

GEOTECHNICAL INVESTIGATION REPORT OF PARADEEP NAPHTHA CRACKER PROJECT (PDNCP) AT PA- RADEEP REFINERY , PARADEEP, ODISHA

**CLIENT: INDIAN OIL CORPORATION
LIMITED.**

Prepared by:-



VISIONTEK CONSULTANCY SERVICES PVT. LTD
(An Enviro Engineering Consulting Cell)

Plot No.-M-22&23, Chandka Industrial Estate, Patia, Bhubaneswar-751024, Dist-Khurda, Odisha

Tel. : 91-674-6451781, 7752017905

E-mail-visiontekin@yahoo.co.in , visiontekin@gmail.com

Visit us at - www.vcspl.org



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

1. Introduction

It has been proposed for “Soil Investigation of Indian Oil Corporation Ltd., at Paradeep, Odisha.” The Engineer in Charge of this project has awarded the preliminary sub-soil investigation work to Visiontek Consultancy Services Pvt. Ltd. for a thorough assessment of sub-soil strata at the location in order to facilitate the design of foundation of the proposed structure. This report comprised the boring of 30 nos. of borehole. The scope of work also included the conducting of standard penetration test (SPT) at regular intervals. Collected soil samples were tested in the base laboratory and all data were analyzed, which were brought to the laboratory with proper labeling for laboratory test. Based on the above, this report presents the bore log, laboratory & field test results.

1.1 Object

The object of investigation is:

- To establish the subsurface stratification at the site along with relevant geotechnical parameters and evaluate competent strata for resting the foundation.
- To determine the safe bearing capacity of foundation.
- To furnish other information or data necessary for design and construction and foundation.

The fieldwork included sinking 30 numbers of boreholes spread over the whole site through soil, conducting SPT, collecting disturbed & undisturbed soil samples, and other field tests. Subsequently, soil samples were tested in laboratory for identification, characteristics and strength parameters. After completion of all field & laboratory tests and compilation of all data, engineering analysis was carried out to establish the stratifications based on geo-technical parameters, evaluate suitability of foundation system and finally to recommend bearing capacity of foundation. The report furnishes the above in different sections.

2 Scheme of investigation

The scheme for geo-technical investigation was framed by the client considering the nature of structures, magnitude and nature of loading and also available information on stratification and characteristics of the deposits normally encountered in the area. The scope of work broadly included: sinking boreholes including collection of disturbed & undisturbed soil samples, conducting Standard Penetration Tests to



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

determine the subsurface deposit, their states of occurrences, sequence and extent of each soil stratum at site as well as its nature and engineering properties on soil samples etc.

3 Field Work

A brief description of the type of equipments used, method of boring and drilling, field tests, collection of samples etc. are presented below:

3.1 Exploratory Boring

Boring through Soil was carried out by Shell & Auger tools, operated by mechanical winch, to sink nominal 150 mm diameter boreholes. Auger was turned through auger pipes to cut soil at the bottom of the hole, which were in turn held in the auger & were drawn to the surface by pulling the auger out of the hole each time the auger was filled. In continuation to auger boring, Shell was used which is a 140 mm diameter heavy steel cylinder with a cutting edge under a hinged one-way flap valve, at the bottom. The borehole was advanced by raising the Shell upto desired height & allowing it to fall freely repeatedly till sufficient amount of soil enters in the Shell. When the Shell gets nearly filled with soil, it was lifted out of the borehole & emptied.

3.2 Standard Penetration Test

Standard penetration tests were carried out inside all the exploratory boreholes at a regular interval or change of strata as per provisions laid down in IS: 2131 - 1981. It was carried out with the help of standard split spoon sampler of standard design and dimension (50 mm O.D., 35 mm I.D., minimum length 450 mm) together with the cutting edge and the sampler head. The split spoon sampler in all the tests had been attached to lower end of drill rods taken up to specific depths of tests. The split spoon sampler was advanced by driving a drop - hammer, weighing 63.5 kg. falling freely through a height of 75 cm. The number of blows required for last 30cm. penetration of split-spoon sampler driven by the 63.50kg. hammer, falling freely through a height of 75 cms. was recorded as 'N' value. The disturbed samples from split-spoon sampler had been subsequently used for visual identification, classification of the subsoil deposits and were collected after each test properly labeled and placed in air tight polythene bags before sending it to laboratory for carrying out tests.



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

3.3 Sampling

Undisturbed samples were collected by means of a 100 mm ID and 450mm long open drive sampling assembly having area ratio of about 14%. Before sampling, the boreholes were thoroughly cleaned. The sampling assembly was driven to the required depth manually with the help of jarring link. Samples collected in the tube were retained, labeled and waxed at both ends before sending to the laboratory. Representative soil samples were collected frequently from split spoon sampler of standard penetrometer and disturbed samples were collected from auger and shell to maintain a continuous record of the strata encountered. All samples were labeled and placed in airtight polythene bags for dispatch to laboratory for identification, mechanical analysis and tests for index properties.

3.4 Ground Water

Ground water observations were made during boring and after completion of the boreholes. The depth at which ground water was encountered and the standing water level was observed and recorded in the respective bore logs. Whenever ground water was struck, boring was stopped for sufficient time to allow water level to stabilize. The depth of water level was then measured. 24 hours after the completion of the borehole a further reading of water level was taken. The borehole was then back filled.

4 Laboratory tests

Laboratory tests on the soil samples were conducted as per the relevant provisions of different Sections of IS Code. For proper identification and classification of the subsurface deposits and for deriving adequate information regarding the physical and engineering properties, the required laboratory tests pertaining to the soil types were conducted on the representative soil samples collected from boreholes.

Following laboratory tests have been conducted on the selected soil Samples:

A. TEST ON SOIL SAMPLES

- a. Natural Moisture Content
- b. Grain Size Analysis
- c. Liquid Limit
- d. Plastic Limit
- e. Bulk Density



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- VISIONTEK**
- Infrastructure Engineering
 - Water Resource Management
 - Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

- f. Specific Gravity
- g. Tri-axial compression Test
- h. Direct Shear Test
- i. Consolidation Test
- k. Unconfined Compressive Strength (UCS)
- l. Free Swell Index (FSI)

A. Brief description of laboratory testing procedure on soil samples are presented below:

a. Natural Moisture Content

It is the percentage of water present in a soil sample with respect to the weight of dry soil. It can be evaluated as percentage loss of weight of undisturbed soil sample after oven drying. The test is conducted as per IS: 2720 (Part-2) -1973. A clean metal container with lid is dried & weighted. Naturally moist soil specimen is duly crumbled & loosely placed in the container and weighted with its lid. The soil in container with its lid removed is kept in electric oven at controlled temperature of 110 ± 5 °C for 24 hours. The container with dried specimen is then taken out & allowed to cool in the desiccators. The final weight of dried sample along with container & lid is recorded. The difference in final & initial weight is the weight of moisture initially present in the sample. The ratio of weight of moisture by dry weight of soil sample, expressed in percentage, is the Natural Moisture Content of soil.

b. Grain Size Analysis

To identify the type of soil met at various depths and to classify each soil strata, grain size analysis were carried out as per IS: 2720 (Part-4)-1985. The method of wet sieving has been conducted for classification of soil particles. Two grams of sodium hexametaphosphate and one grams of sodium carbonate per litre of water used should then add to the soil. The mixes should be thoroughly stirred and soaking. Then the soil soaked specimen is washed by water over the 0.075 mm sieve. After that the washed sample is dried by oven. A representative weighed dry sample is poured into the top sieve which has the largest opening. Each lower sieve in the column has smaller opening then the above. At the base is a round pan called receiver. The column is typically placed in a mechanical shaker. The shaker shakes the column. After the shaking is complete the material on each sieve is weighted. Then the percentage



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

finer means percentage of total weight of soil that passed through the different size of sieve was determined. Finally semi log graph was plot between percentage of finer and particle size. The results have been presented in the summarized data sheets.

c. Liquid Limit

Liquid Limit is the minimum water content at which the soil is still in the liquid state, but has a small shearing strength against flowing which can be measured by standard available means. This test is conducted as per IS: 2720 (Part-5) - 1985. About 120 gm of the specimen passing through 425 micron sieve is mixed thoroughly with distilled water in the evaporation dish to form a uniform paste. A portion of the paste is placed in the cup of the liquid limit device squeezed down and spread into position and the groove is cut by the grooving tool in the soil pat. The handle is rotated at a rate about 2 revolution per second, and the number of blow are counted until the two parts of soil sample come into contact at bottom of the groove along a distance of 10 mm. Then liquid limit is determined by plotting a graph between the number of blows as abscissa on a logarithmic scale and the corresponding water content as ordinate.

d. Plastic Limit

Plastic Limit is the water content corresponding to an arbitrary limit between the plastic and the semisolid states of consistency of a soil. This test is conducted as per IS: 2720 (Part-5) - 1985. The soil specimen passing through 425 micron sieve is mixed thoroughly with distilled water until the soil mass becomes plastic enough to be easily moulded with finger. A ball is then formed with about 10 g of this plastic soil mass and rolled between the finger and the glass plate with just sufficient pressure to roll the mass into a thread of uniform diameter throughout its length. When a diameter of 3 mm reached, the soil is remolded again into a ball. This process of rolling and remolding is repeated until the thread starts just crumbling at a diameter of 3 mm. This test is repeated twice more with fresh samples. The plastic limit is then taken as the average of three water contents.

e. Bulk Density

It is the ratio of the weight and volume of a sample in it's natural state.



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

- Environment Lab
- Food Lab
- Material Lab
- Soil Lab
- Mineral Lab
- & Microbiology Lab

f. Specific Gravity

The ratio of unit weight of soil solids to unit weight of water is known as specific gravity. Specific gravity test was performed as per IS: 2720 (Part-3)-1980. The specific gravity is done by two methods such as density bottle and pycnometer method. Pycnometer method is used for both fine grained and coarse grained soils. But Density bottle method only used for fine grained soils. Firstly oven dry soil was taken for this test. Then 10 to 20 gm weight of this oven dried soil was kept in to density bottle or pycnometer. The weight of density bottle or pycnometer with dried soil was taken as W_1 . Then 10 ml of distil water was added in density bottle or pycnometer to allow the dry soil to complete soak. After 2 hour this bottle was fully filled by water. Again the weight of density bottle or pycnometer and contents was recorded as W_2 . After that the bottle or pycnometer was thoroughly cleaned and fully filled with distil water and weighed as W_3 . The wt of empty density bottle was also taken as W_4 . The specific gravity (G) of soil was determined using the formula.

$$\text{Specific Gravity, } G = \frac{(W_1 - W_4)}{(W_1 - W_4) - (W_2 - W_3)}$$

The test was done three times and taken average reading for each sample.

g. Triaxial compression test

Triaxial compression test is used to determine the shear strength of the soil that is cohesion and angle of internal friction. This test can be performed for any type of soil sample. In this test the soil sample fail at any weakest plane that is different from direct shear test. This test can be performed by three methods such as unconsolidated undrained (UU), consolidated undrained (CU) and consolidated drained (CD) but in that report only unconsolidated undrained triaxial (UU) test was conducted. Triaxial compression test was performed as per IS: 2720 (part-1)-1993. This test was performed on the 76×38 mm cylindrical sample using different confining pressure i.e. 50 kPa, 100 kPa and 200 kPa respectively. Firstly the sample was placed on pedestal. Then the sample was surrounded in a thin rubber membrane between solid discs at top and bottom. The oring was fixed around the sample to avoid entering of water through voids into it. After filling the triaxial cell with water through cell fluid inlet, the certain confining



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

pressure was applied. Finally the additional axial load was applied on the sample at constant rate of strain till the sample is not failed. In this test 1 kN proving ring and 0.01 mm list count of dial gauge were used to determine the load capacity at any deformation level during the test. After completion of test stress strain curve is drawn for the sample at different confining pressure. From that curve the deviator stress (σ_d) was evaluated at different confining pressure. The major principal stress (σ_1) of sample was determined by adding deviator stress (σ_d) and minor principal stress (σ_3).

h. Direct shear test

In this test a cubical size soil sample of 6 cm x 6 cm in size, is confined in a direct shear box which has two detachable halves of the same size. The soil sample in this shear mould is loaded vertically under different vertical loads and then sheared of exactly half way in between the sample, such that soil shearing horizontally, shear resistance goes on developing and at failure reaches a maximum value which is recorded. The test is repeated 2 or 3 times on the same type of specimen under different vertical loading conditions, obtaining each time the maximum shear strength developed at failure. A graph of shear strength vs. normal load is drawn and the points on the graph are joined with the average straight line that will cut the Y axis to give the value of cohesion while the inclination of the straight line with the X axis gives the ϕ angle, known as the angle of internal friction.

i. Consolidation test

When compressive load is applied to soil mass, a decrease in its volume take place, the decrease in volume of soil mass under stress is known as compression and the property of soil mass pertaining to its tendency to decrease in volume under pressure is known as compressibility. In a saturated soil mass having its void filled with incompressible water, decrease in volume or compression can take place when water is expelled out of the voids. Such a compression resulting from a long time static load and consequent escape of pore water is termed as consolidation. Consolidation test was conducted on undisturbed clay soil sample in accordance with Indian standards IS:2720 (part-15)-1986. Coefficient of compressibility (C_c) and coefficient of consolidation (C_v) have determine from consolidation test.



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services

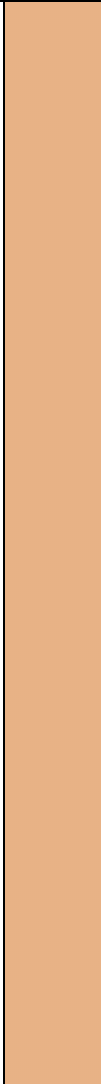
Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
&
Microbiology Lab

k. Unconfined Compressive Strength (UCS)

Unconfined Compressive Strength (UCS) stands for the maximum axial compressive stress that a cohesive soil specimen can bear under zero confining stress. Unconfined compression test is one of the fastest and cheapest methods of measuring shear strength of clayey soil. Unconfined Compressive Strength (UCS) is the load per unit area at which an unconfined cylindrical specimen of soil will fail in the axial compression test. The test was conducted on undisturbed clay soil sample in accordance with Indian standards IS:2720 (part-15)-1991.

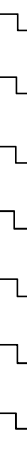
l. Free Swell Index (FSI)

Free swell or differential free swell, also termed as “free swell index”, is the increase in volume of soil without any external constraint when subjected to submergence in water. The test was conducted on undisturbed clay soil sample in accordance with Indian standards IS:2720 (part-40)-197.

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 1						
Name of the client		: IOCL					RL		: 96.951						
Location		: Paradip, Odisha					Northing		: 2239575.000						
Ground water table		: 1.00 m					Easting		: 455225.000						
Type of boring		: Rotary Boring					Date of Commencement		: 06.04.2025						
Diameter of boring		: 150 mm					Date of Completion		: 07.04.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)								
0		4.5		0.5	Dark Brownish intermediate plasticity clay with sand and little sand content (CI)	....	....	D.S	.....	....	....	Sample Collected			
0.5						1.5	....	....	U.D.S	....	.....	....	Sample Collected		
1.5										D.S	2			Sample Collected	
2.5						3.0				U.D.S				Sample Collected	
3.5	→ 3.45						4.5				D.S				Sample Collected
4.5	→ 4.95	1.5			Brownish low plasticity clay with silt and sand content (CL)			D.S	3	....	....	Sample Collected			
5.5				6.0			....	....	D.S	5	....	....	Sample Collected		
6.5	→ 6.45	24.0		7.5	Brownish poorly graded sand content (SP)	....	....	D.S	5	....	....	Sample Collected			
7.5	→ 7.95					9.0	....	....	D.S	2	....	....	Sample Collected		
8.5						10.5	....	....	D.S	4	....	....	Sample Collected		
9.5	→ 9.45					12.0	....	....	D.S	7	....	....	Sample Collected		
10.5	→ 10.95					13.5	....	....	D.S	11	....	....	Sample Collected		
11.5	→ 11.45					15.0	....	....	D.S	16	....	....	Sample Collected		
12.5	→ 12.45					16.5	....	....	D.S	17	....	....	Sample Collected		
13.5	→ 13.95					18.0	....	....	D.S	21	....	....	Sample Collected		
14.5	→ 14.45					19.5	....	....	D.S	25	....	....	Sample Collected		
15.5	→ 15.45					21.0	....	....	D.S	29	....	....	Sample Collected		
16.5	→ 16.95					22.5	....	....	D.S	28	....	....	Sample Collected		
17.5	→ 17.45					24.0	....	....	D.S	30	....	....	Sample Collected		
18.5	→ 18.45					25.5	....	....	D.S	31	....	....	Sample Collected		
19.5	→ 19.95					27.0	....	....	D.S	36	....	....	Sample Collected		
20.5	→ 20.45					28.5	....	....	D.S	38	....	....	Sample Collected		
21.5	→ 21.45									D.S	39			Sample Collected	
22.5	→ 22.95														
23.5	→ 23.45														
24.5	→ 24.45														
25.5	→ 25.95														
26.5	→ 26.95														
27.5	→ 27.45														
28.5	→ 28.95														
29.5	→ 29.45														
30	→ 30.45			30.0		....	....	D.S		....	....				

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 2				
Name of the client		: IOCL					RL		: 96.505				
Location		: Paradip, Odisha					Northing		: 2239750.000				
Ground water table		: 1.00 m					Easting		: 454525.000				
Type of boring		: Rotary Boring					Date of Commencement		: 31.03.2025				
Diameter of boring		: 150 mm					Date of Completion		: 01.04.2025				
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks	
						From (m)	To (m)						
0		0.5		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected	
0.5	▼			1.5	Blackish intermediate plasticity clay with silt and little sand content	....	....	D.S	2	.....	....	Sample Collected	
1.5	→ 1.95	2.5				....	....	U.D.S	.....	....	....	Sample Collected	
2.5				3.0		....	....	D.S	5	....	....	Sample Collected	
3.5		10.5	4.5	Brownish poorly graded sand content (SP)		....	....	D.S	7	....	....	Sample Collected	
4.5	→ 4.95		6.0			....	....	D.S	8	....	....	Sample Collected	
5.5			7.5			....	....	D.S	9	....	....	Sample Collected	
6.5	→ 6.45		9.0			....	....	D.S	12	....	....	Sample Collected	
7.5	→ 7.95		10.5			....	....	D.S	14	....	....	Sample Collected	
8.5			12.0			....	....	D.S	17	....	....	Sample Collected	
9.5	→ 9.45		13.5			Brownish sandy clay (SC)			D.S	6			Sample Collected
10.5	→ 10.95		15.0						D.S	12			Sample Collected
11.5		16.5	....	....		D.S	19	....	....	Sample Collected			
12.5	→ 12.45	18.0	....	....		D.S	23	....	....	Sample Collected			
13.5	→ 13.95	19.5	....	....		D.S	27	....	....	Sample Collected			
14.5		21.0	....	....		D.S	32	....	....	Sample Collected			
15.5	→ 15.45	22.5	Brownish poorly graded sand content (SP)	....		....	D.S	34	....	....	Sample Collected		
16.5	→ 16.95	24.0		....		....	D.S	39	....	....	Sample Collected		
17.5		25.5		....		....	D.S	34	....	....	Sample Collected		
18.5	→ 18.45	27.0		....		....	D.S	35	....	....	Sample Collected		
19.5	→ 19.95	28.5				....	....	D.S	37	....	....	Sample Collected	
20.5		30.0											
21.5	→ 21.45												
22.5	→ 22.95												
23.5													
24.5	→ 24.45												
25.5	→ 25.95												
26.5													
27.5	→ 27.45												
28.5	→ 28.95												
29.5													
30	→ 30.45												

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 3						
Name of the client		: IOCL					RL		: 97.124						
Location		: Paradip, Odisha					Northing		: 2239750.000						
Ground water table		: 1.00 m					Easting		: 454700.000						
Type of boring		: Rotary Boring					Date of Commencem:		: 31.03.2025						
Diameter of boring		: 150 mm					Date of Completion		: 01.04.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)								
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected			
0.5				1.5	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	.....	.....	Sample Collected			
1.5				3.0		....	....	D.S	2	....	....	Sample Collected			
2.5	→ 3.45		4.5	....		....	U.D.S	.....	....	....	Sample Collected				
3.5		24.0			Brownish poorly graded sand content (SP)	....	....	D.S	4	....	....	Sample Collected			
4.5				6.0		....	....	D.S	9	....	....	Sample Collected			
5.5	→ 6.45					7.5			D.S	13			Sample Collected		
6.5						9.0			D.S	16			Sample Collected		
7.5	→ 7.95					10.5			D.S	19			Sample Collected		
8.5						12.0			D.S	8			Sample Collected		
9.5	→ 9.45					13.5			D.S	9			Sample Collected		
10.5						15.0			D.S	13			Sample Collected		
11.5	→ 10.95					16.5			D.S	17			Sample Collected		
12.5						18.0			D.S	21			Sample Collected		
13.5	→ 12.45					19.5			D.S	25			Sample Collected		
14.5						21.0			D.S	29			Sample Collected		
15.5	→ 13.95					22.5			D.S	36			Sample Collected		
16.5						24.0			D.S	38			Sample Collected		
17.5	→ 15.45					25.5			D.S	31			Sample Collected		
18.5						27.0			D.S	32			Sample Collected		
19.5	→ 16.95					28.5			D.S	37			Sample Collected		
20.5						30.0					D.S				
21.5	→ 21.45														
22.5															
23.5	→ 22.95														
24.5															
25.5	→ 25.95														
26.5															
27.5	→ 27.45														
28.5															
29.5	→ 28.95														
30.5	→ 30.45														

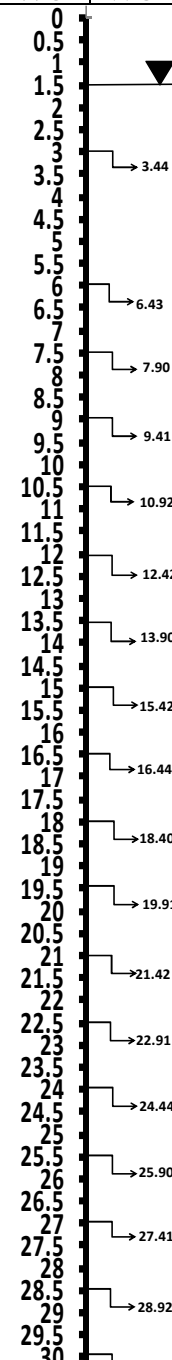
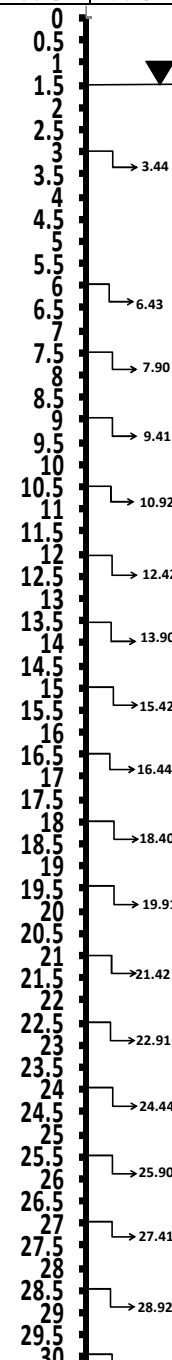
RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 4			
Name of the client		: IOCL					RL		: 97.115			
Location		: Paradip, Odisha					Northing		: 2239750.000			
Ground water table		: 1.00 m					Easting		: 454875.000			
Type of boring		: Rotary Boring					Date of Commencem:		02.04.2025			
Diameter of boring		: 150 mm					Date of Completion		: 03.04.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected
0.5		1.0		1.5	Blacish intermediate plasticity clay with silt and sand content (CI)	....	....	D.S	3	....	....	Sample Collected
1.5		10.5		3.0	Brownish poorly graded sand content (SP)	....	....	D.S	5	....	....	Sample Collected
2.5						....	....	D.S	7	....	....	Sample Collected
3.5						....	....	D.S	8	....	....	Sample Collected
4.5						....	....	D.S	11	....	....	Sample Collected
5.5						....	....	D.S	15	....	....	Sample Collected
6.5						....	....	D.S	19	....	....	Sample Collected
7.5						....	....	D.S	23	....	....	Sample Collected
8.5						....	....	D.S	25	....	....	Sample Collected
9.5						....	....	D.S	30	....	....	Sample Collected
10.5		3.0		12.0	Brownish sandy clay with silt content (SC)	....	....	D.S	9	....	....	Sample Collected
11.5						....	....	D.S	11	....	....	Sample Collected
12.5						....	....	D.S	15	....	....	Sample Collected
13.5		15.0		15.0	Brownish poorly graded sand content (SP)	....	....	D.S	15	....	....	Sample Collected
14.5						....	....	D.S	19	....	....	Sample Collected
15.5						....	....	D.S	25	....	....	Sample Collected
16.5						....	....	D.S	30	....	....	Sample Collected
17.5						....	....	D.S	36	....	....	Sample Collected
18.5						....	....	D.S	39	....	....	Sample Collected
19.5						....	....	D.S	35	....	....	Sample Collected
20.5						....	....	D.S	37	....	....	Sample Collected
21.5						....	....	D.S	38	....	....	Sample Collected
22.5						....	....	D.S	33	....	....	Sample Collected
23.5						....	....	D.S	33	....	....	Sample Collected
24.5						....	....	D.S	33	....	....	Sample Collected
25.5						....	....	D.S	33	....	....	Sample Collected
26.5						....	....	D.S	33	....	....	Sample Collected
27.5			D.S	33	....	....	Sample Collected					
28.5			D.S	33	....	....	Sample Collected					
29.5			D.S	33	....	....	Sample Collected					
30				30.0		....	....	D.S	33	....	....	Sample Collected

RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 5				
Name of the client		: IOCL				RL		: 96.973				
Location		: Paradip, Odisha				Northing		: 2239750.000				
Ground water table		: 1.00 m				Easting		: 455050.000				
Type of boring		: Rotary Boring				Date of Commencem:		02.04.2025				
Diameter of boring		: 150 mm				Date of Completion		: 03.04.2025				
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected
0.5				1.5		....	....	D.S	2	....	....	Sample Collected
1.5	→ 1.95	2.5			Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	....	....	Sample Collected
2.5				3.0		....	....					
3.5						....	....	D.S	5	....	....	Sample Collected
4.5	→ 4.95			4.5								
5.5						....	....	D.S	7	....	....	Sample Collected
6.5	→ 6.45			6.0								
7.5	→ 7.95	9.0		7.5	Brownish poorly graded sand content (SP)	....	....	D.S	9	....	....	Sample Collected
8.5				9.0		....	....	D.S	12	....	....	Sample Collected
9.5	→ 9.45					....	....	D.S	15	....	....	Sample Collected
10.5	→ 10.95			10.5								
11.5				12.0		....	....	D.S	17	....	....	Sample Collected
12.5	→ 12.45					....	....	D.S	7	....	....	Sample Collected
13.5	→ 13.95	3.0		13.5	Brownish sandy clay with silt content (SC)							
14.5						....	....	D.S	9	....	....	Sample Collected
15.5	→ 15.45			15.0								
16.5	→ 16.95			16.5		....	....	D.S	15	....	....	Sample Collected
17.5						....	....	D.S	20	....	....	Sample Collected
18.5	→ 18.45			18.0								
19.5						....	....	D.S	23	....	....	Sample Collected
20.5	→ 19.95			19.5								
21.5	→ 21.45			21.0		....	....	D.S	30	....	....	Sample Collected
22.5						....	....	D.S	38	....	....	Sample Collected
23.5	→ 22.95	15.0		22.5	Brownish poorly graded sand content (SP)							
24.5	→ 24.45			24.0		....	....	D.S	36	....	....	Sample Collected
25.5						....	....	D.S	39	....	....	Sample Collected
26.5	→ 25.95			25.5								
27.5	→ 27.45			27.0		....	....	D.S	37	....	....	Sample Collected
28.5	→ 28.95			28.5		....	....	D.S	32	....	....	Sample Collected
29.5	→ 30.45					....	....	D.S	37	....	....	Sample Collected

RECORD OF BORING														
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 6					
Name of the client		: IOCL					RL		: 97.087					
Location		: Paradip, Odisha					Northing		: 2239750					
Ground water table		: 1.00 m					Easting		: 455255.000					
Type of boring		: Rotary Boring					Date of Commencement		: 05.04.2025					
Diameter of boring		: 150 mm					Date of Completion		: 06.04.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)							
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected		
0.5				1.5	Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	3	.....	....	Sample Collected		
1.5		4.0		3.0		....	....	U.D.S	.....	....	....	Sample Collected		
2.5	→ 1.95			4.5		....	....	D.S	4	....	....	Sample Collected		
3.5														
4.5	→ 4.95		1.5		6.0	Brownish low plasticity clay with silt and sand content (CL)			U.D.S				Sample Collected	
5.5	→ 6.45	1.5		7.5	Brownish poorly graded sand content (SP)	....	....	D.S	5	....	....	Sample Collected		
6.5	→ 7.95	3.0		9.0	Brownish intermediate plasticity clay with silt and sand content (CI)	....	....	U.D.S	.....	....	....	Sample Collected		
7.5				10.5		....	....	D.S	5	....	....	Sample Collected		
8.5			19.5		12.0	Brownish poorly graded sand content (SP)			D.S	7			Sample Collected	
9.5					13.5				D.S	5			Sample Collected	
10.5	→ 10.95			15.0	....		....	D.S	4	....	....	Sample Collected		
11.5				16.5	....		....	D.S	5	....	....	Sample Collected		
12.5	→ 12.45			18.0	....		....	D.S	3	....	....	Sample Collected		
13.5	→ 13.95			19.5	....		....	D.S	4	....	....	Sample Collected		
14.5				21.0	....		....	D.S	6	....	....	Sample Collected		
15.5	→ 15.45			22.5	....		....	D.S	7	....	....	Sample Collected		
16.5	→ 16.95			24.0	....		....	D.S	12	....	....	Sample Collected		
17.5				25.5	....		....	D.S	17	....	....	Sample Collected		
18.5	→ 18.45			27.0	....		....	D.S	23	....	....	Sample Collected		
19.5	→ 19.95			28.5	....		....	D.S	29	....	....	Sample Collected		
20.5														
21.5	→ 21.45													
22.5	→ 22.95													
23.5	→ 24.45													
24.5														
25.5	→ 25.95													
26.5														
27.5	→ 27.45													
28.5	→ 28.95													
29.5						....	....	D.S	33	....	....	Sample Collected		
30	→ 30.45			30.0										

RECORD OF BORING														
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 9					
Name of the client		: IOCL					RL		: 97.507					
Location		: Paradip, Odisha					Northing		: 2239925.000					
Ground water table		: 1.00 m					Easting		: 454700.000					
Type of boring		: Rotary Boring					Date of Commencement		: 29.03.2025					
Diameter of boring		: 150 mm					Date of Completion		: 30.03.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)							
0		3.0		1.5	Brownish poorly graded sand content (SP)	....	....	D.S	....	....	....	Sample Collected		
0.5								....	....	D.S	5	....	....	Sample Collected
1.5								....	....	D.S	7	....	....	Sample Collected
2.5	→ 1.95	1.5		3.0	Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	....	....	....			
3.5								....	....	D.S	4	....	....	Sample Collected
4.5								....	....	D.S	7	....	....	Sample Collected
5.5		7.5		6.0	Brownish poorly graded sand content (SP)	....	....	D.S	11	....	....	Sample Collected		
6.5	→ 6.45							....	....	D.S	15	....	....	Sample Collected
7.5	→ 7.95							....	....	D.S	17	....	....	Sample Collected
8.5								....	....	D.S	6	....	....	Sample Collected
9.5	→ 9.45							....	....	D.S	9	....	....	Sample Collected
10.5	→ 10.95							....	....	D.S	13	....	....	Sample Collected
11.5		3.0		12.0	Brownish sandy clay with silt content (SC)	....	....	D.S	17	....	....	Sample Collected		
12.5	→ 12.45							....	....	D.S	21	....	....	Sample Collected
13.5	→ 13.95							....	....	D.S	27	....	....	Sample Collected
14.5		15.0		15.0	Brownish poorly graded sand content (SP)	....	....	D.S	32	....	....	Sample Collected		
15.5	→ 15.45							....	....	D.S	33	....	....	Sample Collected
16.5	→ 13.95							....	....	D.S	38	....	....	Sample Collected
17.5								....	....	D.S	32	....	....	Sample Collected
18.5	→ 18.45							....	....	D.S	36	....	....	Sample Collected
19.5	→ 19.95							....	....	D.S	38	....	....	Sample Collected
20.5								....	....	D.S				
21.5	→ 21.45							....	....	D.S				
22.5	→ 22.95							....	....	D.S				
23.5								....	....	D.S				
24.5	→ 24.45							....	....	D.S				
25.5	→ 25.95			....	....	D.S								
26.5				....	....	D.S								
27.5	→ 27.45			....	....	D.S								
28.5	→ 28.95			....	....	D.S								
29.5				....	....	D.S								
30	→ 30.45			....	....	D.S								

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 10					
Name of the client		: IOCL				RL		: 97.249					
Location		: Paradip, Odisha				Northing		: 2239925.000					
Ground water table		: 1.00 m				Easting		: 454875.000					
Type of boring		: Rotary Boring				Date of Commencement		: 26.03.25					
Diameter of boring		: 150 mm				Date of Completion		: 27.03.25					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		1.5			Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	....	....	....	....	Sample Collected
0.5	▼			1.5									
1						....	....	D.S	5		....	....	Sample Collected
1.5	→ 1.95												
2				3.0		....	....	D.S	7		....	....	Sample Collected
2.5	→ 3.45												
3				4.5		....	....	D.S	9		....	....	Sample Collected
3.5	→ 4.95												
4				6.0		....	....	D.S	11		....	....	Sample Collected
4.5	→ 6.45												
5				7.5		....	....	D.S	11		....	....	Sample Collected
5.5	→ 7.95												
6				9.0		....	....	D.S	17		....	....	Sample Collected
6.5	→ 9.45												
7				10.5		....	....	D.S	15		....	....	Sample Collected
7.5	→ 10.95												
8				12.0		....	....	D.S	7		....	....	Sample Collected
8.5	→ 12.45												
9				13.5		....	....	D.S	8		....	....	Sample Collected
9.5	→ 13.95												
10				15.0		....	....	D.S	15		....	....	Sample Collected
10.5	→ 15.45												
11				16.5		....	....	D.S	19		....	....	Sample Collected
11.5	→ 13.95												
12				18.0		....	....	D.S	24		....	....	Sample Collected
12.5	→ 18.45												
13				19.5		....	....	D.S	29		....	....	Sample Collected
13.5	→ 19.95												
14				21.0		....	....	D.S	36		....	....	Sample Collected
14.5	→ 21.45												
15				22.5		....	....	D.S	38		....	....	Sample Collected
15.5	→ 22.95												
16				24.0		....	....	D.S	39		....	....	Sample Collected
16.5	→ 24.45												
17				25.5		....	....	D.S	32		....	....	Sample Collected
17.5	→ 25.95												
18				27.0		....	....	D.S	35		....	....	Sample Collected
18.5	→ 27.45												
19				28.5		....	....	D.S	39		....	....	Sample Collected
19.5	→ 28.95												
20				30.0		....	....	D.S			....	....	Sample Collected
20.5	→ 30.45												

RECORD OF BORING																
Name of Consultants : Visiontek Consultancy Services Pvt. Ltd.				BH NO. : 11												
Name of the client : IOCL				RL : 97.158												
Location : Paradip, Odisha				Northing : 2239925.000												
Ground water table : 1.50m				Easting : 455050.000												
Type of boring : Rotary Boring				Date of Commencement : 25.03.2025												
Diameter of boring : 150 mm				Date of Completion : 26.03.2025												
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)									
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected			
0.5			1.5	Blacish soft high plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	.....	.....	....	....	Sample Collected			
1.5			3.0		....	....	D.S	3	.....	.....	....	....	Sample Collected			
2.5			4.5		....	....	U.D.S	.....	.....	.....	....	....	Sample Collected			
3.5	→ 3.44	25.5		6.0	Brownish poorly graded sand content (SP)	....	....	D.S	5	.....	.....	....	....	Sample Collected		
5.5	6.43			7.5		....	....	D.S	8	.....	.....	....	....	Sample Collected		
6.5	7.90			9.0		....	....	D.S	7	.....	.....	....	....	Sample Collected		
7.5	9.41			10.5		....	....	D.S	9	.....	.....	....	....	Sample Collected		
8.5	10.92			12.0		....	....	D.S	11	.....	.....	....	....	Sample Collected		
9.5	12.42			13.5		....	....	D.S	13	.....	.....	....	....	Sample Collected		
10.5	13.90			15.0		....	....	D.S	15	.....	.....	....	....	Sample Collected		
11.5	15.42			16.5		....	....	D.S	15	.....	.....	....	....	Sample Collected		
12.5	16.44			18.0		....	....	D.S	15	.....	.....	....	....	Sample Collected		
13.5	18.40			19.5		....	....	D.S	19	.....	.....	....	....	Sample Collected		
14.5	19.91			21.0		....	....	D.S	24	.....	.....	....	....	Sample Collected		
15.5	21.42			22.5		....	....	D.S	25	.....	.....	....	....	Sample Collected		
16.5	22.91			24.0		....	....	D.S	28	.....	.....	....	....	Sample Collected		
17.5	24.44			25.5		....	....	D.S	31	.....	.....	....	....	Sample Collected		
18.5	25.90			27.0		....	....	D.S	31	.....	.....	....	....	Sample Collected		
19.5	27.41			28.5		....	....	D.S	36	.....	.....	....	....	Sample Collected		
20.5	28.92					....	....	D.S	38	.....	.....	....	....	Sample Collected		
21.5	30.43						30.0									

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.						BH NO.		: 12			
Name of the client		: IOCL						RL					
Location		: Paradip, Odisha						Northing					
Ground water table		: 1.00 m						Easting					
Type of boring		: Rotary Boring						Date of Commencement		: 01.04.2025			
Diameter of boring		: 150 mm						Date of Completion		: 02.04.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....		....	....	Sample Collected
0.5	▼			1.5		....	....	U.D.S	.....		.....	.....	Sample Collected
1.5				3.0		....	....	D.S	3		....	....	Sample Collected
2.5				4.5		....	....	D.S	6		....	....	Sample Collected
3.5	→ 3.45	5.5		6.0	Blacish soft high plasticity clay with silt and little sand content (CI)	....	....	D.S	6		....	....	Sample Collected
4.5	→ 4.95			7.5		....	....	D.S	6		....	....	Sample Collected
5.5				9.0		....	....	D.S	11		....	....	Sample Collected
6.5	→ 6.45			10.5		....	....	D.S	13		....	....	Sample Collected
7.5	→ 7.95	7.5		12.0	Brownish poorly graded sand content (SP)	....	....	D.S	8		....	....	Sample Collected
8.5	→ 9.45			13.5		....	....	D.S	15		....	....	Sample Collected
9.5	→ 10.95			15.0		....	....	D.S	15		....	....	Sample Collected
10.5	→ 12.45			16.5		....	....	D.S	15		....	....	Sample Collected
11.5	→ 13.95	3.0		18.0	Brownish sandy clay with silt content (SC)	....	....	D.S	15		....	....	Sample Collected
12.5	→ 15.45			19.5		....	....	D.S	16		....	....	Sample Collected
13.5	→ 17.95			21.0		....	....	D.S	13		....	....	Sample Collected
14.5	→ 18.45			22.5		....	....	D.S	19		....	....	Sample Collected
15.5	→ 19.95			24.0		....	....	D.S	22		....	....	Sample Collected
16.5	→ 21.45			25.5		....	....	D.S	15		....	....	Sample Collected
17.5	→ 22.95	13.5		27.0	Brownish poorly graded sand content (SP)	....	....	D.S	17		....	....	Sample Collected
18.5	→ 24.45			28.5		....	....	D.S	19		....	....	Sample Collected
19.5	→ 25.95			30.0		....	....	D.S	20		....	....	Sample Collected
20.5	→ 27.45			30.45		....	....	D.S	22		....	....	Sample Collected
21.5	→ 28.95					....	....	D.S	32		....	....	Sample Collected
22.5	→ 30.45												

RECORD OF BORING													
Name of Consultants : Visiontek Consultancy Services Pvt. Ltd.						BH NO. : 13							
Name of the client : IOCL						RL : 97.198							
Location : Paradip, Odisha						Northing : 2239925.000							
Ground water table : 1.00 m						Easting : 455400.000							
Type of boring : Rotary Boring						Date of Commencement : 30.03.2025							
Diameter of boring : 150 mm						Date of Completion : 31.03.2025							
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....		....	....	Sample Collected
0.5		5.5		1.5	Blacish high plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....		.....	....	Sample Collected
1.5				3.0		....	....	D.S	3		....	....	Sample Collected
2.5				4.5		....	....	D.S	7		....	....	Sample Collected
3.5				4.95		....	....	U.D.S	.....		....	....	Sample Collected
4.5	6.0			....		....	D.S	9		....	....	Sample Collected	
5.5	24.0			7.5	Brownish poorly graded sand content (SP)	....	....	D.S	10		....	....	Sample Collected
6.5				....		....	D.S	12		....	....	Sample Collected	
7.5				....		....	D.S	11		....	....	Sample Collected	
8.5				....		....	D.S	14		....	....	Sample Collected	
9.5				....		....	D.S	14		....	....	Sample Collected	
10.5				....		....	D.S	17		....	....	Sample Collected	
11.5				....		....	D.S	15		....	....	Sample Collected	
12.5				....		....	D.S	20		....	....	Sample Collected	
13.5				....		....	D.S	17		....	....	Sample Collected	
14.5				....		....	D.S	18		....	....	Sample Collected	
15.5				....		....	D.S	24		....	....	Sample Collected	
16.5				....		....	D.S	30		....	....	Sample Collected	
17.5				....		....	D.S	32		....	....	Sample Collected	
18.5				....		....	D.S						
19.5				....		....	D.S						
20.5				....		....	D.S						
21.5				....		....	D.S						
22.5				....		....	D.S						
23.5				....		....	D.S						
24.5				....		....	D.S						
25.5	....	....	D.S										
26.5	....	....	D.S										
27.5	....	....	D.S										
28.5	....	....	D.S										
29.5	....	....	D.S										
30				30.0		....	....	D.S	32		....	....	Sample Collected

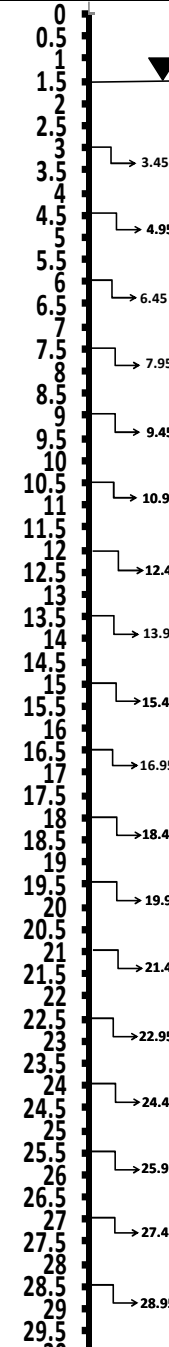
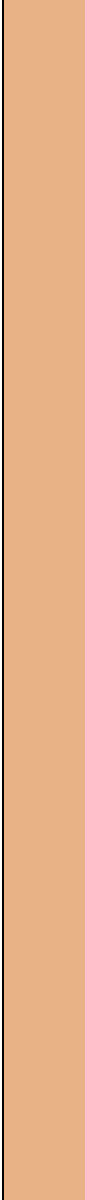
RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 17					
Name of the client		: IOCL				RL		: 97.503					
Location		: Paradip, Odisha				Northing		: 2240100.000					
Ground water table		: 1.00 m				Easting		: 454875.000					
Type of boring		: Rotary Boring				Date of Commencement		: 28.03.2025					
Diameter of boring		: 150 mm				Date of Completion		: 29.03.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....		....	....	Sample Collected
0.5				1.5		....	....	U.D.S	.....		.....	....	Sample Collected
1.5		2.5			Blacish high plasticity clay with silt and little sand content (CI)								
2.5				3.0		....	....	D.S	2		....	....	Sample Collected
3.5	→ 3.45					....	....	D.S	5		....	....	Sample Collected
4.5				4.5									
4.5	→ 4.95					....	....	D.S	9		....	....	Sample Collected
5.5				6.0									
6.5	→ 6.45	7.5			Brownish poorly graded sand content (SP)	....	....	D.S	8		....	....	Sample Collected
7.5	→ 7.95			7.5									
8.5				9.0		....	....	D.S	16		....	....	Sample Collected
9.5	→ 9.45					....	....	D.S	17		....	....	Sample Collected
10.5	→ 10.95			10.5									
11.5				12.0		....	....	D.S	6		....	....	Sample Collected
12.5	→ 12.45	4.5			Brownish sandy clay content (SC)	....	....	D.S	7		....	....	Sample Collected
13.5	→ 13.95			13.5									
14.5				15.0		....	....	D.S	10		....	....	Sample Collected
15.5	→ 15.45					....	....	D.S	15		....	....	Sample Collected
16.5	→ 13.95			16.5		....	....	D.S	19		....	....	Sample Collected
17.5				18.0									
18.5	→ 18.45					....	....	D.S	23		....	....	Sample Collected
19.5	→ 19.95			19.5									
20.5				21.0		....	....	D.S	29		....	....	Sample Collected
21.5	→ 21.45					....	....	D.S	35		....	....	Sample Collected
22.5	→ 22.95	15.0		22.5	Brownish poorly graded sand content (SP)								
23.5				24.0		....	....	D.S	35		....	....	Sample Collected
24.5	→ 24.45					....	....	D.S	37		....	....	Sample Collected
25.5	→ 25.95			25.5									
26.5				27.0		....	....	D.S	31		....	....	Sample Collected
27.5	→ 27.45					....	....	D.S	36		....	....	Sample Collected
28.5	→ 28.95			28.5									
29.5	→ 30.45					....	....	D.S	38		....	....	Sample Collected

RECORD OF BORING												
Name of Consultants : Visiontek Consultancy Services Pvt. Ltd.						BH NO. : 18						
Name of the client : IOCL						RL : 97.214						
Location : Paradip, Odisha						Northing : 2240100.000						
Ground water table : 0.5m						Easting : 455050.000						
Type of boring : Rotary Boring						Date of Commencement : 01.04.2025						
Diameter of boring : 150 mm						Date of Completion : 02.04.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0	▼	0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)			D.S				Sample Collected
0.5		1.0		1.5	Brownish intermediate plasticity clay with silt and little sand content (CI)			U.D.S				Sample Collected
1.5		28.5		Brownish poorly graded sand content (SP)	....	....	D.S	11	....	....	Sample Collected	
2.5					....	....	D.S	16	....	....	Sample Collected	
3.5					....	....	D.S	18	....	....	Sample Collected	
4.5					....	....	D.S	22	....	....	Sample Collected	
5.5					....	....	D.S	28	....	....	Sample Collected	
6.5					....	....	D.S	20	....	....	Sample Collected	
7.5					....	....	D.S	32	....	....	Sample Collected	
8.5					....	....	D.S	40	....	....	Sample Collected	
9.5					....	....	D.S	39	....	....	Sample Collected	
10.5					....	....	D.S	31	....	....	Sample Collected	
11.5					....	....	D.S	37	....	....	Sample Collected	
12.5					....	....	D.S	43	....	....	Sample Collected	
13.5					....	....	D.S	42	....	....	Sample Collected	
14.5					....	....	D.S	38	....	....	Sample Collected	
15.5					....	....	D.S	46	....	....	Sample Collected	
16.5					....	....	D.S	48	....	....	Sample Collected	
17.5					....	....	D.S	51	....	....	Sample Collected	
18.5					....	....	D.S	46	....	....	Sample Collected	
19.5					....	....	D.S	53	....	....	Sample Collected	
20.5					....	....	D.S	53	....	....	Sample Collected	
21.5					....	....	D.S	53	....	....	Sample Collected	
22.5					....	....	D.S	53	....	....	Sample Collected	
23.5					....	....	D.S	53	....	....	Sample Collected	
24.5					....	....	D.S	53	....	....	Sample Collected	
25.5					....	....	D.S	53	....	....	Sample Collected	
26.5					....	....	D.S	53	....	....	Sample Collected	
27.5					....	....	D.S	53	....	....	Sample Collected	
28.5					....	....	D.S	53	....	....	Sample Collected	
29.5					....	....	D.S	53	....	....	Sample Collected	
30					....	....	D.S	53	....	....	Sample Collected	

RECORD OF BORING																	
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 19								
Name of the client		: IOCL					RL		: 97.357								
Location		: Paradip, Odisha					Northing		: 2240100.000								
Ground water table		: 1.00m					Easting		: 455225.00								
Type of boring		: Rotary Boring					Date of Commencement		: 30.03.2025								
Diameter of boring		: 150 mm					Date of Completion		: 31.03.2025								
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks				
						From (m)	To (m)										
0		0.5		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected				
0.5		1.0		1.5	Dark brownish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	.....	....	....	Sample Collected				
1.5		28.5		3.0	Brownish poorly graded sand content (SP)	....	....	D.S	11	.....	....	....	Sample Collected				
2.5				4.5		....	....	D.S	12	.....	....	....	Sample Collected				
3.5				→ 3.45		6.0	....	....	D.S	12	.....	....	....	Sample Collected			
4.5				→ 4.95		7.5	....	....	D.S	14	.....	....	....	Sample Collected			
5.5				→ 6.45		9.0	....	....	D.S	16	.....	....	....	Sample Collected			
6.5				→ 7.95		10.5	....	....	D.S	20	.....	....	....	Sample Collected			
7.5				→ 9.45		12.0	....	....	D.S	25	.....	....	....	Sample Collected			
8.5				→ 10.95		13.5	....	....	D.S	23	.....	....	....	Sample Collected			
9.5				→ 12.45		15.0	....	....	D.S	28	.....	....	....	Sample Collected			
10.5				→ 13.95		16.5	....	....	D.S	32	.....	....	....	Sample Collected			
11.5				→ 15.45		18.0	....	....	D.S	35	.....	....	....	Sample Collected			
12.5				→ 16.95		19.5	....	....	D.S	42	.....	....	....	Sample Collected			
13.5				→ 18.45		21.0	....	....	D.S	39	.....	....	....	Sample Collected			
14.5				→ 19.95		22.5	....	....	D.S	42	.....	....	....	Sample Collected			
15.5				→ 21.45		24.0	....	....	D.S	44	.....	....	....	Sample Collected			
16.5				→ 22.95		25.5	....	....	D.S	47	.....	....	....	Sample Collected			
17.5				→ 24.45		27.0	....	....	D.S	43	.....	....	....	Sample Collected			
18.5				→ 25.95		28.5	....	....	D.S	49	.....	....	....	Sample Collected			
19.5				→ 27.45							D.S	54				Sample Collected	
20.5				→ 28.95													
21.5				→ 30.45													
22.5																	
23.5																	
24.5																	
25.5																	
26.5																	
27.5																	
28.5																	
29.5																	
30																	

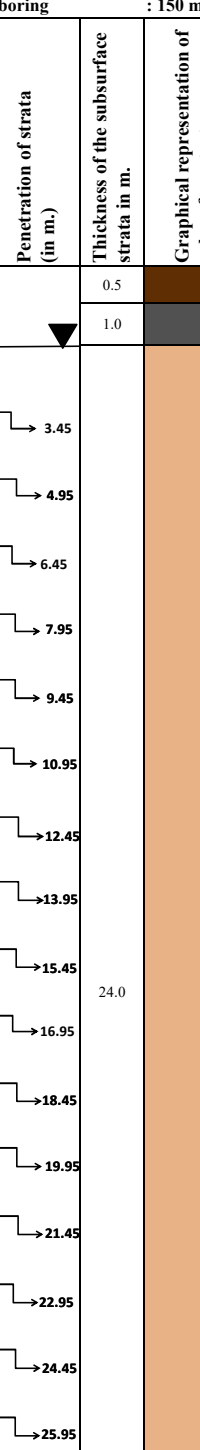
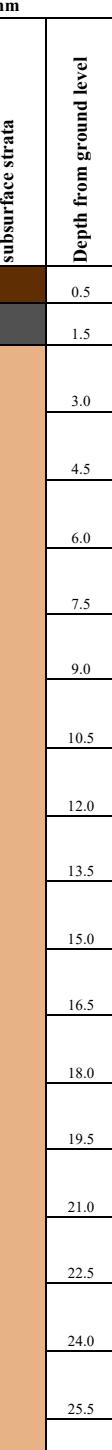
RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.						BH NO.		: 20			
Name of the client		: IOCL						RL		: 99.146			
Location		: Paradip, Odisha						Northing		: 2240100.000			
Ground water table		: 0.5m						Easting		: 455400.000			
Type of boring		: Rotary Boring						Date of Commencement		: 20.03.2025			
Diameter of boring		: 150 mm						Date of Completion		: 23.03.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0	▼	0.5		0.5	Dark brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....		....	....	Sample Collected
0.5		1.0		1.5	Brownish intermediate plasticity clay with silt andd little sand content (CI)	....	....	U.D.S	.....		.....	....	Sample Collected
1.5		1.5			Brownish sandy clay with silt content (SC)	....	....	D.S	6		....	....	Sample Collected
2.5				3.0									
3.5	→ 3.45					....	....	U.D.S	.....		....	....	Sample Collected
4.5				4.5									
5.5				6.0	Blackish intermediate plasticity clay with silt and sand content (CI)	....	....	D.S	12		....	....	Sample Collected
6.5	→ 6.45			6.0		....	....	U.D.S	.....		....	....	Sample Collected
7.5	→ 7.95			7.5		....	....						
8.5				9.0		....	....	D.S	17		....	....	Sample Collected
9.5	→ 9.45												
10				10.5		....	....	D.S	21		....	....	Sample Collected
10.5	→ 10.95												
11				12.0	Blackish sandy clay with silt content (SC)	....	....	D.S	27		....	....	Sample Collected
11.5				12.0		....	....						
12.5	→ 12.45			13.5		....	....	D.S	32		....	....	Sample Collected
13													
13.5	→ 13.95			15.0	Blackish intermediate plasticity clay with silt and sand content	....	....	D.S	37		....	....	Sample Collected
14.5	→ 15.45			15.0		....	....						
15.5				16.5		....	....	D.S	46		....	....	Sample Collected
16.5	→ 13.95												
17				18.0	Blackish sandy clay with silt content (SC)	....	....	D.S	47		....	....	Sample Collected
17.5	→ 18.45			18.0		....	....	D.S	44		....	....	Sample Collected
18.5				19.5									
19.5	→ 19.95					....	....	D.S	51		....	....	Sample Collected
20				21.0									
20.5	→ 21.45			22.5		....	....	D.S	32		....	....	Sample Collected
21.5				22.5		....	....						
22	→ 22.95			24.0		....	....	D.S	30		....	....	Sample Collected
22.5													
23				25.5	Brownish poorly graded sand content (SP)	....	....	D.S	29		....	....	Sample Collected
23.5	→ 24.45			27.0		....	....						
24.5				27.0		....	....	D.S	39		....	....	Sample Collected
25.5	→ 25.95												
26				28.5		....	....	D.S	42		....	....	Sample Collected
26.5	→ 27.45												
27													
27.5	→ 28.95					....	....						
28.5													
29						....	....	D.S	45		....	....	Sample Collected
29.5													
30	→ 30.45			30.0									

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.						BH NO.		: 21			
Name of the client		: IOCL						RL		: 97.303			
Location		: Paradip, Odisha						Northing		: 2240100.00			
Ground water table		: 1.00m						Easting		: 455575.000			
Type of boring		: Rotary Boring						Date of Commencement		: 30.03.2025			
Diameter of boring		: 150 mm						Date of Completion		: 31.03.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected
0.5	▼			1.5	Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	.....	....	....	Sample Collected
1.5		2.5		3.0		....	....	D.S	2	.....	....	....	Sample Collected
2.5				3.45	Brownish poorly graded sand content (SP)	....	....	D.S	7	.....	....	....	Sample Collected
3.45	→			4.5		....	....	D.S	12	.....	....	....	Sample Collected
4.5	→			6.0		....	....	D.S	16	.....	....	....	Sample Collected
5.5				7.5		....	....	D.S	22	.....	....	....	Sample Collected
6.45	→			9.0		....	....	D.S	26	.....	....	....	Sample Collected
7				10.5		....	....	D.S	26	.....	....	....	Sample Collected
7.5	→			12.0		....	....	D.S	25	.....	....	....	Sample Collected
8.5				13.5		....	....	D.S	27	.....	....	....	Sample Collected
9.45	→			15.0		....	....	D.S	28	.....	....	....	Sample Collected
10				16.5		....	....	D.S	21	.....	....	....	Sample Collected
10.5	→			18.0		....	....	D.S	27	.....	....	....	Sample Collected
11				19.5		....	....	D.S	21	.....	....	....	Sample Collected
11.5	→			21.0		....	....	D.S	31	.....	....	....	Sample Collected
12				22.5		....	....	D.S	34	.....	....	....	Sample Collected
12.45	→			24.0		....	....	D.S	40	.....	....	....	Sample Collected
13				25.5		....	....	D.S	44	.....	....	....	Sample Collected
13.5	→			27.0		....	....	D.S	50	.....	....	....	Sample Collected
14				28.5		....	....	D.S	53	.....	....	....	Sample Collected
14.5	→												
15													
15.5	→												
16													
16.5	→												
17													
17.5	→												
18													
18.5	→												
19													
19.5	→												
20													
20.5	→												
21													
21.5	→												
22													
22.5	→												
23													
23.5	→												
24													
24.5	→												
25													
25.5	→												
26													
26.5	→												
27													
27.5	→												
28													
28.5	→												
29													
29.5	→												
30													

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 22							
Name of the client		: IOCL				RL		: 97.153							
Location		: Paradip, Odisha				Northing		: 2240100.000							
Ground water table		: 1.50m				Easting		: 455750.000							
Type of boring		: Rotary Boring				Date of Commencement		: 30.03.2025							
Diameter of boring		: 150 mm				Date of Completion		: 31.03.2025							
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)								
0		0.5		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected		
0.5						....	....	U.D.S	.....	.....	.....	....	Sample Collected		
1.5		2.5		1.5	Blacish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	3	.....	....	....	Sample Collected		
2.5				3.0		....	....	D.S	11	.....	....	....	Sample Collected		
3.5	→ 3.45	27.0				....	....	D.S	13	.....	....	....	Sample Collected		
4.5	→ 4.95			4.5		....	....	D.S	14	.....	....	....	Sample Collected		
5.5				6.0		....	....	D.S	20	.....	....	....	Sample Collected		
6.5	→ 6.45			7.5		....	....	D.S	21	.....	....	....	Sample Collected		
7.5	→ 7.95			9.0		....	....	D.S	25	.....	....	....	Sample Collected		
8.5				10.5		....	....	D.S	27	.....	....	....	Sample Collected		
9.5	→ 9.45			12.0		....	....	D.S	29	.....	....	....	Sample Collected		
10.5	→ 10.95			13.5		....	....	D.S	31	.....	....	....	Sample Collected		
11.5				15.0		....	....	D.S	34	.....	....	....	Sample Collected		
12.5	→ 12.45			16.5		....	....	D.S	38	.....	....	....	Sample Collected		
13.5	→ 13.95			18.0		....	....	D.S	40	.....	....	....	Sample Collected		
14.5	→ 14.45			19.5		....	....	D.S	43	.....	....	....	Sample Collected		
15.5	→ 15.45			21.0		....	....	D.S	45	.....	....	....	Sample Collected		
16.5	→ 16.95			22.5		....	....	D.S	48	.....	....	....	Sample Collected		
17.5				24.0				D.S							
18.5	→ 18.45			25.5				D.S							
19.5	→ 19.95			27.0				D.S							
20.5	→ 20.45			28.5				D.S							
21.5				30.0				D.S							
22.5	→ 22.95									D.S					
23.5										D.S					
24.5	→ 24.45									D.S					
25.5	→ 25.95									D.S					
26.5										D.S					
27.5	→ 27.45									D.S					
28.5	→ 28.95									D.S					
29.5										D.S					
30	→ 30.45					....	....	D.S							

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 26					
Name of the client		: IOCL				RL		: 97.457					
Location		: Paradip, Odisha				Northing		: 2290275.000					
Ground water table		: 1.00m				Easting		: 454875.000					
Type of boring		: Rotary Boring				Date of Commencement		: 06.04.2025					
Diameter of boring		: 150 mm				Date of Completion		: 07.04.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Greysih low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected
0.5		4.0		1.5	Brownish low plasticity clay with sand content (CL)	....	....	U.D.S	.....	.....	.....	....	Sample Collected
1.5						....	....	D.S	10	.....	....	....	Sample Collected
2.5	....					....	U.D.S	.....	.....	....	....	Sample Collected	
3.0	....					....	D.S	11	.....	....	....	Sample Collected	
3.5	→ 3.45	25.5		4.5	Brownish poorly graded sand content (SP)	....	....	D.S	13	.....	....	....	Sample Collected
4.5	....					....	D.S	14	.....	....	....	Sample Collected	
5.5	....					....	D.S	19	.....	....	....	Sample Collected	
6.5	→ 6.45					....	....	D.S	21	.....	....	....	Sample Collected
7.5	→ 7.95					....	....	D.S	24	.....	....	....	Sample Collected
8.5	....					....	D.S	28	.....	....	....	Sample Collected	
9.5	→ 9.45					....	....	D.S	25	.....	....	....	Sample Collected
10.5	→ 10.95					....	....	D.S	30	.....	....	....	Sample Collected
11.5	....					....	D.S	33	.....	....	....	Sample Collected	
12.5	→ 12.45					....	....	D.S	35	.....	....	....	Sample Collected
13.5	....					....	D.S	36	.....	....	....	Sample Collected	
14.5	→ 13.95					....	....	D.S	40	.....	....	....	Sample Collected
15.5	....					....	D.S	44	.....	....	....	Sample Collected	
16.5	→ 15.45					....	....	D.S	47	.....	....	....	Sample Collected
17.5	→ 16.95					....	....	D.S	45	.....	....	....	Sample Collected
18.5	....					....	D.S	55	.....	....	....	Sample Collected	
19.5	→ 18.45					....	....	D.S	55	.....	....	....	Sample Collected
20.5	→ 19.95					....	....	D.S	55	.....	....	....	Sample Collected
21.5	→ 21.45					....	....	D.S	55	.....	....	....	Sample Collected
22.5	....					....	D.S	55	.....	....	....	....	Sample Collected
23.5	→ 22.95					....	....	D.S	55	.....	....	....	Sample Collected
24.5	....					....	D.S	55	.....	....	....	....	Sample Collected
25.5	→ 24.45					....	....	D.S	55	.....	....	....	Sample Collected
26.5	....					....	D.S	55	.....	....	....	....	Sample Collected
27.5	→ 27.45	....	....	D.S	55	.....	....	....	Sample Collected				
28.5	....	....	D.S	55	.....	....	....	....	Sample Collected				
29.5	→ 28.95	....	....	D.S	55	.....	....	....	Sample Collected				
30	→ 30.45	....	....	D.S	55	.....	....	....	Sample Collected				

RECORD OF BORING																
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 27							
Name of the client		: IOCL					RL		: 97.008							
Location		: Paradip, Odisha					Northing		: 2240275.000							
Ground water table		: 0.5m					Easting		: 455050.000							
Type of boring		: Rotary Boring					Date of Commencement		: 04.04.2025							
Diameter of boring		: 150 mm					Date of Completion		: 06.04.2025							
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	Corrected S.P.T. value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)									
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected			
0.5		1.0		1.5	Greyish intermediate plasticity clay with little sand content (CI)	....	....	U.D.S	.....	.....	.....	....	Sample Collected			
1.5		24.0			Brownish poorly graded sand content (SP)	....	....	D.S	10	.....	....	....	Sample Collected			
2.5				3.0		....	....	D.S	12	.....	....	....	Sample Collected			
3.5	→ 3.45					4.5	....	....	D.S	13	.....	....	....	Sample Collected		
4.5	→ 4.95					6.0	....	....	D.S	16	.....	....	....	Sample Collected		
5.5	→ 6.45					7.5	....	....	D.S	17	.....	....	....	Sample Collected		
6.5	→ 7.95					9.0	....	....	D.S	21	.....	....	....	Sample Collected		
7.5	→ 9.45					10.5	....	....	D.S	24	.....	....	....	Sample Collected		
8.5	→ 10.95					12.0	....	....	D.S	27	.....	....	....	Sample Collected		
9.5	→ 12.45					13.5	....	....	D.S	31	.....	....	....	Sample Collected		
10.5	→ 13.95					15.0	....	....	D.S	32	.....	....	....	Sample Collected		
11.5	→ 15.45					16.5	....	....	D.S	26	.....	....	....	Sample Collected		
12.5	→ 16.95					18.0	....	....	D.S	32	.....	....	....	Sample Collected		
13.5	→ 18.45					19.5	....	....	D.S	37	.....	....	....	Sample Collected		
14.5	→ 19.95					21.0	....	....	D.S	41	.....	....	....	Sample Collected		
15.5	→ 21.45					22.5	....	....	D.S	45	.....	....	....	Sample Collected		
16.5	→ 22.95					24.0	....	....	D.S	40	.....	....	....	Sample Collected		
17.5	→ 24.45					25.5	....	....	D.S	49	.....	....	....	Sample Collected		
18.5	→ 25.95					27.0	....	....	D.S	55	.....	....	....	Sample Collected		
19.5	→ 27.45					28.5	....	....	D.S	53	.....	....	....	Sample Collected		
20.5	→ 28.95						30.0				D.S					Sample Collected
21.5	→ 30.45															

RECORD OF BORING														
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 28					
Name of the client		: IOCL					RL		: 97.366					
Location		: Paradip, Odisha					Northing		: 2240275.00					
Ground water table		: 1.5m					Easting		: 455225.00					
Type of boring		: Rotary Boring					Date of Commencement		: 28.03.2025					
Diameter of boring		: 150 mm					Date of Completion		: 29.03.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)							
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)			D.S				Sample Collected		
0.5		1.0		1.5	Greyish intermediate plasticity clay with little sand content (CI)			U.D.S				Sample Collected		
1.5		24.0			Brownish poorly graded sand content (SP)			D.S	12			Sample Collected		
2								D.S	14			Sample Collected		
2.5						3.0			D.S	13			Sample Collected	
3	→ 3.45					4.5			D.S	17			Sample Collected	
3.5									D.S	19			Sample Collected	
4	→ 4.95								D.S	23			Sample Collected	
4.5									D.S	27			Sample Collected	
5	→ 5.95								D.S	34			Sample Collected	
5.5									D.S	30			Sample Collected	
6	→ 6.45								D.S	32			Sample Collected	
6.5									D.S	35			Sample Collected	
7	→ 7.95								D.S	43			Sample Collected	
7.5									D.S	41			Sample Collected	
8	→ 8.95								D.S	44			Sample Collected	
8.5									D.S	41			Sample Collected	
9	→ 9.45								D.S	45			Sample Collected	
9.5									D.S	47			Sample Collected	
10	→ 10.95								D.S	48			Sample Collected	
10.5									D.S	51			Sample Collected	
11	→ 11.95													
11.5														
12	→ 12.45													
12.5														
13	→ 13.95													
13.5														
14	→ 14.95													
14.5														
15	→ 15.45													
15.5														
16	→ 16.95													
16.5														
17	→ 17.95													
17.5														
18	→ 18.45													
18.5														
19	→ 19.95													
19.5														
20	→ 20.95													
20.5														
21	→ 21.45													
21.5														
22	→ 22.95													
22.5														
23	→ 23.95													
23.5														
24	→ 24.45													
24.5														
25	→ 25.95													
25.5														
26	→ 26.95													
26.5														
27	→ 27.45													
27.5														
28	→ 28.95													
28.5														
29	→ 29.95													
29.5														
30	→ 30.45													

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 32						
Name of the client		: IOCL					RL		: 97.147						
Location		: Paradip, Odisha					Northing		: 2240245.00						
Ground water table		: 1.00m					Easting		: 455925.000						
Type of boring		: Rotary Boring					Date of Commencement		: 28.03.2025						
Diameter of boring		: 150 mm					Date of Completion		: 29.03.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)								
0		6.0		0.5	Greyish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected			
0.5		2.5		1.5	Blackish soft intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	....	....	Sample Collected			
1.5				2.5	Blackish soft intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	4	....	....	Sample Collected			
2.5				3.0											
3.0		12.0		3.45	Brownish poorly graded sand content (SP)	....	....	D.S	14	....	....	Sample Collected			
4.0				4.5		....	....	D.S	15	....	....	Sample Collected			
4.5	→ 4.95			6.0		....	....	D.S	19	....	....	Sample Collected			
5.5				7.5		....	....	D.S	23	....	....	Sample Collected			
6.5	→ 6.45			9.0		....	....	D.S	29	....	....	Sample Collected			
7.5				10.5		....	....	D.S	25	....	....	Sample Collected			
8.5	→ 7.95			12.0		....	....	D.S	31	....	....	Sample Collected			
9.5	→ 9.45			13.5		....	....	D.S	24	....	....	Sample Collected			
10.5	→ 10.95			15.0											
11.5				4.5			15.45	Brownish sandy clay content (SC)			D.S	11			Sample Collected
12.5	→ 12.45						16.5				D.S	12			Sample Collected
13.5	→ 13.95						18.0				D.S	13			Sample Collected
14.5	→ 14.45	19.5													
15.5	→ 15.45	10.5		20.0	Brownish poorly graded sand content (SP)	....	....	D.S	17	....	....	Sample Collected			
16.5	→ 16.95			20.5		....	....	D.S	24	....	....	Sample Collected			
17.5	→ 17.45			21.5		....	....	D.S	27	....	....	Sample Collected			
18.5	→ 18.45			22.5		....	....	D.S	36	....	....	Sample Collected			
19.5	→ 19.95			24.0		....	....	D.S	39	....	....	Sample Collected			
20.5				25.5		....	....	D.S	46	....	....	Sample Collected			
21.5	→ 21.45			27.0		....	....	D.S	50	....	....	Sample Collected			
22.5	→ 22.95			28.5											
23.5	→ 23.45														
24.5	→ 24.45														
25.5	→ 25.95														
26.5	→ 26.45														
27.5	→ 27.45														
28.5	→ 28.95														
29.5															
30	→ 30.45			30.0											

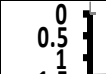
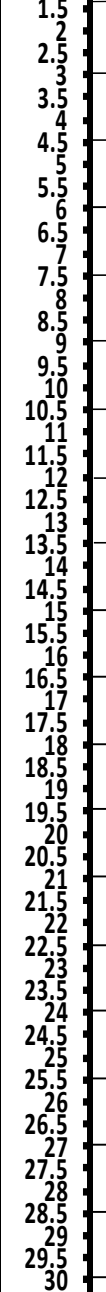
RECORD OF BORING															
Name of Consultants : Visiontek Consultancy Services Pvt. Ltd.						BH NO. : 35									
Name of the client : IOCL						RL : 97.469									
Location : Paradip, Odisha						Northing : 2240450.000									
Ground water table : 1.00m						Easting : 455225.000									
Type of boring : Rotary Boring						Date of Commencement : 26.03.2025									
Diameter of boring : 150 mm						Date of Completion : 27.03.2025									
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks			
						From (m)	To (m)								
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	....	....	....	Sample Collected			
0.5		1.0		1.5	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	....	....	....	Sample Collected			
1.5		28.5		3.0	Brownish poorly graded sand content (SP)	....	....	D.S	11	....	....	Sample Collected			
2.5				4.5		....	....	D.S	12	....	....	Sample Collected			
3.5				→ 3.45		....	....	D.S	15	....	....	Sample Collected			
4.5				→ 4.95		....	....	D.S	14	....	....	Sample Collected			
5.5				→ 6.45		....	....	D.S	16	....	....	Sample Collected			
6.5				→ 7.95		....	....	D.S	22	....	....	Sample Collected			
7.5				→ 9.45		....	....	D.S	25	....	....	Sample Collected			
8.5				→ 10.95		....	....	D.S	28	....	....	Sample Collected			
9.5				→ 12.45		....	....	D.S	30	....	....	Sample Collected			
10.5				→ 13.95		....	....	D.S	32	....	....	Sample Collected			
11.5				→ 15.45		....	....	D.S	34	....	....	Sample Collected			
12.5				→ 16.95		....	....	D.S	34	....	....	Sample Collected			
13.5				→ 18.45		....	....	D.S	43	....	....	Sample Collected			
14.5				→ 19.95		....	....	D.S	46	....	....	Sample Collected			
15.5				→ 21.45		....	....	D.S	37	....	....	Sample Collected			
16.5				→ 22.95		....	....	D.S	42	....	....	Sample Collected			
17.5				→ 24.45		....	....	D.S	47	....	....	Sample Collected			
18.5				→ 25.95		....	....	D.S	46	....	....	Sample Collected			
19.5				→ 27.45		....	....	D.S	48	....	....	Sample Collected			
20.5				→ 28.95		....	....	D.S							
21.5				→ 30.45				30.0							

RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 37			
Name of the client		: IOCL					RL		: 96.833			
Location		: Paradip, Odisha					Northing		: 2240625.000			
Ground water table		: 1.00m					Easting		: 455750.000			
Type of boring		: Rotary Boring					Date of Commencement		: 24.03.2025			
Diameter of boring		: 150 mm					Date of Completion		: 25.03.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0		0.5		0.5	Brownish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	.....	....	....	Sample Collected
0.5	▼			1.5	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	5	.....	....	Sample Collected
1.5		4.0		3.0		....	....	U.D.S	.....	....	....	Sample Collected
2.5						....	....	D.S	4	....	....	Sample Collected
3.5				4.5								
4.5	→ 4.95				Brownish poorly graded sand content (SP)	....	....	D.S	11	....	....	Sample Collected
5.5		25.5		6.0								
6.5	→ 6.45			7.5		....	....	D.S	16	....	....	Sample Collected
7.5	→ 7.95			9.0		....	....	D.S	22	....	....	Sample Collected
8.5				10.5		....	....	D.S	31	....	....	Sample Collected
9.5	→ 9.45			12.0		....	....	D.S	35	....	....	Sample Collected
10.5	→ 10.95			13.5		....	....	D.S	38	....	....	Sample Collected
11.5				15.0		....	....	D.S	44	....	....	Sample Collected
12.5	→ 12.45			16.5		....	....	D.S	41	....	....	Sample Collected
13.5				18.0		....	....	D.S	48	....	....	Sample Collected
14.5	→ 13.95			19.5		....	....	D.S	46	....	....	Sample Collected
15.5	→ 15.45			21.0		....	....	D.S	43	....	....	Sample Collected
16.5	→ 16.95			22.5		....	....	D.S	47	....	....	Sample Collected
17.5				24.0		....	....	D.S	49	....	....	Sample Collected
18.5	→ 18.45			25.5		....	....	D.S	50	....	....	Sample Collected
19.5	→ 19.95			27.0		....	....	D.S	51	....	....	Sample Collected
20.5	→ 21.45			28.5		....	....	D.S	49	....	....	Sample Collected
21.5												
22.5	→ 22.95											
23.5												
24.5	→ 24.45											
25.5	→ 25.95											
26.5												
27.5	→ 27.45											
28.5	→ 28.95											
29.5												
30	→ 30.45			30.0		....	....	D.S	54	....	....	Sample Collected

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.				BH NO.		: 39					
Name of the client		: IOCL				RL		: 97.116					
Location		: Paradip, Odisha				Northing		: 2240450.000					
Ground water table		: 1.00m				Easting		: 455925.000					
Type of boring		: Rotary Boring				Date of Commencement		: 26.03.2025					
Diameter of boring		: 150 mm				Date of Completion		: 27.03.2025					
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks	
						From (m)	To (m)						
0		0.5		0.5	Brownish intermediate plasticity clay with silt and little sand content (CI)			D.S				Sample Collected	
0.5		5.5		1.5	Blackish intermediate plasticity clay with silt and little sand content (CI)			D.S	4			Sample Collected	
1.5			3.0	....		....	U.D.S	....	....	....	Sample Collected		
2.5	→ 1.95		4.5	....		....	D.S	5	....	....	Sample Collected		
3.5			6.0	....		....	U.D.S	....	....	....	Sample Collected		
4.5	→ 4.95		7.5	....		....	D.S	15	....	....	Sample Collected		
5.5			9.0	....		....	D.S	25	....	....	Sample Collected		
6.5		24.0		10.5	Brownish poorly graded sand content (SP)			D.S	32			Sample Collected	
7.5	→ 7.95		12.0	....		....	D.S	39	....	....	Sample Collected		
8.5			13.5	....		....	D.S	42	....	....	Sample Collected		
9.5	→ 9.45		15.0	....		....	D.S	45	....	....	Sample Collected		
10.5	→ 10.95		16.5	....		....	D.S	41	....	....	Sample Collected		
11.5			18.0	....		....	D.S	48	....	....	Sample Collected		
12.5	→ 12.45		19.5	....		....	D.S	48	....	....	Sample Collected		
13.5	→ 13.95		21.0	....		....	D.S	54	....	....	Sample Collected		
14.5			22.5	....		....	D.S	56	....	....	Sample Collected		
15.5	→ 15.45		24.0	....		....	D.S	47	....	....	Sample Collected		
16.5	→ 16.95		25.5	....		....	D.S	48	....	....	Sample Collected		
17.5			27.0	....		....	D.S	43	....	....	Sample Collected		
18.5	→ 18.45		28.5	....		....	D.S	43	....	....	Sample Collected		
19.5	→ 19.95		30.0	....		....	D.S	48	....	....	Sample Collected		
20.5													
21.5	→ 21.45												
22.5	→ 22.95												
23.5													
24.5	→ 24.45												
25.5	→ 25.95												
26.5													
27.5	→ 27.45												
28.5	→ 28.95												
29.5													
30	→ 30.45												

RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 40			
Name of the client		: IOCL					RL		: 96.969			
Location		: Paradip, Odisha					Northing		: 2240625.000			
Ground water table		: 1.00m					Easting		: 454700.000			
Type of boring		: Rotary Boring					Date of Commencement		: 11.04.2025			
Diameter of boring		: 150 mm					Date of Completion		: 12.04.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	....	....	Sample Collected
0.5	▼			1.5		....	....	D.S	7	.....	....	Sample Collected
1.5	→ 1.95					....	....	D.S	9	....	....	Sample Collected
2.5				3.0		....	....	D.S	12	....	....	Sample Collected
3.5	→ 3.45			4.5		....	....	D.S	15	....	....	Sample Collected
4.5	→ 4.95			6.0		....	....	D.S	13	....	....	Sample Collected
5.5				7.5		....	....	D.S	14	....	....	Sample Collected
6.5	→ 6.45			9.0		....	....	D.S	16	....	....	Sample Collected
7.5	→ 7.95			10.5		....	....	D.S	18	....	....	Sample Collected
8.5				12.0		....	....	D.S	21	....	....	Sample Collected
9.5	→ 9.45			13.5		....	....	D.S	24	....	....	Sample Collected
10.5	→ 10.95			15.0		....	....	D.S	33	....	....	Sample Collected
11.5				16.5	Brownish poorly graded sand content (SP)	....	....	D.S	38	....	....	Sample Collected
12.5	→ 12.45			18.0		....	....	D.S	28	....	....	Sample Collected
13.5	→ 13.95			19.5		....	....	D.S	38	....	....	Sample Collected
14.5	→ 14.95			21.0		....	....	D.S	35	....	....	Sample Collected
15.5	→ 15.45			22.5		....	....	D.S	40	....	....	Sample Collected
16.5	→ 16.95			24.0		....	....	D.S	45	....	....	Sample Collected
17.5	→ 17.45			25.5		....	....	D.S	50	....	....	Sample Collected
18.5	→ 18.45			27.0		....	....	D.S	53	....	....	Sample Collected
19.5	→ 19.95			28.5		....	....	D.S	51	....	....	Sample Collected
20.5						....	....	D.S				
21.5	→ 21.45											
22.5												
23.5	→ 22.95											
24.5	→ 24.45											
25.5	→ 25.95											
26.5												
27.5	→ 27.45											
28.5	→ 28.95											
29.5												
30	→ 30.45			30.0								

RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 46			
Name of the client		: IOCL					RL		: 96.833			
Location		: Paradip, Odisha					Northing		: 2240625.000			
Ground water table		: 1.40m					Easting		: 455750.000			
Type of boring		: Rotary Boring					Date of Commencement		: 19.03.2025			
Diameter of boring		: 150 mm					Date of Completion		: 20.03.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0				0.5	Greyish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	.....	....	....	Sample Collected
0.5		1.5		1.5		....	....	D.S	2	.....	....	Sample Collected
1.5	→ 1.95	1.5			Greyish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	....	....	Sample Collected
2.5				3.0	Brownish sandy clay content (SC)	....	....	D.S	5	....	....	Sample Collected
3.5				4.5		....	....	D.S	7	....	....	Sample Collected
4.5	→ 4.95			6.0		....	....	D.S	8	....	....	Sample Collected
5.5				7.5		....	....	D.S	9	....	....	Sample Collected
6.5	→ 6.45			9.0		....	....	D.S	10	....	....	Sample Collected
7.5	→ 7.95			10.5		....	....	D.S	13	....	....	Sample Collected
8.5				12.0		....	....	D.S	20	....	....	Sample Collected
9.5	→ 9.45			13.5		....	....	D.S	14	....	....	Sample Collected
10.5	→ 10.95			15.0	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	....	....	Sample Collected
11.5		3.0		16.5		....	....	D.S	16	....	....	Sample Collected
12.5	→ 12.45			18.0	Brownish poorly graded sand content (SP)	....	....	D.S	18	....	....	Sample Collected
13.5	→ 13.95			19.5		....	....	D.S	22	....	....	Sample Collected
14.5				21.0		....	....	D.S	24	....	....	Sample Collected
15.5	→ 15.45			22.5		....	....	D.S	26	....	....	Sample Collected
16.5				24.0		....	....	D.S	28	....	....	Sample Collected
17.5	→ 17.45			25.5		....	....	D.S	30	....	....	Sample Collected
18.5	→ 18.45			27.0		....	....	D.S	33	....	....	Sample Collected
19.5	→ 19.95			28.5		....	....	D.S	39	....	....	Sample Collected
20.5	→ 20.45			30.0		....	....	D.S	39	....	....	Sample Collected
21.5	→ 21.45					....	....	D.S	39	....	....	Sample Collected
22.5	→ 22.95				....	....	D.S	39	....	....	Sample Collected	
23.5	→ 23.45				....	....	D.S	39	....	....	Sample Collected	
24.5	→ 24.45				....	....	D.S	39	....	....	Sample Collected	
25.5	→ 25.95				....	....	D.S	39	....	....	Sample Collected	
26.5	→ 26.45				....	....	D.S	39	....	....	Sample Collected	
27.5	→ 27.45				....	....	D.S	39	....	....	Sample Collected	
28.5	→ 28.95				....	....	D.S	39	....	....	Sample Collected	
29.5	→ 29.45				....	....	D.S	39	....	....	Sample Collected	
30	→ 30.45				....	....	D.S	39	....	....	Sample Collected	

RECORD OF BORING													
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.						BH NO.		: 47			
Name of the client		: IOCL						RL		: 96.241			
Location		: Paradip, Odisha						Northing		: 2240800.000			
Ground water table		: 1.40m						Easting		: 454700.00			
Type of boring		: Rotary Boring						Date of Commencement		: 14.03.2025			
Diameter of boring		: 150 mm						Date of Completion		: 17.03.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	Corrected S.P.T value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)						
0		0.5		0.5	Brownish low plasticity clay with silt and little sand content (CL)	....	....	D.S	.....	.....	....	....	Sample Collected
0.5		1.0		1.5	Blackish intermediate intermediate plasticity clay with little sand content (CI)	....	....	U.D.S	.....	.....	.....	....	Sample Collected
1.5		28.5		3.0	Brownish poorly graded sand content (SP)	....	....	D.S	4	.....	....	....	Sample Collected
2.5						....	....	D.S	5	.....	....	....	Sample Collected
3.5						....	....	D.S	6	.....	....	....	Sample Collected
4.5						....	....	D.S	7	.....	....	....	Sample Collected
5.5						....	....	D.S	10	.....	....	....	Sample Collected
6.5						....	....	D.S	11	.....	....	....	Sample Collected
7.5						....	....	D.S	16	.....	....	....	Sample Collected
8.5						....	....	D.S	17	.....	....	....	Sample Collected
9.5						....	....	D.S	19	.....	....	....	Sample Collected
10.5						....	....	D.S	22	.....	....	....	Sample Collected
11.5						....	....	D.S	24	.....	....	....	Sample Collected
12.5						....	....	D.S	25	.....	....	....	Sample Collected
13.5						....	....	D.S	26	.....	....	....	Sample Collected
14.5						....	....	D.S	27	.....	....	....	Sample Collected
15.5						....	....	D.S	28	.....	....	....	Sample Collected
16.5						....	....	D.S	29	.....	....	....	Sample Collected
17.5						....	....	D.S	30	.....	....	....	Sample Collected
18.5						....	....	D.S	30.45	.....	....	....	Sample Collected
19.5						....	....	D.S	30.45	.....	....	....	Sample Collected
20.5						....	....	D.S	30.45	.....	....	....	Sample Collected
21.5						....	....	D.S	30.45	.....	....	....	Sample Collected
22.5						....	....	D.S	30.45	.....	....	....	Sample Collected
23.5						....	....	D.S	30.45	.....	....	....	Sample Collected
24.5						....	....	D.S	30.45	.....	....	....	Sample Collected
25.5						....	....	D.S	30.45	.....	....	....	Sample Collected
26.5						....	....	D.S	30.45	.....	....	....	Sample Collected
27.5						....	....	D.S	30.45	.....	....	....	Sample Collected
28.5						....	....	D.S	30.45	.....	....	....	Sample Collected
29.5			D.S	30.45	.....	....	....	Sample Collected					
30			D.S	30.45	.....	....	....	Sample Collected					

RECORD OF BORING												
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 49			
Name of the client		: IOCL					RL		: 97.445			
Location		: Paradip, Odisha					Northing		: 2240800.000			
Ground water table		: 1.00m					Easting		: 454875.000			
Type of boring		: Rotary Boring					Date of Commencement		: 17.04.2025			
Diameter of boring		: 150 mm					Date of Completion		: 18.04.2025			
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T value (N)	R.Q.D (in %)	Core Recovery (in %)	Remarks
						From (m)	To (m)					
0		0.5		0.5	Brownish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	.....	....	....	Sample Collected
0.5				1.5	Blacish soft Intermediate plasticity clay with silt and little sand content (CI)	....	....	U.D.S	.....	.....	....	Sample Collected
1.5				3.0		....	....	D.S	5	....	....	Sample Collected
2.5		5.5		4.5		....	....	U.D.S	.....	....	....	Sample Collected
3.5	→ 3.45			6.0		....	....	D.S	6	....	....	Sample Collected
4.5	→ 4.95			7.5		....	....	D.S	7	....	....	Sample Collected
5.5	→ 6.45			9.0	Brownish poorly graded sand content (SP)	....	....	D.S	10	....	....	Sample Collected
6.5		24.0		10.5		....	....	D.S	15	....	....	Sample Collected
7.5	→ 7.95			12.0		....	....	D.S	12	....	....	Sample Collected
8.5				13.5		....	....	D.S	13	....	....	Sample Collected
9.5	→ 9.45			15.0		....	....	U.D.S	12	....	....	Sample Collected
10.5	→ 10.95			16.5		....	....	D.S	17	....	....	Sample Collected
11.5				18.0		....	....	D.S	15	....	....	Sample Collected
12.5	→ 12.45			19.5		....	....	D.S	25	....	....	Sample Collected
13.5	→ 13.95			21.0		....	....	D.S	17	....	....	Sample Collected
14.5				22.5		....	....	D.S	23	....	....	Sample Collected
15.5	→ 15.45			24.0		....	....	D.S	26	....	....	Sample Collected
16.5	→ 13.95			25.5		....	....	D.S	30	....	....	Sample Collected
17.5				27.0		....	....	D.S	22	....	....	Sample Collected
18.5	→ 18.45			28.5		....	....	D.S	35	....	....	Sample Collected
19.5	→ 19.95			30.0		....	....	D.S	28	....	....	Sample Collected
20.5	→ 21.45											
21.5												
22.5	→ 22.95											
23.5												
24.5	→ 24.45											
25.5	→ 25.95											
26.5												
27.5	→ 27.45											
28.5	→ 28.95											
29.5												
30	→ 30.45											

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 50						
Name of the client		: IOCL					RL		: 97.280						
Location		: Paradip, Odisha					Northing		: 2240800.000						
Ground water table		: 1.00m					Easting		: 455050.000						
Type of boring		: Rotary Boring					Date of Commencement		: 04.04.2025						
Diameter of boring		: 150 mm					Date of Completion		: 05.04.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	Corrected S.P.T. value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)								
0		4.5		0.5	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	.....	.....	....	....	Sample Collected		
0.5	▼			1.5		....	....	D.S	3	.....	.....	....	Sample Collected		
1.5	→ 1.95			3.0		....	....	U.D.S	.....	.....	....	....	Sample Collected		
2.5				4.5		....	....	D.S	5	.....	....	....	Sample Collected		
3.5		25.5		6.0	Brownish poorly graded sand content (SP)	....	....	D.S	8	.....	....	....	Sample Collected		
4.5	→ 4.95			7.5		....	....	D.S	13	.....	....	....	Sample Collected		
5.5	→ 6.45			9.0		....	....	D.S	16	.....	....	....	Sample Collected		
6.5	→ 7.95			10.5		....	....	D.S	19	.....	....	....	Sample Collected		
7.5	→ 9.45			12.0		....	....	D.S	25	.....	....	....	Sample Collected		
8.5	→ 10.95			13.5		....	....	D.S	27	.....	....	....	Sample Collected		
9.5	→ 12.45			15.0		....	....	U.D.S	29	.....	....	....	Sample Collected		
10.5	→ 13.95			16.5		....	....	D.S	28	.....	....	....	Sample Collected		
11.5	→ 15.45			18.0		....	....	D.S	25	.....	....	....	Sample Collected		
12.5	→ 16.95			19.5		....	....	D.S	20	.....	....	....	Sample Collected		
13.5	→ 18.45			21.0		....	....	D.S	25	.....	....	....	Sample Collected		
14.5	→ 19.95			22.5		....	....	D.S	28	.....	....	....	Sample Collected		
15.5	→ 21.45			24.0		....	....	D.S	33	.....	....	....	Sample Collected		
16.5	→ 22.95			25.5		....	....	D.S	32	.....	....	....	Sample Collected		
17.5	→ 24.45			27.0		....	....	D.S	33	.....	....	....	Sample Collected		
18.5	→ 25.95			28.5		....	....	D.S	42	.....	....	....	Sample Collected		
19.5	→ 27.45														
20.5	→ 28.95														
21.5	→ 30.45														
22.5															
23.5															
24.5															
25.5															
26.5															
27.5															
28.5															
29.5															
30															

RECORD OF BORING															
Name of Consultants		: Visiontek Consultancy Services Pvt. Ltd.					BH NO.		: 51						
Name of the client		: IOCL					RL		: 97.145						
Location		: Paradip, Odisha					Northing		: 2240800.000						
Ground water table		: 1.00m					Easting		: 455225.000						
Type of boring		: Rotary Boring					Date of Commencement		: 04.04.2025						
Diameter of boring		: 150 mm					Date of Completion		: 05.04.2025						
Depth (m)	Penetration of strata (in m.)	Thickness of the subsurface strata in m.	Graphical representation of subsurface strata	Depth from ground level	Type of strata	Drill Run		Type of sample collected	S.P.T. value (N)	Corrected S.P.T. value (N _{cr})	R.Q.D (in %)	Core Recovery (in %)	Remarks		
						From (m)	To (m)								
0		1.5		0.5	Blackish intermediate plasticity clay with silt and little sand content (CI)	....	....	D.S	.....	.....	....	....	Sample Collected		
0.5	▼			1.5		....	....	U.D.S	.....	.....	.....	....	Sample Collected		
1.5		28.5			Brownish poorly graded sand content (SP)	....	....	D.S	11	.....	....	....	Sample Collected		
2.5				3.0		....	....	D.S	12	.....	....	....	Sample Collected		
3.5	→ 3.45			4.5		....	....	D.S	16	.....	....	....	Sample Collected		
4.5	→ 4.95			6.0		....	....	D.S	16	.....	....	....	Sample Collected		
5.5	→ 6.45			7.5		....	....	D.S	21	.....	....	....	Sample Collected		
6.5	→ 7.95			9.0		....	....	D.S	21	.....	....	....	Sample Collected		
7.5	→ 9.45			10.5		....	....	D.S	18	.....	....	....	Sample Collected		
8.5	→ 10.95			12.0		....	....	D.S	24	.....	....	....	Sample Collected		
9.5	→ 12.45			13.5		....	....	D.S	26	.....	....	....	Sample Collected		
10.5	→ 13.95			15.0		....	....	U.D.S	28	.....	....	....	Sample Collected		
11.5	→ 15.45			16.5		....	....	D.S	33	.....	....	....	Sample Collected		
12.5	→ 16.95			18.0		....	....	D.S	39	.....	....	....	Sample Collected		
13.5	→ 18.45			19.5		....	....	D.S	33	.....	....	....	Sample Collected		
14.5	→ 19.95			21.0		....	....	D.S	30	.....	....	....	Sample Collected		
15.5	→ 21.45			22.5		....	....	D.S	41	.....	....	....	Sample Collected		
16.5	→ 22.95			24.0		....	....	D.S	44	.....	....	....	Sample Collected		
17.5	→ 24.45			25.5		....	....	D.S	44	.....	....	....	Sample Collected		
18.5	→ 25.95			27.0		....	....	D.S	49	.....	....	....	Sample Collected		
19.5	→ 27.45			28.5		....	....	D.S	50	.....	....	....	Sample Collected		
20.5	→ 28.95										D.S	53	.....	....	....	Sample Collected
21.5	→ 30.45					30.0									

SUMMARY SHEET OF SOIL SAMPLES OF BH-1																								
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification	
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min		
1	1	0.5	D.S	1.89	17.32	1.61	0.626	0.04	11.32	60.32	28.32	39	21	18	2.67	....	37	....	....	....	....	....	CI	
2		1.5	U.D.S	1.91	22.66	1.56	....	0.00	15.35	52.33	32.32	46	27	19	....	0.39	....	T.S.T	0.27	3.21	0.26	0.04	CI	
4		3.0	D.S	1.90	26.31	1.50	0.735	0.00	6.96	64.35	28.69	43	25	18	2.66	....	34	....	....	....	....	....	CI	
5		4.5	U.D.S	1.89	24.03	1.52	....	0.00	12.32	67.32	20.36	40	21	19	....	0.44	....	T.S.T	0.32	3.36	0.27	0.03	CI	
6		6.0	D.S	1.86	18.32	1.57	0.647	0.63	30.03	55.05	14.29	34	18	16	2.64	....	28	....	....	....	....	....	....	CL
7		7.5	D.S	1.77	10.47	1.60	....	0.81	91.36	7.83		....	....	....	....	....	....	D.S.T	0.00	28.06	....	....	....	SP
8		9.0	D.S	1.76	9.31	1.61	....	1.02	88.03	10.95		....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.78	11.35	1.60	0.583	0.69	87.25	12.06		....	....	....	2.58	....	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.77	10.46	1.60	....	0.58	89.34	10.08		....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.75	9.89	1.59	....	0.05	91.34	8.61		....	....	....	....	....	....	D.S.T	0.00	31.32	....	....	....	SP
12		15.0	D.S	1.76	10.32	1.60	....	0.48	91.54	7.98		....	....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.74	8.74	1.60	....	1.02	92.54	6.44		....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.76	10.47	1.59	....	0.57	89.46	9.97		....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.72	9.69	1.57	0.620	0.25	90.03	9.72		....	....	....	2.59	....	....	D.ST	0.00	30.59	....	....	....	SP
16		21.0	D.S	1.75	10.82	1.58	....	0.41	88.66	10.93		....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.76	13.47	1.55	....	0.09	90.43	9.48		....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.75	11.69	1.57	....	0.47	89.63	9.90		....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.78	12.41	1.58	0.617	0.08	88.25	11.67		....	....	....	2.61	....	....	D.S.T	0.00	33.51	....	....	....	SP
20		27.0	D.S	1.73	10.69	1.56	....	0.43	90.46	9.11		....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	11.25	1.54	....	0.25	90.32	9.43		....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	11.55	1.54	0.673	0.36	91.06	8.58		....	....	....	2.63	....	....	D.S.T	0.00	32.69	....	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-2																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(θ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	2	0.5	D.S	1.87	18.39	1.58	....	0.98	15.31	67.39	16.32	34	20	14	....	....	29	....	....	....	....	....	CL
2		1.5	U.D.S	1.92	23.49	1.55	0.678	1.03	11.31	59.45	28.21	43	26	17	2.66	0.41	34	T.S.T	0.33	2.77	0.24	0.02	CI
4		3.0	D.S	1.93	24.55	1.55	....	0.87	13.58	60.88	24.67	41	23	18	....	....	32	....	....	....	....	....	CI
5		4.5	D.S	1.75	12.03	1.56	....	0.31	88.47	11.22		....	....	....	....	0.46	....	T.S.T	0.31	3.96	....	....	SP
6		6.0	D.S	1.77	11.36	1.59	0.599	0.50	86.32	13.18		....	....	....	2.59	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.74	13.47	1.53	....	0.78	87.47	11.75		....	....	....	....	....	....	D.S.T	0.00	27.47	....	....	SP
8		9.0	D.S	1.72	10.68	1.55	....	0.96	90.31	8.73		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.76	11.05	1.58	0.603	0.18	95.02	4.80		....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.75	10.46	1.58	....	1.03	90.33	8.64		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.73	8.97	1.59	....	0.89	91.05	8.06		....	....	....	....	....	....	D.S.T	0.00	29.55	....	....	SP
12		15.0	D.S	1.72	10.59	1.56	0.640	1.32	89.24	9.44		....	....	....	2.60	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.71	11.32	1.54	....	1.01	92.54	6.45		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.74	11.47	1.56	....	0.87	90.47	8.66		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.70	7.11	1.59	0.601	0.58	88.63	10.79		....	....	....	2.59	....	....	D.ST	0.00	28.39	....	....	SP
16		21.0	D.S	1.71	8.24	1.58	....	0.36	90.44	9.20		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.73	7.89	1.60	....	1.02	92.56	6.42		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.74	8.69	1.60	....	0.85	93.49	5.66		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	10.33	1.57	0.639	1.87	91.32	6.81		....	....	....	2.62	....	....	D.S.T	0.00	31.25	....	....	SP
20		27.0	D.S	1.71	11.46	1.53	....	0.74	89.89	9.37		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	10.48	1.54	....	0.96	91.46	7.58		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.73	9.99	1.57	0.628	1.31	92.38	6.31		....	....	....	2.61	....	....	D.S.T	0.00	30.66	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-3																								
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification	
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm²/min		
1	3	0.5	D.S	1.86	17.31	1.59	...	0.68	23.59	61.31	14.42	34	19	15	...	...	32	...	...	...	...	...	CL	
2		1.5	U.D.S	1.90	23.45	1.54	0.702	0.56	10.03	63.02	26.39	44	27	17	2.67	0.39	41	T.S.T	0.29	3.68	0.29	0.05	CI	
4		3.0	D.S	1.92	25.36	1.53	...	0.85	8.31	64.21	26.63	44	28	16	...	...	...	...	...	...	...	...	CI	
5		4.5	U.D.S	1.95	29.45	1.51	...	0.55	9.69	65.22	24.54	42	26	16	...	0.45	43	T.S.T	0.34	3.01	0.26	0.03	CI	
6		6.0	D.S	1.71	11.31	1.54	0.635	0.15	87.03	12.82		....	....	....	2.56	...	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.74	10.23	1.58	...	0.85	87.96	11.19		....	....	....	...	...	....	D.S.T	0.00	26.89	....	....	....	SP
8		9.0	D.S	1.75	11.59	1.57	...	0.39	88.31	11.30		....	....	....	...	...	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.72	10.59	1.56	0.621	0.58	89.45	9.97		....	....	....	2.57	...	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.74	14.03	1.53	...	0.38	91.26	8.36		....	....	....	...	...	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.75	12.02	1.56	...	0.33	89.48	10.19		....	....	....	...	...	....	D.S.T	0.00	28.32	....	....	....	SP
12		15.0	D.S	1.72	11.74	1.54	0.638	0.49	88.34	11.17		....	....	....	2.57	...	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.72	12.41	1.53	...	0.68	87.38	11.94		....	....	....	...	...	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.68	7.25	1.57	...	0.55	89.32	10.13		....	....	....	...	...	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.64	8.96	1.51	0.688	1.03	90.26	8.71		....	....	....	2.59	...	....	D.S.T	0.00	27.49	....	....	....	SP
16		21.0	D.S	1.69	10.74	1.53	...	0.95	91.03	8.02		....	....	....	...	...	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.71	9.36	1.56	...	0.85	92.35	6.80		....	....	....	...	...	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	10.08	1.57	...	0.38	91.46	8.16		....	....	....	...	...	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.69	11.31	1.52	0.673	0.74	89.46	9.80		....	....	....	2.59	...	....	D.S.T	0.00	29.36	....	....	....	SP
20		27.0	D.S	1.70	10.49	1.54	...	0.43	88.32	11.25		....	....	....	...	...	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	10.82	1.53	...	1.03	89.55	9.42		....	....	....	...	...	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	9.85	1.56	0.651	1.21	91.33	7.46		....	....	....	2.62	...	....	D.S.T	0.00	31.29	....	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-4																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(θ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	4	0.5	D.S	1.81	16.32	1.56	....	0.74	14.31	68.31	16.64	33	18	15	....	....	35	....	....	....	....	....	CL
2		1.5	U.D.S	1.88	21.01	1.55	0.686	0.85	16.32	59.45	23.38	43	24	19	2.67	0.37	42	T.S.T	0.28	4.31	0.27	0.04	CI
4		3.0	D.S	1.69	7.31	1.57	....	0.91	88.31	10.78		....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.72	8.03	1.59	....	0.32	88.03	11.65		....	....	....	....	....	....	D.S.T	0.00	26.32	....	....	SP
6		6.0	D.S	1.70	9.34	1.55	0.615	0.14	90.14	9.72		....	....	....	2.56	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.68	9.05	1.54	....	0.00	88.35	11.65		....	....	....	....	....	....	D.S.T	0.00	26.03	....	....	SP
8		9.0	D.S	1.71	8.78	1.57	....	0.11	89.02	10.87		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.70	6.31	1.60	0.570	0.05	91.03	8.92		....	....	....	2.56	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.67	5.25	1.59	....	0.00	88.31	11.69		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.68	7.89	1.56	....	0.00	64.32	26.85	8.83	27	14	13	2.60	....	....	D.S.T	0.09	26.44	....	....	SC
12		15.0	D.S	1.71	10.03	1.55	0.641	0.74	69.24	24.03	5.99	26	14	12	....	....	....	....	....	....	....	....	SC
13		16.5	D.S	1.68	8.96	1.54	....	0.91	93.06	6.03		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	11.35	1.53	....	0.74	91.25	8.01		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.66	8.32	1.53	0.645	0.03	89.31	10.66		....	....	....	2.57	....	....	D.ST	0.00	27.98	....	....	SP
16		21.0	D.S	1.69	10.03	1.54	....	0.00	88.15	11.85		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.71	11.31	1.54	....	0.00	86.98	13.02		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.72	10.01	1.56	....	0.85	84.31	14.84		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	10.96	1.56	0.630	0.34	91.03	8.63		....	....	....	2.59	....	....	D.S.T	0.00	29.41	....	....	SP
20		27.0	D.S	1.69	9.39	1.54	....	0.81	89.25	9.94		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.68	10.08	1.53	....	0.91	88.74	10.35		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.66	8.47	1.53	0.660	0.96	89.47	9.57		....	....	....	2.59	....	....	D.S.T	0.00	30.53	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-5																								
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification	
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm²/min		
1	5	0.5	D.S	1.84	17.96	1.56	....	0.00	22.03	64.33	13.64	35	17	18	....	....	31	....	....	....	....	....	CL	
2		1.5	D.S	1.89	24.32	1.52	0.716	0.23	10.33	61.03	28.41	46	25	21	2.66	0.31	45	....	....	....	....	....	CI	
4		3.0	U.D.S	1.91	24.96	1.53	....	0.00	12.41	58.32	29.27	48	27	21	....	....	....	T.S.T	0.27	2.78	0.27	0.06	CI	
5		4.5	D.S	1.70	10.03	1.55	....	0.00	8.63	91.37		....	....	....	....	....	....	....	....	....	....	....	SP	
6		6.0	D.S	1.69	9.78	1.54	0.631	0.09	82.14	17.77		....	....	....	2.56	....	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.71	6.85	1.60	....	0.11	83.48	16.41		....	....	....	....	....	....	D.S.T	0.00	27.32	....	....	....	SP
8		9.0	D.S	1.70	8.32	1.57	....	0.31	84.78	14.91		....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.68	7.31	1.57	0.598	0.52	86.96	12.52		....	....	....	2.55	....	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.72	10.24	1.56	....	0.68	81.03	18.29		....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.73	11.01	1.56	....	0.74	62.03	26.85	10.38	28	13	15	2.57	....	....	D.S.T	0.07	27.62	....	....	....	SC
12		15.0	D.S	1.69	10.47	1.53	0.648	0.25	64.31	24.03	11.41	27	15	12	....	....	....	....	....	....	....	....	....	SC
13		16.5	D.S	1.68	9.96	1.53	....	0.00	86.44	13.56		....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.72	8.37	1.59	....	0.27	91.03	8.70		....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.70	7.98	1.57	0.614	0.19	88.31	11.50		....	....	....	2.59	....	....	D.ST	0.00	27.98	....	....	....	SP
16		21.0	D.S	1.69	8.25	1.56	....	0.00	81.03	18.97		....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.68	7.19	1.57	....	0.00	82.35	17.65		....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.72	8.03	1.59	....	0.32	86.47	13.21		....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.71	9.41	1.56	0.632	0.41	87.39	12.20		....	....	....	2.60	....	....	D.S.T	0.00	28.74	....	....	....	SP
20		27.0	D.S	1.70	10.31	1.54	....	0.00	90.24	9.76		....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.69	8.77	1.55	....	0.84	89.11	10.05		....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.68	9.22	1.54	0.658	0.00	86.47	13.53		....	....	....	2.60	....	....	D.S.T	0.00	28.32	....	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-6																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	6	0.5	D.S	1.82	19.25	1.53	....	0.61	24.69	59.31	15.39	33	19	14	....	....	34	....	....	....	....	....	CL
2		1.5	D.S	1.91	25.96	1.52	0.727	0.52	12.31	61.03	26.14	42	27	15	2.67	....	....	....	....	....	....	....	CI
4		3.0	U.D.S	1.90	27.88	1.49	....	0.81	11.49	62.69	25.01	46	28	18	....	0.43	44	T.S.T	0.28	2.03	0.29	0.03	CI
5		4.5	D.S	1.91	26.41	1.51	....	0.55	14.32	59.48	25.65	45	27	18	....	....	....	....	....	....	....	....	CI
6		6.0	D.S	1.83	20.19	1.52	0.714	0.19	31.03	51.34	17.44	34	18	16	2.66	....	31	....	....	....	....	....	CL
7		7.5	D.S	1.71	11.32	1.54	....	0.82	88.31	10.87		....	....	....	....	....	....	D.S.T	0.00	27.11	....	....	SP
8		9.0	D.S	1.73	13.24	1.53	....	0.31	89.46	10.23		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.70	12.09	1.52	0.682	0.54	88.14	11.32		....	....	....	2.60	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.71	11.48	1.53	....	0.37	90.32	9.31		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.74	10.36	1.58	....	0.30	88.46	11.24		....	....	....	....	....	....	D.S.T	0.00	30.03	....	....	SP
12		15.0	D.S	1.71	10.25	1.55	0.632	0.59	89.02	10.39		....	....	....	2.58	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.70	11.47	1.53	....	0.00	90.14	9.86		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.69	8.36	1.56	....	0.53	91.03	8.44		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.66	8.91	1.52	0.667	0.15	89.53	10.32		....	....	....	2.59	....	....	D.ST	0.00	29.47	....	....	SP
16		21.0	D.S	1.68	10.25	1.52	....	0.00	88.69	11.31		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.67	10.32	1.51	....	0.61	87.25	12.14		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.70	11.41	1.53	....	0.32	89.43	10.25		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.74	7.32	1.62	0.573	0.05	90.32	9.63		....	....	....	2.60	....	....	D.S.T	0.00	30.55	....	....	SP
20		27.0	D.S	1.73	8.43	1.60	....	0.00	89.72	10.28		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	10.03	1.55	....	0.00	88.47	11.53		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.73	9.25	1.58	0.605	0.85	90.03	9.12		....	....	....	2.59	....	....	D.S.T	0.00	31.29	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-9																							
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	9	0.5	D.S	1.69	12.31	1.50	....	0.00	82.03	17.97		....	....	....	....	....	....	....	....	....	....	....	SM
2		1.5	D.S	1.72	14.53	1.50	0.685	0.00	83.47	16.53		....	....	....	2.58	....	....	....	....	....	....	....	SM
4		3.0	U.D.S	1.90	24.31	1.53	....	0.09	14.32	60.18	25.41	41	25	16	....	0.37	42	T.S.T	0.29	4.31	0.33	0.04	CI
5		4.5	D.S	1.69	10.36	1.53	....	0.00	88.47	11.53		....	....	....	....	....	....	....	....	....	....	....	SP
6		6.0	D.S	1.71	11.47	1.53	0.656	0.00	88.36	11.64		....	....	....	2.59	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.70	12.03	1.52	....	0.19	90.03	9.78		....	....	....	....	....	....	D.S.T	0.00	27.11	....	....	SP
8		9.0	D.S	1.71	12.15	1.52	....	0.36	91.34	8.30		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.73	13.05	1.53	0.660	0.41	89.61	9.98		....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.71	11.05	1.54	....	0.00	90.69	9.31		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.70	10.36	1.54	....	0.09	68.31	21.03	10.57	28.00	16.00	12	....	....	....	D.S.T	0.10	25.31	....	....	SC
12		15.0	D.S	1.68	10.98	1.51	0.665	0.25	66.58	24.96	8.21	26.00	15.00	11	2.57	....	....	....	....	....	....	....	SC
13		16.5	D.S	1.69	11.58	1.51	....	0.47	91.43	8.10		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	11.47	1.53	....	0.34	90.29	9.37		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.72	10.78	1.55	0.636	0.18	88.61	11.21		....	....	....	2.59	....	....	D.ST	0.00	30.14	....	....	SP
16		21.0	D.S	1.73	11.69	1.55	....	0.05	87.25	12.70		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.70	12.14	1.52	....	0.92	88.36	10.72		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.72	10.25	1.56	....	0.44	89.43	10.13		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	8.96	1.59	0.600	0.00	91.06	8.94		....	....	....	2.59	....	....	D.S.T	0.00	29.59	....	....	SP
20		27.0	D.S	1.71	11.41	1.53	....	0.52	88.32	11.16		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.72	9.25	1.57	....	0.33	88.37	11.30		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.70	10.03	1.55	0.651	0.74	90.07	9.19		....	....	....	2.60	....	....	D.S.T	0.00	31.05	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-10																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
2	10	1.5	D.S	1.93	28.31	1.50	0.741	0.00	10.03	63.02	26.95	47	26	21	2.67	....	....	....	....	....	....	....	CI
4		3.0	D.S	1.70	12.41	1.51	....	0.00	88.03	11.97		....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.69	10.32	1.53	....	0.34	90.13	9.53		....	....	....	....	....	....	D.ST	0.00	25.96	....	....	SP
6		6.0	D.S	1.71	10.48	1.55	0.648	0.27	91.25	8.48		....	....	....	2.60	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.70	9.86	1.55	....	0.66	89.74	9.60		....	....	....	....	....	....	D.S.T	0.00	28.11	....	....	SP
8		9.0	D.S	1.68	8.95	1.54	....	0.40	86.47	13.13		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.66	7.48	1.54	0.645	0.58	88.19	11.23		....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.69	8.32	1.56	....	0.09	90.03	9.88		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.70	9.19	1.56	....	0.00	65.32	25.01	9.67	....	....	....	....	....	....	D.S.T	0.09	27.58	....	....	SC
12		15.0	D.S	1.71	10.23	1.55	0.638	0.00	59.25	30.24	10.51	....	....	....	2.59	....	....	....	....	....	....	....	SC
13		16.5	D.S	1.72	11.43	1.54	....	0.59	86.47	12.94		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.73	12.53	1.54	....	0.00	88.03	11.97		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.70	10.29	1.54	0.642	0.08	89.59	10.33		....	....	....	2.58	....	....	D.ST	0.00	29.61	....	....	SP
16		21.0	D.S	1.71	9.89	1.56	....	0.00	90.34	9.66		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.72	10.39	1.56	....	0.24	91.36	8.40		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.74	9.59	1.59	....	0.17	92.59	7.24		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.72	10.36	1.56	0.630	0.35	92.37	7.28		....	....	....	2.59	....	....	D.S.T	0.00	29.47	....	....	SP
20		27.0	D.S	1.70	8.34	1.57	....	0.63	90.49	8.88		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	10.03	1.55	....	0.91	89.65	9.44		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	10.43	1.56	0.644	0.89	88.32	10.79		....	....	....	2.61	....	....	D.S.T	0.00	30.21	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-11																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(θ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	11	0.5	D.S	1.88	18.74	1.58	0.648	0.00	23.05	60.14	16.81	35	22	13	2.66	....	37	....	....	....	....	....	CL
2		1.5	U.D.S	1.90	24.35	1.53	....	0.00	16.14	61.36	22.50	41	25	16	....	0.39	....	T.S.T	0.31	2.74	0.24	0.07	CI
4		3.0	D.S	1.89	25.14	1.51	0.734	0.00	11.32	63.25	25.43	45	24	21	2.67	....	34	....	....	....	....	....	CI
5		4.5	U.D.S	1.90	23.46	1.54	....	0.00	14.35	61.34	24.31	43	23	20	....	0.44	....	T.S.T	0.38	2.14	0.28	0.04	CI
6		6.0	D.S	1.86	12.03	1.66	0.542	0.29	89.31	10.40	....	....	....	....	2.61	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.77	11.36	1.59	....	0.32	88.25	11.43	....	....	....	....	....	....	....	D.S.T	0.00	27.96	....	....	SP
8		9.0	D.S	1.75	12.02	1.56	....	0.91	89.02	10.07	....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.77	10.25	1.61	0.583	0.84	91.03	8.13	....	....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.76	11.41	1.58	....	0.64	88.31	11.05	....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.75	9.34	1.60	....	0.24	89.32	10.44	....	....	....	....	....	....	....	D.S.T	0.00	27.02	....	....	SP
12		15.0	D.S	1.77	10.03	1.61	....	0.89	90.24	8.87	....	....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.73	9.36	1.58	....	0.14	93.06	6.80	....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.75	10.32	1.59	....	0.00	91.25	8.75	....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.71	10.34	1.55	0.646	0.00	89.31	10.69	....	....	....	....	2.60	....	....	D.ST	0.00	29.14	....	....	SP
16		21.0	D.S	1.71	11.48	1.53	....	0.32	88.15	11.53	....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.72	12.03	1.54	....	0.37	88.36	11.27	....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.74	9.59	1.59	....	0.41	90.22	9.37	....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.71	10.43	1.55	0.634	0.29	91.03	8.68	....	....	....	....	2.58	....	....	D.S.T	0.00	31.02	....	....	SP
20		27.0	D.S	1.73	11.43	1.55	....	0.32	89.25	10.43	....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.74	12.61	1.55	....	0.39	88.74	10.87	....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	10.34	1.56	0.636	0.55	89.47	9.98	....	....	....	....	2.60	....	....	D.S.T	0.00	30.36	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-12																							
Sl No.	Bore Hole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	12	0.5	D.S	1.88	20.32	1.56	...	0.31	24.98	57.33	17.38	34	19	15	...	...	...	...	...	...	...	...	CL
2		1.5	U.D.S	1.93	28.32	1.50	0.722	0.61	12.41	63.02	23.96	42	26	16	2.64	0.47	43	T.S.T	0.35	1.89	0.26	0.02	CI
4		3.0	D.S	1.90	29.14	1.47	...	0.00	10.96	64.21	24.83	44	28	16	...	...	...	...	...	...	...	...	CI
5		4.5	D.S	1.91	28.36	1.49	...	0.12	11.47	61.32	27.09	45	28	17	...	...	40	...	...	...	0.27	0.04	CI
6		6.0	D.S	1.91	27.31	1.50	0.739	0.84	15.37	54.31	29.48	41	26	15	2.66	...	...	...	...	...	...	...	CI
7		7.5	D.S	1.72	13.24	1.52	...	0.74	83.41	15.85		...	...	...	...	...	...	D.S.T	0.00	26.89	...	...	SP
8		9.0	D.S	1.74	12.03	1.55	...	0.78	84.76	14.46		...	...	...	...	...	...	...	...	...	...	...	SP
9		10.5	D.S	1.73	10.03	1.57	0.610	0.91	86.93	12.16		...	...	...	2.58	...	...	...	...	...	...	...	SP
10		12.0	D.S	1.75	12.00	1.56	...	0.86	81.02	18.12		...	...	...	...	...	...	...	...	...	...	...	SP
11		13.5	D.S	1.75	11.24	1.57	...	0.44	61.36	38.20		...	...	...	...	...	...	...	...	...	...	...	SP
12		15.0	D.S	1.71	10.89	1.54	0.654	0.25	64.31	25.02	10.42	27	17	10	2.60	...	...	D.S.T	0.07	27.11	...	...	SC
13		16.5	D.S	1.73	11.36	1.55	...	0.00	56.24	30.03	13.73	30	18	12	...	...	...	...	...	...	...	...	SC
14		18.0	D.S	1.70	9.36	1.55	...	0.35	91.03	8.62		...	...	...	...	...	...	...	...	...	...	...	SP
15		19.5	D.S	1.69	10.25	1.53	0.658	0.98	88.31	10.71		...	...	...	2.59	...	...	D.S.T	0.00	31.36	...	...	SP
16		21.0	D.S	1.69	11.32	1.52	...	1.02	81.03	17.95		...	...	...	...	...	...	...	...	...	...	...	SP
17		22.5	D.S	1.70	9.36	1.55	...	0.85	82.35	16.80		...	...	...	...	...	...	...	...	...	...	...	SP
18		24.0	D.S	1.73	10.08	1.57	...	0.10	86.47	13.43		...	...	...	...	...	...	...	...	...	...	...	SP
19		25.5	D.S	1.72	12.47	1.53	0.674	0.88	87.39	11.73		...	...	...	2.61	...	...	D.S.T	0.00	31.34	...	...	SP
20		27.0	D.S	1.73	10.49	1.57	...	0.74	90.24	9.02		...	...	...	...	...	...	...	...	...	...	...	SP
21		28.5	D.S	1.70	11.49	1.52	...	0.92	89.11	9.97		...	...	...	...	...	...	...	...	...	...	...	SP
22		30.0	D.S	1.72	10.32	1.56	0.655	0.98	86.47	12.55		...	...	...	2.63	...	...	D.S.T	0.00	32.47	...	...	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-13																							
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	13	0.5	D.S	1.88	20.32	1.56	...	1.03	26.74	61.32	10.91	32	17	15	...	...	...	...	...	...	...	...	CL
2		1.5	U.D.S	1.93	28.32	1.50	0.741	0.00	13.56	64.32	22.12	40	26	14	2.67	0.41	42	T.S.T	0.30	2.96	0.30	0.04	CI
4		3.0	D.S	1.90	29.14	1.47	....	0.25	16.43	60.05	23.27	44	28	16	....	....	....	....	....	....	....	....	CI
5		4.5	D.S	1.91	28.36	1.49	....	0.00	15.46	59.24	25.30	46	27	19	....	....	43	....	....	....	0.28	0.05	CI
6		6.0	D.S	1.91	27.31	1.50	0.733	0.46	20.24	57.32	21.98	39	24	15	2.65	....	....	....	....	....	....	....	CI
7		7.5	D.S	1.72	13.24	1.52	....	0.00	82.45	17.55		....	....	....	....	....	....	D.S.T	0.00	29.77	....	....	SP
8		9.0	D.S	1.74	12.03	1.55	....	0.00	86.98	13.02		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.73	10.03	1.57	0.616	0.00	87.36	12.64		....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.75	12.00	1.56	....	0.25	82.06	17.69		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.75	11.24	1.57	....	0.36	90.03	9.61		....	....	....	....	....	....	....	....	....	....	....	SP
12		15.0	D.S	1.71	10.89	1.54	0.648	0.47	91.02	8.51		....	....	....	2.59	....	....	D.S.T	0.00	29.58	....	....	SP
13		16.5	D.S	1.73	11.36	1.55	....	0.00	90.25	9.75		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	9.36	1.55	....	0.69	93.48	5.83		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.69	10.25	1.53	0.677	0.70	94.26	5.04		....	....	....	2.62	....	....	D.ST	0.00	30.55	....	....	SP
16		21.0	D.S	1.69	11.32	1.52	....	0.58	89.25	10.17		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.70	9.36	1.55	....	0.96	91.03	8.01		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	10.08	1.57	....	0.00	92.44	7.56		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.72	12.47	1.53	0.668	0.00	88.45	11.55		....	....	....	2.60	....	....	D.S.T	0.00	32.69	....	....	SP
20		27.0	D.S	1.73	10.49	1.57	....	0.74	86.96	12.30		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	11.49	1.52	....	0.59	88.41	11.00		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	10.32	1.56	0.649	0.96	89.32	9.72		....	....	....	2.62	....	....	D.S.T	0.00	33.44	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-17																							
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	17	0.5	D.S	1.89	21.03	1.56	...	0.00	31.24	58.36	10.40	34	21	13	...	...	...	...	...	...	...	...	CL
2		1.5	U.D.S	1.91	29.14	1.48	0.764	0.00	13.56	64.32	22.12	44	23	21	2.66	0.44	42	T.S.T	0.31	4.32	0.21	0.06	CI
4		3.0	D.S	1.91	28.74	1.48	...	0.52	16.43	60.05	23.00	42	24	18	...	...	...	...	...	...	...	...	CI
5		4.5	D.S	1.93	27.96	1.51	...	0.69	16.47	59.24	23.60	42	23	19	...	...	43	...	...	...	0.19	0.03	CI
6		6.0	D.S	1.92	28.44	1.49	0.739	0.39	20.09	57.32	22.20	40	25	15	2.65	...	...	...	...	...	...	...	CI
7		7.5	D.S	1.70	12.01	1.52	...	0.00	88.96	11.04		...	...	...	...	...	...	D.S.T	0.00	27.31	...	...	SP
8		9.0	D.S	1.69	11.96	1.51	...	0.25	88.14	11.61		...	...	...	...	...	...	...	...	...	...	...	SP
9		10.5	D.S	1.71	11.74	1.53	0.654	0.09	86.74	13.17		...	...	...	2.58	...	...	...	...	...	...	...	SP
10		12.0	D.S	1.73	11.09	1.56	...	0.15	58.24	31.25	10.36	29	16	13	...	...	...	...	...	...	...	...	SC
11		13.5	D.S	1.74	10.37	1.58	...	0.28	55.14	36.96	7.62	25	15	10	...	...	...	D.S.T	0.08	27.30	...	...	SC
12		15.0	D.S	1.73	9.86	1.57	0.626	0.69	63.47	28.47	7.37	26	16	10	2.61	...	...	...	...	...	...	...	SC
13		16.5	D.S	1.71	10.32	1.55	...	0.25	91.02	8.73		...	...	...	...	...	...	...	...	...	...	...	SP
14		18.0	D.S	1.71	8.97	1.57	...	0.34	92.36	7.30		...	...	...	...	...	...	...	...	...	...	...	SP
15		19.5	D.S	1.69	8.74	1.55	0.641	0.36	90.29	9.35		...	...	...	2.60	...	...	D.ST	0.00	31.39	...	...	SP
16		21.0	D.S	1.71	10.47	1.55	...	0.47	93.59	5.94		...	...	...	...	...	...	...	...	...	...	...	SP
17		22.5	D.S	1.69	9.59	1.54	...	0.85	94.81	4.34		...	...	...	...	...	...	...	...	...	...	...	SP
18		24.0	D.S	1.69	10.43	1.53	...	0.74	90.14	9.12		...	...	...	...	...	...	...	...	...	...	...	SP
19		25.5	D.S	1.70	11.56	1.52	0.680	0.00	89.25	10.75		...	...	...	2.61	...	...	D.S.T	0.00	32.63	...	...	SP
20		27.0	D.S	1.71	13.24	1.51	...	0.08	87.96	11.96		...	...	...	...	...	...	...	...	...	...	...	SP
21		28.5	D.S	1.72	10.33	1.56	...	0.14	86.14	13.72		...	...	...	...	...	...	...	...	...	...	...	SP
22		30.0	D.S	1.71	10.49	1.55	0.654	0.22	87.14	12.64		...	...	...	2.61	...	...	D.S.T	0.00	31.25	...	...	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-18																							
Sl No.	Bore Hole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction (ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	18	0.5	D.S	1.84	19.58	1.54	....	0.96	26.14	61.31	11.59	33	18	15	....	....	29	....	....	....	....	....	CL
2		1.5	U.D.S	1.89	22.06	1.55	0.685	0.85	21.32	63.02	14.81	39	22	17	2.66	0.51	36	T.S.T	0.39	5.96	0.22	0.05	CI
4		3.0	D.S	1.69	7.32	1.57	....	0.00	89.32	10.68	....	....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.70	6.98	1.59	....	0.00	88.74	11.26	....	....	....	....	....	....	....	....	....	....	0.25	0.04	SP
6		6.0	D.S	1.71	8.32	1.58	0.609	0.50	86.96	12.54	....	....	....	2.59	....	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.68	10.02	1.53	....	0.85	87.05	12.10	....	....	....	....	....	....	....	D.S.T	0.00	29.32	....	....	SP
8		9.0	D.S	1.72	9.69	1.57	....	0.46	88.32	11.22	....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.73	12.51	1.54	0.659	0.00	89.41	10.59	....	....	....	2.60	....	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.73	10.05	1.57	....	0.38	90.03	9.59	....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.74	11.36	1.56	....	0.96	88.74	10.30	....	....	....	....	....	....	....	D.S.T	0.00	28.32	....	....	SP
12		15.0	D.S	1.70	11.74	1.52	0.683	0.49	86.38	13.13	....	....	....	2.61	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.69	8.31	1.56	....	0.69	87.41	11.90	....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	10.09	1.54	....	0.53	88.36	11.11	....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.70	9.51	1.55	0.637	1.02	89.14	9.84	....	....	....	2.59	....	....	....	D.S.T	0.00	30.59	....	....	SP
16		21.0	D.S	1.69	8.74	1.55	....	0.85	91.23	7.92	....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.71	9.53	1.56	....	1.03	93.59	5.38	....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	10.31	1.57	....	0.78	94.55	4.67	....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.69	8.74	1.55	0.641	0.71	90.03	9.26	....	....	....	2.60	....	....	....	D.S.T	0.00	32.03	....	....	SP
20		27.0	D.S	1.70	9.66	1.55	....	0.59	89.49	9.92	....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	10.03	1.55	....	0.85	91.32	7.83	....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.73	9.99	1.57	0.628	0.96	90.56	8.48	....	....	....	2.61	....	....	....	D.S.T	0.00	32.68	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-19																								
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification	
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min		
1	19	0.5	D.S	1.85	20.31	1.54	....	1.03	26.98	60.34	11.65	34	17	17	....	....	27	....	....	....	....	....	CL	
2		1.5	U.D.S	1.90	24.96	1.52	0.710	0.96	28.32	51.08	19.64	37	21	16	2.65	0.48	34	T.S.T	0.39	4.88	0.19	0.02	CI	
4		3.0	D.S	1.72	10.03	1.56	....	0.25	88.09	11.66		....	....	....	....	....	....	....	....	....	....	....	SP	
5		4.5	....	1.70	9.85	1.55	....	0.39	86.74	12.87		....	....	....	....	....	....	....	....	....	0.23	0.05	SP	
6		6.0	D.S	1.70	8.29	1.57	0.612	0.00	90.31	9.69		....	....	....	2.58	....	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.71	10.05	1.55	....	0.00	91.02	8.98		....	....	....	....	....	....	D.S.T	0.00	28.14	....	....	....	SP
8		9.0	D.S	1.73	9.32	1.58	....	0.24	89.74	10.02		....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.71	10.36	1.55	0.652	0.41	88.39	11.20		....	....	....	2.61	....	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.69	10.25	1.53	....	0.36	88.47	11.17		....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.72	11.22	1.55	....	0.00	86.95	13.05		....	....	....	....	....	....	D.S.T	0.00	29.30	....	....	....	SP
12		15.0	D.S	1.72	8.49	1.59	0.621	0.00	89.47	10.53		....	....	....	2.62	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.68	7.06	1.57	....	0.59	85.25	14.16		....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.69	6.85	1.58	....	0.37	88.14	11.49		....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.69	7.32	1.57	0.613	0.28	94.32	5.40		....	....	....	2.59	....	....	D.ST	0.00	28.74	....	....	....	SP
16		21.0	D.S	1.71	10.03	1.55	....	0.84	93.61	5.55		....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.71	8.91	1.57	....	0.89	94.38	4.73		....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	8.74	1.59	....	0.77	95.28	3.95		....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.72	7.77	1.60	0.610	0.73	96.17	3.10		....	....	....	2.62	....	....	D.S.T	0.00	31.42	....	....	....	SP
20		27.0	D.S	1.70	6.25	1.60	....	0.00	97.02	2.98		....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	9.22	1.56	....	0.96	94.32	4.72		....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	7.96	1.58	0.623	0.79	91.34	7.87		....	....	....	2.62	....	....	D.S.T	0.00	31.96	....	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-20																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	20	0.5	D.S	1.82	19.14	1.53	....	0.18	25.31	65.02	9.49	32	18	14	....	....	34	....	....	....	....	....	CL
2		1.5	U.D.S	1.92	26.98	1.51	0.726	0.39	15.96	61.02	22.63	38	24	14	2.66	0.39	41	T.S.T	0.33	3.14	0.29	0.06	CI
4		3.0	D.S	1.86	21.03	1.54	....	0.94	53.24	38.25	7.57	29	17	12	....	....	....	....	....	....	....	....	SC
5		4.5	U.D.S	1.90	24.98	1.52	....	0.25	14.32	59.25	26.18	43	28	15	....	0.45	46	T.S.T	0.34	2.29	0.26	0.03	CI
6		6.0	D.S	1.89	26.34	1.50	0.731	0.00	19.36	61.02	19.62	39	26	13	2.64	....	....	....	....	....	....	....	CI
7		7.5	U.D.S	1.91	26.43	1.51	....	0.85	26.35	56.14	16.66	38	25	13	....	....	....	T.S.T	0.29	4.07	....	....	CI
8		9.0	D.S	1.77	15.96	1.53	....	0.15	71.35	21.03	7.47	30	16	14	....	....	....	....	....	....	....	....	SC
9		10.5	D.S	1.75	13.59	1.54	0.662	0.38	68.37	24.32	6.93	29	16	13	2.61	....	....	....	....	....	....	....	SC
10		12.0	D.S	1.76	14.32	1.54	....	0.74	69.49	21.03	8.74	31	17	14	....	....	....	....	....	....	....	....	SC
11		13.5	D.S	1.89	23.85	1.53	....	0.79	24.03	56.98	18.20	41	22	19	....	....	....	....	....	....	....	....	CI
12		15.0	D.S	1.91	24.96	1.53	0.714	0.49	26.98	53.49	19.04	39	21	18	2.67	....	....	....	....	....	....	....	CI
13		16.5	D.S	1.77	14.32	1.55	....	0.00	61.32	29.31	9.37	32	20	12	....	....	....	....	....	....	....	....	SC
14		18.0	D.S	1.78	12.98	1.58	....	0.17	60.22	31.29	8.32	30	19	11	....	....	....	D.ST	0.08	28.79	....	....	SC
15		19.5	D.S	1.69	7.32	1.57	0.626	0.98	89.44	9.58		....	....	....	2.61	....	....	....	....	....	....	....	SP
16		21.0	D.S	1.70	6.98	1.59	....	0.44	90.46	9.10		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.69	7.55	1.57	....	0.39	91.32	8.29		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.69	8.29	1.56	....	0.31	90.29	9.40		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.71	8.96	1.57	0.631	0.73	91.48	7.79		....	....	....	2.61	....	....	D.S.T	0.00	30.29	....	....	SP
20		27.0	D.S	1.70	6.25	1.60	....	0.96	90.11	8.93		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	4.32	1.64	....	0.85	89.74	9.41		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	6.97	1.61	0.598	0.32	90.31	9.37		....	....	....	2.62	....	....	D.S.T	0.00	32.34	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-21																								
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification	
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm²/min		
1	21	0.5	D.S	1.81	17.41	1.54	0.693	0.00	23.05	60.14	16.81	35	22	13	2.66	....	34	....	....	....	....	....	CL	
2		1.5	U.D.S	1.92	29.37	1.48	....	0.00	6.32	65.85	27.83	47	27	20	....	0.37	47	T.S.T	0.28	1.85	0.18	0.04	CI	
4		3.0	D.S	1.91	26.58	1.51	0.736	0.00	10.24	64.31	25.45	46	27	19	2.67	....	45	....	....	....	....	....	CI	
5		4.5	D.S	1.69	10.32	1.53	....	0.00	88.74	11.26		....	....	....	....	....	....	....	....	....	....	....	....	SP
6		6.0	D.S	1.68	9.47	1.53	0.649	0.25	90.11	9.64		....	....	....	2.58	....	....	D.S.T	0.00	25.32	....	....	....	SP
7		7.5	D.S	1.68	8.74	1.54	....	0.32	88.38	11.30		....	....	....	....	....	....	....	....	....	....	....	....	SP
8		9.0	D.S	1.71	11.36	1.54	....	0.91	89.04	10.05		....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.69	10.38	1.53	0.647	0.84	90.34	8.82		....	....	....	2.57	....	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.68	10.47	1.52	....	0.66	86.96	12.38		....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.70	11.49	1.52	....	0.33	88.47	11.20		....	....	....	....	....	....	D.S.T	0.00	26.84	....	....	....	SP
12		15.0	D.S	1.71	11.34	1.54	....	0.00	90.39	9.61		....	....	....	2.59	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.73	12.44	1.54	....	0.74	91.45	7.81		....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.74	11.34	1.56	....	0.00	95.32	4.68		....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.72	10.68	1.55	0.654	0.00	91.41	8.59		....	....	....	2.62	....	....	D.ST	0.00	31.32	....	....	....	SP
16		21.0	D.S	1.74	11.03	1.57	....	0.32	89.32	10.36		....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.72	10.58	1.56	....	0.37	91.08	8.55		....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	10.79	1.56	....	0.41	93.58	6.01		....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	9.02	1.59	0.626	0.28	94.66	5.06		....	....	....	2.63	....	....	D.S.T	0.00	33.47	....	....	....	SP
20		27.0	D.S	1.73	8.14	1.60	....	0.00	91.05	8.95		....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.72	8.96	1.58	....	0.84	89.47	9.69		....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	7.49	1.60	0.606	0.91	90.32	8.77		....	....	....	2.62	....	....	D.S.T	0.00	32.69	....	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-22																							
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	22	0.5	D.S	1.82	16.85	1.56	0.663	0.13	18.74	69.58	11.55	33	20	13	2.64	....	34	....	....	....	....	....	CL
2		1.5	U.D.S	1.93	30.15	1.48	....	0.22	10.46	65.38	23.94	45	26	19	....	0.41	47	T.S.T	0.30	1.32	0.24	0.05	CI
4		3.0	D.S	1.89	28.47	1.47	0.767	0.38	13.49	61.36	24.77	47	27	20	2.65	....	45	....	....	....	....	....	CI
5		4.5	D.S	1.68	9.22	1.54	....	0.87	90.21	8.92		....	....	....	....	....	....	....	....	....	....	....	SP
6		6.0	D.S	1.70	8.74	1.56	0.606	0.25	89.36	10.39		....	....	....	2.56	....	....	D.S.T	0.00	26.96	....	....	SP
7		7.5	D.S	1.69	7.39	1.57	....	0.39	89.47	10.14		....	....	....	....	....	....	....	....	....	....	....	SP
8		9.0	D.S	1.69	8.31	1.56	....	0.47	90.19	9.34		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.70	9.02	1.56	0.611	0.26	91.25	8.49		....	....	....	2.56	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.69	10.11	1.53	....	0.41	93.36	6.23		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.68	6.98	1.57	....	0.33	91.02	8.65		....	....	....	....	....	....	D.S.T	0.00	27.47	....	....	SP
12		15.0	D.S	1.68	5.96	1.59	....	0.55	94.28	5.17		....	....	....	2.59	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.69	8.99	1.55	....	0.87	89.14	9.99		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.71	9.25	1.57	....	0.89	88.76	10.35		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.73	8.77	1.59	0.610	0.92	88.32	10.76		....	....	....	2.61	....	....	D.ST	0.00	32.09	....	....	SP
16		21.0	D.S	1.74	10.03	1.58	....	0.91	87.45	11.64		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.72	9.45	1.57	....	0.39	88.39	11.22		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.70	8.47	1.57	....	0.74	91.25	8.01		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.70	6.96	1.59	0.611	0.00	90.18	9.82		....	....	....	2.61	....	....	D.S.T	0.00	32.81	....	....	SP
20		27.0	D.S	1.71	7.32	1.59	....	0.47	93.24	6.29		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.73	7.14	1.61	....	0.85	89.11	10.04		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	8.31	1.59	0.606	0.71	89.25	10.04		....	....	....	2.60	....	....	D.S.T	0.00	33.49	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-26																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(θ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	26	0.5	D.S	1.82	19.31	1.53	0.704	0.29	19.36	67.02	13.33	33	19	14	2.65	....	34	....	....	....	....	....	CL
2		1.5	U.D.S	1.85	18.02	1.57	....	0.85	38.71	48.71	11.73	34	20	14	....	0.41	47	T.S.T	0.28	5.24	0.18	0.03	CL
4		3.0	D.S	1.88	19.58	1.57	0.666	1.03	36.32	47.21	15.44	39	22	17	2.67	....	45	....	....	....	....	....	CI
5		4.5	U.D.S	1.83	18.36	1.55	....	0.96	31.02	52.34	15.68	37	21	16	....	....	....	T.S.T	0.39	6.03	0.23	0.03	CI
6		6.0	D.S	1.68	6.25	1.58	0.594	0.00	88.14	11.86	....	....	....	....	2.57	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.69	7.21	1.58	....	0.74	89.32	9.94	....	....	....	....	....	....	....	D.S.T	0.00	26.41	....	....	SP
8		9.0	D.S	1.69	8.05	1.56	....	0.32	91.46	8.22	....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.70	7.14	1.59	0.601	0.00	92.03	7.97	....	....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.68	6.96	1.57	....	0.56	93.48	5.96	....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.70	7.32	1.58	....	0.39	90.49	9.12	....	....	....	....	....	....	....	D.S.T	0.00	27.10	....	....	SP
12		15.0	D.S	1.71	10.54	1.55	....	0.42	93.45	6.13	....	....	....	....	2.58	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.69	7.24	1.58	....	0.74	89.19	10.07	....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.68	10.03	1.53	....	0.00	90.03	9.97	....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.71	8.71	1.57	0.628	0.25	87.74	12.01	....	....	....	....	2.61	....	....	D.ST	0.00	30.53	....	....	SP
16		21.0	D.S	1.72	9.65	1.57	....	1.03	90.56	8.41	....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.72	10.32	1.56	....	1.24	93.32	5.44	....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.70	8.98	1.56	....	0.96	92.34	6.70	....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	11.55	1.55	0.657	1.29	89.74	8.97	....	....	....	....	2.62	....	....	D.S.T	0.00	32.58	....	....	SP
20		27.0	D.S	1.71	8.32	1.58	....	1.32	91.22	7.46	....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.72	7.84	1.59	....	0.85	90.41	8.74	....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	8.09	1.58	0.618	0.77	92.49	6.74	....	....	....	....	2.61	....	....	D.S.T	0.00	33.41	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-27																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	27	0.5	D.S	1.84	23.44	1.49	...	0.00	23.41	63.58	13.01	34	19	15	...	...	33	...	...	...	...	...	CL
2		1.5	U.D.S	1.87	25.38	1.49	0.756	0.23	15.47	62.51	21.79	40	24	16	2.67	0.39	40	T.S.T	0.38	5.74	0.21	0.04	CI
4		3.0	D.S	1.69	12.43	1.50	....	0.00	89.32	10.68		....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.67	11.12	1.50	....	0.00	92.35	7.65		....	....	....	....	....	....	D.S.T	0.00	26.44	....	....	SP
6		6.0	D.S	1.66	10.87	1.50	0.671	0.00	91.03	8.97		....	....	....	2.55	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.66	8.98	1.52	....	0.00	96.45	3.55		....	....	....	....	....	....	D.S.T	0.00	26.81	....	....	SP
8		9.0	D.S	1.69	9.41	1.54	....	0.21	89.74	10.05		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.68	8.40	1.55	0.620	0.38	88.32	11.30		....	....	....	2.56	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.67	11.33	1.50	....	0.00	87.94	12.06		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.70	12.10	1.52	....	0.74	94.25	5.01		....	....	....	2.55	....	....	D.S.T	0.00	28.32	....	....	SP
12		15.0	D.S	1.69	11.56	1.51	0.651	0.58	96.31	3.11		....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.68	11.05	1.51	....	0.00	89.47	10.53		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.71	9.46	1.56	....	0.00	88.21	11.79		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.72	9.07	1.58	0.617	0.22	88.14	11.64		....	....	....	2.60	....	....	D.ST	0.00	27.45	....	....	SP
16		21.0	D.S	1.70	9.34	1.55	....	0.00	90.32	9.68		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.68	8.28	1.55	....	0.00	91.38	8.62		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.72	9.12	1.58	....	0.00	92.48	7.52		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.72	10.50	1.56	0.645	0.96	91.34	7.70		....	....	....	2.61	....	....	D.S.T	0.00	30.05	....	....	SP
20		27.0	D.S	1.70	11.40	1.53	....	0.81	91.38	7.81		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	9.86	1.56	....	0.59	90.48	8.93		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	10.31	1.56	0.655	0.91	94.18	4.91		....	....	....	2.63	....	....	D.S.T	0.00	30.89	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-28																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	28	0.5	D.S	1.87	24.38	1.50	...	0.00	28.38	60.36	11.26	33	18	15	...	...	28	...	...	...	...	...	CL
2		1.5	U.D.S	1.90	27.91	1.49	0.750	0.09	17.34	61.25	21.32	44	27	17	2.65	0.39	39	T.S.T	0.38	5.74	0.23	0.05	CI
4		3.0	D.S	1.68	10.35	1.52	...	0.25	88.82	10.93		...	...	...	...	...	...	...	...	...	...	...	SP
5		4.5	D.S	1.69	10.17	1.53	...	0.34	92.76	6.90		...	...	...	...	...	...	D.S.T	0.00	27.11	...	...	SP
6		6.0	D.S	1.71	9.96	1.56	0.602	0.00	90.49	9.51		...	...	...	2.54	...	...	...	...	...	...	...	SP
7		7.5	D.S	1.70	9.83	1.55	...	0.81	94.35	4.84		...	...	...	...	...	...	D.S.T	0.00	26.84	...	...	SP
8		9.0	D.S	1.68	10.28	1.52	...	0.79	91.34	7.87		...	...	...	...	...	...	...	...	...	...	...	SP
9		10.5	D.S	1.69	9.25	1.55	0.623	0.49	87.31	12.20		...	...	...	2.56	...	...	...	...	...	...	...	SP
10		12.0	D.S	1.71	10.32	1.55	...	0.52	89.09	10.39		...	...	...	...	...	...	...	...	...	...	...	SP
11		13.5	D.S	1.69	9.79	1.54	...	0.69	93.44	5.87		...	...	...	2.55	...	...	D.S.T	0.00	29.47	...	...	SP
12		15.0	D.S	1.71	10.69	1.54	0.619	0.34	92.49	7.17		...	...	...	...	...	...	...	...	...	...	...	SP
13		16.5	D.S	1.72	10.32	1.56	...	0.09	90.03	9.88		...	...	...	...	...	...	...	...	...	...	...	SP
14		18.0	D.S	1.70	10.31	1.54	...	0.18	89.36	10.46		...	...	...	...	...	...	...	...	...	...	...	SP
15		19.5	D.S	1.72	9.92	1.56	0.617	0.22	89.55	10.23		...	...	...	2.58	...	...	D.ST	0.00	28.36	...	...	SP
16		21.0	D.S	1.69	10.19	1.53	...	0.39	91.49	8.12		...	...	...	...	...	...	...	...	...	...	...	SP
17		22.5	D.S	1.68	9.13	1.54	...	0.48	92.11	7.41		...	...	...	...	...	...	...	...	...	...	...	SP
18		24.0	D.S	1.71	9.97	1.55	...	0.78	93.69	5.53		...	...	...	...	...	...	...	...	...	...	...	SP
19		25.5	D.S	1.73	11.35	1.55	0.642	1.03	94.37	4.60		...	...	...	2.60	...	...	D.S.T	0.00	30.05	...	...	SP
20		27.0	D.S	1.74	12.25	1.55	...	0.74	92.38	6.88		...	...	...	...	...	...	...	...	...	...	...	SP
21		28.5	D.S	1.73	10.71	1.56	...	0.00	96.48	3.52		...	...	...	...	...	...	...	...	...	...	...	SP
22		30.0	D.S	1.72	11.16	1.55	0.655	0.96	95.36	3.68		...	...	...	2.61	...	...	D.S.T	0.00	31.32	...	...	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-32																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntnt (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(φ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	32	0.5	D.S	1.88	23.88	1.52	....	1.01	14.31	68.31	16.37	34	18	16	....	....	32	....	....	....	....	....	CL
2		1.5	U.D.S	1.91	26.96	1.50	0.735	0.74	8.31	66.31	24.64	43	24	19	2.66	0.41	41	T.S.T	0.35	1.71	0.31	0.06	CI
4		3.0	D.S	1.67	8.96	1.53	....	0.32	10.85	61.03	27.80	46	24	22	....	....	46	....	....	....	....	....	CI
5		4.5	D.S	1.66	8.02	1.54	....	0.71	88.47	10.82		....	....	....	....	....	....	....	....	....	....	....	SP
6		6.0	D.S	1.69	9.14	1.55	0.622	0.96	89.29	9.75		....	....	....	2.56	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.68	8.91	1.54	....	0.08	88.14	11.78		....	....	....	....	....	....	D.S.T	0.00	25.19	....	....	SP
8		9.0	D.S	1.70	7.03	1.59	....	0.32	90.19	9.49		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.70	6.85	1.59	0.585	0.58	91.32	8.10		....	....	....	2.57	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.67	5.32	1.59	....	0.71	88.31	10.98		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.68	6.96	1.57	....	0.00	93.14	6.86		....	....	....	2.60	....	....	D.S.T	0.00	27.85	....	....	SP
12		15.0	D.S	1.69	10.02	1.54	0.660	0.00	96.31	3.69		....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.77	12.96	1.57	....	0.00	71.22	20.03	8.75	29	16	13	....	....	....	....	....	....	....	....	SC
14		18.0	D.S	1.76	15.03	1.53	....	0.00	75.96	18.14	5.90	27	13	14	....	....	....	D.ST	0.07	27.08	....	....	SC
15		19.5	D.S	1.78	14.31	1.56	0.651	0.10	74.32	19.47	6.11	27	14	13	2.62	....	....	....	....	....	....	....	SC
16		21.0	D.S	1.71	11.31	1.54	....	0.59	91.36	8.05		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.69	10.05	1.54	....	0.81	88.19	11.00		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.70	8.33	1.57	....	0.00	89.61	10.39		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.71	7.14	1.60	0.598	0.74	87.32	11.94		....	....	....	2.60	....	....	D.S.T	0.00	29.67	....	....	SP
20		27.0	D.S	1.70	8.36	1.57	....	0.39	91.05	8.56		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	7.28	1.58	....	0.81	93.52	5.67		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	6.25	1.61	0.579	0.93	94.11	4.96		....	....	....	2.59	....	....	D.S.T	0.00	30.25	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-35																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	35	0.5	D.S	1.81	25.31	1.44	...	0.00	28.38	60.36	11.26	34	19	15	...	...	30	...	...	...	...	...	CL
2		1.5	U.D.S	1.92	27.02	1.51	0.726	0.34	16.32	55.09	28.25	48	27	21	2.66	0.40	42	T.S.T	0.29	3.11	0.32	0.04	CI
4		3.0	D.S	1.71	9.31	1.56	....	0.74	88.15	11.11		....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.68	8.74	1.54	....	0.81	89.47	9.72		....	....	....	....	....	....	D.S.T	0.00	24.38	....	....	SP
6		6.0	D.S	1.69	9.05	1.55	0.627	0.38	91.44	8.18		....	....	....	2.57	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.70	8.14	1.57	....	0.00	90.18	9.82		....	....	....	....	....	....	....	....	....	....	....	SP
8		9.0	D.S	1.69	6.96	1.58	....	0.00	89.02	10.98		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.71	7.02	1.60	0.584	0.00	88.35	11.65		....	....	....	2.58	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.72	8.01	1.59	....	0.71	91.01	8.28		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.75	8.35	1.62	....	0.75	88.32	10.93		....	....	....	....	....	....	D.S.T	0.00	26.15	....	....	SP
12		15.0	D.S	1.69	7.14	1.58	0.611	0.55	89.58	9.87		....	....	....	2.59	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.70	9.25	1.56	....	0.31	90.11	9.58		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.72	9.61	1.57	....	0.49	91.55	7.96		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.71	8.17	1.58	0.601	0.00	90.36	9.64		....	....	....	2.58	....	....	D.ST	0.00	30.14	....	....	SP
16		21.0	D.S	1.70	7.25	1.59	....	0.00	89.14	10.86		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.69	6.96	1.58	....	0.56	90.57	8.87		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.72	7.04	1.61	....	0.96	92.39	6.65		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.74	8.96	1.60	0.597	0.90	90.47	8.63		....	....	....	2.60	....	....	D.S.T	0.00	29.74	....	....	SP
20		27.0	D.S	1.72	10.02	1.56	....	1.02	93.04	5.94		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	8.32	1.57	....	0.85	92.36	6.79		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	10.25	1.55	0.651	1.06	91.02	7.93		....	....	....	2.61	....	....	D.S.T	0.00	30.89	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-37

SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	37	0.5	D.S	1.89	24.96	1.51	...	0.00	24.69	59.31	16.00	33	19	14	...	...	36	...	...	...	...	...	CI
2		1.5	D.S	1.91	30.02	1.47	0.776	0.00	12.31	61.03	26.66	42	27	15	2.66	...	...	...	...	...	...	...	CI
4		3.0	U.D.S	1.92	31.47	1.46	...	0.00	11.49	62.69	25.82	46	28	18	...	0.48	42	T.S.T	0.39	1.55	0.28	0.04	CI
5		4.5	D.S	1.90	30.09	1.46	...	0.41	14.32	59.48	25.79	45	27	18	...	...	...	...	...	...	...	...	CI
6		6.0	D.S	1.69	10.03	1.54	0.641	0.23	90.14	9.63		...	...	...	2.57	...	...	...	...	...	...	...	SP
7		7.5	D.S	1.70	9.74	1.55	...	0.71	91.35	7.94		...	...	...	...	...	...	D.S.T	0.00	26.48	...	...	SP
8		9.0	D.S	1.69	8.95	1.55	...	0.39	90.47	9.14		...	...	...	...	...	...	...	...	...	...	...	SP
9		10.5	D.S	1.72	10.66	1.55	0.641	0.56	89.31	10.13		...	...	...	2.60	...	...	...	...	...	...	...	SP
10		12.0	D.S	1.73	11.47	1.55	...	0.00	91.46	8.54		...	...	...	...	...	...	...	...	...	...	...	SP
11		13.5	D.S	1.72	10.31	1.56	...	0.00	89.44	10.56		...	...	...	...	...	...	D.S.T	0.00	27.32	...	...	SP
12		15.0	D.S	1.70	9.74	1.55	0.646	1.03	87.35	11.62		...	...	...	2.60	...	...	...	...	...	...	...	SP
13		16.5	D.S	1.69	8.11	1.56	...	0.96	89.46	9.58		...	...	...	...	...	...	...	...	...	...	...	SP
14		18.0	D.S	1.71	8.44	1.58	...	0.78	90.43	8.79		...	...	...	...	...	...	...	...	...	...	...	SP
15		19.5	D.S	1.73	7.32	1.61	0.576	0.59	91.40	8.01		...	...	...	2.59	...	...	D.ST	0.00	30.59	...	...	SP
16		21.0	D.S	1.71	9.46	1.56	...	0.34	89.13	10.53		...	...	...	...	...	...	...	...	...	...	...	SP
17		22.5	D.S	1.74	11.85	1.56	...	0.65	88.03	11.32		...	...	...	...	...	...	...	...	...	...	...	SP
18		24.0	D.S	1.70	11.34	1.53	...	0.00	88.18	11.82		...	...	...	...	...	...	...	...	...	...	...	SP
19		25.5	D.S	1.70	9.48	1.55	0.649	0.19	90.32	9.49		...	...	...	2.61	...	...	D.S.T	0.00	32.48	...	...	SP
20		27.0	D.S	1.71	10.01	1.55	...	0.74	88.48	10.78		...	...	...	...	...	...	...	...	...	...	...	SP
21		28.5	D.S	1.73	10.03	1.57	...	0.36	92.47	7.17		...	...	...	...	...	...	...	...	...	...	...	SP
22		30.0	D.S	1.72	8.04	1.59	0.608	0.71	94.36	4.93		...	...	...	2.61	...	...	D.S.T	0.00	31.09	...	...	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-39																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntnt (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(φ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	39	0.5	D.S	1.87	25.44	1.49	....	0.78	15.54	67.02	16.66	34	19	15	....	....	34	....	....	....	....	....	CL
2		1.5	D.S	1.92	28.96	1.49	0.746	0.00	9.54	66.96	23.50	46	25	21	2.65	....	....	....	....	....	0.27	0.04	CI
4		3.0	U.D.S	1.91	26.32	1.51	....	0.00	12.08	64.32	23.60	44	26	18	....	0.42	44	T.S.T	0.33	2.05	....	....	CI
5		4.5	D.S	1.90	30.02	1.46	....	0.44	13.25	59.37	26.94	49	29	20	....	....	....	....	....	....	....	....	CI
6		6.0	U.D.S	1.92	30.14	1.48	0.769	0.00	15.09	57.42	27.49	46	26	20	2.66	0.39	40	T.S.T	0.30	1.71	....	....	CI
7		7.5	D.S	1.69	10.25	1.53	....	0.00	89.37	10.63		....	....	....	....	....	....	....	....	....	....	....	SP
8		9.0	D.S	1.70	11.36	1.53	....	0.00	91.42	8.58		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.69	8.32	1.56	0.610	0.00	92.55	7.45		....	....	....	2.56	....	....	D.S.T	0.00	24.32	....	....	SP
10		12.0	D.S	1.71	12.47	1.52	....	0.00	89.54	10.46		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.72	11.69	1.54	....	0.25	94.37	5.38		....	....	....	2.61	....	....	D.S.T	0.00	25.14	....	....	SP
12		15.0	D.S	1.66	7.81	1.54	0.663	0.00	97.54	2.46		....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.70	9.31	1.56	....	0.81	92.28	6.91		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.68	8.58	1.55	....	0.64	90.19	9.17		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.68	8.32	1.55	0.645	0.34	91.50	8.16		....	....	....	2.60	....	....	D.S.T	0.00	27.30	....	....	SP
16		21.0	D.S	1.69	10.31	1.53	....	0.49	92.59	6.92		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.70	9.36	1.55	....	0.00	89.42	10.58		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.71	7.46	1.59	....	0.00	90.84	9.16		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.70	8.03	1.57	0.633	0.96	88.55	10.49		....	....	....	2.62	....	....	D.S.T	0.00	31.48	....	....	SP
20		27.0	D.S	1.73	9.19	1.58	....	1.03	92.28	6.69		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.72	8.25	1.59	....	1.13	94.75	4.12		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.73	10.03	1.57	0.635	1.29	95.34	3.37		....	....	....	2.62	....	....	D.S.T	0.00	32.89	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-40																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntnt (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ø) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	40	0.5	D.S	1.88	28.31	1.47	....	0.00	26.38	56.25	17.37	39	22	17	....	....	36	....	....	....	....	....	CI
2		1.5	D.S	1.67	11.35	1.50	0.681	0.00	90.37	9.63	....	....	....	....	2.57	....	....	D.ST	0.00	24.15	....	....	SP
4		3.0	D.S	1.66	10.37	1.50	....	0.00	89.32	10.68	....	....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.71	8.96	1.57	....	0.00	88.47	11.53	....	....	....	....	....	....	....	....	....	....	....	....	SP
6		6.0	D.S	1.68	9.31	1.54	....	0.00	89.31	10.69	....	....	....	....	....	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.70	7.22	1.59	0.615	0.00	91.26	8.74	....	....	....	....	2.61	....	....	D.S.T	0.00	24.32	....	....	SP
8		9.0	D.S	1.66	9.37	1.53	....	0.00	90.35	9.65	....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.67	8.14	1.55	0.648	0.47	92.48	7.05	....	....	....	....	2.59	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.68	8.55	1.55	....	0.00	90.97	9.03	....	....	....	....	....	....	....	D.S.T	0.00	26.96	....	....	SP
11		13.5	D.S	1.68	7.02	1.54	....	0.00	89.43	10.57	....	....	....	....	....	....	....	....	....	....	....	....	SP
12		15.0	D.S	1.69	10.32	1.54	0.645	0.12	89.42	10.46	....	....	....	....	2.58	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.69	6.98	1.56	....	0.38	91.26	8.36	....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	7.13	1.59	....	0.36	91.42	8.22	....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.71	7.03	1.60	0.603	0.14	92.73	7.13	....	....	....	....	2.61	....	....	D.ST	0.00	26.69	....	....	SP
16		21.0	D.S	1.72	8.29	1.59	....	0.21	93.82	5.97	....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.69	8.14	1.56	....	0.00	90.65	9.35	....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.70	7.46	1.58	....	0.00	92.07	7.93	....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.70	8.03	1.57	0.627	0.58	89.78	9.64	....	....	....	....	2.61	....	....	D.S.T	0.00	32.14	....	....	SP
20		27.0	D.S	1.70	8.77	1.56	....	0.66	93.51	5.83	....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	10.33	1.55	....	0.84	95.98	3.18	....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	8.14	1.58	0.613	0.91	96.57	2.52	....	....	....	....	2.60	....	....	D.S.T	0.00	32.08	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-46																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(θ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	46	0.5	D.S	1.91	28.14	1.49	...	0.00	19.22	63.02	17.76	39	21	18	...	...	39	...	...	...	...	...	CI
2		1.5	D.S	1.91	27.32	1.50	0.746	0.00	9.21	63.49	27.30	48	29	19	2.67	...	...	...	...	...	...	...	CI
3		3.0	U.D.S	1.93	30.02	1.48	...	0.00	12.65	61.03	26.32	45	27	18	...	0.46	42	T.S.T	0.37	3.41	0.29	0.06	CI
4		4.5	D.S	1.92	30.14	1.48	...	0.21	17.32	59.64	22.83	42	24	18	...	...	...	...	...	...	...	...	CI
5		6.0	D.S	1.81	19.25	1.52	0.706	0.00	51.25	41.33	7.42	27	14	13	2.64	...	...	...	...	...	...	...	SC
6		7.5	D.S	1.79	18.32	1.51	...	0.00	56.19	36.41	7.40	26	16	10	...	...	24	D.S.T	0.09	23.11	...	...	SC
7		9.0	D.S	1.80	19.55	1.51	...	0.19	52.64	38.32	8.85	29	15	14	...	...	...	...	...	...	...	...	SC
8		10.5	D.S	1.76	19.47	1.47	0.758	0.34	50.02	37.14	12.50	30	15	15	2.64	...	...	...	...	...	...	...	SC
9		12.0	D.S	1.77	18.32	1.50	...	0.36	59.31	29.34	10.99	28	17	11	...	...	...	D.S.T	0.07	22.74	...	...	SC
10		13.5	D.S	1.78	13.25	1.57	...	0.41	65.32	25.58	8.69	29	18	11	...	...	...	...	...	...	...	...	SC
11		15.0	U.D.S	1.93	28.96	1.50	0.744	0.00	26.96	49.58	23.46	41	26	15	2.66	...	41	T.S.T	0.26	4.93	...	...	CI
12		16.5	D.S	1.91	27.32	1.50	...	0.00	27.32	48.34	24.34	44	29	15	...	...	...	...	...	...	...	...	CI
13		18.0	D.S	1.71	10.33	1.55	...	0.00	90.24	9.76		...	...	...	...	...	...	...	...	...	...	...	SP
14		19.5	D.S	1.70	8.29	1.57	0.618	0.00	91.34	8.66		...	...	...	2.59	...	...	D.ST	0.00	27.91	...	...	SP
15		21.0	D.S	1.71	7.31	1.59	...	0.00	89.47	10.53		...	...	...	...	...	...	...	...	...	...	...	SP
16		22.5	D.S	1.71	8.36	1.58	...	0.19	90.45	9.36		...	...	...	...	...	...	...	...	...	...	...	SP
17		24.0	D.S	1.71	10.24	1.55	...	0.29	91.35	8.36		...	...	...	...	...	...	...	...	...	...	...	SP
18		25.5	D.S	1.72	9.21	1.57	0.619	0.34	90.13	9.53		...	...	...	2.60	...	...	D.S.T	0.00	28.34	...	...	SP
19		27.0	D.S	1.70	8.74	1.56	...	0.44	91.32	8.24		...	...	...	...	...	...	...	...	...	...	...	SP
20		28.5	D.S	1.70	10.02	1.55	...	0.00	88.46	11.54		...	...	...	...	...	...	...	...	...	...	...	SP
21		30.0	D.S	1.72	9.25	1.57	0.626	0.00	87.32	12.68		...	...	...	2.61	...	...	D.S.T	0.00	29.74	...	...	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-47																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(ϕ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	47	0.5	D.S	1.86	23.42	1.51	...	0.05	26.15	63.58	10.22	33	20	13	...	...	34	...	...	...	...	...	CL
2		1.5	U.D.S	1.89	25.28	1.51	0.730	0.36	17.36	62.51	19.77	41	26	15	2.66	0.48	45	T.S.T	0.34	4.03	0.21	0.03	CI
4		3.0	D.S	1.67	10.02	1.52	....	0.00	91.35	8.65		....	....	....	....	....	....	....	....	....	....	....	SP
5		4.5	D.S	1.69	11.05	1.52	....	0.23	89.23	10.54		....	....	....	....	....	....	D.S.T	0.00	26.65	....	....	SP
6		6.0	D.S	1.67	8.09	1.55	0.632	0.11	89.25	10.64		....	....	....	2.57	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.70	9.12	1.56	....	0.00	96.45	3.55		....	....	....	....	....	....	D.S.T	0.00	27.12	....	....	SP
8		9.0	D.S	1.71	9.56	1.56	....	0.32	88.52	11.16		....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.67	8.95	1.53	0.651	0.29	89.32	10.39		....	....	....	2.58	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.65	7.21	1.54	....	0.21	92.36	7.43		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.72	12.65	1.53	....	0.69	91.22	8.09		....	....	....	2.57	....	....	D.S.T	0.00	27.98	....	....	SP
12		15.0	D.S	1.71	10.95	1.54	0.636	0.48	89.96	9.56		....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.69	11.25	1.52	....	0.00	91.45	8.55		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	9.78	1.55	....	0.25	89.56	10.19		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.69	10.25	1.53	0.658	0.32	91.45	8.23		....	....	....	2.59	....	....	D.ST	0.00	28.31	....	....	SP
16		21.0	D.S	1.72	10.36	1.56	....	0.23	89.58	10.19		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.70	8.65	1.56	....	0.56	88.68	10.76		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.69	10.25	1.53	....	0.34	92.45	7.21		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.71	11.21	1.54	0.652	0.85	89.65	9.50		....	....	....	2.59	....	....	D.S.T	0.00	30.65	....	....	SP
20		27.0	D.S	1.68	11.96	1.50	....	0.96	91.08	7.96		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.73	10.95	1.56	....	0.67	93.24	6.09		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.70	11.21	1.53	0.681	0.88	92.45	6.67		....	....	....	2.62	....	....	D.S.T	0.00	31.21	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-49																							
SI No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Content (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(φ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	49	0.5	D.S	1.87	24.96	1.50	....	0.41	24.32	59.02	16.25	37	20	17	....	....	....	....	....	....	....	....	CI
2		1.5	U.D.S	1.90	30.14	1.46	0.787	0.21	14.59	59.47	25.73	49	28	21	2.66	0.51	46	T.S.T	0.39	1.08	0.22	0.06	CI
4		3.0	D.S	1.92	28.79	1.49	....	0.00	13.24	62.36	24.40	47	26	21	....	....	....	....	....	....	....	....	CI
5		4.5	U.D.S	1.91	26.85	1.51	....	0.55	16.47	61.25	21.73	43	26	17	....	0.56	44	T.S.T	0.36	2.77	0.19	0.03	CI
6		6.0	D.S	1.93	29.47	1.49	0.757	0.25	19.44	56.39	23.92	41	23	18	2.67	....	....	....	....	....	....	....	CI
7		7.5	D.S	1.70	10.02	1.55	....	0.00	89.02	10.98		....	....	....	....	....	....	....	....	....	....	....	SP
8		9.0	D.S	1.69	11.36	1.52	....	0.00	88.74	11.26		....	....	....	....	....	....	D.S.T	0.00	27.59	....	....	SP
9		10.5	D.S	1.72	10.45	1.56	0.644	0.59	90.31	9.10		....	....	....	2.61	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.68	9.25	1.54	....	0.34	89.15	10.51		....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.71	11.44	1.53	....	0.47	87.32	12.21		....	....	....	....	....	....	....	....	....	....	....	SP
12		15.0	D.S	1.72	10.29	1.56	0.635	0.52	88.46	11.02		....	....	....	2.60	....	....	D.S.T	0.00	28.25	....	....	SP
13		16.5	D.S	1.71	10.59	1.55	....	0.91	89.29	9.80		....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.70	7.32	1.58	....	0.58	90.03	9.39		....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.69	9.66	1.54	0.668	0.00	91.36	8.64		....	....	....	2.62	....	....	D.S.T	0.00	30.01	....	....	SP
16		21.0	D.S	1.68	10.09	1.53	....	0.71	89.44	9.85		....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.71	9.58	1.56	....	0.00	90.19	9.81		....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.73	10.44	1.57	....	0.00	91.36	8.64		....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.73	11.56	1.55	0.657	0.00	92.47	7.53		....	....	....	2.62	....	....	D.S.T	0.00	31.36	....	....	SP
20		27.0	D.S	1.72	8.39	1.59	....	0.85	92.59	6.56		....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.70	10.24	1.54	....	0.00	93.45	6.55		....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.71	8.74	1.57	0.628	0.29	94.37	5.34		....	....	....	2.61	....	....	D.S.T	0.00	32.74	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH-50																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Consistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntnt (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(φ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	50	0.5	D.S	1.85	26.98	1.46	....	0.96	18.96	66.37	13.71	40	22	18	....	....	....	....	....	....	....	....	CI
2		1.5	D.S	1.89	27.49	1.48	0.767	0.25	14.26	64.14	21.35	45	25	20	2.67	....	41	....	....	....	....	....	CI
4		3.0	U.D.S	1.91	27.33	1.50	....	0.55	10.05	67.25	22.15	43	24	19	....	0.49	....	T.S.T	0.34	3.01	0.18	0.05	CI
5		4.5	D.S	1.88	24.03	1.52	....	0.78	11.49	70.02	17.71	41	23	18	....	....	43	....	....	....	....	....	CI
6		6.0	D.S	1.70	9.47	1.55	0.617	0.81	88.49	10.70	....	....	....	....	2.56	....	....	....	....	....	....	....	SP
7		7.5	D.S	1.68	10.41	1.52	....	0.25	88.14	11.61	....	....	....	....	....	....	....	D.S.T	0.00	25.99	....	....	SP
8		9.0	D.S	1.69	8.96	1.55	....	0.38	90.19	9.43	....	....	....	....	....	....	....	....	....	....	....	....	SP
9		10.5	D.S	1.71	10.34	1.55	0.614	0.48	90.25	9.27	....	....	....	....	2.55	....	....	....	....	....	....	....	SP
10		12.0	D.S	1.70	7.36	1.58	....	0.68	89.14	10.18	....	....	....	....	....	....	....	....	....	....	....	....	SP
11		13.5	D.S	1.68	9.59	1.53	....	0.00	88.36	11.64	....	....	....	....	2.57	....	....	D.S.T	0.00	26.74	....	....	SP
12		15.0	D.S	1.66	8.74	1.53	0.652	0.26	96.31	3.43	....	....	....	....	....	....	....	....	....	....	....	....	SP
13		16.5	D.S	1.70	10.02	1.55	....	0.41	89.69	9.90	....	....	....	....	....	....	....	....	....	....	....	....	SP
14		18.0	D.S	1.74	11.43	1.56	....	0.00	88.47	11.53	....	....	....	....	....	....	....	....	....	....	....	....	SP
15		19.5	D.S	1.72	10.39	1.56	0.637	0.39	91.00	8.61	....	....	....	....	2.60	....	....	D.S.T	0.00	30.45	....	....	SP
16		21.0	D.S	1.71	10.49	1.55	....	0.59	90.58	8.83	....	....	....	....	....	....	....	....	....	....	....	....	SP
17		22.5	D.S	1.73	8.49	1.59	....	0.74	89.47	9.79	....	....	....	....	....	....	....	....	....	....	....	....	SP
18		24.0	D.S	1.71	9.44	1.56	....	0.00	89.25	10.75	....	....	....	....	....	....	....	....	....	....	....	....	SP
19		25.5	D.S	1.72	10.46	1.56	0.632	0.73	94.25	5.02	....	....	....	....	2.59	....	....	D.S.T	0.00	32.48	....	....	SP
20		27.0	D.S	1.73	9.89	1.57	....	0.58	95.61	3.81	....	....	....	....	....	....	....	....	....	....	....	....	SP
21		28.5	D.S	1.71	8.88	1.57	....	0.00	91.02	8.98	....	....	....	....	....	....	....	....	....	....	....	....	SP
22		30.0	D.S	1.72	7.33	1.60	0.598	0.89	92.64	6.47	....	....	....	....	2.61	....	....	D.S.T	0.00	31.57	....	....	SP

SUMMARY SHEET OF SOIL SAMPLES OF BH -51																							
Sl No.	BoreHole No.	Depth (in m.)	Type of Sample	Bulk Density (gm/cc)	Natural Moisture Content (%)	Dry Density (gm/cc)	Void Ratio	Grain Size Distribution				Concistency Properties			Specific Gravity	Unconfined Compression Test (in kg/cm ²)	Free swelling Index (%)	Shear Parameters			Consolidation Parameter		IS Classification
								Gravel Cntent (%)	Sand Content (%)	Silt content (%)	Clay Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)				Type of Test	Cohesion (in kg/cm ²)	Angle of Friction(φ) (Degree)	Consolidation Index (Cc)	Coefficient of Consolidation (Cv) cm ² /min	
1	47	0.5	D.S	1.84	23.51	1.52	...	0.06	25.25	59.02	15.67	37	19	18	...	...	31	...	...	...	...	...	CI
2		1.5	U.D.S	1.91	24.98	1.53	0.643	0.32	16.41	62.51	20.76	43	26	17	2.56	0.45	40	T.S.T	0.32	3.95	...	...	CI
4		3.0	D.S	1.72	12.36	1.53	...	0.21	90.45	9.34		...	...	...	...	...	...	...	...	...	...	...	SP
5		4.5	D.S	1.69	12.21	1.51	...	0.00	91.39	8.61		...	...	...	...	...	...	D.S.T	0.00	25.56	...	...	SP
6		6.0	D.S	1.65	7.98	1.53	0.656	0.25	88.56	11.19		...	...	...	2.58	...	...	...	...	...	...	...	SP
7		7.5	D.S	1.73	12.35	1.54	...	0.32	91.58	8.10		...	...	...	...	...	...	D.S.T	0.00	28.12	...	...	SP
8		9.0	D.S	1.68	10.21	1.52	...	0.00	85.25	14.75		...	...	...	...	...	...	...	...	...	...	...	SP
9		10.5	D.S	1.69	9.21	1.55	0.623	0.26	81.42	18.32		...	...	...	2.56	...	...	...	...	...	...	...	SP
10		12.0	D.S	1.62	6.89	1.52	...	0.18	90.36	9.46		...	...	...	...	...	...	...	...	...	...	...	SP
11		13.5	D.S	1.74	13.45	1.53	...	0.70	89.56	9.74		...	...	...	2.55	...	...	D.S.T	0.00	28.55	...	...	SP
12		15.0	D.S	1.73	11.29	1.55	0.609	0.00	91.36	8.64		...	...	...	...	...	...	...	...	...	...	...	SP
13		16.5	D.S	1.67	10.25	1.51	...	0.58	88.56	10.86		...	...	...	...	...	...	...	...	...	...	...	SP
14		18.0	D.S	1.71	11.65	1.53	...	0.35	92.23	7.42		...	...	...	...	...	...	...	...	...	...	...	SP
15		19.5	D.S	1.72	10.65	1.55	0.622	0.29	89.95	9.76		...	...	...	2.57	...	...	D.ST	0.00	27.35	...	...	SP
16		21.0	D.S	1.68	11.25	1.51	...	0.00	91.65	8.35		...	...	...	...	...	...	...	...	...	...	...	SP
17		22.5	D.S	1.73	11.56	1.55	...	0.57	87.89	11.54		...	...	...	...	...	...	...	...	...	...	...	SP
18		24.0	D.S	1.67	9.56	1.52	...	0.29	88.15	11.56		...	...	...	...	...	...	...	...	...	...	...	SP
19		25.5	D.S	1.72	12.95	1.52	0.662	0.78	89.98	9.24		Signature Not Verified Digitally signed by Sasupalli Vighneswara Prasad Date: 2026.04.01 13:39:00 IST Location: eProcure EPROC	...	...	...	...	D.S.T	0.00	31.25	...	...	SP	
20		27.0	D.S	1.71	10.96	1.54	...	0.95	92.55	6.50			...	...	...	...	...	...	...	...	...	...	SP
21		28.5	D.S	1.74	12.23	1.55	...	0.66	89.63	9.71			...	...	...	...	...	...	...	...	...	...	SP
22		30.0	D.S	1.69	9.68	1.54	0.655	0.86	97.53	1.61			...	...	...	2.60	...	...	D.S.T	0.00	33.35	...	...	SP

Signature Not Verified

Digitally signed by Sasupalli Vighneswara Prasad
Date: 2026.04.01 13:39:00 IST
Location: eProcure - EPROC