



Well Construction Section

INTEROFFICE MEMORANDUM

TO: File – Water Right No. 63-33441
FROM: Sonny Hornbaker P. G.
DATE: 11/30/2015
SUBJECT: Well Seal for Well Tag Number D0069029

On May 4th, 2015 Coonse Well Drilling commenced drilling a Domestic/Irrigation well (D0069029) for Ronald Beckman located at the northwest corner of Quarter Dr. and Willean. As stipulated by the water right (63-33441) the well is to be constructed with unperforated pipe sealed into the first confining layer located 200 feet or more below ground. Reviewing the well log submitted shows the well was constructed by driving 8 inch unperforated casing down the borehole as the bore hole was advanced. This drilling method advances the casing without an overbore thus leaving no open void space between the sediments and 8 inch casing due to the fact the drill bit is somewhat smaller in diameter than the 8 inch casing drive shoe which shaves the borehole out to the 8 inch outside casing diameter. Whatever void space could possibly exists is filled by expansion of clayey sediments which according the the drill log are numerous and would provide many zones of confinement, preventing migration/flowing water up or down the outside of the well casing. As indicated by the numerous clayey sediments and the type of well construction, would provide a much more impervious seal the full length of the casing rather than overbore type drilling which requires a manmade poured seal to prevent up or downward flows along the well casing. From 200 feet down to the production zone there are four distinct layers of clayey sediments totaling 44 feet of significant clay preventing transmigration of water between sandy layers of sediments. Additionally, 10 foot of stainless steel screen has been installed from 273 to 283 feet where most of the permeable sediments are located, thus restricting flows from overlying sedimentary zones.