

**INTRODUCTION**

Maps of the potentiometric surface of the Floridan aquifer in southwest Florida are prepared periodically by the U.S. Geological Survey in cooperation with the Southwest Florida Water Management District. Maps for May and September 1981, respectively, are presented in this report. Potentiometric surfaces for the aquifer were prepared for May 1981, for September 1981, and for May 1980, and for May and September 1979.

The potentiometric surface is the level to which water will rise in a tightly cased well tapping the Floridan aquifer. The surface is depicted by contour lines that connect points of equal altitude. The surface is not a physical surface, but a mathematical representation of the water level in the aquifer. The surface is shown for the month of September 1981. The only representative conditions are the water level in the aquifer when the aquifer was recharged by rainfall and runoff in a wet season. However, the potentiometric surface is near its highest level for the year.

**SUMMARY OF OBSERVATIONS**

Seasonal and annual fluctuations of the potentiometric surface in selected wells in the study area are shown by hydrographs in Figure 1. The hydrographs show the potentiometric surface in selected wells for the years 1979, 1980, and 1981. The potentiometric surface in selected wells for the year 1981 is shown in Figure 1. The potentiometric surface in selected wells for the year 1980 is shown in Figure 1. The potentiometric surface in selected wells for the year 1979 is shown in Figure 1.

**REMARKS**

Water levels in most wells measured in September 1981 were equal to or higher than those measured in May 1981. September levels averaged about 20 feet higher than May levels in the north and about 3 feet higher in the south. The potentiometric surface in selected wells for the year 1981 is shown in Figure 1. The potentiometric surface in selected wells for the year 1980 is shown in Figure 1. The potentiometric surface in selected wells for the year 1979 is shown in Figure 1.

**TABLE 1.** D. S. Yobbi, G. R. Schiner, and C. R. Schiner, Jr., 1981. Potentiometric surface of the Floridan aquifer, Southwest Florida Water Management District, September 1981. U.S. Geological Survey Open-File Report 82-101.

— Potentiometric surface of the Floridan aquifer, Southwest Florida Water Management District, September 1981. U.S. Geological Survey Open-File Report 82-101.

— Potentiometric surface of the Floridan aquifer, Southwest Florida Water Management District, May 1981. U.S. Geological Survey Open-File Report 82-101.

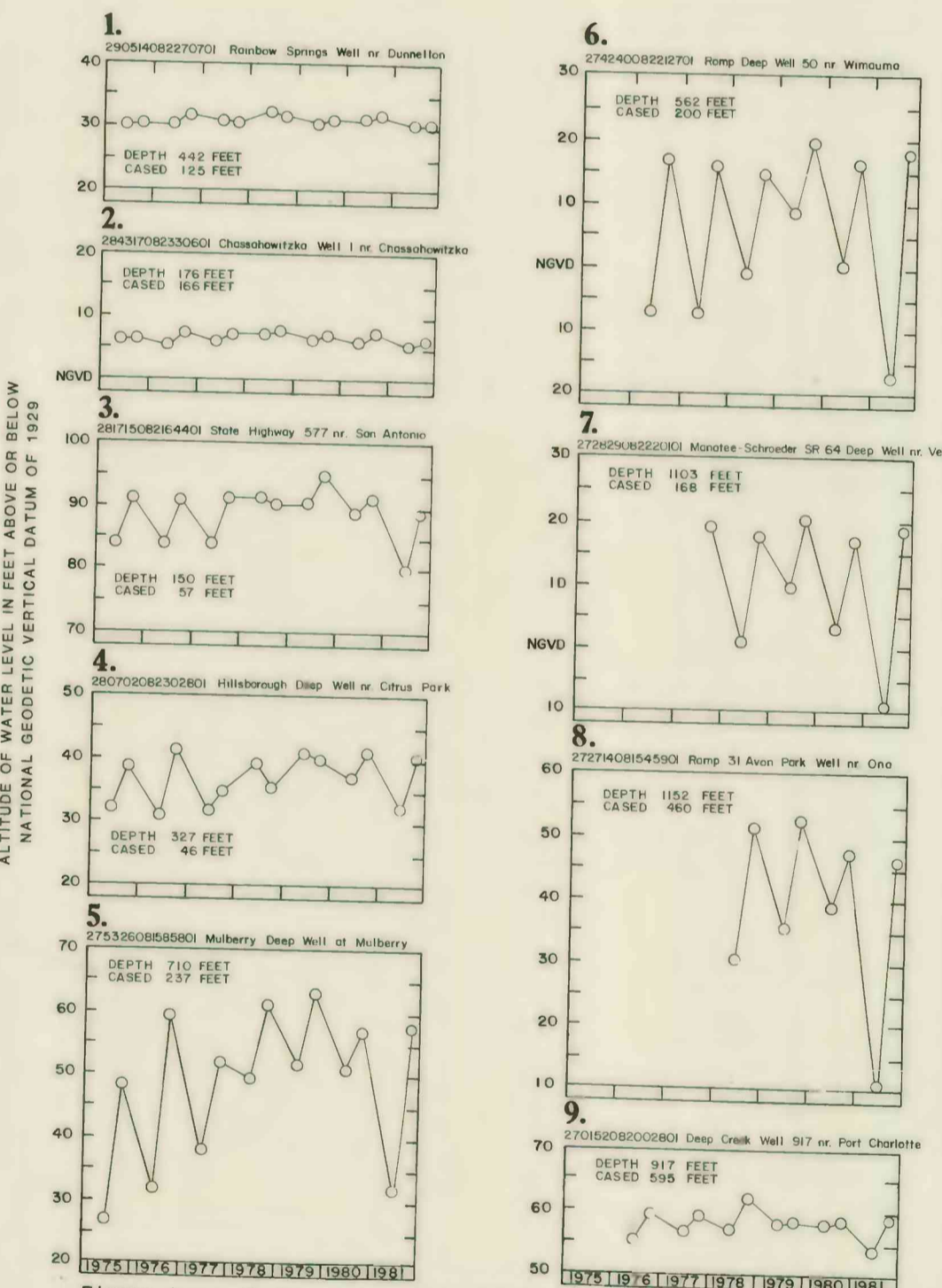


Figure 1.—Hydrographs showing May and September water levels in selected wells.

**EXPLANATION**

POTENTIOMETRIC CONTOUR— Shows altitude at which water would have stood in tightly cased wells. Contour interval 5 and 10 feet. Datum is National Geodetic Vertical Datum of 1929 (NGVD). Hachures indicate depressions.

OBSERVATION WELLS— Large number identifies hydrograph. Small number is altitude of water level in feet above or below NGVD.

BOUNDARY OF SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

BOUNDARY OF WATER MANAGEMENT BASIN

NOTE—Potentiometric contours are generalized to show the water level at a point in time in a changing hydrologic system taking into account variations in hydrogeologic conditions. These include different depths of wells, nonsimultaneous measurements of water levels, variable effects of pumping, and changing climate. Potentiometric contours thus may not conform exactly with individual measurements of water levels.

0 10 20 30 MILES  
SCALE 1:500,000

POTENTIOMETRIC SURFACE OF THE FLORIDAN AQUIFER  
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT  
SEPTEMBER 1981

BY  
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