

**GROUND WATER SURVEY CONSULTANCY**  
GEOLOGISTS, GEOPHYSICISTS & TUBEWELL ENGINEERS

**GEO-PHYSICAL WELL  
ELECTROLOGGING REPORT**

Ref No:-B-2875

Date:- 11-01-2024

**NAME OF SITE**

GRAM PANCHAYAT- Mirzapur Tilak      BLOCK- Nawabganj      DISTT- Bahraich

**NAME OF AGENCY**

Gyan Scientific Traders (India) Pvt. Ltd.  
Bahraich



**GROUND WATER SURVEY CONSULTANCY**

Electric Well Logging, Geophysical Resistivity Survey, Ground Water Investigations.

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**ISO ; 9001 : 2015**

Ground Water Survey Consultancy  
Agra



# REPORT ON GEOPHYSICAL WELL LOGGING

AT

GRAM PANCHAYAT- MIRZAPUR TILAK, BLOCK- NAWABGANJ, DISTT- BAHRAICH  
UNDER

## JAL JIVAN MISSION

### Introduction :

A Deep bore hole was drilled 220 mtrs. depth. and Logged depth 220 mtrs. at above site. Was drilled by M/s Gyan Scientific Traders (India) Pvt. Ltd., Bahraich.

On the request of M/s Gyan Scientific Traders (India) Pvt. Ltd., Bahraich. a Geophysical well Logging in the above bore hole using IGIS Well Logger on 11.Jan.2024.

Logging Para meters - Self potential, short normal (N-16), Long Normal (N-64), Lateral. Details of major Aquifer formations explored from logging of bore hole combined with the study of Strata Chart prepared from drill cuttings are given in the following table:-

Mud Resistivity = 19.27 Ohms.

Drilling Water Resistivity = 19.07 Ohms.

Approx Water Level = 11 Mtr

| S.No. | Depth range(m) | Thickness(m) | Lithology            | Expected Water Quality |
|-------|----------------|--------------|----------------------|------------------------|
| 1.    | 0 - 5          | 5            | Surface soil         |                        |
| 2.    | 5 - 16         | 11           | Clay kankar          |                        |
| 3.    | 16 - 20        | 4            | Fine sand            |                        |
| 4.    | 20 - 25        | 5            | Clay kankar          |                        |
| 5.    | 25 - 30        | 5            | Fine sand            |                        |
| 6.    | 30 - 40        | 10           | Clay kankar          |                        |
| 7.    | 40 - 43        | 3            | Fine to Medium sand  | Good                   |
| 8.    | 43 - 60        | 17           | Clay kankar          |                        |
| 9.    | 60 - 63        | 3            | Fine sand            | Good                   |
| 10.   | 63 - 72        | 9            | Clay kankar          |                        |
| 11.   | 72 - 83*       | 11           | Gravel & Course sand | Good                   |
| 12.   | 83 - 92        | 9            | Clay kankar          |                        |
| 13.   | 92 - 104*      | 12           | Medium sand          | Good                   |
| 14.   | 104 - 109      | 5            | Clay kankar          |                        |
| 15.   | 109 - 111      | 2            | Fine to Medium sand  | Good                   |
| 16.   | 111 - 118      | 7            | Clay kankar          |                        |
| 17.   | 118 - 125*     | 7            | Fine to Medium sand  | Good                   |
| 18.   | 125 - 134      | 9            | Clay kankar          |                        |
| 19.   | 134 - 150*     | 16           | Medium sand          | Good                   |
| 20.   | 150 - 155      | 5            | Clay kankar          |                        |
| 21.   | 155 - 158*     | 3            | Fine to Medium sand  | Good                   |
| 22.   | 158 - 166      | 8            | Clay kankar          |                        |
| 23.   | 166 - 169      | 3            | Fine sand            | Good                   |
| 24.   | 169 - 177      | 8            | Clay kankar          |                        |
| 25.   | 177 - 187*     | 10           | Fine to Medium sand  |                        |
| 26.   | 187 - 220      | 33           | Clay kankar          |                        |

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**Conclusions and Recommendations :-**

1. The Lithology broadly tallies with that of drill cutting strata chart.
2. The zones marked with asterisk (\*) appear to be aquifer zones for possible Development of tube well.
3. The Quality of water is expected Good.
4. It is recommended to have a chemical and bacteriological analysis of the water sample before using it for human consumption or for any other use.
5. All projections and recommendations are subject to the inherent limitations of the technique employed and there could be variations as the underground conditions are not always amenable to physical interpretations.



