# 

# **REPUBLIC OF KENYA**

**MINISTRY OF ROADS AND TRANSPORT**

**STATE DEPARTMENT OF ROADS**

Telegraphic Address: “MINWORKS”, Nairobi Materials Testing & Research Division Telephone: Nairobi 0202554950 Machakos Road, Industrial Area Fax: 554877 P.O. Box 11873 – 00400 E-mail: [chiefengineer@mtrd.go.ke](mailto:chiefengineer@mtrd.go.ke) **NAIROBI**

Ref No. M.1563/35/L/10 Date: 27th January, 2023

|  |
| --- |
| **Laboratory Test Report** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1. Customer’s Details:** RESIDENT ENGINEER KURA  **E-mail:** moseswagungo@gmail.com  **Address:** P.O.BOX 41727-00100 NAIROBI Phone: 0713967255  **2. Customer Contact:** 0713967255 6. Job Card No. 1528/S/2023  **3. Sample Description:** Gravel 7. Date fee paid: 19/12/2023  **4. Sampled by:** Client. 8. GOK MR No.4115865  **5. Date Sample received:** 29/11/2022 9. Date Analysis started:20/12/2022  **10. Additional information provided by the customer:** Upgrading to Bitumen Standards of Access Roads to Ongata Rongai & Ngong SGR Stations.  **SOURCE:** Masaai Road At Km 2+800LHS     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | TEST RESULTS | | | | | | | | | | | | | | | | | | **Sample No.** | **Reference** | **Dosage**% | **Grading** | | | | | | **Atterberg Limits** | | | | | **Compaction T180** | | **CBR** | | | % Passing BS Sieve Size (mm) | | | | | | LL | PL | PI | LS | PM | MDD Kg/m3 | OMC( % ) | 4days Soak  (%) | Swell(%) | | 20 | 10 | 5 | 2 | 0.425 | 0.075 | % | % | % | % |  |  |  | | 638/S/22 | Gravel |  | **Improved with OPC Bamburi Cem 1, 42.5N,7 Days Cure and 7 Days Soak** | | | | | | | | | | | | | | | | 2.0 | 100 | 70 | 52 | 42 | 25 | 19 | 20 | 16 | 4 | 2 | 100 |  |  | 90 | 0.1 | | 2.5 |  |  |  |  |  |  | NON-PLASTIC | | | | |  |  | 180 | <0.1 | | 3.0 |  |  |  |  |  |  | NON-PLASTIC | | | | |  |  | 250 | <0.1 | |

**Eng. J. M. Mbarua**

**For: CHIEF ENGINEER (MATERIALS)**

**OiC Soils Laboratory. CSE Soils Laboratory.**

**………………………. ………………………..**