



Water-Data Report 2008

353708079452102 Local number RA-166, NCDENR North Carolina Zoo Research Station MW-2I near Asheboro, NC (Transition Zone)

Piedmont and Blue Ridge crystalline-rock aquifers
Transition Zone

Randolph County, NC

LOCATION.--Lat 35°37'07.80", long 79°45'20.54" referenced to North American Datum of 1983, Randolph County, NC, Hydrologic Unit 03030003, 6 mi southeast of Asheboro at the North Carolina Zoo. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 58 ft, diameter 4 in., cased to 38 ft, screened from 38 ft to 58 ft.

DATUM.--Land-surface datum is 637.68 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of steel casing, 3.15 ft above land-surface datum.

PERIOD OF RECORD.--April 2007 to current year.

GAGE.--Measured periodically with electric tape by NCDENR and USGS.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 26.82 ft below land-surface datum, April 15, 2007; lowest water level recorded, 34.03 ft below land-surface datum, September 20, 2007 and September 5, 2008.

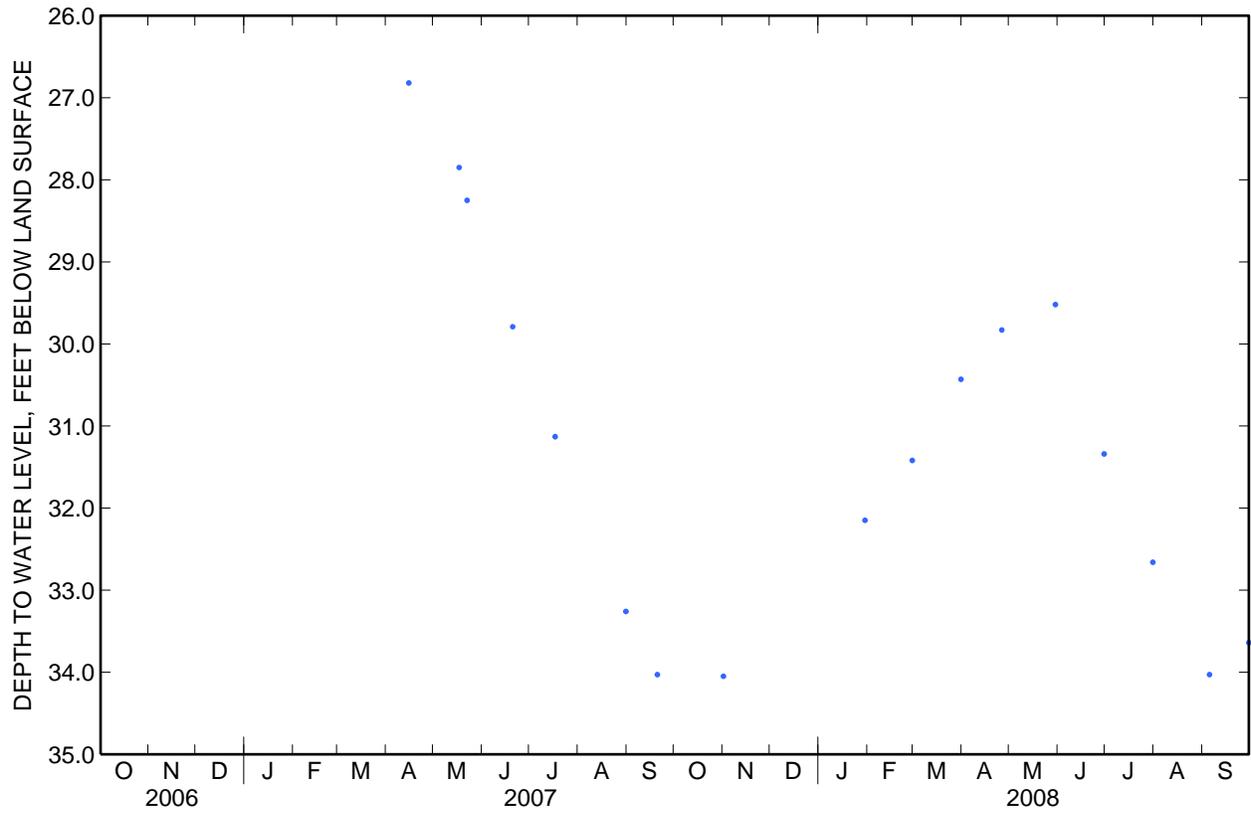
WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

Date	Water level	Date	Water level
Nov 1, 2007	34.05	May 30, 2008	29.52
Jan 30, 2008	32.15	Jun 30	31.34
Feb 29	31.42	Jul 31	32.66
Mar 31	30.43	Sep 5	34.03
Apr 26	29.83	30	33.64

Highest: 29.52 May 30, 2008

Lowest: 34.05 Nov 01, 2007

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Continued



353708079452102 Local number RA-166, NCDENR North Carolina Zoo Research Station MW-21 near Asheboro, NC (Transition Zone)—
Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2008.

REMARKS.--Well is part of the Piedmont/Mountains ground-water study.

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

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, μ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
Mar 03...	58.00	31.14	34.29	.93	50.0	753	4.9	31	15.5	5	1.41	.429	1.10

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

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrate + nitrite, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)
Mar 03...	3.73	11	13	E.01	2.06	<.12	21.4	.28	35	<.020	<.04	<.002	<.06

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

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, μ g/L (01106)	Antimony, water, fltrd, μ g/L (01095)	Arsenic, water, fltrd, μ g/L (01000)	Barium, water, fltrd, μ g/L (01005)	Beryllium, water, fltrd, μ g/L (01010)	Boron, water, fltrd, μ g/L (01020)	Cadmium, water, fltrd, μ g/L (01025)	Chromium, water, fltrd, μ g/L (01030)	Cobalt, water, fltrd, μ g/L (01035)	Copper, water, fltrd, μ g/L (01040)	Iron, water, fltrd, μ g/L (01046)	Lead, water, fltrd, μ g/L (01049)
Mar 03...	.010	3.5	<.14	<.06	23	.05	1.7	<.04	E.07	.02	<1.0	<8	<.08

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Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Mangan- ese, water, flt'd, µg/L (01056)	Molyb- denum, water, flt'd, µg/L (01060)	Nickel, water, flt'd, µg/L (01065)	Selen- ium, water, flt'd, µg/L (01145)	Silver, water, flt'd, µg/L (01075)	Zinc, water, flt'd, µg/L (01090)	Uranium natural water, flt'd, µg/L (22703)
Mar 03...	26.5	<.2	.53	<.04	<.1	4.9	<.02