

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No: WRD/QC/F.6-2/Cube -T : 5930 To 5933, 5938 To 5940/Lab/285/2022 - 23 Dated:- 21/02/2023.
5959 To 5962, 5986 To 5988, 6000 To 6002, 6014 To 6016, 6027,6028, 6038 To 6041, 6049 To 6053, 6064 To 6067,
6080 To 6084, 6106 To 6108, 6124 To 6127, 6139 To 6141.

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

Name of work : Development and Repair of Bunds, Fish tanks and Water channel of Estuarine Fish Farm at Ela-Old Goa in Tiswadi Taluka

Ref. to Requisition No : SDIV/WDI /WRD/F.38/2022-23/618 Dt.:- 17/01/2023

Qty. Recived : **50** Sets of cube Date of Receipt:- 25/01/2023. Tested on: 26,27,28,30,31/01/2023 & 01,02,03,04,06,07,09,10,11 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix **1:2:4 & 1:1.5:3** O.S No: 919,920,921,922,935,936,937,938,939/RK &

9964,9965,9966,9967,9973,9974,9975,9995,9996,9997,9998,23,24,25,37,38,39,53,54,55,68,69,79,80,81,82,91,92,93,94,95,120,121,122,143,144,145,146,161,162,163/SS.

Lab. Sample No: 5962 to 6011 Tested By: Mrs. R.R. Kadam A.E. & Mrs. S. B. Naik Shirodkar J.E.

Cube test witnessed by Shri Mohammad Shafi representative by agency M/s Assi Engineering, Civil Contractors Chandrawada, Fatorda, Margao. on 27/01/2023.

REPORT PAGE 01 OF 07

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 29/12/2022. for Apron Sluice 11.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	8.85	Qty represents - 34.00 M3 for four sets of cube.
			292.22	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	288.44	Kg/Cm²			
2	Cement concrete cube of mix 1:1.5:3 , cast on 29/12/2022. for Apron Sluice 11.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	2.86	---do--
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
3	Cement concrete cube of mix 1:1.5:3 , cast on 29/12/2022. for Apron Sluice 11.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	3.15	---do--
			283.16	Kg/Cm ²			
			258.24	Kg/Cm ²			
		Average	273.34	Kg/Cm²			
4	Cement concrete cube of mix 1:1.5:3 , cast on 29/12/2022. for Apron Sluice 11.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	2.86	---do--
			271.83	Kg/Cm ²			
			260.51	Kg/Cm ²			
		Average	272.59	Kg/Cm²			

Junior Engineer

Assistant Engineer

REPORT PAGE 02 OF 07

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
5	Cement concrete cube of mix 1:1.5:3 , cast on 30/12/2022. for Main Sluice cut off. Sluice 7 lInd Lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	1.44	Qty represents - 23.00 M3 for three sets of cube.
			280.89	Kg/Cm ²			
			253.71	Kg/Cm ²			
		Average	268.81	Kg/Cm²			
6	Cement concrete cube of mix 1:1.5:3 , cast on 30/12/2022. for Main Sluice cut off. Sluice 7 lInd Lift.	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	3.72	---do--
			265.04	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
7	Cement concrete cube of mix 1:1.5:3 , cast on 30/12/2022. for Main Sluice cut off. Sluice 7 lInd Lift.	28 th day compressive strength	249.18	Kg/Cm ²	265.00 Kg/cm ²	3.43	---do--
			292.22	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
8	Cement concrete cube of mix 1:1.5:3 , cast on 31/12/2022. for Apron Main Sluice.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 42.00 M3 for four sets of cube.
			269.57	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
9	Cement concrete cube of mix 1:1.5:3 , cast on 31/12/2022. for Apron Main Sluice.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	1.15	---do--
			278.63	Kg/Cm ²			
			253.71	Kg/Cm ²			
		Average	268.06	Kg/Cm²			
10	Cement concrete cube of mix 1:1.5:3 , cast on 31/12/2022. for Apron Main Sluice.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	5.43	---do--
			265.04	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	279.38	Kg/Cm²			
11	Cement concrete cube of mix 1:1.5:3 , cast on 31/12/2022. for Apron Main Sluice.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	2.86	---do--
			283.16	Kg/Cm ²			
			249.18	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
12	Cement concrete cube of mix 1:1.5:3 , cast on 02/01/2023. for Sluice 11 1st Lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 19.00 M3 for three sets of cube.
			292.22	Kg/Cm ²			
			260.51	Kg/Cm ²			
		Average	274.85	Kg/Cm²			

Junior Engineer

Assistant Engineer

REPORT PAGE 03 OF 07

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
13	Cement concrete cube of mix 1:1.5:3 , cast on 02/01/2023. for Sluice 11 1st Lift.	28 th day compressive strength	255.97	Ka/Cm ²	265.00 Kg/cm ²	2.29	Qty represents - 19.00 M3 for three sets of cube.
			276.36	Ka/Cm ²			
			280.89	Ka/Cm ²			
		Average	271.08	Ka/Cm²			
14	Cement concrete cube of mix 1:1.5:3 , cast on 02/01/2023. for Sluice 11 1st Lift.	28 th day compressive strength	287.69	Ka/Cm ²	265.00 Kg/cm ²	3.72	---do--
			271.83	Ka/Cm ²			
			265.04	Ka/Cm ²			
		Average	274.85	Ka/Cm²			
15	Cement concrete cube of mix 1:1.5:3 , cast on 03/01/2023. for Sluice 7 Illrd Lift. Sluice 11 IInd Lift.	28 th day compressive strength	255.97	Ka/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 19.00 M3 for three sets of cube.
			289.95	Ka/Cm ²			
			271.83	Ka/Cm ²			
		Average	272.59	Ka/Cm²			
16	Cement concrete cube of mix 1:1.5:3 , cast on 03/01/2023. for Sluice 7 Illrd Lift. Sluice 11 IInd Lift.	28 th day compressive strength	267.30	Ka/Cm ²	265.00 Kg/cm ²	4.57	---do--
			283.16	Ka/Cm ²			
			280.89	Ka/Cm ²			
		Average	277.12	Ka/Cm²			
17	Cement concrete cube of mix 1:1.5:3 , cast on 03/01/2023. for Sluice 7 Illrd Lift. Sluice 11 IInd Lift.	28 th day compressive strength	276.36	Ka/Cm ²	265.00 Kg/cm ²	4.00	---do--
			292.22	Ka/Cm ²			
			258.24	Ka/Cm ²			
		Average	275.61	Ka/Cm²			
18	Cement concrete cube of mix 1:1.5:3 , cast on 04/01/2023. for Main Sluice Ist Lift. Sluice 11 Illrd Lift.	28 th day compressive strength	265.04	Ka/Cm ²	265.00 Kg/cm ²	2.01	Qty represents - 18.00 M3 for three sets of cube.
			267.30	Ka/Cm ²			
			278.63	Ka/Cm ²			
		Average	270.32	Ka/Cm²			
19	Cement concrete cube of mix 1:1.5:3 , cast on 04/01/2023. for Main Sluice Ist Lift. Sluice 11 Illrd Lift.	28 th day compressive strength	260.51	Ka/Cm ²	265.00 Kg/cm ²	4.29	---do--
			287.69	Ka/Cm ²			
			280.89	Ka/Cm ²			
		Average	276.36	Ka/Cm²			
20	Cement concrete cube of mix 1:1.5:3 , cast on 04/01/2023. for Main Sluice Ist Lift. Sluice 11 Illrd Lift.	28 th day compressive strength	276.36	Ka/Cm ²	265.00 Kg/cm ²	4.57	---do--
			283.16	Ka/Cm ²			
			271.83	Ka/Cm ²			
		Average	277.12	Ka/Cm²			

Junior Engineer

Assistant Engineer

REPORT PAGE 04 OF 07

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
21	Cement concrete cube of mix 1:1.5:3 , cast on 05/01/2023. for Main Sluice IInd Lift. Main Sluice Ist Lift.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	2.86	Qty represents - 12.00 M3 for two sets of cube.
			262.77	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	272.59			
22	Cement concrete cube of mix 1:1.5:3 , cast on 05/01/2023. for Main Sluice IInd Lift. Main Sluice Ist Lift.	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	3.15	---do--
			289.95	Kg/Cm ²			
			249.18	Kg/Cm ²			
			Average	273.34			
23	Cement concrete cube of mix 1:2:4 , cast on 06/01/2023. for LHS R.W. fd.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	10.39	Qty represents - 44.00 M3 for four sets of cube.
			215.20	Kg/Cm ²			
			253.71	Kg/Cm ²			
			Average	231.81			
24	Cement concrete cube of mix 1:2:4 , cast on 06/01/2023. for LHS R.W. fd.	28 th day compressive strength	260.51	Kg/Cm ²	210.00 Kg/cm ²	16.14	---do--
			244.65	Kg/Cm ²			
			226.53	Kg/Cm ²			
			Average	243.89			
25	Cement concrete cube of mix 1:2:4 , cast on 06/01/2023. for LHS R.W. fd.	28 th day compressive strength	253.71	Kg/Cm ²	210.00 Kg/cm ²	13.26	---do--
			235.59	Kg/Cm ²			
			224.26	Kg/Cm ²			
			Average	237.85			
26	Cement concrete cube of mix 1:2:4 , cast on 06/01/2023. for LHS R.W. fd.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	9.31	---do--
			224.26	Kg/Cm ²			
			237.85	Kg/Cm ²			
			Average	229.55			
27	Cement concrete cube of mix 1:2:4 , cast on 07/01/2023. for RHS R.W. fd.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	10.39	Qty represents - 76.00 M3 for five sets of cube.
			219.73	Kg/Cm ²			
			237.85	Kg/Cm ²			
			Average	231.81			
28	Cement concrete cube of mix 1:2:4 , cast on 07/01/2023. for RHS R.W. fd.	28 th day compressive strength	246.91	Kg/Cm ²	210.00 Kg/cm ²	11.11	---do--
			226.53	Kg/Cm ²			
			226.53	Kg/Cm ²			
			Average	233.32			

Junior Engineer

Assistant Engineer

REPORT PAGE 05 OF 07

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
29	Cement concrete cube of mix 1:2:4 , cast on 07/01/2023. for RHS R.W. fd.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	4.99	Qty represents - 76.00 M3 for five sets of cube.
			215.20	Kg/Cm ²			
			219.73	Kg/Cm ²			
		Average	220.49	Kg/Cm²			
30	Cement concrete cube of mix 1:2:4 , cast on 07/01/2023. for RHS R.W. fd.	28 th day compressive strength	224.26	Kg/Cm ²	210.00 Kg/cm ²	6.43	---do--
			237.85	Kg/Cm ²			
			208.40	Kg/Cm ²			
		Average	223.51	Kg/Cm²			
31	Cement concrete cube of mix 1:2:4 , cast on 07/01/2023. for RHS R.W. fd.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	3.91	---do--
			224.26	Kg/Cm ²			
			203.87	Kg/Cm ²			
		Average	218.22	Kg/Cm²			
32	Cement concrete cube of mix 1:2:4 , cast on 09/01/2023. for LHS R.W. Ist Lift.	28 th day compressive strength	219.73	Kg/Cm ²	210.00 Kg/cm ²	4.99	Qty represents - 44.00 M3 for four sets of cube.
			215.20	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	220.49	Kg/Cm²			
33	Cement concrete cube of mix 1:2:4 , cast on 09/01/2023. for LHS R.W. Ist Lift.	28 th day compressive strength	208.40	Kg/Cm ²	210.00 Kg/cm ²	2.48	---do--
			219.73	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	215.20	Kg/Cm²			
34	Cement concrete cube of mix 1:2:4 , cast on 09/01/2023. for LHS R.W. Ist Lift.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	8.59	---do--
			231.06	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	228.04	Kg/Cm²			
35	Cement concrete cube of mix 1:2:4 , cast on 09/01/2023. for LHS R.W. Ist Lift.	28 th day compressive strength	215.20	Kg/Cm ²	210.00 Kg/cm ²	6.43	---do--
			224.26	Kg/Cm ²			
			231.06	Kg/Cm ²			
		Average	223.51	Kg/Cm²			

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Assistant Engineer

REPORT PAGE 06 OF 07

36	Cement concrete cube of mix 1:2:4 , cast on 10/01/2023. for RHS R.W. Ist Lift.	28 th day compressive strength	260.51	Kg/Cm ²	210.00 Kg/cm ²	16.14	Qty represents - 68.00 M3 for five sets of cube.
			244.65	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	243.89	Kg/Cm²			
37	Cement concrete cube of mix 1:2:4 , cast on 10/01/2023. for RHS R.W. Ist Lift.	28 th day compressive strength	219.73	Kg/Cm ²	210.00 Kg/cm ²	3.91	---do--
			226.53	Kg/Cm ²			
			208.40	Kg/Cm ²			
		Average	218.22	Kg/Cm²			
38	Cement concrete cube of mix 1:2:4 , cast on 10/01/2023. for RHS R.W. Ist Lift.	28 th day compressive strength	203.87	Kg/Cm ²	210.00 Kg/cm ²	3.20	---do--
			222.00	Kg/Cm ²			
			224.26	Kg/Cm ²			
		Average	216.71	Kg/Cm²			
39	Cement concrete cube of mix 1:2:4 , cast on 10/01/2023. for RHS R.W. Ist Lift.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	3.91	---do--
			210.67	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	218.22	Kg/Cm²			
40	Cement concrete cube of mix 1:2:4 , cast on 10/01/2023. for RHS R.W. Ist Lift.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	11.11	---do--
			226.53	Kg/Cm ²			
			235.59	Kg/Cm ²			
		Average	233.32	Kg/Cm²			
41	Cement concrete cube of mix 1:2:4 , cast on 12/01/2023. for LHS R.W. IInd Lift.	28 th day compressive strength	210.67	Kg/Cm ²	210.00 Kg/cm ²	6.07	Qty represents - 20.00 M3 for three sets of cube.
			226.53	Kg/Cm ²			
			231.06	Kg/Cm ²			
		Average	222.75	Kg/Cm²			
42	Cement concrete cube of mix 1:2:4 , cast on 12/01/2023. for LHS R.W. IInd Lift.	28 th day compressive strength	222.00	Kg/Cm ²	210.00 Kg/cm ²	4.99	---do--
			203.87	Kg/Cm ²			
			235.59	Kg/Cm ²			
		Average	220.49	Kg/Cm²			
43	Cement concrete cube of mix 1:2:4 , cast on 12/01/2023. for LHS R.W. IInd Lift.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	9.67	---do--
			235.59	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	230.30	Kg/Cm²			

Junior Engineer

Assistant Engineer

REPORT PAGE 07 OF 07

44	Cement concrete cube of mix 1:2:4 , cast on 13/01/2023. for RHS R.W. IIInd Lift.	28 th day compressive strength	210.67	Kg/Cm ²	210.00 Kg/cm ²	6.07	Qty represents - 30.00 M3 for four sets of cube.
			231.06	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	222.75	Kg/Cm²			
45	Cement concrete cube of mix 1:2:4 , cast on 13/01/2023. for RHS R.W. IIInd Lift.	28 th day compressive strength	219.73	Kg/Cm ²	210.00 Kg/cm ²	5.35	---do--
			215.20	Kg/Cm ²			
			228.79	Kg/Cm ²			
		Average	221.24	Kg/Cm²			
46	Cement concrete cube of mix 1:2:4 , cast on 13/01/2023. for RHS R.W. IIInd Lift.	28 th day compressive strength	231.06	Kg/Cm ²	210.00 Kg/cm ²	4.27	---do--
			208.40	Kg/Cm ²			
			217.47	Kg/Cm ²			
		Average	218.98	Kg/Cm²			
47	Cement concrete cube of mix 1:2:4 , cast on 13/01/2023. for RHS R.W. IIInd Lift.	28 th day compressive strength	215.20	Kg/Cm ²	210.00 Kg/cm ²	4.63	---do--
			217.47	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	219.73	Kg/Cm²			
48	Cement concrete cube of mix 1:1.5:3 , cast on 14/01/2023. for LHS R.W. IIIrd Lift.	28 th day compressive strength	249.18	Kg/Cm ²	265.00 Kg/cm ²	3.43	Qty represents - 15.00 M3 for three sets of cube.
			283.16	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
49	Cement concrete cube of mix 1:1.5:3 , cast on 14/01/2023. for LHS R.W. IIIrd Lift.	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	4.57	---do--
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
50	Cement concrete cube of mix 1:1.5:3 , cast on 14/01/2023. for LHS R.W. IIIrd Lift.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	6.28	---do--
			271.83	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	281.65	Kg/Cm²			

Copy to: 1. The Assistant Engineer , SD IV , WD I, WRD, Porvorim- 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 I, WRD, Porvorim- Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

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