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Standard Guide for Purging Methods for Wells Used for Ground Water Quality Investigations¹

This standard is issued under the fixed designation D6452; 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 guide covers methods for purging wells used for ground water quality investigations and monitoring programs. These methods could be used for other types of programs but are not addressed in this guide.

1.2 This guide applies only to wells sampled at the well-head.

1.3 *This standard describes seven methods (A-G) for the selection of purging methods.*

Method A—Fixed Volume Purging,

Method B—Purging Based on Stabilization of Indicator Parameters,

Method C—Purging Based on Stabilization of Target Analytes,

Method D—Purging Based on Fixed Volume Combined with Indicator Parameter Stabilization,

Method E—Low Flow/Low Volume (Minimal Drawdown) Purging,

Method F—Well Evacuation Purging, and

Method G—Use of Packers in Purging.

1.4 *This guide offers an organized collection of information or a series of options and does not recommend a specific course of action. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide 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 a project's many unique aspects. The word "Standard" in the title of this guide means only that the document has been approved through the ASTM consensus process.*

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 appro-*

priate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D5088 Practice for Decontamination of Field Equipment Used at Waste Sites

D5092/D5092M Practice for Design and Installation of Groundwater Monitoring Wells

D5521/D5521M Guide for Development of Groundwater Monitoring Wells in Granular Aquifers

D6089 Guide for Documenting a Groundwater Sampling Event

D6771 Practice for Low-Flow Purging and Sampling Used for Groundwater Monitoring

3. Terminology

3.1 Definitions:

3.1.1 For definitions of common technical terms in this standard, refer to Terminology **D653**.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *fixed volume purging, n*—in ground water sampling, removing a specified number of well volumes to achieve purging.

3.2.2 *flow-through cell (purging), n*—in ground water sampling, a vessel that allows purge water to pass over sensors for continuous measurement of indicator parameters.

¹ This guide is under the jurisdiction of ASTM Committee **D18** on Soil and Rock and is the direct responsibility of Subcommittee **D18.21** on Groundwater and Vadose Zone Investigations.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard