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Part 202: Preliminary investigations

Qualité du sol — Échantillonnage —

Partie 202: Investigations préliminaires

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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).

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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, 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 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 18400-202, together with ISO 18400-104, ISO 18400-203 and ISO 18400-205, cancels and replaces the first editions of ISO 10381-4:2003 and ISO 10381-5:2005, which have been technically and structurally revised.

The new ISO 18400 series is based on a modular structure and cannot be compared to the ISO 10381 series clause by clause.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

All investigation programmes to gather information about soil quality need some basic information about the subject site and its environmental setting to allow appropriate planning of the field work. To collect this information, a preliminary investigation is carried out comprising desk studies, retrieval of data from archives and databases, interviews and a site reconnaissance. From the information gathered, and the observations made, a conceptual site model can be developed including hypotheses about soil characteristics and their possible spatial distribution.

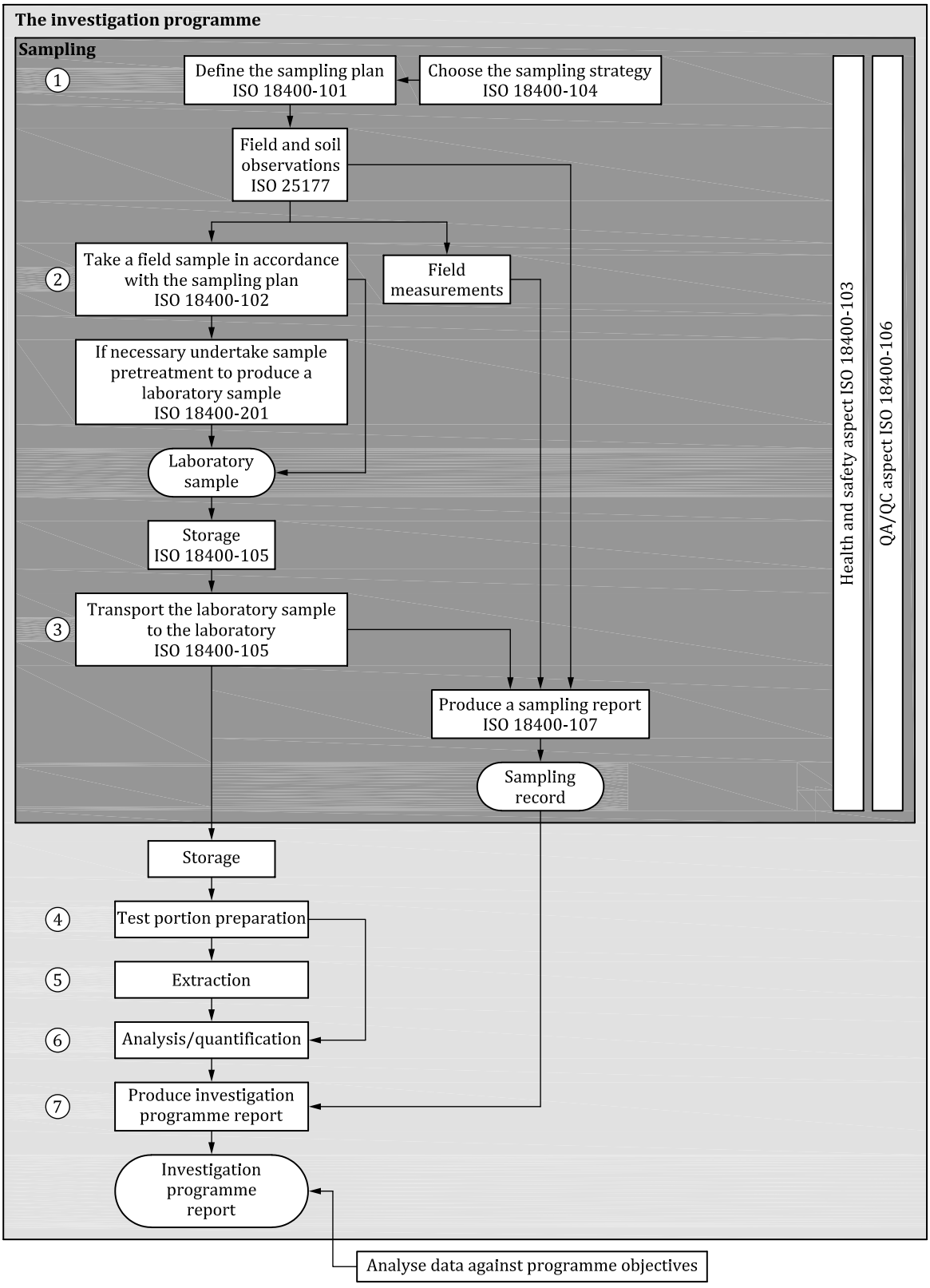
It is for the user of this document to decide the extent and nature of information required in any particular case taking into account the nature of the site and the objectives of the overall investigation: however, some preliminary information will always be needed. Detailed guidance is provided in the document based mainly on the need to obtain detailed information on many aspects of a site in the more complex cases, e.g. a potentially contaminated site, but the guidance is intended to be helpful when preparing to investigate all types of site.

The sources of information available for use in preliminary investigations will vary from country to country and jurisdiction to jurisdiction and, thus, the guidance given about sources of information in this document is of necessity generic in character. The user will find it useful to prepare detailed information about local sources for their own use. National standards providing guidance on the design and execution of geotechnical investigations often contain a requirement that a desk study and site reconnaissance should be carried out and thus could provide useful guidance about potential sources of information. Similarly, standards covering the demolition and dismantling of old buildings and industrial plant could provide useful information and guidance.

This document deals only with the investigation of the ground. It should be recognized that there could be derelict buildings and/or industrial plants awaiting demolition, dismantling or refurbishment on old urban and industrial sites, but that buildings in a poor state and containing potentially hazardous materials could also be present on farms and similar sites. Failure to investigate these buildings before demolition could put the safety of workers at risk or lead to the spread of contamination on and around the site[7][8]. The investigation of derelict buildings or remnant foundations is outside the scope of this document.

This document is part of a series on sampling standards for soil. The role/position of the standards within the total investigation programme is shown in Figure 1.

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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.

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

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Soil quality — Sampling —

Part 202: Preliminary investigations

1 Scope

This document provides guidance on the design and execution of preliminary investigations comprising desk studies and site reconnaissance, and where appropriate, preliminary risk assessment. It is applicable whenever sampling exercises or investigations are to be carried out to determine soil quality.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11074, *Soil quality — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11074 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
conceptual site model
synthesis (mental representation) of all information about a site relevant to the task at hand including interpretation of the information as necessary, and recognition of uncertainties in the information including identification of what is known to be unknown

Note 1 to entry: A conceptual site model can be presented in narrative, tabular and/or diagrammatic form.

3.2
conceptual site model
<potentially contaminated site> synthesis (mental representation) of all information about a site relevant to the task at hand with interpretation as necessary and recognition of uncertainties in the information, including, as appropriate, information regarding the ground, groundwater, surface water, soil quality, and surrounding environment, and if the occurrence of contamination is likely, the nature and potential sources of hazardous substances that could be present including soil gases and volatile organic compounds (VOCs), potential migration pathways, and potential receptors, taking into account, when appropriate, planned changes of use and anticipated changes in the environmental setting such as in groundwater levels or propensity to flood

Note 1 to entry: A conceptual site model can be presented in narrative, tabular and/or diagrammatic form.

Note 2 to entry: The future use or uses will not always be known and could also be the subject of client confidentiality.

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