	1989	tion)										: 1					:	:		
	Nov./	figura	0 m	2439	2466	2092	1778	1643	1557	1279	1252	1196	1223							1
	DATE 17 / Nov./1989	(Schlumberger Configuration	X	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
		Schlumbe	8 E	5.100	1.258	2.580	1.429	0.842	0.471	0.255	1.038	0.625	0.156							
	HASE II		I (Am)	20.0	20.0	20.0	20.0	20.0	30.5	23.6	20.0	35.9	37.4							
	10N (P	HIRAMOTO	(VIII)	102.	25.1	51.2	28.6	16.8	14.4	6.03	20.8	22.4	5.87							
	RN REG	H I ROSH I	MN/2	æ	2			œ			66	26	8				32			
	EASTE	D BY H	AB/2	50	20	65	80	100	130	160	160	200	200	250	320	400	500	650	800	
	IN THE	TESTED BY																		
	JECT		(III)	1482	1977	2110	2233	2360	2331	2273	2308	2025	2081	2390	2191	2252	2348	2545	2619	2594
	ATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	CTION	K	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	WATER SI	INE DÍRECTION	R (0)	235.8	104.9	67.22	45.13	30.35	17.66	11.35	7.363	28.86	16.08	4.509	11.07	7.242	4.814	3.177	2.089	8.600
FANDA	RURAL	S-11 LIN	I (mk)	20.02	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
3 OF R	ON THE	Ep- 9 S.	V (my)	4726	2103	1346	904.	.808	353.	227.	147.	538.	321.	90.3	221.	122.	96.4	63.6	41.8	172.
THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL W	No Ep-	MN/2				L(G	7	0.5			67	1.		8
THE RI	THE	TEST	AB/2	1.5	2.5	3.2	4	വ	6.5	∞	10	10	13	13	16	20	25	32	40	40

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	6861	tion)																		
	/ Nov./1989	Configuration	D 2	454.	461.	480.	528.	546.	555.	501.	530.	476.	505.							
	∞		Ж	478.3	1980.4	817.0	1244.1	1350.9	3305.7	5014.0	1208.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	I) DATE	(Schlumberger	A 6	0.949	0.235	0.588	0.423	0.280	0.168	0.100	0.044	0.249	0.064							
	HSE II	15	<u>, (</u>	100.	100.	100.	100.	100.	100.	154.	164.	148.	146							
	ON (PI	HIRAMOTO	> (1)	95.0	23.5	58.9	42.4	28.0	16.8	15.5	7.25	36.8	9.50	1 1 1 1						4.0
	IN REG	HIROSHI	MN/2	œ	2			∞			66	20	8				32			
	IN THE EASTERN REGION (PHASE III)		AB/2	50	20	65	80	100	130	160	160	200	200	250	320	400	200	820	008	
	N THE	TESTED BY																		
	JECT	E.	0 a	139.	207.	223.	241.	252.	266.	287.	303.	283.	280.	239.	254.	245.	270.	326.	386.	382.
	TER SUPPLY PROJECT	TION E-W	Ж	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.8	530.1	197.9	311.0	487.7	801.1	1253.5	301.8
	WATER SU	LINE DIRECTION	R (e)	22.12	11.00	7.087	4.869	3.235	2.017	1.433	998.0	3.754	2.161	0.564	1.282	0.788	0.553	0.407	0.308	1.268
ANDA			I	20.02	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0	50.0	50.0	100.	100.	100.
THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL	Ep-10 S-	\ \ \	443.	220.	141.	97.4	64.7	40.3	28.0	19.3	75.1	43.2	28.2	64.1	39.4	27.6	40.7	30.8	126
PUBIL 10	STUDY (No Ep-	MN/2		 .		14			·		G	7	0.5		Les Les	2			8
THE RI	THE	TEST	AB/2	.5	2.5	3.2	4	5	6.5	8	10	10	13	13	16	50	25	32	40	40

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	1989	tion)																		
	8 / Nov./1989	Configuration)	ρa (Ωm)	257.	286.	279.	289.	· 187	317	301										
		rger Con	×	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
. A.	I) DATE	(Schlumberger	(B)	0.537	0.146	0.341	0.232	0.152	0.096	090.0				: : : : : : : : : : : : : : : : : : : :						
	HASE II	i	I (mA)	100.	100.	100	100.	100.	199.	193.										
	10N (P	HIROSHI HIRAMOTO	V (mV)	53.7	14.6	34.1	23.3	15.3	19.3	12.0										- 4
	RN REG	ROSHI	MN/2	∞	2	: ·*		&			66	96	8				35			
	EASTE	D BY H	AB/2	20	20	65	08	100	130	160	160	200	200	250	320	400	500	650	800	
	IN THE	TESTED BY								-										
	JECT		Oa (Om)	76.5	82.3	89.4	112.	142.	120.	206.	223.	116.	125.	208.	150.	154.	174.	210.	223.	228.
	SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	ECT ION	Ж	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	- 1	Ep-10 S-2 LINE DIREC	R (a)	12.18	4.366	2.849	2.254	1.823	0.908	1.028	0.712	1.539	0.965	0.393	0.756	0.496	0.356	0.262	0.178	0.757
ANDA	RURAL	-2 L1	I (mA)	10.0	10.0	20.0	20.0	20.0	50.0	50.0	50.0	100.	100.	100.	100.	100.	100.	100.	100.	100.
THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL WATER	-10 S-	Λ (Δm)	122.	43.7	57.0	45.1	38.5	45.4	51.4	35.8	154.	36.5	39.3	75.7	49.6	35.8	28.2	17.9	75.8
EPUBL I	STUDY	No Ep	MN/2				Li C	>				c	7	0.5			23			8
THE R	THE	TEST	AB/2	1.5	2.5	3.2	4	വ	6.5	8	10	1.0	13	13	16	20	25	32	40	40

<u>THE VERTICAL ELECTRICAL SOUNDING</u>	NDA.	IURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) DATE 31 / Oct./1989	1 LINE DIRECTION NGOW TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration)	I R K Da NB/9 WW/9 V I R V Da	$(0) \qquad \text{(am)} \qquad (mV) \qquad (mA) \qquad (0)$	0.0 41.66 6.283 262. 50 8 110. 100. 1.107 478.3 530.	0.0 18.70 18.85 353. 50 2 25.8 100. 0.258 1980.4 506.	0.0 11.89 31.39 373. 65 68.0 100. 0.680 817.0 558.	20.0 7.759 49.48 384. 80 43.5 100. 0.435 1244.1 541.	20.0 4.849 77.75 377. 100 8 58.5 200. 0.292 1950.9 570.	20.0 2.945 132.0 389. 130 36.5 200. 0.182 3305.7 602.	20.0 2.002 200.3 401. 160 23.2 198. 0.116 5014.0 582.	50.0 1.318 313.4 413. 160 ₂₂ 103. 199. 0.517 1206.4 624.	4.828 75.40 364.	50.0 2.754 129.6 357. 200 8 15.2 199. 0.076 7841.4 596.	50.0 0.766 530.1 406. 250 3017.7	50.0 1.880 197.9 372. 320	50.0 I.396 311.0 434: 400	50.0 1.017 487.7 498. 500 32 12222.	100. 0.616 801.1 494. 650	100: 0.413 1253.5 518. 800 31366.	100. 1.780 301.6 537.
E VERT	NDA	WAT	LINE DIRECTION	3	4	.66 6.283	.70 18.85	31.39	.759 49.48	77.75	.945 132.0	.002 200.3	313.4	.828 75.40	.754 129.6	.768 530.1	197.9	311.0	487.7	.616 801.1	.413 1253.5	1.780 301.6
	THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL	TEST No Ep-11 S- 1	V V V V V	(m) (m)	1.5 417. 1	2.5 187. 1	3.2 119. 1	4 0 5 155. 2	97.0	6.5 59.0 2	8 40.1 2	10 68.0 5	10 , 241. 5	137.	13 0.5 38.3 5	16 84.0 5	20 69.8 5	25 2 50.8 5	32 81.6 1	41.4	40 8 178.

THE VERTICAL ELECTRICAL SOUNDING

THE R	PUBL I	THE REPUBLIC OF RWANDA	WANDA												
THE	Yaurs	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	PPLY PRO)JECT	IN THE	EASTE	IN REG	ION (P	HASE III	1	DATE 31 / Oct./1989	0ct./	989
TEST	M. Ep	-11 S	TEST No. Ep-11 S- 2 LINE	INE DIRE	JIRECTION N30M	30W	TESTE	у ВУ Н	ROSHI	TESTED BY HIROSHI HIRAMOTO) <u>TO</u> (\$	Schlumbe	(Schlumberger Configuration)	figura	lon)
W 0.4	C/ NM	>	}4	댔	\	80		C/ dV	C/ NW	۸	-1	R	2	e Q	- The Care No.
7/gu	2 /AIII	(mV)	(mA)	(0)	ፈ	(Qm)	:	7 /gu	MIN/ 2	(mV)	(mA)	(0)	4	(Qm)	-
1.5		1273	10.0	127.0	6.283	798.		50	8	132.	50.0	2.636	478.3	1261	
2.5		446.	10.0	44.54	18.85	840.		50	2	32.7	50.0	0.655	1960.4	1284	
3.2		288.	10.0	28.75	31.39	903		65		79.3	50.0	1.584	817.0	1294	
4	LS C	200.	10.0	20.02	49.48	.686		80		48.9	50.0	0.977	1244.1	1240	
15	j J	143.	10.0	14.31	77.75	1113		100	∞	53.2	100.	0.532	1950.9	1038	
6.5		102.	10.0	10.23	132.0	1350		130		27.1	100.	0.271	3305.7	.968	
∞	:	156.	20.0	7.824	200.3	1567		160		16.1	100.	0.161	5014.0	807.	
10		112.	20.0	5.610	313.4	1758		160	23	55.7	160.	0.557	1206.4	672.	
10	,	459.	20.0	22.95	75.40	1730		200	75	35.3	100.	0.353	1913.2	675.	
13	7	287.	20.0	14.37	129.6	1862		200	8	20.7	200.	0.103	7841.4	808.	
13	0.5	72.3	20.0	3.613	530.1	1915		250					3017.7		
16		192.	20.0	9.588	197.9	1898		320					4976.3		·
20		111.	20.0	5.547	311.0	1725		400				:	7803.7		
25	7	138.	50.0	2.759	487.7	1346		500	32		- :		12222.		
32		73.7	50.0	1.473	801.1	1180		650					20689.		
40		53.0	50.0	1.059	1253.5	1328		800					31366.		
40	8	218.	50.0	4.370	301.6	1318									

THE VERTICAL ELECTRICAL SOUNDING

	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) DATE 31 / Oct./1989	MOTO (Schlumberger Configuration)	I R , pa	(mA) (Ω) (Ωm)	100. 1.159 478.3 554.	100. 0.279 1960.4 547.	100. 0.811 817.0 663.	100. 0.604 1244.1 751.	100. 0.448 1950.9 874.	200. 0.321 3305.7 1061	200. 0.223 5014.0 1118	200. 0.941 1206.4 1135	200. 0.618 1913.2 1182	200. 0.147 7841.4 1153	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	NOIE	I HIRA	>	() m ()	116.	27.9	81.2	60.4	44.8	64.2	44.7	188.	123.	29.5							
	RN REC	IROSH	S	7./ E	8	2			∞	· v •		20	25	∞	 		,	32			
	EASTE	TESTED BY HIROSHI HIRAMOTO		AB/2	50	50	65	80	100	130	160	160	200	200	250	320	400	500	650	800	
	IN THE	TESTE	- 											:							i , L 14
1.	DECT	N85W	в Q	(Qm)	165.	224.	236.	253.	263.	277.	293.	305.	296.	306.	317.	352.	392.	401.	418.	480.	478.
	JPPLY PRO	DIRECTION	à.	۷	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
·	WATER SI	LINE DIRE	R	(3)	26.23	11.88	7.516	5.105	3.383	2.101	1.461	0.973	3.930	2.363	0.597	1.778	1.259	0.822	0.522	0.383	1.586
MANDA	RURAL	S-3 L	} →	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0	50.0	50.0	100.	100.	100.	100.	200.	100.
OF R	N THE	11 S	^	(\m\)	525.	238.	150.	102.	67.7	42.1	73.1	19.5	196.	118.	29.9	178.	126.	82.3	52.3	7.92	158.
THE REPUBLIC OF RWANDA	STUDY C	TEST No. Ep-11	0/10/1	7/NW		L,		لـــــــــــ کا ح	لہ ۔۔۔۔۔ سا				ى	7	0.5			5			8
THE RE	THES	TEST	0/	AB/ 2	1.5	2.5	3.2	7	ľV	6.5	∞	10	10	13	13	16	20	25	32	40	40
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THE VERTICAL BLECTRICAL SOUNDING

E E	THE REPUBLIC OF RWANDA THE STUDY ON THE RURA	MANDA RURAL	THE REPUBLIC OF RWANDA THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE II)	JPPLY PRO	OJECT	IN THE	EASTEF	N REG	10N (P	HASE		DATE 13 / Nov./1989	Nov. /	686
2	သ	Na Ep-12 S- 1 L	LINE DIRECTION N20W	ZI TON N	Z0W	TESTED BY HIROSHI HIRAMOTO	BY H	ROSHI	HIRAM		(Schlumberger Configuration)	rger Con	figurat	ion)
>			ය	. 5	e Q		C/ Q.V	C/ 1001	>	 1	ద	2	p d	
ا ٿ	(mV)	(mA)	(0)	ત	(Um)		DD/ 2	my/2	(mV)	(mA)	(0)		(Um)	
ارت	904.	50.0	18.07	6.283	114.		50	8	44.5	100.	0.445	478.3	213.	
, ,	201.	50.0	4.030	18.85	0.97		50	2	11.2	100.	0.112	1960.4	220.	
	110.	50.0	2.203	31.39	69.2		59		28.8	100	0.288	817.0	235.	
	73.9	50.0	1.476	49.48	73.0		80		20.8	100.	0.208	1244.1	259.	
	9.67	50.0	0.991	77.75	77.1	2 2	100	∞	14.4	100	0.144	1950.9	281.	
	30.6	50.0	0.613	132.0	6:08		130		0.71	186.	160.0	3305.7	301.	
	21.5	50.0	0.431	200.3	86.3		160		12.3	199.	0.061	5014.0	306.	
	15.5	50.0	0.310	313.4	97.2	=	160	5.0	51.4	199.	0.257	1206.4	310.	
	67.6	50.0	1.350	75.40	102.		200	70	34.3	199.	0.171	1913.2	327.	
	46.6	50.0	0.931	129.6	120.		200	8	8.63	199.	0.043	7841.4	337.	
	10.8	50.0	0.216	530.1	115.		250					3017.7		
	33.2	50.0	0.665	197.9	132.		320					4976.3		
. 	23.6	50.0	0.472	311.0	147.		400		,			7803.7		
L,	17.0	50.0	0.341	487.7	166.	±10 ±11 =	500	32				12222.		
	22.1	100.	0.221	801.1	177.		659					20689.		
	15.6	100.	0.156	1253.5	196.		800					31366.		
	62.7	62.7 100.	0.626	301.6	189.	====								

THE VERTICAL ELECTRICAL SOUNDING

THE RE	3PUBL I	THE REPUBLIC OF RWANDA	WANDA												**************************************
THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE II)	IPPLY PRO	DECT	IN THE	EASTER	N REG	ION (PI	HASE III	. }	DATE 13 / Nov. /1989	Nov. /1	989
TEST	Ma. Ep	Ep-12 S	S-2 L	LINE DIRECTION	- 11	N40E	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM	·]	(Schlumberger Configuration)	ger Con	figurat	ion)
60	S 38	>	}I	œ	۵.	g Q		6/ QV	(/ W	>	} (8	7.1	ρa	
3D/2	Z /wiin	(mV)	(mA)	(8)	<u>.</u>	(Um)		7 /gr	2 / NIE	(mV)	(mA)	(0)	4	(nm)	ana da an
1.5		798.	50.0	15.95	6.283	100.		50	8	61.1	50.0	1.220	478.3	584.	E P. Market
2.5		354.	50.0	7.073	18.85	133.		50	2	13.4	50.0	0.267	1960.4	523.	
3.2	:	232.	50.0	4.634	31.39	146.		65		36.1	50.0	0.722	817.0	590.	
₹*	<u>ц</u>	163.	50.0	3.266	49.48	162.	: 	80		25.4	50.0	0.509	1244.1	633.	
Ŋ	•	109.	50.0	2.186	77.75	170.		100	∞	15.6	50.0	0.312	1950.9	609	
6.5		64.9	50.0	1.296	132.0	171.		130		18.2	100.	0.182	3305.7	602.	
∞		44.7	50.0	0.892	200.3	179.		160		12.1	100.	0.121	5014.0	-209	
10		32.4	50.0	0.647	313.4	203.		160	2,0	39.6	100.	0.395	1206.4	477.	
10	Ç	144.	50.0	2.884	75.40	218.		200	7%	27.7	100.	0.277	1913.2	530.	
<u>E</u>	J	92.6	50.0	1.850	129.6	240.		200	8	12.2	140.	0.087	7841.4	682.	
13	0.5	21.1	50.0	0.423	530.1	224.		250					3017.7		
16	 	2.69	50.0	1.393	197.9	276.		320					4976.3		
30		53.2	50.0	1.063	311.0	331.		400					7803.7		
25	C)	40.1	50.0	0.805	487.7	391.		500	32				12222.		
32		30.5	50.0	609.0	801.1	488.		650					20689.		
40		21.8	50.0	0.437	1253.5	548.		800					31366.	:	:
0\$	8	101	50.0	2.018	301.6 609.	.609				: :					

THE VERTICAL ELECTRICAL SOUNDING

HE	THE REPUBLIC OF RWANDA	IC OF R	WANDA						-						
THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III	UPPLY PRO	DJECT	IN THE	EASTE	N REG	ION (PI	HASE. II	_	DATE 13 / Nov. /1989	Nov.	1989_
TEST	TEST No. Ep-12	o-12 S	S-3 LI	LINE DIRE	JIRECTION N.	NZOE	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		(Schlumberger		Configuration)	tion)
AR/2	C/N	>	;	œ	×	e 0		C/BV	C/ NM	· . V		R	×	ρa	
7 law	7 / 17.	(m)	(mA)	(0)	4	(Om)		, my (4)	111 K) CA	(mV)	(mA)	(0)	4	(Qm)	
1.5		416.	20.0	20.80	6.283	131.		50	8	35.1	100.	0.351	478.3	168.	
2.5		68.8	20.0	3.433	18.85	64.7		50	2	8.25	100.	0.082	1960.4	161.	
3.2		36.4	20.0	1.818	31.39	57.1		65	4.	24.6	100.	0.246	817.0	201.	
4	. L4	21.5	20.0	1.074	49.48	53.1		80		17.9	100.	0.179	1244.1	223.	
ſΩ))	12.2	19.5	0.625	77.75	48.6		100	∞	12.4	100.	0.124	1950.9	242.	
6.5	10	9.20	25.9	0.354	132.0	16.7		130		11.3	136.	0.083	3305.7	274.	
8	· · · · · · · · · · · · · · · · · · ·	12.7	50.0	0.255	200.3	51.1		160		10.2	166.	0.061	5014.0	306.	
10		8.81	50.0	0.175	313.4	54.9		160	30	45.9	166	0.275	1206.⊈	332.	.
10		36.7	50.0	0.733	75.40	55.3		200	3,0	37.2	188.	0.198	1913.2	379.	
13	7	24.4	50.0	0.488	129.6	63.3		200	8	8.35	189.	0.044	7841.4	345.	
13	0.5	5.71	50.0	0.114	530.1	60.4		250					3017.7		
16	, and the second	17.3	50.0	0.345	197.9	68.3		320					4976.3		
20		12.5	50.0	0.251	311.0	78.1		400					7803.7		
25	~1	11.4	58.7	0.194	487.7	94.6	· · · · · · · · · · · · · · · · · · ·	200	32				12222.		
32		11.3	78.9	0.144	801.1	115.		929					20689.		
40		11.0	100	0.110	1253.5	138.		800					31366.		
40	8	46.4	100.	0.463	301.6	140.									:

THE VERTICAL ELECTRICAL SOUNDING

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THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	MA KIDAR	JJECT 1	IN THE	EASTE	IN REG	ION (PI	HASE III	()DATE	!	3 / Nov. /1989	989
TEST	No. EP	M Ep-13 S- 1		LINE DIREC	RECTION N	NZOW	TEST'HD BY		ROSHI	HIROSHI HIRAMOTO		sch lumbe	(Schlumberger Configuration)	figura	(ion)
ς α.	Ø IM	>	;1	X.		B Q		رار برار در سار	- CV 1001	Λ	jeensj	∝	<u> </u>	a Q	
7/gu	MIN/ Z	(mV)	(mA)	(0)	ፈ	(Qm)	=====	7/9H	MIN/ Z	(MM)	(mA)	(0)	4	(nu)	
1.5		1548	20.0	77.23	6.283	485		50	8	33.5	50.0	0.670	478.3	321.	
2.5		462.	20.0	23.06	18.85	435.		50	2	8.13	50.0	0.162	1960.4	318.	
3.2		272.	20.0	13.60	31.39	427.		65		18.3	50.0	0.366	817.0	299.	
4	\(\frac{1}{2}\)	165.	20.0	8.279	49.48	410.		80		12.7	50.0	0.254	1244.1	316.	
72		97.1	20.0	4.847	77.75	377.		100	∞	5.42	30.9	0.174	1950.9	340.	
6.5		£0.09	20.0	3.017	132.0	398.		130		5.46	50.0	0.109	3305.7	360.	7
8		42.7	20.0	2.131	200.3	427.		160		5.75	78.7	0.073	5014.0	366.	
10		27.6	20.0	1.381	313.4	433.		160	30	34.3	100.	0.343	1206.4	414.	
10	· ·	120	20.0	6.027	75.40	454.		200	76	23.0	100	0.229	1913.2	438.	
13	4	65.8	20.0	3.284	129.6	426		200	8	6.50	131.	0.049	7841.4	384.	
13	0.5	38.4	50.0	0.768	530.1	407		250					3017.7		
16	:	100.	50.0	2.002	197.9	396.		320					4976.3		:
20		54.7	50.0	1.093	311.0	340.		400					7803.7		
25	7	22.2	40.0	0.554	487.7	270.		500	32				12222.		
32	-	15.3	50.0	0.306	801.1	245.		650					20689.		
40		11.4	50.0	0.228	1253.5	286.		800		1			31366.		
40	8	47.6	50.0	0.951	301.6 287.	287.									

THE VERTICAL ELECTRICAL SOUNDING

(9) (0m) 95.33 6.283 599. 50 34.37 18.85 648. 50 21.11 31.39 663. 65 13.61 49.48 673. 80 8.573 77.75 667. 100 5.398 132.0 713. 130 2.760 313.4 865. 160 12.57 75.40 948. 200 12.57 75.40 948. 200 1.257 75.40 948. 200 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) DATE 3 / Nov./1989 TEST NA EP-13 S- 2 LINE DIRECTION N35W TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration) AB/2 MN/2 V I R K Pa AB/2 MN/2 V I R K Pa
34.37 18.85 648. 50 21.11 31.39 663. 65 13.61 49.48 673. 80 8.573 77.75 667. 100 5.398 132.0 713. 130 3.990 200.3 799. 160 2.760 313.4 865. 160 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	(mV) (mA) (Ω) 8 77.9 50.0 1.557 4
21.11 31.39 663. 65 13.61 49.48 673. 80 8.573 77.75 667. 100 5.398 132.0 713. 130 3.990 200.3 799. 160 2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	
13.61 49.48 673. 80 8.573 77.75 667. 100 5.398 132.0 713. 130 3.990 200.3 799. 160 2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	37.1 42.7 0.867 817.0 708.
8.573 77.75 667. 100 5.398 132.0 713. 130 3.990 200.3 799. 160 2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	22.7 44.1 0.515 1244.1 641.
5.398 132.0 713. 130 3.990 200.3 799. 160 2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	
3.990 200.3 799. 160 2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	5.20 38.7 0.134 3305.7 443.
2.760 313.4 865. 160 12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	3.89 48.8 0.079 5014.0 396.
12.57 75.40 948. 200 7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	
7.438 129.6 946. 200 1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 3 0.800 801.1 641. 650 0.467 1253.5 585. 800	
1.662 530.1 881. 250 4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	
4.909 197.9 972. 320 2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	3017.7
2.825 311.0 879. 400 1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	4976.3
1.232 487.7 601. 500 0.800 801.1 641. 650 0.467 1253.5 585. 800	7803.7
0.800 801.1 641. 0.467 1253.5 585.	
0.467 1253.5 585.	20689.
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HI	THE REPUBLIC OF RWANDA	C OF R	MANDA				**.			-					
田田	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III.)	IPPLY PR).BCI	IN THE	EASTER	N REG	ION (PI	ASE III	DATE		3 / Nov. /1989	989
TEST	Na Br	3-13 S	Na Ep-13 S-3 LINE DI		RECTION N	NI 5W	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		ch lumber	(Schlumberger Configuration)	figurat	ion)
, c		^	⊢ -4	兄	. 2	вО		C/ Q V	C/ 1W/	>		౫	/1	40	
AD/2	7 /NIW	(mV)	(mA)	(0)	۷	(Qm)		4D/2	MIN/ 2	(mV)	(mA)	(0)	4	(Um)	igina na <u>na an</u> Malandiga ka
1.5	 	296.	20.0	14.81	6.283	93.1		50	8	36.4	100.	0.363	478.3	174.	
2.5		65.0	20.0	3.248	18.85	61.2	-	50	2	4.04	100.	0.040	1960.4	78.4	
3.2		36.6	20.0	1.831	31.39	57.5		65		20.8	100.	0.208	817.0	170.	
ヴ	<u>ц</u>	22.8	20.0	1.139	49.48	56.4		80		12.2	100.	0.122	1244.1	152.	
5	`. -	14.1	20.0	0.705	77.75	54.8		100	∞	9.80	128.	0.075	1950.9	146.	
6.5	[]	19.0	50.0	0.380	132.0	50.2	:	130		8.12	199.	0.040	3305.7	132.	
∞	· · ·	12.8	50.0	0.255	200.3	51.1		160		5.26	180.	0.028	5014.0	140.	
10		8.69	50.0	0.173	313.4	54.2		160	20	28.2	187.	0.150	1206.4	181	5 M GO WY
10	· · ·	43.9	50.0	0.877	75.40	66.1		200	32	20.1	199.	0.100	1913.2	191.	
13	7	27.2	50.0	0.544	129.6	70.5		200	8	3.79	199.	0.018	7841.4	141.	
13	0.5	5.54	50.0	0.110	530.1	58.3		250					3017.7		
16		18.5	50.0	0.369	197.9	73.0		320					4976.3		
8		12.8	50.0	0.255	311.0	79.3		400					7803.7		
25	<u></u>	9.16	50.0	0.183	487.7	89.3		500	32				12222.		
32		5.71	20.0	0.114	801.1	91.3		650			. :		20689.		
40		7.39	100	0.073	1253.5	91.5		800					31366.	:	
40-	∞	66.5 100		0.664	301.6	200.								:	

THE VERTICAL ELECTRICAL SOUNDING

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THE	STUDY (ON THE	RURAL	WATER SI	BALY PRO	DJECT II	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	STERN	REGIC	Hd) N	ASE I		DATE 13 / Nov. /1989	Nov. /1	686
TEST	Na Ep	TEST No. Ep-13 S-4	1.61	LINE DIREC	IRECTION N80W		TESTED BY		SHI 1	II RAMO	<u>(S</u>	HIROSHI HIRAMOTO (Schlumberger Configuration)	ger Con	figurat	ion)
C/ QV	C/ INM	Λ	1	R		ВО	€/ a.v	 -	2	Λ	1	ਸ	۵	p 0	
7/07	MIN/ Z	(MM)	(mA)	(0)	₫:	(Qm)	(AD)) 7 / NIW	(mV)	(mA)	(0)	4	(Um)	
1.5		2531	0.05	50.57	6.283	318.	50)	8	57.0	50.0	1.139	478.3	545.	
2.5		995.	50.0	19.88	18.85	375.	50		2	14.2	50.0	0.283	1960.4	555.	
3.2		635.	50.0	12.69	31.39	398.	9	10		32.1	50.0	0.641	817.0	524.	
4	<u>п</u>	430.	20.0	8.609	49.48	426.	80			21.6	50.0	0.431	1244.1	536.	
5))	292.	50.0	5.848	77.75	455.	100		∞	11.9	50.0	0.239	1950.9	466.	
6.5		173.	50.0	3.471	132.0	458.	130			13.5	100.	0.135	3305.7	446.	
8		112.	50.0	2.254	200.3	452.	160	0		18.2	200.	0.091	5014.0	456.	
10		74.4	50.0	1.487	313.4	466.	160		1	58.5	200.	0.292	1206.4	352.	
10	,	282.	50.0	5.652	75.40	426.	200			42.2	190.	0.221	1913.2	423.	
13	7	173.	50.0	3.473	129.6	450.	200	0	8	13.4	190.	0.070	7841.4	549.	
13	0.5	46.4	50.0	0.928	530.1	492.	250						3017.7		
16		114.	50.0	2.287	197.9	453.	320						4976.3		
20		75.4	50.0	1.506	311.0	468.	400						7803.7		, , , , ,
25	7	53.1	50.0	1.062	487.7	518.	500		32	-,			12222.		
32		33.7	50.0	0.674	801.1	540.	650						20689.		
40		20.8	50.0	0.416	1253.5	522.	800	0					31366.		
40	8	84.2	50.0	1.683	3016	508.		_							
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围	THE STUDY ON THE RURAL WATER	ON THE	RURAL	WATER SE	SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	JUECT 1	N THE	EASTER	N REG	ION (P	IASE III		DATE 13 / Nov. /1989	Nov./1	686
TEST	No. Ep-13	-13 S	S- 5 L	LINE DIREC	RECTION		TESTED	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		ch lumber	(Schlumberger Configuration)	figurat	ion)
\$ \frac{1}{2}	C/ 1971	^	1	껖	۵	a Q	_===		W W	>		ਅ	2	20	
AD/ 2	2 / NIM	(mV)	(mA)	(0)	₫	(Om)			27/Min	(mV)	(mA)	(0)	4	(Ωm)	
1.5		1020	50.0	20.37	6.283	128.		50	8	45 1	100.	0.451	478.3	216.	
2.5		267.	50.0	5.352	18.85	101.		50	2.	8.99	100.	680.0	1960.4	175.	
3.2	-1	154.	50.0	3.089	31.39	0.79		65		29.4	100.	0.293	817.0	239.	
4	C	97.8	50.0	1.953	49.48	9.96		80		21.2	100.	0.212	1244.1	264.	
יעי		0.99	50.0	1.319	77.75	103.		100	×2	15.5	100.	0.155	1950.9	302.	
6.5		42.3	50.0	0.845	132.0	112.		130		10.6	100.	0.106	3305.7	250.	
8		28.8	50.0	0.577	200.3	116.		160		13.2	173.	0.076	5014.0	381.	
10		19.1	50.0	0.381	313.4	119.		160	. 6	60.5	173.	0.349	1206.4	421.	
10	c	83.8	50.0	1.675	75.40	126.		200	24	47.3	199.	0.236	1913.2	452.	***
13	9	49.4	50.0	0.987	129.6	128.		200	8	10.4	199.	0.052	7841.4	408.	(m. i) i ga (4 = 2m
13	0.5	11.4	50.0	0.228	530.1	121.	=====	250					3017.7		
16		32.5	50.0	0.650	197.9	129.		320	:				1976.3		
20	· .	17.1	50.0	0.341	311.0	106.		400	1.1				7803.7	aria Jacob	· · · · · · · · · · · · · · · · · · ·
25	7	11.2	50.0	0.224	487.7	109		500	32				12222.		ECHENÇOÇ ^{AN} Î
32		7.73	50.0	0.154	801.1	123		650			-1		20689.		
40		12.6	100.	0.126	1253.5	158.		800					31366.		
40	∞	64.4	64.4 100.	0.644	301.6	194.									

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	THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	PPLY PR	DIECT	IN THE	EASTE	RN REG	ION (P	HASE I]	DATE 21 / Nov./1989	Nov./1	989_
(' i	TEST	Ma Ep	Na Ep-13 S-6	- 6 Li	LINE DIREC	IRECTION N	NISE	TESTED BY	D BY H	IROSHI	HIROSHI HIRAMOTO		(Schlumberger Configuration)	rger Con	figurat	ion)
	C/ av	MN A	>		ద	۵	, s		C/ dv	C/ NW	Λ	Į	R	4	e 0	Proposed Novice
	7 /0	7 / NIII	(m/)	(mA)	(0)	4	(Om)		7 /qu	Z /NII	(mV)	(mA)	(0)		(Um)	
	1.5		1984	20.0	99.04	6.283	622.		50	8	26.1	50.0	0.521	478.3	249.	
	2.5		607.	20.0	30.32	18.85	572.		20	2	5.33	50.0	0.106	1960.4	208.	· ·
en j	3.2		339.	20.0	16.94	31.39	532.		65		14.7	50.0	0.294	817.0	240.	******
	4	<u>ا</u>	198.	20.0	9.895	49.48	490.		80		7.11	36.4	0.195	1244.1	243.	
	5		116.	20.0	5.798	77.75	451.		100	∞	4.27	32.9	0.129	1950.9	252.	· · · · · · · · · · · · · · · · · · ·
	6.5		67.1	20.0	3.349	132.0	442.		130		2.06	25.0	0.082	3305.7	271.	rgi Miritari
	8		41.5	20.0	2.074	200.3	415.	3=	160		2.26	43.7	0.051	5014.0	256.	24. M. 3. 190, 4.4
	10		23.1	20.0	1.155	313.4	362.		160	30	12.0	44.3	0.270	1206.4	326.	
	10	C C	95.1	20.0	4.749	75.40	358.		200	76	9.12	47.4	0.192	1913.2	367.	
	13	V.	46.2	20.0	2.308	129.6	299.		200	8	1.89	47.6	0.039	7841.4	306.	
	13	0.5	11.4	20.0	0.572	530.1	303.		250			:		3017.7		
	16		29.7	20.0	1.486	197.9	284.		320					4976.3		
	20		19.0	20.0	0.948	311.0	295.		400					7803.7		
	25	0	11.5	20.0	0.574	487.7	280.		500	32				12222.		
	32		9.06	26.9	0.336	801.1	270.		650					20689.		
	40		7.73	41.3	0.186	1253.5	233.		800					31366.		
L	40	8	38.5	41.5	0.927	301.6	280.			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	:		:	page angles of
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THE R THE TEST AB 2 3.2 3.2 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2	THE REPUBLIC OF RWANDA THE STUDY ON THE RURA TEST Na. Ep-13 S-7 AB/2 (mV) (mA) 1.5 (mV) (mA) 2.5 (1236 20.0 3.2 618. 20.0 4 321. 20.0 5 176. 20.0 6.5 89.0 20.0 8 51.4 20.0 10 28.5 20.0	C OF R ON THE ON THE (mV) 4790 4790 1236 618. 321. 28.5 110.	RWANDA HE RURAL S-7 L I I 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	THE STUDY ON THE RUBAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE II) TEST Na. Ep-13 S-7 LINE DIRECTION TEST Na. Ep-13 S-7 LINE DIRECTION TESTED BY HEAGH HIRAMOTO (Schiint) AB/2 NN/2 (mV) (mA) (Ω) K (Ωm) 1.5 (mV) (mA) (Ω) K (Ωm) 2.5 (mV) (mA) (Ω) K (Ωm) 2.5 (mV) (mA) (MA) 3.2 (mV) (mA) (MA) 4 (Ω) K (Ωm) 2.5 (mV) (mA) (MA) 2.6 (mV) (mA) (MA) 3.7 (1236 20.0 6.283 1502 50 8 17.0 27.3 0. 4 (1236 20.0 6.283 1502 50 8 1653 50 2 5.41 35.8 0. 4 (1236 20.0 6.284 31.39 968. 65 5.41 35.8 0. 5 (18. 20.0 8.788 77.75 683. 100 8 3.48 26.5 0. 5 (10. 20.0 2.569 200.3 515. 160 1.35 32.5 0. 5 (10. 20.0 5.516 75.40 416. 200 3.34 43.1 0. 5 (10. 20.0 5.516 75.40 416. 200 3.34 43.1 0.	ER SUPPLY PR BIRECTION A) 71 18.85 .71 18.85 .71 18.85 .71 18.85 .74 31.39 .04 49.48 77.75 788 77.75 443 132.0 559 200.3 559 200.3	JJECT 1 0 a (9m) 1502 1163 968. 683. 683. 587. 515.	N THE EAST TESTED BY AB/2 50 50 100 1160 1160 200	EASTE 1 BY H 1 BY H 50 50 65 65 65 160 160	HTROSH1 MN/2 8 8 8 32	ON (PHASI HIRAMOTO V 1 (mV) (m/ 17.0 27 5.41 35 5.83 23 3.48 26 3.14 47 1.35 32 5.64 32 5.64 32	100 (max) (m	a % (3 2 1 1 1 2 2 1 1 1 2 1 2 1 2 1 2 1 2 1	(Schlumberger Configuration) (Schlumberger Configuration) (Q) K (0m) (Q) 478.3 298. 0.622 478.3 298. 1 0.352 817.0 288. 2 0.250 1244.1 311. 5 0.131 1950.9 256. 7 0.065 3305.7 215. 5 0.041 5014.0 206. 8 0.171 1206.4 206. 1 0.103 1913.2 197.	Nov. /1 figurat (Ωm) 294. 298. 311. 215. 206.	1cn)
<u>E</u>	4	50.7	20.0	2.534	129.6	328.		200	∞	1.07	43.3	0.024	7841.4	188.	
2	0.5	13.2	20.0	0.659	530.1	349.		250					3017.7		
16		27.5	20.0	1.377	197.9	273.		320					4976.3		
20		17.1	20.0	0.858	311.0	267.		400					7.803.7		
25	7	11.4	20.0	0.571	487.7	279.		500	32				12222.		
32	:	7.18	20.0	0.358	801.1	287.		650					20689.		
40	r	5.83	25.2	0.231	1253.5	290.		800					31366.		
40	8	24.3	24.3 25.3	0.958	301.6	289.									

THE VERTICAL ELECTRICAL SOUNDING

NM ED-13 S- 8 LINE DIRECTION N25E TESTED BY HIROSHI HIRAMOTO Schlum NMV2 (mV) (mA) (Ω) R (Ωm) (Ωm) (ΩV) (mA) (Ω) R (Ωm) (Ωm) (ΩV) (µA) (ΩM) (ΩV) (µA)	THE	THE REPUBLIC OF RWANDA	COFR	MANDA							÷			£	-	
Min/2 (m/v) (m/h) (0) R (0m) AB/2 Min/2 (m/v) (m/h) (0) R (0m)	王	S STUDY	ON THE	RURAL	WATTER SI	IPPLY PR)JECT	(N THE	EASTE	N REG	ION (P	HASE I	!	DATE 21 / Nov. /1989	Nov. /1	989
NN/2 (mA) (Ω) K (Ωm) (M) (M) </td <td>TES</td> <td>I Na. Ep</td> <td>3-13 S</td> <td></td> <td></td> <td>TION</td> <td>25E</td> <td>TESTE</td> <td>BY HI</td> <td>ROSHI</td> <td>HIRAM</td> <td></td> <td>Schlumbe</td> <td>rger Com</td> <td>figurat</td> <td>ion)</td>	TES	I Na. Ep	3-13 S			TION	25E	TESTE	BY HI	ROSHI	HIRAM		Schlumbe	rger Com	figurat	ion)
1,238 20.0 224.8 6.283 1412 50 8 27.7 29.3 1538 20.0 61.79 18.85 1165 50 2 5.23 29.5 1538 20.0 21.51 31.39 989. 65 7.40 17.3 20.3 20.0 21.51 31.39 989. 65 7.40 17.3 20.5 20.0 21.51 31.39 20.0 20.0 4.646 132.0 613. 130 8 8.99 48.9 48.9 48.9 48.9 49.2 20.0 4.646 132.0 613. 160 8 8.99 48.9 48.9 49.5 20.0 20.0 4.646 132.0 613. 160 8 8.99 48.9 49.5 20.0 20.0 4.646 132.0 613. 160 8 8.99 48.9 40.5 20.0 20.0 4.045 20.0 20.	, av		Λ	Ī	A.	1	в <i>О</i>		(/ av	6/ IWI	>	1 4	껖	2	e Q	
4504 20.0 224.8 6.283 1412 50 8 27.7 29.3 1238 20.0 61.79 18.85 1165 50 2 5.23 29.5 631. 20.0 31.51 31.39 989. 65 7.40 17.3 314. 20.0 15.69 49.48 776. 80 15.4 49.2 93.0 20.0 4.646 132.0 613. 130 8 8.99 48.9 93.0 20.0 4.646 132.0 613. 160 8 8.99 48.9 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 52.6 17.5 3.005 200.3 602. 200 8 1.32 6.30 40.5 60.5 18.9 4.04 520. 468. 320 40.5 <	AD,		(m/)	(mA)	(0)	ፈ	(Um)		AD/ 2	MIN/ 2	(mV)	(mA)	(0)	₫ .	(ma)	
0.5 63.0 61.79 18.85 1165 50 2 5.23 29.5 631. 20.0 31.51 31.39 989. 65 7.40 17.3 314. 20.0 15.69 49.48 776. 80 15.4 49.2 163. 20.0 8.182 77.75 636. 100 8 89.9 48.9 93.0 20.0 4.646 132.0 613. 130 9.29 92.0 34.4 18.8 1.830 313.4 574. 160 8 134 74.4 34.4 18.8 1.830 313.4 574. 200 4.34 74.4 41.0 18.8 8.278 75.40 624. 200 8 1.32 40.5 0.5 18.9 20.0 4.045 129.6 524. 200 8 1.32 40.5 1.5 18.9 40.7 40.8 32.0 40.5 40.5		15	4504	20.0	224.8	6.283	1412		50	8	27.7	29.3	0.946	478.3	453.	· · · · · · · · · · · · · · · · · · ·
0.5 31.51 31.39 989. 65 7.40 17.3 0.5 314. 20.0 15.69 49.48 776. 80 15.4 49.2 163. 20.0 15.69 49.48 776. 80 15.4 49.2 163. 20.0 15.69 49.48 77.75 636. 100 8 8.99 48.9 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 34.4 18.8 1.830 313.4 574. 160 4.34 74.4 34.4 18.8 8.278 75.40 624. 200 40.5 50.0 75.0 81.0 20.0 4.045 129.6 524. 200 8.1.32 40.5 90.5 19.8 2.367 197.9 468. 320. 1.32 40.5 147.0 19.8 20.0 0.725 487.7 354. 500 32 1	2.	اما	1238	20.0	61.79	18.85	1165		20	2	5.23	29.5	0.177	1960.4	347.	
0.5 314. 20.0 15.69 49.48 776. 80 15.4 49.2 163. 20.0 8.182 77.75 636. 100 8 8.99 48.9 93.0 20.0 4.646 132.0 613. 130 9.29 92.0 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 34.4 18.8 1.830 313.4 574. 160 32 60.9 75.0 15c. 18.8 8.278 75.40 624. 200 8 1.32 40.5 0.5 18.9 20.0 4.045 129.6 524. 200 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 8 1.32 40.5 2 18.9 20.0 0.946 530.1 50.0 32 1.32 1.32 1.32 1.32 1.32 1.32 1.32	3	2	631.			31.39	.686		65		7.40	17.3	0.425	817.0	347.	:
9.5 163. 20.0 8.182 77.75 636. 100 8 8.99 48.99 93.0 20.0 4.646 132.0 613. 130 9.29 92.0 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 34.4 18.8 1.830 313.4 574. 160 32 20.9 75.0 156. 18.8 8.278 75.40 624. 200 6.30 40.5 0.5 18.9 20.0 4.045 129.6 524. 200 6.30 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 8.132 40.5 20.2 17.0 1.308 311.0 407. 400 32 1 20.2 14.5 20.0 0.428 801.1 343. 650 1 1 8 40.0 32 0.304 1253.5 381. 800	₽		314.		15.69	49.48	776.		80		15.4	49.2	0.313	1244.1	389.	
93.0 20.0 4.646 132.0 613. 130 9.29 92.0 52.6 17.5 3.005 200.3 602. 160 4.34 74.4 34.4 18.8 1.830 313.4 574. 160 32 60.9 75.0 156. 18.8 8.278 75.40 624. 20.0 8 1.32 40.5 0.5 18.0 4.045 129.6 524. 20.0 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 8 1.32 40.5 20.2 17.0 1.308 311.0 407. 400 32 1 1 20.2 14.5 20.0 0.725 487.7 354. 500 32 1 1 8.58 20.0 0.428 801.1 343. 650 1 1 1 8.60 23.7 23.7 38.1 30.6	יא		163.		8.182	77.75	.989		100	∞	8.99	48.9	0.183	1950.9	357.	
2.6 17.5 3.005 200.3 602. 160 4.34 74.4 34.4 18.8 1.830 313.4 574. 160 32 20.9 75.0 156. 18.8 8.278 75.40 624. 200 8 1.32 40.5 0.5 18.0 20.0 4.045 129.6 524. 200 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 8 1.32 40.5 47.0 19.8 2.367 197.9 468. 320 40.5 197.9 468. 200 20.0 2.367 487. 400 20.0 2.367 487. 320 20.0 2.32 1.308 311.0 407. 400 20.0 2.32 1.308 20.0 0.428 801.1 343. 650 20.0 20.0 2.32 20.0 2.32 20.0 2.32 20.0 2.32 20.0 <	9	کا	93.0	20.0	4.646	132.0	613.		130		9 29	92.0	0.100	3305.7	331.	
2 156. 18.8 1.830 313.4 574. 160 32 20.9 75.0 0.5 156. 18.8 8.278 75.40 624. 200 6.30 40.5 0.5 81.0 20.0 4.045 129.6 524. 200 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 8 1.32 40.5 47.0 19.8 2.367 197.9 468. 320 40.6 8 2 14.5 20.0 0.725 487.7 354. 500 32 8 8.58 20.0 0.428 801.1 343. 650 8 1 8 40.0 23.7 0.304 1253.5 381. 800 8 1	∞.		52.6		3.005	200.3	602.		160		4.34	74.4	0.058	5014.0	291.	
2 156. 18.8 8.278 75.40 624. 200 32 6.30 40.5 0.5 81.0 20.0 4.045 129.6 524. 200 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 1.32 40.5 47.0 19.8 2.367 197.9 468. 320 40.0 1.30 22.2 17.0 1.308 311.0 407. 400 32 1.25 2 14.5 20.0 0.725 487.7 354. 500 32 1.25 8.58 20.0 0.428 801.1 343. 650 1.25 1.25 8 40.0 23.8 1.677 301.6 506. 1.25 1.25 1.26 1.25	10		34.4	18.8	1.830	313.4	574.		160	3.7	20.9	75.0	0.279	1206.4	337.	
4 81.0 20.0 4.045 129.6 524. 200 8 1.32 40.5 0.5 18.9 20.0 0.946 530.1 502. 250 350 <	10		156.	18.8	8.278	75.40	624.		200	77	6.30	40.5	0.155	1913.2	297.	
0.5 18.9 20.0 0.946 530.1 502. 250 47.0 19.8 2.367 197.9 468. 320 22.2 17.0 1.308 311.0 407. 400 2 14.5 20.0 0.725 487.7 354. 500 8.58 20.0 0.428 801.1 343. 650 7.24 23.7 0.304 1253.5 381. 800 8 40.0 23.8 1.677 301.6 506	13		81.0		4.045	129.6	524.		200	8	1.32	40.5	0.032	7841.4	251.	
22.2 17.0 1.308 311.0 407. 400 2 14.5 20.0 0.725 487.7 354. 500 8.58 20.0 0.428 801.1 343. 650 7.24 23.7 0.304 1253.5 381. 800 8 40.0 23.8 1.677 301.6 506	13			20.0	0.946	530.1	502.		250					3017.7		
22.2 17.0 1.308 311.0 407. 400 2 14.5 20.0 0.725 487.7 354. 500 8.58 20.0 0.428 801.1 343. 650 7.24 23.7 0.304 1253.5 381. 800 8 40.0 23.7 0.304 1253.5 381. 800	16		47.0		2.367	197.9	468.		320			-		4976.3		
2 14.5 20.0 0.725 487.7 354. 500 8.58 20.0 0.428 801.1 343. 650 7.24 23.7 0.304 1253.5 381. 800 8 40.0 23.7 0.304 1253.5 381. 800	30		22.2		1.308	311.0	407.		400	'				7803.7		
8.58 20.0 0.428 801.1 343. 7.24 23.7 0.304 1253.5 381.	25	:-	14.5	20.0	0.725	487.7	354.		200	32				12222.		
8 40.0 93.8 1.677 301.6 506.	32		8.58	20.0	0.428	801.1	343.		929	· ·				20689.		
8 100 03 8 1 677 301 6	40	<u> </u>	7.24	23.7	0.304	1253.5	381.		800					31366.		
0.10.1 0.04 0.04 0	40	∞	40.0	23.8	1.677	301.6	506									

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	THE S	TUDY	ON THE	THE STUDY ON THE RURAL MATER	MATER SI	SUPPLY PROJECT IN THE BASTERN REGION (PHASE III)	JECT.	IN THE	EASTER	N REG	10N (P	IASE III	j	DATE 21 / Nov. /1989	Nov./1	989_
اسع	EST	TEST No. Ep-13	1 1	S-9 LI	LINE DIREC	RECTION		TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		(Schlumberger Configuration)	ger Con	figurat	ion)
~		C/ NM	>	;d	∝	<u>}-</u>	e Q	====	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	() NA	^)4	ద		ВО	rint cases with from
		7 /Aiii	(mV)	(mA)	(Ø)	۷.	(Qm)		2 /qu	7 / NIIM	(m)	(mA)	(0)	٧	(12m)	
	1.5	:	1573	20.0	78.55	6.283	494.		50	8	18:9	20.0	0.947	478.3	453.	
	2.5		461.	20.0	23.05	18.85	435.		20	2	10.4	50.0	0.208	1960.4	408.	
	3.2		253.	20.0	12.66	31.39	397.	<u> </u>	65		31.4	50.0	0.627	817.0	512.	
	4	<u>ر</u>	155.	20.0	7.771	49.48	385.		80		21.1	50.0	0.421	1244.1	524.	
	ະດ	` `	98.5	20.0	4.920	77.75	383.		100	∞	11.1	44.7	0.248	1950.9	484.	
	6.5		55.0	20.0	2.746	132.0	363.		130		13.4	100.	0.133	3305.7	440	
	∞		34.9	20.0	1.744	200.3	349.		160		4.87	61.8	0.078	5014.0	391.	
	10		27.4	20.0	1.119	313.4	351.		160	30	18.4	62.4	0.295	1206.4	356.	
	10	C	6.06	20.0	4.543	75.40	343.		200	74	21.1	109.	0.193	1913.2	369.	
	13	Ų	53.5	20.0	2.674	129.6	347.		200	8	5.75	109.	0.052	7841.4	408.	
J	13	0.5	13.4	20.0	0.670	530.1	355.		250					3017.7		
	16		35.0	20.0	1.750	197.9	346.		320	:				4976.3		
	20		23.3	20.0	1.164	311.0	362.		400					7803.7		21 4111 20
	25	7	15.8	20.0	0.790	487.7	385.		500	32				12222.		
	32		10.4	20.0	0.521	801.1	417.		650					20689.		
	40		7.02	20.0	0.350	1253.5	439.		800					31366.		
	40	∞	32.0	32.0 20.0	1.598	301.6	482.		- <u>-</u>							
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	1989	tion)		:																	
	Nov./	figura	в O'	(Qm)	406.	443.	395.	423.	423.	423.	406.	362.	323.	361.	·			,			÷
	DATE 11 / Nov./1989	rger Con	Λ	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	1	(Schlumberger Configuration)	R	(0)	0.849	0.226	0.484	0.340	0.217	0.128	0.081	0.300	0.169	0.046							
	ASE I		Ĩ	(mA)	20.0	20.0	20.0	50.0	50.0	50.0	0.99	66.1	0.86	98.9							
	ION (P	TESTED BY HIROSHI HIRAMOTO	Λ	(mV)	17.0	4.54	9.71	17.0	10.9	6.42	5.37	19.8	16.6	4.56							
	RN REG	IROSHI	C/ NM	MIN 4	8	2		:	∞			3.0	26	8				32			
	EASTE	D BY H	€/ av	7 /Qu	50	50	65	80	100	130	160	160	200	200	250	320	400	500	059	800	
	IN THE	TESTE				:															
	DIECT		e o	(Qm)	468.	718.	850.	933.	1043	1176	1213	1115	1175	919.	863.	745.	528.	438.	422.	423.	387.
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	TION	Λ	4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	WATTER ST	EP-14 S- 1 LINE DIRECTION	R	(0)	74.42	38.08	27.09	18.85	13.42	8.908	6.054	3.556	15.58	7.087	1.627	3.763	1.699	0.898	0.527	0.343	1.282
VANDA	RURAL	- 1- D	Н	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
THE REPUBLIC OF RWANDA	ON THE	-14 S	Λ	(mV)	1491	763.	542.	377.	268.	178.	121.	71.2	312.	141.	32.6	75.4	34.0	18.0	10.5	6.88	25.6
EPUBL 1	STUDY		C/ NM	May 6				C	;				C	4	6.0			2			8
THE R	THE	TEST No.	6/ av	7 /au	1.5	2.5	3.2	ħ	5	6.5	8	10	10	13	13	16	20	25	32	40	40

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THE	STUDY	ON THE	THE STUDY ON THE RURAL WATE	WATER SU	REGION (PHASE II)	JECT 1	IN THE	EASTE	N REG	FON (P	HASE III	\$	DATE 11 /	/ Nov. /1989	989
TEST	Na Ep	Ep-14 S	S-2 L1	LINE DIREC	IRECTION N	NI 5W	TESTED BY		ROSHI	HIROSHI HIRAMOTO		ch i umber	(Schlumberger Configuration)	figura	ion)
Λυ Λο (γ)	C/ 104	>	; -	ద	Δ	8 Q		(/ av	C/ 1881	Λ	, , ,	ਲ	۵	ρa	galina mag ^{ar} leri ya Mariye ka
4D/4	Z /NIM	(mV)	(mA)	(0)	4	(n)		4D/ 2	מנוע/ 7	(mV)	(mA)	(0)	ረ	(Qm)	
1.5		1148	20.0	57.30	6.283	360.		50	8	31.7	50.0	0.634	478.3	303.	
2.5	-	481.	20.0	24.02	18.85	453.		50	2	8.80	50.0	0.175	1960.4	343.	
3.2		286.	20.0	14.30	31.39	449.		9		19.7	50.0	0.395	817.0	323.	
47) (176.	20.0	8.824	49.48	437.	:	80		13.3	50.0	0.267	1244 1	332.	
Ŋ	n >	114.	20.0	5.710	77.75	444.		100	%	18.2	100.	0.187	1950.9	365.	
6.5		9.02	20.0	3.524	132.0	465.		130		11.1	100.	0.111	3305.7	367.	
∞		43.8	20.0	2.187	200.3	438.		160		9.28	126.	0.073	5014.0	366.	
10		23.5	20.0	1.176	313.4	369.		160	22	35.3	125.	0.280	1206.4	338.	-
10	c	94.4	20.0	4.713	75.40	355.		200	26	18.6	105.	0.176	1913.2	337.	
13	7	44.6	20.0	2.229	129.6	289.		200	8	4.95	105.	0.047	7841.4	369.	
13	0.5	11.3	20.0	0.568	530.1	301.		250					3017.7		
16		28.9	20.0	1.443	197.9	286.		320					4976.3		
20		18.9	20.0	0.947	311.0	295.		400	· - · · · · · · · · · · · · · · · ·				7803.7		
25	7	12.1	20.0	0.607	487.7	296.		500	32				12222.		
32		19.6	50.0	0.391	801.1	313.		650					20689.		
40		13.0	20.0	0.260	1253.5	326.		800					31366.	.13	
40	8	47.5	50.0	0:950	301.6	287.								-	

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STUD	/ ON T	IE RURAI	STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	UPPLY PRO	OJECT I	N THE	EASTER	IN REG	10N	HASE	1	DATE 24 / Oct./1989	0ct./	686
TEST No. 1	Na. Ep-16	S- 1	LINE DIRECTION N25W	CTION N	25W	TESTE	BY HJ	ROSHI	HIRAM	010	TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration)	rger Con	figura	cion)
C/ NM C/ 21A	>	11	ద	2	o o		6/ dv	C/ NW	Λ	<u> </u>	'ਲ	Δ	во	*********
	(mV)	(mA)	(0)	4 ,	(0m)			7 /Niu	(mV)	(mA)	(0)	4	(Qm)	
ıv	991.	. 20.0	49.50	6.283	311.		50	8	14.8	100.	0.148	478.3	70.8	
2.5	169.	20.0	8.444	18.85	159.		20	2	5.87	199.	0.029	1960.4	56.9	· a
2	88.9) 20.0	4.443	31.39	140.		65		8.45	100.	0.084	817.0	9.89	
4	37.7	7 16.0	2.355	49.48	116.		80		6.13	100.	0.061	1244.1	75.9	
١	23.4	1 20.0	1.169	77.75	6.06		100	&	4.77	100.	0.047	1950.9	91.7	
6.5	24.9	9 41.9	0.595	132.0	78.5		130		7.58	200.	0.037	3305.7	122.	
80	15.5	5 42.2	998.0	200.3	73.3		160		6.14	199.	0.030	5014.0	150.	
10	11.4	1 48.8	0.235	313.4	73.7		160	37	23.7	199.	0.118	1206.4	142.	
10	46.4	1 49.5	0.937	75.40	70.7		200	76	17.8	187.	0.095	1913.2	182.	
13	22.5	5 41.1	0.548	129.6	71.0		200	8	5.00	187.	0.026	7841.4	204.	
13 0.5	5 5.83	3 41.4	0.140	530.1	74.2		250					3017.7		
16	17.8	8 50.0	0.357	197.9	70.7		320					4976.3		
20	10.0	0 43.8	0.229	311.0	71.2		400			·		7803.7		
25 2	14.2	2 100.	0.142	487.7	69.3		500	32				12222.		
32	8.26	5 100.	0.082	801.1	65.7		650					20689.		
40	4.98	8 100.	0.049	1253.5	61.4		800					31366.	:	
40. 8	25.4	1 100.	0.254	301.6	9.92	= =====					:			

THE VERTICAL BLECTRICAL SOUNDING

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	THE S	YUUTS	STUDY ON THE	RURAL	WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	JPPLY PRO)JECT	IN THE	EASTE	N REG	ON (P	ASE III	_ {	PB 24 /	DATE 24 / Oct./1989	6/
	TEST	Na. Ep	Ep-16 S-	C	LINE DIRECTION		N-S	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM	i i	sch lumber	ger Con	(Schlumberger Configuration)	(i
,,	, Ç	- C	>		я З	1	e Q		c/ c/	(S) 1961	Λ	Ţ	R	7.4	8 O	
	AB/2	7 / NIW	(mV)	(mA)	(0)	۷.	(Um)		AB/2	7/NW	(mV)	(mA)	(0)	X.	(WB)	AND THE PERSON NAMED IN
	1.5		206.	20.0	10.33	6.283	64.9		50	∞	37.2	199.	0.186	478.3	0.68	
	2.5		76.0	20.0	3.799	18.85	9.12		20	2	8.72	199.	0.041	1960.4	80.4	
-	3.2		48.7	20.0	2.433	31.39	76.4		65		20.9	178.	0.117	817.0	92.6	-
	4	Li C	32.4	20.0	1.620	49.48	80.2	====	80		17.3	199.	0.086	1244.1	107.	
, <u>, , , , , , , , , , , , , , , , , , </u>	5.	<u></u>	22.2	20.0	1.110	77.75	86.3		100	∞	14.7	199.	0.073	1950.9	142.	
<u></u>	6.5		35.1	50.0	0.702	132.0	92.7		130					3305.7		
	8		24.0	50.0	0.481	200.3	96.3		160					5014.0		
	10		31.9	100.	0.319	313.4	100.		160	30				1206.4		
	10	C	136.	100.	1.364	75.40	103.		200	76				1913.2		
	13	7	82.0	100.	0.820	129.6	106.		200	8				7841.4		
	13	0.5	19.5	100	0.195	530.1	103.	-	250	:				3017.7		
ــــــــــــــــــــــــــــــــــــــ	16		53.5	100.	0.534	197.9	106.		320	···				4976.3		
	20	*. *.	33.4	100.	0.334	311.0	104.		400	:				7803.7		
	25	7	19.6	100.	0.196	487.7	95.6		500	32		14		12222.		
	32		22.6	199.	0.113	801.1	90.5		650					20689.		
!	40		11.8	176.	0.066	1253.5	82.7		800					31366.		
	40	∞	56.3	56.3 185.	0.303	301.6 91.3	91.3									

THE VERTICAL ELECTRICAL SOUNDING

	2 / Nov. /1989	ation)																			:
	Nov	figu	Q	(Om)	257.	263.	325.	370.	443.	486.	486.	502.	385.	369.							
	DATE 2/	(Schlumberger Configuration)	2	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	:
	1	Schlumbe	R	(0)	0.538	0.134	0.398	0.297	0.227	0.147	0.097	0.416	0.201	0.047							
	HASE		1	(mA)	100.	100.	100.	200.	200.	200.	50.0	57.9	51.2	50.0							
	ION (P	TESTED BY HIROSHI HIRAMOTO	Λ	(mV)	53.9	13.4	39.8	59.5	43.6	29.4	4.87	24.1	10.3	2.39				:			
	RN REG	IROSHI	O/ NIN	MIN/ 2	8	2			∞			20	76	8				32			
	EASTE	D BY H	6/ QV	17D/ 2	20	20	9	80	100	130	160	160	200	200	250	320	400	500	650	800	
	IN THE	TESTE							:												
	OJECT	N30W	e Q	(Qm)	90.2	57.3	48.3	48.5	45.1	46.2	50.5	58.0	54.6	67.3	71.0	80.9	104.	132.	169.	214.	208.
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	. [1]	\	4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	WATTER SI	LINE DIRECTION	ద	(0)	14.35	3.042	1.540	0.939	0.580	0.350	0.252	0.185	0.724	0.519	0.134	0.409	0.333	0.270	0.211	0.171	0.690
WANDA	RURAL	1	 1	(mA)	20.0	20.0	50.0	50.0	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
THE REPUBLIC OF RWANDA	ON THE	Na Ep-17 S- 1	>	(mV)	287.	60.09	77.1	47.0	58.1	35.0	25.3	18.5	72.5	52.0	13.4	40.9	33.3	27.0	21.1	17.1	69.1
EPUBL I	STUDY (Ma. Ep.	S IN	7 / 1111				<u>.</u>					c	7	0.5			2			8
THE R	THE	TEST	V a.v	7 /02	17	2.5	3.2	Þ	5	6.5	∞	10	10	13	13	16	20	25	32	40	40

THE VERTICAL ELECTRICAL SOUNDING

THE R	THE REPUBLIC OF RWANDA	C OF R	WANDA			1-									
THE	STUDY	ON THE	RURAL	STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	PPLY PR	OVECT 1	IN THE	EASTE	KN REG	ION (PI	HASE) DATE	.]	2 / Nov./1989	686
TEST	Na Ep	Ep-17 S	S-2 LI	LINE DIRECTION	- []	N35W	TESTED BY	H X8 0	HIROSHI HIRAMOTO	HIRAM	Ţ	(Schlumberger	,	Configuration)	lon)
, c.	(INT	Λ	I	R	2	g Q	=======================================	c/ qv	(N	, >) 	R	12	e Q	
7/gy	MN/2	(m)	(шА)	(0)	4	(Om)		AD/ 4	7 /viiii	(m/)	(mA)	(0)	4	(Om)	
1.5		281.	10.0	28.05	6.283	176.		50	8	44.4	172.	0.258	478.3	123.	
2.5		149.	20.0	7.478	18.85	141.		20	2	10.5	172.	0.061	1960.4	120.	
3.2		74.0	20.0	3.694	31.39	116.		65		29.2	184	0.158	817.0	129.	
4	LI C	102.	50.0	2.043	49.48	101.		80	·	2.66	24.5	0.108	1244.1	134.	
5	C O	54.3	50.0	1.085	77.75	84.4		100	∞	4.93	60:7	0.081	1950.9	158.	
6.5		48.1	100.	0.481	132.0	63.5		130		1.29	28.2	0.045	3305.7	149.	
8		28.3	100.	0.283	200.3	26.7		160		1.49	52.1	0.028	5014.0	140.	
10		36.3	200.	0.181	313.4	2.95		160	30	8.48	52.7	0.160	1206.4	193.	
10	<u>ر</u>	141.	200.	0.707	75.40	53.3		200	76	5.25	45.8	0.114	1913.2	218.	
13	7	8.68	200	0.448	129.6	58.1		200	8	0.94	46.0	0.020	7841.4	157.	
13	0.5	23.0	200.	0.117	530.1	62.0		250					3017.7		
16		66.2	200.	0.330	197.9	65.3		320					4976.3		
20		50.2	200	0.251	311.0	78.1		400					7803.7		
25	2	35.6	200.	0.178	487.7	8.98		500	32	1 %			12222.		* 1
32		20.1	167.	0.120	801.1	95.3		650					20689.		: i
40		16.0	200	0.080	1253.5	100.		800					31366.		
40	∞	68.0	200	0.340	301.6	103.								-	

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用	STUDY	ON THE	THE STUDY ON THE RURAL WATE	WATER SI	R SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	OJECT	IN THE	EASTE	REG	ION (P	HASE		DATE 2 / Nov. /1989	Nov./	6861
TEST	Ma. Ep	-17 S	TEST No. Ep-17 S- 3 LINE D		IRECTION E-W	-W	TESTE	D BY H	IROSHI	HIRAM) <u>ot</u> c	Sch lumbe	TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration)	figura	tion)
6/ QV	C/ IN	Λ	Н	R	/1	p Q		V/ d.v	C/ INM	>	 	R	Δ	e O	
AD/ 4		(mV)	(mA)	(0)	4	(Um)		7 /qu	7 / NIIM	(m V)	(mA)	(0)	4	(пп)	
1.5		730.	10.0	72.90	6.283	458.		50	8	17.6	.20.0	0.351	478.3	168	:
2.5		347.	10.0	34.68	18.85	654.		20	2	4.10	50.0	0.082	1960.4	161.	
3.2		251.	10.0	25.10	31.39	788.	-	99		11.4	100.	0.114	817.0	92.3	
7	L	176.	10.0	17.59	49.48	870.		80		5.06	95.7	0.052	1244.1	64.7	
ın	ς >	114.	10.0	11.42	77.75	888.		100	∞	5.52	169.	0.032	1950.9	62.4	
6.5		74.0	10.0	7.390	132.0	976.		130	<u> </u>	1.85	9.62	0.023	3305.7	76.0	
∞		103.	20.0	5.142	200.3	1030		160		1.42	82.2	0.017	5014.0	85.2	
10		65.5	20.0	3.274	313.4	1026		160	20	7.15	82.7	0.085	1206.4	103.	
10	Ç	307.	20.0	15.33	75.40	1156		200	75	14.5	200.	0.072	1913.2	138.	
13	7	168.	20.0	8.418	129.6	1091	:	200	8	3.07	200.	0.015	7841.4	118.	
13	0.5	36.5	20.0	1.822	530.1	996		250					3017.7		
16		2.96	20.0	4.831	197.9	956.	:	320					4976.3		
70	_	107.	50.0	2.155	311.0	670.		400	······································				7803.7		
25	7	53.2	50.0	1.063	487.7	518.		200	32				12222.		
32	· · · · · ·	22.7	50.0	0.453	801.1	363.		650					20689.		
40		4.32	20.0	0.216	1253.5	271.		800					31366.		
40	∞	19.4	20.0	0.970	301.6	293.				:			:		

THE VERTICAL ELECTRICAL SOUNDING

-	THE RE	SPUBL I	THE REPUBLIC OF RWANDA	WANDA							-					- Andrews
	THE	TUDY	ON THE	RURAL	STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	PPLY PRO	DIECT	IN THE	EASTE	N REG	ION (PI	IASE I	L)DATE	E 14.7	14 / Nov./1989	989
	TEST	Na Ep	Ep-19 S	S- 1 II	LINE DIRECTION	11	NZOW	TESTE	BY H	ROSHI	TESTED BY HIROSHI HIRAMOTO	. !	(Schlumberger		Configuration)	ion)
-	. av	C/ [WT	Λ		교	, 22	n Q	· ·	0/04	C/ NM	>	;4	R	2	8	
	AD/ 2	7 / AIIII	(mV)	(mA)	(0)	4	(Qm)		7 /Qu	MIN/ 2	(m/)	(mA)	(3)	ረ	(Om)	
	1.5		275.	50.0	5.507	6.283	34.6		50	8	34.6	200.	0.172	478.3	82.3	
	2.5		99.0	50.0	1.979	18.85	37.3	·	20	2	8.81	199	0.044	1960.4	86.3	
-	3.2		8.99	50.0	1.136	31.39	35.7		9		19.7	199.	860.0	817.0	80.1	
	4	C	33.9	50.0	0.677	49.48	33.5		80		11.9	199.	0.059	1244.1	73.4	
	بر.))	21.3	50.0	0.426	77.75	33.1		100	∞	19.9	199.	0.033	1950.9	64.4	
	6.5		11.9	50.0	0.237	132.0	31.3		130		2.72	199.	0.013	3305.7	43.0	
	8		7.86	20.0	0.157	200.3	31.5		160		1.07	199.	0.005	5014.0	25.1	
	10		10.1	100.	0.101	313.4	31.6		160	27	4.97	199.	0.024	1206.4	29.0	
	10	ç	49.1	100.	0.491	75.40	37.0		200	26				1913.2		
	13	V I	31.1	100.	0.311	129.6	40.3		200	∞				7841.4		
1	13	0.5	6.57	100.	0.065	530.1	34.5		250					3017.7		
	16		22.7	100.	0.227	197.9	44.9		320	· . · · · · · · · · · · · · · · · · · ·				4976.3		
	20		16.7	100.	0.167	311.0	51.9		400					7803.7		
	25	7	12.4	100.	0.123	487.7	0.09		500	32	14 (14 (14 (14 (14 (14 (14 (14 (14 (14 (12222.	- 1.1	
	32		17.8	200.	0.089	801.1	71.3		059					20689.		
	40		12.7	199.	0.063	1253.5	79.0		800					31366.		
7 7 7	40	8	50.3	199.	0.251	301.6	75.7									

THE VERTICAL ELECTRICAL SOUNDING

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	7198	atio				- <u>0</u> 2-	ائ ا	- _U -	- 9	- <u>8</u> 2-	-0	-∞-									
	Oct	figur	D a	(Um)	19792	15683	15825	11874	13526	13798	10640	12208	8784	7614			_	·			
	DATE 28 / Oct./1989	ger Con	Δ	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841 . 4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	1	(Schlumberger Configuration)	꿈	(0)	41.38	8.000	19.37	9.544	6.933	4.174	2.122	10.12	4.591	0.971							
	IASE III.)		þ-u-d	(mA)	10.01	10.01	10.01	20.0	18.1	14.5	8.92	8.77	10.0	10.3							
	ION (P	HIRAMOTO	Λ	(mV)	414.	80.0	193.	191	125.	60.7	18.9	88.8	45.9	10.0							
	RN REG	HIROSHI	() No.	7 / NIW	8	2	:		∞			30	7	8				32			
	EASTE		C/ QV	7 /gu	50	50	65	80	100	130	160	160	200	200	250	320	400	500	650	800	
	N THE	TESTED BY									:										=
	JECT 1	N55E	в Q	(Qm)	3084	5753	7213	8471	9921	11968	13122	14326	14386	15513	15458	16233	16573	16411	15926	16095	20509
	PPLY PR	1 1	Λ	ć.	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE	LINE DIRECTION	24	(0)	490.8	305.2	8.622	171.2	127.6	79.06	65.51	45.71	190.8	119.7	29.16	82.03	53.29	33.65	19.88	12.84	68.00
MANDA	RURAL		—	(mA)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
THE REPUBLIC OF RWANDA	ON THE	Nn Ep-20 S- 1	Λ	(mV)	4913	3056	2301	1714	1277	907.	655.	457.	1910	1198	291.	821.	533.	336.	199.	128.	680.
PUBL I	STUDY	Na Ep	C/ INN	7 /AIII		# # # # # # # # # # # # # # # # # # #	• • •) L	C	4.11			C	7	0.5			7			8
THE RI	THE	TEST	C/ G.V	AD/ 2	1.5	2.5	3.2	T	15	6.5	∞	10	10	- 13	13	16	30	25	32	40	40

THE VERTICAL ELECTRICAL SOUNDING

	1989	tion)		:					·			:									
	Oct. /	Configuration)	6 O a	(mg)	512.	574.	436.	447.	445.	512.	542.	428.	488.	549.							
	DATE 28 / Oct./1989		2	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	-	(Schlumberger	꿈	(0)	1.071	0.293	0.534	0.359	0.228	0.155	0.108	0.355	0.255	0.070							
	IASE. III	ļ	 	(mA)	50.0	100.	100.	100.	100.	100.	95.9	9.96	8.16	0.36		1 11					
	ION (P	HIROSHI HIRAMOTO	>	(m/)	53.6	29.3	53.4	35.9	22.8	15.5	10.4	34.3	24.2	7.57			i				
	3N REG	ROSHI	C/ IWN	MIN/ 2	8	2			∞			2,	77	8				32		:	
	EASTE		0	AD/ 2	50	20	59	80	100	130	160	160	200	200	250	320	400	500	929	800	
	IN THE	TESTED BY									· i										
	JECT	NZOE	B 0/	(Om)	1133	1601	1893	2181	2467	2705	2872	2691	2653	2201	2221	1716	1221	993.	863.	763.	.669
	PPLY PRO	- ! !		4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	LINE DIRECTION	ద	(0)	180.3	84.95	60.31	44.08	31.73	20.49	14.34	8.586	35.18	16.98	4.190	8.671	3.925	2.035	1.077	0.609	2.317
NANDA	RURAL		1-4	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0
C OF R	ON THE	Ep-20 S-	>	(mV)	3609	1700	1207	882.	635.	410.	287.	171.	704.	340.	83.8	173.	78.5	40.7	21.5	30.5	115.
THE REPUBLIC OF RWANDA	STUDY (Na Ep-	C/ 101	7 / NIIW				<u> </u>	0				Ç	7	0.5			2			8
THE RI	THE	TEST	9	AB/2	1.5	2.5	3.2	큠	5	6.5	8	10	10	13	13	16	20	25	32	40	40
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THE VERTICAL BLECTRICAL SOUNDING

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	1989	tion							. F. f			:	:				.·.				
٠.	0ct./	figura	во	(Om)	431.	384.	358.	372.	340.	304.	351.	389.	421.	408.							
	DATE 28 / Oct. /1989	ger Con	Λ	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	1	TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration)	R	(0)	0.902	0.196	0.438	0.299	0.172	0.092	0.070	0.322	0.220	0.052							
	HASE III)	S) OIIC	⊢ ⊀	(mA)	7.45	7.44	5.95	11.0	8.09	11.4	14.0	14.4	100.	188.							;
	ION (PI	HIRAM	^	(mV)	6.72	1.45	2.61	3.31	1.32	1.06	0.99	4.66	22.0	9.83					1-		
:	RN REG	IROSHI	C/ NA	מווע/ ב	8	2		:	∞			77	22	8				32			
	EASTE	D BY H	ν, α.γ	RD/ 2	50	20	<u> </u>	80	100	130	160	160	200	200	250	320	400	200	650	800	_===
	IN THE	TESTE					me elle.	·							÷			4			1, ,
	OJECT	N50W	o o	(Qm)	7628	4613	3224	2315	1830	1493	1294	1206	1283	1141	1116	928.	645.	533.	413.	434.	488.
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE	[]	>	4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
	WATER SI	LINE DIRECTION	പ്പ	(0)	1214.0	244.7	102.7	46.79	23.53	11.36	6.461	3.848	17.02	8.806	2.106	4.687	2.075	1.032	0.515	0.346	1.618
IANDA	RURAL	~	⊦⊣	(mA)	1.22	2.56	3.31	3.17	3.71	2.96	3.17	5.14	5.40	3.62	3.64	4.38	4.91	4.92	7.39	6.49	6.45
THE REPUBLIC OF RWANDA	ON THE	-20 S-	>	(mV)	1485	627.	340.	148.	87.3	33.5	20.5	19.8	61.6	31.8	7.67	20.5	10.2	5.08	3.81	2.25	10.4
EPUBL I	STUDY	Na. Ep-20	V.	7 /MIN				u C))				Ç	7	0.5			7		:	8
THE R	THE	TEST	A.D. / G.A.	4D/4	1.5	2.5	3.2	4	5	6.5	8	10	10	13	13	16	20	25	32	40	40
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THE VERTICAL ELECTRICAL SOUNDING

THE REPUBLIC OF RWANDA	IC OF R	WANDA					.i.		. :					
STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	IPPLY PRO	DIECT 1	N THE	EASTER	N REG	ION (PI	HASE III	DATE		30 / Oct./1989	989
TEST No. E.	Ep-21 S	S- 1 []	LINE DIREC	RECTION N	NEOW	TESTED BY		ROSHI	HIROSHI HIRAMOTO		(Schlumberger Configuration)	ger Con	figurat	
C/ (MX	Λ	I	꿈		вО		6/ q¥	C/ NM	Λ		R	1	G B	
2/VIII 2/GB	(mV)	(mA)	(0)	4	(Om)			MIN 2	(mV)	(mA)	(O)	ď	(Lm)	2
ιζ	800.	20.0	39.94	6.283	251.		50	∞	2.72	10.2	0.264	478.3	126.	
rύ	251.	20.0	12.53	18.85	237.		20	2	2.20	30.6	0.072	1960.4	141.	
3.2	160.	20.0	8.031	31.39	252.		65		16.9	50.0	0.138	817.0	112.	
4	103.	20.0	5.161	49.48	255.		80		5.72	50.0	0.114	1244.1	142.	
5.0	53.9	20.0	2.690	77.75	209.		100	8	8.37	100.	0.083	1950.9	162.	
6.5	23.6	20.0	1.181	132.0	156.		130		5.58	100.	0.055	3305.7	182.	
∞	35.5	50.1	0.710	200.3	142.		160		6.11	146.	0.041	5014.0	206.	
10	20.4	50.0	0.408	313.4	128.		160	30	21.5	146.	0.146	1206.4	176.	
10	99.1	50.0	1.980	75.40	149.		200	72	22.6	200.	0.113	1913.2	216.	
13 4	47.3	50.0	0.944	129.6	122.		200	8	6.55	200.	0.032	7841.4	251.	
13 0.5	10.0	50.0	0.201	530.1	107.		250					3017.7		
16	29.0	50.0	0.579	197.9	115.		320		2 (2)			4976.3		
20	17.8	50.0	0.356	311.0	113		400					7803.7		
25 2	11.3	50.0	0.226	487.7	110.		500	32				12222.		
32	9.00	59.7	0.150	801.1	120.		650					20689.		
40	6.81	63.1	0.107	1253.5	134.		800					31366.		* :
40 8	19.8	50.0	968.0	301.6 119.	119.				i i					

THE VERTICAL ELECTRICAL SOUNDING

THE VERTICAL ELECTRICAL SOUNDING

	DATE 30 / Oct. /1989	(Schlumberger Configuration)	D a	(0m)	10 478.3 292.	99 1960.4 213.	56 817.0 299.	79 1244.1 347.	53 1950.9 299.	55 3305.7 182.	34 5014.0 171.	54 1206.4 198.	16 1913.2 222.	24 7841.4 188.	3017.7	4976.3	7803.7	12222.	20689.	31366.	
	SE III)		1 R	(mA) (0)	50.0 0.610	50.0 0.109	50.0 0.366	50.0 0.279	100. 0.153	176. 0.055	180. 0.034	180 0.164	150. 0.116	152. 0.024							
	EGION (PH	HI HIRAMO	>	() m()	30.5	5.09	18.3	14.0	15.4	9.74	6.13	29.6	17.6	3.80				<u> </u>			
	SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	TESTED BY HIROSHI HIRAMOTO	·	AB/Z MN/Z	50 8	50 2	9	80	100 8	130	160	160	200	200 8	250	320	400	500 32	650	800	
	T IN THE	TESTE	m	n)	×.	٥.	7.	9).	3.	7.	5	8	0.	1	4.	1	5.	0	1	0
	PLY PROJEC	TON	B Q 24	(Am)	6.283 278.	18.85 256.	31.39 237.	49.48 229.	77.75 220.	132.0 203.	200.3 177.	313.4 146.	75.40 148.	129.6 130.	530.1 131.	197.9 124	311.0 124.	487.7 135.	801.1 150.	1253.5 181.	301 6 369
	WATER SUP	LINE DIRECTION	R	(0)	44.21	13.56	7.561	4.623	2.831	1.535	0.882	0.464	1.958	1.002	0.247	0.627	0.398	0.277	0.187	0.144	0.803
RWANDA	E RURAL	3	jt	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0	50.0	50.0	50.0	0.05	50.0	0.05	0 05	7 50 0
SLIC OF	DY ON TH	Ep-21 S-	Λ	(M)	885.	271.	151.	92.5	56.6	30.7	17.6	23.3	98.0	50.1	0.5 12.3	31.3	19.9	2 13.8	9.39	7.21	8 44 7
THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL WATER	TEST No.	_	AD/2 min/2	1.5	2.5	3.2	- T	5	6.5	∞	10	10	13	13 0	16	20	25	32	40	UV 1

THE VERTICAL ELECTRICAL SOUNDING

	/ Nov./1989	Configuration)		(6	8														
	Nov	ıfigu	80	(Qm)	1269	1288	657.	378.	277.	281	296.	358.	417.	361						
*	DATE 1		Λ	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976,3	7803.7	12222		20689.
	1	(Schlumberger	껊	(0)	2.653	0.657	0.804	0.303	0.142	0.085	0.026	0.297	0.218	0.046						
:	HASE III) ((mA)	20.0	20.0	20.0	42.8	50.0	94.1	68.1	69.1	25.4	19.6	:					
	10N (P	TESTED BY HIROSHI HIRAMOTO	Λ	(m)	53.1	13.1	16.1	13.0	7.10	8.02	4.05	20.6	5.54	0.92						
	RN REG	IROSHI	C/ NW	miv/ &	8	2			∞	1.15		ç	26	8				32		
	EASTE	D BY H	07 dV	nb/ 2	50	50	65	80	100	130	160	160	200	200	250	320	400	200		929
	IN THE	TESTE			:		·									. *				
	DIECT		в O	(Um)	363.	460.	571.	700.	857.	1115	1348	1625	1784	2079	1883	2310	2292	7574		2204
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	CTION	Z	٠ د	6.283	18.85	31.39	49.48	77 75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7		801.1
	WATER SI	TEST No. Ep-21 S- 4 LINE DIRECTION	R	(0)	57.72	24.39	18.18	14.14	11.02	8.444	6.732	5.186	23.66	16.04	3.552	11.67	7.371	4.703		2.751
HANDA	RURAL	- 4 [1]	F4	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.1	19.7	20.0	20.0	20.0	7	20.0
THE REPUBLIC OF RWANDA	N THE	-21 S	Λ	(NE)	1157	489.	364.	283.	220.	.691	134	103.	**************************************	307.	70.0	233.	147	94.2		55.1
EPUBL I	STUDY (Na Ep	WN W	7 / 12		:		L C	∩ >				Ç	۷	0.5			7		
THE R	THE	TEST		7/gu	1.5	2.5	3.2	4	rv	6.5	8	10	10	13	13	16	70	25		32

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	THE S	TUDY	ON THE	THE STUDY ON THE RURAL WAT	WA'TER SI	ER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	OJECT II	N THE	EASTE	3N REG	ION (PI	IASE III)_ DATE		16 / Nov. /1989	989
	TEST	Na. 8p-21	- 14	S-5 L	LINE DIRE	DIRECTION	N-S	TESTED BY		HIROSHI HIRAMOTO	HIRAM	į	(Schlumberger		Configuration)	
	0,00	C/ 1481	Λ	 }	R	/1	p Q	====	AD //3	(ids	>	;I	A.		# Q	
	AB/ 2	7 / NTW	(mV)	(mA)	(0)	4	(Dm)		7/gH	7 / NIW	(mV)	(mA)	(0)	Z.	(Qm)	-:
	1.5		795.	20.0	39.67	6.283	249.		50	8	42.0	50.0	0.839	478.3	401.	
ــــــــــــــــــــــــــــــــــــــ	2.5		301.	20.0	15.05	18.85	284.		50	2	7.78	50.0	0.155	1960.4	304.	
<u> </u>	3.3		181.	20.0	9.042	31.39	284.		65		28.9	50.0	0.577	817.0	471.	
	4	L	115.	20.0	5.743	49.48	284.		80		17.8	50.0	0.357	1244.1	444	
	ιn	n D	64.2	20.0	3.208	77.75	249.		100	∞	10.4	50.0	0.208	1950.9	406.	·
	6.5		32.7	20.0	1.636	132.0	216.		130		12.9	100.	0.128	3305.7	423.	
	∞		21.0	20.0	1.052	200.3	211		160		9.79	100.	0.097	5014.0	486.	
لـــــا	10		12.8	20.0	0.643	313.4	202.		160	30	31.8	100.	0.317	1206.4	382.	
	10	Ç	68.4	20.0	3.417	75.40	258.		200	26	20.6	97.6	0.222	1913.2	425.	1
	13	7	42.0	20.0	2.097	129.6	272.		200	∞	6.38	92.7	0.068	7841.4	533.	
	13	0.5	8.03	20.0	0.401	530.1	213.		250					3017.7		
	16	Xe se Ze Î	29.9	20.0	1.493	197.9	296.		320					4976.3		
	20	- 12 - 12 - 1	19.5	20.0	0.975	311.0	303.		400					7803.7	: .	
است	25	(4)	12.3	20.0	0.617	487.7	301		200	32				12222.		
	32		19.5	20.0	0.389	801.1	312.		059					20689.		
	40		12.2	50.0	0.245	1253.5	307.		800					31366.		
	40	8	6.99	50.0	1.336	301.6	4.3.									
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THE VERTICAL ELECTRICAL SOUNDING

	686	on)					en Politic (company)														<u> </u>
	Nov. /19	igurati	s Q	(nn)	629.	578.	726.	. 269	644.	572.	577.	526.	614.	659.							
	DATE 16 / Nov./1989	ger Conf		저	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	 -
		(Schlumberger Configuration)	<u>د</u>	(G)	1.315	0.295	0.888	0.560	0.330 1	0.176	0.115	0.436	0.321	0.084		ý					
	IASE III		I	(mA)	16.6	17.2	20.0	20.0	19.9	13.2	18.9	19.1	50.0	100.							<u>- -</u>
:	10N (PH	TESTED BY HIROSHI HIRAMOTO	>	(m)	21.8	5.08	17.8	11.2	6.59	2.34	2.20	8.35	16.0	8.42			-				
	RN REG	IROSHI	0	7/NW	8	2			∞			3.7	24	8				32			
	EASTE	BY H	9	AB/2	50	20	65	80	100	130	160	160	200	200	250	320	400	500	650	800	
	IN THE	TESTE																			1
	DUBCT	NIOW	e Q	(Lm)	364.	419.	387.	338.	283.	259.	240.	249.	286.	290.	256.	308.	334.	404.	447.	496.	536.
	WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)		· À	Z.	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311:0	487.7	801.1	1253.5	301.6
	WATER SI	LINE DIRECTION	꿈	(8)	57.95	22.25	12.34	6.824	3.644	1.958	1.198	0.794	3.789	2.238	0.482	1.554	1.075	0.829	0.558	0.396	1.777
IANDA		S- 6 LI	H	(mA)	20.0	20.0	20.0	18.9	20.0	20.0	20.0	20.0	20.0	20.0	20.0	17.3	20.0	20.0	20.0	20.0	20.0
OF RW	N THE	11	Λ	(mV)	1161	445.	247.	129.	73.0	39.2	24.0	15.9	75.9	44.8	99.6	26.9	21.5	9.91	1.1	7.95	35.6
THE REPUBLIC OF RWANDA	THE STUDY ON THE RURAL	Nn. Ep-21	W.101	7 / NW				1.5		<u> </u>			Ç	7	0.5		· .	7			8
THE RI	THE	TEST		AB/2	1.5	2.5	3.2	4	7.7	6.5	∞ ∞	10	10	13	13	16	70	25	32	40	40

THE VERTICAL ELECTRICAL SOUNDING

THE R	THE REPUBLIC OF RWANDA	C OF R	WANDA							į					
出	STUDY	ON THE	THE STUDY ON THE RURAL WATER		SUPPLY PROJECT IN THE EASTERN REGION (PHASE III))JECT 1	N THE	EASTER	N REG	ION (P	HASE	ĺ	DATE 16 / Nov./1989	Nov. /1	989
TEST	9	Ep-21 S	S- 7 LI	LINE DIREC	RECTION N	N25E	TESTED	BY HI	ROSHI	TESTED BY HIROSHI HIRAMOTO	[(Schlumberger	rger Con	Configuration)	ion)
0, q.v	(A) (A)	Λ	Ţ	R	<u> </u>	p o			0/10/1	>		ద	2	ď Q	
HD/2	MIN/2	(mV)	(mA)	(0)	4	(nm)		AD/ 2	7 / Niv.	(mV)	(mA)	(0)	4	(Qm)	
1.5		1450	20.0	72.40	6.283	455.		- 50	∞	45.5	14.5	3.135	478.3	1500	
2.5		356.	20.0	17.80	18.85	336.		50	2	8.04	14.6	0.550	1960.4	1078	
3.2		199.	20.0	9.953	31.39	312.		65		15.8	10.2	1.555	817.0	1270	
T	L4	129.	20.0	6.452	49.48	319.		80		9.36	12.5	0.748	1244.1	931.	VINOR CLIAN [®]
5) >	97.0	20.0	4.843	77.75	377.		100	∞	3.62	9.50	0.380	1950.9	741.	
6.5		64.0	20.0	3.197	132.0	422.		130		3.46	20.6	0.167	3305.7	552.	
8		48.1	20.0	2.405	200.3	482.		160		1.49	17.5	0.084	5014.0	421.	- X43, 181
10		35.3	20.0	1.765	313.4	553.		160	3.7	6.81	17.7	0.383	1206.4	462.	
10	ç	171.	20.0	8.557	75.40	645.		200	26	7.62	35.9	0.190	1913.2	364.	
13	7	110.	20.0	5.509	129.6	714.		200	8	1.71	40.1	0.042	7841.4	330.	
13	0.5	23.2	20.0	1.159	530.1	614.		250					3017.7		
16		76.1	20.0	3.804	197.9	753.		320					4976.3		
20		50.6	20.0	2.527	311.0	786.		400					7803.7		
25	~ 1	32.3	19.4	1.665	487.7	812.		500	32				12222.		
32	·	21.8	20.0	1.089	801.1	872.		650					20689.		
40		11.7	14.2	0.822	1253.5	1030		800		1: 1			31366.		
40	8	6.69	69.9 14.7	4.753	301.6 1434	1434									
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THE REPUBLIC OF RWANDA	PUBL 10	COF R	MANDA												:
THE S	TUDY (N THE	THE STUDY ON THE RURAL WATE	WATER SI	R SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	JECT 1	N THE	EASTER	N REG	10N (P	HASE		DATE 16 / Nov. /1989	Nov.	1989
TEST	Na. Ep-21		S- 8 LINE D		IRECTION		TESTED	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		Schlumbe	(Schlumberger Configuration)	figura	tion)
<u> </u>	0/.181	Λ	;— 4	껆.	. 1	в <i>О</i>			C/ IVM	Λ	·	ద	\	b a	
HB/2	MIN/ 2	(m)	(mA)	(0)	্	(Um)		7/gu	Min/ 2	(mV)	(mA)	(0)	4	(Om)	
7.		1163	20.0	58.07	6.283	365.		50	8	9.95	50.0	1.131	478.3	541.	
2.5		463.	20.0	23.12	18.85	436.		50	2	11.3	50.0	0.225	1960.4	441.	
3.2		297.	20.0	14.86	31.39	467.		65	* . :.	27.9	50.0	0.558	817.0	456.	
4	: C	202.	20.0	10.09	49.48	499.	·	80	:	19.9	50.0	0.398	1244.1	495.	
5	رن دن	141.	20.0	7.054	77.75	549.		100	∞	10.0	50.0	0.201	1950.9	392.	
6.5		84.3	20.0	4.211	132.0	556.		130		10.0	100.	0.100	3305.7	331.	
8		51.0	20.0	2.548	200.3	510.		160		7.50	145.	0.051	5014.0	256.	
10		31.5	20.0	1.573	313.4	493.		160	3.7	18.8	100.	0.188	1206.4	227.	
10	(129.	20.0	6.473	75.40	488.		200	76	16.6	134.	0.123	1913.2	235.	
13	7	0.99	20.0	3.297	129.6	427.		200	8	4.59	138.	0.033	7841.4	259.	
13	0.5	16.4	20.0	0.821	530.1	435.	-	250					3017.7	in a	
16		35.8	20.0	1.788	197.9	354.		320					4976.3		
20	ii ii	19.9	20.0	0.996	311.0	310.		400					7803.7		
25	7	12.6	20.0	0.632	487.7	308.		200	32				12222.	. 11.1	
32		8.04	50.0	0.401	801.1	322.		650					20689.		
40		15.5	50.0	0.311	1253.5	390.		800					31366.		
40	∞,	78.6	50.0	1.571	301.6	474	:								
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	THE	REPUBL.	THE REPUBLIC OF RWANDA	RMANDA		. :									·	
	THE	STUDY	ON THE	RURAL	WATER S	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE BASTERN REGION (PHASE III)	OJECT	IN THE	BASTE	RN REG	TON (P	HASE		DATE 16 / Nov. /1989	Nov. /	686
	TEST	N E	Ep-21 S	S-9 L	LINE DIRE) IRECTION		TESTE	D BY H	IROSHI	TESTED BY HIROSHI HIRAMOTO	0100	(Schlumberger Configuration)	rger Con	figurat	(ion)
	AR /2	NW /	>	}(ద	2	b a		9	0,141	>	,	22		G G	
	7 /au		(mV)	(mA)	(ä)	∠	(Um)		AB/2	MN/2	(NII)	(mA)	(0)	¥	(Om)	
	1.5	 1	3568	20.0	178.1	6.283	1119		50	∞	15.4	8.05	1.911	478.3	914.	
	2.5		1274	20.0	63.61	18.85	1199		20	2	2.68	8.10	0.330	1960.4	647.	
*********	3.2	· · · · · · · · · · · · · · · · · · ·	821.	19.3	42.48	31.39	1334		9		8.52	9.40	0.907	817.0	741.	
	4		478.	15.0	31.83	49.48	1575		80		5.53	12.8	0.430	1244.1	535.	
	rv	\ > 	290.	12.3	23.51	77.75	1828		100	∞	2.28	13.5	0.168	1950.9	328.	
	6.5	· .	171.	10.9	15.72	132.0	2075		130		0.80	11.4	0.069	3305.7	228.	
	8		108.	9.59	11.28	200.3	2259		160		1.16	26.4	0.044	5014.0	221.	
	10		71.2	10.0	7.117	313.4	2231	ı	160		11.0	26.0	0.414	1206.4	500.	
	10	~	289.	10.0	28.92	75.40	2181		200	24	4.46	18.1	0.246	1913.2	471.	
	13	1	150.	9.43	15.99	129.6	2072		200	8	0.29	18.2	0.015	7841.4	118.	
	13	0.5	38.2	9.61	3.981	530.1	2110		250					3017.7		
	16		75.1	8.51	8.820	197.9	1746		320					4976.3		
·	20	n Santa Menangan	33.9	6.42	5.287	311.0	1644		400					7803.7		
. yteria	25	7	23.4	7.78	3.012	487.7	1469		200	32				12222.		
	32	<u> </u>	15.3	10.0	1.533	801.1	1228		029					20689.		
ا	40		6.79	8.72	0.778	1253.5	975.		800					31366.		
	40	∞	40.0	40.0 8.77	4.561	301.6 1376	1376									
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	1989	tion)	i .																		
	18 / Nov. /1989	figura	Q	(Om)	457.	543.	512.	560.	603.	479.	516.	495.	387.	423.		.:					
	DATE 18 /	(Schlumberger Configuration)	24	4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
		Schlumbe	R	(0)	0.955	0.277	0.627	0.450	0.306	0.145	0.103	0.410	0.202	0.054							
	HASE II		<u> </u>	(mA)	50.0	50.0	50.0	50.0	50.0	8.16	41.9	42.2	30.5	30.7							
	10N (P	TESTED BY HIROSHI HIRAMOTO	Λ	(mV)	47.8	13.8	31.4	22.5	15.5	13.8	4.34	17.3	6.17	1.66							
	N REG	TROSHI	C/ 18M	Z / NIII	8	2			∞			23	76	8		-1		32			
	EASTE	D BY H	c/ av	AD/ 2	50	50	-59	80	100	130	160	160	200	200	250	320	400	200	059	800	
	IN THE	TESTE				·						-									
	DIECT	N5 W	p Q	(Om)	284.	319.	332.	329.	326.	333.	353	374.	386.	413.	398.	387	325.	307.	365.	468.	390.
	PPLY PRO]	/1	4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
L.	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	NE DIRECTION	ਸ਼	(0)	45.20	16.92	10.57	6.645	4.187	2.520	1.760	1.193	5.117	3.188	0.751	1.955	1.046	0.629	0.455	0.373	1.294
ANDA	RURAL	TEST NO. EP-21 S-10 LINE	1-4	(mA)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.02	20.0	50.0	50.0	50.0
OF RW	N THE	21 S-	>	(MV)	.906	339.	211.	133.	83.9	50.5	35.2	23.9	102.	63.8	15.0	39.1	20.9	12.6	22.8	18.7	64.8
THE REPUBLIC OF RWANDA	TUDY C	Na Ep-	9 189	7 / NIM		 	•	L	ر. د.					7	0.5			2			8
THE RE	THE S	TEST		7/gu	1.5	2.5	3.2	4	5	6.5	∞	10	10	13	13	16	20	25	32	40	40
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THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE BASTERN REGION (PHASE III)	IPPLY PRO	OJECT	IN THE	EASTE	N REG	10N (PI	AASE III) DATE		18 / Nov./1989	686
TEST	No. Ep	TEST No Ep-21 S-11	-11 [1]	LINE DIREC	RECTION N	NISW	TESTED BY		ROSHI	HIROSHI HIRAMOTO	- 1	(Schlumberger	ger Con	Configuration)	ion)
(/ QF		>	Ţ	ਸ਼	11	во	3	C/ C4	W 197	>	} →	<u>م</u>	**	p a	
AD/ 2	Z /NIM	(mV)	(mA)	(0)	4	(Qm)		AB/ 2	7 / NIW	(mV)	(mA)	(0)	4	(Qm)	
1.5		2226	20.0	111.1	6.283	.869		50	8	32.6	47.2	0.691	478.3	331.	
2.5		933.	20.0	46.57	18.85	878.		50	2	8.05	47.3	0.170	1960.4	333.	
3.2		.009	20.0	29.98	31.39	941.		9		14.0	50.0	0.280	817.0	229.	!
4		378.	20.0	18.90	49.48	935.		80		6.84	20.8	0.329	1244.1	409.	
,lC) -	243.	50.0	12.14	77.75	944.		100	8	5.53	36.5	0.151	1950.9	295.	
6.5		145.	50.0	7.238	132.0	.556		130		2.44	34.2	0.071	3305.7	235.	
∞		77.3	18.4	4.180	200.3	288		160	- 1	1.54	26.8	0.057	5014.0	286.	
10		48.9	20.0	2.444	313.4	.992		160	30	3.14	24.7	0.127	1206.4	153.	
10	, <	211.	20.0	10.54	75.40	795.		200	27	8.35	81.8	0.102	1913.2	195.	
13	7	68.4	20.0	3.415	129.6	443.		200	8	3.96	82.0	0.048	7841.4	378.	
13	0.5	16.0	20.0	0.799	530.1	424.		250					3017.7		
16		49.0	20.0	2.448	197.9	485.		320					4976.3		
20		37.0	20.0	1.847	311.0	574.		400					7803.7		
25	7	19.1	20.0	0.957	487.7	467.		500	32		: :		12222.		oo, ay a tribe.
32		21.2	46.2	0.460	801.1	369.		650					20689.		
040		10.7	50.0	0.215	1253.5	270.		800					31366.		
40	8	43.8	43.8 50.0	0.876	301.6	264.							e de la companya de l	1	

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	THE S	STUDY	ON THE	RURAL	WATER SI	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III))JECT]	IN THE	EASTEF	N REG	10N (P	HASE	1	DATE 18 / Nov. /1989	Nov. /	686
	TEST	TEST No Ep-21	-21 S	S-12 L	LINE DIREC	IRECTION NI5W	5W	TESTE	BY HI	ROSHI	TESTED BY HIROSHI HIRAMOTO		(Schlumberger Configuration)	rger Con	figura	tion)
	C/ 48	C/ NM	>	ш	ద		n O		AR/O	6/ NM	Λ	→	ద	Λ	B O	
	7 /au	7 /NIII	(mV)	(mA)	(0)	4	(Om)		AD; 4	7 /MI	(Vm)	(mA)	(0)	4	(Om)	-
	1.5		5158	20.0	257.5	6.283	1618		50	8	14.3	50.0	0.286	478.3	137.	
	2.5		1367	20.0	68.31	18.85	1288		50	2	6.94	80.4	0.086	1960.4	169.	
	3.2		664.	20.0	33.18	31.39	1042		65		15.4	100.	0.154	817.0	126.	
	Ţ.	<u>u</u>	347.	20.0	17.35	49.48	859.		80		5.27	47.9	0.109	1244.1	136.	
	5	n 5	177.	20.0	8.884	77.75	691.		100	00	2.63	87.5	0.087	1950.9	170.	
	6.5		76.1	20.0	3.803	132.0	502.		130		5.93	9.88	0.066	3305.7	218.	
	8		40.9	20.0	2.045	200.3	410.		160		5.96	103.	0.057	5014.0	286.	
	10		15.4	20.0	0.770	313.4	241.		160	37	21.1	106.	0.198	1206.4	239.	
	10	Ç	67.9	20.0	3.394	75.40	256.		200	76	19.4	136.	0.142	1913.2	272.	
	13	7	35.9	20.0	1.793	129.6	232.		200	8	5.74	136.	0.042	7841.4	329.	
	13	0.5	8.47	20.0	0.423	530.1	224.		250		. :			3017.7		
	16		24.6	20.0	1.232	197.9	244.		320	-				4976.3		
	20		15.9	20.0	0.794	311.0	247.		400					7803.7		
,	25	0	9.78	20.0	0.488	487.7	238.		500	32				12222.		
<u> </u>	32		12.3	50.0	0.246	801.1	197.		920					20689.		
	40		6.73	50.0	0.134	1253.5	168.		800			-		31366.		
	40	∞	22.7	50.0	0.454	301.6	137.		;					:		
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THE VERTICAL ELECTRICAL SOUNDING

Ħ	E RE	PUBL I	THE REPUBLIC OF RWANDA	WANDA												
E	THES	TUDY	ON THE	RURAL	STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	IPPLY PRI	OJECT	IN THE	EASTE	N REG	ION (P	HASE	1	DATE 6 /	6 / Nov./1989	586
田	TEST	No. Ep-22	- 11	S- 1 LI	LINE DIRECTION	- 11	MOZN	TESTED BY		ROSHI	HIROSHI HIRAMOTO	1	(Schlumberger Configuration)	rger Con	figural	ion)
a.v		C/ NW	Λ	;I	R	À	8 <i>Q</i>		6/ dv	C/ INM	\wedge	<u> </u>	껆	,	n Q	
G	AD/ 2	min/ Z	(Mm)	(mA)	(0)	4	(ma)		7 /Gu	7 / ١	(m/)	(mA)	(0)	4	(Um)	**************************************
v(ī.		749.	20.0	37.44	6.283	235.		50	8	20.6	100.	0.206	478.3	98.5	
2	יט		202.	20.0	10.12	18.85	191.		50	2	5.87	100.	0.058	1960.4	114.	
m.	.5	:	91.1	20.0	4.553	31.39	143.		65		11.8	85.5	0.138	817.0	113.	
	4	1 <i>i</i>	48.4	20.0	2.419	49.48	120.		80	:	3.74	36.7	0.101	1244.1	126.	
	ιC))	28.3	20.0	1.416	77.75	110.	211 21	100	∞	2.91	42.3	0.068	1950.9	133.	. :
9	6.5	. -	14.8	20.0	0.740	132.0	7.76		130		4.99	100.	0.049	3305.7	162.	
	8	- 	9.12	20.0	0.456	200.3	91.3		160		3.94	100.	0.039	5014.0	196.	
şI	10		5.45	20.0	0.272	313.4	85.3		160	37	19.4	100.	0.194	1206.4	234.	
F	10	C	22.8	20.0	1.144	75.40	86.3		200	24	14.6	100.	0.146	1913.2	279.	
F1	13	۷	12.6	20.0	0.633	129.6	82.0		200	8	3.00	100.	0.029	7841.4	227.	
; —1	E.	0.5	7.85	50.0	0.157	530.1	83.2		250					3017.7		
F(16		19.5	50.0	0.391	197.9	77.4		320					4976.3		:
C4	28		13.0	50.0	0.261	311.0	81.2		400					7803.7		
CA	25	7	8.78	50.0	0.175	487.7	85.4		500	32				12222.		
(1)	32		5.83	50.0	0.116	801.1	92.9		650					20689.		
7	40		8.16	100	0.081	1253.5	102.		800					31366.		
~J"	40	8		29.0 100.	0.290	301.6	87.5	1 ¹								
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	THE R	THE REPUBLIC OF RWANDA	C OF F	RWANDA			1 2									
	THE	STUDY	ON THI	E RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT	UPPLY PR	i	IN THE	EASTE	REG	ION (P	IN THE EASTERN REGION (PHASE III)	_	DATE 6 /	/ Nov. /1989	686
	TEST	TEST Na Ep-22		S- 2 L	S- 2 LINE DIRECTION	- 11	N30E	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		(Schlumberger	rger Con	Configuration)	ion)
	AR/O	\ <u>\</u>	>	·	R	21	e Q		0,0	0,10	Λ		R		o a	
	7/1		(m/)	(mA)	(0)	4	(Qm)		7/gy	MIN/3	(ME)	(mA)	(0)	×	(Qm)	
	L.		1175	20.0	58.70	6.283	369.		20	8	20.7	50.0	0.415	478.3	199.	
	2.5		417.	20.0	20.85	18.85	393.		50	2	6.12	50.0	0.122	1960.4	239.	
	3.2		242.	20.0	12.10	31.39	380.		65		11.8	50.0	0.236	817.0	193.	
	ħ,	ر. ح	136.	20.0	908.9	49.48	337.		80		8.37	50.0	0.167	1244.1	208.	
м	5) >	84.9	20.0	4.243	77.75	330.		100	∞	5.33	50.0	0.106	1950.9	207.	
- 8	6.5		49.8	20.0	2.492	132.0	329.		130		6.95	100.	0.069	3305.7	228.	
7	∞		31.4	20.0	1.571	200.3	315.		160	•	4.31	100.	0.043	5014.0	216.	
-	10		17.1	20.0	0.855	313.4	268.		160	ç	15.0	100.	0.150	1206.4	181.	
	10	C	78.0	20.0	3.899	75.40	294.		200	70	10.4	108.	960.0	1913.2	184.	
	13	1	35.3	20.0	1.765	129.6	229.		200	8	3.02	108.	0.027	7841.4	212.	
	13	0.5	7.81	20.0	0.390	530.1	207.		250					3017.7		
	16		22.1	20.0	1.104	197.9	219.		320					4976.3		
	20		12.8	20.0	0.643	311.0	200.		400					7803.7		
	25	2	21.0	50.0	0.420	487.7	205.		200	32				12222.		
	32		14.1	50.0	0.282	801.1	226.		029	<u> </u>				20689.		
·	40		10.0	50.0	0.200	1253.5	251.		800					31366.		
	40	∞	34.0	50.0	0.681	301.6	205.						:			
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THE VERTICAL ELECTRICAL SOUNDING

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THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	JPPLY PR	DIECT	IN THE	EASTE	N REG	ION (PI	HASE		DATE 27 / Oct./1989	Oct./1	989
TEST	4	Ep-23 S	S-1 L	LINE DIREC	IRECTION N	N4OE	TESTED BY		IROSHI	HIROSHI HIRAMOTO	1	(Schlumberger	rger Con	Configuration)	ion)
c/ av	C/ NM	>	}	œ	×	g g	,	618 /7	MNI /	>	} (R	2	E Q	
7 /qu	MIN/ 4	(JIIV)	(mA)	(0)	4	(Um)		5)/Gu	7 /viii/	(m)	(mA)	(0)	d	(Om)	المالي منهورو بدلان
1.5	 -	120.	20.0	6.038	6.283	37.9		20	8	16.2	100.	0.162	478.3	77.5	
2.5	-	11.7	20.0	0.584	18.85	11.0		20	2	4.30	100.	0.043	1960.4	84.3	
3.2		16.1	44.5	0.362	31.39	11.4		9		12.1	100.	0.121	817.0	6.86	
ক	ى - -	12.2	50.0	0.244	49.48	12.1		80		16.6	100.	0.099	1244.1	123.	
5	, ,	8.32	50.0	0.166	77.75	12.9		100	∞	8.12	100.	0.081	1950.9	158.	
6.5	·	5.43	50.0	0.108	132.0	14.3		130		3.49	50.0	0.069	3305.7	228.	
∞		3.77	47.7	0.078	200.3	15.6	:	160		2.99	50.0	0.059	5014.0	.962	
10		2.58	41.3	0.062	313.4	19.4		160	27	9.75	50.0	0.195	1206.4	235.	
10	٠	10.8	40.7	0.265	75.40	20.1		200	77	7.91	48.9	0.161	1913.2	308.	
13	1	8.22	41.3	0.199	129.6	25.8		200	∞	2.45	48.9	0.050	7841.4	392.	
m	0.5	1.94	40.9	0.047	530.1	24.9		250		:			3017.7		
16		7.86	50.0	0.156	197.9	30.9		320					4976.3		Ì
20		6.14	50.0	0.122	311.0	37.9		400					7803.7		
25	8	4.83	50.0	0.096	487.7	46.8		500	32				12222.		
32		7.20	100.	0.071	801.1	56.9		650			12.		20689.		
£0		5.64	100.	0.056	1253.5	70.2		800					31366.		
40	.∞	21.3	100.	0.212	301.6	63.9									

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	Ž .	E E	- 1	SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	OJECT	N THE	EASTER	REG	NO NO	HASE	. 1	DATE 27 / Oct./1989	/ Oct./	1989
No. Ep-23 S- 2			S- 2 LINE DIREC	RECTION NIOW	10W	TESTED BY		HIROSHI HIRAMOTO	HIRAM	010	(Schlumberger	erger Co	Configuration)	tion)
>		i–i	K	2	o a	•	υ/ α ν	6/191	Λ	; -(교	***	e Q	
(mV)		(mA)	(0)	4	(na)		7 /QU	7 / NIM	(m)	(mA)	(0)	~	(nn)	
46.3		20.0	2.312	6.283	14.5		50	8	16.6	100.	0.165	478.3	78.9	
35.9		50.0	0.717	18.85	13.5		50	2	8.54	200.	0.042	1960.4	82.3	
22.9		50.0	0.457	31.39	14.4		65		24.4	200	0.122	817.0	7.66	
16.0	0	50.0	0.320	49 48	15.8		80		17.6	171.	0.103	1244.1	128	
21.7	<u></u>	100.	0.217	77.75	16.9	24	100	8	8.64	100.	0.086	1950.9	168.	
13.9	0,	100.	0.139	132.0	18.4		130	L	89.9	94.6	0.070	3305.7	231.	
10	10.0	100.	0.100	200.3	20.0		160		4.96	83.7	0.059	5014.0	296	
9	6.79	92.3	0.073	313.4	22.9		160	00	21.4	84.2	0.255	1206.4	308.	
29	29.3	91.3	0.320	75.40	24.1		200	76	21.2	100.	0.211	1913.2	404.	
18	18.5	84.3	0.219	129.6	28.4		200	8	4.96	100.	0.049	7841.4	384.	
4	4.41	84.2	0.052	530.1	27.6		250					3017.7		
7,	14.0	81.4	0.172	197.9	34.0		320					4976.3		
=	13.0	100.	0.130	311.0	40.4		400					7803.7		
10	10.0	100.	0.100	487.7	48.8		500	32				12222.		
7	7.52	100.	0.075	801.1	60.1		059		4			20689.	:	
5.76	92	100.	0.057	1253.5	71.5		800					31366.		
22.5	, T	100.	0.225	301.6	67.8	====								

THE VERTICAL ELECTRICAL SOUNDING

THE R	THE REPUBLIC OF RWANDA	C OF R	WANDA												
THE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	UPPLY PR	OJECT	IN THE	EASTE	N REG	ION (P	HASE		DATE 27/	27 / Oct. /1989	989
TEST	No. Ep-23		S-3 L	LINE DIRE	RECTION	N60E	TESTED BY		ROSHI	HIROSHI HIRAMOTO		(Schlumberger		Configuration)	ion)
AR/7	C/ NM	>	-	ഷ	2	B Q	•	C/ Q.V	C/ NM	Λ		ਮ	1,	p Q	-
7 /21	2 / 1111	(mV)	(mA)	(0)	4	(Om)		8D/2	2 /VIII	(Niii)	(mA)	(0)	4	(0m)	atrait atom par
1.5		70.9	50.0	1.417	6.283	8.90		50	8	6.65	100.	990.0	478.3	31.6	
2.5		19.5	50.0	0.390	18.85	7.35		50	2	1.68	100.	0.016	1960.4	31.4	
3.2		10.8	50.0	0.216	31.39	6.78		65		5.16	100.	0.051	817.0	41.7	
4	ις -	13.5	100.	0.134	49.48	6.63		80		4.27	100.	0.042	1244.1	52.3	
72	}	9.00	100.	0.090	77.75	7.00		100	∞	3.53	100.	0.035	1950.9	68.3	
6.5		6.16	100.	0.061	132.0	8.05		130		4.79	160.	0.029	3305.7	95.9	
∞		4.42	95.0	0.046	200.3	9.21		160		4.30	162.	0.026	5014.0	120.	
10		3.55	100.	0.035	313.4	11.0		160	30	18.1	162.	0.111	1206.4	134.	
10	C	13.6	100.	0.136	75.40	10.3	:	200	26	10.9	118.	0.092	1913.2	176.	
13	3	9.55	100.	0.095	129.6	12.3		200	8	2.63	118.	0.022	7841.4	173.	
13	0.5	2.48	100.	0.024	530.1	12.7		250					3017.7		
16		7.22	100.	0.072	197.9	14.3		320					4976.3		
20	: "	5.28	100.	0.052	311.0	16.2		400					7803.7		
25	2	6.16	160.	0.028	487.7	18.5		500	32				12222.		
32		4.67	172.	0.027	801.1	21.6		650			. : .		20689.		
40		2.06	100.	0.020	1253.5	25.1		800					31366.		
40	8	8.31	100.	0.083	301.6 25.0	25.0									
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THE VERTICAL ELECTRICAL SOUNDING

THE R	EPUBL I	THE REPUBLIC OF RWANDA	WANDA									1 1.:			Γ
THE	STUDY	THE STUDY ON THE	RURAL	WATER S	RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	OJECT	IN THE	EASTE	RN REG	ION (P	HASE		TE 25/	DATE 25 / Oct./1989	
TEST	No. Ep-24	2-24 S		INE DIRE	S- 1 LINE DIRECTION NIOW	10W	TESTE	D BY H	IROSHI	HIRAM	010	Schlumbe	rger Cor	TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration)	~
AB/2	NN /	>	F	ద	<u></u>	D B		4R //	WN /2	>		R	12	Pa	
		(mV)	(шА)	(0)	X 1	(Um)		nD/ 2	7 /NIII/	(m/)	(mA)	(0)	X.	(mg)	-
1.5		161.	20.0	8.051	6.283	9.05		50	∞	16.6	100.	0.165	478.3	78.9	T
2.5		36.1	20.0	1.801	18.85	34.0		50	2	8.75	200.	0.043	1960.4	84.3	1
3.2		19.0	20.0	0.950	31.39	29.8		65		11.9	100.	0.119	817.0	97.2	-
4	لا ح	28.2	50.0	0.563	49.48	27.9	:	80	•	10.2	100.	0.102	1244.1	127.	
2)	17.5	50.0	0.350	77.75	27.2		100	∞	8.04	7.06	0.088	1950.9	172.	
6.5	<u> </u>	21.1	100.	0.211	132.0	27.9		130	•	7.38	100.	0.073	3305.7	241.	
8		13.8	100.	0.138	200.3	27.6		160		11.3	173.	0.065	5014.0	326.	T
10		15.9	200.	0.087	313.4	27.3		160	00	42.7	172.	0.246	1206.4	297.	
10	C	39.8	100.	0.397	75.40	29.9		200	70	34.1	167.	0.203	1913.2	388.	-
13	3	25.4	100.	0.254	129.6	32.9		200	∞	9.92	183.	0.054	7841.4	423.	<u> </u>
13	0.5	11.3	200.	0.056	530.1	29.7		250					3017.7		
16		18.9	100.	0.189	197.9	37.4		320			,		4976.3		
20		14.3	100.	0.143	311.0	44.5		400	1				7803.7		-
25	7	10.8	100.	0.107	487.7	52.2		200	32				12222.		
32		14.1	182.	0.077	801.1	61.7		650					20689.		
40		5.96	100.	0.059	1253.5	74.0		800					31366.		
40	8	22.9	100.	0.228	301.6	8.89	====								
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THE VERTICAL ELECTRICAL SOUNDING

黑	THE REPUBLIC OF RMANDA	C OF R	MANDA												
HE	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE	IPPLY PRO	DECT IN	THE	EASTER	N REG	ION (P		III) DATE	25	/ Oct./1989	989
TEST	No. Ep-24	- ((S-2 LI	LINE DIREC	IRECTION N	NIOW I	TESTED BY		ROSHI	HIROSHI HIRAMOTO		(Schlumberger		Configuration)	ion)
d b	(V) (V)	Λ	I	ਲ	1	o a	,== =	70.70	C/ NA	>	·	R	۵	d a	
AD/4		(mV)	(mA)	(0)	A I	(an)		7/gu	7 / NIII/	(mV)	(mA)	(0)	4	(Om)	
1.5		281.	20.0	14.02	6.283	88.1		50	8	28.6	165.	0.173	478.3	82.8	
2.5		62.4	20.0	3.117	18.85	58.8		50	2	7.30	165.	0.044	1960.4	86.3	
3.2	:	29.5	20.0	1.473	31.39	46.2		65		13.3	100.	0.133	817.0	109.	
4		13.9	20.0	0.695	49.48	34.4		80		10.9	100.	0.108	1244.1	134.	
N.	, ,	15.9	20.0	0.318	77.75	24.7		100	æ	14.0	172.	0.081	1950.9	158.	
6.5		16.1	100.	0.161	132.0	21.3		130		10.3	169.	0.061	3305.7	202.	
8	F	10.8	100.	0.108	200.3	21.6		160		8.31	167.	0.049	5014.0	246.	
10		7.50	100.	0.074	313.4	23.2		160	37	31.4	167.	0.187	1206.4	226.	
10	, ,	31.2	100.	0.312	75.40	23.5		200	36	27.0	174.	0.154	1913.2	295.	
13	7	21.6	100.	0.216	129.6	28.0		200	8	8.25	199.	0.041	7841.4	322.	
13	0.5	5.28	100.	0.052	530.1	27.6		250					3017.7		
16		16.4	100.	0.164	197.9	32.5		320					4976.3		
20		12.0	100.	0.120	311.0	37.3		400					7803.7		
25	~	17.0	187.	0.091	487.7	44.4		500	33				12222.		
32		10.9	162.	0.067	801.1	53.7		650					20689.		
40		9.22	172.	0.053	1253.5	99.4		800					31366.		
40	8	Ļ- ,	36.2 172.	0.210	301.6	63.3									

THE VERTICAL ELECTRICAL SOUNDING

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1989	tion)				.:															
, Oct. /	ıfigura	p Q	(Qm)	326.	276.	364.	457.	581.	645.	712.	1095	1240	808.							:
			4	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7.803.7	12222.	20689.	31366.	
1	Schlumbe	ಜ	(0)	0.681	0.141	0.446	0.367	0.298	0.195	0.142	0.908	0.648	0.103							
HASE		 1	(mA)	16.4	16.4	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0							
ION (P	HIRAM	>	(M)	11.1	2.34	8.93	7.34	5.97	3.91	1.43	9.08	6.49	1.04							
RN REG	IROSHI	0/18/	7777	8	2			∞		<u> </u>	ç	70	∞		-		32			
EASTE	D BY H	U/ QV	AD/ 2	. 50	20	99	80	100	130	160	160	200	200	250	320	400	200	059	800	
IN THE	TESTE	•																÷		
OJECT	40W	o a	(Qm)	2166	2141	2173	2040	1544	927.	503.	430.	390.	317.	331.	272.	242.	230.	244.	265.	315.
UPPLY PR		2	4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6
WATER S		껖	(0)	344.8	113.6	69.21	41.22	19.86	7.024	2.507	-1.371	5.174	2.446	0.625	1.376	0.778	0.472	0.305	0.211	1.045
RURAL	3 [.] 	(mA)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.98	8.85	10.0	10.0	16.1	19.8	16.6	17.0	10.0	10.0
ON THE	-24 S	>	(mV)	3452	1137	692.	412.	198.	70.3	25.1	12.3	45.8	24.4	6.25	22.2	15.4	7.88	5.18	2.12	10.4
STUDY	No. Ep	C/ NM	7)				ı.c	;				,	1	0.5			2			∞
H	TEST	AR77		1.5	2.5	3.2	4	7	6.5	∞	10	10	13	13	16	20	25	32	40	40
	THE STUDY ON THE KUKAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) DATE 25 / Oct. /1989	Na Ep-24 S-3 LINE DIRECTION NAOW TESTED BY HIROSHI HIRAMOTO (Schlumberge	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger V I R	Na. Ep-24 S-3 LINE DIRECTION LINE DIRECTION LINE DIRECTION LINE DIRECTION NAOW TESTED BY HIROSHI HIRAMOTO V I R MN/2 (mV) (mV)	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger NaV/2 (mV) (mA) (283 2166 50 8 11.1 16.4 0.681 478	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger NM/2 (mV) (mA) (nA) (nA) (nA) (nB) (0m) (0m)	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger NM/2 (mV) (mA) (nA) (nA) (nB) (0m) (0	Na Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHT HIRAMOTO Schlumberger Na Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHT HIRAMOTO Schlumberger Na Can Can	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger K (0m) (mv) (mv)	Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO Chlumberger Na. Ep-24 S-3 LINE DIRECTION N40W TESTED BY HIROSHI HIRAMOTO (Schlumberger Na/2 W I R AB/2 NA/2 W/3 I R R Na/2 (mV) (mA) (mA) (mA) (mA) (mA) R R 3452 10.0 344.8 6.283 2166 50 8 11.1 16.4 0.681 478 1137 10.0 113.6 18.85 2141 50 2 2.34 16.4 0.141 1960 692. 10.0 69.21 31.39 2173 65 2 2.34 16.4 0.141 1960 0.5 10.0 41.22 49.48 2040 80 7.34 20.0 0.367 1244 10.8 10.0 7.024 132.0 927. 130 0.195 3305	MN/2 (mV) (mA) (mA) (mA) (mA) (mA) (mA) (mA) (mA	Na. Ep-24 S3 LINE DIRECTION A4OW TESTED BY HIROSHI HIRAMOTO (Schlumberser MN/2 (mV) (mA) (M	NA EP-24 S. 3 LINE DIRECTION M40W TESTED BY HIROSHI HIRAMOTO (Schlumberger NN/2 (mV) (mA) (2) R (2m) R610N (PHASE III) DATE 2 NA I R R	No. The Kural Majers Supply Project In the Eastern Region (Phase III) Date 2	No. The role No. Line National N	Name Name	May 2 No. 1	May 2 May 3 May	May 2 A	Main Main

THE VERTICAL ELECTRICAL SOUNDING

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	E STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE II)	UPPLY PR	OJECT	IN THE	EASTE	REG	10N (P	HASE		DATE 25 / Oct./1989	0ct./19	989
TEST	ğ	Ep-24 S	5- 4 L	S- 4 LINE DIRECTION		N10W	TESTE	TESTED BY HIROSHI HIRAMOTO	IROSHI	HIRAM		(Schlumberger Configuration)	rger Con	figurat	ion)
AR //	WW /	>	; <u>-</u>	잪	۵	вО		9		>		곱	;	20	
j j		(mV)	(mA)	(0)	d	(Um)		AB/2	7/NW	(m/)	(mA)	(B)	X.	(Om)	-
1.5	10	3171	20.0	158.3	6.283	995.		22	∞	13.0	20.0	0.653	478.3	312.	
2.5		1350	20.0	67.43	18.85	1271		20	2	3.43	20.0	0.171	1960.4	225.	
3.2	<u> </u>	927.	20.0	46.30	31.39	1453		65		8.58	20.0	0.428	817.0	350.	
4	ى - ك	588.	20.0	29.38	49.48	1454		80		7.33	20.0	0.366	1244 1	455.	
ιζ.	<u>}</u>	345.	20.0	17.27	77 75	1343		100	∞	5.73	20.0	0.286	1950.9	558.	
6.5	101	63.1	10.0	6.302	132.0	832.		130		10.8	48.5	0.223	3305.7	737.	
∞	1	53.8	20.0	2.689	200.3	539.		160	·	8.99	50.0	0.179	5014.0	.868	
10		21.8	20.0	1.093	313.4	343.		160	ç	28.1	50.0	0.562	1206.4	678.	
10	·	93.1	20.0	4.650	75.40	351.	: :	200	7	22.3	50.0	0.445	1913.2	851.	
13	3	35.9	19.5	1.836	129.6	238.		200	∞	7.12	50.0	0.142	7841.4	1113	
13	0.5	8.67	19.5	0.445	530.1	236.		250					3017.7		
16	: :	20.0	18.8	1.065	197.9	211.		320					4976.3		
20	* · · · · · · · · · · · · · · · · · · ·	11.5	16.9	0.680	311.0	212.		400					7.803.7		
25	~	9.16	20.0	0.457	487.7	223.		200	32				12222.		
32	· /	5.26	18.8	0.312	801.1	249.		650	<u> </u>				20689.		
40		4.75	20.0	0.237	1253.5	297.		800					31366.		
40	8	18.3	20.0	0.914	301.6 276.	276.									

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J.N.C) DATE 26 / Oct./1989	(Schlumberger Configuration)	R, ,,	(0) K (0m)	0.585 478.3 280.	0.155 1960.4 304.	0.448 817.0 366.	0.338 1244.1 421.	0.260 1950.9 507.	0.193 3305.7 638.	0.143 5014.0 717.	0.505 1206.4 609.	0.398 1913.2 762.	0.113 7841.4 886.	3017.7	4976.3	7803.7	12222.	20689.	31366.	
SOUNDING		THE STUDY ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	HIRAMOTO (S	Λ Ι Ι	(mV) (mA)	29.3 50.0	7.76 50.0	21.9 48.9	6.78 20.0	5.22 20.0	8.75 45.3	6.42 44.5	22.3 44.2	19.9 50.0	5.67 50.0							
CAL_ELECTRICAL		RN REGION	HIROSHI HI	-) 7 / NIW 	8 29	2 7	21	9	8	∞	9		22 19	8 5.		7.		32			
CTR		HE EAST	TESTED BY H		AD/ 2	20	20	: 65	08	100	130	160	160	200	200	250	320	400	500	650	800	
ELE		ECT IN T		в С	(Sm)	901.	337.	215.	115.	8.77	59.3	59.9	66.4	3.5	78.4	82.2	94.2	120.	161.	218.	265.	200
TICAL		PPLY PROJ	TION NIOE	 	·	6.283 9(18.85 33	31.39 2	49.48 11	77.75	132.0 59	200.3 59	313.4 66	75.40 63	129.6 78	530.1 82	197.9 94	311.0 12	487.7 16	801.1 21	1253.5 26	201 6 2
VERTI		WATER SU	LINE DIRECTION	ద	(0)	143.4	17.88	6.833	2.333	1.001	0.449	0.299	0.212	0.842	0.605	0.155	0.476	0.387	0.330	0.272	0.211 1	300.0
THE	WANDA	RURAL	121	-	(mA)	20.0	20.0	18.2	20.0	20.0	20.0	20.0	20.0	20.0	20.0	45.6	42.2	42.7	43.7	41.6	50.0	0 0
	THE REPUBLIC OF RWANDA	ON THE	TEST No. Ep-24 S-	>	(MV)	2875	358.	124.	46.7	20.0	9.00	6.01	4.26	16.8	12.1	7.12	20.1	16.5	14.4	11.3	10.5	40.2
	EPUBL I	STUDY	Ma Ep						С	}				,	3	0.5			7			٥
	THE R	HE -	TEST	AB/2		1.5	2.5	3.2	4	5	6.5	∞ .	10	10	13	13	16	20	25	32	40	01

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图	STUDY	ON THE	RURAL	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	IPPLY PRO	OUBCT	IN THE	EASTER	IN REG	ION (PI	HASE III	1	DATE 26 / Oct./1989	0ct./1	989
TEST	No. Ep-24	-24_S	S-6 L	LINE DIREC	IRECTION N	N40W	TESTE	TESTED BY HIROSHI HIRAMOTO	ROSHI	HIRAM		Schlumber	(Schlumberger Configuration)	figurat	lion)
C/ d V	C/ NAV	Λ	} 4	껁	42	в <i>О</i>	,	6/ QV	C/ NW	Λ	7	꿈	<u> </u>	ВО	
AD/ 4		(mV)	(mA)	(0)	4	(nn)			7 /NII/	(mV)	(mA)	(0)	4	(Om)	12 material (12 may 12 may
1.		306.	20.0	15.31	6.283	96.2		50	8	16.2	100.	0.162	478.3	77.5	a de esta de la composition della composition de
2.5		99.5	20.0	4.972	18.85	93.7		50	2	6.31	179.	0.035	1960.4	9.89	
3.2		57.3	20.0	2.864	31.39	6.68		65		9.95	100.	0.099	817.0	80.9	
Ą		31.7	20.0	1.585	49.48	78.4		80		11.5	164.	0.070	1244.1	87.1	
יע	<u> </u>	44.2	50.0	0.883	77.75	68.7		100	∞	4.83	100.	0.048	1950.9	93.6	
6.5		23.3	50.0	0.467	132.0	61.6		130		3.29	100.	0.032	3305.7	106.	
∞		27.4	100.	0.273	200.3	54.7		160		4.21	166.	0.025	5014.0	125.	
10	:	15.3	100.	0.153	313.4	48.0		160	27	16.6	161.	0.103	1206.4	125.	
10	· c	70.3	100.	0.703	75.40	53.0		200	24	4.14	50.0	0.082	1913.2	157.	
13	J	39.4	100.	0.394	129.6	51.1		200	8	1.01	50.0	0.020	7841.4	157.	
133	0.5	16.7	188.	0.088	530.1	46.7		250					3017.7	41	
16	' '	26.5	100.	0.265	197.9	52.4		320					4976.3		
20	-	18.2	100.	0.182	311.0	56.6		400					7803.7		
25	7	12.2	100.	0.122	487.7	59.5		500	32				12222.		
32		13.4	171	0.078	801 1	62.5		059		. :			20689.	:	
40		10.0	189.	0.053	1253.5	66.4	-	800					31366.		
40	. ∞ 	47.4	47.4 189.	0.250	50 301.6 75.4	75.4									

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THE STUDY ON THE RILAR MATER SUPPLY PROJECT IN THE BASTERN REGION (Priase III). DATE 26 / Oct./1989 TEST Na. Be-24. S. 1. LINE DIRBCTION NSOE. TESTED BY HIROSHI HIRAMOTO (Schlumberger Configuration) AB/2 MA/2 MA/2 (MV) (mA) (mA) (mA) (mA) (mA) (mA) (mA) (mA	989																	
STUDY ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE IND) ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE IND) ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE IND) ON THE RURAL MATER (Jm) No. 1	Oct./1	O a (Qm)	176.	180.	218.	260.	316.	410.	511.	585.	773.	674.						
STUDY ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MANACON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MANACON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MANACON THE RURAL MANACON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (ma) (ma) (ma) (ma) (ma) (ma) (ma) (ma)	E 26 /	×	478.3	1960.4	817.0		1950.9	3305.7	5014.0	1206.4	<u> </u>	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.
STUDY ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MAYOR ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MAYOR ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MAYOR ON THE RURAL MATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE MAYOR ON THE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE MAYOR ON THE DIRECTION NSOE TESTED BY HIROSHI HIRAMOTO (PHASE MAYOR ON THE) DA7	R (8)	0.367	0.092	0.267	0.200	0.162	0.124	ļ	 	0.404							
STUDY ON THE RURAL MATER SUPPLY PROJEC Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. C	HASE III	1 -	20.0	20.0	16.3	20.0	20.0	19.0	20.0	20.0	20.0	50.0						
STUDY ON THE RURAL MATER SUPPLY PROJEC Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. C	ION (PF	V (Vm)	7.34	1.86	 	 -	1		 	<u> </u>			::					
STUDY ON THE RURAL MATER SUPPLY PROJEC Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. C na.) (na.) (na.) (2) R (3na.) 3078 20.0 153.7 6.283 966 753. 20.0 37.63 18.85 709 459. 20.0 14.06 49.48 696 459. 20.0 4.260 132.0 562 48.8 20.0 2.438 200.3 486 21.7 20.0 1.086 313.4 340 21.7 20.0 1.086 313.4 340 21.7 20.0 0.433 530.1 230 17.3 17.8 0.974 197.9 193 2 4.54 19.3 0.234 487.7 114. 2 4.54 19.3 0.153.5 155.	ROSH I	MN/2	 	2			L				L			<u> </u>		32		
STUDY ON THE RURAL MATER SUPPLY PROJEC Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. C na.) (na.) (na.) (2) R (3na.) 3078 20.0 153.7 6.283 966 753. 20.0 37.63 18.85 709 459. 20.0 14.06 49.48 696 459. 20.0 4.260 132.0 562 48.8 20.0 2.438 200.3 486 21.7 20.0 1.086 313.4 340 21.7 20.0 1.086 313.4 340 21.7 20.0 0.433 530.1 230 17.3 17.8 0.974 197.9 193 2 4.54 19.3 0.234 487.7 114. 2 4.54 19.3 0.153.5 155.	EASTE D BY H	1 (3)	50	50	65	80	100	130	160	160	200	200	250	320	400	500	029	800
STUDY ON THE RURAL MATER SUPPLY PROJEC Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. Ep-24 S-7 LINE DIRECTION N50E Na. C na.) (na.) (na.) (2) R (3na.) 3078 20.0 153.7 6.283 966 753. 20.0 37.63 18.85 709 459. 20.0 14.06 49.48 696 459. 20.0 4.260 132.0 562 48.8 20.0 2.438 200.3 486 21.7 20.0 1.086 313.4 340 21.7 20.0 1.086 313.4 340 21.7 20.0 0.433 530.1 230 17.3 17.8 0.974 197.9 193 2 4.54 19.3 0.234 487.7 114. 2 4.54 19.3 0.153.5 155.	IN THE TESTE																	
AM BP-24 S-7 LINE I MA PP-24 S-7 LINE I MA/2 (mV) (mA) (15 3078 20.0 15 753. 20.0 37. 753. 20.0 37. 281. 20.0 4.2 285.2 20.0 4.2 48.8 20.0 2.4 48.8 20.0 5.5 21.7 20.0 1.0 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 22 4.54 19.3 0.2 24.55 20.0 0.1	1 711 1	OB (Um)	.996	709.	720.	.969	640.	562.	486.	340.	415.	277.	230.	193.	142.	114.	127.	155.
AM BP-24 S-7 LINE I MA PP-24 S-7 LINE I MA/2 (mV) (mA) (15 3078 20.0 15 753. 20.0 37. 753. 20.0 37. 281. 20.0 4.2 285.2 20.0 4.2 48.8 20.0 2.4 48.8 20.0 5.5 21.7 20.0 1.0 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 21.7 20.0 0.4 22 4.54 19.3 0.2 24.55 20.0 0.1	JPPLY PR	×	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5
	WATER SI	R (0)	153.7	37.63	22.94	14.06	8.225	4.260	2.438	1.086	5.509	2.138	0.433	0.974	0.455	0.234	0.158	22
	ANDA RURAL 7 LI	Л (па)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	18.7	20.0	17.8	17.5	19.3	20.0	20.0
	OF RW ON THE	V (mV)	3078	753.	459.	281.							8.67					
	EPUBLIC STUDY (Na Ep	MN/2		-			````		L			1	0.5	J		1		
THE	THE R THE	AB/2	1.5	2.5	3.2	4	רט	6.5	∞	10	10	13	13	16	20	25	32	40

THE VERTICAL ELECTRICAL SOUNDING

	686	ion)																			
	0ct./1	Configuration)	8	(nm)	207.	222.	277.	347.	439.	585.	742.	590.	804.	.966							
	DATE 26 / Oct./1989		12	∠	478.3	1960.4	817.0	1244.1	1950.9	3305.7	5014.0	1206.4	1913.2	7841.4	3017.7	4976.3	7803.7	12222.	20689.	31366.	
		HIROSHI HIRAMOTO (Schlumberger	겁	(0)	0.433	0.113	0.339	0.279	0.225	0.177	0.148	0.489	0.420	0.127							:
	HASE	3) 01.0		(mA)	82.7	80.0	100.	100.	100.	84.4	100.	100.	100.	100.							
	ION (P	HIRAM	>	(mV)	35.9	9.10	34.0	27.9	22.5	15.0	14.8	49.0	42.0	12.7		. : 1					
	N REG	IROSHI	S 187	7 / Niin	∞	2			∞			30	75	8	 - !!			32			
	EASTE		// ax	AB/ 2	50	50	<u> </u>	80	100	130	160	160	200	200	250	320	400	500	650	800	1
	IN THE	TESTED BY	•																		, i i
	DJECT	N45W	e Q	(Um)	329.	245.	215.	133.	70.3	46.9	38.3	39.5	44.8	54.3	47.7	64.9	82.1	103.	135.	174.	161
	PPLY PR	DIRECTION		4	6.283	18.85	31.39	49.48	77.75	132.0	200.3	313.4	75.40	129.6	530.1	197.9	311.0	487.7	801.1	1253.5	301.6 161.
	THE STUDY ON THE RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III)	LINE DIRE	ద	(0)	52.40	13.02	6.845	2.688	0.904	0.355	0.191	0.126	0.594	0.419	0.000	0.328	0.264	0.212	0.169	0.139	0.533
MANDA	RURAL	S-8 []	~	(mA)	18.2	20.0	20.0	20.0	20.0	100.	92.7	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
C OF RI	ON THE	1 1	>	(mV)	954.	260.	137.	53.8	45.2	35.5	17.7	12.6	59.5	41.9	9.03	32.8	26.5	21.2	16.9	13.9	53.3
THE REPUBLIC OF RWANDA	STUDY (Na. Ep-24	, is	7 / NIE	!)				ς	1	0.5	er Ar	7:	2			8
THE RI	THE	TEST	c/ q.	4D/ 2	7.	2.5	3.2	4	72	6.5	8	10	10	Ω.	13	16	20	25	32	40	40
		-			ا			·				<u></u>									