

**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.1454/35/L/10 Date: 18th January, 2023

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. **Customer’s Details:** DIRECTOR, URBAN ROADS PLANNING AND DESIGN   **E-mail:** njengahfred@gmail.com  **Address:** Not Provided Phone: 0700797660  **2. Customer Contact:** 0700797660 6. Job Card No.1292/S/2022  **3. Sample Description:** Alignment soils 7. Date fee paid: 16/12/2022  **4. Sampled by:** CLIENT. 8. GOK MR No. 4115655  **5. Date Sample received:** 15/12/2022 9. Date Analysis started: 03/01/2023  **10. Additional information provided by the customer:** Construction of Kabete Constituency Roads.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **TEST RESULTS** | | | | | | | | | | | | | | | | | **Sample No.** | **Reference** | **Grading** | | | | | | **Atterberg Limits** | | | | | **Compaction T180** | | **CBR** | | | **% Passing BS Sieve Size (mm)** | | | | | | **LL** | **PL** | **PI** | **LS** | **PM** | **MDD** | **OMC** | **4days Soak**  **(%)** | **Swell** | | **20** | **10** | **5** | **2** | **0.425** | **0.075** | **%** | **%** | **%** | **%** |  | **Kg/m3** | **( % )** | **(%)** | | 496/S/22 | Kingeero Police | 100 | 100 | 100 | 96 | 88 | 78 | 51 | 31 | 20 | 10 | 1760 | 1245 | 26.0 | 5 | 1 | | **SOIL COMPOSITION: Gravel =4%, Sand =18%, Silt/clay =78%** | | | | | | | | | | | | | | | | 497/S/22 | Mararo Road | 100 | 100 | 100 | 100 | 99 | 94 | 56 | 40 | 16 | 8 | 1584 | 1262 | 26.8 | 6 | 0.4 | | **SOIL COMPOSITION: Gravel =0%, Sand =6%, Silt/clay =94%** | | | | | | | | | | | | | | | | 498/S/22 | Kiawamugo | 100 | 100 | 100 | 100 | 98 | 94 | 51 | 30 | 21 | 10 | 2058 | 1262 | 31.6 | 7 | 1 | | **SOIL COMPOSITION: Gravel =0%, Sand =6%, Silt/clay =94%** | | | | | | | | | | | | | | | | 499/S/22 | White House | 100 | 100 | 100 | 100 | 93 | 91 | 60 | 38 | 22 | 11 | 2046 | 1232 | 27.4 | 4 | 1 | | **SOIL COMPOSITION: Gravel =0%, Sand =9%, Silt/clay =91%** | | | | | | | | | | | | | | | |

|  |
| --- |
|  |

**Eng. J. M. Mbarua**

**For: CHIEF ENGINEER (MATERIALS)**

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

**…………………… ……………….**