



Designation: D4182 – 97 (Reapproved 2004)

Standard Practice for Evaluation of Laboratories Using ASTM Procedures in the Sampling and Analysis of Coal and Coke¹

This standard is issued under the fixed designation D4182; 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.

INTRODUCTION

Traditionally, coal testing facilities have been established to serve the specific interests or activities of one or more of the following:

- (1) Exploration and evaluation of coal fields.
- (2) Establishment of mining and coal preparation capabilities.
- (3) Coal quality evaluation: (a) to meet contractual obligations; (b) to determine compliance with municipal, state, and federal regulations; and (c) to generate documentation used to establish power rates or rate basis.
- (4) Confirmation of properties pertinent to coal processing and utilization, such as direct combustion or the production of coal-derived products (for example, metallurgical coke, carbons, liquids, and gas).
- (5) Coal research pursuits.

1. Scope

1.1 This practice is limited to the evaluation of laboratories using ASTM procedures that are under the jurisdiction of Committee D05 on Coal and Coke. They may be used to evaluate a laboratory's capability to perform the functions for which it has been established. It is not the intention that this practice be used to evaluate capabilities beyond those specifically claimed by the laboratory.

2. Referenced Documents

2.1 ASTM Standards:²

- D346 Practice for Collection and Preparation of Coke Samples for Laboratory Analysis
- D409 Test Method for Grindability of Coal by the Hardgrove-Machine Method
- D1989 Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters³
- D2013 Practice for Preparing Coal Samples for Analysis

¹ This practice is under the jurisdiction of ASTM Committee D05 on Coal and Coke and is the direct responsibility of Subcommittee D05.30 on Quality Assurance.

Current edition approved Oct. 1, 2004. Published October 2004. Originally approved 1982. Last previous edition approved in 1997 as D4182 – 97. DOI: 10.1520/D4182-97R04.

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.

³ Withdrawn.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

D2234/D2234M Practice for Collection of a Gross Sample of Coal

D2795 Test Methods for Analysis of Coal and Coke Ash³

D2961 Test Method for Single-Stage Total Moisture Less than 15 % in Coal Reduced to 2.36-mm (No. 8 Sieve) Topsize

D3173 Test Method for Moisture in the Analysis Sample of Coal and Coke

D3174 Test Method for Ash in the Analysis Sample of Coal and Coke from Coal

D3175 Test Method for Volatile Matter in the Analysis Sample of Coal and Coke

D3177 Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke

D3178 Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke³

D3179 Test Methods for Nitrogen in the Analysis Sample of Coal and Coke³

D3286 Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter³

D3302 Test Method for Total Moisture in Coal

D3682 Test Method for Major and Minor Elements in Combustion Residues from Coal Utilization Processes

D4239 Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion

D4326 Test Method for Major and Minor Elements in Coal and Coke Ash By X-Ray Fluorescence