Kombinerad analys, befintliga förhållanden

File Information

Created By: Virginia Bengtsson
Revision Number: 258
Last Edited By: Bengtsson Virginia
Date: 2010-11-22
Time: 14:07:14
File Name: 45550WKS.gsz
Directory: S:\Uppdrag\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\GÄU DELOMRÅDE 4\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 2 45550\
Last Solved Date: 2010-11-22
Last Solved Time: 14:08:13

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: 45550 kombinerad analys Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
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.: Pressure Head Function

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Grid and Radius
- Critical slip surfaces saved: 100
- 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 ud

Model: S=f(depth)
Unit Weight: 18 kN/m³
C-Top of Layer: 30 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Fill

Model: Mohr-Coulomb
Unit Weight: 19 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Clay 1 co älv

Model: Combined, S=f(datum)
Unit Weight: 15.75 kN/m³
Phi: 30 °
C-Datum: 0.3 kPa
C-Rate of Change: 0 kPa/m
Cu-Datum: 3 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0
Elevation: 0 m

Clay 2 co älv

Model: Combined, S=f(datum)
Unit Weight: 15.75 kN/m³
Phi: 30 °
C-Datum: 0.3 kPa
C-Rate of Change: 0.261 kPa/m
Cu-Datum: 3 kPa

Cu-Rate of Change: 2.61 kPa/m
C/Cu Ratio: 0
Elevation: -9.3 m

Clay 3 co

Model: Combined, S=f(datum)
Unit Weight: 15.75 kN/m³
Phi: 30 °
C-Datum: 0.4 kPa
C-Rate of Change: 0.114 kPa/m
Cu-Datum: 4 kPa
Cu-Rate of Change: 1.14 kPa/m
C/Cu Ratio: 0
Elevation: 2 m

Clay 4 co

Model: Combined, S=f(depth)
Unit Weight: 16.25 kN/m³
Phi: 30 °
C-Top of Layer: 1.8 kPa
C-Rate of Change: 0 kPa/m
Cu-Top of Layer: 18 kPa
Cu-Rate of Change: 0 kPa/m
C/Cu Ratio: 0

Clay 5 co

Model: Combined, S=f(depth)
Unit Weight: 16.25 kN/m³
Phi: 30 °
C-Top of Layer: 2 kPa
C-Rate of Change: 0.167 kPa/m
Cu-Top of Layer: 20 kPa
Cu-Rate of Change: 1.67 kPa/m
C/Cu Ratio: 0

Clay 6 co

Model: Combined, S=f(depth)
Unit Weight: 16.25 kN/m³
Phi: 30 °
C-Top of Layer: 2.7 kPa
C-Rate of Change: 0.167 kPa/m
Cu-Top of Layer: 27 kPa
Cu-Rate of Change: 1.67 kPa/m
C/Cu Ratio: 0

Clay 7 co

Model: Combined, S=f(datum)
Unit Weight: 15.75 kN/m³
Phi: 30 °
C-Datum: 2.73 kPa
C-Rate of Change: 0.1 kPa/m
Cu-Datum: 27.3 kPa

Cu-Rate of Change: 1 kPa/m
C/Cu Ratio: 0
Elevation: -18.6 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)

Sand

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 33 °
Phi-B: 0 °

Gyttja

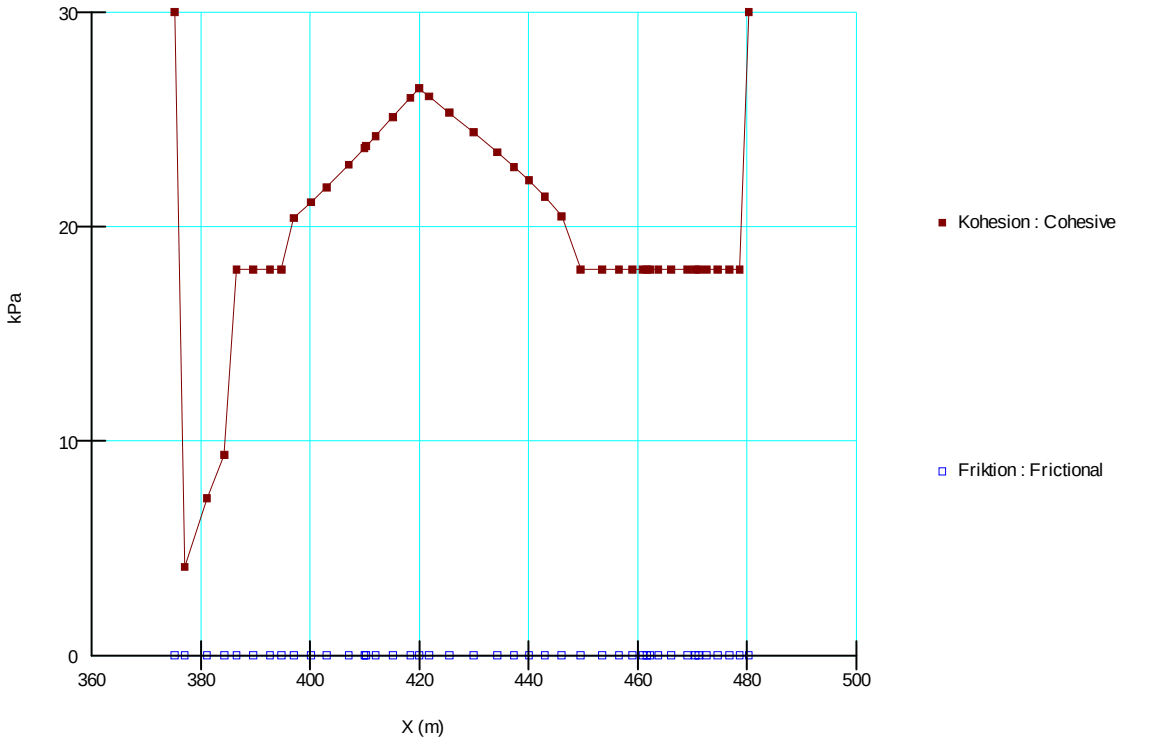
Model: Combined, S=f(datum)
Unit Weight: 14 kN/m³
Phi: 30 °
C-Datum: 0.7 kPa
C-Rate of Change: 0.1 kPa/m
Cu-Datum: 7 kPa
Cu-Rate of Change: 1 kPa/m
C/Cu Ratio: 0
Elevation: 2 m

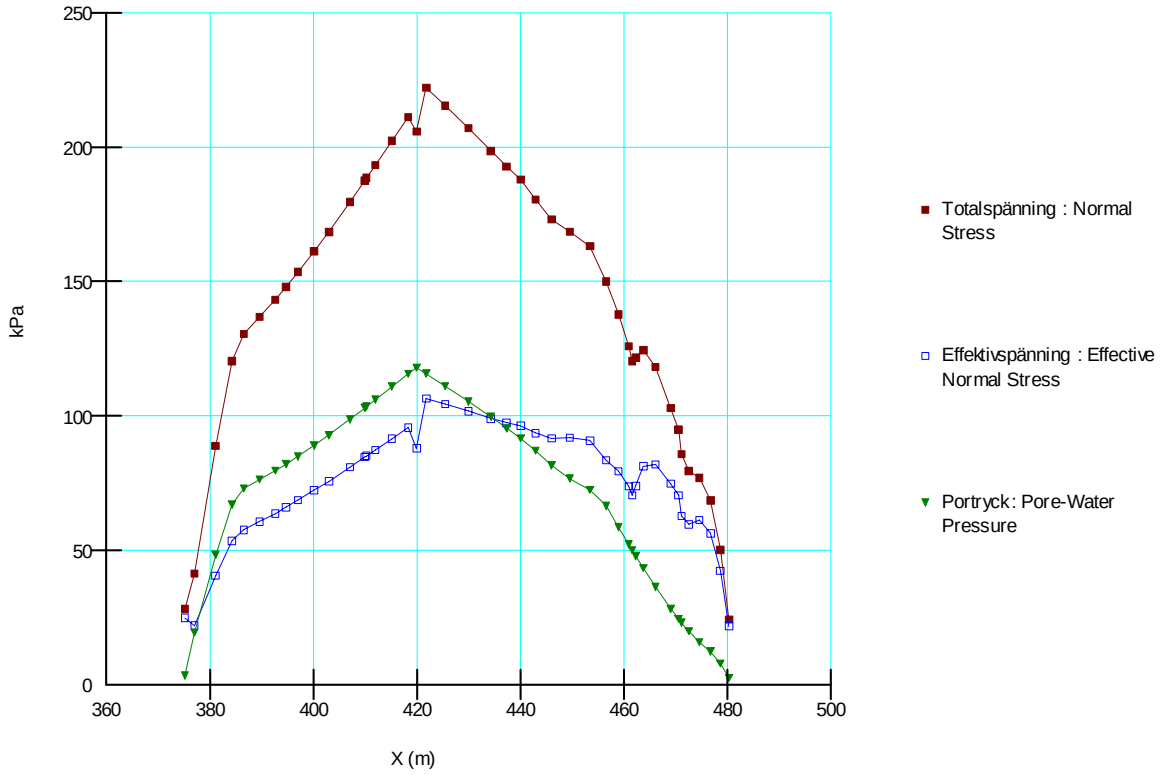
Surcharge Loads

Surcharge Load 1

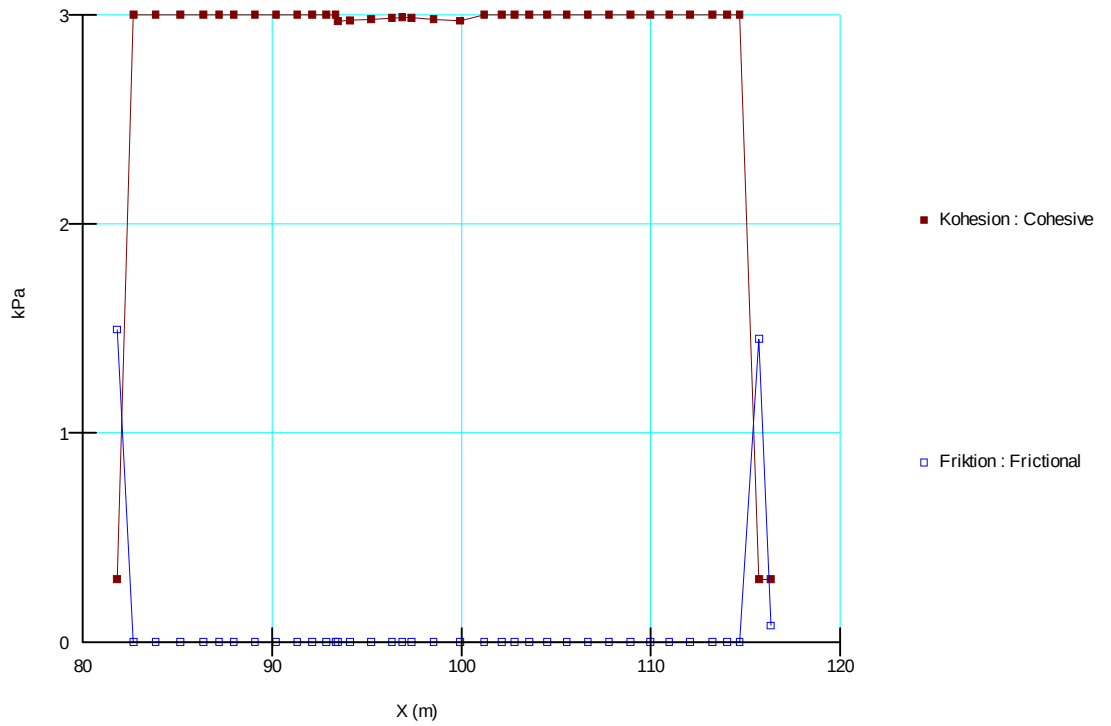
Surcharge (Unit Weight): 20 kN/m³
Direction: Vertical

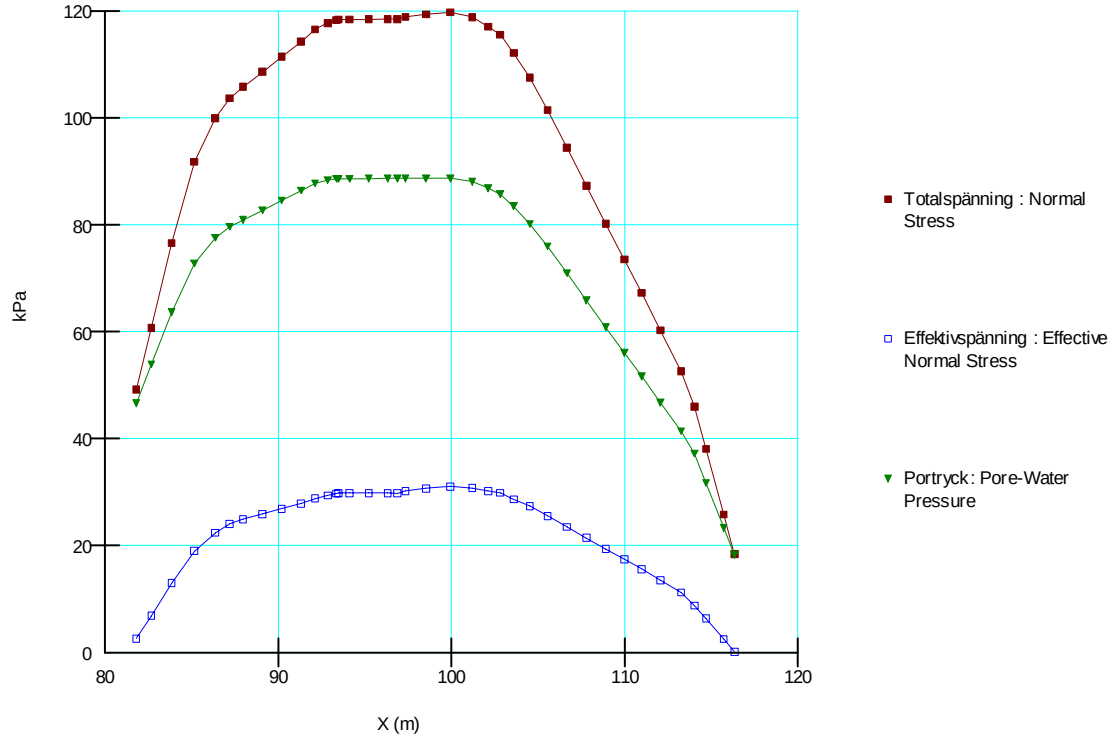
Optimerad glidyta slänt vid fastmark (Fkomb = 1,65)



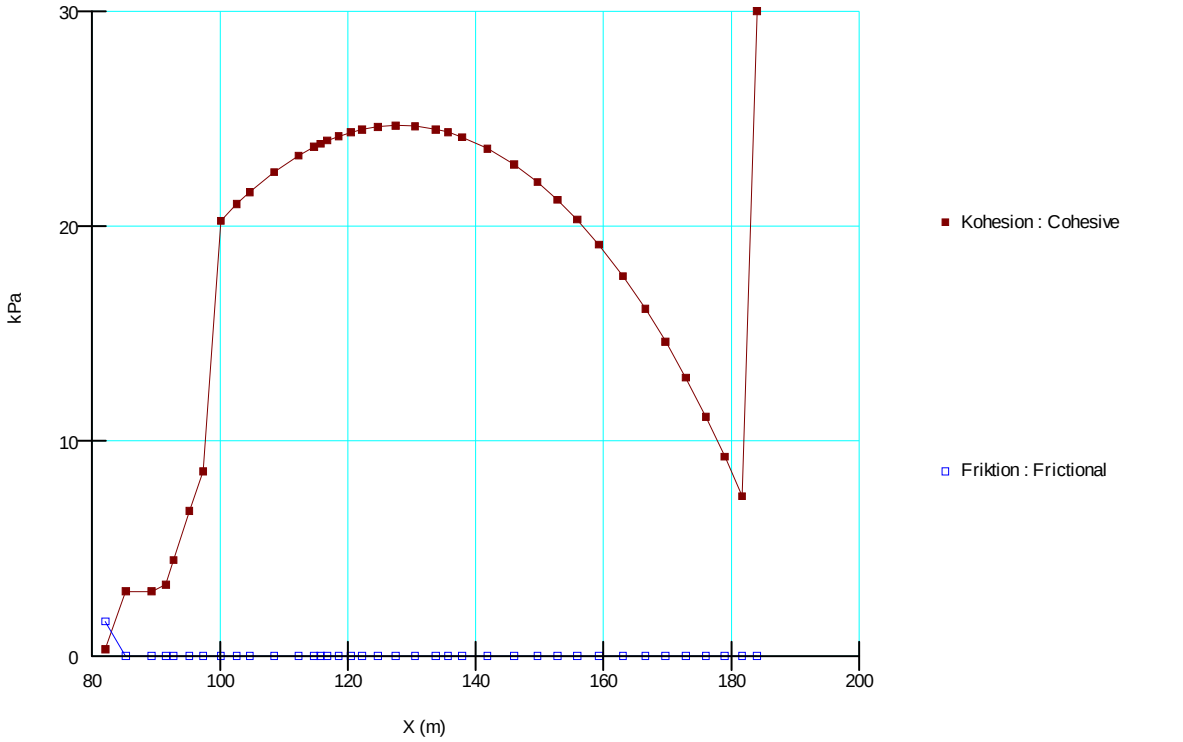


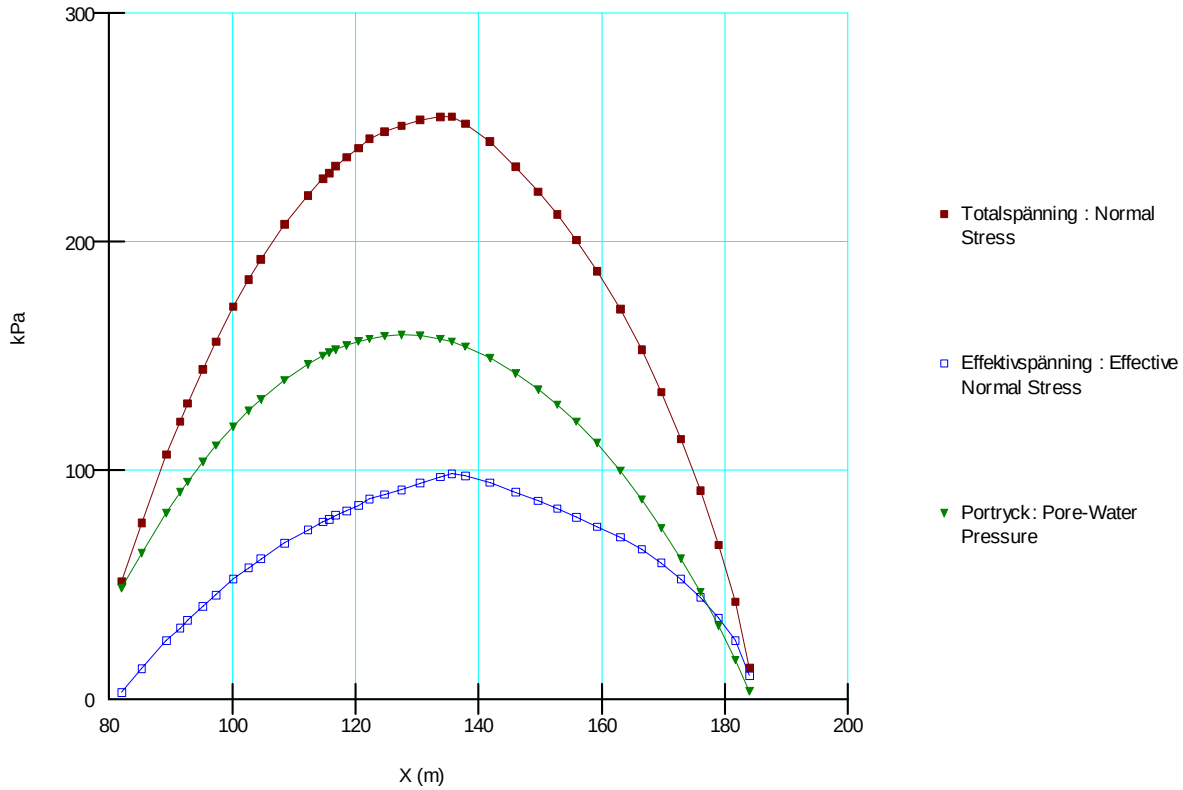
Optimerad glidyta undervattensslänt (Fkomb = 2,11)





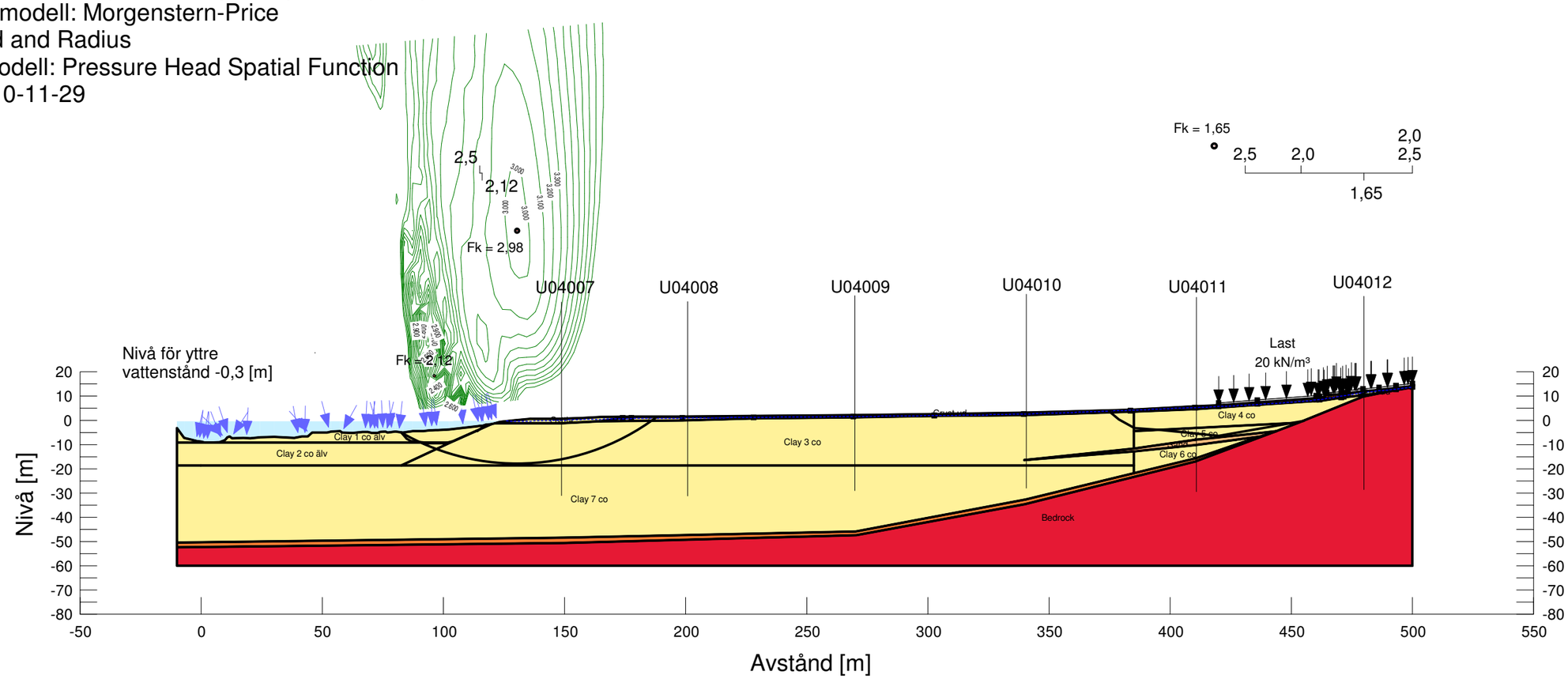
Cirkulärcylindrisk glidyta älvsländ (Fc=2,98)





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

Göta älv utredningen 2009-2012
SEKTION: 45550 kombinerad analys
Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Pressure Head Spatial Function
Datum: 2010-11-29



Beräkning utförd av:
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Granskad av:
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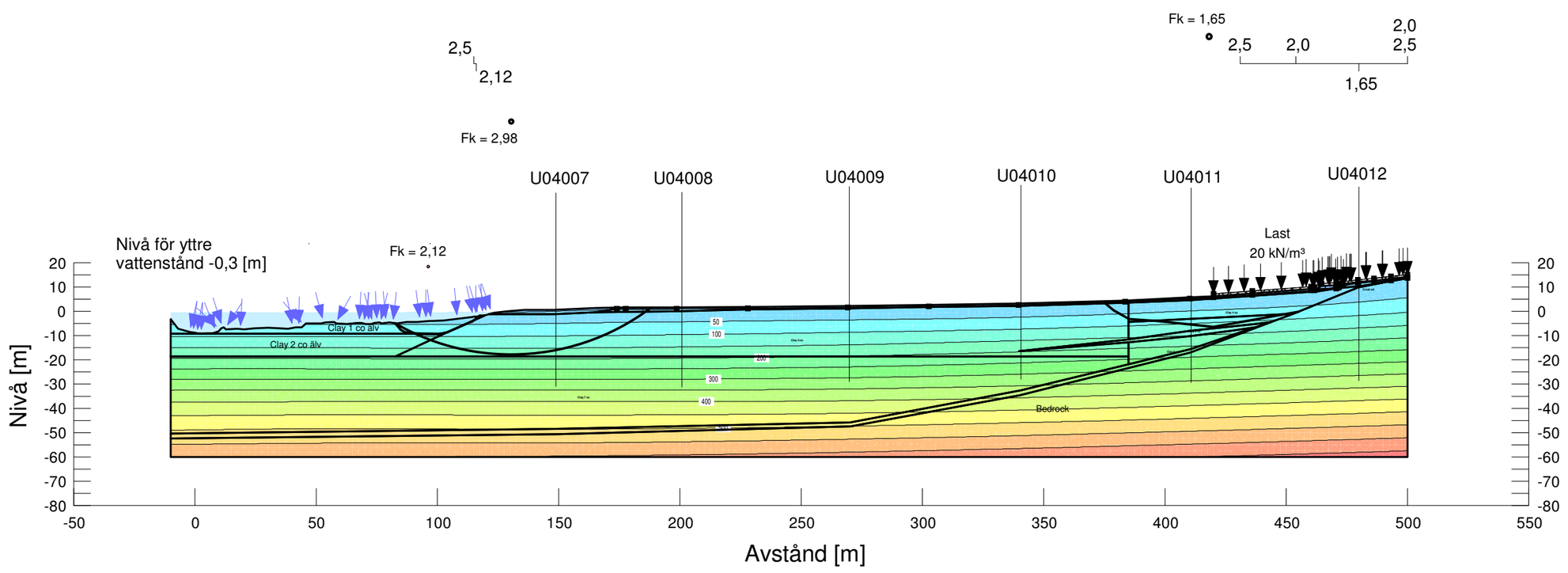
Skala 1:2000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V45/550 kombinerad analys
Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-13



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