



Standard Guide for Surveys to Document and Assess Oiling Conditions¹

This standard is issued under the fixed designation F1686; 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 covers field procedures by which data can be collected in a systematic manner to document and assess the oiling conditions on shorelines, river banks, and lake shores (shores and substrates) plus dry land habitats (terrain).

1.2 This guide does not address the terminology that is used to define and describe terrain oiling conditions, the ecological character of oiled terrain, or the cultural or other resources that can be present.

1.3 The guide is applicable to marine coasts (including estuaries) and to freshwater environments (rivers and lakes) and to dry land habitats. In alignment with Guide [F2204](#):

1.3.1 For the purpose of this guide, marine and estuarine shorelines, river banks, and lake shores will be collectively referred to as shorelines, shores, or shore-zones.

1.3.2 Shore types include a range of impermeable (bedrock, ice, and manmade structures), permeable (flats, beaches, and manmade), and coastal wetland (marshes, mangroves) habitats.

1.4 Other non-shoreline, inland habitats include wetlands (pond, fen, bog, swamp, tundra, and shrub) and drier terrains (grassland, desert, forests), and will be collectively referred to as either wetlands or terrains, respectively.

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

1.6 *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.*

2. Referenced Documents

2.1 *ASTM Standards*:²

[F1687 Guide for Terminology and Indices to Describe Oiling Conditions on Shorelines](#)

[F1779 Practice for Reporting Visual Observations of Oil on Water](#)

[F2204 Guide for Describing Shoreline and Inland Response Techniques](#)

3. Significance and Use

3.1 Systematic surveys provide data on shoreline, lakeshore, river bank or other terrain's character and oiling conditions from which informed planning and operational decisions can be developed with respect to cleanup **(1-4)**.³ In particular, the data are used by decision makers to determine which oiled areas require treatment and to develop end-point criteria for use as targets for the field operations.

3.2 Surveys may include one or more of four components or phases, as listed below. The scale of an affected area plus quantity and availability of pre-spill information will influence the selection of survey components and its level of detail.

3.2.1 The **aerial reconnaissance survey phase** provides a perspective on the overall extent and general nature of the oiling conditions. This information is used in conjunction with environmental, resource, and cultural sensitivity data to guide shoreline protection, recovery of mobile oil, and to facilitate the more detailed response planning and priorities of the response operations.

3.2.2 The **aerial video survey(s) phase** provides systematic audio and video documentation of the extent and type of oiling conditions, physical character, and logistics information, such as access and staging data.

3.2.3 The **ground assessment survey(s) phase** provides the necessary information and data to develop appropriate response recommendations. A field team(s) collects detailed information on oil conditions, the physical and ecological

¹ This guide is under the jurisdiction of ASTM Committee [F20](#) on Hazardous Substances and Oil Spill Response and is the direct responsibility of Subcommittee [F20.17](#) on Shoreline Countermeasures.

Current edition approved Jan. 1, 2016. Published February 2016. Originally approved in 1996. Last previous edition approved in 2009 as F1686 – 09^{ε1}. DOI: 10.1520/F1686-16.

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 The boldface numbers in parentheses refer to the list of references at the end of this standard.