

# SLOPE/W Analysis

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## File Information

Created By: [Kine Meijer](#)  
Revision Number: 68  
Last Edited By: [Kine Meijer](#)  
Date: 2011-07-11  
Time: 05:00:23  
File Name: V16830\_odrainerad\_EEprint.gsz  
Directory: P:\!Göta älv utredningen 2009-2012\Delområde 1-10\Delområde 5-14085\Geoteknik\Text\Interngranskning\V16830\Beräkningar\110816\  
Last Solved Date: 2011-07-11  
Last Solved Time: 05:01:26

## 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/m<sup>3</sup>](#)  
View: [2D](#)

## Analysis Settings

### SLOPE/W Analysis

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.: [New Pressure Head Function](#)  
SlipSurface  
Direction of movement: [Right to Left](#)  
Use Passive Mode: [No](#)  
Slip Surface Option: [Entry and Exit](#)  
Critical slip surfaces saved: 5  
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/m<sup>3</sup>](#)  
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

### CI 1

Model:  $S=f(\text{datum})$   
Unit Weight: 17 kN/m<sup>3</sup>  
C-Datum: 28 kPa  
C-Rate of Change: 0 kPa/m  
Limiting C: 28 kPa  
Elevation: 25 m

### CI 2

Model:  $S=f(\text{datum})$   
Unit Weight: 17 kN/m<sup>3</sup>  
C-Datum: 28 kPa  
C-Rate of Change: 1.56 kPa/m  
Limiting C: 0 kPa  
Elevation: 15 m

### Crust

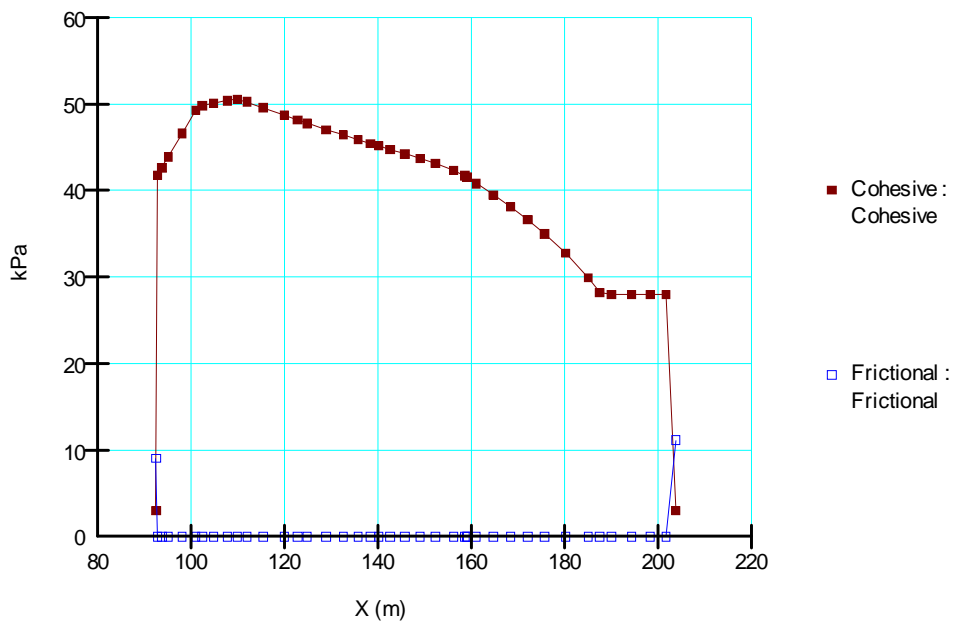
Model: Mohr-Coulomb  
Unit Weight: 18 kN/m<sup>3</sup>  
Cohesion: 3 kPa  
Phi: 30 °  
Phi-B: 0 °

### CI 5

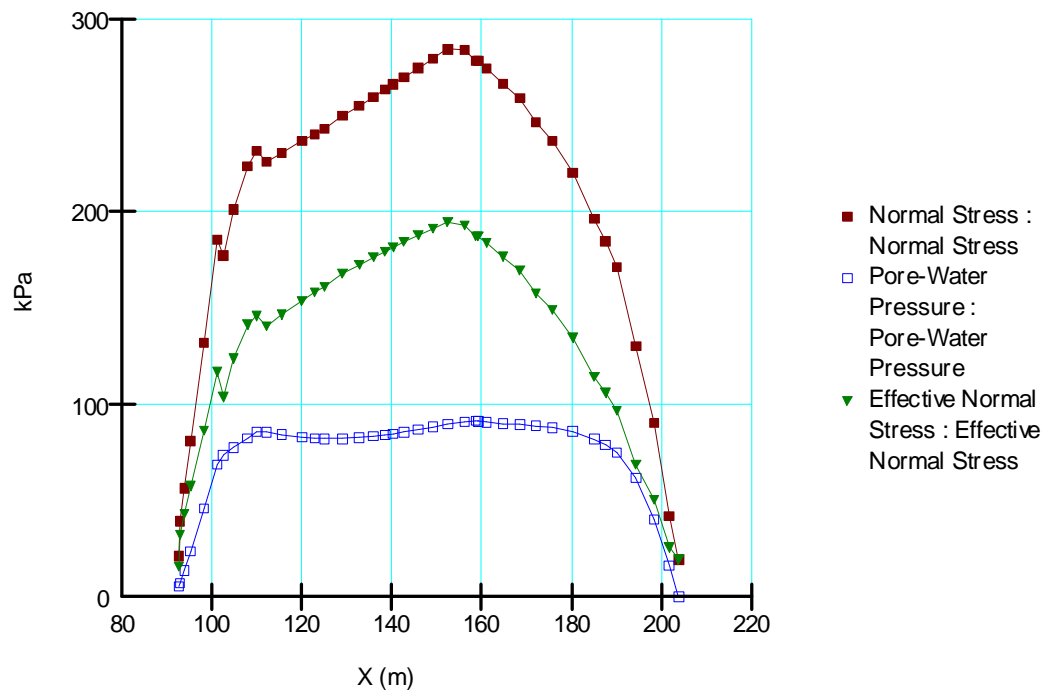
Model:  $S=f(\text{depth})$   
Unit Weight: 16.4 kN/m<sup>3</sup>  
C-Top of Layer: 3 kPa  
C-Rate of Change: 22 kPa/m  
Limiting C: 25 kPa

### CI 6

Model:  $S=f(\text{depth})$   
Unit Weight: 16.4 kN/m<sup>3</sup>  
C-Top of Layer: 25 kPa  
C-Rate of Change: 2.63 kPa/m  
Limiting C: 0 kPa



Figur 1. Kohesion och friktion.



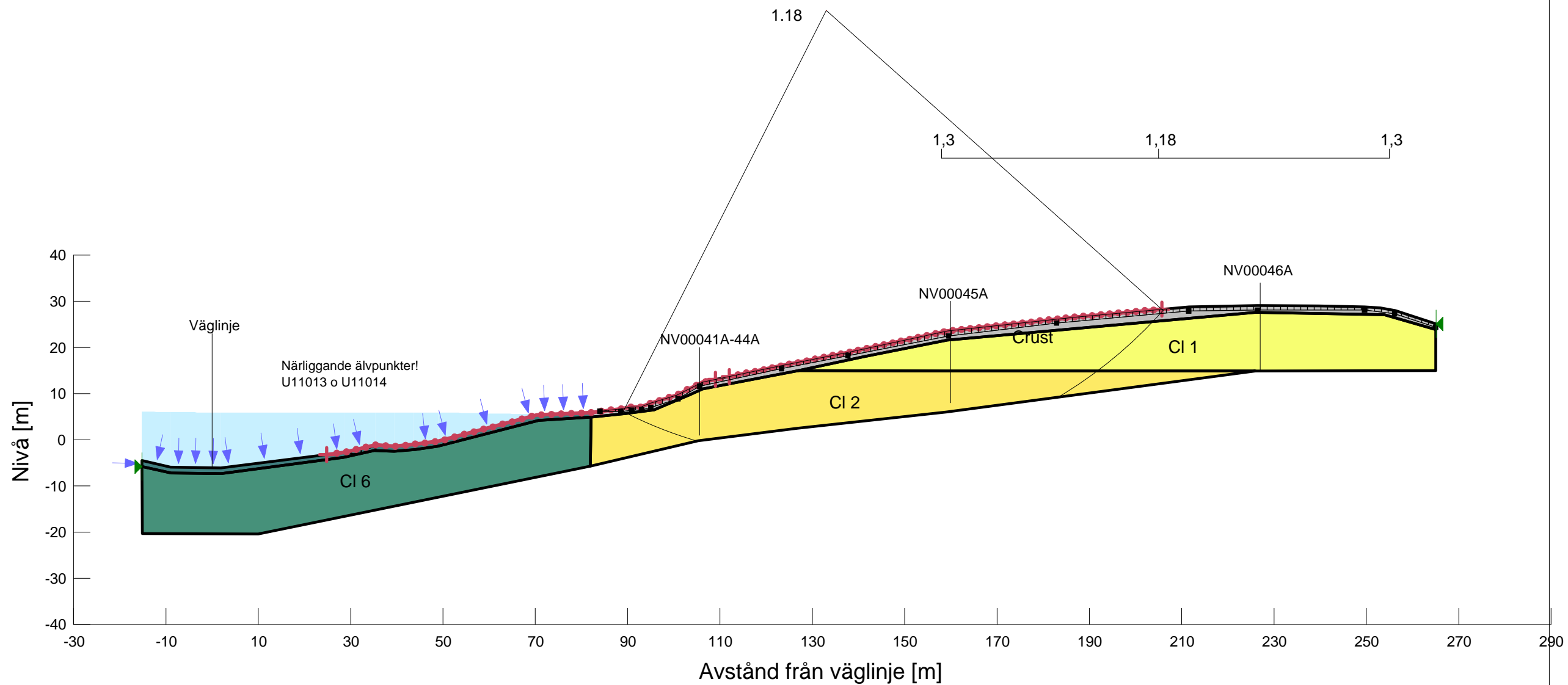
Figur 2. Totalspänning, effektivspänning och portryck.



# KLIMATANPASSNING SKREDFÖRUTSÄTTNINGAR I GÖTA ÄLVDALEN

Sektion: V16830  
Delområde: Intagan - Ström  
Analysmetod: Odränerad analys

Slip Surface Option: Entry and Exit  
Method: Morgenstern-Price  
PWP Conditions Source: Pressure Head Spatial Function  
Date: 2011-08-16  
Created By: Kine Meijer  
Last Edited By: Kine Meijer



- Name: CI 1  
Model: S=f(datum)  
Unit Weight: 17 kN/m<sup>3</sup>  
C-Datum: 28 kPa  
C-Rate of Change: 0 kPa/m  
Limiting C: 28 kPa
- Name: CI 2  
Model: S=f(datum)  
Unit Weight: 17 kN/m<sup>3</sup>  
C-Datum: 28 kPa  
C-Rate of Change: 1.56 kPa/m  
Limiting C: 0 kPa
- Name: Crust  
Model: Mohr-Coulomb  
Unit Weight: 18 kN/m<sup>3</sup>  
Cohesion: 3 kPa  
Phi: 30 °
- Name: CI 5  
Model: S=f(depth)  
Unit Weight: 16.4 kN/m<sup>3</sup>  
C-Top of Layer: 3 kPa  
C-Rate of Change: 22 kPa/m  
Limiting C: 25 kPa
- Name: CI 6  
Model: S=f(depth)  
Unit Weight: 16.4 kN/m<sup>3</sup>  
C-Top of Layer: 25 kPa  
C-Rate of Change: 2.63 kPa/m  
Limiting C: 0 kPa

# SLOPE/W Analysis

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## File Information

Created By: [Kine Meijer](#)  
Revision Number: 57  
Last Edited By: [Kine Meijer](#)  
Date: 2011-07-11  
Time: 03:31:05  
File Name: V16830\_kombinerad\_EE print.gsz  
Directory: P:\!Göta älv utredningen 2009-2012\Delområde 1-10\Delområde 5-14085\Geoteknik\Text\Interngranskning\V16830\Beräkningar\110816\  
Last Solved Date: 2011-07-11  
Last Solved Time: 03:34:16

## 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/m<sup>3</sup>](#)  
View: [2D](#)

## Analysis Settings

### SLOPE/W Analysis

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.: [New Pressure Head Function](#)  
SlipSurface  
Direction of movement: [Right to Left](#)  
Use Passive Mode: [No](#)  
Slip Surface Option: [Entry and Exit](#)  
Critical slip surfaces saved: 5  
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/m<sup>3</sup>](#)  
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

### CI 1

Model: Combined,  $S=f(\text{datum})$   
Unit Weight: 17 kN/m<sup>3</sup>  
Phi: 30 °  
C-Datum: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Datum: 28 kPa  
Cu-Rate of Change: 0 kPa/m  
C/Cu Ratio: 0.1  
Elevation: 25 m

### CI 2

Model: Combined,  $S=f(\text{datum})$   
Unit Weight: 17 kN/m<sup>3</sup>  
Phi: 30 °  
C-Datum: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Datum: 28 kPa  
Cu-Rate of Change: 1.56 kPa/m  
C/Cu Ratio: 0.1  
Elevation: 15 m

### Crust

Model: Mohr-Coulomb  
Unit Weight: 18 kN/m<sup>3</sup>  
Cohesion: 3 kPa  
Phi: 30 °  
Phi-B: 0 °

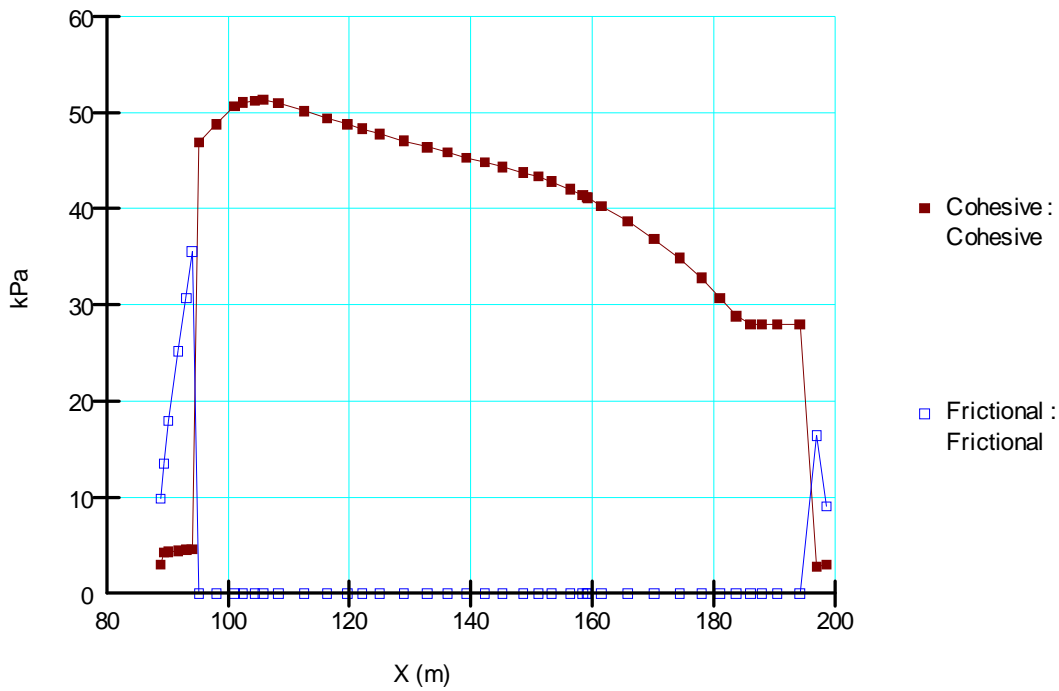
### CI 5

Model: Combined,  $S=f(\text{depth})$   
Unit Weight: 16.4 kN/m<sup>3</sup>  
Phi: 30 °  
C-Top of Layer: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Top of Layer: 3 kPa

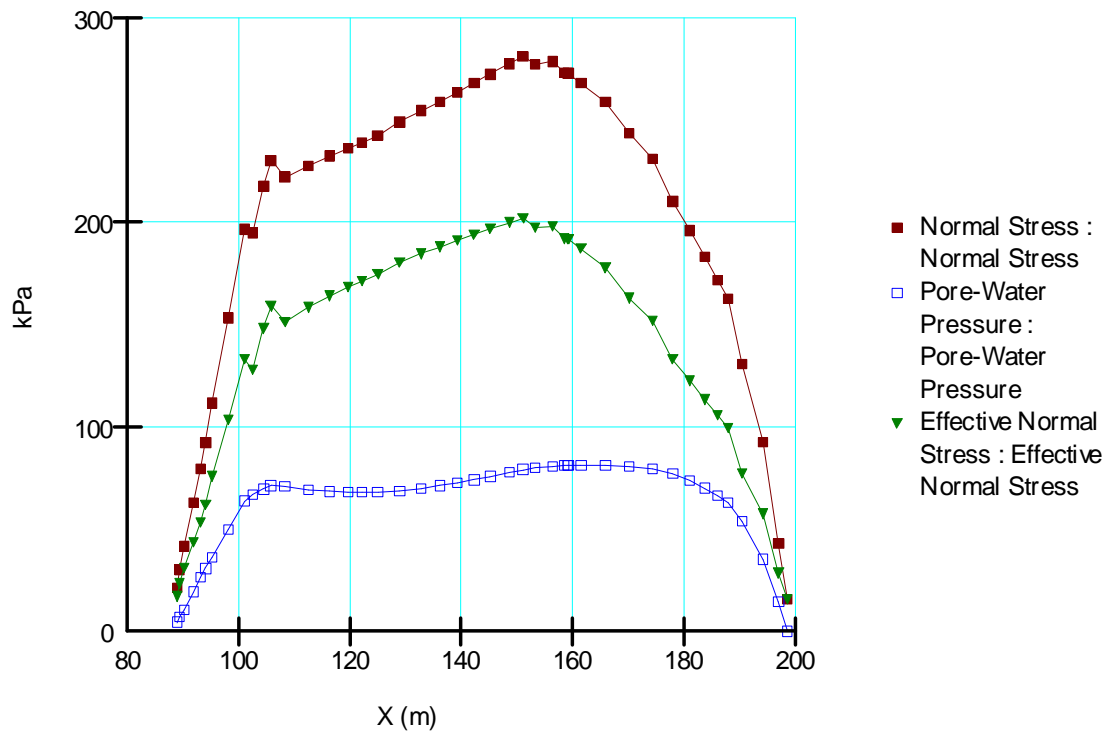
Cu-Rate of Change: 22 kPa/m  
C/Cu Ratio: 0.1

## Cl 6

Model: Combined,  $S=f(\text{depth})$   
Unit Weight: 16.4 kN/m<sup>3</sup>  
Phi: 30 °  
C-Top of Layer: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Top of Layer: 25 kPa  
Cu-Rate of Change: 2.63 kPa/m  
C/Cu Ratio: 0.1



Figur 1. Kohesion och friktion.



Figur 2. Totalspänning, effektivspänning och portryck.

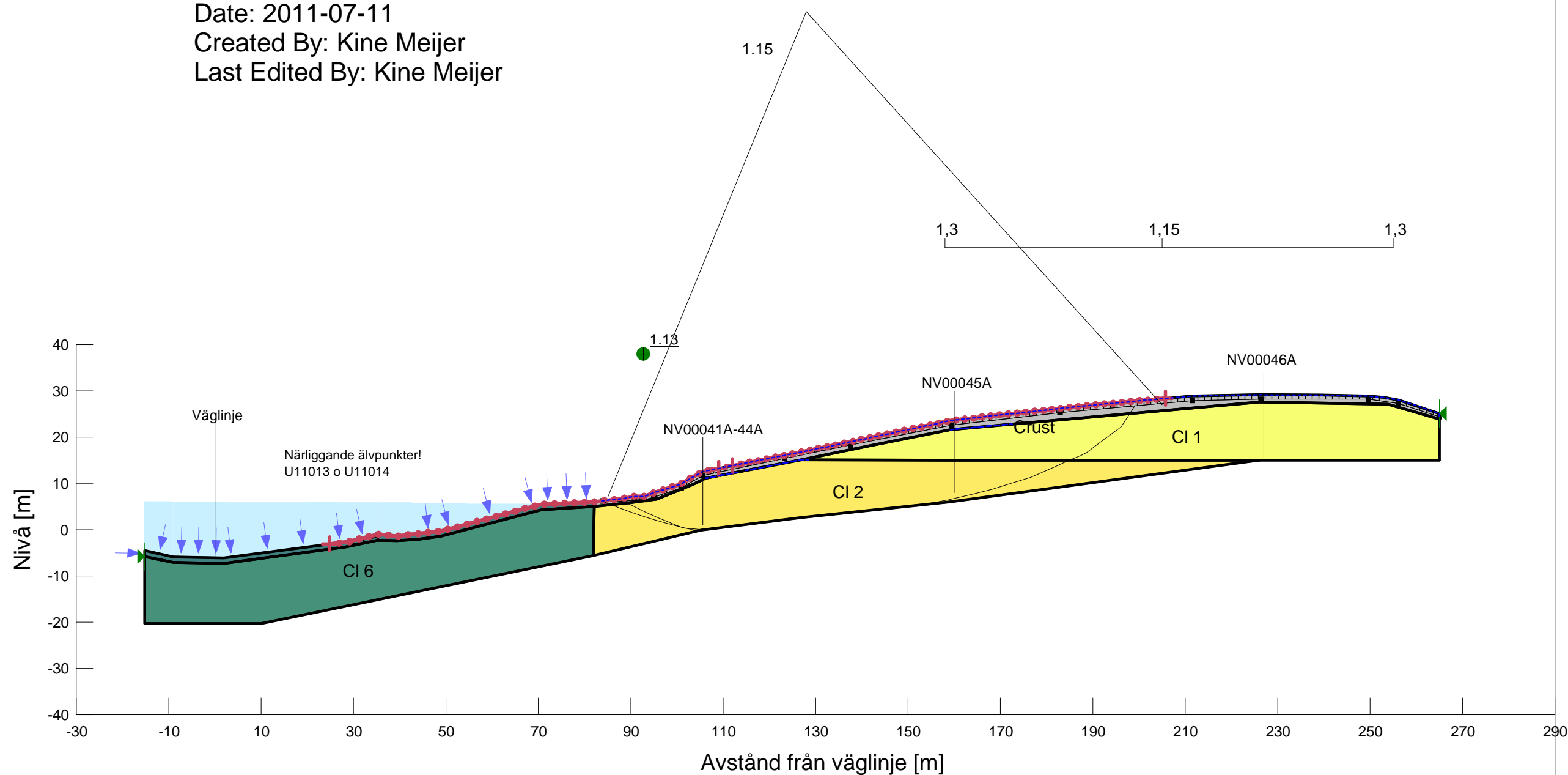


Skala 1:1000 (A3)

## KLIMATANPASSNING SKREDFÖRUTSÄTTNINGAR I GÖTA ÄLVDALLEN

Sektion: V16830  
 Delområde: Intagan - Ström  
 Analysmetod: Kombinerad analys

Slip Surface Option: Entry and Exit  
 Method: Morgenstern-Price  
 PWP Conditions Source: Pressure Head Spatial Function  
 Date: 2011-07-11  
 Created By: Kine Meijer  
 Last Edited By: Kine Meijer



Name: CI 1  
 Model: Combined,  $S=f(\text{datum})$   
 Unit Weight: 17 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Datum: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Datum: 28 kPa  
 Cu-Rate of Change: 0 kPa/m  
 C/Cu Ratio: 0.1

Name: CI 2  
 Model: Combined,  $S=f(\text{datum})$   
 Unit Weight: 17 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Datum: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Datum: 28 kPa  
 Cu-Rate of Change: 1.56 kPa/m  
 C/Cu Ratio: 0.1

Name: Crust  
 Model: Mohr-Coulomb  
 Unit Weight: 18 kN/m<sup>3</sup>  
 Cohesion: 3 kPa  
 Phi: 30 °

Name: CI 5  
 Model: Combined,  $S=f(\text{depth})$   
 Unit Weight: 16.4 kN/m<sup>3</sup>  
 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: 22 kPa/m  
 C/Cu Ratio: 0.1

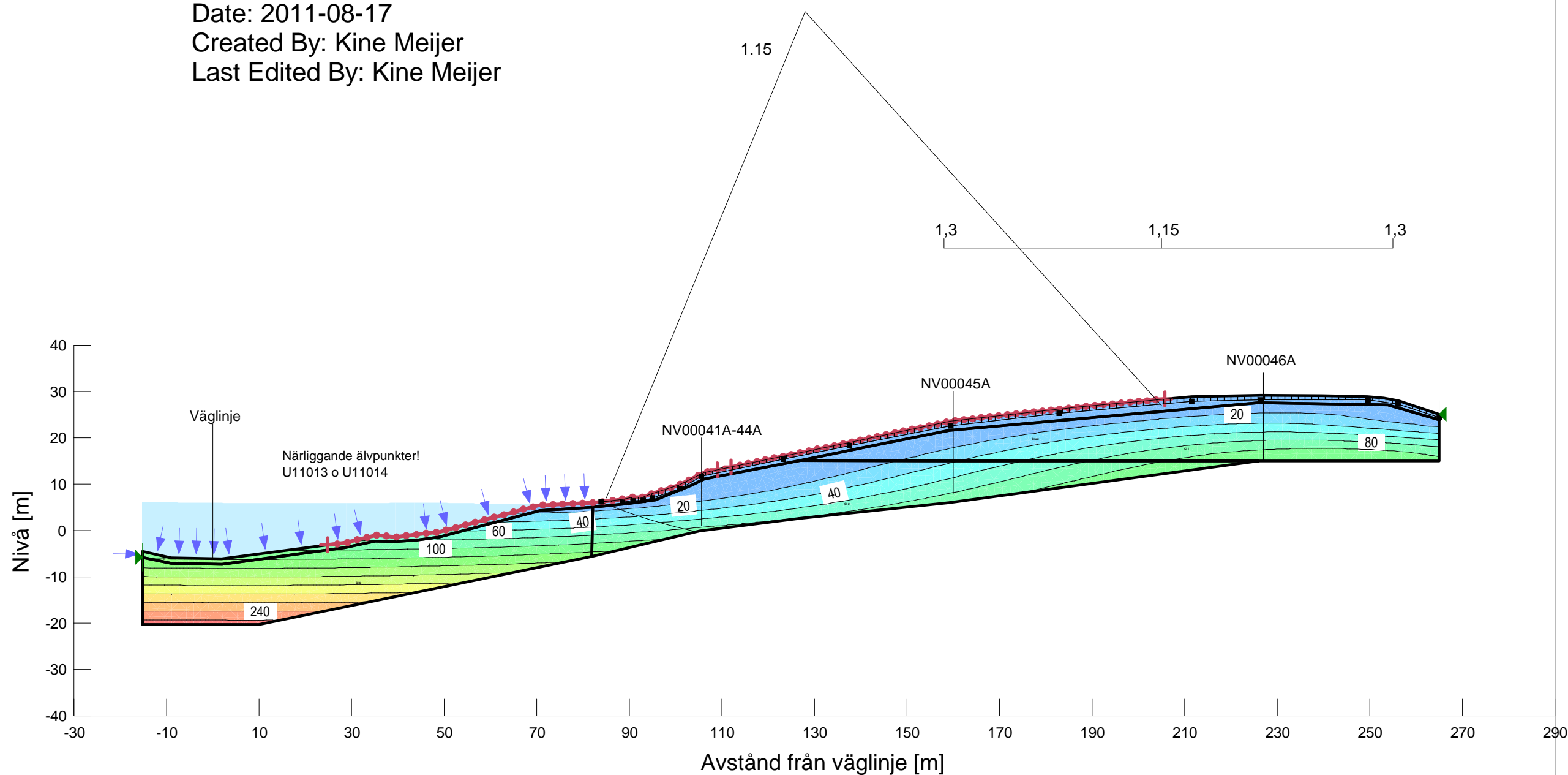
Name: CI 6  
 Model: Combined,  $S=f(\text{depth})$   
 Unit Weight: 16.4 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Top of Layer: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Top of Layer: 25 kPa  
 Cu-Rate of Change: 2.63 kPa/m  
 C/Cu Ratio: 0.1



# KLIMATANPASSNING SKREDFÖRUTSÄTTNINGAR I GÖTA ÄLVDALLEN

Sektion: V16830  
 Delområde: Intagan - Ström  
 Analysmetod: Kombinerad analys

Slip Surface Option: Entry and Exit  
 Method: Morgenstern-Price  
 PWP Conditions Source: Pressure Head Spatial Function  
 Date: 2011-08-17  
 Created By: Kine Meijer  
 Last Edited By: Kine Meijer



Skala 1:1000 (A3)

Name: CI 1  
 Model: Combined,  $S=f(\text{datum})$   
 Unit Weight: 17 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Datum: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Datum: 28 kPa  
 Cu-Rate of Change: 0 kPa/m  
 C/Cu Ratio: 0.1

Name: CI 2  
 Model: Combined,  $S=f(\text{datum})$   
 Unit Weight: 17 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Datum: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Datum: 28 kPa  
 Cu-Rate of Change: 1.56 kPa/m  
 C/Cu Ratio: 0.1

Name: Crust  
 Model: Mohr-Coulomb  
 Unit Weight: 18 kN/m<sup>3</sup>  
 Cohesion: 3 kPa  
 Phi: 30 °

Name: CI 5  
 Model: Combined,  $S=f(\text{depth})$   
 Unit Weight: 16.4 kN/m<sup>3</sup>  
 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: 22 kPa/m  
 C/Cu Ratio: 0.1

Name: CI 6  
 Model: Combined,  $S=f(\text{depth})$   
 Unit Weight: 16.4 kN/m<sup>3</sup>  
 Phi: 30 °  
 C-Top of Layer: 0 kPa  
 C-Rate of Change: 0 kPa/m  
 Cu-Top of Layer: 25 kPa  
 Cu-Rate of Change: 2.63 kPa/m  
 C/Cu Ratio: 0.1