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

To, Assistant Works Manager Pakistan Railways PR/Bridge Workshop, Jhelum (Gate Leaves (RWP Division)

Reference # CED/TFL **32424** (Dr. Usman Akmal) Reference of the request letter # 196-S/103

Dated: 14-01-2019 Dated: 11-01-2019

Tensio	n Test Report	(Page - 1/1)	)				
Date of '	Test 18-	01-2019					
Gauge le	ength 2 ir	nches					
Descript	tion Ste	el Structure Ste	el Strip T	<u>Censile</u> Te	Breaking Source Sourc		
	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress
(	inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa
M.S Angle	2 <sup>1</sup> / <sub>2</sub> x2 <sup>1</sup> / <sub>2</sub> x3/8x12	26.50x10.40	275.60	13200	19100	469.85	679.8
WI.5 Aligie	2 <sup>1</sup> / <sub>2</sub> x2 <sup>1</sup> / <sub>2</sub> x3/8x12	26.50x10.40	275.60	13000	19000	462.74	676.3
	4x1/4x15	26.80x5.90	158.12	5000	7400	310.21	459.1

Sr. No.		Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(	inch)	(mm)	. ,	(kg)	(kg)	. ,	· ,	(in)		
1	M.S Angle	2 <sup>1</sup> / <sub>2</sub> x2 <sup>1</sup> / <sub>2</sub> x3/8x12	26.50x10.40	275.60	13200	19100	469.85	679.87	0.50	25.00	
2		2 <sup>1</sup> / <sub>2</sub> x2 <sup>1</sup> / <sub>2</sub> x3/8x12	26.50x10.40	275.60	13000	19000	462.74	676.31	0.50	25.00	
3	M.S Plate	4x1/4x15	26.80x5.90	158.12	5000	7400	310.21	459.11	0.70	35.00	
4	WI.S Flate	4x1/4x15	26.805.90	158.12	5300	7700	328.82	477.72	0.70	35.00	
5	M.S Plate	4x1/16x15	26.70x1.50	40.05	680	1240	166.56	303.73	0.80	40.00	
6	W.S Flate	4x1/16x15	26.70x1.50	40.05	720	1240	176.36	303.73	0.80	40.00	
7	M.S Flat	1 <sup>1</sup> / <sub>2</sub> x1/4x15	18.50x5.80	107.30	2800	4600	255.99	420.56	0.50	25.00	
8	M.O T lat	1 <sup>1</sup> / <sub>2</sub> x1/4x15	18.50x5.80	107.30	3000	5100	274.28	466.27	0.50	25.00	
			Only Eight	t Samples	s for Ten	sile Test	1	[			
				Bend 7	Гest						
							LICE	ting I ab			

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
- 2. The above results pertain to sample /samples supplied to this laboratory.
- Sealed sample / Unsealed sample / Marked sample/Signed Samples 3-



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

To, M/S Rajput Concrete Pvt Ltd Multan Road, Lahore

Reference # CED/TFL 32437 (Dr. Qasim Khan)	
Reference of the request letter # RC/PC/UET/03	

Dated: 15-01-2019 Dated: 15-01-2019

<b>Tension Test Rep</b>	<b>ort</b> (Page – 1/1)
Date of Test	18-01-2019
Gauge length	640 mm
Description	Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Measured Vield strength clause (6.3)		Brea strength (6.	n clause	% Elongation	Remarks / Coil No.		
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		Rema
1	9.53 (3/8")	432.0	437.0	8800	86.33	11200	109.87	>3.50	XX
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-			-	-	-	-	-	-	-
		1	O	nly one sampl	e for Test	1			

I/C Testing Laboratoires UET Lahore, Pakistan.

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



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

<u>Ref: CED/TFL/01/32442</u>

Dated: 16-01-19

### To M/S Condrill (Pvt) Ltd Kot Lakhpat Lahore

### Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/01/32442)

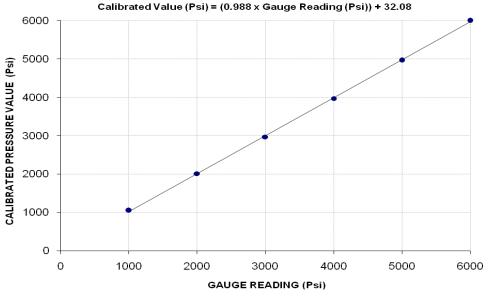
Reference to your Letter No. CD/MISC/2019, dated: 15/01/2019 on the subject cited above. One Pressure Gauge (WIKA) as received by us has been calibrated. The results are tabulated as under:

Total Range :	Zero -	8000 (Psi)
Calibrated Range :	Zero -	6000 (Psi)

Pressure Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000
Calibrated Load (kg)	14600	28000	41300	55200	69100	83500
Calibrated Pressure (Psi)	1048.77	2011.33	2966.72	3965.20	4963.68	5998.08

The Ram Area of Calibration =  $198 \text{ cm}^2$ 

### **Calibration Curve for Pressure Gauge**



I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
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### ANORE -

### STRUCTURAL ENGINEERING DIVISION

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

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32453** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

### **Tension Test Report** (Page – 1/4)

Date of Test18-01-2019Gauge length640 mmDescriptionSteel 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)		clause (6.3) strength		Young's Modulus of Elasticity ''E''	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	[ %	Rema		
1	12.70 (1/2")	775.0	782.0	18400	180.50	20000	196.20	199	>3.50	017		
2	12.70 (1/2")	775.0	779.0	18900	185.41	20000	196.20	199	>3.50	023		
3	12.70 (1/2")	775.0	784.0	19100	187.37	20300	199.14	198	>3.50	028		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
				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

2. The above results pertain to sample /samples supplied to this laboratory.

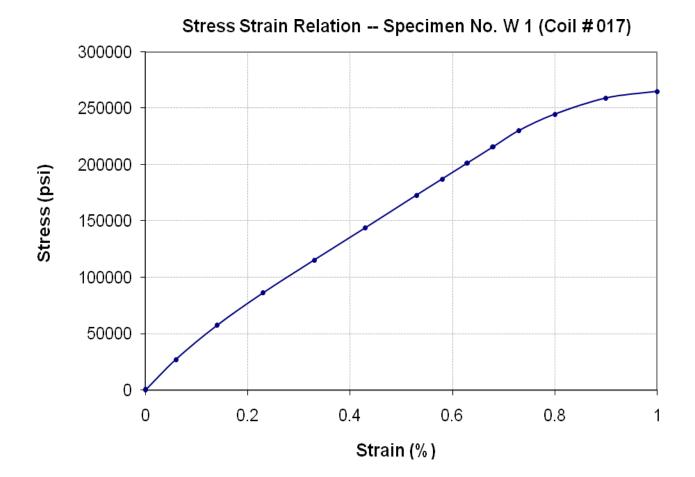


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32453** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 2/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
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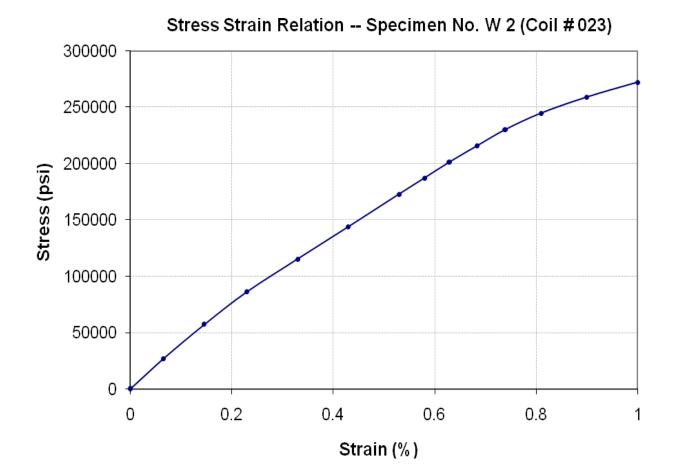


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32453** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 3/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

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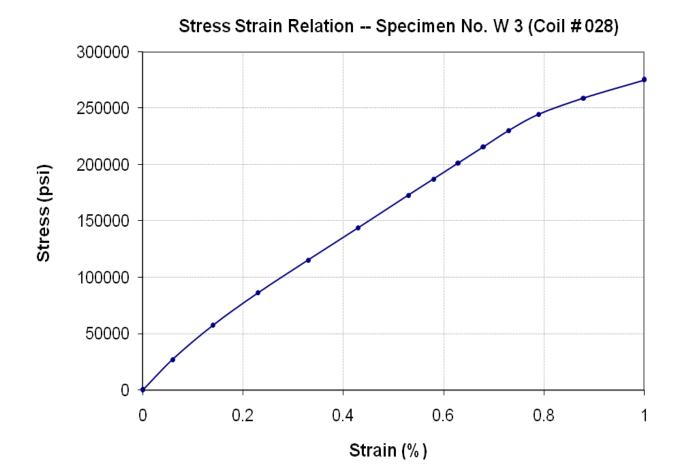


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32453** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 4/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

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### STRU STRU

### STRUCTURAL ENGINEERING DIVISION Test Floor Laboratory Department of Civil Engineering

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

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32454** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

### **Tension Test Report** (Page – 1/4)

Date of Test18-01-2019Gauge length640 mmDescriptionSteel 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)		strength clause		clause		Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	% Elongation	Rema		
1	12.70 (1/2")	775.0	783.0	17300	169.71	19500	191.30	199	>3.50	003		
2	12.70 (1/2")	775.0	795.0	18500	181.49	20600	202.09	198	>3.50	007		
3	12.70 (1/2")	775.0	784.0	19200	188.35	20100	197.18	199	>3.50	012		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
				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

2. The above results pertain to sample /samples supplied to this laboratory.

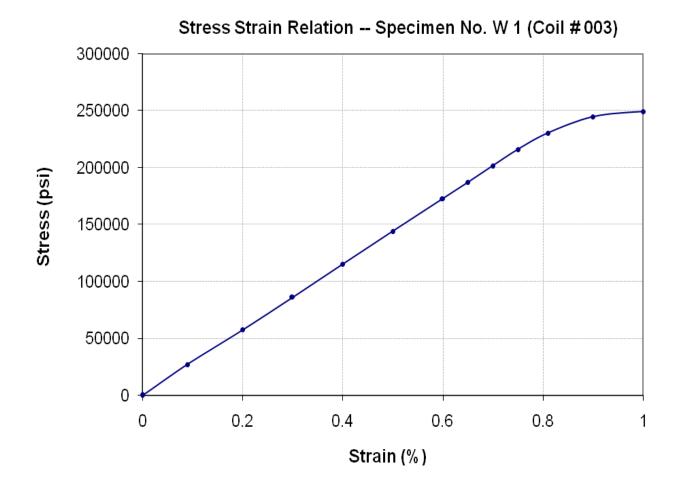


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32454** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 2/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

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

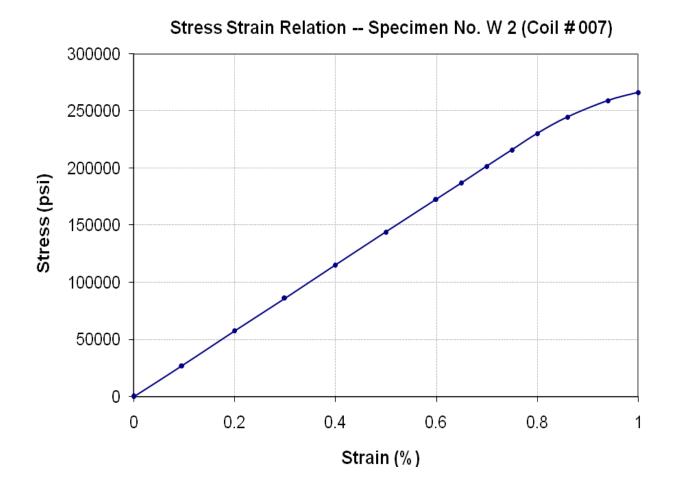


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32454** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 3/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
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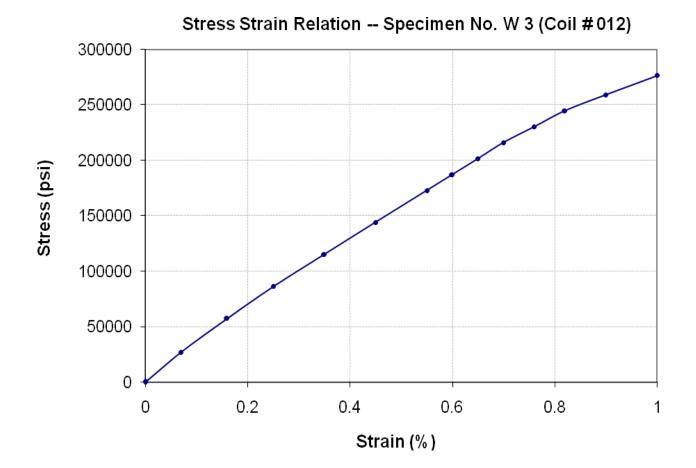


Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Resident Engineer Osmani & Company Swat Motorway Project

Reference # CED/TFL **32454** (Dr. Qasim Khan) Reference of the request letter # 264/CRE/QAT/SMP/2018 Dated: 16-01-2019 Dated: 14-01-2019

Graph (Page – 4/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
- 2. The above results pertain to sample /samples supplied to this laboratory.
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### Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Project Manager Designmen Consulting Engineers (Pvt) Ltd Re-Construction of Chatta Suspension Bridge Kotli AJ&K (Zafar Builders & Contractors)

Reference # CED/TFL **32457** (Dr. Qasim Khan) Reference of the request letter # Nil Dated: 17-01-2019 Dated: 17-01-2019

### **Tension Test Report** (Page – 1/1)

Date of Test18-01-2019Gauge length-----DescriptionSteel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breakir	Remarks / Coil No.	
	(mm)	(kg/m)	(kg)	(kN)	Remâ
1	18	12.80	18500	181.49	
2	18	12.84	21500	210.92	
3	25	23.67	36600	359.05	
4	25	23.65	36100	354.14	
-	-	-	-		
		Only four sample	e for Test		

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
- 2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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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 – Zeeruk (Jv) CPEC (Western Route), Package-II Isakhel

Reference # CED/TFL 32460 (Dr. Qasim Khan)IReference of the request letter # RE/NESPAK/P-2/CPEC-WR/667I

Dated: 17-01-2019 Dated: 16-01-2019

<b>Tension Test Re</b>	<b>port</b> (Page -1/1)
Date of Test	18-01-2019
Gauge length	8 inches
Description	Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	M Diameter/ Size			rea n <sup>2</sup> )			Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks	
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.378	3	0.376	0.11	0.111	3100	5300	62200	61530	106200	105200	1.10	13.8	
2	0.371	3	0.373	0.11	0.109	3100	5100	62200	62640	102200	103100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
#3	Bar Ben	d Test 7	Fhrough	n 180° is	s Satisfa	ictory								

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, Site Engineer Descon Engineering Limited Establishment od Duplex Houses and Sports Complex (New Housing Colony Nestle Sheikhupura Factory)

Reference # CED/TFL <b>32461</b> (Dr. Qasim Khan)	Dated: 17-01-2019
Reference of the request letter # 10-TP.2018	Dated: 15-01-2019

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

Date of Test Gauge length Description 18-01-20198 inchesDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	H Size A B B B B B B B B B B B B B B B B B B			Area (in <sup>2</sup> )		Yield load	Breaking Load		Stress si)		Ultimate Stress (psi)		% Elongation	Remarks
51	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.365	3	0.370	0.11	0.107	4300	5000	86200	88230	100200	102600	0.75	9.4	
2	0.364	3	0.369	0.11	0.107	3700	4650	74200	76130	93200	95700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	•	-	-	-	-	-	-	-	-	•	
			N	ote: on	y two s	amples f	or tensile	and one	sample f	or bend (	test			
							Bend T	est.						
#3	#3 Bar Bend Test Through 180° is Satisfactory													

### 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 Sui Northern Gas Pipelines Limited Lahore (Construction of Boundary Wall for Regional Distribution Office Gujrat)

Reference # CED/TFL 32462 (Dr. Qasim Khan)	Dated: 17-01-2019
Reference of the request letter # CC/60/B.W/Gujrat	Dated: 17-01-2019

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

Date of Test18-01-2019Gauge length8 inchesDescriptionDeformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Si	neter/ ze ch)		rea n <sup>2</sup> )	Yield load	Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3 %</b>	R
1	0.374	3/8	0.374	0.11	0.110	4000	5100	80200	80190	102200	102300	0.90	11.3	
2	0.391	3/8	0.382	0.11	0.115	4000	5200	80200	76780	104200	99900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			1		Not	e: only ty	wo sampl	les for ter	nsile test	T				
							Bend T	est						

### 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

2. The above results pertain to sample /samples supplied to this laboratory.

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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 Construction of UET Lahore, Narowal Campus at Narowal Phase-II

Reference # CED/TFL <b>32463</b> (Dr. Qasim Khan)	Dated: 17-01-2019
Reference of the request letter # 3854/13/SA/07/480	Dated: 17-01-2019

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

Date of Test Gauge length Description 18-01-2019 8 inches

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

Sr. No.	Weight	Diameter/ Size (inch)			rea n <sup>2</sup> )	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.378	3/8	0.376	0.11	0.111	3350	5600	67200	66490	112300	111200	1.00	12.5	
2	0.372	3/8	0.373	0.11	0.109	3300	5500	66200	66460	110200	110800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend (	test			
							Bend T	est						
3/8	" Dia Ba	ar Bend	Test Th	nrough	180° is \$	Satisfacto	ry							

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

- 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
- 2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To, Resident Engineer PEPAC Establishment of Workers Welfare Complex (Phase-I) Adjacent to Sundar Industrial Estate, District Kasur (Package-H) Lot no. 5

Reference # CED/TFL 32464 (Dr. Qasim Khan)	Dated: 17-01-2019
Reference of the request letter # RE/PEPAC/WWC-K/H71	Dated: 17-01-2019

### **Tension Test Report** (Page -1/2)

Date of Test18-Gauge length8 inDescriptionDescription

18-01-20198 inchesDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	변 ·한 ·한 ·한 ·한 ·한 ·한 ·한 ·한 ·한 ··········		ize	Area (in <sup>2</sup> ) Xield load		Breaking Load	Breaking Load Disi)					% Elongation	Remarks	
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	Ro
1	0.371	3/8	0.373	0.11	0.109	3400	5100	68200	68710	102200	103100	1.10	13.8	
2	0.369	3/8	0.372	0.11	0.109	3400	5100	68200	69060	102200	103600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
3/8	" Dia Ba	ar Bend	l Test Tł	nrough	180° is S	Satisfacto	ory							

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, Resident Engineer PEPAC Establishment of Workers Welfare Complex (Phase-I) Adjacent to Sundar Industrial Estate, District Kasur (Package-H) Lot no. 3

Reference # CED/TFL <b>32464</b> (Dr. Qasim Khan)	Dated: 17-01-2019
Reference of the request letter # RE/PEPAC/WWC-K/H69	Dated: 17-01-2019

### **Tension Test Report** (Page -2/2)

Date of Test18-01-2019Gauge length8 inchesDescriptionDeformed S

18-01-20198 inchesDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	변 Diameter/ Size (inch)		Size $Area = $		Breaking Load		Yield Stress (psi)		Ultimate Stress (psi)		% Elongation	Remarks	
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.372	3/8	0.373	0.11	0.109	4200	5000	84200	84570	100200	100700	0.80	10.0	
2	0.370	3/8	0.372	0.11	0.109	3600	5400	72200	73020	108200	109600	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
3/8	" Dia Ba	ar Bend	Test Th	nrough	180° is \$	Satisfacto	ory							

### 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 Stylers International (Pvt) Ltd 20km Ferozpur Road, Lahore

Reference # CED/TFL 32465 (Dr. Qasim Khan)	
Reference of the request letter # Nil	

Dated: 18-01-2019 Dated: 18-01-2019

### Tension Test Report(Page -1/1)Date of Test18-01-2019Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	lbs/ft) Weight	Diameter/ Size (mm)		Size (mm)		Area (in <sup>2</sup> )		Yield load Breaking Load		Yield Stress (psi)			e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R		
1	0.438	10	10.28	0.11	0.129	4800	6050	96200	82190	121300	103600	1.00	12.5			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			N	ote: on	ly one s	sample fo	or tensile	and one	sample fo	or bend to	est					
	Bend Test															
10r	nm Dia	Bar Bei	nd Test	Throug	h 180° i	s Satisfac	ctory									

### 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

2. The above results pertain to sample /samples supplied to this laboratory.