

**GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT**

Test Report No.: WRD/QC/F.6-2/Cube -T -7526,7527,7540,7541,7559,7560,7565,7566,7587,7611,7733,7734, /Lab/**244** / 2019 -20 Dated:- 12 / 07 / 2019

7744,7445

Laboratory : Bicholim -Goa / Sub Division V (QC)/WRD/ Bicholim -Goa.

Name of Work: - Supplying Raw water to the Proposed 30MLD water treatment plant at Tuem for P.W.D. and to irrigate 165.00 Ha. Of Command in Pernem, Tuem, Korgao and Palyem village by pumping water from chainage 22.00 kms of R.B.M.C. of TIP at Dhargal in Pernem Taluka. **Part I Construction of intake chamber, pump house, Manifold suction/delivery line pump accessories Transformer and Sub Station and Rising main.**

Ref. to Requisition No.: - SDI/WDVII/WRD /F.351/2019-20/ 65 Dated :25-06-2019

Qty. Received. : 14 Sets of cube Date of Receipt: - 28 / 06 / 2019. Tested on: -28/06/2019 To 11/07/2019 as per due dates Ref to CPWD :2002, Vol. I

Sample: RCC 1 : 1.5 : 3 Mix O.S No. : 2425,2426,2439,2440/SS, 610,611/SP, 978,979,986,991,1046,1047,1048,1049/AF. Lab. Sample No.: 6525 To 6538.

Tested By: -Mrs. S. B. Naik Shirodkar. J.E., Mr. S.M.Patri,A.E., & Mr.Anil R. Fadte,J.E..

Cube test is witnessed by Mr. R. Tirupathi., Representative of M/s South East Constructions Company on 28/06/2019.

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| SR. NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RESULTS | | Max./Min.Value permissable | % above or below | REMARK |
|---------|---|---|---------------|--------------------------|----------------------------|------------------|--|
| | | | | | | | |
| 1 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 31/ 05 / 2019, for 11.25 degree bend Thrust block at Ch.5480, 5420, 4760, 4545, 4345 m. | 28th day compressive strength | 344.32 | Kg/Cm ³ | 265.00 Kg/Cm ² | 27.37 | Quantity Represents 30.00 m3 for two sets of cubes caste on 31/04/2019 |
| | | | 321.67 | Kg/Cm ³ | | | |
| | | | 346.59 | Kg/Cm ² | | | |
| | | Average | 337.52 | Kg/Cm² | | | |
| 2 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 31/ 05 / 2019, for 11.25 degree bend Thrust block at Ch.5480, 5420, 4760, 4545, 4345 m. | 28 th day compressive strength | 366.97 | Kg/Cm ² | 265.00 Kg/Cm ² | 27.94 | ... Do |
| | | | 299.01 | Kg/Cm ² | | | |
| | | | 351.12 | Kg/Cm ² | | | |
| | | Average | 339.03 | Kg/Cm² | | | |
| 3 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 01/ 06 / 2019, for 90 degree bend Thrust block at Ch.4650 m. | 28th day compressive strength | 362.44 | Kg/Cm ³ | 265.00 Kg/Cm ² | 25.94 | Quantity Represents 30.00 m3 for two sets of cubes caste on 01/06/2019 |
| | | | 330.73 | Kg/Cm ³ | | | |
| | | | 308.08 | Kg/Cm ² | | | |
| | | Average | 333.75 | Kg/Cm² | | | |
| 4 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 01/ 06 / 2019, for 90 degree bend Thrust block at Ch.4650 m. | 28 th day compressive strength | 314.87 | Kg/Cm ² | 265.00 Kg/Cm ² | 26.23 | ... Do |
| | | | 335.26 | Kg/Cm ² | | | |
| | | | 353.38 | Kg/Cm ² | | | |
| | | Average | 334.50 | Kg/Cm² | | | |

Junior Engineer

Assistant Engineer

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| SR.NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RESULTS | | Max./Min.Value permissable | % above or below | REMARK |
|--------|--|---|---------------|--------------------------|-------------------------------|---------------------|--|
| 5 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 02/ 06 / 2019, for 45 & 22.5 degree bend at Ch.4860 & 4170 m. | 28th day compressive strength | 339.79 | Kg/Cm ³ | 265.00 Kg/Cm ² | 26.23 | Quantity Represents 30.00 m3 for two sets of cubes caste on 02/06/2019 |
| | | | 335.26 | Kg/Cm ³ | | | |
| | | | 328.46 | Kg/Cm ² | | | |
| | | Average | 334.50 | Kg/Cm² | | | |
| 6 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 02/ 06 / 2019, for 45 & 22.5 degree bend at Ch.4860 & 4170 m. | 28 th day compressive strength | 328.46 | Kg/Cm ² | 265.00 Kg/Cm ² | 28.51 | ... Do |
| | | | 348.85 | Kg/Cm ² | | | |
| | | | 344.32 | Kg/Cm ² | | | |
| | | Average | 340.54 | Kg/Cm² | | | |
| 7 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 03/ 06 / 2019, for 22.5,11.25,11.25 degree bend Thrust block at Ch.4020,3820 & 3660 m. | 28th day compressive strength | 339.79 | Kg/Cm ³ | 265.00 Kg/Cm ² | 21.67 | Quantity Represents 26.00 m3 for two sets of cubes caste on 03/06/2019 |
| | | | 294.48 | Kg/Cm ³ | | | |
| | | | 332.99 | Kg/Cm ² | | | |
| | | Average | 322.42 | Kg/Cm² | | | |
| 8 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 03/ 06 / 2019, for 22.5,11.25,11.25 degree bend Thrust block at Ch.4020,3820 & 3660 m. | 28 th day compressive strength | 294.48 | Kg/Cm ² | 265.00 Kg/Cm ² | 21.38 | ... Do |
| | | | 339.79 | Kg/Cm ² | | | |
| | | | 330.73 | Kg/Cm ² | | | |
| | | Average | 321.67 | Kg/Cm² | | | |
| 9 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 04 / 06 / 2019, for 11.25,11.25 degree bend Thrust block at Ch.3315 & 2562 m. | 28th day compressive strength | 339.79 | Kg/Cm ³ | 265.00 Kg/Cm ² | 28.51 | Quantity Represents 12.00 m3. |
| | | | 330.73 | Kg/Cm ³ | | | |
| | | | 351.12 | Kg/Cm ² | | | |
| | | Average | 340.54 | Kg/Cm² | | | |
| 10 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 05 / 06 / 2019, for 11.25,11.25 degree bend Thrust block at Ch.2520 & 1615 m. | 28 th day compressive strength | 287.69 | Kg/Cm ² | 265.00 Kg/Cm ² | 5.71 | Quantity Represents 12.00 m3. |
| | | | 274.10 | Kg/Cm ² | | | |
| | | | 278.63 | Kg/Cm ² | | | |
| | | Average | 280.14 | Kg/Cm² | | | |

Junior Engineer

Assistant Engineer

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| SR.NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RESULTS | | Max./Min.Value permissable | % above or below | REMARK |
|--------|---|---|---------------|--------------------------|-------------------------------|---------------------|--|
| 11 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 12 / 06 / 2019, for 45 & 22.5 degree bend Thrust block at Ch.3690 & 3655 m. | 28th day compressive strength | 260.51 | Kg/Cm ³ | 265.00 Kg/Cm ² | 2.29 | Quantity Represents 30.00 m3 for two sets of cubes caste on 12/06/2019 |
| | | | 280.89 | Kg/Cm ³ | | | |
| | | | 271.83 | Kg/Cm ² | | | |
| | | Average | 271.08 | Kg/Cm² | | | |
| 12 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 12 / 06 / 2019, for 45 & 22.5 degree bend Thrust block at Ch.3690 & 3655 m. | 28 th day compressive strength | 278.63 | Kg/Cm ² | 265.00 Kg/Cm ² | 5.14 | ... Do |
| | | | 265.04 | Kg/Cm ² | | | |
| | | | 292.22 | Kg/Cm ² | | | |
| | | Average | 278.63 | Kg/Cm² | | | |
| 13 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 13 / 06 / 2019, for 22.5, 45 degree bend Thrust block at Ch.2595 & 3625 m. | 28th day compressive strength | 262.77 | Kg/Cm ³ | 265.00 Kg/Cm ² | 4.29 | Quantity Represents 30.00 m3 for two sets of cubes caste on 13/06/2019 |
| | | | 292.22 | Kg/Cm ³ | | | |
| | | | 274.10 | Kg/Cm ² | | | |
| | | Average | 276.36 | Kg/Cm² | | | |
| 14 | Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 13 / 06 / 2019, for 22.5, 45 degree bend Thrust block at Ch.2595 & 3625 m. | 28 th day compressive strength | 283.16 | Kg/Cm ² | 265.00 Kg/Cm ² | 4.57 | ... Do |
| | | | 269.57 | Kg/Cm ² | | | |
| | | | 278.63 | Kg/Cm ² | | | |
| | | Average | 277.12 | Kg/Cm² | | | |

Copy to: 1. The Assistant Engineer SD I , WD VII , WRD , Dhargal -Pernem- Goa.

2. Copy submitted to the Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa. For kind Information.

3. Copy submitted to the Executive Engineer ,WDVII,WRD , Dhargal - Pernem- Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

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