

Water-Data Report 2006

**364227076074708 Local number 61B 14 SOW 091G.**

Northern Atlantic Coastal Plain aquifer system  
Upper Cretaceous Series  
Chesapeake City, VA

LOCATION.--Lat 36°42'27", long 76°07'47" referenced to North American Datum of 1927, Chesapeake City, VA, Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Department of Environmental Quality.

**GROUND-WATER RECORDS**

WELL CHARACTERISTICS.--Depth 1,113 ft. Upper casing diameter 4.00 in; top of first opening 1,093 ft, bottom of last opening 1,103 ft. Drilled observation water well, diameter 2 in. from 987 to 1,113 ft, screened 1,093 to 1,103 ft.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 0.90 ft above land-surface datum, Mar. 7, 1989, to present.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Electronic data logger and pressure transducer, 15-minute record interval. Feb. 13, 1997 to Mar. 29, 2005, continuous strip-chart recorder. July 6, 1995 to Feb. 13, 1997, occasional measurement with chalked tape by Virginia Department of Environmental Quality - Water Division personnel. Prior to July 6, 1995, bimonthly measurement with chalked tape.

REMARKS.--Well is located in Brightseat-upper Potomac aquifer of Cretaceous-Paleocene age. Records provided by the Virginia Department of Environmental Quality - Water Division. Low water-level drawdown after June 2006 is the result of pumping of the well. Cause of nonrecovery to pre-pumpage level is unknown. Water level also affected by regional drawdown. Water from this well is known to contain concentrations of dissolved solids greater than 1,000 mg/L.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.30 ft. below land-surface datum, Mar 22, 1989; lowest measured, 74.52 ft. below land-surface datum, Aug 27, 28, 2006.

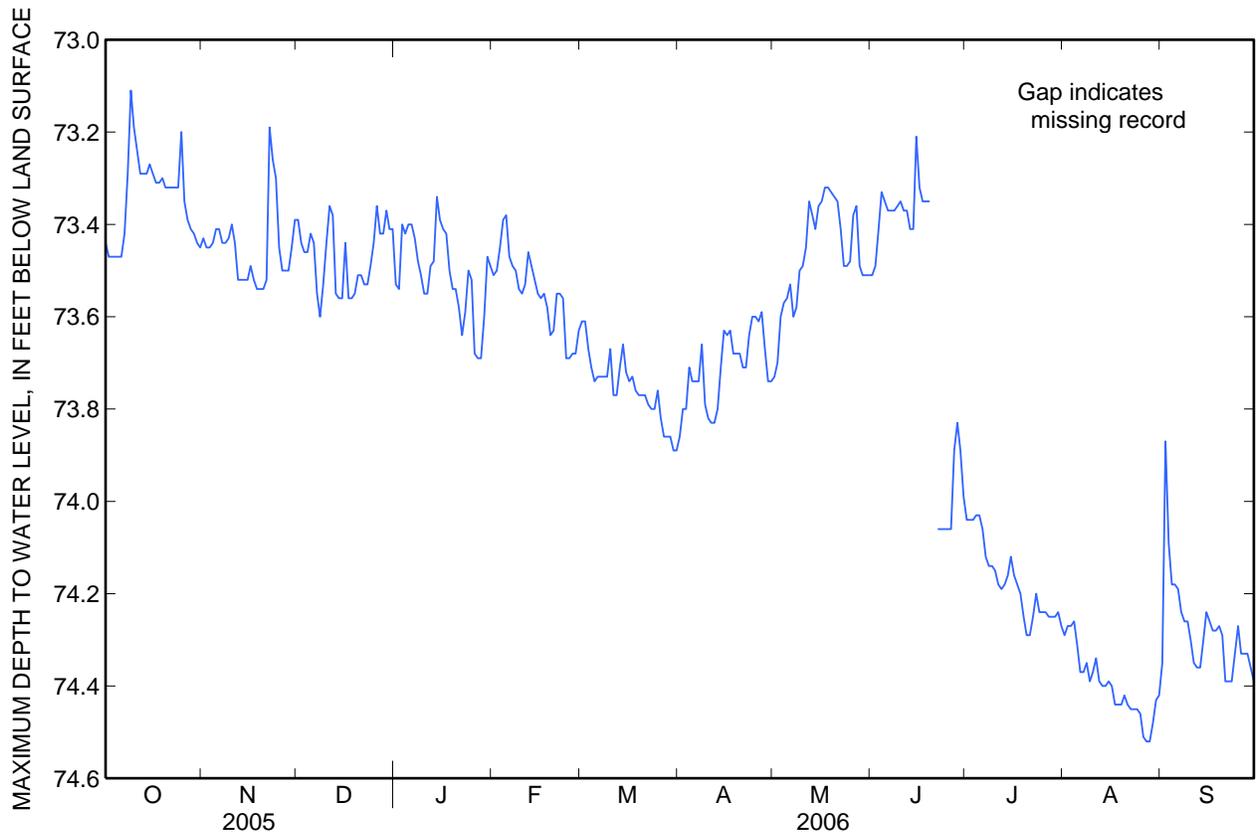
EXTREMES FOR CURRENT YEAR.--Highest water level, 72.95 ft below land surface datum, Oct 8, 9; lowest water level, 74.52 ft below land surface datum, Aug 27, 28.

364227076074708 Local number 61B 14 SOW 091G.—Continued

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MAXIMUM VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	73.44	73.43	73.39	73.53	73.51	73.61	73.86	73.73	73.51	74.04	74.29	74.35
2	73.47	73.45	73.44	73.54	73.50	73.61	73.80	73.70	73.49	74.04	74.27	73.87
3	73.47	73.45	73.46	73.40	73.45	73.67	73.80	73.60	73.41	74.04	74.27	74.09
4	73.47	73.44	73.46	73.42	73.39	73.71	73.71	73.57	73.33	74.03	74.26	74.18
5	73.47	73.41	73.42	73.40	73.38	73.74	73.74	73.56	73.35	74.03	74.31	74.18
6	73.47	73.41	73.44	73.40	73.47	73.73	73.74	73.53	73.37	74.06	74.37	74.19
7	73.42	73.44	73.55	73.43	73.49	73.73	73.74	73.60	73.37	74.12	74.37	74.24
8	73.29	73.44	73.60	73.48	73.50	73.73	73.66	73.58	73.37	74.14	74.35	74.26
9	73.11	73.43	73.53	73.51	73.54	73.73	73.79	73.50	73.36	74.14	74.39	74.26
10	73.19	73.40	73.44	73.55	73.55	73.67	73.82	73.49	73.35	74.15	74.37	74.30
11	73.24	73.44	73.36	73.55	73.53	73.77	73.83	73.45	73.37	74.18	74.34	74.35
12	73.29	73.52	73.38	73.49	73.46	73.77	73.83	73.35	73.37	74.19	74.39	74.36
13	73.29	73.52	73.55	73.48	73.49	73.71	73.80	73.38	73.41	74.18	74.40	74.36
14	73.29	73.52	73.56	73.34	73.52	73.66	73.71	73.41	73.41	74.16	74.40	74.30
15	73.27	73.52	73.56	73.39	73.55	73.72	73.63	73.36	73.21	74.12	74.39	74.24
16	73.29	73.49	73.44	73.41	73.56	73.74	73.64	73.35	73.32	74.16	74.40	74.26
17	73.31	73.52	73.56	73.42	73.55	73.73	73.63	73.32	73.35	74.18	74.44	74.28
18	73.31	73.54	73.56	73.50	73.58	73.76	73.68	73.32	73.35	74.20	74.44	74.28
19	73.30	73.54	73.55	73.54	73.64	73.77	73.68	73.33	73.35	74.25	74.44	74.27
20	73.32	73.54	73.51	73.54	73.63	73.77	73.68	73.34	---	74.29	74.42	74.29
21	73.32	73.52	73.51	73.58	73.55	73.77	73.71	73.35	---	74.29	74.44	74.39
22	73.32	73.19	73.53	73.64	73.55	73.79	73.71	73.41	74.06	74.25	74.45	74.39
23	73.32	73.26	73.53	73.59	73.56	73.80	73.64	73.49	74.06	74.20	74.45	74.39
24	73.32	73.30	73.49	73.50	73.69	73.80	73.60	73.49	74.06	74.24	74.45	74.33
25	73.20	73.45	73.44	73.52	73.69	73.76	73.60	73.48	74.06	74.24	74.46	74.27
26	73.35	73.50	73.36	73.68	73.68	73.82	73.61	73.38	74.06	74.24	74.51	74.33
27	73.39	73.50	73.42	73.69	73.68	73.86	73.59	73.36	73.89	74.25	74.52	74.33
28	73.41	73.50	73.42	73.69	73.63	73.86	73.67	73.49	73.83	74.25	74.52	74.33
29	73.42	73.45	73.37	73.60	---	73.86	73.74	73.51	73.89	74.25	74.48	74.36
30	73.44	73.39	73.41	73.47	---	73.89	73.74	73.51	73.99	74.24	74.43	74.39
31	73.45	---	73.41	73.49	---	73.89	---	73.51	---	74.27	74.42	---

364227076074708 Local number 61B 14 SOW 091G.—Continued



**WATER-QUALITY RECORDS**

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 3

[Remark codes: E, estimated; M, presence verified but not quantified. Value qualifier codes: d, diluted sample; method hi range exceeded.]

Date	Time	Sample type	Geologic unit	Depth to bot sample intrval feet below LSD (72016)	Depth to top sample intrval feet below LSD (72015)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Pump or flow prior to sampling, minutes (72004)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)
Jun 21...	1400	Environmental	211CRCSU	1,100.00	1,090.00	73.42	15.0	3.0	640	763	.1	.0

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 3

[Remark codes: E, estimated; M, presence verified but not quantified. Value qualifier codes: d, diluted sample; method hi range exceeded.]

Date	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon-ate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)
Jun 21...	8.0	5,140	32.0	20.6	16.8d	10.3d	25.3d	1,160d	443	E536	E2	5.18d	1,370d

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 3

[Remark codes: E, estimated; M, presence verified but not quantified. Value qualifier codes: d, diluted sample; method hi range exceeded.]

Date	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Sulfide water, unfltrd field, mg/L (99119)	Residue on evap. at 180degC wat flt mg/L (70300)	Iron, water, fltrd, ug/L (01046)	Mangan-ese, water, fltrd, ug/L (01056)
Jun 21...	1.3	11.7d	99.4d	M	2,870	922d	66.7d