GSTIN. 03BNPPS2540N1ZK

M/S E.R. TECHNOLOGIES

Technologies

(Govt. Contractor of PH & Civil Works & Electrical Works)

(Specialist in: Deep Tube well, Sick Tube well, Geological and Hydro-Geological Survey, Electric Logging of Borehole, Videography of Borehole, Water Sample & Soil Testing etc.

Ref. ..... Dated.....31/10/2023

REPORT OF ELECTRIC LOGGING OF BOREWELL DRILLED AT SITE VILLLAGE BOHADUPUR, BLOCK NANGAL, DISRICT SAHARANPUR, UTTAR PRADESH UNDER JAL JEEVAN MISSION

Introduction:

The borehole at the site was drilled to a depth of 165.00 meters, and the electric logging was conducted up to 158.00-meter depth using a continuous logger on OCT 30, 2023. The purpose of this logging was to assess the various subsurface strata and properties encountered during drilling, with a focus on resistivity measurements (LON -64" and SHN-16) and self-potential (SP) data. This report provides an analysis of the interpreted data and offers recommendations for further actions under the Jal Jeevan Mission.

LOGGING DATA

Name of agency	**NKG Infrastructure**
Location	**Bohadupur**
Block	**Nangal**
District	**Saharanpur, U.P**
Depth drilled (mbgl)	**165**
Depth logged (mbgl)	**158**
Water level (m)	**10**
LON -64" Resistivty (N-64)	**Ohm.m (Blue)**
SHN-16 Resistivity (N-16)	**Ohm.m (Red)**
Self-Potential (SP)	**Mv (Green)**

Sr. No	Depth Range (m)		Zone Thickness(m)	LON -64" N Resistivity (ohm.m)	Probable Strata	Expected water Quality
	From	To				
1	0.00	2.00	2.00	<40	Top Soli	-
2	2.00	5.00	3.00	55	Medium Sand	-
3	5.00	9.00	4.00	26	Clay	-
4	9.00	17.50	8.50	59	Medium Coarse Sand	-
5	17.50	18.50	1.00	25	Clay	-
6	18.50	29.00	10.50	55	Medium Coarse Sand	-
7	29.00	31.00	2.00	29	Clay	-
8	31.00	44.50	13.50	64	Coarse Sand	-
9	44.50	46.50	2.00	27	Clay	-
10	46.50	54.50	8.00	64	Coarse Sand	-
11	54.50	56.00	1.50	29	Clay	-
12	**56.00**	**59.00**	**3.00**	**67**	**Coarse Sand**	**Good**
13	59.00	61.50	2.50	28	Clay	

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14	**61.50**	**67.50**	**6.00**	**68**	**Coarse Sand**	**Good**
15	67.50	75.00	7.50	28	Clay	-
16	**75.00**	**83.50**	**8.50**	**66**	**Coarse Sand**	**Good**
17	83.50	86.50	3.00	29	Clay	-
18	**86.50**	**92.50**	**6.00**	**55**	**Medium Coarse Sand**	**Good**
19	92.50	94.50	2.00	30	Clay	-
20	**94.50**	**96.50**	**2.00**	**59**	**Medium Coarse Sand**	**Good**
21	96.50	98.50	2.00	24	Clay	-
22	**98.50**	**104.50**	**6.00**	**67**	**Coarse Sand**	**Good**
23	104.50	109.00	4.50	21	Clay	-
24	**109.00**	**126.50**	**17.50**	**79**	**Coarse Sand , Gravel**	**Good**
25	126.50	132.50	6.00	24	Clay	-
26	**132.50**	**140.50**	**8.00**	**77**	**Coarse Sand , Gravel**	**Good**
27	140.50	143.50	3.00	28	Clay	-
28	**143.50**	**149.00**	**5.50**	**68**	**Coarse Sand**	**Good**
29	149.00	158.00	9.00	29	Clay	-

Recommendations:

Based on the interpreted strata data from the electric logging, the following recommendations are provided:

1. **Screen Installation:**

   It is recommended to install screens against the **bold-marked strata** indicated in the interpretation above. These screens will help facilitate water inflow from the identified permeable zones.

2. **Expected Water Quality:**

   The expected water quality in the zones marked as "Good" is anticipated to be favorable.

3. **Tubewell Development:**

   To optimize water yield, it is advised to develop the tubewell using a high-capacity air compressor.

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