



Water-Data Report 2009

253457080195501 Local number G 3612. USGS Observation Well near Cutler Ridge, FL.

Biscayne aquifer
 Biscayne Limestone Aquifer
 Miami-Dade County, FL

LOCATION.--Lat 25°34'59.4", long 80°19'50.2" referenced to North American Datum of 1983, in SW ¼ SW ¼ SW ¼ sec.3, T.56 S., R.40 E., Miami-Dade County, FL, Hydrologic Unit 03090202, at St. Timothy's Church, east of intersection of SW 86th Avenue and SW 198th Street, 6 ft south of SW 198th Street, 2.2 mi east of U.S. Highway 1 and the Florida Turnpike.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 62 ft. Upper casing diameter 2 in.; top of first opening 56 ft, bottom of last opening 62 ft.

DATUM.--Land-surface datum is 8.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 8.07 ft above National Geodetic Vertical Datum of 1929, Sept. 19, 1995, to present. Prior to the 2000 water year, measuring point was estimated to be 5 ft above NGVD from the topographic map. See REMARKS.

PERIOD OF RECORD.--September 1995 to current year. See REMARKS.

INSTRUMENTATION.--Quarterly measurement with chalked or electronic tape. Annual profile with induction logger. See REMARKS.

REMARKS.--This station is also used for salinity monitoring, including an annual induction log. Salinity monitoring began September 1995. Induction logging began January 1996. Water-level measurements began October 1999. The measuring point elevation value estimated from a topographic map was reported in previous reports, but has not been used for computing published water-level elevations. See DATUM. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#).

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 from water years 1998, and 2002 to 2007. However, the depths of any hydrologic or lithologic features seen in the published logs are not affected by this correction.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.03 ft NGVD, Oct. 7, 2008; lowest, 1.40 ft NGVD, May 5, 2009.

Highest measured chloride concentration, 2,400 mg/L, Oct. 2, 1995; lowest, 920 mg/L, Sept. 19, 1995.

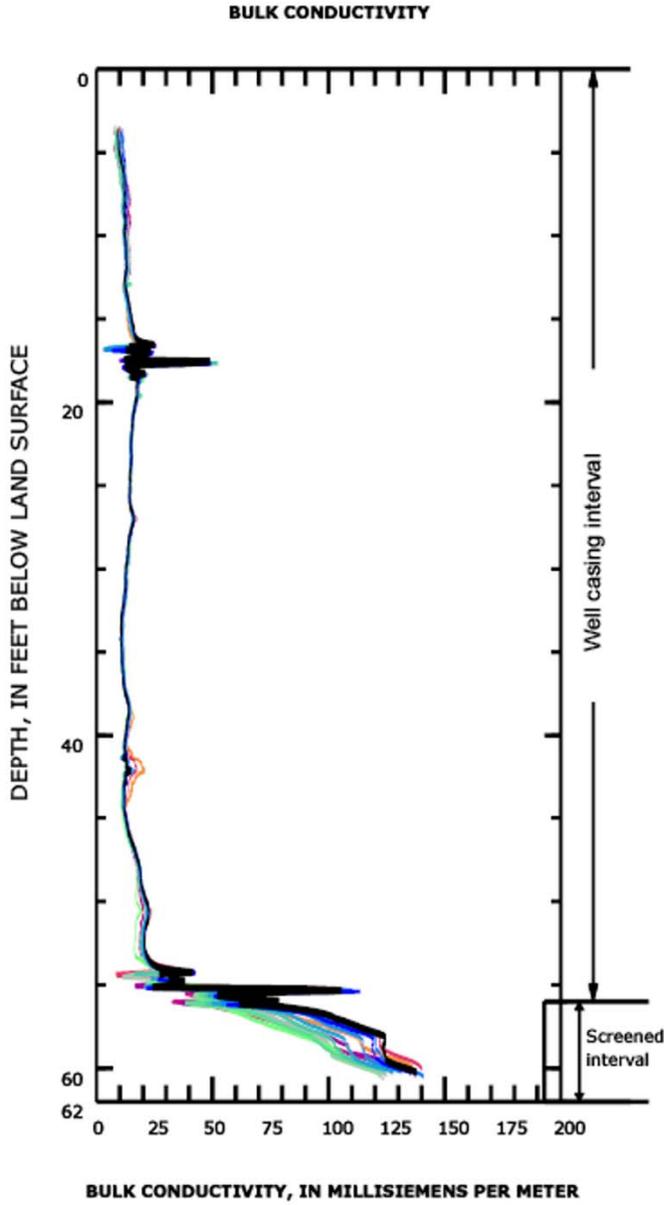
**WATER-QUALITY DATA
 WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Date	Time	Specific conductance, wat unf µS/cm @ 25 degC (00095)	Elev- ation, feet above NGVD (72020)	Chlor- ide, water, fltrd, mg/L (00940)
Oct				
07...	1123	4,510	4.03	1,340
Jan				
23...	1207	--	1.69	--
May				
05...	1219	4,200	1.40	1,220
Jul				
14...	1008	--	2.23	--

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WY 2009 Induction log results
Station: USGS 253457080195501
Local name: G -3612



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
May 5, 2009	May 5, 2009	1,220
June 12, 2008	Apr. 30, 2008	1,200
June 13, 2007	June 13, 2007	1,420
Apr. 20, 2006	Apr. 20, 2006	1,400
Apr. 26, 2005	Apr. 26, 2005	1,380
Apr. 19, 2004	Apr. 26, 2004	1,300
Apr. 24, 2003	May 1, 2003	1,220
May 17, 2002	May 17, 2002	1,460
Apr. 5, 2001	Apr. 5, 2001	1,760
Apr. 2000	Apr. 13, 2000	1,220
Apr. 8, 1999	Apr. 8, 1999	1,280
Apr. 1998	- no sample -	--
Apr. 22, 1997	Apr. 22, 1997	1,020
May 8, 1996	- no sample -	--
Jan. 16, 1996	Jan. 11, 1996	1,280

253457080195501 Local number G 3612. USGS Observation Well near Cutler Ridge, FL.—Continued**Lithologic log, USGS 253457080195501. Local Number G -3612**

Depth interval (ft below land surface)	Lithologic description
0 - 20	Oolitic limestone with dissolution features, some with calcite fill
20 - 25	Oolitic limestone with dissolution features, some with calcite fill
25 - 45	Sandy limestone, pale yellow color, limestone contains marine shells and some poorly-sorted quartz and carbonate grains; includes dissolution features, and possibly some hard layers
45 - 55	Sandy limestone, includes poorly sorted quartz and carbonate sand, mollusk and other marine shells, dissolution features and some phosphate grains
55 - 60	White limestone with quartz sand, includes dissolution features, quartz sand with marine shell fragments and phosphate grains; sand is well sorted medium-grained quartz