

PROJECT: Small River Hydro Project

SITE: Dam on Small River

LOCATION: Difficult: very dense soil

REFERENCE ELEVATION:

SURFACE ELEVATION: 410.3 m

COORDINATES:
NORTH: 5000725.0 **EAST:** 505132.5

TRENCH DIMENSIONS: 5.1 m x 2.2 m

PHOTO NUMBER: Small-Dam_TP-14.bmp

DESCRIPTION OF THE PHOTOGRAPHY:
Stratified layers. Several roots. Stable slopes. Humid condition.



DEPTH (m)	ELEVATION (m) DEPTH (m)	DESCRIPTION	SYMBOL	WATER INFLOW	SAMPLES		LABORATORY AND IN SITU TESTS	LEGEND
					BS	WC		
	410.3	Natural ground surface						LABORATORY TESTS W: Water content (%) GSA: Grain size analysis γ_t : Unit weight (kN/m ³) Proctor: Modified Proctor test Wopt: Optimum water content (%) γ_d : Maximum dry density (kg/m ³) W_L: Liquid limit (%) W_P: Plastic limit (%)
0.0	410.0	Organic soil (peat and humus)						
0.3	409.7	Fine silty sand, oxidized, traces of organic matter (roots)						
0.6		Gravelly and silty fine to coarse sand, a bit of blocks and traces of cobbles, humid						
1.5		Particle shape: Cobbles:angular to sub-rounded Blocks:angular to sub-rounded				1	W=8.8%	
2.4	407.9	Very altered rock that decays mainly in the axes of the joints encountered				2	GSA Proctor $\gamma_d=1912$ kg/m ³ Wopt=11.86% W=7.5%	
3.5						3	W=9.2%	
4.5						5	6	GSA W=5.7%
5.4		End of boring						TYPE AND STATE OF THE SAMPLE Remoulded Not remoulded BS Bulk sample WC Water content

<p>WATER LEVEL: 5.1 m (depth) DATE: 2005-06-20</p> <p>CONDITIONS: Medium water infiltration between 5.10 and 5.40 m</p> <p>GROUND CONDITION:</p> <p>TOPOGRAPHY:</p> <p>WOODLAND DENSITY: VEGETATION:</p>	<p>WALL STABILITY: Stable</p> <p>EQUIPMENT USED: Kubota Kx-121-3</p> <p>REMARKS: N.B.: A visual evaluation of the cobble content and an individual quantification of the blocks was done and expressed as a volumetric concentration.</p>
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