

Water Well Plugging Guidelines

A deteriorated well must be plugged. An abandoned well or well that is open at the surface must be either capped or plugged. It is the landowner's responsibility to plug or cap his/her well. If a landowner or person who possesses an abandoned or deteriorated well fails to have the well plugged or capped under standards and procedures adopted by the commission within 180 days from learning of its condition, the department shall notify the local groundwater conservation district and the department may initiate a contested case against the landowner or person for a violation of Texas Occupations Code, §1901.255.

A well may be plugged only by a licensed well driller, pump installer, or landowner who owns the well to be plugged. All applicable rules of the Texas Department of Licensing and Regulation (TDLR) shall be followed; except for as listed below for wells to plugged that are in the Brazos River Alluvium Aquifer. The TDLR has granted a variance for wells in the Brazos River Alluvium Aquifer that is listed below in this Guidance Document.

The person that plugs a well shall, within 30 days after plugging is complete, transmit electronically through the Texas Well Report Submission and Retrieval System or deliver or send by certified mail, the original of the State of Texas Plugging Report to the department. The person that plugs the well shall deliver or send by first-class mail a copy of the State of Texas Plugging Report to the groundwater conservation district in which the well is located, if any. The person that plugs the well shall deliver or send by first-class mail a copy of the State of Texas Plugging Report to the owner or person for whom the well was plugged.

For all aquifers other than the Brazos River Alluvium

76.104. Technical Requirements--Standards for Capping and Plugging of Wells and Plugging Wells that Penetrate Undesirable Water or Constituent Zones. *(Effective January 3, 1999, 23 TexReg 13059; section repealed effective November 8, 2001, 26 TexReg8814; new section effective November 8, 2001, 26 TexReg 8814; amended effective December 1, 2003, 28 TexReg 10468; amended effective December 1, 2006, 31 TexReg 9604; amended effective March 1, 2013, 38 TexReg 1142)*

(a) All wells which are required to be plugged or capped under Texas Occupations Code, Chapters 1901 and 1902 or this chapter shall be plugged and capped in accordance with the following specifications and in compliance with the local groundwater conservation district rules or incorporated city ordinances:

- (1) all removable casing shall be removed from the well;
- (2) any existing surface completion shall be removed;
- (3) the entire well pressure filled via a tremie pipe with cement from bottom up to the land surface;
- (4) In lieu of the procedure in paragraph (3), the well shall be pressure filled via a tremie tube with clean bentonite grout of a minimum 9.1 pounds per gallon weight followed by a cement plug extending from land surface to a depth of not less than two (2) feet, or if the well to be plugged has one hundred 100 feet or less of standing water the entire well may be filled with a solid column of 3/8 inch or larger granular sodium bentonite hydrated at frequent intervals while strictly adhering to the manufacturers' recommended rate and method of application. If a bentonite grout is used, the entire well from not less than two (2) feet below land surface may be filled with the bentonite grout. The top two (2) feet above any bentonite grout or granular sodium bentonite shall be filled with cement as an atmospheric barrier. Bentonite grout may not be used if a water zone contains chlorides above 1500 ppm or if hydrocarbons are present.

(5) Undesirable water or constituents shall be isolated from the fresh water zone(s) with cement plugs and the remainder of the wellbore filled with neat cement or clean bentonite grout of a minimum 9.1 weight followed by a cement plug extending from land surface to a depth of not less than two (2) feet.

(b) Large hand dug and bored wells 36-inches or greater in diameter to one hundred (100) feet in depth may be plugged by back filling with compacted clay or caliche to surface. All removable debris shall be removed from the well. If the well contains standing water, it shall be chlorinated by adding chlorine bleach at a rate of one (1) gallon of bleach for every five hundred (500) gallons of standing water. The backfill material shall be mounded above the surrounding surface to compensate for settling.

(c) Wells which do not encounter groundwater (dry holes) may be plugged by backfilling with drill cuttings from total depth to the surface. The backfill material shall be mounded above the surrounding surface to compensate for settling.

For the Brazos River Alluvium (Variance)

1. Filling the entire well with 3/8 inch or larger chips or pellets hydrated as specified with a two (2) foot cement atmospheric barrier.
2. Filling the screened/production zone with chlorinated (50mg/liter chlorine solution) pea gravel followed by two (2) feet of bentonite chips/pellets. Complete the plugging in accordance with TDLR rules.

The two (2) foot cement atmospheric barrier may be placed two feet below ground surface (bgs), and then topped off with native soils for aesthetic or agricultural reasons. Remove all removable casing with a minimum of four (4) feet of casing removed bgs.