



Designation: D1452/D1452M – 24

Standard Practice for Soil Exploration and Sampling by Auger Borings¹

This standard is issued under the fixed designation D1452/D1452M; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This practice covers equipment and procedures for the use of earth augers in shallow depth geotechnical exploration. This practice does not apply to hollow-stem augers. Uses of hollow-stem auger drilling methods for geotechnical exploration are addressed in Practice [D6151/D6151M](#). Samples recovered from this standard are considered as belonging to Group A or B in accordance with [D4220/D4220M](#). The samples are disturbed and can generally be used for classification testing ([D2487](#), [D2488](#)), determination of compaction characteristics ([D698](#), [D1557](#)), or any other standard that requires bulk samples. For obtaining intact samples use of thin-walled sample tubes ([D1587/D1587M](#)) in conjunction with fluid rotary drilling ([D5783](#)) or hollow-stem augers ([D6151/D6151M](#)) may be considered.

1.2 This practice does not include considerations for geoenvironmental site characteristics and installation of monitoring wells which are discussed in Guides [D5783](#) and [D5784/D5784M](#).

1.3 *Units*—The values stated in either inch-pound units or SI units presented in brackets are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.4 All observed and calculated values shall conform to the guidelines for significant digits and rounding established in Practice [D6026](#) unless superseded by this method.

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, health, and environmental 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 practice 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 practice 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 document means only that the document has been approved through the ASTM consensus process.

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](#)

[D698 Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort \(12,400 ft-lbf/ft³ \(600 kN-m/m³\)\)](#)

[D1557 Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort \(56,000 ft-lbf/ft³ \(2,700 kN-m/m³\)\)](#)

[D1586/D1586M Test Method for Standard Penetration Test \(SPT\) and Split-Barrel Sampling of Soils](#)

[D1587/D1587M Practice for Thin-Walled Tube Sampling of Fine-Grained Soils for Geotechnical Purposes](#) (Withdrawn 2024)³

[D2487 Practice for Classification of Soils for Engineering Purposes \(Unified Soil Classification System\)](#)

[D2488 Practice for Description and Identification of Soils \(Visual-Manual Procedures\)](#)

[D4220/D4220M Practices for Preserving and Transporting](#)

¹ This practice is under the jurisdiction of ASTM Committee [D18](#) on Soil and Rock and is the direct responsibility of Subcommittee [D18.02](#) on Sampling and Related Field Testing for Soil Evaluations.

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

³ The last approved version of this historical standard is referenced on www.astm.org.

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