BS ISO 18400-205:2018

BSI Standards Publication

Soil quality — Sampling

Part 205: Guidance on the procedure for investigation of natural, near-natural and cultivated sites

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National foreword

This British Standard is the UK implementation of ISO 18400-205:2018.

The UK participation in its preparation was entrusted to Technical Committee EH/4, Soil quality.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Soil quality — Sampling —

Part 205: Guidance on the procedure for investigation of natural, near-natural and cultivated sites

Qualité du sol — Échantillonnage —

Partie 205: Recommandations relatives aux modes opératoires d'investigation des sites naturels, quasi naturels et cultivés

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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).

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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 18400-205, together with ISO 18400-104 and ISO 18400-202, cancels and replaces the first edition of ISO 10381-4:2003, which has been technically and structurally revised. The new ISO 18400 series is based on a modular structure and cannot be compared to ISO 10381-1 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

This document is one of a group of standards providing guidance on site investigation in general, and sampling in particular, for the principal purpose of determining soil quality. It is intended to be used in conjunction with the other parts of the ISO 18400 series. The role/position of the standards within the total investigation programme is shown in Figure 1.

This document describes investigation and sampling procedures for determination of soil quality on natural, near natural and cultivated sites. Its structure is generally similar to that of ISO 18400-203 which provides guidance on the investigation of potentially contaminated sites. In accordance with ISO 18400-104, it recommends that investigations should be undertaken in three phases:

— preliminary investigation (desk study and site reconnaissance) in accordance with ISO 18400-202;

— exploratory investigation (this document);

— detailed site investigation (this document).

It is recognized that:

— the preliminary investigation needs to be no more detailed than required by the task in hand (objectives of the investigation), but some basic information is always required for reasons of legality, safety of those carrying out site work including site reconnaissance, and protection of the environment;

— the preliminary investigation might show that no intrusive investigation is required;

— an exploratory investigation might suffice in some cases with no requirement for a detailed investigation;

— an exploratory investigation is not always needed in advance of a detailed investigation;

— it might be desirable to carry out each phase of an investigation in stages;

— during any phase of an investigation it might become apparent that the site should be treated as a potentially contaminated site — decisions will then be required whether to proceed as planned, to delay the investigation, and/or carry out an investigation in accordance with ISO 18400-203.

The guidance also calls for the formulation of a conceptual site model as described in ISO 18400-202. This synthesis and interpretation of the available information needs to be no more detailed than required by the task in hand but helps in the design of intrusive phases of investigation. In practice, the investigator will always have a mental image of the site and formal development of the conceptual site model helps to reveal what could be serious flaws in this mental image.

NOTE Clauses 4, 5 and 6 provide guidance applicable to sampling on the generality of natural, near-natural and cultivated sites. Clause 7 provides additional guidance in relation to sampling for particular purposes (e.g. determination of mobile nitrogen) and soil types (e.g. peat soils).

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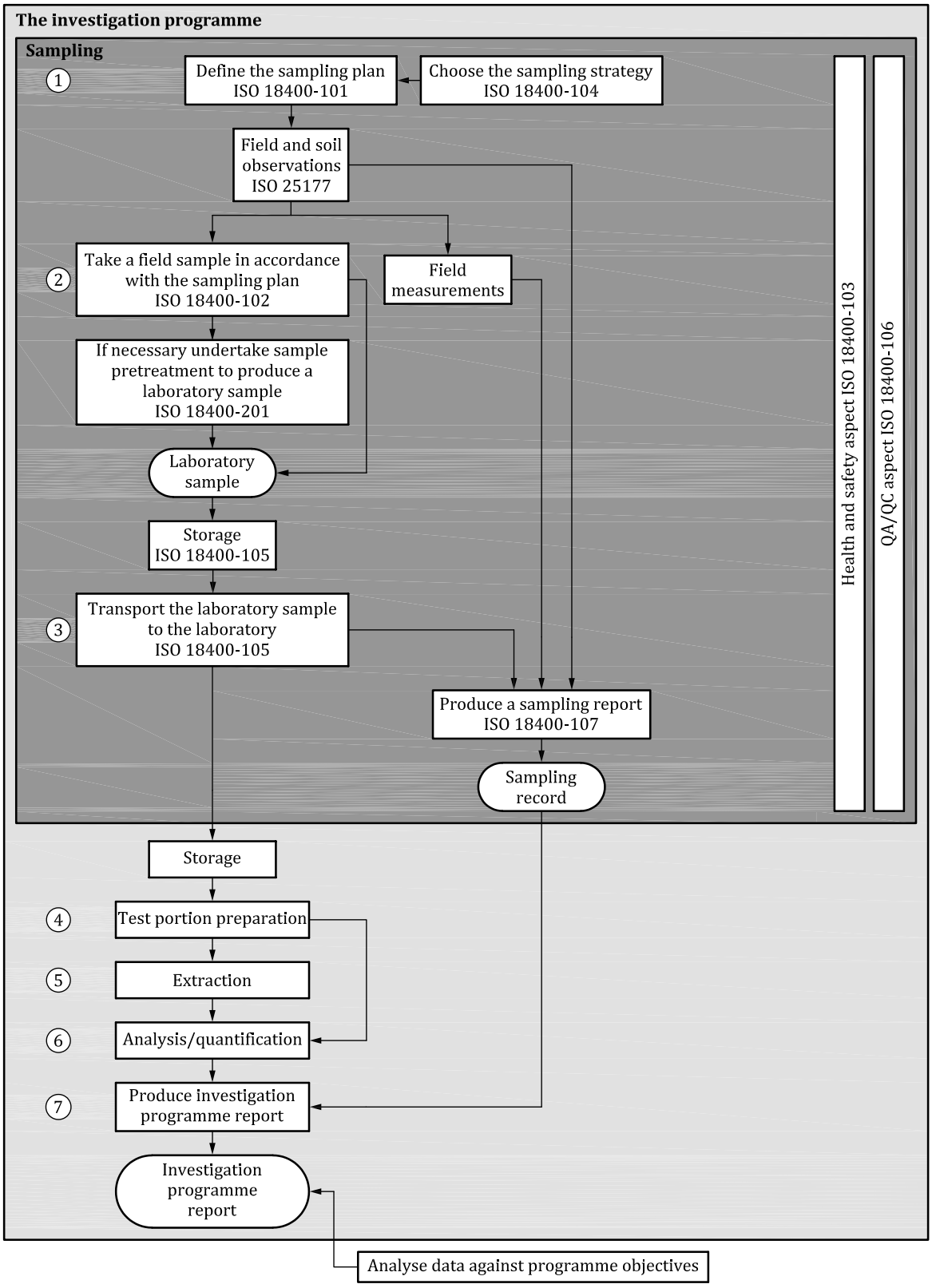

NOTE 1 Numbers in circles define the key elements (1 to 7) of the investigation programme.

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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