



Standard Practice for Direct Push Installation of Prepacked Screen Monitoring Wells in Unconsolidated Aquifers¹

This standard is issued under the fixed designation D 6725; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice is based on recognized methods by which direct push monitoring wells may be designed and installed for the purpose of detecting the presence or absence of a contaminant, and collecting representative ground water quality data. The design standards and installation procedures herein are applicable to both detection and assessment monitoring programs for facilities.

1.2 The recommended monitoring well design, as presented in this practice, is based on the assumption that the objective of the program is to obtain representative ground water information and water quality samples from aquifers. Monitoring wells constructed following this practice should produce relatively turbidity-free samples for granular aquifer materials ranging from gravels to silty sand. Strata having grain sizes smaller than the recommended design for the smallest diameter filter pack materials should be monitored by alternative monitoring well designs which are not addressed in this practice.

1.3 Direct push procedures are not applicable for monitoring well installation under all geologic and soil conditions (for example, installation in bedrock). Other rotary drilling procedures are available for penetration of these consolidated materials for well construction purposes (Guide D 5092). Additionally, under some geologic conditions it may be appropriate to install monitoring wells without a filter pack (EPA 1991). Guide D 724 may be referred to for additional information on these and other methods for the direct push installation of ground water monitoring wells.

1.4 The values stated in inch-pound units are to be regarded as standard. The values in parentheses are for information only.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.6 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgement. Not all aspects of this practice*

may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of the project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.

2. Referenced Documents

2.1 ASTM Standards:

- D 1452 Practice for Soil Investigation and Sampling by Auger Borings²
- D 1587 Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes²
- D 2488 Practice for Description and Identification of Soils Visual-Manual Procedure²
- D 3694 Practice for Preparation of Sample Containers and for Preservation of Organic Constituents³
- D 4043 Guide for Selection of Aquifer-Test Method in Determining of Hydraulic Properties by Well Techniques²
- D 4044 Test Method for (Field Procedure) for Instantaneous Change in Head (Slug Tests) for Determining Hydraulic Properties of Aquifers²
- D 4104 Test Method for (Analytical Procedure) for Determining Transmissivity of Nonleaky confined aquifers by Over-damped Well Response to Instantaneous Change in Head (Slug Test)²
- D 4448 Guide for Sampling Ground Water Monitoring Wells⁴
- D 4700 Guide for Soil Sampling from the Vadose Zone²
- D 5088 Practice for Decontamination of Field Equipment Used at Nonradioactive Waste Sites²
- D 5092 Practice for Design and Installation of Ground Water Monitoring Wells in Aquifers²
- D 5314 Guide for Soil Gas Monitoring in the Vadose Zone²
- D 5521 Practice for Development of Ground-Water Monitoring Wells in Granular Aquifers²
- D 5778 Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils²

¹ This practice is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.21 on Ground Water. Current edition approved Nov. 10, 2001. Published January 2002.

² *Annual Book of ASTM Standards*, Vol 04.08.

³ *Annual Book of ASTM Standards*, Vol 11.07.

⁴ *Annual Book of ASTM Standards*, Vol 11.04.