## GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD/QC/F.6-2/Cube -T -7910,7911,7912,7913,7914,7915,7916,7917,7918,7919,7920,7921,7922,7923 /Lab/279/2019-20 Dated:-04/10/2019

Laboratory : Bicholim -Goa

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

Name of Work: - Supplying Raw water to the Proposed 30 MLD 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.351/2019-20/137 Dated :16-09-2019

Qty. Recived. : 14 Sets of cube Date of Receipt: -16 /10 / 2019. Tested on: -16/06/2019 To 03/10/2019 as per due dates Ref to CPWD :2002, Vol. I

Sample: RCC 1:1.5: 3 Mix O.S No. : 1078 To 1081,1089 To1092,1102 To 1107/AF. Lab. Sample No:6753 To 6766.

Tested

## By: -Mr.Anil R. Fadte,J.E..

## Cube test is wittnessed by Mr. R. Tirupathi., Representative of M/s South East Constructions Company on 16/09/2019.

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SR. NO.	DISCRIPTION OF SAMPLE		RESULTS		Max./Min.Value permissable	% above or <del>below</del>	REMARK
1	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/08/2019, for 90 degree bend Thrust block at Ch.1658.	28th day compressive strength	271.83	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	2.86	Quantity Represents 30.00 m3 for two sets of cubes caste on 19/08/2019
			287.69	Kg/Cm <sup>3</sup>			
			258.24	Kg/Cm <sup>2</sup>			
		Average	272.59	Kg/Cm <sup>2</sup>			
2	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/08/2019, for 90 degree bend Thrust block at Ch.1658.	28 <sup>th</sup> day	255.97	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	3.15	Do
		compressive	292.22	Kg/Cm <sup>2</sup>			
		strength	271.83	Kg/Cm <sup>2</sup>			
		Average	273.34	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/08/2019, for 45,11.25 degree bend Thrust block at Ch.2741,266.	28th day	289.95	Kg/Cm <sup>3</sup>	• 265.00 Kg/Cm <sup>2</sup>	4.57	Quantity Represents 23.00 m3 for two sets of cubes caste on 20/08/2019
3		compressive strength	283.16	Kg/Cm <sup>3</sup>			
5			258.24	Kg/Cm <sup>2</sup>			
		Average	277.12	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/08/2019, for 45,11.25 degree bend Thrust block at Ch.2741,266.	28 <sup>th</sup> day	269.57	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	4.29	Do
4		compressive	287.69	Kg/Cm <sup>2</sup>			
		strength	271.83	Kg/Cm <sup>2</sup>			
		Average	276.36	Kg/Cm <sup>2</sup>			

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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 26/08/2019, for 45 degree bend and valve chamber at Ch.210,10.	28th day compressive strength	265.04	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	3.72	Quantity Represents 30.00 m3 for two sets of cubes caste on 26/08/2019
			287.69	Kg/Cm <sup>3</sup>			
			271.83	Kg/Cm <sup>2</sup>			
		Average	274.85	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 26/08/2019, for 45 degree bend and valve chamber at Ch.210,10.	28 <sup>th</sup> day compressive strength	274.10	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	4.00	Do
6			267.30	Kg/Cm <sup>2</sup>			
0			285.42	Kg/Cm <sup>2</sup>			
		Average	275.61	Kg/Cm <sup>2</sup>			
7	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 29/08/2019, for 11.25,11.25 degree bend Thrust block at Ch.2,6 and 10 to 4550.	28th day	262.77	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	2.86	Quantity Represents 30.00 m3 for two sets of cubes caste on 29/08/2019
		compressive strength	280.89	Kg/Cm <sup>3</sup>			
			274.10	Kg/Cm <sup>2</sup>			
		Average	272.59	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 29/08/2019, for 11.25,11.25 degree bend Thrust block at Ch.2,6 and 10 to 4550.	28 <sup>th</sup> day	269.57	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup> 4.0		Do
8		compressive strength	285.42	Kg/Cm <sup>2</sup>		4.00	
0			271.83	Kg/Cm <sup>2</sup>			
		Average	275.61	Kg/Cm <sup>2</sup>			
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 03/09/2019, for anchor blocks at Ch.4550 to 6500.	28th day	271.83	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	2.58	Quantity Represents 28.00 m3 for two sets of cubes caste on 03/09/2019
9		compressive strength	262.77	Kg/Cm <sup>3</sup>			
			280.89	Kg/Cm <sup>2</sup>			
		Average	271.83	Kg/Cm <sup>2</sup>			
10	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 03/09/2019, for anchor blocks at Ch.4550 to 6500.	28 <sup>th</sup> day	283.16	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup> 2.		Do
		compressive strength	271.83	Kg/Cm <sup>2</sup>		2.29	
			258.24	Kg/Cm <sup>2</sup>			
		Average	271.08	Kg/Cm <sup>2</sup>			

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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 04/ 09 / 2019, for DI pipe embeded in RCC NH at Ch. to 6440.	28th day compressive strength	303.55	Kg/Cm <sup>3</sup>	265.00 Kg/Cm <sup>2</sup>	11.98	Quantity Represents 30.00 m3 for two sets of cubes caste on 04/09/2019	
			299.01	Kg/Cm <sup>3</sup>				
			287.69	Kg/Cm <sup>2</sup>				
		Average	296.75	Kg/Cm <sup>2</sup>				
12	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 04/09/2019, for DI pipe embeded in RCC NH at Ch. to 6440.	28 <sup>th</sup> day	287.69	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	9.99	Do	
		compressive strength	303.55	Kg/Cm <sup>2</sup>				
			283.16	Kg/Cm <sup>2</sup>				
		Average	291.46	Kg/Cm <sup>2</sup>				
	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 05/09/2019, for electrical compound gate pilars.	28th day compressive strength	308.08	Kg/Cm <sup>3</sup>	- 265.00 Kg/Cm <sup>2</sup>	11.70	Quantity Represents 15.00 m3.	
13			299.01	Kg/Cm <sup>3</sup>				
15			280.89	Kg/Cm <sup>2</sup>				
		Average	295.99	Kg/Cm <sup>2</sup>				
14	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 05/09/2019, for RCC in NH DI pipe embeded.	28 <sup>th</sup> day compressive strength	285.42	Kg/Cm <sup>2</sup>	265.00 Kg/Cm <sup>2</sup>	7.42	Do	
			305.81	Kg/Cm <sup>2</sup>				
			262.77	Kg/Cm <sup>2</sup>				
		Average	284.67	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