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PROPOSED CONSTRUCTION OF RESIDENTIAL BUILDING (G+4 UPPER FLOORS) AMBUR.

Report on Geotechnical Investigation.

Client:

M/s. SPI Incubator,
#15/8, Balaiya Avenue,
Luz Church Road,
Mylapore, Chennai.

Site Address:

TS NO:10/1,4/2A,4/2B,
2ND Tharvalzhi, Ambur,
Tirupattur District -635 802

REPORT ISSUE STATUS			
<1>	01-06-2021	Revision 1	Bored cast in-situ pile foundation is suggested as option 2
<0>	06-08-2018	Final Report	-
Issue	**Date**	**Description**	**Updation**

MARS SYNERGY GEOTECH Pvt Ltd
An ISO 9001: 2015 Certificate Company

Plot #:206, 3rd Link Street, Nehru Nagar,
Kottivakkam, OMR, (Kandanchavadi), Chennai-600 041.
Mail : info@msgeotech.com, projects@msgeotech.com,
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Project No: MSGTPL/SI-4097 R1/18-19

July-2018.

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REPORT ON SOIL INVESTIGATION AND RECOMMENDATIONS FOR THE PROPOSED CONSTRUCTION OF RESIDENTIAL BUILDING (G+4 UPPER FLOORS) AT AMBUR, TAMIL NADU.

1.0 INTRODUCTION

M/s. SPI Incubator, Chennai is planning to construct the residential building (G+4 upper floors) at TS NO -10/1, 4/2A, 4/2B, 2nd Tharvalzhi, Ambur, Tirupattur district 635 802, Tamilnadu, INDIA. **M/s. Mars Synergy Geotech Pvt Ltd,** Chennai has carried out this investigation and completed the field work on 23rd July 2018 as per **work order no: SSSCPL – VH – 002 dated : 17th July 2018** M/s SPI Incubator.

The scope of work includes the following:

- Making Eleven numbers of Standard Soil Investigation bore-holes
- Collecting soil samples at regular depth intervals
- Conducting SPTs at every 1.0m/1.50m depth intervals
- Conducting laboratory tests on samples collected
- Submitting report with laboratory test results and recommendations for foundations.

1.1 DESCRIPTION OF STRUCTURE

The proposed structure is residential building (G+4 upper floors). The exact details of columns are not available at the time of preparation of this report. Assuming an approximate column spacing of 4 to 5 m c/c considering this the central column load works about 110 tones for proposed building. These loads are assumed for foundation purpose only and for the structural design, exact loads are to be estimated based on a suitable structural analysis.

1.2 SOIL INVESTIGATION

The field investigation works were carried out using 1 set of Rotary mechanical drilling Rig. The following activities, carried out in chronological sequence, comprised the fieldwork for the project

- Mobilization of rotary drill rig, water pump, testing tools and accessories.
- Collection of disturbed samples of non-cohesive soils.
- Sampling and logging of the boreholes. Packing, labeling and dispatching the samples to laboratory.
- Field investigation, tests and laboratory tests conducted as per IS-1892 and IS -2720

1.3 FIELD SAMPLING

Eleven numbers of standard soil investigation boreholes of 100mm diameter was made at the locations shown in the figure, **MSGTPL/SI-4097** enclosed. Investigations were conducted maximum depth of 15.5m from existing ground level where SPT is more than 50blows. SPTs were conducted at every 1.0m/1.5m depth intervals and samples were collected for identification and testing.

1.4 LABORATORY TESTS

The laboratory-testing scheme is so designed to obtain the design parameters for the foundations. The following parameters are evaluated:

- Type of soil and it's gradation properties
- Atterberg Limits
- Specific Gravity
- Natural Moisture Content (NMC)
- Sieve analysis on the coarse-grained soil fraction
- Unconfined Compression Strength
- California Bearing Ratio

All the test results are presented in the tabular forms. Comprehensive field information along with SPT values is presented on separate sheet.

1.5 SOIL PROFILE

Based on visual identification of soil samples and test results (of both field and laboratory tests), the soil profile arrived.

BH-1

(i) Medium Stiff CLAY up to -1. 0m with **SPT's N=7**

(ii) Loose Clayey SAND -1.0m to -3.0m with **SPT's N=7-8**

(iii) Medium Stiff to Very Stiff CLAY -3.0m to -8.0m with **SPT's N=6-22**

(iv) Dense Clayey SAND -8.0m to -11.0m with **SPT's N=38-47**

(v) Very Dense MOORUM -11.0m to -12.5m with **SPT's N=>100**

BH-2

(i) Medium Dense Clayey SAND up to -1. 0m with **SPT's N=13**

(ii) Stiff CLAY -1.0m to -2.0m with **SPT's N=13**

(iii) Stiff CLAY with stone pieces -2.0m to -4.0m with **SPT's N=15-16**

(iv) Medium Dense Clayey SAND -4.0m to -5.0m with **SPT's N=21**

(v) Very Dense MOORUM -5.0m to -8.0m with **SPT's N=>100**

(vi) Soft Disintegrated Rock -8.0m to -10.0m with **SPT's N=>100**

BH-3

(i) Very Loose to Loose Clayey SAND up to -3. 0m with **SPT's N=3-8**

(ii) Medium Stiff to Stiff CLAY -3.0m to -5.0m with **SPT's N=3-14**

(iii) Very Stiff Sandy CLAY -5.0m to -9.5m with **SPT's N=20-27**

(iv) Dense MOORUM -9.5m to -11.0m with **SPT's N=36**

(v) Soft Disintegrated Rock -11.0m to -12.0m with **SPT's N=>100**

BH-4

(i) Medium Stiff to Stiff CLAY up to -2. 0m with **SPT's N=7-13**

(ii) Stiff to Very Stiff Sandy CLAY -2.0m to -5.0m with **SPT's N=15-17**

(iii) Medium Dense Clayey SAND -5.0m to -6.5m with **SPT's N=23**

(iv) Very Dense MOORUM -6.5m to -10.0m with **SPT's N=>100**

BH-5

(i) Medium Dense Clayey SAND up to -1. 0m with **SPT's N=17**

(ii) Medium Dense Silty SAND -1.0m to -2.0m with **SPT's N=14**

(iii) Stiff to Very Stiff CLAY -2.0m to -9.5m with **SPT's N=11-22**

(iv) Medium Dense Clayey SAND -9.5m to -14.0m with **SPT's N=12-27**

(v) Very Dense MOORUM -14.0m to -15.5m with **SPT's N=>100**

BH-6

(i) Very Stiff Sandy CLAY up to -1. 0m with **SPT's N=17**
(ii) Loose Clayey SAND -1.0m to -3.0m with **SPT's N=7-8**
(iii) Medium Stiff CLAY -3.0m to -4.0m with **SPT's N=5**
(iv) Medium Dense Silty SAND -4.0m to -5.0m with **SPT's N=12**
(v) Stiff to Very Stiff Sandy CLAY -5.0m to -9.5mwith **SPT's N=14-23**
(vi) Very Dense MOORUM -9.5m to -12.5m with **SPT's N=>100**
(vii) Soft Disintegrated Rock -12.5m to -15.5m with **SPT's N=>100**

BH-7

(i) CLAY up to -1. 0m (UDS Collected)
(ii) Loose Clayey SAND -1.0m to -2.0m with **SPT's N=9**
(iii) Medium Stiff Sandy CLAY -2.0m to -3.0m with **SPT's N=6**
(iv) Loose Clayey SAND -3.0m to -4.0m with **SPT's N=9**
(v) Medium Dense SAND -4.0m to -5.0m with **SPT's N=14**
(vi) Stiff to Very Stiff Sandy CLAY -5.0m to -8.0m with **SPT's N=11-18**
(vii) Very Dense Moorum -8.0m to -10.5m with **SPT's N=>100**

BH-8

(i) Stiff CLAY up to -1. 0m with **SPT's N=11**
(ii) Loose Clayey SAND -1.0m to -2.0m with **SPT's N=9**
(iii) Medium Dense SAND -2.0m to -3.0m with **SPT's N=12**
(iv) Stiff to Very Stiff Sandy CLAY -3.0m to -5.0m with **SPT's N=10-20**
(v) Medium Dense Clayey SAND -5.0m to -6.5m with **SPT's N=21**
(vi) Very Dense MOORUM -6.5m to -9.5m with **SPT's N=>100**
(vii) Soft Disintegrated Rock -9.5m to -10.5m with **SPT's N=>100**

BH-9

(i) Stiff CLAY up to -1. 0m (UDS Collected)
(ii) Medium Dense SAND -1.0m to -2.0m with **SPT's N=12**
(iii) Soft CLAY -2.0m to -3.0m with **SPT's N=4**
(iv) Medium Dense Clayey SAND -3.0m to -5.0m with **SPT's N=10-20**
(v) Very Dense Clayey SAND -5.0m to -8.0m with **SPT's N=>100**
(vi) Soft Disintegrated Rock -8.0m to -10.0m with **SPT's N=>100**

BH-10

(i) CLAY up to -1. 0m (UDS Collected)

(ii) Loose Clayey SAND -1.0m to -2.0m with **SPT's N=6**

(iii) CLAY -2.0m to -3.0m (UDS Collected)

(iv) Loose to Medium Dense Clayey SAND -3.0m to -5.0m with **SPT's N=9-18**

(v) Very Dense MOORUM -5.0m to -8.0m with **SPT's N=>100**

(vi) Soft Disintegrated Rock -8.0m to -10.0m with **SPT's N=>100**

BH-11

(i) Sandy CLAY up to -1. 0m (UDS Collected)

(ii) Loose Clayey SAND -1.0m to -2.0m with **SPT's N=8**

(iii) Stiff Sandy CLAY -2.0m to -3.0m with **SPT's N=13**

(iv) Medium Dense Clayey SAND -3.0m to -5.0m with **SPT's N=16-26**

(v) Very Dense MOORUM -5.0m to -8.0m with **SPT's N=>100**

(vi) Soft Disintegrated Rock -8.0m to -10.0m with **SPT's N=>100**

The soil profile details are presented in the bore-chart.

1.6 GROUND WATER TABLE

At the time of soil investigation (19/07/2018 to 25/07/2018), the maximum ground water table was (-)7.8m encountered within the site location

1.7 DISCUSSION ON FOUNDATION

The proposed structure is four storied residential building (G+4 upper floors), the column loads are assumed in the absence of structural drawing 110 tones on central column load.

At this proposed building location, Eleven borehole was drilled up to a maximum depth of 15.5m depth, the soil strata are described in section-1.5 of this report.

From the sub soil profile and laboratory test data, it can be seen that the weakest bore hole is BH-3. Based on BH-3 soil strata design parameters are arrived and foundation is recommended. The top layer up to -3.0m Very Loose to Loose Clayey SAND and below this medium stiff to stiff CLAY is encountered up to 5.0m depth and followed by very stiff Sandy CLAY up to 9.5m depth from EGL.

Below this layer dense MOORUM were encountered up to a depth of 11.0m and followed by this soft disintegrated rock were encountered up to 12.0m depth from EGL. Based on soil strata it is ideal to adopt open shallow foundation as option 1 in the form of **strip raft** at -1.5m depth from EGL. Bored cast in-situ pile foundation is also suggested as option 2 in case of column load is above 110 tones.

1.8 RECOMMENDATIONS

Option 1:

- The proposed structure is a (G+4 upper floors) residential building.
- Excavate up to 2.0m depth from EGL, after excavation thorough compaction to be done at bottom of excavated trench.
- After thorough compaction at 2.0m depth, fill with moorum soil up to -1.80m level (300mm thick) with proper compaction.
- After filling and compaction, Adopt strip raft of 1.0m minimum width at a depth of 1.5m below the E.G.L can be adopted.
- **The Safe bearing capacity is 8.0T/sq.m. can be taken at 1.5m below E.G.L**
- These should be inter connecting strip rafts in perpendicular direction.
- Strip raft should rest on 100mm thick 1:4:8 mat laid on 100mm well compacted SAND.
- The settlements are within permissible limits.
- All foundation works should be done in dry conditions only.

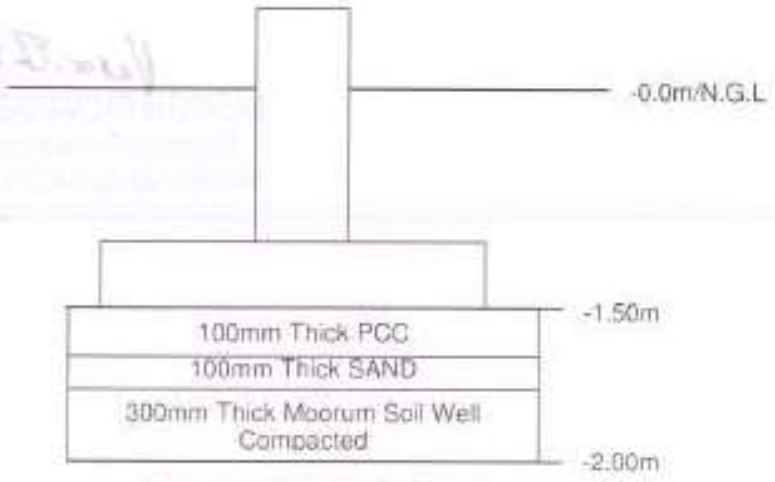


Fig-1: Foundation Scheme

Option 2: (Bored cast in-situ pile)

- Considering that this structure is a (G+4) Residential Building, pile foundation is recommended up to **12.0m depth** from existing Ground level.
- The pile bore may be terminated at a depth of minimum three times diameter of the pile into hard strata (where three consecutive SPT 'N' values of more than 50 are obtained in each test at depth intervals of one pile diameter).
- To satisfy the above criterion the pile length may be about **12.0 m** from the existing ground level.
- The capacities of piles of varying diameters are provided below for the proposed structure.

Pile Termination Depth From EGL (m)	Pile Dia (mm)	Safe Vertical Capacity (Tones)	Safe Uplift Capacity (Tones)	Safe Lateral Capacity w.r.t 5mm Deflection	
				Free Head (Tones)	Fixed Head (Tones)
12.0	450	45	23	0.40	1.03
	500	55	26	0.47	1.22
	600	70	32	0.63	1.63

The above safe loads suggested are only tentative and these must be confirmed by conducting through pile load tests conducted as per I.S-2911part –IV.

VASANTHI PADMANABAN, M.Tech.,
Registered Geotechnical Engineer
Reg. No: CGL/RGN/RGTE/2019/08/011

	COMPUTATION OF NET SAFE BEARING CAPACITY AS PER IS: 6403 - 1981				
1	Foundation Strata with refence BH			BH - 3	
2	Width of foundation			1.0	m
3	Length of foundation			15.0	m
4	Depth of Foundation, D_f			1.5	m
5	Angle of Internal Friction, ϕ			0	deg
6	Unit Weight of Overburden Soil, γ			1.70	T/cum
7	Cohesive Strength of Soil, c			3.00	T/sqm
8	Bearing Capacity Factors Range	0	0		
9	Bearing Capacity Factor, N_c (Table 1 of 6403)	5.14	5.14	5.14	
10	Bearing Capacity Factor, N_q (Table 1 of 6403)	1.00	1.00	1.00	
11	Bearing Capacity Factor, N_γ (Table 1 of 6403)	0.00	0.00	0.00	
12	Depth Factor, d_c	= 1 +((0.2 x D_f/ B) x Sqrt(N_ϕ))		1.3	
13	Depth Factor, d_q	= (1 if ϕ < 10) else, 1 + ((0.1 x D_f/ B) x Sqrt(N_ϕ))		1.00	
14	Depth Factor, d_γ	= (1 if ϕ < 10) else, 1 + ((0.1 x D_f/ B) x Sqrt(N_ϕ))		1.00	
15	Shape Factor, s_c		Constant	1.01	
16	Shape Factor, s_q		Constant	1.01	
17	Shape Factor, s_γ		Constant	0.99	
18	Inclination Factor, i_c		$= (1 - \alpha / 90)^0$	1.00	
19	Inclination Factor, i_q		$= (1 - \alpha / 90)^2$	1.00	
20	Inclination Factor, i_γ		$= (1 - \alpha / \phi)^2$	1.00	
21	Water Table Correction Factor, W'		Constant	0.50	
22	Ultimate Bearing Capacity Component, UBC1		$= c\ N_c\ s_c\ d_c\ i_c$	20.31	T/sqm
23	Ultimate Bearing Capacity Component, UBC2		$= q\ (N_q-1)\ s_q\ d_q\ i_q$	0.00	T/sqm
24	Ultimate Bearing Capacity Component, UBC3		$= 0.5\ B\ \gamma\ N_\gamma\ s_\gamma\ d_\gamma\ i_\gamma\ W'$	0.00	T/sqm
25	Net Ultimate Bearing Capacity, UBC		= UBC1 + UBC2 + UBC3	20.31	T/sqm
26	Net SBC with Factor of Safety of 2.5		= UBC / 2.5	8.13	T/sqm
			Say	8	T/sqm

GEOTECH

Settlement Calculations as per IS-800 Para-1

$$S_i = \delta_{avg} = \frac{H_t}{1+e_o} C_c \log_{10}\left[\frac{\sigma_o + \Delta\sigma}{\sigma_o}\right]$$

Soil			Very stiff CLAY	
Soil Thickness from GL			3.5	m
Width of Foundation			1	m
Length of Foundation			15	m
Depth of Foundation			1.5	m
L/B			15	

Design GWT		6.0	m
Density (Y)		1.0	T/m^3
SBC/SP		8.0	T/m^2
C		0.20	
Φ		0.44	
L/√LB		0.37	
LB/D		2.52	

Qo		120	Ton
Soil Below footing		2.0	m
No of layer		2	
Pressure bulb depth		2.0	m
n		1	m
		0.8	

D_f (m)	H (m)	Z_1 (m)	Z_2 (m)	P T/m^2	I_p	λ	$H(\epsilon_1 - \epsilon_2)$ (Theo)	$\log_{10}\frac{Po+\Delta\sigma}{Po}$	δ (mm)
1.5	1	0.5	2	8	.2	0.8	0.1404	0.114	14.1
1.5	2	1.5	3	8	2309	0.8	0.1404	0.124	13.9

σ_o = 38 mm

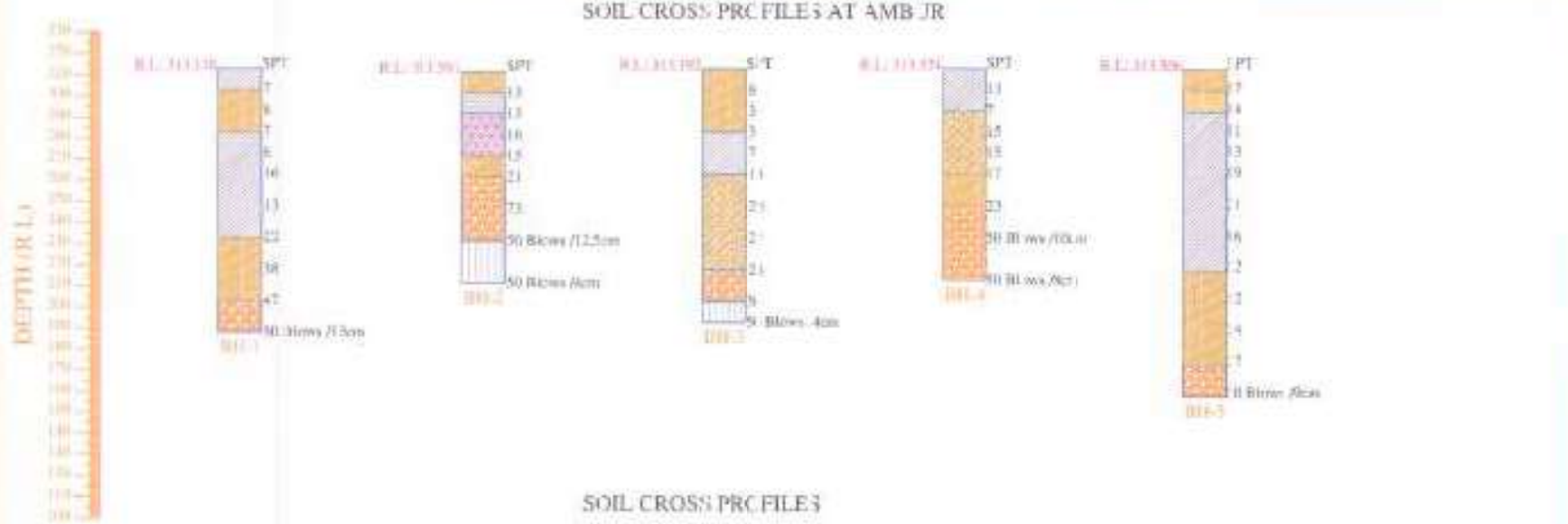
Depth Factor 0.14

Total Settlement = 32 mm

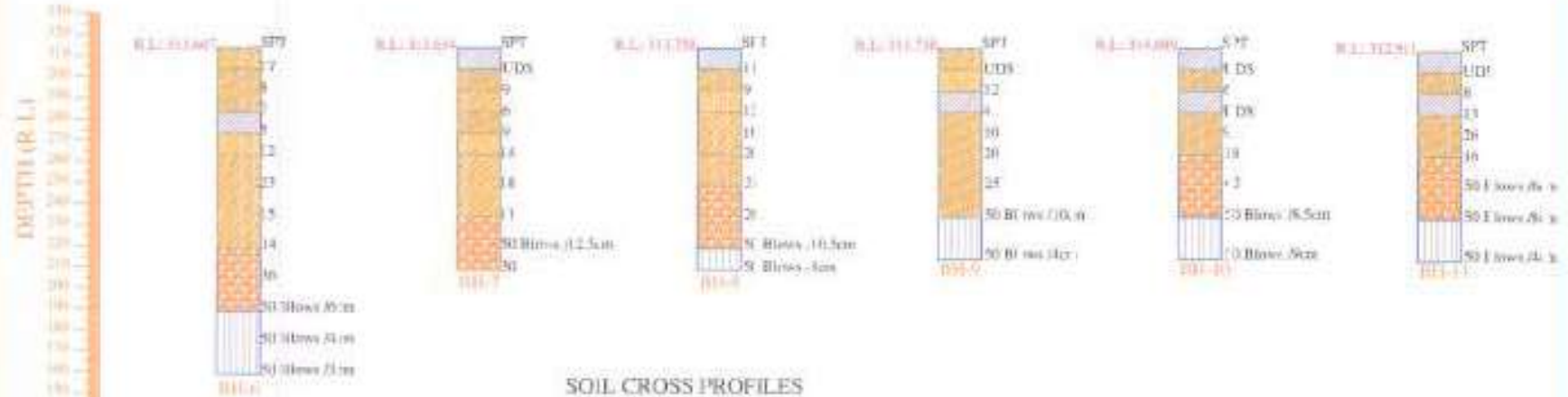
Total settlement is 32.0 mm, It is less than 40mm hence safe as per IS 904-1986

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49.6
25.5
61.1
24.6
57.5
BH1
BH2
BH3
BH5
BH6
BH8
BH9
BH10
DENSE SHRUBS
DENSE SHRUBS



SOIL CROSS PROFILES
BH-1 TO BH-5



SOIL CROSS PROFILES
BH-6 TO BH-11



BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.138**
Drilling	Rotary
Easting	**254235.935**
Northing	**1415619.376**

Borehole No	**BH-1**	
G.W.T (m)	(-) 7.2m	
Date of Start	19-Jul-2018	
Date of Complete	20-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	12.50	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.138										
0.5	312.638	1.0	Medium Stiff Brownish CLAY		CH						
1.0	312.138					SPT	1.0	2	3	4	7
1.5	311.638										
2.0	311.138	2.0	Loose Brownish Clayey SAND		SC	SPT	2.0	2	3	3	6
2.5	310.638										
3.0	310.138					SPT	3.0	1	3	4	7
3.5	309.638	1.0	Medium Stiff Brownish CLAY		CH						
4.0	309.138					SPT	4.0	2	2	4	6
4.5	308.638										
5.0	308.138					SPT	5.0	2	5	11	16
5.5	307.638										
6.0	307.138	4.0	Stiff to Very Stiff Brownish CLAY		CI/CH						
6.5	306.638					SPT	6.5	3	5	8	13
7.0	306.138										
7.5	305.638										
8.0	305.138					SPT	8.0	6	11	11	22
8.5	304.638										
9.0	304.138										
9.5	303.638	3.0	Dense Brownish Clayey SAND		SC	SPT	9.5	11	20	18	38
10.0	303.138										
10.5	302.638										
11.0	302.138					SPT	11.0	17	17	30	47
11.5	301.638										
12.0	301.138	1.5	Very Dense Brownish Moorum		SC						
12.5	300.638					SPT	12.5	50 Blows for 13cm			
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 12.5

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

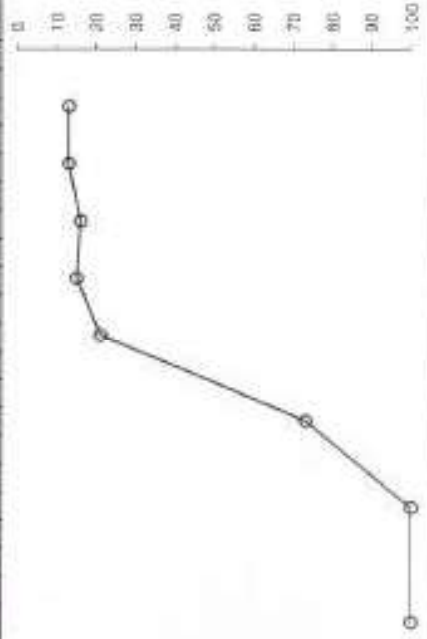
Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**311.591**
Drilling	Rotary
Easting	**254245.808**
Northing	**1415531.583**

Borehole No	**BH-2**	
G.W.T (m)	( ) 6.2m	
Date of Start	24-Jul-2018	
Date of Complete	24-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	311.591										
0.5	311.091	1.0	Medium Dense Brownish Clayey SAND		SC						
1.0	310.591					SPT	1.0	4	7	8	15
1.5	310.091	1.0	Stiff Brownish CLAY		CH						
2.0	309.591					SPT	2.0	2	5	8	13
2.5	309.091										
3.0	308.591	2.0	Stiff Brownish Sandy CLAY with Stone pieces		CI	SPT	3.0	5	7	9	16
3.5	308.091										
4.0	307.591					SPT	4.0	4	6	9	15
4.5	307.091	1.0	Medium Dense Brownish Clayey SAND		SC						
5.0	306.591					SPT	5.0	4	9	12	21
5.5	306.091										
6.0	305.591										
6.5	305.091	3.0	Very Dense Brownish Moorum		SC	SPT	6.5	17	25	48	73
7.0	304.591										
7.5	304.091										
8.0	303.591					SPT	8.0	50 Blows for 12.5cm			
8.5	303.091										
9.0	302.591	2.0	Soft Disintegrated Rock		GP						
9.5	302.091										
10.0	301.591					SPT	10.0	50 Blows for 4cm			
10.5											
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 10.0

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.192**
Drilling	Rotary
Easting	**254197.249**
Northing	**1415578.151**

Borehole No	**BH-3**	
G.W.T (m)	(-) 5.7m	
Date of Start	20-Jul-2018	
Date of Complete	20-Jul-2018	
Dia of Bore (mm)	160	Sheet
Termination Depth (m)	12.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.192										
0.5	312.692										
1.0	312.192					SPT	1.0	2	3	5	8
1.5	311.692	3.0	Very Loose to Loose Brownish Clayey SAND		SC						
2.0	311.192					SPT	2.0	2	2	1	3
2.5	310.692										
3.0	310.192					SPT	3.0	1	1	2	3
3.5	309.692										
4.0	309.192	2.0	Medium Stiff to Stiff Brownish CLAY		CI	SPT	4.0	1	3	4	7
4.5	308.692										
5.0	308.192					SPT	5.0	4	6	8	14
5.5	307.692										
6.0	307.192										
6.5	306.692					SPT	6.5	4	8	12	20
7.0	306.192										
7.5	305.692	4.5	Very Stiff Brownish Sandy CLAY		CI						
8.0	305.192					SPT	8.0	8	12	15	27
8.5	304.692										
9.0	304.192										
9.5	303.692					SPT	9.5	5	10	14	24
10.0	303.192										
10.5	302.692	1.5	Dense Reddish Moorum		SC						
11.0	302.192					SPT	11.0	7	17	19	36
11.5	301.692	1.0	Soft Disintegrated Rock		CP						
12.0	301.192					SPT	12.0	50 Blows for 4cm			
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 12.0

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

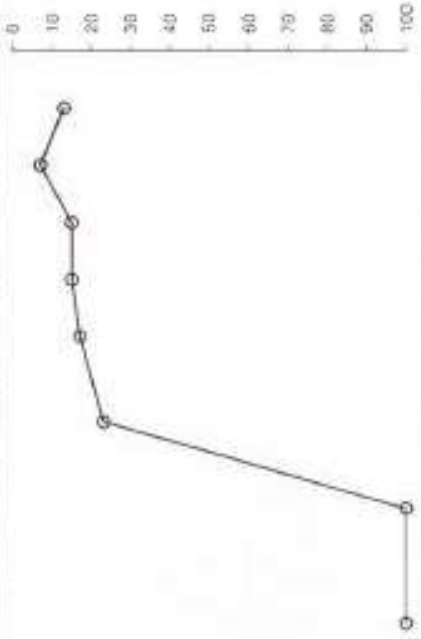
Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.574**
Drilling	Rotary
Easting	**254182.358**
Northing	**1415509.103**

Borehole No	**BH-4**	
G.W.T (m)	(-) 7.5m	
Date of Start	25-Jul-2018	
Date of Complete	25-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.574										
0.5	313.074										
1.0	312.574	2.0	Medium Stiff to Stiff Brownish CLAY		CI-CH	SPT	1.0	4	7	6	13
1.5	312.074										
2.0	311.574					SPT	2.0	3	3	4	7
2.5	311.074										
3.0	310.574					SPT	3.0	5	7	8	15
3.5	310.074	3.0	Stiff to Very Stiff Brownish Sandy CLAY		CI						
4.0	309.574					SPT	4.0	5	8	7	15
4.5	309.074										
5.0	308.574					SPT	5.0	5	8	9	17
5.5	308.074										
6.0	307.574	1.5	Medium Dense Brownish Clayey SAND		SC						
6.5	307.074					SPT	6.5	7	11	12	23
7.0	306.574										
7.5	306.074										
8.0	305.574					SPT	8.0	19	NC Blows for 10cm		
8.5	305.074	3.5	Very Dense Brownish Moorum		SC						
9.0	304.574										
9.5	304.074										
10.0	303.574					SPT	10.0	50 Blows for 8cm			
10.5											
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 10.0

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

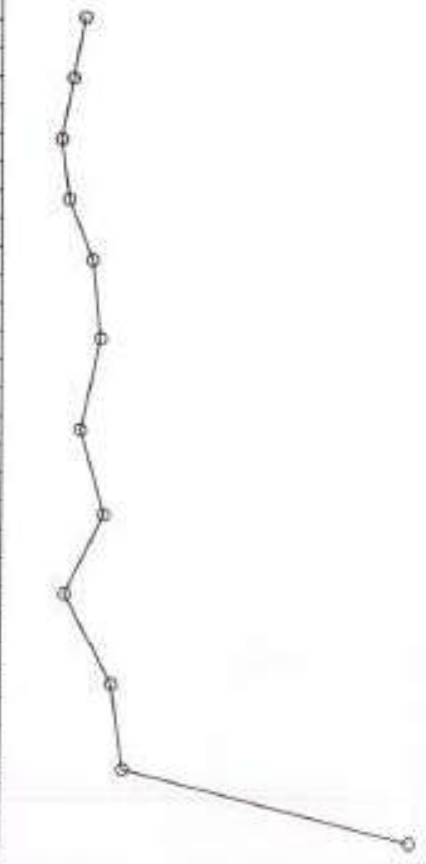
Location	Ambur
Ground R.L	313.506
Drilling	Rotary
Easting	254144.98
Northing	1415586.138

Borehole No	BH-5	
G.W.T (m)	(-) 6.8m	
Date of Start	25-Jul-2018	
Date of Complete	25-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	15.50	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.506										
0.5	313.006	1.0	Medium Dense Brownish Clayey SAND		SC						
1.0	312.506					SPT	1.0	4	7	10	17
1.5	312.006	1.0	Medium Dense Brownish Silty SAND		SM						
2.0	311.506					SPT	2.0	4	7	7	14
2.5	311.006										
3.0	310.506					SPT	3.0	2	5	6	11
3.5	310.006	3.0	Stiff Brownish CLAY		CI						
4.0	309.506					SPT	4.0	3	7	6	13
4.5	309.006										
5.0	308.506					SPT	5.0	5	9	10	19
5.5	308.006										
6.0	307.506										
6.5	307.006					SPT	6.5	6	10	11	21
7.0	306.506										
7.5	306.006	4.5	Very Stiff Brownish CLAY		CI-CH						
8.0	305.506					SPT	8.0	5	7	9	16
8.5	305.006										
9.0	304.506										
9.5	304.006					SPT	9.5	8	8	14	22
10.0	303.506										
10.5	303.006										
11.0	302.506					SPT	11.0	6	8	6	12
11.5	302.006										
12.0	301.506	4.5	Medium Dense Brownish Clayey SAND		SC						
12.5	301.006					SPT	12.5	7	14	10	24
13.0	300.506										
13.5	300.006										
14.0	299.506					SPT	14.0	16	15	12	27
14.5	299.006										
15.0	298.506	1.5	Very Dense Brownish Moorum		SC						
15.5	298.006					SPT	15.5	15	50 Blows for 9cm		

Graphical Representation of SPT

0 10 20 30 40 50 60 70 80 90 100



Borehole Termination Depth (m) 15.5

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

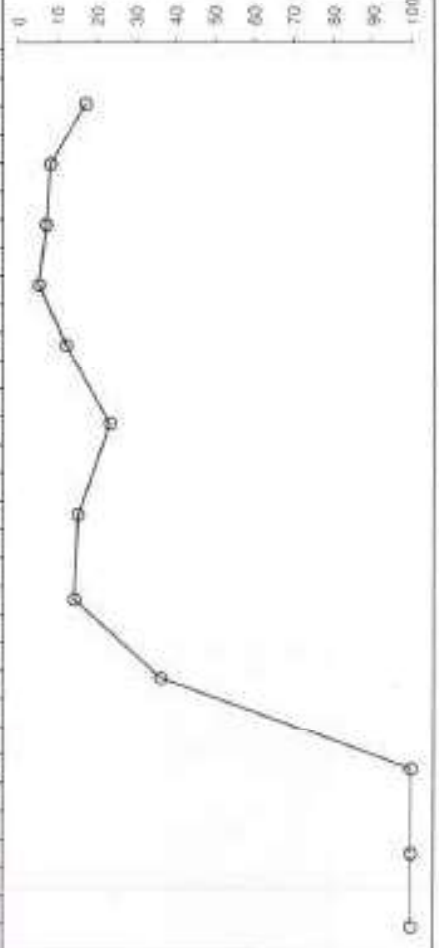
Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.607**
Drilling	Rotary
Easting	**254130.174**
Northing	**1415526.347**

Borehole No	**BH-6**	
G.W.T (m)	(-) 7.8m	
Date of Start	21-Jul-2018	
Date of Complete	21-Jul-2018	
Dia of Boro (mm)	100	Sheet
Termination Depth (m)	15.50	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.607	1.0	Very Stiff Brownish Sandy CLAY		CI						
0.5	313.107										
1.0	312.607					SPT	1.0	5	7	10	17
1.5	312.107	2.0	Loose Brownish Clayey SAND		SC						
2.0	311.607					SPT	2.0	2	4	4	8
2.5	311.107										
3.0	310.607					SPT	3.0	3	4	3	7
3.5	310.107	1.0	Medium Stiff Brownish CLAY		CI						
4.0	309.607					SPT	4.0	2	2	3	5
4.5	309.107	1.0	Medium Dense Brownish Silty Fine SAND		SM						
5.0	308.607					SPT	5.0	5	5	7	12
5.5	308.107	4.5	Stiff to Very Stiff Brownish Silty Sandy CLAY		CI-CL						
6.0	307.607										
6.5	307.107					SPT	6.5	7	10	13	23
7.0	306.607										
7.5	306.107										
8.0	305.607					SPT	8.0	5	6	9	15
8.5	305.107										
9.0	304.607										
9.5	304.107					SPT	9.5	3	6	8	14
10.0	303.607	3.0	Very Dense Brownish Moorum		SC						
10.5	303.107										
11.0	302.607					SPT	11.0	8	21	15	36
11.5	302.107										
12.0	301.607										
12.5	301.107					SPT	12.5	48	50 Blows for 6cm		
13.0	300.607	3.0	Soft Disintegrated Rock		GP						
13.5	300.107										
14.0	299.607					SPT	14.0	50 Blows for 4cm			
14.5	299.107										
15.0	298.607										
15.5	298.107					SPT	15.5	50 Blows for 3cm			

Graphical Representation of SPT



Borehole Termination Depth (m) 15.5

EGL - Existing Ground Level
R.L - Reduced Level
GWT - Ground Water Table
SPT - Standard Penetration Test
UDS - Undisturbed Sample
VST - Vane Shear Test
DS - Disturbed Sample
CR - Core Recovery
RQD - Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.634**
Drilling	Rotary
Easting	**254132.223**
Northing	**1415473.873**

Borehole No	**BH-7**	
G.W.T (m)	(-) 6.5m	
Date of Start	21-Jul-2018	
Date of Complete	21-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.50	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.634										
0.5	313.134	1.0	Brownish CLAY		CH						
1.0	312.634					SPT	1.0	UDS Collected			
1.5	312.134	1.0	Loose Brownish Clayey SAND		SC						
2.0	311.634					SPT	2.0	2	5	4	9
2.5	311.134	1.0	Medium Stiff Brownish Sandy CLAY		CI						
3.0	310.634					SPT	3.0	2	3	3	6
3.5	310.134	1.0	Loose Brownish Clayey SAND		SC						
4.0	309.634					SPT	4.0	3	6	3	9
4.5	309.134	1.0	Medium Dense Brownish Medium SAND		SW						
5.0	308.634					SPT	5.0	4	5	9	14
5.5	308.134	3.0	Stiff to Very Stiff Brownish Sandy CLAY		CI						
6.0	307.634										
6.5	307.134					SPT	6.5	4	7	11	18
7.0	306.634										
7.5	306.134										
8.0	305.634					SPT	8.0	3	5	6	11
8.5	305.134	2.5	Very Dense Brownish moorum		SM						
9.0	304.634										
9.5	304.134					SPT	9.5	12	50 Blows for 12.5cm		
10.0	303.634										
10.5	303.134					SPT	10.5	8	12	18	30
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m): 10.5

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

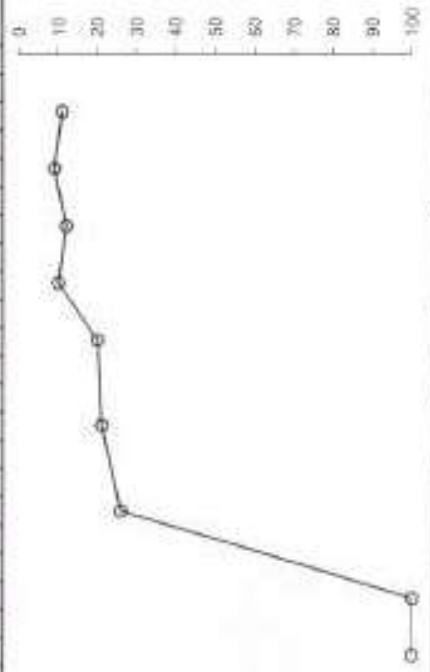
Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.758**
Drilling	Rotary
Easting	**254194.582**
Northing	**1415469.048**

Borehole No	**BH-6**	
G.W.T (m)	(-) 6.8m	
Date of Start	22-Jul-2018	
Date of Complete	21-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.50	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.758										
0.5	313.258	1.0	Stiff Brownish CLAY		CI						
1.0	312.758					SPT	1.0	3	5	6	11
1.5	312.258	1.0	Loose Brownish Clayey SAND		SC						
2.0	311.758					SPT	2.0	3	5	4	9
2.5	311.258	1.0	Medium Dense Brownish Fine to Medium SAND		SW						
3.0	310.758					SPT	3.0	3	6	6	12
3.5	310.258	2.0	Stiff to Very Stiff Brownish Sandy CLAY		CI						
4.0	309.758					SPT	4.0	3	4	6	10
4.5	309.258										
5.0	308.758					SPT	5.0	5	8	12	20
5.5	308.258	1.5	Medium Dense Brownish Clayey SAND		SC						
6.0	307.758										
6.5	307.258					SPT	6.5	9	9	12	21
7.0	306.758	3.0	Very Dense Brownish Moorum		SC						
7.5	306.258										
8.0	305.758					SPT	8.0	15	8	18	26
8.5	305.258										
9.0	304.758										
9.5	304.258					SPT	9.5	50 Blows for 10.5cm			
10.0	303.758	1.0	Soft Disintegrated Rock		GP						
10.5	303.258					SPT	10.5	50 Blows for 8cm			
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 10.5

EGL- Existing Ground Level
R.L- Reduced Level
GWT- Ground Water Table
SPT- Standard Penetration Test
UDS- Undisturbed Sample
VST- Vane Shear Test
DS- Disturbed Sample
CR- Core Recovery
RQD- Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**313.738**
Drilling	Rotary
Easting	**254155.902**
Northing	**1415418.332**

Borehole No	**BH-9**	
G.W.T (m)	(-) 7.0m	
Date of Start	22-Jul-2018	
Date of Complete	22-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS-Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	313.738										
0.5	313.238	1.0	Brownish Sandy CLAY		CL						
1.0	312.738					SPT	1.0	UDS Collected			
1.5	312.238	1.0	Medium Dense Brownish Fine to Medium SAND		SM						
2.0	311.738					SPT	2.0	2	8	6	12
2.5	311.238	1.0	Soft Brownish CLAY		CI						
3.0	310.738					SPT	3.0	2	1	3	4
3.5	310.238	2.0	Medium Dense Brownish Clayey SAND		SC						
4.0	309.738					SPT	4.0	2	5	5	10
4.5	309.238										
5.0	308.738					SPT	5.0	6	8	12	20
5.5	308.238	3.0	Very Dense Brownish Clayey SAND		SC						
6.0	307.738										
6.5	307.238					SPT	6.5	8	12	13	25
7.0	306.738										
7.5	306.238										
8.0	305.738					SPT	8.0	40	50 Blows for 10cm		
8.5	305.238	2.0	Soft Disintegrated Rock		GP						
9.0	304.738										
9.5	304.238										
10.0	303.738					SPT	10.0	50 Blows for 4cm			
10.5											
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 10.0

EGL: Existing Ground Level
R.L: Reduced Level
GWT: Ground Water Table
SPT: Standard Penetration Test
UDS: Undisturbed Sample
VST: Vane Shear Test
DS: Disturbed Sample
CR: Core Recovery
RQD: Rock Quality Designation

BOREHOLE LOG

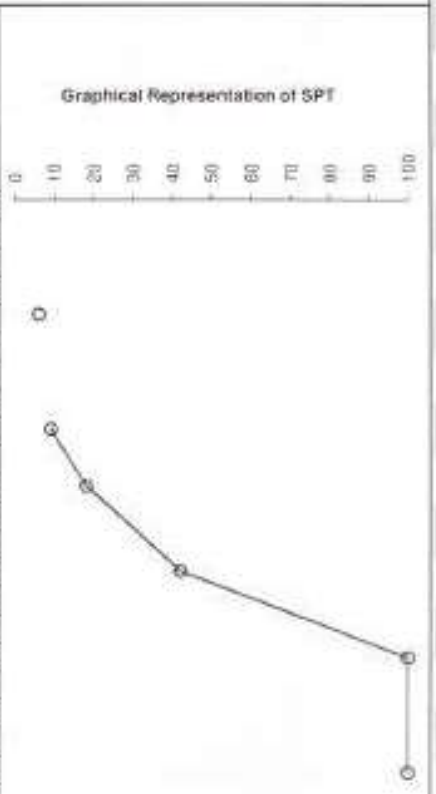
Project No: MSGTPL/SI-4097/18-19

Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	**314.089**
Drilling	Rotary
Easting	**254150.186**
Northing	**1415366.523**

Borehole No	**BH-10**	
G.W.T (m)	(-) 7.5m	
Date of Start	23-Jul-2018	
Date of Complete	24-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT - N- Value
0.0	314.089	1.0	Brownish CLAY		CL						
0.5	313.589										
1.0	313.089					SPT	1.0	UDS Collected			
1.5	312.589	1.0	Loose Brownish Clayey SAND		SC						
2.0	312.089					SPT	2.0	2	2	4	6
2.5	311.589	1.0	Brownish CLAY		CI						
3.0	311.089					SPT	3.0	UDS Collected			
3.5	310.589	2.0	Loose to Medium Dense Clayey SAND		SC						
4.0	310.089					SPT	4.0	2	4	5	9
4.5	309.589										
5.0	309.089					SPT	5.0	5	7	11	18
5.5	308.589	3.0	Very Dense Brownish Moorum		SC						
6.0	308.089										
6.5	307.589					SPT	6.5	13	18	24	42
7.0	307.089										
7.5	306.589										
8.0	306.089					SPT	8.0	45	50 Blows for 8.5cm		
8.5	305.589	2.0	Soft Disintegrated Rock		GP						
9.0	305.089										
9.5	304.589										
10.0	304.089					SPT	10.0	50 Blows for 9cm			
10.5											
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											



Borehole Termination Depth (m) 10.0

EGL - Existing Ground Level
R.L - Reduced Level
GWT - Ground Water Table
SPT - Standard Penetration Test
UDS - Undisturbed Sample
VST - Vane Shear Test
DS - Disturbed Sample
CR - Core Recovery
RQD - Rock Quality Designation

BOREHOLE LOG

Project No: MSGTPL/SI-4097/18-19

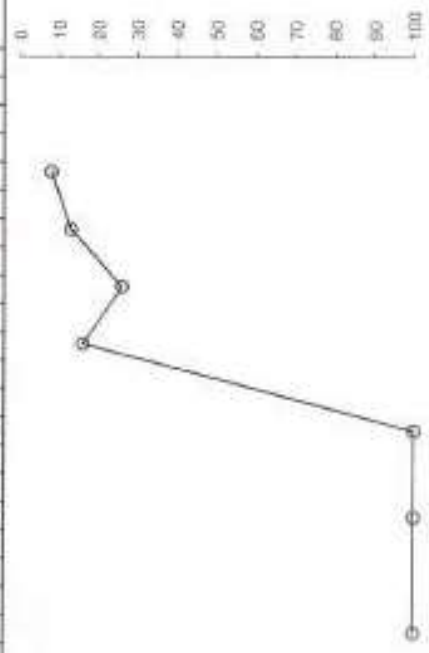
Project: Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Location	Ambur
Ground R.L	312.811
Drilling	Rotary
Easting	254198.102
Northing	1415389.42

Borehole No	BH-11	
G.W.T (m)	(-) 6.5m	
Date of Start	23-Jul-2018	
Date of Complete	23-Jul-2018	
Dia of Bore (mm)	100	Sheet
Termination Depth (m)	10.00	1 of 1

Depth below EGL (m)	Depth w.r.t (RL)	Layer Thickness	Soil Layers Description	Soil Symbol	IS Classification	Type Field Test	Test Depth (m)	SPT Values Record 0 to 45cm			SPT- N- Value
0.0	312.811										
0.5	312.311	1.0	Brownish Sandy CLAY		CI						
1.0	311.811					SPT	1.0	UDS Collected			
1.5	311.311	1.0	Loose Brownish Clayey SAND		SC						
2.0	310.811					SPT	2.0	4	5	3	8
2.5	310.311	1.0	Stiff Brownish Sandy CLAY		CI						
3.0	309.811					SPT	3.0	7	5	8	13
3.5	309.311										
4.0	308.811	2.0	Medium Dense Brownish Clayey SAND		SC	SPT	4.0	12	10	16	26
4.5	308.311										
5.0	307.811					SPT	5.0	8	8	8	16
5.5	307.311										
6.0	306.811										
6.5	306.311	3.0	Very Dense Brownish Moorum		SC	SPT	6.5	38	50 Blows for 6cm		
7.0	305.811										
7.5	305.311										
8.0	304.811					SPT	8.0	40	50 Blows for 8cm		
8.5	304.311										
9.0	303.811	2.0	Soft Disintegrated Rock		GP						
9.5	303.311										
10.0	302.811					SPT	10.0	50 Blows for 4cm			
10.5											
11.0											
11.5											
12.0											
12.5											
13.0											
13.5											
14.0											
14.5											
15.0											

Graphical Representation of SPT



Borehole Termination Depth (m) 10.0

EGL - Existing Ground Level
R.L - Reduced Level
GWT - Ground Water Table
SPT - Standard Penetration Test
UDS - Undisturbed Sample
VST - Vane Shear Test
DS - Disturbed Sample
CR - Core Recovery
RQD - Rock Quality Designation

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 1 Ground R.L : 313.138 Ground Water Level:(-) 7.2m Termination Depth: 12.5m

SUMMARY OF TEST RESULTS

N Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					
						MMC	W_L	W_P	I_P	I_C	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	UCS (t/m²)
	313.138	1.00	0.00	Medium Stiff Brownish CLAY	CH													
7	312.138		1.00			24	57	25	33			2.61						
8	311.138	2.00	2.00	Loose Brownish Clayey SAND	SC	16							0	0	22	26	52	
7	310.138		3.00			19						2.63	0	1	23	39	37	
6	309.138	1.00	4.00	Medium Stiff Brownish CLAY	CH	32	54	20	35									
16	308.138	4.00	5.00	Stiff to Very Stiff Brownish CLAY	CI-CH	18						2.66						
13	306.638		6.50			24	55	15	40									
22	305.138		8.00			20	43	18	25			2.60						
38	303.638	3.00	9.50	Dense Brownish Clayey SAND	SC	14												
47	302.138		11.00			13						2.61	31	5	23	20	21	
>100	300.638	1.50	12.50	Very Dense Brownish Moorum	SC	13						2.69	5	6	37	23	29	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 2 Ground RL : 311.591 Ground Water Level:(-) 6.2m Termination Depth: 12.5m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)						
						WMC	W_L	W_P	I_P	I_C	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Ucs (t/m^2)
	311.591	1.00	0.00	Medium Dense Brownish Clayey SAND	SC													
13	310.591		1.00			14							1	1	18	39	41	
13	309.591	1.00	2.00	Stiff Brownish CLAY	CH	24	51	17	35			2.63						
16	308.591	2.00	3.00	Stiff Brownish Sandy CLAY with Stone pieces	CI	16						2.65						
15	307.591		4.00			25							14	2	11	12	61	
21	306.591	1.00	5.00	Medium Dense Brownish Clayey SAND	SC	19						2.61						
73	305.091	3.00	6.50	Very Dense Brownish Moorum	SC	13							15	5	25	24	31	
>100	303.591		8.00			15						2.64	7	9	41	27	15	
>100	301.591	2.00	10.00	Soft Disintegrated Rock	GP													

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Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 3 Ground RL:313.192 Ground Water Level:(-) 6.7m Termination Depth: 12.0m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)						
						MC	W_L	W_P	I_P	I_C	FreeSwell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Ucs (t/m^2)
	313.192		0.00															
6	312.192	3.00	1.00	Very Loose to Loose Brownish Clayey SAND	SC	22	38	16	22			2.61						
3	311.192		2.00			16							8	4	20	40	28	
3	310.192		3.00			16						2.63						
7	309.192	2.00	4.00	Medium Stiff to Stiff Brownish CLAY	CI	16	42	16	27									
14	308.192		5.00			15						2.61						
20	306.692		6.50			24	46	18	28			2.61						
27	305.192	4.50	8.00	Very Stiff Brownish Sandy CLAY	CI	17												
24	303.692		9.50			23						2.66						
36	302.192	1.50	11.00	Dense Reddish Moorum	SC	21	37	16	20			2.62						
>100	301.192	1.00	12.00	Soft Disintegrated Rock	GP													

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 4 Ground RL 313.574 Ground Water Level:(-) 7.5m Termination Depth: 10.0m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)						Ucs (t/m²)
						NMC	W_L	W_P	I_P	I_C	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
	313.574		0.00																
13	312.574	2.00	1.00	Medium Stiff to Stiff Brownish CLAY	CI-CH	24	54	18	36			2.60							
7	311.574		2.00			26	42	19	22			2.62							
15	310.574		3.00			21	39	18	21										
15	309.574	3.00	4.00	Stiff to Very Stiff Brownish Sandy CLAY	CI	18	35	16	19			2.64							
17	308.574		5.00			17	46	14	32										
23	307.074	1.50	6.50	Medium Dense Brownish Clayey SAND	SC	14						2.64							
>100	305.574	3.50	8.00	Very Dense Brownish Moorum	SC	15						2.66	13	8	29	21	29		
>100	303.574		10.00			16						2.66							

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 5 Ground RL:313.506 Ground Water Level:(-) 6.8m Termination Depth: 15.5m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)						UCS (t/m^2)
						NMC	W_L	W_P	I_P	I_C	FreeSwell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay		
	313.506	1.00	0.00	Medium Dense Brownish Clayey SAND	SC														
17	312.506		1.00			20							0	0	14	51	35		
14	311.506	1.00	2.00	Medium Dense Brownish Silty SAND	SM	10						2.67	1	2	19	28	50		
11	310.506		3.00			19	46	15	33										
13	309.506	3.00	4.00	Stiff Brownish CLAY	CI	15						2.61							
19	308.506		5.00			21	46	17	29										
21	307.006		6.50			17						2.66							
16	305.506	4.50	8.00	Very Stiff Brownish CLAY	CI-CH	24	57	18	29										
22	304.006		9.50			21						2.66							
12	302.506		11.00			22													
24	301.006	4.50	12.50	Medium Dense Brownish Clayey SAND	SC	18						2.70	16	10	36	23	15		
27	299.506		14.00			14													
>100	298.006	1.50	15.50	Very Dense Brownish Moorum	SC	14						2.70							

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 6 Ground Water Level:(-) 7.8m Termination Depth: 15.5m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					UCS (kN/m²)
						MMC	W_L	W_P	I_P	I_C	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
	313.607	1.00	0.00	Very Stiff Brownish Sandy CLAY	CI													
17	312.607		1.00			19	35	15	20			2.62						
8	311.607	2.00	2.00	Loose Brownish Clayey SAND	SC	14							0	1	20	41	38	
7	310.607		3.00			21						2.66	3	4	24	39	30	
5	309.607	1.00	4.00	Medium Stiff Brownish CLAY	CI	29	43	19	24									
12	308.607	1.00	5.00	Medium Dense Brownish Silty Fine SAND	SM	19						2.65						
23	307.107	4.50	6.50	Stiff to Very Stiff Brownish Silty Sandy CLAY	CI-CL	16												
15	305.607		8.00			19	33	14	18			2.60						
14	304.107		9.50			24	38	11	27									
36	302.607	3.00	11.00	Very Dense Brownish Moorum	SC	19						2.69	43	5	24	23	5	
>100	301.107		12.50			16						2.61	10	11	38	27	17	
>100	299.607	3.00	14.00	Soft Disintegrated Rock	GP													
>100	298.107		15.50															

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 7 Ground RL:313.634 Ground Water Level:(-) 6.5m Termination Depth: 10.5m

SUMMARY OF TEST RESULTS

N° Value	Depth w.r.t (RL)	Layer thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					
						NMC	W_L	W_P	I_P	I_C	FreeSwell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Ucs (t/m²)
	313.634	1.00	0.00	Brownish CLAY	CH													
UDS	312.634		1.00									2.63						
9	311.634	1.00	2.00	Loose Brownish Clayey SAND	SC	18							3	3	26	34	34	
5	310.634	1.00	3.00	Medium Stiff Brownish Sandy CLAY	CI	26	40	19	21			2.65						
9	309.634	1.00	4.00	Loose Brownish Clayey SAND	SC	15							3	4	45	28	20	
14	308.634		5.00	Medium Dense Brownish Medium SAND	SW							2.68						
18	307.134	3.00	6.50	Stiff to Very Stiff Brownish Sandy CLAY	CI	20												
11	305.634		8.00			23						2.68						
>100	304.134	2.50	8.50	Very Dense Brownish moorum	SC	14							21	10	31	21	17	
30	303.134		10.50			17							15	5	18	23	39	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 8 Ground RL:313.758 Ground Water Level:(-) 6.8m Termination Depth: 10.5m

SUMMARY OF TEST RESULTS

'N' Value	Depth w.r.t RL	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					UCS (t/m²)
						MMC	W_L	W_P	I_P	I_C	FreeSwell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
	313.758	1.00	0.00	Stiff Brownish CLAY	CI													
11	312.758		1.00			18	42	20	22			2.66						
9	311.758	1.00	2.00	Loose Brownish Clayey SAND	SC	13							3	2	31	38	26	
12	310.758	1.00	3.00	Medium Dense Brownish Fine to Medium SAND	SW	8						2.63	2	2	47	39	10	
10	309.758	2.00	4.00	Stiff to Very Stiff Brownish Sandy CLAY	CI	24												
20	308.758		5.00			18	48	17	30			2.68						
21	307.258	1.50	6.50	Medium Dense Brownish Clayey SAND	SC	18							0	1	26	32	41	
26	305.758	3.00	8.00	Very Dense Brownish Moorum	SC	14						2.63	10	10	43	23	14	
>100	304.258		9.50			14												
>100	303.258	1.00	10.50	Soft Disintegrated Rock	GP													

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 9 Ground RL:313.738 Ground Water Level:(-) 7.0m Termination Depth: 10.0m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					UCs (t/m^2)
						NMC	W_L	W_P	I_P	I_C	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
	313.738	1.00	0.00	Brownish Sandy CLAY	CL													
UDS	312.738		1.00				35	17	18			2.64						3.0
12	311.738	1.00	2.00	Medium Dense Brownish Fine to Medium SAND	SM	12							4	4	44	36	12	
4	310.738	1.00	3.00	Soft Brownish CLAY	CH	31						2.66						
10	309.738	2.00	4.00	Medium Dense Brownish Clayey SAND	SC	24							0	20	21	27	32	
20	308.738		5.00			16												
25	307.238	3.00	6.50	Very Dense Brownish Clayey SAND	SC	12							11	7	32	27	23	
>100	305.738		8.00			9							8	10	40	27	15	
>100	303.738	2.00	10.00	Soft Disintegrated Rock	GF													

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 10 Ground RL:314.089 Ground Water Level:(-) 7.5m Termination Depth: 10.0m

SUMMARY OF TEST RESULTS

'N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					
						MMC	W_L	W_P	I_P	Ic	Free Swell		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Ucs (kN/m²)
	314.089	1.00	0.00	Brownish CLAY	CL													
UDS	313.089		1.00				35	16	18			2.61						3.7
6	312.089	1.00	2.00	Loose Brownish Clayey SAND	SC	19							1	1	15	48	35	
UDS	311.089	1.00	3.00	Brownish CLAY	CI	29						2.62						1.6
9	310.089	2.00	4.00	Loose to Medium Dense Clayey SAND	SC	20	39	19	20									
18	309.089		5.00			19						2.66	0	3	24	32	41	
42	307.589	3.00	6.50	Very Dense Brownish Moorum	SC	9							14	7	34	26	19	
>100	306.089		8.00			15						2.68	17	9	32	22	20	
>100	304.089	2.00	10.00	Soft Disintegrated Rock	GP													

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH No 11 Ground RL:312.811 Ground Water Level:(-) 6.5m Termination Depth: 10.0m

SUMMARY OF TEST RESULTS

N' Value	Depth w.r.t (RL)	Layer Thickness	Depth (m)	Soil Description	IS Classification	Index Properties (%)						Specific Gravity	Grain Size Analysis (%)					Uns (t/m²)
						MMC	W_L	W_P	I_P	Ic	FineSield		Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
	312.811	1.00	0.00	Brownish Sandy CLAY	CI													
UDS	311.811		1.00									2.61						3.7
8	310.811	1.00	2.00	Loose Brownish Clayey SAND	SC	16						2.60	1	2	30	41	26	
13	309.811	1.00	3.00	Stiff Brownish Sandy CLAY	CI	19	40	13	27									
26	308.811	2.00	4.00	Medium Dense Brownish Clayey SAND	SC	13						2.62	6	4	27	36	27	
16	307.811		5.00			11							9	7	34	30	21	
>100	308.311	3.00	6.50	Very Dense Brownish Moorum	SC	11						2.63	16	8	32	25	18	
>100	304.811		9.00			12							15	7	31	24	22	
>100	302.811	2.00	10.00	Soft Disintegrated Rock	DP													

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH,No/ Pit no	1		1		1		1		1		1	
Depth (m)	1.0		2.0		3.0		4.0		5.0		6.5	
Tare No	234	56	112	52	257	15	279	14	33	169	196	116
Wt of Tare (gr)	29.12	30.12	27.83	31.21	29.44	28.44	29.62	30.17	28.52	30.87	28.71	30.08
Tare + Soil (gr)	54.05	55.15	58.14	59.71	53.48	58.62	56.57	64.08	55.20	62.66	65.10	58.99
Tare+Dry soil (gr)	49.32	50.35	53.60	55.45	49.64	53.75	50.02	55.85	51.05	57.70	58.18	53.41
Wt of Water (gr)	4.73	4.80	4.54	4.26	3.84	4.87	6.55	8.23	4.15	4.96	6.92	5.58
Wt Dry soil (gr)	20.20	20.23	25.77	24.24	20.20	25.31	20.40	25.68	22.53	26.83	29.47	23.33
Water Content (%)	23.42	23.73	17.62	17.57	19.01	19.24	32.11	32.05	18.42	18.49	23.48	23.92
Average Water Content (%)	24		18		19		32		18		24	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	1		1		1		1		2		2	
Depth (m)	8.0		9.5		11.0		12.5		1.0		2.0	
Tare No	75	221	73	29	147	229	226	175	58	292	161	278
Wt of Tare (gr)	28.41	28.54	28.91	29.78	28.14	28.45	29.66	29.33	29.64	30.76	29.40	29.23
Tare + Soil (gr)	60.63	61.19	62.90	65.30	61.26	63.26	64.99	67.87	56.52	54.70	54.54	56.45
Tare+Dry soil (gr)	55.35	55.82	58.81	61.05	57.43	59.21	60.85	63.40	53.15	51.72	49.72	51.24
Wt of Water (gr)	5.28	5.37	4.09	4.25	3.83	4.05	4.14	4.47	3.37	2.98	4.82	5.21
Wt Dry soil (gr)	26.94	27.28	29.90	31.27	29.29	30.76	31.19	34.07	23.51	20.96	20.32	22.01
Water Content (%)	19.60	19.68	13.68	13.59	13.08	13.17	13.27	13.12	14.33	14.22	23.72	23.67
Average Water Content (%)	20		14		13		13		14		24	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH No/ Pit no	2		2		2		2		2		3	
Depth (m)	3.0		4.0		5.0		6.5		8.0		1.0	
Tare No	138	18	104	120	133	139	150	23	135	261	90	24
Wt of Tare (gr)	29.11	28.95	29.86	29.17	31.14	29.78	29.43	31.06	29.05	28.95	29.41	29.92
Tare + Soil (gr)	58.48	57.67	60.21	54.01	57.22	62.84	64.47	60.13	60.86	60.28	60.58	61.37
Tare+Dry soil (gr)	54.40	53.72	54.00	49.00	53.00	57.48	60.49	56.85	56.78	56.15	55.01	55.71
Wt of Water (gr)	4.08	3.95	6.21	5.01	4.22	5.36	3.98	3.28	4.08	4.13	5.57	5.66
Wt Dry soil (gr)	25.29	24.77	24.14	19.83	21.86	27.70	31.06	25.79	27.73	27.20	25.60	25.79
Water Content (%)	16.13	15.95	25.72	25.26	19.30	19.35	12.81	12.72	14.71	15.18	21.76	21.95
Average Water Content (%)	16		25		19		13		15		22	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	3		3		3		3		3		3	
Depth (m)	2.0		3.0		4.0		5.0		6.5		8.0	
Tare No	231	265	8	93	260	84	48	164	286	288	40	223
Wt of Tare (gr)	27.49	30.49	28.89	31.31	29.04	29.46	29.00	29.43	27.35	30.01	29.69	29.10
Tare + Soil (gr)	60.83	66.49	60.51	56.43	52.86	65.88	57.42	57.84	57.10	67.89	51.77	56.48
Tare+Dry soil (gr)	56.32	61.53	56.15	52.94	49.65	60.85	53.65	54.15	51.28	60.50	48.65	52.53
Wt of Water (gr)	4.51	4.96	4.36	3.49	3.21	5.03	3.77	3.69	5.82	7.39	3.12	3.95
Wt Dry soil (gr)	28.83	31.04	27.26	21.63	20.61	31.39	24.65	24.72	23.93	30.49	18.96	23.43
Water Content (%)	15.64	15.98	15.99	16.13	15.57	16.02	15.29	14.93	24.32	24.24	16.46	16.86
Average Water Content (%)	16		16		16		15		24		17	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	3		3		4		4		4		4	
Depth (m)	9.5		11.0		1.0		2.0		3.0		4.0	
Tare No	154	67	25	165	205	201	69	268	298	59	291	156
Wt of Tare (gr)	29.70	32.06	30.41	29.95	29.49	27.99	29.41	29.79	30.05	29.12	29.05	29.06
Tare + Soil (gr)	58.22	65.93	73.20	66.57	54.97	55.49	58.74	56.34	54.67	57.64	67.05	60.68
Tare+Dry soil (gr)	52.93	59.64	65.71	60.15	50.07	50.25	52.76	50.85	50.38	52.71	61.13	55.88
Wt of Water (gr)	5.29	6.29	7.49	6.42	4.90	5.24	5.98	5.49	4.29	4.93	5.92	4.80
Wt Dry soil (gr)	23.23	27.58	35.30	30.20	20.58	22.26	23.35	21.06	20.33	23.59	32.08	26.82
Water Content (%)	22.77	22.81	21.22	21.26	23.81	23.54	25.61	26.07	21.10	20.90	18.45	17.90
Average Water Content (%)	23		21		24		26		21		18	

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6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	4		4		4		4		5		5	
Depth (m)	5.0		6.5		8.0		10.0		1.0		2.0	
Tare No	220	188	88	144	3	185	197	216	77	179	281	208
Wt of Tare (gr)	30.08	30.55	29.40	29.51	28.52	28.79	30.62	29.35	29.17	27.50	29.11	29.07
Tare + Soil (gr)	57.28	59.84	57.03	56.40	54.61	60.91	60.50	68.27	54.12	52.71	53.01	47.56
Tare+Dry soil (gr)	53.25	55.54	53.65	53.16	51.23	56.85	56.34	62.88	50.07	48.56	50.82	45.92
Wt of Water (gr)	4.03	4.30	3.38	3.24	3.38	4.06	4.16	5.39	4.05	4.15	2.19	1.64
Wt Dry soil (gr)	23.17	24.99	24.25	23.65	22.71	28.06	25.72	33.53	20.90	21.06	21.71	16.85
Water Content (%)	17.39	17.21	13.94	13.72	14.88	14.47	16.17	16.08	19.38	19.71	10.09	9.73
Average Water Content (%)	17		14		15		16		20		10	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	5		5		5		5		5		5	
Depth (m)	3.0		4.0		5.0		6.5		8.0		9.5	
Tare No	219	64	271	264	37	91	151	247	62	190	295	227
Wt of Tare (gr)	27.82	29.15	29.45	31.62	29.38	29.68	29.94	30.37	29.54	29.88	29.48	29.64
Tare + Soil (gr)	55.67	56.07	54.99	58.93	72.31	66.11	57.11	64.88	56.53	58.09	53.28	53.87
Tare+Dry soil (gr)	51.33	51.85	51.65	55.29	64.89	59.74	53.22	59.82	51.33	52.65	49.15	49.65
Wt of Water (gr)	4.34	4.22	3.34	3.64	7.42	6.37	3.89	5.06	5.20	5.44	4.13	4.22
Wt Dry soil (gr)	23.51	22.70	22.20	23.67	35.51	30.06	23.28	29.45	21.79	22.77	19.67	20.01
Water Content (%)	18.46	18.59	15.05	15.38	20.90	21.19	16.71	17.18	23.86	23.89	21.00	21.09
Average Water Content (%)	19		15		21		17		24		21	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	5		5		5		5		6		6	
Depth (m)	11.0		12.5		14.0		15.5		1.0		2.0	
Tare No	269	130	250	19	162	5	211	248	171	225	30	97
Wt of Tare (gr)	30.06	28.84	29.15	29.41	30.66	31.86	30.10	28.75	29.53	28.48	28.12	29.49
Tare + Soil (gr)	54.21	59.78	60.57	64.33	62.32	67.13	73.54	63.34	57.46	53.79	52.20	50.49
Tare+Dry soil (gr)	49.78	54.15	55.84	59.04	58.49	62.85	68.30	59.15	53.05	49.82	49.25	47.95
Wt of Water (gr)	4.43	5.63	4.73	5.29	3.83	4.28	5.24	4.19	4.41	3.97	2.95	2.54
Wt Dry soil (gr)	19.78	25.31	26.69	29.63	27.83	30.99	38.20	30.40	23.52	21.34	21.13	18.46
Water Content (%)	22.40	22.24	17.72	17.85	13.76	13.81	13.72	13.78	18.75	18.60	13.96	13.76
Average Water Content (%)	22		18		14		14		19		14	

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6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH No/ Pit no	6		6		6		6		6		6	
Depth (m)	3.0		4.0		5.0		6.5		8.0		9.5	
Tare No	122	294	20	253	170	132	85	105	287	283	2	272
Wt of Tare (gr)	27.91	29.17	29.56	29.00	30.49	30.15	31.54	29.19	29.12	30.46	30.97	30.82
Tare + Soil (gr)	57.34	56.08	55.46	46.69	76.37	63.86	55.80	66.48	59.29	70.99	54.73	52.51
Tare+Dry soil (gr)	52.18	51.35	49.71	42.72	68.96	58.43	52.34	61.25	54.36	64.52	50.14	48.42
Wt of Water (gr)	5.16	4.73	5.75	3.97	7.41	5.43	3.46	5.23	4.93	6.47	4.59	4.09
Wt Dry soil (gr)	24.27	22.18	20.15	13.72	38.47	28.28	20.80	32.06	25.24	34.06	19.17	17.60
Water Content (%)	21.26	21.33	28.54	28.94	19.26	19.20	16.63	16.31	19.53	19.00	23.94	23.24
Average Water Content (%)	21		29		19		16		19		24	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH No/ Pit no	6		6		7		7		7		7	
Depth (m)	11.0		12.5		2.0		3.0		4.0		6.5	
Tare No	21	277	217	79	39	162	218	106	35	163	127	142
Wt of Tare (gr)	28.91	29.23	29.27	29.58	28.50	29.44	29.78	28.79	30.78	29.37	29.61	29.37
Tare + Soil (gr)	52.94	64.49	49.66	52.12	47.50	72.46	57.53	54.39	66.26	65.36	62.27	50.11
Tare+Dry soil (gr)	49.13	58.96	46.87	49.02	44.54	65.81	51.77	49.00	61.64	60.75	56.87	46.71
Wt of Water (gr)	3.81	5.53	2.79	3.10	2.96	6.65	5.76	5.39	4.62	4.61	5.40	3.40
Wt Dry soil (gr)	20.22	29.73	17.60	19.44	16.04	36.37	21.99	20.21	30.86	31.38	27.26	17.34
Water Content (%)	18.84	18.60	15.85	15.95	18.45	18.28	26.19	26.67	14.97	14.69	19.81	19.61
Average Water Content (%)	19		16		18		26		15		20	

6.0 NATURAL MOISTURE CONTENT

MS GEOTECH

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	7		7		7		6		8		8	
Depth (m)	8.0		9.5		10.5		1.0		2.0		3.0	
Tare No	110	254	194	204	51	242	28	230	255	119	270	177
Wt of Tare (gr)	30.88	29.82	29.14	27.16	28.68	29.08	28.35	28.39	28.65	29.10	32.64	29.65
Tare + Soil (gr)	60.85	62.81	52.69	46.40	57.92	50.27	49.04	64.25	64.53	58.68	58.41	56.74
Tare+Dry soil (gr)	55.16	56.59	49.80	44.04	53.63	47.13	45.89	58.95	60.34	55.16	56.48	54.66
Wt of Water (gr)	5.69	6.22	2.89	2.36	4.29	3.14	3.15	5.30	4.19	3.52	1.93	2.08
Wt Dry soil (gr)	24.28	26.77	20.66	16.88	24.95	18.05	17.54	30.56	31.69	26.06	23.84	25.01
Water Content (%)	23.43	23.23	13.99	13.98	17.19	17.40	17.96	17.34	13.22	13.51	8.10	8.32
Average Water Content (%)	23		14		17		18		13		8	

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6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	8		8		8		8		8		9	
Depth (m)	4.0		5.0		6.5		8.0		9.5		2.0	
Tare No	273	140	243	99	3	144	167	92	1	81	270	177
Wt of Tare (gr)	29.72	27.99	30.33	29.99	28.52	29.51	27.17	29.76	30.61	29.11	29.64	31.21
Tare + Soil (gr)	61.07	64.49	56.78	55.16	50.90	59.58	60.54	55.49	48.73	47.49	55.50	54.91
Tare+Dry soil (gr)	55.05	57.47	52.81	51.41	47.57	55.05	56.44	52.26	46.44	45.24	52.84	52.45
Wt of Water (gr)	6.02	7.02	3.97	3.75	3.33	4.53	4.10	3.23	2.29	2.25	2.66	2.46
Wt Dry soil (gr)	25.33	29.48	22.48	21.42	19.05	25.54	29.27	22.50	15.83	16.13	23.20	21.24
Water Content (%)	23.77	23.81	17.66	17.51	17.48	17.74	14.01	14.36	14.47	13.95	11.47	11.58
Average Water Content (%)	24		18		18		14		14		12	

6.0 NATURAL MOISTURE CONTENT

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Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

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Natural Moisture Content Data Sheet

BH.No/ Pit no	9		9		9		9		8		10	
Depth (m)	3.0		4.0		5.0		6.5		8.0		2.0	
Tare No	57	103	125	211	48	9	100	41	293	252	296	91
Wt of Tare (gr)	29.24	29.68	29.08	30.10	29.00	29.16	29.65	29.37	29.78	29.77	29.05	29.68
Tare + Soil (gr)	119.26	108.40	57.15	76.71	67.20	82.22	59.67	56.30	50.95	59.39	61.05	56.80
Tare+Dry soil (gr)	98.17	90.00	51.67	67.52	62.10	74.96	56.42	53.44	49.20	56.99	55.86	52.46
Wt of Water (gr)	21.09	18.40	5.48	9.19	5.10	7.26	3.25	2.86	1.75	2.40	5.19	4.34
Wt Dry soil (gr)	68.93	60.32	22.59	37.42	33.10	45.80	26.77	24.07	19.42	27.22	26.81	22.78
Water Content (%)	30.60	30.50	24.26	24.56	15.41	15.85	12.14	11.88	9.01	8.82	19.36	19.05
Average Water Content (%)	31		24		16		12		9		19	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH No/ Pit no	10		10		10		10		8		11	
Depth (m)	3.0		4.0		5.0		6.5		8.0		2.0	
Tare No	159	286	68	279	102	58	43	63	128	137	23	34
Wt of Tare (gr)	30.51	27.35	28.28	29.62	29.07	29.64	30.86	29.97	30.48	30.20	31.06	29.75
Tare + Soil (gr)	76.27	82.02	60.01	74.11	61.16	51.11	53.92	53.75	48.53	51.07	59.91	53.15
Tare+Dry soil (gr)	65.67	69.84	54.66	66.69	56.07	47.55	51.98	51.77	46.11	48.32	55.85	49.92
Wt of Water (gr)	10.60	12.18	5.35	7.42	5.09	3.56	1.94	1.98	2.42	2.75	4.06	3.23
Wt Dry soil (gr)	35.16	42.49	26.38	37.07	27.00	17.91	21.12	21.80	15.63	18.12	24.79	20.17
Water Content (%)	30.15	28.67	20.28	20.02	18.85	19.88	9.19	9.08	15.48	15.18	16.38	16.01
Average Water Content (%)	29		20		19		9		15		16	

6.0 NATURAL MOISTURE CONTENT

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

Method: IS-2720 P-2

Natural Moisture Content Data Sheet

BH.No/ Pit no	11		11		11		11		11			
Depth (m)	3.0		4.0		5.0		6.5		8.0			
Tare No	278	7	256	46	220	295	151	93	145	74		
Wt of Tare (gr)	29.23	29.48	29.96	29.75	30.08	29.46	29.94	31.31	29.63	29.69		
Tare + Soil (gr)	50.60	55.80	60.52	56.72	68.37	58.54	58.51	60.55	52.60	60.10		
Tare+Dry soil (gr)	47.25	51.67	56.98	53.66	64.59	55.67	55.68	57.71	50.19	56.88		
Wt of Water (gr)	3.35	4.13	3.54	3.06	3.78	2.87	2.83	2.84	2.41	3.22		
Wt Dry soil (gr)	18.02	22.19	27.02	23.91	34.51	26.19	25.74	26.40	20.56	27.19		
Water Content (%)	18.59	18.61	13.10	12.80	10.95	10.96	10.99	10.76	11.72	11.84		
Average Water Content (%)	19		13		11		11		12			

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	1
Depth(m)	1.0

Pycnometer number			32	58
Weight of bottle	w_1	g	46.2600	27.7800
Weight of bottle + soil	w_2	g	64.8200	45.9600
Weight of bottle + soil + water	w_3	g	108.3000	91.2900
Weight of bottle full of water	w_4	g	96.9500	80.6300
Weight of soil	w_2-w_1	g	18.5600	17.2800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.61041	2.61027
Average value G_s			2.61	

BH.No	1
Depth(m)	3.0

Pycnometer number			1	48
Weight of bottle	w_1	g	34.9600	40.1600
Weight of bottle + soil	w_2	g	48.3000	48.5000
Weight of bottle + soil + water	w_3	g	96.6900	96.6300
Weight of bottle full of water	w_4	g	88.4100	93.4600
Weight of soil	w_2-w_1	g	13.3400	8.3400
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63636	2.63091
Average value G_s			2.63	

MS GEOTECH
Geotechnical, Geophysical & Engineering Services in Offshore & Onshore

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	1
Depth(m)	5.0

Pycnometer number			12	45
Weight of bottle	w_1	g	33.1600	28.2200
Weight of bottle + soil	w_2	g	48.3000	39.9400
Weight of bottle + soil + water	w_3	g	85.3200	66.6100
Weight of bottle full of water	w_4	g	85.2500	79.5600
Weight of soil	w_2-w_1	g	15.1400	11.7200
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.65896	2.65760
Average value G_s			2.66	

BH.No	1
Depth(m)	8.0

Pycnometer number			9	19
Weight of bottle	w_1	g	34.0580	34.6400
Weight of bottle + soil	w_2	g	44.3290	43.4900
Weight of bottle + soil + water	w_3	g	93.3600	87.4000
Weight of bottle full of water	w_4	g	87.0430	81.9500
Weight of soil	w_2-w_1	g	10.2790	8.8500
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60090	2.60294
Average value G_s			2.60	

MS GEOTECH
Geotechnical, Geophysical & Engineering Survey in Offshore & Onshore

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	1				
Depth(m)	11.0				
Pycnometer number				19	8
Weight of bottle	w_1	g		34.6400	36.0800
Weight of bottle + soil	w_2	g		46.0900	51.9600
Weight of bottle + soil + water	w_3	g		88.0200	98.1100
Weight of bottle full of water	w_4	g		81.9500	88.3100
Weight of soil	w_2-w_1	g		11.4500	15.8800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$			2.61416	2.61184
Average value G_s				2.61	

BH.No	1				
Depth(m)	12.5				
Pycnometer number				43	2
Weight of bottle	w_1	g		32.2000	35.8600
Weight of bottle + soil	w_2	g		40.0600	45.4500
Weight of bottle + soil + water	w_3	g		92.6400	93.1500
Weight of bottle full of water	w_4	g		87.7100	87.1300
Weight of soil	w_2-w_1	g		7.8500	9.5900
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$			2.68838	2.68627
Average value G_s				2.69	

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	2
Depth(m)	2.0

Pycnometer number			22	34
Weight of bottle	w_1	g	35.2900	32.5600
Weight of bottle + soil	w_2	g	44.1500	41.1900
Weight of bottle + soil + water	w_3	g	94.3800	90.3400
Weight of bottle full of water	w_4	g	88.8900	85.0000
Weight of soil	w_2-w_1	g	8.8600	8.6300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62906	2.62310
Average value G_s			2.63	

BH.No	2
Depth(m)	3.0

Pycnometer number			44	52
Weight of bottle	w_1	g	33.3600	29.1800
Weight of bottle + soil	w_2	g	43.7600	37.3600
Weight of bottle + soil + water	w_3	g	93.8500	84.5000
Weight of bottle full of water	w_4	g	87.3800	79.8300
Weight of soil	w_2-w_1	g	10.4000	8.2000
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64631	2.64516
Average value G_s			2.65	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: **MSGTPL/SI-4097/18-19**

Project : **Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur**

BH.No	2
Depth(m)	5.0

Pycnometer number			5	25
Weight of bottle	w_1	g	28.5500	38.0800
Weight of bottle + soil	w_2	g	42.5700	48.7800
Weight of bottle + soil + water	w_3	g	88.1200	88.4600
Weight of bottle full of water	w_4	g	79.4900	81.8600
Weight of soil	w_2-w_1	g	14.0200	10.7000
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60111	2.60976
Average value G_s			2.61	

BH.No	2
Depth(m)	8.0

Pycnometer number			31	40
Weight of bottle	w_1	g	35.6200	40.3600
Weight of bottle + soil	w_2	g	52.2700	54.0900
Weight of bottle + soil + water	w_3	g	99.3700	102.5100
Weight of bottle full of water	w_4	g	89.0300	93.9900
Weight of soil	w_2-w_1	g	16.6500	13.7300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63867	2.63532
Average value G_s			2.64	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	3
Depth(m)	1.0

Pycnometer number			41	27
Weight of bottle	w_1	g	39.5400	39.4100
Weight of bottle + soil	w_2	g	50.9800	48.9600
Weight of bottle + soil + water	w_3	g	100.3500	101.0800
Weight of bottle full of water	w_4	g	93.3000	95.2000
Weight of soil	w_2-w_1	g	11.4400	9.5500
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60592	2.60929
Average value G_s			2.61	

BH.No	3
Depth(m)	3.0

Pycnometer number			29	28
Weight of bottle	w_1	g	37.9500	31.2900
Weight of bottle + soil	w_2	g	45.3700	39.1500
Weight of bottle + soil + water	w_3	g	96.5900	85.8400
Weight of bottle full of water	w_4	g	91.9900	80.9600
Weight of soil	w_2-w_1	g	7.4200	7.8600
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63121	2.63758
Average value G_s			2.63	

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	3
Depth(m)	5.0

Pycnometer number			23	36
Weight of bottle	w_1	g	35.2300	39.0500
Weight of bottle + soil	w_2	g	47.5400	49.1800
Weight of bottle + soil + water	w_3	g	95.8600	98.1100
Weight of bottle full of water	w_4	g	88.2700	91.8700
Weight of soil	w_2-w_1	g	12.3100	10.1300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60805	2.60411
Average value G_s			2.61	

BH.No	3
Depth(m)	6.5

Pycnometer number			51	6
Weight of bottle	w_1	g	33.4600	30.4100
Weight of bottle + soil	w_2	g	44.2300	41.1600
Weight of bottle + soil + water	w_3	g	100.6790	86.1700
Weight of bottle full of water	w_4	g	94.0400	79.5400
Weight of soil	w_2-w_1	g	10.7700	10.7500
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60145	2.60922
Average value G_s			2.61	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	3
Depth(m)	9.5

Pycnometer number			40	28
Weight of bottle	w_1	g	40.3800	31.2500
Weight of bottle + soil	w_2	g	50.3900	42.4600
Weight of bottle + soil + water	w_3	g	100.2500	84.5500
Weight of bottle full of water	w_4	g	93.9900	77.5500
Weight of soil	w_2-w_1	g	10.0300	11.2100
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66048	2.66271
Average value G_s			2.66	

BH.No	3
Depth(m)	11.0

Pycnometer number			2	29
Weight of bottle	w_1	g	35.8600	34.7400
Weight of bottle + soil	w_2	g	48.2400	44.4500
Weight of bottle + soil + water	w_3	g	94.7900	88.9200
Weight of bottle full of water	w_4	g	87.1300	82.5100
Weight of soil	w_2-w_1	g	12.3800	9.7100
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62268	2.62432
Average value G_s			2.62	

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	4
Depth(m)	1.0

Pycnometer number			36	33
Weight of bottle	w_1	g	39.0500	34.7600
Weight of bottle + soil	w_2	g	51.6600	45.1100
Weight of bottle + soil + water	w_3	g	99.6300	89.7300
Weight of bottle full of water	w_4	g	91.8700	83.3600
Weight of soil	w_2-w_1	g	12.6100	10.3500
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60000	2.60050
Average value G_s			2.60	

BH.No	4
Depth(m)	2.0

Pycnometer number			30	2
Weight of bottle	w_1	g	39.6300	35.8600
Weight of bottle + soil	w_2	g	54.0900	51.7500
Weight of bottle + soil + water	w_3	g	101.7500	98.2300
Weight of bottle full of water	w_4	g	92.4500	88.4100
Weight of soil	w_2-w_1	g	15.0600	15.8900
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.61458	2.61779
Average value G_s			2.62	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	4
Depth(m)	4.0

Pycnometer number			9	28
Weight of bottle	w_1	g	34.0500	31.2900
Weight of bottle + soil	w_2	g	45.6600	43.2500
Weight of bottle + soil + water	w_3	g	94.2600	88.4000
Weight of bottle full of water	w_4	g	87.0400	80.9600
Weight of soil	w_2-w_1	g	11.6100	11.9700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64465	2.64238
Average value G_s			2.64	

BH.No	4
Depth(m)	6.5

Pycnometer number			8	53
Weight of bottle	w_1	g	38.0800	33.7500
Weight of bottle + soil	w_2	g	51.0800	46.3800
Weight of bottle + soil + water	w_3	g	97.6300	97.6500
Weight of bottle full of water	w_4	g	88.3100	89.8000
Weight of soil	w_2-w_1	g	15.0000	12.6300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64085	2.64226
Average value G_s			2.64	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	4
Depth(m)	8.0

Pycnometer number			18	34
Weight of bottle	w_1	g	35.7900	32.5600
Weight of bottle + soil	w_2	g	43.3900	40.8000
Weight of bottle + soil + water	w_3	g	92.9500	90.1400
Weight of bottle full of water	w_4	g	88.2100	85.9000
Weight of soil	w_2-w_1	g	7.6000	8.2400
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.65734	2.65808
Average value G_s			2.66	

BH.No	4
Depth(m)	10.0

Pycnometer number			3	46
Weight of bottle	w_1	g	32.8300	32.7400
Weight of bottle + soil	w_2	g	39.3500	39.8500
Weight of bottle + soil + water	w_3	g	88.1200	92.1900
Weight of bottle full of water	w_4	g	84.0500	87.7500
Weight of soil	w_2-w_1	g	6.5200	7.1100
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66122	2.66292
Average value G_s			2.66	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	5				
Depth(m)	2.0				
Pycnometer number				57	38
Weight of bottle	W_1	g		27.0300	40.6300
Weight of bottle + soil	W_2	g		33.0800	48.2700
Weight of bottle + soil + water	W_3	g		82.5500	98.9700
Weight of bottle full of water	W_4	g		78.9900	94.1900
Weight of soil	W_2-W_1	g		5.8500	7.6400
Specific gravity	$\frac{W2-W1}{(W4-W1)-(W3-W2)}$			2.67123	2.67133
Average value G_s				2.67	

BH.No	5				
Depth(m)	4.0				
Pycnometer number				33	51
Weight of bottle	W_1	g		34.7600	33.4600
Weight of bottle + soil	W_2	g		40.7500	38.1000
Weight of bottle + soil + water	W_3	g		87.0500	96.9000
Weight of bottle full of water	W_4	g		83.3600	94.0400
Weight of soil	W_2-W_1	g		5.9900	4.6400
Specific gravity	$\frac{W2-W1}{(W4-W1)-(W3-W2)}$			2.60435	2.60674
Average value G_s				2.61	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	5
Depth(m)	6.5

Pycnometer number			7	16
Weight of bottle	w_1	g	30.0500	34.8500
Weight of bottle + soil	w_2	g	38.0200	43.5900
Weight of bottle + soil + water	w_3	g	84.2500	93.9300
Weight of bottle full of water	w_4	g	79.2800	88.4900
Weight of soil	w_2-w_1	g	7.9700	8.7400
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.65667	2.65653
Average value G_s			2.66	

BH.No	5
Depth(m)	9.5

Pycnometer number			24	52
Weight of bottle	w_1	g	31.0800	29.1600
Weight of bottle + soil	w_2	g	35.0700	37.1500
Weight of bottle + soil + water	w_3	g	84.3500	84.8200
Weight of bottle full of water	w_4	g	81.8600	79.8300
Weight of soil	w_2-w_1	g	3.9900	7.9900
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66000	2.66333
Average value G_s			2.66	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	5
Depth(m)	12.5

Pycnometer number			21	39
Weight of bottle	w_1	g	36.4100	37.0500
Weight of bottle + soil	w_2	g	46.1000	49.2100
Weight of bottle + soil + water	w_3	g	95.0600	99.0700
Weight of bottle full of water	w_4	g	88.9600	91.9900
Weight of soil	w_2-w_1	g	9.6900	11.2600
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.69916	2.69378
Average value G_s			2.70	

BH.No	5
Depth(m)	15.5

Pycnometer number			32	5
Weight of bottle	w_1	g	46.2600	28.5500
Weight of bottle + soil	w_2	g	57.3800	42.5200
Weight of bottle + soil + water	w_3	g	103.8500	88.2700
Weight of bottle full of water	w_4	g	96.8500	79.4900
Weight of soil	w_2-w_1	g	11.1200	13.9700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.69903	2.69171
Average value G_s			2.70	

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	6
Depth(m)	1.0

Pycnometer number			58	6
Weight of bottle	w_1	g	27.7800	30.4100
Weight of bottle + soil	w_2	g	38.2900	40.5600
Weight of bottle + soil + water	w_3	g	87.1200	85.8100
Weight of bottle full of water	w_4	g	80.6300	79.5400
Weight of soil	w_2-w_1	g	10.5100	10.1500
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.61443	2.61598
Average value G_s			2.62	

BH.No	6
Depth(m)	3.0

Pycnometer number			41	49
Weight of bottle	w_1	g	39.5400	40.1600
Weight of bottle + soil	w_2	g	48.9900	48.9900
Weight of bottle + soil + water	w_3	g	97.9500	98.9900
Weight of bottle full of water	w_4	g	93.3000	93.4600
Weight of soil	w_2-w_1	g	7.4500	8.8300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66071	2.66767
Average value G_s			2.66	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	6
Depth(m)	5.0

Pycnometer number			13	58
Weight of bottle	w_1	g	27.7700	27.7800
Weight of bottle + soil	w_2	g	36.9000	37.4900
Weight of bottle + soil + water	w_3	g	83.5700	86.6700
Weight of bottle full of water	w_4	g	77.8900	80.6300
Weight of soil	w_2-w_1	g	9.1300	9.7100
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64638	2.64578
Average value G_s			2.65	

BH.No	6
Depth(m)	8.0

Pycnometer number			45	12
Weight of bottle	w_1	g	28.2200	33.1600
Weight of bottle + soil	w_2	g	39.0200	43.6200
Weight of bottle + soil + water	w_3	g	86.1500	91.6900
Weight of bottle full of water	w_4	g	79.5000	85.2500
Weight of soil	w_2-w_1	g	10.8000	10.4600
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60241	2.60199
Average value G_s			2.60	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : **Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur**

BH.No	6
Depth(m)	11.0

Pycnometer number			23	27
Weight of bottle	w_1	g	35.2300	39.4100
Weight of bottle + soil	w_2	g	40.9500	46.4800
Weight of bottle + soil + water	w_3	g	91.8600	99.6400
Weight of bottle full of water	w_4	g	88.2700	95.2000
Weight of soil	w_2-w_1	g	5.7200	7.0700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.68546	2.68821
Average value G_s			2.69	

BH.No	6
Depth(m)	12.5

Pycnometer number			51	2
Weight of bottle	w_1	g	33.4600	35.8600
Weight of bottle + soil	w_2	g	44.8500	46.4800
Weight of bottle + soil + water	w_3	g	101.0600	93.6800
Weight of bottle full of water	w_4	g	94.0400	87.1300
Weight of soil	w_2-w_1	g	11.3900	10.6200
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60641	2.60934
Average value G_s			2.61	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	6
Depth(m)	11.0

Pycnometer number			23	27
Weight of bottle	w_1	g	35.2500	39.4100
Weight of bottle + soil	w_2	g	40.9500	46.4800
Weight of bottle + soil + water	w_3	g	91.8600	93.6400
Weight of bottle full of water	w_4	g	88.2700	95.2000
Weight of soil	w_2-w_1	g	5.7200	7.0700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.68545	2.68821
Average value G_s			2.69	

BH.No	6
Depth(m)	12.5

Pycnometer number			51	2
Weight of bottle	w_1	g	33.4600	35.8600
Weight of bottle + soil	w_2	g	44.8500	46.4800
Weight of bottle + soil + water	w_3	g	101.0800	93.6800
Weight of bottle full of water	w_4	g	94.0400	87.1300
Weight of soil	w_2-w_1	g	11.3900	10.6200
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60641	2.60934
Average value G_s			2.61	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	7
Depth(m)	1.0

Pycnometer number			39	4
Weight of bottle	w_1	g	37.9500	35.8700
Weight of bottle + soil	w_2	g	49.7800	45.2900
Weight of bottle + soil + water	w_3	g	99.3200	94.9400
Weight of bottle full of water	w_4	g	91.9900	88.4900
Weight of soil	w_2-w_1	g	11.8300	10.4200
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62888	2.62469
Average value G_s			2.63	

BH.No	7
Depth(m)	3.0

Pycnometer number			4	13
Weight of bottle	w_1	g	35.8700	27.7700
Weight of bottle + soil	w_2	g	43.1600	34.9500
Weight of bottle + soil + water	w_3	g	93.0200	82.3600
Weight of bottle full of water	w_4	g	88.4900	77.8900
Weight of soil	w_2-w_1	g	7.2900	7.1800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64130	2.64945
Average value G_s			2.65	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	7
Depth(m)	5.0

Pycnometer number			26	19
Weight of bottle	w_1	g	29.7000	34.6400
Weight of bottle + soil	w_2	g	36.4300	44.3100
Weight of bottle + soil + water	w_3	g	83.2500	86.0200
Weight of bottle full of water	w_4	g	79.0300	81.8600
Weight of soil	w_2-w_1	g	6.7300	9.6700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.68127	2.68611
Average value G_s			2.68	

BH.No	7
Depth(m)	8.0

Pycnometer number			7	46
Weight of bottle	w_1	g	30.0500	32.7400
Weight of bottle + soil	w_2	g	38.9400	41.4000
Weight of bottle + soil + water	w_3	g	84.8500	93.1700
Weight of bottle full of water	w_4	g	79.2800	87.7500
Weight of soil	w_2-w_1	g	8.8900	8.6600
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.67771	2.67284
Average value G_s			2.68	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	8
Depth(m)	1.0

Pycnometer number			33	36
Weight of bottle	W_1	g	34.7600	39.0500
Weight of bottle + soil	W_2	g	43.2100	47.0400
Weight of bottle + soil + water	W_3	g	86.6300	90.8500
Weight of bottle full of water	W_4	g	83.3600	91.8700
Weight of soil	W_2-W_1	g	8.4500	7.9900
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.65723	2.65449
Average value G_s			2.66	

BH.No	8
Depth(m)	3.0

Pycnometer number			22	34
Weight of bottle	W_1	g	35.2600	32.5600
Weight of bottle + soil	W_2	g	40.8700	39.6800
Weight of bottle + soil + water	W_3	g	92.3500	89.4200
Weight of bottle full of water	W_4	g	88.8900	85.0000
Weight of soil	W_2-W_1	g	5.5800	7.1200
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63298	2.63704
Average value G_s			2.63	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	8
Depth(m)	5.0

Pycnometer number			22	34
Weight of bottle	w_1	g	35.2900	32.5600
Weight of bottle + soil	w_2	g	46.4400	41.0400
Weight of bottle + soil + water	w_3	g	95.8800	90.3200
Weight of bottle full of water	w_4	g	88.8900	85.0000
Weight of soil	w_2-w_1	g	11.1500	8.4800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.68029	2.68354
Average value G_s			2.68	

BH.No	8
Depth(m)	8.0

Pycnometer number			1	46
Weight of bottle	w_1	g	34.9600	40.1600
Weight of bottle + soil	w_2	g	44.2300	48.1900
Weight of bottle + soil + water	w_3	g	94.1500	98.4300
Weight of bottle full of water	w_4	g	88.4100	93.4600
Weight of soil	w_2-w_1	g	9.2700	8.0300
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62606	2.62418
Average value G_s			2.63	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	9
Depth(m)	1.0

Pycnometer number			31	40
Weight of bottle	w_1	g	35.6200	40.3600
Weight of bottle + soil	w_2	g	42.2500	47.4500
Weight of bottle + soil + water	w_3	g	93.1500	98.4000
Weight of bottle full of water	w_4	g	89.0300	93.9900
Weight of soil	w_2-w_1	g	6.6300	7.0900
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.64143	2.64552
Average value G_s			2.64	

BH.No	9
Depth(m)	3.0

Pycnometer number			19	6
Weight of bottle	w_1	g	34.5400	36.0800
Weight of bottle + soil	w_2	g	42.6500	43.1500
Weight of bottle + soil + water	w_3	g	86.9500	92.7300
Weight of bottle full of water	w_4	g	81.9500	88.3100
Weight of soil	w_2-w_1	g	8.0100	7.0700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66113	2.68792
Average value G_s			2.68	

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SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19
Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	10
Depth(m)	1.0

Pycnometer number			27	41
Weight of bottle	w_1	g	39.4100	39.5400
Weight of bottle + soil	w_2	g	47.8900	47.2400
Weight of bottle + soil + water	w_3	g	100.4300	98.0400
Weight of bottle full of water	w_4	g	96.2000	93.3000
Weight of soil	w_2-w_1	g	8.4800	7.7000
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60923	2.60135
Average value G_s			2.61	

BH.No	10
Depth(m)	3.0

Pycnometer number			12	45
Weight of bottle	w_1	g	33.1600	28.2200
Weight of bottle + soil	w_2	g	40.3200	36.8300
Weight of bottle + soil + water	w_3	g	89.6700	84.8200
Weight of bottle full of water	w_4	g	85.2500	79.5000
Weight of soil	w_2-w_1	g	7.1600	8.6100
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.61314	2.61702
Average value G_s			2.62	

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	10
Depth(m)	5.0

Pycnometer number			5	27
Weight of bottle	w_1	g	28.5500	39.4100
Weight of bottle + soil	w_2	g	48.7900	55.8500
Weight of bottle + soil + water	w_3	g	92.1400	105.4600
Weight of bottle full of water	w_4	g	79.4900	95.2000
Weight of soil	w_2-w_1	g	20.2400	16.4400
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.66667	2.68019
Average value G_s			2.66	

BH.No	10
Depth(m)	10.0

Pycnometer number			50	28
Weight of bottle	w_1	g	30.6300	31.2500
Weight of bottle + soil	w_2	g	48.2700	46.0900
Weight of bottle + soil + water	w_3	g	93.9400	86.8500
Weight of bottle full of water	w_4	g	82.8900	77.5500
Weight of soil	w_2-w_1	g	17.6400	14.8400
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.67678	2.67870
Average value G_s			2.68	

MS GE TECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	11
Depth(m)	1.0

Pycnometer number			34	1
Weight of bottle	w_1	g	32.5600	34.9600
Weight of bottle + soil	w_2	g	46.1000	44.8600
Weight of bottle + soil + water	w_3	g	93.3500	94.5100
Weight of bottle full of water	w_4	g	85.0000	88.4100
Weight of soil	w_2-w_1	g	13.5400	9.9000
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60886	2.60526
Average value G_s			2.61	

BH.No	11
Depth(m)	2.0

Pycnometer number			29	36
Weight of bottle	w_1	g	34.7400	39.0600
Weight of bottle + soil	w_2	g	51.1600	53.3200
Weight of bottle + soil + water	w_3	g	93.0200	100.6600
Weight of bottle full of water	w_4	g	82.9100	91.8700
Weight of soil	w_2-w_1	g	16.4200	14.2700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60222	2.60401
Average value G_s			2.60	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : **Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur**

BH.No	11
Depth(m)	4.0

Pycnometer number			36	33
Weight of bottle	w_1	g	39.5900	34.7600
Weight of bottle + soil	w_2	g	58.2600	48.0400
Weight of bottle + soil + water	w_3	g	103.7500	91.5800
Weight of bottle full of water	w_4	g	91.8700	83.3600
Weight of soil	w_2-w_1	g	18.2100	13.2800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62074	2.62451
Average value G_s			2.62	

BH.No	11
Depth(m)	6.5

Pycnometer number			31	6
Weight of bottle	w_1	g	35.6200	36.0800
Weight of bottle + soil	w_2	g	47.0200	44.9500
Weight of bottle + soil + water	w_3	g	96.1000	93.8100
Weight of bottle full of water	w_4	g	89.0300	88.3100
Weight of soil	w_2-w_1	g	11.4000	8.8700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63279	2.63205
Average value G_s			2.63	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	11
Depth(m)	1.0

Pycnometer number			34	1
Weight of bottle	w_1	g	32.5600	34.9600
Weight of bottle + soil	w_2	g	46.1000	44.8600
Weight of bottle + soil + water	w_3	g	92.3500	94.5100
Weight of bottle full of water	w_4	g	85.0000	88.4100
Weight of soil	w_2-w_1	g	13.5400	9.9000
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60886	2.60526
Average value G_s			2.61	

BH.No	11
Depth(m)	2.0

Pycnometer number			29	36
Weight of bottle	w_1	g	34.7400	39.0500
Weight of bottle + soil	w_2	g	51.1600	53.3200
Weight of bottle + soil + water	w_3	g	93.0200	100.9900
Weight of bottle full of water	w_4	g	82.9100	91.8700
Weight of soil	w_2-w_1	g	16.4200	14.2700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.60222	2.60461
Average value G_s			2.60	

MS GEOTECH

SPECIFIC GRAVITY TEST

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

BH.No	11
Depth(m)	4.0

Pycnometer number			36	33
Weight of bottle	w_1	g	39.0900	34.7600
Weight of bottle + soil	w_2	g	58.2900	48.0400
Weight of bottle + soil + water	w_3	g	103.7500	91.5800
Weight of bottle full of water	w_4	g	91.8700	83.3600
Weight of soil	w_2-w_1	g	19.2100	13.2800
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.62074	2.62451
Average value G_s			2.62	

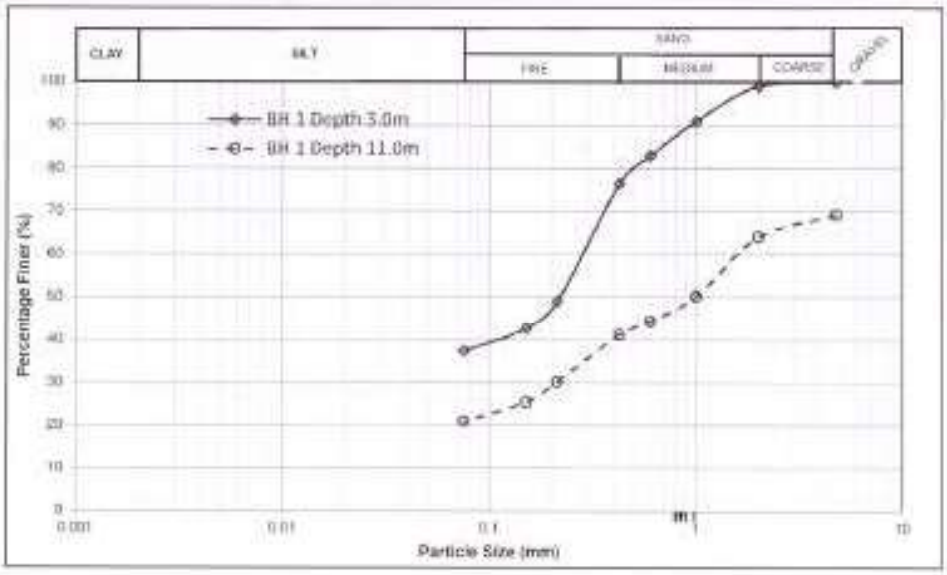
BH.No	11
Depth(m)	6.5

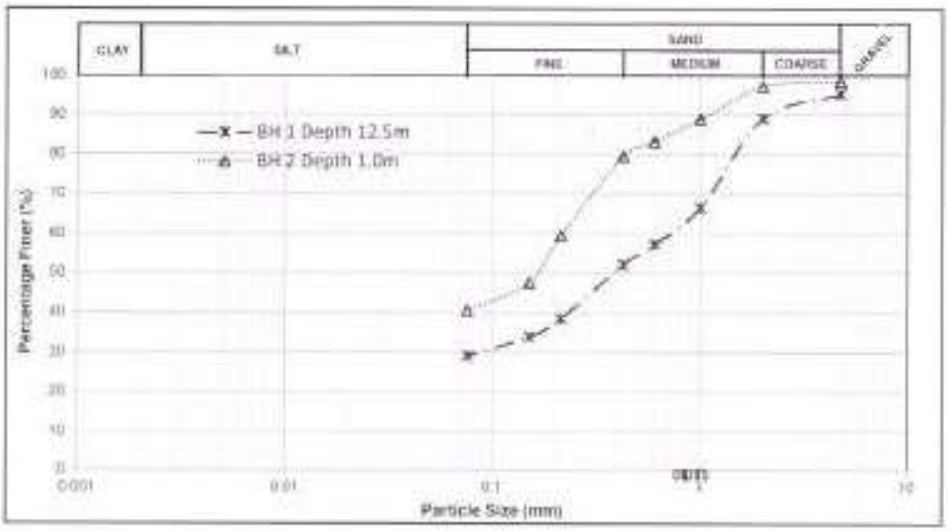
Pycnometer number			31	8
Weight of bottle	w_1	g	35.6200	36.0800
Weight of bottle + soil	w_2	g	47.0200	44.9600
Weight of bottle + soil + water	w_3	g	96.1000	93.8100
Weight of bottle full of water	w_4	g	89.0300	88.3100
Weight of soil	w_2-w_1	g	11.4000	8.8700
Specific gravity	$\frac{w2-w1}{(w4-w1)-(w3-w2)}$		2.63279	2.63205
Average value G_s			2.63	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



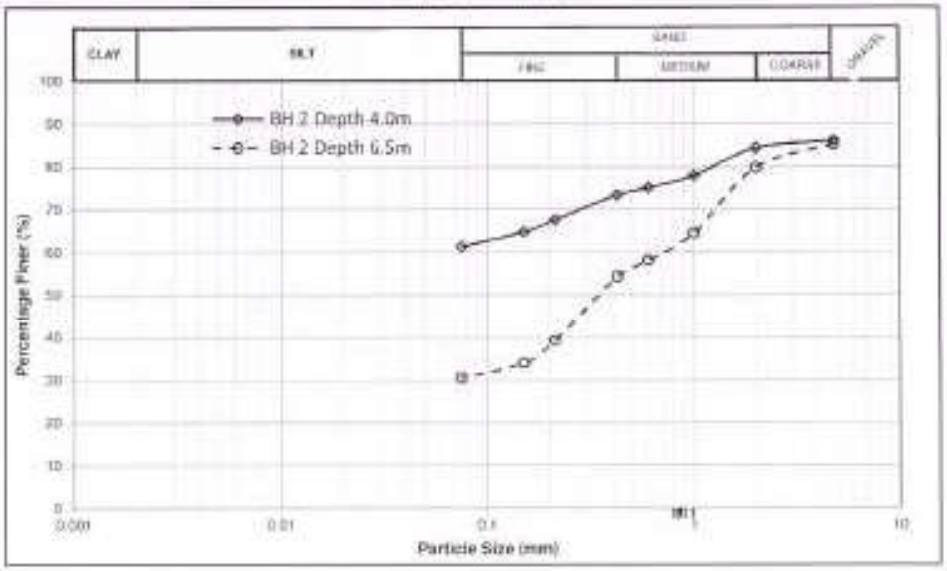


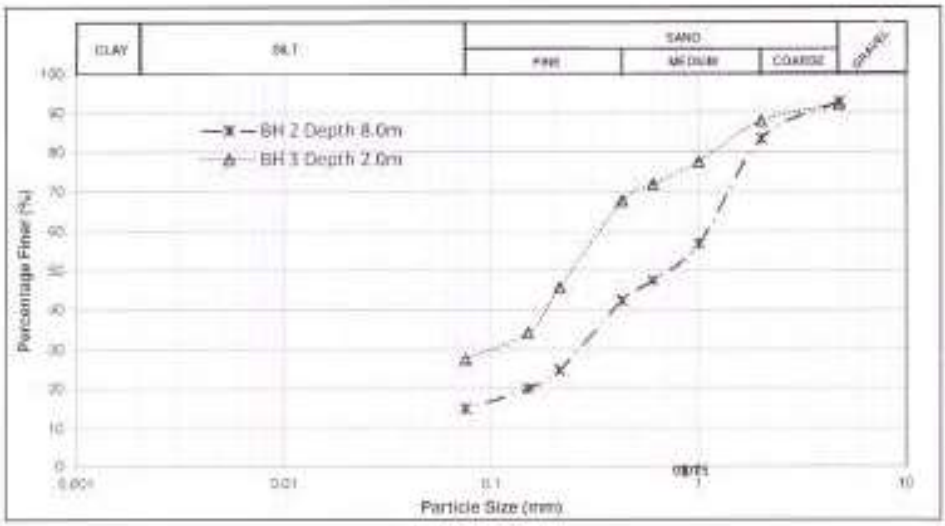
BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
1	3.0m	8	1	23	39	37	0.000		0.209		
1	11.0m	31	5	23	20	21		0.209	1.710		
1	12.5m	5	0	37	23	29	0.209	0.072	0.629	3.0	0.0
2	1.0m	1	1	18	39	41	1.710		0.218	0.1	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



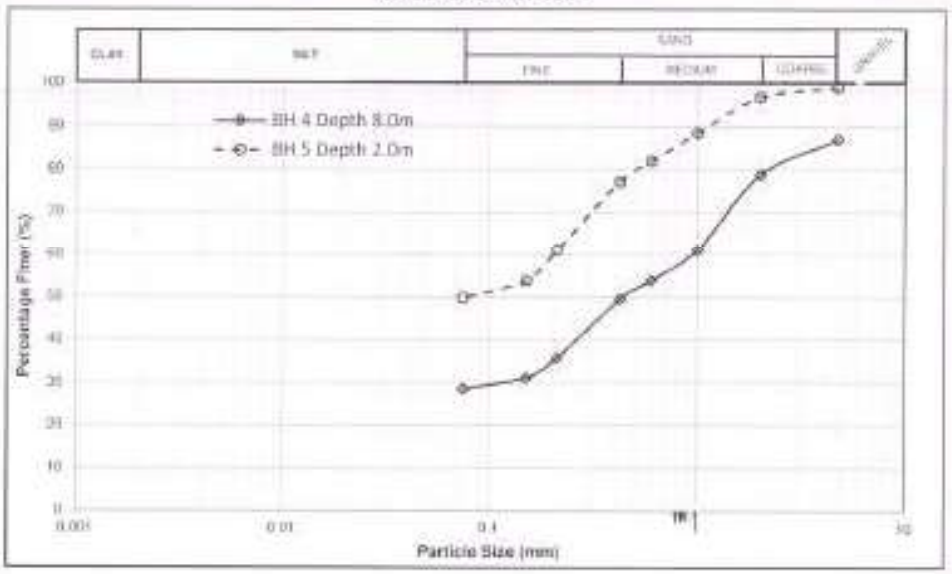


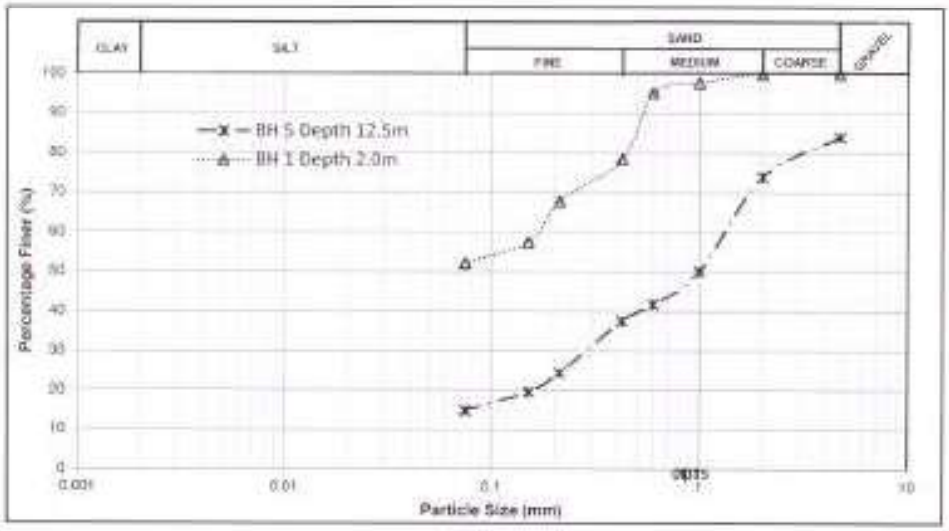
BH No	Depth	Gravel	SAND (%)			SILT& CLAY (%)	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine		(mm)	(mm)	(mm)		
2	4.0m	14	2	11	12	61	0.000				
2	6.5m	15	5	25	24	31			0.719		
2	8.0m	7	9	41	27	15		0.302	1.076	#####	#####
3	2.0m	8	4	20	40	28	0.719	0.103	0.351	0.5	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



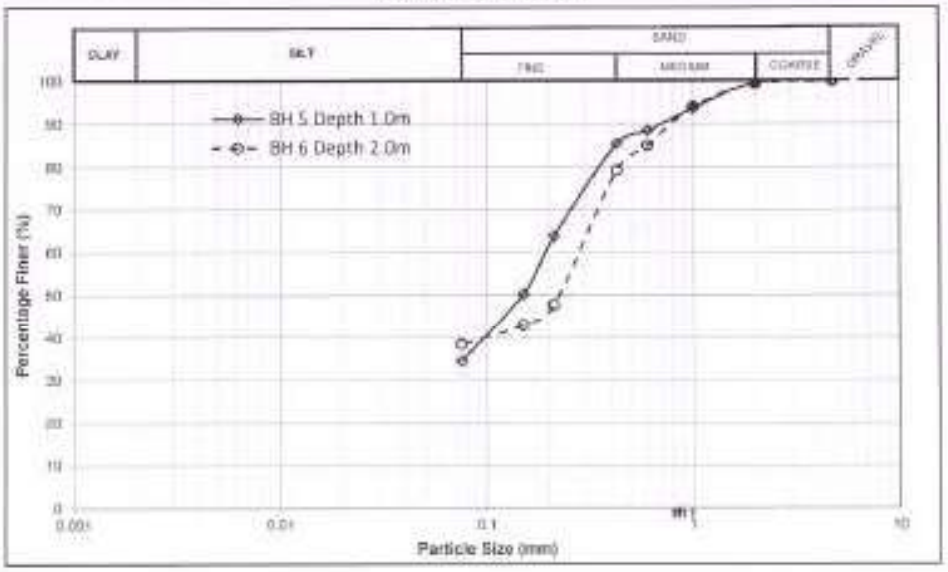


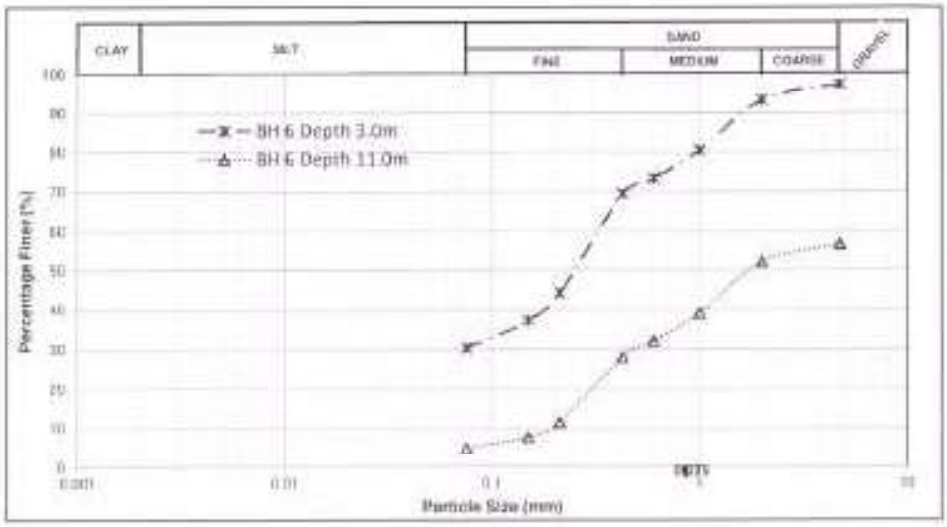
BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
4	8.0m	13	8	29	21	29	0.000				
5	2.0m	1	2	19	28	50			0.202		
5	12.5m	16	10	36	23	15		0.306	1.201	#####	#####
1	2.0m	0	0	22	26	52	0.202		0.165	0.8	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



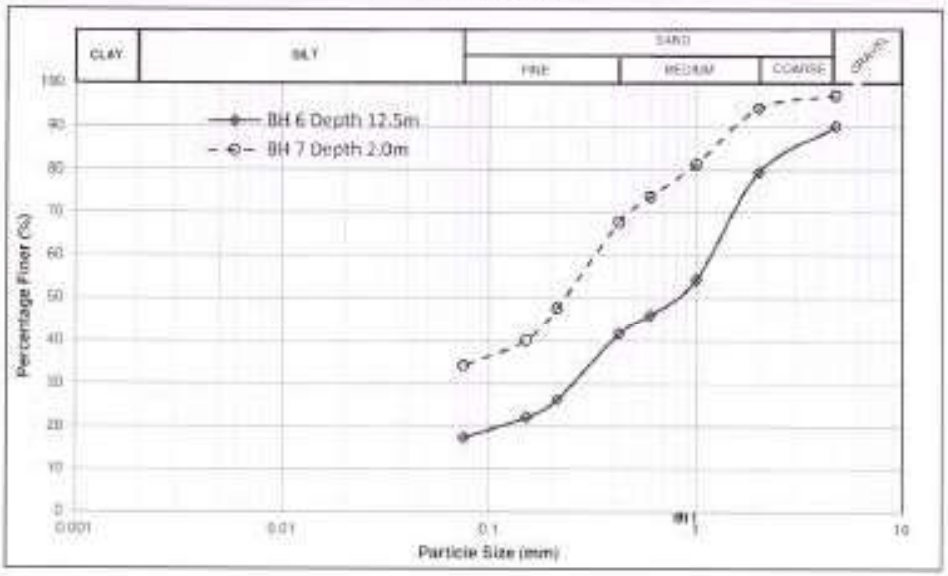


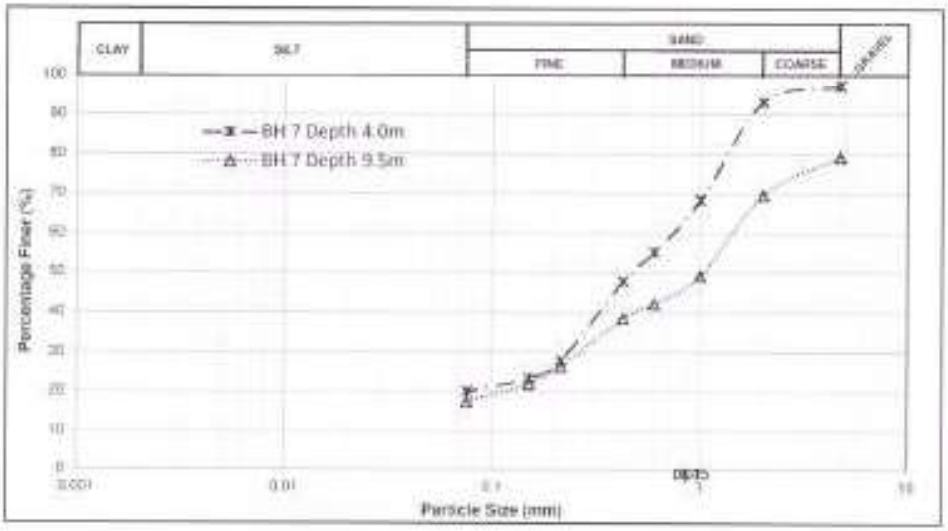
BH-No	Depth (m)	Gravel (%)	SAND (%)			SILT& CLAY (%)	D_{10} (mm)	D_{30} (mm)	D_{60} (mm)	Cu	Cc
			Coarse	Medium	Fine						
5	1.0m	0	0	14	51	35	0.000				
6	2.0m	0	1	28	41	38			0.296		
6	3.0m	3	4	24	39	30			0.274	#####	#####
6	11.0m	43	5	24	23	5	0.296	0.511	5.029	17.0	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



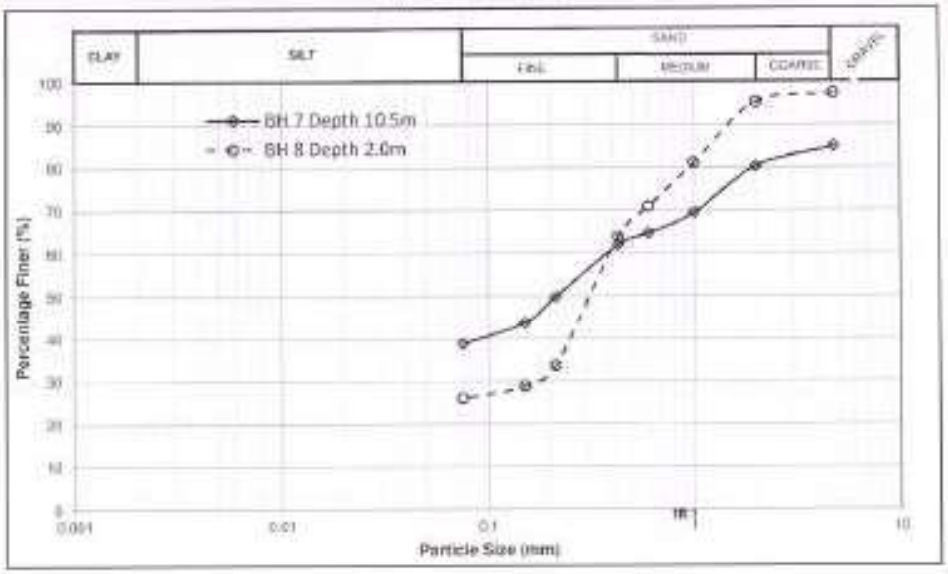


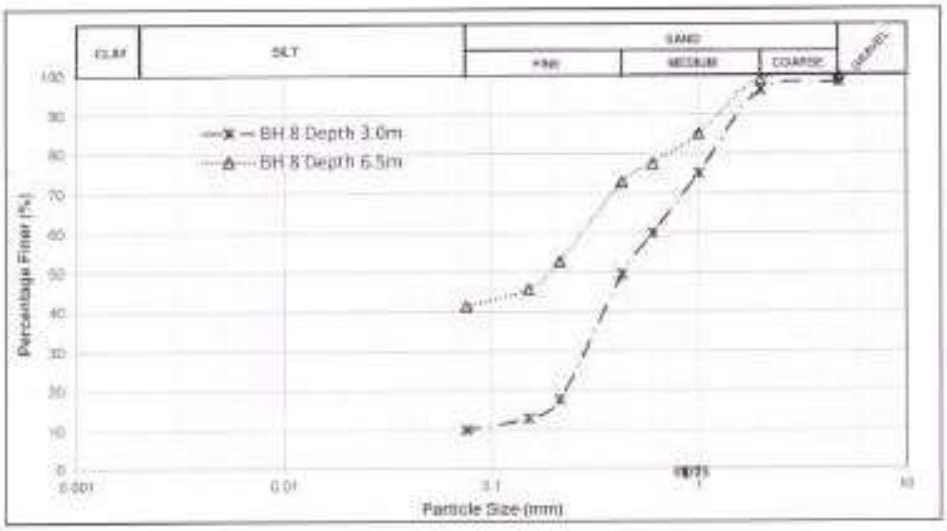
BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{60}	D_{30}	D_{10}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
6	12.5m	10	11	38	24	17	0.600				
7	2.0m	3	3	26	34	34			0.342		
7	4.0m	3	4	45	28	20		0.252	0.547	*****	*****
7	9.5m	21	10	31	21	17	0.342	0.278	1.526	4.5	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



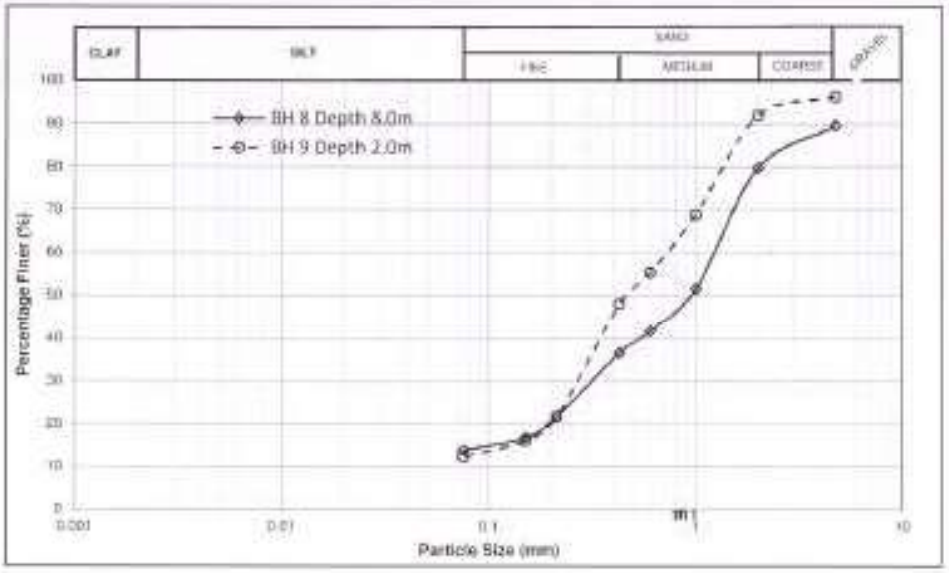


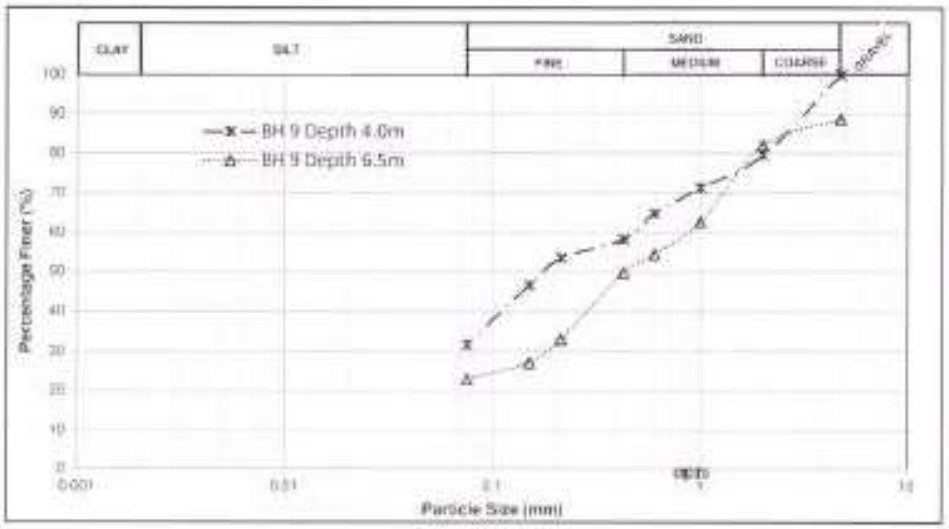
BH No	Depth (m)	Gravel (%)	SAND (%)			SILT& CLAY (%)	D_{10} (mm)	D_{30} (mm)	D_{60} (mm)	Cu	Cc
			Coarse	Medium	Fine						
7	10.5m	15	5	18	23	39	0.000		0.165		
8	2.0m	3	2	31	38	26		0.165	0.399		
8	3.0m	2	2	47	39	10	0.165	0.346	0.600	3.6	1.2
8	6.5m	0	1	26	32	41	0.399		0.289	0.7	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



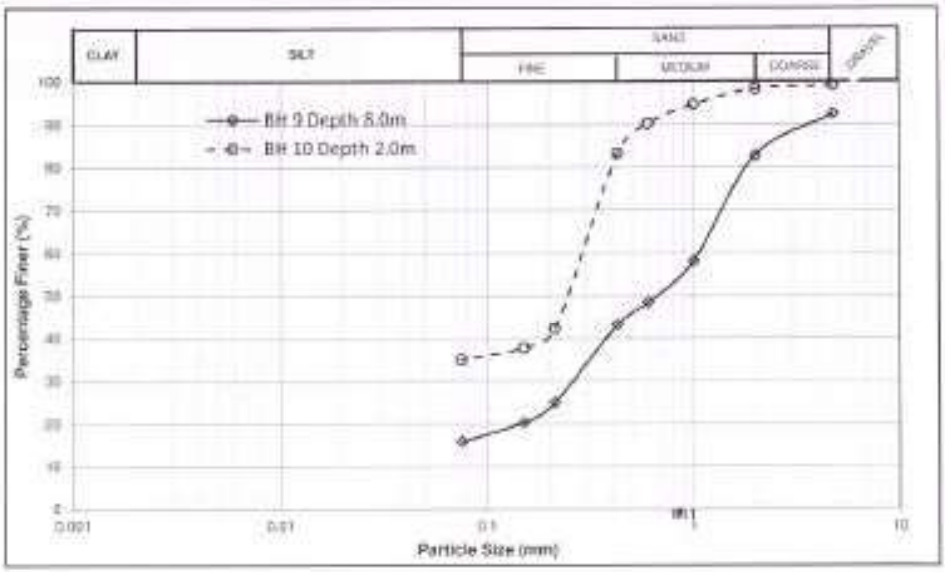


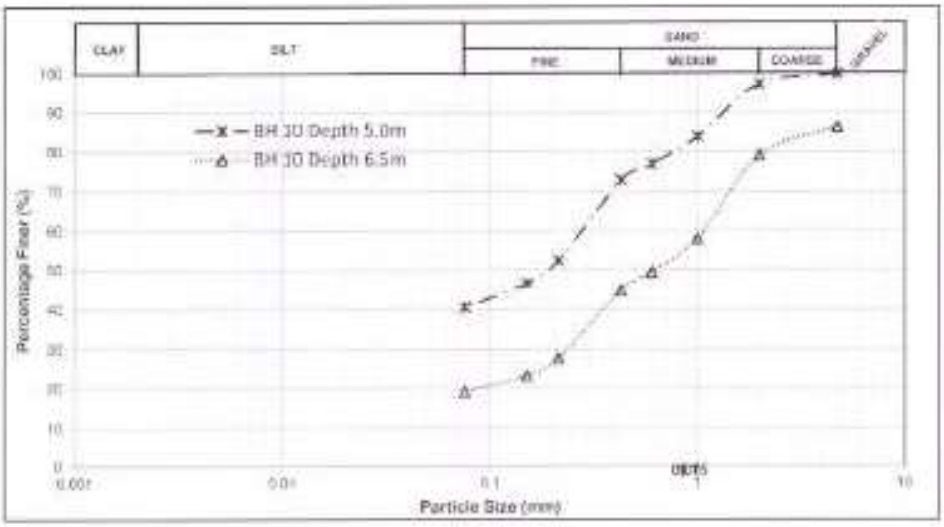
BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
8	8.0m	10	10	43	23	14	0.000		0.279		
9	2.0m	4	4	44	36	12		0.279	0.739		
9	4.0m	0	20	21	27	32	0.279		0.373	1.3	#####
9	6.5m	11	7	32	27	23	0.739	0.180	0.871	1.2	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



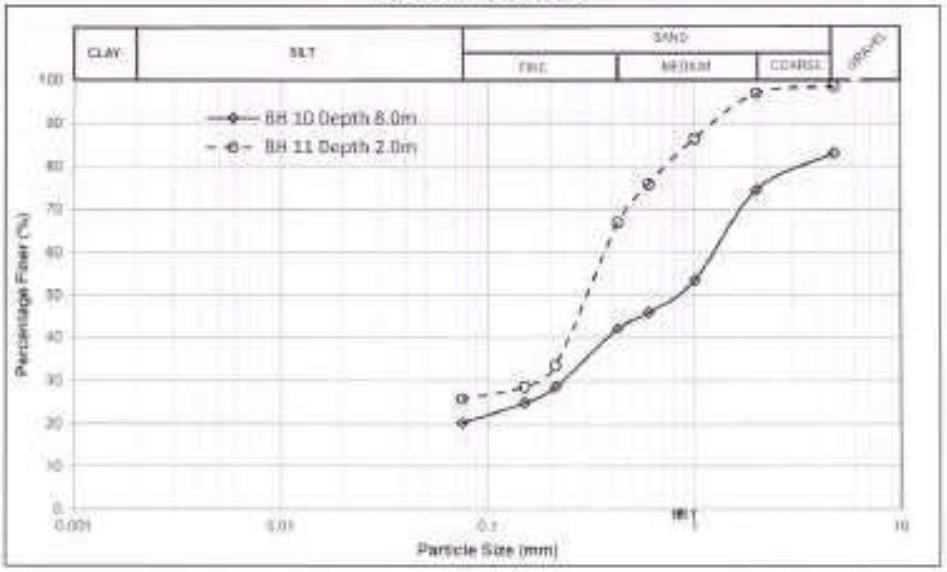


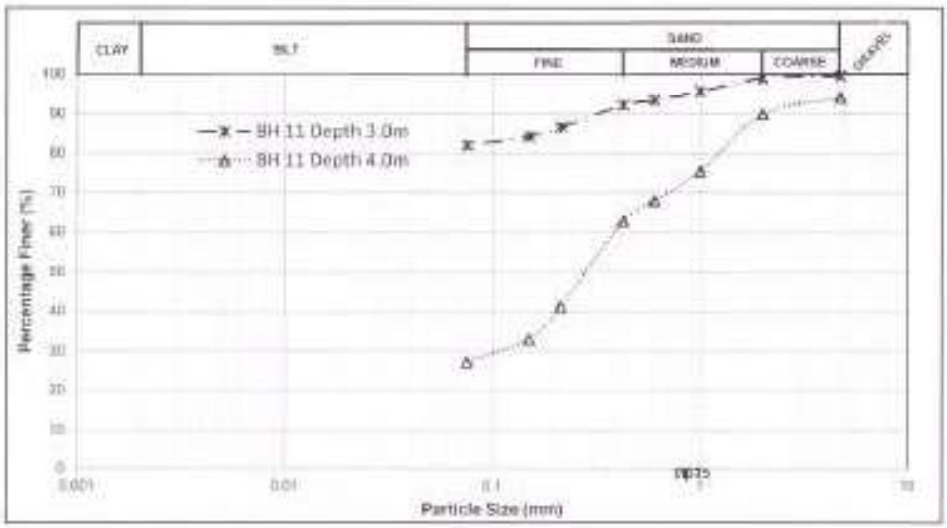
BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
9	8.0m	8	10	40	27	15	0.000				
10	2.0m	1	1	15	48	35			0.104		
10	5.0m	0	3	24	32	41			0.103	#####	#####
10	6.5m	14	7	34	26	19	0.304	0.241	1.097	3.6	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS



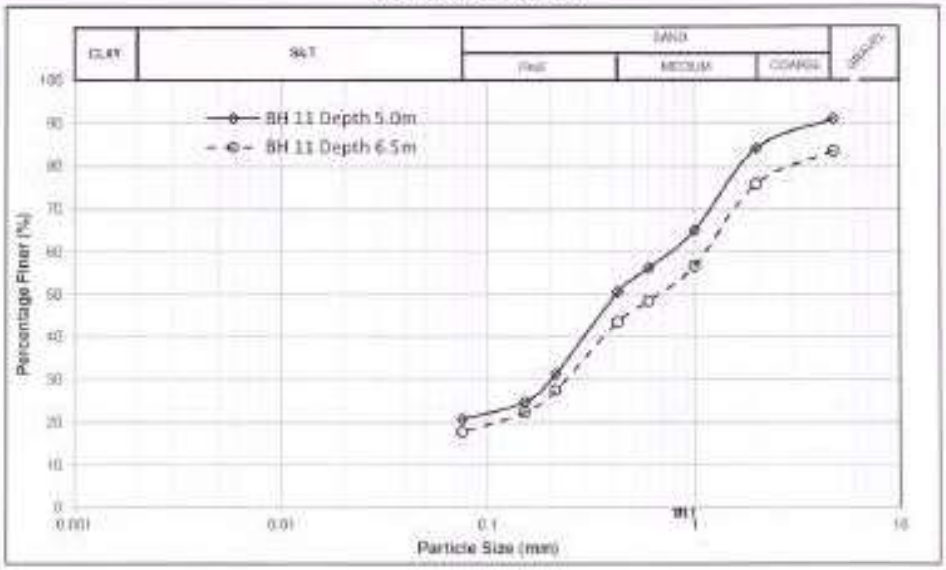


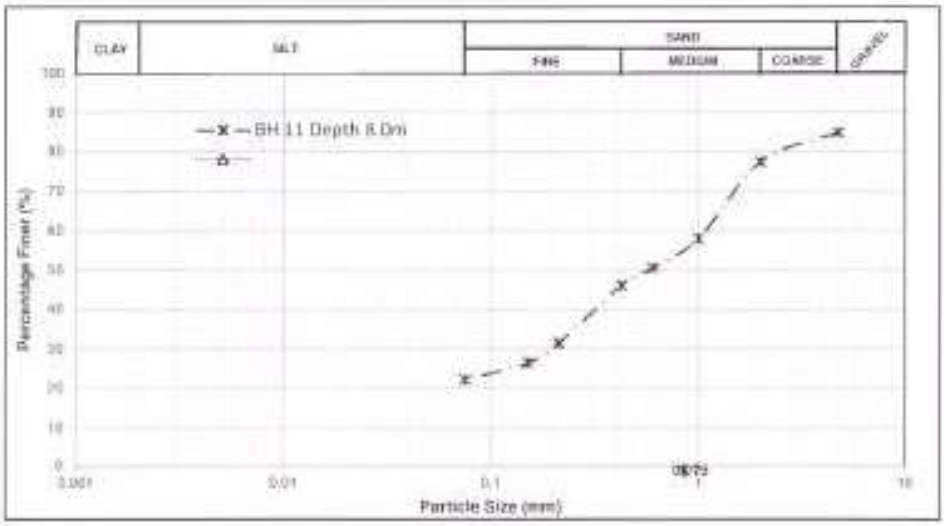
BH No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
10	8.0m	17	9	32	22	20	0.000		0.167		
11	2.0m	1	2	30	41	26		0.167	0.381		
11	3.0m	0	1	7	10	82	0.167			#####	#####
11	4.0m	6	4	27	36	27	0.381	0.110	0.397	1.0	

Project No: MSGTPL/SI-4097/18-19

Project : Proposed Construction of Residential Building (G+4 Upper Floors) at Ambur

GRAIN SIZE ANALYSIS





BH-No	Depth	Gravel	SAND (%)			SILT& CLAY	D_{10}	D_{30}	D_{60}	Cu	Cc
	(m)	(%)	Coarse	Medium	Fine	(%)	(mm)	(mm)	(mm)		
11	5.0m	9	7	34	30	21	0.000		0.243		
11	6.5m	16	8	32	26	18		0.245	1.171		
11	8.0m	15	7	31	24	22	0.245	0.136	1.049	4.3	0.1

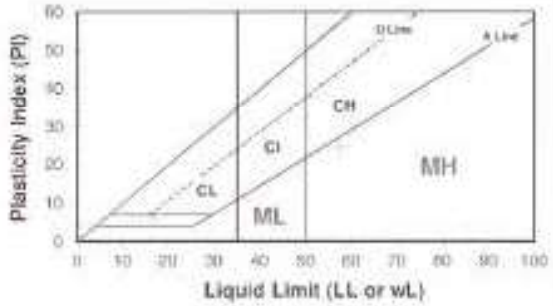
ATTERBERG LIMITS DATA SHEET

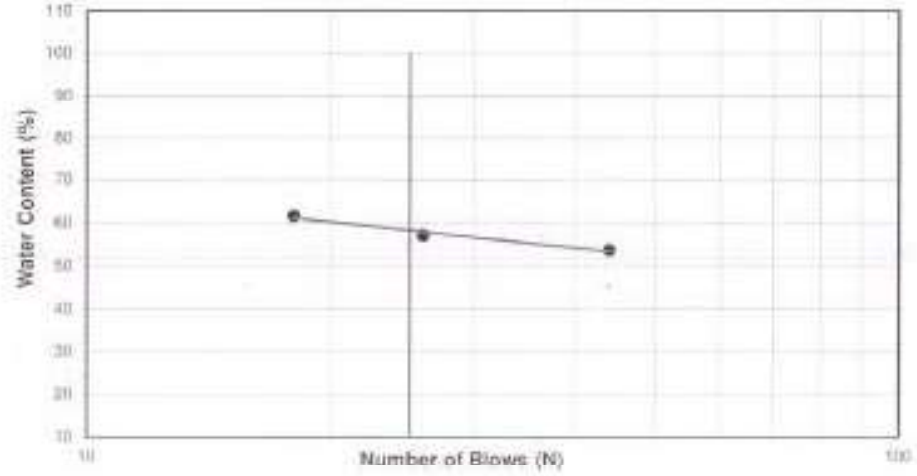
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-1
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	18	26	44					
Tare Number	---	---	252	153	101		294			
Weight of Empty Tare	M_0	(g)	29.77	29.49	29.62		29.17			
Wt of Tare + Soil (Wet)	M_{TWS}	(g)	42.66	47.36	49.64		48.45			
Wt of Tare + Soil (Dry)	M_{TDS}	(g)	37.75	41.08	42.65		44.65			
Weight of Soil	M_s	(g)	7.98	11.51	13.03		15.48			
Weight of Water	M_w	(g)	4.91	6.58	6.99		3.80			
Water Content	w	(%)	61.5	57.0	53.6		24.5			

Liquid Limit (LL or w_L) (%)	57
Plastic Limit (PL or w_P) (%)	25
Plasticity Index (PI) (%)	33
Soil Classification	CH





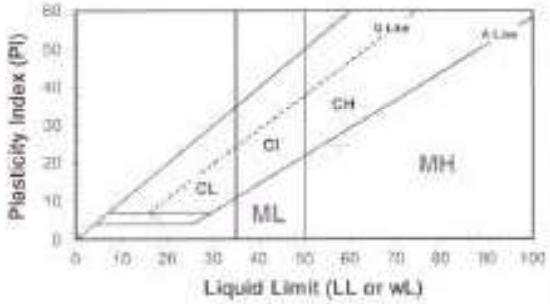
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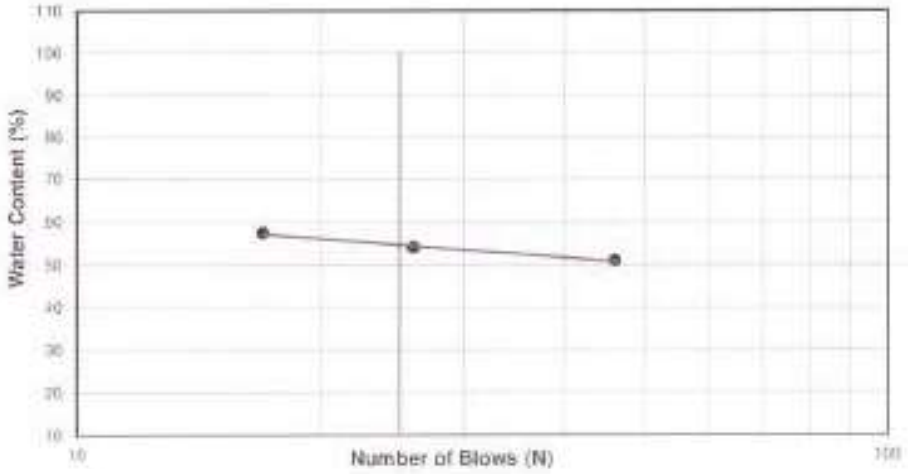
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-1
Sample Depth:	4.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	17	26	46					
Tare Number	—	—	237	198	177		159			
Weight of Empty Tare	M_c	(g)	29.67	30.16	29.65		30.51			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	46.62	46.94	43.97		54.62			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	41.71	41.06	39.07		50.67			
Weight of Soil	M_s	(g)	12.04	10.90	9.42		20.16			
Weight of Water	M_w	(g)	6.91	5.88	4.90		3.95			
Water Content	w	(%)	57.4	53.9	51.0		19.6			

Liquid Limit (LL or w_L) (%)	54
Plastic Limit (PL or w_P) (%)	20
Plasticity Index (PI) (%)	35
Soil Classification	CH





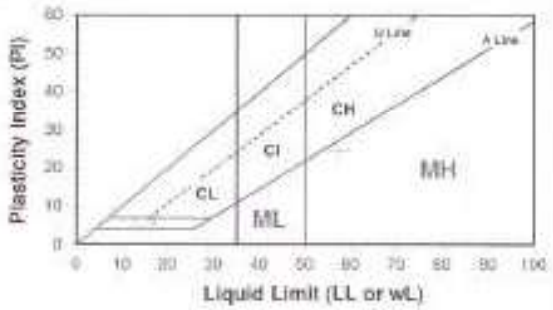
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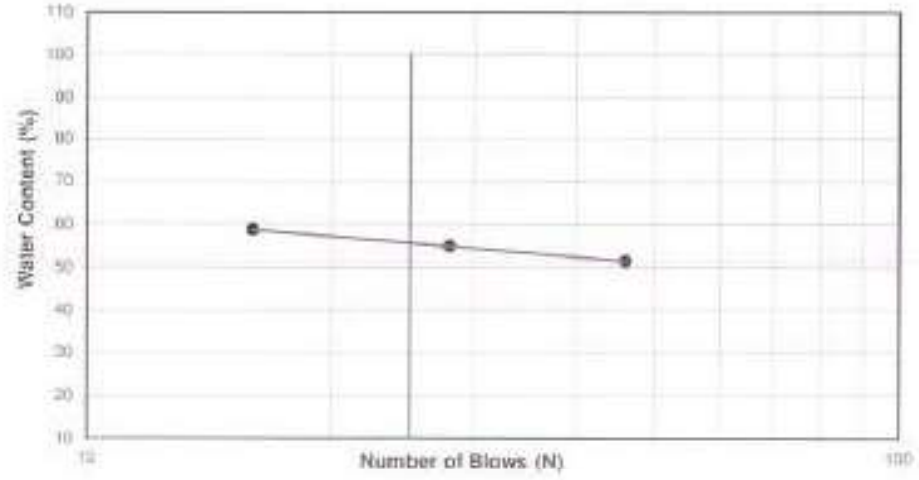
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-1
Sample Depth:	6.5m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	brows	16	28	46					
Tare Number	—	—	108	246	99		50			
Weight of Empty Tare	M_t	(g)	29.79	28.8	29.99		30.36			
Wt of Tare + Soil (Wet)	M_{twet}	(g)	40.15	39.86	46.44		47.49			
Wt of Tare + Soil (Dry)	M_{tdry}	(g)	36.32	35.94	40.66		45.26			
Weight of Soil	M_s	(g)	6.53	7.14	10.66		14.90			
Weight of Water	M_w	(g)	3.83	3.92	5.59		2.23			
Water Content	w	(%)	58.7	54.9	51.5		15.0			

Liquid Limit (LL or w_L) (%)	55
Plastic Limit (PL or w_P) (%)	15
Plasticity Index (PI) (%)	40
Soil Classification	CH





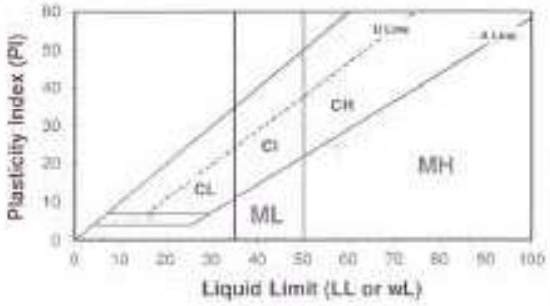
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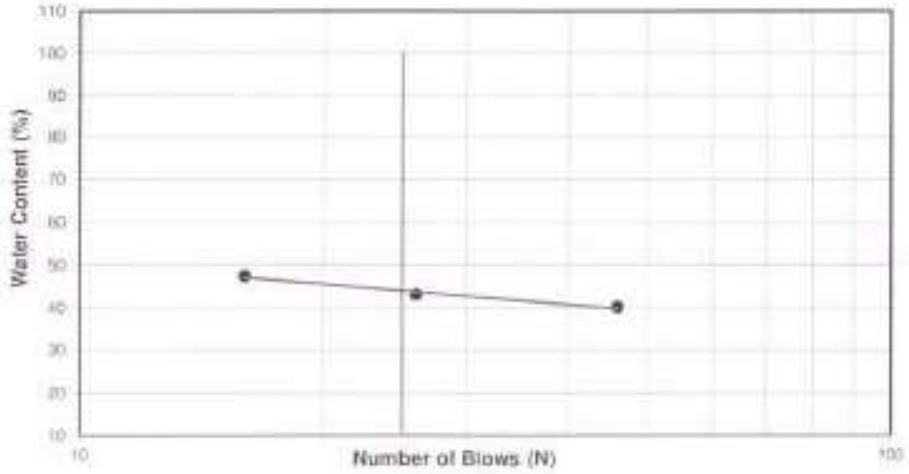
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-1
Sample Depth:	8.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	18	26	46					
Tare Number	—	—	S5	6	62		34			
Weight of Empty Tare	M_C	(g)	29.84	29.52	29.54		29.75			
Wt of Tare + Soil (Wet)	M_{CWS}	(g)	49.31	49.16	48.44		48.73			
Wt of Tare + Soil (Dry)	M_{CDS}	(g)	43.05	43.25	41.81		45.79			
Weight of Soil	M_S	(g)	13.21	13.73	12.27		16.04			
Weight of Water	M_W	(g)	6.26	5.91	4.83		2.94			
Water Content	w	(%)	47.4	43.0	40.0		18.3			

Liquid Limit (LL or w_L) (%)	43
Plastic Limit (PL or w_P) (%)	18
Plasticity Index (PI) (%)	25
Soil Classification	CI





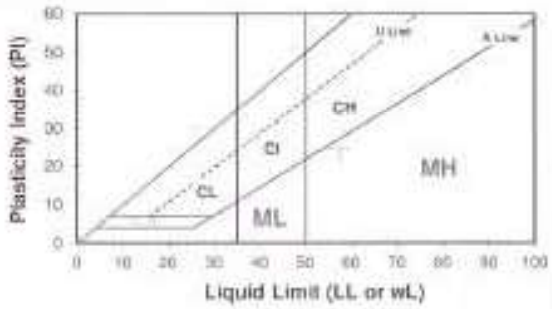
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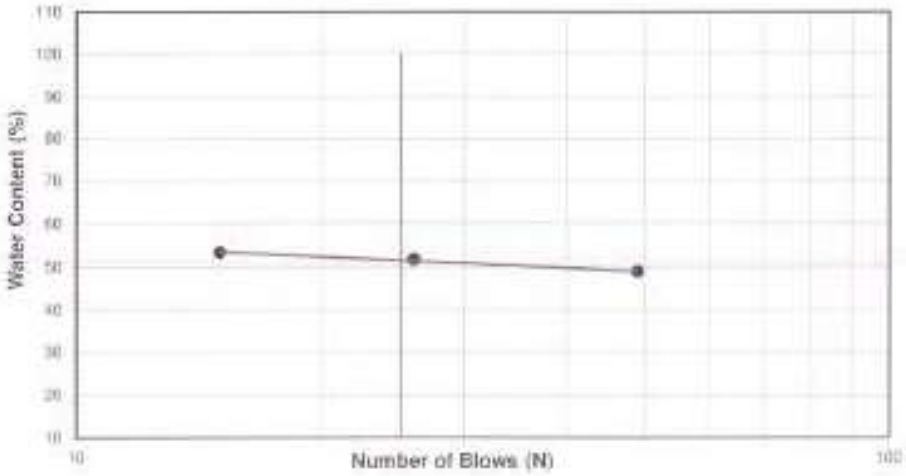
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-2
Sample Depth:	2.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	15	26	49					
Tare Number	—	—	272	164	81		151			
Weight of Empty Tare	M_1	(g)	30.82	29.43	29.11		29.94			
Wt of Tare + Soil (Wet)	$M_{(2)}$	(g)	44.37	45.68	46.86		46.18			
Wt of Tare + Soil (Dry)	$M_{(3)}$	(g)	39.66	40.15	41.05		45.58			
Weight of Soil	M_s	(g)	8.84	10.72	11.94		15.64			
Weight of Water	M_w	(g)	4.71	5.53	5.81		2.60			
Water Content	w	(%)	53.3	51.6	48.8		16.6			

Liquid Limit (LL or w_L) (%)	51
Plastic Limit (PL or w_P) (%)	17
Plasticity Index (PI) (%)	35
Soil Classification	CH





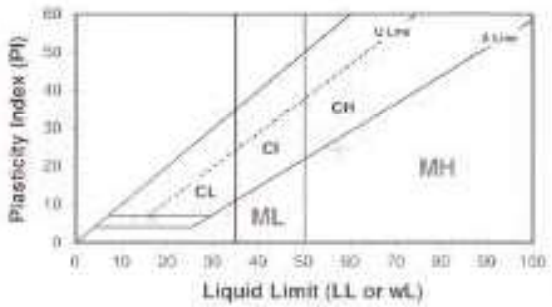
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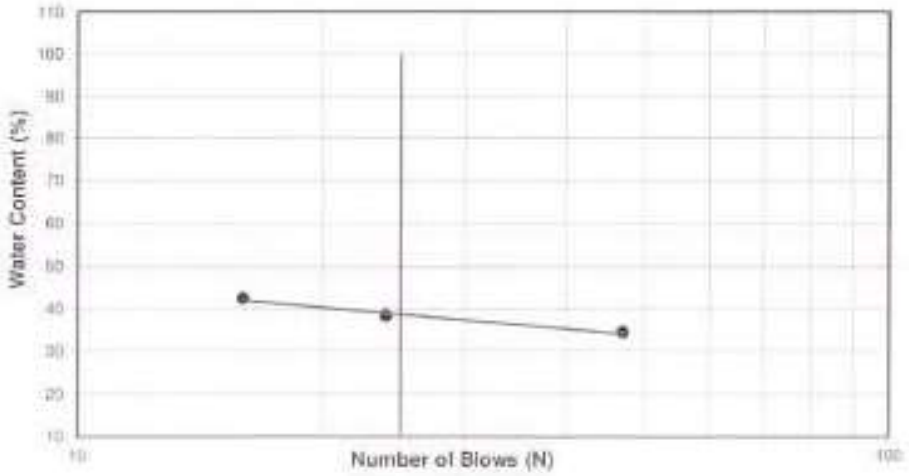
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-3
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	24	47					
Tare Number	—	—	16	170	287		132			
Weight of Empty Tare	M_C	(g)	29.73	30.49	29.12		30.15			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	47.58	49	43.53		54.39			
Wt of Tare + Soil (Dry)	M_{cds}	(g)	42.28	43.87	39.65		50.99			
Weight of Soil	M_s	(g)	12.55	13.38	10.53		20.84			
Weight of Water	M_w	(g)	5.30	5.13	3.88		5.40			
Water Content	w	(%)	42.2	38.3	34.3		16.3			

Liquid Limit (LL or w_L) (%)	38
Plastic Limit (PL or w_P) (%)	16
Plasticity Index (PI) (%)	22
Soil Classification	CI





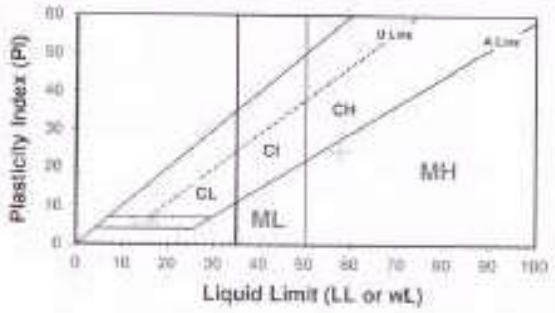
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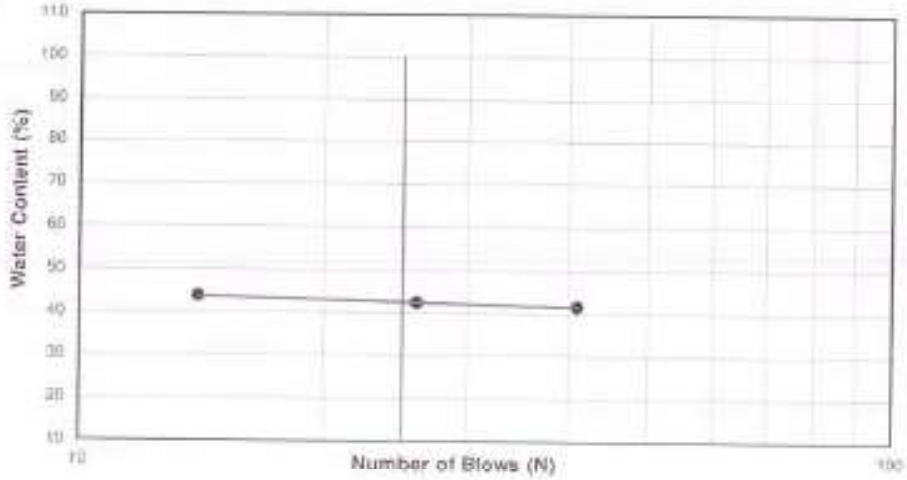
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-3
Sample Depth:	4.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	14	28	41					
Tare Number	—	—	137	164	296		20			
Weight of Empty Tare	M_C	(g)	30.2	29.43	28.05		31.06			
Wt of Tare + Soil (Wet)	M_{CWS}	(g)	52.57	44.66	46.73		48.56			
Wt of Tare + Soil (Dry)	M_{CS}	(g)	45.77	40.15	41.55		46.42			
Weight of Soil	M_S	(g)	15.57	10.72	13.50		15.36			
Weight of Water	M_W	(g)	6.80	4.53	5.18		2.44			
Water Content	w	(%)	43.7	42.3	41.4		15.9			

Liquid Limit (LL or w_L) (%)	42
Plastic Limit (PL or w_P) (%)	15
Plasticity Index (PI) (%)	27
Soil Classification	CI





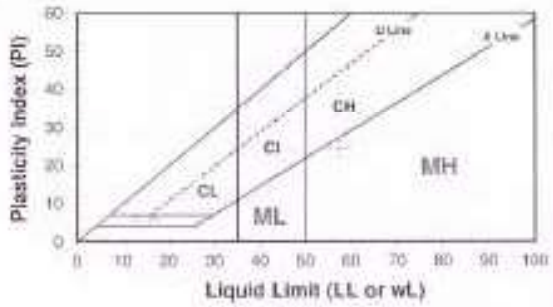
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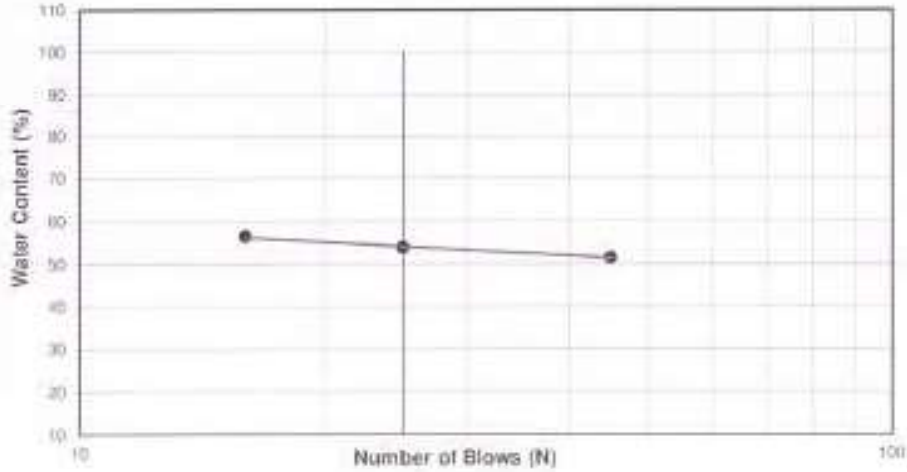
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-I
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	25	40					
Tare Number	—	—	245	164	279		T			
Weight of Empty Tare	M_T	(g)	30.32	29.43	29.46		29.48			
Wt of Tare + Soil (Wet)	$M_{(T+S)}$	(g)	47.41	51.78	41.02		50.68			
Wt of Tare + Soil (Dry)	$M_{(T+S)}$	(g)	41.25	43.95	37.09		47.44			
Weight of Soil	M_S	(g)	10.93	14.52	7.63		17.96			
Weight of Water	M_W	(g)	6.16	7.83	3.93		3.24			
Water Content	w	(%)	56.4	53.9	51.5		18.0			

Liquid Limit (LL or w_L) (%)	54
Plastic Limit (PL or w_P) (%)	18
Plasticity Index (PI) (%)	36
Soil Classification	CI





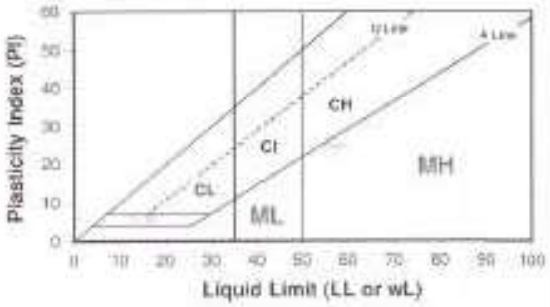
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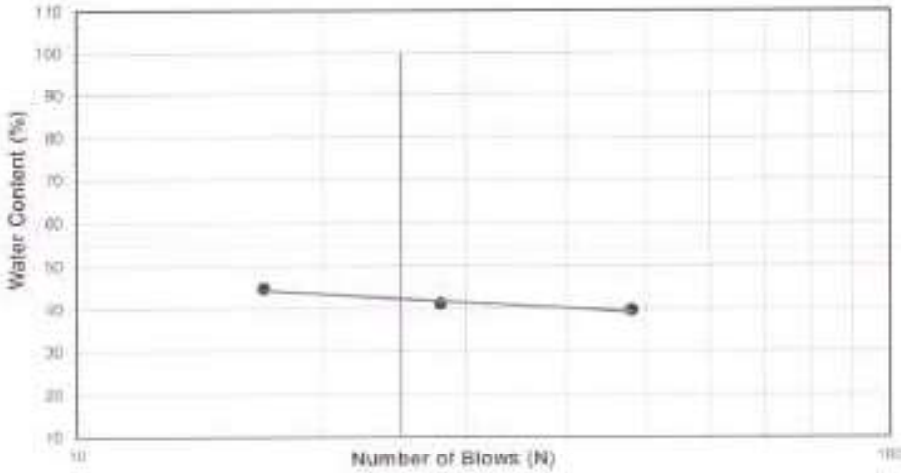
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-4
Sample Depth:	2.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	17	25	46					
Tare Number	—	—	174	12	76		47			
Weight of Empty Tare	M_c	(g)	31.92	29.79	29.25		31.8			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	59.48	55.83	52.68		54.81			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	50.98	48.25	46.09		50.82			
Weight of Soil	M_s	(g)	19.07	18.46	16.81		19.12			
Weight of Water	M_w	(g)	8.49	7.58	6.62		3.99			
Water Content	w	(%)	44.5	41.1	39.4		19.3			

Liquid Limit (LL or w_L) (%)	42
Plastic Limit (PL or w_P) (%)	19
Plasticity Index (PI) (%)	22
Soil Classification	CI





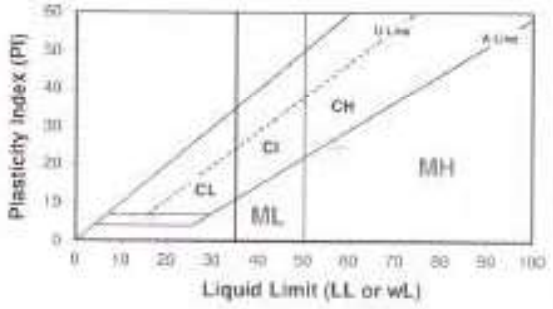
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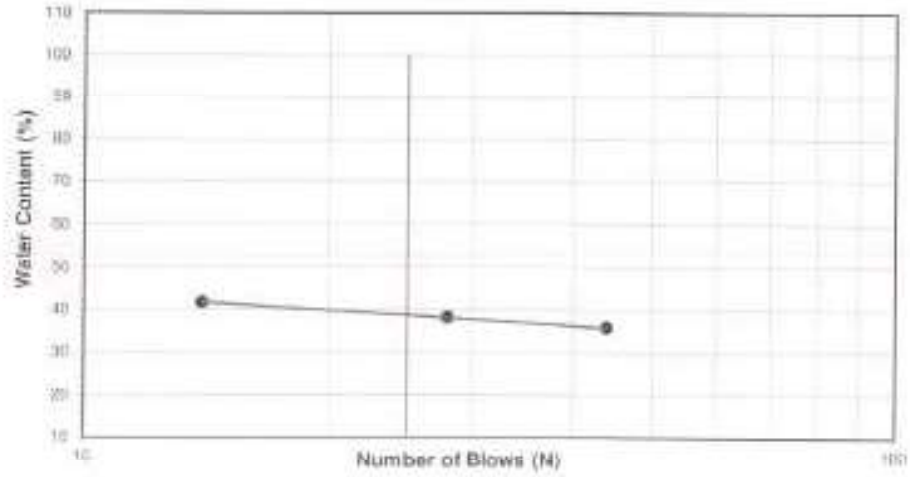
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-4
Sample Depth:	3.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	14	25	44					
Tare Number	—	—	66	143	192		14			
Weight of Empty Tare	M_c	(g)	28.34	29.53	30.34		30.17			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	47.59	52.2	51.68		50.31			
Wt of Tare + Soil (Dry)	M_{cds}	(g)	41.80	45.84	46.06		47.26			
Weight of Soil	M_s	(g)	13.56	16.41	15.72		17.09			
Weight of Water	M_w	(g)	5.86	6.26	5.62		3.05			
Water Content	w	(%)	41.7	38.1	35.8		17.8			

Liquid Limit (LL or w_L) (%)	39
Plastic Limit (PL or w_P) (%)	18
Plasticity Index (PI) (%)	21
Soil Classification	CI





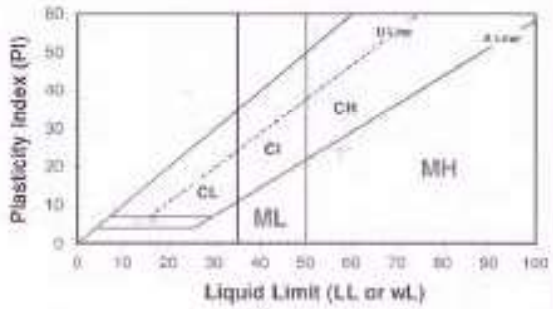
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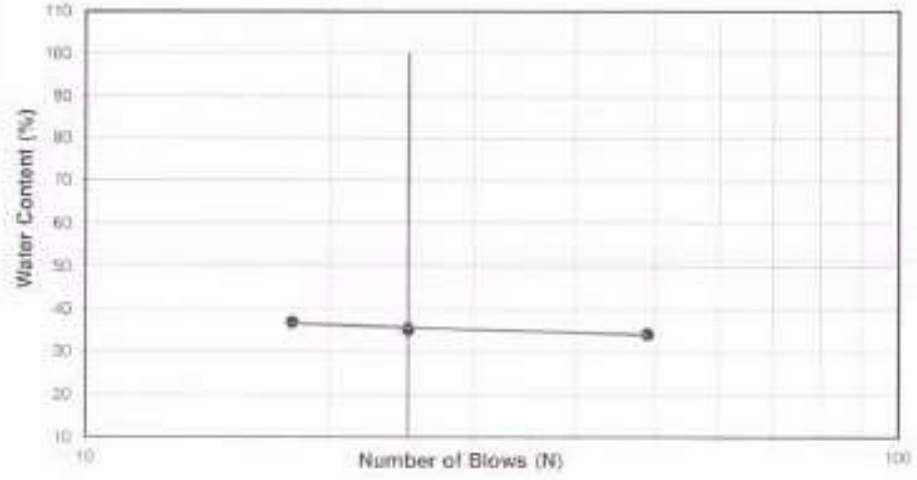
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-4
Sample Depth:	4.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	18	25	48					
Tare Number	—	—	230	100	9		106			
Weight of Empty Tare	M_0	(g)	28.39	29.65	29.16		28.79			
Wt of Tare + Soil (Wet)	M_{1wet}	(g)	48.85	48.94	48.94		51.6			
Wt of Tare + Soil (Dry)	M_{1dry}	(g)	42.90	44.65	43.91		48.37			
Weight of Soil	M_s	(g)	14.51	15.00	14.75		19.58			
Weight of Water	M_w	(g)	5.95	5.29	5.03		3.23			
Water Content	w	(%)	36.9	35.3	34.1		16.5			

Liquid Limit (LL or w_L) (%)	35
Plastic Limit (PL or w_P) (%)	16
Plasticity Index (PI) (%)	19
Soil Classification	CI





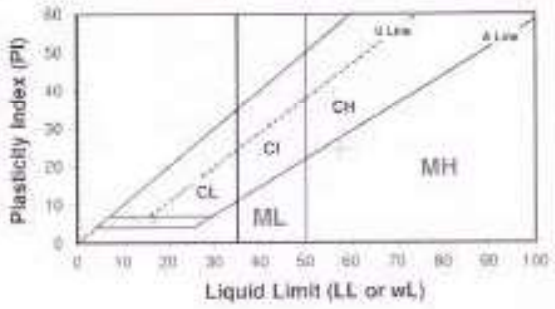
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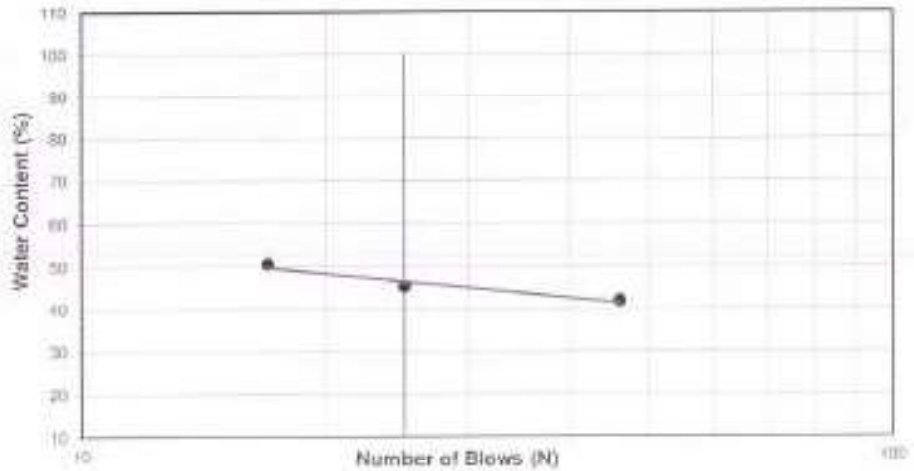
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-5
Sample Depth:	5.0m
Project No:	**MSGTPL/SI-4097/18-19**

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	17	25	46					
Tare Number	—	—	115	140	63		239			
Weight of Empty Tare	M_C	(g)	31.26	27.98	29.97		29.26			
Wt of Tare + Soil (Wet)	M_{CWS}	(g)	44.94	43.37	47.67		52.6			
Wt of Tare + Soil (Dry)	M_{CDS}	(g)	40.35	38.59	42.46		48.15			
Weight of Soil	M_S	(g)	9.09	10.60	12.49		18.89			
Weight of Water	M_W	(g)	4.59	4.78	5.21		3.45			
Water Content	w	(%)	**50.5**	**45.1**	**41.7**		**17.3**			

Liquid Limit (LL or w_L) (%)	46
Plastic Limit (PL or w_P) (%)	17
Plasticity Index (PI) (%)	28
Soil Classification	CI





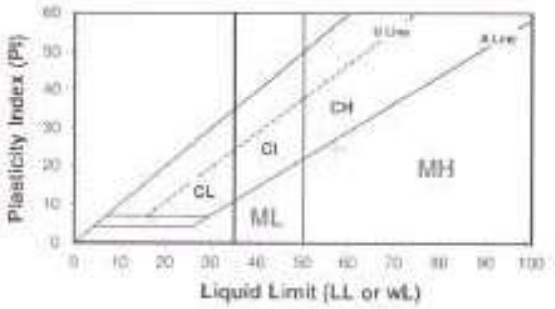
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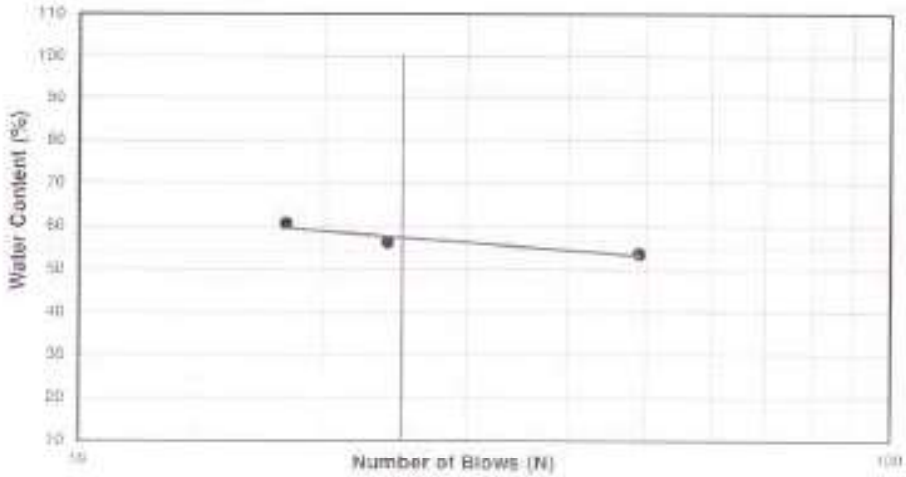
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-5
Sample Depth:	8.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	24	45					
Tare Number	—	—	29	3	1		89			
Weight of Empty Tare	M_C	(g)	29.78	28.52	30.61		29.41			
Wt of Tare + Soil (Wet)	M_{CW}	(g)	51.06	44.07	45.68		49.74			
Wt of Tare + Soil (Dry)	M_{CD}	(g)	43.06	39.05	40.42		46.68			
Weight of Soil	M_S	(g)	13.27	10.53	9.81		17.27			
Weight of Water	M_W	(g)	8.03	5.02	5.26		3.06			
Water Content	w	(%)	60.5	56.2	53.6		17.7			

Liquid Limit (LL or w_L) (%)	57
Plastic Limit (PL or w_P) (%)	18
Plasticity Index (PI) (%)	39
Soil Classification	CH





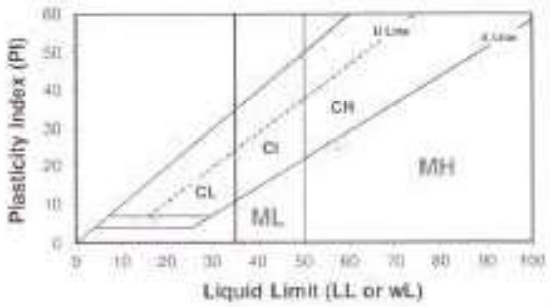
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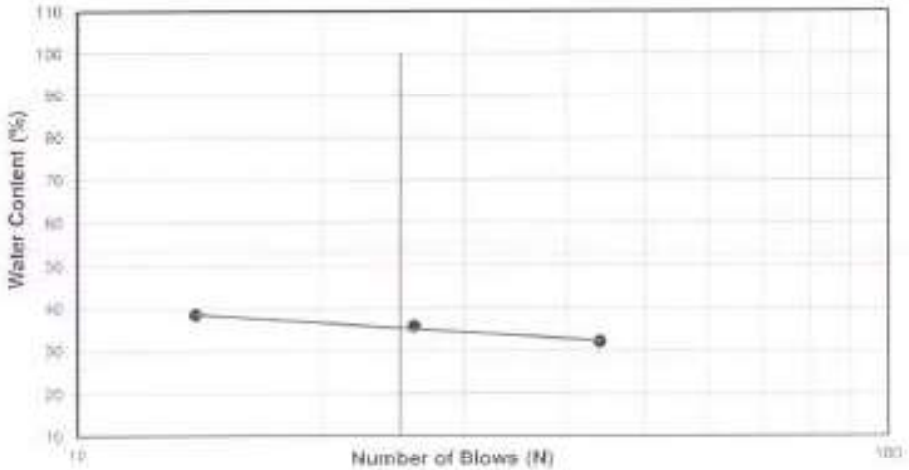
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-6
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	14	26	44					
Tare Number	—	—	124	87	154		218			
Weight of Empty Tare	M_c	(g)	29.26	29.52	29.7		29.35			
Wt of Tare + Soil (Wet)	M_{CWS}	(g)	51.18	52.33	51.69		43.26			
Wt of Tare + Soil (Dry)	M_{CDS}	(g)	45.12	46.34	46.35		41.45			
Weight of Soil	M_s	(g)	15.86	16.82	16.65		12.10			
Weight of Water	M_w	(g)	6.07	5.99	5.33		1.81			
Water Content	w	(%)	38.3	35.6	32.0		15.0			

Liquid Limit (LL or w_L) (%)	35
Plastic Limit (PL or w_P) (%)	15
Plasticity Index (PI) (%)	20
Soil Classification	CI





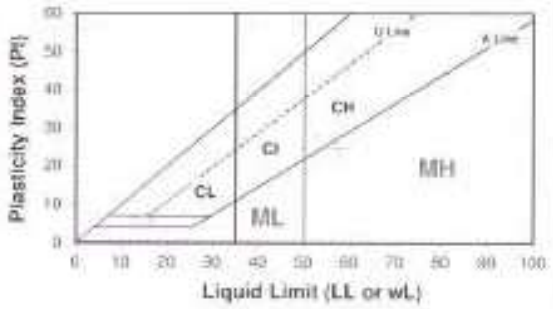
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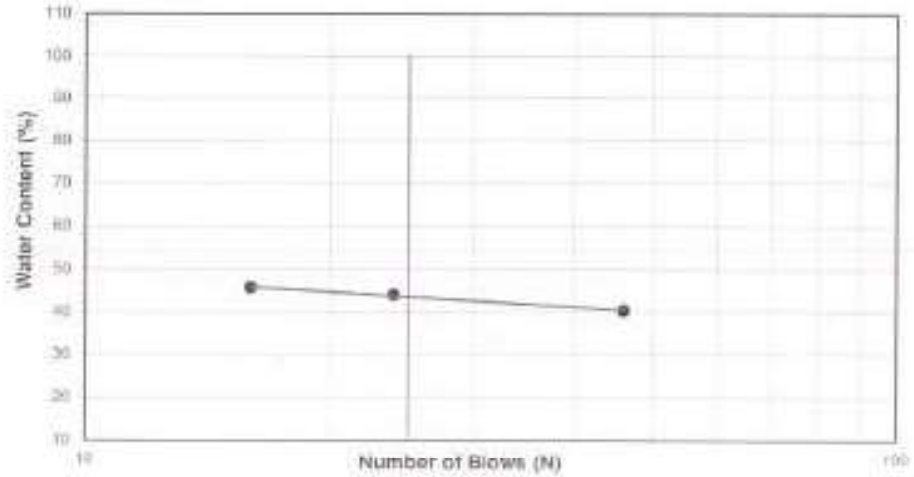
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-6
Sample Depth:	4.0m
Project No:	MSGTPL/SI-4097/19-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	24	46					
Tare Number	—	—	276	280	885		166			
Weight of Empty Tare	M_1	(g)	39.46	39.45	31.54		28.99			
Wt of Tare + Soil (Wet)	M_{1w}	(g)	49.09	48.14	49.38		45.37			
Wt of Tare + Soil (Dry)	M_{1d}	(g)	42.94	41.05	44.25		42.74			
Weight of Soil	M_s	(g)	13.48	11.60	12.71		13.75			
Weight of Water	M_w	(g)	6.14	5.09	5.13		2.63			
Water Content	w	(%)	45.5	43.8	40.4		19.1			

Liquid Limit (LL or w_L) (%)	43
Plastic Limit (PL or w_P) (%)	19
Plasticity Index (PI) (%)	24
Soil Classification	CI





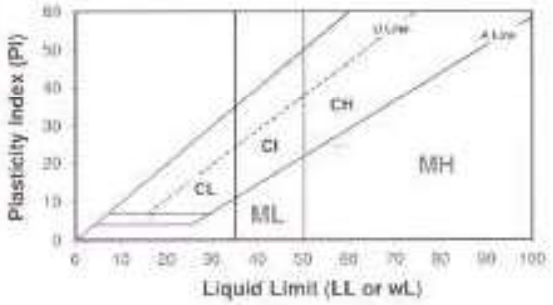
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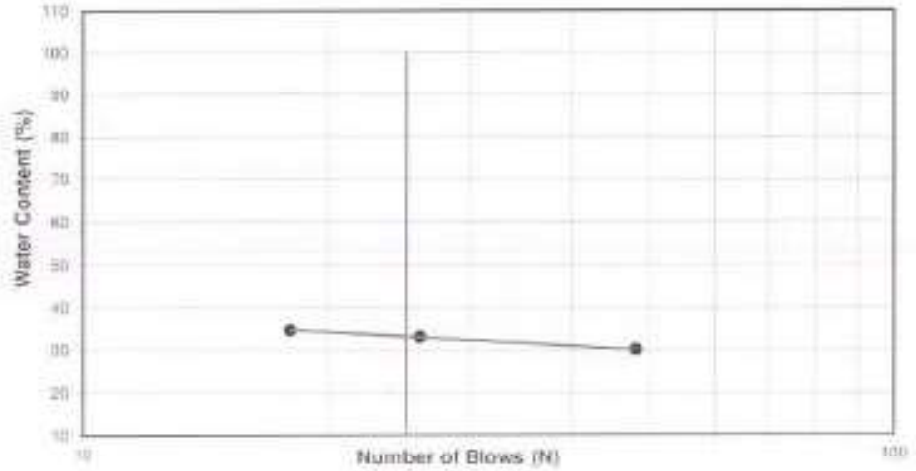
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-6
Sample Depth:	8.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	18	26	46	-				
Tare Number	—	—	62	74	100		79			
Weight of Empty Tare	M_1	(g)	31.21	28.69	28.85		29.58			
Wt of Tare + Soil (Wet)	M_{2wet}	(g)	53.40	49.26	50.24		52.49			
Wt of Tare + Soil (Dry)	M_{2dry}	(g)	47.75	44.41	45.48		49.65			
Weight of Soil	M_3	(g)	16.54	14.72	15.64		20.07			
Weight of Water	M_w	(g)	5.74	4.85	4.75		2.83			
Water Content	w	(%)	34.7	32.9	30.0		14.1			

Liquid Limit (LL or w_L) (%)	33
Plastic Limit (PL or w_P) (%)	14
Plasticity Index (PI) (%)	18
Soil Classification	CI





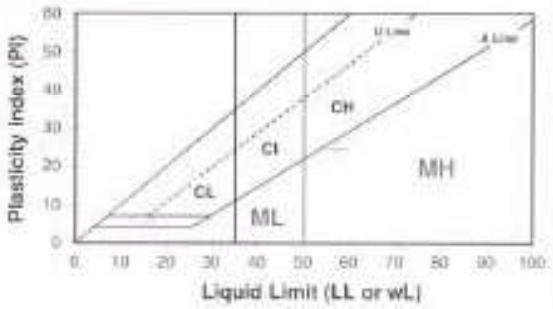
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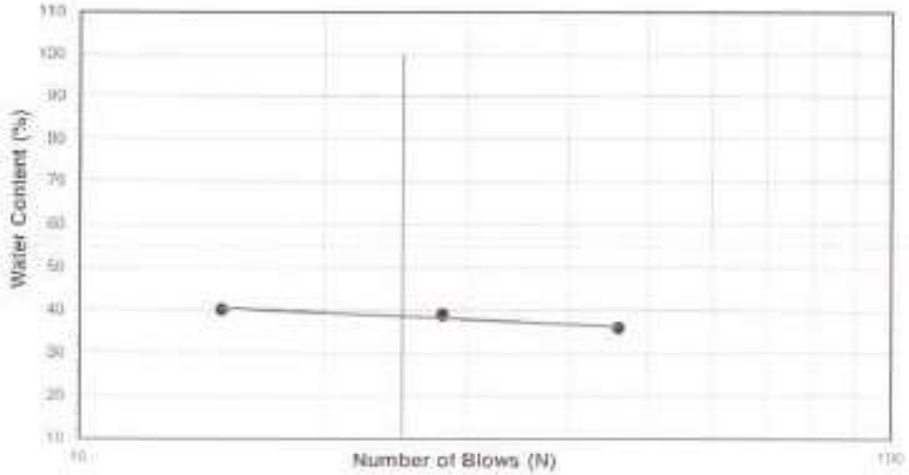
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-6
Sample Depth:	9.5m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	15	28	46					
Tare Number	—	—	111	54	105		20			
Weight of Empty Tare	M_c	(g)	30.9	27.25	29.19		29.78			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	55.51	44.7	51.35		42.28			
Wt of Tare + Soil (Dry)	M_{cds}	(g)	48.47	39.83	45.49		41			
Weight of Soil	M_s	(g)	17.57	12.58	16.30		11.22			
Weight of Water	M_w	(g)	7.04	4.87	5.86		1.28			
Water Content	w	(%)	40.1	38.7	36.0		11.4			

Liquid Limit (LL or w_L) (%)	38
Plastic Limit (PL or w_P) (%)	11
Plasticity Index (PI) (%)	27
Soil Classification	CI





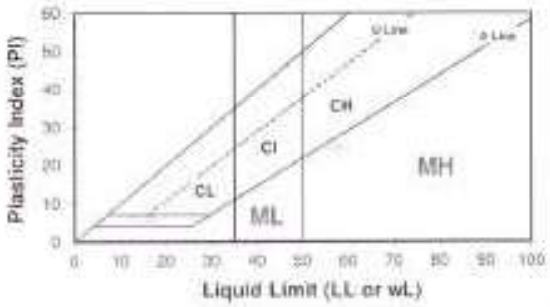
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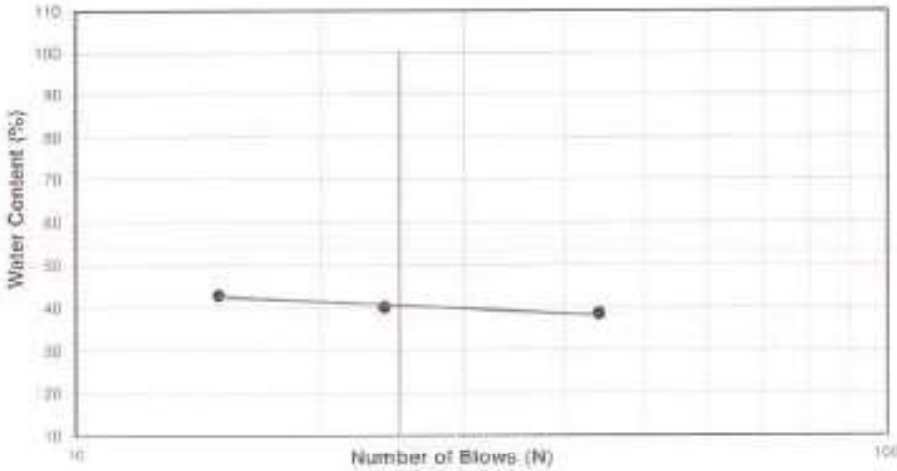
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-7
Sample Depth:	3.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	15	24	44					
Tare Number	—	—	163	21	43		142			
Weight of Empty Tare	M_0	(g)	29.37	28.91	30.88		29.37			
Wt of Tare + Soil (Wet)	M_{cwt}	(g)	67.07	61.22	70.26		56.32			
Wt of Tare + Soil (Dry)	M_{cdry}	(g)	55.78	51.98	59.34		51.96			
Weight of Soil	M_s	(g)	26.09	23.07	28.46		22.57			
Weight of Water	M_w	(g)	11.31	9.24	10.92		4.38			
Water Content	w	(%)	43.9	40.1	38.3		19.4			

Liquid Limit (LL or w_L) (%)	40
Plastic Limit (PL or w_P) (%)	19
Plasticity Index (PI) (%)	21
Soil Classification	CI





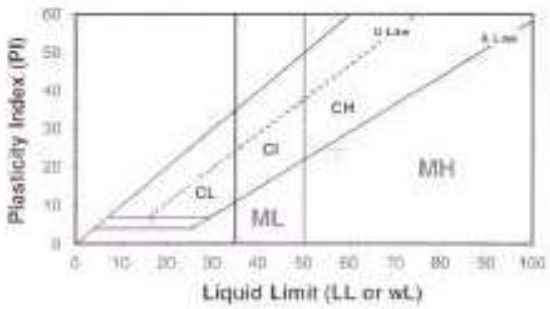
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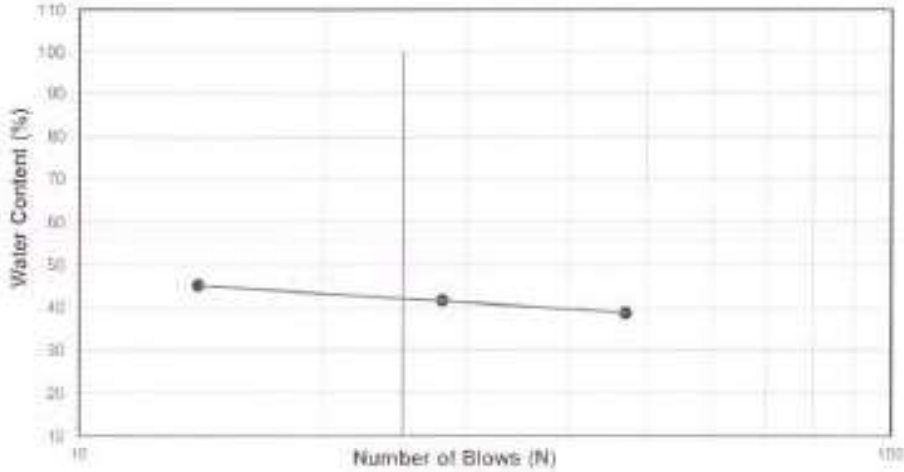
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-8
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	14	28	47					
Tare Number	—	—	194	15	91		113			
Weight of Empty Tare	M_1	(g)	25.14	26.44	29.68		29.49			
Wt of Tare + Soil (Wet)	M_{1wet}	(g)	46.82	51.21	47.82		45.59			
Wt of Tare + Soil (Dry)	M_{1dry}	(g)	41.32	44.51	42.75		42.92			
Weight of Soil	M_2	(g)	12.18	16.07	13.07		13.43			
Weight of Water	M_w	(g)	5.50	6.70	5.07		2.67			
Water Content	w	(%)	45.2	41.7	38.8		19.9			

Liquid Limit (LL or w_L) (%)	42
Plastic Limit (PL or w_P) (%)	20
Plasticity Index (PI) (%)	22
Soil Classification	CI





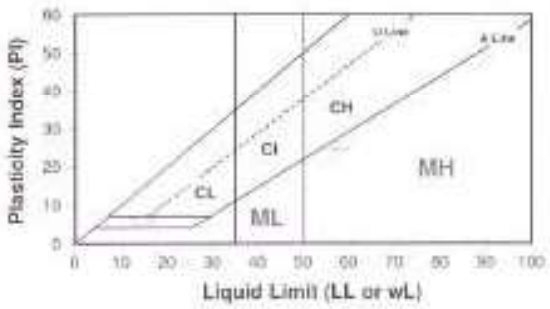
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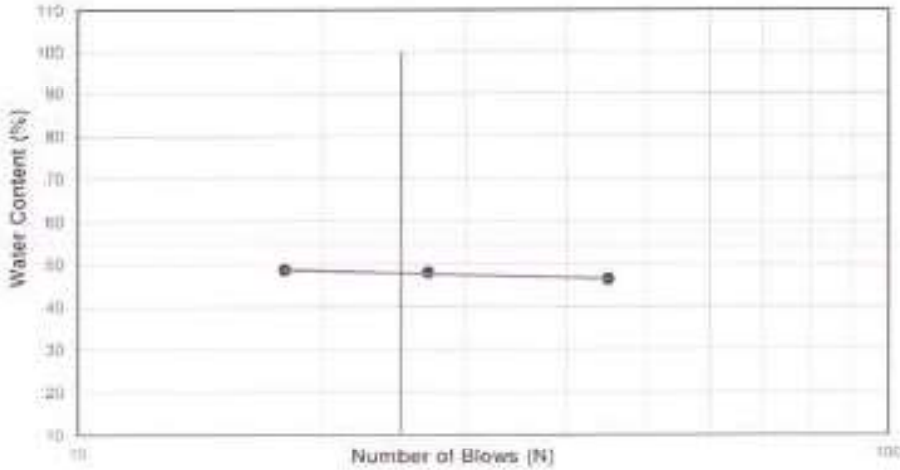
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-6
Sample Depth:	5.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	18	27	45					
Tare Number	—	—	290	162	90		264			
Weight of Empty Tare	M_c	(g)	29.48	29.44	29.41		27.16			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	59.02	48.53	52.15		46.82			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	43.30	42.35	44.94		43.91			
Weight of Soil	M_s	(g)	13.82	12.91	15.53		16.75			
Weight of Water	M_w	(g)	6.72	6.18	7.21		2.91			
Water Content	w	(%)	48.6	47.9	46.4		17.4			

Liquid Limit (LL or w_L) (%)	48
Plastic Limit (PL or w_P) (%)	17
Plasticity Index (PI) (%)	30
Soil Classification	CI





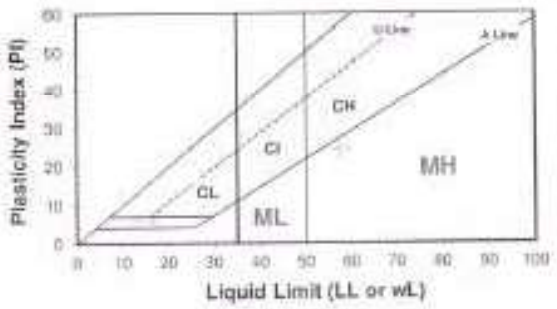
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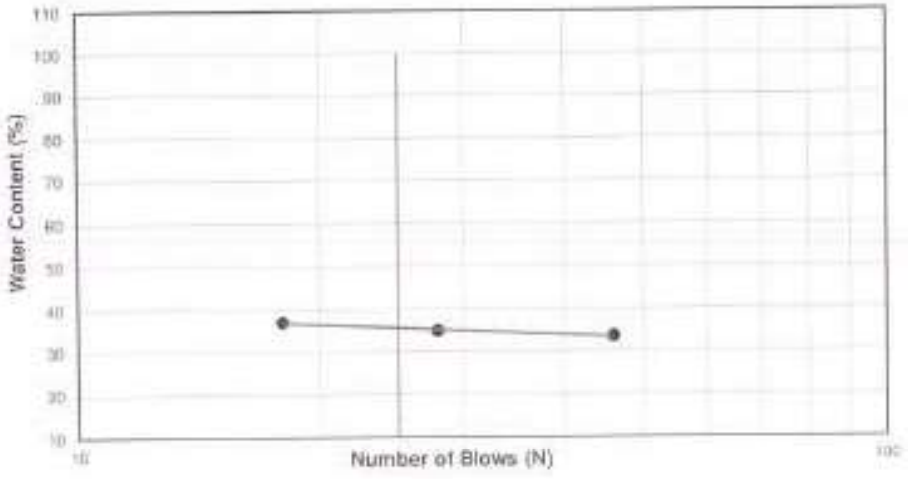
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-9
Sample Depth:	1.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	28	40					
Tare Number	—	—	199	255	129		156			
Weight of Empty Tare	M_C	(g)	30.16	28.65	29.78		29.08			
Wt of Tare + Soil (Wet)	M_{CW}	(g)	51.83	44.56	41.09		50.86			
Wt of Tare + Soil (Dry)	M_{CD}	(g)	45.84	40.45	38.25		47.63			
Weight of Soil	M_S	(g)	15.68	11.80	8.47		18.57			
Weight of Water	M_W	(g)	5.79	4.11	2.84		3.23			
Water Content	w	(%)	36.9	34.8	33.5		17.4			

Liquid Limit (LL or w_L) (%)	35
Plastic Limit (PL or w_P) (%)	17
Plasticity Index (PI) (%)	18
Soil Classification	CI





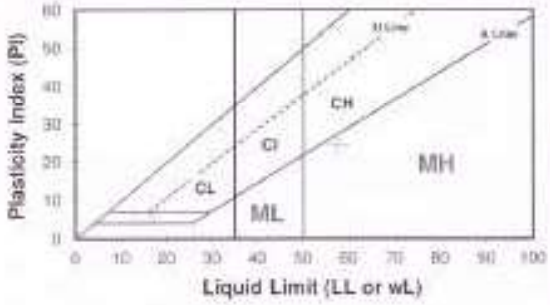
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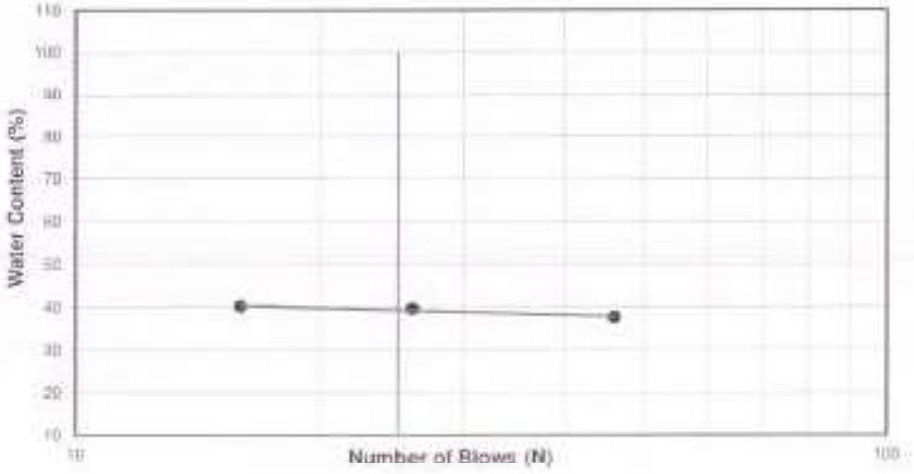
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-10
Sample Depth:	4.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	16	26	48					
Tare Number	—	—	117	60	190		164			
Weight of Empty Tare	M_c	(g)	29.59	29.51	29.88		29.43			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	54.89	48.83	49.94		47.15			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	47.64	43.37	44.25		44.38			
Weight of Soil	M_s	(g)	18.05	13.86	14.37		14.95			
Weight of Water	M_w	(g)	7.25	5.46	5.39		2.77			
Water Content	w	(%)	40.2	39.4	37.5		18.5			

Liquid Limit (LL or w_L) (%)	39
Plastic Limit (PL or w_P) (%)	19
Plasticity Index (PI) (%)	20
Soil Classification	CI





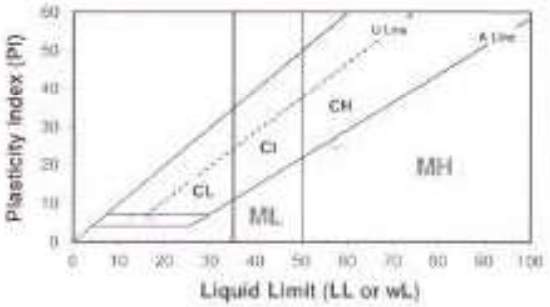
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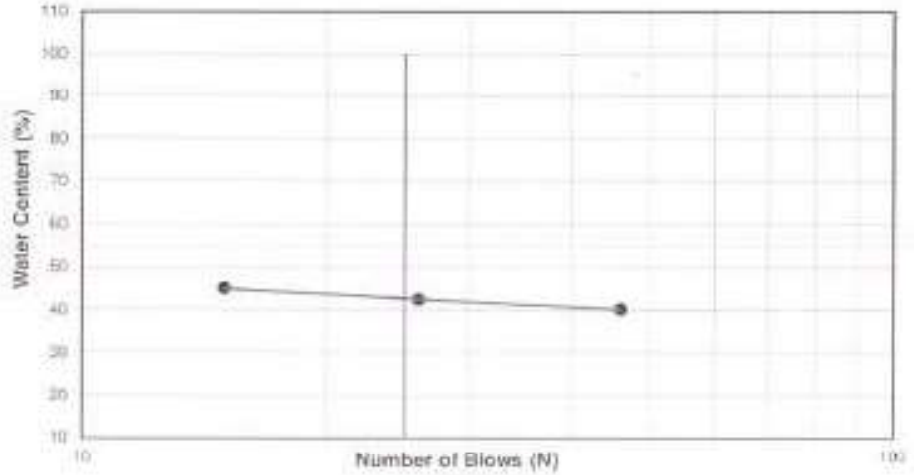
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No:	BH-10
Sample Depth:	5.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	15	26	40					
Tare Number	—	—	240	164	218		185			
Weight of Empty Tare	M_c	(g)	28.82	29.43	29.78		29.60			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	46.44	41.62	46.62		42.92			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	42.35	38.00	41.81		41.35			
Weight of Soil	M_s	(g)	13.53	8.57	12.03		11.72			
Weight of Water	M_w	(g)	6.09	3.62	4.81		1.57			
Water Content	w	(%)	45.0	42.2	40.0		13.4			

Liquid Limit (LL or w_L) (%)	42
Plastic Limit (PL or w_p) (%)	13
Plasticity Index (PI) (%)	29
Soil Classification	CI





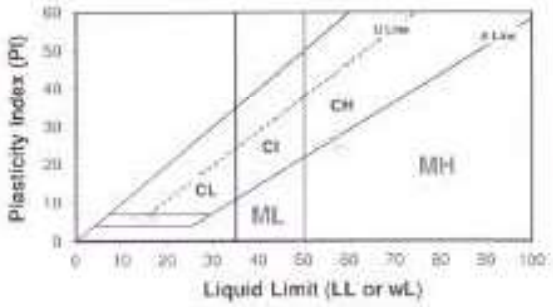
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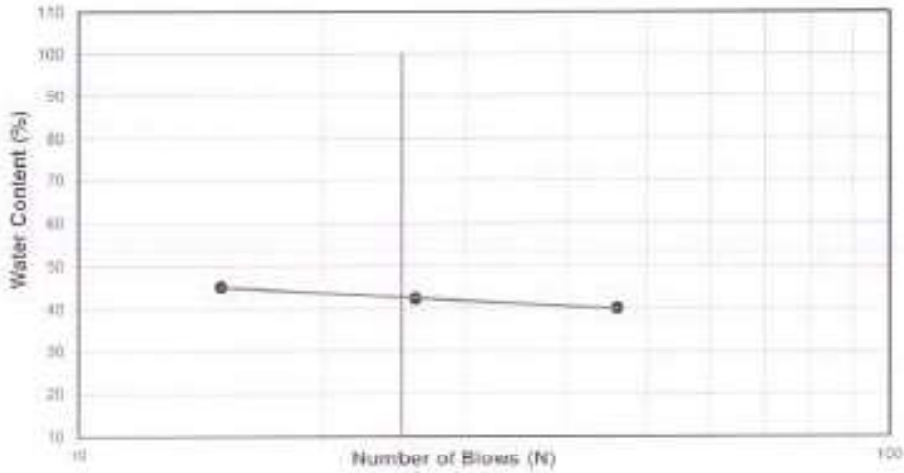
IS-2720-Part-5

Project :	Residential Building (G+4 Upper Floors)
Location:	Ambur
Boring No.	BH-11
Sample Depth:	3.0m
Project No:	MSGTPL/SI-4097/18-19

TEST			LIQUID LIMIT				PLASTIC LIMIT			
Variable	NO		1	2	3		1	2		
	Var.	Units								
Number of Blows	N	blows	14	26	46					
Tare Number	—	—	207	164	272		22			
Weight of Empty Tare	M_c	(g)	29.11	29.43	30.82		29.86			
Wt of Tare + Soil (Wet)	M_{cws}	(g)	45.03	46.1	45.46		37.18			
Wt of Tare + Soil (Dry)	M_{cs}	(g)	40.71	41.32	41.66		36.33			
Weight of Soil	M_s	(g)	11.60	11.87	10.84		6.47			
Weight of Water	M_w	(g)	5.32	4.98	3.82		0.85			
Water Content	w	(%)	45.9	40.4	35.2		13.1			

Liquid Limit (LL or w_L) (%)	40
Plastic Limit (PL or w_P) (%)	13
Plasticity Index (PI) (%)	27
Soil Classification	CI





CONCRETE EXPOSED TO CHEMICAL ATTACK

Soil Samples					
Sl.No	**PARAMETERS**	**UNITS**	**BH – 01, Depth: 8.0(m**	**BH – 8, Depth: 4.0(m)**	
1	Carbonate Content as CO_3	%	10.10	2.60	Method of Analysis: IS 2720 & EPA Method
2	Chlorides as Cl	ppm	407	96.0	
3	Sulphates as SO_4	ppm	199	602	
4	Organic Matter	%	0.0031	0.0460	

Water Samples				
Sl.No	**PARAMETERS**	**UNITS**	**BH – 09**	**Out of Site Water Sample**
1	Chlorides as Cl	ppm	1248	983
2	Sulphates as SO_4	ppm	335	165



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