

Water-Data Report 2012

255733080195601 Local number G -3949 D

Biscayne aquifer
Biscayne Limestone Aquifer

Miami-Dade County, FL

LOCATION.--Lat 25°57'33.6", long 80°09'56.5" referenced to North American Datum of 1983, in SW ¼ SW ¼ SW ¼ sec.33, T.51 S., R.42 E., Miami-Dade County, FL, Hydrologic Unit 03090202, on north side of Carmel Lake Road, about 0.4 mi south of Ives Dairy Road, 1.1 mi west of U.S. Highway 1, in Aventura, FL.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.-- Drilled, observation, water-table well, depth 325 ft, diameter 2 in., cased to 217 ft, screened 217 to 222 ft, cased 222 to 325 ft.

DATUM.--Land-surface datum is 12.3 ft above National Geodetic Vertical Datum of 1929. Measuring point: measuring point has been north side of top of 2-in. PVC casing, 11.89 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 2011 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 salinity monitoring, including an annual induction log. Annual induction logs began in April 2011. Water-level measurements and salinity sampling began in February 2011. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. 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 in 2011. 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 16 mS/m at a depth of 174.6 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, 2.61 ft NGVD, Sept. 07, Oct. 26, 2011, May 15, 2012; lowest, 1.06 ft NGVD, June 03, 2011.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 120 mg/L, many days during water year 2012; lowest, 110 mg/L, Nov. 16, 2011.

255733080195601 Local number G -3949 D—Continued

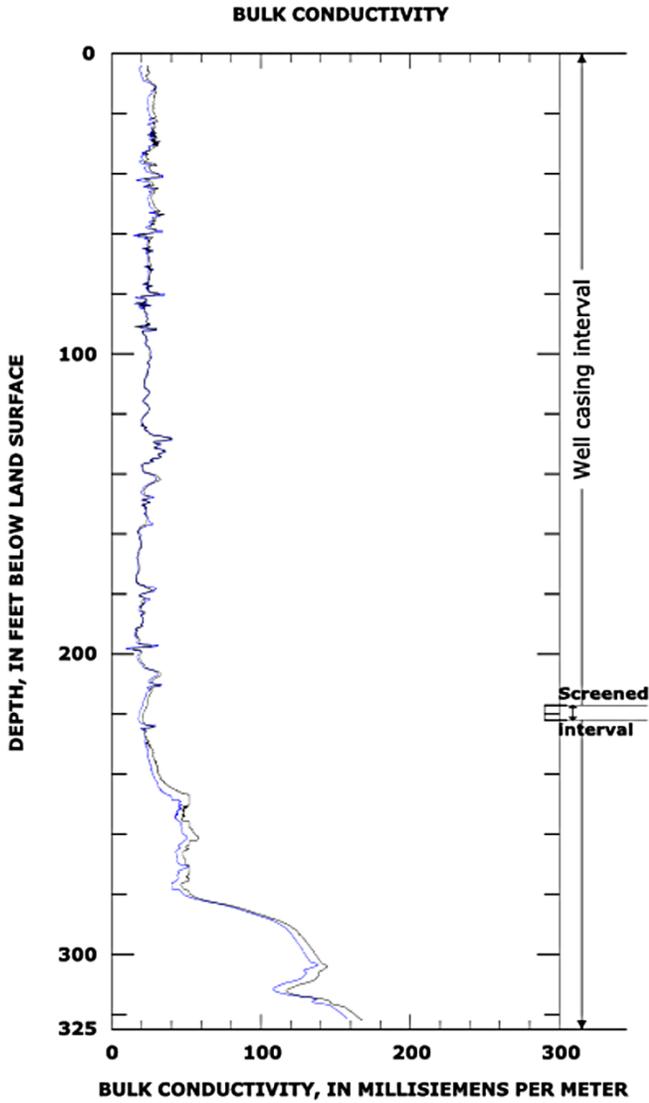
WATER-QUALITY DATA**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[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 26, 2011	1130	769	2.61	120
November 16, 2011	1305	781	2.34	110
December 16, 2011	1610	767	2.13	120
January 6, 2012	1634	777	1.67	120
February 16, 2012	1248	776	2.20	120
March 12, 2012	1442	769	1.74	120
April 6, 2012	0854	766	1.61	120
May 15, 2012	1155	778	2.61	120
June 19, 2012	1340	784	2.00	120
July 9, 2012	1410	789	2.04	120
August 13, 2012	1504	780	1.76	120
September 24, 2012	1309	796	2.60	120



WY 2012 Induction log results
 Station: USGS 255733080195601
 Local name: G -3949D



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 6, 2012	Apr. 6, 2012	122
Apr. 27, 2011	Apr. 27, 2011	111