

**REPUBLIC OF KENYA**

**MINISTRY OF ROADS AND TRANSPORT**

**STATE DEPARTMENT OF ROADS**

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Ref No. M.640/35/L/10 Date: 28th September, 2023

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| **Laboratory Test Report** |

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| **1. Customer’s Details:** RESIDENT ENGINEER KURA NAIROBI HQ.  **E-mail: Not provided**  **Address:** Not provided Phone: 0729381539  **2. Customer Contact:** 0729381539 6. Job Card No. 686/S/2023  **3. Sample Description:** Alignment Soils 7. Date fee paid: 14/09/2023  **4. Sampled by:** MTRD Staff 8. GOK MR No.4055888  **5. Date Sample received:** 14/09/2023 9. Date Analysis started:14/09/2023  **10. Additional information provided by the customer:** Improvement of Acacia access road (Kitengela)         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | TEST RESULTS | | | | | | | | | | | | | | | | | | | | | **Sample No.** | **Reference** | **Grading** | | | | | | **Atterberg Limits** | | | | | | | | | **Compaction T99** | | **CBR** | | | % Passing BS Sieve Size (mm) | | | | | | LL | | PL | PI | | LS | | PM | |  | OMC( % ) | 4days Soak  (%) | Swell(%) | | 20 | 10 | 5 | 2 | 0.425 | 0.075 | % | | % | % | | % | |  | | MDD Kg/m3 | | 326/S/22 | Km 0+200 RHS  3rd Layer | 100 | 88 | 73 | 60 | 56 | 47 | 46 | | 26 | 20 | | 10 | | 1120 | | 1327 | 24.1 | 10 | 0.2 | | **SOIL COMPOSITION: Gravel = 40%, Sand = 13%, Silt/clay =47%** | | | | | | | | | | | | | | | | | | | | 327/S/22 | Km 0+200 RHS  2nd Layer | 100 | 100 | 99 | 96 | 80 | 56 | 53 | | 25 | 28 | | 14 | | 2240 | | 1246 | 28.9 | 4 | 0.4 | | **SOIL COMPOSITION: Gravel = 4%, Sand = 40%, Silt/clay =56%** | | | | | | | | | | | | | | | | | | | | 327/S/22 | Km 1+000 LHS  3RD Layer | 100 | 98 | 95 | 93 | 90 | 58 | 49 | 21 | | | 28 | | 14 | | 2520 | 1162 | 22.7 | 5 | 0.3 | | **SOIL COMPOSITION: Gravel = 7%, Sand =35%, Silt/clay =58%** | | | | | | | | | | | | | | | | | | | | 328/S/22 | Km 1+500 RHS  3rd Layer | 100 | 100 | 94 | 86 | 78 | 55 | 45 | | 20 | 25 | | 13 | | 1950 | | 1161 | 30.7 | 5 | 0.3 | | **SOIL COMPOSITION: Gravel = 14%, Sand = 16%, Silt/clay =70%** | | | | | | | | | | | | | | | | | | | | 329/S/22 | 0+600 RHS  3rd Layer | 100 | 97 | 93 | 87 | 74 | 27 | 43 | | 23 | 20 | | 10 | | 2072 | | 1262 | 30.4 | 7 | 0.3 | | **SOIL COMPOSITION: Gravel = 13%, Sand = 60%, Silt/clay =27%** | | | | | | | | | | | | | | | | | | | |

**Eng. J. M. Mbarua**

**For: CHIEF ENGINEER (MATERIALS)**

**PME**