Kombinerad analys, befintliga förhållanden, nulägesanalys

File Information

Created By: Kärrlind, Birgitta
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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: V31/020 kombinerad analys Uppsprucken torrskorpa, 50% vattenfyllda sprickor
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: Entry and Exit
- Critical slip surfaces saved: 20
- Optimize Critical Slip Surface Location: Yes
- Tension Crack
  - Tension Crack Option: Tension Crack Line
  - Percentage Wet: 0.5
  - Tension Crack Fluid Unit Weight: 9.807 kN/m³

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: 15.8 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 18 kPa
Cu-Rate of Change: 0.33 kPa/m
C/Cu Ratio: 0.1
Elevation: 10 m

Clay 2 co

Model: Combined, S=f(datum)
Unit Weight: 15.8 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 20 kPa
Cu-Rate of Change: 1.42 kPa/m
C/Cu Ratio: 0.1
Elevation: 4 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: 1.11 kPa/m
C/Cu Ratio: 0.1
Elevation: -1 m

Clay 4 co älv

Model: Combined, S=f(depth)
Unit Weight: 15.8 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 5 kPa
Cu-Rate of Change: 9.6 kPa/m
C/Cu Ratio: 0.1

Friction

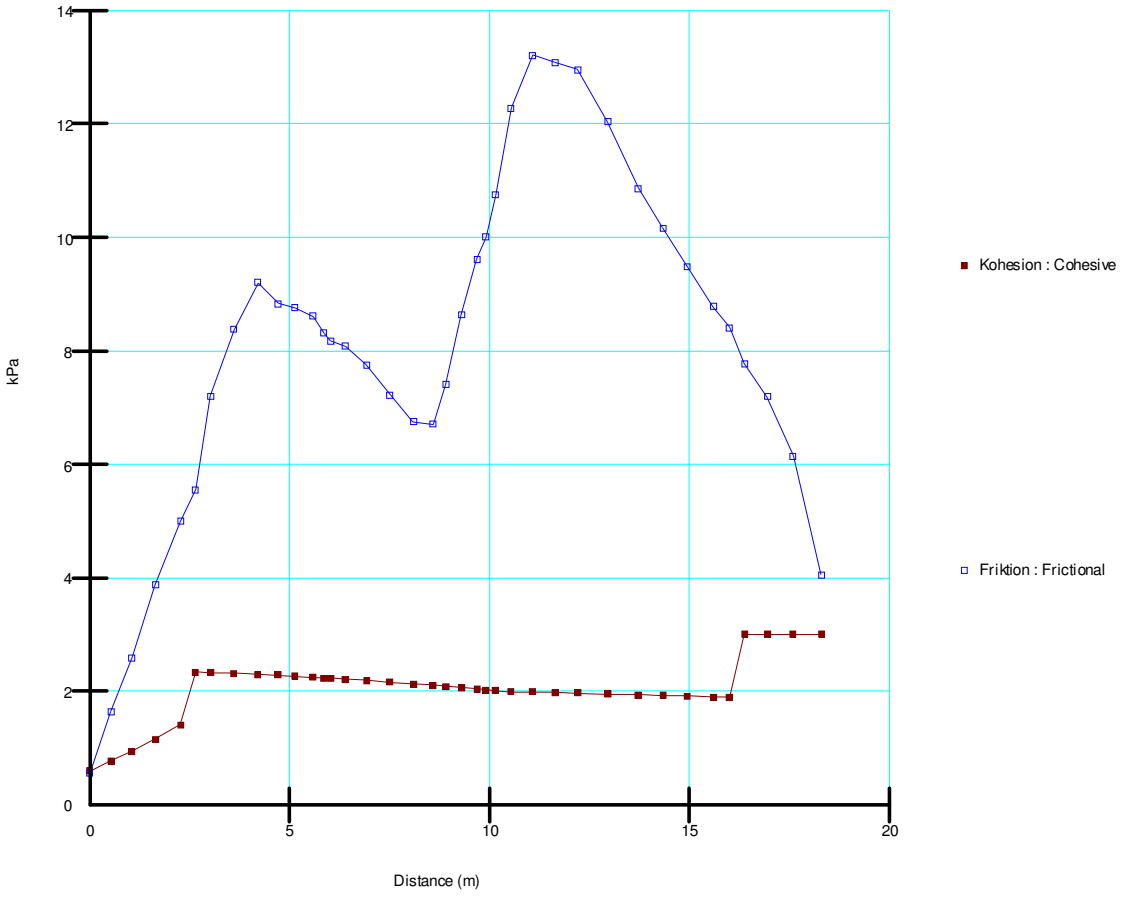
Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Unit Wt. Above Water Table: 20 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Clay 5 co älv

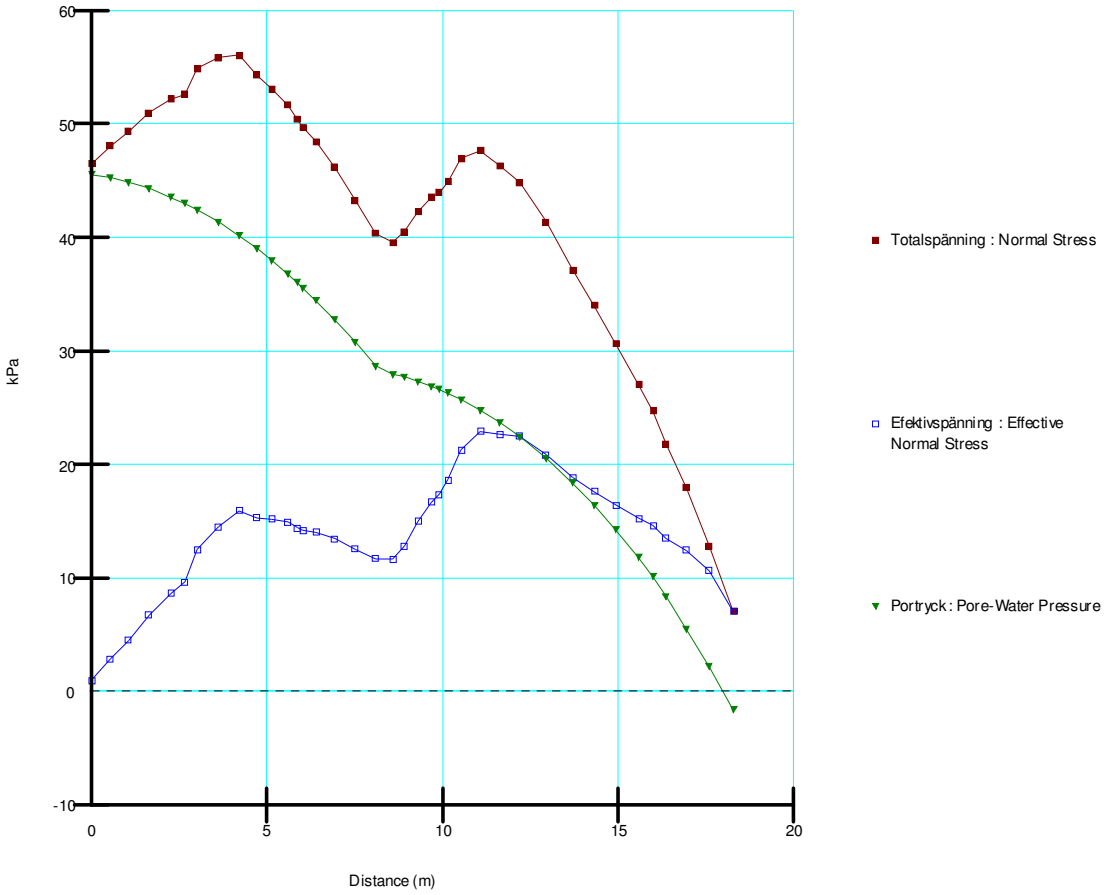
Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 27 kPa
Cu-Rate of Change: 1.11 kPa/m
C/Cu Ratio: 0.1
Elevation: -1 m

Clay 6 co älv

Model: Combined, S=f(depth)
Unit Weight: 15.8 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 5 kPa
Cu-Rate of Change: 14.3 kPa/m
C/Cu Ratio: 0.1



Figur 1. Kohesion och Friktion.

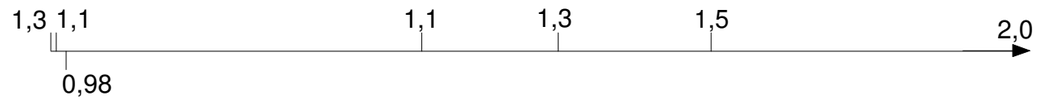


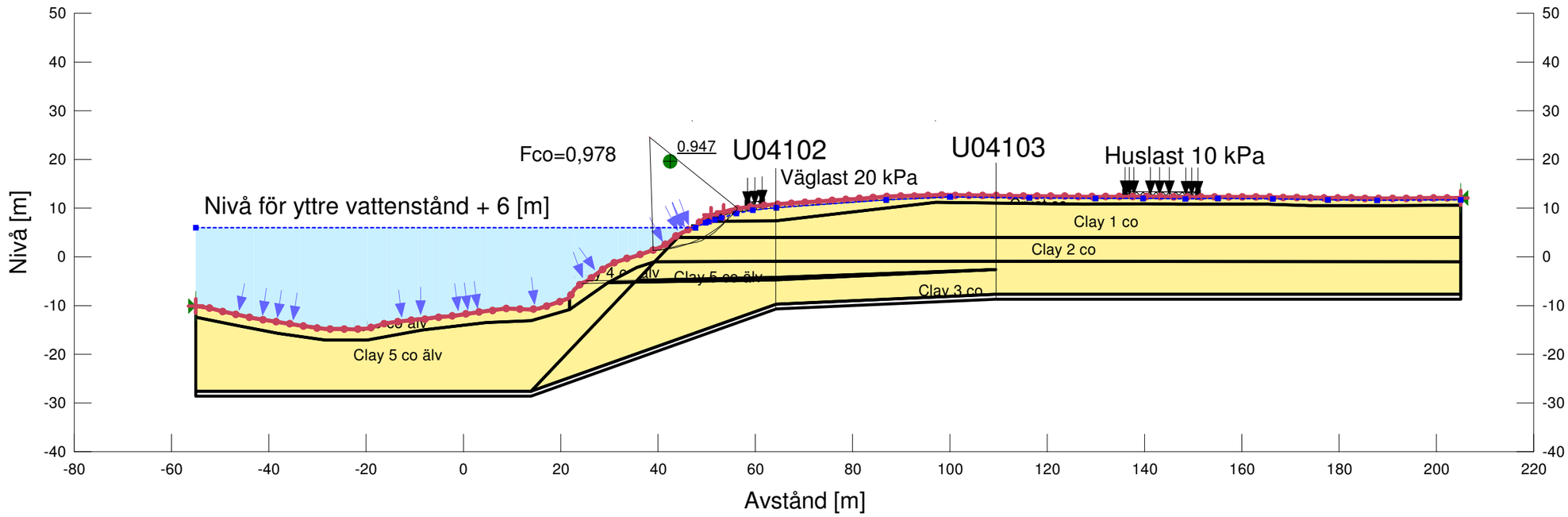
Figur 2. Totalspänning, Effektivspänning och Portryck.

Skala 1:1000 (A3)

Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V31/020 kombinerad analys
Uppsprucken torrskorpa, 50% vattenfyllda sprickor
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Piezometric Line
Datum: 2011-04-05





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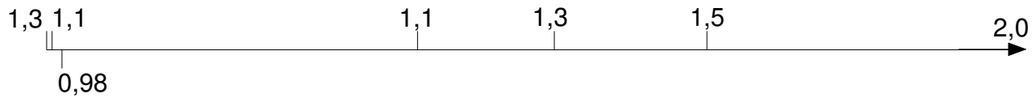
Birgitta Kärrlind

Granskad av:
Mats Ekenberg

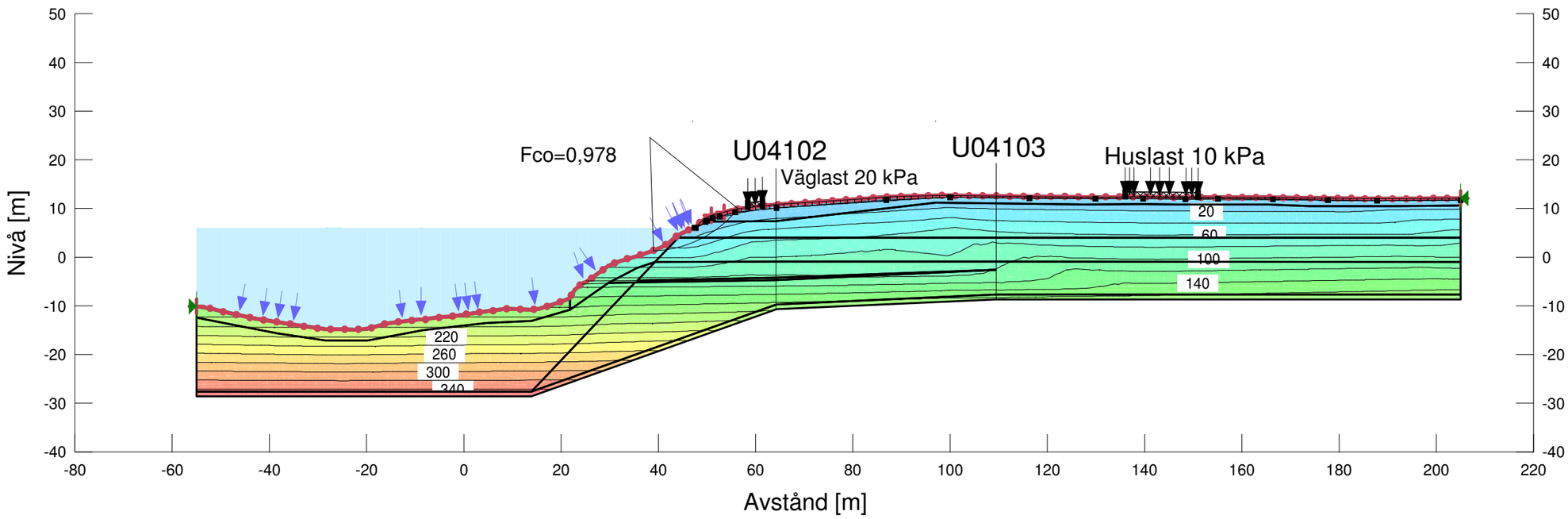
Skala 1:1000 (A3)

Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V31/020 kombinerad analys
Uppsprucken torrskorpa, 50% vattenfyllda sprickor
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-05



Nivå för yttre vattenstånd + 6 [m]



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