

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T :1840 to 1843,1856,1866,1867,1877/ Lab / **78** / 2021 - 22 Dated:-22 /05/2021. Laboratory : Bicholim - Goa
,1878,1889,1890,1899,1900,1939,1940,1943,1944,1945,1953,1954,1955,1964,1965,1966 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.:WRD/ WDVI/SDI/F.W.216/2021-22/40 Dated :- 29/ 04 / 2021.

Qty. Recived. :24 Sets of cube Date of Receipt:-29 /04/ 2021. Tested on: -29,30/04/21 & 01,03,04,05,06,10,11,12,14/05/2021 as per due dates. Ref to CPWD :2009, Vol. Sample: Cube Mix 1:1.5:3 & 1:2:4 O.S

No.:6047,6048,6049,6050,6066,6079,6080,6092,6093,6106,6107/SS,56,57/RK,6157,6158,6164,6165,6166,6176,6177,6178,6189,6190,6191/SS Lab. Sample No.: 1375 to 1398 Tested By: Mrs.R.R.Kadam.A.E & Mrs.Shirodkar. J.E.

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix 1 : 2 : 4 , cast on 01/04/2021. For Bed PCC of RCC wall at Ch 3584 along Nallah.	28 th day compressive strength	235.59	Kg/Cm ²	210.00 Kg/cm ²	7.51	Qty represents - 16.00 Cum.
			226.53	Kg/Cm ²			
			215.20	Kg/Cm ²			
			Average	225.77			
2	Cement concrete cube of mix 1 : 1.5: 3 , cast on 01/04/2021. For Raft of RCC wall at Ch 3584m to 3604m along Nallah.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 28.00 Cum.
			265.04	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	272.59			
3	Cement concrete cube of mix 1 : 1.5: 3 , cast on 02/04/2021. For Raft of RCC wall at Ch 3604m to 3624m along Nallah.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	2.01	Qty represents - 28.00 Cum for two sets of cubes.
			271.83	Kg/Cm ²			
			253.71	Kg/Cm ²			
			Average	270.32			
4	Cement concrete cube of mix 1 : 1.5: 3 , cast on 02/04/2021. For Raft of RCC wall at Ch 3604m to 3624m along Nallah.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.58	----- do -----
			289.95	Kg/Cm ²			
			253.71	Kg/Cm ²			
			Average	271.83			
5	Cement concrete cube of mix 1 : 1.5: 3 , cast on 03/04/2021. For 1 st step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	3.15	Qty represents - 36.00 Cum.
			255.97	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	273.34			
6	Cement concrete cube of mix 1 : 1.5: 3 , cast on 05/04/2021. For 2 nd step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	287.69	Kg/Cm ²	265.00 Kg/cm ²	2.58	Qty represents - 17.00 Cum.
			269.57	Kg/Cm ²			
			258.24	Kg/Cm ²			
			Average	271.83			

Junior Engineer

Assistant Engineer

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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 05/04/2021. For 2 nd step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	4.86	Qty represents - 17.00 Cum.
			262.77	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
8	Cement concrete cube of mix 1 : 1.5: 3 , cast on 06/04/2021. For 3 rd step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	299.01	Kg/Cm ²	265.00 Kg/cm ²	8.56	Qty represents - 15.00 Cum.
			283.16	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	287.69	Kg/Cm²			
9	Cement concrete cube of mix 1 : 1.5: 3 , cast on 06/04/2021. For 3 rd step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	15.12	Qty represents - 15.00 Cum.
			294.48	Kg/Cm ²			
			317.14	Kg/Cm ²			
		Average	305.06	Kg/Cm²			
10	Cement concrete cube of mix 1 : 1.5: 3 , cast on 07/04/2021. For 4 th step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	317.14	Kg/Cm ²	265.00 Kg/cm ²	12.84	Qty represents - 13.00 Cum.
			308.08	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	299.01	Kg/Cm²			
11	Cement concrete cube of mix 1 : 1.5: 3 , cast on 07/04/2021. For 4 th step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.58	Qty represents - 13.00 Cum.
			260.51	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
12	Cement concrete cube of mix 1 : 1.5: 3 , cast on 08/04/2021. For 5 th step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	3.43	Qty represents - 13.00 Cum.
			258.24	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
13	Cement concrete cube of mix 1 : 1.5: 3 , cast on 08/04/2021. For 5 th step of RCC wall at Ch 3584m to 3624m along Nallah.	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 13.00 Cum.
			271.83	Kg/Cm ²			
			260.51	Kg/Cm ²			
		Average	276.36	Kg/Cm²			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
14	Cement concrete cube of mix 1 : 2: 4 , cast on 12/04/2021. For found of wall along Nallah at Ch 3624m to 3644m.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	8.23	Qty represents - 18.00 Cum.
			237.85	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	227.28	Kg/Cm²			
15	Cement concrete cube of mix 1 : 2: 4 , cast on 12/04/2021. For found of wall along Nallah at Ch 3624m to 3644m.	28 th day compressive strength	212.93	Kg/Cm ²	210.00 Kg/cm ²	6.43	Qty represents - 18.00 Cum.
			231.06	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	223.51	Kg/Cm²			
16	Cement concrete cube of mix 1 : 2: 4 , cast on 13/04/2021. For found of wall along Nallah at Ch 3644m to 3664m.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	4.63	Qty represents - 18.00 Cum.
			215.20	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	219.73	Kg/Cm²			
17	Cement concrete cube of mix 1 : 2: 4 , cast on 13/04/2021. For found of wall along Nallah at Ch 3644m to 3664m.	28 th day compressive strength	231.06	Kg/Cm ²	210.00 Kg/cm ²	4.63	Qty represents - 18.00 Cum.
			208.40	Kg/Cm ²			
			219.73	Kg/Cm ²			
		Average	219.73	Kg/Cm²			
18	Cement concrete cube of mix 1 : 2: 4 , cast on 13/04/2021. For found of wall along Nallah at Ch 3644m to 3664m.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	7.87	Qty represents - 18.00 Cum.
			219.73	Kg/Cm ²			
			222.00	Kg/Cm ²			
		Average	226.53	Kg/Cm²			
19	Cement concrete cube of mix 1 : 2: 4 , cast on 14/04/2021. For found of wall along Nallah at Ch 3644m to 3674m.	28 th day compressive strength	231.06	Kg/Cm ²	210.00 Kg/cm ²	5.71	Qty represents - 18.00 Cum.
			212.93	Kg/Cm ²			
			222.00	Kg/Cm ²			
		Average	222.00	Kg/Cm²			
20	Cement concrete cube of mix 1 : 2: 4 , cast on 14/04/2021. For 1 st step of wall along Nallah from Ch 3624m to 3644m.	28 th day compressive strength	206.14	Kg/Cm ²	210.00 Kg/cm ²	6.07	Qty represents - 27.00 Cum.
			235.59	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	222.75	Kg/Cm²			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
21	Cement concrete cube of mix 1 : 2: 4 , cast on 14/04/2021. For 1 st step of wall along Nallah from Ch 3644m to 3664m.	28 th day compressive strength	217.47	Kg/Cm ²	210.00 Kg/cm ²	6.07	Qty represents - 27.00 Cum.
			212.93	Kg/Cm ²			
			237.85	Kg/Cm ²			
		Average	222.75	Kg/Cm²			
22	Cement concrete cube of mix 1 : 2: 4 , cast on 16/04/2021. For found of wall along Nallah at Ch 3674m to 3694m.	28 th day compressive strength	217.47	Kg/Cm ²	210.00 Kg/cm ²	5.35	Qty represents - 18.00 Cum.
			226.53	Kg/Cm ²			
			219.73	Kg/Cm ²			
		Average	221.24	Kg/Cm²			
23	Cement concrete cube of mix 1 : 2: 4 , cast on 16/04/2021. For found of wall along Nallah at Ch 3674m to 3694m.	28 th day compressive strength	253.71	Kg/Cm ²	210.00 Kg/cm ²	9.31	Qty represents - 18.00 Cum.
			219.73	Kg/Cm ²			
			215.20	Kg/Cm ²			
		Average	229.55	Kg/Cm²			
24	Cement concrete cube of mix 1 : 2: 4 , cast on 16/04/2021. For 2 nd step of wall along Nallah at Ch 3624m to 3644m along nallah.	28 th day compressive strength	203.87	Kg/Cm ²	210.00 Kg/cm ²	4.27	Qty represents - 18.00 Cum.
			215.20	Kg/Cm ²			
			237.85	Kg/Cm ²			
		Average	218.98	Kg/Cm²			

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.

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