



Water-Data Report 2010

**335631078003605 Local number BR-082 (NC-198), NCDENR SOUTHPORT RESEARCH STATION GG32t5,
NEAR SOUTHPORT, NC (CASTLE HAYNE)**

Northern Atlantic Coastal Plain aquifer system
Castle Hayne Limestone
Brunswick County, NC

LOCATION.--Lat 33°56'31", long 78°00'35" referenced to North American Datum of 1983, Brunswick County, NC, Hydrologic Unit 03030005, 1.6 mi north of Southport, on Secondary Road 1527. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 74 ft, diameter 4 in., cased to 64 ft, screened from 64 ft to 74 ft.

DATUM.--Land-surface datum is 28.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of instrument shelf, 2.20 ft above land-surface datum, October 29, 1999, to present.

PERIOD OF RECORD.--January 1970 to current year. Continuous record began November 1999.

GAGE.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at site.

REMARKS.--Well is part of the Brunswick County groundwater monitoring program. Water levels are affected by local pumping.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 20.68 ft below land-surface datum, November 11, 1999; lowest water level recorded, 33.35 ft below land-surface datum, February 6, 2007.

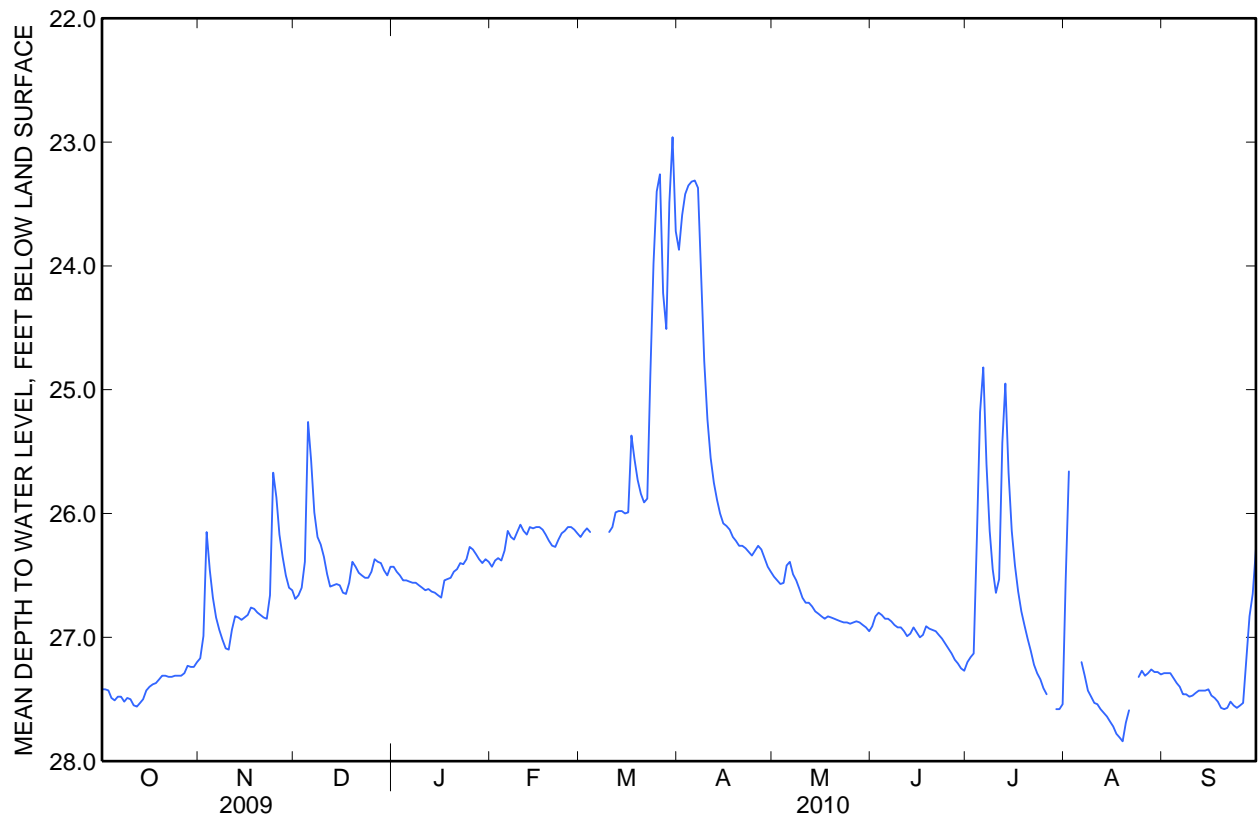
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**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES**

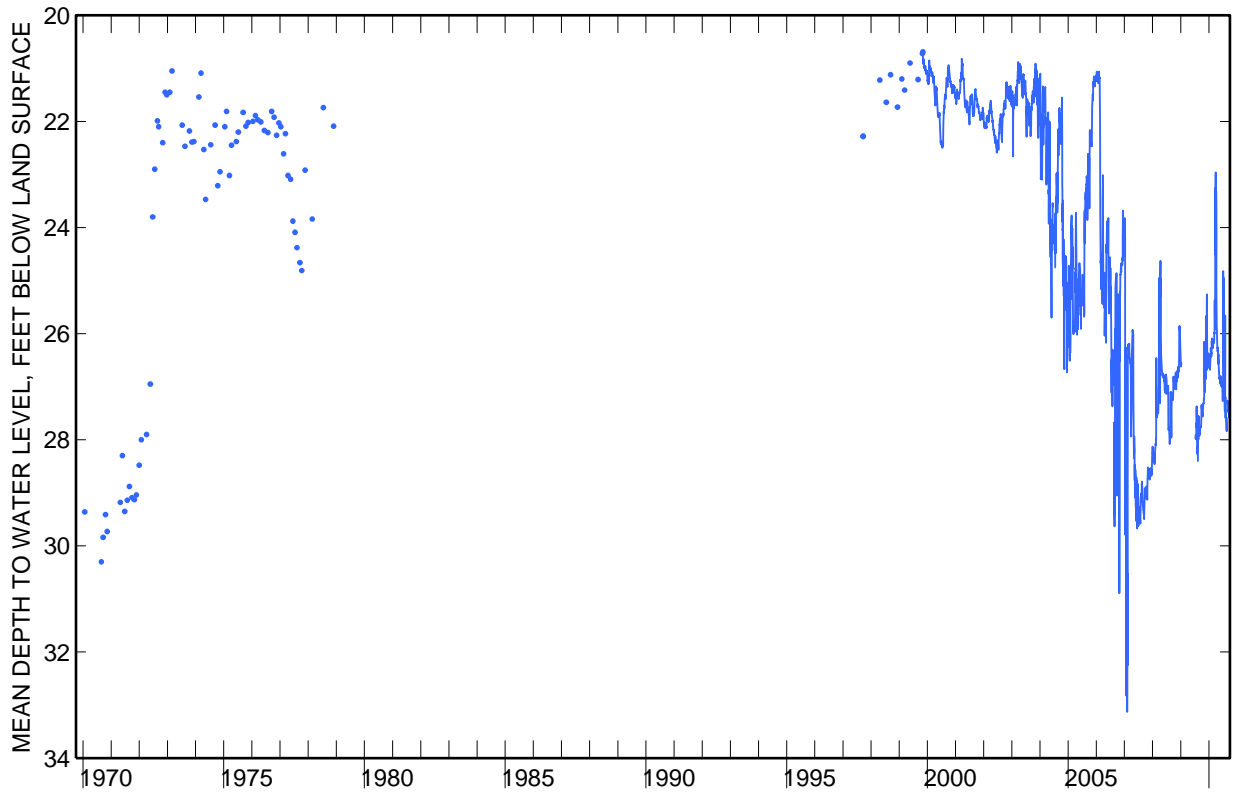
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	27.42	27.17	26.69	26.43	26.43	26.19	23.87	26.51	26.91	27.20	26.54	27.29
2	27.42	26.99	26.66	26.47	26.38	26.15	23.59	26.54	26.83	27.16	25.66	27.29
3	27.43	26.15	26.60	26.50	26.36	26.12	23.42	26.57	26.80	27.13	---	27.29
4	27.49	26.46	26.39	26.54	26.38	26.15	23.35	26.56	26.82	26.20	---	27.33
5	27.51	26.68	25.26	26.54	26.30	---	23.32	26.42	26.85	25.18	---	27.37
6	27.48	26.84	25.57	26.55	26.14	---	23.31	26.39	26.85	24.82	27.20	27.40
7	27.48	26.94	25.99	26.56	26.19	---	23.37	26.49	26.87	25.60	27.31	27.46
8	27.52	27.02	26.19	26.56	26.21	---	24.09	26.54	26.90	26.14	27.43	27.46
9	27.49	27.09	26.25	26.58	26.15	---	24.77	26.61	26.92	26.45	27.48	27.48
10	27.50	27.10	26.35	26.60	26.09	26.15	25.24	26.68	26.92	26.64	27.53	27.47
11	27.55	26.94	26.49	26.62	26.14	26.11	25.55	26.72	26.95	26.53	27.54	27.45
12	27.56	26.83	26.59	26.61	26.17	25.99	25.75	26.72	26.99	25.43	27.58	27.43
13	27.53	26.84	26.58	26.63	26.11	25.98	25.89	26.75	26.97	24.95	27.61	27.43
14	27.50	26.86	26.57	26.64	26.12	25.98	26.00	26.79	26.92	25.67	27.64	27.43
15	27.43	26.84	26.58	26.66	26.11	26.00	26.08	26.81	26.96	26.14	27.68	27.42
16	27.40	26.82	26.64	26.68	26.11	25.99	26.10	26.83	27.00	26.42	27.72	27.47
17	27.38	26.76	26.65	26.54	26.13	25.37	26.13	26.85	26.98	26.63	27.78	27.49
18	27.37	26.77	26.56	26.53	26.17	25.56	26.19	26.83	26.91	26.79	27.81	27.52
19	27.34	26.80	26.39	26.52	26.22	25.73	26.22	26.84	26.93	26.90	27.84	27.57
20	27.31	26.82	26.43	26.47	26.26	25.84	26.26	26.85	26.94	27.01	27.69	27.58
21	27.31	26.84	26.48	26.45	26.27	25.91	26.26	26.86	26.95	27.11	27.59	27.57
22	27.32	26.85	26.50	26.40	26.21	25.88	26.28	26.87	26.98	27.22	---	27.52
23	27.32	26.66	26.52	26.41	26.16	24.89	26.31	26.88	27.01	27.29	---	27.55
24	27.31	25.67	26.52	26.37	26.14	23.98	26.34	26.88	27.05	27.34	27.32	27.57
25	27.31	25.87	26.47	26.27	26.11	23.40	26.30	26.89	27.09	27.41	27.27	27.55
26	27.31	26.17	26.37	26.29	26.11	23.26	26.26	26.88	27.13	27.46	27.31	27.53
27	27.29	26.35	26.39	26.33	26.13	24.22	26.29	26.87	27.18	---	27.29	27.18
28	27.23	26.50	26.40	26.37	26.16	24.51	26.36	26.88	27.21	---	27.26	26.83
29	27.24	26.60	26.46	26.40	---	23.49	26.43	26.90	27.25	27.58	27.28	26.65
30	27.24	26.62	26.50	26.37	---	22.96	26.47	26.92	27.27	27.58	27.28	26.29
31	27.20	---	26.43	26.39	---	23.72	---	26.95	---	27.54	27.30	---
Mean	27.39	26.70	26.40	26.49	26.20	25.21	25.39	26.74	26.98	26.60	27.38	27.36
Max	27.56	27.17	26.69	26.68	26.43	26.19	26.47	26.95	27.27	27.58	27.84	27.58
Min	27.20	25.67	25.26	26.27	26.09	22.96	23.31	26.39	26.80	24.82	25.66	26.29

Water Year 2010	
Mean	26.58
High	22.96
Low	27.84

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2000, 2003, 2005, 2007, 2009, 2010.

REMARKS.--Well is sampled as part of the National Water Quality Assessment Program (NAWQA).

WATER-QUALITY DATA

WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

[ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; μ S/cm, microsiemens per centimeter]

Date	Sample start time	Medium name	Sample type	Depth to water level, ft below land surface (72019)	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Chloride, water, filtered, mg/L (00940)
09-01-2010	0936	Ground water	Regular	27.29	487	21.0	14.6