









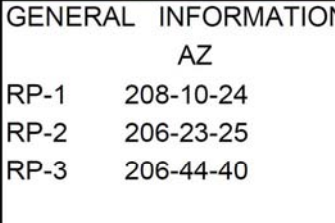










CONTROL POINT DESCRIPTION			POINT No. BM.12-1		
			DATE 5/24/2011		
PROJECT	BRIDGE 12		LOCATION	MOZAMBIQUE	
ZONE 37 PROJECTION U.T.M.			VERTICAL DATUM (M.S.L)		
SCALE FACTOR			HORIZONTAL DATUM WGS1984		
CO - ORDINATE			GEOGRAPHIC CO - ORDINATE		
POINT	SOUTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
BM.12-1	8327597.387	244506.824			582.342
<u>DESCRIPTION OF MARK</u>			<u>DIAGRAMS</u>		
BOLT ON CONCRETE					
LOCATION					
					
RP1	RP2		RP3		
					
GENERAL INFORMATION					
	AZ		DISTANCE		DESC
RP-1	328-13-23		54.644		box culvert
RP-2	327-35-10		63.049		box culvert
RP-3	331-14-48		64.997		old benchmark

*Preparatory Survey Report (Outline Design Study)
on the Project for Construction of Bridges on the Road
between Ile and Cuamba in the Republic of Mozambique*

CONTROL POINT DESCRIPTION			POINT No. BM.12-2		
			DATE 5/24/2011		
PROJECT	BRIDGE 12		LOCATION	MOZAMBIQUE	
ZONE 37 PROJECTION U.T.M.			VERTICAL DATUM (M.S.L)		
SCALE FACTOR			HORIZONTAL DATUM WGS1984		
CO - ORDINATE			GEOGRAPHIC CO - ORDINATE		
POINT	SOUTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
BM.12-2	8327817	244625			586
<u>DESCRIPTION OF MARK</u>			<u>DIAGRAMS</u>		
BOLT ON CONCRETE					
LOCATION					
					
					
RP1			RP2		
			RP3		
GENERAL INFORMATION					
	AZ		DISTANCE		DESC
RP-1	208-10-24		141.082		bridge
RP-2	206-23-25		141.577		bridge
RP-3	206-44-40		152.978		bridge

CONTROL POINT DESCRIPTION			POINT No. BM.13-1		
			DATE 5/24/2011		
PROJECT	BRIDGE 13		LOCATION	MOZAMBIQUE	
ZONE 37 PROJECTION U.T.M.			VERTICAL DATUM (M.S.L)		
SCALE FACTOR			HORIZONTAL DATUM WGS1984		
CO - ORDINATE			GEOGRAPHIC CO - ORDINATE		
POINT	SOUTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
BM.13-1	8359344.746	235112.189			566.854
<u>DESCRIPTION OF MARK</u>			<u>DIAGRAMS</u>		
BOLT ON CONCRETE					
LOCATION					
					
					
RP1			RP2		
			RP3		
GENERAL INFORMATION					
	AZ		DISTANCE		DESC
RP-1	35-53-40		11.492		tree
RP-2	274-30-37		11.801		traffic sign
RP-3	173-52-50		16.041		house

*Preparatory Survey Report (Outline Design Study)
on the Project for Construction of Bridges on the Road
between Ile and Cuamba in the Republic of Mozambique*

CONTROL POINT DESCRIPTION			POINT No. BM.13-2		
			DATE 5/24/2011		
PROJECT	BRIDGE 13		LOCATION	MOZAMBIQUE	
ZONE 37 PROJECTION	U.T.M.		VERTICAL DATUM	(M.S.L)	
SCALE FACTOR			HORRIZONTAL DATUM	WGS1984	
CO - ORDINATE			GEOGRAPHIC CO - ORDINATE		
POINT	SOUTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
BM.13-2	8359761.000	235133.000			567
<u>DESCRIPTION OF MARK</u>			<u>DIAGRAMS</u>		
BOLT ON CONCRETE					
LOCATION					
					
					
RP1	RP2		RP3		
					
GENERAL INFORMATION					
	AZ		DISTANCE		DESC
RP-1	181-18-32		34.012		traffic sign
RP-2	357-16-47		27.097		traffic sign
RP-3	80-04-07		25.587		house

6.5 Rainfall Data

Table Rainfall Data



República de Moçambique

Instituto Nacional de Meteorologia

Caixa Postal 256 - MAPUTO

Telex: OBSERTOR - Telef.: 490064-490148-492530 - Fax: 491150 - Telex: SMDMP 6-259

Nº80-05/NF-DAD

Maputo, 31 de Março de 2009

Ao

JCA STUDY TEAM
Oriental Consultants, Ltd

MAPUTO

Table with columns for AnosMes (1-12), Estação: Cuamba, Elemento: Precipitação total diária (das 9 as 9 horas em mm), and Periodo 1960-2008. The table contains 48 rows of monthly rainfall data for various years from 1960 to 2008.

Preparatory Survey Report (Outline Design Study)
on the Project for Construction of Bridges on the Road
between Ile and Cuamba in the Republic of Mozambique

1993-01	01	00	83	30	11	186	01	1.6	27	96	602	63	55	83	145	16	48	247	35	00	11	21	46	00	41	298	00	11	00	00	00					
1993-02	00	00	00	41	03	115	71	175	05	02	00	00	00	44	37	79	20	36	04	94	35	36	00	125	105	41	388	02	472	2	-	-				
1993-03	00	19	04	00	00	07	290	427	00	00	12	00	00	00	00	80	90	10	00	00	00	105	00	01	36	150	00	00	00	00	00					
1993-04	00	00	00	00	00	00	00	00	00	00	215	00	46	00	00	00	116	00	00	00	00	00	223	166	06	00	00	00	00	00	00	00				
1993-05	44	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00				
1993-06	00	00	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00				
1993-07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			
1993-08	34	00	00	00	00	00	00	00	00	00	00	00	00	00	07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			
1993-09	00	107	62	00	37	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			
1993-10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
1993-11	00	30	00	00	24	28	00	21	00	00	00	00	138	23	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
1993-12	50	00	00	00	00	01	00	00	00	00	00	00	26	00	00	17	00	00	00	00	00	411	00	136	08	29	00	00	00	04	72	00	00	00		
1994-01	00	02	130	00	454	95	41	00	00	1.6	21	00	00	00	266	00	05	00	152	00	00	00	00	46	25	674	00	04	198	58	229	126	00	00		
1994-02	04	00	00	00	94	00	30	30	73	05	00	00	00	00	00	00	00	00	00	00	00	00	15	00	00	02	00	21	-	-	-	-	-			
1994-03	00	00	00	86	00	00	00	00	00	00	00	00	161	18	109	04	55	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
1994-04	00	58	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
1994-05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-06	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	02	00	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-08	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-09	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	22	00	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-11	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1994-12	00	00	00	330	57	28	02	68	00	00	136	109	157	00	64	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1995-01	86	334	192	90	143	178	178	00	00	268	00	464	04	344	57	28	176	00	558	13	261	317	00	00	00	00	21	25	00	19	00	03	00	00		
1995-02	40	00	58	04	250	00	00	00	00	00	00	00	31	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
1995-03	61	00	00	00	00	01	05	00	5.6	03	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1995-04	00	00	00	00	00	00	00	00	1.0	355	327	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1995-05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1995-06	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-08	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-09	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-11	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1995-12	00	00	00	10	03	00	165	674	1.9	172	661	00	00	91	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-01	00	00	00	00	192	98	38	306	00	00	00	00	58	34	122	07	26	162	00	43	339	117	67	47	00	00	00	00	00	00	00	00	00	00	00	00
1996-02	75	32	184	06	00	36	46	296	88	00	00	00	00	00	00	27	180	21	00	56	228	38	00	186	67	82	52	58	00	-	-	-	-	-		
1996-03	236	113	437	00	08	001	85	561	57	224	43	13	00	193	393	257	378	06	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1996-04	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
1996-05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-06	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-08	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-09	00	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-11	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
1996-12	00	00	00	20	00	22	00	00	141	00	00	00	80	46</																						

