

GROUND-WATER LEVELS

IREDELL COUNTY--Continued

353135080524202. County number, IR-131; DENR Langtree Research Station MW-2I (Transition zone well).

LOCATION.--Lat 35°31'35.62", long 80°52'42.25" (revised), North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .1 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

WATER-LEVEL RECORDS

AQUIFER.--Transition zone (weathered and competent quartz diorite).

WELL CHARACTERISTICS.--Drilled observation well, depth 48 ft, diameter 4 in., cased to 33 ft, screened interval from 33 ft to 48 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 802.67 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelter floor, 0.67 ft above land-surface datum.

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

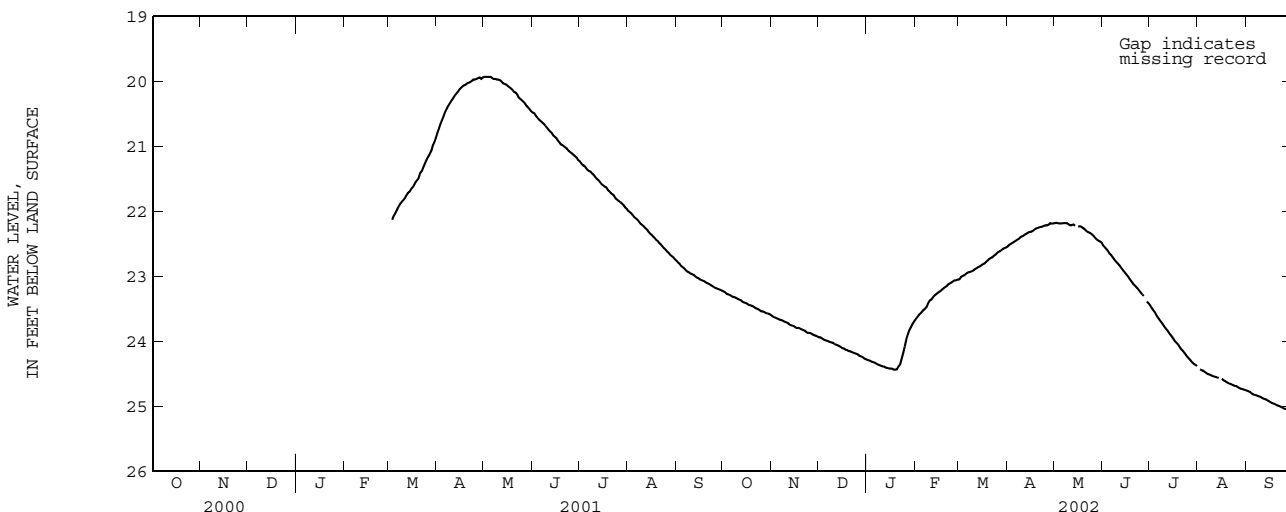
PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.93 ft below land-surface datum, Apr. 30, May 1-5, 2001; lowest water level recorded 25.11 ft below land-surface datum, Sept. 30, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.23	23.61	23.94	24.29	23.66	23.04	22.54	22.18	22.53	23.45	---	24.76
2	23.24	23.63	23.94	24.29	23.63	23.01	22.51	22.18	22.55	23.49	24.43	24.77
3	23.27	23.63	23.95	24.30	23.60	22.99	22.50	22.18	22.58	23.52	24.45	24.78
4	23.28	23.65	23.97	24.32	23.58	22.98	22.48	22.19	22.61	23.55	24.45	24.80
5	23.29	23.66	23.98	24.32	23.55	22.97	22.47	22.19	22.65	23.59	24.47	24.82
6	23.30	23.67	23.99	24.33	23.52	22.95	22.46	22.18	22.67	23.63	24.49	24.83
7	23.32	23.67	24.00	24.35	23.50	22.94	22.44	22.18	22.71	23.67	24.50	24.83
8	23.32	23.68	24.01	24.36	23.47	22.93	22.42	22.18	22.74	23.70	24.51	24.84
9	23.33	23.70	24.02	24.37	23.41	22.92	22.40	22.18	22.77	23.73	24.52	24.85
10	23.35	23.71	24.02	24.38	23.37	22.91	22.39	22.20	22.79	23.77	24.53	24.86
11	23.36	23.72	24.04	24.39	23.36	22.89	22.38	22.21	22.82	23.80	24.54	24.88
12	23.37	23.74	24.05	24.39	23.33	22.88	22.36	22.21	22.85	23.83	24.55	24.89
13	23.39	23.75	24.06	24.41	23.30	22.86	22.34	22.20	22.88	23.87	24.56	24.89
14	23.40	23.76	24.07	24.41	23.28	22.85	22.33	22.22	22.91	23.90	24.57	24.91
15	23.41	23.77	24.09	24.42	23.26	22.83	22.32	---	22.95	23.93	---	24.92
16	23.42	23.78	24.10	24.42	23.24	22.81	22.31	22.24	22.98	23.97	24.57	24.93
17	23.44	23.80	24.11	24.42	23.22	22.80	22.30	22.23	23.01	24.00	24.60	24.95
18	23.45	23.79	24.13	24.44	23.20	22.78	22.28	22.24	23.04	24.02	24.61	24.96
19	23.45	23.80	24.13	24.44	23.18	22.76	22.27	22.26	23.07	24.05	24.63	24.97
20	23.46	23.82	24.15	24.43	23.16	22.73	22.26	22.27	23.11	24.09	24.64	24.98
21	23.48	23.83	24.15	24.39	23.15	22.72	22.25	22.30	23.14	24.13	24.65	24.99
22	23.50	23.84	24.17	24.36	23.12	22.71	22.24	22.32	23.16	24.15	24.66	25.00
23	23.50	23.86	24.18	24.28	23.11	22.68	22.24	22.33	23.19	24.18	24.68	25.01
24	23.52	23.87	24.19	24.18	23.09	22.67	22.22	22.34	23.22	24.21	24.69	25.03
25	23.54	23.87	24.19	24.08	23.08	22.64	22.22	22.36	23.25	24.24	24.69	25.04
26	23.54	23.88	24.20	23.97	23.06	22.62	22.22	22.38	23.28	24.27	24.70	25.04
27	23.55	23.90	24.22	23.89	23.06	22.61	22.20	22.41	23.30	24.29	24.72	25.06
28	23.57	23.91	24.24	23.83	23.05	22.59	22.18	22.43	---	24.33	24.73	25.09
29	23.57	23.91	24.24	23.79	---	22.58	22.19	22.45	23.39	24.35	24.74	25.09
30	23.58	23.92	24.26	23.73	---	22.57	22.19	22.46	23.42	24.36	24.75	25.10
31	23.59	---	24.28	23.69	---	22.56	---	22.48	---	24.38	24.75	---

WTR YR 2002 MEAN 23.56 HIGH 22.18 LOW 25.10



353135080524202 IR-131 DENR Langtree Research Station MW-2I (Transition zone well)--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2002.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources, Water Resources Division as part of the Piedmont/Mountains ground-water project. Well construction problems may have affected water-quality samples.

WATER-QUALITY DATA, AUGUST 2002

Date	Time	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	ANC BICAR- BONATE IT FIELD MG/L AS HCO3 (00450)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
AUG 28...	0945	7.0	122	18.5	40	8.77	4.51	2.81	6.29	50	61	.03	1.36
Date	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
AUG 28...	.2	28.5	1.9	90	<.04	<.10	1.72	<.008	E.02	<2	<10	<10	E2.7
Date	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	GROSS BETA, DIS- SOLVED AS (PCI/L CS-137) (03515)	RADON 222 TOTAL (PCI/L) (82303)										
AUG 28...	M	3.8	200										

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified