

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. Ghulam Rasool Domki
Resident Engineer,
NESPAK,
Gujrat.

Subject: **Testing of Water Bound Macadam (WBM)**
Road Restoration Programme Gujrat
Rehabilitation of Sarai Alamgir – Kotla Arab Ali Khan – Jalalpur Sobtian Road,
Length = 46 km

Dear Sir,

It is with reference to your letter No. 103/RRP/GRT/GRD/95 dated 13-01-2025.
Please find below the result for the test conducted on the WBM sample provided to this laboratory through your representative.

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

Grading Used	Los Angeles Abrasion Value (%)
1	20.38

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

Best Regards,

Director
Transportation Engineering Laboratory

Note:

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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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Date:-----

Mr. Rauf Ahmad
Senior Project Manager (DRGCC),
Defence Raya Golf & Country Club,
Lahore.

Subject: **Testing of Aggregate (Base Course Material)**
Proposed Construction and Completion of Road Work, Storm Water Drainage &
Public Health Works for 2 Kanal Villas (Plot-E) at Phase-VI

Dear Sir,

It is with reference to your letter No. DRGCC/INFRA-PLOT-E/001 dated 23-01-2025.
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	74.14	59.13	50.41	44.59	37.87

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

Grading Used	Los Angeles Abrasion Value (%)
A	26.21

3. Flakiness & Elongation Index (BS 812: Part 105)

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)	Individual Elongation Index (%)	Weighted Elongation Index (%)
Passing (in.)	Retained (in.)				
1 1/2	1	11.60	4.83	26.17	10.89
1	3/4	12.53	3.03	26.62	6.43
3/4	1/2	12.52	1.76	21.46	3.01
1/2	3/8	7.34	0.69	12.42	1.16
3/8	1/4	3.76	0.41	5.03	0.54
Flakiness Index = 10.72%			Elongation Index = 22.03%		

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TEL UET

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Date:-----

The Resident Engineer,
NESPAK-RHC (J.V).

Subject: **Testing of Material**

Reconstruction of Cross Drainage Structure of Jahanpur Minor Damaged During
Flood 2022 at RD 250+000 of Qutab Drain

Dear Sir,

It is with reference to your letter No. 4688/13/MAB/03/47 dated 29-01-2025.

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

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

Specific Gravity (oven dried condition)	2.68
Specific Gravity (saturated surface dry condition)	2.69
Apparent Specific Gravity	2.71
Water Absorption (%)	0.39

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

Grading Used	Los Angeles Abrasion Value (%)
1	22.59

3. Unit Weight (Loose & Rodded); (ASTM C 29/C 29M)

Loose Unit Weight (g/cm ³)	1.42
Rodded Unit Weight (g/cm ³)	1.56

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Ref.-----

Date:-----

The Executive Engineer,
Highway Division,
Narowal.

Subject: **Testing of Asphalt Wearing Course Samples (Cores)**
Annual Development Programme
Rehabilitation/Special Repair/Reconstruction of Road from Mukam Moor
to Shah Pur Bhango via Chak Bharaiyan & Bhooj Pur (Length = 5.67 km)
Narowal

Dear Sir,

It is with reference to your letter No. 1727 dated 16-10-2024.

Please find below the results for the tests conducted on the two cores of asphalt concrete provided to this laboratory on 10-02-2025 through your representative.

BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):

Core #	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
1	7.527	10.000	2.399
2	7.880	10.000	2.401

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