



POTENTIOMETRIC SURFACE OF THE LLOYD AQUIFER, LONG ISLAND, NEW YORK, IN JANUARY 1983

The Lloyd aquifer, in the Cretaceous Lloyd Sand Member of the Raritan Formation, is a significant source of water for public supply and a minor source for industrial use in Queens and Nassau Counties. The potentiometric surface is monitored by the U.S. Geological Survey. This map depicts static water levels of January 1983 in 72 wells screened in the Lloyd aquifer and Port Washington aquifer. (Wells screened in the Port Washington aquifer, in northern Nassau County, are included because the Port Washington aquifer seems to be hydraulically connected to the Lloyd aquifer. See Kilburn, 1979, and Kilburn and Krulikas, 1985, for the stratigraphic relationship of the two aquifers.) The northern limit of the Lloyd, and the extent of the Port Washington aquifer and the aquifer in which each well is screened, are indicated.

General trends of the potentiometric surface are similar to those in the two major overlying aquifers (plates 1 and 3); it gradually rises from a depression in the western part of the island to an east-west-trending mound in the central part. The potentiometric-surface altitude ranges from 26.8 ft below sea level in central Queens County to 39.6 ft above sea level in north-central Suffolk County.

The potentiometric-surface altitude of the Lloyd aquifer is, in general, 1 to 3 ft lower than in 1979 (Donaldson and Koszalka, 1983) except in northeastern Nassau County, where water levels are slightly higher than in 1979. The depression in Queens County is slightly larger than in 1979 and extends into western Nassau County.

In eastern Suffolk County, the Lloyd aquifer is saline and has no observation wells. The northern limit of the Lloyd aquifer in Kings and Queens Counties has been revised in accordance with data of Buxton and others (1981); the limits of the Lloyd and Port Washington aquifers in Nassau County have been revised according to Kilburn (1979) and Kilburn and Krulikas (1985).

This study was done in cooperation with the Nassau County Department of Public Works, Suffolk County Department of Health Services, Suffolk County Water Authority, and the New York State Department of Environmental Conservation. Special thanks are extended to the water companies and private industries on Long Island who cooperated in the static water-level measurements.

REFERENCES CITED

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OBSERVATION WELL AND NUMBER—Prefixes K, Q, N and S for Kings, Queens, Nassau, and Suffolk Counties, respectively, are omitted. Lower number is potentiometric-surface altitude, in feet above or below (-) NGVD of 1929. (PW) indicates Port Washington aquifer. (L) indicates Lloyd aquifer

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LINE OF EQUAL POTENTIOMETRIC-SURFACE ALTITUDE—Shows altitude at which water level would have stood in tightly cased wells. Solid where approximately known; dashed where inferred. Contour interval 5 feet

INFERRED LIMIT OF LLOYD AQUIFER



Base from U.S. Geological Survey, 1:62,500 and 1:24,000 quadrangles and N.Y.S. Department of Transportation, 1:24,000 quadrangles

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