### GROUND WATER SURVEY CONSULTANCY

GEOLOGISTS, GEOPHYSICISTS & TUBEWELL ENGINEERS

# GEO-PHYSICAL WELL ELECTOLOGGING REPORT

Ref No:- 201

Date:- 07-05-2022

NAME OF SITE

Gram Panchayat- Murcha

**BLOCK-Sindhauli** 

DISTT- Shahjahanpur

NAME OF AGENCY

M/s NCC Ltd. Shahjahanpur



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## REPORT ON GEOPHYSICAL WELL LOGGING

# GRAM PANCHAYAT- MURCHA, BLOCK- SINDHAULI, DISTT- SHAHJAHANPUR UNDER JAL JIVAN MISSION

#### Introduction:

A Deep bore hole was drilled 142 mtrs. depth. and Logged depth 140 mtrs. at above site. Was drilled by M/S NCC Ltd., Shahjahanpur.

On the request of M/S NCC Ltd., Shahjahanpur. a Geophysical well Logging in the above bore hole using IGIS Well Logger on 07.May.2022.

Logging Para meters - Self potential, short normal (N-16), Long Normal (N-64), Lateral.

Details of major equifer formations explored from logging of bore hole combined with the study of Strata Chart prepared from drill cuttings are given in the following table:-

| S.No. | Defth range(m) | Thickness(m) | Lithology           | Expected<br>Water Quality |
|-------|----------------|--------------|---------------------|---------------------------|
| 1.    | 0 - 5          | 5            | Surface soil        |                           |
| 2.    | 5 - 15         | 10           | Fine sand           |                           |
| 3.    | 15 - 20        | 5            | Clay kankar         |                           |
| 4.    | 20 - 25        | 5            | Medium sand         | Good                      |
| 5.    | 25 - 27        | 2            | Clay kankar         |                           |
| 6.    | 27 - 33        | 6            | Medium sand         | Good                      |
| 7.    | 33 - 37        | 4            | Clay kankar         |                           |
| 8.    | 37 - 57*       | 20           | Medium sand         | Good                      |
| 9.    | 57 - 65        | 8            | Clay kankar         |                           |
| 10.   | 65 - 72*       | 7            | Fine to Medium sand | Good                      |
| 11.   | 72 - 82        | 10           | Clay kankar         |                           |
| 12.   | 82 - 104*      | 22           | Medium sand         | Good                      |
| 13.   | 104 - 115      | 11           | Clay kankar         |                           |
| 14.   | 115 - 130*     | 15           | Medium sand         | Good                      |
| 15.   | 130 - 140      | 10           | Clay kankar         |                           |



#### Conclusions and Recommendations :-

- The Lithology broadly tallies with that of drill cutting starta chart.
- The zones marked with asterisk (\*) appear to be aquifer zones for possible development of tubewell.
- The Quality of water is expected Good.
- Expected discharge is 1000 to 1100 L.P.M.
- 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.
- 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.

Geophysicist Williams & Williams

**Ground Water Survey Consultancy** 

