Kombinerad analys, nulägesanalys

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File Information

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Last Solved Date: 2010-12-05
Last Solved Time: 10:11:12

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, nulägesanalys

Description: V41/900 kombinerad analys
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.: Portrycksprofil

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 10
- 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

Friction

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

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 älv_1 co

Model: Combined, S=f(depth)
Unit Weight: 16.5 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: 10 kPa/m
C/Cu Ratio: 0.1

Clay älv_2 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: 3 kPa
Cu-Rate of Change: 4.4 kPa/m
C/Cu Ratio: 0.1
Elevation: -7.2 m

Clay 1_1 co

Model: Combined, S=f(datum)
Unit Weight: 18 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 21 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: 3 m

Clay 1_2 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: 21 kPa
Cu-Rate of Change: 1.143 kPa/m
C/Cu Ratio: 0.1
Elevation: -3 m

Clay 1_3 co

Model: Combined, S=f(datum)
Unit Weight: 16.2 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 37 kPa
Cu-Rate of Change: 0.722 kPa/m
C/Cu Ratio: 0.1
Elevation: -17 m

Clay 2_1 co

Model: Combined, S=f(datum)
Unit Weight: 16.8 kN/m³

Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 15 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: 4 m

Clay 2_2 co

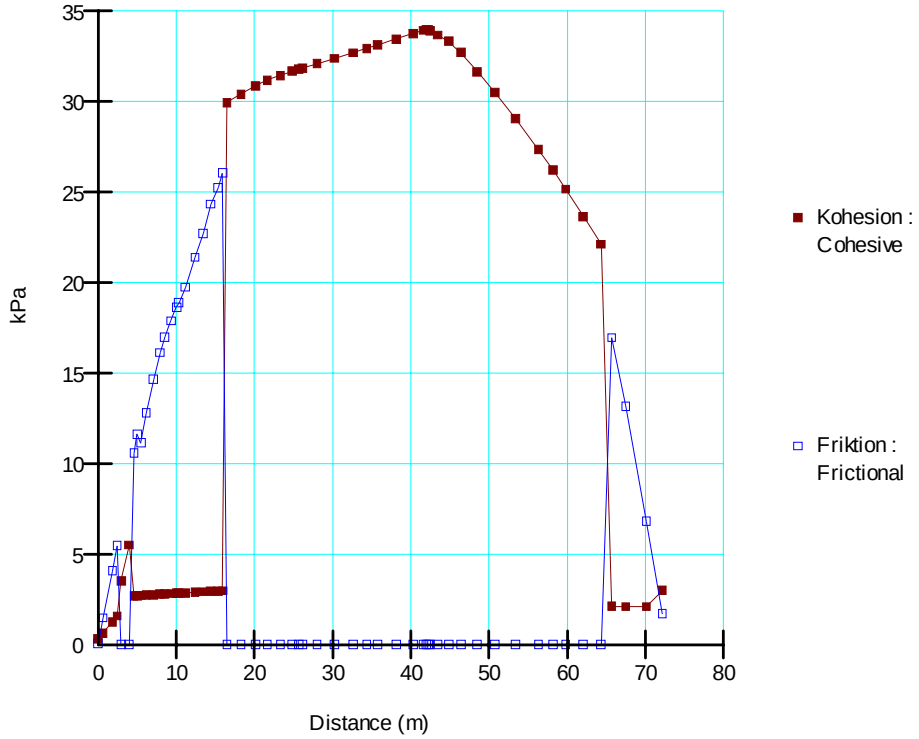
Model: Combined, S=f(datum)
Unit Weight: 16.3 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 15 kPa
Cu-Rate of Change: 0.714 kPa/m
C/Cu Ratio: 0.1
Elevation: 0 m

Clay 2_3 co

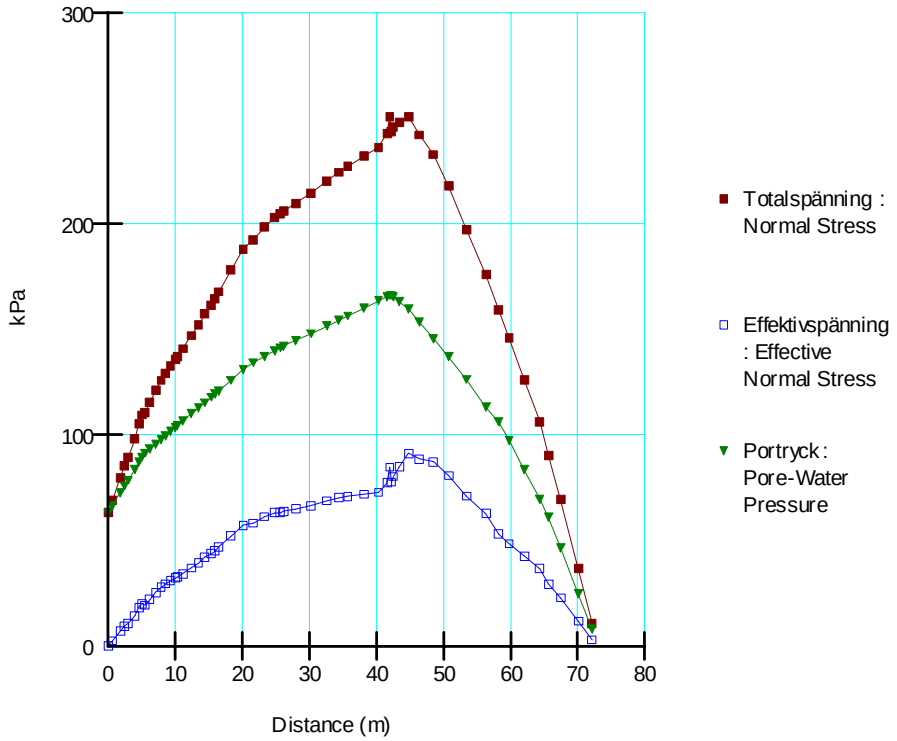
Model: Combined, S=f(datum)
Unit Weight: 15.8 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 20 kPa
Cu-Rate of Change: 0.555 kPa/m
C/Cu Ratio: 0.1
Elevation: -7 m

Strandskoning

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Unit Wt. Above Water Table: 21 kN/m³
Cohesion: 0 kPa
Phi: 45 °
Phi-B: 0 °



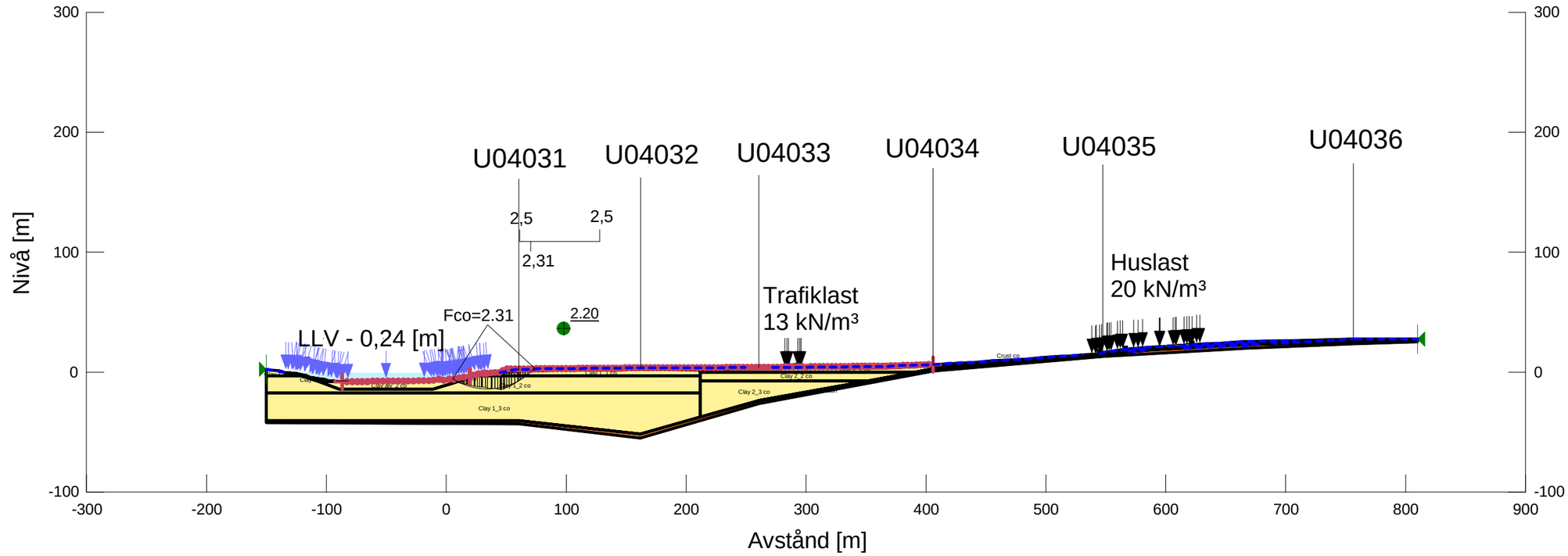
Figur 1. Kohesion och friktion



Figur 2. Totalspänning, effektivspänning och portryck

Skala 1:4000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V41/900 kombinerad analys
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2010-12-05



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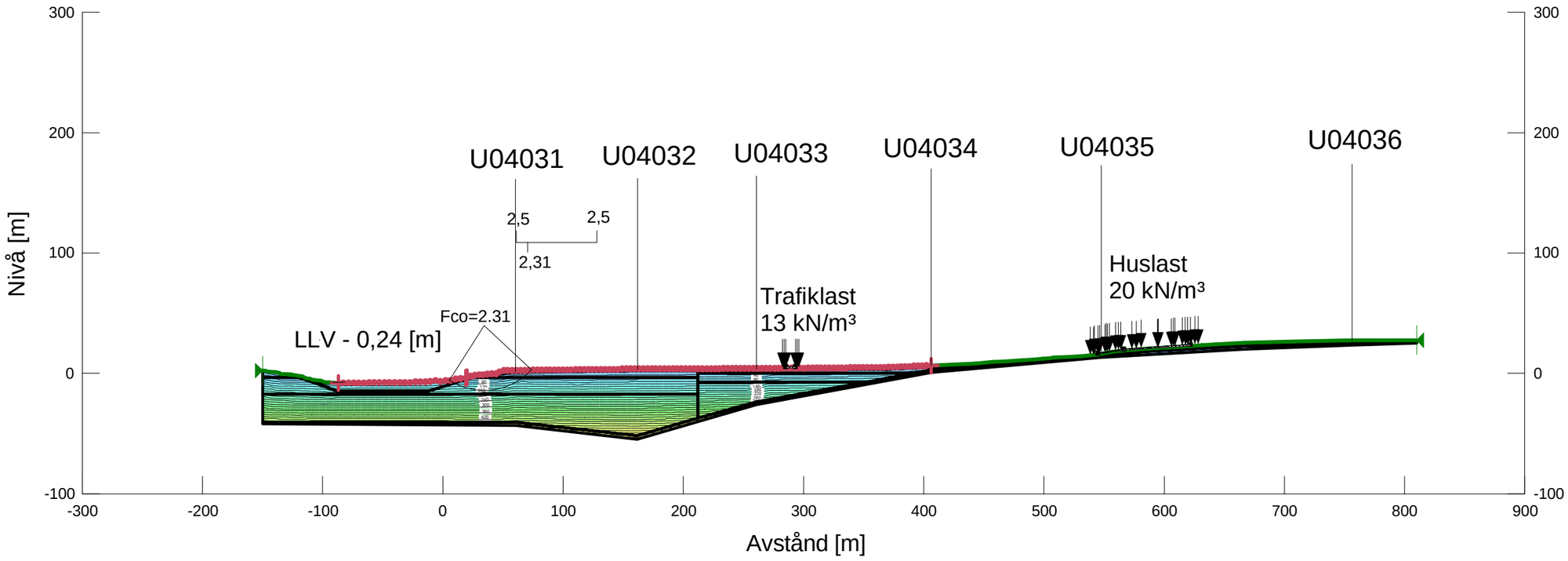
Granskad av:
Mats Ekenberg

Skala 1:4000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V41/900 kombinerad analys
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2010-12-15



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