

CUTTING FOS (Savage, PF) - SENSITIVITY ANALYSIS

PROJECT: Project

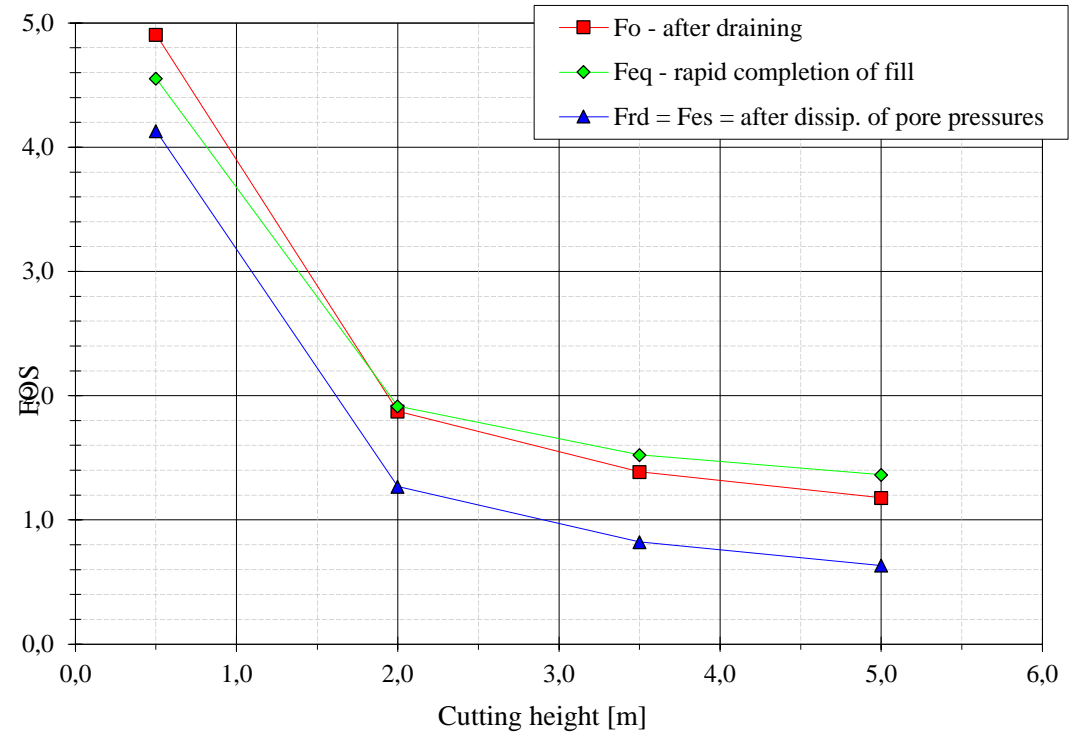
MATERIAL: reworked residua

PARAMETERS

cohesion	5	kPa
int friction angle	27	°
unit height of cut	0,5	m
height increments	1,5	m
slope angle	45	°
horiz : vertical	1 :	1,00
dry density	1 650	kg/m ³
moisture	20%	
insitu unit weight[kN/m ³]	16,21	
T =	0,510	
S =	1,000	
C =	0,617	

Factor of Safety (FOS) @ unit height	
Fo - after draining	4,9
Feq - rapid completion of fill	4,6
Frd = Fes = after dissip. of pore pressures	4,1

FOS Chart



Safety criteria :

- F < 1 = failure
- 1 < F < 1.15 = very unsafe / high risk
- 1.15 < F < 1.3 = just safe / risky
- 1.3 < F < 1.5 = short term safe / reasonably small risk
- 1.5 < F = safe / very small risk