Water-Data Report 2006

352840082381001 Local number BU-068, DENR Bent Creek Research Station MW-1S (Regolith well)

Piedmont and Blue Ridge crystalline-rock aquifers
Quaternary Saprolite

Buncombe County, NC

LOCATION.--Lat 35°28′39″, long 82°38′10″ referenced to North American Datum of 1983, Buncombe County, NC, Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 4 in., cased to 8 ft, screened interval from 8 to 22 ft, sand filter packed from 6 to 22 ft.

DATUM.--Land-surface datum is 2,200.99 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.95 ft above land-surface datum.

PERIOD OF RECORD.--February 2003 to current year.

GAGE.--Measured periodically with electric and steel tape.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.19 ft below land-surface datum, July 3 , 2003; lowest water level measured, 4.56 ft below land-surface datum, June 19, 2006.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

[Measurement method: S, steel tape; T, electric tape. Water-level status: --, static.]

Date	Water level	Measurement method	Water level status	Date	Water level	Measurement method	Water level status
Oct 17	4.34	S	--	Apr 4	4.27	S	--
Dec 1	3.32	S	--	May 12	4.28	S	--
Jan 4	3.94	S	--	Jun 19	4.56	T	--
Mar 1	4.25	S	--	Aug 14	4.43	S	--

Water year 2006 highest: 3.32 Dec 01, 2005; lowest: 4.56 Jun 19, 2006

Period of record highest: 3.19 Jul 03, 2003; lowest: 4.56 Jun 19, 2006

Record available from Feb 04, 2003, to Nov 14, 2006; 34 entries

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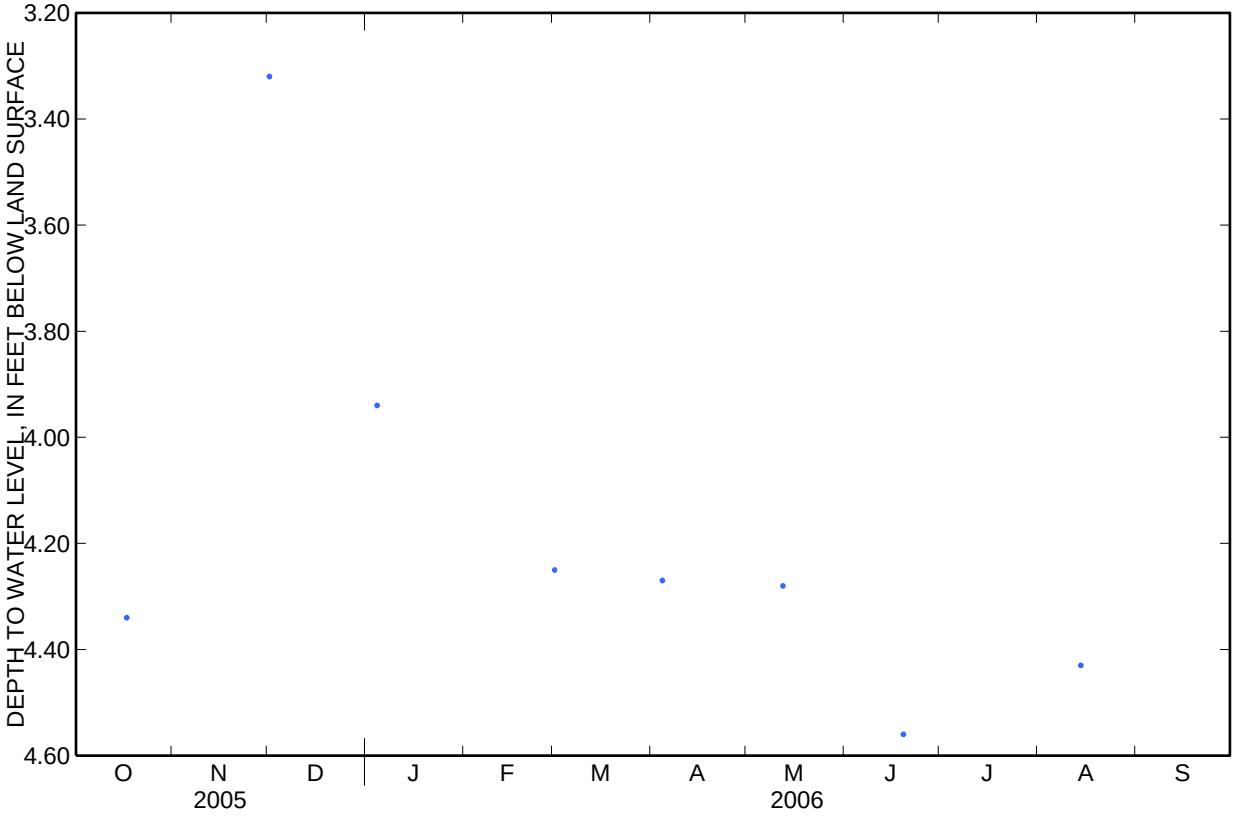

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2005.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 3

[Remark codes: <, less than.]

Date	Time	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
Nov													
04...	1030	22.0	2,200.99	4.1	44	5.1	15	27.0	15.1	.82	.534	.30	1.22

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 3

[Remark codes: <, less than.]

Date	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unf incrm. titr., field, 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 (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 nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)
Nov													
04...	7	8	<.02	.53	<.10	9.27	1.11	<10	<.04	<.06	<.008	<.06	<.006

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 3

[Remark codes: <, less than.]

Date	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Tritium 2-sigma water unfltrd pCi/L (75985)	Tritium water unfltrd pCi/L (07000)
Nov						
04...	<.12	<7.0	<6	3.8	2.6	22