

# EDAL DRILLING COMPANY LTD.

### REALINI BADER/TECHSULT

BORE-HOLE DRILLING REPORT REF No: BORE-HOLE 1&2

PREPARED BY:
EDAL DRILLING COMPANY
35A CLEWRY'S LANE, OFF MAIN MOTOR ROAD
CONGO CROSS
FREETOWN
SIERRA LEONE

FOR: REALINI BADER/TECHSULT FREETOWN

#### **CERTIFIED BY**

KEMOH ALIE BAYOH GEOLOGIST: DRILL SUPERVISOR/PROJECT MANAGER

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#### **SUMMARY**

A geotechnical site investigation is the process of collecting information devaluating the conditions of the site for the purpose of designing and onstructing the foundation for a structure, such as a building, plant or bridge.

Good planning for and management of a geotechnical site investigation is the key to obtaining sufficient and correct site information for designing a structure in a timely manner and with minimum cost for the effort needed. The effort and detail of the geotechnical site investigation to obtain sufficient and correct site Information to select and design a foundation for a building depends on:

- a) Design criteria of the proposed structure
- b) Historic knowledge of general site conditions and building performance
- c) Drilling equipment availability
- d) Time of year the work needs to be done may determine the geotechnical site investigation method and finally
- e) the overall costs

## DAILY LOG FOR DRILLING SUPERVISION

| CO                                | NTRACT                                       | CONTRACTION        | EDAL DRILING COMPANY LIMITED           |                   |  |
|-----------------------------------|--|--------------------|--|-------------------|--|
| OWNER NAME                        | REALINI BADER/TECHSULT                       | DEPTH OF HOLES (m) | DEPTH OF HOLES (m) 12                  |                   |  |
| OWNER ADDRESS                     | CITY HALL,WALLACE JOHNSON<br>STREET,FREETOWN | WEATHER            | SUNNY                                  |                   |  |
| RIG<br>MAKE<br>COMPRESSOR<br>MAKE | PRD 250 ELGI 900 cfm/ 200 psi                | USE<br>DATE        | CITY HALL START DATE: COMPLETION DATE: | 21/06/14 21/06/14 |  |
| BORE-HOLE<br>REFERENCE NO.        | BORE-HOLE (ONE) 1                            | DRILLING<br>METHOD | AIR LIFT                               |                   |  |

| LITHOLOGICAL | ROHNDARIES | AND SAMPLE FORMATION. |
|--------------|------------|-----------------------|
|              |            |                       |

| DEPTH OF CONTACT ZONE  DRII |        | DRILLING I |       | DESCRIPTION OF FORMATION    | REMARKS: (Drilling Method including change of bit)             |                |
|-----------------------------|--------|------------|-------|-----------------------------|--|----------------|
| DEPTH                       | SAMPLE | FROM       | то    | PENETRATION<br>RATE (m/min) |  | 7" homm or Dit |
|                             |        |            |       |                             | Reddish-brown clay+ sandstone                                  | 7" hammer Bit  |
| 0-5                         | 5      | 10:10      | 10:14 | 1.25                        |  | . "            |
|                             |        | *          |       |                             |  | u ,            |
|                             |        |            |       |                             | D. H. I. I   | и              |
| 5-9                         | 4      | 10:14      | 10:19 | 0.80                        | Reddish-brown clay+ with small lateritic content and sandstone | и              |
|                             | - T    |            |       |                             |  | и              |
|                             |        |            |       |                             |  | - u            |
| 10-12                       | 3      | 10:20      | 10:44 | 0.125                       | Hard Gabbroic rock   | и              |
|                             |        |            |       |                             |  | и              |

| flat the                                | Aport Dutting                 | MALE TO THE REAL PROPERTY OF THE PARTY OF TH | IOREHOI                     | ERECO                     | ORD               | Islat acid ac                      | Dry                  |           |
|---|-------------------------------|--|-----------------------------|---------------------------|-------------------|------------------------------------|----------------------|-----------|
| America                                 |                               | Beatini Bader/Tecault<br>Edal Drilling Company   |                             | PRD 250                   |                   | Nat. grid ref.<br>Method           | Air Drilling         |           |
| MAIL MAIL                               | name of the second            | I MALIANIA   | Thus                        | 21-Jun-14                 |                   | Operator  Top of screen *          | Das                  | m         |
| ALWL!                                   | BURNELING SERVICE             | The second second  | Pump type                   |                           |                   | Static WL *                        |                      | m         |
| WI, 1                                   |                               |  | Pumping rate (              |                           | m <sup>1</sup> /h | Potential drawdow                  | n —                  | m<br>m³/h |
|   | powerstrong /                 | · •  | Duration<br>Specific capaci | I (O/s)                   | hrs<br>m²/h/m     | Potential yield  Depth of borehole | • 15                 | m         |
| exert in widoling disal                 |                               | 8 PROFILE  |                             | WATER ZONES<br>CUMULATIVE |                   |                                    | WELL DIAGRAMME with  | 7         |
| H A<br>PL                               |                               |  |                             | Q (Final)                 | -                 | 19                                 | STATIC AND DYNAMIN V | ATERV LE  |
|   |                               |  |                             |                           |                   |                                    |                      |           |
|   | Made                          | Hah brown clay = lateritic con   | tent                        |                           |                   |                                    |                      |           |
|   | 1                             |  |                             | H .                       |                   |                                    |                      |           |
| eni l                                   | Hrow                          | nish - red clay + laterite and sa  | and stone                   | Н                         | -                 |                                    |                      | F         |
|   | 10                            |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      | E         |
|   | Brownish red clay + siltstone |  |                             | H                         |                   |                                    |                      | E         |
|   | 15                            |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      | E         |
|   | -                             |  |                             | H                         |                   |                                    |                      | F         |
|   | 20                            |  |                             | H                         |                   |                                    |                      | _         |
|   |                               |  |                             | H                         |                   |                                    |                      | F         |
|   | 25                            |  |                             | H                         |                   |                                    |                      | -         |
|   | 1                             |  |                             | Н                         |                   |                                    |                      | F         |
|   |                               |  |                             | H                         |                   |                                    |                      | F         |
|   | 30                            |  |                             | H                         |                   |                                    |                      | F         |
|   |                               |  |                             | H                         |                   |                                    |                      |           |
|   | 35                            |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             | Н                         |                   |                                    |                      | E         |
|   |                               |  |                             | Н                         |                   |                                    |                      | E         |
|   | 40                            |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             |                           |                   |                                    |                      |           |
| the state of                            | 45                            |  |                             | F                         |                   |                                    |                      |           |
|   |                               |  |                             | A                         |                   | ,                                  |                      | _         |
|   |                               |  |                             | H                         |                   |                                    |                      | E         |
|   | 50                            |  |                             | Ħ                         |                   |                                    |                      |           |
|   |                               |  |                             | Ħ.                        |                   |                                    |                      | F         |
|   |                               |  |                             | Ħ                         |                   |                                    |                      |           |
| Eller of                                | 55                            |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      |           |
|   | 60                            |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      |           |
|   |                               |  |                             | Н                         |                   |                                    |                      |           |
|   | 65                            |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             |                           |                   |                                    |                      |           |
|   | 70                            |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             | Н                         |                   |                                    |                      |           |
|   |                               |  |                             | Н                         |                   |                                    |                      |           |
|   | 75                            |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      |           |
|   | 80                            |  |                             |                           |                   |                                    |                      |           |
|   | -                             |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    |                      |           |
|   | 8.5                           |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             |                           |                   |                                    |                      |           |
|   |                               |  |                             | H                         |                   |                                    | 1                    |           |
| Gravel for gravel                       | 90 pack                       |  | M                           |                           | 1                 |                                    | 1                    |           |
| Cement for grouti<br>Sentonite for grou | ng                            |  | KG<br>N                     |                           |                   |                                    |                      |           |
| nstallation of gro                      | ut seal                       |  | M<br>HRS                    | Edal drillin              | g Company         |                                    |                      |           |
| Centralisers fitted                     |                               | Yes  | No No                       |                           |                   |                                    | (Contractor          |           |
| Safety cap fitted<br>Backfill aband. Bl |                               | Yes<br>Yes   | No No                       |                           |                   |                                    |                      |           |
| Disinfection date<br>Platform construc  |                               |  |                             |                           |                   |                                    |                      |           |
| latform transpor                        |                               |  | KM<br>KM                    |                           |                   |                                    | Ī                    |           |

### DAILY LOG FOR DRILLING SUPERVISION

| CONTRACT                     |         |                          |                       |                             | CONTRACTION                               | DRILING COMP | ANY LIMITED                                       |                                 |  |
|------------------------------|---------|--------------------------|-----------------------|-----------------------------|---|--------------|---|---------------------------------|--|
| VNBRN                        | AME     | REALINI BADER/TECHSULT   |                       |                             | DEPTH OF HOLES (m)                        | )            | 15  |                                 |  |
| WNER A                       | ADDRESS |                          | HALL,WAL<br>ET,FREET( | LACE JOHNSON<br>OWN         | WEATHER SUNNY                             |              |   |                                 |  |
| UG<br>AAKE                   |         | PRD 2                    | 50                    |                             | USE                                       | СІТУ Н       | ALL   |                                 |  |
| OMPRES<br>MAKE               | SOR     | ELGI 900 cfm/<br>200 psi |                       |                             | DATE                                      |              | START DATE: 21/06/14<br>COMPLETION DATE: 21/06/14 |                                 |  |
| ORE-HO                       |         | BORE                     | -HOLE (T              | wo) 2                       | DRILLING<br>METHOD                        | AIR          | LIFT  |                                 |  |
| ITHOLOG<br>EPTH OF<br>ONTACT |         |                          | ES AND SA             | MPLE FORMATIO PROCESS       | N.<br>DESCRIPTION OF<br>FORMATION         |              | REMARKS: (D including cl                          | rilling Method<br>nange of bit) |  |
| EPTH                         | SAMPLE  | FROM                     | ТО                    | PENETRATION<br>RATE (m/min) |   |              |   |                                 |  |
| )-5                          | 5       | 11:23                    | 11:25                 | 2.50                        | Reddish-brown clay+ with lateriti content |              | 7" hammer Bit                                     |                                 |  |
| ,                            |         |                          |                       |                             |   |              | u   |                                 |  |
| 5-10                         | 5       | 11:28                    | 11:34                 | 0.83                        | Brownish-red clay+ lat<br>sandstone       | erite and    | и   |                                 |  |
|                              |         |                          | A                     |                             |   |              | u<br>u  |                                 |  |
| 10-15                        | 5       | 11:37                    | 11:39                 | 2.50                        | Brownish-red clay + silts                 | tone         | и   |                                 |  |

N.B Meet rock water/surface water: NIL

