



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

Ref: CED/TFL/01/2617

Dated: 13-01-2023

Dated of Test: 19-01-2023

To

**Assistant Director (QCD)**  
**WASA, LDA, Lahore**  
**(M/s Eagle Pipe Industries)**

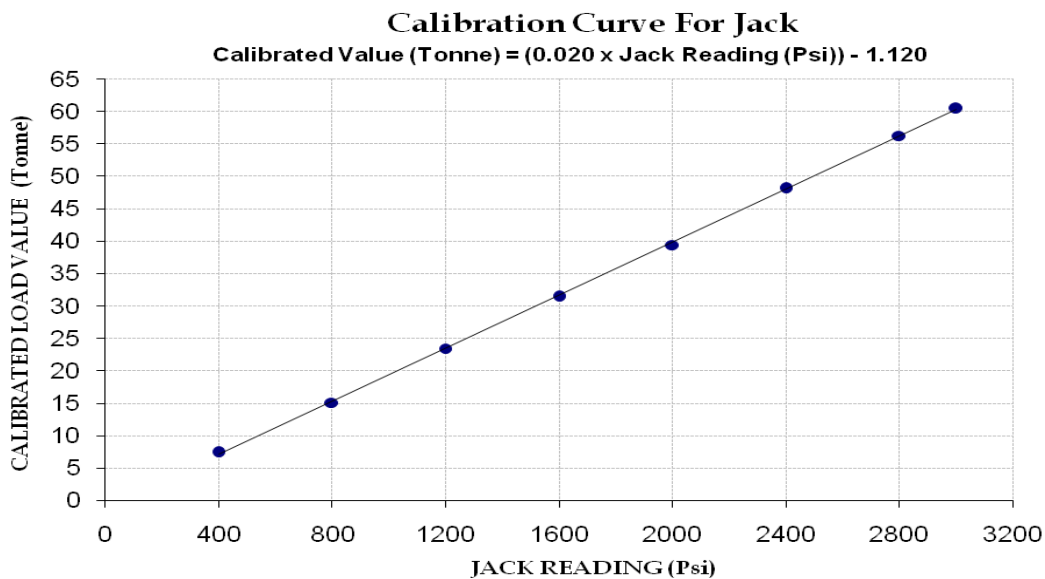
**Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE**  
**(MARK: TFL/01/2617)**

Reference to your Letter No. QCD/2326-27, Dated: 28/11/2022 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 5800 (Psi)**  
**Calibrated Range : Zero - 3000 (Psi)**

Hydraulic Jack Reading (Psi)	400	800	1200	1600	2000	2400	2800	3000	
Calibrated Load	(kg)	7400	15100	23400	31400	39400	48100	56200	60400
	(Tonne)	7.40	15.10	23.40	31.40	39.40	48.10	56.20	60.40

1 Tonne = 1000 kg



**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,  
Zeeshan Afzal  
Lahore

Reference # CED/TFL **2633** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 17-01-2023  
Dated: 17-01-2023

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

Date of Test 19-01-2023  
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	0.374	3	0.374	0.11	0.110	3820	4800	76600	76610	96200	96300	1.10	13.8	
2	4.284	10	1.266	1.27	1.259	38200	55000	66300	66860	95500	96300	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

To,

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

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Resident Engineer  
 CM Package WASA, Fsd  
 Engineering Consultancy Services Punjab (Pvt) Ltd  
 Rehabilitation / Replacement of Sludge Career Risalewala Road to Dijkot Seepage Drain  
 (Water Management Research Center to Dijkot Seepage Drain) Package II

Reference # CED/TFL **2638** (Dr. Usman Akmal)  
 Reference of the request letter # ECPP/CM Package-260

Dated: 17-01-2023  
 Dated: 22-12-2022

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

Date of Test 19-01-2023  
 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	0.388	3	0.381	0.11	0.114	3110	4590	62400	60060	92000	88700	1.40	17.5	Premium Islamabad
2	0.390	3	0.382	0.11	0.115	3080	4430	61800	59210	88800	85200	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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  
 AZ Engg. Associates  
 Establishment of Mother & Child Block, Teaching Hospital, Dera Ghazi Khan

Reference # CED/TFL **2639** (Dr. Usman Akmal)  
 Reference of the request letter # RE/AZEA/DGK/182

Dated: 18-01-2023  
 Dated: 11-01-2023

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

Date of Test 19-01-2023  
 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 <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	0.379	3/8	0.376	0.11	0.111	3670	4860	73600	72700	97400	96300	1.20	15.0	FF Steel
2	0.376	3/8	0.375	0.11	0.110	3640	4840	73000	72680	97000	96700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**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. 10  
Lahore  
(Construction of Police Station Liaquat abad, Lahore)

Reference # CED/TFL **2640** (Dr. Usman Akmal)  
Reference of the request letter # 3861/10<sup>th</sup>

Dated: 18-01-2023  
Dated: 13-01-2023

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

Date of Test 19-01-2023  
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 <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	0.382	3/8	0.378	0.11	0.112	3980	5520	79800	78200	110700	108500	1.10	13.8	
2	0.381	3/8	0.377	0.11	0.112	4000	5560	80200	78810	111500	109600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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To,

Project Manager  
 Gulberg Executive Housing Scheme Multan  
 Infrastructure Work at Gulberg Executive Housing Scheme Multan

Reference # CED/TFL **2642** (Dr. Usman Akmal)  
 Reference of the request letter # GEHS/23/UET/NO/02

Dated: 18-01-2023  
 Dated: 15-01-2023

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

Date of Test 19-01-2023  
 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 <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	0.376	3/8	0.375	0.11	0.111	3520	4790	70600	70170	96000	95500	1.80	22.5	
2	0.377	3/8	0.376	0.11	0.111	3570	4790	71600	71000	96000	95300	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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To,  
 Manager Projects  
 Ittefaq Construction Services  
 Construction of Commercial Plaza (11 westwood ) Lahore

Reference # CED/TFL **2643** (Dr. Usman Akmal)  
 Reference of the request letter # ICS/H.O/B.T.P/002

Dated: 18-01-2023  
 Dated: 12-01-2023

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

Date of Test 19-01-2023  
 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	0.379	3	0.377	0.11	0.111	3720	5070	74600	73570	101600	100300	1.30	16.3	
2	0.382	3	0.378	0.11	0.112	3720	5100	74600	73030	102200	100200	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

Note:

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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,

Manager Procurement  
 Petrocon (Pvt) Ltd  
 Relocation of MCH-01 Tank Project at Shell Pakistan Machike Depot.  
 M/S Shell Pakistan Ltd.

Reference # CED/TFL **2644** (Dr. Usman Akmal)  
 Reference of the request letter # 100/UET-P331/TEST

Dated: 18-01-2023  
 Dated: 18-01-2023

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

Date of Test 19-01-2023  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		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	0.413	10	9.99	0.12	0.121	4590	5580	84326	83310	102514	101300	1.00	12.5	Amreli Steel Lot # 2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend 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,

Manager Procurement  
 Petrocon (Pvt) Ltd  
 Relocation of MCH-01 Tank Project at Shell Pakistan Machike Depot.  
 M/S Shell Pakistan Ltd.

Reference # CED/TFL **2644** (Dr. Usman Akmal)  
 Reference of the request letter # 100/UET-P331/TEST

Dated: 18-01-2023  
 Dated: 18-01-2023

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

Date of Test 19-01-2023  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		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	0.413	10	9.99	0.12	0.121	4560	5560	83775	82740	102146	100900	1.20	15.0	Amreli Steel Lot # 4	
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Note: only one sample for tensile test</b>															
Bend Test															

**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,

Chief Cantonment Engineer  
Walton Cantt Lahore  
Construction of Cantt House, Bagh Ali Road, Walton Cantt.

Reference # CED/TFL **2645** (Dr. Usman Akmal)  
Reference of the request letter # WC/CCE/1531

Dated: 18-01-2023  
Dated: 12-01-2023

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

Date of Test 19-01-2023  
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 <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	0.369	3/8	0.372	0.11	0.108	3420	4760	68600	69500	95400	96800	1.50	18.8	
2	0.370	3/8	0.372	0.11	0.109	3360	4640	67400	68060	93000	94000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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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**

Ref: CED/TFL/01/2647

Dated: 19-01-2023

Dated of Test: 19-01-2023

To

**M/S Rafique Traders**  
**Lahore**

**Subject: - TEST RESULT REPORT FOR RECYCLED POLYCARBONATE (RPC)  
MANHOLE COVER FOR BEARING LOAD TEST**

Reference to your letter no. Nil dated: 19/01/2023 on the above mentioned subject. One Recycled Polycarbonate (RPC) Manhole Cover for bearing load test as requested by the client has been tested and results are given below:

<b>Sr. No.</b>	<b>Diameter of Cover (cm)</b>	<b>Diameter of loading plate (cm) (Not as per code)</b>	<b>Breaking Load (kg)</b>
<b>1</b>	<b>63.00</b>	<b>45.00</b>	<b>25200</b>

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

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