



Designation: D4057 – 06



Designation: Manual of Petroleum Measurement Standards (MPMS), Chapter 8.1

Standard Practice for Manual Sampling of Petroleum and Petroleum Products¹

This standard is issued under the fixed designation D4057; 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 Department of Defense.

1. Scope

1.1 This practice covers procedures for manually obtaining representative samples of petroleum products of a liquid, semi-liquid, or solid state whose vapor pressure at ambient conditions is below 101 kPa (14.7 psia). If sampling is for the precise determination of volatility, use Practice [D5842](#) (API MPMS Chapter 8.4) in conjunction with this practice. For sample mixing and handling of samples, refer to Practice [D5854](#) (API MPMS Chapter 8.3). The practice does not cover sampling of electrical insulating oils and hydraulic fluids. A summary of the manual sampling procedures and their applications is presented in [Table 1](#).

NOTE 1—The procedures described in this practice may also be applicable in sampling most noncorrosive liquid industrial chemicals, provided that all safety precautions specific to these chemicals are strictly followed.

NOTE 2—The procedure for sampling liquefied petroleum gases is described in Practice [D1265](#); the procedure for sampling fluid power hydraulic fluids is covered in ANSI [B93.19](#) and [B93.44](#); the procedure for sampling insulating oils is described in Practice [D923](#); and the procedure for sampling natural gas is described in Test Method [D1145](#).

NOTE 3—The procedure for special fuel samples for trace metal analysis is described in an appendix to Specification [D2880](#).

2. Referenced Documents

2.1 ASTM Standards:²

[D86](#) Test Method for Distillation of Petroleum Products at Atmospheric Pressure

[D217](#) Test Methods for Cone Penetration of Lubricating Grease

[D244](#) Test Methods and Practices for Emulsified Asphalts
[D268](#) Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material

[D323](#) Test Method for Vapor Pressure of Petroleum Products (Reid Method)

[D346](#) Practice for Collection and Preparation of Coke Samples for Laboratory Analysis

[D525](#) Test Method for Oxidation Stability of Gasoline (Induction Period Method)

[D873](#) Test Method for Oxidation Stability of Aviation Fuels (Potential Residue Method)

[D923](#) Practices for Sampling Electrical Insulating Liquids

[D977](#) Specification for Emulsified Asphalt

[D1145](#) Test Method for Sampling Natural Gas³

[D1265](#) Practice for Sampling Liquefied Petroleum (LP) Gases, Manual Method

[D1856](#) Test Method for Recovery of Asphalt From Solution by Abson Method

[D2172](#) Test Methods for Quantitative Extraction of Bitumen From Bituminous Paving Mixtures

[D2880](#) Specification for Gas Turbine Fuel Oils

[D4177](#) Practice for Automatic Sampling of Petroleum and Petroleum Products

[D4306](#) Practice for Aviation Fuel Sample Containers for Tests Affected by Trace Contamination

[D4865](#) Guide for Generation and Dissipation of Static Electricity in Petroleum Fuel Systems

[D5842](#) Practice for Sampling and Handling of Fuels for Volatility Measurement

[D5854](#) Practice for Mixing and Handling of Liquid Samples of Petroleum and Petroleum Products

2.2 American National Standards:⁴

[B93.19](#) Standard Method for Extraction Fluid Samples from the Lines of an Operating Hydraulic Fluid Power System (for Particulate Contamination Analysis)

[B93.44](#) Method for Extracting Fluid Samples from the

¹ This practice is under the jurisdiction of ASTM Committee [D02](#) on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee [D02.02](#) /COMQ, the joint ASTM-API committee on Static Petroleum Measurement. This test method has been approved by the sponsoring committees and accepted by the Cooperating Societies in accordance with established procedures. This test method was issued as a joint ASTM-API standard in 1981.

Current edition approved Oct. 1, 2006. Published November 2006. Originally approved in 1981. Last previous edition approved in 2000 as D4057-95(2000). DOI: 10.1520/D4057-06.

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.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.