

Groundwater
file

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SIOUX CITY AIR BASE
SIOUX CITY, IOWA
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U. S. Geological Survey
Geology Annex
Iowa City, Iowa

Attention: Mr. Wm. E. Hale

Gentlemen:

In answer to your request for test data on Well #2 at the Sioux City Air Base, Sioux City, Iowa, we advise as follows:

After this well had been cleaned and before beginning the test as called for by the specifications, the static water level stood at 28 ft. below the top of the casing. The well was tested for approximately 18 hours at an average rate of 650 gallons per minute and throughout the entire test the water remained clear. The pump at this time was set at 189 ft., this being from the top of the casing to the bottom of the tail pipe. After the 18-hour test was completed, the pump was speeded up so that a discharge of 785 gallons per minute was obtained. At this point the pump broke suction. This was indicated by the surging of the discharge, but the fact that no complete stoppage of water was experienced would indicate that at this rate of pumping, the flow of water through the strata is constant.

On the stoppage of the pump, the rate of recovery was timed and it was found that the water level rose in the casing at the following rates:

- 100 ft. in 3 minutes - 15 seconds
- 110 ft. in 4 minutes - 30 seconds
- 130 ft. in 7 minutes - 10 seconds
- 138 ft. in 10 minutes - 10 seconds
- 150 ft. in 38 minutes -
- 155 ft. in 53 minutes -