



**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 Salman Developers (Pvt) Limited  
Lahore  
(Construction of Grand Square Mall Lahore)

Reference # CED/TFL 32681, 744 (Dr. Rizwan Riaz)  
Reference of the request letter # MEP-HVAC-MTR-01-20/2/2019

Dated: 22-02-2019  
Dated: 20-02-2019

**Tension Test Report** (Page – 1/3)

Date of Test 01-03-2019  
Gauge length 2 inches  
Description MS Seamless Pipes Steel Strip Tensile Test (ASTM A 106)

| Sr. No.                                    | Designation | Size of Strip | X Section Area     | Yield load | Breaking Load | Yield Stress | Ultimate Stress | Elongation | % Elongation | Remarks |
|--|-------------|---------------|--------------------|------------|---------------|--------------|-----------------|------------|--------------|---------|
|  | (inch)      | (mm)          | (mm <sup>2</sup> ) | (kg)       | (kg)          | (MPa)        | (MPa)           | (in)       |              |         |
| 1  | 2           | 24.90x3.90    | 97.11              | 4700       | 5700          | 474.79       | 575.81          | 0.50       | 25.00        |         |
| 2  |             | 24.90x3.90    | 97.11              | 4500       | 5400          | 454.59       | 545.51          | 0.50       | 25.00        |         |
| 3  | 2-1/2       | 24.90x4.70    | 117.03             | 5500       | 6700          | 461.04       | 561.63          | 0.50       | 25.00        |         |
| 4  |             | 24.90x4.70    | 117.03             | 5400       | 6800          | 452.65       | 570.01          | 0.40       | 20.00        |         |
| 5  | 3           | 25.10x5.30    | 133.03             | 5700       | 7500          | 420.33       | 553.07          | 0.60       | 30.00        |         |
| 6  |             | 25.10x5.30    | 133.03             | 5800       | 7300          | 427.71       | 538.32          | 0.55       | 27.50        |         |
| 7  | 4           | 25.20x5.30    | 133.56             | 5700       | 7100          | 418.67       | 521.50          | 0.50       | 25.00        |         |
| 8  |             | 25.20x5.30    | 133.56             | 5200       | 6800          | 381.94       | 499.46          | 0.50       | 25.00        |         |
| <b>Only Eight Samples for Tensile Test</b> |             |               |                    |            |               |              |                 |            |              |         |
| <b>Bend Test</b>                           |             |               |                    |            |               |              |                 |            |              |         |
|  |             |               |                    |            |               |              |                 |            |              |         |
|  |             |               |                    |            |               |              |                 |            |              |         |
|  |             |               |                    |            |               |              |                 |            |              |         |

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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To,  
M/S Salman Developers (Pvt) Limited  
Lahore  
(Construction of Grand Square Mall Lahore)

Reference # CED/TFL 32681, 744 (Dr. Rizwan Riaz)  
Reference of the request letter # MEP-HVAC-MTR-01-20/2/2019

Dated: 22-02-2019  
Dated: 20-02-2019

**Seamless/Flattening Test Report** (Page – 2/3)

Date of Test 01-03-2019  
Description MS Seamless Pipe Flattening Test as per ASTM A 106

| Sr. No.                           | Designation (inch) | Test Type | Observation/Results               |
|-----------------------------------|--------------------|-----------|-----------------------------------|
| 1                                 | 2                  | Ductility | No crack was observed             |
|                                   |                    | Soundness | No evidence of lamination noticed |
| 2                                 | 2-1/2              | Ductility | No crack was observed             |
|                                   |                    | Soundness | No evidence of lamination noticed |
| 3                                 | 3                  | Ductility | No crack was observed             |
|                                   |                    | Soundness | No evidence of lamination noticed |
| 4                                 | 4                  | Ductility | No crack was observed             |
|                                   |                    | Soundness | No evidence of lamination noticed |
| -                                 | -                  | -         | -                                 |
|                                   |                    | -         | -                                 |
| -                                 | -                  | -         | -                                 |
|                                   |                    | -         | -                                 |
| <b>Only Four Samples for Test</b> |                    |           |                                   |
|                                   |                    |           |                                   |

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(Construction of Grand Square Mall Lahore)

Reference # CED/TFL 32681, 744 (Dr. Rizwan Riaz)  
Reference of the request letter # MEP-HVAC-MTR-01-20/2/2019

Dated: 22-02-2019  
Dated: 20-02-2019

**Weight & Size Test Report** (Page – 3/3)

Date of Test 01-03-2019  
Gauge length -----  
Description MS Pipes Weight and Size Test

| Sr. No.                           | Designation | Weight | Length | Weight per Unit Length | External Diameter | Internal Diameter | Wall Thickness | Remark |
|-----------------------------------|-------------|--------|--------|------------------------|-------------------|-------------------|----------------|--------|
|                                   |             |        |        |                        |                   |                   |                |        |
| 1                                 | 2           | 310    | 57.5   | 5.39                   | 60.70             | 52.90             | 3.90           |        |
| 2                                 | 2-1/2       | 508    | 60.0   | 8.47                   | 72.10             | 61.70             | 5.20           |        |
| 3                                 | 3           | 671    | 60.0   | 11.18                  | 89.60             | 78.90             | 5.35           |        |
| 4                                 | 4           | 841    | 60.0   | 14.02                  | 114.50            | 103.90            | 5.30           |        |
| -                                 | -           | -      | -      | -                      | -                 | -                 | -              |        |
| -                                 | -           | -      | -      | -                      | -                 | -                 | -              |        |
| -                                 | -           | -      | -      | -                      | -                 | -                 | -              |        |
| -                                 | -           | -      | -      | -                      | -                 | -                 | -              |        |
| -                                 | -           | -      | -      | -                      | -                 | -                 | -              |        |
| <b>Only Four Samples for Test</b> |             |        |        |                        |                   |                   |                |        |
|                                   |             |        |        |                        |                   |                   |                |        |

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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 Defence Housing Authority.  
Lahore Cantt  
(Const. Of Defence Community Club at Sector-K DHA Ph--VI)(M/s Maaksons)

Reference # CED/TFL **32734** (Dr. Qasim Khan)  
Reference of the request letter # 408/241/E/Lab/463/1514

Dated: 28-02-2019  
Dated: 27-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 01-03-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks      |
|--|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|--------------|
|  |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |              |
| 1  | 0.417              | 3                 | 0.395            | 0.11                       | 0.123  | 3700               | 5200                     | 74200                 | 66560  | 104200                   | 93600  | 1.00                 | 12.5         | Mughal Steel |
| 2  | 0.416              | 3                 | 0.395            | 0.11                       | 0.122  | 3700               | 5200                     | 74200                 | 66650  | 104200                   | 93700  | 1.30                 | 16.3         |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
| Bend Test  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
| #3 Bar Bend Test Through 180° is Satisfactory                          |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
|  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
|  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |

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To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **32735** (Dr. Qasim Khan)  
Reference of the request letter # 408/241/E/Lab/460/1635

Dated: 28-02-2019  
Dated: 26-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 01-03-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks      |
|--|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|--------------|
|  |                    | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |              |
| 1  | 0.368              | 3                 | 0.371            | 0.11                       | 0.108  | 3400               | 4800                     | 68200                 | 69240  | 96200                    | 97800  | 1.20                 | 15.0         | Kamran Steel |
| 2  | 0.363              | 3                 | 0.368            | 0.11                       | 0.107  | 3300               | 4700                     | 66200                 | 68260  | 94200                    | 97300  | 1.10                 | 13.8         |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| -  | -                  | -                 | -                | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |              |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
| Bend Test  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
| #3 Bar Bend Test Through 180° is Satisfactory                          |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
|  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |
|  |                    |                   |                  |                            |        |                    |                          |                       |        |                          |        |                      |              |              |

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**Pakistan. Ph: 92-42-99029202**

To,  
 Sub Divisional Officer  
 Buildings Sub Division No. 1  
 Faisalabad

Reference # CED/TFL **32736** (Dr. Qasim Khan)  
 Reference of the request letter # 1869

Dated: 28-02-2019  
 Dated: 14-02-2019

**Tension Test Report** (Page -1/2)

Date of Test 01-03-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>Size<br>(inch) |        | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|--|--------------------|-----------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|  |                    | Nominal                     | Actual | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1  | 0.443              | 3/8                         | 0.407  | 0.11                       | 0.130  | 4200               | 6200                     | 84200                 | 71090  | 124300                   | 105000 | 1.00                 | 12.5         |         |
| 2  | 0.450              | 3/8                         | 0.410  | 0.11                       | 0.132  | 4200               | 6300                     | 84200                 | 69960  | 126300                   | 105000 | 1.10                 | 13.8         |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only two samples for tensile test</b> |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test                                      |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |

**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**

To,  
 Sub Divisional Officer  
 Buildings Sub Division No. 1  
 Faisalabad

Reference # CED/TFL **32736** (Dr. Qasim Khan)  
 Reference of the request letter # 1855

Dated: 28-02-2019  
 Dated: 09-02-2019

**Tension Test Report** (Page -2/2)

Date of Test 01-03-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>Size<br>(inch) |        | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|--|--------------------|-----------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|  |                    | Nominal                     | Actual | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1  | 0.385              | 3/8                         | 0.380  | 0.11                       | 0.113  | 3600               | 5500                     | 72200                 | 70080  | 110200                   | 107100 | 1.00                 | 12.5         |         |
| 2  | 0.395              | 3/8                         | 0.384  | 0.11                       | 0.116  | 3600               | 5600                     | 72200                 | 68370  | 112300                   | 106400 | 1.10                 | 13.8         |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only two samples for tensile test</b> |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test                                      |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |

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**Pakistan. Ph: 92-42-99029202**

To,  
 PM  
 Pace Circle  
 Construction of Pace circle

Reference # CED/TFL **32739** (Dr. Qasim Khan)  
 Reference of the request letter # Nil

Dated: 28-02-2019  
 Dated: 28-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 01-03-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>Size<br>(inch) |        | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|--|--------------------|-----------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|  |                    | Nominal                     | Actual | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1  | 0.376              | 3/8                         | 0.375  | 0.11                       | 0.111  | 4300               | 5000                     | 86200                 | 85750  | 100200                   | 99800  | 0.80                 | 10.0         |         |
| 2  | 0.379              | 3/8                         | 0.377  | 0.11                       | 0.112  | 4600               | 5400                     | 92200                 | 90890  | 108200                   | 106700 | 0.80                 | 10.0         |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only two samples for tensile and one sample for bend test</b> |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory                    |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |

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**UET Lahore, Pakistan.**

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

;To,  
 Site Engineer (T.S.M Design)  
 Farooq Associates  
 (Mr. Awais Residence)

Reference # CED/TFL **32740** (Dr. Qasim Khan)  
 Reference of the request letter # Nil

Dated: 28-02-2019  
 Dated: 28-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 01-03-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight<br>(lbs/ft) | Diameter/<br>Size<br>(inch) |        | Area<br>(in <sup>2</sup> ) |        | Yield load<br>(kg) | Breaking<br>Load<br>(kg) | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation<br>(inch) | % Elongation | Remarks |
|--|--------------------|-----------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
|  |                    | Nominal                     | Actual | Nominal                    | Actual |                    |                          | Nominal               | Actual | Nominal                  | Actual |                      |              |         |
| 1  | 0.364              | 3/8                         | 0.369  | 0.11                       | 0.107  | 3400               | 4800                     | 68200                 | 70030  | 96200                    | 98900  | 1.30                 | 16.3         |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| -  | -                  | -                           | -      | -                          | -      | -                  | -                        | -                     | -      | -                        | -      | -                    | -            |         |
| <b>Note: only one sample for tensile and two samples for bend test</b> |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| Bend Test  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory                    |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |
|  |                    |                             |        |                            |        |                    |                          |                       |        |                          |        |                      |              |         |

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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



**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/02/32742

Dated: 28-02-19

To,  
Resident Engineer

**A.A. Associates Jv Planners Consultants Engineers**

Construction and Black Topping of Banda Fateh Khan Road Darmalak Road, Darmalak to Ghor Zand Road Darsha Khel Road Rehman Abad Road Pakka Road Karapa Shakardara Road Including Bridge and PAA Roads in Ucs Sodhal Lachi Riral Mandori District Kohat ADP No. 881/150973 (2016-17) Sh: Tarali Bridge at Karapa Shakardara Road

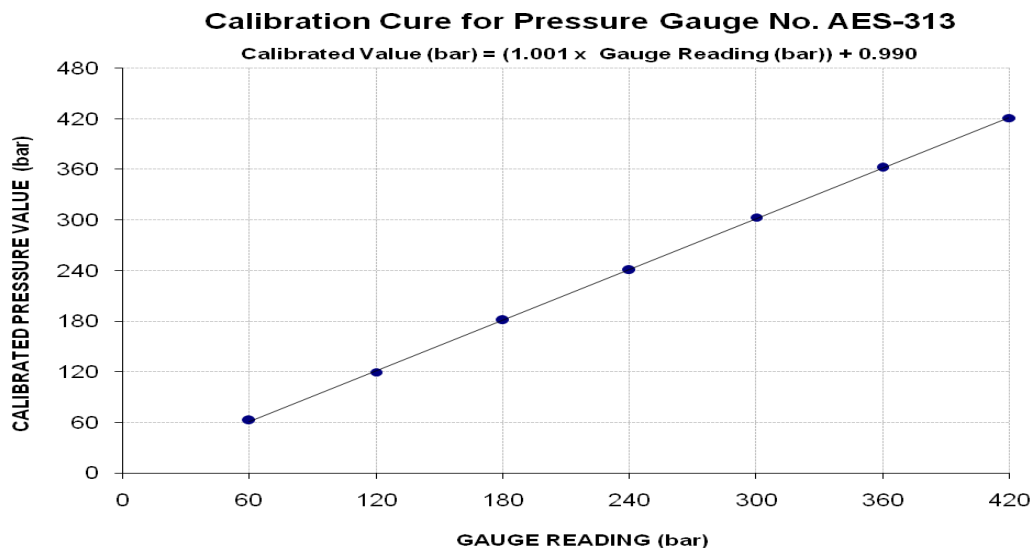
Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/01/32742) (Page -1/2)

Reference to your Letter No. PCE/RE-OFC/KHT/0087, Dated: 28/02/2019 on the subject cited above. One Pressure Gauge No. AES-313 as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 420 (bar)**

| Pressure Gauge Reading (bar) | 60    | 120    | 180    | 240    | 300    | 360    | 420    |
|------------------------------|-------|--------|--------|--------|--------|--------|--------|
| Calibrated Load (kg)         | 12600 | 24100  | 36600  | 48600  | 61200  | 73100  | 85000  |
| Calibrated Pressure (bar)    | 62.41 | 119.37 | 181.28 | 240.72 | 303.13 | 362.07 | 421.01 |

The Ram Area use for Calibration =  $198 \text{ cm}^2$



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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Ref: CED/TFL/02/32742

Dated: 28-02-19

To,  
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Construction and Black Topping of Banda Fateh Khan Road Darmalak Road, Darmalak to Ghor Zand Road Darsha Khel Road Rehman Abad Road Pakka Road Karapa Shakardara Road Including Bridge and PAA Roads in Ucs Sodhal Lachi Riral Mandori District Kohat ADP No. 881/150973 (2016-17) Sh: Tarali Bridge at Karapa Shakardara Road

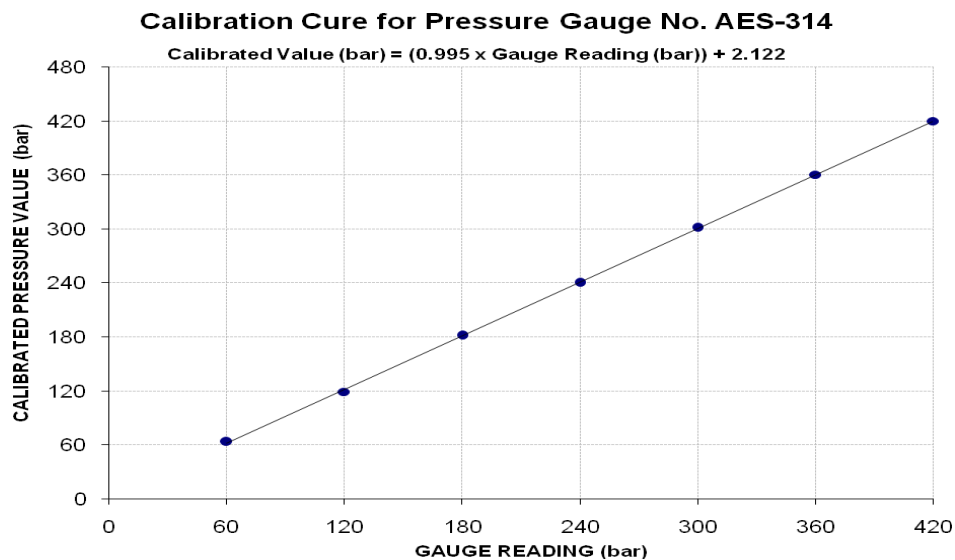
Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/01/32742) (Page -2/2)

Reference to your Letter No. PCE/RE-OFC/KHT/0087, Dated: 28/02/2019 on the subject cited above. One Pressure Gauge No. AES-314 as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 420 (bar)**

|                                     |       |        |        |        |        |        |        |
|-------------------------------------|-------|--------|--------|--------|--------|--------|--------|
| <b>Pressure Gauge Reading (bar)</b> | 60    | 120    | 180    | 240    | 300    | 360    | 420    |
| <b>Calibrated Load (kg)</b>         | 12800 | 24100  | 36700  | 48500  | 60900  | 72800  | 84800  |
| <b>Calibrated Pressure (bar)</b>    | 63.40 | 119.37 | 181.78 | 240.22 | 301.64 | 360.58 | 420.02 |

The Ram Area used for Calibration =  $198 \text{ cm}^2$



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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