**Designation: ~~D4544 – 86 (Reapproved 2008)~~ D4544 – 12**

# Standard Practice for Estimating Peat Deposit Thickness[1]

This standard is issued under the fixed designation D4544; 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~~ Scope*

1.1 This practice uses a technique of probing to estimate the thickness of surficial peat deposits overlying mineral soil or bedrock. ~~These estimates may be needed for energy, horticultural, or geotechnical purposes.~~

1.2 *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.*

1.3 *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 of this document means only that the document has been approved through the ASTM consensus process.*

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

## 2. Referenced Documents

2.1 ~~*NRC Canada Document:*~~*ASTM Standards:*[2]

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D3740 Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

~~Peat Testing Manual~~D6026 Practice for Using Significant Digits in Geotechnical Data

## 3. Terminology

3.1 For definitions of common terms used in this standard, refer to Terminology D653.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *peat*—a naturally occurring organic substance derived primarily from plant materials.

## 4. Summary of Practice

4.1 The resistance to penetration of a pushed or driven rod will increase sharply at the boundary of a peat layer with underlying mineral soil or bedrock. When this abrupt change is measured in a series of probings with an appropriate spacing, the thickness and areal extent of peat can be defined and the volume of peat may be calculated.

4.2 Sampling of the peat may be required to determine the peat characteristics.

4.3 All measured and calculated values shall conform to the guidelines for significant digits and rounding established in Practice D6026.



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[1] This practice is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.22 on Soil as a Medium for Plant Growth.

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~~[2] Available from the National Research Council of Canada, Publications Section, Building R-88, Ottawa, Ontario, Canada K1A OR6, www.nrc-cnrc.gc.ca.~~

[2] For ~~further information, see Jeglum, J. K., "Method for Measurement of Peat Thickness,"~~ referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For ~~*Peat Testing Manual,*~~*Annual Book of ASTM Standards* ~~Technical Memorandum No. 125, NRC Canada, May 1979, pp. 33–34.~~volume information, refer to the standard's Document Summary page on the ASTM website.

~~[4] This piston-type sampler and its use is described in *Muskeg Engineering Handbook*, I. C. MacFarlane, ed. Muskeg Subcommittee of the NRC Canada, 1969, pp. 144–145.~~

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