

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Roads, UC 30 Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/46 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 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	76.80	54.29	25.89	12.62	2.02

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

Grading Used	Los Angeles Abrasion Value (%)
A	27.44

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

Best Regards,

Director
Transportation Engineering Laboratory

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Date:-----

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Street Pavement, Sewerage/Drainage, UC 29 & 30 Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/47 dated 20-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 ½"	1"	¾"	½"	3/8"	#4
%age Passing	100	97.48	75.08	55.02	30.87	18.93	10.42

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

Grading Used	Los Angeles Abrasion Value (%)
A	26.15

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

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Street Pavement, Sewerage/Drainage, UC 01 Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/48 dated 20-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	100	79.67	55.14	27.24	12.74	2.65

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

Grading Used	Los Angeles Abrasion Value (%)
A	27.82

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

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Ravi Zone, Lahore.

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Street Pavement, Sewerage/Drainage, UC 01& 02 Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/49 dated 20-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 ½"	1"	¾"	½"	3/8"	#4
%age Passing	100	97.65	73.13	51.91	24.39	12.40	2.77

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

Grading Used	Los Angeles Abrasion Value (%)
A	26.32

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

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Date:-----

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Street Pavement, Sewerage/Drainage, UC 13, 15 & 16
Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/50 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	100	76.46	54.98	28.98	18.79	9.08

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

Grading Used	Los Angeles Abrasion Value (%)
A	28.07

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

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Street Pavement, Sewerage/Drainage, UC 17, 22, 29, 30, 32 to 39
Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/55 dated 04-02-2025.
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	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	100	76.48	53.57	28.68	17.04	7.43

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

Grading Used	Los Angeles Abrasion Value (%)
A	27.49

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

Subject: **Testing of Aggregate (Granular Sub-base)**
Rehabilitation/Improvement of Roads, UC 36, 37, 38 & 39 Ravi Zone MCL
Source: Sargodha Quarry

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/56 dated 04-02-2025.

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	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	97.29	72.85	49.50	20.63	9.97	1.72

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

Grading Used	Los Angeles Abrasion Value (%)
A	26.40

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Ref.:-----

Date:-----

Mr. Umair Sarwar
Deputy Director (M&I) P-N,
National Highway Authority,
Lahore.

Subject: **Testing of Samples**
Periodic Maintenance Works (Structural Overlay)
Contract No. PM-2021-22-PN-01

Dear Sir,

It is with reference to your letter No. Dy. Dir/(M&I)/NHA/P-N/25/224 dated 17-02-2025. Please find below the results for the tests conducted on asphalt concrete chunks provided to this laboratory through your representative.

BITUMEN EXTRACTION TEST:

AWC

Bitumen Extraction Value (ASTM D-2172)							3.82%	
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	95.00	74.00	60.00	43.20	26.03	10.03	5.03

ABC

Bitumen Extraction Value (ASTM D-2172)								3.55%	
Gradation Analysis									
Sieve No.	1 ½"	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	86.01	74.02	59.03	51.04	39.05	22.05	9.06	4.26

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