



For better appreciation, a plot showing the recorded uncorrected N-values vs. Depth is shown below.

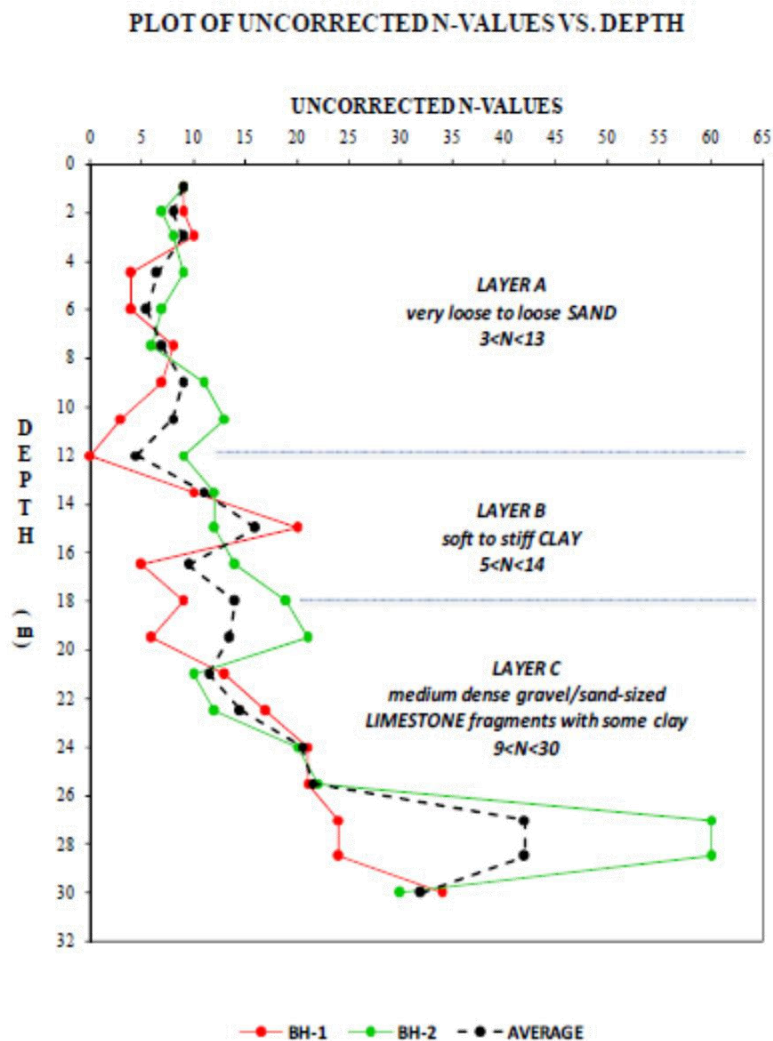


Figure 6-1. Plot of uncorrected N-values vs. depth





6.1. GROUND WATER TABLE MEASUREMENT

The groundwater table was reported in the logs at depth ranging from 0.5m – 1.5m from the existing ground surface. The information is presented below for easy reference:

Table 6-1. Groundwater Table Logs

DATE MEASURED	BH-1	BH-2
9/18/15	1.50m (5PM)	-
9/19/15	0.47m (7AM)	-
	0.47m (5PM)	-
9/20/15	1.5m (7AM)	0.97m (5PM)
9/21/15	-	1.2m (7AM)
	-	1.2m (5PM)

6.2. CHEMICAL TESTS

Representative soil samples were also tested for the determination of the chloride, sulphate and organic content. The results of the following tests are shown below:

Table 6-2. Summary of Chemical Test Results

BH NO.	DEPTH (M)	RESULT OF CHEMICAL TESTS		
		CHLORIDE (mg/kg)	SULPHATE (mg/kg)	ORGANIC CONTENT (%)
BH-1	9.0-9.45	34	3500	-
	16.5-16.95	130	68	-
	19.5-19.95	-	-	3.5
BH-2	2.0-2.45	-	-	3.9
	4.5-4.95	80	1500	-
	24.0-24.45	170	73	-



7. CONCLUSIONS AND RECOMMENDATIONS

7.1. General Findings

Based on the results of the investigation, it is concluded that the project site is underlain by relatively thick loose soil sediments, consisting mainly of an uppermost 12.0m of mostly Sand, and very loose to loose in consistency, followed by the soft to stiff clay that extends to about 18.0m depth. The final layer encountered is described as medium dense gravel/sand-sized Limestone fragments with some clay extending down to the bottom of the borehole at 30.45 meters depth.

The following soil parameters may be assumed based on the results of the soil borings.

AVE. DEPTH (meter)	SOIL DESCRIPTION	MEAN N-VALUE	SATURATED UNIT WEIGHT, γ_s , (kN/m ³)	EFFECTIVE COHESION, C' (kPa)	EFFECTIVE PHI ANGLE, ϕ' (degree)
0 – 12.0	Very loose to loose Sand	8	15.5	0	28
12.0 – 18.0	Soft to stiff Clay	12	16.0	10	30
18.0 – 30.0	Medium dense Limestone fragments with some clay	24	17.0	20	36

Table 7-1. Recommended Soil Parameters

From the above findings, it is apparent that the uppermost 12m thick of soil is compressible and has low bearing capacity, as may be inferred from the low SPT N values (Ave=8). This layer is also potentially liquefiable in the event of strong ground motion (major earthquake).

The results of the liquefaction analysis are presented in the next section.