

Manual of Petroleum Measurement Standards Chapter 10.2

Standard Test Method for Water in Crude Oil by Distillation

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Contents

1	Scope.....	1
2	Referenced Documents	1
3	Terminology	1
4	Summary of Test Method.....	2
5	Significance and Use	2
6	Apparatus	2
7	Solvent	2
8	Sampling, Test Samples, and Test Units	2
9	Calibration.....	3
10	Procedure	3
11	Calculation.....	3
12	Report.....	4
13	Precision and Bias.....	4
14	Keywords.....	5
	Annex (Mandatory Information).....	5
	Appendix (Nonmandatory Information)	5
	Summary of Changes	11
	Figures	
1	Distillation Apparatus.....	2
2	Pick, Scraper, and Jet Spray Tube for Distillation Apparatus.....	4
3	Basic Sediment and Water Precision	5
X1.1	Basic Sediment Water Precision for ASTM Test Method D95 (API <i>MPMS</i> Chapter 10.5) Distillation Method (Based on Seven Laboratories).....	9
X1.2	Basic Sediment and Water Precision for ASTM Test Method D1796 (API <i>MPMS</i> Chapter 10.6) Centrifuge Method (Based on Five Laboratories).....	10
X1.3	Basic Sediment and Water Precision for ASTM Test Method D1796 (API <i>MPMS</i> Chapter 10.6) Centrifuge Method (Based on Six Laboratories).....	10
	Tables	
X1.2	Base Case—Water Content of Crudes.....	6
X1.3	Water Content of Crude Oil Samples	6
X1.5	Determination of Water in Crude Oils, % H ₂ O	7
X1.6	Corrections to be Applied to Measured Values to Obtain “True” Water Content.....	7
X1.7	Bias of Test Methods Estimated from Spiked Samples	7
X1.8	Round-Robin Results of Water in Crude Oils by ASTM D95 (API <i>MPMS</i> Chapter 10.5) and ASTM D1796 (API <i>MPMS</i> Chapter 10.6).....	8
X1.12	ASTM Precision Intervals: ASTM D95 (API <i>MPMS</i> Chapter 10.5) (7 Laboratories)	9



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Manual of Petroleum Measurement Standards (MPMS), Chapter 10.2

Standard Test Method for Water in Crude Oil by Distillation¹

This standard is issued under the fixed designation D4006; 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 test method covers the determination of water in crude oil by distillation.

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

1.3 *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.* For specific warning statements, see [7.1](#) and [A1.1](#).

1.4 *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

[D95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation \(API MPMS Chapter 10.5\)](#)

[D473 Test Method for Sediment in Crude Oils and Fuel Oils by the Extraction Method \(API MPMS Chapter 10.1\)](#)

[D665 Test Method for Rust-Preventing Characteristics of](#)

[Inhibited Mineral Oil in the Presence of Water](#)

[D1796 Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method \(Laboratory Procedure\) \(API MPMS Chapter 10.6\)](#)

[D4057 Practice for Manual Sampling of Petroleum and Petroleum Products \(API MPMS Chapter 8.1\)](#)

[D4175 Terminology Relating to Petroleum Products, Liquid Fuels, and Lubricants](#)

[D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products \(API MPMS Chapter 8.2\)](#)

[D4928 Test Method for Water in Crude Oils by Coulometric Karl Fischer Titration \(API MPMS Chapter 10.9\)](#)

[E123 Specification for Apparatus for Determination of Water by Distillation](#)

2.2 API Standards:

[MPMS Chapter 1 Terms and Definitions Database](#)

[MPMS Chapter 8.1 Manual Sampling of Petroleum and Petroleum Products \(ASTM Practice D4057\)](#)

[MPMS Chapter 8.2 Automatic Sampling of Petroleum and Petroleum Products \(ASTM Practice D4177\)](#)

[MPMS Chapter 10.1 Test Method for Sediment in Crude Oils and Fuel Oils by the Extraction Method \(ASTM Test Method D473\)](#)

[MPMS Chapter 10.4 Determination of Water and/or Sediment in Crude Oil by the Centrifuge Method \(Field Procedure\)](#)

[MPMS Chapter 10.5 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation \(ASTM Test Method D95\)](#)

[MPMS Chapter 10.6 Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method \(Laboratory Procedure\) \(ASTM Test Method D1796\)](#)

[MPMS Chapter 10.9 Test Method for Water in Crude Oils by Coulometric Karl Fischer Titration \(ASTM Test Method D4928\)](#)

¹ This test method is under the jurisdiction of ASTM Committee D02 on Petroleum Products, Liquid Fuels, and Lubricants and the API Committee on Petroleum Measurement and is the direct responsibility of Subcommittee D02.02/COMQ the joint ASTM-API Committee on Hydrocarbon Measurement for Custody Transfer (Joint ASTM-API). This test method has been approved by the sponsoring committees and accepted by the Cooperating Societies in accordance with established procedures.

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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. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in this test method, refer to Terminology [D4175](#) and the API MPMS Chapter 1 Terms and Definitions Database.

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