



Water-Data Report 2008

353712079452702 Local number RA-169, NCDENR North Carolina Zoo Research Station MW-3I near Asheboro, NC (Transition Zone)

Piedmont and Blue Ridge crystalline-rock aquifers
Transition Zone

Randolph County, NC

LOCATION.--Lat 35°37'11.96", long 79°45'27.41" 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 63 ft, diameter 4 in., cased to 43 ft, screened from 43 ft to 63 ft.

DATUM.--Land-surface datum is 665.18 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of steel casing, 2.91 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, 21.05 ft below land-surface datum, April 15, 2007; lowest water level recorded, 28.51 ft below land-surface datum, September 5, 2008.

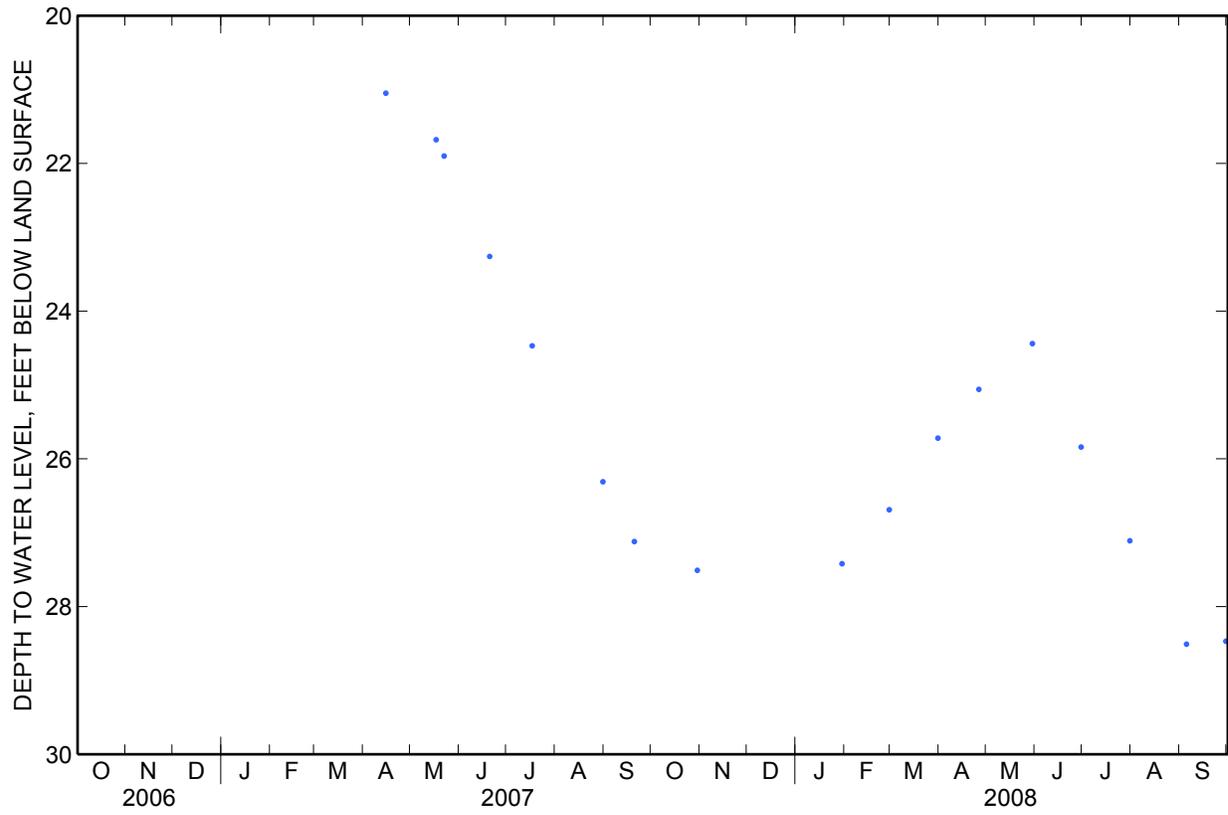
WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

Date	Water level	Date	Water level
Oct 30, 2007	27.51	May 30, 2008	24.44
Jan 30, 2008	27.42	Jun 30	25.84
Feb 29	26.69	Jul 31	27.11
Mar 31	25.72	Sep 5	28.51
Apr 26	25.06	30	28.47

Highest: 24.44 May 30, 2008

Lowest: 28.51 Sep 05, 2008

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Continued



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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)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	pH, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat un-f 25 degC (00095)	Temper-ature, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	
Mar 03...	63.00	26.54	29.45	55.0	753	3.8	39	6.0	75	16.7	19	5.80	1.04

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 4

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

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat un-f infl pt titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat un-f infl pt titr., mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, 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)
Mar 03...	1.07	9.77	35	43	E.02	3.07	<.12	45.7	.96	92	<.020	.47	<.002

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

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

Date	Total nitro-gen, wat flt by anal ysis, mg/L (62854)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Alum-inum, water, fltrd, µg/L (01106)	Anti-mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll-ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chrom-ium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)
Mar 03...	.50	.058	2.6	<.14	.09	24	.01	1.9	E.02	E.06	.07	<1.0	<8

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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	Lead, water, fltrd, µg/L (01049)	Mangan- ese, water, fltrd, µg/L (01056)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)
Mar 03...	<.08	29.6	<.2	.44	E.04	<.1	3.2	<.02