

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 Sub Divisional Officer,
Highway Sub Division,
Choubara.

Subject: **Testing of Coarse Aggregate**

Rehabilitation of Metalled Road from Fatehpur to 18-Hazari via Nawan Kot in
District Boundary Layyah, Length = 59.50 km, District Layyah

Dear Sir,

It is with reference to your letter No. 78 dated 10-02-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 11-04-2025 through your representative.

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

Specific Gravity (oven dried condition)	2.83
Specific Gravity (saturated surface dry condition)	2.84
Apparent Specific Gravity	2.85
Water Absorption (%)	0.29

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

Grading Used	Los Angeles Abrasion Value (%)
B	15.10

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 ½	1	0	0	11.16	1.36
1	¾	4.88	1.32	6.05	1.64
¾	½	5.28	1.92	8.58	3.13
½	⅜	5.29	0.75	10.64	1.50
⅜	¼	3.76	0.39	7.66	0.78
Flakiness Index = 4.38%			Elongation Index = 8.41%		

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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Date:-----

The Sub Divisional Officer,
Highway Sub Division No. II,
Gujranwala.

Subject: **Testing of Coarse Aggregate**
Rehabilitation of G.T Road from Chan Da Qila to Aziz Cross Chowk,
Length = 12.75 km in District Gujranwala (City Flyover Portion at G.T Road)

Dear Sir,

It is with reference to your letter No. 461/G-II dated 28-03-2025.
Please find below the result for the test conducted on the aggregate sample provided to this laboratory on 15-04-2025 through your representative.

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

Grading Used	Los Angeles Abrasion Value (%)
1	21.15

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Ref.:-----

Date:-----

Mr. Muhammad Shabbir Sandhu
Material Engineer,
EPCM Consultants and NESPAK.

Subject: **Testing of Fine Aggregate (Sand)**
Punjab Intermediate Cities Improvement Investment Program (PICIP)
Consultancy Services for Engineering, Procurement and Construction Management
WWTP/ICB/PICIIP-08A Sahiwal

Dear Sir,

It is with reference to your letter No. 3976/11/MSS/SWL/WWTP/01/1148 dated 15-03-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 15-04-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.85	99.34	99.10	98.37	4.80	0.47

2. Fineness Modulus (ASTM C-142)

Fineness Modulus (%)	0.99
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3. Specific Gravity & Water Absorption (ASTM C-128)

Specific Gravity (OD)	2.64
Specific Gravity (SSD)	2.66
Apparent Specific Gravity	2.69
Water Absorption (%)	0.74

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Ref.-----

Date:-----

Mr. Muhammad Shoaib
A/XEN,
AGE (Army),
Khanewal.

Subject: **Testing of Coarse and Fine Aggregates**
CA No. ENC-A-25/2025 – Const of 1 x 128 Men SM BK, 176 HBBE Engr 2 Corps
at Abk

Dear Sir,

It is with reference to your letter No. 6025-14/58/E6 dated 20-03-2025.

Please find below the results for the tests conducted on the aggregate samples provided to this laboratory on 16-04-2025 through your representative.

Crush

Sieve Analysis (ASTM C-136)

Sieve Size	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	90.11	2.43	0	0

Sand

Sieve Analysis (ASTM C-136)

Sieve Size	1/2"	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	98.86	99.78	99.47	99.15	98.84	96.42	10.34	2.05

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