



Designation: D6771 – 18

Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations¹

This standard is issued under the fixed designation D6771; 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 describes the method of low-flow purging and sampling used to collect groundwater samples from wells to assess groundwater quality.

1.2 The purpose of this procedure is to collect groundwater samples that represent a flow-weighted average of solute and colloid concentrations transported through the formation near the well screen under ambient conditions. Samples collected using this method can be analyzed for groundwater contaminants and/or naturally occurring analytes.

1.3 This practice is generally not suitable for use in wells with very low-yields and cannot be conducted using grab sampling or inertial lift devices. This practice is not suitable for use in wells with non-aqueous phase liquids.

1.4 *Units*—The values stated in SI units are to be regarded as standard. The values given in parentheses are approximate mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

1.5 *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 judgment. 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 a project's many unique aspects. The word "standard" in the title means only that the document has been approved through the ASTM consensus process.*

1.6 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *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 Practice for Design and Installation of Groundwater Monitoring Wells
- D5521 Guide for Development of Groundwater Monitoring Wells in Granular Aquifers
- D5608 Practices for Decontamination of Sampling and Non Sample Contacting Equipment Used at Low Level Radioactive Waste Sites
- D5903 Guide for Planning and Preparing for a Groundwater Sampling Event
- D5978 Guide for Maintenance and Rehabilitation of Groundwater Monitoring Wells
- D6089 Guide for Documenting a Groundwater Sampling Event
- D6452 Guide for Purging Methods for Wells Used for Groundwater Quality Investigations
- D6517 Guide for Field Preservation of Groundwater Samples
- D6564 Guide for Field Filtration of Groundwater Samples
- D6634 Guide for Selection of Purging and Sampling Devices for Groundwater Monitoring Wells
- D6725 Practice for Direct Push Installation of Prepacked Screen Monitoring Wells in Unconsolidated Aquifers
- D6911 Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis

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 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