

CITY OF NORA SPRINGS
Nora Springs, Iowa

Floyd County, Rock Grove Twp.
COMPLETED: August 19, 1977

LOG OF WELL

0' to 5' Topsoil
5' to 41' Limerock and shale
41' to 150' Limerock (Devonian)
150' to 232' Limerock (Devonian)
232' to 251' Shale
251' to 300' Limerock (Silurian)

A 15½" hole was drilled from the ground surface to 150'. A 16" OD temporary casing was installed at the surface and later removed when grout was placed. The permanent casing was installed to 152'6" with 10" ID black PE (welded) ASTM-A53 schedule 40 seamless pipe. Pipe equipped with Butler-Larkin Figure C-515 cement shoe.

Cement grout was then pumped down through the grout shoe, up the annular space in the 15½" hole around the permanent 10" casing, from 150' to the ground surface. After the cement

had set for over 12 hours, drilling was continued with a 10" hole to 255'. Because caving shale was encountered between 232' and 251', an 8" ID casing was installed from 213' 6" to 255' in order to prevent the shale from caving in. An 8" ID hole was then drilled on from 255' to 300', the total depth of the well.

TEST PUMPING RECORD

Concerning the test pumping of the well at Nora Springs, Ia. The static water level was 62½', there was 1' of drawdown while pumping at 360 gallons per minute. We pumped the well at this rate for 24 hours and measured the drawdown 24 times, on the hour. Upon completion of test pumping, my foreman, Mr. Wayne Paige, proceeded to the City Hall where he typed up a complete report of test pumping data and gave a copy to the supervisor for the engineers.