



Project :

BARIND MULTIPURPOSE DEVELOPMENT AUTHORITY  
RAJSHAHI.

Well No.:

District : Panchagarh

Upazilla Boda

Union : Phacpir

Mouza Korunamaygupta

J.L. No : 161

Plot No : 64

Engineer

Drilling Contractor

Barind Multipurpose  
Development Authority

M/S. Sunley Engineers

DRILLING LOG

Date started 19/12/04 8.00 hrs; Date completed 20/12/04 11.00 hrs.

Logged by SAE Rod length 10 ft.

| Drilling time log |      |    | Graphic<br>log | Thickness (ft.) |     | Description of formation      |
|-------------------|------|----|----------------|-----------------|-----|-------------------------------|
| rod               | from | to |                | from            | to  |                               |
| 10                | 8.00 |    |                | 0               | 5   | Redish hard clay              |
|                   |      |    |                | 5               | 20  | Brown coarse sand.            |
|                   |      |    |                | 20              | 30  |                               |
|                   |      |    |                | 30              | 40  |                               |
|                   |      |    |                | 40              | 50  | Grey coarse sand              |
|                   |      |    |                | 50              | 55  |                               |
|                   |      |    |                | 55              | 60  | Blakish plastic clay.         |
|                   |      |    |                | 60              | 70  | Grey coarse sand              |
|                   |      |    |                | 70              | 80  |                               |
|                   |      |    |                | 80              | 90  |                               |
|                   |      |    |                | 90              | 100 | Grey fine to med sand         |
|                   |      |    |                | 100             | 110 | Grey med. sand                |
|                   |      |    |                | 110             | 120 |                               |
|                   |      |    |                | 120             | 130 | Grey coarse to med sand       |
|                   |      |    |                | 130             | 138 |                               |
|                   |      |    |                | 138             | 140 | Redish plastic clay with bold |
|                   |      |    |                | 140             | 150 | Grey coarse sand.             |
|                   |      |    |                | 150             | 155 |                               |
|                   |      |    |                | 155             | 160 | Grey coarse sand with bolder  |
|                   |      |    |                | 160             | 170 | Light brown med. to coarse sa |
|                   |      |    |                | 170             | 180 |                               |
|                   |      |    |                | 180             | 190 | Grey coarse sand              |
|                   |      |    |                | 190             | 200 | Light brown med. to coarse sa |
|                   |      |    |                | 200             | 210 |                               |
|                   |      |    |                | 210             | 220 | Grey med. to coarse sand      |
|                   |      |    |                | 220             | 230 |                               |
|                   |      |    |                | 230             | 240 | Grey coarse sand.             |
|                   |      |    |                | 240             | 250 |                               |
|                   |      |    |                | 250             | 255 | Brown med. sand               |
|                   |      |    |                | 255             | 266 | Blakish hard clay             |

11.00

SSAE/SAE  
Date  
উপ-সহকারী প্রকৌশলী  
বিএমডিএ, বোদা জোন, পঞ্চগড়।  
(7-BMDA2-252 (P-1))

Asstt. Engr.  
Date

সহকারী প্রকৌশলী  
বিএমডিএ, ইউনিট-২  
বোদা জোন, বোদা, পঞ্চগড়।

For the Contractor  
Date

Pro. Md. Shafur Rahman  
M/s. Sunley Engineers  
Nayanpur, P.O. Rajbati,  
Dist. Dinajpur





Project :  
**BARIND MULTIPURPOSE DEVELOPMENT AUTHORITY  
RAJSHAHI.**

Well No :  
District : Panchagarh  
Upazilla : Boda  
Union : Phacpir  
Mouza : Karunamay Gupta  
J.L. No : 161  
Plot No : 64

Engineer :

Barind Multipurpose  
Development Authority

Drilling Contractor  
M/S. Sunley Engineers

**CONSTRUCTION DETAIL**

| Operation                                                                             | Started                 | Completed          |            | Cross Section of the well<br>(Not to scale) |
|---------------------------------------------------------------------------------------|-------------------------|--------------------|------------|---------------------------------------------|
| Drilling                                                                              | 19/12/04 8.00 HRS       | 20/12/04 11.00 HRS |            |                                             |
| Casing                                                                                | 18/12/04 10.00 HRS      | 18/12/04 2.00 HRS  |            |                                             |
| Gravel Placing                                                                        | 20/12/04 12.00 HRS      | 20/12/04 4.00 HRS  |            |                                             |
| Drilling Diameter : 14"/22"/24"/44" 22" dia                                           |                         |                    |            |                                             |
| Housing Pipe (Dia 8"/14") : Mild Steel/PVC 14" dia PVC                                |                         |                    |            |                                             |
| UWC                                                                                   | 1'-6" ft. above GL      |                    |            |                                             |
| UWC (incl. Reducer)                                                                   | 100'-2" ft. below GL    |                    |            |                                             |
| Total length (ft.)                                                                    |                         |                    | 101'-8"    |                                             |
| LWC (Dia 8 inch): Mild Steel/PVC                                                      |                         |                    |            |                                             |
| Depth below GL                                                                        | From 101'-8" to 111'-4" | 9'-8"              |            |                                             |
|                                                                                       | From 131'-0" to 160'-4" | 29'-4"             |            |                                             |
| Total length (ft.)                                                                    |                         |                    | 39'-0"     |                                             |
| Screen (Dia 8 inch): SS/FG/PVC                                                        |                         |                    |            |                                             |
| Depth below GL                                                                        | From 111'-4" to 131'-0" | 19'-8"             |            |                                             |
|                                                                                       | From 160'-4" to 239'-0" | 78'-8"             |            |                                             |
| Total length (ft.)                                                                    |                         |                    | 98'-4"     |                                             |
| Bail Plug (Dia 8 inch)/PVC                                                            |                         |                    |            |                                             |
| Depth below GL                                                                        | From 239'-0" to 244'-0" | 5'-0"              |            |                                             |
| Centralizers                                                                          |                         |                    |            |                                             |
| Depth below GL at<br>113'-6", 133'-6", 163'-6",<br>183'-6", 203'-6", 223'-6", 242'-0" |                         |                    |            |                                             |
| Total Number                                                                          |                         |                    | 07 Nos.    |                                             |
| Gravel :                                                                              |                         |                    |            |                                             |
| Gravel Quantity (approx) 496.85 cft.                                                  |                         |                    |            |                                             |
| Depth Below GL                                                                        | From 1'-6" to 250 ft.   | 496.85 cft.        |            |                                             |
| Fixture Length                                                                        |                         |                    |            |                                             |
| From top of UWC to bottom of Bail Plug                                                |                         |                    | 244'-4" ft |                                             |
| Verticality test :                                                                    |                         |                    |            |                                             |
| Max. Deviation 1.625 inch at 100 ft. depth                                            |                         |                    |            |                                             |
| Date 20-12-2004                                                                       |                         |                    |            |                                             |
| Ordered Depth 248'-6" ft.<br>(From GL to bottom of Bail Plug)                         |                         |                    |            |                                             |

মোঃ সালেহ আলী  
উপসহকারী প্রকৌশলী  
বিএমডিএ, বোদা জোন, পঞ্চগড়।

C:10-BMDA2-119

Asstt. Engr.  
Date

For the Contractor  
Date

সহকারী প্রকৌশলী  
বিএমডিএ, ইউনিট-২





**BARIND MULTIPURPOSE DEVELOPMENT AUTHORITY  
RAJSHAHI**

**INSPECTION OF VERTICALITY OF THE TUBEWELL**

Before Shrouding

1. Well No. :
2. District : **Panchagarh**
3. Upazilla : **Boda**
4. Union : **Pachpir**
5. Mouza : **Karunamay Gupta**
6. J.L. No. : **161**
7. Plot No. : **64**
8. Total Length of the Tubewell : **250'-0"**
9. Length of UWC (Excluding Reducer) **100' 10'-8"** ft. Date : **20/12/2004**
10. Name of Sinking Contractor : **M/S. Sunley Engineers.**

**VERTICALITY DATA SHEET**

Suspension Height (H) **10** ft.

Dia of UWC,  $d_1$ .....**14**..... inch

Dia of Disc,  $d_2$ .....**13.5**..... inch

| Depth<br>in ft.<br>L. | Deviation<br>in inch<br>X | Bearing<br>Reading<br>Pointing<br>North. | Calculated<br>Deviation<br>in inch<br>$D' = \frac{X(L+H)}{H}$ | Disc<br>Factor<br>$C = \frac{d_1-d_2}{2}$ | Deviation<br>in inch<br>$D = D' + C$ |
|-----------------------|---------------------------|------------------------------------------|---------------------------------------------------------------|-------------------------------------------|--------------------------------------|
| 10'                   | 1/8                       | NE                                       | 0.25                                                          | 0.25                                      | 0.50                                 |
| 20'                   | 1/4                       | NE                                       | 0.75                                                          | 0.25                                      | 1.00                                 |
| 30'                   | 1/8                       | NE                                       | 0.50                                                          | 0.25                                      | 0.75                                 |
| 40'                   | 1/16                      | NE                                       | 0.312                                                         | 0.25                                      | 0.562                                |
| 50'                   | 1/16                      | N                                        | 0.375                                                         | 0.25                                      | 0.625                                |
| 60'                   | 1/8                       | N                                        | 0.875                                                         | 0.25                                      | 1.125                                |
| 70'                   | 3/32                      | N                                        | 0.75                                                          | 0.25                                      | 1.00                                 |
| 80'                   | 1/8                       | N                                        | 1.125                                                         | 0.25                                      | 1.375                                |
| 90'                   | 1/8                       | NE                                       | 1.25                                                          | 0.25                                      | 1.50                                 |
| 100'                  | 1/8                       | NE                                       | 1.375                                                         | 0.25                                      | 1.625                                |
| 110'                  |                           |                                          |                                                               |                                           |                                      |
| 120'                  |                           |                                          |                                                               |                                           |                                      |

11. Maximum Deviation : **1.625** inch at depth **100** ft.

12. Other observation, if any :

মোঃ লোকমান হাকিম  
উঃসস/সস  
বিঃমডিও, বোদা জোন, পঞ্চগড়।  
Date \_\_\_\_\_

Asstt. Engr.

Date \_\_\_\_\_

For the Contractor

Date \_\_\_\_\_

C:7-BMDA2-252 (P-4)

সহকারী প্রকৌশলী  
বিঃমডিও, বোদা জোন, পঞ্চগড়।

**Pro. Md. Shafur Rahman**  
M/s. Sunley Engineers  
Nayanpur, P.O. Rajbati,  
Dist. Dinalpur.





# BARIND MULTIPURPOSE DEVELOPMENT AUTHORITY RAJSHAHI

## DEVELOPMENT RECORD (Period : 2 hour)

Page No : 1

|                                                                             |  |                                |
|-----------------------------------------------------------------------------|--|--------------------------------|
| Date: <b>21/12/2004</b>                                                     |  | Well No : _____                |
| Starting Time <b>6</b> hrs <b>0</b> minute, Capacity of Pump <b>3</b> cusec |  | District : <b>Panchagarh</b>   |
| Ref. Mark (Top of Housing) <b>1'-6"</b> ft. above G.L.                      |  | Upazilla : <b>Boda</b>         |
| Static Water Level <b>10'-5"</b> ft. below top of Housing Pipe.             |  | Union : <b>Phacpir</b>         |
| Size of Orifice <b>5</b> inch, Size of Delivery Pipe <b>6</b> inch          |  | Mouza : <b>Karunamay Gupta</b> |
| Length of UWC <b>100 101'-8"</b> ft, Depth of Pump Setting <b>70</b> ft.    |  | J.L No. : <b>161</b>           |
|                                                                             |  | Plot No. : <b>64</b>           |

| Time            | Piezometric Height (inch) | Discharge (cusec) | Pumping Water Level below Reference Mark (ft.) | Actual Draw-Down (ft.) | Remarks        |
|-----------------|---------------------------|-------------------|------------------------------------------------|------------------------|----------------|
| 1               | 2                         | 3                 | 4                                              | 5                      | 6              |
| 00mn (8 hrs)    | <b>13"</b>                | <b>1.00</b>       | <b>SWL=10'-5"</b>                              |                        | 50% Discharge  |
| 05 mn           | "                         | "                 | <b>25'-5"</b>                                  | <b>15'-0"</b>          |                |
| 10 mn           | "                         | "                 | <b>25'-8"</b>                                  | <b>15'-3"</b>          |                |
| 15 mn           | "                         | "                 | <b>25'-10"</b>                                 | <b>15'-5"</b>          |                |
| 20 mn           | "                         | "                 | <b>25'-11"</b>                                 | <b>15'-6"</b>          |                |
| 25 mn           | "                         | "                 | <b>26'-0"</b>                                  | <b>15'-6"</b>          |                |
| 30 mn           | "                         | "                 | <b>26'-1"</b>                                  | <b>15'-8"</b>          |                |
| 35 mn           | <b>53"</b>                | <b>2.00</b>       | <b>35'-3"</b>                                  | <b>24'-10"</b>         | 100% Discharge |
| 40 mn           | "                         | "                 | <b>35'-7"</b>                                  | <b>25'-2"</b>          |                |
| 45 mn           | "                         | "                 | <b>35'-10"</b>                                 | <b>25'-5"</b>          |                |
| 50 mn           | "                         | "                 | <b>36'-0"</b>                                  | <b>25'-7"</b>          |                |
| 55 mn           | "                         | "                 | <b>36'-2"</b>                                  | <b>25'-9"</b>          |                |
| 60 mn           | "                         | "                 | <b>36'-3"</b>                                  | <b>25'-10"</b>         |                |
| 65 mn           | "                         | "                 | <b>36'-4"</b>                                  | <b>25'-11"</b>         |                |
| 70mn            | <b>84"</b>                | <b>2.50</b>       | <b>41'-2"</b>                                  | <b>30'-9"</b>          | 125% Discharge |
| 80 mn           | "                         | "                 | <b>41'-5"</b>                                  | <b>31'-0"</b>          |                |
| 90 mn           | "                         | "                 | <b>41'-6"</b>                                  | <b>31'-1"</b>          |                |
| 100 mn          | <b>113"</b>               | <b>3.00</b>       | <b>46'-9"</b>                                  | <b>36'-4"</b>          | 150% Discharge |
| 110 mn          | "                         | "                 | <b>47'-0"</b>                                  | <b>36'-7"</b>          |                |
| 120 mn (2 hrs.) | "                         | "                 | <b>47'-1"</b>                                  | <b>36'-8"</b>          |                |

1 cusec = 28.32 LPS.

*(Signature)*  
**21/12/04**  
S SAE/SAE  
উপ-সহকারী প্রকৌশলী  
Date  
বিএমডিএ, বোদা জোন, পঞ্চগড়।

C:10-BMDA2-118 (P-2)

Asstt. Engr.  
Date 21/12/04

*(Signature)*  
সহকারী প্রকৌশলী  
বিএমডিএ, ইউনিট-২  
জোড়া জোন, বোদা, পঞ্চগড়।

For the Contractor  
Date 21/12/04  
**Pro Md Shafiqur Rahman**  
M/s. Sunley Engineers  
Nayanpur, P.O. Rajbati,  
Dist. Dinajpur.