Kombinerad analys, nulägesanalys, nedre släntt

File Information

Created By: Karlström, Hanna
Revision Number: 363
Last Edited By: Karlström, Hanna
Date: 2010-12-11
Time: 13:09:13
File Name: 34700WKS.gsz
Directory: V:_UPPDRAG\224784\Teknik\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 18\
Last Solved Date: 2010-12-11
Last Solved Time: 13:15:56

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, nedre släntt

Description: V34/700 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: 4 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: 22 kN/m³
Unit Wt. Above Water Table: 20 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Clay 1 co

Model: Combined, S=f(depth)
Unit Weight: 17.3 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: 1 kPa/m
C/Cu Ratio: 0.1

Clay 2 co

Model: Combined, S=f(depth)
Unit Weight: 16.4 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 19 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1

Clay 3 co

Model: Combined, S=f(depth)
Unit Weight: 17.3 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: 1.22 kPa/m
C/Cu Ratio: 0.1

Clay 4 co

Model: Combined, S=f(depth)
Unit Weight: 16.4 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 26 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1

Clay 11 co

Model: Combined, S=f(depth)
Unit Weight: 16.4 kN/m³
Phi: 30 °
C-Top of Layer: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 19.88 kPa
Cu-Rate of Change: 1.22 kPa/m
C/Cu Ratio: 0.1

Clay 5 co

Model: Combined, S=f(datum)
Unit Weight: 17.8 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 15 kPa
Cu-Rate of Change: 3.43 kPa/m
C/Cu Ratio: 0.1
Elevation: 4 m

Clay 7 co

Model: Combined, S=f(datum)
Unit Weight: 17.3 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 35 kPa
Cu-Rate of Change: 1.08 kPa/m
C/Cu Ratio: 0.1
Elevation: -3.5 m

Clay 8 co

Model: Combined, S=f(datum)
Unit Weight: 17.3 kN/m³

Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 42 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: -10 m

Clay 9 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: 42 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: -13 m

Clay 12 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: 12 kPa
Cu-Rate of Change: 3 kPa/m
C/Cu Ratio: 0.1

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 10 co

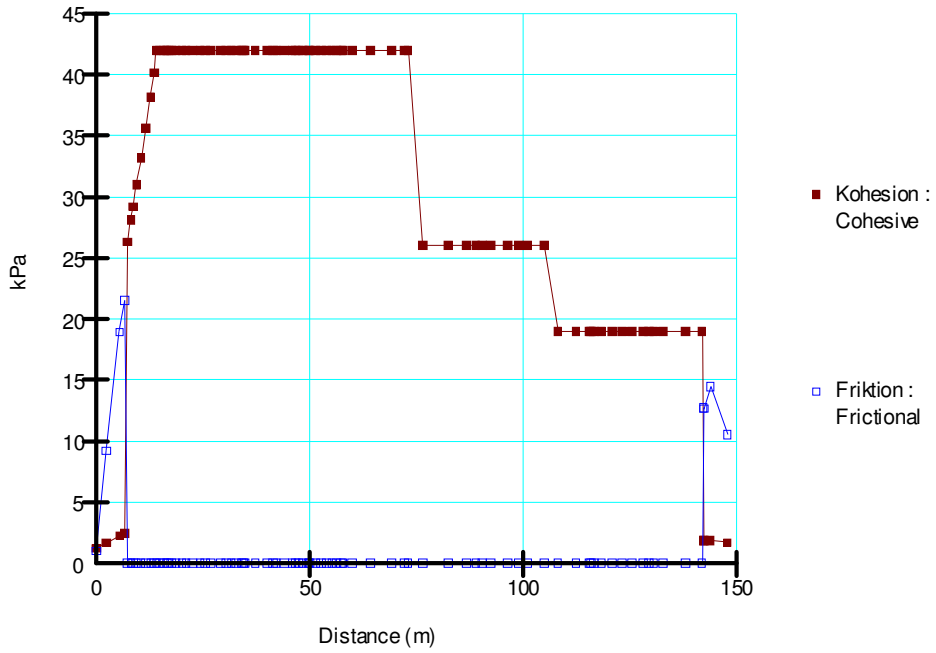
Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 0 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 42 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Elevation: -20 m

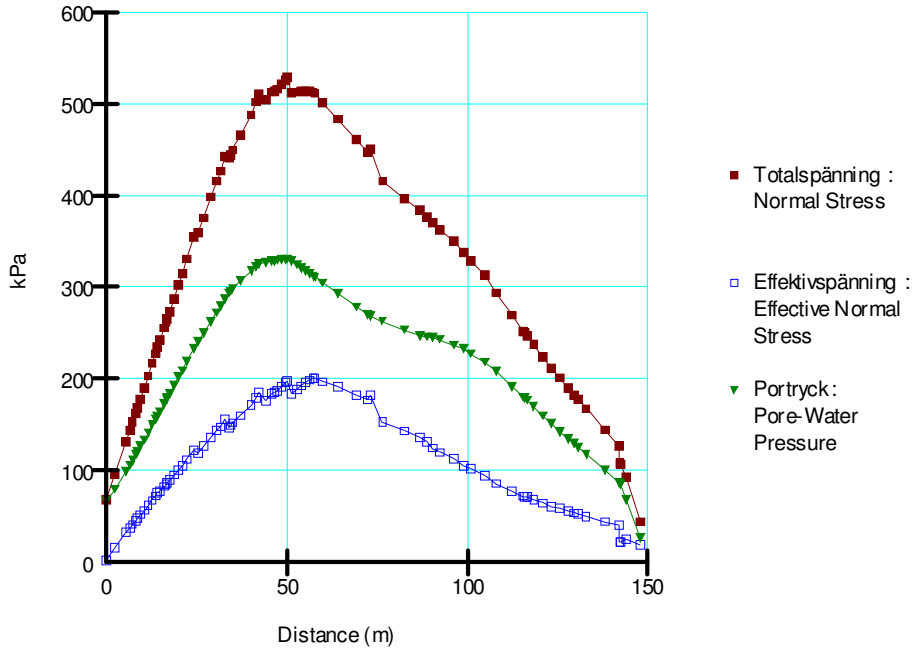
Sand

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 34 °
Phi-B: 0 °

Strandskoning

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

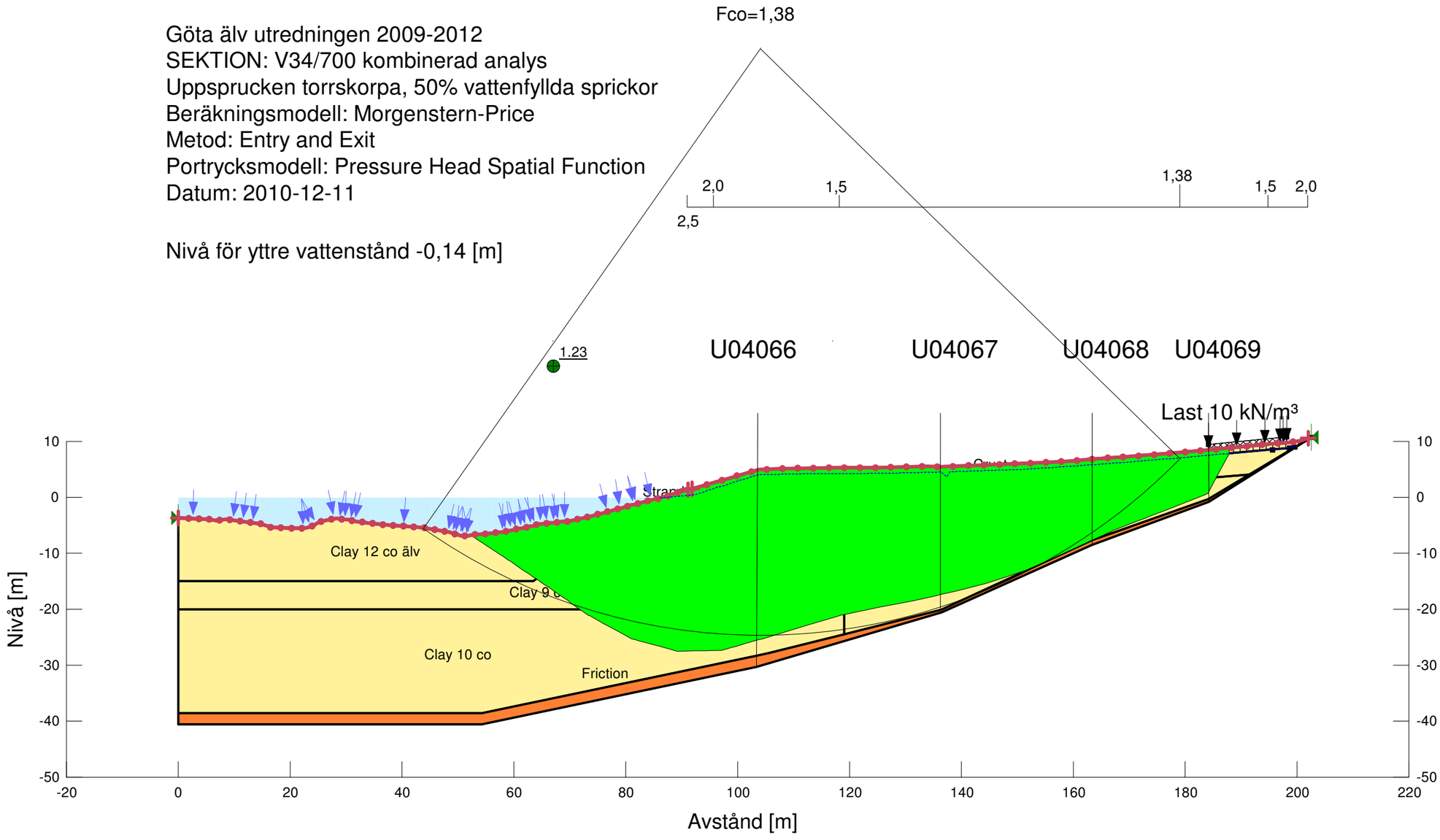



600
500
400
300
200
100
0
kPa
0
50
100
150
Distance (m)
Totalspänning : Normal Stress
Effektivspänning : Effective Normal Stress
Portryck: Pore-Water Pressure

Skala 1:800 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V34/700 kombinerad analys
Uppsprucken torrskorpa, 50% vattenfyllda sprickor
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2010-12-11

Nivå för yttre vattenstånd -0,14 [m]



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Beräkning utförd av: Hanna Karlström
Granskad av: Mats Ekenberg

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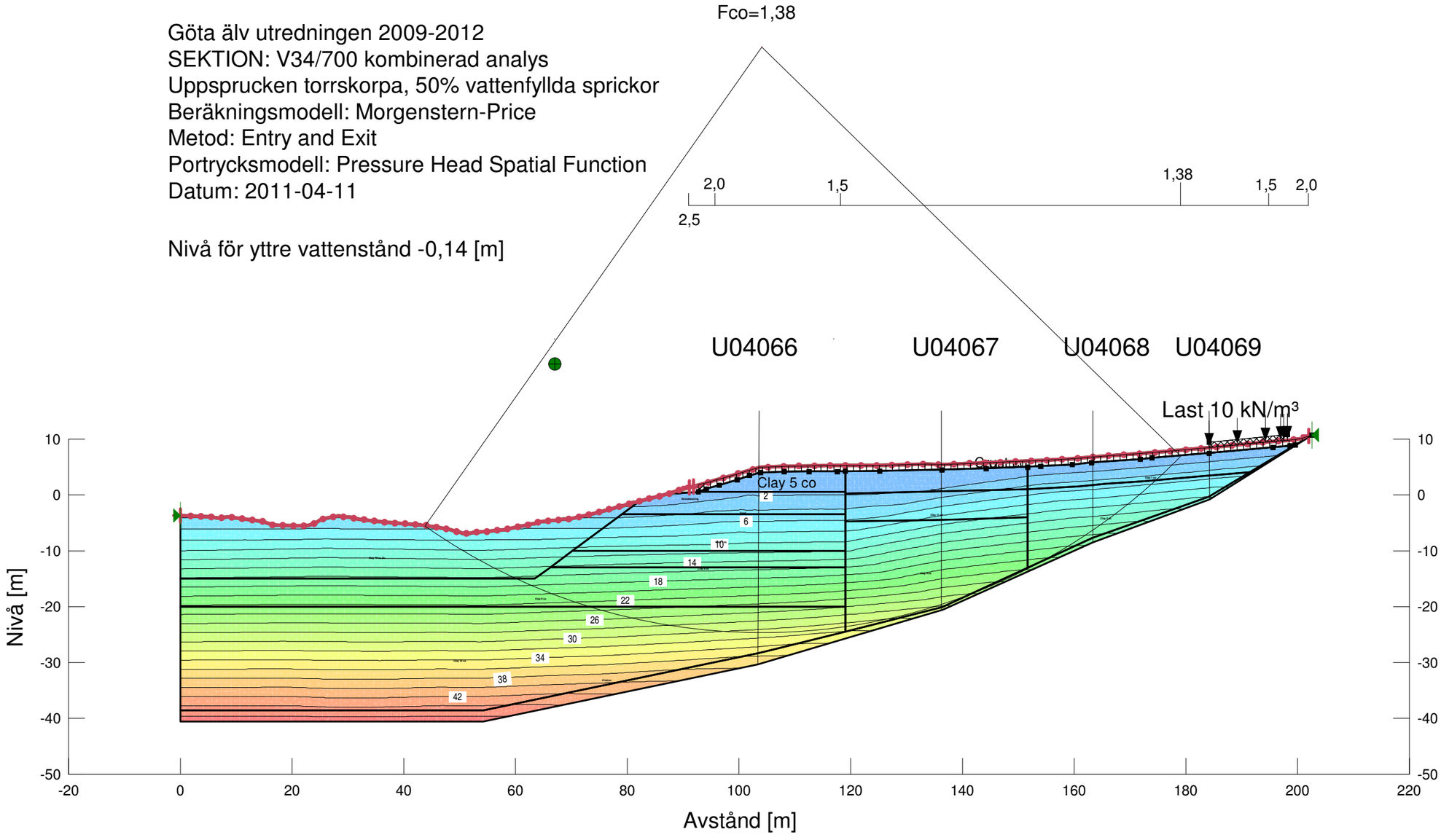
Datum: 2011-04-11

Nivå för yttre vattenstånd -0,14 [m]



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