

# REPORT ON GEOPHYSICAL WELL LOGGING

AT

GRAM PANCHAYAT- MURA DHAMU, BLOCK- LAKHIMPUR KHIRI,  
DISTT- LAKHIMPUR KHIRI

UNDER

JAL JIVAN MISSION

## Introduction :

A Deep bore hole was drilled 170 mtrs. depth. and Logged depth 165 mtrs. at above site. Was drilled by M/s NCC, Lakhimpur Khiri.

On the request of M/s NCC, Lakhimpur Khiri. a Geophysical well Logging in the above bore hole using IGIS Well Logger on 19.Dec.2022.

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 = 26.82 Ohms.

Drilling Water Resistivity = 29.33 Ohms.

Approx Water Level = 4 Mtr.

S.No.	Depth range(m)	Thickness(m)	Lithology	Expected Water Quality
1.	0 - 5	5	Surface soil	
2.	5 - 21	16	Medium sand & kankar	
3.	21 - 25	4	Clay	
4.	25 - 30	5	Fine sand	
5.	30 - 32	2	Clay	
6.	32 - 38	6	Medium sand	
7.	38 - 41	3	Clay kankar	
8.	41 - 53*	12	Medium sand	Good
9.	53 - 58	5	Clay kankar	
10.	58 - 70*	12	Medium sand	Good
11.	70 - 72	2	Kankar	
12.	72 - 102*	30	Medium sand	Good
13.	102 - 106	4	Kankar	
14.	106 - 115*	9	Medium sand	Good
15.	115 - 133	18	Clay kankar	
16.	133 - 136*	3	Fine to Medium sand	Good
17.	136 - 145	9	Clay kankar	
18.	145 - 155*	10	Medium sand	Good
19.	155 - 165	10	Clay kankar	

Sr No 8 - 45 - 8m  
Sr No 10 - 60 - 70 (10m) Ground Water Survey Consultancy  
Sr No 12 - 80 - 102 (22m) Kankar intermixed  
Agra

Logging performed as per  
SWSM guidelines  
G.W quality interpreted  
by firm as per their log

41 - 53 = 12  
 59 - 70 = 11  
 72 - 102 = 30  
 106 - 115 = 9  
 132 - 136 = 4  
 145 - 150 = 5

41 - 53 = 12

$41 - 53 = 12 \quad \left( \frac{45 - 53}{-8} \right)$

$59 - 70 = 11 \quad \left( \frac{60 - 70}{-10} \right)$

$72 - 102 = 30 \quad \left( \frac{80 - 102}{-22} \right) \div 9$

$106 - 115 = 9 \quad \div 6$

$132 - 136 = 4 \quad \div 3$

$145 - 150 = 5$

		0.5
		47.5
	0.20	47.7
	6.0	
	6.0	
	6.0	
	6.0	
	6.0	
	6.0	
	6.0	89.7
6.0		
3.0		98.7
	6.0	
	2.0	
6.0		106.7
		112.7
	6.0	
	6.0	
	6.0	
	2.3	
3.0		132.0
		136.0
	6.0	139.0