Kombinerad analys, befintliga förhållanden

File Information

Created By: Lars Nilsson
Revision Number: 279
Last Edited By: Nilsson Lars
Date: 2011-04-06
Time: 08:44:56
File Name: 33600WKS_1000_rev1_20110406.gsz
Directory: S:\Uppdrag\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\GÄU DELOMRÅDE 4\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 20 33600\
Last Solved Date: 2011-04-06
Last Solved Time: 08:47:12

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, befintliga förhållanden

Description: V33/600 kombinerad analys Uppsprucken torrskorpa
Kind: SLOPE/W
Method: Morgenstern-Price
Settings
    Apply Phreatic Correction: No
    Side Function
        Interslice force function option: Half-Sine
    PWP Conditions Source: Piezometric Line
    Use Staged Rapid Drawdown: No
Slip Surface
    Direction of movement: Right to Left
    Use Passive Mode: No
    Slip Surface Option: Grid and Radius
    Critical slip surfaces saved: 1
    Optimize Critical Slip Surface Location: Yes

Tension Crack
Tension Crack Option: Tension Crack Line
Percentage Wet: 0
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: 3 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
Pore Water Pressure
Piezometric Line: 1

Gravel

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Clay 1 co

Model: Combined, S=f(depth)
Unit Weight: 16.5 kN/m³
Phi: 30 °
C-Top of Layer: 1.6 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 16 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Pore Water Pressure
    Piezometric Line: 1

Clay 2 co

Model: Combined, S=f(depth)
Unit Weight: 15.5 kN/m³
Phi: 30 °
C-Top of Layer: 1.6 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 16 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Pore Water Pressure
    Piezometric Line: 1

Clay 3 co älv

Model: Combined, S=f(depth)
Unit Weight: 17 kN/m³
Phi: 30 °
C-Top of Layer: 1.2 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 12 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Pore Water Pressure
    Piezometric Line: 1

Clay 4 co älv

Model: Combined, S=f(depth)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Top of Layer: 1.2 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 12 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0.1
Pore Water Pressure
    Piezometric Line: 1

Friction
Model: Mohr-Coulomb
Unit Weight: 19 kN/m³
Cohesion: 0 kPa
Phi: 34 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Bedrock
Model: Bedrock (Impenetrable)
Pore Water Pressure
Piezometric Line: 1

Clay 5 co
Model: Combined, S=f(depth)
Unit Weight: 15.5 kN/m³
Phi: 30 °
C-Top of Layer: 1.6 kPa
C-Rate of Change: 0.06 kPa/m
Cu-Top of Layer: 16 kPa
Cu-Rate of Change: 0.6 kPa/m
C/Cu Ratio: 0.1
Pore Water Pressure
Piezometric Line: 1

Clay 6 co älv
Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 1.2 kPa
C-Rate of Change: 0.5 kPa/m
Cu-Datum: 12 kPa
Cu-Rate of Change: 5 kPa/m
C/Cu Ratio: 0.1
Elevation: -7.5 m
Pore Water Pressure
Piezometric Line: 1

Clay 7 co älv
Model: Combined, S=f(datum)
Unit Weight: 16 kN/m³
Phi: 30 °
C-Datum: 2.2 kPa
C-Rate of Change: 0.15 kPa/m
Cu-Datum: 22 kPa
Cu-Rate of Change: 1.5 kPa/m
C/Cu Ratio: 0.1
Elevation: -9.5 m
Pore Water Pressure
Piezometric Line: 1

Clay 8 co älv

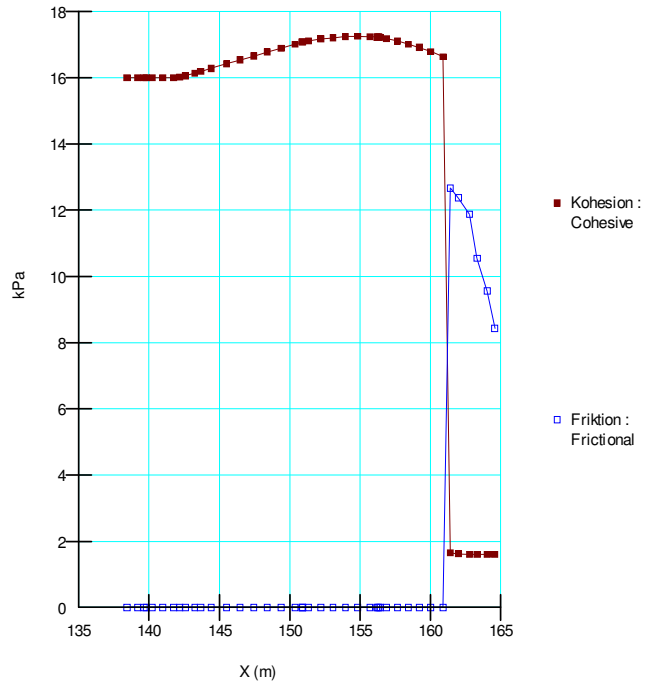
Model: Combined, S=f(datum)
Unit Weight: 16.5 kN/m³
Phi: 30 °
C-Datum: 2.2 kPa
C-Rate of Change: 0.15 kPa/m
Cu-Datum: 22 kPa
Cu-Rate of Change: 1.5 kPa/m
C/Cu Ratio: 0.1
Elevation: -9.5 m
Pore Water Pressure
Piezometric Line: 1

Surcharge Loads

Surcharge Load 1

Surcharge (Unit Weight): 10 kN/m³
Direction: Vertical

Diagram för glidyta i älvsländ (Fk = 1,02)



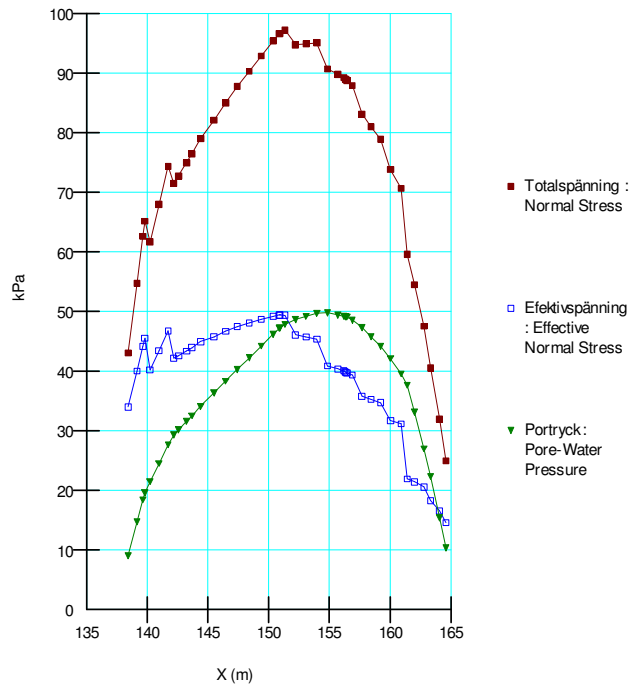
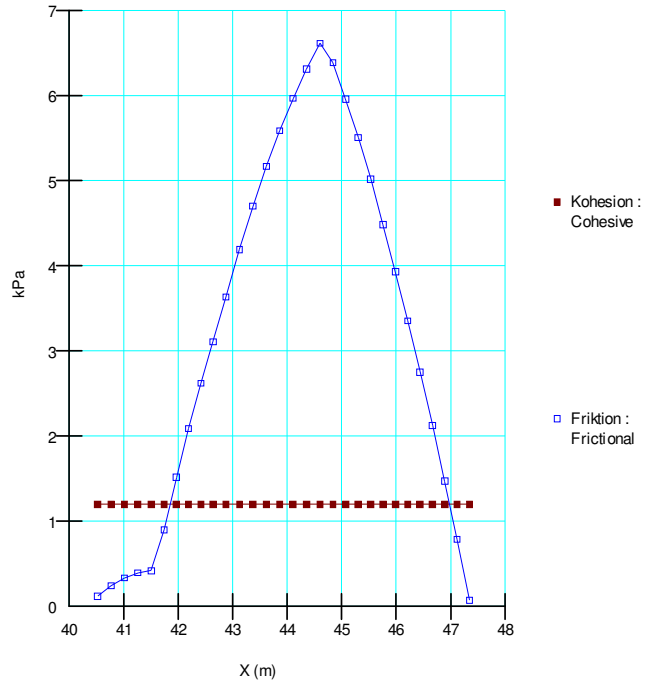
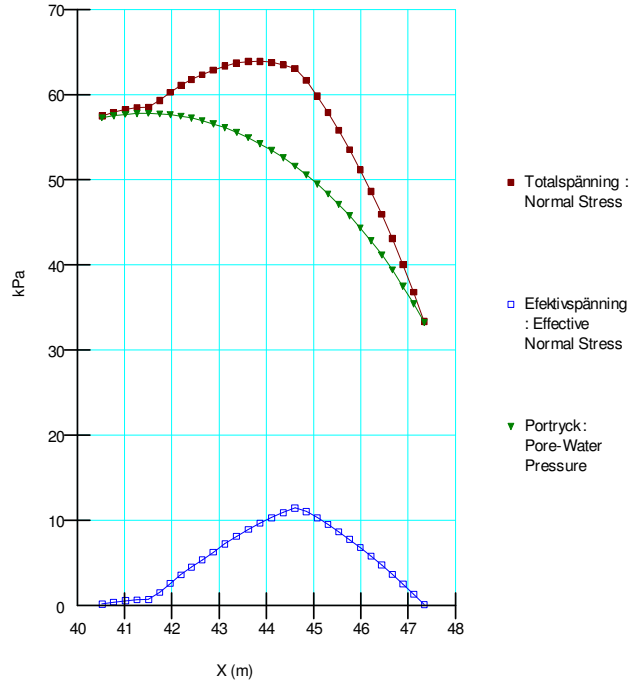


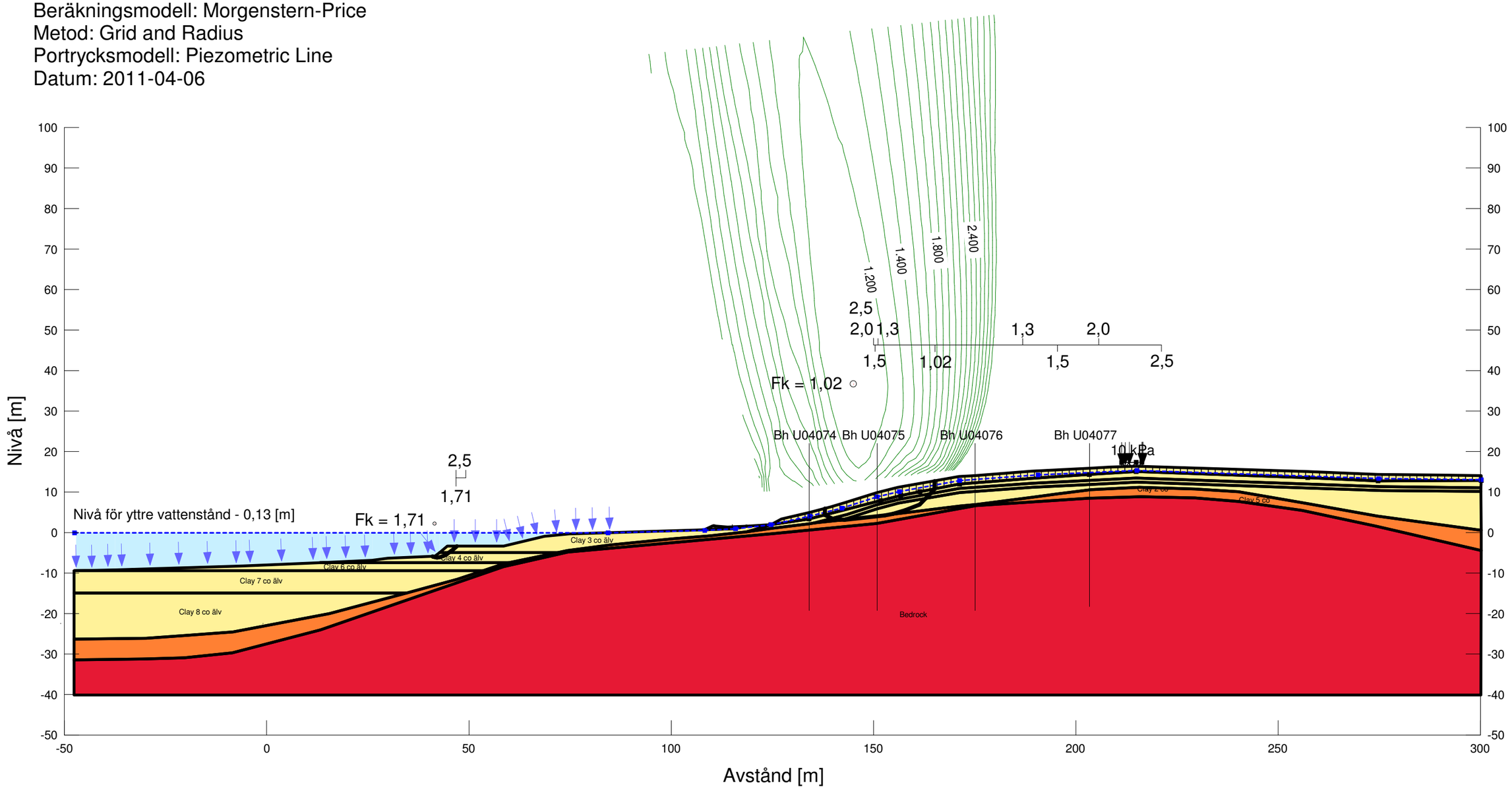
Diagram för glidyta i undervattensslänt (Fk = 1,70)





Skala 1:1000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V33/600 kombinerad analys
Uppsprucken torrskorpa
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Piezometric Line
Datum: 2011-04-06



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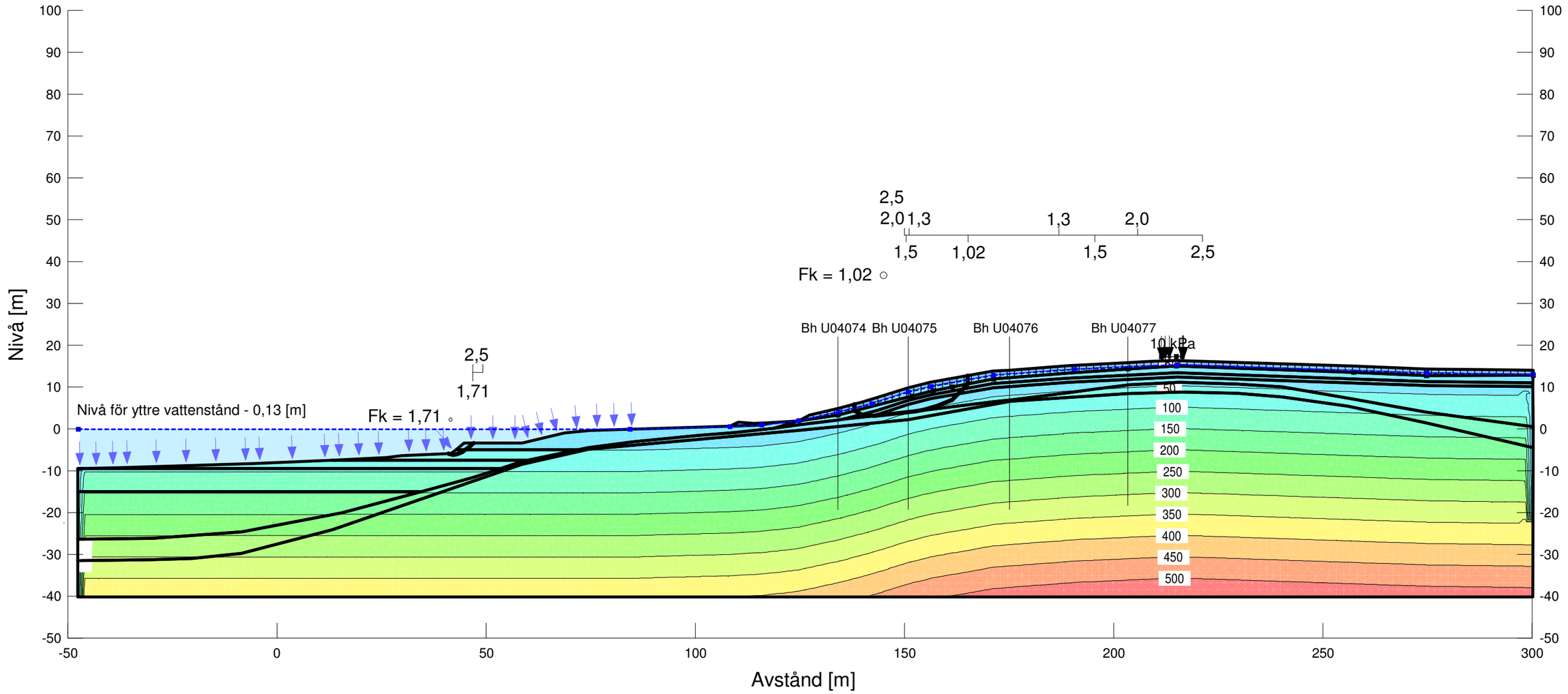
Beräkning utförd av:
Lars Nilsson

Granskad av:
Mats Ekenberg

Skala 1:1000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V33/600 kombinerad analys
Uppsprucken torrskorpa
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Piezometric Line
Datum: 2011-04-11



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