GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

<u>Test Report No.</u>: WRD/Q.C./F.6-4/ Aggr -T- 9390 , 9391 /Lab/ 176 /2019-20 Sand –T: 4888 , Cement: 1086.

Dated: 11/06/2019. Laboratory: Bicholim

Sub Div: V (QC)/WRD/Bicholim Goa.

Sub: Construction of Protection wall near Raampurus Bhawani Temple at Bagwada Agarwada, V.P. Agarwada, Chopde under Mandrem Constituency in Pernem Taluka.

<u>Ref to requisition No</u>: SDIII/WDI/WRD/W.F. 32/2019-20/ Dated: 06/06/2019.

 Oty. Received:
 1 bags each
 Date of Receipt:
 06/06/2019
 Tested on:
 10 & 11/06/2019
 Ref to Specification:
 CPWD 2002, Vol. I & IS:4031-4-1988

 Sample:
 Sand, 20mm,
 O.S. No.
 2203,2204,2184 & 2183 /SS
 Lab. Sample No.:
 5093 To 5096 Tested by:
 Mrs. S. B. Naik Shirodkar.JE.

12.5mm size aggrt. & cement.

R E P O RT 01 OF 01

Sr. No.	Description of samp	ple Tested for	Results	Max. /Min. value permissible	Remarks
1.	<u>20 mm Size Aggr</u>	regate: Particle size distribution:	It is single sized aggrega	ate of 20 mm nominal size. (Qty. rep.	$ m^{3}$
2.	12.5 mm Size Ag	<u>gregate</u> : Particle size distribution:	It is not single sized agg	regate of 12.5 mm nominal size. (Qty. rep	${m^{3}}$
		<u>REMARK</u> : After blending	g 20 mm aggregate with 12	.5 mm aggregates at the ratio of <u>1:2</u> by	weight; it is
		satisfying th	ne required criteria for gra	ded aggregate of 20 mm nominal size.	
3.	Sand: i)	Silt & Clay by S.A. method : - 3.	.80%		
	(L.S.No.5095) ii)) Silt by sedimentation : - 4.	.65%		
	iii) Fineness Modulus : - 2.	.28		
	iv)	Grading Zone : - II	Ι		
		<u>REMARK</u> : 1	The observed results are wi	thin the permissible limits of the coarse	sand.
4.	Cement:	i) Fineness of Cement	: 1.08 % (It should not	be more than 10%)
	J.K cement, bearing IS:269		i) Consistency of cement	: 31.00% (It should be in the neight	porhood of 35%)
	Ordinary Portland cement, iii		i) Initial Setting Time	: 160 minutes (It should not be l	ess than 30 minutes)
	Manuf. date: Week 21, Month 05, Year'2019. iv) Final Settin			: 270 minutes (It should not be mo	ore than 600 minutes)
	CM/L = 0003401033				· · · · · · · · · · · · · · · · · · ·
	Qty. rep. –				
	- · ·		K• The observed results a	re within the permissible limit for Ordin	nary Portland cement

Copy to: 1. The Assistant Engineer, SDIII, WDI, WRD, Pernem – Goa.

2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.

3. Copy Submitted to The Executive Engineer, W.D. I, WRD, Porvorim – Goa.

4. Q.C. Lab file 5. Bill File.