

**252431080261001 Local number G -3946 D. USGS Observation Well in Homestead, FL.**

Biscayne aquifer  
Biscayne Limestone Aquifer

Miami-Dade County, FL

LOCATION.--Lat 25°24'30.7", long 80°26'09.7" referenced to North American Datum of 1983, Miami-Dade County, FL, Hydrologic Unit 03090202, 1.3 mi east of Old Card Sound Road (State Road 905A), 3 mi south of U.S. Highway 1 in Florida City, FL.

**WATER-QUALITY RECORDS**

WELL CHARACTERISTICS.-- Drilled, observation, water-table well, depth 87 ft, diameter 2 in, cased to 62 ft, screened 62 to 67 ft, cased 67 to 87 ft.

DATUM.--Land-surface datum is 3.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: measuring point has been north side of top of 2-in. PVC casing, 3.28 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--October 2010 to current year. See REMARKS.

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

REMARKS.--Well is also used for monthly salinity monitoring, including an annual induction log. Annual induction logs began in April 2011. Water-level measurements began in January 2011. Salinity sampling began in October 2010. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#).

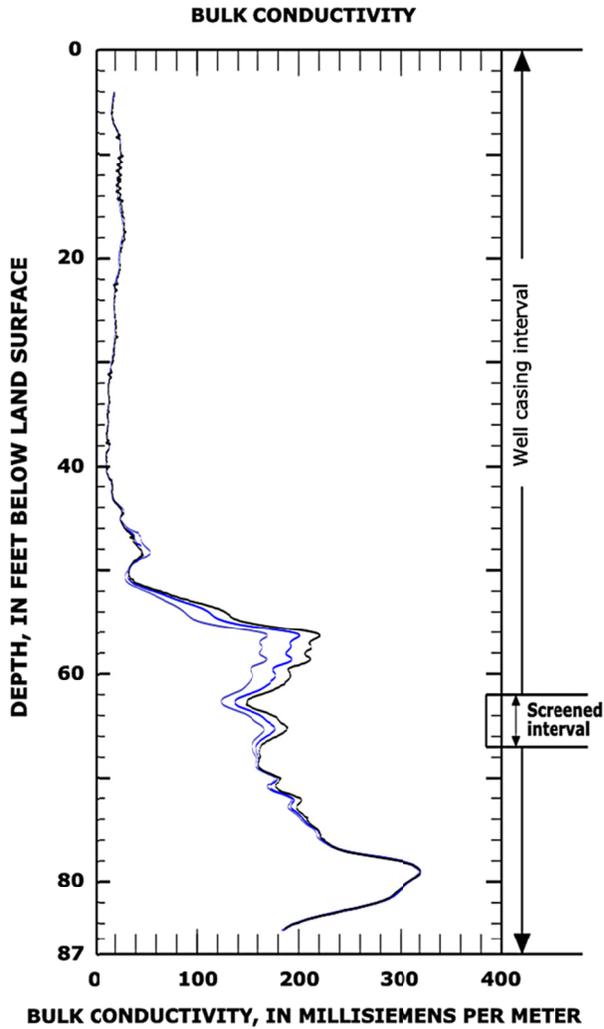
The electromagnetic induction logs collected in April 2013 are affected by a series of +/- 2.5 mS/m data spikes recurring on a 2.4 second interval. Because the amount of error that may be introduced by these data spikes is within the design limits of the equipment, the USGS has not employed filtering or smoothing methods which could further alter the data collected.

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 in 2011 and 2012. 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 10.9 mS/m at a depth of 39.2 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. Station description data for well G -3946D, USGS Station ID 252431080261001, can be retrieved online via the [National Water Information System web interface](#) (NWISWeb, [\[station page\]](#)) or via the [Groundwater conditions in southern Florida website](#) ([\[station page\]](#).) Discrete water-level measurements ([\[graph\]](#),[\[data table\]](#)), and specific conductance and chloride concentration results from water samples ([\[data table\]](#)), collected at G -3946D are also available online through NWISWeb.



WY 2013 Induction log results  
 Station: USGS 252431080261001  
 Local name: G -3946D



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 11, 2011	Apr. 04, 2011	3,550
Apr. 04, 2012	Apr. 04, 2012	4,100
Apr. 04, 2013 *	Apr. 09, 2013	4,566

\* The electromagnetic induction logs collected in 2013 are affected by a series of +/- 2.5 mS/m data spikes recurring on a 2.4 second interval. See REMARKS.