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## UTTAR PRADESH JAL NIGAM

6, Rana Pratap Marg, Lucknow-226001

Ref.

### Geophysical Borehole Logging Report

Name of the site : Hameedpur

District : Mau

Date : 12.05.2015

Depth logged : 190.0 mbgl

Depth drilled : 200.0 mbgl

Logger used : AXWS

Presence : Er. Surendra Yadav, J.E.

Based on the interpretation of geophysical logs, following information may be deciphered, particularly with respect to salinity of the formation water.

| Sl.No. | Depth range(mbgl) | Thickness(m) | Remarks  |
|--------|-------------------|--------------|----------|
| 1      | 30.0----63.0      | 33.0         | Good all |
| 2      | 77.0----81.0      | 4.0          |          |
| 3      | 93.0----100.0     | 7.0          |          |
| 4      | 115.0----120.0    | 5.0          |          |
| 5      | 132.0----142.0    | 10.0         |          |
| 6      | 150.0----155.0    | 5.0          |          |
| 7      | 165.0----170.0    | 5.0          |          |

Note. Sl.Nos. 2 to 7 are fine sand intermixed with kanker.

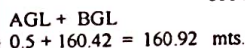
(Dr.R.A.Yadav)  
Manager(Ground Water)

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1. C.E.(E/M), U.P.Jal Nigam, Lucknow.
2. E.E., T.C.D.(E/M), U.P.Jal Nigam, Mau for information and necessary action.

(Not to Scale)

### Detail of Lowering



| Detail of Lowering |                               |                  |
|--------------------|-------------------------------|------------------|
| 1                  | Drilling depth                | 200 mts.         |
| 2                  | Drilling by contractor        | R C. Rig M/C     |
| 3                  | Drilling started on           | 04-05-2015       |
| 4                  | Drilling completed on         | 12-05-2015       |
| 5                  | Date of lowering              | 21-05-2015       |
| 6                  | Total housing pipe dia 300 mm | 41.95 mt.        |
| 7                  | Total Plain pipe dia 150 mm   | 81.73 mt.        |
| 8                  | Total Slotted pipe dia 150mm  | 37.04 mt.        |
| 9                  | Size of assembly lowering     | 300mmø x 150 mmø |
| 10                 | 300mmø x 150 mmø M.S. Reduser | 0.20 mt          |

### Detail of Strata

| Detail of Strata |        |           |                             |
|------------------|--------|-----------|-----------------------------|
| From (m)         | To (m) | Thick (m) | Desperation of the Strata   |
| 0                | 6      | 6         | Surface Clay                |
| 6                | 28     | 22        | Clay with Kankar            |
| 28               | 65     | 37        | Fine to medium sand         |
| 65               | 76     | 11        | Sandy clay                  |
| 76               | 85     | 9         | Sandy Clay with Kankar      |
| 85               | 93     | 8         | Sandy Clay                  |
| 93               | 100    | 7         | Very Fine Sand              |
| 100              | 115    | 15        | Clay                        |
| 115              | 131    | 16        | Yellowish Clay with Kankar  |
| 131              | 143    | 12        | Fine sand with Sand Stone   |
| 143              | 149    | 6         | Caving Clay                 |
| 149              | 155    | 6         | Very Fine Sand              |
| 155              | 164    | 9         | Hard Clay with Kankar       |
| 164              | 170    | 6         | Sandy Clay                  |
| 170              | 179    | 9         | Sandy Clay with Hard Kankar |
| 179              | 188    | 9         | Hard Clay                   |
| 188              | 200    | 12        | Clay with Kankar            |

## Logging Report

**Date 12-05-2015**

| SLN. | Depth Range (mbgl) | Thicknees (m) | Remark   |
|------|--------------------|---------------|----------|
| 1    | 30.0 – 63.0        | 33.0          | Good All |
| 2    | 77.0 – 81.0        | 4.0           |          |
| 3    | 93.0 – 100.0       | 7.0           |          |
| 4    | 115.0 – 120.0      | 5.0           |          |
| 5    | 132.0 – 142.0      | 10.0          |          |
| 6    | 150.0 – 155.0      | 5.0           |          |
| 7    | 165.0 – 170.0      | 5.0           |          |

### TEST REPORT OF T.W. DEVELOPMENT BY AIR COMPRESSOR

| TEST REPORT OF T.W. DEVELOPMENT BY P.W. WORK   |                        |                                |         |                       |         |                               |           |                         |       |        |        |        |        |
|------------------------------------------------|------------------------|--------------------------------|---------|-----------------------|---------|-------------------------------|-----------|-------------------------|-------|--------|--------|--------|--------|
| Date of Test 29-11-2015                        |                        |                                |         |                       |         |                               |           |                         |       |        |        |        |        |
| Sl. No                                         | Air line Lower in mtr. | Pressure in kg/cm <sup>2</sup> |         | Depression            |         | Discharge through 90° V-notch |           | Sand contents in P.P.M. |       |        |        |        | Remark |
|                                                |                        | Starting                       | Running | In kg/cm <sup>2</sup> | In mtr. | In cm. / Inches               | In L.P.M. | Starting                | 5 Min | 10 Min | 15 Min | 20 Min |        |
| 1                                              | 153                    | 15.30                          | 14.70   | 0.6                   | 6       | 9½                            | 2410      | 3700                    | 1800  | 1200   | 1000   | 800    |        |
| Note- Recommended for development by O.P. unit |                        |                                |         |                       |         |                               |           |                         |       |        |        |        |        |

### YIELD TEST REPORT OF T.W BY O.P. UNIT

Discharge measured by orifice meter- 6" x5" size. Date of Test : - 01-02-2016

| Sl. No. | Discharge |          | Water level in mts. |        | Depression in meters | Sand contents in P.P.M. |      |        |        |       | Remark                                               |
|---------|-----------|----------|---------------------|--------|----------------------|-------------------------|------|--------|--------|-------|------------------------------------------------------|
|         | In Inches | In L.P.M | Running             | Static |                      | Starting                |      | After  |        |       |                                                      |
|         |           |          |                     |        |                      | g                       | 5Min | 10 Min | 15 Min | 20 Mi |                                                      |
| 1       | 35        | 3291     | 13.50               | 7.45   | 6.05                 | 1500                    | 800  | 350    | 200    | 100   | Recommended discharge 1500 LPM at 2.90 M depression. |
| 2       | 30        | 3041     | 13.00               | 7.45   | 5.55                 | 1000                    | 500  | 200    | 100    | 50    |                                                      |
| 3       | 25        | 2769     | 11.80               | 7.45   | 4.35                 | 500                     | 200  | 150    | 75     | 30    |                                                      |
| 4       | 14        | 2080     | 11.00               | 7.45   | 3.55                 | 200                     | 75   | Tr     | Cl     | Cl    |                                                      |
| 5       | 8         | 1589     | 10.35               | 7.45   | 2.90                 | 100                     | 50   | Cl     | Cl     | Cl    |                                                      |

**Note - Recommended 10 minute operation initially of pumping plant in by pass due to fine sand strata**

**Proposed By**

(M/S. Shiv Drillers)  
Kolkata  
Contractor

**Recommended By**

(Surendra Yadav)  
J. E.

**Approved**

(S.N. Singh)  
Assistant Engineer

( N.A. Khan )  
Executive Engineer