## STRUCTURAL ENGINEERING DIVISION

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Ref: <u>CED/TFL/07/1720</u> 2022 Date of Test: 27-07-2022 Dated: 27-07-

To,

## **Project Director China Civil Engineering Construction Corporation Pakistan Branch Office**

## Subject: - CALIBRATION OF ROCK BOLT PULL-OUT MACHINE (MARK: TFL/07/1720)

Reference to your Letter No. CCECC/PAK/DASUFIELD/KKH-01/22-79, Dated: 25/07/2022 (ICB No. DASU-KKH-01) on the subject cited above. One Rock Bolt Pullout Machine (30 Ton S/A Holl-o-Cylinder RC # 302, C 3118K, 066200530275 8) with Pressure Gauge (G2535L, Sr # 4132354015, Model-213.53.63, Art No. 7524111, Pump No. P-392) as received by us has been calibrated. The results are tabulated as under:

Total Range :	Zero -	10000 (Psi)
Calibrated Range :	Zero -	8000 (Psi)

Hydraulic Jack Reading (Psi)		1000	2000	3000	4000	5000	6000	7000	8000
Calibrated Load	(k g)	3200	6500	9700	13200	16300	19600	22700	25550
	(kN)	31	64	95	129	160	192	223	251
Calibrated Pressure (I	Psi)	977	1985	2962	4031	4977	5985	6931	7802

The Ram Area of Jack =  $46.58 \text{ cm}^2$  (Witness by M Kashif Lali, Sr. Engr. DHC - QA-QC)

Calibration Curve For Rock Bolt Pull-out Machine ated Value (kN) = (0.031 x Rock Bolt Pull-out Machine Reading (Psi) + 1.138 270 240 CALIBRATED VALUE (kN) 210 180 150 120 90 60 30 о 0 1000 2000 3000 5000 6000 7000 8000 4000 **JACK READING (Psi)** 

> I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

- You can See your reports On Internet in the following web site 1http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing reports
- The above results pertain to sample /samples supplied to this laboratory. 2.
- 3-Sealed sample / Unsealed sample / Marked sample/Signed Samples