
Nordic Field Committee Meeting

Copenhagen - 31st May – 1st June 2018

Minutes of meeting

Participants:

Sweden

Mats Svensson

Norway

Magne Bonsaksen

Per Arne Vangen

Finland

Jani Lepistö

Markus Melander

Denmark (Host)

Susanne Granhøj (chairman)

Allan Meier

Anders Løth Rasmussen

Anne Nørremark

Martin Juul Andresen

Tobias Vanggaard (minute taker)

1. Status from the committees

Sweden

By Mats Svensson

In Sweden it is possible to drill without a drilling certificate, unless the client is a public client such as "Vägverket".

The number of cross county 8-wheel drilling rigs have been increased as a replacement to traditional belted vehicles.

Sweden has been (and are currently) producing videos about fieldworks with drillingrigs, the videos has been uploaded on YouTube by the profile "SGF: s Informationskanal". Homepage:

<http://sgf.net/web/page.aspx?refid=4721>

Denmark

By Susanne Granhøj

Two guidance notes have been published.

- Guidance 8: "Compaction of materials below and around buildings".
- Guidance 9: "Planning, execution and termination of boreholes".

Currently Denmark is working on commenting on the Eurocode 7.

DGF after-work meetings have been held in October 2017 and May 2018. The main subject for the after-work meetings were Climate adaption (Drainage, tunnels) and high plasticity clay.

Norway

By Magne Bonsaksen

Every year 4 meetings are held; the meetings are held as day meetings.

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In the past years, there has been made revision of the following NGF-guidelines

- Guidance 4:” Udførelse af vingeforsøg”
- Guidance 9:” Udførelse af totalsondering”
- Guidance 10:” Beskrivelsestekster for grunnundersøkelser”
- Guidance 12:” Detektering av kvikkleire”

The following courses has been held

- NGF-course:” Praktisk grunnboring”
- Grunnborerskolen
- Both courses will be required to get a drillingcertificate.
- NGF planlægger kurserne og underviser til den norske ”brøndboreruddannelse”.

In Norway, offers is made based on a standardized list of offers prepared by NGF.

Homepage for guidances: http://ngf.no/?page_id=67

Homepage for video about quickclay: <https://www.youtube.com/watch?v=3q-qfNIEP4A>

Finland

By Jani Lepistö

Every year 4 meetings are held; the meetings are held as day meetings.

Digital situation in general, in Finland they are working towards that no paper are used at fieldworks.

Digital situation in Field, 5% of the drilling rigs is equipped with either bluetooth, GPRS or GPS.

Around 170 people have a drilling certificate.

2. Site Visits

Guided tour at Geo’s laboratory facilities

A walk around the laboratory facilities including temperature controlled storage of core-samples, handling and description facilities for core and bag samples, advanced laboratory facilities including various type of triaxial cells for static /dynamic tests on soil and rock - including temperature controlled test cells.

Site visit at Nordmeyer DSB 1/8 drilling rig

Site visit at Geo’s latest Nordmeyer drilling rig, which has facilities such as measure while drilling – f.ex. drilling pressure, number of hours drilled, etc.

The rig can carry out 8” – 12” boreholes using traditional shell and auger, DTH, symmetrix and coring using Geobor S.

The safety measures are in focus at the rig using personal dongles which allow only the assigned driller to sign in at the rig computer and only allow drilling when drilling assistants are placed at a safe distance from the rotation parts of the drilling rig.

Copenhagen residents, Elværksvej, 2300 København SV.

A construction project with basement, retaining walls, groundwater lowering, land filling and water channels.

Savannen, Copenhagen Zoo, 2000 Frederiksberg.

A project with local sieve of rainwater to the ground.

3. Presentations

Geophysics with geoelectric methods

By Søren Bjørn

Presentation of the different geophysical methods, which are used in Denmark.

Geoatlas and Geotizer

By Elina Kamla and Mikkel Wendelboe Toft

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Presentation of the programmes Geotizer og Geoatlas.

Presentation Finland – “The typical cycle of field data”

By Markus Melander

Drilling resistance is measured and automatically logged in the machine while drilling.

Public projects are saved in the public databases while private clients data is saved on the geotechnical company's database.

Drawings are made in GeoGis as standard in Finland.

In Finland there's a maximum distance between boreholes of 30 meters.

Ground penetrating radar can be used to determine the layer boundary of soft soil and bedrock. The method is not common used due to high variation in quality of the results.

Presentation Denmark – “Roskilde fjord connection, challenges at shallow water”

By Martin Juul Andresen, Denmark

Project for the Danish “Vejdirektoratet” with 18 foundations mixed of abutments, and piles in various situations. The geotechnical investigations were carried out with boreholes and CPT.

Challenges: Soft organic soil (up to 10 meters of layer thickness), topography of seabed and tides.

Solution for carrying out the geotechnical investigations shallow water: Access road to the drilling on (bigbags filled with woodchips) and steelplates.

Presentation Denmark – OATV in Copenhagen Limestone

By Susanne Granhøj, Denmark

OPTV (optical televiewer) is carrying out 360 degree photos of an open borehole without casing. The aim with OPTV is to identify fractures and their orientation, the core orientation, stratigraphic studies and local stress study breakout.

ATW (acoustic televiewer) uses a probe with fixed acoustic transducer and a rotating acoustic mirror to scan with a ultrasound beam. The amplitude a traveltime are recorded in separate files. The method can show diameter change including fractures.

With OATV you get a 360-degree photo of borehole perimeter with contentions recording of the formation. There is used spacers to keep the OATV central in the borehole.

Presentation Norway – Per Arne Vangen and Magne Bonsaksen

See section 1 – status from Norway.

4. Next Meeting

It was agreed that Magne Bonsaksen should contact Iceland to held the next meeting as a joint Norway/Iceland meeting at Iceland in 2019.

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