



Water-Data Report 2007

353708079452103 Local number RA-167, DENR North Carolina Zoo Research Station MW-2D (Bedrock well)

Piedmont and Blue Ridge crystalline-rock aquifers
Mafic Metavolcanic Rock
Randolph County, NC

LOCATION.--Lat 35°37'07.72", long 79°45'20.60" 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 260 ft, diameter 6.25 in., cased to 70 ft, open hole from 70 to 260 ft.

DATUM.--Land-surface datum is 638.97 ft above National Geodetic Vertical Datum of 1929 (levels by NCDENR). Measuring point: top of protective steel casing, 2.97 ft above land-surface datum.

PERIOD OF RECORD.--April 2007 to September 2007.

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, 28.93 ft below land-surface datum, April 15, 2007; lowest water level recorded, 35.98 ft below land-surface datum, September 20, 2007.

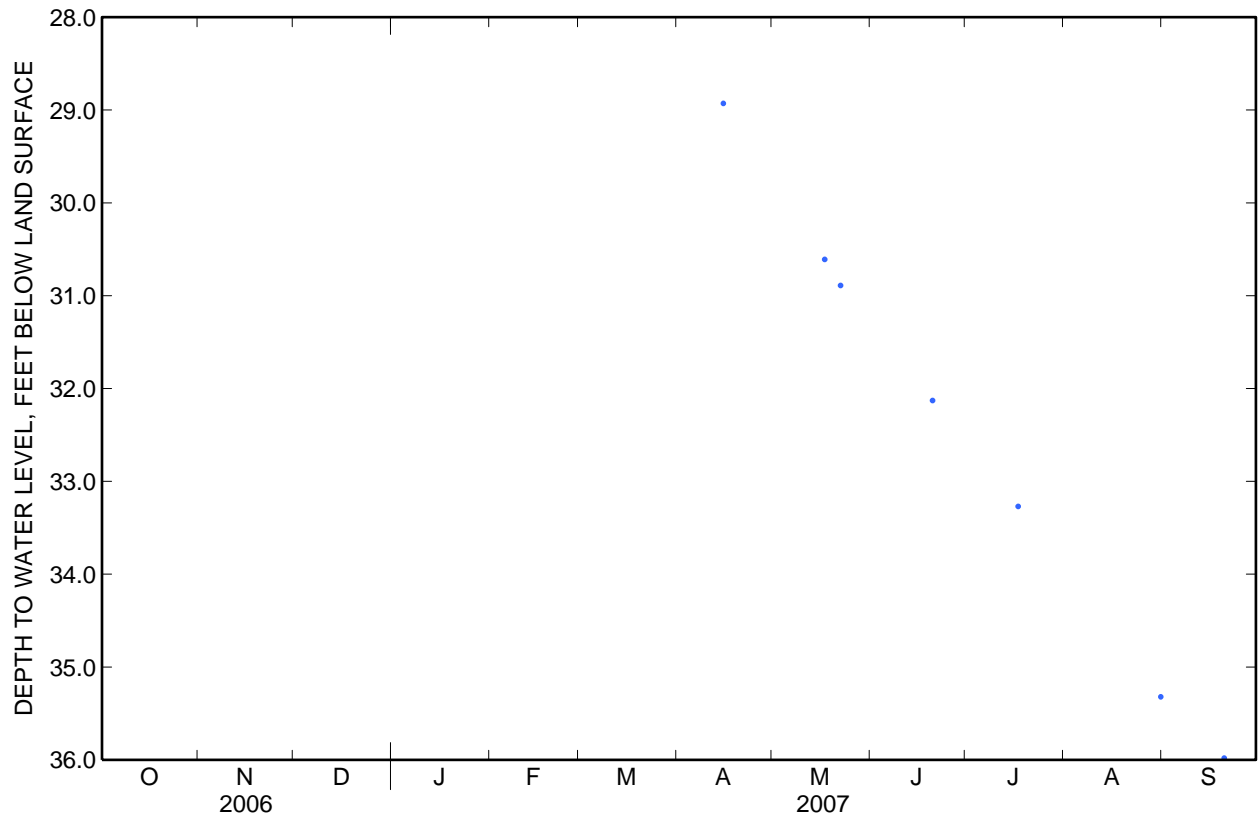
WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water level	Date	Water level
Apr 15, 2007	28.93	Jul 17, 2007	33.27
May 17	30.61	Aug 31	35.32
22	30.89	Sep 20	35.98
Jun 20	32.13		

Highest: 28.93 Apr 15, 2007

Lowest: 35.98 Sep 20, 2007

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2007.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

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

Date	Time	Depth of well, feet below LSD (72008)	Depth to top sample intrval, feet below LSD (72015)	Water level, depth below MP, feet (61055)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat un-f 25 degC (00095)	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)
May 01...	1530	260	195.00	32.62	742	2.6	26	6.1	94	13.0	6.60	.830	1.36

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

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

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat un-f incrm. titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat un-f incrm. 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 (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)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitro-gen, wat flt by anal ysis, mg/L (62854)
May 01...	6.33	35	43	E.01	2.34	<.10	29.4	.53	87	<.020	<.06	<.002	.33

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

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

Date	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)	Lead, water, fltrd, µg/L (01049)
May 01...	.023	E1.0	.24	.74	11	<.06	1.8	E.02	.20	.06	E.33	14	.14

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

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

Date	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)
May							
01...	32.8	.5	.40	.85	<.1	3,230	.07