



Water-Data Report 2008

261304080072501 Local number G 2896. USGS Observation Well near Pompano Beach, FL.

Biscayne aquifer
 Biscayne Limestone Aquifer
 Broward County, FL

LOCATION.--Lat 26°13'05.6", long 80°07'24.7" referenced to North American Datum of 1983, in NE ¼ SE ¼ sec.2, T.49 S., R.42 E., Broward County, FL, Hydrologic Unit 03090202, at southwest corner of intersection of Cypress Road South and SW 9th Street, 56.5 ft southwest of the fire hydrant.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 100.5 ft. Upper casing diameter 2 in.; top of first opening 90.5 ft, bottom of last opening 100.5 ft.

DATUM.--Land-surface datum is 6.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 6.79 ft above National Geodetic Vertical Datum of 1929, Oct. 15, 1997, to present.

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

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

REMARKS.--This well is also monitored for salinity, including an annual induction log. Induction logging began in April 2000. Quarterly water-level measurements and salinity monitoring began in October 2000. 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 2008 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 2008. 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, 3.60 ft NGVD, Oct. 24, 2001; lowest, 1.31 ft NGVD, Feb. 10, 2003.

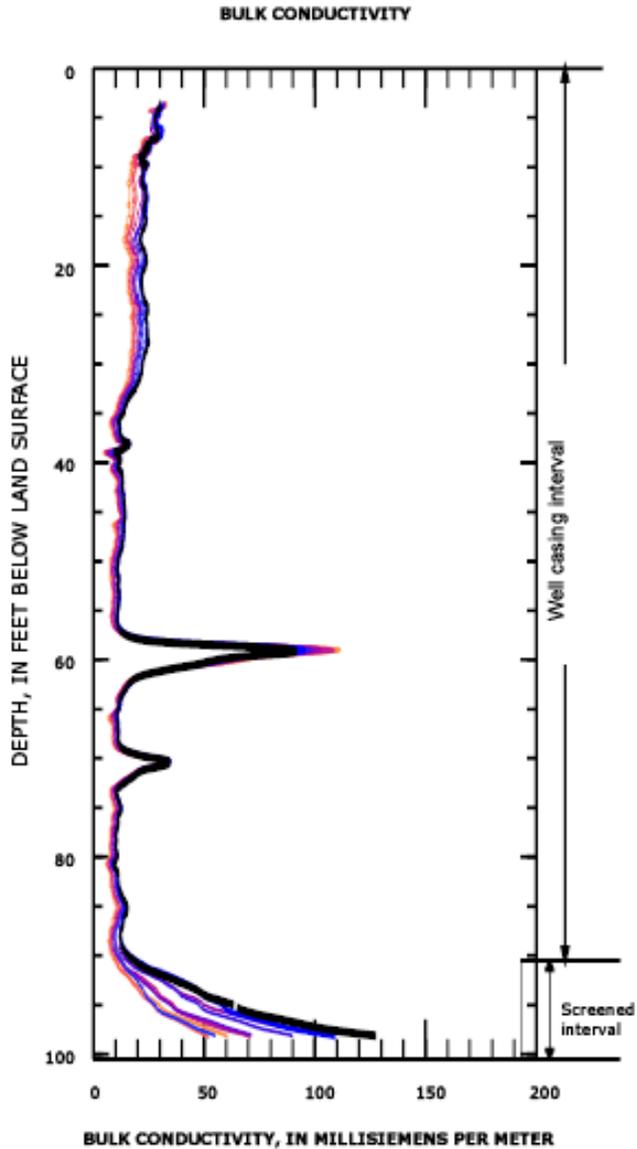
CHLORIDE CONCENTRATION: Highest measured chloride concentration, 1,080 mg/L, July 9, 2008; lowest, 260 mg/L, Feb. 6, 2006.

**WATER-QUALITY DATA
 WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Date	Time	Elev- ation, feet above NGVD (72020)	Specif- ic	Chlor- ide,
			conduc- tance, wat unf µS/cm 25 degC (00095)	water, fltrd, mg/L (00940)
Oct				
17...	0825	2.33	2,500	680
Jan				
22...	0937	1.96	2,820	760
May				
16...	0845	1.80	3,260	880
Jul				
09...	0828	2.07	3,800	1,080



WY 2008 Induction log results
Station: USGS 261304080072501
Local name: G -2896



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

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
May 9, 2008	May 16, 2008	880
May 30, 2007	May 30, 2007	780
May 3, 2006	May 3, 2006	320
May 5, 2005	May 5, 2005	600
Apr. 30, 2004	Apr. 30, 2004	410
May 8, 2003	May 8, 2003	700
May 23, 2002	Apr. 24, 2002	410
Apr. 17, 2001	Apr. 17, 2001	508
Aug. 29, 2000	- no sample -	--
Apr. 19, 2000	- no sample -	--

261304080072501 Local number G 2896. USGS Observation Well near Pompano Beach, FL.—Continued**Lithologic log, USGS 261304080072501. Local Number G -2896**

Depth interval (ft below land surface)	Lithologic description
0 - 5	Sand, black and brown, fine to very fine grained, grains are frosted, sub-angular to sub-rounded and coated with organic matter; organic matter
5 - 10	Quartz sand, yellow to brown, well sorted, fine to very- fine grained, grains are sub-angular
10 - 15	Quartz sand, tan to brown, well sorted, fine to very-fine grained, grains are frosted and sub-angular
15 - 25	Quartz sand, tan to white, well sorted, very-fine grained, grains are clear and sub-angular to sub-rounded
25 - 35	Sandy carbonate mud, white, with some shell fragments, quartz sand is very-fine grained, grains are sub-angular
35 - 40	Quartz sand, tan, fine to very-fine grained, grains are sub-angular, with concretions, calcite cement
40 - 45	Quartz sand, tan, fine to very-fine grained, grains are sub-angular, with brown to orange concretion structures and shell fragments
45 - 50	Sandy limestone, tan, well cemented with calcite cement, quartz sand is fine to very-fine grained, grains are sub-angular
50 - 55	Quartz sand, tan, very-fine grained, grains are clear and sub-angular, with shell fragments and concretions
55 - 60	Quartz sand, tan, fine to very-fine grained, grains are sub-angular, with shell fragments, spar crystals, and calcite
60 - 65	Quartz sand, tan, fine to very-fine grained, grains are sub-angular to rounded, with heavy minerals and shell fragments
65 - 70	Quartz sand, tan, well sorted, very-fine grained, grains are sub-angular, with shell fragments and concretions
70 - 100	Quartz sand, tan to gray, well sorted, very-fine grained, grains are sub-angular, with heavy minerals, shell fragments and concretions

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