

# Transportation Engineering Laboratory (TEL)

Department of Civil Engineering (CED)

UNIVERSITY OF ENGINEERING & TECHNOLOGY (UET)

LAHORE – 54890 (PAKISTAN)



Phone: 092-42-9929202 Cable: UNIVENGTECH Fax: 092-42-9922566

Ref:-----

Date:-----

Mr. Atique Ahmad  
Engineer's Representative,  
NESPAK,  
Lahore.

Subject: **Testing of Drainage Layer Aggregate Material**  
Rehabilitation of Mahmood Booti Dumpsite

Dear Sir,

It is with reference to your letter No. 4490/13/CAA/05/251 dated 26-12-2024.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory through your representative.

## 1. Sieve Analysis (ASTM C-136)

Sieve Size	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	55.94	1.83	0	0	0

## 2. Specific Gravity & Water Absorption (ASTM C-127)

Specific Gravity (oven dried condition)	2.81
Specific Gravity (saturated surface dry condition)	2.83
Apparent Specific Gravity	2.87
Water Absorption (%)	0.73

## 3. Sodium Sulphate Soundness (ASTM C-88)

Sieve Size	Weight of Fraction Before Test (gm)	Weight of Fraction After Test (gm)	Percentage Passing Designated Sieve After Test	Weighted Percentage Loss
1" + 3/4"	1503.9	1486.4	1.16	1.14
	Total = 1.14%			

## 4. Los Angeles Abrasion Value Test (ASTM C-131/535)

Grading Used	Los Angeles Abrasion Value (%)
B	24.89

If you have further query, please do not hesitate to contact the undersigned.

Best Regards,

Director  
Transportation Engineering Laboratory

**Note:**

1. This test report is based solely on the particular sample(s) supplied by the client and should not be reproduced in parts.
2. Sampling has not been performed by Transportation Engineering Laboratory (TEL), UET and TEL-UET does not accept the responsibility that the sample(s) supplied is/are truly representative sample(s) of any batch or stock or entire project.
3. While TEL-UET agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the analysis or test.
4. The party shall assume full responsibility for the ethical use of the results in the test reports and the TEL-UET shall be held free from any and all claims which may result from the use of such data by client or others.
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TEL UET

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Ref.:-----

Date:-----

Mr. Muhammad Muzafar Khan  
Deputy Director Development,  
Planning & Development Board, Vehari.

Subject: **Improvement of Dehli Multan Road (Section Vehari to Burewala),  
Length = 61.20 km District Vehari**

Dear Sir,

It is with reference to your letter No. 18/6-Complaints-DD(DEV)/VEHARI/2024-2025 dated 20-01-2025.

Please find below the results for the tests conducted on asphalt concrete cores and a chunk provided to this laboratory through your representative.

## **BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):**

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
RD 311+61, R/S	7.283	10.605	2.449
RD 578+00, C/L	6.560	10.605	2.446
RD 311+66, L/S	6.623	10.605	2.437
RD 578+00, L/S	6.723	10.605	2.428
RD 311+66, R/S	7.760	10.605	2.447
RD 518+00, C/L	6.530	10.605	2.422

## **BITUMEN EXTRACTION TEST: (Cake)**

Bitumen Extraction Value (ASTM D-2172)							4.23%	
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	92.00	69.99	58.99	42.00	24.00	8.99	4.30

If you have further query, please do not hesitate to contact the undersigned.

Best Regards,

Director  
Transportation Engineering Laborato

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Ref.:-----

Date:-----

Mr. Abid Azim  
Resident Engineer,  
Ravi Zone, NESPAK.

Subject: **Testing of Granular Sub-base Material**  
Rehabilitation/Improvement of Street Pavement Sewerage/Drainage, UC 17  
Ravi Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/120 dated 25-01-2025.  
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory through your representative.

## 1. Sieve Analysis (ASTM C-136)

Sieve Size	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	89.12	55.31	32.09	27.97	25.40

## 2. Los Angeles Abrasion Value Test (ASTM C-131/535)

Grading Used	Los Angeles Abrasion Value (%)
A	26.26

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Best Regards,

Director  
Transportation Engineering Laboratory

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