



Water-Data Report 2011

355609079123701 Local number OR-686 COL-2

Piedmont and Blue Ridge crystalline-rock aquifers
Transition Zone

Orange County, NC

LOCATION.--Lat 35°56'09.47", long 79°12'36.54" referenced to North American Datum of 1983, Orange County, NC, Hydrologic Unit 03030002, near Oaks, NC. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 41.5 ft. Upper casing diameter 4 in; top of first opening 26.5 ft, bottom of last opening 41.5 ft.

DATUM.--Land-surface datum is 560 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.99 ft above land-surface datum.

PERIOD OF RECORD.--May to September 2011.

REMARKS.--Measured quarterly by U. S. Geological Survey and/or NCDENR personnel.

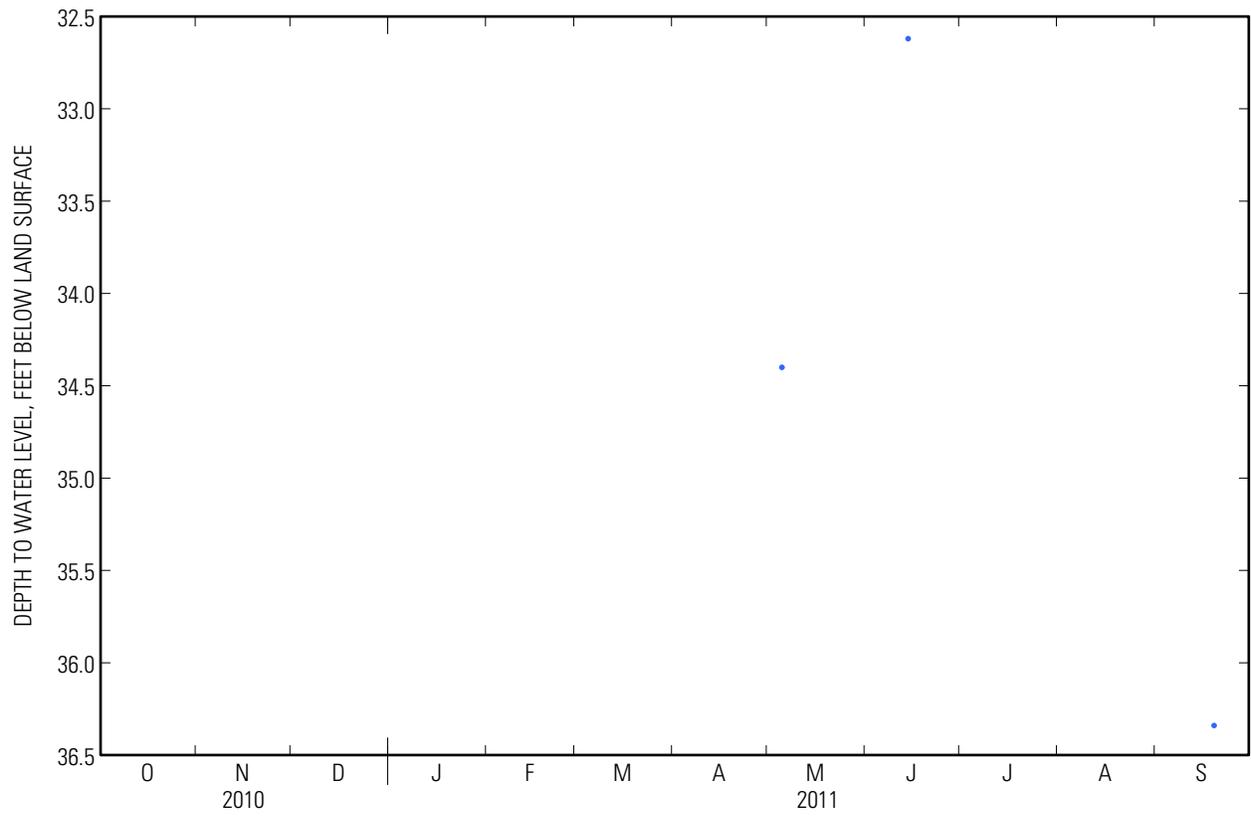
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.62 ft below land-surface datum, June 14, 2011; lowest water level measured, 36.34 ft below land-surface datum, September 19, 2011.

WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

[Measurement method: T, electric tape; V, calibrated electric tape--accuracy of instrument has been checked.
Water-level status: --, static.]

Date	Water level	Measure-ment method	Water-level status	Date	Water level	Measure-ment method	Water-level status
May 5, 2011	34.40	T	--	Sep 19, 2011	36.34	V	--
Jun 14	32.62	V	--				

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 2011.

REMARKS.--Station operated to evaluate effects of land-applied municipal biosolids on water quality.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 3

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Medium name	Sample type	Depth to water level, ft below land surface (72019)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Sampling depth, ft (00003)	Dissolved solids, water, filtered, sum of constituents, mg/L (70301)
06-14-2011	1300	Groundwater	Regular	32.62	6.27	5.6	74	15.9	40.0	35
09-19-2011	1500	Groundwater	Regular	36.34	3.5	5.4	87	15.7	40.0	40

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 3

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Sulfate, water, filtered, mg/L (00945)
06-14-2011	1300	15.1	3.57	1.51	.81	7.17	23	3.32	.06	1.75
09-19-2011	1500	16.3	3.87	1.62	1.14	7.61	26	3.28	< .04	4.46

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 3

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Date	Sample start time	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, filtered, mg/L as P (00666)	Total nitrogen, water, filtered, analytically determined, mg/L (62854)	Iron, water, filtered, µg/L (01046)
06-14-2011	1300	< .010	.53	.032	.019	.54	4
09-19-2011	1500	.016	.51	.023	.015	.59	38