

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No: WRD/QC/F.6-2/Cube -T : 6347 To 6350, 6355 To 6358/Lab/05/2022 - 23 Dated:- 04/04/2023.
6361 To 6364, 6366 To 5369, 6373 To 6376, 6378 To 6381, 6383 To 6386, 6489 To 6492, 6532 To 6535.

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

Name of work : Augmentation of Right Bank Main Canal of T.I.P at ch 12.950 km from Kalna river to secure uninterrupted raw water supply for drinking, agricultural and industrial purpose during the annual canal maintenance period of TIP dam and its appurtenances.

Ref. to Requisition No : IV/WDVII/WRD/F.19/2022-23/132 Dt.:- 09/03/2023

Qty. Recived. : 36 Sets of cube Date of Receipt:- 09/03/2023. Tested on: 09,10,11,12,13,14,15,27,31/03/2023 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1:2:4 & 1:1.5:3 O.S No: 995,996,997,998/RK. &

374,375,376,377,381,382,383,384,386,387,388,389,394,395,396,397,401,402,403,404,409,410,411,412,507,508,509,510,541,542,543,544/SS.

Lab.

Sample No: 6418 to 6453 Tested By: Mrs. R.R. Kadam A.E. & Mrs. S. B. Naik Shirodkar J.E.

Cube test witnessed by Shri. CH Gopi representative by agency M/s. South East Constructions Pvt. Ltd, Chennai On 09,10 & 13/03/2023.

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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 09/02/2023. PCC for Thrust block ch 190,270,280,285,290,380 Anchor blocks ch 100 to 700 chamber at ch 1300.	28 th day compressive strength	206.14	Kg/Cm ²	210.00 Kg/cm ²	4.27	Qty represents - 15.00 Cum.
			215.20	Kg/Cm ²			
			235.59	Kg/Cm ²			
			Average	218.98			
2	Cement concrete cube of mix 1:2:4, cast on 09/02/2023. PCC for Thrust block ch 800,810,815,1020,1025,1050 Anchor blocks ch 1000 to 1300.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	6.79	Qty represents - 30.00 Cum.
			226.53	Kg/Cm ²			
			208.40	Kg/Cm ²			
			Average	224.26			
3	Cement concrete cube of mix 1:2:4, cast on 09/02/2023. PCC for Thrust block 1055,1200,1250,1300 Anchor blocks ch 700 to 1000.	28 th day compressive strength	231.06	Kg/Cm ²	210.00 Kg/cm ²	2.84	Qty represents - 15.00 Cum.
			212.93	Kg/Cm ²			
			203.87	Kg/Cm ²			
			Average	215.95			
4	Cement concrete cube of mix 1:2:4, cast on 09/02/2023. PCC for Raft to pipe ch 190 to 845 and 925 to 1285 Drain 1 at ch 280, drain 2 at ch 573, drain 3 ch 710.	28 th day compressive strength	199.34	Kg/Cm ²	210.00 Kg/cm ²	2.12	Qty represents - 15.00 Cum.
			226.53	Kg/Cm ²			
			217.47	Kg/Cm ²			
			Average	214.44			

Junior Engineer

Assistant Engineer

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
5	Cement concrete cube of mix 1:1.5:3 , cast on 10/02/2023. RCC for Raft of chamber at ch 1300 and hauch.	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	2.58	Qty represents - 40.00 Cum for four sets of cube.
			249.18	Kg/Cm ²			
			299.01	Kg/Cm ²			
			Average	271.83			
6	Cement concrete cube of mix 1:1.5:3 , cast on 10/02/2023. RCC for Raft of chamber at ch 1300 and hauch.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	3.43	---do--
			274.10	Kg/Cm ²			
			294.48	Kg/Cm ²			
			Average	274.10			
7	Cement concrete cube of mix 1:1.5:3 , cast on 10/02/2023. RCC for Raft of chamber at ch 1300 and hauch.	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	3.15	---do--
			260.51	Kg/Cm ²			
			269.57	Kg/Cm ²			
			Average	273.34			
8	Cement concrete cube of mix 1:1.5:3 , cast on 10/02/2023. RCC for Raft of chamber at ch 1300 and hauch.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	4.00	---do--
			276.36	Kg/Cm ²			
			287.69	Kg/Cm ²			
			Average	275.61			
9	Cement concrete cube of mix 1:1.5:3 , cast on 11/02/2023. RCC for First lift wall of chamber ch 1300.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 50.00 Cum for four sets of cube.
			283.16	Kg/Cm ²			
			289.95	Kg/Cm ²			
			Average	278.63			
10	Cement concrete cube of mix 1:1.5:3 , cast on 11/02/2023. RCC for First lift wall of chamber ch 1300.	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	2.29	---do--
			265.04	Kg/Cm ²			
			289.95	Kg/Cm ²			
			Average	271.08			
11	Cement concrete cube of mix 1:1.5:3 , cast on 11/02/2023. RCC for First lift wall of chamber ch 1300.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.86	---do--
			283.16	Kg/Cm ²			
			278.63	Kg/Cm ²			
			Average	277.87			
12	Cement concrete cube of mix 1:1.5:3 , cast on 11/02/2023. RCC for First lift wall of chamber ch 1300.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	4.00	---do--
			280.89	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	275.61			

Junior Engineer

Assistant Engineer

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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 12/02/2023. RCC for Second lift wall of chamber ch 1300 RCC drain (Drain 1 at ch 280, drain 2 at ch 573, drain 3 ch 710) 10m.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 50.00 Cum for four sets of cube.
			303.55	Kg/Cm ²			
			269.57	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
14	Cement concrete cube of mix 1:1.5:3 , cast on 12/02/2023. RCC for Second lift wall of chamber ch 1300 RCC drain (Drain 1 at ch 280, drain 2 at ch 573, drain 3 ch 710) 10m.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	6.85	---do--
			294.48	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	283.16	Kg/Cm²			
15	Cement concrete cube of mix 1:1.5:3 , cast on 12/02/2023. RCC for Second lift wall of chamber ch 1300 RCC drain (Drain 1 at ch 280, drain 2 at ch 573, drain 3 ch 710) 10m.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	2.58	---do--
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
16	Cement concrete cube of mix 1:1.5:3 , cast on 12/02/2023. RCC for Second lift wall of chamber ch 1300 RCC drain (Drain 1 at ch 280, drain 2 at ch 573, drain 3 ch 710) 10m.	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	3.43	---do--
			285.42	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
17	Cement concrete cube of mix 1:1.5:3 , cast on 13/02/2023. RCC for Thrust block ch 190,270,280,285,290.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.29	Qty represents - 50.00 Cum for four sets of cube.
			260.51	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	271.08	Kg/Cm²			
18	Cement concrete cube of mix 1:1.5:3 , cast on 13/02/2023. RCC for Thrust block ch 190,270,280,285,290.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.58	---do--
			276.36	Kg/Cm ²			
			267.30	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
19	Cement concrete cube of mix 1:1.5:3 , cast on 13/02/2023. RCC for Thrust block ch 190,270,280,285,290.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	3.15	---do--
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	273.34	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
20	Cement concrete cube of mix 1:1.5:3 , cast on 13/02/2023. RCC for Thrust block ch 190,270,280,285,290.	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 50.00 Cum for four sets of cube.
			271.83	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
21	Cement concrete cube of mix 1:1.5:3 , cast on 14/02/2023. RCC for Thrust block ch 380,800,810,815,1020.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 50.00 Cum for four sets of cube.
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
22	Cement concrete cube of mix 1:1.5:3 , cast on 14/02/2023. RCC for Thrust block ch 380,800,810,815,1020.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	2.58	---do--
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
23	Cement concrete cube of mix 1:1.5:3 , cast on 14/02/2023. RCC for Thrust block ch 380,800,810,815,1020.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	3.72	---do--
			271.83	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
24	Cement concrete cube of mix 1:1.5:3 , cast on 14/02/2023. RCC for Thrust block ch 380,800,810,815,1020.	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	3.15	---do--
			258.24	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	273.34	Kg/Cm²			
25	Cement concrete cube of mix 1:1.5:3 , cast on 15/02/2023. RCC for Thrust block ch 1025,1050,1055,1200,1250.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 50.00 Cum for four sets of cube.
			292.22	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	278.63	Kg/Cm²			
26	Cement concrete cube of mix 1:1.5:3 , cast on 15/02/2023. RCC for Thrust block ch 1025,1050,1055,1200,1250.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	2.01	---do--
			289.95	Kg/Cm ²			
			267.30	Kg/Cm ²			
		Average	270.32	Kg/Cm²			
27	Cement concrete cube of mix 1:1.5:3 , cast on 15/02/2023. RCC for Thrust block ch 1025,1050,1055,1200,1250.	28 th day compressive strength	249.18	Kg/Cm ²	265.00 Kg/cm ²	1.15	---do--
			271.83	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	268.06	Kg/Cm²			

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Assistant Engineer

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
28	Cement concrete cube of mix 1:1.5:3 , cast on 15/02/2023. RCC for Thrust block ch 1025,1050,1055,1200,1250.	28 th day compressive strength	246.91	Kg/Cm ²	265.00 Kg/cm ²	2.29	Qty represents - 50.00 Cum for four sets of cube.
			271.83	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	271.08	Kg/Cm²			
29	Cement concrete cube of mix 1:2:4 , cast on 27/02/2023. PCC for Drain, Thrust block and raft to pipe compound wall.	28 th day compressive strength	203.87	Kg/Cm ²	210.00 Kg/cm ²	3.20	Qty represents - 50.00 Cum for four sets of cube.
			215.20	Kg/Cm ²			
			231.06	Kg/Cm ²			
		Average	216.71	Kg/Cm²			
30	Cement concrete cube of mix 1:2:4 , cast on 27/02/2023. PCC for Drain, Thrust block and raft to pipe compound wall.	28 th day compressive strength	219.73	Kg/Cm ²	210.00 Kg/cm ²	3.91	---do--
			208.40	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	218.22	Kg/Cm²			
31	Cement concrete cube of mix 1:2:4 , cast on 27/02/2023. PCC for Drain, Thrust block and raft to pipe compound wall.	28 th day compressive strength	231.06	Kg/Cm ²	210.00 Kg/cm ²	4.63	---do--
			226.53	Kg/Cm ²			
			201.61	Kg/Cm ²			
		Average	219.73	Kg/Cm²			
32	Cement concrete cube of mix 1:2:4 , cast on 27/02/2023. PCC for Drain, Thrust block and raft to pipe compound wall.	28 th day compressive strength	217.47	Kg/Cm ²	210.00 Kg/cm ²	3.91	---do--
			224.26	Kg/Cm ²			
			212.93	Kg/Cm ²			
		Average	218.22	Kg/Cm²			
33	Cement concrete cube of mix 1:2:4 , cast on 03/03/2023. PCC for Thrust block ch 1300 Anchor blocks ch 100 to 700.	28 th day compressive strength	226.53	Kg/Cm ²	210.00 Kg/cm ²	5.35	Qty represents - 50.00 Cum for four sets of cube.
			217.47	Kg/Cm ²			
			219.73	Kg/Cm ²			
		Average	221.24	Kg/Cm²			
34	Cement concrete cube of mix 1:2:4 , cast on 03/03/2023. PCC for Thrust block ch 1300 Anchor blocks ch 100 to 700.	28 th day compressive strength	224.26	Kg/Cm ²	210.00 Kg/cm ²	9.67	---do--
			240.12	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	230.30	Kg/Cm²			

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Assistant Engineer

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
35	Cement concrete cube of mix 1:2:4 , cast on 03/03/2023. PCC for Thrust block ch 1300 Anchor blocks ch 100 to 700.	28 th day compressive strength	224.26	Kg/Cm ²	210.00 Kg/cm ²	12.18	Qty represents - 50.00 Cum for four sets of cube.
			246.91	Kg/Cm ²			
			235.59	Kg/Cm ²			
		Average	235.59	Kg/Cm²			
36	Cement concrete cube of mix 1:2:4 , cast on 03/03/2023. PCC for Thrust block ch 1300 Anchor blocks ch 100 to 700.	28 th day compressive strength	237.85	Kg/Cm ²	210.00 Kg/cm ²	10.75	---do--
			233.32	Kg/Cm ²			
			226.53	Kg/Cm ²			
		Average	232.57	Kg/Cm²			

Copy to: 1. The Assistant Engineer, SDIV, WDVII, WRD, Dhargal, Pernem- Goa.

2. Copy submitted to The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa for kind Information.

3. Copy submitted to The Executive Engineer, WDVII, WRD, Dhargal, Pernem- Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

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