Kombinerad analys

File Information

Created By: Saad Jamil
Revision Number: 432
Last Edited By: Jamil, Saad
Date: 2011-04-05
Time: 09:02:48
File Name: 43850WKS.gsz
Directory: V:_UPPDRAG\224784\Teknik\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 4 V43_850\
Last Solved Date: 2011-04-05
Last Solved Time: 09:11:18

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: V43/850 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.: 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: (none)

FOS Distribution
- FOS Calculation Option: Constant

Advanced

Number of Slices: 30
Optimization Tolerance: 0.01
Minimum Slip Surface Depth: 0.5 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

Filling

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 35 °
Phi-B: 0 °

Clay 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: 14 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: 16.6 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 14 kPa

Cu-Rate of Change: 1.4 kPa/m
C/Cu Ratio: 0.1
Elevation: -3.5 m

Clay 3 co

Model: Combined, S=f(datum)
Unit Weight: 16.6 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 30 kPa
Cu-Rate of Change: 0.52 kPa/m
C/Cu Ratio: 0.1
Elevation: -15 m

Clay 4 co

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

Clay 5 co

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: 15 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1

Clay 6 co

Model: Combined, S=f(depth)
Unit Weight: 17 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 15 kPa
Cu-Rate of Change: 1.5 kPa/m
C/Cu Ratio: 0.1

Clay 7 co älv

Model: Combined, S=f(datum)
Unit Weight: 15 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 3 kPa

Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: 0 m

Friction

Model: Mohr-Coulomb
Unit Weight: 22 kN/m³
Unit Wt. Above Water Table: 20 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Bedrock

Model: Bedrock (Impenetrable)

Clay 8 co älv

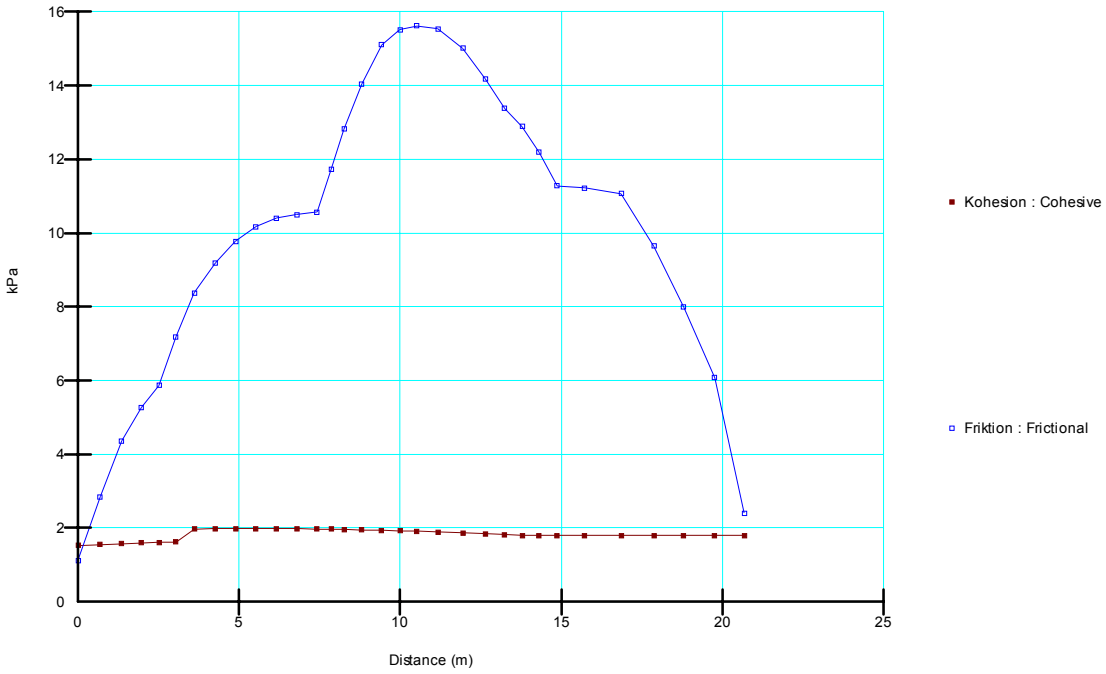
Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 3 kPa
Cu-Rate of Change: 3.6 kPa/m
C/Cu Ratio: 0.1
Elevation: -7.3 m

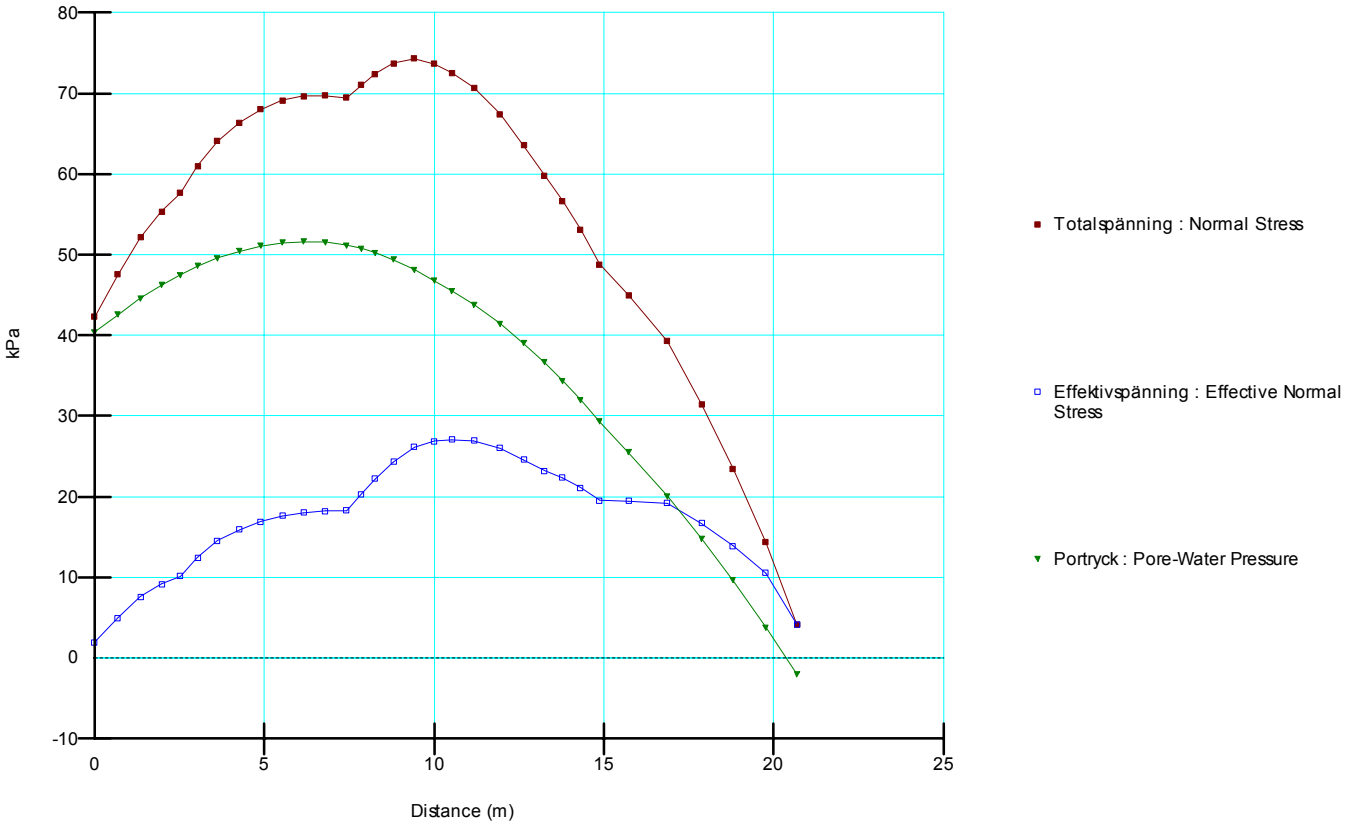
Clay 9 co strand

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: 18 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: 2 m

Clay 10 co strand

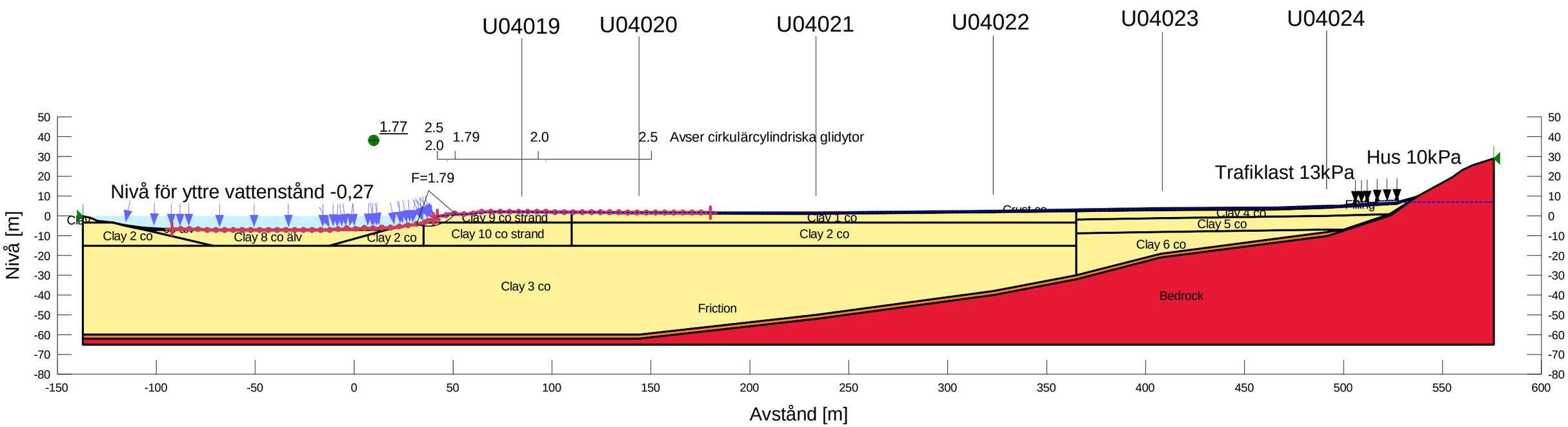
Model: Combined, S=f(datum)
Unit Weight: 16.6 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 18 kPa
Cu-Rate of Change: 1.04 kPa/m
C/Cu Ratio: 0.1
Elevation: -3.5 m


kPa
Distance (m)
Kohesion : Cohesive
Friktion : Frictional


kPa
Distance (m)
Totalspänning : Normal Stress
Effektivspänning : Effective Normal Stress
Portryck : Pore-Water Pressure

Skala 1:2000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V43/850 kombinerad analys
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-05



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Saad Jamil

Granskad av:
Mats Ekenberg

Skala 1:2000 (A3)
Leveransdatum 2011-03-31

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SEKTION: V43/850 kombinerad analys
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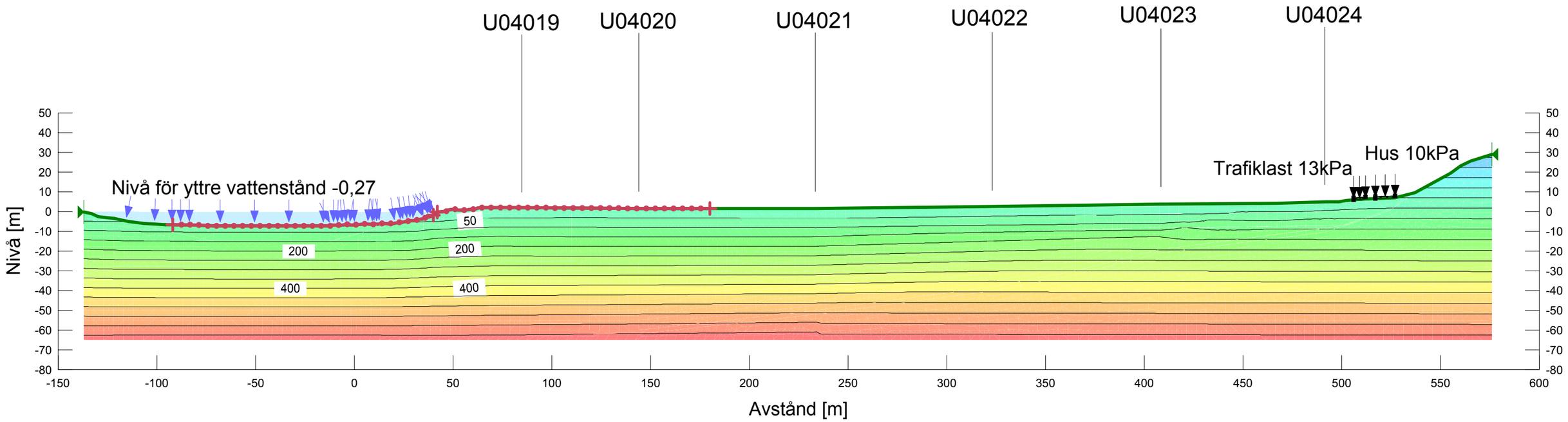

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