

264222080425401 Local number PB -1821

Surficial Aquifer System

Palm Beach County, FL

LOCATION.--Lat 26°42'22.2", long 80°42'53.9" referenced to North American Datum of 1983, Palm Beach County, FL, Hydrologic Unit 03090201, on Torry Island in a field near a wooden mobile home, 900 ft west of the Herbert Hoover Dike and 100 ft north of Torry Island Rd.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 135.5 ft. Upper casing diameter 2; top of first opening 125 ft, bottom of last opening 130 ft.

DATUM.--Land-surface datum is 19.2 ft above National Geodetic Vertical Datum of 1929. Measuring point: From April 9, 2011, to present, measuring point has been top of casing., 19.4 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--August 2011 to current year. See REMARKS.

INSTRUMENTATION.--Bimonthly measurement with chalked steel tape or electric tape. Bimonthly profile with electromagnetic induction logger. See REMARKS.

REMARKS.--Well is also used for salinity monitoring, including monthly induction logs beginning August 2011. Induction logs are used to assess the movement of the fresh-water/salt-water interface in groundwater. See [RECORDS OF BULK CONDUCTIVITY](#).

In order to display changes in bulk conductivity between induction logs collected over the period of record, each log has been adjusted to a median conductivity value at a depth that corresponds to a stable lithologic feature which produces a consistent conductivity profile, based on data collected from 2011 to the current year. These adjustments compensate for small variations in equipment response resulting from variations in environmental conditions and/or probe calibrations. For this station, induction logs are adjusted to a mean response of 5.4 mS/m at a depth of 48.9 ft below land surface. The resulting plot of logs collected from 2011 to the current year is provided in this report. The original and corrected records of bulk conductivity, in millisiemens per meter, are available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--

WATER-LEVEL ELEVATION: Highest water level measured, 11.60 ft NGVD, Aug. 28, 2012; lowest, 9.06 ft NGVD, Aug. 11, 2011.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 4,000 mg/L, Oct. 25, 2011; lowest, 3,900 mg/L, Aug. 11, 2011, many days during the 2012 water year.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[NGVD, National Geodetic Vertical Datum; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Date	Sample start time	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Elevation above NGVD, 1929, ft (72020)	Chloride, water, unfiltered, mg/L (99220)
August 11, 2011	1041	14,600	9.06	3,900

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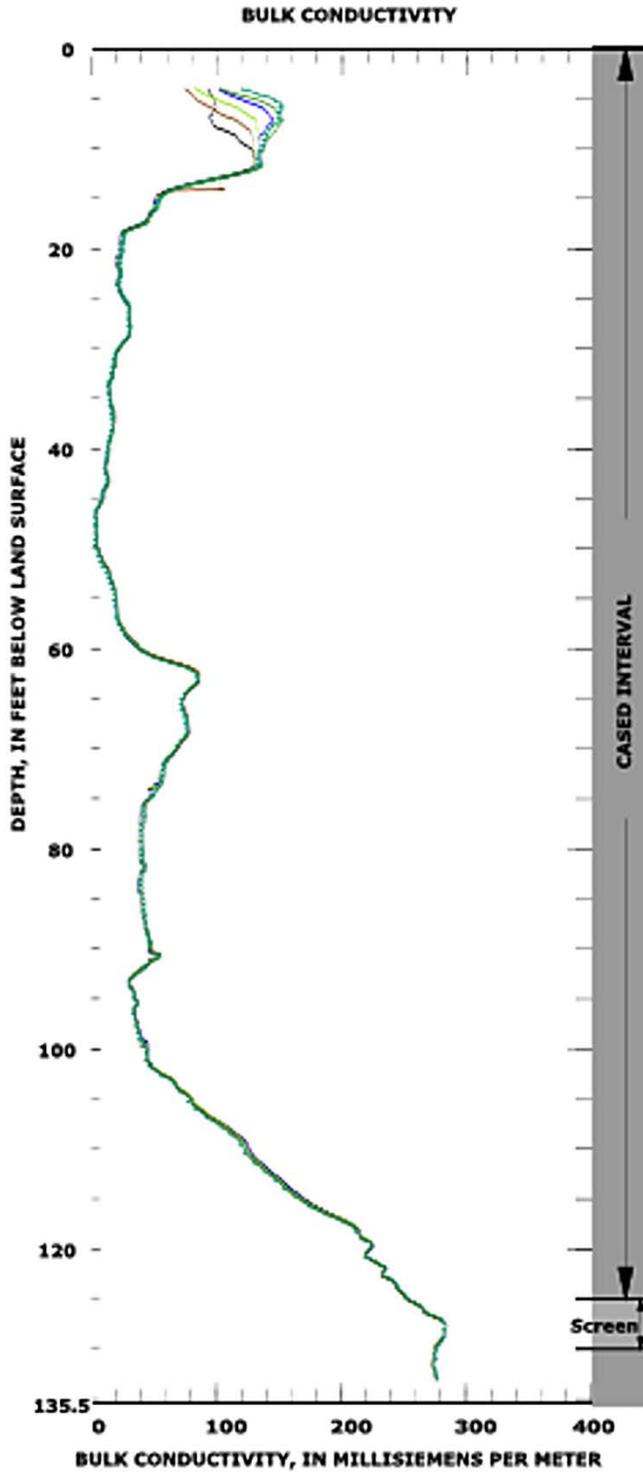
WATER-QUALITY DATA**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[NGVD, National Geodetic Vertical Datum; ft, feet; mg/L, milligrams per liter;
°C, degrees Celsius; $\mu\text{S}/\text{cm}$, microsiemens per centimeter]

Date	Sample start time	Specific conduc- tance, water, unfiltered, $\mu\text{S}/\text{cm}$ at 25°C (00095)	Elevation above NGVD 1929, ft (72020)	Chloride, water, unfiltered, mg/L (99220)
October 25, 2011	0830	14,200	10.78	4,000
December 14, 2011	1359	14,900	11.24	3,900
February 24, 2012	1049	14,500	10.63	3,900
April 24, 2012	1101	14,200	10.19	3,900
June 19, 2012	1422	14,300	9.82	3,900
August 28, 2012	1416	14,000	11.60	3,900



WY 2012 Induction log results
 Station: USGS 264222080425401
 Local name: PB -1821



**INDUCTION LOG DATES,
 ASSOCIATED CHLORIDE SAMPLE DATES**

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Aug. 11, 2011	Aug. 11, 2011	4,000
Oct. 26, 2011	Oct. 25, 2011	3,900
Dec. 13, 2011	Dec. 14, 2011	3,900
Feb. 23, 2012	Feb. 24, 2012	3,900
Apr. 25, 2012	Apr. 24, 2012	3,900
-- no log --	June 19, 2012	3,900
Aug. 29, 2012	Aug. 28, 2012	3,900