

Peat & Subsoil Survey Database

Firleigh WF, Co. Mayo

Prepared by: SK 10/02/2023
RSK File Ref.: 603676-Geo-A01-App01-(00) DRAFT.xls



Peat & Slope Stability Risk Assessment

Main data table with columns for Sample / Test No., Association, ITM Easting, ITM Northing, Thickness / Depth of peat, Classification of Thickness, Slope (Extracted from GDEM), Slope Category, Inmeter Val, Scenario A, Scenario B, FOSRAW Factor of Safety, FOSADJ Adjusted Factor of Safety, Significant Feature Ranking.

Summary statistics table including COUNT, SUM, MAX, MIN, RANGE, MEAN for various parameters.

Legend table mapping Slope Category and FOS values to risk levels (e.g., Very gentle slope, Marginally stable, Unstable).



Sample / Test Category	Sample / Test Point ID No.	Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Extracted from GDEM)	Slope Category	Slope Angle	Scenario A	Scenario B	Scenario A	Scenario B	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A	Scenario B	Significant Feature Ranking Coefficient
										Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +1m	FoS _{RAW} Factor of Safety (FoS) for Peat Stability	FoS _{RAW} Factor of Safety (FoS) for Peat Stability			FoS _{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	FoS _{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	
					m		Degrees	Degrees	Degrees	m	m			#				Usf

Stability Risk Matrices and Ratings



Landslide History (μ _{LH})		Accounting for distance to Sensitive Receptors (RR _S = μ _{RR} + μ _{SLF})		
No history of landslides in the vicinity of site	Some instances of landslides in the vicinity of site	Recorded landslides occurrences within the site		
1	2	3		
FoS Adjustment Coefficient (μ _{FoS})	4	8	16	
2	4	8		
1	2	4		
FoS re Slope Stability (μ _{FoS})		Distance to Sig. Feature (μ _{SLF})		
Acceptable (FoS > 1.3)	Marginally Stable (Acceptable) (FoS = 1-1.3)	Unstable (FoS < 1)		
1	2	3		
RR _S Coefficient (μ _{RRS})	1	2	4	
2	4	8		
4	8	16		
1	2	4		
2	4	8		
4	8	16		
8	16	32		