



**GROUND WATER DEPARTMENT**  
**GOVERNMENT OF UTTAR PRADESH**  
Lucknow-226002



*GEOPHYSICAL BOREHOLE-LOGGING REPORT*

1. **Date of Logging:** 06/07/2023  
2. **Village:** Lakhi Beni Nagar  
3. **Location:** Pond  
4. **Block:** Harihar Pur Rani  
5. **District:** Shravasti  
6. **Latitude & Longitude:** 27.6430 & 81.9902.  
7. **Drilling depth:** 165m bgl  
8. **Logging depth:** 165 m bgl  
9. **Logging Company:** UP Ground Water Department  
10. **Bore hole drilled by:** Vishwanath Project Ltd.  
11. **Recorded Geophysical log data:** SP, Natural gamma & Resistivity (16 N & 64 N).

12. (i) **Resistivity of Mud (Rm):** 11.42 ohm-m. (ii) **Resistivity of fresh water (Rf):** 17.70 ohm-m.

13. **On the basis of interpretation of recorded log data in open hole detail report is made is as follows:-**

(a) **Acquifer:** The depth zones with high resistivity and relatively low Natural Gamma radioactivity values are referred as Aquifer Zones.

(b) **Clay:** The depth zones with less resistivity and relatively high Natural Gamma radioactivity values are referred as Clay zones.

**Based on the downhole Geophysical Parameters following information (Granular zones) deciphered:-**

S.No	Depth Range (m bgl)	Thickness (meter)	Lithology	Acquifer Recommendation	Remark (Quality of aquifer water)
1.	0-11	11	Top soil		Good
2.	11-17	6	Medium to fine sand	Recommended	Good
3.	17-28	11	Clay		Good
4.	28-39	11	Medium to fine sand	Recommended	Good
5.	39-42	3	Clay		Good
6.	42-48	6	Fine sand	Recommended	Good
7.	48-76	28	Medium to fine sand	Recommended	Good
8.	76-90	14	Clayey sand		Good
9.	90-96	6	Fine sand	Recommended	Good
10.	96-102	6	Clayey sand		Good
11.	102-105	3	Fine sand	Recommended	Good
12.	105-117	12	Clay		Good
13.	117-135	18	Medium to fine sand	Recommended	Good
14.	135-142	7	Clay		Good
15.	142-150	8	Medium to fine sand	Recommended	Good
16.	150-158	8	Clay		Good
17.	158-165	7	Medium to fine sand	Recommended	Good

14. **Note:-**

(i) **All Zones are intermixed with kankar.**

(ii) **Zone 1,2,3,4 & 5 is intermixed with thin layers of kankar.**

15. **Quality of the formation water is good up to Logging depth.**

16. **Log Attached.**

*Rajeev Kumar*

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(Geophysicist)

*Done*