

TITLE: Use of Direct Push Technology in lieu of Monitoring Wells for Ground Water Classification

DATE EFFECTIVE: January 2003

HISTORY: Update of VA30007.09.0012 - Revision was necessary to reflect changes in rule citations that became effective in August 2014.

KEYWORDS: Direct push, ground water classification, yield

RULE/ AUTHORITY: OAC 3745-300-07(F)(2), OAC 3745-300-07(F)(7)

QUESTION: Can a volunteer use direct push technology, such as Geoprobe® or Hydropunch®, for yield tests when classifying or identifying ground water zones?

BACKGROUND: When using yield to determine whether water in a saturated zone is ground water, OAC 3745-300-07(F)(2)(b) requires a determination of yield using properly developed wells constructed to the minimum standards of a 2-inch diameter, 5-foot long manufactured screen placed in the saturated zone in a 6-inch diameter borehole. If wells are used to determine whether yield of a ground water zone falls below the criteria for “Critical Resource” ground water, OAC 3745-300-07(F)(7)(b)(ii) requires a determination of yield using properly developed wells constructed to the minimum standards of an 8-inch diameter screen placed in a 12-inch diameter borehole. When determining whether the yield of a ground water zone falls below the criteria for “Class A” ground water, OAC 3745-300-07(F)(7)(c) requires a determination of yield using properly developed wells constructed to the minimum standards of a 4-inch diameter screen placed in an 8-inch diameter borehole or a 2-inch diameter screen in a 6-inch diameter borehole.

ANSWER: No, as indicated above, rule requirements for well construction are specific and must be followed for yield tests when classifying or identifying ground water zones. The yield needs to be determined from properly constructed wells. The Phase II rule is specific regarding well construction requirements for determining yield. Because of the smaller diameter of direct push drilling rods, boreholes constructed using direct push technologies would not meet the requirements for borehole size indicated in the rule. Therefore, determining a zone is below Critical or Class A ground water utilizing data collected from direct push technology would not be in

accordance with the rules. However, direct push technology could be used to assist in locating areas that are suspected to be the areas of highest yield.

OHIO EPA
CONTACT:

For further information regarding this issue, please contact the VAP Staff at (614) 644-2924 or DDAGW-VAP Support Staff at (614) 644-2752.