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## Soil quality — Sampling —

Part 105:

### **Packaging, transport, storage and preservation of samples**

*Qualité du sol — Échantillonnage —*

*Partie 105: Emballage, transport, stockage et conservation des  
échantillons*



Reference number  
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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html)

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 2, *Sampling*.

This first edition of ISO 18400-105, together with ISO 18400-102, ISO 18400-104 and ISO 18400-206, cancels and replaces ISO 10381-6:2009, which has been technically and structurally revised. The ISO 18400 series is based on a modular structure and cannot be compared to ISO 10381-6 clause by clause.

A list of all parts in the ISO 18400 series can be found on the ISO website.

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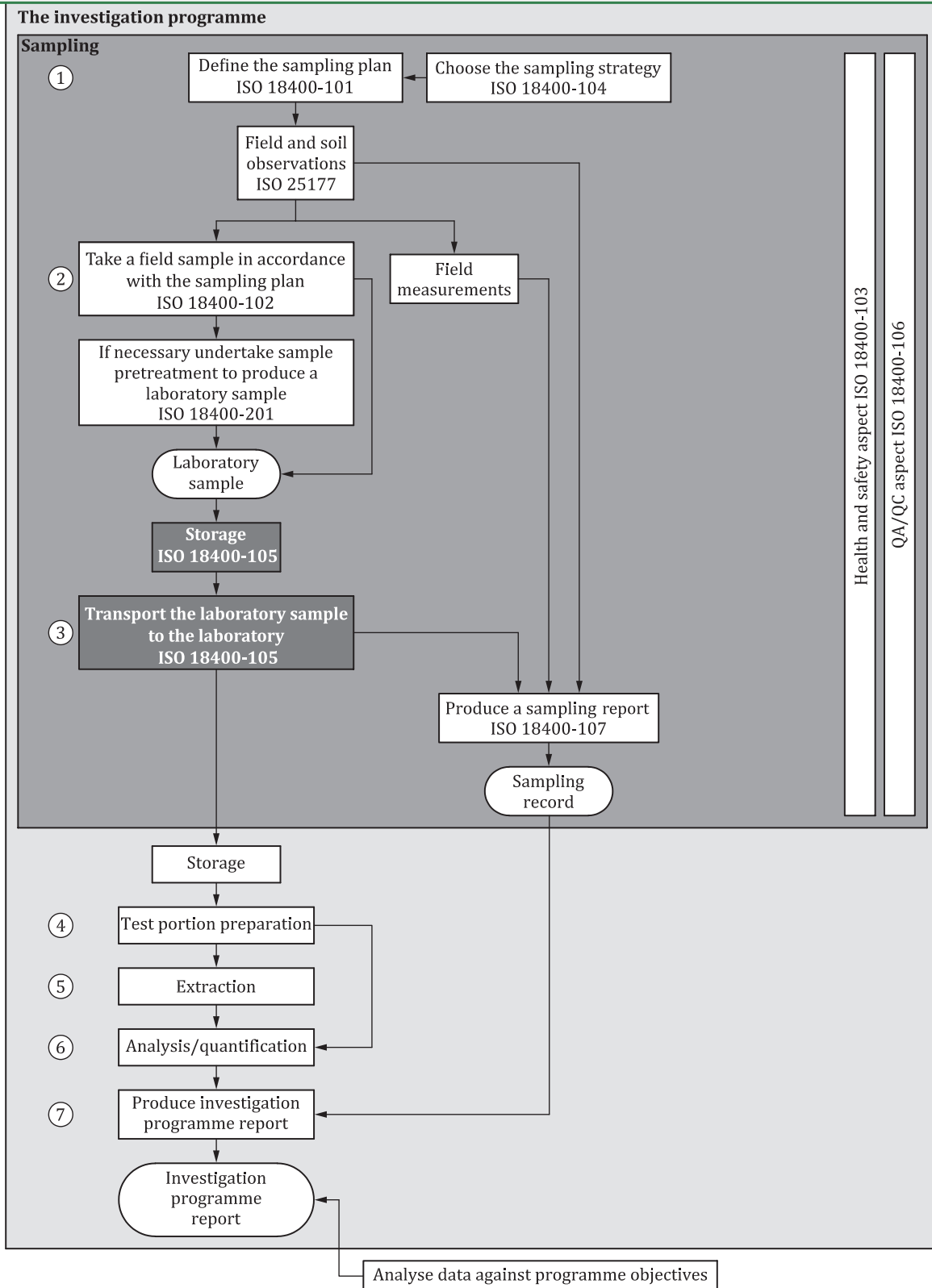
## Introduction

Samples of soils and related materials are liable to change as a result of physical processes and chemical or biological reactions occurring between the time of sampling and testing. This is especially true of soils contaminated with volatile constituents. The extent of these changes is a function of the chemical and biological characteristics of the sample, its temperature, its exposure to light, the nature of the container in which it is placed, the time between sampling and analysis, the conditions to which it is submitted, and seasonal conditions. The characteristics of a sample can change considerably in a few hours. For more information, see ISO 18512.

An important part of the sampling plan is to consider the possible extent of these changes and to prescribe the process of packaging, preservation, transport, and delivery in such a way that the samples are still representative when delivered to the laboratory.

This document is part of a series on sampling standards for soil. The role/position of the International Standards within the total Investigation programme is shown in [Figure 1](#).

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**Figure 1 — Links between the essential elements of an investigation programme**

NOTE 1 The numbers in circles in [Figure 1](#) define the key elements (1 to 7) of the investigation programme.

NOTE 2 [Figure 1](#) displays a generic process which can be amended when necessary.