

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T :815 to 818,831 to 834,841 to 844,865, 866, / Lab / **254**/ 2020 - 21 Dated:- 19 / 02 / 2021. Laboratory : Bicholim - Goa.
868 to 871,882 to 885,901 to 904,920 to 923,943,944,949,950,958 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 III-Construction of Bank protection wall of upstream of barrage at Ganjem.

Ref. to Requisition No.:MI/ WDWI/WRD/SDII/F.62/2020-21/385 Dated :- 23/ 01 / 2021.

Qty. Recived. :35 Sets of cube Date of Receipt:- 27/ 01 / 2021. Tested on: -29,30/01/2021 & 1,2,3,4,6,8,9,10,11/2/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 1.5 : 3 O.S No. : 4837 to 4840,4855 to 4858,4868 to 4871,4892 ,4893,4896 to 4899, 4912 to 4915,4935,4936 to 4938,4958 to 4961,4985,4986,4993,4994,5002/SS Lab. Sample No.: 245 To 279 Tested By: Mrs. S.B. Naik 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 : 1.5 : 3 , cast on 01/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch0.00to 20mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	4.86	Qty represents - 20.00 Cum.
			285.42	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	277.87			
2	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 01/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch20.00 to 40mt	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 21.00 Cum.
			262.77	Kg/Cm ²			
			276.36	Kg/Cm ²			
			Average	276.36			
3	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 01/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch40 to 60mt	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 19.00 Cum.
			274.10	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	274.85			
4	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 01/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch60 to 80mt	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	3.43	Qty represents - 20.40 Cum.
			253.71	Kg/Cm ²			
			276.36	Kg/Cm ²			
			Average	274.10			
5	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 02/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch80 to 100mt	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	2.01	Qty represents - 21.00 Cum.
			267.30	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	270.32			
6	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 02/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch100 to 120mt	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 19.50 Cum.
			271.83	Kg/Cm ²			
			260.51	Kg/Cm ²			
			Average	272.59			

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 02/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch120 to 140mt	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 22.00 Cum.
			262.77	Kg/Cm ²			
			278.63	Kg/Cm ²			
			Average	277.12			
8	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 02/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch140 to 160mt	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 20.50 Cum.
			280.89	Kg/Cm ²			
			265.04	Kg/Cm ²			
			Average	276.36			
9	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 04/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch160 to 180mt	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 20.00 Cum.
			287.69	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	276.36			
10	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 04/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch180 to 120mt	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 21.50 Cum.
			280.89	Kg/Cm ²			
			289.95	Kg/Cm ²			
			Average	283.91			
11	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 04/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch0.00 to 18.35mt	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	7.99	Qty represents - 25.00 Cum.
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	286.18			
12	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 04/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch18.35 to 36.65mt	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	4.00	Qty represents - 24.50 Cum.
			292.22	Kg/Cm ²			
			260.51	Kg/Cm ²			
			Average	275.61			
13	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 05/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch36.65 to 54.95mt	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 23.00 Cum.
			271.83	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	272.59			
14	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 05/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch54.95 to 72.70mt	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	8.85	Qty represents - 22.50 Cum.
			299.01	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	288.44			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
15	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 06/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch72.70 to 90.95mt	28 th day compressive strength	312.61	Kg/Cm ²	265.00 Kg/cm ²	13.98	Qty represents - 24.50 Cum.
			276.36	Kg/Cm ²			
			317.14	Kg/Cm ²			
		Average	302.03	Kg/Cm²			
16	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 06/01/2021. For Wall IX bed D/s of O.T.B at Ganjem Left side ch90.95 to 109mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 25.00 Cum.
			262.77	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
17	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 06/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch109 to 126mt	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.28	Qty represents - 23.00 Cum.
			289.95	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	281.65	Kg/Cm²			
18	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 06/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch126 to 144.9mt	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/cm ²	9.70	Qty represents - 24.50 Cum.
			294.48	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	290.71	Kg/Cm²			
19	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch144.90 to 162.65mt	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/cm ²	7.42	Qty represents - 26.00 Cum.
			269.57	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	284.67	Kg/Cm²			
20	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/01/2021. For Wall IX 1st lift D/s of O.T.B at Ganjem Left side ch162.65 to 180.45mt	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	10.56	Qty represents - 24.50 Cum.
			292.22	Kg/Cm ²			
			308.08	Kg/Cm ²			
		Average	292.97	Kg/Cm²			
21	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch0.00 to 18.35mt	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	9.99	Qty represents - 15.00 Cum.
			299.01	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	291.46	Kg/Cm²			
22	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 07/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch18.35 to 36.65mt	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	10.84	Qty represents - 14.50 Cum.
			294.48	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	293.73	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
23	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch36.65 to 54.95mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 14.00 Cum.
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
24	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch54.95 to 72.70mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 15.50 Cum.
			262.77	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
25	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch72.70 to 90.95mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	6.85	Qty represents - 15.00 Cum.
			283.16	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	283.16	Kg/Cm²			
26	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 09/01/2021. For Wall IX II nd lift D/s of O.T.B at Ganjem Left side ch90.95 to 109mt	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 14.75 Cum.
			262.77	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
27	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch109 to 126mt	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	5.43	Qty represents - 15.25 Cum.
			280.89	Kg/Cm ²			
			299.01	Kg/Cm ²			
		Average	279.38	Kg/Cm²			
28	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch126 to 144.90mt	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	8.28	Qty represents - 16.50 Cum.
			289.95	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	286.93	Kg/Cm²			
29	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch144.90 to 162.65mt	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	1.72	Qty represents - 16.50 Cum.
			265.04	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	269.57	Kg/Cm²			
30	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 11/01/2021. For Wall IX IInd lift D/s of O.T.B at Ganjem Left side ch162.65 to 180.45mt	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	7.71	Qty represents - 15.50 Cum.
			285.42	Kg/Cm ²			
			305.81	Kg/Cm ²			
		Average	285.42	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
31	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/01/2021. For Wall IX IIIrd lift D/s of O.T.B at Ganjem Left side ch0.00 to 18.35mt	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 5.40 Cum.
			278.63	Kg/Cm ²			
			260.51	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
32	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/01/2021. For Wall IX IIIrd lift D/s of O.T.B at Ganjem Left side ch18.35 to 36.65mt	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	6.00	Qty represents - 5.50 Cum.
			280.89	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
33	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/01/2021. For Wall IX IIIrd lift D/s of O.T.B at Ganjem Left side ch36.65 to 54.95mt	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 5.60 Cum.
			265.04	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
34	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/01/2021. For Wall IX IIIrd lift D/s of O.T.B at Ganjem Left side ch54.95 to 72.70mt	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 5.30 Cum.
			283.16	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
35	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 12/01/2021. For Wall IX IIIrd lift D/s of O.T.B at Ganjem Left side ch72.70 to 90.95mt	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	8.56	Qty represents - 5.80 Cum.
			276.36	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	287.69	Kg/Cm²			

Copy to: 1. The Assistant Engineer , SD II , WD VI , WRD,Valpoi-Sattari - 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.

Junior Engineer

Assistant Engineer