

GROUND-WATER LEVELS

IREDELL COUNTY

353135080524201. County number, IR-130; DENR Langtree Research Station MW-2 (Regolith well).

LOCATION.--Lat 35°31'35.47", long 80°52'42.23" (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.--Regolith (saproplitic quartz diorite).

WELL CHARACTERISTICS.--Drilled observation well, depth 28 ft, diameter 4 in., cased to 13 ft, screened interval from 13 ft to 28 ft, sand filter packed from 10 ft to 28 ft.

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

DATUM.--Land-surface datum is 802.48 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelter floor, 1.34 ft above land-surface datum.

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

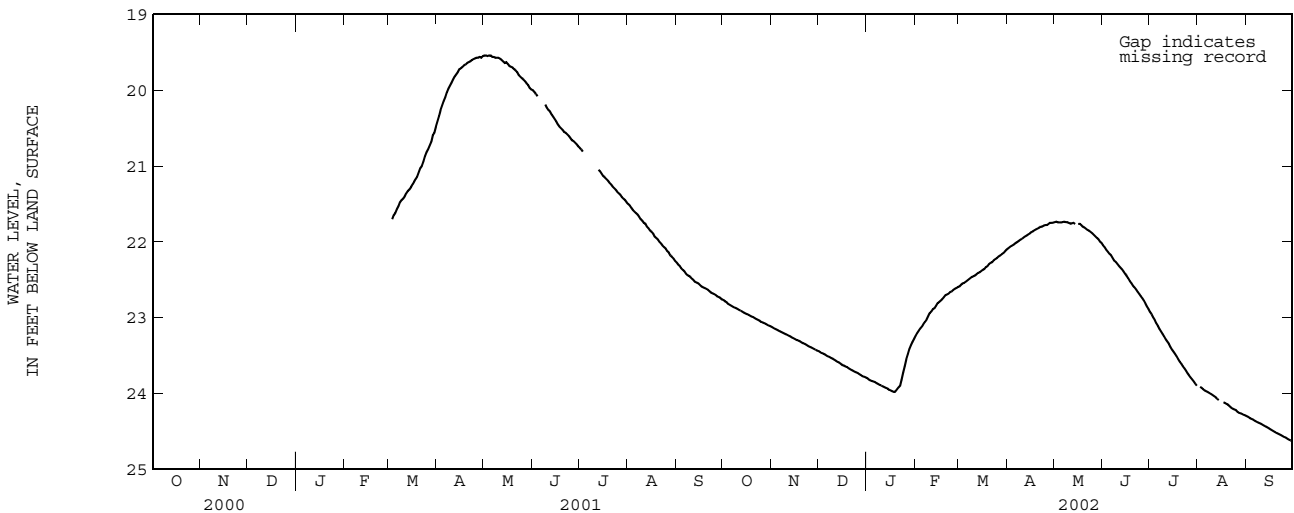
PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.54 ft below land-surface datum, Apr. 30, May 1-5, 2001; lowest water level recorded 24.64 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	22.77	23.12	23.44	23.80	23.24	22.59	22.09	21.74	22.05	22.93	---	24.30
2	22.79	23.14	23.46	23.82	23.20	22.57	22.07	21.73	22.07	22.96	23.91	24.31
3	22.80	23.15	23.47	23.83	23.17	22.55	22.06	21.74	22.11	23.00	23.93	24.33
4	22.82	23.16	23.48	23.84	23.14	22.54	22.05	21.74	22.13	23.03	23.94	24.34
5	22.83	23.17	23.49	23.84	23.12	22.53	22.03	21.74	22.16	23.07	23.96	24.35
6	22.84	23.18	23.50	23.85	23.08	22.51	22.02	21.74	22.18	23.11	23.97	24.36
7	22.86	23.19	23.51	23.87	23.06	22.50	22.00	21.73	22.21	23.15	23.98	24.37
8	22.87	23.20	23.52	23.88	23.02	22.48	21.99	21.74	22.25	23.18	24.00	24.38
9	22.87	23.21	23.53	23.89	22.98	22.46	21.97	21.74	22.27	23.22	24.01	24.39
10	22.89	23.22	23.54	23.90	22.94	22.45	21.96	21.75	22.29	23.25	24.02	24.40
11	22.90	23.23	23.56	23.91	22.92	22.44	21.95	21.76	22.31	23.29	24.04	24.41
12	22.91	23.24	23.57	23.92	22.89	22.43	21.93	21.76	22.34	23.32	24.05	24.42
13	22.92	23.25	23.58	23.93	22.87	22.41	21.92	21.75	22.36	23.35	24.07	24.44
14	22.93	23.27	23.59	23.94	22.85	22.40	21.90	21.76	22.39	23.39	24.09	24.45
15	22.94	23.27	23.61	23.95	22.81	22.38	21.89	---	22.42	23.42	---	24.46
16	22.95	23.28	23.63	23.96	22.79	22.37	21.87	21.77	22.45	23.45	---	24.47
17	22.96	23.30	23.63	23.97	22.78	22.36	21.86	21.76	22.48	23.48	24.12	24.49
18	22.97	23.30	23.65	23.98	22.76	22.33	21.85	21.78	22.52	23.51	24.13	24.50
19	22.99	23.31	23.65	23.98	22.73	22.32	21.84	21.80	22.54	23.55	24.14	24.51
20	22.99	23.33	23.67	23.95	22.71	22.29	21.83	21.81	22.58	23.58	24.15	24.52
21	23.01	23.34	23.68	23.92	22.70	22.28	21.81	21.83	22.60	23.61	24.17	24.53
22	23.02	23.35	23.69	23.90	22.68	22.27	21.80	21.84	22.63	23.64	24.19	24.54
23	23.03	23.36	23.70	23.82	22.66	22.24	21.80	21.85	22.66	23.67	24.20	24.55
24	23.04	23.37	23.71	23.73	22.65	22.23	21.79	21.87	22.69	23.70	24.21	24.57
25	23.06	23.38	23.72	23.64	22.63	22.21	21.78	21.89	22.72	23.74	24.22	24.58
26	23.06	23.39	23.73	23.55	22.62	22.19	21.78	21.91	22.74	23.76	24.24	24.59
27	23.07	23.40	23.75	23.48	22.61	22.18	21.76	21.93	22.77	23.79	24.26	24.60
28	23.08	23.41	23.76	23.41	22.60	22.17	21.75	21.95	22.81	23.82	24.26	24.61
29	23.09	23.42	23.77	23.36	---	22.15	21.75	21.97	22.85	23.84	24.27	24.62
30	23.11	23.44	23.78	23.32	---	22.13	21.75	22.00	22.89	23.88	24.28	24.63
31	23.11	---	23.79	23.28	---	22.11	---	22.02	---	23.90	24.29	---

WTR YR 2002 MEAN 23.08 HIGH 21.73 LOW 24.63









353135080524201 IR-130 DENR Langtree Research Station MW-2 (Regolith 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.

WATER-QUALITY DATA, AUGUST 2002

Date	Time	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE (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...	1055	6.2	65	16.9	29	6.15	3.25	.49	3.77	25	30	E.03	2.59	
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...	<.1	28.2	.3	71	<.04	<.10	1.58	<.008	.06	<2	<10	<10	<2.0	
Date						ALPHA RADIO- WATER DISS AS TH-230 (PCI/L) (04126)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	RADON 222 TOTAL (PCI/L) (82303)						
AUG 28...						.1	.2	250						

Remark codes used in this table:  
 < -- Less than  
 E -- Estimated value