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

Ref: CED/TFL/07/5393 Dated: 24-07-2024

Dated of Test: 29-07-2024

To

Assistant Director (QCD)
WASA, LDA, Lahore
(M/s Wahga RCC Pipes)

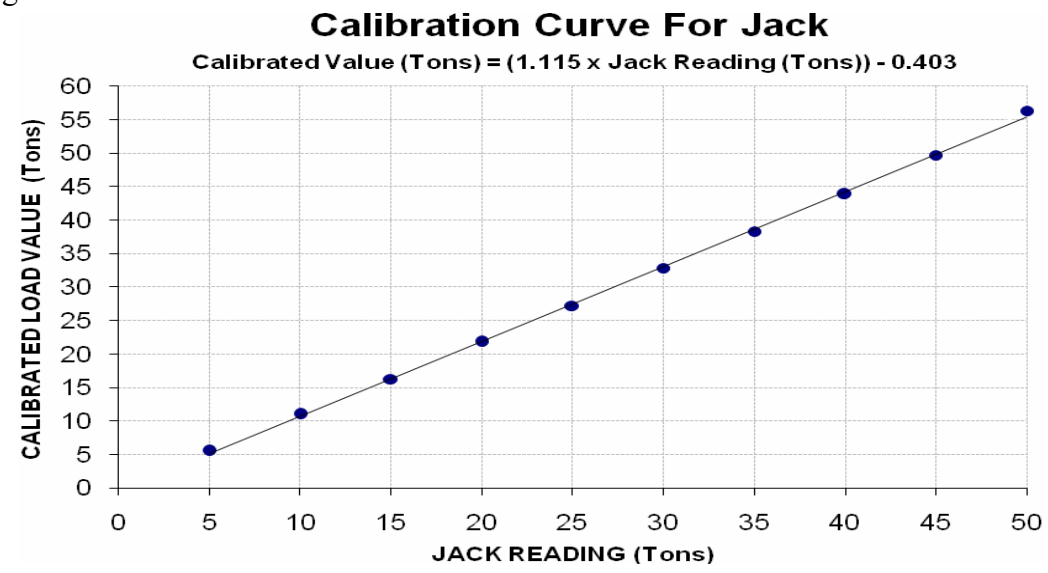
Subject: **- CALIBRATION OF HYDRAULIC JACK WITH GAUGE**
(MARK: TFL/07/5393)

Reference to your Letter No. QCD/1171-72, Dated: 22/07/2024 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 70 (Ton)
Calibrated Range : Zero - 50 (Ton)

Hydraulic Jack Reading (Ton)		**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
Calibrated Load	**(kg)**	**5000**	**10000**	**14800**	**19800**	**24700**	**29800**	**34800**	**39800**	**45100**	**51100**
	(Ton)	**5.5**	**11.0**	**16.3**	**21.8**	**27.2**	**32.8**	**38.3**	**43.8**	**49.7**	**56.3**

1000 Kg = 1.1011 Ton



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

Ref: CED/TFL/07/5403 Dated: 25-07-2023

Dated of Test: 29-07-2023

To

Assistant Director (QCD)
WASA, LDA, Lahore
(M/s Riaz Pipes Factory)

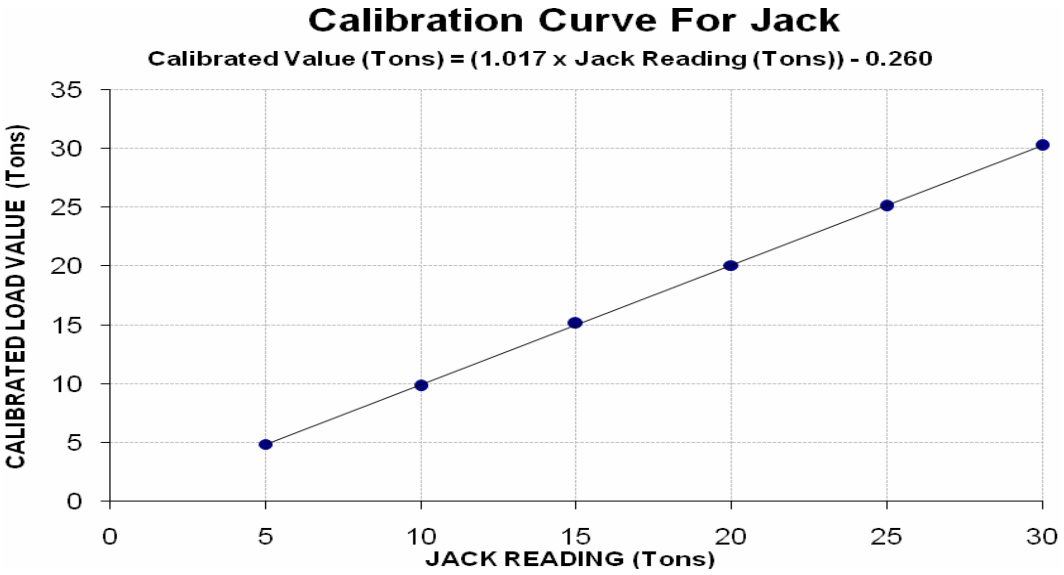
Subject: **- CALIBRATION OF HYDRAULIC JACK WITH GAUGE**
(MARK: TFL/07/5403)

Reference to your Letter No. QCD/1128-29, Dated: 22/07/2024 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50 (Ton)
Calibrated Range : Zero - 30 (Ton)

Hydraulic Jack Reading (Ton)		**5**	**10**	**15**	**20**	**25**	**30**
Calibrated Load	**(kg)**	**4400**	**8900**	**13750**	**18250**	**22800**	**27500**
	(Ton)	**4.84**	**9.80**	**15.14**	**20.10**	**25.11**	**30.28**

1000 Kg = 1.1011 Ton



I/C Testing Laboratoires
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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,

Project Incharge
Malik Tanveer & Brothers
Supplying of Rainforced Concrete Conduists for C5 Project, Chashma.

Reference # CED/TFL **5404** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # MTB/C5/23/009 Dated: 17-04-2024

Tension Test Report (Page # 1/1)

Date of Test 29-07-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.266	8	8.02	------	0.078	2400	3310	------	67630	------	93300	1.10	13.8	Ajmal Steel
2	0.265	8	7.99	------	0.078	2430	3300	------	68880	------	93600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
8mm Dia Bar Bend Test Through 180º 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,

Contractor Representative
CCECC – HCS Jv
Expansion of Terminal Building and Allied Facilities at Allama Iqbal International Airport (AIIAP), Lahore.

Reference # CED/TFL **5405** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # CCECCHCSJVAIIAP2024-146 Dated: 25-07-2024

Tension Test Report (Page -1/1)

Date of Test 29-07-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	4.155	10	1.247	1.27	1.221	39600	55200	68800	71460	95800	99700	1.60	20.0	Sheikhoo Steel
2	4.161	10	1.248	1.27	1.223	39400	55000	68400	71010	95500	99200	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#10 Bar Bend Test Through 180º is Satisfactory

Witness by Sarmad Ali (Site Inspector NESPAK) & Nazish Imran (Material Engr. CCECC-HCS Jv)

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
Rehabilitation / Reconstruction of Lilla Kandwal Length = 15.50 km Tehsil P.D Khan, District Jhelum (Reconstruction of 03 No. Span of Existing Kandwal Bridge over Nullah)

Reference # CED/TFL **5406** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # NESPAK/RE/LK/24/062 Dated: 22-07-2024

Tension Test Report (Page -1/4)

Date of Test 29-07-2024
Gauge length 600 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")	780.0	780.0	17700	173.64	19500	191.30	199	>3.50	xx
2	12.70 (1/2")	780.0	781.0	17600	172.66	19600	192.28	198	>3.50	xx
3	12.70 (1/2")	780.0	780.0	17600	172.66	19400	190.31	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.

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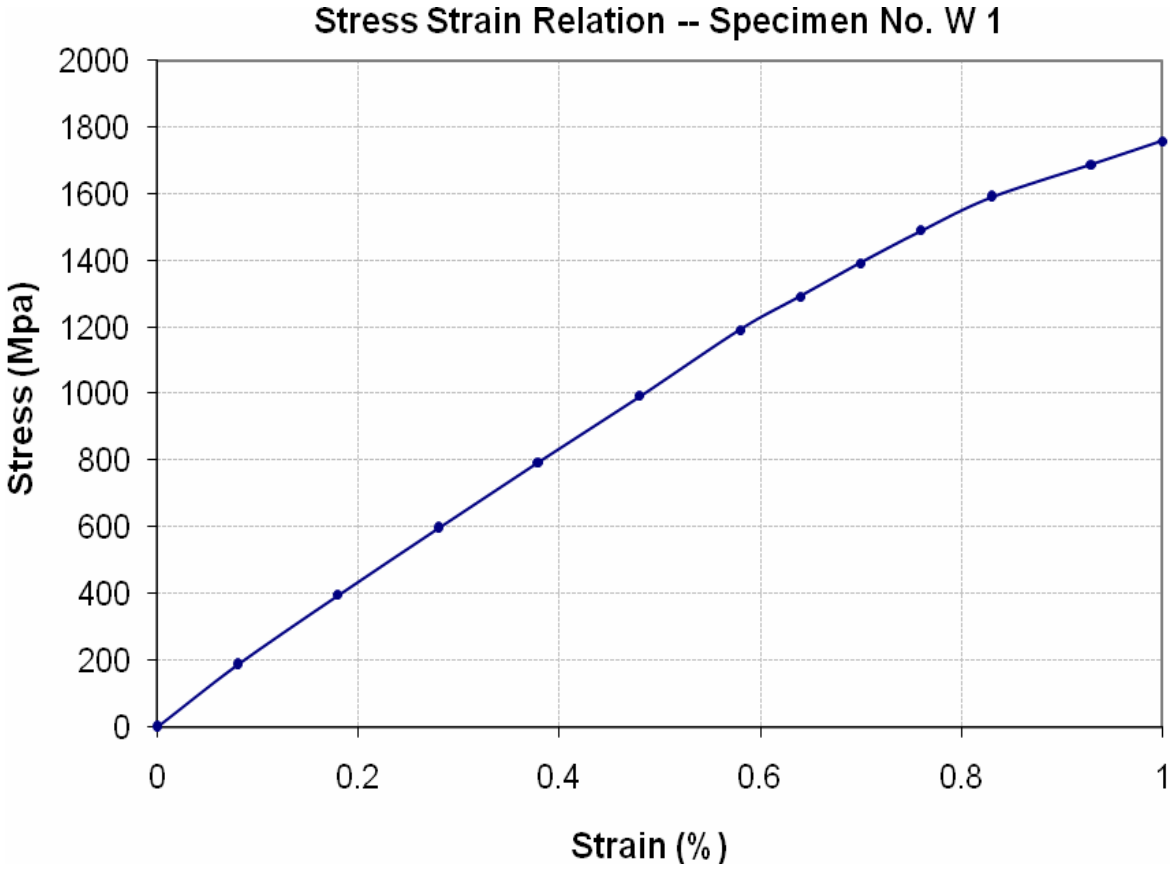
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Rehabilitation / Reconstruction of Lilla Kandwal Length = 15.50 km Tehsil P.D Khan, District Jhelum (Reconstruction of 03 No. Span of Existing Kandwal Bridge over Nullah)

Reference # CED/TFL **5406** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # NESPAK/RE/LK/24/062 Dated: 22-07-2024

Graph (Page – 2/4)



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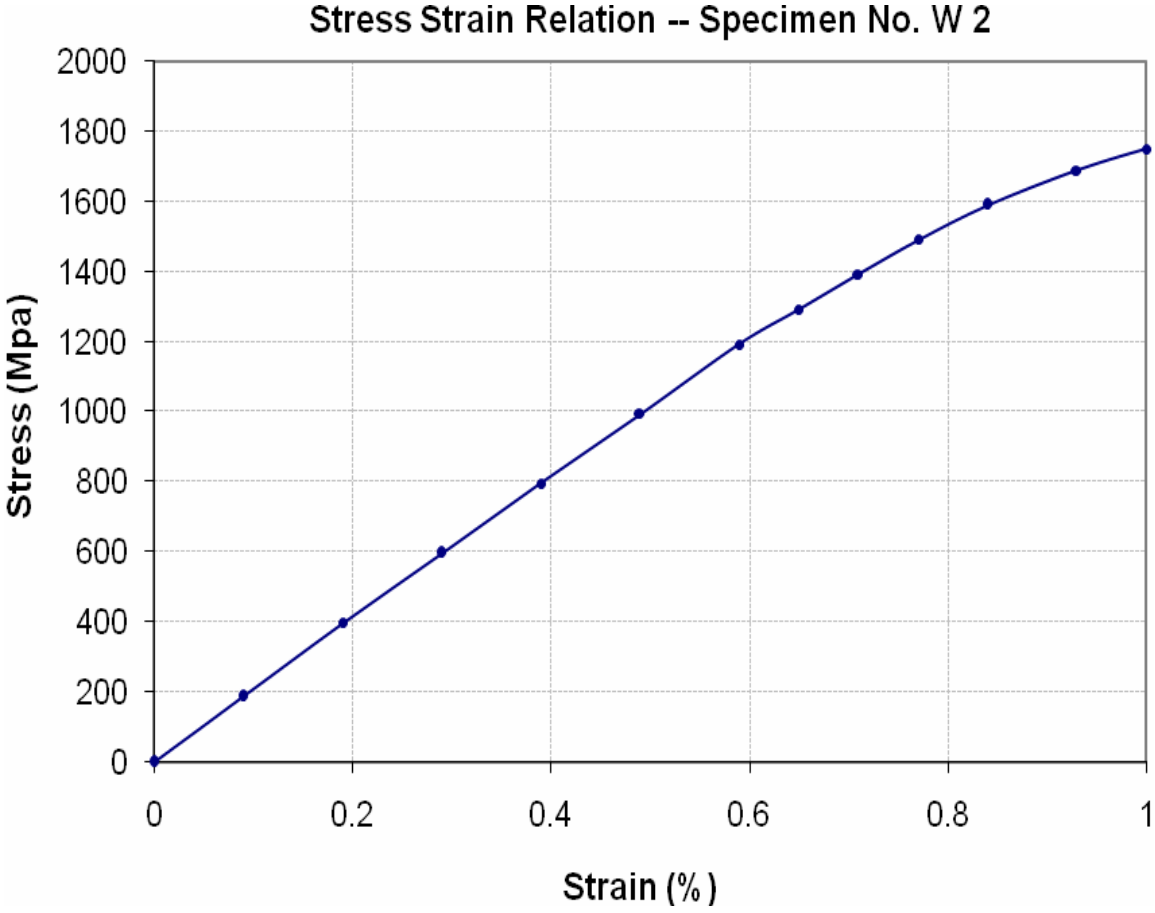
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Rehabilitation / Reconstruction of Lilla Kandwal Length = 15.50 km Tehsil P.D Khan, District Jhelum (Reconstruction of 03 No. Span of Existing Kandwal Bridge over Nullah)

Reference # CED/TFL **5406** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # NESPAK/RE/LK/24/062 Dated: 22-07-2024

Graph (Page – 3/4)



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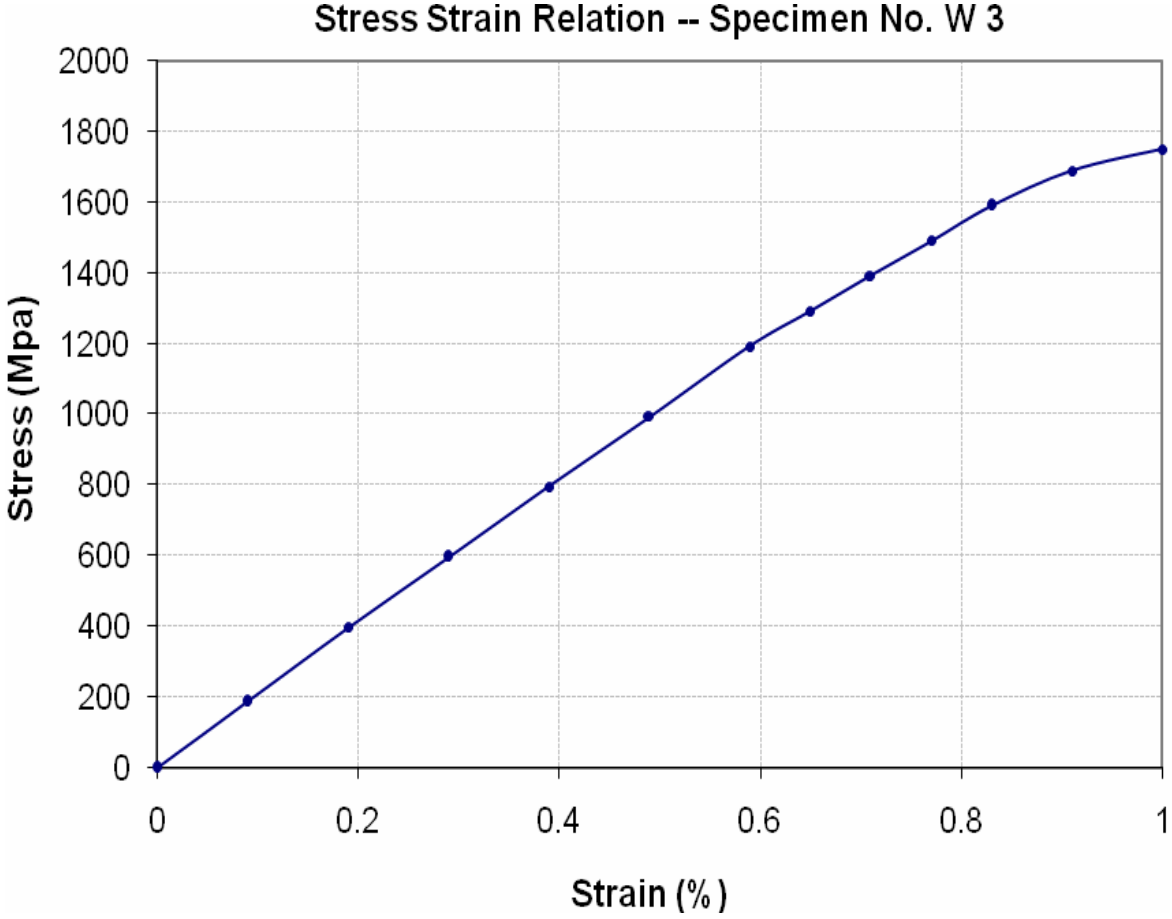
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Rehabilitation / Reconstruction of Lilla Kandwal Length = 15.50 km Tehsil P.D Khan, District Jhelum (Reconstruction of 03 No. Span of Existing Kandwal Bridge over Nullah)

Reference # CED/TFL **5406** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # NESPAK/RE/LK/24/062 Dated: 22-07-2024

Graph (Page – 4/4)



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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,

Project Engineer
Five Star Construction Co.
Construction of Worker Facility @ Uniliver Foods.

Reference # CED/TFL **5409** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # Nil Dated: 25-07-2024

Tension Test Report (Page -1/1)

Date of Test 29-07-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.373	10	9.49	0.12	0.110	4330	5170	79549	87110	94982	104000	0.90	11.3	
2	0.370	10	9.46	0.12	0.109	4280	5120	78631	86630	94063	103700	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
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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 United Wire Industries (Pvt) Ltd
Lahore
"Izhar Concrete Pvt. Ltd."

Reference # CED/TFL **5410** (Dr. M Kashif) Dated: 25-07-2024
Reference of the request letter # 257-24 Dated: 25-07-2024

Tension Test Report (Page – 1/1)

Date of Test 29-07-2024
Gauge length 600 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	**12.70 (1/2")**	**780.0**	**784.0**	**18200**	**178.54**	**19800**	**194.24**	**>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 Unze Trading (Pvt) Limited
Lahore
(Owned PCC Pole Plant Sahianwala FIEDMC Faisalabad.)

Reference # CED/TFL **5411** (Dr. M Kashif) Dated: 26-07-2024
Reference of the request letter # Unze/05/2024 Dated: 25-07-2024

Tension Test Report (Page -1/1)

Date of Test 29-07-2024
Gauge length 600 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")**	**430.0**	**440.0**	**10100**	**99.08**	**11100**	**108.89**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

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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,

General Manager
The Lake City Holdings (Pvt) Ltd.
Lahore

Reference # CED/TFL **5412** (Dr. M Kashif) Dated: 26-07-2024
Reference of the request letter # LCH/CD/01 Dated: 26-07-2024

Tension Test Report (Page -1/1)

Date of Test 29-07-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.374	3	0.374	0.11	0.110	3030	4690	60800	60810	94000	94200	1.20	15.0	Aziz
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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