Odränerad analys, befintliga förhållanden

File Information

Created By: Åsa Bergh
Revision Number: 248
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File Name: 37850WUS_2000.gsz
Directory: K:\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\GÄU DELOMRÅDE 4\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 13 37850\
Last Solved Date: 2010-12-07
Last Solved Time: 10:25:12

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

Odränerad analys, befintliga förhållanden

Description: V37/850 odränerad analys Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
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: 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: 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
Pore Water Pressure
Piezometric Line: 1

Clay 1 ud

Model: S=f(depth)
Unit Weight: 14.9 kN/m³
C-Top of Layer: 12 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
Piezometric Line: 1

Clay 2 ud

Model: S=f(depth)
Unit Weight: 16.6 kN/m³
C-Top of Layer: 28.8 kPa
C-Rate of Change: 1.53 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
Piezometric Line: 1

Clay 3 ud

Model: S=f(datum)
Unit Weight: 16 kN/m³
C-Datum: 8 kPa
C-Rate of Change: 0.53 kPa/m
Limiting C: 0 kPa
Elevation: 10 m
Pore Water Pressure
Piezometric Line: 1

Clay 4 ud

Model: S=f(datum)
Unit Weight: 15.3 kN/m³
C-Datum: 8 kPa
C-Rate of Change: 0.53 kPa/m
Limiting C: 0 kPa
Elevation: 10 m
Pore Water Pressure
Piezometric Line: 1

Clay 5 ud

Model: S=f(datum)
Unit Weight: 15.3 kN/m³
C-Datum: 16 kPa
C-Rate of Change: 1.13 kPa/m
Limiting C: 0 kPa
Elevation: -5 m
Pore Water Pressure
Piezometric Line: 1

Clay 6 ud älv

Model: S=f(depth)
Unit Weight: 15.3 kN/m³
C-Top of Layer: 8 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
Piezometric Line: 1

Clay 7 ud älv

Model: S=f(depth)
Unit Weight: 16.5 kN/m³
C-Top of Layer: 8 kPa
C-Rate of Change: 5.4 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
Piezometric Line: 1

Clay 9 ud

Model: S=f(depth)
Unit Weight: 15.5 kN/m³
C-Top of Layer: 12 kPa
C-Rate of Change: 1.53 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
    Piezometric Line: 1

Clay 10 ud

Model: S=f(depth)
Unit Weight: 15.5 kN/m³
C-Top of Layer: 22.7 kPa
C-Rate of Change: 1.53 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
    Piezometric Line: 1

Clay 11 ud

Model: S=f(depth)
Unit Weight: 16.6 kN/m³
C-Top of Layer: 44.2 kPa
C-Rate of Change: 1.53 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
    Piezometric Line: 1

Clay 12 ud

Model: S=f(depth)
Unit Weight: 16.6 kN/m³
C-Top of Layer: 53 kPa
C-Rate of Change: 1.53 kPa/m
Limiting C: 0 kPa
Pore Water Pressure
    Piezometric Line: 1

Clay 13 ud

Model: S=f(datum)
Unit Weight: 15.3 kN/m³
C-Datum: 8 kPa
C-Rate of Change: 0.53 kPa/m
Limiting C: 0 kPa
Elevation: 10 m
Pore Water Pressure
    Piezometric Line: 1

Clay 14 ud

Model: S=f(datum)
Unit Weight: 15.3 kN/m³
C-Datum: 16 kPa
C-Rate of Change: 1.13 kPa/m
Limiting C: 0 kPa
Elevation: -5 m
Pore Water Pressure
    Piezometric Line: 1

Clay 15 ud

Model: S=f(datum)
Unit Weight: 16.5 kN/m³
C-Datum: 16 kPa
C-Rate of Change: 1.13 kPa/m
Limiting C: 0 kPa
Elevation: -5 m
Pore Water Pressure
    Piezometric Line: 1

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 °
Pore Water Pressure
    Piezometric Line: 1

Silt

Model: Mohr-Coulomb
Unit Weight: 19 kN/m³
Unit Wt. Above Water Table: 17 kN/m³
Cohesion: 0 kPa
Phi: 30 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

Gravel

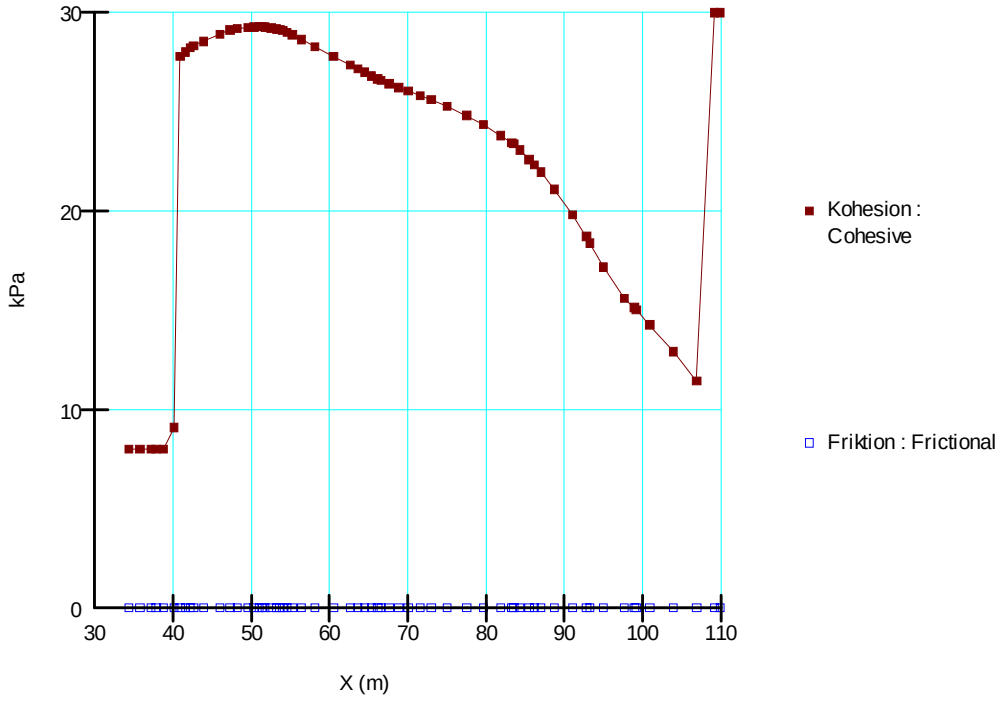
Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

Surcharge Loads

Surcharge Load 1

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

Diagram för glidyta älvnära (Fc = 0,86)



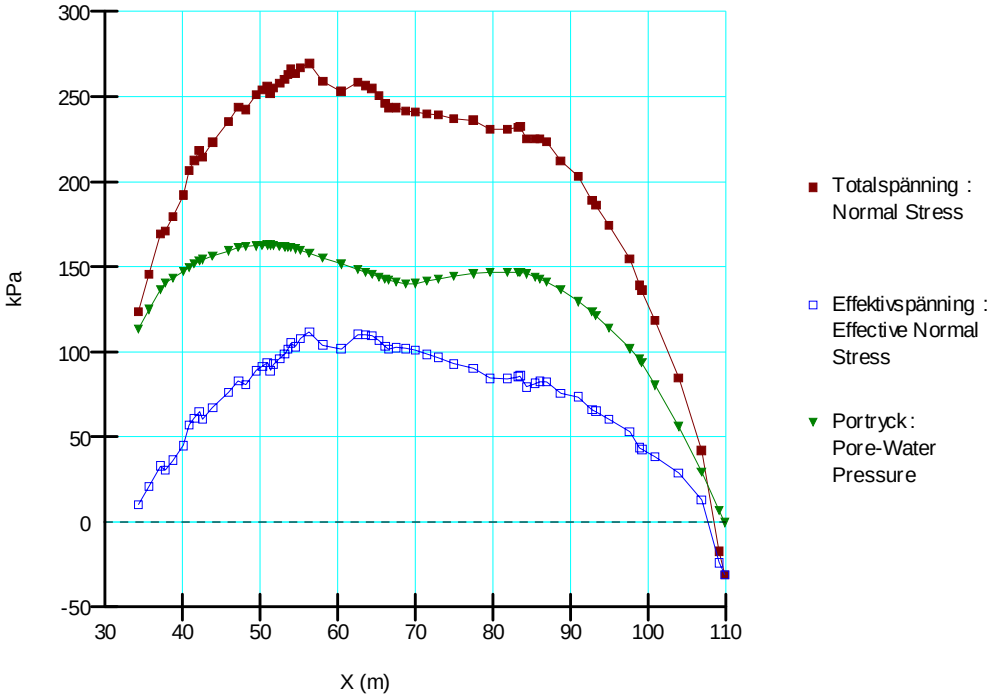
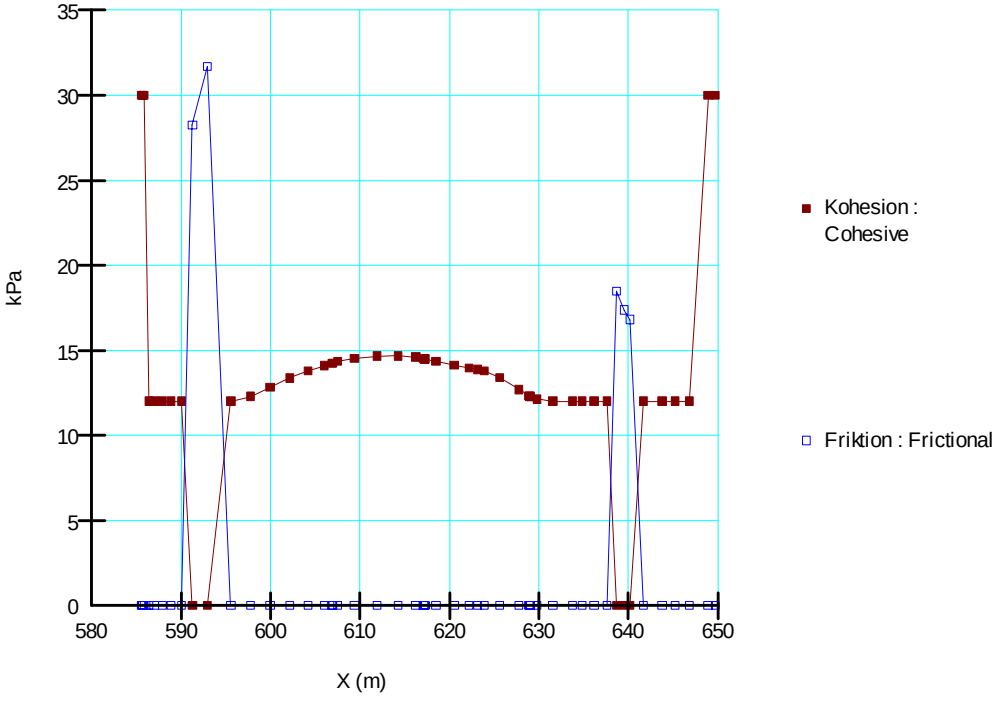
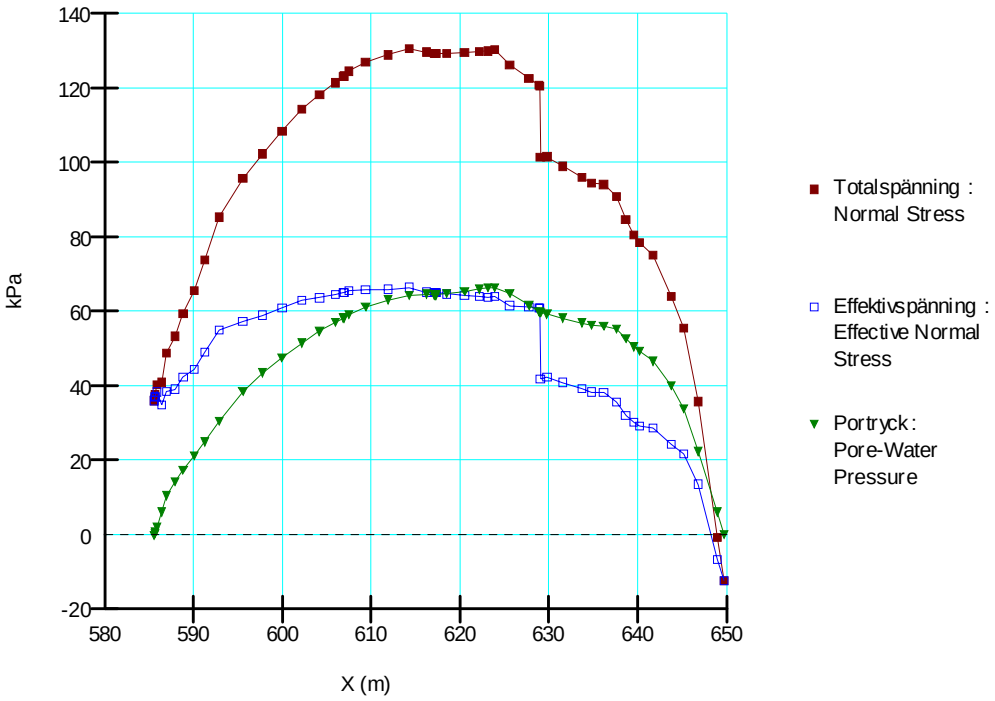


Diagram för glidyta vid fastmark (Fc = 1,82)

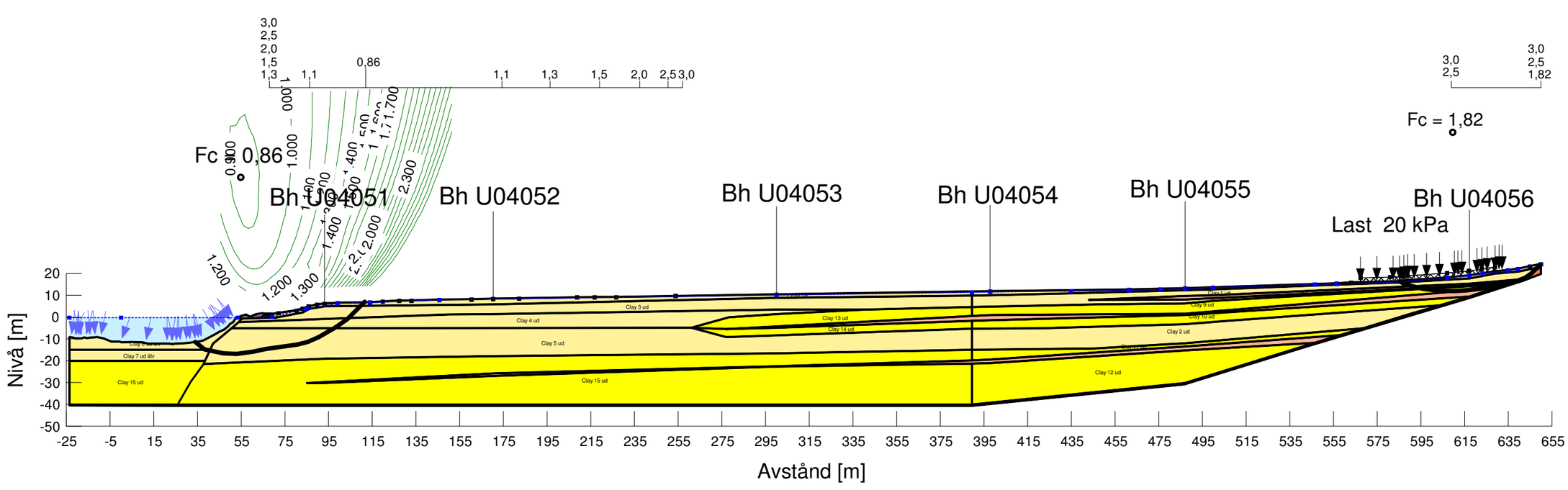



140
120
100
80
60
40
20
0
-20
kPa
580
590
600
610
620
630
640
650
X (m)
Totalspänning : Normal Stress
Effektivspänning : Effective Normal Stress
Portryck : Pore-Water Pressure

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

Göta älv utredningen 2009-2012
SEKTION: V37/850 odränerad analys
Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Piezometric Line
Datum: 2011-04-08

Nivå för yttre vattenstånd -0,19 [m]
Grundvattenyta 0,2 m u my



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Granskad av:
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Directory: S:\Uppdrag\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\Leverans\Till Tyrens\20110411\Sektion 13-24\Sektion 13\37850WUS_2000.gsz