



Standard Guide for Field Logging of Subsurface Explorations of Soil and Rock¹

This standard is issued under the fixed designation D 5434; 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 describes the type of information that should be recorded during field subsurface explorations in soil and rock.

1.2 This guide is not intended to specify all of the information required for preparing field logs. Such requirements will vary depending on the purpose of the investigation, the intended use of the field log, and particular needs of the client or user.

1.3 This guide is applicable to boreholes, auger holes, excavated pits, or other subsurface exposures such as road side cuts or stream banks. This guide may serve as a supplement to Guide D 420.

1.4 This guide may not be suited to all types of subsurface exploration such as mining, agricultural, geologic hazardous waste, or other special types of exploration.

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 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 of 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.*

2. Referenced Documents

2.1 ASTM Standards:²

¹ This guide is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of D18.07 on Identification and Classification of Soils. Current edition approved Nov. 1, 2003. Published December 2003. Originally approved in 1993. Last previous edition approved in 2003 as D 5434 – 97(2003).

² For referenced ASTM standard, 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 of the ASTM website.

- D 420 Guide to Site Characterization for Engineering, Design, and Construction Purposes
- D 653 Terminology Relating to Soil, Rock, and Contained Fluids
- D 1452 Practice for Soil Investigation and Sampling by Auger Borings
- D 1586 Method for Penetration Test and Split-Barrel Sampling of Soils
- D 1587 Practice for Thin-Walled Tube Geotechnical Sampling of Soils
- D 2113 Practice for Diamond Core Drilling for Site Investigation
- D 2488 Practice for Description and Identification of Soils (Visual-Manual Procedure)
- D 2573 Test Method for Field Vane Shear Test in Cohesive Soil
- D 3441 Test Method for Deep, Quasi-Static, Cone and Friction/Cone Penetration Tests of Soil
- D 3550 Practice for Ring-Lined Barrel Sampling of Soils
- D 3740 Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- D 4083 Practice for Description of Frozen Soils (Visual-Manual Procedure)
- D 4220 Practices for Preserving and Transporting Soil Samples
- D 4403 Practice for Extensometers Used in Rock
- D 4544 Practice for Estimating Peat Deposit Thickness
- D 4622 Test Method for Rock Mass Monitoring Using Inclinometers
- D 4623 Test Method for Determination of In Situ Stress in Rock Mass by Overcoring Method—USBM Borehole Deformation Gage
- D 4633 Test Method for Stress Wave Energy Measurement for Dynamic Penetrometer Testing Systems
- D 4645 Test Method for Determination of the In-Situ Stress in Rock Using the Hydraulic Fracturing Method
- D 4719 Test Method for Pressuremeter Testing in Soils
- D 4750 Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well)
- D 4879 Guide for Geotechnical Mapping of Large Underground Openings in Rock

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