

SUBSURFACE EXPERTISE



Drilling rigs - safety challenge Digitalization – handling of samples



Nordic field committee meeting 2019



Drilling rigs - safety challenge

- Equipment
- Clothing
- Planning



Drilling rigs - equipment

- 2 wires
- Additional local crane/wire
- Catching tools (hooks for lost drilling tools in borehole)
- Fencing (close to roads, public areas)





Drilling rigs - clothing

- No shorts always trousers
- Safety class 3 instead of 2, i.e.
 both fluorescent top and bottom
- Lightweight safety helmet



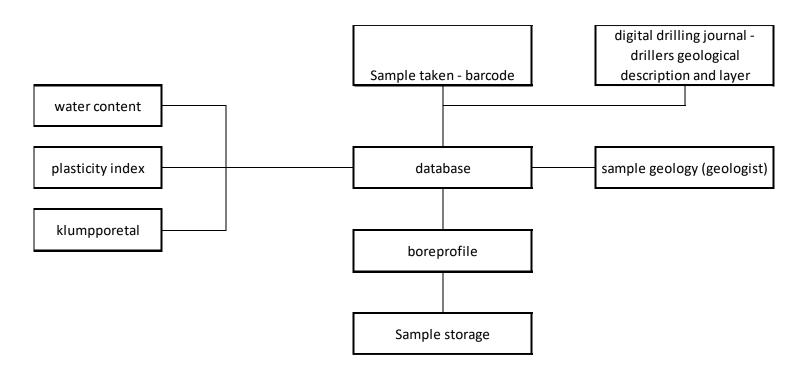


Drilling rigs - planning

- Using LER information on existing underground utilities
- Is there an environmental hazard using information on existing defined areas with possible pollution (arealinfo.dk, class V1 (there may be something) and V2 (there is something and it is identified as)
- Will the work be made easier using fencing?
- 2 drillers on the larger drilling rigs or if the work require it



Digitalization – handling of samples



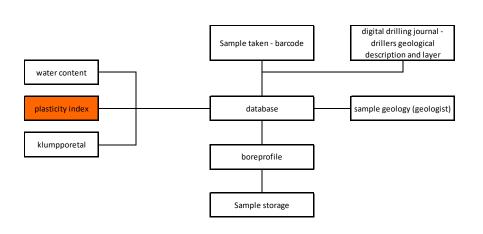


Digitalization – sample barcode





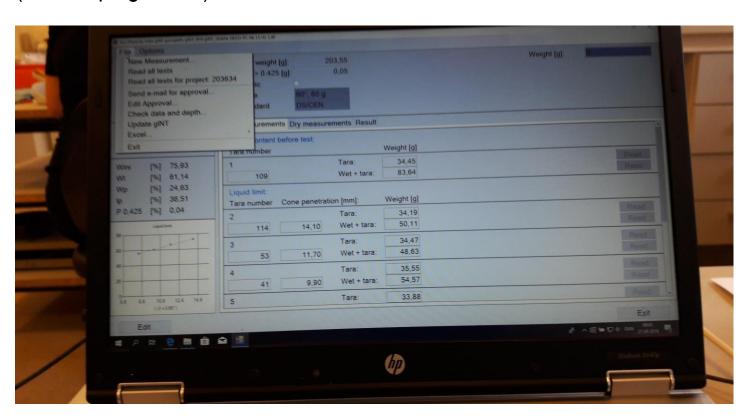
- Sample info from database
- Scale connected to computer weight directly transferred (inhouse programme)
- Less keying in data time saving
- Less chance of error





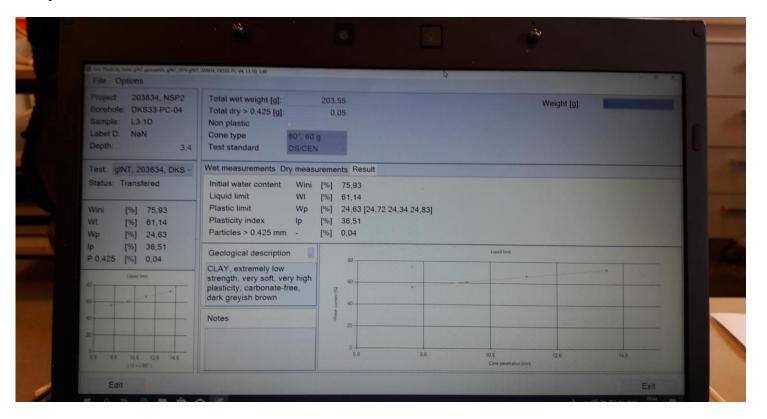


• Drop down menu (inhouse programme)





Result shown directly

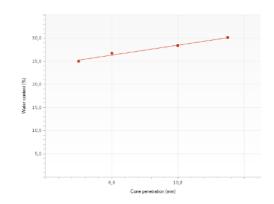




- Approval/comments directly
- Corrections if necessary
- Upload in database and on borehole profile

Plasticity: Test result, approval.

Identification		Geological description					
Project number:							
Borehole:	R30_DO-VC-05	Sample not found in Geogis	l				
Sample number:	L1.1D	CLAY TILL, low strength, soft-firm, low-medium plasticity, sandy, sl., gravelly, calcareous, dark gre	I				
Depth:	3,85	CLAT TILL, Tow strength, soft-firm, low-medium plasticity, sandy, st. gravelly, calcareous, dark gre					



Results

Non plastic						
Initial water content	Windal	[%]	19.01			
Liquid limit	WL	[%]	27.64			
Plastic limit	Wp	[%]	11.48			
Plasticity index	b	[%]	16.2			

Regression

A_intercept	b_slope	r ²
16.89	1.07	0.99

Please approve result by checking "Test approved", or writing reason for disapproval in textbox

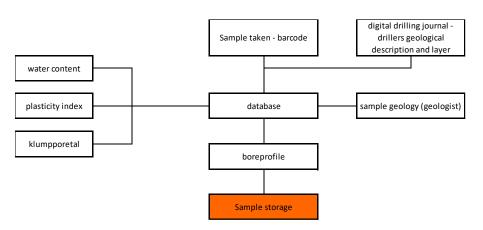
There press send.							
Test approved							
Comments if not approved							
Send							



Digitalization – sample storage and disposal

GEO	Projektnummer:	203749 - Kastri	up. Kystv€ ▼ Søg
	 Vis prøver 	på lager	O Vis kasserede

<u>Projektnummer</u>	<u>Projektnavn</u>	<u>Beskrivelse</u>	Projektleder	Borehul	Antal prøver	<u>Kasser</u>	<u>Placering</u>	Udløbsdato	<u>Status</u>	Prøver	Projektets forsøg
203830	Vallerød Banevej	Geoteknisk vingeforsøg	LCH	B1	3	12G3	12G3	19-10-2019 00:00:00	Planned	Se liste over prøver	Se tabel over forsøg
203820	København. Ryparken station	Pumpeforsøg	RCM	LYN1U5	14	11A5,11A6	11A5,11A6	27-10-2019 00:00:00	Planned	Se liste over prøver	Se tabel over forsøg
203820	København. Ryparken station	Pumpeforsøg	RCM	LYN2U5	15	11A7,11A8	11A7,11A8	27-10-2019 00:00:00	Planned	Se liste over prøver	Se tabel over forsøg
203809	Hvidovre. Jernholmen 12	Geoteknisk undersøgelse	SNS	B1	7	11B5	11B5	08-10-2019 00:00:00	Planned	Se liste over prøver	Se tabel over forsøg
203809	Hvidovre. Jernholmen 12	Geoteknisk undersøgelse	SNS	B2	9	11B6	11B6	08-10-2019 00:00:00	Planned	Se liste over prøver	Se tabel over forsøg
203792	Hillerød.Cirkelbuen	Kloakledninger. Supplerende geoteknisk undersøgelse	RSC	1	13	15E4	15E4	30-09-2019 00:00:00	Planned	Se liste	Se tabel over forsøg





Digitalization – sample storage and disposal

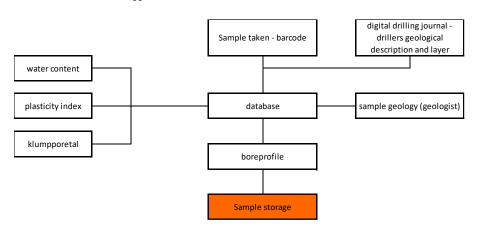
Geo

Projektnummer: 203749 - Kastrup. Kystve ▼ Søg

• Vis prøver på lager ○ Vis kasserede

Projektnummer	<u>Projektnavn</u>	<u>Beskrivelse</u>	Projektleder	<u>Borehul</u>	<u>Antal</u> prøver	<u>Kasser</u>	Placering	<u>Udløbsdato</u>	Status	Prøver	Projektets forsøg
203749	Kastrup.	Geoteknisk undersøgelse for	SGR	Boring1	15	11H1	11H1	25-09-2019	Planned	Se liste over	Se tabel over
203749	Kystvejen 38	halbyggeri uden kælder	SUK	Богшет	15	11111	11H1	00:00:00	Flaimed	<u>prøver</u>	forsøg
203749	Kastrup.	Geoteknisk undersøgelse for	SGR	Boring2	21	11H2,11H3	11H2,11H3	25-09-2019	Planned	Se liste over	Se tabel over
203749	Kystvejen 38	halbyggeri uden kælder	SUK	Boringz	21	11112,11113	11112,11113	00:00:00	1 lainted	<u>prøver</u>	<u>forsøg</u>
203749	Kastrup.	Geoteknisk undersøgelse for	SGR	Boring3	21	11H4,11H5	11H4,11H5	25-09-2019	Planned	Se liste over	Se tabel over
203749	Kystvejen 38	halbyggeri uden kælder	SUK	Богиідэ	21	11114,11113	11114,11113	00:00:00	1 fainted	<u>prøver</u>	<u>forsøg</u>
203749	Kastrup.	Geoteknisk undersøgelse for	SGR	Boring4	21	11116 11117	11H6,11H7	25-09-2019	Planned	Se liste over	Se tabel over
203749	Kystvejen 38	halbyggeri uden kælder	SGK	Boring4	21	11H6,11H7	11110,1111/	00:00:00	Planned	prøver	forsøg
203749	Kastrup.	Geoteknisk undersøgelse for	SGR	Daning5	21	11110 11110	11H8,11H9	25-09-2019	Planned	Se liste over	Se tabel over
203743	Kystvejen 38	halbyggeri uden kælder	SUK	Boring5	21	11H8,11H9	11110,11119	00:00:00	Fiaillied	prøver	forsøg

© 2019 - Geo ASP.NET Application





Digitalization – sample storage and disposal



	Projektets forsøg Projektnummer		Projektnavn	Projektbeskrivelse	Projektleder	Borehul	Location
- [Vis	203749	Kastrup. Kystvejen 38	Geoteknisk undersøgelse for halbyggeri uden kælder	SGR	Boring1	11H1

Sample

Navn på prøve	Dybde top	Dybde bund	Prøvetype	Status på prøve	Udløbsdato	Kote I	low	Kasse	<u>Barcode</u>
1		0,2	Pose	Registrated	25-09-2019			11H1	Geo02037490000232
2		0,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000233
3		1	Pose	Registrated	25-09-2019			11H1	Geo02037490000234
4		1,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000235
5		2	Pose	Registrated	25-09-2019			11H1	Geo02037490000236
6		2,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000237
7		3	Pose	Registrated	25-09-2019			11H1	Geo02037490000238
8		3,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000239
9		4	Pose	Registrated	25-09-2019			11H1	Geo02037490000240
10		4,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000241
11		5	Pose	Registrated	25-09-2019			11H1	Geo02037490000242
12		5,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000243
13		6	Pose	Registrated	25-09-2019			11H1	Geo02037490000244
14		6,5	Pose	Registrated	25-09-2019			11H1	Geo02037490000245
15		7	Pose	Registrated	25-09-2019			11H1	Geo02037490000246

