

ATTACHMENT
METHODOLOGY FOR GROUNDWATER MONITORING WELL ABANDONMENT

The facility shall receive prior approval from the Department (VDEQ) to abandon any monitoring wells and/or piezometers. The following procedures shall be used

- A. Monitoring wells and/or piezometers will be abandoned by pressure grouting methods. Surface installations (protective covers or manholes) will be removed and an attempt to pull the casing string with the rig will be made. Once this has either been accomplished or has failed, grouting operations will commence as described below. NOTE - All tremie rods and other downhole equipment will be steam cleaned prior to introduction into the hole or well.
1. Monitoring well abandonment will be accomplished by lowering a tremie pipe to the bottom of the borehole.
 2. Portland cement/bentonite grout will then be pumped down the tremie pipe until an even flow of consistent grout returns at the surface.
 3. The tremie pipe will be removed from the borehole on completion of grouting operations and a minimum four inch thick and six foot diameter concrete cap will be constructed over the grouted borehole.
- B. Removed casings will be steam cleaned, cut up into manageable sections, and disposed of as refuse.
- C. All decontamination fluid will be containerized and handled pursuant to decontamination fluid handling procedures and all applicable local, state, and federal regulations.