

# 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:-----

The Resident Engineer,  
ESS-I-AAR Consultants.

Subject: **Testing of Coarse Aggregate**

Construction of Dual Carriageway from Sheikh Fazal to Chichawatni,  
Length 24.15 km in District Sahiwal (Group-II from km No. 36 to 47.29 = 11.29 km)

Dear Sir,

It is with reference to your letter No. 826 dated 15-05-2024.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 05-08-2024 through your representative.

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

Specific Gravity (oven dried condition)	2.71
Specific Gravity (saturated surface dry condition)	2.73
Apparent Specific Gravity	2.75
Water Absorption (%)	0.59

## 2. 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"	1503.3	1486.6	1.11	0.86
<b>Total = 0.86%</b>				

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

Grading Used	Los Angeles Abrasion Value (%)
A	20.98

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.
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TEL-UET

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The Executive Engineer PWD,  
Highways Division,  
Bhimber.

Subject: **Testing of Asphalt Concrete (Bitumen Extraction Test)**

1. Construction, Improvement & Reconditioning of Link Road Dongi Chappri Saryala, Length 1.85 km, LA-5 Barnala, District Bhimber
2. Construction, Improvement & Reconditioning of Link Road Khizra, Length 0.73 km, LA-5 Barnala, District Bhimber
3. Improvement & Reconditioning of Link Road Watala to Patoian, Length 0.40 km, LA-5 Barnala, District Bhimber

Dear Sir,

It is with reference to your letter No. 1476 dated 07-08-2024.  
Please find below the results for the test conducted on the three samples provided to this laboratory on 27-08-2024 through your representative.

## BITUMEN EXTRACTION TEST (ASTM D-2172):

Sample	Bitumen Extraction Value (%)
1. Sample 1.85 km	4.51
2. Sample 0.73 km	4.51
3. Sample 0.40 km	4.51

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

Best Regards,

Director  
Transportation Engineering Laboratory

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