

# **Bever Team – Office support**

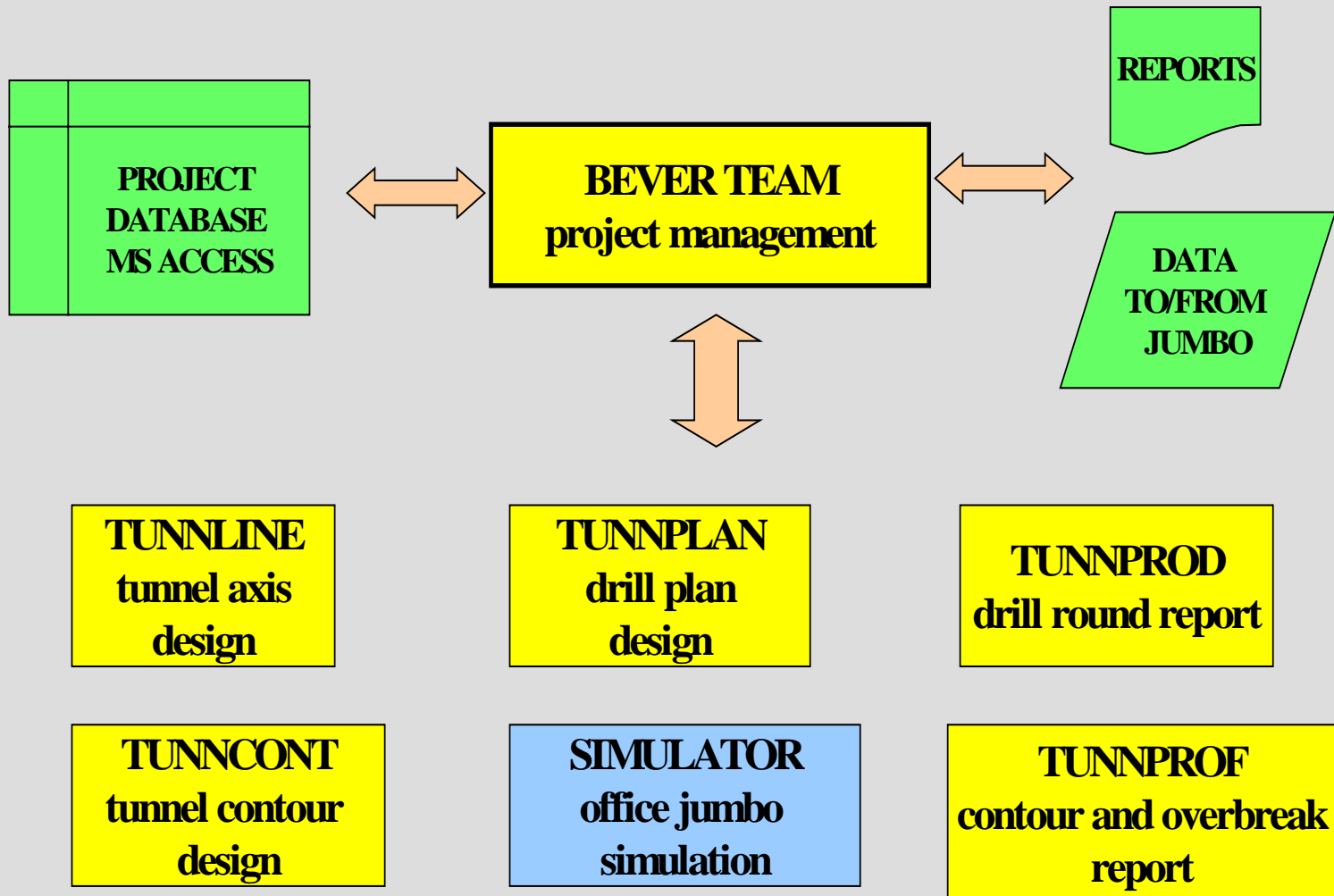
**Efficient drill and blast management**

**Planning and reporting software to  
support drilling jumbo's**

# **Bever Team Software for Planning and Reporting**

- **Planning and reporting in office**
- **Surveyor and drilling engineer software tools**
- **Data transfer to and from jumbo**
- **Project Data Base (Microsoft Access)**

# Bever Team modules



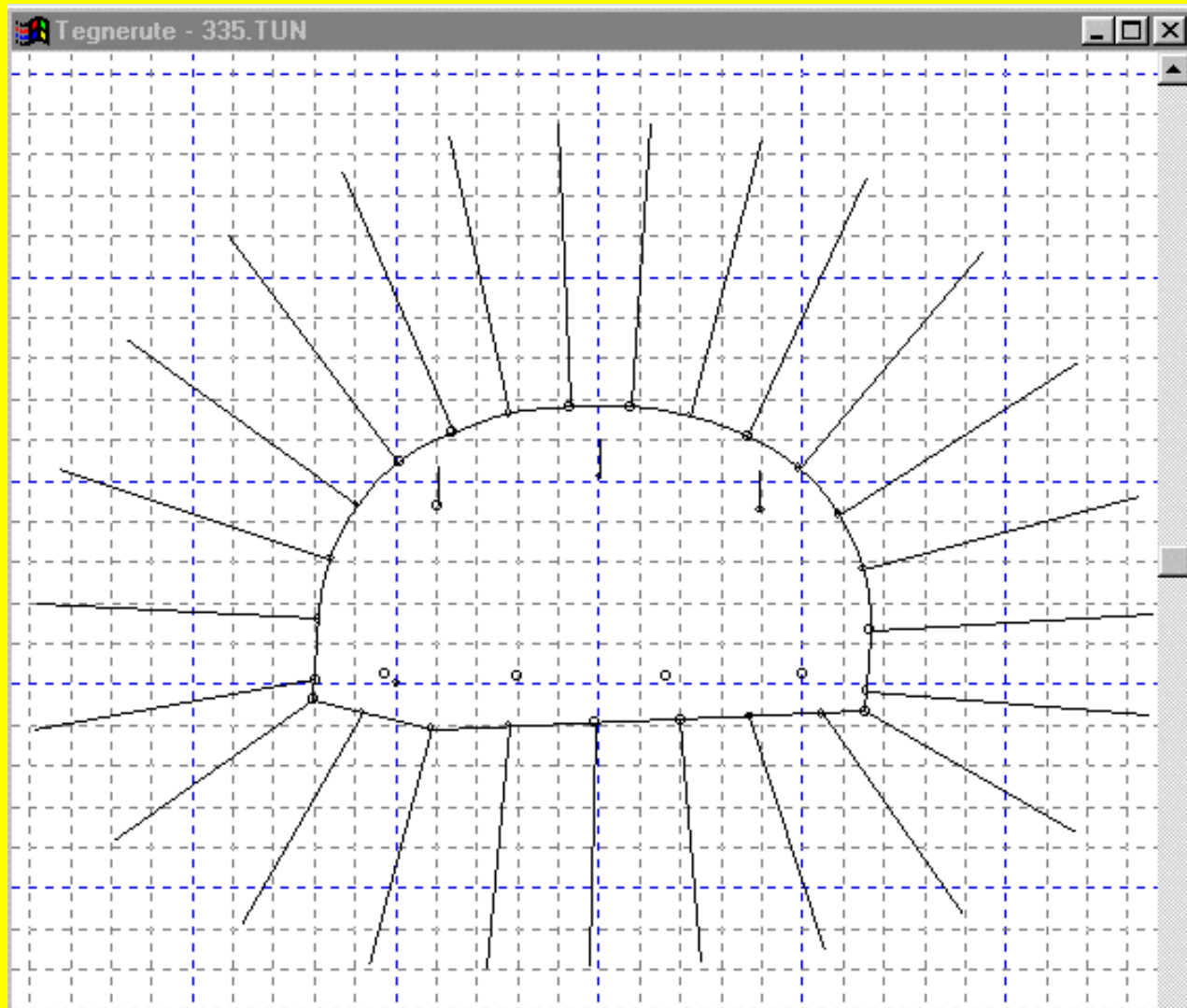
# Use of MWD (injection drilling)

Parameters to be recorded using Bever logging system

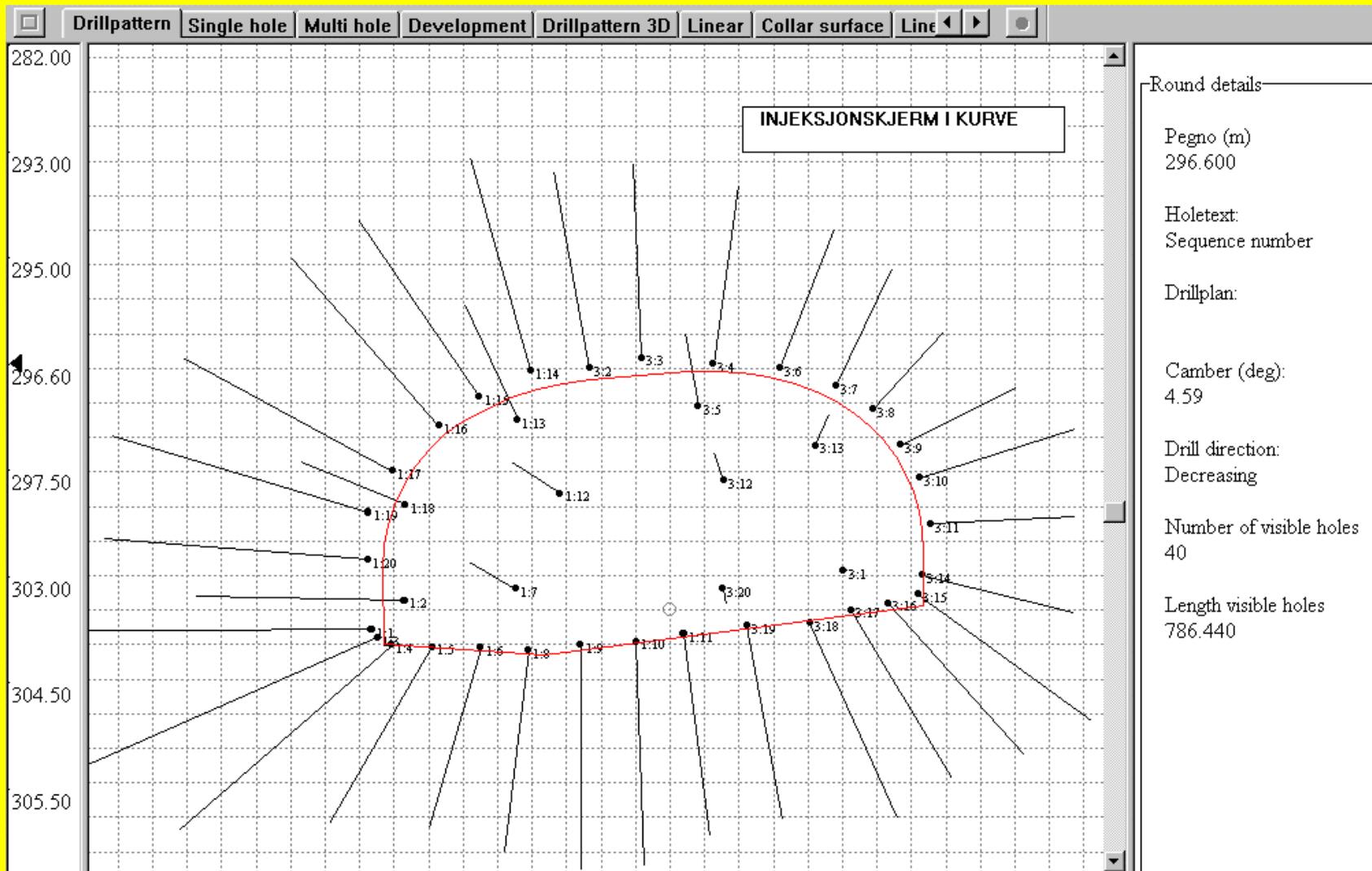
- Position on collaring point, and direction and drilling depth
- penetration rate
- rotation pressure (torque)
- feed pressure
- percussion pressure
- water flushing flow and water pressure

MWD is used under injection screen drilling.

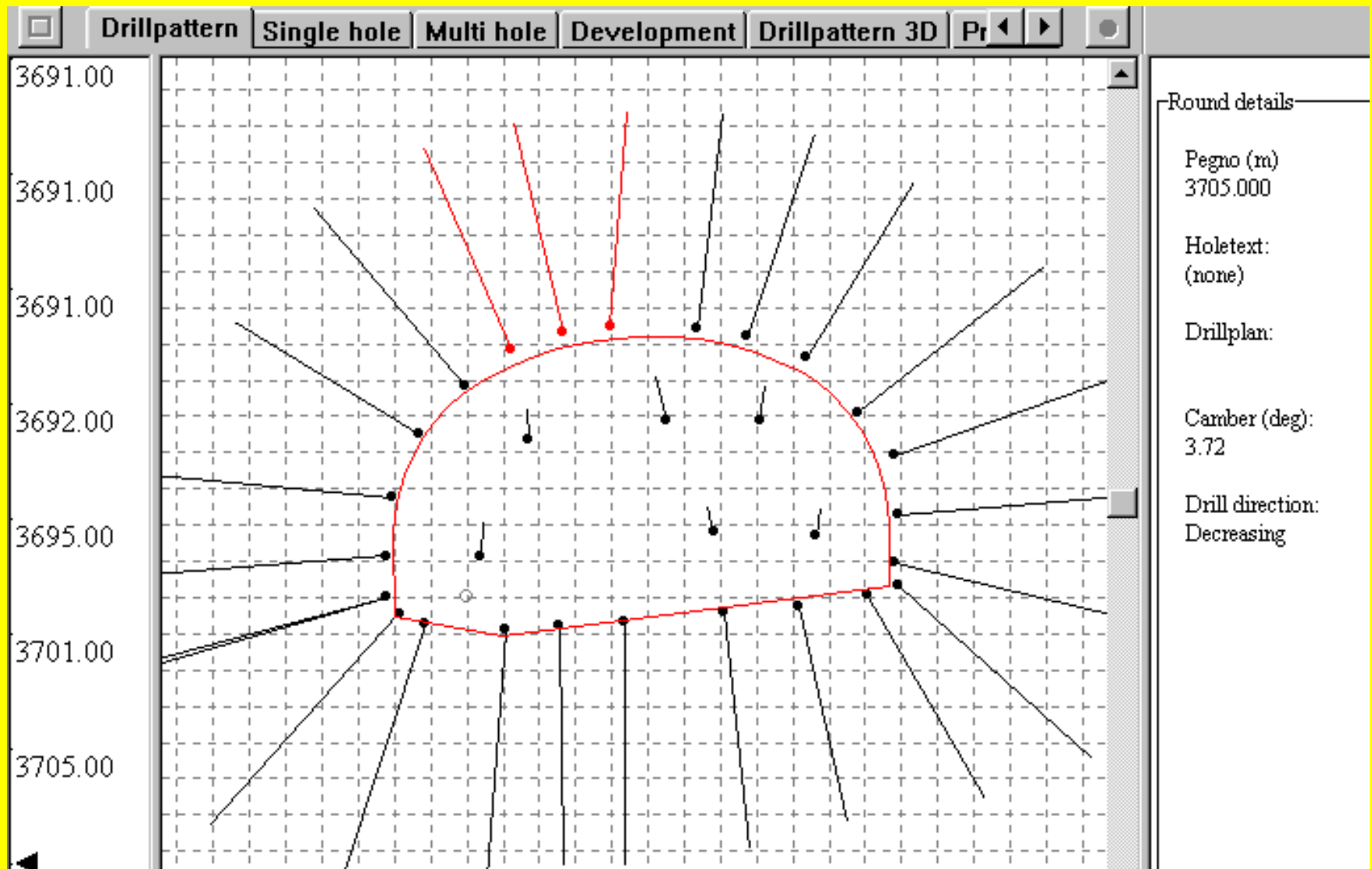
# Drill plan – injection drilling



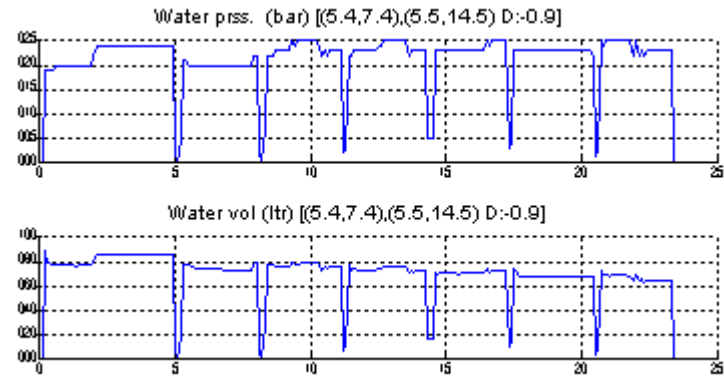
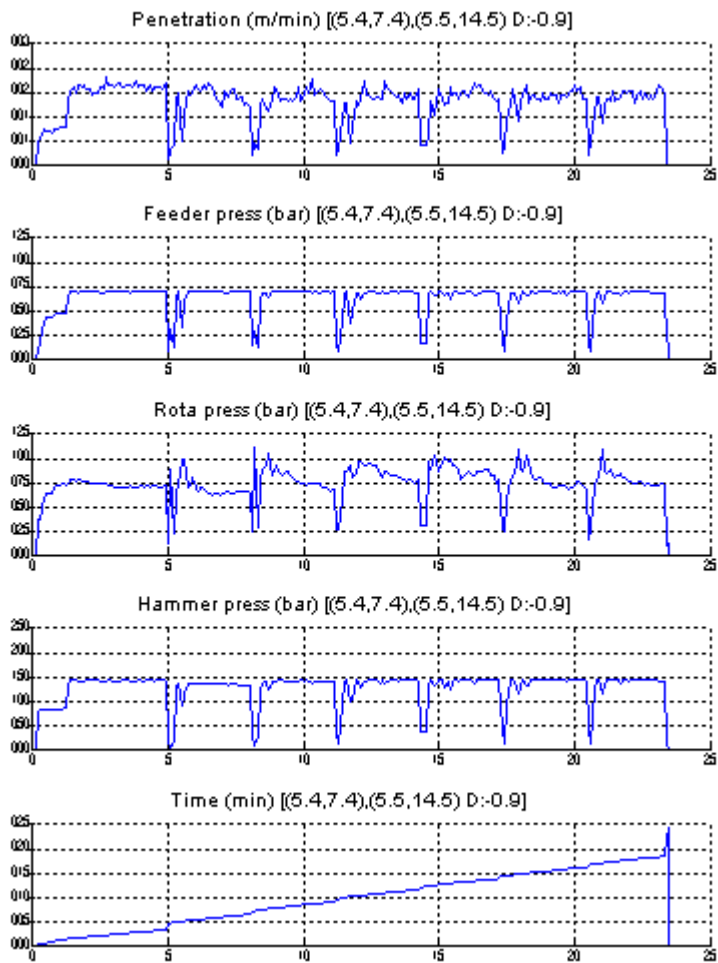
# INJECTION DRILLING -LOG



# Drill log – injection drilling



# EXAMPLE FROM LOG ON INJECTION DRILLING



**penetration  
rate**

**percussion  
pressure**

**feed pressure**

**water pressure**

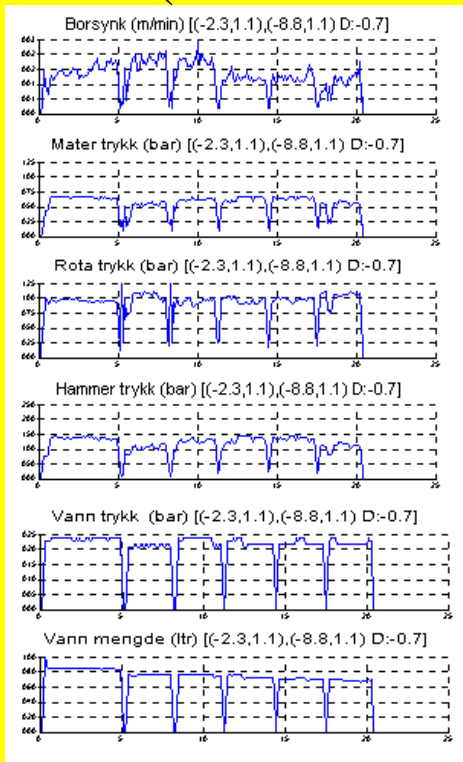
**rotation  
pressure**

**waterflow**

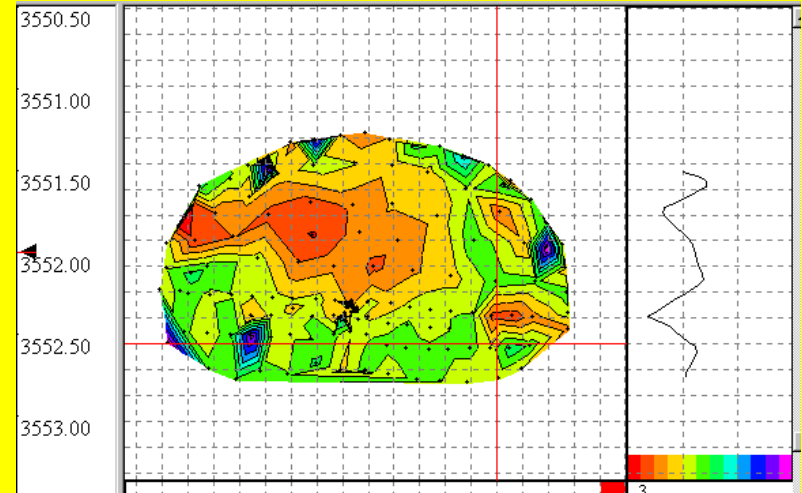
# MWD Baneheia

## B1000 Peg 3540-3560

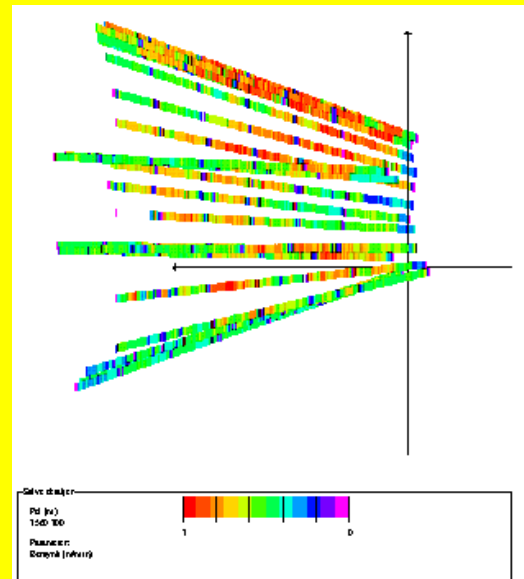
### (Bever Team Prints)



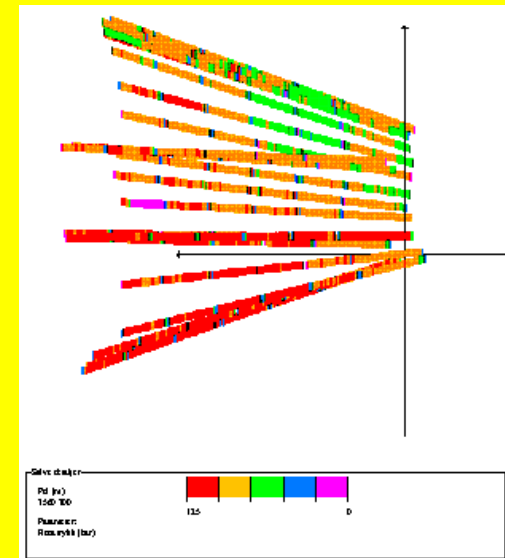
Drilling data injection



Drilling rate round drilling

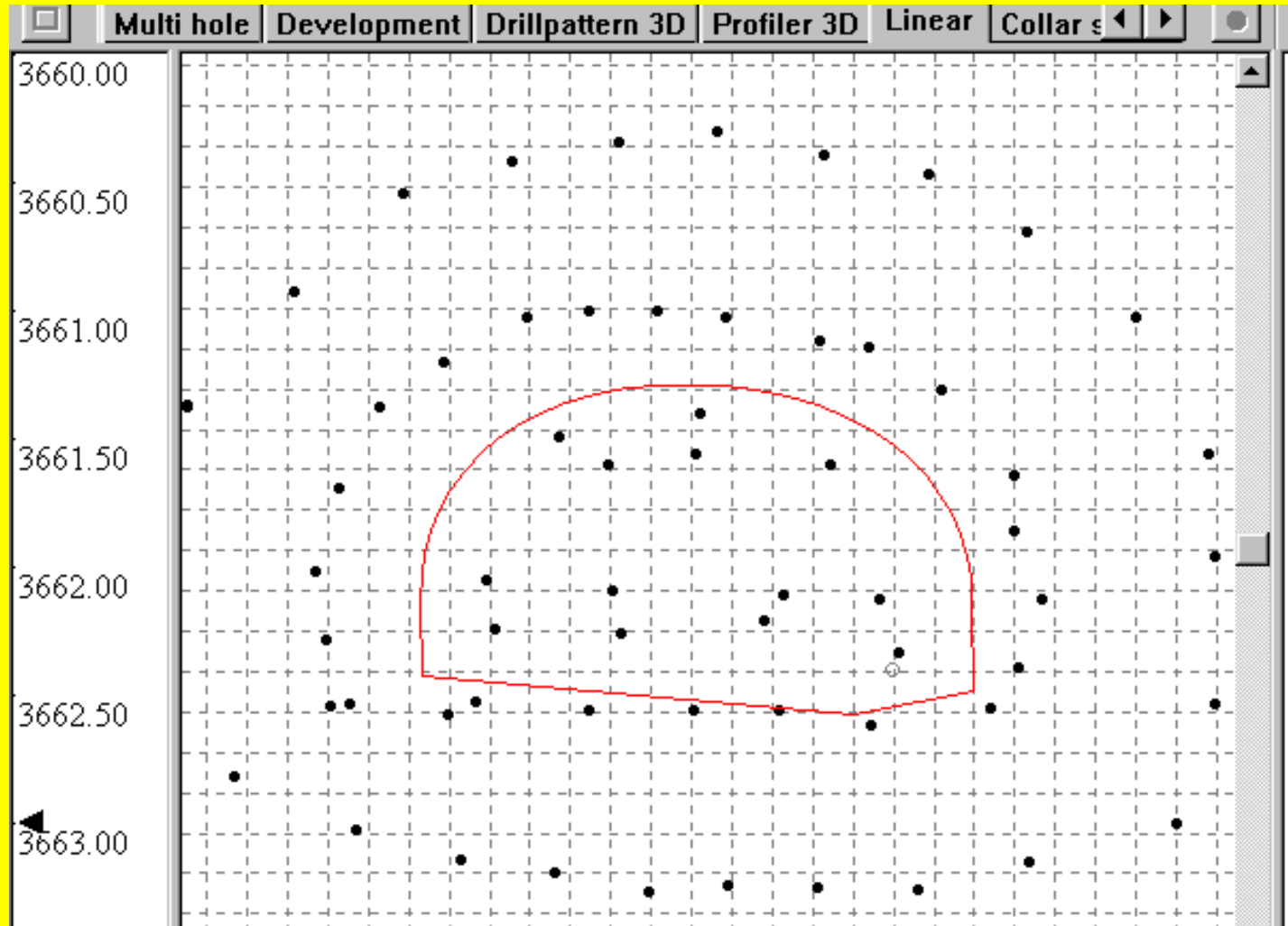


Drilling rate

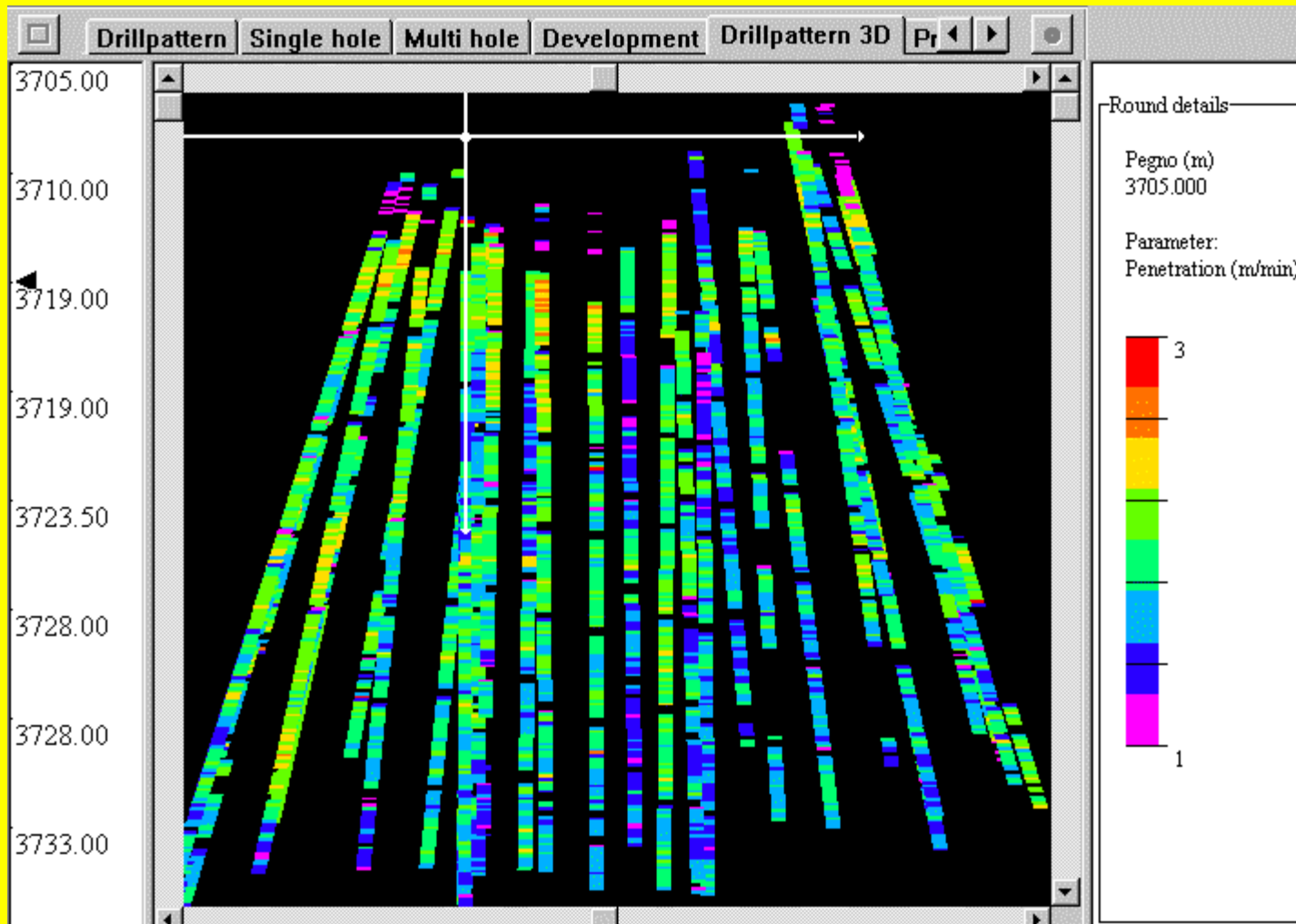


Rotation torque

# Linear cut – injection drilling – see hole distribution also in curves



# Injection drilling – drilling penetration rate – 3D view



# DRILL LOG – STATISTICS FOR A PERIODE OF TIME OR TUNNEL LENGTH

Date: 20000403 20:39		Period report - selected			
From					
To					
At peg	10/3691.00 - 3776.70				
		Total	Boom 1	Boom 2	Boom 3
Started	(t:mm)	-1/-1 -1:-1	-1/-1 -1:-1	-1/-1 -1:-1	-1/-1 -1:-1
Ended	(t:mm)	12/02 02:03	12/02 02:03	04/02 18:37	12/02 01:56
Roundtime	(t:mm)	86:53	85:00	00:18	83:34
Normal drilling	(t:mm)		21:17	00:11	20:16
Slow drilling	(t:mm)		20:46	00:01	21:13
Rod insert	(t:mm)		10:35	00:00	14:13
Other time	(t:mm)		18:14	00:00	16:46
Moving	(t:mm)		14:03	00:05	11:00
Number of holes		229	108	7	114
Length	(m)	5228.22	2599.62	22.20	2606.40
Penetration	(m/min)	1.52	1.50	1.79	1.54
Hammer press.	(bar)		135.05	135.00	135.30
Feeder press.	(bar)		69.03	61.00	68.28
Rota. press.	(bar)		82.57	42.00	77.14
System pressure	(bar)		0.00	0.00	0.00
Supplement. pressure	(bar)		0.00	0.00	0.00

# DRILL LOG – STATISTICS FOR A PERIODE OF TIME OR TUNNEL LENGTH

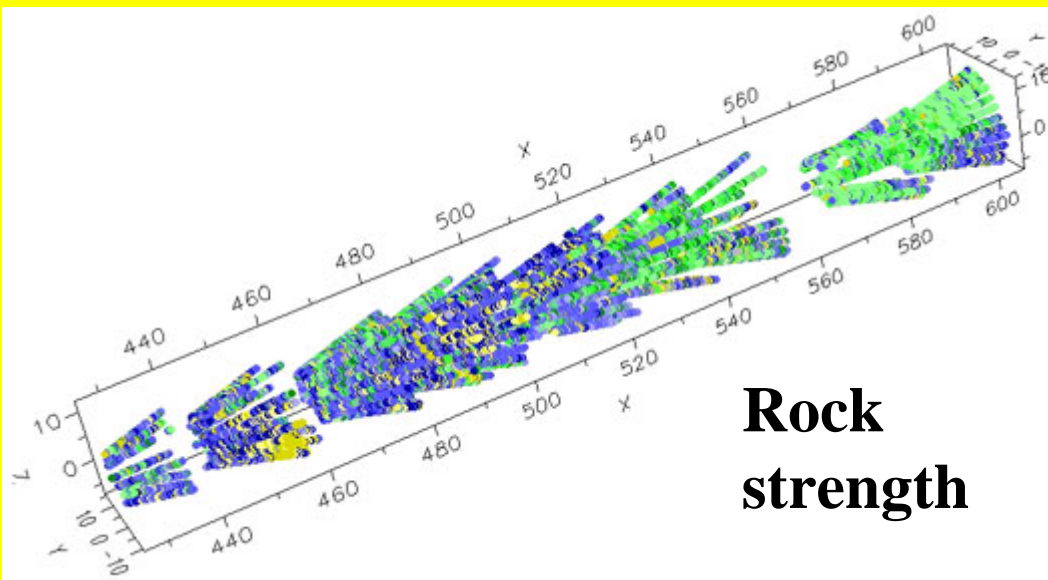
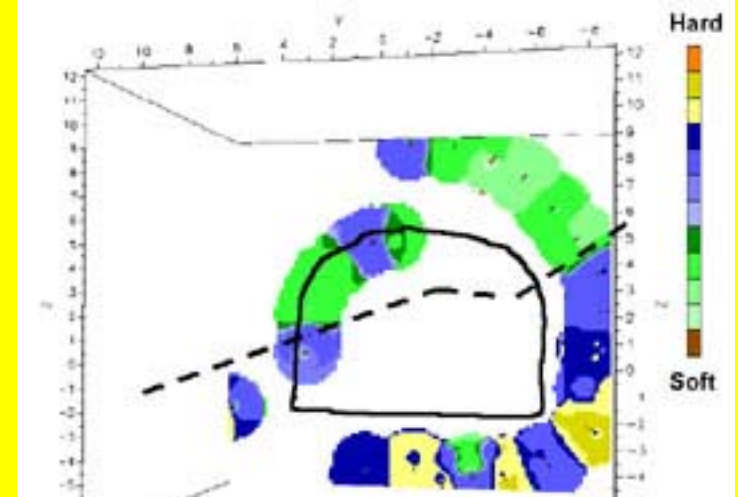
## Period report - selected

Date: 20000403 20:40

Source	Peg	Total Normal drilling	Total Length	Round length
Drill log	10/3691.000	00:00	206.84	20.68
Drill log	10/3691.000	00:00	363.59	21.39
Drill log	10/3692.000	00:00	341.26	24.38
Drill log	10/3705.000	00:00	758.57	24.47
Drill log	10/3705.000	00:00	496.22	24.81
Drill log	10/3719.000	00:00	296.01	22.77
Drill log	10/3719.000	00:00	351.43	16.73
Drill log	10/3733.000	00:00	14.13	14.13
Drill log	10/3733.000	00:00	417.80	23.21
Drill log	10/3733.000	00:00	252.52	22.96
Drill log	10/3733.000	00:00	232.06	23.21
Drill log	10/3747.500	00:00	726.59	24.22
Drill log	10/3761.300	00:00	716.93	23.13
Drill log	10/3776.700	00:00	54.27	27.14
		00:00	5228.22	

# GEOLOGY MAPPING (OSLO)

**Rock strength**  
**Rockma Analysis**  
limestone-blue  
slate-green  
diabase-yellow

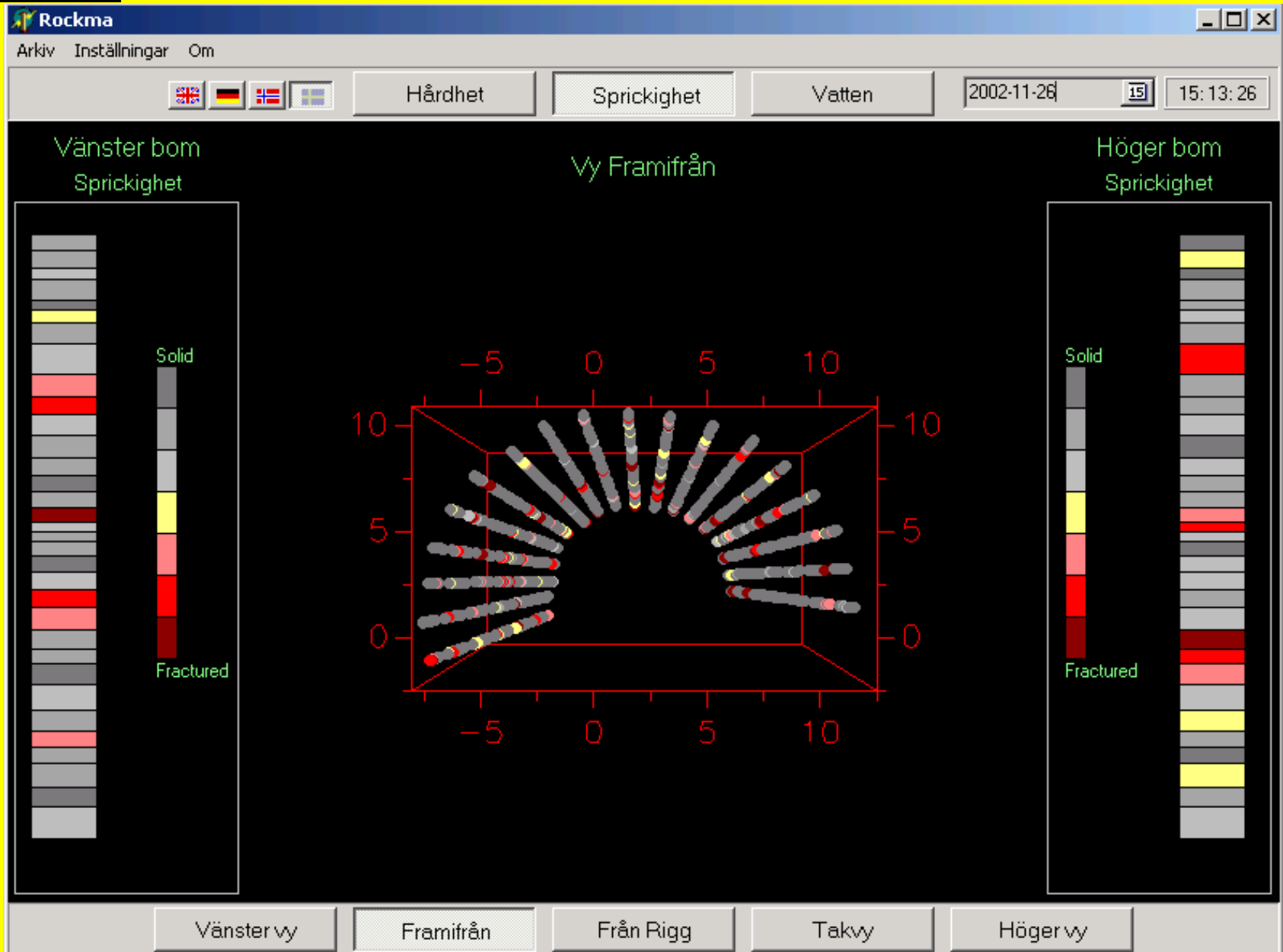


**Rock strength**

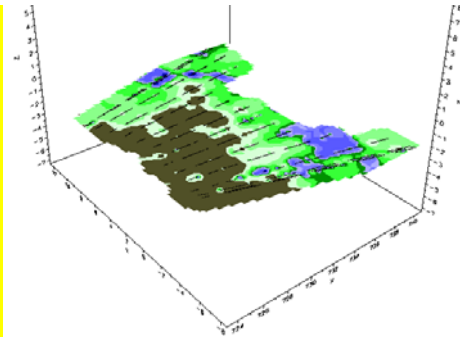
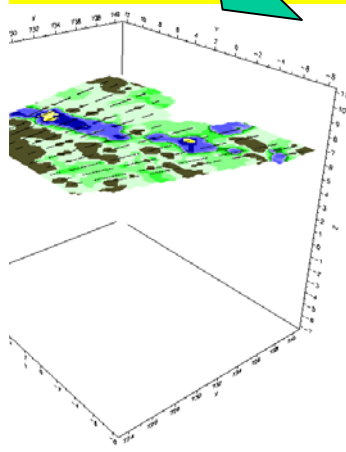
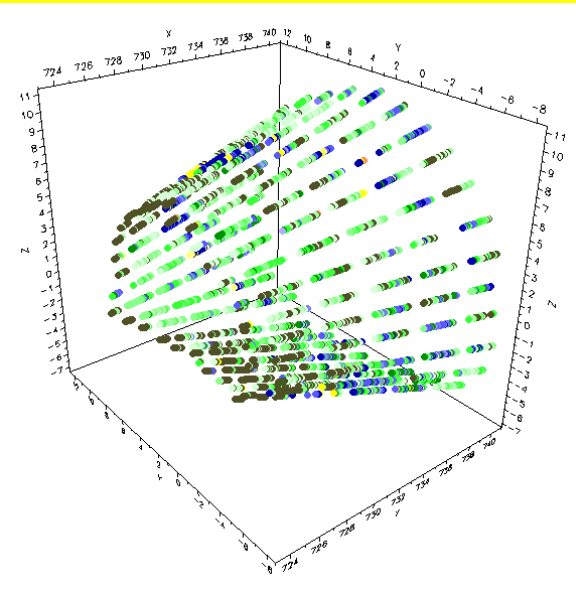
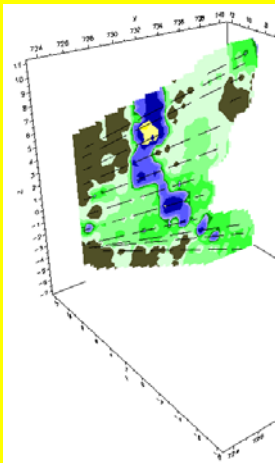
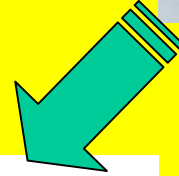
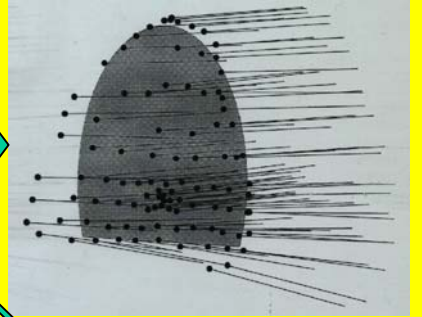
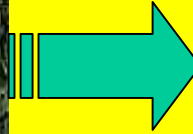


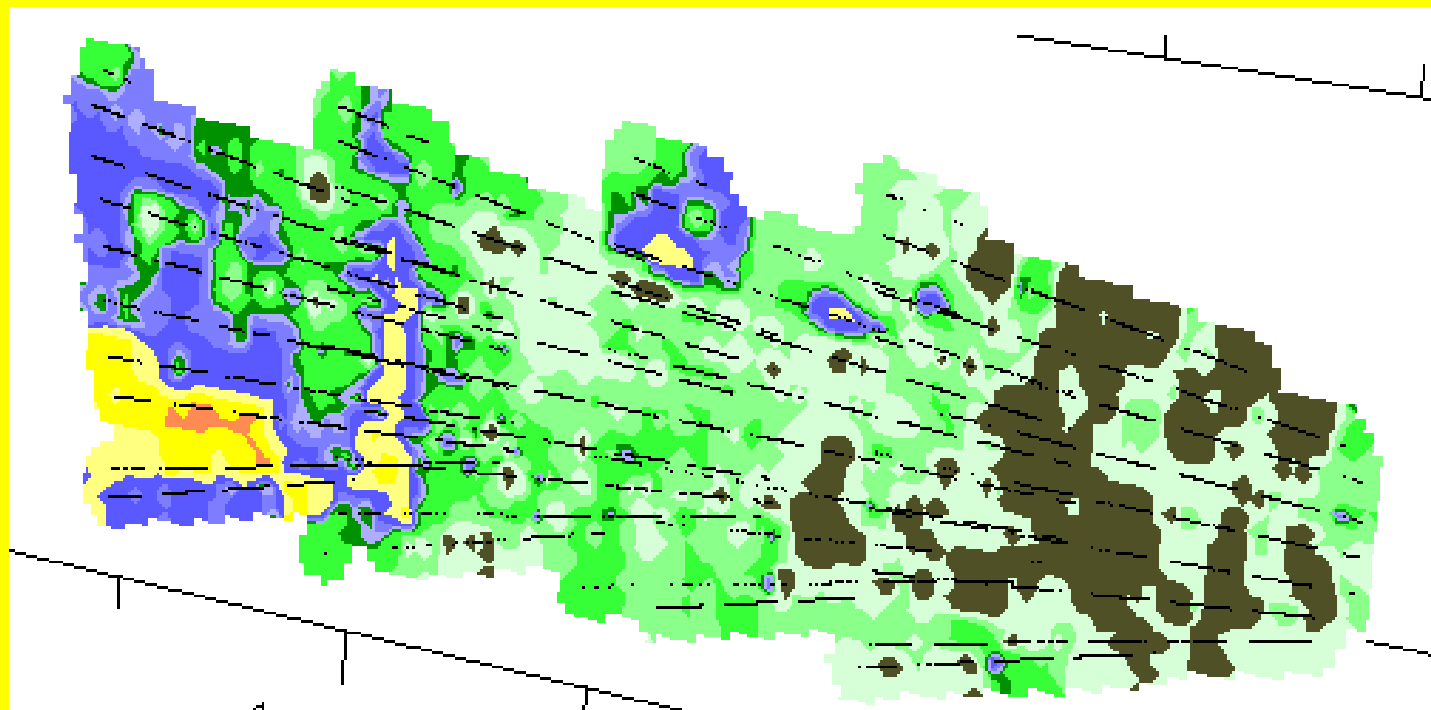
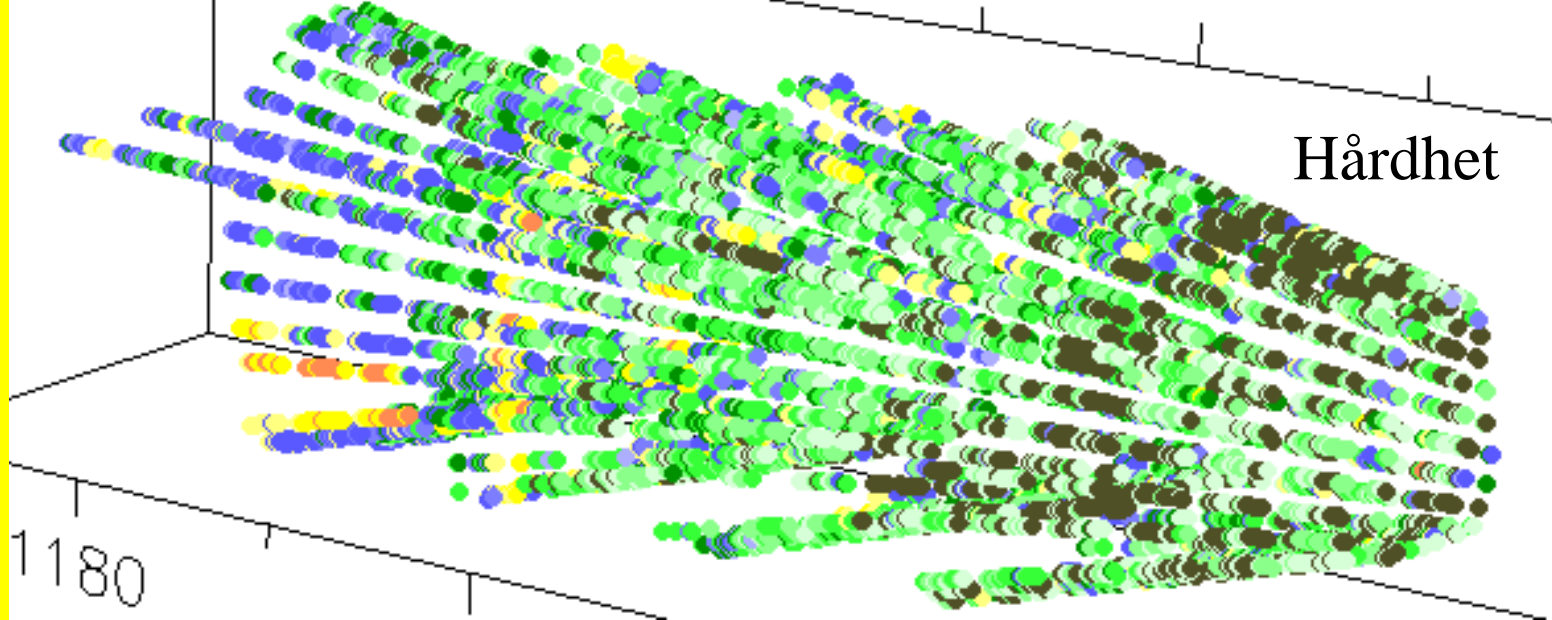
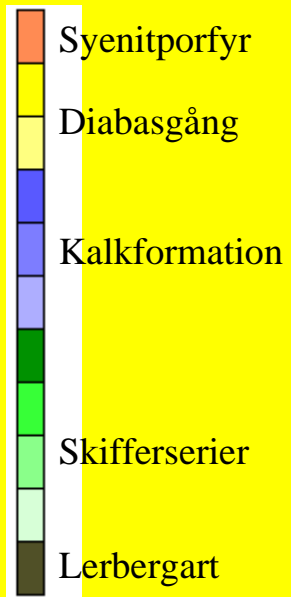


# Operatörsprogram inne i borrhytten, ROCKMA/BEVER

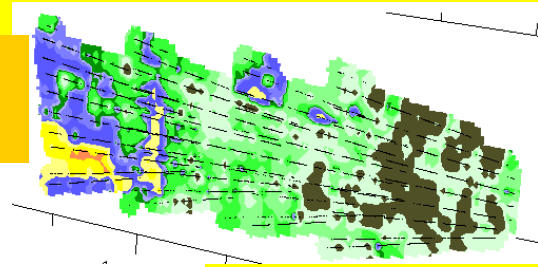
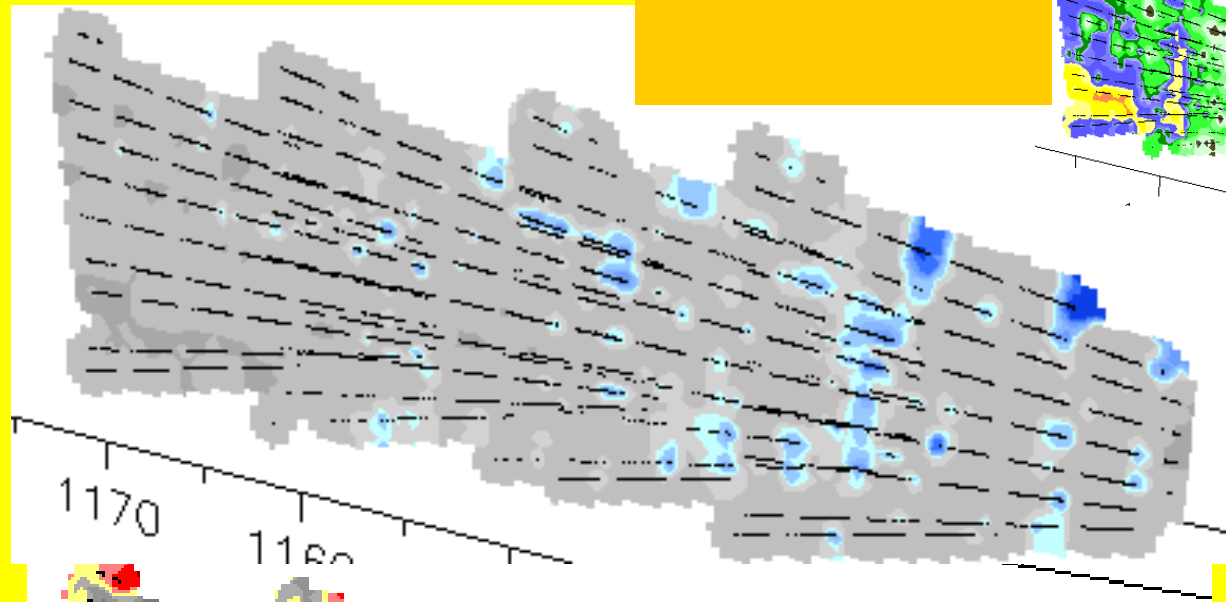
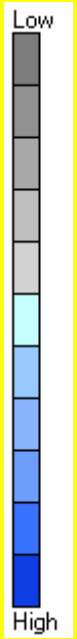
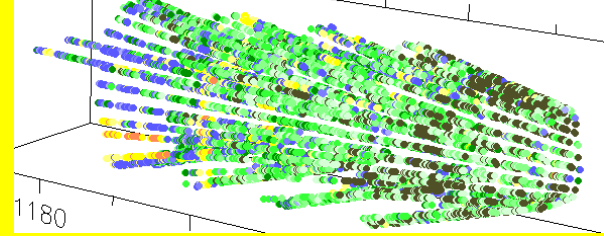


# grundläggande

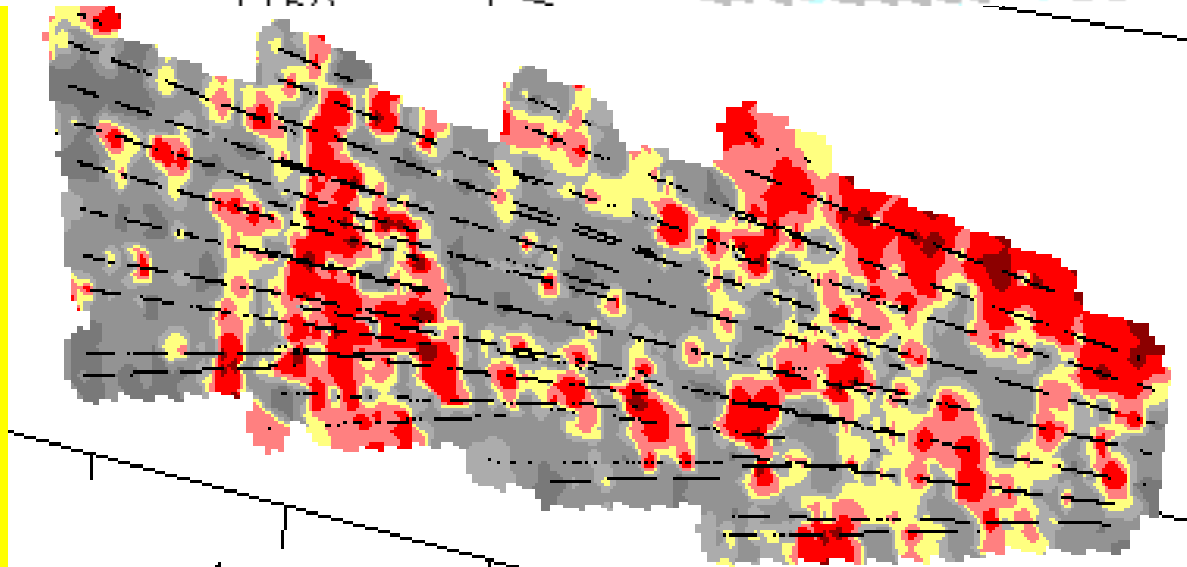
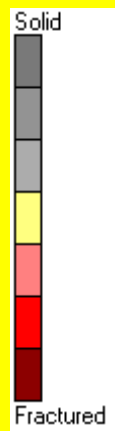




- Syenitporfyr
- Diabasgång
- Kalkformation
- Skifferserier
- Lerbergart

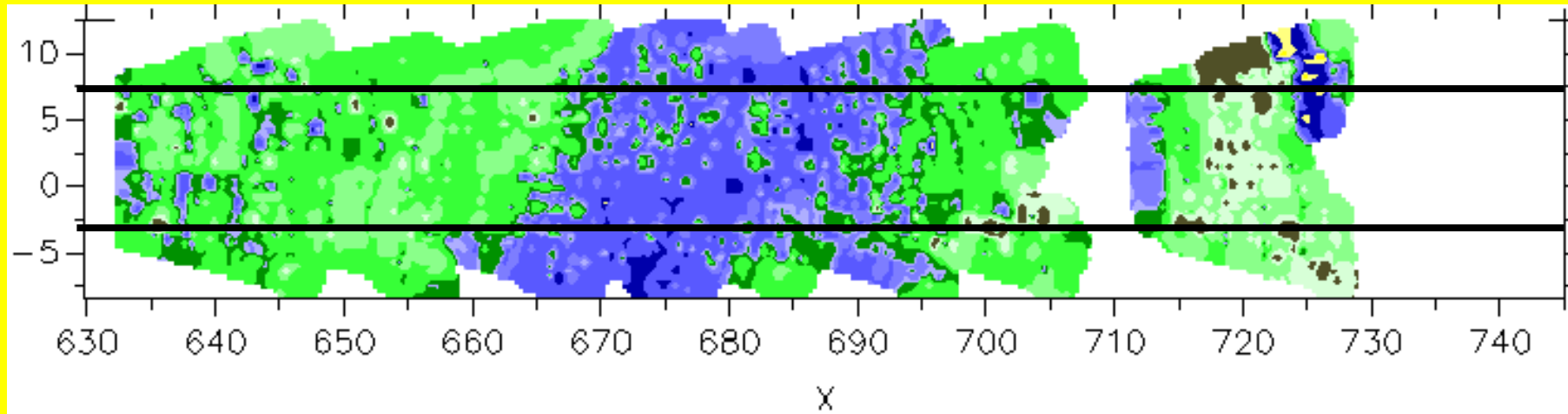


Vatten

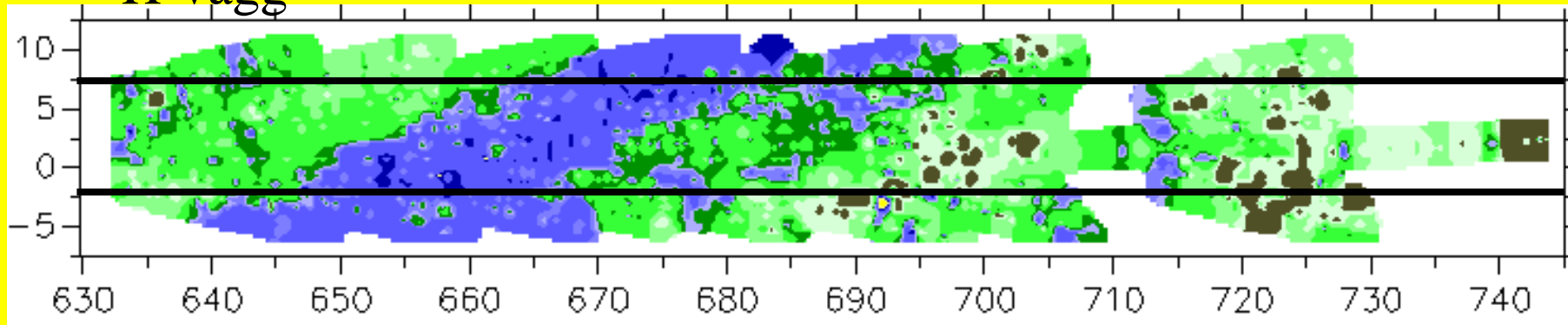


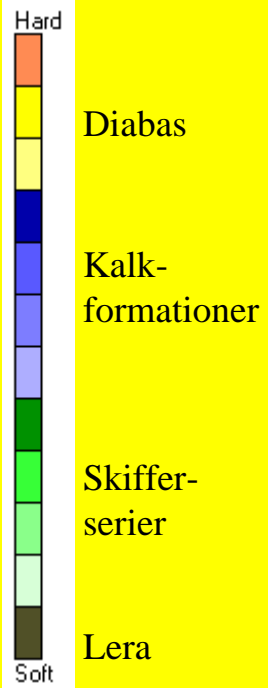
Sprickighet

Tak



H-vägg





**DIGITAL KARTERING !!**

