

GEOLOGICAL SURVEY, WATER RESOURCES DIVISION

WRSIC Abstract

TITLE: POTENTIOMETRIC SURFACE OF THE MAGOTHY AQUIFER
IN SOUTHERN MARYLAND SEPTEMBER 1998

AUTHORS: Curtin, S.E., Andreasen, D.C., and Mack, F.K.

AUTHORS' ORIGINATING OFFICE: Annapolis, Maryland

DATE SENT TO NR:

NO. PAGES: 1

NO. ILLUSTRATIONS: 1

NO. TABLES: 0

NO. REFERENCES: 0

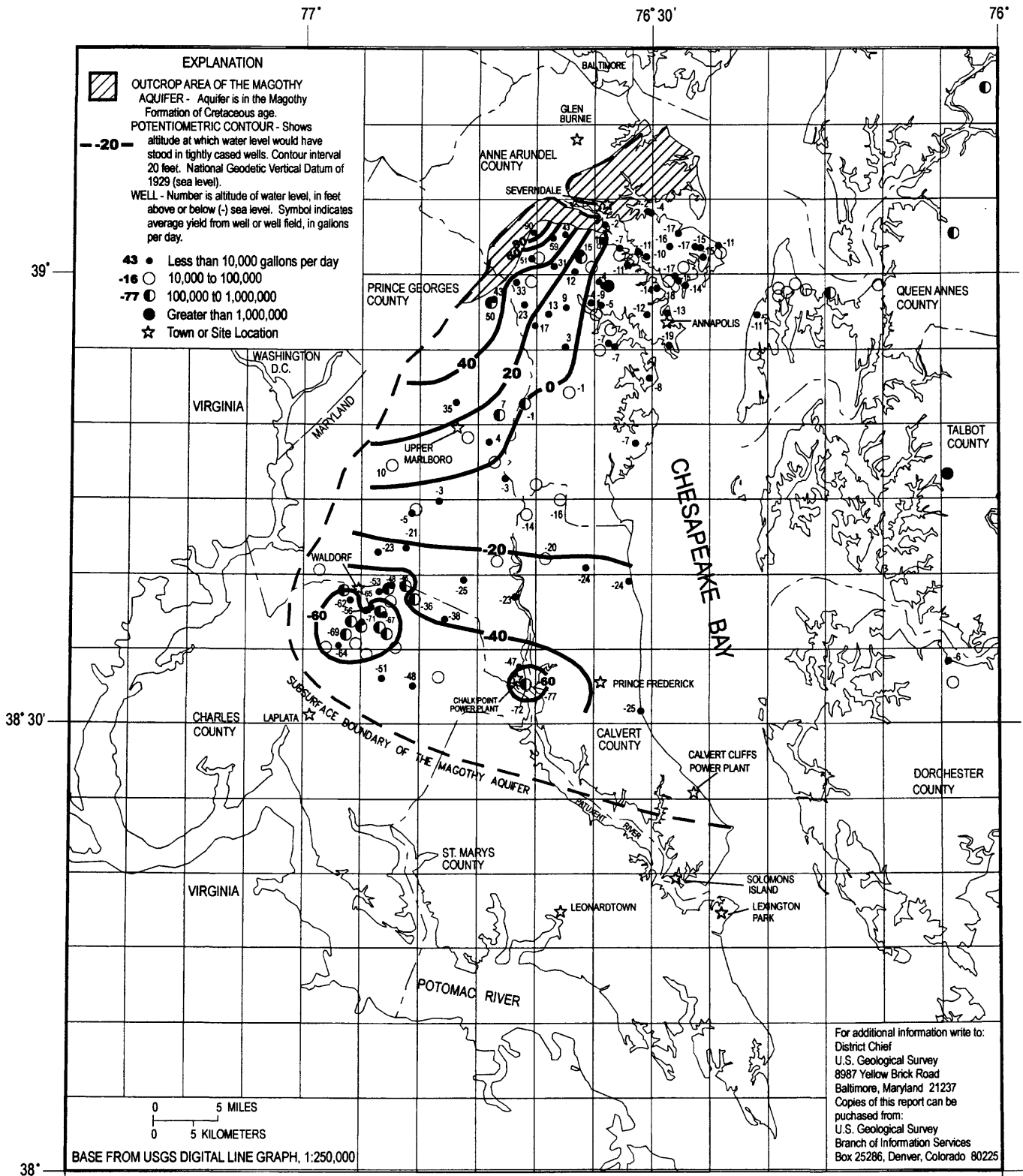
DESCRIPTORS: *Potentiometric surface, *Artesian aquifer, *Coastal Plain,
Maryland, Wells, Anne Arundel County, Prince Georges County,
Calvert County, Charles County, Cone of depression, Magothy
aquifer, Ground-water levels

TYPE OF PUBLICATION: Open-File Report

ABSTRACT:

This report presents a map showing the potentiometric surface of the Magothy aquifer in the Magothy Formation of Cretaceous age in Southern Maryland during September 1998. The map was prepared from water-level measurements in 83 wells. The potentiometric surface was highest near the northern boundary and outcrop area of the aquifer, in topographically high areas of Anne Arundel and Prince Georges Counties.

Regionally, the potentiometric surface sloped gently downward towards the south and the local gradients were directed toward the centers of two cones of depression that developed in response to pumping. These cones of depression were centered around well fields in the Waldorf area and the Chalk Point powerplant. Ground-water levels were as low as 71 feet below sea level in the Waldorf area and 77 feet below sea level at Chalk Point.



POTENTIOMETRIC SURFACE OF THE MAGOTHY AQUIFER IN SOUTHERN MARYLAND

SEPTEMBER 1998

Stephen E. Curtin, David C. Andreasen, and Frederick K. Mack