

Geo Test Laboratory



Standardisation Testing & Quality Certification Directorate MSME No.: CG14E0001811

For Testing of Civil Engineering Materials

TEST REPORT

Date:-25/07/19

T. R. No. MGTL / TRR / R-1907192/005

To.

The Executive Engineer (Civil) H.Q. Dn., C.S.P.T.C.L. Raipur (C.G.)

Subject: - Test result of Safe Bearing Capacity of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur (C.G.).

Raipur, Dt. - 06/07/19 Your Ref.: -Letter No.:- EEC/HQ Dn./1880 Sample ID Mark :- Pit No.-03

Dear / Sir.

Vide subject and reference cited above, the test results report is as follows: -SAFE BEARING CAPACITY OF SOIL BY PLATE LOAD TEST

FIELD & LAB JOB NO: - R-1907192 **Test Results Test Method** Name of Test As Below As per IS:-1888 (RA-2016) Sr. No. Plate Load Test LOCATION PARTICULARS PIT NO.-03 14/07/19 Date of Testing 1 High Compressible Clay (CH) Type Soil 2 2.50 Depth of Pit (m) 3 1.95 Field Density (t/m³) 4 **Gross Safe Bearing** 12.50 5 Capacity (t/m²)

Remarks:-1. This soil is susceptible to longterm consolidation settlement.

2. The S.B.C.has been computed taking 1m x 1m footing size.

3. Settlement of footing at failure pressure is 29.00 mm.

Verified by (Anshuman Shukla) (Geotechnical Engineer)

Note:-

1 Results are subject to limitations as per IS -code-1888

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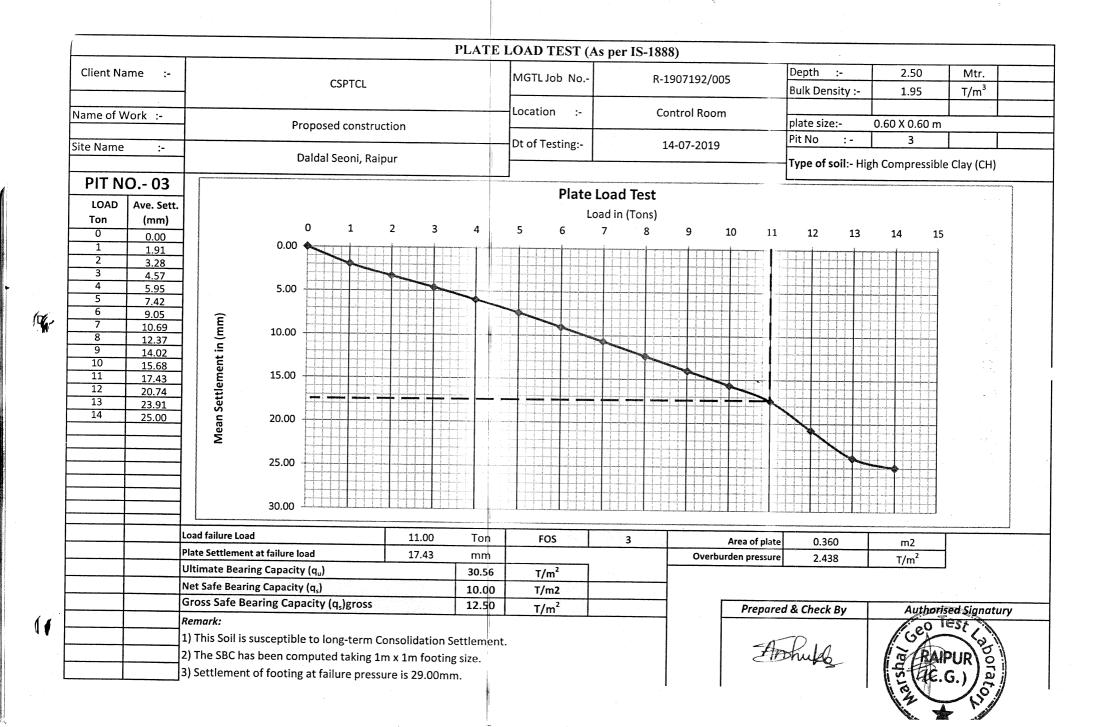
MGTL Raipur. Subject to Raipur Jurisdiction. 4 This report pertains to only location mentioned as above.

> ********END OF REPORT******* Page 1 of 1

P.S. City Road, Near Kushalpur Chowk, Changorabhata, Ring Road No. -01, Raipur 492013 (C.G.) , Ph. : 7879798900 E-mail : raipur marshal@yahoo.co.in raipur.marshal@gmail.com Website : marshalgeoraipur.com



Authorised Signatory (Arun Bhave)



		ooting Settlement
	So Settlement of Footing at Safe Load Can be Ca	lculated Using the following Formula: IS 1888
	PIT NO 03	
	Width of Footing (B)	
	Width of Plate (BP)	
	Plate Settlement (SP)) 17.43 mm.
	Settlement Calculation on Sandy Soils	Settlement Calculation on Clayey Soils
	$S_F = S_P \{ [B^*(B_P + 0.3) / [B_P^*(B + 0.3)] \}^2 \}$	
SF = sp	$\frac{B(Bp+0.3)}{P(D+0.2)}$	$SF = Sp \left(\frac{B}{Bp} \right)$
SF = 17.43	$ \frac{Bp(B + 0.3)}{1(0.60+0.3)} J $ 0.60(1+0.3)	$SF = 17.43(\frac{1}{0.6})$
	17.43 0.9 0.78	SF = 17.43 1.67
SF =	0.78	Permissible Settelment of Footing
		SF = 29.05 mm
SF =	17.43 1.154	SF = 29.00 mm
Permissibl	e Settlement of Footing	
SF =	23.21 mm	
SF ≈	23.00 mm	



Geo Test Laboratory



Standardisation Testing & Quality Certification Directorate MSME No.: CG14E0001811

For Testing of Civil Engineering Materials

Sheet 1 of 2

Date:-25/07/19

Testing Dt.- 24/07/19

T.R. No. / MGTL / TRR / R-1907192/006

To, The Executive Engineer (Civil) H.Q. Dn. , C.S.P.T.C.L. Raipur (C.G.)

Subject :- Test result of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur (C.G.).

Your Ref.:- Letter No.:- EEC/HQ Dn./1880 Raipur, Dt. - 06/07/19

Sample ID Mark :- Pit No.-03, Depth :- 2.50 m.

subject and reference cited above, the test results report is as follows: -

PARTICULAR OF SAMPLES (S) :-Nature:- Soil Sample (DS) Sample No.(S) Details:- One sample

Packing/Container :- Poly bags Dt. of Receipt in the Lab:- 19/07/19

TEST RESULTS LAB JOB NO. R-1907192 Unit Results Test Method Name of Test S. No. % As per table 1 below Soil Sample (DS) As per IS : 2720 (Part V) A) As per table 1 below LL, PL & PI As per IS : 1498-1970 1 As per table 2 below Soil Classification As per IS : 2720 (Part IV) 2 Grain Size Analysis 3 TEST RESULTS

Table -1 NO D 1007192

LAB JOB N	0. R-1907192	Т	LL	PL	PI
Sr. No.	% of Fines	Soli Classification	%	%	%
S 1	85.60	High Compressible Clay (CH)	50.50	21.99	28.51
					Ð

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For Testing of Civil Engineering Materials

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Sheet 2 of 2

Table -2				TEST RESULT	S
AB JOB	NO. R-1907192	WT. RET.	% OF WT.RET	CUM.WT. RET.	PERCENTAGE FINER (%)
Sr. No. SIEVE SIZE (MM	SIEVE SIZE (MM)		5.20	5.20	94.80
1	4.75	26.0	5.20	6.80	93.20
		8.0	1.60		90.40
2	2.0		2.80	9.60	
-3	0.6	14.0		9.60	90.40
	0.425	0.0	0.00		85.60
4		24.0	4.80	14.40	00.00
5	0.075	27.0			

LAB JOB NO. R-1907192			TEST RESU	ILTS		ĺ
-	Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	
		1.60	2.80	4.80	85.60	
	5.20			L		

Verified by (Anshuman Shukla) (Geotechnical Engineer)

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- Raipur. Subject to Raipur Jurisdiction. 4 Although Site Name has been mentioned, MGTL is not be responsible for the actual site conditions.
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Authorised Signatory (Arun Bhave)



🗿 📕 Geo Test Laboratory



Standardisation Testing & Quality Certification Directorate MSME No.: CG14E0001811

For Testing of Civil Engineering Materials

T. R. No. MGTL / TRR / R-1907192/003

TEST REPORT

Date:-25/07/19

To, The Executive Engineer (Civil) H.Q. Dn., C.S.P.T.C.L. Raipur (C.G.)

Subject: - Test result of Safe Bearing Capacity of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur

Your Ref.: -Letter No.:- EEC/HQ Dn./1880 Raipur, Dt. - 06/07/19 Sample ID Mark :- Pit No.-02

Dear / Sir.

ide subject and reference cited above, the test results report is as follows: -

SAFE BEARING CAPACITY OF SOIL BY PLATE LOAD TEST FIELD & LAB JOB NO: - R-1907192

	Name of Test	Test Method	
Sr. No.	Plate Load Test		Test Results
		As per IS:-1888 (RA-2016)	As Below
	PARTICULARS	LOCATION	
		Pit No02	
1	Date of Testing	13/07/19	
2	Type Soil	High Compressible Clay (CH)	
3	Depth of Pit (m)		
4		2.00	
	Field Density (t/m ³)	2.14	
5	Gross Safe Bearing		
	Capacity (t/m ²)	17.00	

Remarks:- 1. This soil is susceptible to longterm consolidation settlement.

2. The S.B.C.has been computed taking 1m x 1m footing size.

3. Settlement of footing at failure pressure is 22.50 mm.

Verified by

(Anshuman Shukla) (Geotechnical Engineer)

Authorised Signatory (Arun Bhave)

Note:-

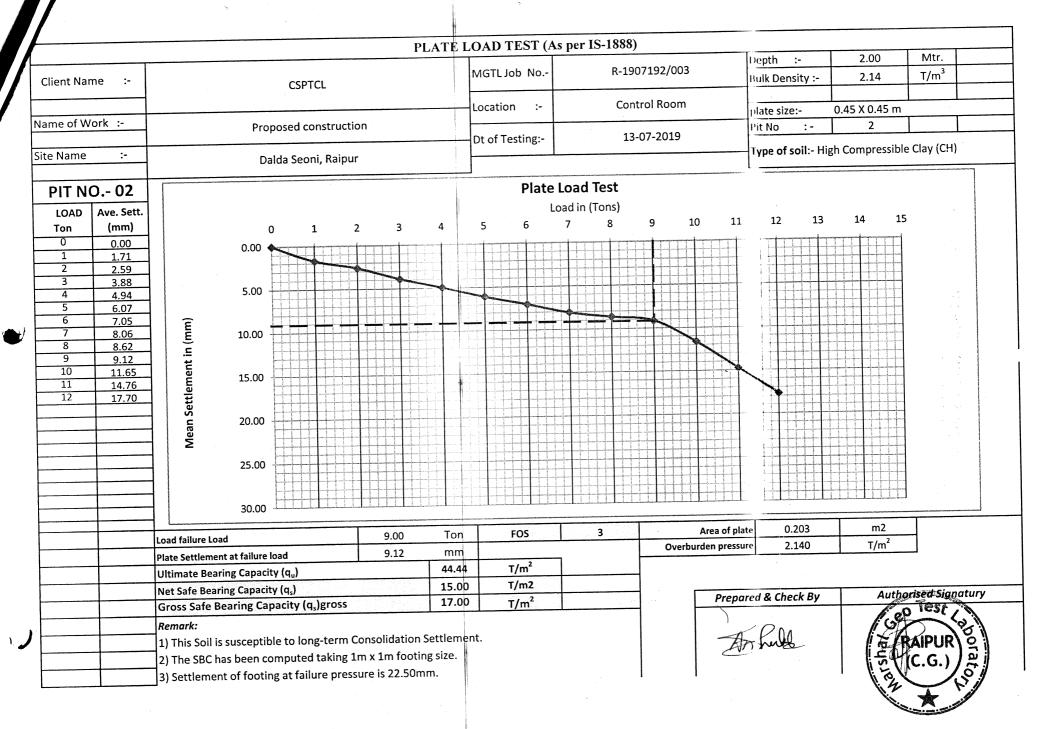
1 Results are subject to limitations as per IS -code-1888

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Calculation for Footing Settlement

So Settlement of Footing at Safe Load Can be Calculated Using the following Formula: IS 1888

PIT NO 02			
Width of Footing (B)	1	Mtr	
Width of Plate (BP)	0.45	Mtr.	· .
Plate Settlement (SP)	9.12	mm.	

Settlement Calculation on Clayey Soils

В

Bp

0.45

2.22

mm

mm

SF = Sp

SF = 9.12(

9.12

20.27

20.50

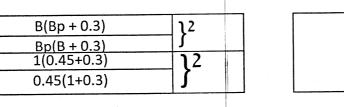
SF =

SF =

SF =

Permissible Settelment of Footing

Settlement Calculation on Sandy Soils $S_F = S_P \{ [B^*(B_P+0.3)/[B_P^*(B+0.3)] \}^2$



	0.12	0.75	
SF =	9.12	0.585	
			 i.
SF =	9.12	1.282	
Permissible	e Settlemer	nt of Footing	
SF =	14.99	mm	
SF ≈	15.00	mm	

SF = Sp

SF = 9.12

¥s'





Date:-25/07/19

For Testing of Civil Engineering Materials

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Geo Test Laboratory

T.R. No. / MGTL / TRR / R-1907192/004

To. The Executive Engineer (Civil) H.Q. Dn. , C.S.P.T.C.L. Raipur (C.G.)

Subject :- Test result of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur (C.G.). Your Ref.:- Letter No.:- EEC/HQ Dn./1880 Raipur, Dt. - 06/07/19 Sample ID Mark :- Pit No.-02, Depth :- 2.00 m.

r Sir.

Vide subject and reference cited above, the test results report is as follows: -PARTICULAR OF SAMPLES (S) :-Nature: - Soil Sample (DS) Sample No.(S) Details:- One sample Packing/Container :- Poly bags Dt of Receipt in the Lab:- 19/07/19

Testing Dt.- 24/07/19

	NO. R-1907192		TEST RESULTS	
S. No.	Name of Test	Test Method	Results	Unit
A)	Soil Sample (DS)			
1	LL, PL & PI	As per IS : 2720 (Part V)	As per table 1 below	%
2	Soil Classification	As per IS : 1498-1970	As per table 1 below	
3	Grain Size Analysis	As per IS : 2720 (Part IV)	As per table 2 below	
Table -1				
	NO D 4007400		TEST RESULTS	

LAB JOB	NO. R-1907192				
			LL	PL	PI
Sr. No.	% of Fines	6 of Fines Soli Classification	%	%	%
1	94.20	High Compressible Clay (CH)	56.00	22.54	33.46

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For Testing of Civil Engineering Materials

Sheet 2 of 2

Geo Test Laboratory

Table -2	NO. R-1907192			TEST RESULT	S
	SIEVE SIZE (MM)	WT. RET.	% OF WT.RET	CUM.WT. RET.	PERCENTAGE FINER (%)
1	4.75	5.0	1.00	1.00	99.00
	2.0	2.0	0.40	1.40	98.60
- 4-3	0.6	3.0	0.60	2.00	98.00
	0.425	0.0	0.00	2.00	98.00
5	0.075	19.0	3.80	5.80	94.20

LAB 108 NO 8-1907192

LAB JOB NO. R-1907192			TEST RESULTS		
Grave	1	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay
1.00		0.40	0.60	3.80	94.20

Verified by

(Anshuman Shukla) (Geotechnical Engineer)

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Authorised Signatory (Arun Bhave)

Geo Test Laboratory For Testing of Civil Engineering Materials



Authorised Signatory

(Arun Bhave)

Standardisation Testing & Quality Certification Directorate MSME No.: CG14E0001811

TEST REPORT

Date:-25/07/19

T. R. No. MGTL / TRR / R-1907192/001

To. The Executive Engineer (Civil) H.Q. Dn., C.S.P.T.C.L. Raipur (C.G.)

Subject: - Test result of Safe Bearing Capacity of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur (C.G.).

Raipur, Dt. - 06/07/19 Your Ref.: -Letter No.:- EEC/HQ Dn./1880 Sample ID Mark :- Pit No.-01

Pear / Sir,

vide subject and reference cited above, the test results report is as follows: -

SAFE BEARING CAPACITY OF SOIL BY PLATE LOAD TEST

FIELD & LA	B JOB NO: - R-1907192	Test Method	Test Results
	Name of Test		As Below
Sr. No.	Plate Load Test	As per IS:-1888 (RA-2016)	AS DEIOW
-		LOCATION	
	PARTICULARS	Ріт No01	
	Date of Testing	12/07/19	
2	Type Soil	High Compressible Clay (CH)	
3	Depth of Pit (m)	3.00	
4	Field Density (t/m ³)	2.14	
5	Gross Safe Bearing Capacity (t/m ²)	14.00	

Remarks:- 1. This soil is susceptible to longterm consolidation settlement.

2. The S.B.C.has been computed taking 1m x 1m footing size.

3. Settlement of footing at failure pressure is 34.50 mm.

Verified by (Anshuman Shukla) (Geotechnical Engineer)

Note:-

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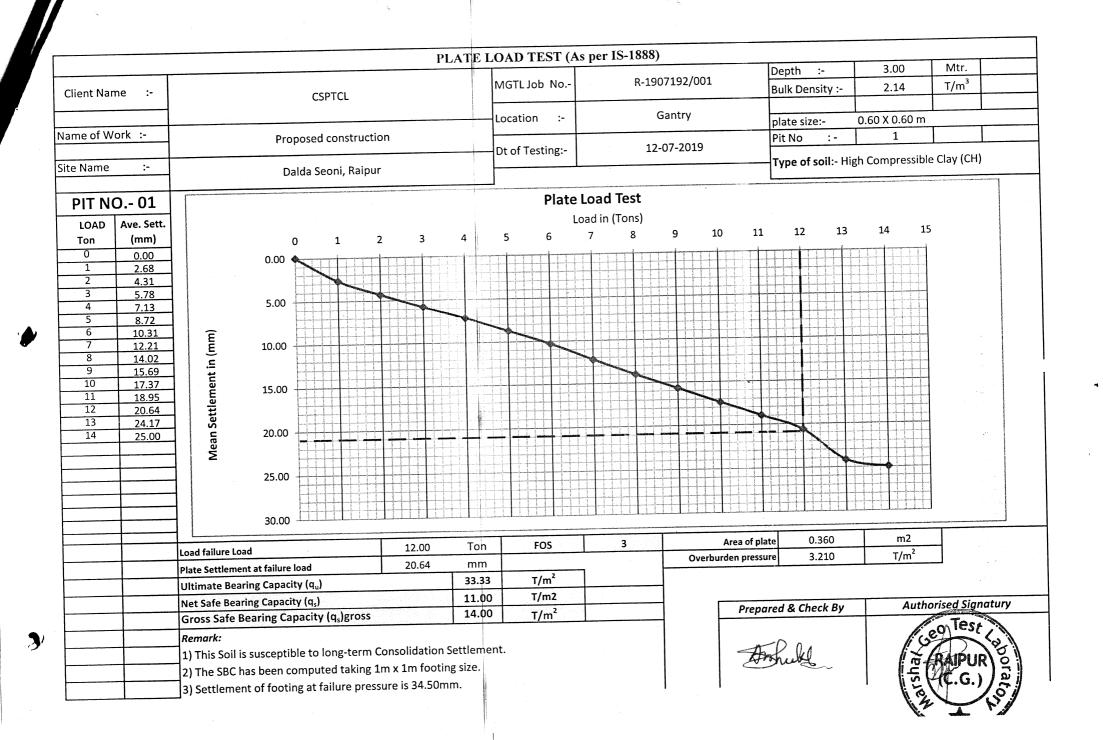
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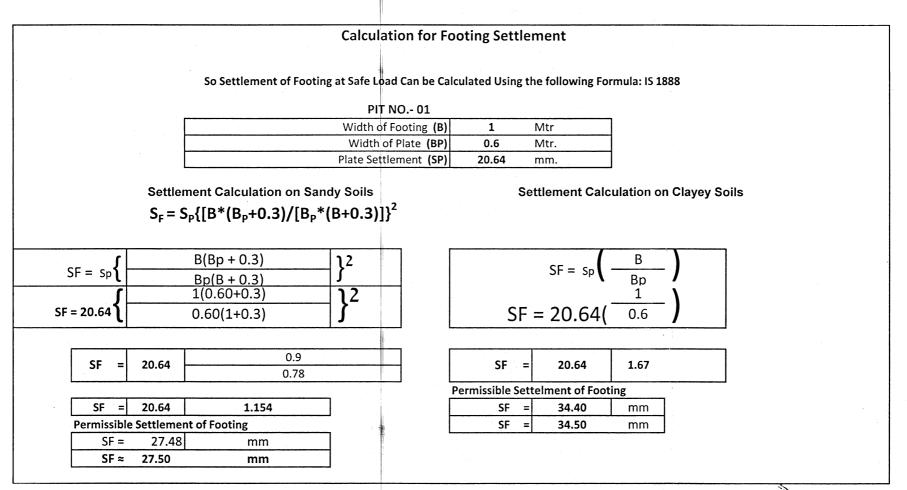
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Geo Test Laboratory

For Testing of Civil Engineering Materials



Standardisation Testing & Quality Certification Directorate MSME No.: CG14E0001811

Sheet 1 of 2

T.R. No. / MGTL / TRR / R-1907192/002

To, The Executive Engineer (Civil) H.Q. Dn. , C.S.P.T.C.L. Raipur (C.G.)

Subject :- Test result of Soil Sample for the proposed construction of 132/33 KV S/s Daldalseoni, Raipur (C.G.).

Your Ref .:- Letter No .:- EEC/HQ Dn./1880 Raipur, Dt. - 06/07/19

Sample ID Mark :- Pit No.-01, Depth :- 3.00 m.

ar Sir.

Vide subject and reference cited above, the test results report is as follows: -

PARTICULAR OF SAMPLES (S) :-Nature: - Soil Sample (DS) Sample No.(S) Details:- One sample

Packing/Container :- Poly bags

	NO. R-1907192			TEST RESULTS		
S. No.	Name of Test	1	est Method	Results	Unit	
A) 1	Soil Sample (DS)	As per l	S : 2720 (Part V)	As per table 1 below	%	
2	Soil Classification Grain Size Analysis		er IS : 1498-1970 S : 2720 (Part IV)	As per table 1 below As per table 2 below		

Table -1 _AB JOB NO. R-1907192		TEST RESULTS			
Sr. No.	% of Fines	Soli Classification	LL	PL	PI
			%	%	%
ن 1	90.80	High Compressible Clay (CH)	54.00	23.13	30.87



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Date:-25/07/19

Testing Dt.- 24/07/19





Sheet 2 of 2

Table -2			TEST RESULTS			
	B NO. R-1907192 D. SIEVE SIZE (MM)	WT. RET.	% OF WT.RET	CUM.WT. RET.	PERCENTAGE FINER (%) 98.60	
			1.40	1.40		
, 1	4.75		1.80	3.20	96.80	
2	2.0	9.0			94.80	
3	0.6	10.0	2.00	5.20		
		0.0	0.00	5.20	94.80	
4	0.425		<u> </u>	9.20	90.80	
5	0.075	20.0	4.00	5.20	1	

	TEST RESUL		
Coarse Sand	Medium Sand	Fine Sand	Silt & Clay
1.80	2.00	4.00	90.80
			Coarse Sand Medium Ound

Verified by (Anshuman Shukla) (Geotechnical Engineer)

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Authorised Signatory (Arun Bhave)

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