



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 Defence Housing Authority.
Lahore Cantt
(External Elec Works (U/G) IVY Green, Sector-Z, DHA Ph-VIII)(M/s NLC)

Reference # CED/TFL **33397** (Dr. Safeer Abbas)
Reference of the request letter # 408/241/E/Lab/608/503

Dated: 18-06-2019
Dated: 17-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
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	0.360	3	0.367	0.11	0.106	3300	5000	66200	68820	100200	104300	0.80	10.0	S.J Steel
2	0.362	3	0.368	0.11	0.106	3300	5000	66200	68400	100200	103700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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,
 Sub Div. Officer Multan
 PASSCO Div. Multan
 (Godowns Project Musa Virk Khanewal)

Reference # CED/TFL **33398** (Dr. Safeer Abbas)
 Reference of the request letter # PASSCO/EE/MTN/19/129

Dated: 18-06-2019
 Dated: 03-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in 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	0.428	3/8	0.400	0.11	0.126	-----	4900	-----	-----	98200	85800	0.40	5.0	
2	0.428	3/8	0.400	0.11	0.126	-----	5200	-----	-----	104200	91200	0.50	6.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for Bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Failed														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
 Project Manager
 A.S Enterprises
 (Style Textile Mill)(AA Associates)(Afco)

Reference # CED/TFL **33400** (Dr. Safeer Abbas)
 Reference of the request letter # USA/ASE/08

Dated: 18-06-2019
 Dated: 18-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in 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	0.412	10	9.97	0.12	0.121	3800	4900	69812	69220	90021	89300	1.10	13.8	
2	0.412	10	9.97	0.12	0.121	3700	5200	67975	67370	95533	94700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia 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
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Pakistan. Ph: 92-42-99029202

To,
 Executive Engineer
 Central Civil Division No. 1
 Pak PWD, Lahore
 (Construction of Office Complex Including Boundary Wall for Survey of Pakistan, Lahore)

Reference # CED/TFL **33401** (Dr. Safeer Abbas)
 Reference of the request letter # EE/CCD-1/LHR/2724

Dated: 18-06-2019
 Dated: 23-05-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.373	3/8	0.373	0.11	0.110	3700	5000	74200	74440	100200	100600	1.20	15.0	
2	0.367	3/8	0.371	0.11	0.108	3700	4950	74200	75600	99200	101200	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for Bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
 Project Manager
 State Grid
 China Electric Power Equipment and Technology Co., Ltd
 ±600kV Matiari-Lahore HVDC Transmission Line (Lot-5)
 Reference # CED/TFL **33403** (Dr. Safeer Abbas) Dated: 19-06-2019
 Reference of the request letter # CET/HVDC/SPO(04)L5/City Steel/UET-19-682 Dated: 14-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 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	0.382	3	0.378	0.11	0.112	3200	5000	64200	62800	100200	98200	1.20	15.0	
2	0.383	3	0.379	0.11	0.113	3300	5000	66200	64570	100200	97900	1.20	15.0	
3	0.381	3	0.377	0.11	0.112	3000	4950	60200	59120	99200	97600	1.20	15.0	
4	0.379	3	0.376	0.11	0.111	3000	5000	60200	59410	100200	99100	1.30	16.3	
5	0.378	3	0.376	0.11	0.111	3000	4950	60200	59480	99200	98200	1.20	15.0	
6	0.380	3	0.377	0.11	0.112	3100	5000	62200	61190	100200	98700	1.20	15.0	
Note: only six samples for tensile and six samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
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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,
 Project Manager
 Roots International Schools
 Roots International School Project Palm Tree Campus Sialkot

Reference # CED/TFL **33404** (Dr. Safeer Abbas)
 Reference of the request letter # RIS/SB/SKT19062019

Dated: 19-06-2019
 Dated: 19-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 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	0.373	3	0.373	0.11	0.110	4100	4900	82200	82490	98200	98600	1.00	12.5	
2	0.372	3	0.373	0.11	0.109	4100	4900	82200	82590	98200	98700	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratoires
UET Lahore, Pakistan.

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

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019
Dated: 19-06-2019

Tension Test Report (Page – 1/6)

Date of Test 20-06-2019
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	17400	170.69	19400	190.31	199	>3.50	23-R
2	12.70 (1/2")	775.0	783.0	17000	166.77	19400	190.31	199	>3.50	65-R
3	12.70 (1/2")	775.0	782.0	17000	166.77	19800	194.24	198	>3.50	56-R
4	12.70 (1/2")	775.0	787.0	18600	182.47	19900	195.22	199	>3.50	57-R
5	12.70 (1/2")	775.0	785.0	18500	181.49	19800	194.24	199	>3.50	61-R
-	-	-	-	-	-	-	-	-	-	
Only five 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
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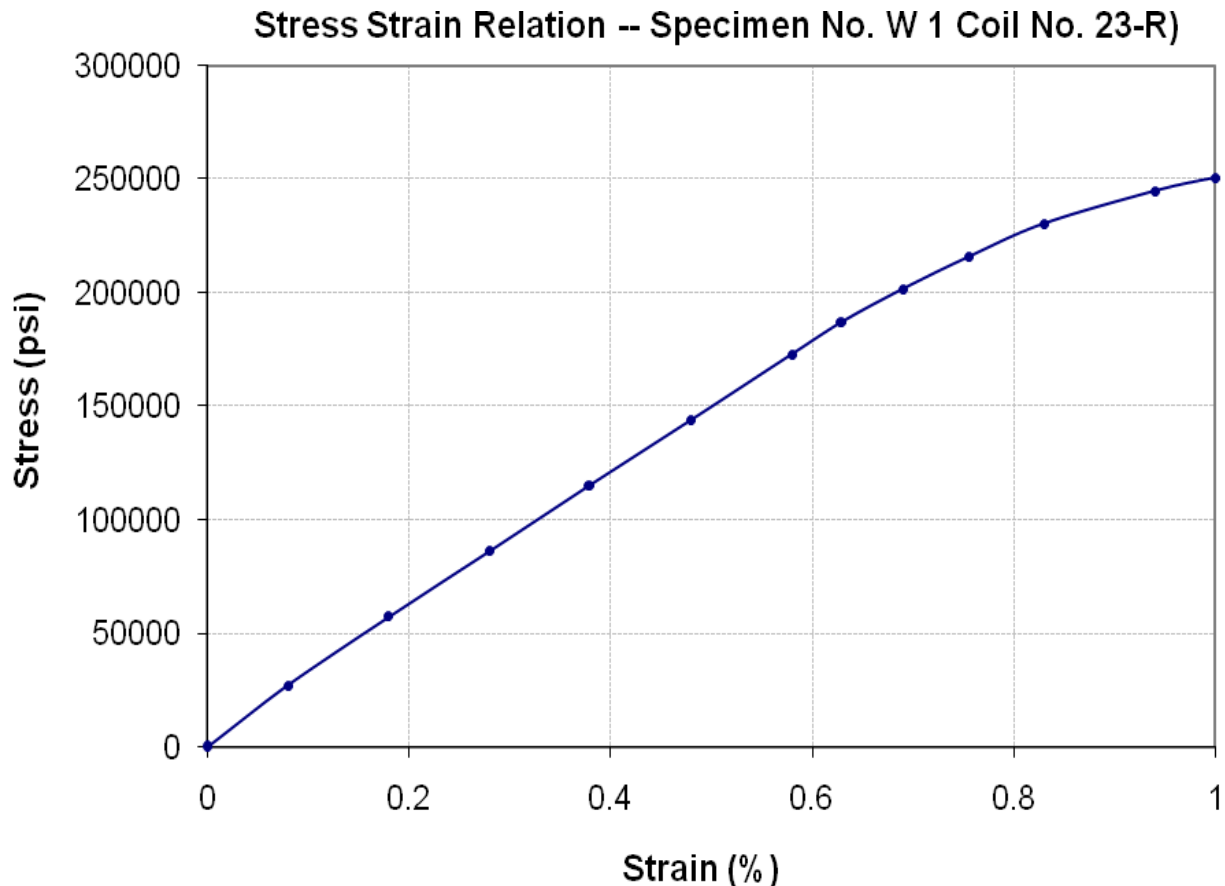
To,
DCRE/RE-1R
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(Steel Complex)

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019

Dated: 19-06-2019

Graph (Page – 2/6)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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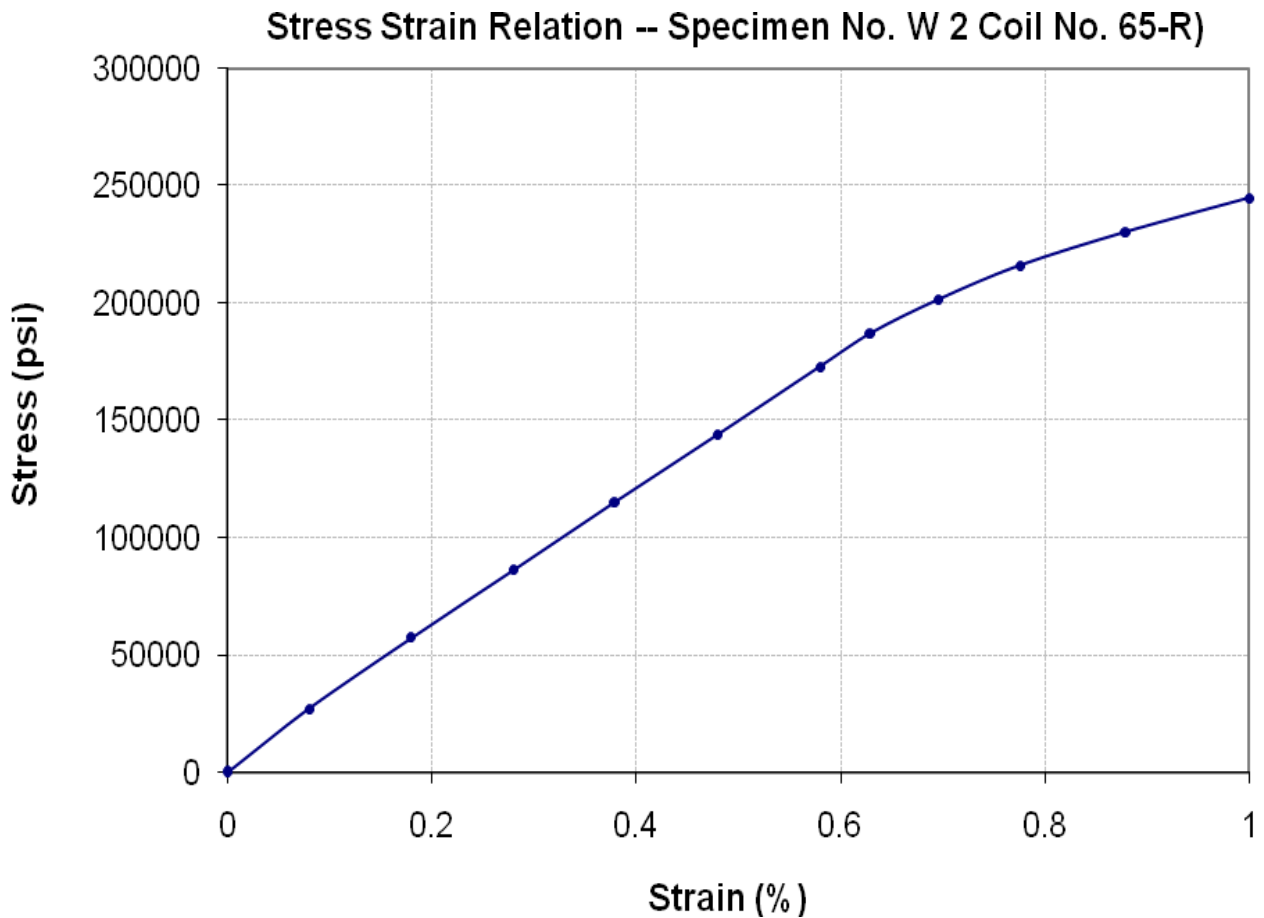
To,
DCRE/RE-1R
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(Steel Complex)

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019

Dated: 19-06-2019

Graph (Page -3/6)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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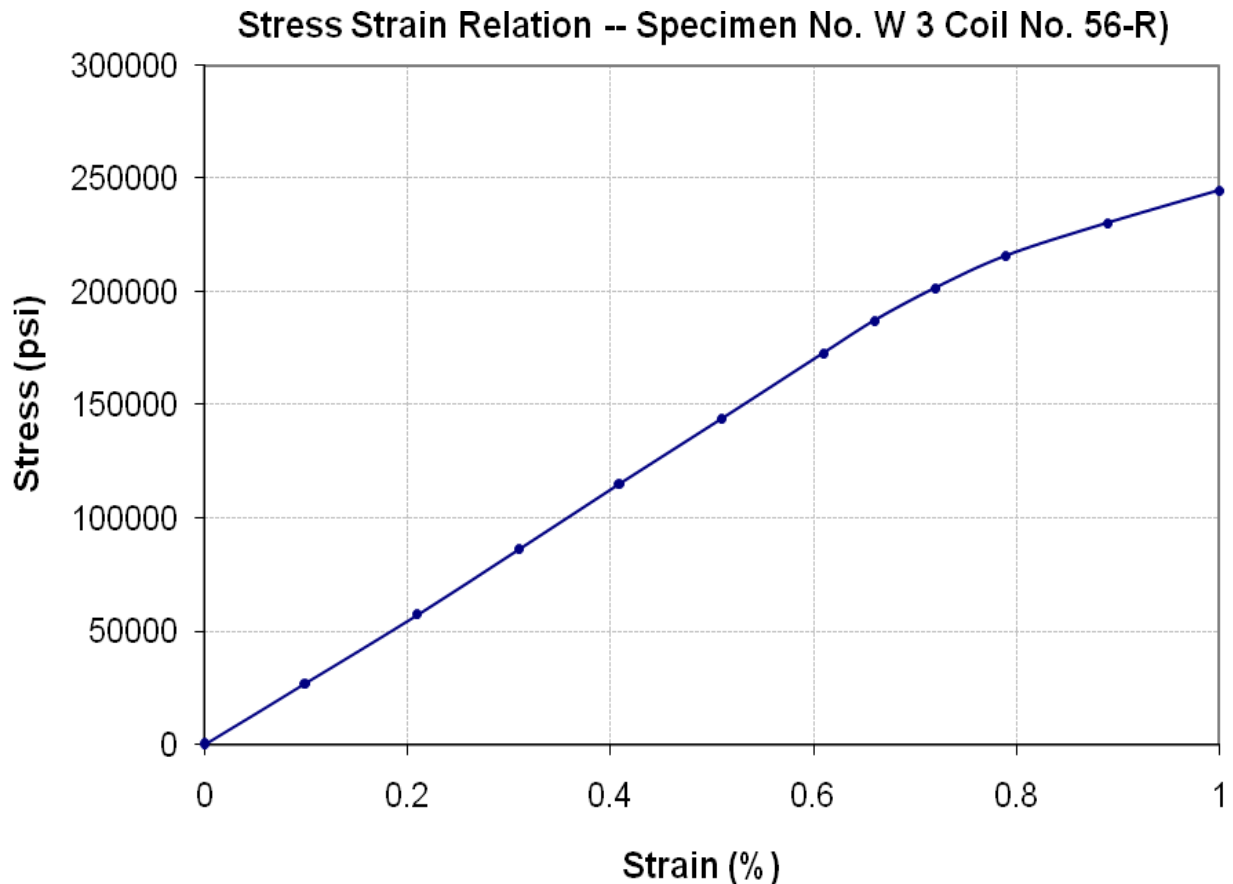
To,
DCRE/RE-1R
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(Steel Complex)

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019

Dated: 19-06-2019

Graph (Page – 4/6)



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

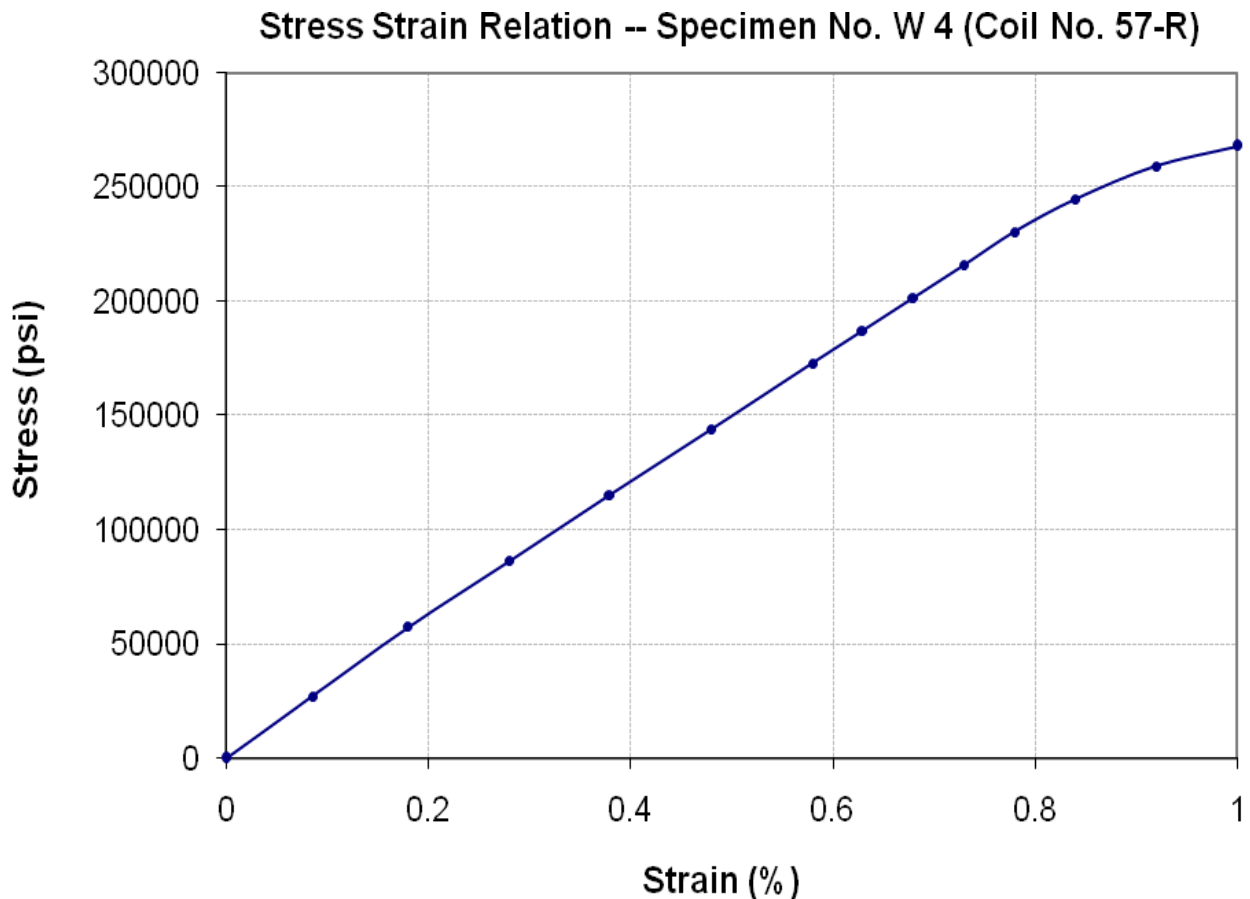
To,
DCRE/RE-1R
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(Steel Complex)

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019

Dated: 19-06-2019

Graph (Page – 5/6)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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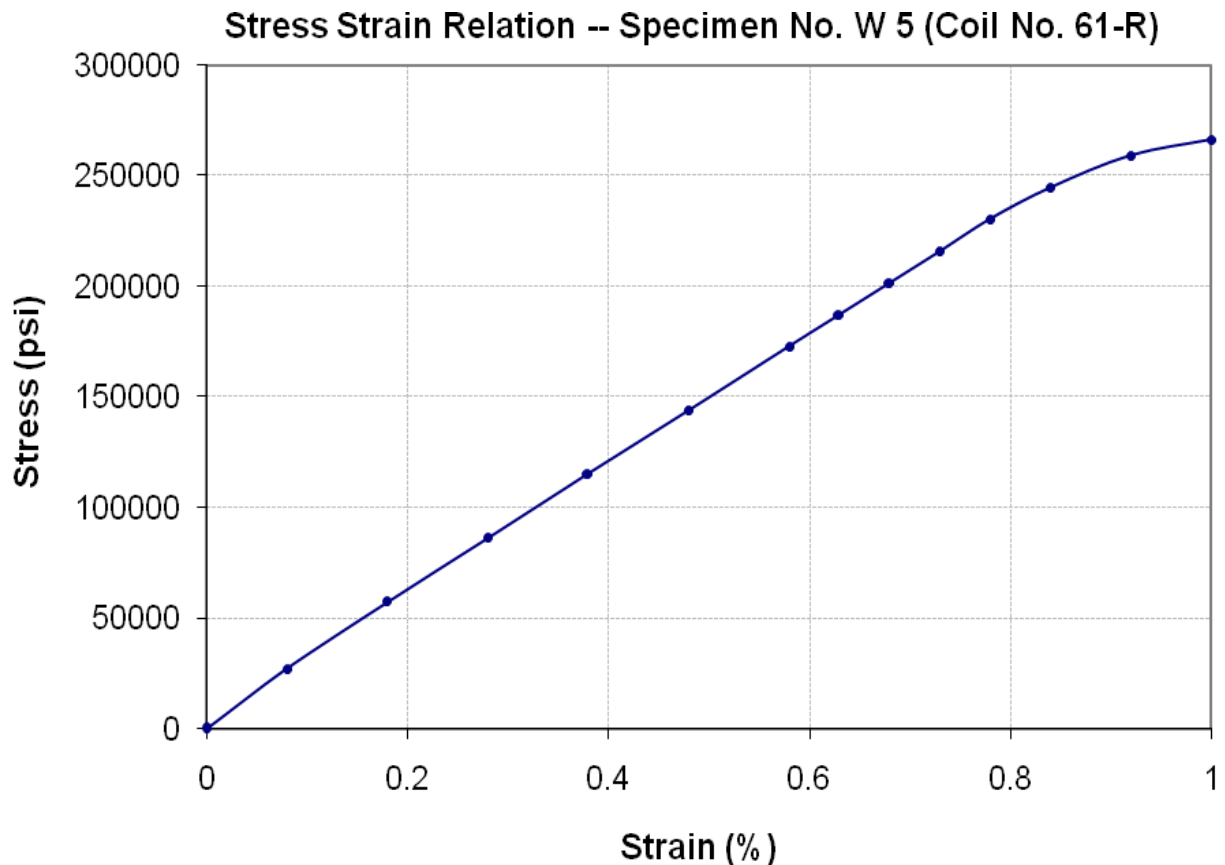
To,
DCRE/RE-1R
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(Steel Complex)

Reference # CED/TFL **33407** (Dr. Usman Akmal)
Reference of the request letter # LSMP/RE-1/2019/871

Dated: 19-06-2019

Dated: 19-06-2019

Graph (Page – 6/6)



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,
Manager Civil
Orient
Hotel Tower Project FTC Johar Town - Lahore

Reference # CED/TFL **33408** (Dr. Usman Akmal)

Dated: 19-06-2019

Reference of the request letter # ORIENT/Izhar/Hotel Tower/Strand/002 Dated: 19-06-2019

Tension Test Report (Page – 1/1)

Date of Test 20-06-2019

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	12.70 (1/2")	775.0	779.0	17400	170.69	19000	186.39	>3.50	xx
2	12.70 (1/2")	775.0	776.0	18000	176.58	19500	191.30	>3.50	xx
3	12.70 (1/2")	775.0	776.0	17500	171.68	19200	188.35	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only three samples for Test									

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,
 Resident Engineer
 Orbit Housing
 Spring Apartment, Canal Road, Lahore

Reference # CED/TFL **33410** (Dr. Safeer Abbas)
 Reference of the request letter # Nil

Dated: 19-06-2019
 Dated: 19-06-2019

Tension Test Report (Page -1/1)

Date of Test 20-06-2019
 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	0.367	3	0.371	0.11	0.108	4100	5300	82200	83700	106200	108200	0.90	11.3	
2	0.367	3	0.370	0.11	0.108	3700	4800	74200	75650	96200	98200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratoires
UET Lahore, Pakistan.

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