SLOVENSKI STANDARD
oSIST prEN ISO 22282-1:2008

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Geotehnično preiskovanje in preskušanje - Hidrogeološke preiskave - 1. del: Splošna pravila (ISO/DIS 22282-1:2008)

Geotechnical investigation and testing - Geohydraulic testing - Part 1: General rules (ISO/DIS 22282-1:2008)

Reconnaissance et essais géotechniques - Essais géohydrauliques - Partie 1: Règles générales (ISO/DIS 22282-1:2008)

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Geotechnical investigation and testing - Geohydraulic testing - Part 1: General rules (ISO/DIS 22282-1:2008)

Reconnaissance et essais géotechniques - Essais géohydrauliques - Partie 1: Règles générales (ISO/DIS 22282-1:2008)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 341.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Foreword

This document (prEN ISO 22282-1:2008) has been prepared by Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing", the secretariat of which is held by ELOT, in collaboration with Technical Committee ISO/TC 182 "Geotechnics".

This document is currently submitted to the parallel Enquiry.

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Part 1: General rules

Reconnaissance et essais géotechniques — Essais géohydrauliques —

Partie 1: Règles générales

ICS 93.020

ISO/CEN PARALLEL ENQUIRY

This draft International Standard is a draft standard developed within the European Committee for Standardization (CEN) and processed under the CEN-lead mode of collaboration as defined in the Vienna Agreement. The document has been transmitted by CEN to ISO for circulation for ISO member body voting in parallel with CEN enquiry. Comments received from ISO member bodies, including those from non-CEN members, will be considered by the appropriate CEN technical body. Should this DIS be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month FDIS vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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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.

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ISO 22282-1 was prepared by Technical Committee ISO/TC 182, *Geotechnics*, Subcommittee SC 1, and by Technical Committee CEN/TC 341, *Geotechnical investigation and testing* in collaboration.

ISO 22282 consists of the following parts, under the general title *Geotechnical investigation and testing — Geohydraulic testing*:

- *Part 1: General rules*
- *Part 2: Water permeability tests in a borehole using an open system*
- *Part 3: Water pressure test in rocks*
- *Part 4: Pumping tests*
- *Part 5: Infiltrometer tests*
- *Part 6: Water permeability tests in a borehole using a closed system*

Introduction

The EU water directive requires the member states to increase the activities to protect groundwater and fresh surface water both quantitatively and qualitatively. At the same time society requires more water and more and deeper constructions below groundwater level. In addition sea level may rise as the result of climate change. This contradiction requires engineers working on construction projects below groundwater level to make more reliable predictions of the effects of such structures on the groundwater conditions. This can partly be achieved by better assessment of the permeability of the ground by in-situ tests as required in EN 1997-1 Clause 3.3.9.1. According to prEN 1997-2 the following shall apply:

"***2.1.4 Groundwater*** –

(*1) Groundwater investigations shall provide all relevant information on groundwater needed for geotechnical design and construction.*

(2) Groundwater investigations should provide, when appropriate, information on:

- *the depth, thickness, extent and permeability of water-bearing strata in the ground, and joint systems in rock;*
- *the chemical composition and temperature of groundwater.*

(3) The information obtained should be sufficient to assess the following aspects, where relevant:

- *the scope for and nature of groundwater lowering work;*
- *possible harmful effects of the groundwater on excavations or on slopes (e.g. risk of hydraulic failure, excessive seepage pressure or erosion);*
- *any measures necessary to protect the structure (e.g. water proofing, drainage and measures against aggressive water);*
- *effects of groundwater lowering, desiccation, impounding, etc. on the surroundings;*
- *the capacity of the ground to absorb water injected during construction work;*
- *whether it is possible to use local groundwater, given its chemical constitution, for construction purposes.*