

353704079451204 Local number RA-164, NCDENR North Carolina Zoo Research Station MW-1D near Asheboro, NC (Bedrock)

Piedmont and Blue Ridge crystalline-rock aquifers
Mafic Metavolcanic Rock

Randolph County, NC

LOCATION.--Lat 35°37'04.07", long 79°45'11.90" referenced to North American Datum of 1983, Randolph County, NC, Hydrologic Unit 03030003, 6 mi southeast of Asheboro, on Panther Creek Road at the North Carolina Zoo. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6.25 in., cased to 85 ft, open hole from 85 ft to 300 ft.

DATUM.--Land-surface datum is 598.12 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of steel casing, 3.01 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, 1.45 ft below land-surface datum, April 15, 2007; lowest water level recorded, 6.48 ft below land-surface datum, September 20, 2007.

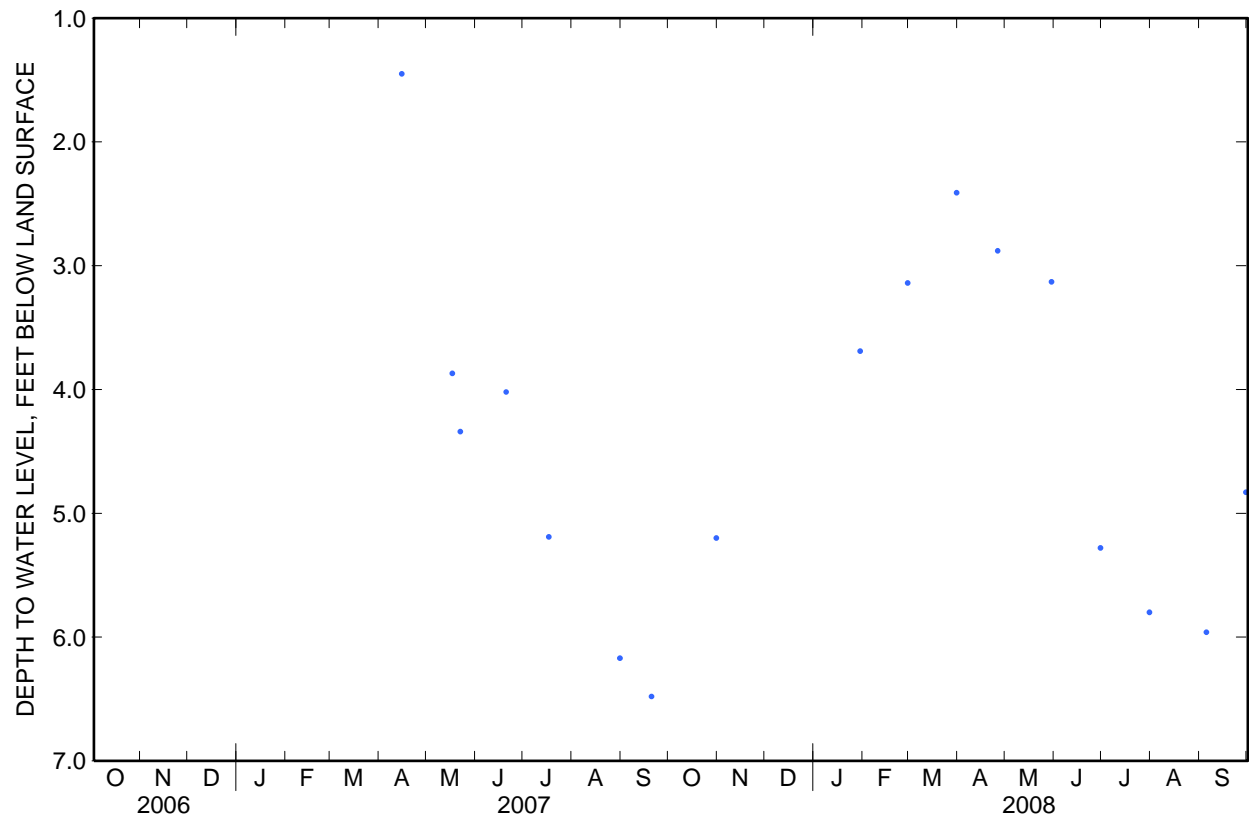
WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

Date	Water level	Date	Water level
Oct 31, 2007	5.20	May 30, 2008	3.13
Jan 30, 2008	3.69	Jun 30	5.28
Feb 29	3.14	Jul 31	5.80
Mar 31	2.41	Sep 5	5.96
Apr 26	2.88	30	4.83

Highest: 2.41 Mar 31, 2008

Lowest: 5.96 Sep 05, 2008

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2007, 2008.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 5

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	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)	Dissolved oxygen, mg/L (00300)
Mar									
04...	1215	Ground water, regular	300.00	2.93	5.94	2.5	102	748	.3
04...	1315	QC - Artificial, blank	300.00	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 5

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC (00095)	Temperature, 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)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf infl pt titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unf infl pt titr., field, mg/L (00450)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)
Mar													
04...	3	7.5	369	16.4	160	51.2	7.60	2.99	14.6	193	235	.24	4.28
04...	--	--	--	--	--	<.04	<.020	<.02	<.12	--	--	<.02	<.12

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 5

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic, water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)
Mar													
04...	E.10	23.4	.62	217	E.012	<.04	<.002	E.03	.011	E1.2	<.14	.93	19
04...	<.12	<.02	<.18	<10	<.020	<.04	<.002	<.06	.016	<1.6	<.14	<.06	<.4

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 5

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium, water, fltrd, µg/L (01025)	Chromium, 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)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)
Mar													
04...	E.01	3.1	<.04	<.12	.11	<1.0	21	.12	240	1.3	1.2	E.04	<.1
04...	<.01	<1.2	<.04	<.12	<.02	<1.0	<8	<.08	<.2	<.2	.23	<.04	<.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 5 of 5

[QC, quality control sample. Remark codes: <, less than;
E, estimated.]

Date	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)	Data base number	Medium code
Mar				
04...	423	.07	01	WG
04...	2.3	<.02	04	OAQ