



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

To,  
 Director QA/QC-II  
 DBH JVMC, Projects  
 DHA Homes Islamabad

Reference # CED/TFL **32965** (Dr. Qasim Khan)  
 Reference of the request letter # DBH/JVMC/QA/QCII/2019/01/UET

Dated: 01-04-2019  
 Dated: 28-03-2019

**Tension Test Report** (Page – 1/4)

Date of Test 05-04-2019  
 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	782.0	19100	187.37	20200	198.16	199	>3.50	xx
2	12.70 (1/2")	775.0	788.0	17000	166.77	20400	200.12	199	>3.50	xx
3	12.70 (1/2")	775.0	788.0	17500	171.68	20300	199.14	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:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
2. The above results pertain to sample /samples supplied to this laboratory.
- 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**

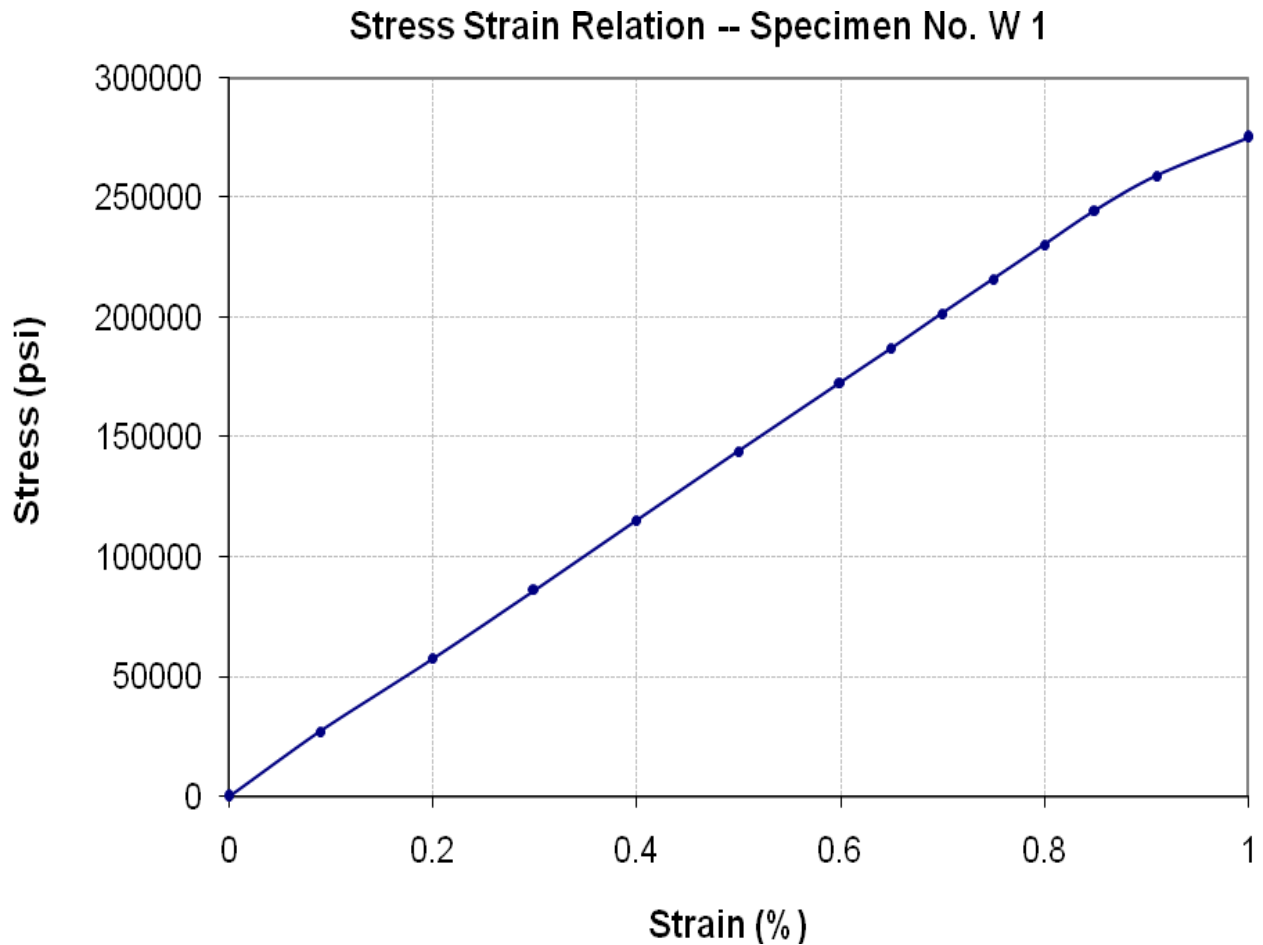
To,  
Director QA/QC-II  
DBH JVMC, Projects  
DHA Homes Islamabad

Reference # CED/TFL **32965** (Dr. Qasim Khan)  
Reference of the request letter # DBH/JVMC/QA/QCII/2019/01/UT

Dated: 01-04-2019

Dated: 28-03-2019

**Graph** (Page – 2/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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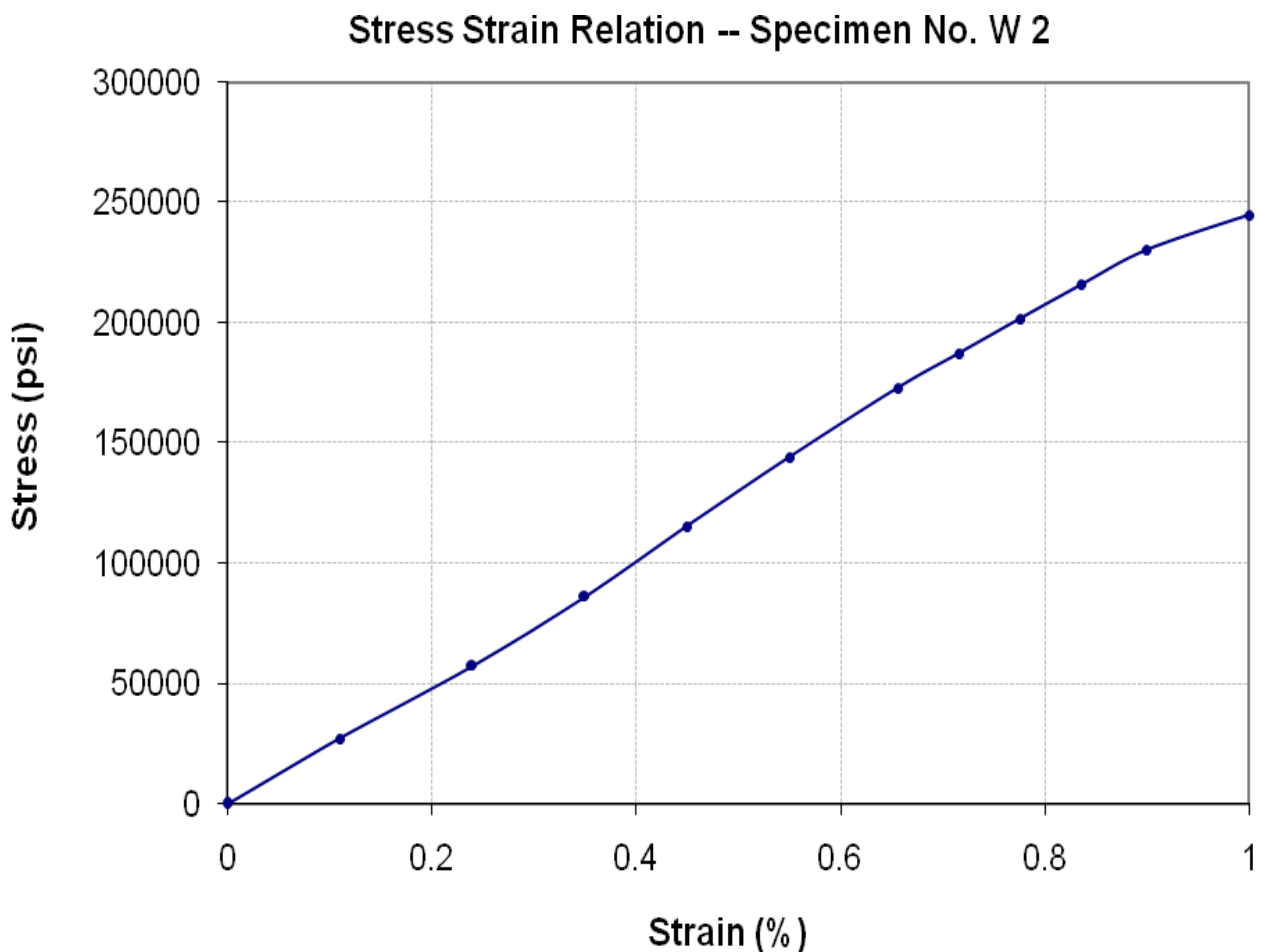
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
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DBH JVMC, Projects  
DHA Homes Islamabad

Reference # CED/TFL **32965** (Dr. Qasim Khan)  
Reference of the request letter # DBH/JVMC/QA/QCII/2019/01/UET

Dated: 01-04-2019  
Dated: 28-03-2019

**Graph** (Page – 3/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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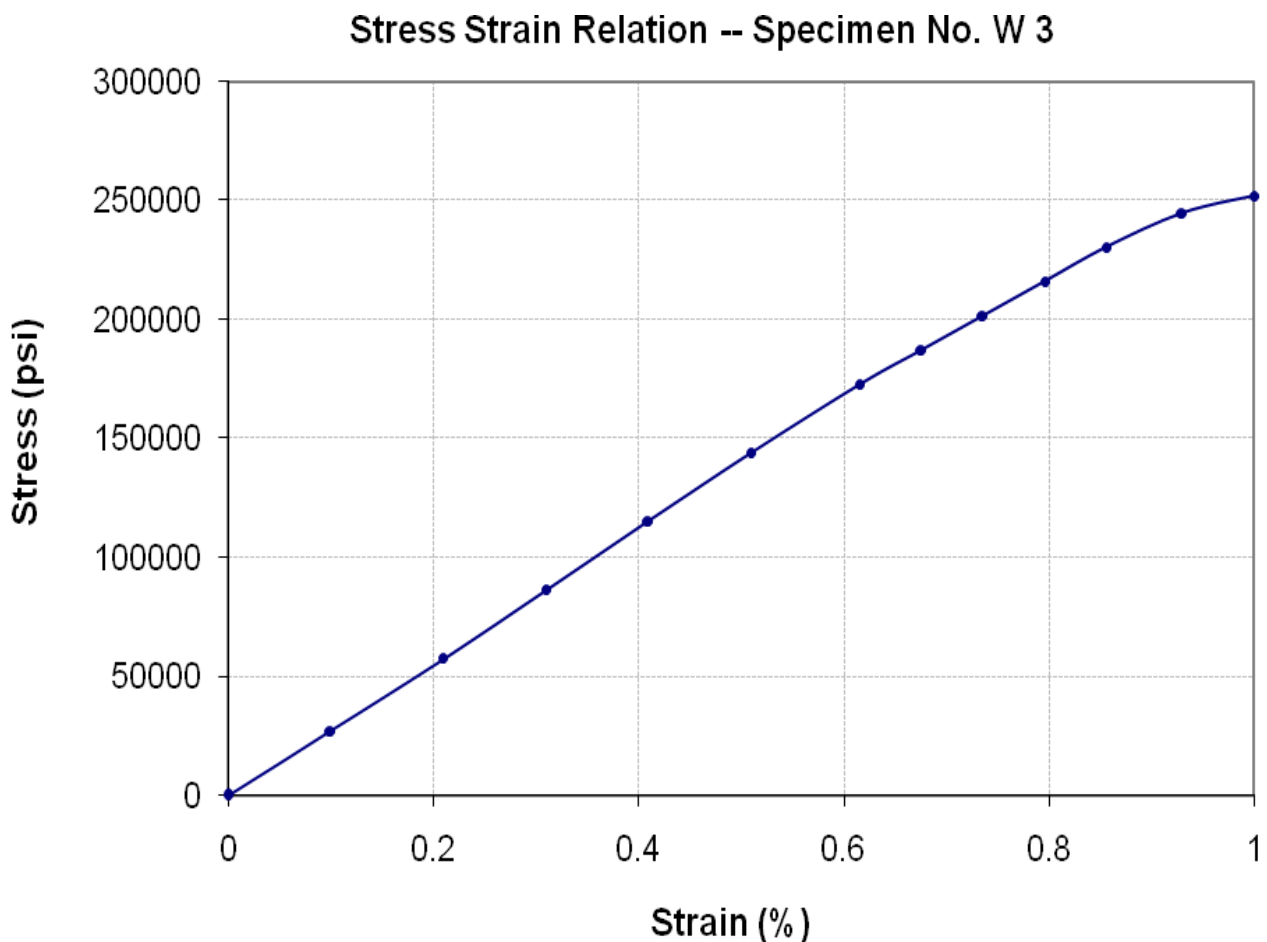
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Director QA/QC-II  
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Reference # CED/TFL **32965** (Dr. Qasim Khan)  
Reference of the request letter # DBH/JVMC/QA/QCII/2019/01/UET

Dated: 01-04-2019  
Dated: 28-03-2019

**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,  
Resident Engineer  
NESPAK  
Development of Kartar Pur Corridor  
(Steel Complex)

Reference # CED/TFL **32971** (Dr. Qasim kKhan)  
Reference of the request letter # SA-394/DKC/SW.Test/SM/40

Dated: 01-04-2019  
Dated: 31-03-2019

**Tension Test Report** (Page – 1/2)

Date of Test 05-04-2019  
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	786.0	18600	182.47	20300	199.14	199	>3.50	67 A
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Witness by Aftab Baluch (NESPAK)

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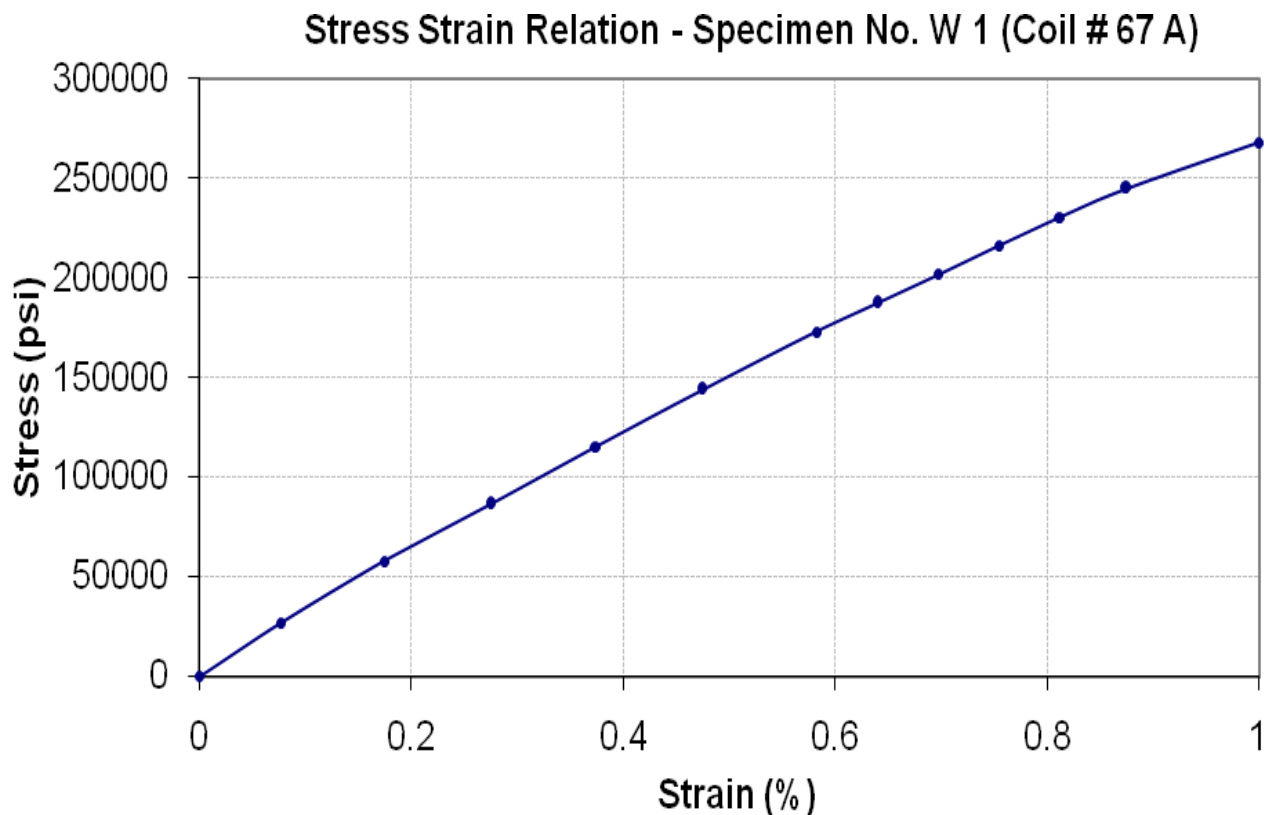
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
NESPAK  
Development of Kartar Pur Corridor

Reference # CED/TFL **32971** (Dr. Qasim kKhan)  
Reference of the request letter # SA-394/DKC/SW.Test/SM/40

Dated: 01-04-2019  
Dated: 31-03-2019

**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,  
 Sub Divisional Officer PWD  
 Highway Sub Division Bagh  
 (Construction of pre Stressed R.C.C Bridge Serimang Dhulli (120 Mtr Span) District Bagh  
 AJ&K)

Reference # CED/TFL **32995** (Dr. Qasim Khan)  
 Reference of the request letter # 056-58/SDO/High Ways/2019

Dated: 04-04-2019  
 Dated: 01-04-2019

**Tension Test Report** (Page – 1/2)

Date of Test 05-04-2019  
 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	782.0	17100	167.75	19700	193.26	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.**

Note:

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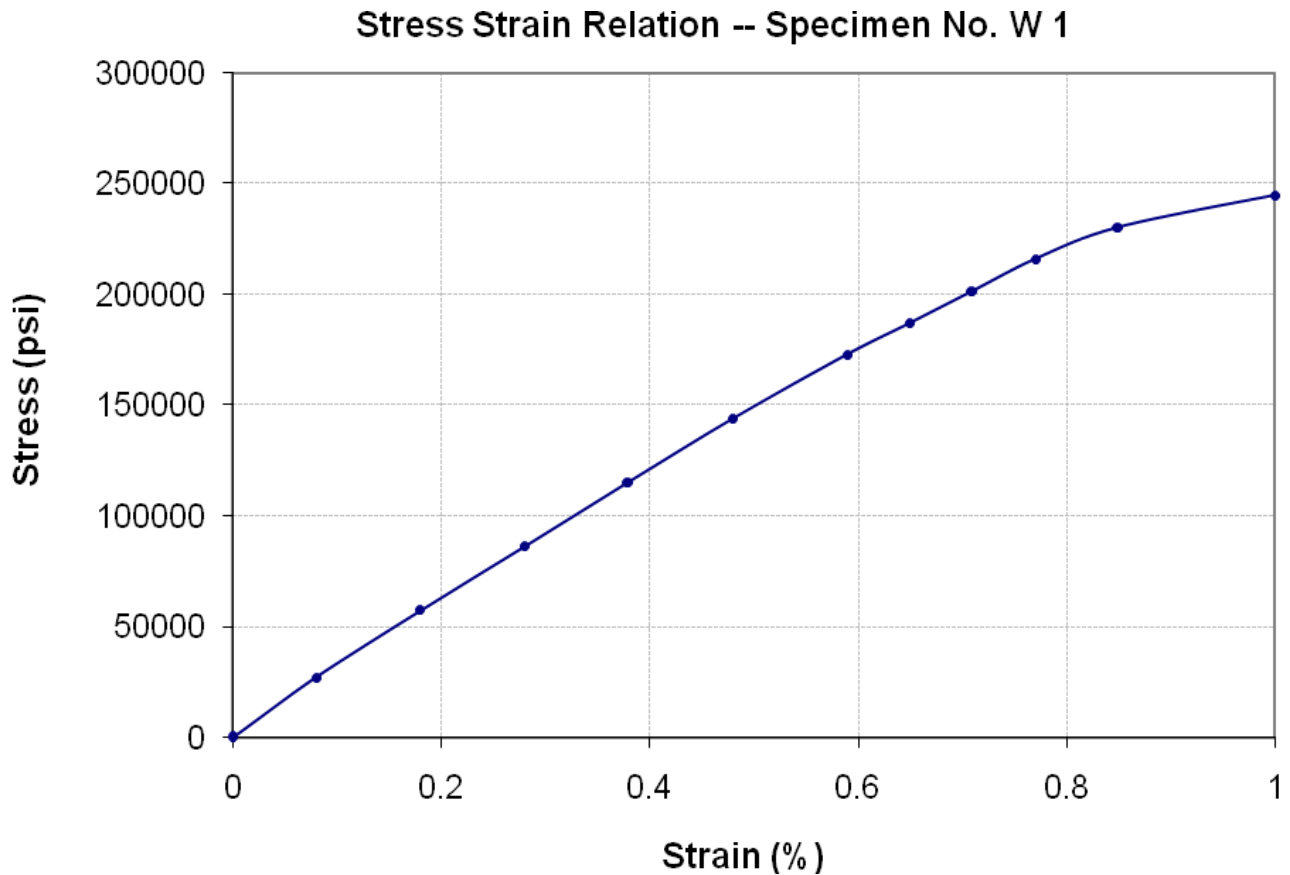
To,  
Sub Divisional Officer PWD  
Highway Sub Division Bagh  
(Construction of pre Stressed R.C.C Bridge Serimang Dhulli (120 Mtr Span) District Bagh  
AJ&K)

Reference # CED/TFL **32995** (Dr. Qasim Khan)  
Reference of the request letter # 056-58/SDO/High Ways/2019

Dated: 04-04-2019

Dated: 01-04-2019

**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,  
DCRE/RE-1  
Zeerul International (Pvt) Ltd  
Lahore Sialkot Motorway Project  
(Mughal Steel)

Reference # CED/TFL **32998** (Dr. Qasim Khan)  
Reference of the request letter # LSM/RE-1/2018/725

Dated: 04-04-2019  
Dated: 04-04-2019

**Tension Test Report** (Page -1/1)

Date of Test 05-04-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in <sup>2</sup> )		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	4.189	32	31.80	1.27	1.231	41000	50800	71200	73390	88200	91000	1.60	20.0	
2	4.189	32	31.80	1.27	1.231	40800	50800	70900	73030	88200	91000	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
32mm Dia Bar Bend Test Through 180° is Satisfactory														

**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,  
DCRE/RE-1R  
Zeeruk International (Pvt) Ltd  
Lahore Sialkot Motorway Project  
(M/s Steel Complex)

Reference # CED/TFL **32999** (Dr. Qasim Khan)  
Reference of the request letter # LSMP/RE-1/2019/724

Dated: 04-04-2019  
Dated: 04-04-2019

**Tension Test Report** (Page – 1/2)

Date of Test 05-04-2019  
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	781.0	17200	168.73	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 Laboratoires**  
**UET Lahore, Pakistan.**

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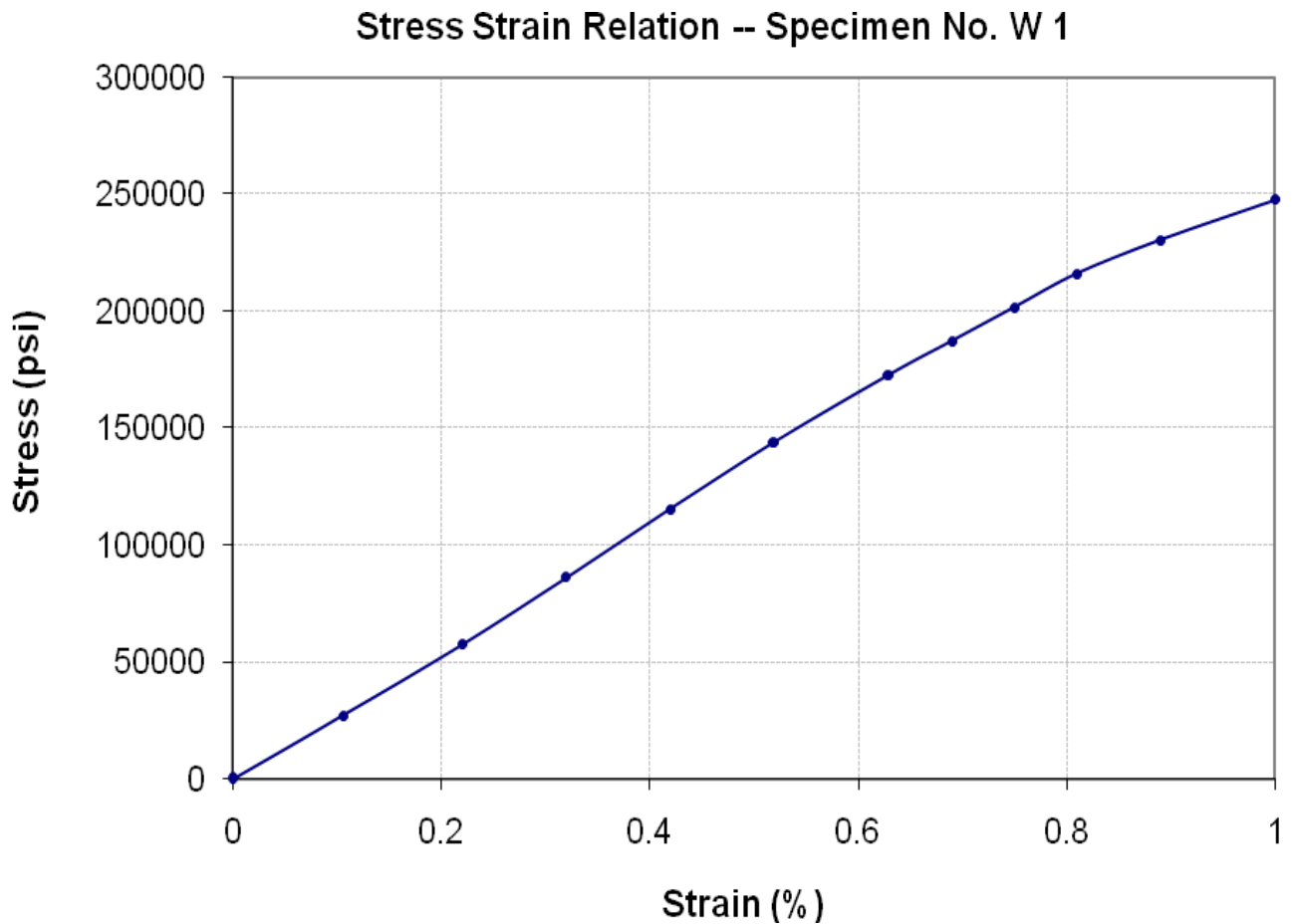
To,  
DCRE/RE-1R  
Zeeruk International (Pvt) Ltd  
Lahore Sialkot Motorway Project  
(M/s Steel Complex)

Reference # CED/TFL **32999** (Dr. Qasim Khan)  
Reference of the request letter # LSMP/RE-1/2019/724

Dated: 04-04-2019

Dated: 04-04-2019

**Graph** (Page – 2/2)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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

To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Construction of 1-Kanal Villis at DRGCC Club House DHA Ph-6)(M/s Linker Developers (Pvt) Ltd)

Reference # CED/TFL **33001** (Dr. Qasim Khan)  
Reference of the request letter # 408/241/E/Lab/513/121

Dated: 04-04-2019  
Dated: 03-04-2019

**Tension Test Report** (Page -1/1)

Date of Test 05-04-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in <sup>2</sup> )		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	0.369	3	0.372	0.11	0.109	3400	5500	68200	69030	110200	111700	1.10	13.8	Ittefaq Steel
2	0.369	3	0.372	0.11	0.108	3400	5400	68200	69080	108200	109800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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,  
Kashif  
Lahore

Reference # CED/TFL **33002** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019

Dated: 04-04-2019

**Tension Test Report** (Page – 1/1)

Date of Test 05-04-2019

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	431.0	8400	82.40	10800	105.95	>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,  
Mushtaq  
Lahore

Reference # CED/TFL **33003** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019

Dated: 04-04-2019

**Tension Test Report** (Page – 1/1)

Date of Test 05-04-2019

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	443.0	7600	74.56	10900	106.93	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for 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,  
Laboratory Manager  
M/S CGGC Sukhi Kinari Project Management in Pakistan  
874 MW Sukhi Kinari Power Project (Tianjin Tiantie Zhaer Steel Production Co., Ltd)

Reference # CED/TFL **33004** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019  
Dated: 29-03-2019

**Tension Test Report** (Page -1/4)

Date of Test 05-04-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in <sup>2</sup> )		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	4.337	36	32.36	1.56	1.275	72000	96800	101800	124480	136800	167400	1.00	12.5	
2	4.325	36	32.31	1.56	1.271	71600	96800	101200	124150	136800	167900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and two samples for bend test</b>														
Bend Test														
36mm Dia Bar Bend Test Through 180° is Satisfactory														
36mm Dia Bar Bend Test Through 180° is Satisfactory														

**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,  
Laboratory Manager  
M/S CGGC Sukhi Kinari Project Management in Pakistan  
874 MW Sukhi Kinari Power Project (Liu Zhou Ovm Machinery Co. Ltd)

Reference # CED/TFL **33004** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019  
Dated: 02-04-2019

**Tension Test Report** (Page – 2/4)

Date of Test 04-03-2019  
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	1134.0	23800	233.48	27800	272.72	199	>3.50	YPW115-SJ-19030
2	15.24 (0.6")	1102.0	1136.0	24000	235.44	27300	267.81	199	>3.50	YPW115-SJ-19031
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two 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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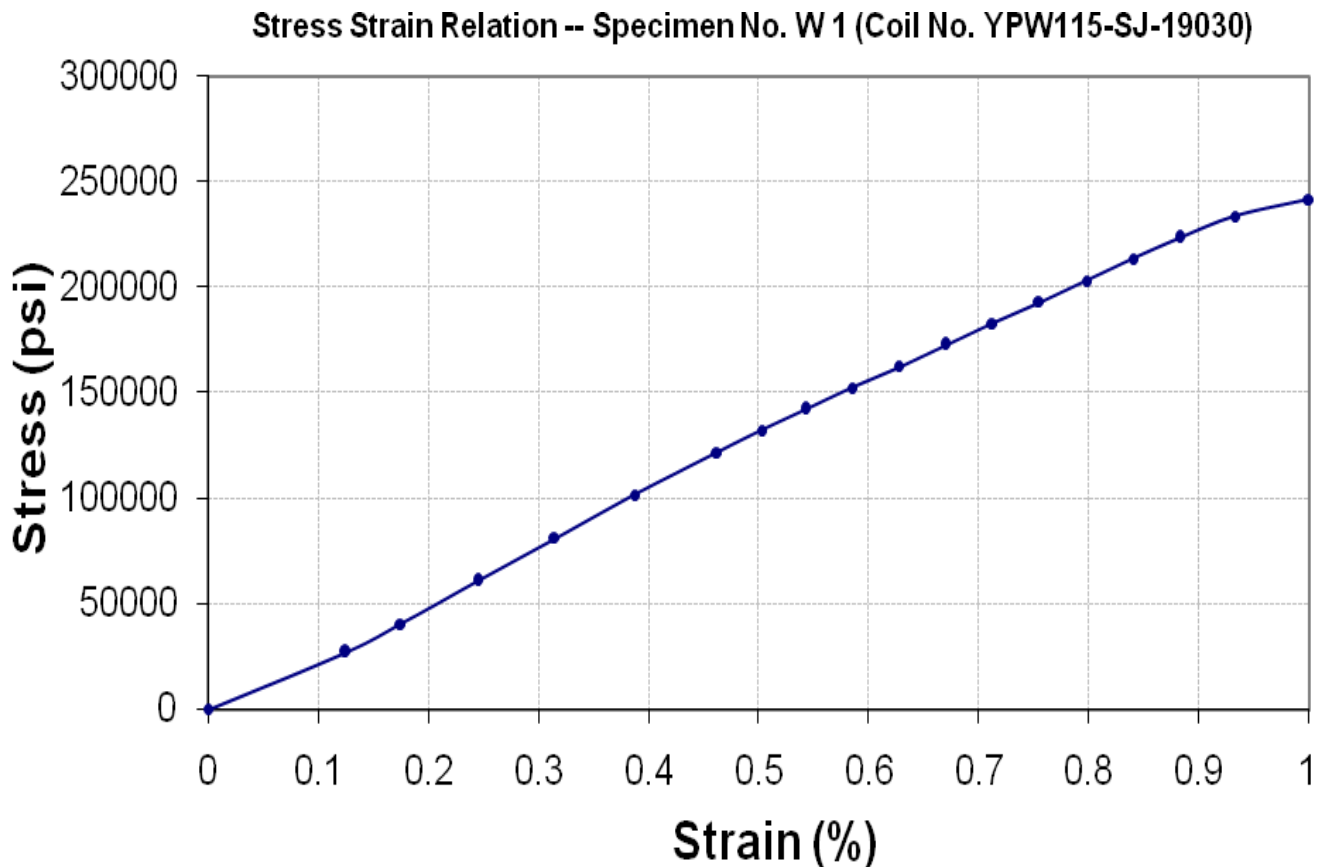
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Laboratory Manager  
M/S CGGC Sukhi Kinari Project Management in Pakistan  
874 MW Sukhi Kinari Power Project (Liu Zhou Ovm Machinery Co. Ltd)

Reference # CED/TFL **33004** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019  
Dated: 02-04-2019

**Graph** (Page – 3/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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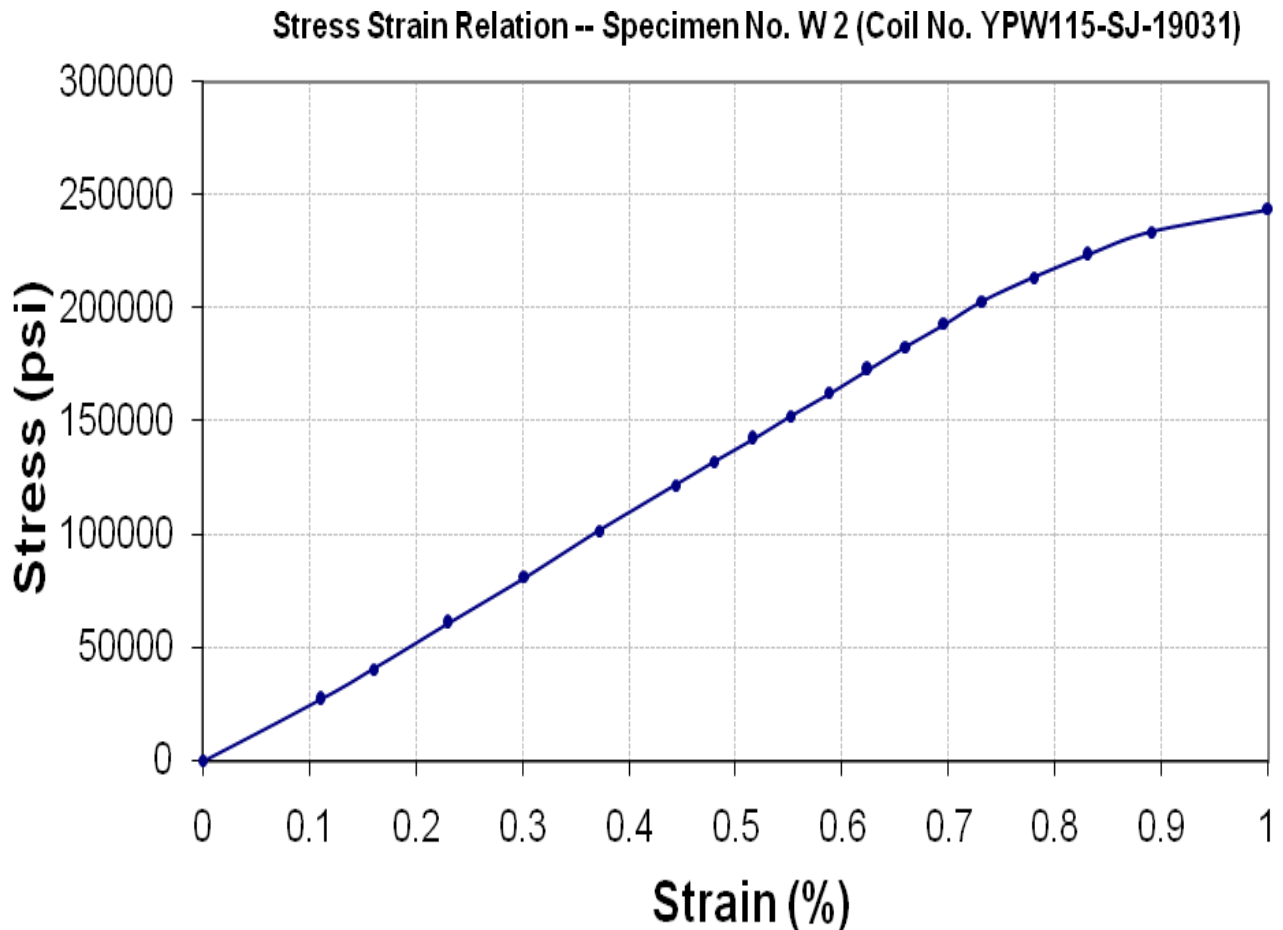
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**Pakistan. Ph: 92-42-99029202**

To,  
Laboratory Manager  
M/S CGGC Sukhi Kinari Project Management in Pakistan  
874 MW Sukhi Kinari Power Project (Liu Zhou Ovm Machinery Co. Ltd)

Reference # CED/TFL **33004** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 04-04-2019  
Dated: 02-04-2019

**Graph** (Page – 4/4)



**I/C Testing Laboratories**  
**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,  
 Manager Quality Control  
 Ravi Green Engineering (Pvt) Ltd  
 Construction of Flag Poles at DHA Bahawalpur 20 meter & 45meter  
 (CTE (Pvt) Ltd)(P-643)

Reference # CED/TFL **33012** (Dr. Qasim Khan)  
 Reference of the request letter # RG/MT/UET/2623

Dated: 05-04-2019  
 Dated: 04-04-2019

**Tension Test Report** (Page – 1/1)

Date of Test 05-04-2019  
 Gauge length 8 inches  
 Description Carbon Steel Plate Steel Strip Tensile Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)		(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	P643-T12-1	12	40.20x12.00	482.40	12300	20500	250.13	416.88	2.10	26.25	
2	P643-T12-2	12	40.30x12.00	483.60	11900	20200	241.40	409.76	2.30	28.75	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Tensile Test</b>											
<b>Bend Test</b>											

Witness by Muhammad Hinan Ch (Site Engineer, CTE Pvt Ltd)

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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

To,  
 Additional Director Development  
 DHA Phase-XI (Rahbar)  
 Construction of DHGA Girls School at Block-'B' Sector-I, DHA Phase-XI (Rahbar)

Reference # CED/TFL **33013** (Dr. Nauman Khurram) Dated: 05-04-2019  
 Reference of the request letter # 700/3/Girls School/Ph-XI/Projs/1217 Dated: 04-04-2019

**Tension Test Report** (Page -1/1)

Date of Test 05-04-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.377	3	0.376	0.11	0.111	3700	4450	74200	73590	89200	88600	1.00	12.5	Amreli Steel
2	0.380	3	0.377	0.11	0.112	3800	4500	76200	74990	90200	88800	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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