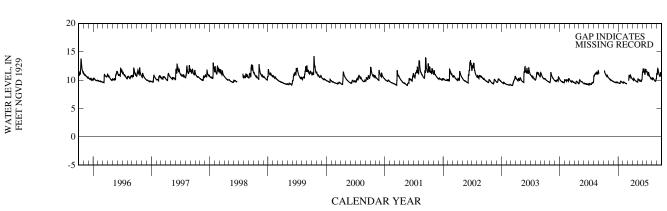
LAND-SURFACE DATUM .-- Land surface is approximately 15.0 ft above NGVD. (Corrected).

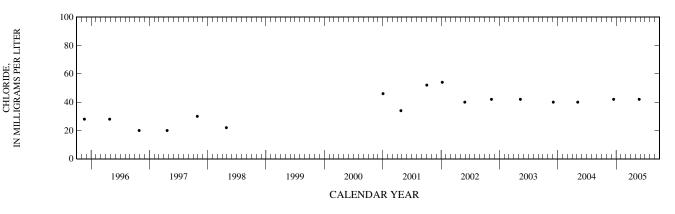
REMARKS.--Well also used for salinity monitoring. Water quality samples were not collected during the 1999 and 2000 water years. Station reconstructed March 2005 after site was damaged by a construction vehicle. See DATUM.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 14.30 ft NGVD, Nov. 23, 1984; lowest, 4.83 ft NGVD, May 5, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	11.29	10.30 10.12	9.69 9.65	9.48 9.43	9.69 9.57	10.82	10.02 10.25	10.22 10.04	11.62 11.44	10.97 11.44	10.41 10.24	11.82 11.47
15	10.97	10.14	9.55	9.79	9.43	10.53	10.02	10.06	11.23	10.83	10.00	10.90
20 25	10.70 10.85	9.94 9.84	9.62 9.67	9.76 9.63	9.39	10.77 10.45	9.87 9.77	9.83 9.79	11.81 11.60	10.53 10.42	9.86 9.91	10.63 11.04
EOM	10.47	9.77	9.54	9.52		10.16	9.67	10.53	11.49	10.16	11.17	10.88
MAX		10.43	9.76	9.81			10.32	10.53	12.06	11.51	11.17	12.02





WELL NUMBER.--264208080192201. Local Number PB 685. USGS Observation Well in West Palm Beach, FL.

LOCATION.--Lat 26°42′08", long 80°19′22", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec.26, T.43 S., R.40 E., Hydrologic Unit 03090202, approximately 25 ft east of Lion Country Safari Road, 1.3 mi north of Southern Boulevard (State Road 80), approximately 16 mi west of West Palm Beach.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 17 ft, cased to 17 ft, open end.

INSTRUMENTATION .-- Electronic data logger.

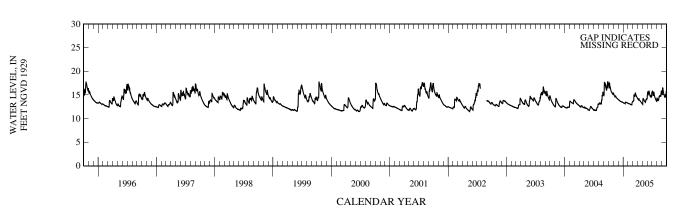
DATUM.--Measuring point: Top of base, 19.32 ft above National Geodetic Vertical Datum of 1929. Prior to January 11, 1994, measuring point was top of coupling, 19.49 ft above NGVD. Prior to October 1988, measuring point was top of shelf, 19.94 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 16.8 ft above NGVD.

PERIOD OF RECORD.--October 1973 to May 1977 (daily), October 1988 to September 1990 (semiannual), October 1990 to December 1993 (monthly), January 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.21 ft NGVD, Oct. 9, 1973; lowest, 11.49 ft NGVD, May 15, 2002.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.39	14.97	13.92	13.30	13.17	13.76	14.07	14.22	15.67	15.50	14.04	16.48
10	16.87	14.66	13.79	13.20	13.12	15.03	14.14	14.00	15.38	15.49	14.00	15.49
15	16.11	14.81	13.62	13.44	13.03	14.71	13.81	13.65	15.20	15.00	14.63	14.88
20	15.63	14.40	13.57	13.44	12.94	15.21	13.59	13.45	14.60	14.38	14.58	14.47
25	15.37	14.23	13.50	13.34	13.24	14.74	13.35	13.94	14.69	13.97	14.93	14.76
EOM	15.02	14.08	13.39	13.24	13.55	14.34	13.14	14.27	15.55	14.24	15.52	15.45
MAX	17.52	15.46	14.05	13.49	13.55	15.42	14.27	14.27	15.89	15.80	15.86	16.48



WELL NUMBER.--264230080120501. Local Number PB 561. USGS Observation Well near Royal Palm Beach, FL.

 $LOCATION.--Lat\ 26^{\circ}42'30", long\ 80^{\circ}12'05", in\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec. 30, T.43\ S., R.42\ E., Hydrologic\ Unit\ 03090202, near\ intersection\ of\ Okeechobee\ Road\ (State\ Road\ 704)\ and\ State\ Road\ 7\ (U.S.\ Highway\ 441),\ 12.5\ mi\ west\ of\ West\ Palm\ Beach.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 11.3 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 20.81 ft above National Geodetic Vertical Datum of 1929. Prior to May 1977, top of base was 20.82 ft above NGVD.

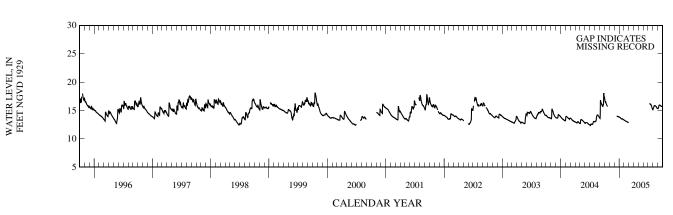
LAND-SURFACE DATUM.--Land surface is approximately 17.6 ft above NGVD.

REMARKS.--Monitoring well PB-561 was destroyed on March 1, 2005. The monitoring well was reinstalled on May 23, 2005, and was subsequently destroyed again on June 17, 2005. The monitoring well was resinstalled again on June 24, 2005. Data collected after June 24, 2005 is currently being evaluated relative to historical data. This data may be published at a later date. See PERIOD OF RECORD. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey.

PERIOD OF RECORD.--April 1970 to April 1977, May 1979 to current year. See REMARKS.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 18.08 ft NGVD, Oct. 16, 1999; lowest, 10.94 ft NGVD, Mar. 1, 1989.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3	16.55			13.78	13.23					4640	15.51	15.60
10	16.39			13.66	13.13					16.18	15.84	15.96
15	16.01			13.51	13.07					16.10	15.83	15.90
20	15.69		13.98	13.52	13.00					15.91	15.70	15.76
25			13.91	13.42	12.90					15.57	15.44	15.73
EOM			13.85	13.33	12.97					15.12	15.32	15.84
MAX				13.84	13.31						15.85	15.96



WATER LEVEL, IN FEET NGVD 1929

# PALM BEACH COUNTY—Continued

WELL NUMBER.--264643080033401 Local Number PB 1726. USGS Observation Well near Riviera Beach, FL.

LOCATION.—Lat  $26^{\circ}46'44''$ , long  $80^{\circ}03'34''$ , in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.28, T.42 S., R.43 E., Hydrologic Unit 03090202, on north side of W 20th Street between F Avenue and G Avenue, 20 ft west of second well, 0.3 mi west of U.S. Highway 1.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 200 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 15.04 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 15.0 ft above NGVD.

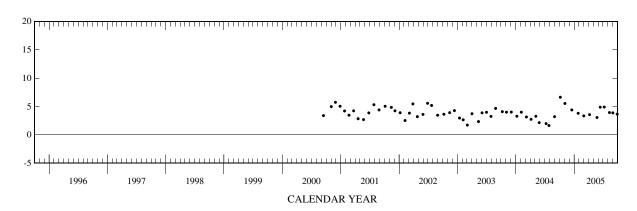
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey.

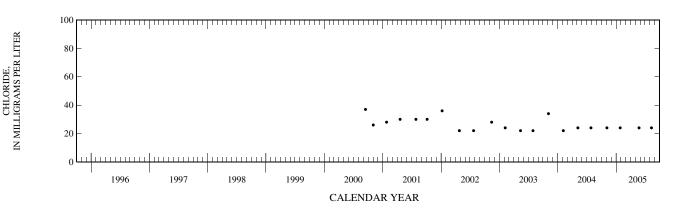
PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.63 ft NGVD, Oct 6, 2004; lowest, 1.64 ft NGVD, July 27, 2004.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	1058	6.63			24	1010	3.06	450	24.0
NOV					JUN				
04	1149	5.53	433	24.0	13	1032	4.87		
DEC					JUL				
17	0902	4.39			08	0659	4.90		
JAN					AUG				
26	1107	3.80	430	24.0	10	1049	3.93	467	24.0
MAR					31	1039	3.87		
02	0954	3.34			SEP				
APR					27	1004	3.65		
07	0939	3.56							





WELL NUMBER.--264717080033501 Local Number PB 1727. USGS Observation Well near Riviera Beach, FL.

 $LOCATION.--Lat\ 26^{\circ}47'18'', long\ 80^{\circ}03'35'', in\ NE\ {}^{1}\!\!/_{4}\ SE\ {}^{1}\!\!/_{4}\ NW\ {}^{1}\!\!/_{4}\ sec.28, T.42\ S., R.43\ E., Hydrologic\ Unit\ 03090202, on\ W\ 32nd\ Street\ between\ Avenue\ F\ and\ Avenue\ H\ East,\ next\ to\ wooden\ fence\ at\ the\ southwestern\ corner\ of\ park,\ 0.5\ mi\ east\ of\ Old\ Dixie\ Highway,\ 0.3\ mi\ north\ of\ State\ Road\ 708.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 200 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 13.33 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 13.3 ft above NGVD.

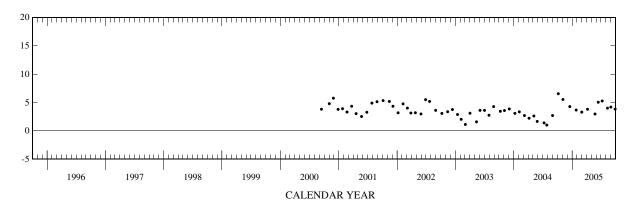
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey.

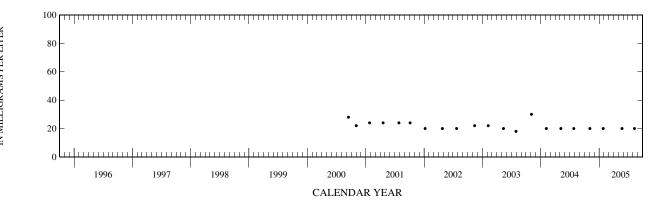
PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.54 ft NGVD, Oct 6, 2004; lowest, 1.02 ft NGVD, July 26, 2004.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	1110	6.54			24	0914	2.97	502	20.0
NOV					JUN				
04	1058	5.53	476	20.0	13	1014	5.04		
DEC					JUL				
17	0913	4.27			08	0647	5.26		
JAN					AUG				
26	1022	3.67	478	20.0	10	0950	4.00	503	20.0
MAR					31	1034	4.19		
02	0945	3.30			SEP				
APR					27	0938	3.83		
07	0920	3.80							





WATER LEVEL, IN FEET NGVD 1929

CHLORIDE, IN MILLIGRAMS PER LITER

WELL NUMBER.--264839080115001. Local Number PB 1662. USGS Observation Well near West Palm Beach, FL.

LOCATION.--Lat 26°48'39", long 80°11'50", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.24, T.42 S., R.41 E., Hydrologic Unit 03090202, on Northlake Boulevard at old construction entrance to Ibis Development, 2.7 mi west of State Road 710.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 23 ft, screened from 23 to 25 ft.

INSTRUMENTATION .-- Electronic data logger.

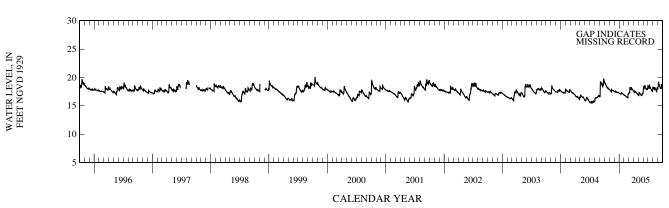
DATUM.--Measuring point: Top of base, 24.56 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 20.6 ft above NGVD.

PERIOD OF RECORD .-- October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 19.98 ft NGVD, Oct. 15, 16, 1999; lowest, 15.52 ft NGVD, July 4, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	18.87 18.67 18.39 18.16 18.07 17.89	17.74 17.58 17.88 17.72 17.68 17.58	17.44 17.44 17.39 17.37 17.39 17.25	17.15 17.07 17.30 17.18 17.07 16.92	16.85 16.73 16.58 16.47 16.80 17.15	17.37 18.22 17.87 18.03 17.88 17.59	17.42 17.50 17.44 17.25 17.07 16.90	17.32 17.15 17.03 16.81 16.91 17.42	18.26 18.14 18.15 17.86 17.96 18.62	18.22 18.72 18.23 17.91 17.67 18.29	18.08 18.01 18.04 17.71 17.95 18.06	19.17 18.58 18.17 18.08 18.28 18.47
MAX	19.17	17.91	17.57	17.30	17.15	18.22	17.62	17.42	18.64	18.72	18.27	19.17



WELL NUMBER.--264858080044801 Local Number PB 1734. USGS Observation Well near North Palm Beach, FL.

LOCATION.--Lat  $26^{\circ}48'58''$ , long  $80^{\circ}04'49''$ , in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 17, T.42 S., R.43 E., Hydrologic Unit 03090202, on U.S. Highway 1 Alternate A1A (State Road 811) just north of Hinda Road, 20 ft north from end of eastern side road parallel to U.S. Highway 1 Alternate A1A, 1.2 mi east of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 115 ft, cased to 95 ft, screened 95 to 115 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 10.62 ft above National Geodetic Vertical Datum of 1929.

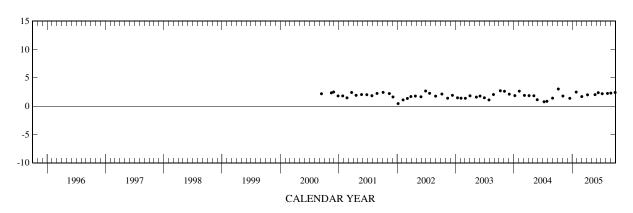
LAND-SURFACE DATUM .-- Land surface is approximately 10.6 ft above NGVD.

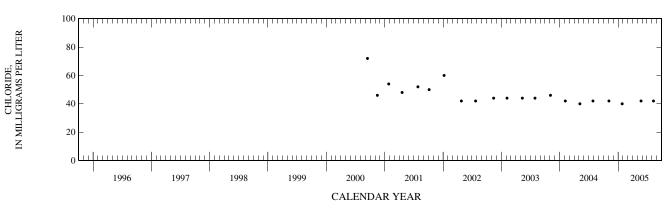
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey. PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.02 ft NGVD, Oct. 6, 2004; lowest, 0.45 ft NGVD, Jan. 7, 2002.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
06	1128	3.02			24	0840	2.03	478	42.0
NOV					JUN				
04	1242	1.78	454	42.0	13	1000	2.37		
DEC					JUL				
17	0931	1.38			08	0718	2.19		
JAN					AUG				
26	0958	2.48	458	40.0	10	1129	2.24	466	42.0
MAR					31	1050	2.30		
02	0803	1.69			SEP				
APR					27	1039	2.41		
07	0906	1.99							





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# PALM BEACH COUNTY—Continued

WELL NUMBER.--265106080241402. Local Number PB 831. USGS Observation Well near Palm Beach Gardens, FL.

LOCATION.--Lat 26°51'04", long 80°24'43", in SW  ${}^{1}\!\!/_{4}$  NE  ${}^{1}\!\!/_{4}$  NW  ${}^{1}\!\!/_{4}$  sec.2, T.42 S., R.39 E., Hydrologic Unit 03090202, 30 ft west of principal dirt road within J.W. Corbett Wildlife Management Area, 8.7 mi from north entrance at junction of State Road 706 and State Road 710, approximately 15 mi west of Palm Beach Gardens.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 25 ft, cased to 21 ft, screened from 21 to 25 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 26.47 ft above National Geodetic Vertical Datum of 1929. Prior to October 1988, top of base was incorrectly considered to be 24.90 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 24.0 ft above NGVD.

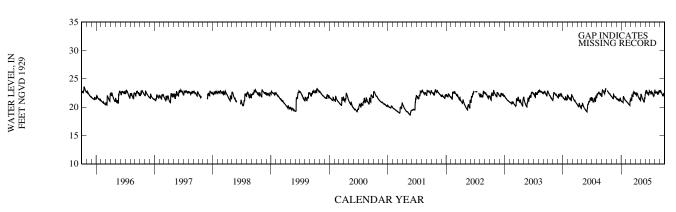
REMARKS.--Previously published figures of water levels as elevations in feet NGVD, prior to October 1988 are in error. Previously corrected figures in the files of the U.S. Geological Survey have been calculated based on an arbitrary 25.0 ft measuring point. A correction of +0.10 ft is required to correct the water-level data. See DATUM. Well was originally open to the aquifer from 21 to 25 ft. The open interval has collapsed or become obstructed at 21 ft.

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 23.79 ft NGVD, May 5, 1975; lowest, 18.53 ft NGVD, June 5, 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 10	22.70	21.77 21.62	21.38 21.46	20.98 20.88	20.96 20.78	21.49 22.19	22.17 22.38	22.29 21.89	22.63 22.84	22.51 22.74	22.54 22.68	22.89 22.58
15	22.52	22.22	21.19	21.86	20.59	21.88	22.10	21.46	22.42	22.55	22.53	22.24
20 25	22.33 22.15	21.91 21.74	21.19 21.56	21.55 21.29	20.44 21.02	22.33 22.50	21.73 21.39	21.11 20.91	22.23 22.49	22.14 22.01	22.20 22.88	22.07 22.10
EOM	21.94	21.61	21.18	21.12	21.33	22.26	21.24	22.17	22.74	23.06	22.90	22.40
MAX		22.26	21.58	21.86	21.36	22.72	22.58	22.29	22.97	23.06	22.90	22.89



WELL NUMBER .-- 265233080054001. Local Number PB 1642. USGS Observation Well near Juno Beach, Fl.

LOCATION.--Lat 26°52'33", long 80°05'40", in SW \(^1/\_4\) SW \(^1/\_4\) NW \(^1/\_4\) sec.30, T.41 S., R.43 E., Hydrologic Unit 03090202, approximately 250 ft east of State Road 811 (U.S. Highway 1 Alternate A1A), 0.5 mi south of Donald Ross Road, adjacent to the maintenance yard office in the Frenchman's Creek housing development.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4.0 in., depth 21 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 16.05 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 12.3 ft above NGVD.

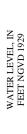
REMARKS .-- Well affected by irrigation pumping.

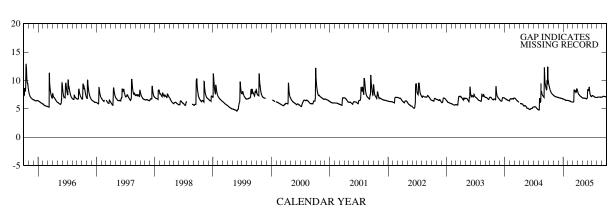
PERIOD OF RECORD.--October 1988 to November 1992 (intermittent), April 1993 to September 1993 (monthly), October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 12.82 ft NGVD, Oct. 18, 1995; lowest measured, 3.66 ft NGVD, May 9, 1990

# ELEVATION ABOVE NGVD 1929, FEET WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	8.98 8.46	7.29 7.19	6.95 6.90	6.68 6.62	6.43 6.39	6.19 8.32	7.75 7.50	6.86 6.89	8.40 8.13	7.33 7.22	7.04 7.07	7.14 7.20
15	8.06	7.11	6.88	6.51	6.32	8.11	7.32	6.88	8.19	7.13	7.08	7.18
20	7.76	7.09	6.85	6.49	6.26	8.18	7.19	6.83	7.41	7.05	7.06	7.12
25	7.59	7.04	6.79	6.47	6.20	8.13	7.07	6.75	7.19	6.99	7.00	7.13
EOM	7.43	7.00	6.73	6.47	6.20	8.25	6.95	6.88	7.26	7.01	7.06	7.13
MAX	9.55	7.39	7.00	6.72	6.47	8.52	8.13	6.92	8.80	7.34	7.08	7.20





WATER LEVEL, IN FEET NGVD 1929

CHLORIDE, IN MILLIGRAMS PER LITER

# PALM BEACH COUNTY—Continued

WELL NUMBER.--265550080070701. Local Number PB 1732. USGS Observation Well near Jupiter, FL.

LOCATION.--Lat 26°55'50", long 80°07'08", in NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.2, T.41 S., R.42 E., Hydrologic Unit 03090202, on Commerce Lane, one block east of Commerce Way, 0.3 mi south of State Road 706, 3.3 mi east of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 3 in., depth 253 ft, cased to 232 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

DATUM.--Measuring point: Top of casing, 8.64 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM.--Land surface is approximately 7.3 ft above NGVD.

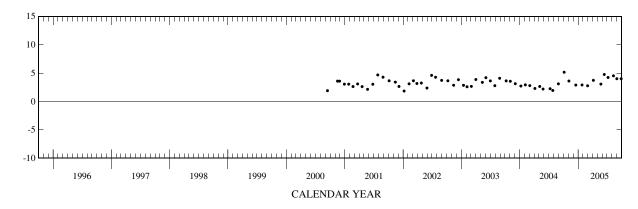
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey.

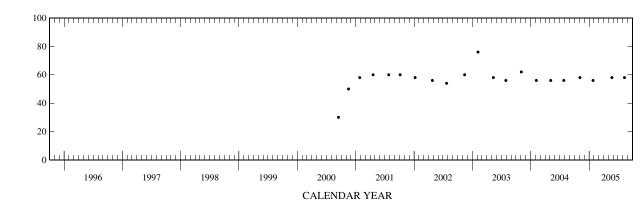
PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.15 ft NGVD, Oct. 5, 2004; lowest, 1.84 ft NGVD, Jan. 7, 2002.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
05	1826	5.15			23	1840	3.06	714	58.0
NOV					JUN				
04	1343	3.60	676	58.0	13	0934	4.76		
DEC					JUL				
17	0735	2.89			07	1740	4.23		
JAN					AUG				
25	1749	2.91	673	56.0	10	1209	4.52	692	58.0
MAR					31	1153	4.01		
01	1734	2.77			SEP				
APR					27	1215	4.00		
06	1730	3.73							





WELL NUMBER.--265611080080201. Local Number PB 1733. USGS Observation Well near Jupiter, FL.

LOCATION.--Lat 26°56′16″, long 80°08′01″, in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.3, T.41 S., R.42 E., Hydrologic Unit 03090202, on southeast corner of North Central Boulevard and Riverwalk Road, 0.2 mi north of State Road 706, 1.1 mi east of U.S. Interstate 95.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 3 in., depth 210 ft, cased to 189 ft, screened 189 to 210 ft.

INSTRUMENTATION .-- Monthly measurement with chalked tape.

WATER LEVEL, IN FEET NGVD 1929

DATUM.--Measuring point: Top of casing, 12.45 ft above National Geodetic Vertical Datum of 1929.

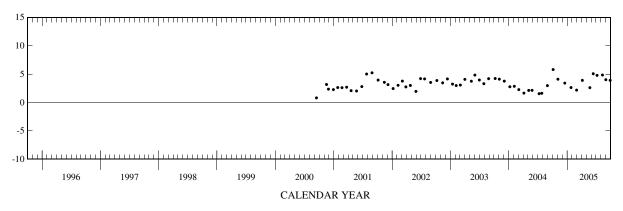
LAND-SURFACE DATUM .-- Land surface is approximately 11.4 ft above NGVD.

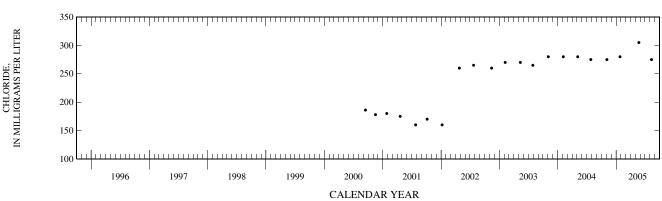
REMARKS.--Well is also used for salinity monitoring. Records of water levels prior to October 2001, are available in the files of the U.S. Geological Survey. PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OR RECORD.--Highest water level measured, 5.80 ft NGVD, Oct. 5, 2004; lowest, 0.81 ft NGVD, Sept. 14, 2000.

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

Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Date	Time	Elevation, feet above NGVD (72020)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)
OCT					MAY				
05	1814	5.80			23	1750	2.61	1,710	305
NOV					JUN				
04	1312	4.10	1,600	275	13	0924	5.07		
DEC					JUL				
17	0745	3.41			07	1734	4.78		
JAN					AUG				
25	1717	2.63	1,610	280	10	1255	4.84	1,660	275
MAR					31	1209	4.01		
01	1725	2.18			SEP				
APR					27	1202	3.89		
06	1720	3.90							





MAX

25.63

24.86

24.38

24.41

24.08

# PALM BEACH COUNTY—Continued

WELL NUMBER.--265633080203001. Local Number PB 689. USGS Observation Well near Jupiter, FL.

LOCATION.--Lat 26°56'33", long 80°20'30", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.4, T.41 S., R.40 E., Hydrologic Unit 03090202, on south side of State Road 706, 3.45 mi west of State Road 711 and 0.4 mi east of State Road 710, 12 mi west of Jupiter. (Corrected).

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 17 ft, cased to 17 ft, open end.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of base, 27.36 ft above National Geodetic Vertical Datum of 1929. From May 22, 2001 to July 2003, top of base was considered to be 27.37 ft above NGVD. From January 1993 to May 22, 2001, top of base was considered to be 27.43 ft above NGVD. From May 1977 to January 1993, top of base was considered to be 27.00 ft above NGVD. Prior to May 1977, measuring point was 27.11 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 25.1 ft above NGVD.

REMARKS.--Figures of water levels as elevation, in feet NGVD, from May 1983 to May 2001 are in error. Corrected records for October 1994 to September 2001 are based on a revised measuring point value of 27.37 ft, and are in the files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD.--October 1973 to May 1977 (daily), May 1983 to December 1987 (intermittent), May 1988 to November 1992 (semiannual), January 1993 to December 1993 (monthly), January 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 25.86 ft NGVD, Oct. 17, 18, 1995; lowest, 21.24 ft NGVD, Apr. 11, 1975.

ELEVATION ABOVE NGVD 1929, FEET

### WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES OCT NOV DEC SEP DAY FEB MAR APR JUN JUL AUG JAN MAY 25.47 24.75 24.25 23.91 23.87 24.21 24.44 24.60 24.82 24.94 24.66 25.08 10 25.30 24.65 24.18 23.81 23.74 24.53 24.53 24.32 24.72 24.95 24.92 24.92 23.64 25.14 24.79 24.05 24.41 24.29 24.26 24.06 24.77 24.93 24.75 24.74 15 20 25.16 24.66 24.02 24.22 23.51 24.54 24.06 23.84 24.78 24.73 24.49 24.72 25.04 24.53 24.29 24.00 23.86 24.61 23.86 24.05 24.86 24.51 24.87 24.85 **EOM** 24.89 24.41 24.03 23.99 24.05 24.46 24.00 24.50 25.12 24.70 24.89 24.95

24.68

24.63

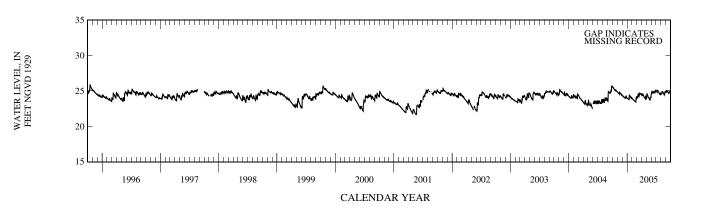
24.60

25.12

25.11

24.92

25.08



WELL NUMBER.--265812080053901. Local Number PB 565. USGS Observation Well in Tequesta, FL.

LOCATION.—Lat  $26^{\circ}58'12''$ , long  $80^{\circ}05'39''$ , in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 25, T.40 S., R.42 E., Hydrologic Unit 03090202, near intersection of Old Dixie Highway and County Line Road in Tequesta, and 0.1 mi west of U.S. Highway 1.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 21.9 ft, cased to 21.9 ft.

INSTRUMENTATION .-- Satellite data collection platform.

DATUM.--Measuring point: Top of base, 17.26 ft above National Geodetic Vertical Datum of 1929. Prior to July 2, 1999, measuring point was 17.24 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 14.5 ft above NGVD.

-0.43

1.06

-1.12

-0.46

-1.07

-0.89

REMARKS.--Station reconstructed July 1999, after site was hit by a car. Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. See DATUM.

PERIOD OF RECORD .-- April 1970 to current year.

1.17

3.32

EOM

MAX

3.43

6.83

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 11.39 ft NGVD, Oct. 17, 1995; lowest, 1.19 ft below NGVD, Feb. 14, 2005.

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 2.91 2.54 2.15 3.91 -0.62 -0.93 -0.75 3.02 6.32 0.74 1.61 1.76 2.81 3.32 10 5.52 4.94 0.59 -0.98-1.09-0.37 1.83 1.93 3.24 3.87 3.67 3.62 0.33 1.94 15 -1.00 -1.14 0.40 1.73 3.46 3.26 3.66 3.35 20 4.36 1.65 0.05 -0.98-1.050.71 1.81 1.73 3.62 3.24 3.16 3.07 25 3.91 1.40 -0.20-1.09 -1.091.18 1.82 1.74 3.75 3.13 2.92 3.55

1.33

1.33

1.63

1.83

1.81

1.95

3.84

3.84

3.02

3.92

3.45

3.77

3.78

3.78

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# St. Lucie County

# WATER RESOURCES DATA - FLORIDA, 2005

# **VOLUME 2B: SOUTH FLORIDA**

# Key to site locations on figure # 22

# ST. LUCIE COUNTY

Index	Site	Well	Page
Number	Number	Name	Number
1	272655080401601	STL 42	562
1	272033000401001	S1L 42	302
2	272524080242801	STL 125	561
3	272313080182701	STL 172	559
4	271755080153001	STL 175	556
5	271755080153002	STL 176	557
6	271413080311201	STL 185	554
7	272427080240201	STL 213	560
8	271618080245801	STL 214	555
9	273109080270301	STL 264	563
10	272138080374103	STL 313	558

# WATER RESOURCES DATA - FLORIDA, 2005 VOLUME 2B: SOUTH FLORIDA

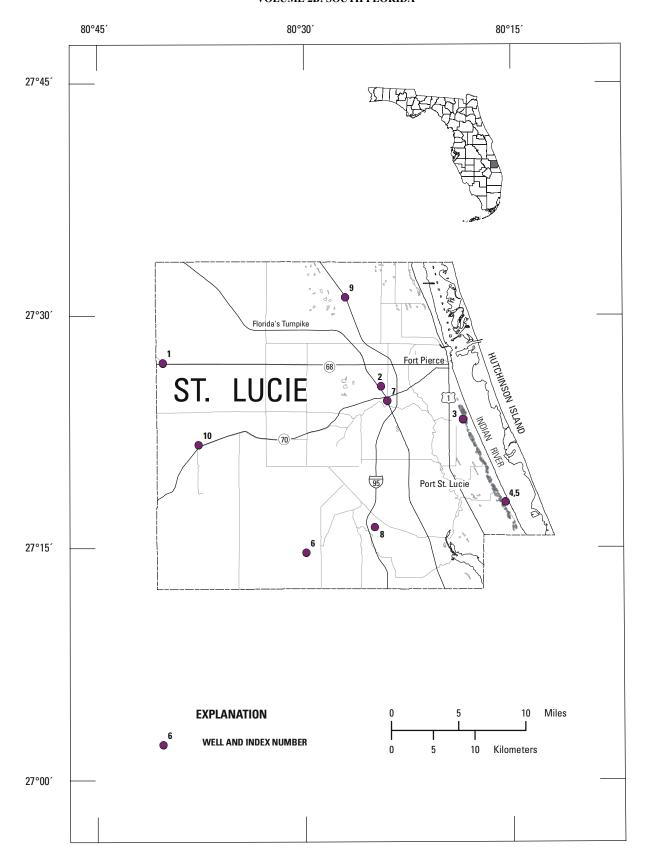


Figure 22: Location of wells in St. Lucie County

# ST. LUCIE COUNTY

WELL NUMBER.--271413080311201. Local Number STL 185. USGS Observation Well near Port St. Lucie, FL.

LOCATION.--Lat 27°14′40″, long 80°29′55″, in SE ½ SE ½ NE ½ sec.23, T.37 S., R.38 E., Hydrologic Unit 03090202, 1 mi west of County Road 609 and 3 mi south of County Road 709 in pasture of McCarty Ranch. Ranch entrance is on County Road 709, recorder is 4 gates and 5 pastures to the south, 20 ft west of southern gate.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 115 ft, cased to 113 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 30.33 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 27.9 ft above NGVD.

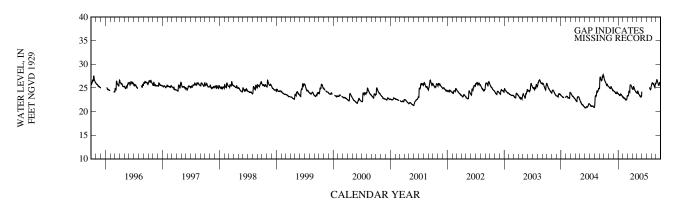
PERIOD OF RECORD.--September 1976 to April 1977 (intermittent), May 1988 to October 1988 (semiannual), October 1989 to November 1992 (annual), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 27.81 ft NGVD, Sept. 26, 2004; lowest, 20.74 ft NGVD, June 3-5, 2004.

ELEVATION ABOVE NGVD 1929, FEET

# WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES JAN FEB MAR APR MAY JUN JUL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.76	25.14	24.33	23.68	22.86	23.44	24.85	24.30			25.95	26.66
10	26.34	24.89	24.14	23.48	22.87	24.26	25.29	24.07			26.00	26.35
15	25.92	25.25	23.88	23.69	22.56	24.13	24.83	23.60			25.78	25.80
20	25.61	24.99	24.01	23.62	22.50	25.63	24.42	23.30		25.11	25.38	25.74
25	25.61	24.71	23.86	23.34	22.58	25.46	24.12	23.10		24.75	25.40	26.02
EOM	25.27	24.46	23.84	23.12	23.33	24.97	24.00	23.28		25.23	26.09	26.27
MAX	27.41	25.27	24.45	23.82	23.33	25.63	25.30	24.35			26.10	26.75



WELL NUMBER.--271618080245801. Local Number STL 214. USGS Observation Well near Port St. Lucie, FL.

 $LOCATION.--Lat~27^{\circ}16'18'', long~80^{\circ}24'58'', in~SW~\frac{1}{4}~SW~\frac{1}{4}~NW~\frac{1}{4}~sec. 11, T.37~S., R.39~E., Hydrologic~Unit~03090202, approximately~20~ft~south~of~centerline~of~SW~Savage~Boulevard~and~153~ft~east~of~centerline~of~SW~Brescia~Street, approximately~2.5~mi~west~of~Port~St.~Lucie~Boulevard.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 70 ft, cased to 40 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 28.40 ft above National Geodetic Vertical Datum of 1929 Prior to February 1993, measuring point was top of casing, 28.27 ft above NGVD.

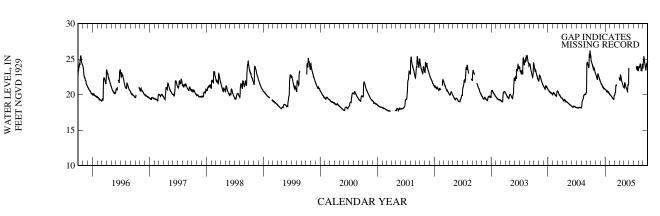
LAND-SURFACE DATUM.--Land surface is approximately 27.3 ft above NGVD.

REMARKS.--This well is not at its original depth. Depth was measured at 58.3 ft below land-surface datum on December 27, 1999. The difference between the original and measured depth is likely caused by sand in the formation being forced up the well under hydrostatic pressure.

PERIOD OF RECORD.--May 1988 to October 1989 (semiannual), September 1990 to January 1993 (monthly), February 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 26.44 ft NGVD, Sept. 26, 2004; lowest, 17.64 ft NGVD, Mar. 25, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.66	22.64	21.61	20.67	19.87	20.23	22.05	21.61			23.91	25.30
10	24.29	22.20	21.45	20.45	19.79	21.13	22.70	21.44			24.01	24.65
15	23.84	22.92	21.09	20.47	19.59	21.30	22.09	21.01			24.26	23.93
20	23.61	22.59	20.95	20.42	19.43		21.68	20.71		23.91	23.34	23.89
25	23.47	22.25	20.87	20.24	19.34		21.25	20.83		24.04	23.67	24.07
EOM	22.95	21.89	20.77	20.02	19.90	22.42	21.05	21.46		23.43	23.75	24.60
MAX	25.23	22.93	21.86	20.73	19.98		22.77	21.67			24.36	25.39



WELL NUMBER.--271755080153001. Local Number STL 175. USGS Observation Well near Port St. Lucie, FL.

 $LOCATION.--Lat~27^{\circ}17'55", long~80^{\circ}15'30", in~NW~\frac{1}{4}~NW~\frac{1}{4}~SE~\frac{1}{4}~sec. 32, T.36~S., R.41~E., \\ Hydrologic~Unit~03090202, 4~ft~from~north~edge~of~Walton~Road, 0.5~mi~west~of~Indian~River~Drive~(County~Road~707)~approximately~15~ft~east~of~STL-176.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 200 ft, cased to 68 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 21.66 ft above National Geodetic Vertical Datum of 1929. From May 1988 to January 1993, measuring point was top of shelf, 21.97 ft above NGVD. Prior to 1980, top of base was 21.74 ft above NGVD, but was reported as being about 23 ft above NGVD.

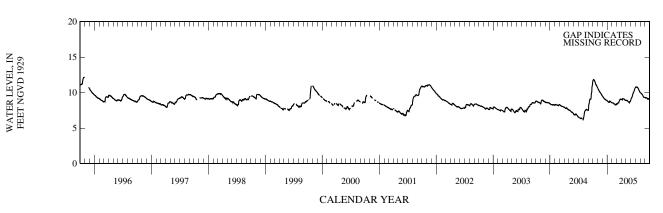
LAND-SURFACE DATUM.--Land surface is approximately 18.7 ft above NGVD.

REMARKS.--Despite attempts to clear the well to its full depth, the well has filled with sand from the formation to a depth of 54.5 ft. Station reconstructed in February 1993.

PERIOD OF RECORD.--February 1975 to January 1979 (daily), May 1988 to January 1993 (intermittent), February 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 12.17 ft NGVD, Oct. 26, 1995; lowest, 6.01 ft NGVD, July 28, 1977.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.83	10.44	9.42	8.75	8.56	8.43	9.04	8.92	9.20	10.78	9.94	9.23
10	11.77	10.25	9.26	8.63	8.51	8.56	9.14	8.89	9.38	10.77	9.83	9.29
15	11.51	10.07	9.08	8.73	8.40	8.55	9.11	8.73	9.79	10.73	9.69	9.17
20	11.16	9.92	9.05	8.76	8.32	8.84	9.09	8.65	10.09	10.54	9.47	9.07
25	10.99	9.73	8.93	8.67	8.25	9.03	8.94	8.60	10.43	10.28	9.32	9.15
EOM	10.72	9.58	8.87	8.57	8.43	9.07	8.92	8.83	10.68	10.02	9.34	9.08
MAX	11.84	10.65	9.54	8.84	8.57	9.09	9.15	8.93	10.68	10.80	9.99	9.33



WELL NUMBER.--271755080153002. Local Number STL 176. USGS Observation Well near Port St. Lucie, FL.

 $LOCATION.--Lat~27^{\circ}17'55", long~80^{\circ}15'30", in~NW~\frac{1}{4}~NW~\frac{1}{4}~SE~\frac{1}{4}~sec. 32, T.36~S., R.41~E., \\ Hydrologic~Unit~03090202, 4~ft~from~north~edge~of~Walton~Road, 0.5~mi~west~of~Indian~River~Drive~(County~Road~707)~approximately~15~ft~west~of~STL-175.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 30 ft, cased to 26 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 22.20 ft above National Geodetic Vertical Datum of 1929. From May 1988 to November 1992, measuring point was top of shelf, 22.60 ft above NGVD. Prior to 1980, top of base was 22.30 ft above NGVD, but was reported as being about 23 ft above NGVD.

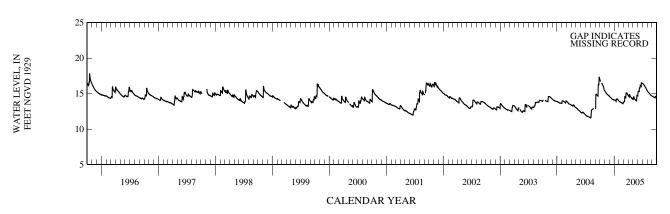
LAND-SURFACE DATUM.--Land surface is approximately 18.8 ft above NGVD.

REMARKS.--Despite attempts to clear the well to its full depth, the well has filled with sand from the formation to a depth of 12.4 ft. Station reconstructed in February 1993.

PERIOD OF RECORD.--February 1974 to January 1979 (daily), May 1988 to November 1992 (semiannual), February 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 17.79 ft NGVD, Oct. 17, 18, 1995; lowest, 10.58 ft NGVD, Sept. 1, 1977.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	16.75	15.28 15.11	14.55 14.43	14.11 14.03	13.87 13.80	13.88 14.57	14.61 14.85	14.55 14.38	15.34 15.29	16.39 16.25	15.27 15.12	14.61 14.53
15	16.41	14.96	14.30	14.17	13.73	14.40	14.58	14.16	15.81	16.10	15.01	14.46
20	16.16	14.85	14.23	14.23	13.67	15.00	14.45	14.04	16.14	15.89	14.88	14.40
25 EOM	15.92 15.45	14.76 14.66	14.15 14.09	14.11 13.96	13.59 13.74	15.03 14.77	14.30 14.29	14.40 14.68	16.52 16.45	15.70 15.45	14.75 14.66	14.62 14.56
MAX		15.41	14.64	14.26	13.93	15.10	14.87	14.76	16.52	16.43	15.42	14.65



WELL NUMBER.--272138080374103. Local Number STL 313. USGS Observation Well near Okeechobee, FL.

 $LOCATION.--Lat~27^{\circ}21'38", long~80^{\circ}37'41", in~SW~\frac{1}{4}~SW~\frac{1}{4}~NW~\frac{1}{4}~sec. 10, T.36~S., R.37~E., Hydrologic~Unit~03090202, approximately~400~ft~north~of~State~Road~70~and~150~ft~west~of~Old~Bessimer~Road~near~V-2~Ranch,~14~mi~northeast~of~Okeechobee, northwest~of~microwave~tower.$ 

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 122 ft, cased to 40 ft. Sand has filled in the well to a depth of 40 ft. INSTRUMENTATION.--Electronic data logger.

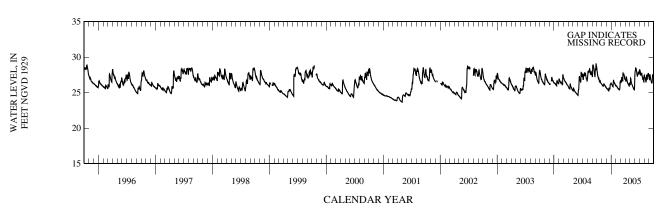
DATUM.--Measuring point: Top of base, 31.69 ft above National Geodetic Vertical Datum of 1929.

LAND-SURFACE DATUM .-- Land surface is approximately 29.1 ft above NGVD.

PERIOD OF RECORD .-- January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 29.12 ft NGVD, Sept. 26, 2004; lowest, 23.66 ft NGVD, May 2, 2001.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25	27.67 27.09 26.86 26.67 26.45	26.09 25.94 26.24 26.06 25.91	25.53 25.52 25.25 25.61 25.97	26.14 25.91 26.70 26.46 26.19	25.86 25.75 25.54 25.43 25.59	26.74 27.17 26.67 27.51 27.33	26.61 26.99 26.44 26.23 25.95	27.03 26.45 26.11 25.81 25.53	28.11 28.35 27.54 27.63 27.91	27.99 27.73 27.64 27.18 27.00	27.17 26.64 27.45 26.83 27.38	27.41 27.06 26.52 26.47 27.33
EOM	26.22	25.69	26.34	26.01	26.55	26.84	26.20	25.96	27.99	27.37	27.16	27.58
MAX	28.37	26.24	26.34	26.73	26.55	27.76	27.27	27.03	28.46	28.19	27.71	27.58



WELL NUMBER.--272313080182701. Local Number STL 172. USGS Observation Well near Port St. Lucie, FL.

LOCATION.--Lat 27°23'15", long 80°18'34", in NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.35, T.35 S., R.40 E., Hydrologic Unit 03090202, in Savannah Recreation Area, approximately 200 ft east of entrance booth and 15 ft east of STL 298, approximately 0.5 mi north of Midway Road (County Road 712) on Gun Club Road.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 30 ft, cased to 26 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 20.38 ft above National Geodetic Vertical Datum of 1929. Prior to October 1993, top of base was 20.40 ft above NGVD. Prior to 1980, the measuring point was reported as top of casing, 18 ft above NGVD.

LAND-SURFACE DATUM.--Land surface is approximately 16.5 ft above NGVD.

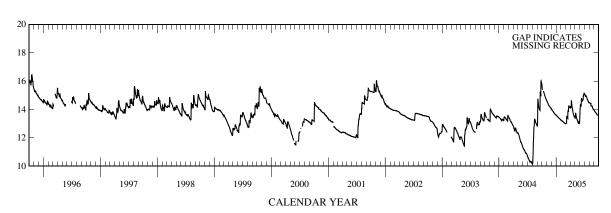
REMARKS.--Station number published incorrectly as 272315080182701 in WDR FL-97-2B 1997. Despite attempts to clear the well to its full depth, the well has filled with sand from the formation to a depth 12.9 ft.

PERIOD OF RECORD.--February 1975 to June 1975 (intermittent), June 1975 to February 1979 (daily), May 1988 to October 1989 (semiannual), September 1990 to September 1993 (monthly), October 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 16.44 ft NGVD, Oct. 19, 1995; lowest, 10.15 ft NGVD, Aug. 2, 2004.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.38	14.53	13.97	13.54	13.21	13.01	14.19	13.72	14.31	15.04	14.45	13.88
10		14.40	13.89	13.50	13.17	13.52	14.46	13.49	14.22	14.96	14.43	13.80
15	15.16	14.29	13.81	13.43	13.13	13.39	14.04	13.28	14.59	14.87	14.26	13.73
20	14.96	14.21	13.73	13.38	13.07	13.83	13.75	13.14	14.66	14.70	14.21	13.64
25	14.82	14.14	13.66	13.33	13.02	14.18	13.55	13.06	14.99	14.59	14.04	13.61
EOM	14.65	14.06	13.60	13.26	13.01	14.12	13.46	13.06	15.13	14.47	13.96	
MAX		14.63	14.04	13.59	13.25	14.25	14.60	13.72	15.15	15.10	14.46	





WELL NUMBER.--272427080240201. Local Number STL 213. USGS Observation Well near Fort Pierce, FL.

LOCATION.--Lat 27°24'27", long 80°24'02", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.26, T.35 S., R.39 E., Hydrologic Unit 03090202, 15 ft east of Gordy Road, 1 mi south of State Road 70. The intersection of Gordy Road and State Road 70 is one block west of the Florida Turnpike.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 115 ft, cased to 75 ft, screened 75 to 115 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 20.29 ft above National Geodetic Vertical Datum of 1929. Prior to June 22, 1998, top of base was 20.36 ft above NGVD. Prior to January 1993, measuring point was top of casing, 20.26 ft above NGVD. See REMARKS.

LAND-SURFACE DATUM.--Land surface is approximately 17.8 ft above NGVD.

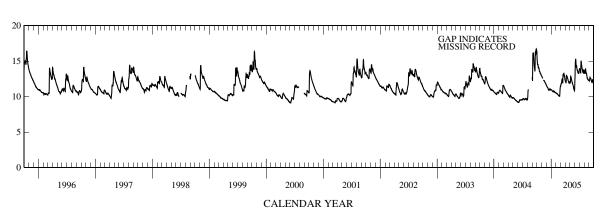
REMARKS.--Revised measuring point because of station reconstruction, and survey of July 2, 1998.

PERIOD OF RECORD.--May 1988 to October 1989 (intermittent), September 1990 to December 1992 (monthly), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 16.72 ft NGVD, Sept. 27, 2004; lowest water level measured, 8.91 ft NGVD, Oct. 27, 1988.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	14.64 14.08	12.70	11.42 11.26	10.90 10.73	10.45 10.38	11.82 12.31	12.02 12.92	12.74 12.57	14.95 14.14	13.83 13.88	13.37 13.75	12.35 12.57
15	13.89	12.27	10.97	10.78	10.22	12.08	12.68	12.05	13.91	14.49	13.25	12.30
20	13.52	12.10	11.03	10.75	10.10	13.12	12.26	11.66	13.57	13.80	12.63	11.96
25 EOM	13.25 12.95	11.89 11.64	10.98 10.99	10.58 10.54	10.31 11.35	13.08 12.36	11.92 12.05	11.09 10.92	13.29 13.73	13.74 13.36	12.42 12.33	12.37 12.54
MAX	16.21		11.60	10.97	11.35	13.27	13.06	12.84	15.26	15.05	13.91	12.72





WELL NUMBER.--272524080242801. Local Number STL 125. USGS Observation Well near Fort Pierce, FL.

LOCATION.—Lat  $27^{\circ}25'24''$ , long  $80^{\circ}24'28''$ , in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.23, T.35 S., R.39 E., Hydrologic Unit 03090202, on Rock Road, 0.14 mi south of White Road, 0.53 mi west of Kings Highway, and 5.0 mi south of Fort Pierce.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 11.77 ft, cased to 11.77 ft.

INSTRUMENTATION.--Satellite data collection platform.

DATUM.--Measuring point: Top of flange, 23.15 ft above National Geodetic Vertical Datum of 1929. Prior to January 31, 2001, measuring point was top of base, 23.22 ft above NGVD. Prior to April 25, 2000, measuring point was top of casing, 23.16 ft above NGVD. Prior to August 1990, measuring point was considered to be top of casing, 22.75 ft above NGVD. See REMARKS.

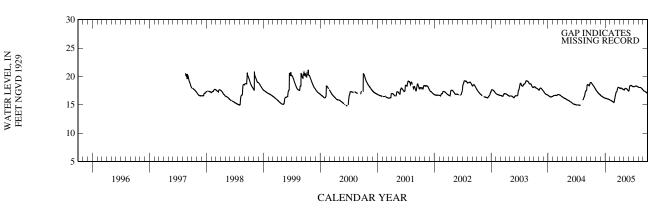
LAND-SURFACE DATUM.--Land surface is approximately 20.2 ft above NGVD.

REMARKS.--Records of water levels prior to October 1973 are available in files of the U.S. Geological Survey. The figures of water levels, as elevation in feet NGVD, prior to August 1990 are in error. A +0.41 ft correction is required to correct the water-level data. See DATUM.

PERIOD OF RECORD.--August 1967(intermittent), January 1968 to April 1979 (daily), October 1979 to September 1995 (monthly), August 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.17 ft NGVD, Oct. 16, 1999; lowest water level measured, 13.94 ft NGVD (present datum), June 24, 1987.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10	18.85 18.64	17.53 17.33	16.60 16.50	16.14 16.10	15.80 15.72	16.40 16.98	17.94 17.94	17.70 17.89	17.95 18.33	18.22 18.21	18.07 18.07	17.46 17.41
15	18.46	17.14	16.41	16.04	15.62	17.28	17.94	17.87	18.41	18.32	18.07	17.35
20 25	18.26 18.06	17.00 16.86	16.32 16.24	16.00 15.96	15.54 15.44	17.74 18.08	17.82 17.74	17.76 17.59	18.35 18.25	18.32 18.23	17.97 17.81	17.23 17.09
EOM	17.76	16.75	16.18	15.86	15.63	18.03	17.65	17.49	18.19	18.12	17.63	17.03
MAX	18.93	17.75	16.75	16.18	15.85	18.08	18.01	17.89	18.41	18.32	18.10	17.59



WELL NUMBER.--272655080401601. Local Number STL 42. USGS Observation Well near Fort Pierce, FL.

LOCATION.--Lat 27°26′55″, long 80°40′16″, in SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.7, T.35 S., R.37 E., Hydrologic Unit 03090202, 85 ft north of State Road 68, 9.8 mi east of U.S. Highway 441 and 20 mi west of Fort Pierce.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Jetted, observation, water-table well, diameter 6 in., depth 18 ft, cased to 13 ft, gravel-packed 13 to 18 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 30.71 ft above National Geodetic Vertical Datum of 1929. From October 1990 to January 1993, measuring point was top of casing, 30.67 ft above NGVD. Prior to October 1990, top of casing was considered to be 30.59 ft above NGVD. See REMARKS.

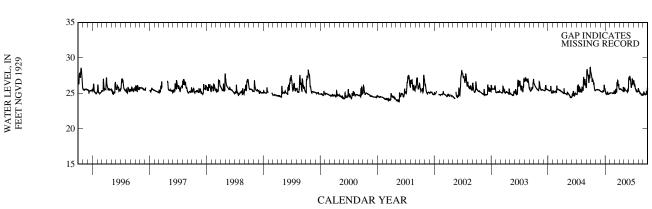
LAND-SURFACE DATUM.--Land surface is approximately 28.0 ft above NGVD.

REMARKS.--Records of water levels prior to October 1950 are available in files of the U.S. Geological Survey. The figures of water levels as elevation in feet NGVD, prior to October 1990 are considered to be in error. See DATUM.

PERIOD OF RECORD.--January 1950 to April 1979, May 1979 to December 1993 (monthly), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.27 ft NGVD, present datum, Oct. 16, 1956; lowest, 22.70 ft NGVD, present datum, May 22, 1986.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.53	25.51	25.24	24.95	25.04	25.15	25.57	25.74	27.03	26.39	25.39	25.11
10	27.00	25.53	25.22	24.97	25.05	25.54	25.60	25.48	27.13	26.26	25.16	24.97
15	26.82	25.55	25.15	25.16	25.02	25.17	25.50	25.37	26.14	25.59	25.10	24.79
20	26.45	25.47	25.30	24.95	25.00	26.02	25.41	25.25	26.39	25.39	24.80	24.85
25	25.58	25.44	26.13	24.88	25.11	26.28	25.30	25.58	26.87	25.27	24.72	24.95
EOM	25.42	25.34	25.65	25.01	25.30	25.69	25.30	26.64	26.71	25.40	24.72	25.44
MAX	27.93	25.55	26.13	25.28	25.37	26.82	25.90	26.64	27.40	26.75	25.67	25.80



WELL NUMBER.--273109080270301. Local Number STL 264. USGS Observation Well near Fort Pierce, FL.

LOCATION.--Lat 27°31'09", long 80°27'03", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.17, T.34 S., R.39 E., Hydrologic Unit 03090202, on west side of ditch and culvert 0.4 mi inside east gate to orange grove. Orange grove is on Indrio Road approximately 0.5 mi west of U.S. Interstate 95, approximately 6 mi west of U.S. Highway 1.

AQUIFER.--Surficial aquifer system, Geologic Unit 110 SAQS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 6 in., depth 90 ft, cased to 60 ft.

INSTRUMENTATION .-- Electronic data logger.

DATUM.--Measuring point: Top of base, 24.04 ft above National Geodetic Vertical Datum of 1929. From January 1993 to June 8, 2001, top of base was 24.00 ft above NGVD. Prior to January 1993, measuring point was top of casing, 23.90 ft above NGVD. See REMARKS.

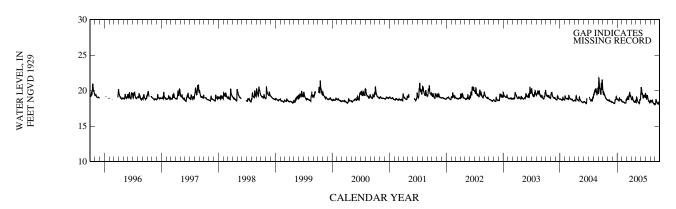
LAND-SURFACE DATUM.--Land surface is approximately 22.8 ft above NGVD.

REMARKS.--Revised measuring point because of station reconstruction, and survey of June 8, 2001.

PERIOD OF RECORD.--May 1988 to November 1992 (semiannual), January 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 21.79 ft NGVD, Sept. 5, 2004; lowest, 18.00 ft NGVD, Aug. 31, 2005.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5 10 15 20 25 EOM	19.43 19.37 19.16 18.92 18.76 18.67	18.60 18.72 18.50 18.49 18.45 18.36	18.34 18.23 18.18 18.72 19.08 18.87	18.74 18.59 18.96 18.72 18.70 18.46	18.46 18.42 18.30 18.25 18.30 18.77	18.96 19.13 18.74 19.13 19.34 18.96	18.70 18.97 18.60 18.41 18.38 18.49	19.09 18.73 18.41 18.24 18.68 18.92	20.31 19.39 19.12 19.39 19.20 19.54	19.13 19.27 19.15 18.61 18.46 18.57	18.46 18.60 18.62 18.27 18.11 18.00	18.42 18.53 18.22 18.12 18.18 18.53
MAX	20.00	18.72	19.15	18.97	18.77	19.73	19.11	19.09	20.48	19.66	18.67	18.74



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# **Conversion Factors**

Multiply	Ву	To obtain
	Length	
inch (in.)	2.54x10 <sup>1</sup>	millimeter (mm)
	2.54x10 <sup>-2</sup>	meter (m)
foot (ft)	3.048x10 <sup>-1</sup>	meter (m)
mile (mi)	1.609x10 <sup>0</sup>	kilometer (km)
	Area	
acre	4.047x10 <sup>3</sup>	square meter (m²)
	4.047×10 <sup>-1</sup>	square hectometer (hm²)
	4.047x10 <sup>-3</sup>	square kilometer (km²)
square mile (mi <sup>2</sup> )	2.590x10 <sup>0</sup>	square kilometer (km²)
	Volume	
gallon (gal)	3.785x10 <sup>0</sup>	liter (L)
	3.785x10 <sup>-3</sup>	cubic meter (m³)
	3.785x10 <sup>0</sup>	cubic decimeter (dm³)
million gallons (Mgal)	3.785x10 <sup>3</sup>	cubic meter (m³)
	3.785x10 <sup>-3</sup>	cubic hectometer (hm³)
cubic foot (ft <sup>3</sup> )	2.832x10 <sup>-2</sup>	cubic meter (m³)
	2.832x10 <sup>1</sup>	cubic decimeter (dm³)
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	2.447x10 <sup>3</sup>	cubic meter (m³)
	2.447x10 <sup>-3</sup>	cubic hectometer (hm³)
acre-foot (acre-ft)	1.233x10 <sup>3</sup>	cubic meter (m³)
	1.233x10 <sup>-3</sup>	cubic hectometer (hm³)
	1.233x10 <sup>-6</sup>	cubic kilometer (km³)
	Flow	
cubic foot per second (ft <sup>3</sup> /s)	2.832x10 <sup>1</sup>	liter per second (L/s)
	2.832x10 <sup>-2</sup>	cubic meter per second (m <sup>3</sup> /s)
	2.832x10 <sup>1</sup>	cubic decimeter per second (dm <sup>3</sup> /s)
gallon per minute (gal/min)	6.309x10 <sup>-2</sup>	liter per second (L/s)
	6.309x10 <sup>-5</sup>	cubic meter per second (m³/s)
	6.309x10 <sup>-2</sup>	cubic decimeter per second (dm <sup>3</sup> /s)
million gallons per day (Mgal/d)	4.381x10 <sup>-2</sup>	cubic meter per second (m <sup>3</sup> /s)
	4.381x10 <sup>1</sup>	cubic decimeter per second (dm <sup>3</sup> /s)
	Mass	
ton (short)	9.072x10 <sup>-1</sup>	megagram (Mg) or metric ton

Temperature in degrees Celsius (×C) may be converted to degrees Fahrenheit (°F) as follows:

 $<sup>^{\</sup>circ}F = (1.8 \times ^{\circ}C) + 32$