



**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 Petrocon (Pvt) Ltd  
Lahore  
(Project: MFM Pipeline Project OILCO Terminal Machike)

Reference # CED/TFL **35062** (Dr. Qasim Khan)  
Reference of the request letter # UET/LHE/P-271/088

Dated: 30-06-2020  
Dated: 30-06-2020

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

Date of Test 01-07-2020  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.363	3/8	0.368	0.11	0.107	3500	4600	70200	72400	92200	95200	1.20	15.0	
2	0.381	3/8	0.378	0.11	0.112	3400	4700	68200	66940	94200	92600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**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



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To,  
 Executive Engineer  
 Highway Division  
 Narowal  
 (Rehabilitation of 16 km Road from Shakargarh to Chak Amru (Length - 17.10 km)  
 "Construction of Pile Foundation Bridge" District Narowal)  
 Reference # CED/TFL **35063** (Dr. Qasim Khan)  
 Reference of the request letter # 557/CB

Dated: 30-06-2020  
 Dated: 15-06-2020

**Tension Test Report** (Page – 1/2)

Date of Test 01-07-2020  
 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	779.0	18100	177.56	20200	198.16	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only one sample for Test</b>										

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.**

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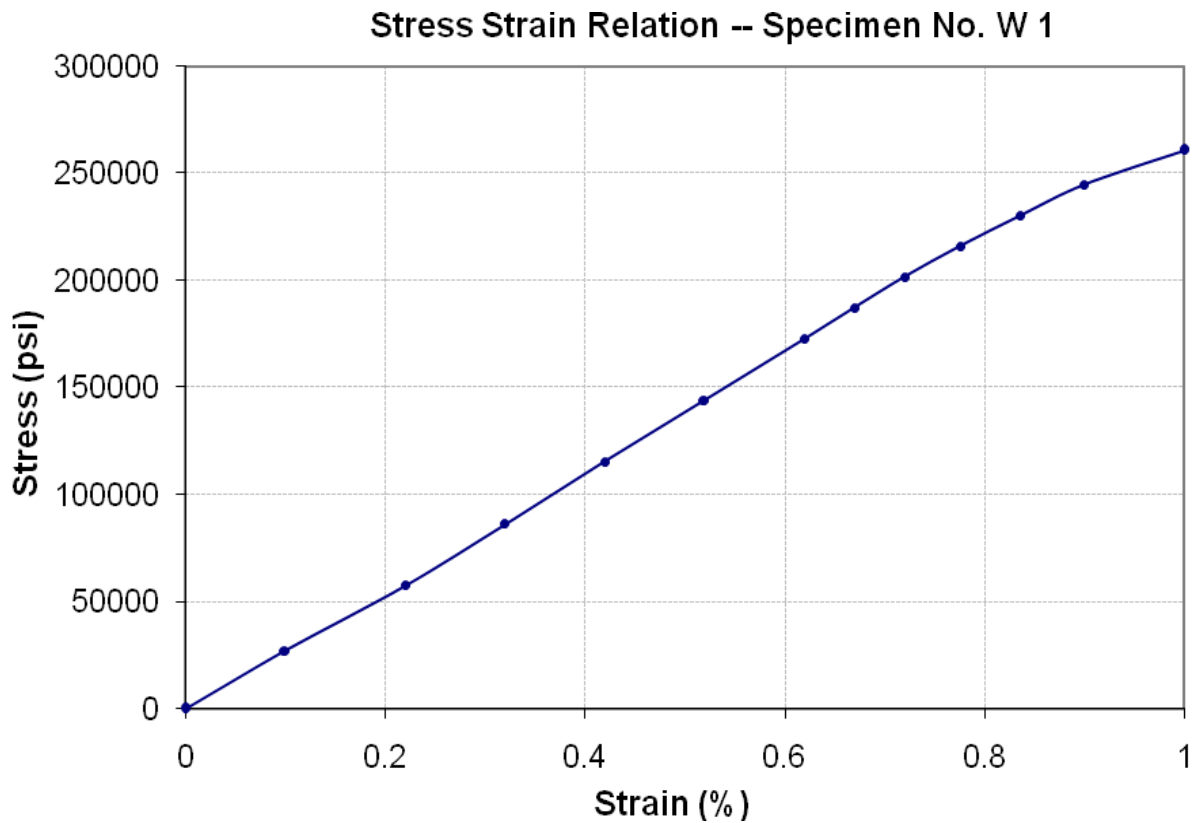
To,  
Executive Engineer  
Highway Division  
Narowal  
(Rehabilitation of 16 km Road from Shakargarh to Chak Amru (Length - 17.10 km)  
"Construction of Pile Foundation Bridge" District Narowal)

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Dated: 30-06-2020

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**Graph** (Page – 2/2)



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**UET Lahore, Pakistan.**

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