

Water-Data Report 2011

255936080091702 Local number G 2478. USGS Observation Well near Hallandale, FL.

Biscayne aquifer
Biscayne Limestone Aquifer

Broward County, FL

LOCATION.--Lat 25°59'37.38", long 80°09'17.97" referenced to North American Datum of 1983, in SE ¼ NW ¼ SE ¼ sec.21, T.51 S., R.42 E., Broward County, FL, 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.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 200 ft. Upper casing diameter 2 in.; top of first opening 195 ft, bottom of last opening 200 ft.

DATUM.--Land-surface datum is 12.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 12.48 ft above National Geodetic Vertical Datum of 1929, Aug. 27, 1991, to present.

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

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

REMARKS.--Monthly salinity monitoring began in March 1988, and water-level measurements began in August 1991. Annual induction logging began in 2010, after an initial series of quarterly logs collected in 2008 and 2009. Electromagnetic induction logs are used to assess the movement of the fresh-water/salt-water interface on 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 2008, 2009 and 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 median response of 4.4 mS/m at a depth of 41.7 ft below land surface. The resulting plot of logs collected from 2008 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, 5.14 ft NGVD, Oct. 21, 1999; lowest, 0.26 ft NGVD, June 18, 1998.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 1,140 mg/L, Aug. 22, 2011; lowest, 32 mg/L, Mar. 19, 1991.

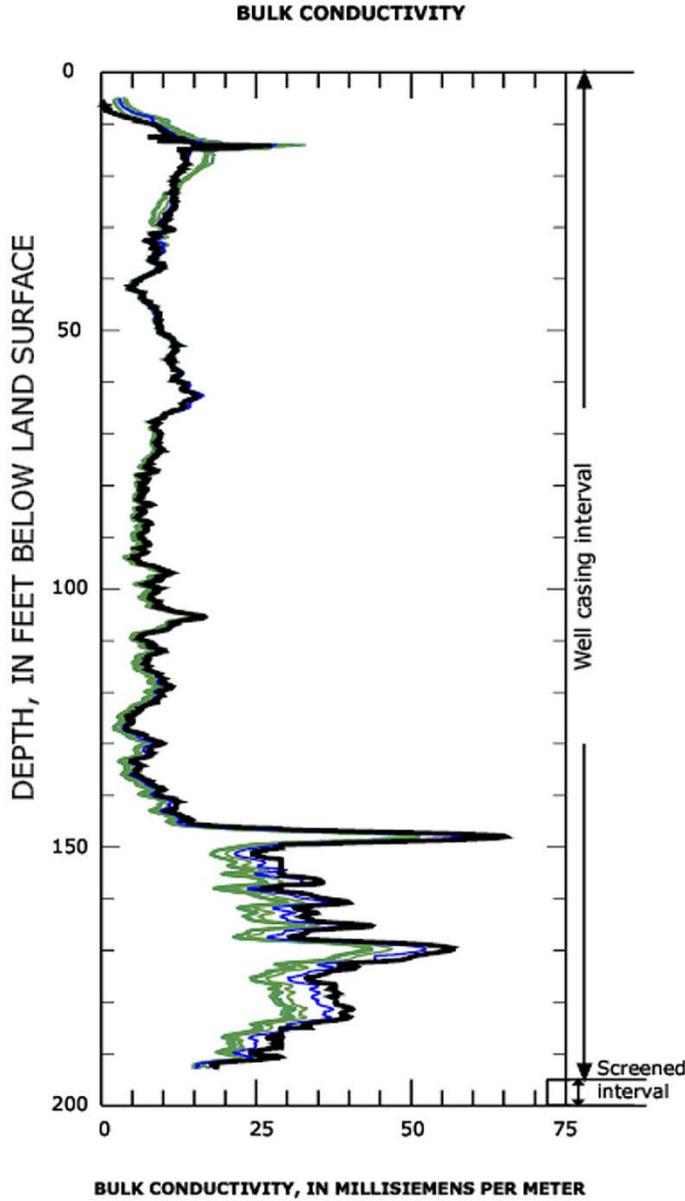
255936080091702 Local number G 2478. USGS Observation Well near Hallandale, FL.—Continued

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; $\mu\text{S}/\text{cm}$, 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 6, 2010	1209	3,010	2.96	860
November 15, 2010	1045	3,250	1.87	940
December 23, 2010	1152	3,380	1.58	960
January 25, 2011	1110	3,390	1.52	1,000
February 2, 2011	1129	3,460	1.45	1,000
March 3, 2011	1109	3,590	1.12	1,020
April 1, 2011	1200	3,550	1.40	1,060
May 4, 2011	1054	3,610	1.11	1,080
June 3, 2011	1137	3,470	.87	1,060
July 7, 2011	1237	3,730	1.85	1,120
August 22, 2011	1014	3,900	2.09	1,140
September 14, 2011	1046	3,790	2.56	1,120



WY 2011 Induction log results
Station: USGS 255936080091702
Local name: G -2478



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 1, 2011	Apr. 1, 2011	1,060
Apr. 27, 2010	Apr. 27, 2010	820
July 8, 2009	July 8, 2009	760
May 4, 2009	May 4, 2009	820
Jan. 26, 2009	Feb. 2, 2009	800
Nov. 4, 2008	Nov. 14, 2008	740
Sept. 8, 2008	Sept. 4, 2008	740