添付資料 8　ボーリング柱状図

DRILL LOG

HOLE NO. BDI-1 SHEET NO. 1 OF 17

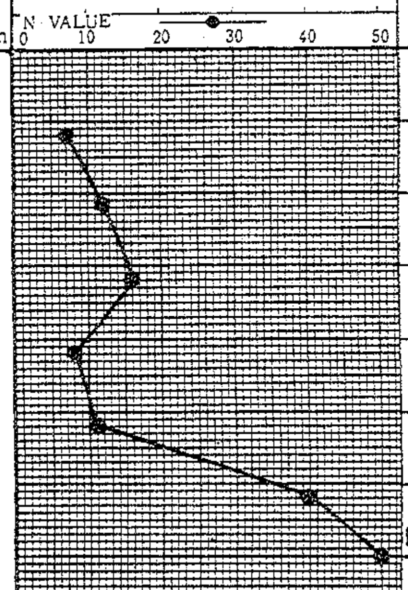
PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA
LOCATION	Devure Bridge (Route 344)	COORDINATE	N: E:	DEPTH OF HOLE	11.4m / DRILL RIG: Mole
ELEVATION	2998.24	DIAMETER OF HOLE	75.3 ~ 59.6 mm	DATE	FROM 11 June TO 16 June 1993
CHECKD	Mutowembwa	DRILLED	Changachirere		

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING
		2998.04	0.2	0.2	× × ×	light greyish	loose		Silty sand			
		2997.04	1.2	1.0	° °	brown light brown	compact		Gravelly sand		subangular well graded with a little finer material	
		2992.24	6.0	4.8	° – °	dark grey / brown mottled	Stiff		Gravelly clay		with some subangular cobbles of quartz, feldspar, granite and dolerite	3.00 m ▽
		2991.84	6.4	0.4	× × ×	dark grey	dense		Silty sand		slightly cemented	
		2986.84	11.4	5.0	+ + +	greenish grey			Dolerite		slightly weathered medium grained very strong with very closely spaced joints and fissures	

SAMPLING (DEPTH, NO.) — INSITU TEST

TEST VALUES — STANDARD PENETRATION TEST

DEPTH	Blow/cm	Blows every 10cm
1.0 – 1.3	7/30	
2.0 – 2.3	12/30	
3.0 – 3.3	16/30	
4.0 – 4.3	8/30	
5.0 – 5.3	11/30	
6.0 – 6.3	40/30	
7.0 – 7.3	50/0	



* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

HOLE NO. ( )

DRILL LOG

HOLE NO. BDI-2 SHEET NO. 2 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Devure Bridge (Route 344)	COORDINATE N: E:	DEPTH OF HOLE	7.0m	DRILL RIG Mole
ELEVATION	2993.39	DIAMETER OF HOLE 75.3 ~59.6 mm	DATE FROM 16 June TO 17 June 1993	CHECKD Mutowembwa	DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	IN SITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2992.39	1.0	1.0		pinkish brown	loose		Sand		homogeneous coarse with angular quartz and feldspar grains					1.0				
		2991.39	2.0	1.0	+++ ++	yellowish brown			Granite		coarse grained, moderately weathered with weak and massive isolated crystals	2.60m ▽				1.3	31/30			
		2986.39	7.0	5.0	+++ + + +++ + + +++ + + +++ + + +++	pinkish grey			Granite		coarse grained slightly weathered very strong with closely spaced joints and fissures									

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* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

HOLE NO. ( )

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DRILL LOG

HOLE NO. BDI-3 SHEET NO. 3 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Devure Bridge (Route 344)	COORDINATE N: E:	DEPTH OF HOLE	13.0m	DRILL RIG Mole
ELEVATION	3001.24 m	DIAMETER OF HOLE 75.3 ~ 59.6 mm DATE FROM 17 June TO 21 June 1993	CHECKD	Mutowembwa	DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2998.24	3.0	3.0		greyish brown	compact		Silty sand		heterogenous with pockets of yellowish grey silty clay and occasional quartz, feldspar, granitic and doleritic cobbles	3.20m				1.0 1.3	36/30			
		2993.74	7.5	4.5		light yellowish grey	very stiff		Sandy clay		intact with occasional quarte, feldspar and granite cobbles					2.0 2.3 3.0 3.3 4.0 4.3 5.0 5.3 6.0 6.3 7.0 7.3	24/30 10/30 22/30 36/30 21/30 50/30			
		2990.24	11.0	3.5		yellowish brown			Granite		coarse grained moderately weathered moderately weak and massive with occasional large isolated crystals of feldspar					8.0 8.3	50/0			
		2988.24	13.0	2.0		pinkish grey			Granite		coarse grained slightly weathered very strong with very widely spaced joints and fissures									

* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

HOLE NO. ( )

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

DRILL LOG

HOLE NO. BS-1 SHEET NO. 4 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA		
LOCATION	Sote Bridge	COORDINATE	N: E:	DEPTH OF HOLE	10.0m	DRILL RIG	Mole
ELEVATION	1111.43m	DIAMETER OF HOLE	75.3 ~59.6 mm	DATE	FROM 11 June TO 14 June 1993	CHECKD	Mutowembwa
						DRILLED	Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		1110.83	0.6	0.6	+++ ++	brown			Granite		coarse grained completely weathered very weak					1.0				
												2.00 m				1.3	50/12.5			
					+++ ++ +++ ++ +++ ++ +++ ++	light yellow-ish brown			Gneissic Granite		coarse grained moderately weathered strong and banded with closely spaced joints					2.0				
																2.3	50/2			
																3.0				
																3.3	50/5			
																4.0				
		1106.63	4.8	4.2	++											4.3	50/5			
					+++ ++ +++ ++ +++ ++ +++	light brown-ish grey			Gneissic Granite		coarse grained slightly weathered very strong with medium spaced joints and fissures					5.0				R
																5.3	50/0			
																6.0				R
																6.3	50/0			
																7.0				R
		1101.43	10.0	5.2												7.3	50/0			

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

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DRILL LOG

HOLE NO. BS-2 SHEET NO. 5 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Sote Bridge	COORDINATE N: E:	DEPTH OF HOLE	6.0m	DRILL RIG Mole
ELEVATION	1107.60m	DIAMETER OF HOLE 75.3 ~59.6 mm DATE FROM 17 June TO 18 June 1993	CHECKD	Mutowembwa	DRILLED Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		1106.77	0.83	0.83	+++ + +	light pinkish grey			Granite		coarse grained, slightly weathered, massive, very strong with widely spaced joints	0.80 m ▽				1.0				
		1106.20	1.4	0.57	+++ + +	brownish grey			Granite		coarse grained highly weathered, weak					1.3	50/11.5			
		1105.50	2.1	0.7	+++ + +	brownish grey			Granite		coarse grained highly weathered strong and massive with closely spaced joints					2.0				
		1104.60	3.0	0.9	+++ + +	light brownish grey			Granite		coarse grained, highly weathered					2.3	50/0			
		1103.00	4.6	1.6	+++ + + +++	yellow-ish brown			Gneissic Granite		coarse grained, moderately weathered, moderately strong and banded with very closely spaced joints					3.0				
		1101.60	6.0	1.4	+++ ++ +++	light grey			Gneissic Granite		coarse grained, fresh very strong with widely spaced joints					3.3	48/30			

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* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
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HOLE NO. ( )

DRILL LOG

HOLE NO.BS-3 SHEET NO. 6 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Sote Bridge	COORDINATE N: E:	DEPTH OF HOLE	6.8m	DRILL RIG Mole
ELEVATION	1111.28m	DIAMETER OF HOLE 75.3 ~59.6 ㎜	DATE	FROM 15 June TO 16 June 1993	CHECKD Mutowembwa DRILLED Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		1109.48	1.8	1.8	XXX XX XXX	dark brown	compact		Silty sand		subangular, well graded with occassional quartz gravel	1.50m ▽				1.0 1.3	15/30			
		1106.68	4.6	2.8	+++ ++ +++ ++ +++	light grey			Gneissic Granite		coarse grained, fresh very strong with widely spaced joints									
		1106.28	5.0	0.4	+ +	yellowish brown			Gneissic Granite		moderately weathered, moderately strong									
		1104.48	6.8	1.8	+++ + + +++	light grey			Gneissic Granite		coarse grained, fresh very strong with widely spaced joints									

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

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DRILL LOG

HOLE NO. BP-1 SHEET NO. 7 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA		
LOCATION	Pembezi River	COORDINATE	N: E:	DEPTH OF HOLE	8.5m	DRILL RIG	Mole
ELEVATION	2996.17m	DIAMETER OF HOLE	75.3 ~ 59.6 mm	DATE	FROM 24 June TO 26 June 1993	CHECKD	Mutowembwa
						DRILLED	Marimirofa

DATE / SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
	2995.37	0.8	0.8		dark grey	compact		Silty sand		subangular, well graded					1.0				
					dark brown	loose		Sand		homogeneous subangular coarse with some fine material and quartz and feldspar cobbles					1.3	11/30			
	2993.37	2.8	2.0												2.0				
											3.0m				2.3	6/30			
	2992.97	3.2	0.4		light grey	very stiff		Silty clay		fissured, with occasional fragments					3.0				
					pinkish grey			Granite		coarse grained slightly weathered very strong and massive with closely spaced joints and fissures					3.3	50/20			
	2987.67	8.5	5.3																

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

DRILL LOG

HOLE NO. BP-2 SHEET NO. 8 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA
LOCATION	Pembezi River	COORDINATE	N: E:	DEPTH OF HOLE	11.4m	DRILL RIG	Mole
ELEVATION	2994.77m	DIAMETER OF HOLE	75.3 ~ 59.6 mm	DATE	FROM 30 June TO 2 July 1993	CHECKD	Mutowembwa	DRILLED	Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY OR REL. DENS.*	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2991.77	3.0	3.0		pinkish brown	loose		Sand		homogeneous subangular, coarse with some quartz, feldspar, granitic and doleritic cobbles	2.80m				1.0 1.3	4/30			
																2.0 2.3	9/30			
																3.0 3.3	50/0			
		2989.17	5.6	2.6	+++ ++ +++ ++	pinkish grey			Granite		coarse grained, highly weathered very weak, very closely spaced joints and fissures with greenish-grey clay between fractures					4.0 4.3	50/11			
																5.0 5.3	50/0			
																6.0 6.3	50/0			
																7.0 7.3	50/0			
																8.0 8.3	50/0			
																9.0 9.3	50/2			
																10.0 10.3	50/0			
		2983.37	11.4	5.8	+++ ++ +++ ++ +++ ++ +++ ++ +++	dark pinkish grey			Granite		coarse grained slightly weathered very strong with extremely closely spaced joints									

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
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DRILL LOG

HOLE NO. BP-3 SHEET NO. 9 OF17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Pembezi River	COORDINATE N: E:	DEPTH OF HOLE	10.0m	DRILL RIG Mole
ELEVATION	2996.28m	DIAMETER OF HOLE 75.3 ~59.6 mm	DATE FROM 28 June TO 29 June 1993	CHECKD Mutowembwa	DRILLED Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2995.78	0.5	0.5	××××	light grey	compact		Silty sand		subangular, well graded with occasional pebbles					1.0				
					+++ ++ +++ ++ +++ ++ +++ ++	pinkish brown			Granite		coarse grained, highly weathered, very weak with very closely spaced joints	3.50 m ▽				1.3	38/30		R	
																2.0				
																2.3	50/0			
																3.0				
																3.3	50/20		R	
																4.0				
																4.3	50/0			
		2991.28	5.0	4.5												5.0				
					+++ ++ +++ ++ +++ ++ +++	dark pinkish grey			Granite		coarse grained, slightly weathered, very strong with very closely spaced joints and fissures					5.3	50/0		R	
		2986.28	10.0	5.0																

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

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DRILL LOG

HOLE NO. BP-4 SHEET NO. 10 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA
LOCATION	Pembezi River	COORDINATE	N: E:	DEPTH OF HOLE	8.5m
ELEVATION	2994.90m	DIAMETER OF HOLE	75.3 ~59.6 mm	DATE	FROM 3 July TO 4 July 1993
				CHECKD	Mutowembwa
				DRILLED	Marimirofa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2991.40	3.5	3.5		pinkish brown	loose		Sand		homogeneous subangular, coarse, with some quartz, feldspar, granite and dolerite pebbles and cobbles	2.10m ▽				1.0 1.3	7/30			
																2.0 2.3	11/30			
																3.0 3.3	21/30			
					+++ ++ +++ ++ +++ ++ +++ ++ +++	dark pinkish grey			Granite		coarse grained, slightly weathered, very strong extremely closely spaced joints with a very stiff greenish grey clay between joints					4.0 4.3	50/0			
		2986.4	8.5	5.0																

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* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

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HOLE NO. ( )

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DRILL LOG

HOLE NO. BDII-1 SHEET NO. 11 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Devure Bridge (Route 359)	COORDINATE N: E:	DEPTH OF HOLE	10.4m	DRILL RIG Mole
ELEVATION	811.73m	DIAMETER OF HOLE 75.3 ~ 59.6 mm	DATE FROM 30 June TO 1 July 1993	CHECKD Mutowembwa	DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		810.73	1.0	1.0		light brown	compact		Sandy gravel		subangular, well graded with fresh granitic boulder (made ground)					1.0 1.3	9/30			
		807.73	4.0	3.0		pinkish brown	compact		Sand		homogeneous subangular, coarse					2.0 2.3 3.0 3.3 4.0 4.3	12/30 18/30 27/30			
		806.33	5.4	1.4	+++ + +	pinkish brown			Granite		coarse grained, moderately weathered, moderately weak with closely spaced joints	NIL				5.0 5.3	50/10			
		801.33	10.4	5.0	+++ + + +++ + + +++ + + +++ + + +++	dark pinkish grey			Granite		coarse grained, fresh very strong and massive with widely spaced joints and fissures									

* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

HOLE NO. ( )

NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS. TOKYO.

DRILL LOG

HOLE NO. BDII-2 SHEET NO. 12 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads		CLIENT	JICA	
LOCATION	Devure Bridge (Route 359)	COORDINATE N: E:	DEPTH OF HOLE	5.0m	DRILL RIG Mole
ELEVATION	806.36m	DIAMETER OF HOLE 75.3 ~ 59.6 mm DATE FROM 28 June TO 30 June 1993	CHECKD	Mutowembwa	DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		801.36	5.0	5.0	+++ ++ +++ ++ +++ ++ +++ ++ +++	light pinkish grey			Granite		coarse grained, fresh very strong and massive with very widely spaced joints and fissures	m 3.50 ▽								

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
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DRILL LOG

HOLE NO. BDI-3 SHEET NO. 13 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads	CLIENT	JICA
LOCATION	Devure Bridge (Route 359)	COORDINATE N: E:	DEPTH OF HOLE 15.0m / DRILL RIG Mole
ELEVATION	808.65m	DIAMETER OF HOLE 75.3 ~59.6 mm	DATE FROM 24 June TO 26 June 1993 / CHECKD Mutowembwa / DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY OR REL. DENS.*	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm
		805.45	3.2	3.2	XXX	yellow-ish grey	medium dense		Silty sand		homogeneous with occasional quartz pebbles	NIL				1.0 / 1.3	44/30	
																2.0 / 2.3	21/30	
																3.0 / 3.3	27/30	
					+++						medium grained, moderately weathered, moderately weak and massive with medium spaced joints					4.0 / 4.3	45/30	
						brown-ish green										5.0 / 5.3	90/23	
									Dolerite							6.0 / 6.3	50/0	
		799.25	9.4	6.2												7.0 / 7.3	50/0	
					+++						medium grained, fresh, very strong and massive with very widely spaced joints							
						dark grey			Dolerite									
		793.65	15.0	5.6														

TEST VALUES: N VALUE 0 10 20 30 40 50 — SCALE

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* CONSISTENCY OR RELATIVE DENSITY

* UNIFIED SOIL CLASSIFICATION

NIPPON KOEI CO., LTD.
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HOLE NO. ( )

DRILL LOG

HOLE NO.BDII-4 SHEET NO. 14 OF17

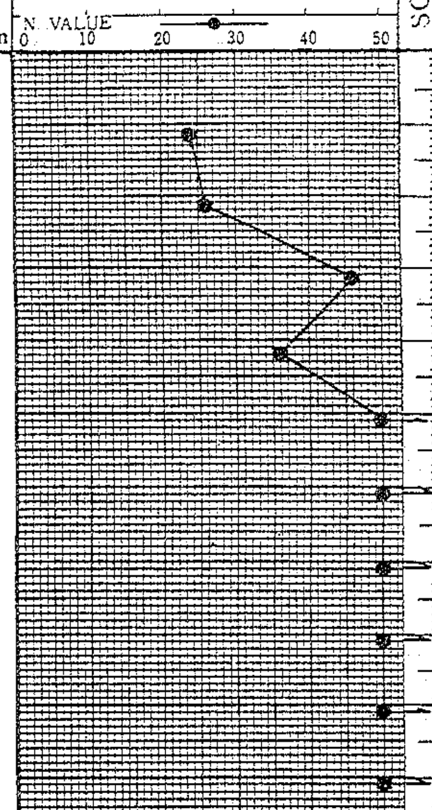
PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads	CLIENT	JICA
LOCATION	Devure Bridge (Route 359) COORDINATE N: E:	DEPTH OF HOLE	16.0m DRILL RIG Mole
ELEVATION	810. 79m DIAMETER OF HOLE 75.3 ~59.6 mm DATE FROM2 July TO5 July1993	CHECKD	Mutowembwa DRILLED Changachirere

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY OR REL. DENS.*	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST
		806.79	4.0	4.0		yellow-ish grey	medium dense		Silty sand		homogeneous with occassional quartz pebbles				
		804.49	6.3	2.3		light yellow-ish brown	very dense		Sandy gravel		angular, well graded with occassional rounded quartz and doleritic pebbles				
		799.99	10.8	4.5		grren-ish grey			Dolerite		medium grained, moderately weathered, moderately weak and massive with medium spaced joints and fissures				
		794.79	16.0	5.2		dark grey			Dolerite		medium grained, fresh very strong and massive with widely spaced joints and fissures				

TEST VALUES

STANDARD PENETRATION TEST

DEPTH	Blow / cm	Blows every 10cm
1.0 1.3	24/30	
2.0 2.3	26/30	
3.0 3.3	46/30	
4.0 4.3	36/30	
5.0 5.3	100/25	
6.0 6.3	65/20	
7.0 7.3	50/20	
8.0 8.3	60/20	
9.0 9.3	50/20	
10.0 10.3	50/20	



HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

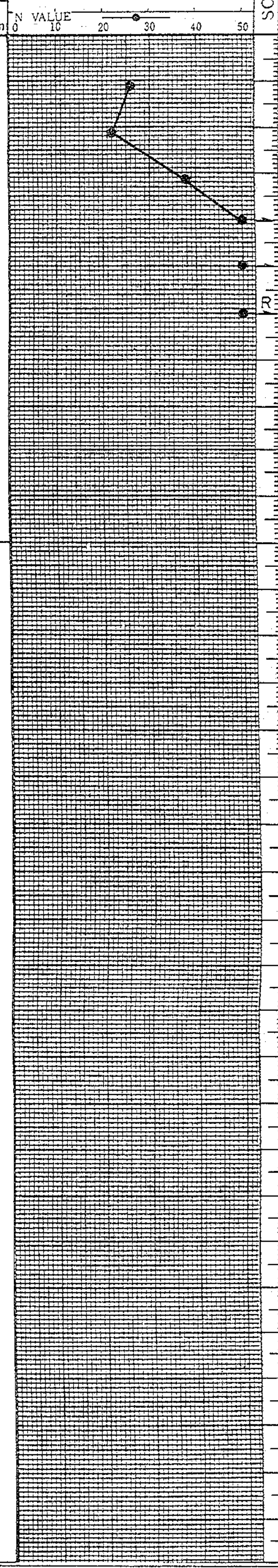
NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

DRILL LOG

HOLE NO. BN-1 SHEET NO. 15 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads	CLIENT	JICA		
LOCATION	Nata Bridge / COORDINATE N: E:	DEPTH OF HOLE	11.06m	DRILL RIG	Mole
ELEVATION	2996.91 m / DIAMETER OF HOLE ~59.6 mm / DATE FROM 9 June TO 10 June 1993	CHECKD	Madziwa	DRILLED	Chiangwa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY* OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	SPT DEPTH	Blow/cm	Blows every 10cm
		2996.26	0.65	0.65		grey	loose		Sand		fine grained, Granitic	NIL				1.0 / 1.3	26/30	
		2994.41	2.5	1.85		greenish grey	firm		Sandy clay		coarse grained					2.0 / 2.3	22/30	
		2993.51	3.4	0.9		greenish white	dense		Sand		medium grained, with occassional quartz cobbles					3.0 / 3.3	38/20	
		2991.21	5.7	2.3		greenish white			Granite		completely weathered, coarse grained					4.0 / 4.3	54/10	
																5.0 / 5.3	50/5	
		2989.46	7.45	1.75		reddish pink			Granite		moderately weathered, coarse grained, moderately weak and tightly fractured					6.0 / 6.3	50/0	
		2985.85	11.06	3.61		whitish pink			Granite		faint to slightly weathered, coarse grained, tightly fractured							



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NIPPON KOEI CO., LTD.
CONSULTING ENGINEERS, TOKYO.

HOLE NO. ( )

DRILL LOG

HOLE NO. BN-2 SHEET NO. 16 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA
LOCATION	Nata Bridge	COORDINATE	N: E:	DEPTH OF HOLE	8.26m / DRILL RIG: Mobile B40
ELEVATION	2994.83m	DIAMETER OF HOLE	~59.6 mm	DATE	FROM 15 June TO 15 June 1993 / CHECKD: Madziwa / DRILLED: Chiangwa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY OR REL. DENS.*	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L. AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	TEST VALUES: STANDARD PENETRATION TEST DEPTH	Blow/cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2992.83	2.0	2.0		brown	loose		Sand		coarse grained, river sand	0.10m				1.0				
																1.3	3/30			
																2.0				
		2992.13	2.7	0.7		greenish white			Sandy clay		cemented, coarse grained					2.3	9/30			
																2.7				
		2991.73	3.1	0.4		greenish grey			Granite		highly weathered					3.0	50/9			
		2990.89	3.94	0.84		greenish grey			Granite		moderately weathered					4.0				
																4.3	50/0			
											slightly to faintly weathered with depth, coarse grained, fractured fractures are infilled with greenish white material and tight					5.0				
						greenish grey			Granite							5.3	50/0			
		2986.57	8.26	4.32																

HOLE NO. ( )

* CONSISTENCY OR RELATIVE DENSITY
* UNIFIED SOIL CLASSIFICATION

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DRILL LOG

HOLE NO. BN-3 SHEET NO. 17 OF 17

PROJECT	The Basic Design Study on the Project for Rehabilitation of Rural Roads			CLIENT	JICA		
LOCATION	Nata Bridge	COORDINATE	N: E:	DEPTH OF HOLE	7.5m	DRILL RIG	Mole
ELEVATION	2996.55 m	DIAMETER OF HOLE	~59.6 ㎜	DATE	FROM 11 June TO 15 June 1993	CHECKD	Madziwa	DRILLED	Chiangwa

DATE	SCALE	ELEVATIONS	DEPTH	THICKNESS	SECTION	COLOR	CONSIST'CY OR REL. DENS.	U.S.C.*	MATERIAL	FORMATION	DESCRIPTION	GROUND W.L AND CASING	SAMPLING DEPTH	SAMPLING NO.	INSITU TEST	STANDARD PENETRATION TEST DEPTH	Blow / cm	Blows every 10cm	N VALUE 0 10 20 30 40 50	SCALE
		2996.15	0.4	0.4		grey	loose		Sand		medium grained					1.3				
		2995.55	1.0	0.6		pink			Boulder		moderately weathered					1.6	50/9.5			
		2995.25	1.3	0.3		greenish grey			Granite		completely weathered					2.0				
											slightly weathered to fresh, coarse grained, extremely strong	NIL				2.3	50/0			
						greenish grey			Granite							3.0				
																3.3	50/0			
																4.0				
																4.3	50/0			
																5.0				
		2989.05	7.5	6.2												5.3	50/0			

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* UNIFIED SOIL CLASSIFICATION

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HOLE NO. ( )