



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

To,
 Officer Commanding
 95 Field Company Engineers
 Ex 3 Engineers Battalion (Teen Bahtreen)
 Kanur Camp (AJK)

Reference # CED/TFL **34264** (Dr. Usman Akmal)
 Reference of the request letter # 607/Project

Dated: 24-08-2020
 Dated: 19-08-2020

Tension Test Report (Page – 1/2)

Date of Test 31-08-2020
 Gauge length 2 inches
 Description CGI Sheet Steel Strip Tensile Test

| Sr. No. | Designation | Size of Strip | X Section Area | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|--|-------------|---------------|----------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
| | | | | | | | | | | |
| 1 | CGI Sheet | 23.70x0.75 | 17.78 | 480 | 640 | 264.91 | 353.22 | 0.70 | 35.00 | |
| 2 | | 23.70x0.75 | 17.78 | 480 | 640 | 264.91 | 353.22 | 0.70 | 35.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only Two Samples for Tensile Test | | | | | | | | | | |
| Bend Test | | | | | | | | | | |
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To,
Officer Commanding
95 Field Company Engineers
Ex 3 Engineers Battalion (Teen Bahtreen)
Kanur Camp (AJK)

Reference # CED/TFL **34264** (Dr. Usman Akmal)
Reference of the request letter # 607/Project

Dated: 24-08-2020
Dated: 19-08-2020

Weight & Size Test Report (Page – 2/2)

Date of Test 31-08-2020
Description CGI Sheet Weight and Size Test

| Sr. No. | Designation | Weight | Length | Width (b) | Weight per Unit Area | Thickness | Remark |
|----------------------------------|-------------|--------|--------|-----------|----------------------|-----------|--------|
| | | (g) | (cm) | (cm) | (kg/m ²) | (mm) | |
| 1 | CGI Sheet | 1186 | 60.70 | 31.00 | 6.30 | 0.75 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| Only Two Samples for Test | | | | | | | |
| | | | | | | | |

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To,
 Executive Engineer (B&W)
 University of Veterinary & Animal Science, Lahore
 (Construction of External Sewerage System, External Water Supply / Fire Fighting System, Overhead Water Tank (50000 Gallon) Sewerage Equalization Tank No. 1 & 2, Disposal Tank No. 1 & 2, Tube Well and Tube Well Chamber, Septic Tanks (1-2), Oil Separator, Grease Trap at CVAS, Narowal)

Reference # CED/TFL **35280** (Dr. Usman Akmal)
 Reference of the request letter # E.E/552

Dated: 27-08-2020
 Dated: 26-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
 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 ²) | | 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 | 0.393 | 3/8 | 0.383 | 0.11 | 0.116 | 3800 | 5200 | 76200 | 72510 | 104200 | 99300 | 0.90 | 11.3 | FF Steel |
| 2 | 0.389 | 3/8 | 0.382 | 0.11 | 0.114 | 3800 | 5300 | 76200 | 73170 | 106200 | 102100 | 1.00 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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

Bend Test

3/8" Dia Bar Bend Test Through 180° is Satisfactory

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Ref: CED/TFL/08/35282

Dated: 27-08-2020

Dated of Test: 31-08-2020

To
M/S ConDrill Pvt Ltd
Lahore

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/35282)**

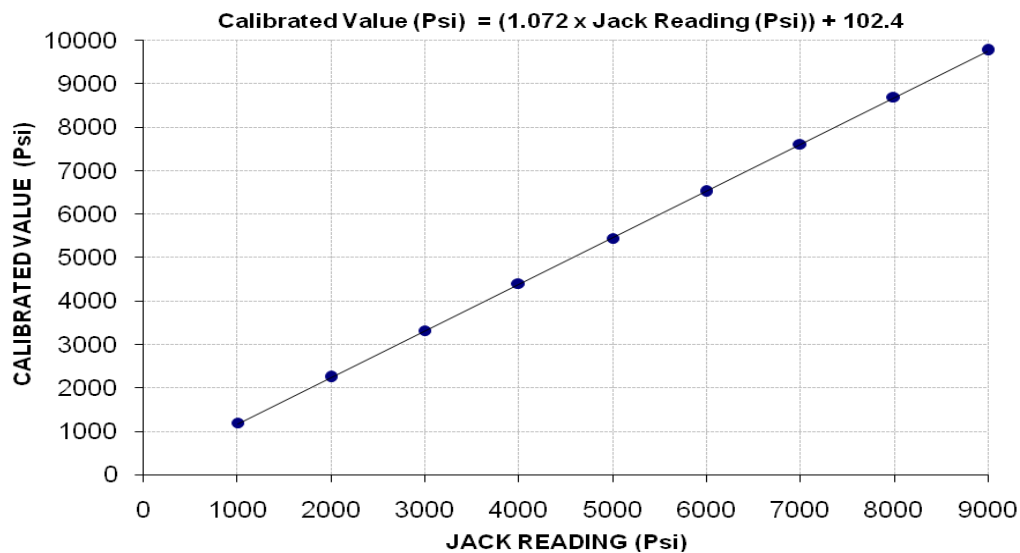
Reference to your Letter No. Nil, dated: 27/08/2020 on the subject cited above. One Hydraulic as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 11400 (Psi)
Calibrated Range : Zero - 9000 (Psi)

| Hydraulic Jack Reading (Psi) | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Calibrated Load (kg) | 11200 | 21100 | 31100 | 41300 | 51100 | 61200 | 71500 | 81600 | 91700 |
| Calibrated Pressure (Psi) | 1193.24 | 2247.98 | 3313.37 | 4400.07 | 5444.16 | 6520.21 | 7617.56 | 8693.61 | 9769.66 |

The Ram Area of Jack = 133.5 cm²

Calibration Curve For Jack



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To,
Resident Engineer Sec-4
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project
(759 CTE FWO (LSMP))

Reference # CED/TFL **35284** (Dr. Usman Akmal)
Reference of the request letter #LSMP/DCRE/2020/1824

Dated: 27-08-2020
Dated: 26-08-2020

Tension Test Report (Page – 1/1)

Date of Test 31-08-2020
Gauge length 2 inches
Description Mesh Wire for Gabion Tensile Test

| Sr. No. | Diameter / size | Area | Breaking Load | Ultimate Stress | Elongation | % Elongation | Marks |
|---------|-----------------|--------------------|---------------|-----------------------|------------|--------------|-------|
| | (cm) | (cm ²) | (kg) | (kg/cm ²) | (inch) | | |
| 1 | 0.38 | 0.11 | 480 | 4232.38 | 0.60 | 30.00 | |
| 2 | 0.38 | 0.11 | 480 | 4232.38 | 0.60 | 30.00 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |

Only Two Samples for Tensile Test

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Test Floor Laboratory
Department of Civil Engineering
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To,
 Sub Divisional Officer
 Buildings Sub Division No. 22
 Lahore
 (Up-Gradation and Development of Shrine of Bibi Pak Daman, Lahore)

Reference # CED/TFL **35288** (Dr. Usman Akmal)
 Reference of the request letter # 517/22nd

Dated: 27-08-2020
 Dated: 27-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
 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 ²) | | 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 | 0.373 | 3/8 | 0.374 | 0.11 | 0.110 | 3800 | 5000 | 76200 | 76350 | 100200 | 100500 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one sample for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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To,
 Project Manager ICPL – OMPL 0629
 Izhar Construction (Pvt) Ltd
 Construction of Production Hall & Raw Material Store at Orient Materials (Pvt) Ltd. At M3-
 Industrial Area, Faisalabad

Reference # CED/TFL **35289** (Dr. Usman Akmal) Dated: 28-08-2020
 Reference of the request letter # ICPL/CONST-OMPL/20/053 Dated: 28-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
 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 ²) | | 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 | 0.375 | 3/8 | 0.375 | 0.11 | 0.110 | 3400 | 5100 | 68200 | 67910 | 102200 | 101900 | 1.20 | 15.0 | |
| 2 | 0.378 | 3/8 | 0.376 | 0.11 | 0.111 | 3500 | 5200 | 70200 | 69500 | 104200 | 103300 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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To,
M/S Model Steel Enterprises (Pvt) Limited
Lahore

Reference # CED/TFL **35292** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 28-08-2020
Dated: 28-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight | Diameter/ Size (inch) | | 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 | 0.379 | 3/8 | 0.377 | 0.11 | 0.111 | 3200 | 4600 | 64200 | 63300 | 92200 | 91000 | 1.40 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one sample for tensile test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
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To,
M/S CM Engineering (Pvt) Ltd
Lahore

(CMPAK Project Site ID: 52708, 52710, 52600, 52784, 52781, 52757, 51165, 51228, 52252, 52772, 52774)

Reference # CED/TFL **35293** (Dr. Usman Akmal)
Reference of the request letter # CME/Steel/CMPAK/338

Dated: 28-08-2020
Dated: 12-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight (lbs/ft) | Diameter/ Size (mm) | | Area (in ²) | | 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 | 0.356 | 10 | 9.27 | 0.12 | 0.105 | 3800 | 4700 | 69812 | 80020 | 86347 | 99000 | 0.90 | 11.3 | |
| 2 | 0.357 | 10 | 9.28 | 0.12 | 0.105 | 3900 | 4700 | 71650 | 82010 | 86347 | 98900 | 0.90 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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To,
 Sub Divisional Officer
 Buildings Sub Division
 Assembly, Lahore
 Construction of 60-No. Staff Quarters (Grade 1 to 10) at MPA's Hostel Lahore

Reference # CED/TFL **35294** (Dr. Usman Akmal)
 Reference of the request letter # 2739

Dated: 28-08-2020
 Dated: 22-08-2020

Tension Test Report (Page -1/1)

Date of Test 31-08-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight (lbs/ft) | Diameter/ Size (inch) | | Area (in ²) | | 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 | 0.377 | 3/8 | 0.376 | 0.11 | 0.111 | 3700 | 5000 | 74200 | 73520 | 100200 | 99400 | 1.20 | 15.0 | |
| 2 | 0.367 | 3/8 | 0.371 | 0.11 | 0.108 | 3300 | 4700 | 66200 | 67350 | 94200 | 96000 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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