

**Client Reference No.:** NESPAK/PRSWSSP/TAUNSA/RE/406

**Dated:** 21-10-2024

**SOM Lab Ref:** CED/SOM/078

**Dated:** 23-10-2024

**Test Type:** Load Test of RPC Manhole Cover (JMW Jalander Metal Works)

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 377mm diameter]

**Test Performed by:** Dr. Asad Ali Gillani

-----  
Rabab Ali

Resident Engineer

NESPAK (Pvt.) Ltd PRSWSSP, Taunsa.

(PRMSC, PRSWSSP Tehsil Taunsa) (Package-IV)

This is with reference to your above-mentioned letter and SOM receipt No. 078 dated: 23-10-2024. The sample of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

### Load Test Result

| Weight of Manhole Cover With Ring | Diameter of Manhole Cover | Average Thickness of Manhole Cover | Maximum Load | Observations/Remarks                |
|-----------------------------------|---------------------------|------------------------------------|--------------|-------------------------------------|
| 50.50 Kg                          | 640 mm                    | 70.16 mm                           | 16400 kg     | The sample was cracked at this load |

Muhammad Hassan Khan,RE

Test Performed By: Dr. /Engr. Nauman Khurram

NESPAK Lahore.(PCC/Drainage Scheme/Sewarage Scheme UC No.193 Bhangali,Lahore)

Client Reference: 3772/103/MHK/ADP/Bhangali/15

SOM Lab

Ref: 072(Page-1/1)

Dated: 16-10-2024

Dated: 23-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Mughal Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 0.663  | 4       | 0.498      | 0.20            | 0.195           | 6.24       | 8.23          | 68800                       | 70560                        | 90720                       | 93040                        | 1.20       | 8.0          | 15.0            |         |
| 2     | 0.666  | 4       | 0.500      | 0.20            | 0.196           | 6.27       | 8.15          | 69130                       | 70540                        | 89930                       | 91760                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Three Samples Received and Tested |
|     |  |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Shahid Iqbal,AE

Test Performed By:

Dr. /Engr.

Nauman Khurram

GE(A)-I Gwa.(Const of 1 x Spec MT Shed for 91 Sig Bn at Gwa Cantt)

Client Reference: 6180-2804/17/E-6

SOM Lab

Ref:

073 (Page-1/1)

Dated: 27-09-2024

Dated:

23-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (SJ Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.669  | 8       | 0.999      | 0.79            | 0.784           | 23.31      | 38.35         | 65090                       | 65580                        | 107060                      | 107880                       | 1.40       | 8.0          | 17.5            |         |
| 2     | 1.411  | 6       | 0.727      | 0.44            | 0.415           | 14.73      | 18.52         | 73830                       | 78280                        | 92840                       | 98430                        | 1.30       | 8.0          | 16.3            |         |
| 3     | 1.076  | 5       | 0.634      | 0.31            | 0.316           | 10.42      | 13.37         | 74120                       | 72710                        | 95150                       | 93340                        | 1.30       | 8.0          | 16.3            |         |
| 4     | 0.666  | 4       | 0.500      | 0.20            | 0.196           | 6.19       | 8.10          | 68230                       | 69630                        | 89370                       | 91190                        | 1.40       | 8.0          | 17.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Eight Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |   |
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack |   |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Iqtadar Masood Bajwa,RE

Test Performed By:

Dr. /Engr. Nauman Khurram

CAREC Tranche-II-B GreenHotel &amp; Restaurant,N-55 Rajanpur.(Lot-3: Kashmore to Rajanpur Section)

Client Reference: CAREC/T-2/Lot-3/R.E/087

SOM Lab

Ref: 074 (Page-1/1)

Dated: 21-10-2024

Dated: 23-10-2024

Test: Tension Test &amp; Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Faizaan Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.602  | 8       | 0.987      | 0.79            | 0.765           | 29.68      | 38.02         | 82870                       | 85580                        | 106150                      | 109620                       | 1.20       | 8.0          | 15.0            |         |
| 2     | 2.593  | 8       | 0.985      | 0.79            | 0.762           | 29.92      | 38.14         | 83530                       | 86590                        | 106490                      | 110400                       | 1.30       | 8.0          | 16.3            |         |
| 3     | 1.630  | 6       | 0.781      | 0.44            | 0.479           | 18.40      | 22.38         | 92230                       | 84720                        | 112150                      | 103020                       | 1.20       | 8.0          | 15.0            |         |
| 4     | 1.641  | 6       | 0.783      | 0.44            | 0.482           | 18.42      | 22.29         | 92330                       | 84290                        | 111750                      | 102010                       | 1.30       | 8.0          | 16.3            |         |
| 5     | 1.049  | 5       | 0.626      | 0.31            | 0.308           | 12.00      | 14.34         | 85360                       | 85910                        | 102040                      | 102700                       | 1.10       | 8.0          | 13.8            |         |
| 6     | 1.050  | 5       | 0.627      | 0.31            | 0.309           | 11.37      | 14.39         | 80860                       | 81130                        | 102400                      | 102730                       | 1.10       | 8.0          | 13.8            |         |
| 7     | 0.667  | 4       | 0.500      | 0.20            | 0.196           | 6.24       | 7.59          | 68800                       | 70200                        | 83750                       | 85460                        | 1.10       | 8.0          | 13.8            |         |
| 8     | 0.653  | 4       | 0.494      | 0.20            | 0.192           | 5.88       | 7.31          | 64860                       | 67560                        | 80600                       | 83960                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Twelve Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |  |
|     |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Muhammad Tahir Saleem,RE

Test Performed By:

Dr. /Engr. Nauman Khurram

CAREC Tranche-II-B Green Hotel & Restaurant,N-55 Rajanpur.(Lot-4: Rojhan to Rajanpur Section)

Client Reference: CAREC/T-2/Lot-4/R.E/146

SOM Lab

Ref: 075 (Page-1/1)

Dated: 19-10-2024

Dated: 23-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Faizaan Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 1.633  | 6       | 0.782      | 0.44            | 0.480           | 17.86      | 21.48         | 89520                       | 82060                        | 107660                      | 98690                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 1.636  | 6       | 0.783      | 0.44            | 0.481           | 18.01      | 21.56         | 90290                       | 82590                        | 108070                      | 98860                        | 1.40       | 8.0          | 17.5            |         |
| 3     | 0.669  | 4       | 0.501      | 0.20            | 0.197           | 6.52       | 7.77          | 71940                       | 73040                        | 85660                       | 86960                        | 1.20       | 8.0          | 15.0            |         |
| 4     | 0.661  | 4       | 0.497      | 0.20            | 0.194           | 6.29       | 7.87          | 69360                       | 71500                        | 86780                       | 89470                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Six Samples Received and Tested |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Executive Engineer

Test Performed By: Dr. /Engr. Nauman Khurram

HD Nr.(Rest/Impro of B/Chawinda-Zafarwal Rd,Shakargarh to Sukhochak Rd,Zafarwal to Darman Rd)

Client Reference: 1602/BD

SOM Lab

Ref: 076 (Page-1/1)

Dated: 03-10-2024

Dated: 23-10-2024

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.606  | 8       | 0.988      | 0.79            | 0.766           | 22.38      | 36.90         | 62470                       | 64420                        | 103020                      | 106250                       | 1.40       | 8.0          | 17.5            |         |
| 2     | 2.621  | 8       | 0.990      | 0.79            | 0.770           | 22.58      | 37.05         | 63040                       | 64670                        | 103450                      | 106130                       | 1.50       | 8.0          | 18.8            |         |
| 3     | 1.389  | 6       | 0.721      | 0.44            | 0.408           | 10.40      | 15.46         | 52120                       | 56210                        | 77510                       | 83590                        | 1.60       | 8.0          | 20.0            |         |
| 4     | 1.378  | 6       | 0.718      | 0.44            | 0.405           | 10.52      | 15.44         | 52730                       | 57290                        | 77410                       | 84100                        | 1.50       | 8.0          | 18.8            |         |
| 5     | 0.984  | 4       | 0.607      | 0.20            | 0.289           | 7.70       | 11.64         | 84870                       | 58740                        | 128370                      | 88840                        | 1.20       | 8.0          | 15.0            |         |
| 6     | 0.962  | 4       | 0.600      | 0.20            | 0.283           | 7.59       | 11.54         | 83750                       | 59190                        | 127250                      | 89930                        | 1.30       | 8.0          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|            |  |  |
|------------|--|--|
| Sr # (1-2) | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Twelve Samples Received and Tested |
| Sr # (3-4) | Sample bend through 180 degrees Satisfactorily without any crack |  |
| Sr # (5-6) | Sample bend through 180 degrees Satisfactorily without any crack |  |
|            |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Tariq Fetah

Test Performed By:

Dr. /Engr.

Yousaf

PM Jilani Poly Construction.(Const Of Jilani Poly-2 Gravaure Extension Sheikhpora)

Client Reference: JP-2/UET/2024/S-009

SOM Lab

Ref:

080 (Page-1/2)

Dated: 23-10-2024

Dated:

23-10-2024

Test: Tension Test &amp; Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (SJ Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.615  | 8       | 0.989      | 0.79            | 0.768           | 28.82      | 37.58         | 80450                       | 82760                        | 104930                      | 107930                       | 1.10       | 8.0          | 13.8            |         |
| 2     | 2.580  | 8       | 0.982      | 0.79            | 0.758           | 27.83      | 36.90         | 77690                       | 80970                        | 103020                      | 107370                       | 1.50       | 8.0          | 18.8            |         |
| 3     | 1.468  | 6       | 0.741      | 0.44            | 0.431           | 15.70      | 19.83         | 78690                       | 80330                        | 99380                       | 101460                       | 1.30       | 8.0          | 16.3            |         |
| 4     | 1.526  | 6       | 0.755      | 0.44            | 0.448           | 16.94      | 21.17         | 84920                       | 83410                        | 106130                      | 104230                       | 1.10       | 8.0          | 13.8            |         |
| 5     | 0.666  | 4       | 0.500      | 0.20            | 0.196           | 7.75       | 9.30          | 85430                       | 87180                        | 102520                      | 104610                       | 1.10       | 8.0          | 13.8            |         |
| 6     | 0.667  | 4       | 0.500      | 0.20            | 0.196           | 7.80       | 9.28          | 85990                       | 87750                        | 102290                      | 104380                       | 1.00       | 8.0          | 12.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Nine Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |  |
|     |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Tariq Fetah

Test Performed By:

Dr. /Engr. Yousaf

PM Jilani Poly Construction.(Const Of Jilani Poly-2 Gravaure Extension Sheikhpura)

Client Reference: JP-2/UET/2024/S-008

SOM Lab

Ref: 080 (Page-2/2)

Dated: 23-10-2024

Dated: 23-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Premier Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.633  | 8       | 0.993      | 0.79            | 0.774           | 31.91      | 38.79         | 89070                       | 90920                        | 108280                      | 110520                       | 1.40       | 8.0          | 17.5            |         |
| 2     | 2.621  | 8       | 0.990      | 0.79            | 0.770           | 32.11      | 39.16         | 89640                       | 91970                        | 109340                      | 112180                       | 1.40       | 8.0          | 17.5            |         |
| 3     | 1.470  | 6       | 0.742      | 0.44            | 0.432           | 15.36      | 19.47         | 77000                       | 78430                        | 97590                       | 99400                        | 1.50       | 8.0          | 18.8            |         |
| 4     | 1.467  | 6       | 0.741      | 0.44            | 0.431           | 15.39      | 19.69         | 77160                       | 78770                        | 98720                       | 100780                       | 1.50       | 8.0          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Six Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)