

255625080094901 Local number G 3705. USGS Observation Well near North Miami Beach, FL.

Biscayne aquifer
 Biscayne Limestone Aquifer
 Miami-Dade County, FL

LOCATION.--Lat 25°56'25", long 80°09'49" referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.9, T.52 S., R.42 E., Miami-Dade County, FL, Hydrologic Unit 03090202, 15 ft north of NE 179th Street and 175 ft west of NE 19th Avenue, 0.90 mi west of U.S. Highway 1.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 135 ft. Upper casing diameter 2 in.; top of first opening 125 ft, bottom of last opening 135 ft.

DATUM.--Land-surface datum is 9.1 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 9.06 ft above National Geodetic Vertical Datum of 1929, Mar. 14, 2000, to present.

PERIOD OF RECORD.--April 2000 to current year. See REMARKS.

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

REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Annual induction logs began in April 2000. Water-level measurements began in November 2000. Salinity sampling began in May 2002. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#).

In WY2008, 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 2002 to 2007 are considered to be in error. The 0.7686 multiplier correction to conductivity data collected prior to WY2002, as referenced in previous data publications, is not required. Instead, a 1.33 multiplier correction is required for bulk conductivity data collected from 2002 to 2007. However, the depths of any hydrologic or lithologic features seen in the published logs are not affected.

EXTREMES FOR PERIOD OF RECORD.--

WATER-LEVEL ELEVATION: Highest water level measured, 3.24 ft NGVD, Aug. 4, 2004; lowest, 1.40 ft NGVD, May 10, 2002.

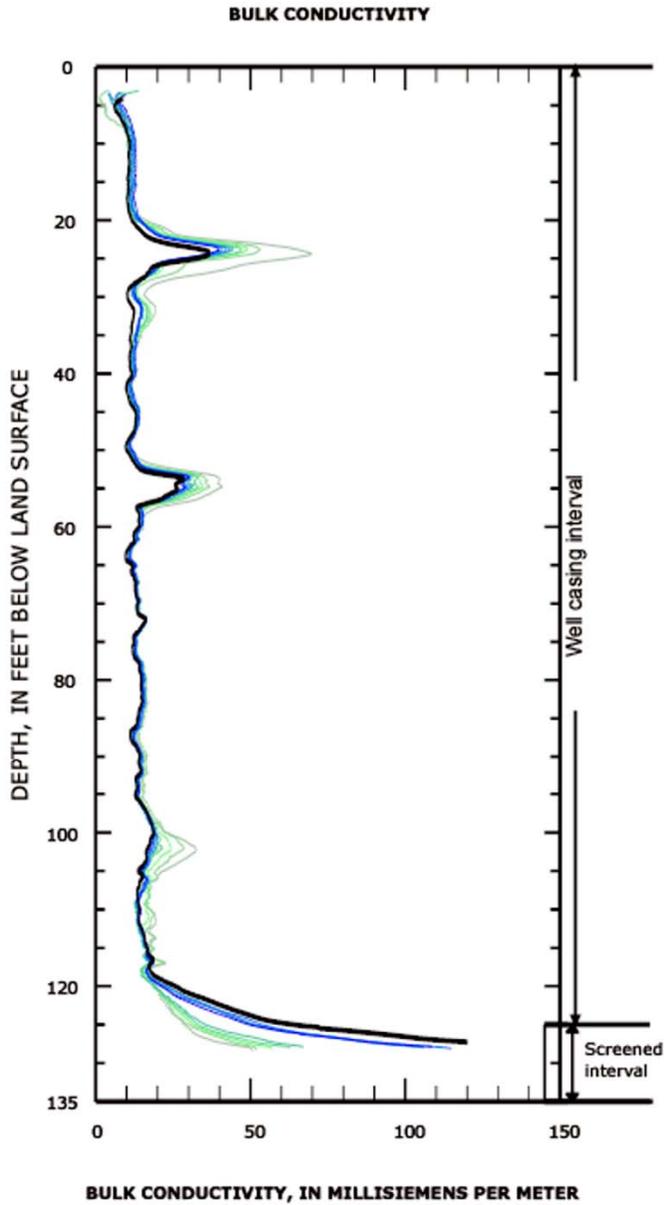
CHLORIDE CONCENTRATION: Highest measured chloride concentration, 2,050 mg/L, Apr. 30, 2009; lowest, 780 mg/L, May 10, 2002.

**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 29...	1218	5,410	2.18	1,560
Jan 22...	0955	--	1.61	--
Apr 30...	0819	6,650	1.68	2,050
Jul 23...	1241	--	2.28	--



WY 2009 Induction log results
Station: USGS 255625080094901
Local name: G -3705



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 30, 2009	Apr. 30, 2009	2,050
May 5, 2008	May 5, 2008	1,700
June 18, 2007	June 18, 2007	1,760
Apr. 25, 2006	Apr. 25, 2006	1,760
Apr. 25, 2005	Apr. 25, 2005	1,720
Apr. 22, 2004	Apr. 22, 2004	1,020
Apr. 29, 2003	Apr. 29, 2003	880
May 10, 2002	May 10, 2002	780
Apr. 11, 2001	- no sample -	--
Apr. 18, 2000	- no sample -	--

255625080094901 Local number G 3705. USGS Observation Well near North Miami Beach, FL.—Continued

Lithologic log, USGS 255625080094901. Local Number G -3705

Depth interval (ft below land surface)	Lithologic description
0 - 5	Quartz sand, brown, well sorted, grains are very fine and sub-angular to sub-rounded, with heavy minerals; organic matter
5 - 15	Sandstone, tan, fine to very-fine grained, grains are quartz and sub-angular to sub-rounded, with calcite crystals
15 - 20	Limestone, tan, oolitic, well cemented; quartz sand, tan, fine grained, grains are sub-angular to sub-rounded
20 - 30	Quartz sand and concretions, gray, cemented with calcite, fine grained, grains are frosted and sub-angular, with calcite crystals; limestone, tan, well cemented, with shell fragments
30 - 40	Limestone, tan, well cemented, with shell fragments; quartz sand, tan, well sorted, fine grained, grains are sub-angular, with calcite crystals and heavy minerals
40 - 65	Quartz sand, tan to gray, fine to very-fine grained, grains are frosted and sub-angular to sub-rounded, with shell fragments, calcite crystals, concretions, and heavy minerals
65 - 85	Quartz sand, gray, fine to very-fine grained, grains are frosted and sub-angular to sub-rounded, with heavy minerals; limestone, gray, well cemented, with concretions cemented by calcite
85 - 95	Sandstone, tan to gray, cemented with calcite, with shell fragments
95 - 100	Sandstone, tan to gray, cemented with calcite, with shell fragments; sand, gray, fine to very-fine grained, grains are sub-angular to sub-rounded
100 - 105	Sandstone, tan to gray, with shell fragments; sand
105 - 115	Quartz sand, gray, well sorted, fine to very-fine grained, grains are frosted and sub-angular to sub-rounded, with heavy minerals, shell fragments, and concretions cemented by calcite
115 - 125	Sandstone, gray, cemented with calcite, grains are frosted, with shell fragments
125 - 135	Quartz sand, tan to gray, fine to very-fine grained, grains are frosted and sub-angular to sub-rounded

Compiled and modified from the original lithologic description of Hydrologic Associates USA Inc., Miami, FL.