



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

To,  
 Executive Engineer PWD  
 Public Health Engineering Division  
 Muzaffarabad  
 (Left over/repair of water supply system scheme Mzd (Package 1 & 2)  
 Reference # CED/TFL **36265** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Nil

Dated: 24-03-2021  
 Dated: 22-03-2021

**Tension Test Report** (Page – 1/3)

Date of Test 02-04-2021  
 Gauge length 2 inches  
 Description G.I Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)	(mm)									
1	G.I Pipe	2	23.10x3.70	85.47	3300	3600	378.76	413.20	0.40	20.00	
2			23.10x3.70	85.47	3200	3500	367.29	401.72	0.40	20.00	
3	G.I Pipe	3	23.10x3.70	85.47	3600	4200	413.20	482.06	0.50	25.00	
4			23.00x3.70	85.10	3700	4300	426.52	495.69	0.50	25.00	
5	G.I Pipe	4	23.00x4.00	92.00	4900	5500	522.49	586.47	0.30	15.00	
6			22.90x4.00	91.60	4900	5500	524.77	589.03	0.30	15.00	
7	G.I Pipe	6	22.90x5.60	128.24	5600	6700	428.38	512.53	0.60	30.00	
8			23.10x5.60	129.36	5600	6700	424.68	508.09	0.60	30.00	
<b>Only Eight Samples for Tensile and Four Samples for Bend Test</b>											
<b>Bend Test</b>											
Strip Taken from G.I Pipe (2") Bend Test Through 180° is Satisfactory											
Strip Taken from G.I Pipe (3") Bend Test Through 180° is Satisfactory											
Strip Taken from G.I Pipe (4") Bend Test Through 180° is Satisfactory											
Strip Taken from G.I Pipe (6") Bend Test Through 180° is Satisfactory											

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

Note:

- 1- You can See your reports On Internet in the following web site  
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To,  
Executive Engineer PWD  
Public Health Engineering Division  
Muzaffarabad  
(Left over/repair of water supply system scheme Mzd (Package 1 & 2))

Reference # CED/TFL **36265** (Dr. M Rizwan Riaz)  
Reference of the request letter # Nil

Dated: 24-03-2021  
Dated: 22-03-2021

**Seamless/Flattening Test Report** (Page – 2/3)

Date of Test 02-04-2021  
Description G.I Pipe Seamless Test as per ASTM-A53-02

Sr. No.	Designation	Test Type	Observation/Results
1	Pipe 2"	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
2	Pipe 3"	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
3	Pipe 4"	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
4	Pipe 6"	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
-	-	-	-
-	-	-	-
-	-	-	-
<b>Only Four Samples for Test</b>			

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

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**Department of Civil Engineering**  
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To,  
Executive Engineer PWD  
Public Health Engineering Division  
Muzaffarabad  
(Left over/repair of water supply system scheme Mzd (Package 1 & 2))

Reference # CED/TFL **36265** (Dr. M Rizwan Riaz)

Dated: 24-03-2021

Reference of the request letter # Nil

Dated: 22-03-2021

**Weight & Size Test Report** (Page – 3/3)

Date of Test 30-06-2020

Description G.I Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Wall Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	2	311	60.0	5.18	60.70	53.10	3.80	
2	3	470	59.60	7.89	88.80	81.40	3.70	
3	4	667	59.70	11.17	113.80	105.80	4.00	
4	6	1347	60.00	22.45	165.50	154.30	5.60	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only Four Samples for Test</b>								

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To,  
XEN  
GE (army)-II Kharian Cantt

Reference # CED/TFL **36274** (Dr. M Rizwan Riaz)  
Reference of the request letter # Nil

Dated: 25-03-2021

Dated: 25-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 02-04-2021  
Gauge length 2 inches  
Description 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	2	28.40x2.00	56.80	2200	2700	379.96	466.32	0.60	30.00	
2	10	28.40x10.10	286.84	11000	16600	376.20	567.72	0.75	37.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Tensile Test</b>										
<b>Bend Test</b>										

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

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

To,  
Manager Construction  
Petro Pakistan Pvt. Ltd.  
Construction of Oil Terminal Sherghar Road Habib abad Tehsil Renala Khurd District Okara

Reference # CED/TFL **36278** (Dr. M Rizwan Riaz)  
Reference of the request letter # Nil

Dated: 26-03-2021  
Dated: 26-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 02-04-2021

Gauge length 2 inches

Description Plate Steel Strip Tensile and Bend 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	6	28.40x6.00	170.40	5300	8100	305.12	466.32	0.80	40.00	
2		28.40x6.00	170.40	5300	8100	305.12	466.32	0.80	40.00	
3	8	28.50x8.60	245.10	13000	16800	520.32	672.41	0.70	35.00	
4		28.50x8.60	245.10	11000	15100	440.27	604.37	0.80	40.00	
5	10	28.70x10.00	287.00	9000	12300	307.63	420.43	0.80	40.00	
6		28.70x10.00	287.00	8000	12300	273.45	420.43	0.80	40.00	
7	12	28.60x12.10	346.06	10500	16600	297.65	470.57	0.85	42.50	
8		28.60x12.10	346.06	10500	16500	297.65	467.74	0.90	45.00	
<b>Only Eight Samples for Tensile and Four Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from Plate (6mm) Bend Test Through 180° is Satisfactory										
Strip Taken from Plate (8mm) Bend Test Through 180° is Satisfactory										
Strip Taken from Plate (10mm) Bend Test Through 180° is Satisfactory										
Strip Taken from Plate (12mm) Bend Test Through 180° is Satisfactory										

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

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To,  
Manager Construction  
Petro Pakistan Pvt. Ltd.  
Construction of Oil Terminal Sherghar Road Habib abad Tehsil Renala Khurd District Okara

Reference # CED/TFL **36278** (Dr. M Rizwan Riaz)  
Reference of the request letter # Nil

Dated: 26-03-2021  
Dated: 26-03-2021

**Size Test Report** (Page – 2/2)  
Date of Test 02-04-2021  
Description Plate thickness Test

Sr. No.	Designation	Thickness	Remark
	(mm)	(mm)	
1	6	6.00	
2	8	8.60	
3	10	10.00	
4	12	12.10	-
-	-	-	-
-	-	-	-
-	-	-	-
<b>Only Four Samples for Test</b>			

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

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

To,  
 Resident Engineer  
 NESPAK  
 PICIIP Sahiwal  
 Punjab Intermediate Cities Improvement Investment Program (PICIIP),  
 Consultancy Services for Engineering, Procurement and Construction Management  
 Trunk Main Sewer Lines and Allied Work (NCB-Works/PICIIP-03)(Lot-02)  
 Reference # CED/TFL **36297** (Dr. M Rizwan Riaz) Dated: 01-04-2021  
 Reference of the request letter # 3976/11/MT/Lot-2/79 Dated: 29-03-2021

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

Date of Test 02-04-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test

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	0.070	3/16	0.162	-----	0.021	900	1250	-----	96640	-----	134300	0.75	9.4	Madni Steel Mill
2	0.070	3/16	0.162	-----	0.021	850	1250	-----	91270	-----	134300	0.70	8.8	
3	0.189	1/4	0.266	-----	0.055	2300	3600	-----	91350	-----	143000	0.80	10.0	
4	0.192	1/4	0.268	-----	0.056	2300	3600	-----	89860	-----	140700	0.70	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and two samples for bend test</b>														
<b>Bend Test</b>														
3/16" Dia Bar Bend Test Through 180° is Satisfactory														
1/4" 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**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 Allied Engineering Consultants (Pvt) Ltd  
 Establishment of Mother & Child Block in Sir Ganga Ram Hospital Lahore (Group No. 1)

Reference # CED/TFL **36298** (Dr. M Rizwan Riaz)  
 Reference of the request letter # AEC/MBC/2021/13

Dated: 01-04-2021  
 Dated: 31-03-2021

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

Date of Test 02-04-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.384	3	0.379	0.11	0.113	3700	5100	74200	72280	102200	99700	1.40	17.5	
2	0.392	3	0.383	0.11	0.115	3600	5000	72200	68870	100200	95700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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,  
 Sub Divisional Officer  
 Buildings Sub Division No. 15  
 Lahore  
 (Construction of Record Rooms at 5th & 6th Floor as well as Additional of Staircase & Lift in  
 The Existing Building at Parking Plaza at Fane Road Lahore)

Reference # CED/TFL **36299** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 274

Dated: 01-04-2021  
 Dated: 22-03-2021

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

Date of Test 02-04-2021  
 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	0.377	3/8	0.375	0.11	0.111	3400	5000	68200	67690	100200	99600	1.40	17.5	
2	0.376	3/8	0.375	0.11	0.110	3300	4900	66200	65870	98200	97900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
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To,  
 Project Manager  
 Liberty Builders  
 Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore

Reference # CED/TFL **36301** (Dr. Qasim Khan)  
 Reference of the request letter # ST/UET/20210402-3

Dated: 02-04-2021  
 Dated: 02-04-2021

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

Date of Test 02-04-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.368	3	0.371	0.11	0.108	3200	4700	64200	65240	94200	95900	0.90	11.3	Batalka Premium
2	0.377	3	0.376	0.11	0.111	3700	5200	74200	73630	104200	103500	1.00	12.5	
3	0.370	3	0.372	0.11	0.109	3400	4700	68200	69000	94200	95400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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