Kombinerad analys, befintliga förhållanden, Nulägesanalys

File Information

Created By: Birgitta Kärrlind
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File Name: 44900WKS.gsz
Directory: V:_UPPDRAG\224784\Teknik\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 3\

Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

Kombinerad analys, befintliga förhållanden, Nulägesanalys

Description: V44/900 kombinerad analys Artesiskt portryck
Kind: SLOPE/W
Method: Morgenstern-Price
Settings
- Side Function
  - Interslice force function option: Half-Sine
- PWP Conditions Source: Pressure Head Spatial Function
- Pressure Head Spatial Fn.: Nulägesanalys

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Grid and Radius
- Critical slip surfaces saved: 20
- Optimize Critical Slip Surface Location: Yes
- Tension Crack
  - Tension Crack Option: (none)

FOS Distribution
- FOS Calculation Option: Constant

Advanced
- Number of Slices: 30
- Optimization Tolerance: 0.01
- Minimum Slip Surface Depth: 0.1 m
- Optimization Maximum Iterations: 2000
- Optimization Convergence Tolerance: 1e-007
- Starting Optimization Points: 8
- Ending Optimization Points: 16
- Complete Passes per Insertion: 1
- Driving Side Maximum Convex Angle: 5 °
- Resisting Side Maximum Convex Angle: 1 °

Materials

Crust co
- Model: Combined, S=f(depth)
- Unit Weight: 18 kN/m³
- Phi: 30 °
- C-Top of Layer: 0 kPa
- C-Rate of Change: 0 kPa/m
- Cu-Top of Layer: 30 kPa
- Cu-Rate of Change: 0 kPa/m
- C/Cu Ratio: 0.1

Clay 1 co
- Model: Combined, S=f(datum)
- Unit Weight: 16.3 kN/m³
- Phi: 30 °
- C-Datum: 0 kPa
- C-Rate of Change: 0 kPa/m
- Cu-Datum: 11 kPa
- Cu-Rate of Change: 0 kPa/m
- C/Cu Ratio: 0.1
- Elevation: 2 m

Clay 2 co
- Model: Combined, S=f(datum)
- Unit Weight: 16 kN/m³
- Phi: 30 °
- C-Datum: 0 kPa
- C-Rate of Change: 0 kPa/m
- Cu-Datum: 14 kPa
- Cu-Rate of Change: 0.76 kPa/m
- C/Cu Ratio: 0.1
- Elevation: -3 m

Clay 3 co
- Model: Combined, S=f(datum)
- Unit Weight: 16 kN/m³
- Phi: 30 °

C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 27 kPa
Cu-Rate of Change: 0.65 kPa/m
C/Cu Ratio: 0.1
Elevation: -20 m

Clay 4 co

Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 11 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: 0 m

Clay 5 co

Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 14 kPa
Cu-Rate of Change: 0.76 kPa/m
C/Cu Ratio: 0.1
Elevation: -3 m

Clay 6 co

Model: Combined, S=f(datum)
Unit Weight: 16.5 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 15.5 kPa
Cu-Rate of Change: 0.76 kPa/m
C/Cu Ratio: 0.1
Elevation: -5 m

Clay 7 co

Model: Combined, S=f(depth)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 7 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1

Clay 8 co

Model: Combined, S=f(depth)

Unit Weight: 16 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 7 kPa
Cu-Rate of Change: 0.75 kPa/m
C/Cu Ratio: 0.1

Friction

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Unit Wt. Above Water Table: 22 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °

Vägbank

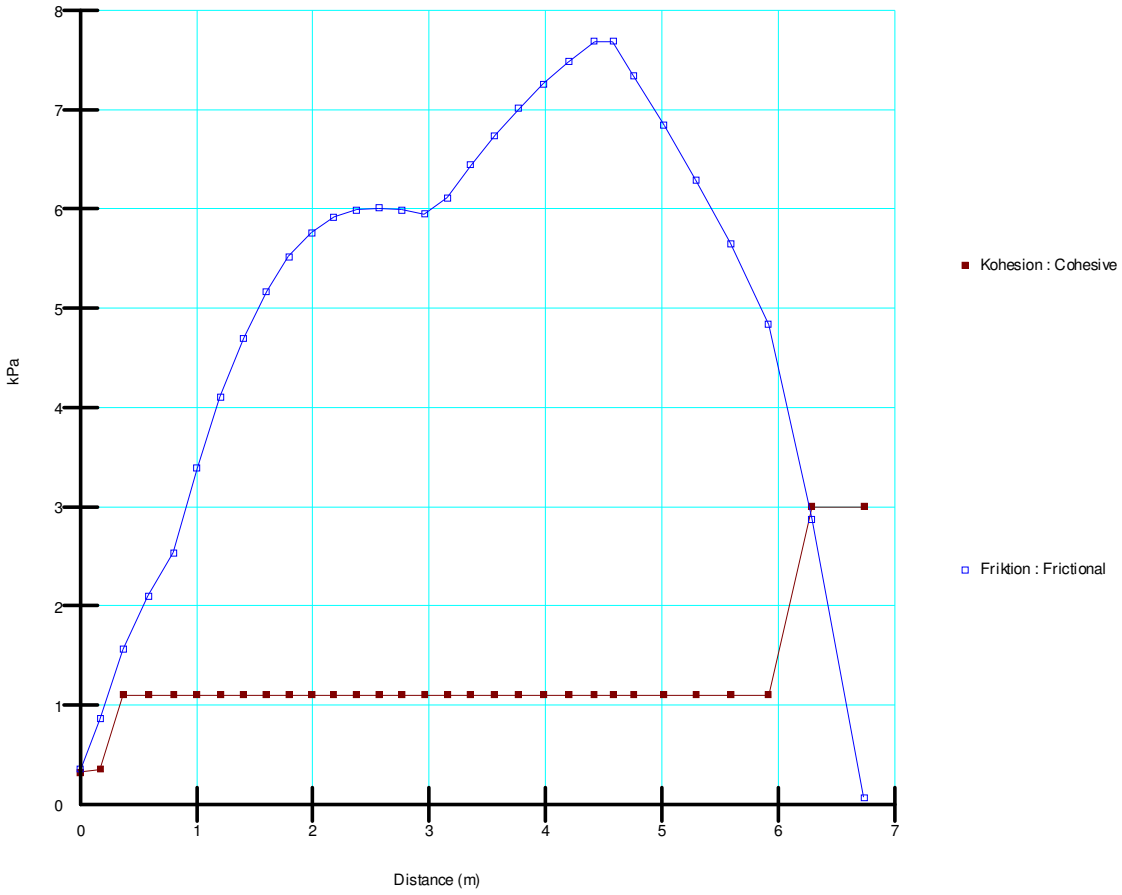
Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °

Clay 9 co (älv)

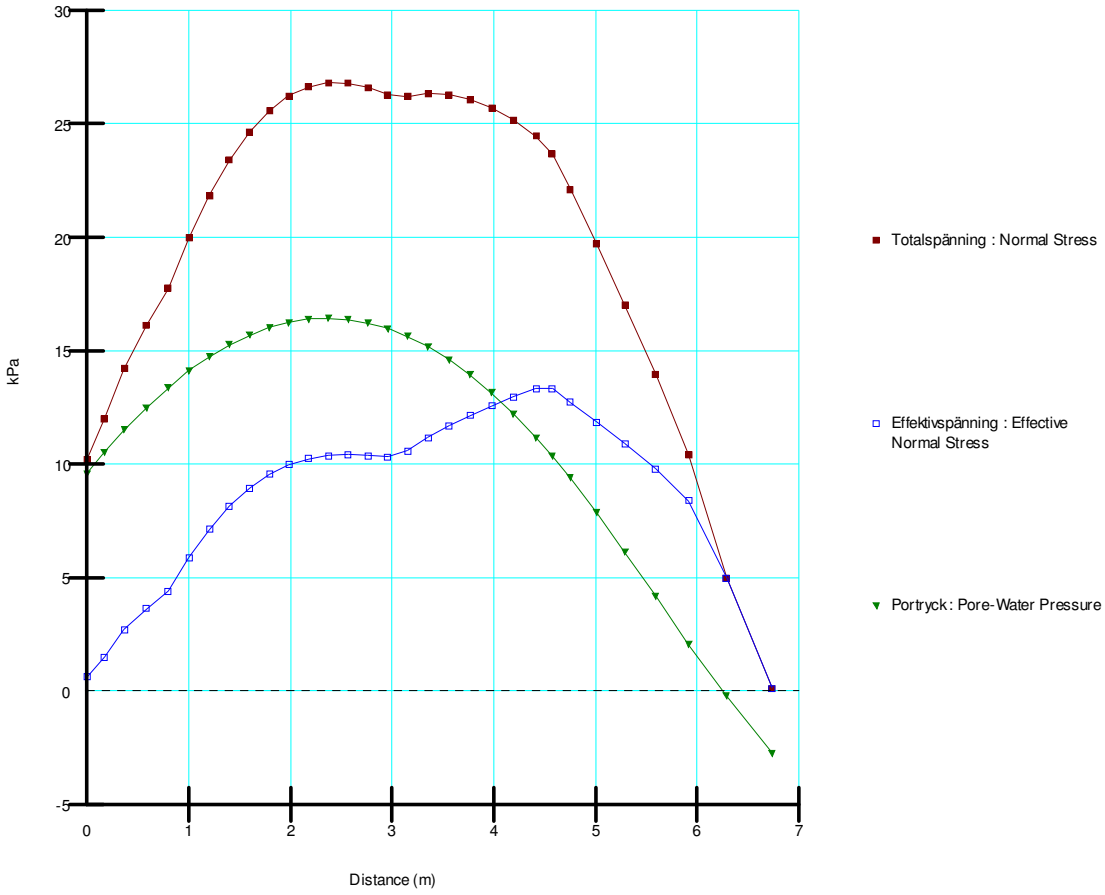
Model: Combined, S=f(depth)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 3 kPa
Cu-Rate of Change: 2.97 kPa/m
C/Cu Ratio: 0.1

Clay 10 co (älv)

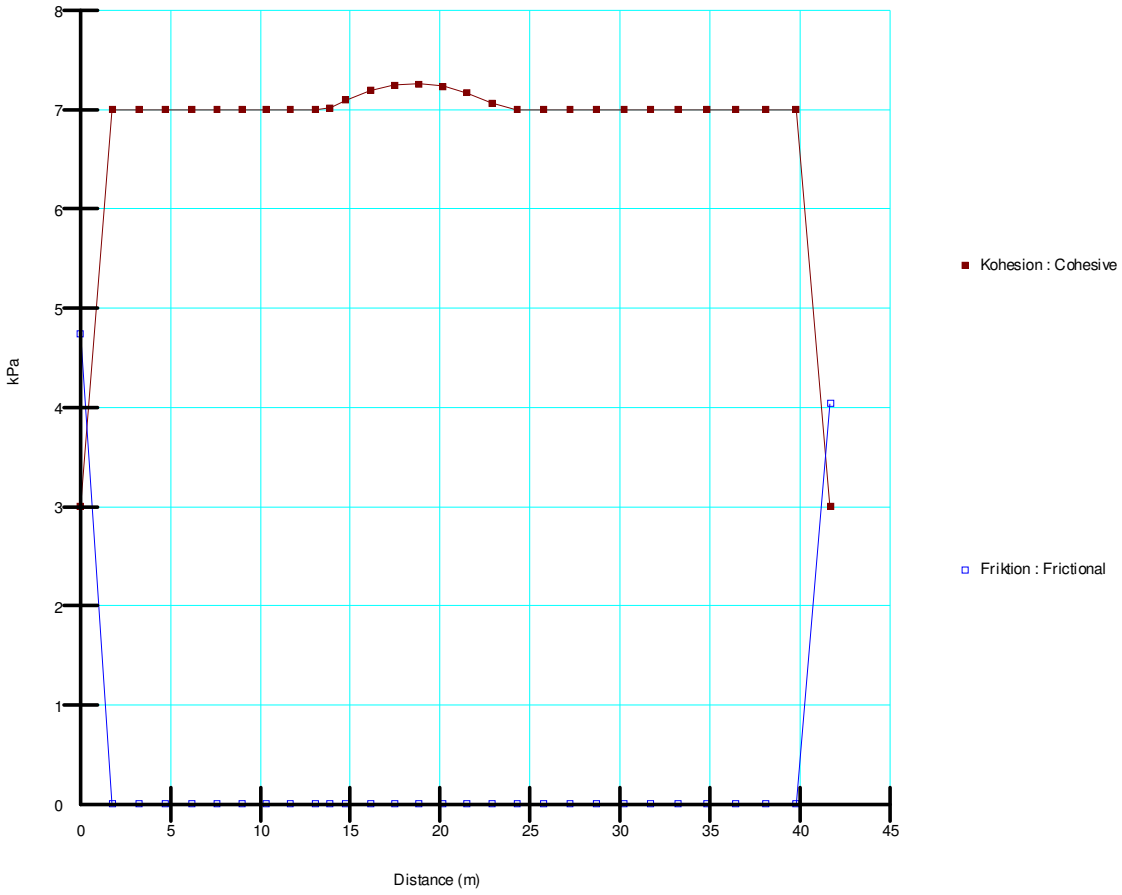
Model: Combined, S=f(depth)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 3 kPa
Cu-Rate of Change: 3.91 kPa/m
C/Cu Ratio: 0.1



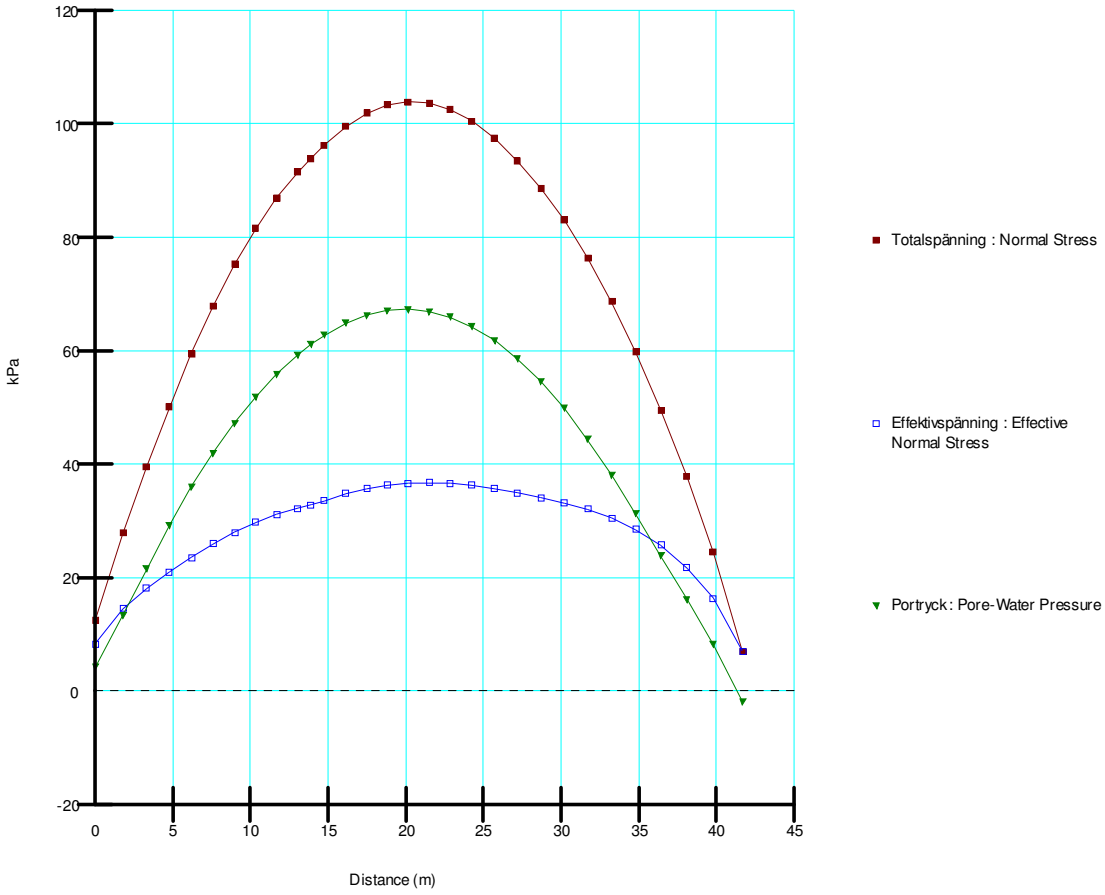
Figur 1. Kohesion och Friktion. Slänt vid älvstrand.



Figur 2. Totalspänning, Effektivspänning och Portryck. Slänt vid älvstrand.



Figur 3. Kohesion och Friktion. Slänt vid fastmark.

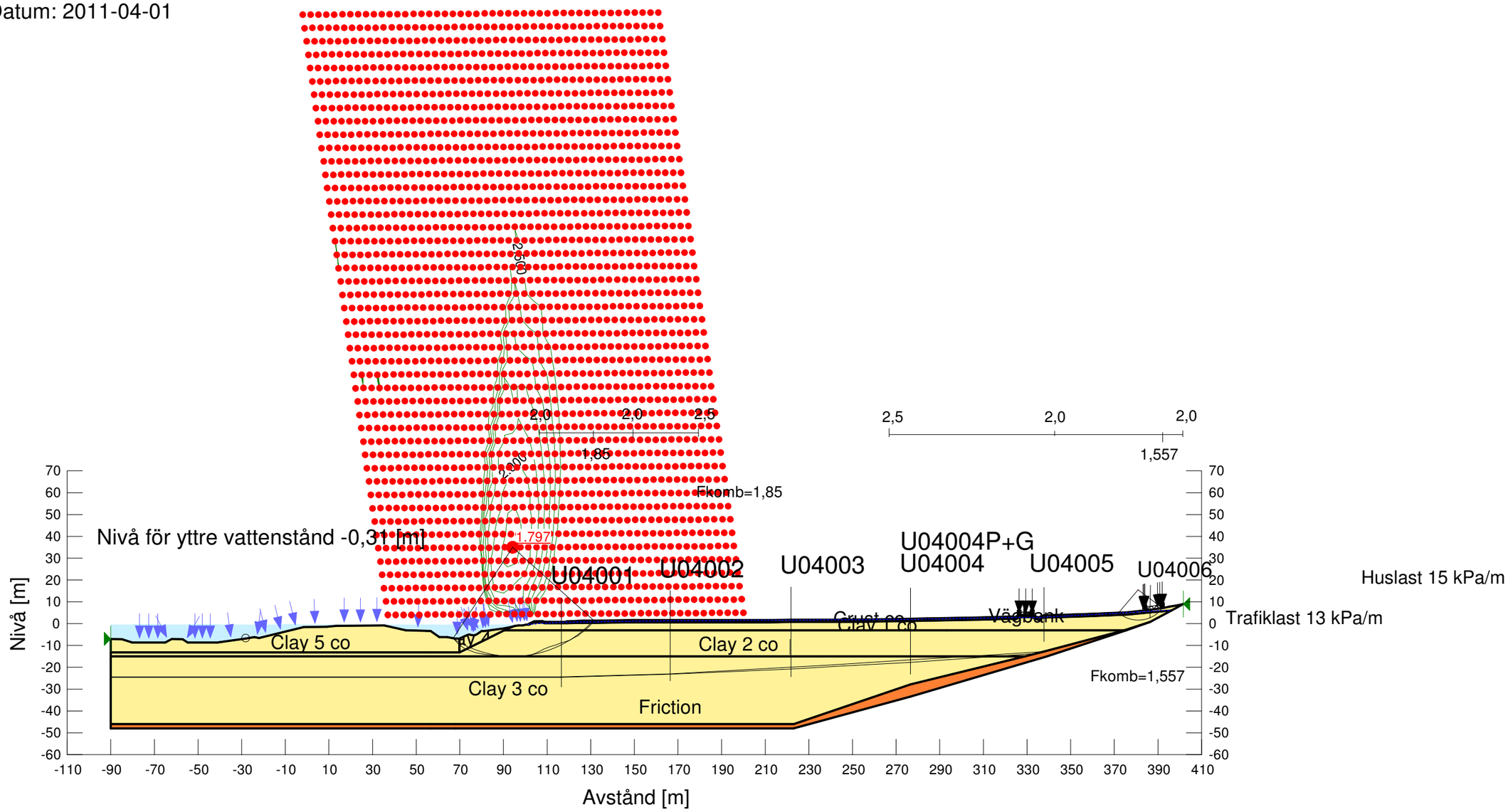


Figur 4. Totalspänning, Effektivspänning och Portryck. Slänt vid fastmark.

Skala 1:2000 (A3)

Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V46/900 delomr 4, kombinerad analys
Uppsprucken torrskorpa
Artesiskt portryck
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-01



Beräkning utförd av: Birgitta Kärrlind

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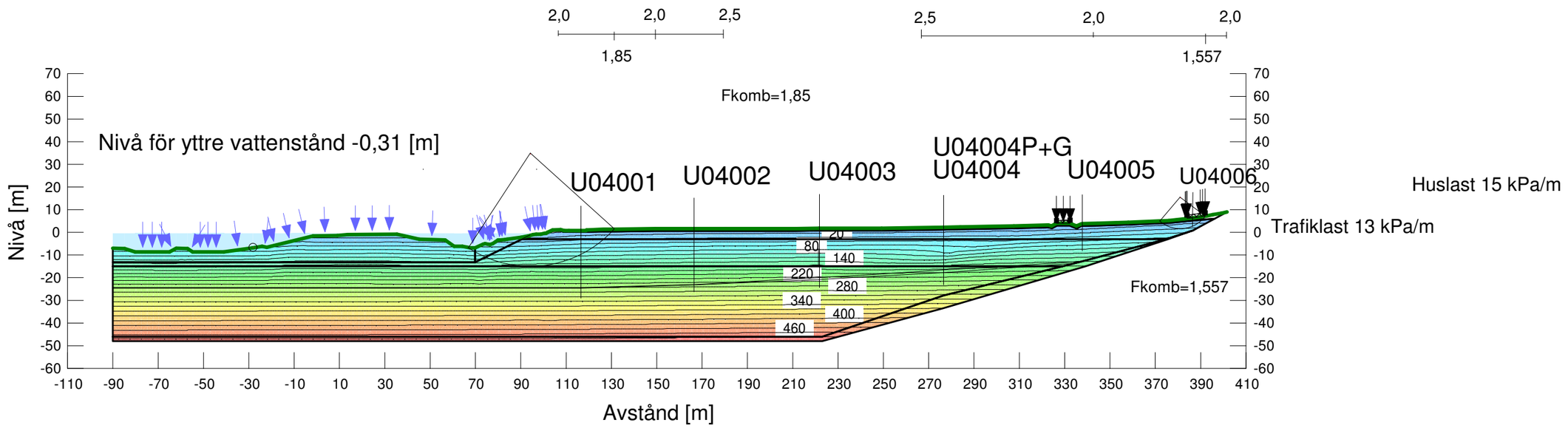

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