# GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD/QC/F.6-2/Cube -T -7867,7868,7871,7872,7879,7880,7884,7885,7895,7896,7897,7898,7899,7900 /Lab/**268** / 2019 -20 Dated: - 16 / 08 / 2019

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.351/2019-20/88 Dated :31-07-2019

Qty. Recived. : 14 Sets of cube Date of Receipt: - 03 / 08 / 2019. Tested on: -03/08/2019 To 15/08/2019 as per due dates. Ref to CPWD : 2002, Vol. I

Sample: RCC 1:1.5: 3 Mix O.S No.: 2670,2671,2674,2675/SS, 1065,1066/AF, 2685,2686/SS,1071,1072/AF,2692,2693,/SS,621,622/SP.

Lab. Sample No.: 6715 To 6728. Tested By: -Mrs. S. B. Naik Shirodkar. J.E., Mr.Anil R. Fadte, J.E. & S.M. Patri. A.E.

### Cube test is wittnessed by Mr. R. Tirupathi., Representative of M/s South East Constructions Company on 03/08/2019.

#### REPORT PAGE 01 OF 03

SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or <del>below</del>	REMARK
1	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 06/07/2019, for 45,22.5 degree bend thrust block at Ch.2565,2534 m.	28th day compressive strength	253.71	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	4.00	Quantity Represents 30.00 m3 for two sets of cubes caste on 06/07/2019
			289.95	Kg/Cm <sup>3</sup>			
			283.16	Kg/Cm <sup>2</sup>			
		Average	275.61	Kg/Cm <sup>2</sup>			
2	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 06/07/2019, for 45,22.5 degree bend thrust block at Ch.2565,2534 m.	28 <sup>th</sup> day	274.10	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	13.98	Do
		compressive	292.22	Kg/Cm <sup>2</sup>			
		strength	339.79	Kg/Cm <sup>2</sup>			
		Average	302.03	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 08/07/2019, for 45, 22.5 degree bend thrust block at Ch.2537,1655 m.	28th day	267.30	Kg/Cm <sup>3</sup>	• 265.00 Kg/Cm <sup>2</sup>	3.43	Quantity Represents 30.00 m3 for two sets of cubes caste on 08/07/2019
3		compressive	271.83	Kg/Cm <sup>3</sup>			
5		strength	283.16	Kg/Cm <sup>2</sup>			
		Average	274.10	Kg/Cm <sup>2</sup>			
4	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 08/07/2019, for 45, 22.5 degree bend thrust block at Ch.2537,1655 m.	28 <sup>th</sup> day	265.04	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	6.57	Do
		compressive	280.89	Kg/Cm <sup>2</sup>			
		strength	301.28	Kg/Cm <sup>2</sup>			
		Average	282.40	Kg/Cm <sup>2</sup>			

# **REPORT PAGE 02 OF 03**

SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or <del>below</del>	REMARK
5	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 12/07/2019, for 45 and 22.5 degree bend at Ch.2516 and 1280 m.	28th day compressive strength	262.77	Kg/Cm <sup>3</sup>	• 265.00 Kg/Cm <sup>2</sup>	2.29	Quantity Represents 30.00 m3 for two sets of cubes caste on 12/07/2019
			278.63	Kg/Cm <sup>3</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		Average	271.08	Kg/Cm <sup>2</sup>			
6	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 12/07/2019, for 45 and 22.5 degree bend at Ch.2516 and 1280 m.	28 <sup>th</sup> day	287.69	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	4.29	Do
		compressive	280.89	Kg/Cm <sup>2</sup>			
		strength	260.51	Kg/Cm <sup>2</sup>			
		Average	276.36	Kg/Cm <sup>2</sup>			
7	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 13/07/2019, for 22.5,45 degree bend thrust block at Ch.2316,810 m.	28th day	283.16	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	4.86	Quantity Represents 30.00 m3 for two sets of cubes caste on 13/07/2019
		compressive strength	269.57	Kg/Cm <sup>3</sup>			
			280.89	Kg/Cm <sup>2</sup>			
		Average	277.87	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 13/07/2019, for 22.5,45 degree bend thrust block at Ch.2316,810 m.	28 <sup>th</sup> day	253.71	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	7.42	Do
8		compressive strength	292.22	Kg/Cm <sup>2</sup>			
0			308.08	Kg/Cm <sup>2</sup>			
		Average	284.67	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 16/07/2019, for 22.5,45 degree bend thrust block at Ch.1890,270 m.	28th day	269.57	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	4.57	Quantity Represents 30.00 m3 for two sets of cubes caste on 16/07/2019
9		compressive strength	274.10	Kg/Cm <sup>3</sup>			
9			287.69	Kg/Cm <sup>2</sup>			
		Average	277.12	Kg/Cm <sup>2</sup>			
10	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 16/07/2019, for 22.5,45 degree bend thrust block at Ch.1890,270 m.	28 <sup>th</sup> day	267.30	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	3.72	Do
		compressive strength	274.10	Kg/Cm <sup>2</sup>			
			283.16	Kg/Cm <sup>2</sup>			
		Average	274.85	Kg/Cm <sup>2</sup>			

### **REPORT PAGE 03 OF 03**

SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or <del>below</del>	REMARK
11	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 17/07/2019, for 11.25,45 degree bend thrust block at Ch.1038,1008 m.	28th day compressive strength	265.04	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	4.57	Quantity Represents 26.00 m3 for two sets of cubes caste on 17/07/2019
			278.63	Kg/Cm <sup>3</sup>			
			287.69	Kg/Cm <sup>2</sup>			
		Average	277.12	Kg/Cm <sup>2</sup>			
12	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 17/07/2019, for 11.25,45 degree bend thrust block at Ch.1038,1008 m.	28 <sup>th</sup> day	276.36	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	8.85	Do
		compressive	305.81	Kg/Cm <sup>2</sup>			
		strength	283.16	Kg/Cm <sup>2</sup>			
		Average	288.44	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 18/07/2019, for 45 degree bend thrust block and anchor blocks for pump house at Ch.778 m.	28th day	260.51	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	2.01	Quantity Represents 28.00 m3 for two sets of cubes caste on 18/07/2019
13		compressive strength	271.83	Kg/Cm <sup>3</sup>			
12			278.63	Kg/Cm <sup>2</sup>			
		Average	270.32	Kg/Cm <sup>2</sup>			
14	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 18/07/2019, for 45 degree bend thrust block and anchor blocks for pump house at Ch.778 m.	28 <sup>th</sup> day	296.75	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	6.00	Do
		compressive strength	278.63	Kg/Cm <sup>2</sup>			
			267.30	Kg/Cm <sup>2</sup>			
		Average	280.89	Kg/Cm <sup>2</sup>			

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

Assistant Engineer