Irish Standard
I.S. EN ISO 22475-1:2021

Geotechnical investigation and testing - Sampling methods and groundwater measurements - Part 1: Technical principles for the sampling of soil, rock and groundwater (ISO 22475-1:2021)

I.S. EN ISO 22475-1:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 22475-1:2021 is the adopted Irish version of the European Document EN ISO 22475-1:2021, Geotechnical investigation and testing - Sampling methods and groundwater measurements - Part 1: Technical principles for the sampling of soil, rock and groundwater (ISO 22475-1:2021)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 22475-1

October 2021

ICS 93.020

Supersedes EN ISO 22475-1:2006

English Version

Geotechnical investigation and testing - Sampling methods and groundwater measurements - Part 1: Technical principles for the sampling of soil, rock and groundwater (ISO 22475-1:2021)

Reconnaissance et essais géotechniques - Méthodes de prélèvement et mesurages piézométriques - Partie 1: Principes techniques pour le prélèvement des sols, des roches et des eaux souterraines (ISO 22475-1:2021)

Geotechnische Erkundung und Untersuchung - Probenentnahmeverfahren für Boden, Fels und Grundwasser - Teil 1: Technische Grundlagen (ISO 22475-1:2021)

This European Standard was approved by CEN on 19 September 2021.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

European foreword

This document (EN ISO 22475-1:2021) has been prepared by Technical Committee ISO/TC 182 "Geotechnics" in collaboration with Technical Committee CEN/TC 341 “Geotechnical Investigation and Testing” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 22475-1:2006.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 22475-1:2021 has been approved by CEN as EN ISO 22475-1:2021 without any modification.

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I.S. EN ISO 22475-1:2021

INTERNATIONAL STANDARD

ISO 22475-1

Second edition
2021-10

Geotechnical investigation and testing — Sampling methods and groundwater measurements —

Part 1: Technical principles for the sampling of soil, rock and groundwater

Reconnaissance et essais géotechniques — Méthodes de prélèvement et mesurages piézométriques —

Partie 1: Principes techniques pour le prélèvement des sols, des roches et des eaux souterraines

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Contents

Page

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 182, *Geotechnics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, *Geotechnical Investigation and Testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 22475-1:2006), which has been technically revised.

The main changes compared to the previous edition are as follows:

— clauses on groundwater measurement will be part of ISO 18674-4;

— new sampling categories for soils have been added;

— editorial updates have been made.

A list of all parts in the ISO 22475 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.

INTERNATIONAL STANDARD ISO 22475-1:2021(E)

Geotechnical investigation and testing — Sampling methods and groundwater measurements —

Part 1: Technical principles for the sampling of soil, rock and groundwater

1 Scope

This document deals with principles of sampling of soil, rock and groundwater as part of the programme of geotechnical investigation and testing.

NOTE 1 This document fulfils the requirements for sampling of soil, rock and groundwater, and groundwater measurements as part of the programme of geotechnical investigation and testing according to EN 1997-1 and EN 1997-2.

The aims of such ground investigations are:

a) to recover soil, rock and water samples of a quality appropriate to assess the general suitability of a site for geotechnical engineering purposes and to determine the required ground characteristics in the laboratory;

b) to obtain information on the sequence, thickness and orientation of strata and discontinuities;

c) to establish the type, composition and condition of strata;

d) to obtain information on groundwater conditions and recover water samples for assessment of the interaction of groundwater, soil, rock and construction material.

Soil sampling for the purposes of agricultural and environmental soil investigation is not covered.

NOTE 2 Guidance on soil sampling for these purposes including of contaminated or potentially contaminated sites is provided in the ISO 18400 series. ISO 18400-204 provides in addition guidance on sampling and measurement of soil (ground) gas.

NOTE 3 The sampling methods, presented in this document may not be suitable for all types of soil e.g. peat with strong fibrous structure.

NOTE 4 Some of the sampling methods presented in this document are suitable for both soil and rock.

Water sampling for the purposes of quality control, quality characterisation and identification of sources of pollution of water, including bottom deposits and sludges, is not covered.

NOTE 5 Water sampling for these purposes can be found in the ISO 5667 series.

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 14688-1, *Geotechnical investigation and testing — Identification and classification of soil — Part 1: Identification and description*

ISO 14689, *Geotechnical investigation and testing — Identification, description and classification of rock*