GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD/QC/F.6-2/Cube -T: 9952,9953,9970,9971,9983,9984,9993,9994,033,034,050,051,065,066,078 & 079 / Lab / 64 / 2020 - 21 Dated: 22/06/2020

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

Name of Work: - Construction of Barrage and up gradation of Raw water pumping station at Ganjem on Mhadei River for Augmentation of Raw water for Opa water works. Part II: Upgradation of pump house including supply and installation of pumps, motors, control panel and substation, providing and laying 1000 mm dia. D.I. pipe gravity main.

Ref. to Requisition No.: WRD/WDVI/SD I /F.216/2020-21/ **92** Dated :- 08-06-2020

Ref. to Requisition No.: WRD/WDVI/SD I /F.216/2020-21/ 100 Dated :- 16-06-2020

Qty. Recived.: 08+08 Sets of cubes Date of Receipt: -11 & 18 /06/2020. Tested on:- 11 TO 21/06/2020 as per due dates. Ref to CPWD::2009, Vol. I

Sample: RCC 1:1.5:3 Mix O.S No.: 3872,3873,3889,3890,3898,3899,3906,3907,3936,3937,3951,3952,3965,3966,3977 & 3978/SS.

Lab. Sample No.: 9188 To 9995, 9231 To 9238 Tested By: - Mrs. S.B. Naik Shirodkar, J.E.

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SR.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value	% above or	REMARK
NO.					permissable	below	
1	Cement concrete cube of mix 1:1.5:3 , cast on 14/05/2020. RCC for Thrust Block for T joint at ch. 2320 m.	28th day	289.95	Kg/Cm ²	265.00 Kg/Cm ²	6.85	Represents Qty. 8.65 Cum.
		compressive	276.36	Kg/Cm ²			
		strength	283.16	Kg/Cm ²			
		Average	283.16	Kg/Cm ²			
2	Cement concrete cube of mix 1:1.5:3 , cast on 14/05/2020. RCC for Thrust Block for bend joint at ch. 2452 m.	28th day	265.04	Kg/Cm ²	265.00 Kg/Cm ²	4.57	Represents Qty. 9.30 Cum.
		compressive	271.83	Kg/Cm ²			
		strength	294.48	Kg/Cm ²			
		Average	277.12	Kg/Cm ²			
3	Cement concrete cube of mix 1:1.5:3 , cast on 15/05/2020. RCC for Thrust Block for bend joint at ch. 2461 m.	28th day	303.55	Kg/Cm ²	265.00 Kg/Cm ²	8.85	Represents Qty. 8.70 Cum.
		compressive	283.16	Kg/Cm ²			
		strength	278.63	Kg/Cm ²			
		Average	288.44	Kg/Cm ²			
4	Cement concrete cube of mix 1:1.5:3 , cast on 15/05/2020. RCC for Thrust Block for bend joint at ch. 2586 m.	28th day	294.48	Kg/Cm ²	265.00 Kg/Cm ²	11.98	Represents Qty. 8.65 Cum.
		compressive	310.34	Kg/Cm ²			
		strength	285.42	Kg/Cm ²			
		Average	296.75	Kg/Cm ²			
5	Cement concrete cube of mix 1:1.5:3 , cast on 16/05/2020. RCC for Thrust Block for bend joint at ch. 2711 m.	28th day	310.34	Kg/Cm ²	265.00 Kg/Cm ²	13.98	Represents Qty. 6.35 Cum.
		compressive	303.55	Kg/Cm ²			
		strength	292.22	Kg/Cm ²			
		Average	302.03	Kg/Cm ²			
6	Cement concrete cube of mix 1:1.5:3 , cast on 16/05/2020. RCC for Thrust Block for bend joint at ch. 3321 m.	28th day	280.89	Kg/Cm ²	265.00 Kg/Cm ²	6.85	Represents Qty. 7.55 Cum.
		compressive	296.75	Kg/Cm ²			
		strength	271.83	Kg/Cm ²			
		Average	283.16	Kg/Cm ²			

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
7	Cement concrete cube of mix 1:1.5:3 , cast on 17/05/2020. RCC for Thrust Block for bend joint at ch. 3333 m.	28th day	294.48	Kg/Cm ²	265.00 Kg/Cm ²	10.84	Represents Qty. 6.95 Cum.
		compressive	283.16	Kg/Cm ²			
		strength	303.55	Kg/Cm ²			
		Average	293.73	Kg/Cm ²			
8	Cement concrete cube of mix 1:1.5:3 , cast on 17/05/2020. RCC for Thrust Block for bend joint at ch. 3417 m.	28th day	280.89	Kg/Cm ²		6.28	Represents Qty. 6.50 Cum.
		compressive	271.83	Kg/Cm ²	205 00 Ka/Cm²		
		strength	292.22	Kg/Cm ²	265.00 Kg/Cm ²		
		Average	281.65	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2020. RCC for Thrust Block for T joint at ch. 3467 m.	28th day	292.22	Kg/Cm ²	265.00 Kg/Cm ²	8.56	Represents Qty. 6.95 Cum.
9		compressive	276.36	Kg/Cm ²			
9		strength	294.48	Kg/Cm ²			
		Average	287.69	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2020. RCC for Thrust Block for bend joint at ch. 4272 m.	28th day	280.89	Kg/Cm ²	265.00 Kg/Cm ²	7.99	Represents Qty. 5.15 Cum.
10		compressive	305.81	Kg/Cm ²			
10		strength	271.83	Kg/Cm ²			
		Average	286.18	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2020. RCC for Thrust Block for bend joint at ch. 4337 m.	28th day	308.08	Kg/Cm ²	265.00 Kg/Cm ²	13.41	Represents Qty. 5.20 Cum.
11		compressive	283.16	Kg/Cm ²			
11		strength	310.34	Kg/Cm ²			
		Average	300.52	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2020. RCC for Thrust Block for bend joint at ch. 4408 m.	28th day	294.48	Kg/Cm ²	265.00 Kg/Cm ²	6.57	Represents Qty. 4.30 Cum.
12		compressive	280.89	Kg/Cm ²			
12		strength	271.83	Kg/Cm ²			
		Average	282.40	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2020. RCC for Thrust Block for bend joint at ch. 4638 m.	28th day	299.01	Kg/Cm ²	265.00 Kg/Cm ²	12.84	Represents Qty. 3.90 Cum.
13		compressive	305.81	Kg/Cm ²			
13		strength	292.22	Kg/Cm ²			
		Average	299.01	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2020. RCC for Thrust Block for bend joint at ch. 5260 m.	28th day	280.89	Kg/Cm ²	265.00 Kg/Cm ²	6.28	Represents Qty. 3.48 Cum.
14		compressive	274.10	Kg/Cm ²			
14		strength	289.95	Kg/Cm ²			
		Average	281.65	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2020. RCC for Thrust Block for bend joint at ch. 5629 m.	28th day	292.22	Kg/Cm ²		10.56	Represents Qty. 3.96 Cum.
15		compressive	303.55	Kg/Cm ²	265.00 Kg/Cm ²		
		strength	283.16	Kg/Cm ²	203.00 kg/ Cm		
		Average	292.97	Kg/Cm ²			
	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2020. RCC for Thrust Block for bend joint at ch. 5733 m.	28th day	289.95	Kg/Cm ²	265.00 Kg/Cm ²	6.00	Represents Qty. 4.30 Cum.
16		compressive	280.89	Kg/Cm ²			
		strength	271.83	Kg/Cm ²			
		Average	280.89	Kg/Cm ²			

^{1.}Copy to: The Assistant Engineer SD I, WD VI, WRD, Bicholim Goa.

^{2.} Copy submitted to:The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa. For kind Information.

^{3.} Copy submitted to:The Executive Engineer ,WDVI,WRD, Bicholim-Goa.

^{4.} QC Lab File. 5. Bill File.