

AVERAGE VALUE OF PHYSICO - MECHANICAL PROPERTIES

Layer 4b: Medium dense, brownish grey well graded SAND with SILT (SW-SM).

Table: 5d

No	Property	Sign	Average value.	Maximum value	Minimum value	Number of test
1	Sieve Analysis, % Passing					
	3/4" (19 mm)					
	1/2" (12.5 mm)					
	3/8" (9.5 mm)					
	#4 (4.75 mm)					
	#8 (2.36 mm)		100.0	100.0	100.0	3
	#16 (1.18 mm)		77.9	89.8	70.2	3
	#30 (0.6 mm)		45.2	70.2	32.1	3
	#50 (0.3 mm)		17.7	27.1	12.6	3
	#100 (0.15 mm)		10.1	10.4	9.7	3
	#200 (0.075 mm)		8.1	9.1	7.1	3
	< 0.005 mm		3.5	4.2	2.7	3
2	Natural moisture content (%)	w	16.35	17.21	15.33	3
3	Natural unit weight (g/cm ³)	γ	1.871	1.979	1.779	3
4	Dry unit weight (g/cm ³)	γ _d	1.608	1.688	1.543	3
5	Specific gravity	G _s	2.645	2.656	2.637	3
6	Porosity	n	0.39	0.42	0.36	3
7	Void ratio	e _o	0.647	0.710	0.565	3
8	Degree saturation (%)	S	67.7	80.5	57.0	3
9	Liquid limit (%)	LL				
10	Plastic limit (%)	LP				
11	Plastic index (%)	PI				
12	Water plasticity ratio (%)	B				
13	Unconfined compression (Kg/cm ²)	qu				
14	Compression index	Cc				
15	Coefficient of consolidation (cm ² /Kg)	Cv				
16	Preconsolidation pressure (kg/cm ²)	Pc				
17	Coefficient of volumm compressibility	Mv				
18	Permeability (cm/sec)	k ₂₀				

AVERAGE VALUE OF PHYSICO - MECHANICAL PROPERTIES

Layer 4c: Dense, whitish grey poorly graded SAND with SILT (SP-SM).

Table: 6d

No	Property	Sign	Average value.	Maximum value	Minimum value	Number of test
1	Sieve Analysis, % Passing					
	3/4" (19 mm)					
	1/2" (12.5 mm)					
	3/8" (9.5 mm)					
	#4 (4.75 mm)					
	#8 (2.36 mm)		100.0			
	#16 (1.18 mm)		94.7			
	#30 (0.6 mm)		60.6			
	#50 (0.3 mm)		21.0			
	#100 (0.15 mm)		12.3			
	#200 (0.075 mm)		10.9			
	< 0.005 mm		7.3			
2	Natural moisture content (%)	w	14.87			
3	Natural unit weight (g/cm ³)	γ	1.844			
4	Dry unit weight (g/cm ³)	γ _d	1.605			
5	Specific gravity	G _s	2.648			
6	Porosity	n	0.39			
7	Void ratio	e _o	0.650			
8	Degree saturation (%)	S	60.6			
9	Liquid limit (%)	LL				
10	Plastic limit (%)	LP				
11	Plastic index (%)	PI				
12	Water plasticity ratio (%)	B				
13	Unconfined compression (Kg/cm ²)	qu				
14	Compression index	Cc				
15	Coefficient of consolidation (cm ² /Kg)	Cv				
16	Preconsolidation pressure (kg/cm ²)	Pc				
17	Coefficient of volumm compressibility	Mv				
18	Permeability (cm/sec)	k ₂₀				

