STRUCTURAL ENGINEERING DIVISION

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

To,

Manager
ABL - UML P-199 & 200
Allied Bank
Construction of ABL, Upper Mall Lahore Plot No. 199, 200

Reference # CED/TFL **3894** (Dr. Ali Ahmed) Dated: 12-09-2023
Reference of the request letter # ABL-UML-AMC-QAQC-26 Dated: 12-09-2023

Tension Test Report (Page -1/1)

Date of Test 13-09-2023
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	0.371	9.5	9.46	0.110	0.109	3800	4700	76200	76890	94200	95100	1.00	12.5	Afco Steel
2	0.365	9.5	9.39	0.110	0.107	3800	4800	76200	78030	96200	98600	0.90	11.3	
3	0.371	9.5	9.47	0.110	0.109	3700	4600	74200	74770	92200	93000	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only three 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.

Note:
1- You can See your reports On Internet in the following web site
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2. The above results pertain to sample /samples supplied to this laboratory.
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Pakistan. Ph: 92-42-99029202

To,

Director (Civil)
Mineral Development Project
Islamabad

Reference # CED/TFL **3895** (Dr. Ali Ahmed) Dated: 12-09-2023
Reference of the request letter # MDP-C&S-Gen(1)/2023 Dated: 28-08-2023

Tension Test Report (Page -1/1)

Date of Test 13-09-2023
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	5.246	11	1.401	1.56	1.542	45400	65400	64200	64890	92400	93500	1.50	18.8	
2	5.244	11	1.401	1.56	1.541	46800	66200	66200	66920	93600	94700	1.60	20.0	
3	5.228	11	1.399	1.56	1.537	45800	65400	64800	65700	92400	93900	1.50	18.8	
4	5.249	11	1.402	1.56	1.543	45800	65400	64800	65430	92400	93500	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and three samples for bend test														
Bend Test														
#11 Bar Bend Test Through 180º is Satisfactory														
#11 Bar Bend Test Through 180º is Satisfactory														
#11 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/09/3896 Dated: 12-09-2022

Date of Test: 13-09-2022

To,

QAQC Manager CCECC
China Civil Engineering Construction Corporation
Pakistan Branch Office

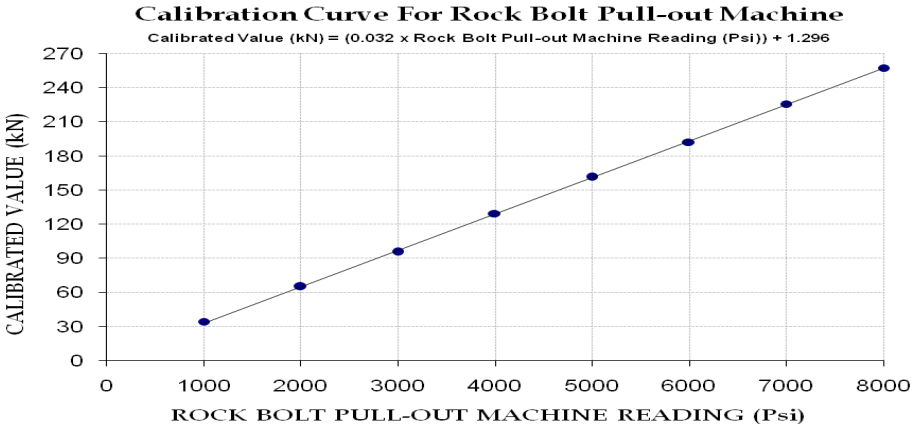
Subject: **- CALIBRATION OF ROCK BOLT PULL-OUT MACHINE**
(MARK: TFL/09/3896)

Reference to your Letter No. CCECC/PAK/DASUFIELD/KKH-01 & RAR-01/23-156, Dated: 05/09/2023 (ICB No. DASU-KKH-01) on the subject cited above. One Rock Bolt Pull-out 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)**	**3500**	**6650**	**9750**	**13200**	**16450**	**19600**	**23000**	**26250**
	(kN)	**34**	**65**	**96**	**129**	**161**	**192**	**226**	**258**
Calibrated Pressure (Psi)		**1069**	**2031**	**2977**	**4031**	**5023**	**5985**	**7023**	**8015**

The Ram Area of Jack = 46.58 cm^2



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,

M/S City Builders
Lahore

Reference # CED/TFL **3897** (Dr. Ali Ahmed) Dated: 12-09-2023
Reference of the request letter # CB/KCW-U/05 Dated: 12-09-2023

Tension Test Report (Page -1/1)

Date of Test 13-09-2023
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	0.407	3	0.390	0.11	0.120	3900	5900	78200	71790	118300	108600	1.20	15.0	
2	0.390	3	0.382	0.11	0.115	3700	5600	74200	71060	112300	107600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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.

Note:

1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION

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

To,

M/S Shahzad Ayub Associates (SAA)
Mandi Bahuddin

Reference # CED/TFL **3898** (Dr. Ali Ahmed) Dated: 12-09-2023
Reference of the request letter # Nil Dated: 11-09-2023

Tension Test Report (Page -1/1)

Date of Test 13-09-2023
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	0.359	3	0.367	0.11	0.106	3200	4400	64200	66810	88200	91900	1.40	17.5	
2	0.360	3	0.367	0.11	0.106	3200	4400	64200	66610	88200	91600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S United Wire Industries (Pvt) Ltd
Lahore

Reference # CED/TFL **3899** (Dr. Ali Ahmed) Dated: 12-09-2023
Reference of the request letter # UWIL/D-1863 Dated: 12-09-2023

Tension Test Report (Page – 1/1)

Date of Test 13-09-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	**15.24 (0.6")**	**1102.0**	**1107.0**	**24300**	**238.38**	**27000**	**264.87**	**>3.50**	
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,

M/S Nimbus Engineering Corporation (Pvt) Ltd
Lahore

Reference # CED/TFL **3902** (Dr. Ali Ahmed) Dated: 13-09-2023
Reference of the request letter # NECL/331 Dated: 26-07-2022

Tension Test Report (Page – 1/1)

Date of Test 13-09-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	**9.53 (3/8")**	**432.0**	**455.0**	**6200**	**60.82**	**8100**	**79.46**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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