

253831080180206 Local number G 3313E. USGS Observation Well near Pinecrest, FL.

Biscayne aquifer
Biscayne Limestone Aquifer

Miami-Dade County, FL

LOCATION.--Lat 25°38'34.4", long 80°18'04.7" referenced to North American Datum of 1983, in NW ¼ NW ¼ NW ¼ sec.24, T.55 S., R.40 E., Miami-Dade County, FL, Hydrologic Unit 03090202, at USDA Agricultural Station, 50 ft east of 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.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.-- Drilled, observation, water-table well, depth 114 ft., diameter 8.25 in. to a depth of 32 ft, diameter 7.5 in. from 32 to 114 ft, cased to 32 ft.

DATUM.--Land-surface datum is 12.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: measuring point has been 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 but this was not used to compute water level records. See REMARKS.

PERIOD OF RECORD.--October 1996 to April 2000 (annual), November 2000 to current year. See REMARKS.

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

REMARKS.--This station is also used for annual salinity monitoring, including an annual induction log since June 1995. Water-level measurements and salinity sampling began in October 1996. Water-level elevation data collected from October 18, 1996, 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. See DATUM. Salinity samples collected during the 2010 Water Year have been reviewed and rejected as a result of equipment failure. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#).

An 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. Incorrect figures of chloride concentration, from station G-3250 (USGS 254946080172601), were published in WDR-US-2006, 2007, under this site (USGS 253831080180206). The correct figures are in the files of the U.S. Geological Survey.

In 2008, the instrument used to calibrate the induction logging probe was re-examined, and found to have been constructed to a different specification than originally communicated by the manufacturer. As a consequence of this calibration problem, logs of bulk conductivity collected from 1995 to 2007 are considered to be in error. The 0.7686 multiplier correction applied to most bulk conductivity data collected prior to 2002, as referenced in previous data publications, is not required. Instead, a 1.33 multiplier correction is required for bulk conductivity data collected January 1996, and water years 2002 to 2007. A 1.0 multiplier has been applied to the remainder of the data, to the current year. However, the depths of any hydrologic or lithologic features seen in the published logs are not affected by this correction. Induction data cannot be collected from the well 0 to 33.5 ft below land surface because of the steel well casing.

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 1995 to 2006. 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 median response of 10.5 mS/m at a depth of 45.0 ft below land surface. The resulting plot of logs collected from 1995 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, 3.42 ft NGVD, Oct. 7, 2008; lowest, 1.31 ft NGVD, May 20, 2002.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 5,400 mg/L, May 05, 2008; lowest, 2,900 mg/L, May 18, 2005.

253831080180206 Local number G 3313E. USGS Observation Well near Pinecrest, FL.—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; μ S/cm, microsiemens per centimeter; --, no data]

Date	Sample start time	Specific conductivity, water, unfiltered, μS/cm at 25°C (00095)	Elevation above NGVD 1929, ft (72020)	Chloride, water, unfiltered, mg/L (99220)
October 21, 2011	1355	--	2.36	--
January 19, 2012	1136	--	1.59	--
April 19, 2012	1145	13,700	1.75	4,600
July 19, 2012	1054	--	2.18	--

Lithologic log, USGS 253831080180206. Local Number G -3313E

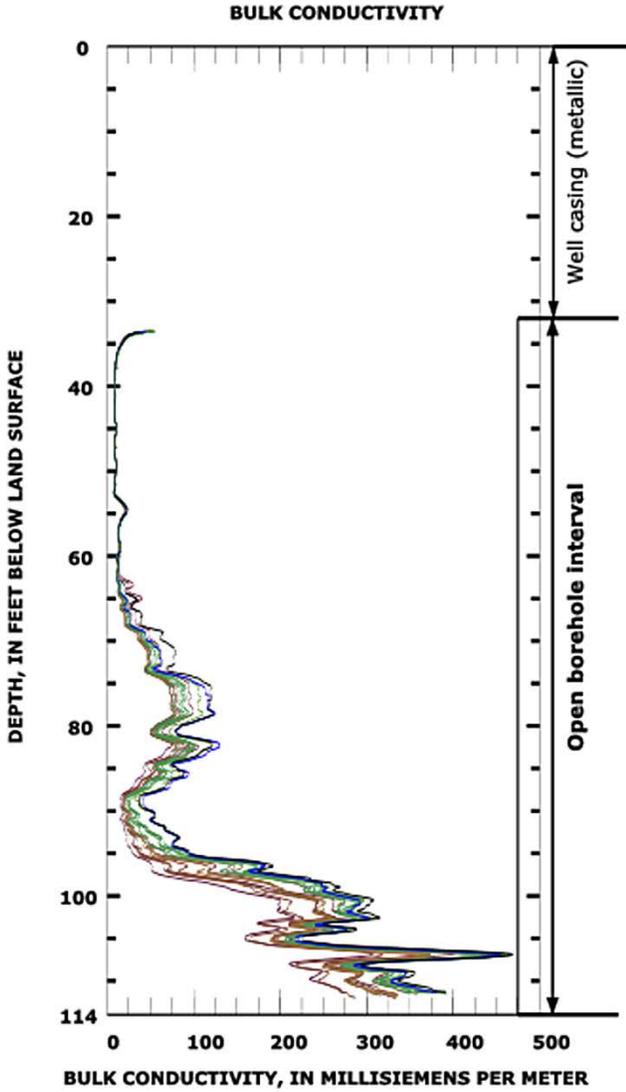
Depth interval (ft below land surface)	Lithologic description
0 - 30	Oolitic limestone
30 - 35	Sandy limestone
35 - 42	Sand and sandy limestone
42 - 44	Sandy and shelly limestone
44 - 47	Sandstone with some loosely cemented sand
47 - 50	Sandy limestone with some sand
50 - 87	Limestone, sand, and sandstone
87 - 97	Sandy limestone to sand with marine shells
97 - 110	Sandy limestone and sand
110 - 114	Sandy limestone



WY 2012 Induction log results

Station: USGS 253831080180206

Local name: G -3313E



INDUCTION LOG DATES,
ASSOCIATED CHLORIDE SAMPLE DATES

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 19, 2012	Apr. 19, 2012	4,600
Apr. 21, 2011	Apr. 21, 2011	5,000
Apr. 16, 2010	Apr. 16, 2010 *	4,100
Apr. 21, 2011	Apr. 21, 2011	4,100
Apr. 16, 2010	Apr. 16, 2010 *	4,300
May 7, 2009	May 7, 2009 *	5,400
May 7, 2008	May 7, 2008	5,100
June 13, 2007	May 15, 2007	3,800
Apr. 20, 2006	Apr. 12, 2006 *	2,900
Apr. 27, 2005	May 18, 2005	4,400
Apr. 23, 2004	May 24, 2004	4,200
Apr. 24, 2003	Oct. 24, 2003 *	4,100
May 20, 2002	May 1, 2002 *	4,300
Apr. 5, 2001	Apr. 5, 2001 *	3,300
Apr. 13, 2000	Apr. 13, 2000 *	3,000
Apr. 9, 1999	Apr. 9, 1999 *	3,500
Apr. 1998	Apr. 16, 1998 *	3,050
Apr. 22, 1997	Apr. 22, 1997 *	3,050
May 24, 1996	Oct. 18, 1996 *	--

* - Chloride sample collected from G -3313C, screened 107 - 110 ft below land surface.