

**4727.0985 TEMPORARILY SEALED EXPLORATORY BORINGS THAT FLOW.**

Subpart 1. **General construction.** A temporarily sealed exploratory boring from which groundwater flows above the established ground surface without pumping and which does not require special construction under subpart 2 must be constructed to prevent erosion of the aquifer and confining layer. Casing must be installed into the flowing aquifer to prevent water flowing up the outside of the casing by either:

A. driving steel casing into the flowing aquifer according to part 4727.0980, subpart 6; or

B. grouting the annular space surrounding the casing with neat cement grout according to part 4727.0980, subpart 3.

Subp. 2. **Special construction required.** A temporarily sealed exploratory boring must be constructed according to subpart 3 when:

A. the artesian flow rate at the established ground surface is greater than 70 gallons per minute;

B. the artesian pressure at the established ground surface exceeds ten pounds per square inch; or

C. the commissioner designates an area where the use of standard construction techniques have resulted in uncontrolled flows or where hydrogeologic conditions such as eroded or unstable confining layers require special construction to successfully complete an exploratory boring and confine the artesian pressure.

Subp. 3. **Special construction standards.** A temporarily sealed exploratory boring requiring special construction under subpart 2 must be constructed by:

A. installing an outer steel casing into, but not penetrating the entire thickness of, the confining layer overlying the flowing aquifer by:

(1) driving steel casing according to part 4727.0980, subpart 6; or

(2) drilling a bore hole a minimum of 3.25 inches larger than the outside diameter of the casing or couplings, whichever is larger, installing steel casing into the confining layer, and pumping neat cement grout into the annular space surrounding the casing from the bottom of the casing to the established ground surface;

B. drilling through the confining layer into the aquifer;

C. installing an inner casing, which is 3.25 inches smaller than the bore hole, into the aquifer; and

D. grouting the annular space surrounding the inner casing with neat cement grout according to part 4727.0980, subpart 3.

Subp. 4. **Flow control.** A temporarily sealed flowing exploratory boring must be provided with flow control capable of stopping all flow.

**Statutory Authority:** *MS s 103I.101*

**History:** *28 SR 147*

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