GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T :1989,1990,1998,1999,2069,2070 / Lab / **89** / 2021 - 22 Dated:-31 /05/ 2021. Laboratory : Bicholim - Goa.

,2074,2075,2081,2082,2090,2091

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 1000mm DI pipe gravity main.

Ref. to Requisition No.:F.216/WRD/WDVI/SDI/44/20-21 Dated :- 10/05 / 2021.

Qty. Recived.: 12 Sets of cube Date of Receipt:- 10/05 / 2021. Tested on: - 24 to 29/05/2021 as per due dates. Ref to CPWD: 2009, Vol. I

Sample: Cube Mix 1:2:4 O.S No.: 6217,6218,6228,6229,6296,6297,6303,6304,6311,6312,6323,6324 /SS Lab. Sample No.: 1502 to 1513 Tested By: Mrs. Shirodkar. J.E.

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SR.					May /Min Value	0/ above or	
	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value	% above or	REMARK
NO					permissable	below	
1	Cement concrete cube of mix 1:2:4 , cast on 26/04/2021. PCC for found wall along the nallah from ch.3694m to 3704m.	28 th day	233.32	Kg/Cm ²	210.00 Kg/cm ²	10.39	Oty represents -18.00 Cum.
		compressive	235.59	Kg/Cm ²			
		strenath	226.53	Kg/Cm ²			
		Average	231.81	Kg/Cm ²			
2	Cement concrete cube of mix 1:2:4 , cast on 26/04/2021. PCC for 1 st step of wall along the nallah from ch.3664m to 3684m.	28 th day	255.97	Kg/Cm ²	210.00 Kg/cm ²	15.42	Oty represents -27.00 Cum.
		compressive	237.85	Kg/Cm ²			
_		strenath	233.32	Kg/Cm ²			
		Average	242.38	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 27/04/2021. PCC for 2 nd step of wall along the nallah from ch.3644m to 3664m along nallah.	28 th day	246.91	Kg/Cm ²	210.00 Kg/cm ²	10.03	Qty represents - 18.00 Cum.
2		compressive	228.79	Kg/Cm ²			
٦		strenath	217.47	Kg/Cm ²			
		Average	231.06	Kg/Cm ²			
4	Cement concrete cube of mix 1:2:4 , cast on 27/04/2021. PCC for 1 st step of wall along the nallah from ch.3684m to 3694m along nallah.	28 th day	242.38	Kg/Cm ²	210.00 Kg/cm ²	17.22	Qty represents - 13.50 Cum.
		compressive	260.51	Kg/Cm ²			
		strenath	235.59	Kg/Cm ²			
		Average	246.16	Kg/Cm ²			
5	Cement concrete cube of mix 1:2:4 , cast on 28/04/2021. PCC for 1 st step of wall along the nallah from ch.3694m to 3704m along nallah.	28 th day	222.00	Kg/Cm ²	210.00 Kg/cm ²	4.63	Qty represents - 13.50 Cum.
		compressive	226.53	Kg/Cm ²			
		strength	210.67	Kg/Cm ²			
		Average	219.73	Kg/Cm ²			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
6	Cement concrete cube of mix 1:2:4 , cast on 28/04/2021. PCC for 2 nd step of wall along the nallah from ch.3664m to 3684m along nallah.	28 th day	203.87	Kg/Cm ²	•		
		compressivestrenath	219.73	Kg/Cm ²	210.00 Kg/cm ²	3.91	Qty represents - 18.00 Cum.
			231.06	Kg/Cm ²			
		Average	218.22	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 29/04/2021. PCC for 3 rd step of wall along the nallah from ch.3624m to 3664m along nallah. Cement concrete cube of mix 1:2:4 , cast on 29/04/2021. PCC for 1 st step of wall along the nallah from ch.3684m to 3704m along nallah.	28 th day	226.53	Kg/Cm ²	210.00 Kg/cm ² 210.00 Kg/cm ²	14.34	Qty represents -18.00 Cum. Qty represents -27.00 Cum.
7		compressive	258.24	Kg/Cm ²			
		strenath	235.59	Kg/Cm ²			
		Average	240.12	Kq/Cm ²			
		28 th day	253.71 244.65	Kg/Cm ² Kg/Cm ²			
8		compressive strenath	233.32	Kg/Cm ²			
		Average	243.89	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 30/04/2021. PCC for 3 rd step of wall along the nallah from ch.3664m to 3704m along nallah.	28 th day	240.12	Kg/Cm ²	210.00 Kg/cm ²	7.15	Qty represents -18.00 Cum.
		compressive	uay	Kg/Cm ²			
9		strength	219.73	Kg/Cm ²			
		Average	225.02	Kg/Cm ²			
		•	217.47				
	Cement concrete cube of mix 1:2:4 , cast on 30/04/2021. PCC for found of wall along the nallah from ch.3704m to 3724m.	28 th day	235.59	Kg/Cm ²	210.00 Kg/cm ² 210.00 kg/cm ²	8.59	Qty represents -36.00 Cum.
10		compressive		Kg/Cm ²			
		strength	231.06	Kg/Cm ²			
		Average	228.04	Kg/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 01/05/2021. PCC for found of wall along the nallah from ch.3724m to 3744m.	28 th day	224.26	Kg/Cm ²	210.00 Kg/cm ²	15.42	Qty represents - 36.00 Cum.
11		compressive	258.24	Kg/Cm ²			
• •		strength	244.65	Kg/Cm ²			
		Average	242.38	Ka/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 01/05/2021. PCC for found of wall along the nallah from ch.3744m to 3764m.	28 th day	219.73	Kg/Cm ²	210 00 Kg/cm ²	9.31	Qty represents - 36.00 Cum.
12		compressive	231.06	Kg/Cm ²			
12		strength	237.85	Kg/Cm ²	210.00 Kg/cm ²		
		Average	229.55	Kg/Cm ²			

Copy to: 1. 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, WD VI, WRD, Bicholim - Goa.

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