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
(Installation of Permanent Bore at OHWT # 3 Sector-R DHA Ph-XI (Rahbar Sector)-(M/s DHA -C)

Reference # CED/TFL **36023** (Dr. Qasim Khan) Dated: 01-02-2021
Reference of the request letter # 408/241/E/Lab/21/39 Dated: 01-02-2021

Tension Test Report (Page – 1/1)

Date of Test 09-02-2021
Gauge length 2 inches
Description MS Pipe Steel Strip Tensile and Bend Test as Per ASTM A-53

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)		(mm)	(mm^2)	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	MS Pipe	18	25.80x6.00	154.80	55.70	75.70	359.82	489.02	0.70	35.00	
2			25.80x6.00	154.80	57.70	77.50	372.74	500.65	0.70	35.00	
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-			-	-	-	-	-	-	-	-	
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-			-	-	-	-	-	-	-	-	
Only Two Samples for Tensile and One Sample for Bend Test											
Bend Test											
Strip Taken from MS Pipe (18") Bend Test Through 180º is Satisfactory											

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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To,
Project Manager
Dupak Properaties (Pvt) Ltd
Defence view Apartments at Shanghai Road, Lahore

Reference # CED/TFL **36030** (Dr. Waseem Abbass) Dated: 03-02-2021
Reference of the request letter # Dupak/DVA/053 Dated: 03-02-2021

Tension Test Report (Page – 1/2)

Date of Test 09-02-2021
Gauge length 2 inches
Description Aluminum 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^2)	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	Aluminum	**25.70x1.20**	**30.84**	**5.50**	**6.50**	**178.34**	**210.77**	**0.30**	**15.00**	
2		**25.70x1.20**	**30.84**	**5.50**	**6.62**	**178.34**	**214.66**	**0.20**	**10.00**	
-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	
`Only Two Samples for Tensile Test										
Bend Test										

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University of Engineering and Technology Lahore, 54890
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To,
Project Manager
Dupak Properaties (Pvt) Ltd
Defence view Apartments at Shanghai Road, Lahore

Reference # CED/TFL **36030** (Dr. Waseem Abbass) Dated: 03-02-2021
Reference of the request letter # Dupak/DVA/053 Dated: 03-02-2021

Size Test Report (Page – 2/2)

Date of Test 09-02-2021
Description Aluminum Alloy thickness Test

Sr. No.	Designation	Thickness	Remark
	(mm)	(mm)	
1	Aluminum Alloy	1.20	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only One Sample for Test			

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STRUCTURAL ENGINEERING DIVISION

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,
Resident Engineer
NESPAK
Punjab Intermediate Cities Improvement Investment Program (PICIIP),
Consultancy Services for Enginbeering, Procurement and Construction Management
Watsan Sialkot (NCB-Works/PICIIP-02)(Lot-01, Lot-02 & Lot-04)
Reference # CED/TFL **36050** (Dr. Waseem Abbass) Dated: 08-02-2021
Reference of the request letter # Nespak/SAH/ZKB-Reliable/UET/003 Dated: 06-02-2021

Tension Test Report (Page -1/1)

Date of Test 09-02-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM A 615

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	4.284	32	32.16	1.25	1.259	45800	58200	80777	80170	102646	101900	1.60	20.0	Ittefaq Steel
2	4.298	32	32.22	1.25	1.263	46400	58400	81835	80950	102999	101900	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

32mm Dia Bar Bend Test Through 180º 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/02/36053 **Dated: 08-02-2021**
Dated of Test: 09-02-2021

To,
Amjad Engineering Services
Lahore
Bridge over Mohajir Canal,
Bridge over Adhi kot Distributory on Sargodha Mianwali Road Dist. Mianwali

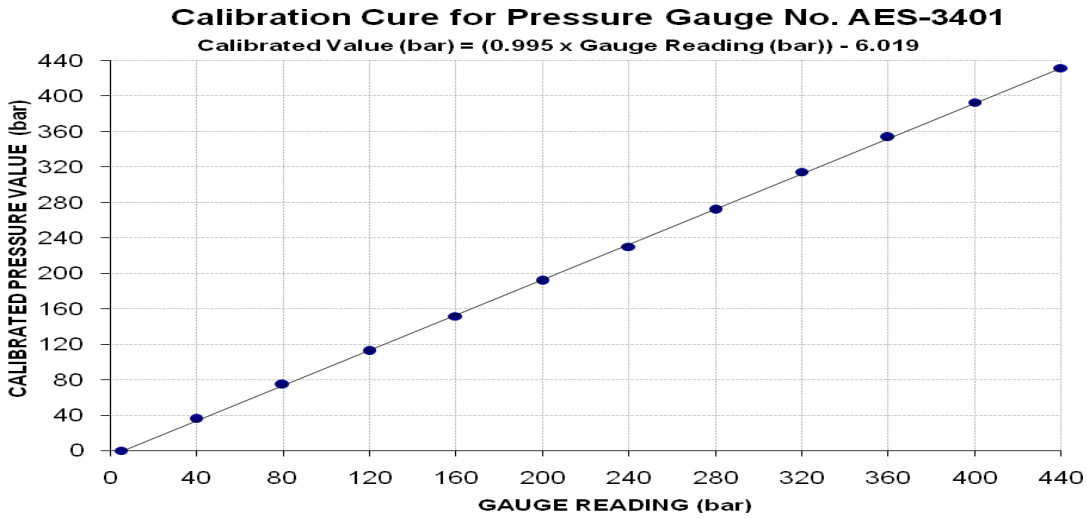
Subject: **- CALIBRATION OF PRESSURE GAUGE (MARK: TFL/02/36053)** (Page -1/2)

Reference to your Letter No. A-3480, Dated: 08/02/2021 on the subject cited above. One Pressure Gauge No. AES-3401 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 440 (bar)

Pressure Gauge Reading (bar)	5	40	80	120	160	200	240	280	320	360	400	440
Calibrated Load (kg)	0	7200	15000	22700	30600	38700	46500	54900	63500	71400	79400	87200
Calibrated Pressure (bar)	0	35.66	74.30	112.43	151.56	191.68	230.32	271.92	314.52	353.65	393.27	431.90

The Ram Are use for Calibration = 198 cm^2



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/02/36053 **Dated: 08-02-2021**
Dated of Test: 09-02-2021

To,
Amjad Engineering Services
Lahore
Bridge over Mohajir Canal,
Bridge over Adhi kot Distributory on Sargodha Mianwali Road Dist. Mianwali

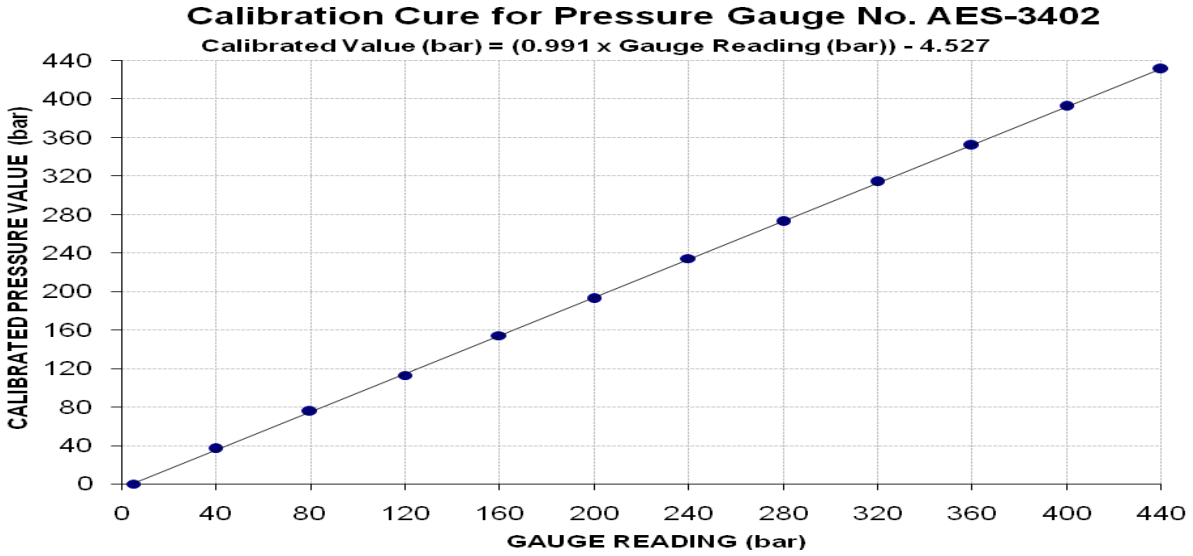
Subject: **- CALIBRATION OF PRESSURE GAUGE (MARK: TFL/02/36053)** (Page -2/2)

Reference to your Letter No. A-3480, Dated: 08/02/2021 on the subject cited above. One Pressure Gauge No. AES-3402 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 440 (bar)

Pressure Gauge Reading (bar)	5	40	80	120	160	200	240	280	320	360	400	440
Calibrated Load (kg)	0	7400	15200	22800	31100	38900	47300	55100	63400	71100	79300	87100
Calibrated Pressure (bar)	0	36.65	75.29	112.93	154.04	192.67	234.28	272.91	314.02	352.16	392.78	431.41

The Ram Are use for Calibration = 198 cm^2



I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
Supervisor
Zikria Construction Company
Beaconhouse International College Campus at Zafar Ali Road Gulberg.

Reference # CED/TFL **36054** (Dr. Waseem Abbass) Dated: 09-02-2021
Reference of the request letter # Nil Dated: 09-02-2021

Tension Test Report (Page -1/1)

Date of Test 09-02-2021
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	0.370	3	0.372	0.11	0.109	3670	4640	73600	74410	93000	94100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º 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,
Construction Manager
Deevar Developers (Pvt)Ltd.
(Construction of Zameen Opal, Plot no.16, Sector-A, Land Breeze Housing Society, Raiwind Road Lahore.
Reference # CED/TFL **36057** (Dr. Waseem Abbass) Dated: 09-02-2021
Reference of the request letter # ZD/ZO/L/023 Dated: 09-02-2021

Tension Test Report (Page -1/1)

Date of Test 09-02-2021
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	0.379	3	0.377	0.11	0.111	3420	5000	68600	67640	100200	98900	1.40	17.5	
2	0.381	3	0.377	0.11	0.112	3520	4890	70600	69360	98000	96400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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