



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Deputy Manager
POWERCHINA SEPCO1
Design, Manufacturing, Supply, Installation, Testing and Commissioning of 220 kV
Mirpur Khas Substation and Extension at Hala Road Substation.

Reference # CED/TFL **2932** (Dr. Rizwan Azam)

Dated: 13-03-2023

Reference of the request letter #ADB-200/2018/368

Dated: 13-03-2023

Tension Test Report (Page -1/2)

Date of Test 20-03-2023

Gauge length 8 inches

Description Anchor Bolt Tensile Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	9.139	36	38.50	-----	1164.2	50600	83000	426	699	1.60	20.0	
2	8.938	36	38.08	-----	1138.6	48000	82200	414	708	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test												
Bend Test												

Witness by Abrar Ahmed (Deputy Manager SS Design NTDC) & Shah Suhail (Manager SS Design NTDC)

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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To,

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Design, Manufacturing, Supply, Installation, Testing and Commissioning of 220 kV
Mirpur Khas Substation and Extension at Hala Road Substation.

Reference # CED/TFL **2932** (Dr. Rizwan Azam)
Reference of the request letter #ADB-200/2018/368

Dated: 13-03-2023
Dated: 13-03-2023

Slippage Test Report (Page -2/2)

Date of Test 20-03-2023
Gauge length --
Description Anchor Bolt Slippage Test

Sr. No.	Dia	Failure Load	Mode of Failure	Remarks
	(mm)	(kg)	---	
1	36	41000	Slippage at Thread Portion	-
2	36	53000	Broken at Thread Portion	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
Note: only two samples for test				

Witness by Abrar Ahmed (Deputy Manager SS Design NTDC) & Shah Suhail (Manager SS Design NTDC)

I/C Testing Laboratories
UET Lahore, Pakistan.

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Department of Civil Engineering
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To,

M/S Al-Abdullah Construction (Pvt) Ltd.
Karachi

Reference # CED/TFL **2941** (Dr. M Kashif)
Reference of the request letter # Nil

Dated: 14-03-2023

Dated: 14-03-2023

Tension Test Report (Page – 1/1)

Date of Test 20-02-2023

Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	9.53 (3/8")	432.0	435.0	9700	95.16	11300	110.85	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Prime Steel Re-Rolling Mills
 Sheikhpura
 (Prime Steel - 12-03-2023)

Reference # CED/TFL **2944** (Dr. M Kshif)

Dated: 14-03-2023

Reference of the request letter # Nil

Dated: 14-03-2023

Tension Test Report (Page -1/2)

Date of Test 20-03-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.391	10	1.282	1.27	1.291	33000	55800	57300	56350	96900	95300	1.10	13.8	1
2	4.348	10	1.276	1.27	1.278	33000	54800	57300	56920	95200	94600	1.50	18.8	2
3	4.405	10	1.284	1.27	1.295	30400	50400	52800	51760	87500	85800	1.80	22.5	3
4	4.416	10	1.286	1.27	1.298	32400	53200	56300	55020	92400	90400	1.70	21.3	4
5	4.314	10	1.271	1.27	1.268	31800	53400	55200	55280	92700	92900	1.20	15.0	5
6	4.261	10	1.263	1.27	1.252	32000	53400	55600	56320	92700	94000	1.40	17.5	6
7	4.296	10	1.268	1.27	1.263	30400	50800	52800	53070	88200	88700	1.70	21.3	7
8	4.297	10	1.268	1.27	1.263	33600	56400	58400	58630	97900	98500	1.30	16.3	8

Note: only eight samples for tensile and eight samples for bend test

Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														
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I/C Testing Laboratoires
UET Lahore, Pakistan.

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,

M/S Prime Steel Re-Rolling Mills
 Sheikhpura
 (Prime Steel - 13-03-2023)

Reference # CED/TFL **2944** (Dr. M Kshif)
 Reference of the request letter # Nil

Dated: 14-03-2023

Dated: 14-03-2023

Tension Test Report (Page -1/2)

Date of Test 20-03-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.399	10	1.283	1.27	1.293	33600	58000	58400	57270	100700	98900	1.50	18.8	A1
2	4.165	10	1.249	1.27	1.224	32600	56400	56600	58690	97900	101600	1.00	12.5	A2
3	4.430	10	1.288	1.27	1.302	31600	54200	54900	53490	94100	91800	1.50	18.8	A3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only three samples for tensile and three samples for bend test

Bend Test

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
PEAS Consultant
New RCC Bridge at Hassanabad km 623+200 on KKH N-35

Reference # CED/TFL **2946** (Dr. Rizwan Azam)
Reference of the request letter # RE/PEAS Consultants 1/-48

Dated: 15-03-2023
Dated: 15-03-2023

Tension Test Report (Page -1/2)

Date of Test 20-03-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	777.0	17800	174.62	19500	191.30	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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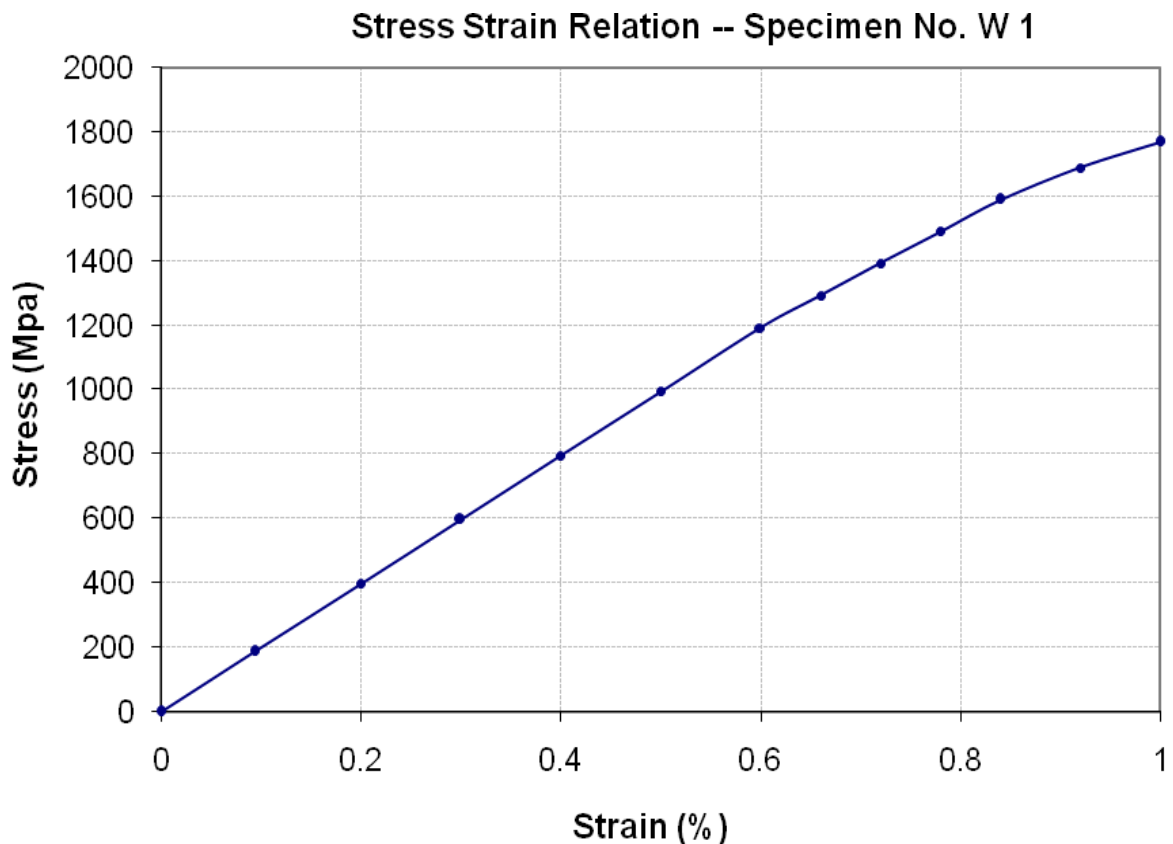
To,

Resident Engineer
PEAS Consultant
New RCC Bridge at Hassanabad km 623+200 on KKH N-35

Reference # CED/TFL **2946** (Dr. Rizwan Azam)
Reference of the request letter # RE/PEAS Consultants 1/-48

Dated: 15-03-2023
Dated: 15-03-2023

Graph (Page – 2/2)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK

Chief Minister's Development Package for Faisalabad (Rehabilitation and Improvement of District Road including Annual Development Program 2020-21) Falling in Highway Circle No. 1 & 2 Faisalabad.

Reconstruction . Construction of Road from Faisalabad Jaranwala Road at Adda Wangian to Khurrianwala, Length 9.78 km. Bridge over Jaranwala Main Drain.
(United Wire)

Reference # CED/TFL **2956** (Dr. Rizwan Azam)

Dated: 16-03-2023

Reference of the request letter # 3872/103/AR/12/1217

Dated: 03-03-2023

Tension Test Report (Page -1/4)

Date of Test 20-03-2023

Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)			
1	12.70 (1/2")	775.0	779.0	18100	177.56	19700	193.26	198	>3.50	xx
2	12.70 (1/2")	775.0	779.0	18100	177.56	19700	193.26	199	>3.50	xx
3	12.70 (1/2")	775.0	779.0	18200	178.54	19700	193.26	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

Only three samples for Test

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK

Chief Minister's Development Package for Faisalabad (Rehabilitation and Improvement of District Road including Annual Development Program 2020-21) Falling in Highway Circle No. 1 & 2 Faisalabad.

Reconstruction . Construction of Road from Faisalabad Jaranwala Road at Adda Wangian to Khurrianwala, Length 9.78 km. Bridge over Jaranwala Main Drain.

(United Wire)

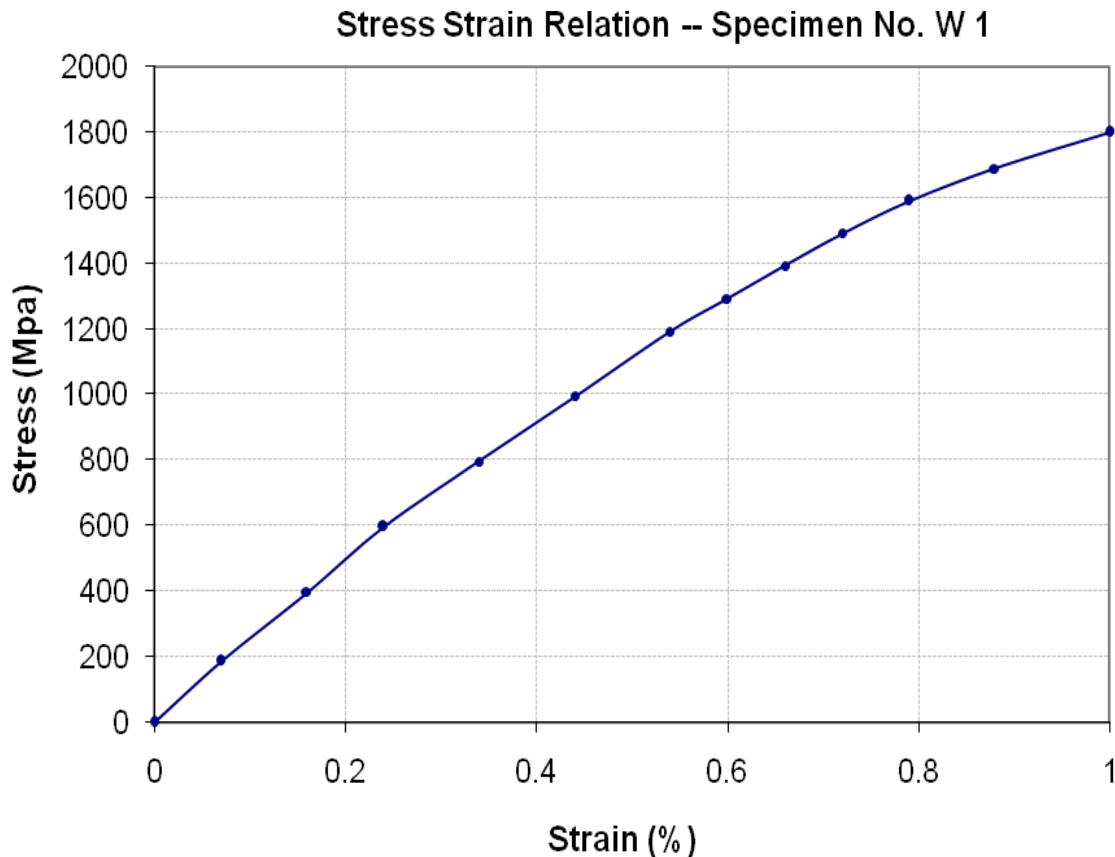
Reference # CED/TFL **2956** (Dr. Rizwan Azam)

Dated: 16-03-2023

Reference of the request letter # 3872/103/AR/12/1217

Dated: 03-03-2023

Graph (Page – 2/4)



I/C Testing Laboratories
UET Lahore, Pakistan.

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Test Floor Laboratory
Department of Civil Engineering
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To,

Resident Engineer
NESPAK

Chief Minister's Development Package for Faisalabad (Rehabilitation and Improvement of District Road including Annual Development Program 2020-21) Falling in Highway Circle No. 1 & 2 Faisalabad.

Reconstruction . Construction of Road from Faisalabad Jaranwala Road at Adda Wangian to Khurrianwala, Length 9.78 km. Bridge over Jaranwala Main Drain.

(United Wire)

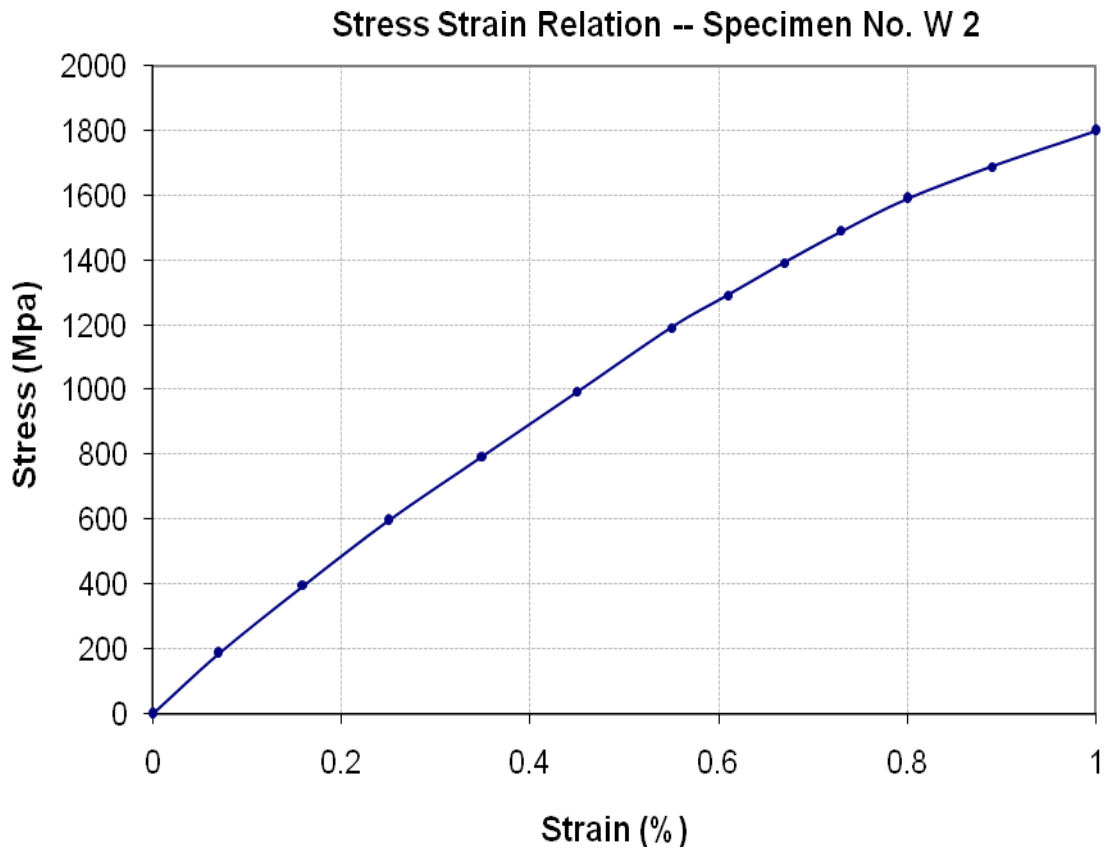
Reference # CED/TFL **2956** (Dr. Rizwan Azam)

Dated: 16-03-2023

Reference of the request letter # 3872/103/AR/12/1217

Dated: 03-03-2023

Graph (Page – 3/4)



I/C Testing Laboratories
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To,

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Reconstruction . Construction of Road from Faisalabad Jaranwala Road at Adda Wangian to Khurrianwala, Length 9.78 km. Bridge over Jaranwala Main Drain.

(United Wire)

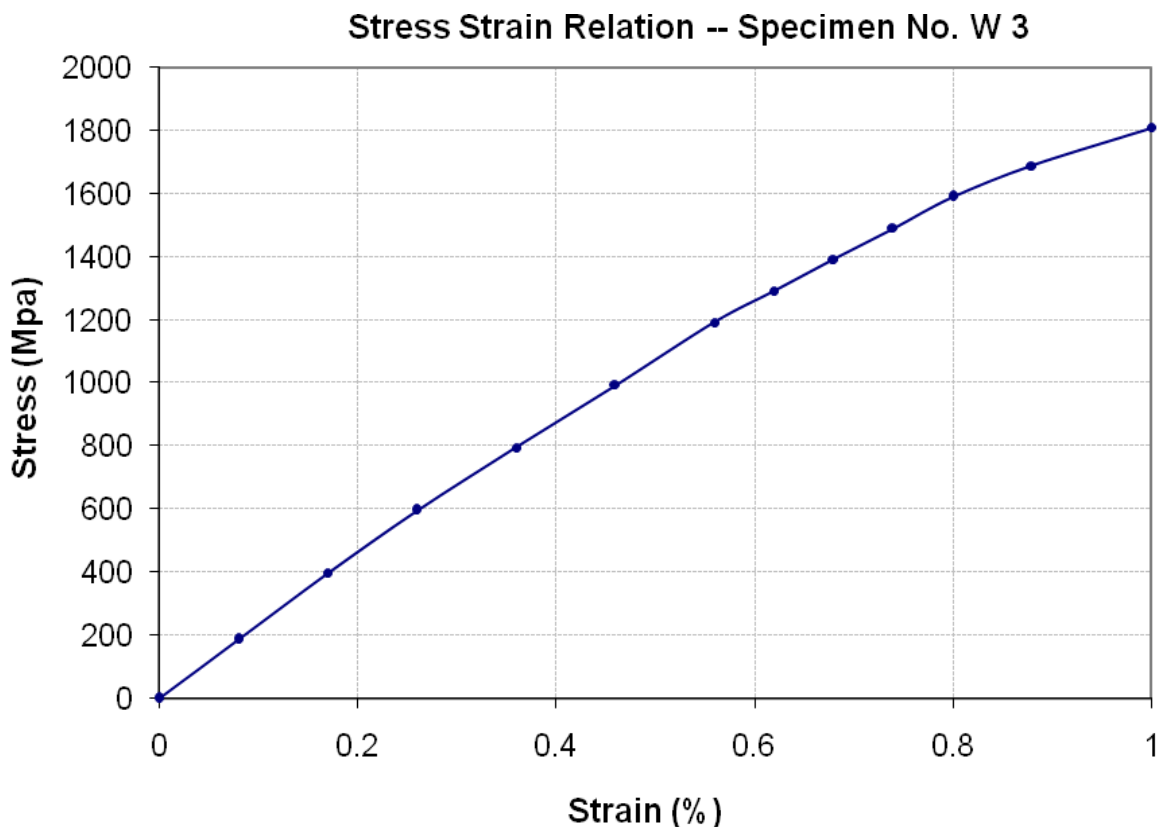
Reference # CED/TFL **2956** (Dr. Rizwan Azam)

Dated: 16-03-2023

Reference of the request letter # 3872/103/AR/12/1217

Dated: 03-03-2023

Graph (Page – 4/4)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department

Reference # CED/TFL **2962** (Dr. Rizwan Azam)
Reference of the request letter # PCCCL/T5-QC-2023-007

Dated: 16-03-2023
Dated: 15-03-2023

Tension Test Report (Page – 1/2)

Date of Test 20-03-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1111.0	24100	236.42	26600	260.95	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department

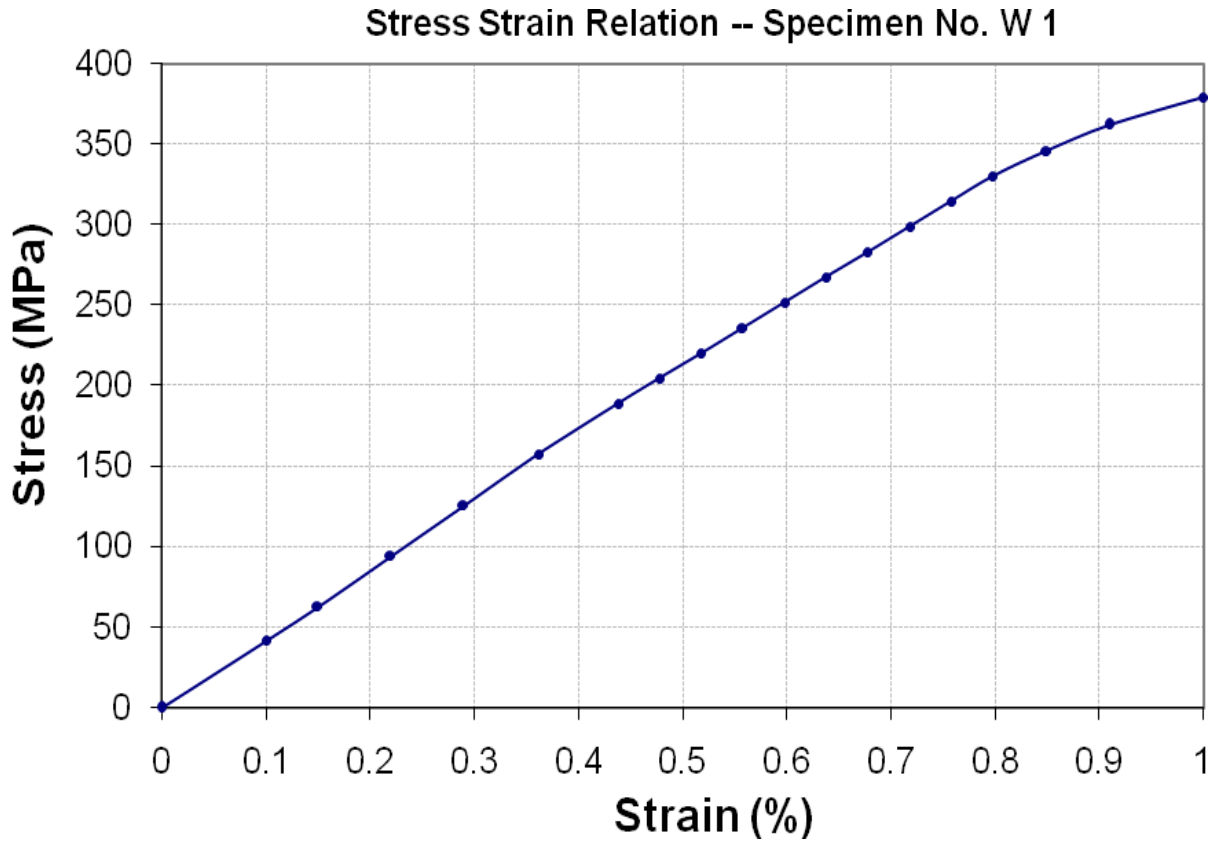
Reference # CED/TFL **2962** (Dr. Rizwan Azam)

Dated: 16-03-2023

Reference of the request letter # PCCCL/T5-QC-2023-007

Dated: 15-03-2023

Graph (Page – 2/2)



I/C Testing Laboratories
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,

Resident Engineer
 NESPAK
 Construction of Extension of Administration Block, Academic Block & Student Service
 Center at New Campus of Ghazi University, Dera Ghazi Khan.

Reference # CED/TFL **2965** (Dr. M Kashif)

Dated: 16-03-2023

Reference of the request letter # 4026/325/MU/Misc/AH/019

Dated: 13-03-2023

Tension Test Report (Page -1/1)

Date of Test 20-03-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.374	3	0.374	0.11	0.110	3670	4960	73600	73570	99400	99500	1.50	18.8	Sheikho Steel
-	0.373	3	0.374	0.11	0.110	3620	5020	72600	72760	100600	100900	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Cantonment Executive Officer
 Sargodha Cantt
 Providing Laying Sewerage Lines / Disposal Ward No. 04 Sargodha Cantt (Phase I)

Reference # CED/TFL **2967** (Dr. Rizwan Azam)
 Reference of the request letter # CBS/CONT/01/711

Dated: 17-03-2023
 Dated: 15-02-2023

Tension Test Report (Page -1/4)

Date of Test 20-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.376	3	0.375	0.11	0.111	3310	4860	66400	65940	97400	96900	1.50	18.8	
2	0.377	3	0.376	0.11	0.111	3330	4890	66800	66160	98000	97200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Cantonment Executive Officer
Sargodha Cantt
Providing Laying Sewerage Lines / Disposal Ward No. 04 Sargodha Cantt (Phase I)

Reference # CED/TFL **2967** (Dr. Rizwan Azam)
Reference of the request letter # CBS/CONT/01/711

Dated: 17-03-2023
Dated: 15-02-2023

Tension Test Report (Page -1/4)

Date of Test 20-03-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.375	3	0.375	0.11	0.110	3520	5010	70600	70330	100400	100100	1.20	15.0	
2	0.377	3	0.376	0.11	0.111	3280	4840	65800	65160	97000	96200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Cantonment Executive Officer
Sargodha Cantt
Providing / Laying of Sewerage Lines / Drain at Ward No. 06 Sargodha Cantt

Reference # CED/TFL **2967** (Dr. Rizwan Azam)
Reference of the request letter # CBS/CONT/01/710

Dated: 17-03-2023
Dated: 15-02-2023

Tension Test Report (Page -3/4)

Date of Test 20-03-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3	0.376	0.11	0.111	3330	4890	66800	66160	98000	97200	1.60	20.0	
2	0.378	3	0.376	0.11	0.111	3360	4960	67400	66700	99400	98500	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Cantonment Executive Officer
Sargodha Cantt
Providing / Laying of Sewerage Lines / Drain at Ward No. 06 Sargodha Cantt

Reference # CED/TFL **2967** (Dr. Rizwan Azam)
Reference of the request letter # CBS/CONT/01/710

Dated: 17-03-2023
Dated: 15-02-2023

Tension Test Report (Page -4/4)

Date of Test 20-03-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.379	3	0.377	0.11	0.111	3310	4840	66400	65500	97000	95800	1.50	18.8	
2	0.379	3	0.377	0.11	0.111	3360	4910	67400	66490	98400	97200	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
Arcow Consultant Pvt. Ltd
Construction of Apartment Building at B-45 Gulberg III, Lahore

Reference # CED/TFL **2970** (Dr. Rizwan Azam)
Reference of the request letter# Arcow/45-B/05

Dated: 20-03-2023
Dated: 20-03-2023

Tension Test Report (Page -1/1)

Date of Test 20-03-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.412	3	0.393	0.11	0.121	4000	5830	80200	72810	116900	106200	1.40	17.5	
2	0.414	3	0.394	0.11	0.122	3980	5810	79800	72060	116500	105200	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Chief Technical Officer
Sheikhoo Sugar Mills (Steel Division)
Anwar Abad Kot Addu, Muzaffargarh

Reference # CED/TFL **2971** (Dr. Rizwan Azam)
Reference of the request letter #Nil

Dated: 20-03-2023
Dated: 17-03-2023

Tension Test Report (Page -2/2)

Date of Test 20-03-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.368	3	0.371	0.11	0.108	3470	4760	69600	70700	95400	97000	1.60	20.0	1
2	0.374	3	0.374	0.11	0.110	3540	4840	71000	71010	97000	97100	1.40	17.5	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
 ACE Limited, Sambrial Sialkot
 Establishment of University of Applied Engineering and Emerging Technologies
 (UAEET) Sambrial, Sialkot

Reference # CED/TFL **2975** (Dr. M Kashif)
 Reference of the request letter # ER/UAEET/ACE/2023/214

Dated: 20-03-2023
 Dated: 20-03-2023

Tension Test Report (Page -1/1)

Date of Test 20-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.170	2	0.252	-----	0.050	1600	2000	-----	70540	-----	88200	0.80	10.0	AF Steel
2	0.170	2	0.252	-----	0.050	1600	1920	-----	70770	-----	85000	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#2 Bar Bend Test Through 180° is Satisfactory														

Witness by Syed Arif Ali (Material Inspector ACE)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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