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/06/5260 Dated: 14-06-2024

Dated of Test: 24-06-2024

To

Resident Engineer
Diamer Basha Consultants Group (DBCG)
NESPAK - ACE - MMP - MWH - POYRY – DOLSAR
Diamer Basha Dam Project

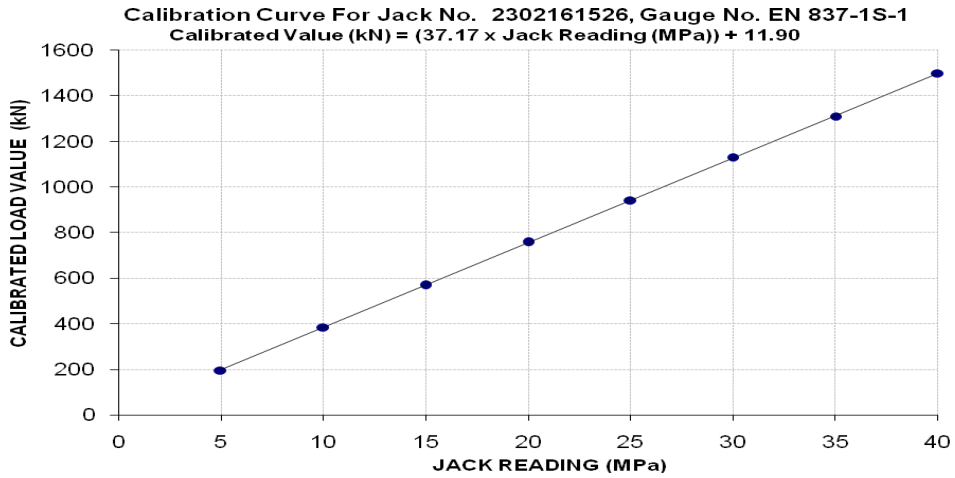
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/5260)** (Page -1/3)

Reference to your Letter No. DBCG/Lab/PF-JV/2024/023, dated: 13/06/2024 on the subject cited above. One Hydraulic Jack (Jack No. 2302161526, Gauge No. EN 837-1S-1) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50 (MPa)
Calibrated Range : Zero - 40 (MPa)

Hydraulic Jack Reading (MPa)		**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
Calibrated Load	**(kg)**	**20000**	**39200**	**58000**	**77200**	**96000**	**115200**	**133600**	**152800**
	(kN)	**196**	**384**	**569**	**757**	**941**	**1130**	**1310**	**1499**
Calibrated Pressure (Mpa)		**5.28**	**10.35**	**15.32**	**20.39**	**25.36**	**30.43**	**35.29**	**40.36**

The Ram Area of Jack = 371.305 cm^2



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Diamer Basha Consultants Group (DBCG)
NESPAK - ACE - MMP - MWH - POYRY – DOLSAR
Diamer Basha Dam Project

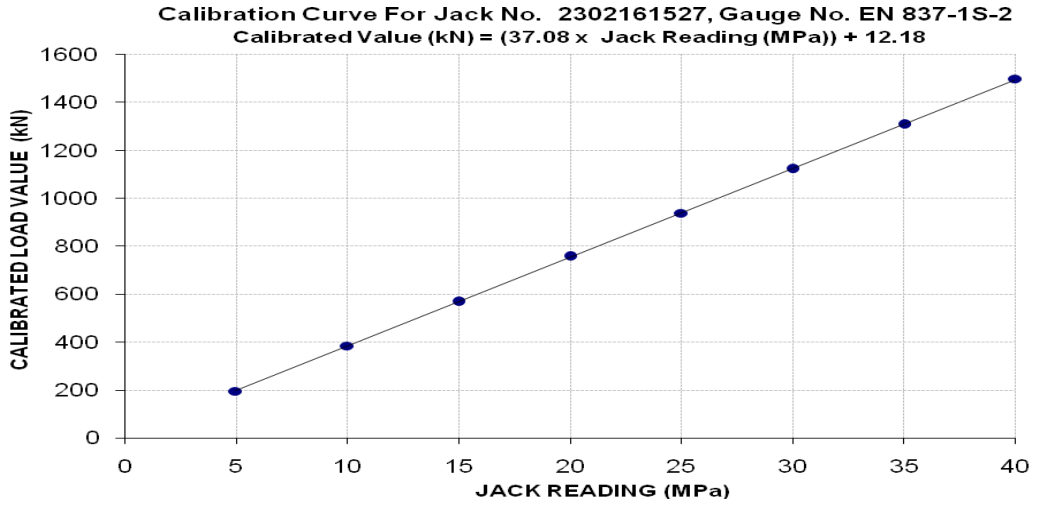
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/5260)** (Page -2/3)

Reference to your Letter No. DBCG/Lab/PF-JV/2024/023, dated: 13/06/2024 on the subject cited above. One Hydraulic Jack (Jack No. 2302161527, Gauge No. EN 837-1S-2) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50 (MPa)
Calibrated Range : Zero - 40 (MPa)

Hydraulic Jack Reading (MPa)		**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
Calibrated Load	**(kg)**	**20000**	**39200**	**58000**	**77200**	**95600**	**114400**	**133400**	**152800**
	(kN)	**196**	**384**	**569**	**757**	**938**	**1122**	**1308**	**1499**
Calibrated Pressure (Mpa)		**5.28**	**10.35**	**15.32**	**20.39**	**25.25**	**30.22**	**35.23**	**40.36**

The Ram Area of Jack = 371.305 cm^2



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To

Resident Engineer
Diamer Basha Consultants Group (DBCG)
NESPAK - ACE - MMP - MWH - POYRY – DOLSAR
Diamer Basha Dam Project

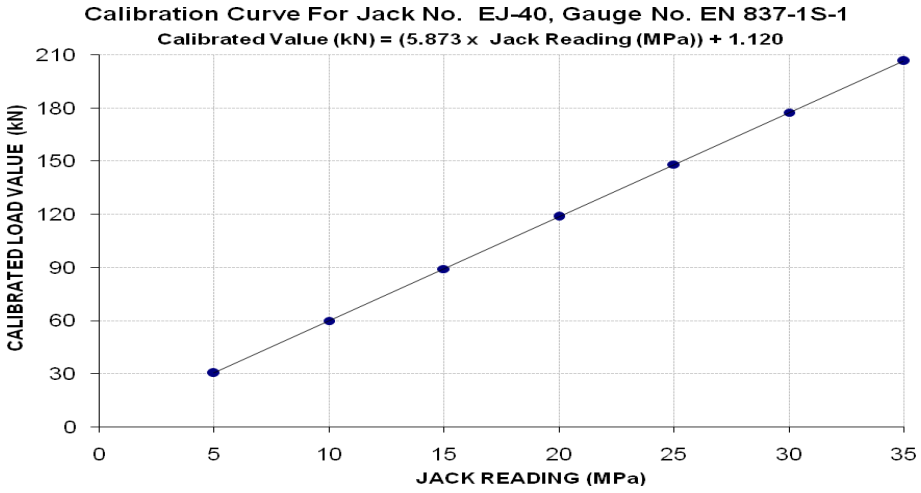
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/5260)** (Page -3/3)

Reference to your Letter No. DBCG/Lab/PF-JV/2024/023, dated: 13/06/2024 on the subject cited above. One Hydraulic Jack (Jack No. EJ-40, Gauge No. EN 837-1S-1) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)		**5**	**10**	**15**	**20**	**25**	**30**	**35**
Calibrated Load	**(kg)**	**3100**	**6100**	**9100**	**12100**	**15100**	**18100**	**21050**
	(kN)	**30**	**60**	**89**	**119**	**148**	**178**	**206**
Calibrated Pressure (Mpa)		**5.16**	**10.16**	**15.16**	**20.16**	**25.15**	**30.15**	**35.06**

The Ram Area of Jack = 58.875 cm^2



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Test Floor Laboratory
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To,

ADH (QA) Centre Lahore
GHQ, AG's Br (Housing Dte)
Askari – XI Lahore

Reference # CED/TFL **5263** (Dr. M Kashif) Dated: 24-06-2024
Reference of the request letter # 24501/HD/Lab Dated: 15-06-2024

Tension Test Report (Page -1/1)

Date of Test 24-06-2024
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	0.371	3	0.372	0.11	0.109	3470	4660	69600	70210	93400	94300	1.00	12.5	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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STRUCTURAL ENGINEERING DIVISION

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To,

Deputy Manager
POWERCHINA SEPCO1 Electrict Power Construction Co., Ltd.
Design, Supply, Installation, Testing and Commissioning: Extension Works (1 x 600MVA) and Augmentation Works (3 x 160 to 3 x 250MVA) at 500kV Nokhar Grid Station.

Reference # CED/TFL **5266** (Dr. Asad Ali) Dated: 24-06-2024
Reference of the request letter # WB-10A-GS-SEPCO1-156 Dated: 24-06-2024

Tension Test Report (Page -1/1)

Date of Test 24-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

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	0.423	10	10.10	0.12	0.124	4130	5450	75875	73290	100126	96800	1.40	17.5	
-	0.422	10	10.10	0.12	0.124	4130	5470	75875	73360	100493	97200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180º is Satisfactory														

Witness by Sohaib Ali (NESPAK)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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