HOLE NO. NWO-2 SHEET NO. 1 OF 2

	<del></del>				···		11011			SUEE1	NO	. 1 01		
PROJECT		PORT LOUIS WATER SUPPLY  NWO DAM COORDINATE :					· <del>v</del> · · · · · · · · · · · · · · · · · · ·	DEPTH	80 m			ELEVATION		
AVERAGE CORE RECOVERY		NWO DAM	DATE FROM			: TO		DRILLET	7 1					
RECOVE	T	Thory Type	·	I		1		T &	<u>                                     </u>	DDS		LOGGED	M,Y	
DATE DEPTH	ELEVATION	ROCK TYPE OR	COLUMN		DESCRIPT	TON	BIT &	GROUNDWATER LEVEL	CORE RECOVERY	RQD (%)		igeon — Valu		, E
DE	TEV	FORMATION	SECTION		DESCRIET		BIT	COUNT LEY	T			neability Cod		[5]
		<u> </u>		0.175	· raddiels bras	vn clayey soil	H L	5	% cm	<i>&amp;</i>		10 20	30 40	
2		Top soil		0111 111	, 10001311 0101	vii ciayey soti								2
2.6		-	A A A A A	Water Inc	s at 3.6 m									
4	ŀ		~~~~~											4
6.			1 A A A A A		m; vesicular k m; doleritic la									1
8			'A'A, A' A'	5.27.4	m; vesicular b	avas; pipe size								
0		( Intensively weathered			nmø; inside p : at 7.7–9.0 n	-								8:
10	1	zone)				weathered and								10
12			°^ ^ ^ ^ ^ ^ ^ ^ ^		rown soil.									
			^ ^ ^ ^		0.3 m, purplis Javas, Pine sia	h to greyish ze is 5–10 mm	1							#14
14		Predominant	, A A A	in dia.	merca, i the at	~ 12 J-10 HBH						Ŭ <i>μ</i> =4	5.2	14
		vesicular lavas	^ ^ ^		٠	(C <sub>M</sub> )							x/0 4	
16		14492	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			(-h1)	-							16
18			1,1,1,		.0 m; steep ja	ints; joints								18
- 20			^ ^ ^	are oxidi									<i>9</i> .7.11	
100			^ ^ ^ ^	arcit ft	constructely			1				Σα=- Σ-\$:	7,7/5-4	20
22			A A A A			(CM)								22
24			1. A.A.A.											
			^^^	23.525 doleritie	.4 m; less vesi lavas.	cules;							396	
26			1, 1, 1, 1		of pipes is 3	cm. (B)								26
28			~ ^ ^ ^	27.5-28	.0 m; cracky;	whitish (1771, 13	اند					Lu = 5	ZX!()	
		Į	^ ^ ^ ,	tuffaceou eracks.	us materials fi	ll along								
30			^ ^ ^ ^	CTHEKS.		(C <sub>M</sub> ·C <sub>H</sub> )								30
32			7,000										37.3	2.0
_			^,^^,		.0 m; very ha tale materials	rd doleritie lavas	5.						V//4	32
34	ĺ		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WILLIAM C	auc materials	ас 54.2 m. (См)								34
36			A A A A	Instidas a	f vesicles are									74
			*^.^.^	msides o	1 vesicies are	nesn.								
3€		Vesicular lavas	^^^	Below 38	3.0 m; whitish	tuffaceous								38
40			^ ^ ^ ^		are observed	along joints		1						10
			^ ^ ^ ^ ^	anu crael	N3.	(CM)								
12				42.0 -44	.0 m; vesicles	are developed								42
44	]		4444	frequent		•						L \( \) = 7	5 P	42 44
			۸۸۸		1.0 m; massive							1 2 3	7X10-4	
46	1		Λ Λ	lavas; had	rd; few vesicle	в. (Сп)								16
48			^ ^ ^			72.11)								в
1			A A A										العرون	
50			A° A A A			,	]					出货作品	ff#	50
52			, A A,A*		) in; dark gie; ind emitts by	y vesicular lavas. hammer	1	(-7					X/07	52
			A A A A	hitting.				-52.5m						
24			1 1 1 1	110		(C <sub>M</sub> )								154
56		,	1,11		luffaceous ma es of vesicles,	iterials fix						4,7,5	6.7	2
			1. ^ . ^ .									上汉=7 火= 2	4x104	
282			,		.0 m; doleriti								:: 'Y	\$
€			Λ Λ Λ Λ	very hard	d; few vesicles	(C <sub>M</sub> )								60
<b>A</b> B O D : .		Designation. ILO Des				10 \/(Total				PPON	KOI	71 CO	LTD	- أبدتشاهستيس

<sup>●</sup>R.Q.D is Rock Quality Designation, R.Q.D of (Total length of cylindric cores longer than 10 cm)/(Total core length) x 100% ■LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm<sup>3</sup>

■DEPTH and ELEVATION are in meter

■DIAMETER is in millimeter

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

HOLE NO. NWO-2 SHEET NO. 2 OF 2

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN	DESCRIPTION	ROCK	GROUNDWATER	CORE RECOVER	R. Q. D	WATER PRESSURE TEST LUGEON VALUE	
			Vesicular lavas	*	Almost the homogeneous type of vesicular lavas are continued to the bottom of boreholes.  (CH)  60.5-60.9, 65.1-65.9, 66.6-66.9 m; doleritic lava zones.  60.0-66.0 m; bluish grey hard cores are recovered.  Whitish tuffaceous materials are found in vesicles.  (CM)  78.5-79.8 m; reddish brown weathered soil zone  (CL)		. 1			LUGEON VALUE  10 20 30 40 40 41 41 41 41 41 41 41 41 41 41 41 41 41	
անում ու և ումում ավայիականում անումական ակարևական ավարիական ումում անում անումական ակարևական այն											
andondendandandandandandandandandandandandandan										N KOEI CO., LTI	

HOLE NO. TR9-(2) SHEET NO. 1 ()F 1

PROJECT		r	PORT LOU			DEPTH	50.0	m ELEVATION							
SITE		700E	TR9 DAM		COORDINATE :			‡			CAL DRILL RIG				
AVERAGE CORE RECOVERY			T	<del>,</del>	DATE FROM			TO		DDS	LOGGED M,Y				25.
ы	罡	ELEVATION	ROCK TYPE	COLUMN			BIT & DIAMETER	GROUNDWATER LEVEL	CORE	200		EABILIT			=
DATE	DEPTH	£7.3	OR	SECTION	DESCRIP	LION	T	CYDWAT LEVEL	RECOVERY	RQD (%)	(K	u - Value Value cm	/s)		143
		ᆈ	FORMATION				16 DI	080	ni ma	10 100	SPT (1	N-Value 4	7) 70 F	'e	E.
F.	1		Top soil		9.0-1.1 m; dark brow 1.11.5 m; light brow		'								
2					silty clayey	A111211 <sup>2</sup>					159				₹
2															7
					5.0 8.0 m; dark rede	lish -chocolate						à			
1					silty clay; some conto	ents of						X	ra, ta	10 3	6
 - 1			Residual soil		weathered gravel.							9			
1.6	i l					(D)						71			8
74												9			w
					12.013.0 m; по сог	e techvery.	1					III X			
17				155								<b>/P</b>	V . 8.	178	17
14			Deteriorated	2/1/	12.0 14.4		1					7			111
1111			lava boulder	277.7	13.0 14.4 m; deteri- lavas.	orated vesiciliar						1			
16						(5)									6
18			Residual		Clayey soil	(D)									
			soil	× 1	18.0 ~19.5 m; no cor	e recovery.						```	K-11	, <sub>1</sub> , 3	151
71	20.4												'\	ė.	271
,,	7.7.	,		1/1/x1	20.5 ~22.5 m; intensi	ively weathered								• · · ·	
27			Deteriorated lavas	122	rock fragments or sho										2.7
24	20,0		1	19923	cores, 22.5-23.0 m; dark g	revish weathered									
	521E.	· m - ·		1/12/12/22.	fragments with soil.	(D·CF)	1 :						H-u 2.2	10.3.	
20				^ ^	Data and a second								V &		26
- 23			ŀ	^^	Below 24.2 m; mode fine grained doleritic			V		ттұ —				<i>.</i>	
				af a fear				-27.6 m		7		K !!	112		17
30			ļ	1/1/	Vesicular parts are at	27.5 - 28.0,									3
				1/2/2	30.6 31.4, 35.2 37	.4 m									
1.			Doleritic lava	100		(СМ-СН)						44	177 6		17
رد			(34)	~ ^ ^ ^	Weathered portions a					i i i i i i i i i i i i i i i i i i i		ν.	6.00	4	100
- -				100	27.528.0, 30.6 - 31	.4, 35.2 - 36.0 m						, i			
₩.		İ		14			1								V
16				\$ 2.2			1								
				۸ <sub>0</sub> ,۸								40	70		l'
57.			1							ЩЩ		k s	1900	, - t	26
17				N: ^											
				^^ ^	Below 42.0 in; recov	nied cores are							<del></del>		1 <sup>7</sup> - 1
11			]	^ ^	fresh of less vesicular		-								17.* 18.1
-7/				10 N		(CH)						""	1, 1	,	
["				/. ^ ^	47.0 47.4 m; only f	ragmental						K.	9,147	7	1/1
7					weathered rocks are	recovered	1								175
			1	[ %].	Below 47.5 m; only materials are recover-										[ ]
				[ / X. ]											(o)
					Bottom of boreho	le							1	li .  -	
														-	11
ļ				} ;											
E.															
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<u></u>	L	L	<u> </u>	<u> </u>			1			1		1 1	! 1	11-1	

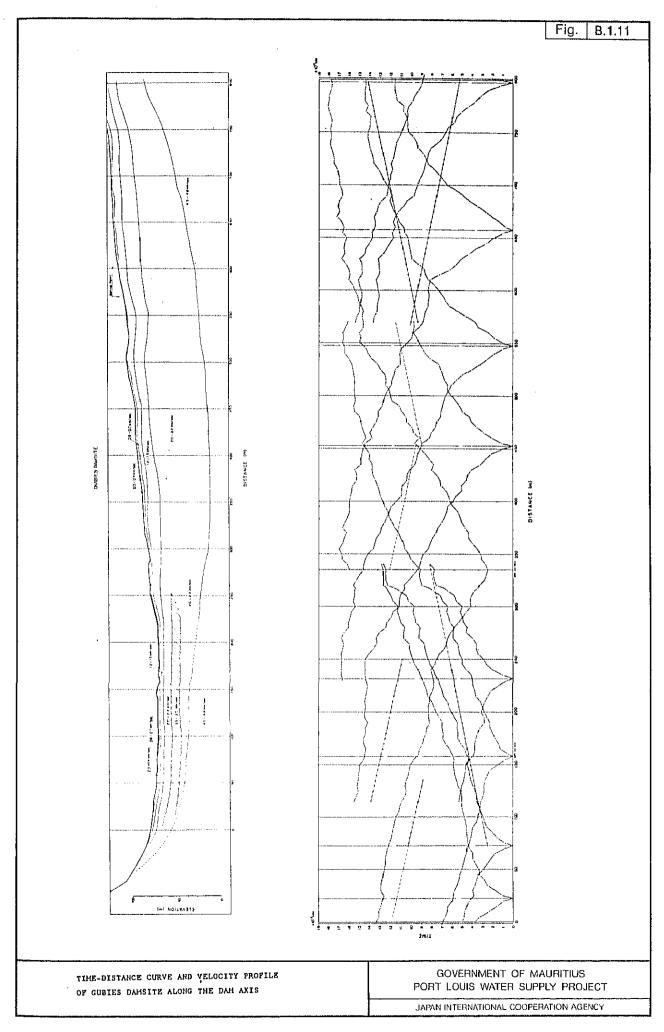
NIPPON KOEI CO., LTD.

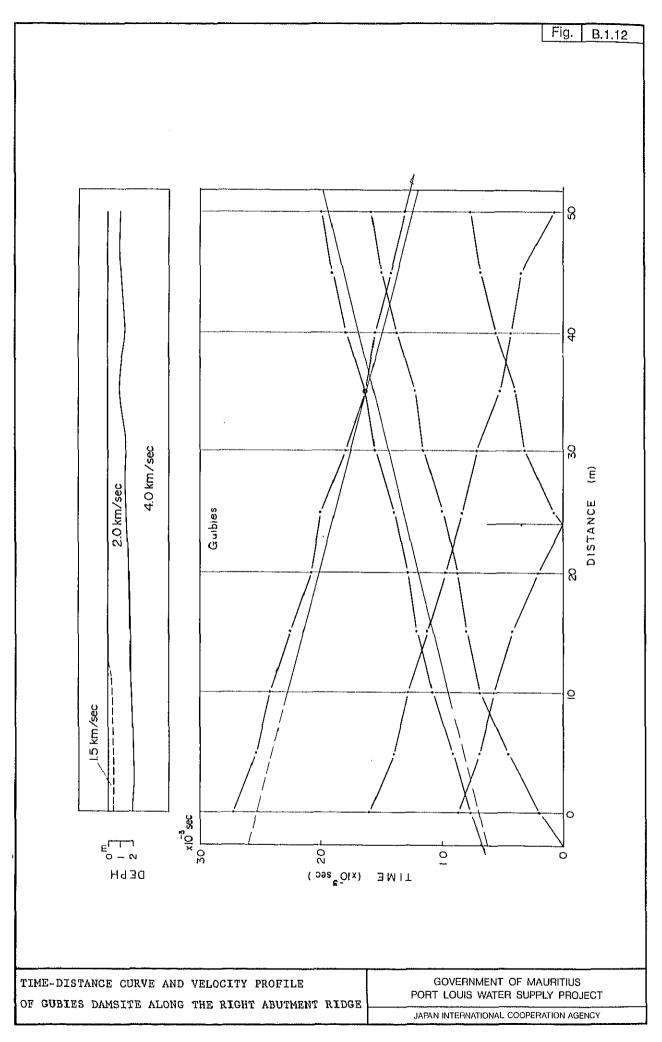
CONSULTING ENGINEERS, TOKYO.

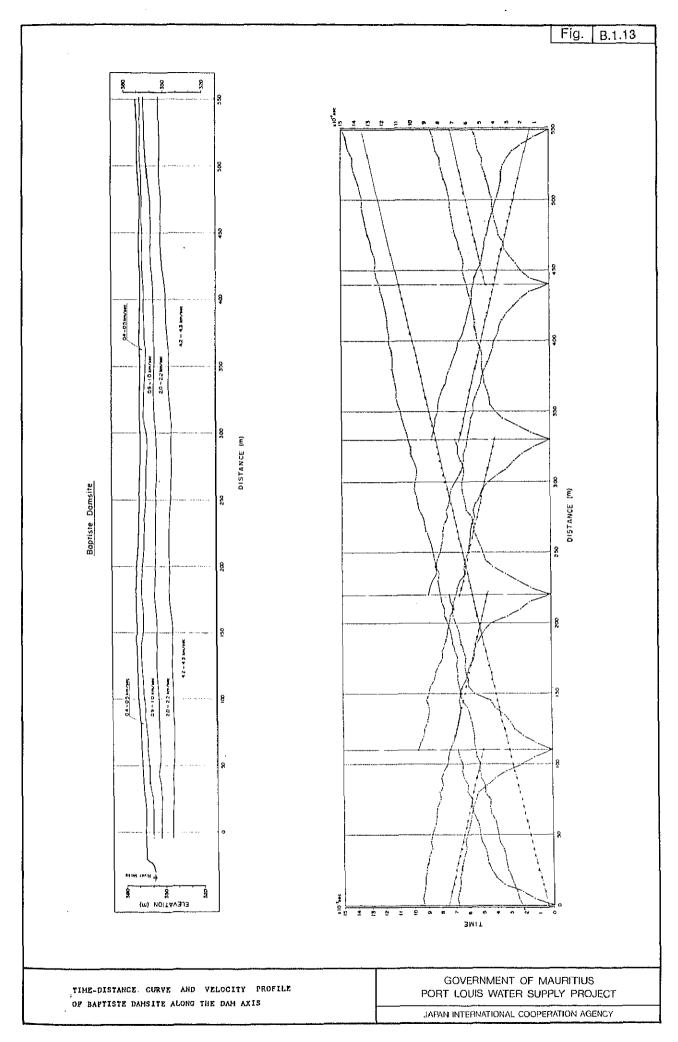
PROJECT	DRILL			<del></del>		HOLE	NO, T	R9-(5)	SHEET	NO		-
SITE	PORT LOUI TR9 DAM	SWATERS		DINATE	· ·	:		DEPTH	30.0		DRILL RIG	<del></del>
AVERAGE CORE RECOVERY	1100 DAM			ATE	FROM	то		DRILLED			LOGGED	V 14
DATE DEPTH E	ROCK TYPE OR FORMATION	COLUMN SECTION	DES	CRIPT	ION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE	RQD (%)	,	Lu & K Value  N-Value (SPT)	M,Y
25	Residual soil		0-3 m; light b Slightly organi 3.0-6.3 m; red soil. SPT at 6.0 m ( 6.5-7.0 m; no	ic ddish br (N=8)	own lateritic	com	G	% cm	50 10C		10 20 30	
2.6 2.6 2.6 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7	Weathered lava		7.5-9.6 m; de only rock text 9.6-12.0 m; de lavas; intensive vesicules; freq joints. 12.9-14.5 m; lavas. 14.5-16.0 m; deteriorated sc	ure remi lark gree ely weat uently d dark gre only da	ains. enish basaltic hered; few leveloped eyish vesicular	1 0% = \$					K=20×10	
22 24 24 26	Doleritic lava	Below 16.0 n lavas; very ha  17.0–18.8 m 22.0–23.0 m  1		6.0 m; greyish doleritic ry hard; few vesicles.  8.8 m 9.0 m; steep—vertical cracks are observed. (C11)  6.0 m; weathered joints at of 1 joint/m.  sneous condition continue to om of the hole.  (C11)		φ= 5.6c	<u> </u>				X=24×10°	24.
յանում ավարհականականականում անահանականականականականականականականականակ			(Bottom o	f borch	ole)							

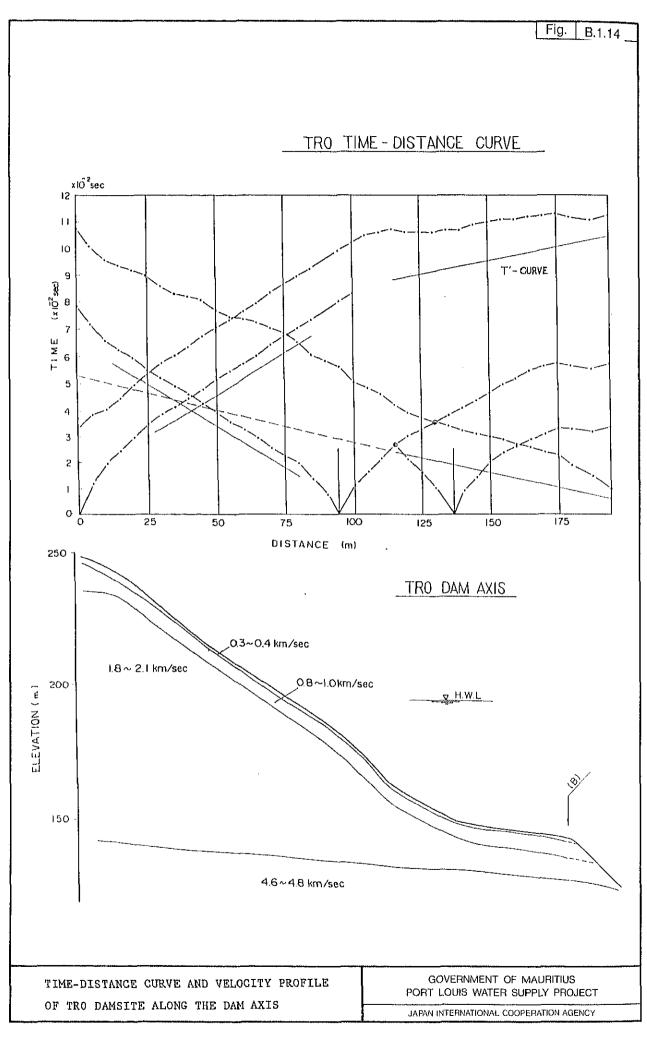
\*RQD is Rock Quality Designation, RQD= (Total length of cylindric cores longer than 10 cm)/(Total core length) × 100% \*LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm² \*DEPTH and ELEVATION are in meter \*DIAMETER is in millimeter

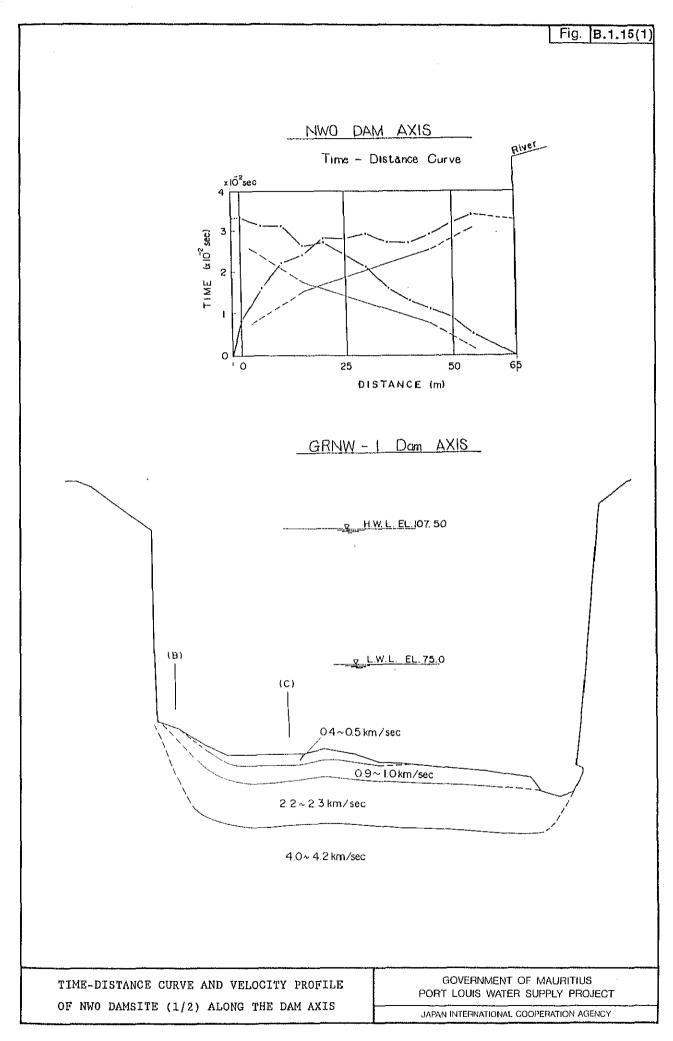
NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO.

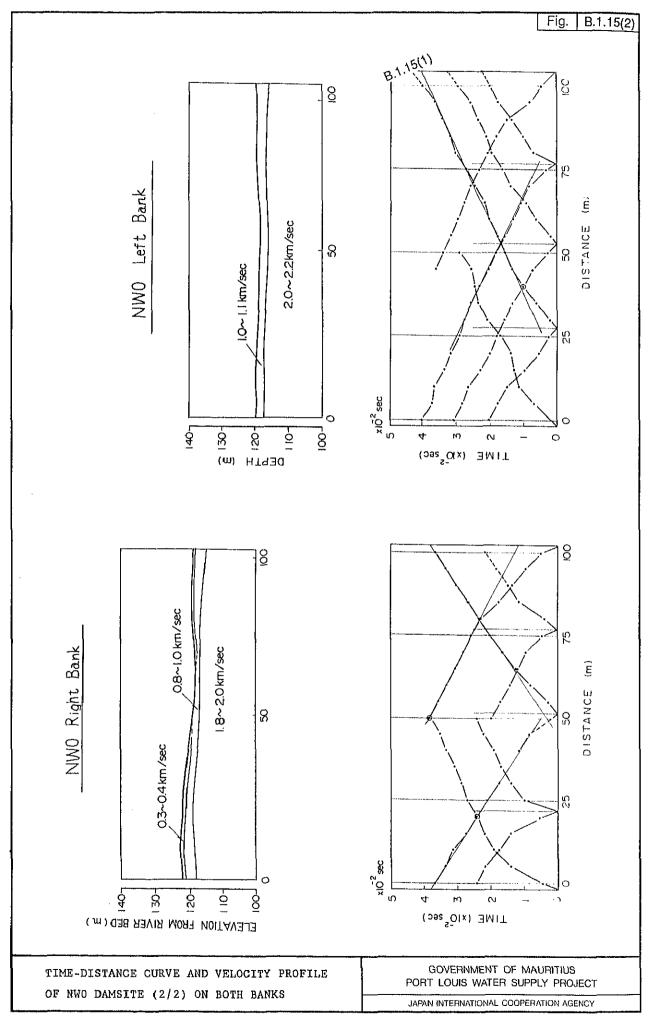


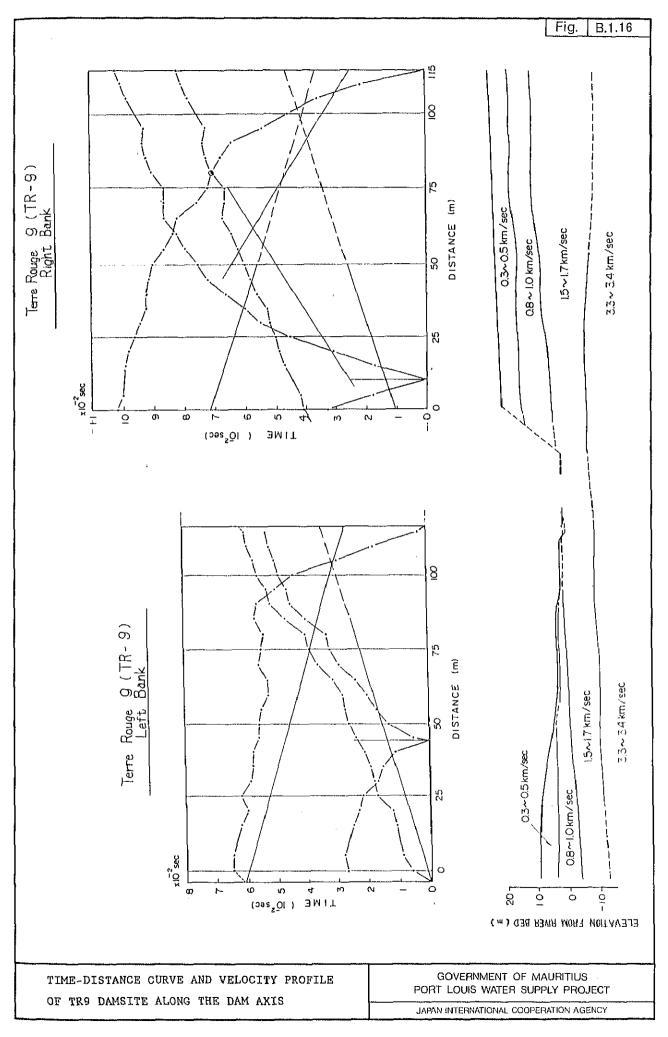


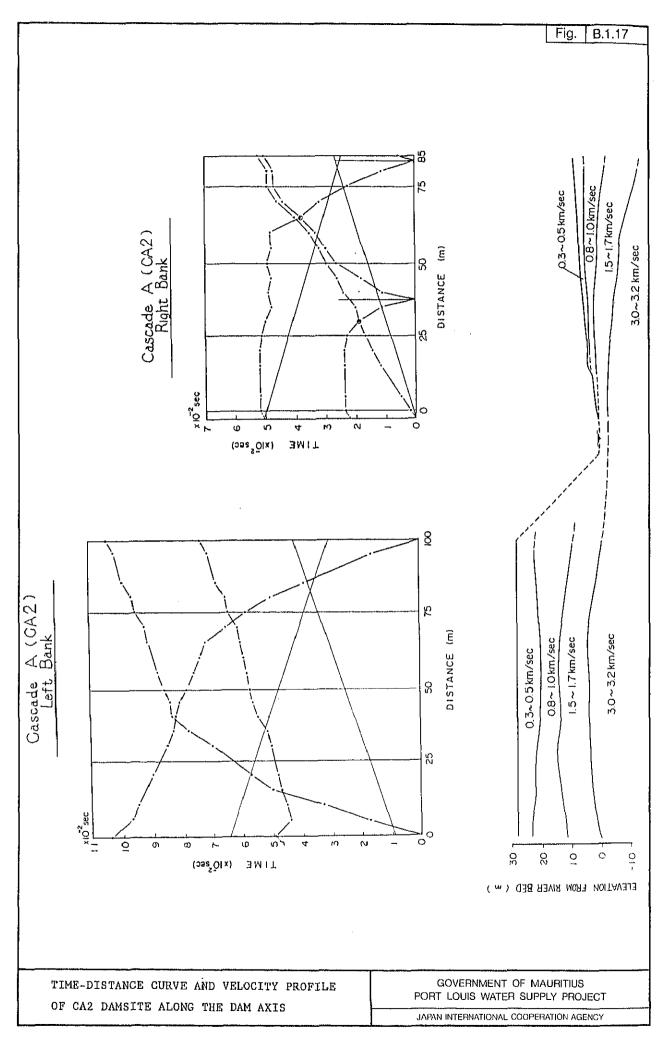


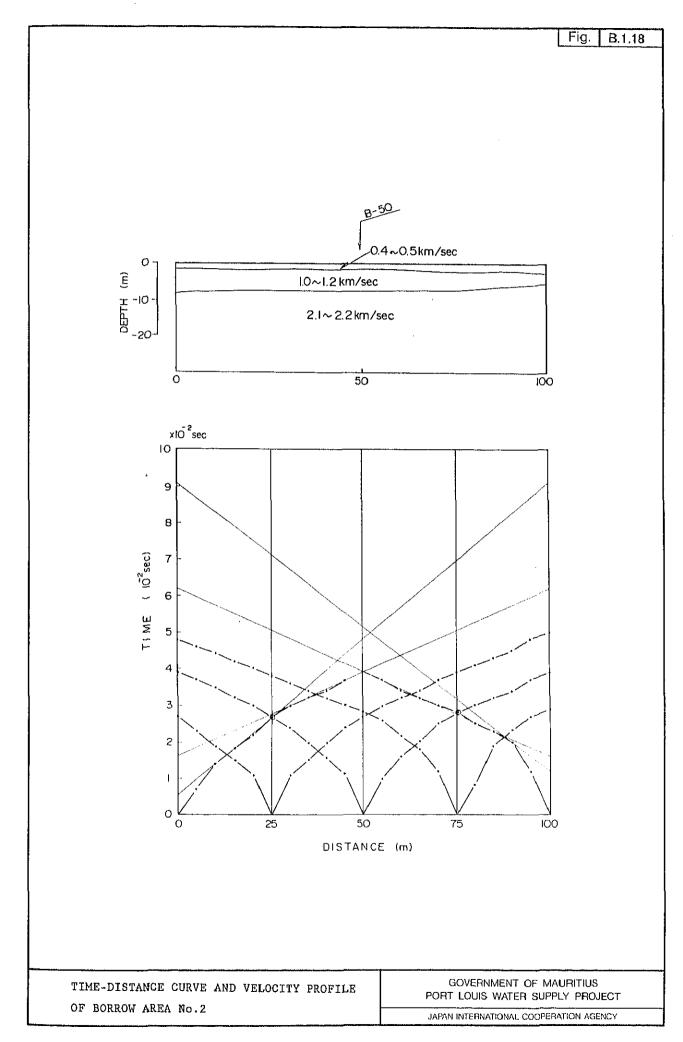












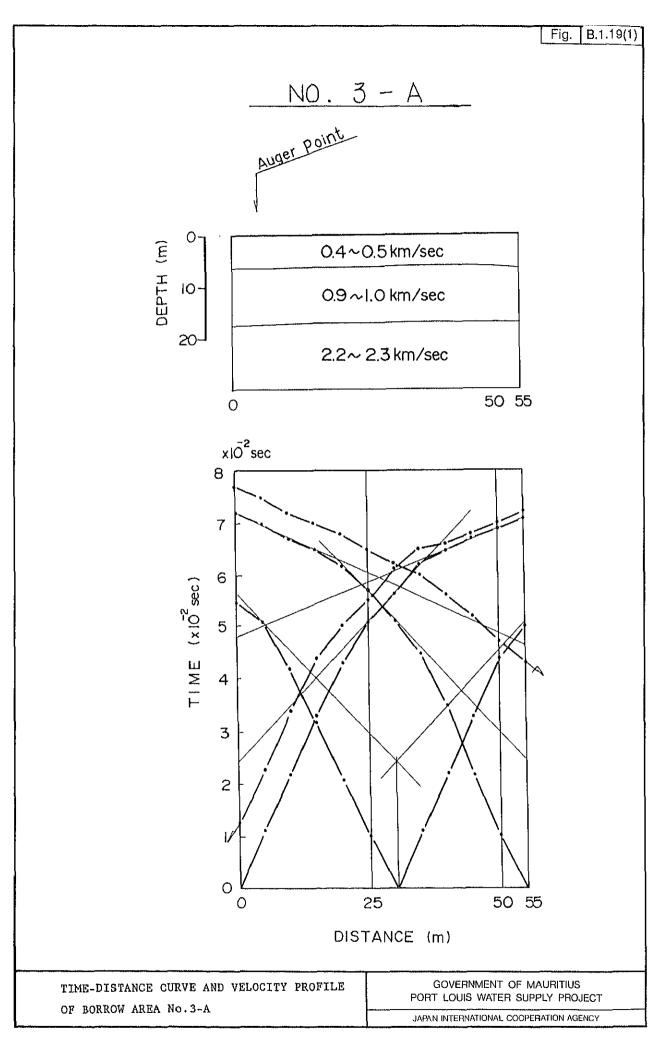
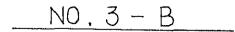
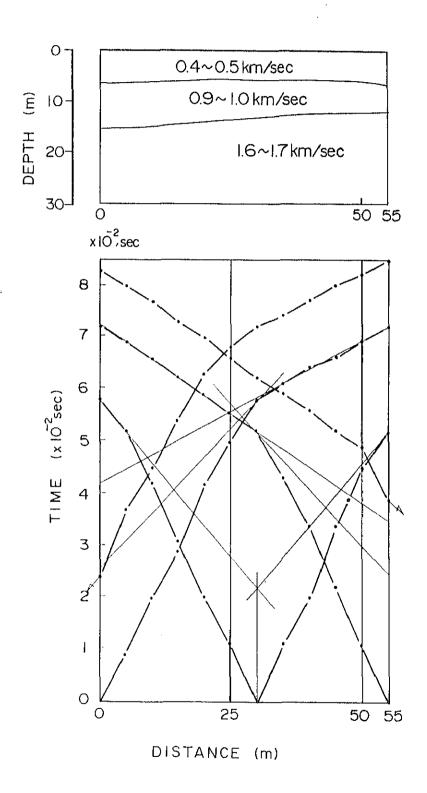


Fig. B.1.19(2)

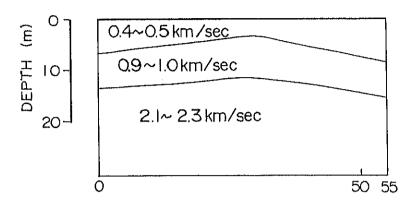


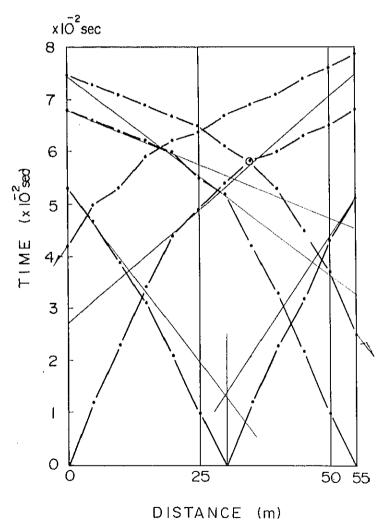


TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.3-B

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

## NO. 3 - C

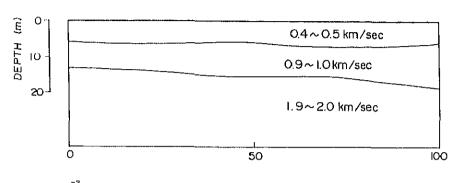


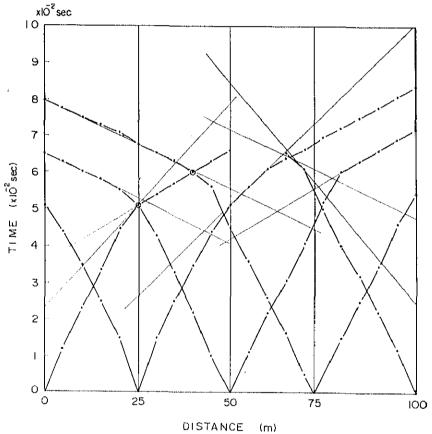


TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.3-C

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

## \_ NO. 5

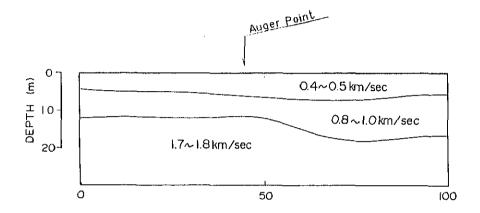


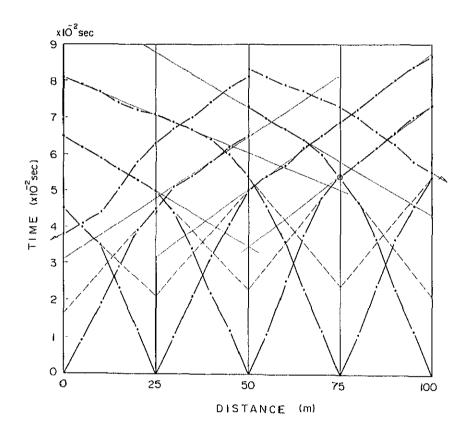


TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.5

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

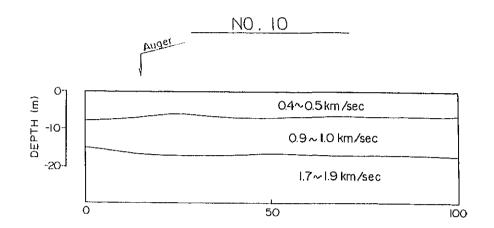


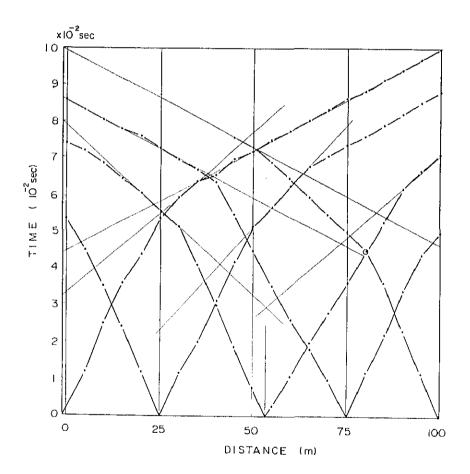




TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.9

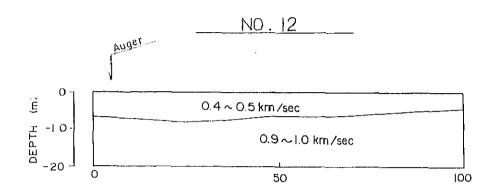
GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

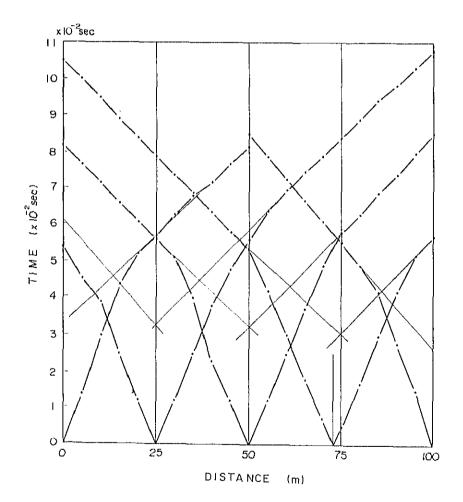




TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.10

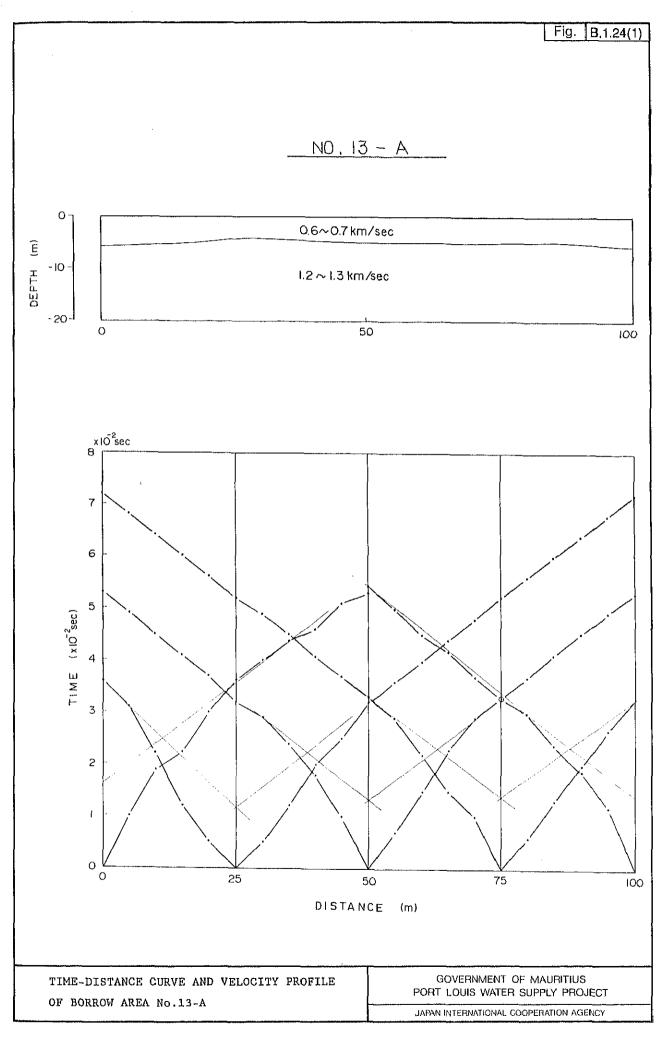
GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT



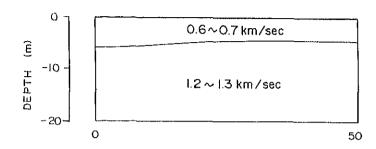


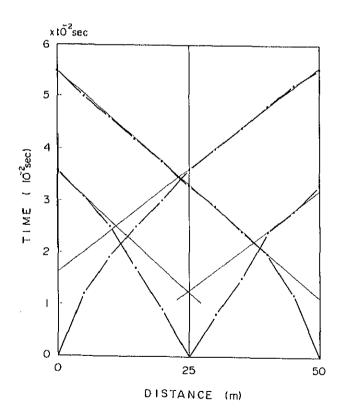
TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.12

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT



## NO.13 - B





TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.13-B

GOVERNMENT OF MAURITIUS
PORT LOUIS WATER SUPPLY PROJECT

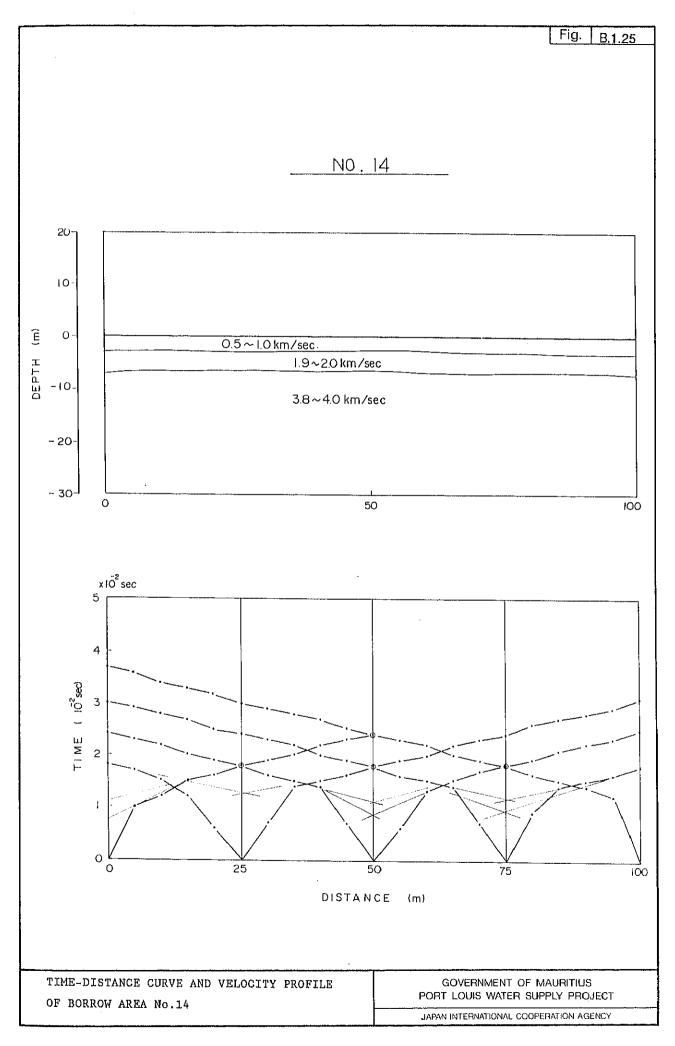
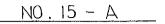
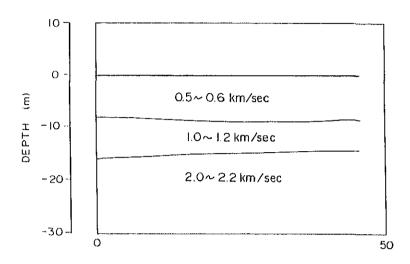
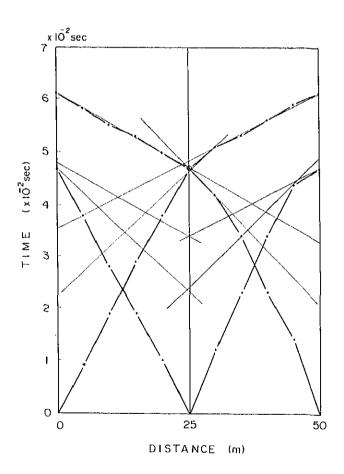


Fig. B.1.26(1)

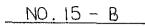


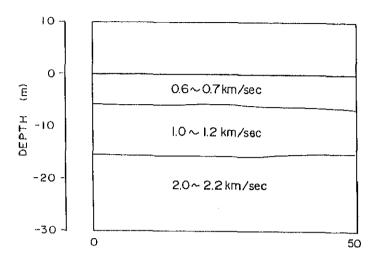


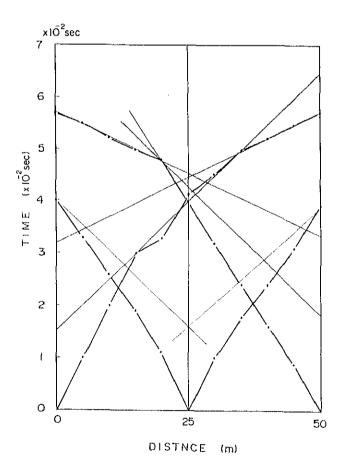


TIME-DISTANCE GURVE AND VELOCITY PROFILE OF BORROW AREA NO.15-A

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

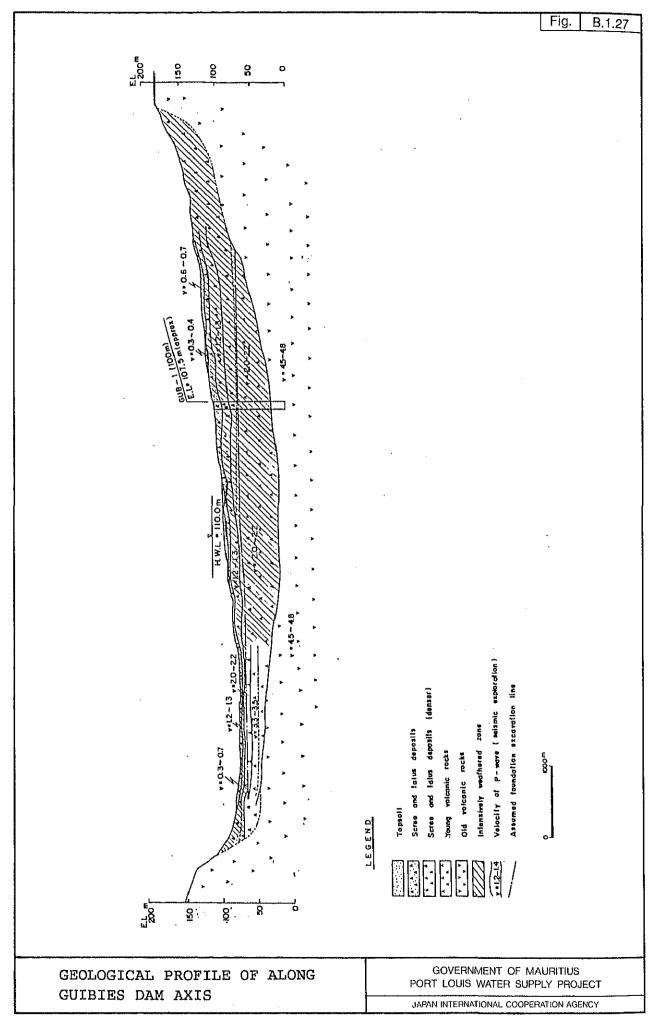


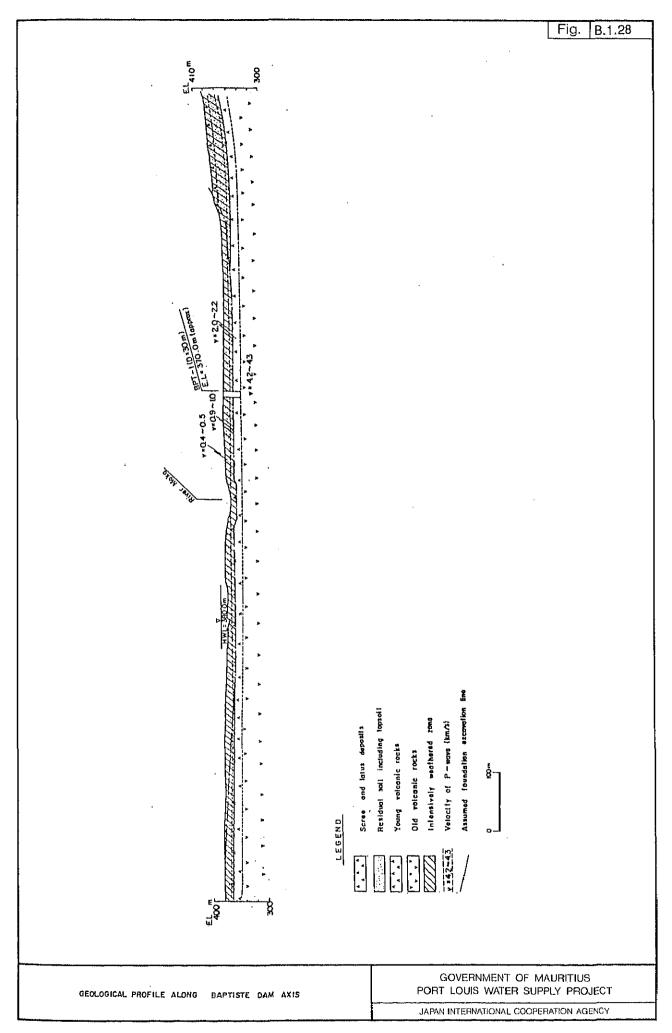


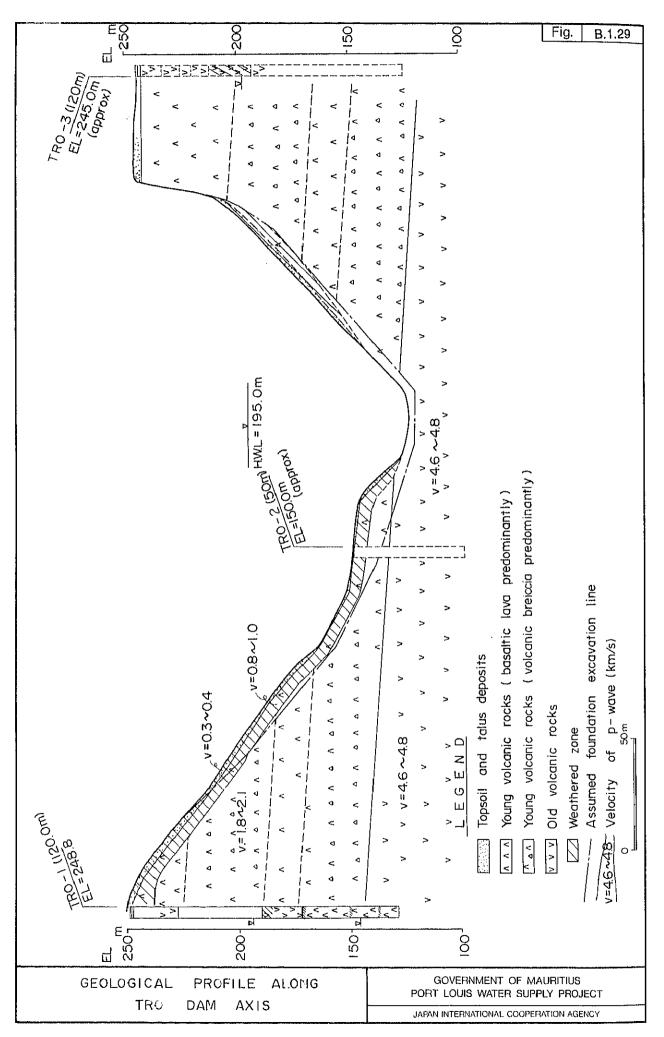


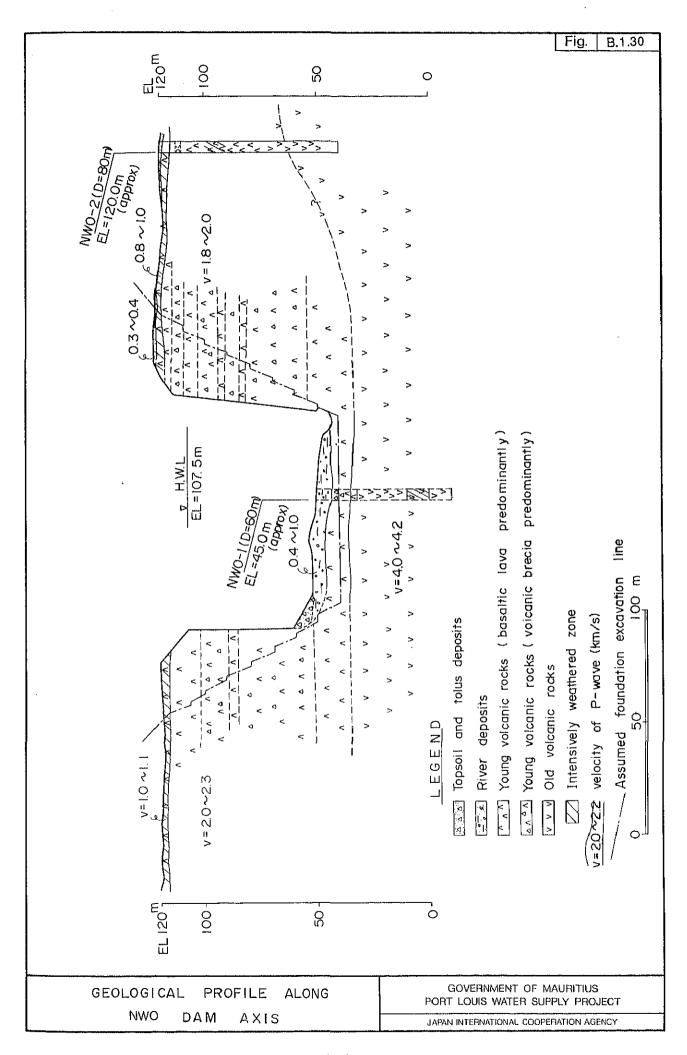
TIME-DISTANCE CURVE AND VELOCITY PROFILE OF BORROW AREA No.15-B

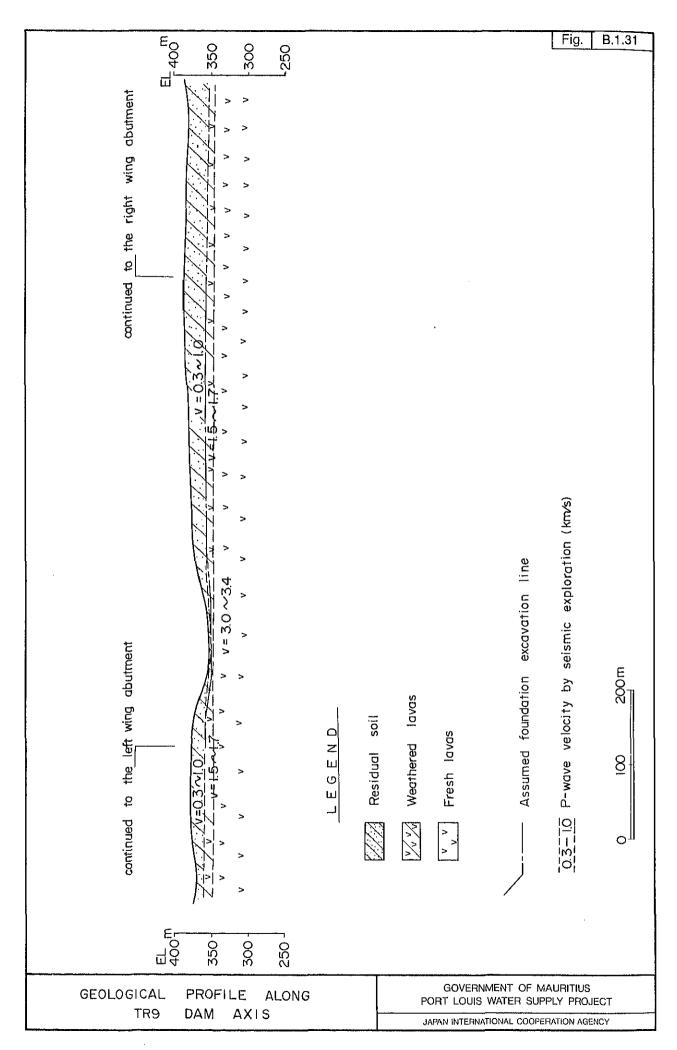
GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

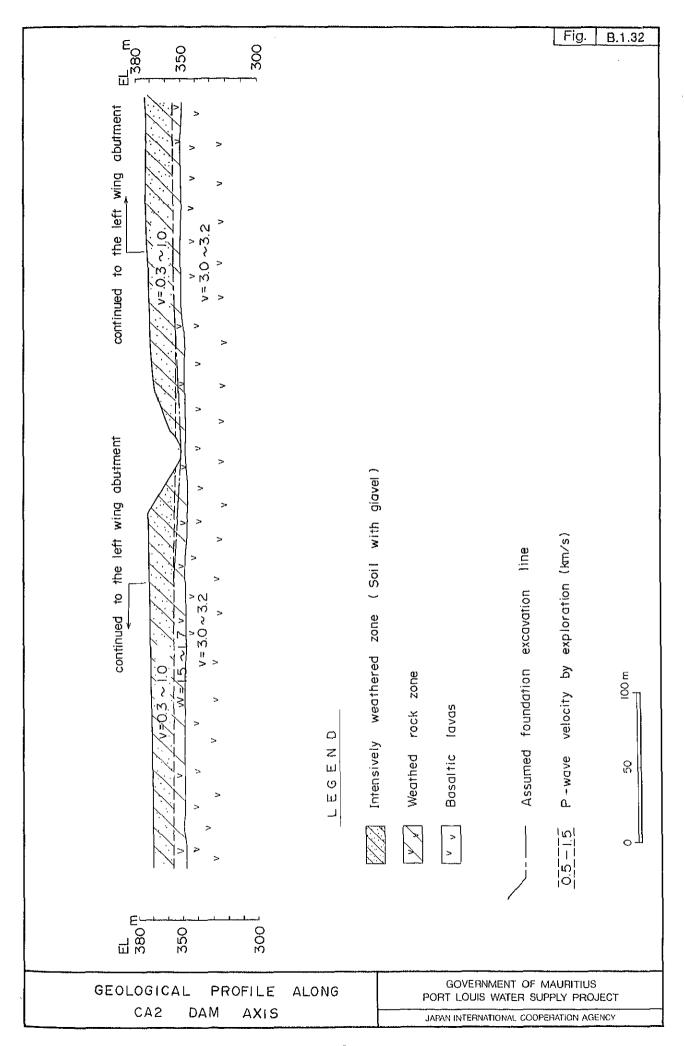


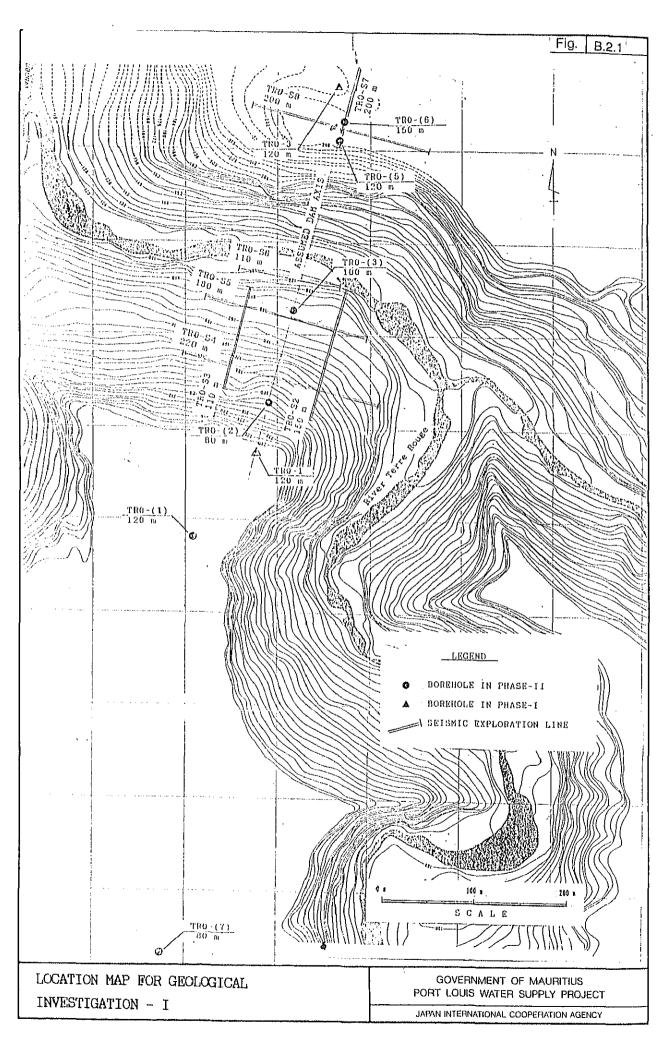


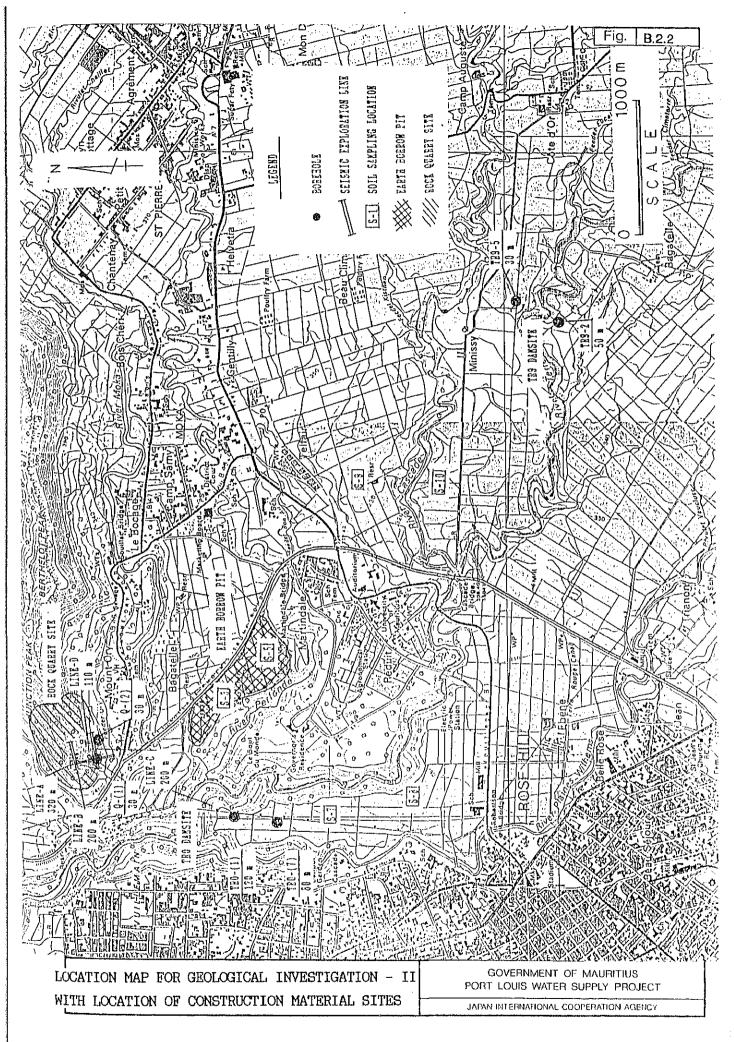


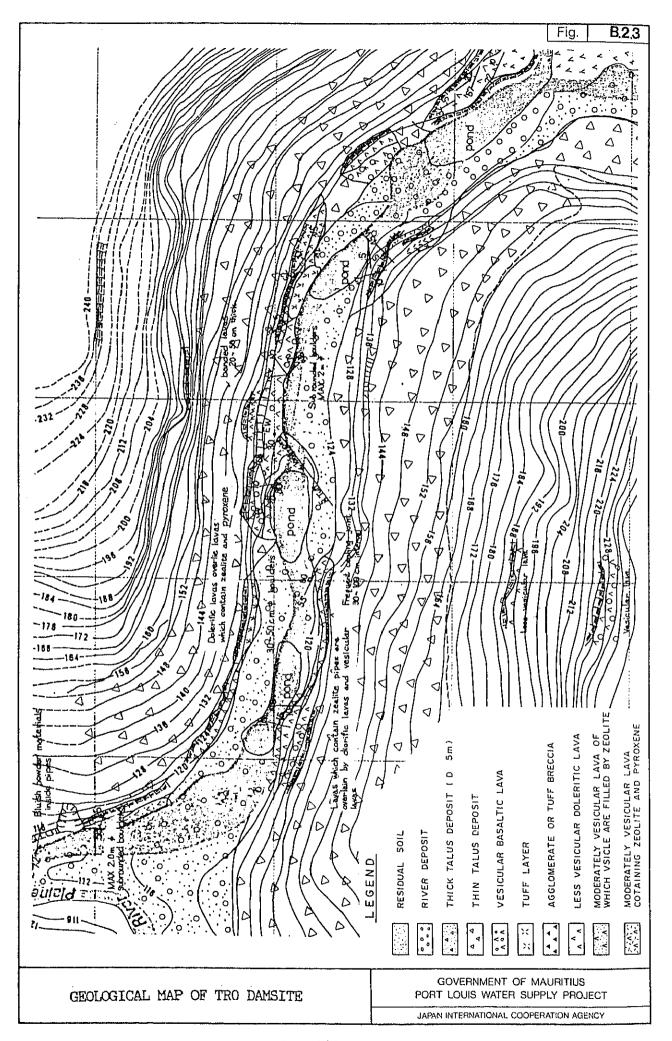


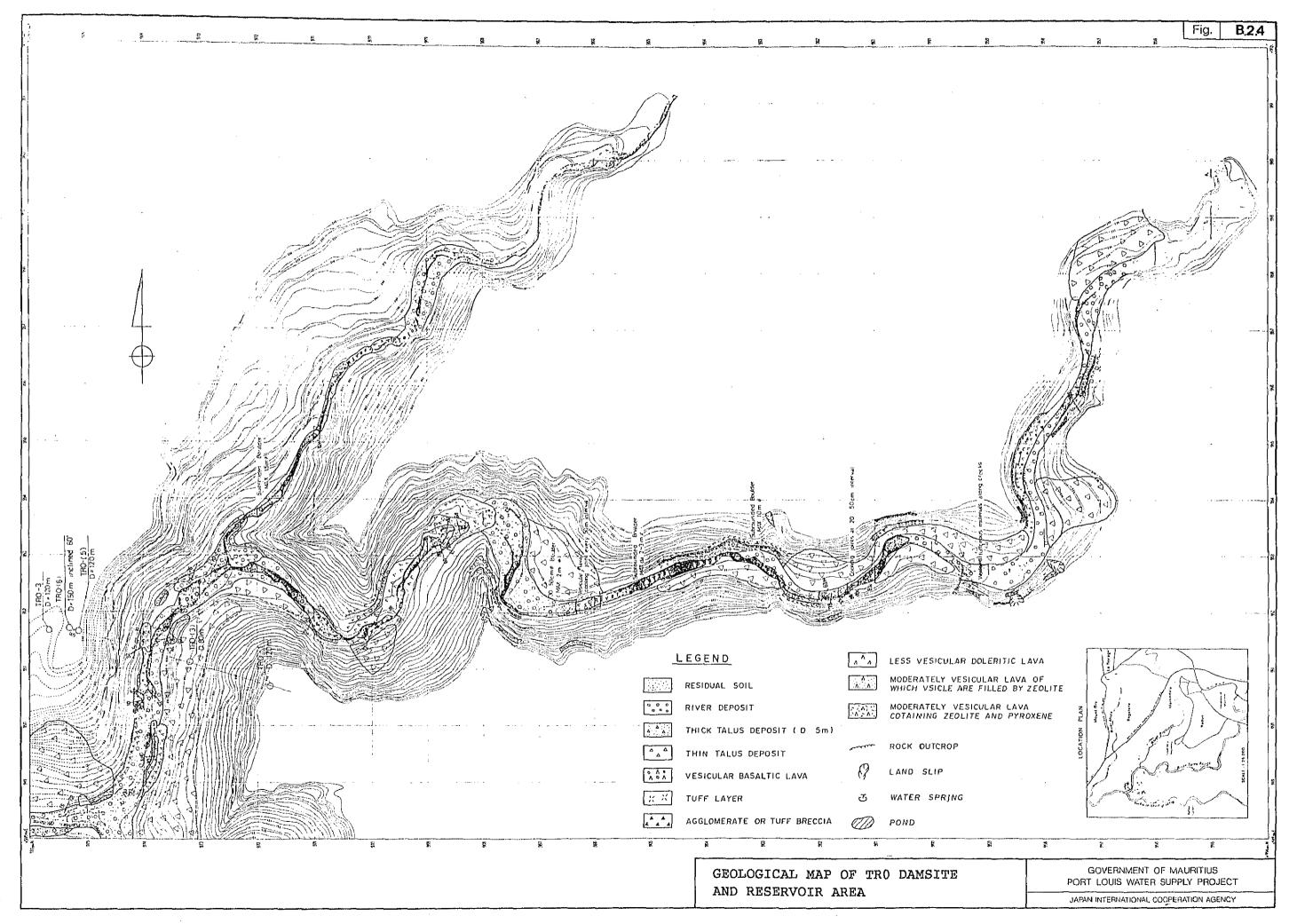


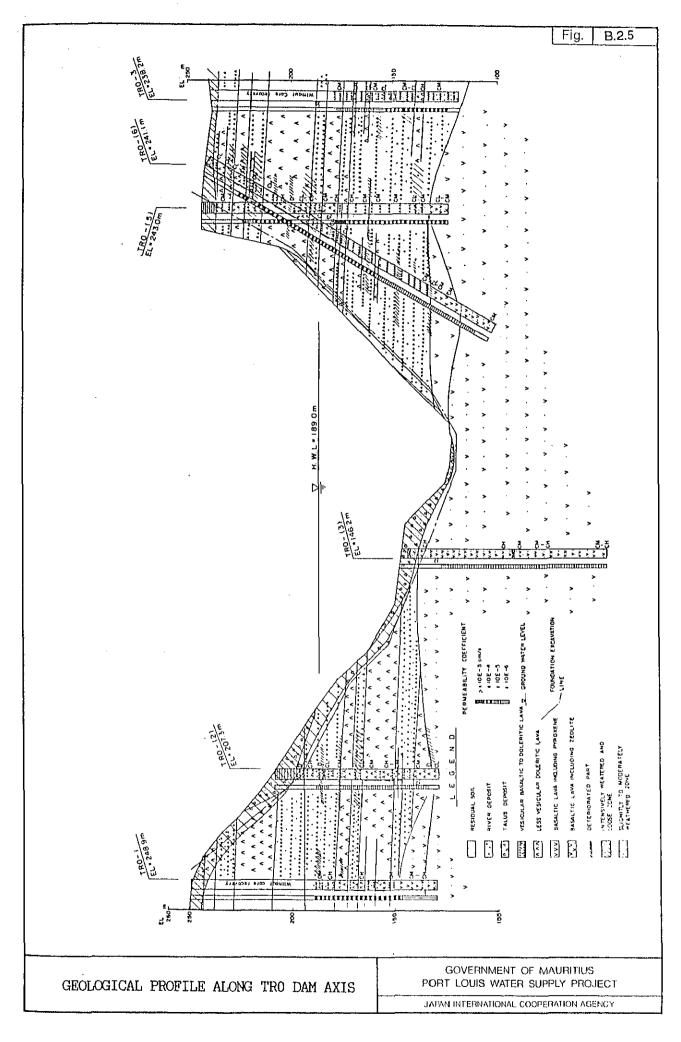


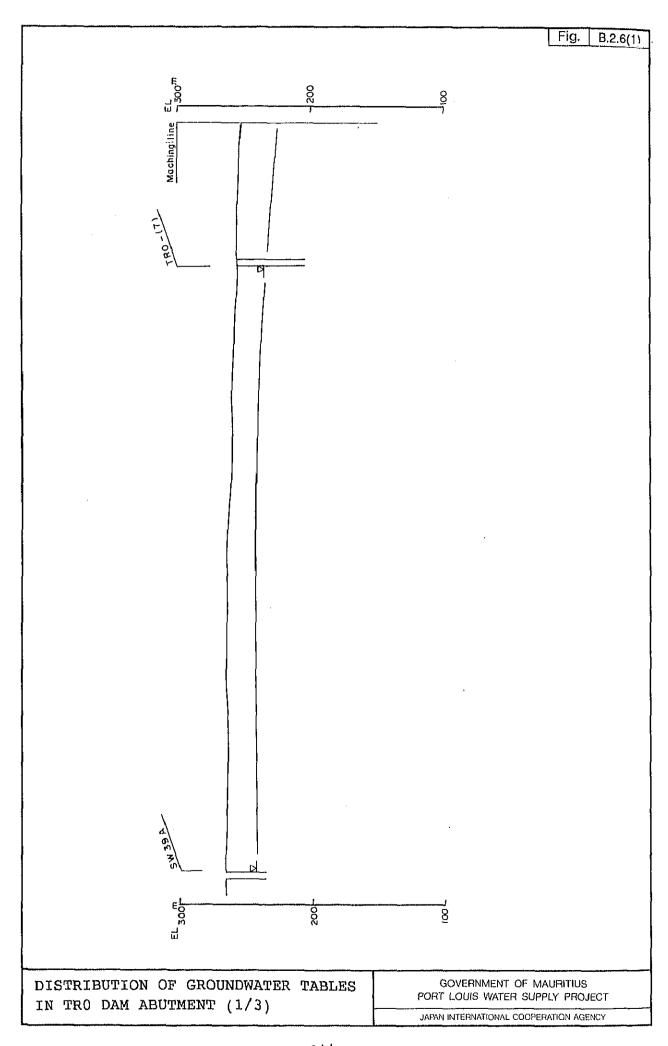


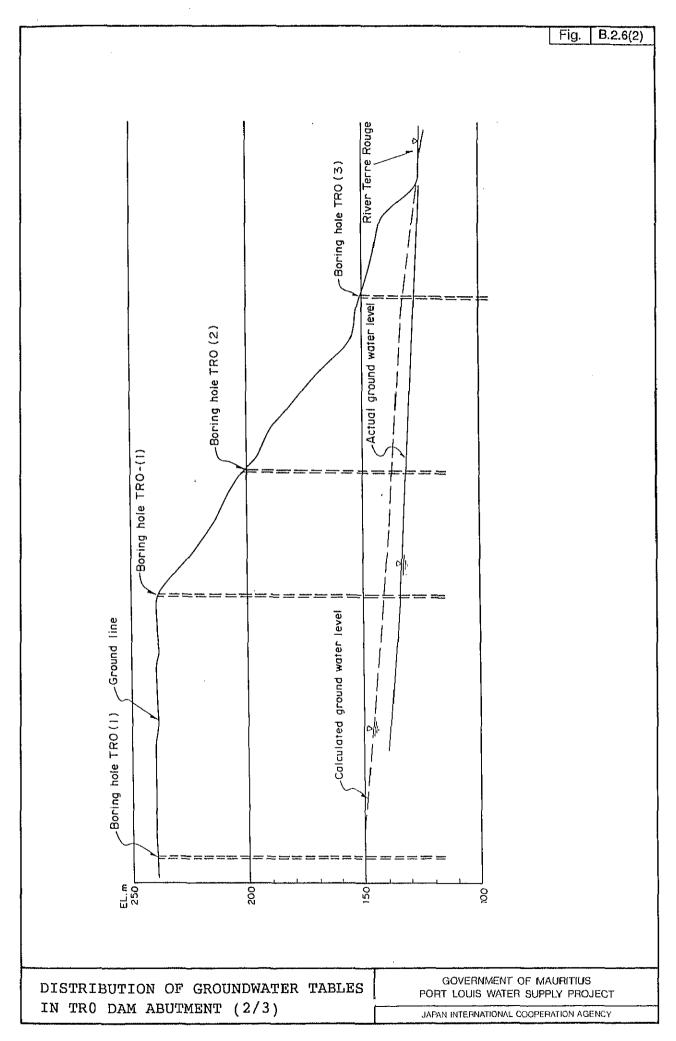


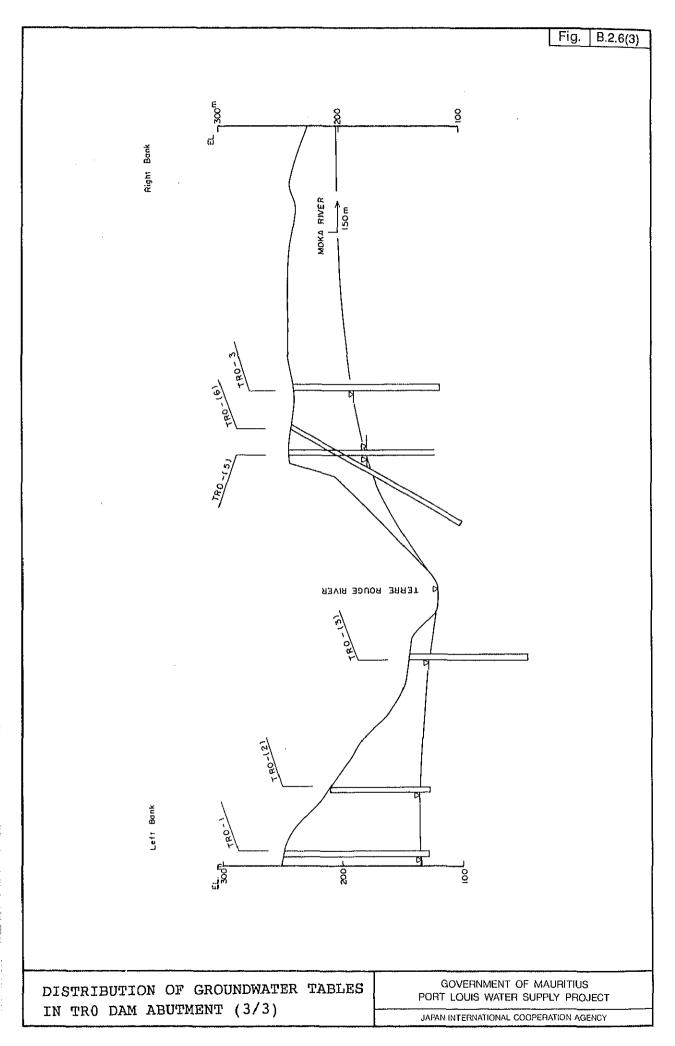


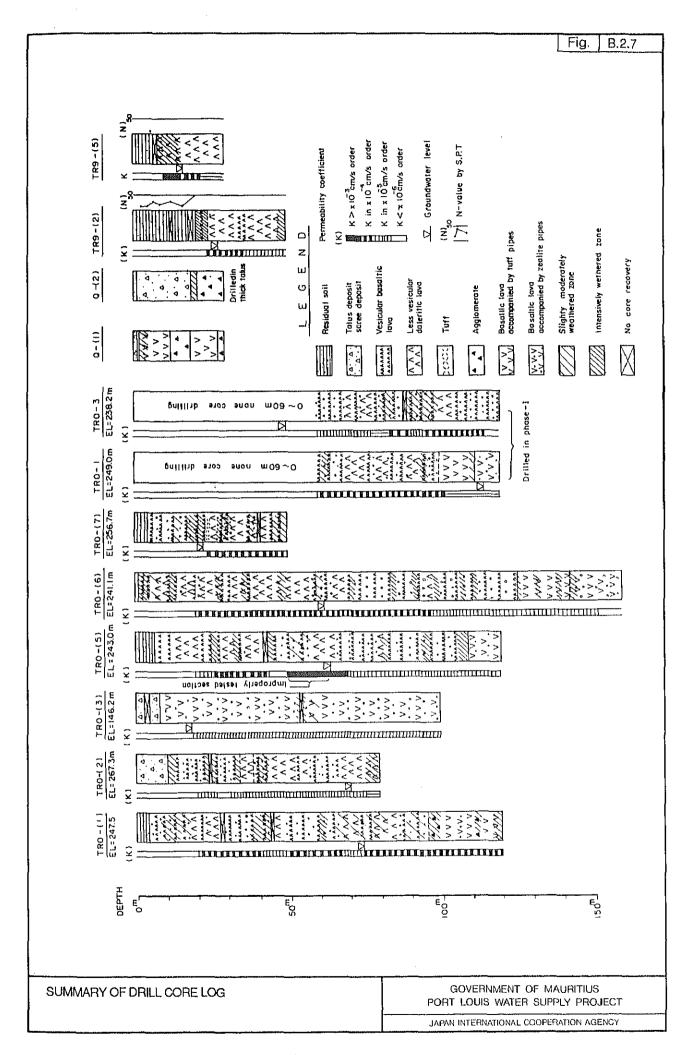


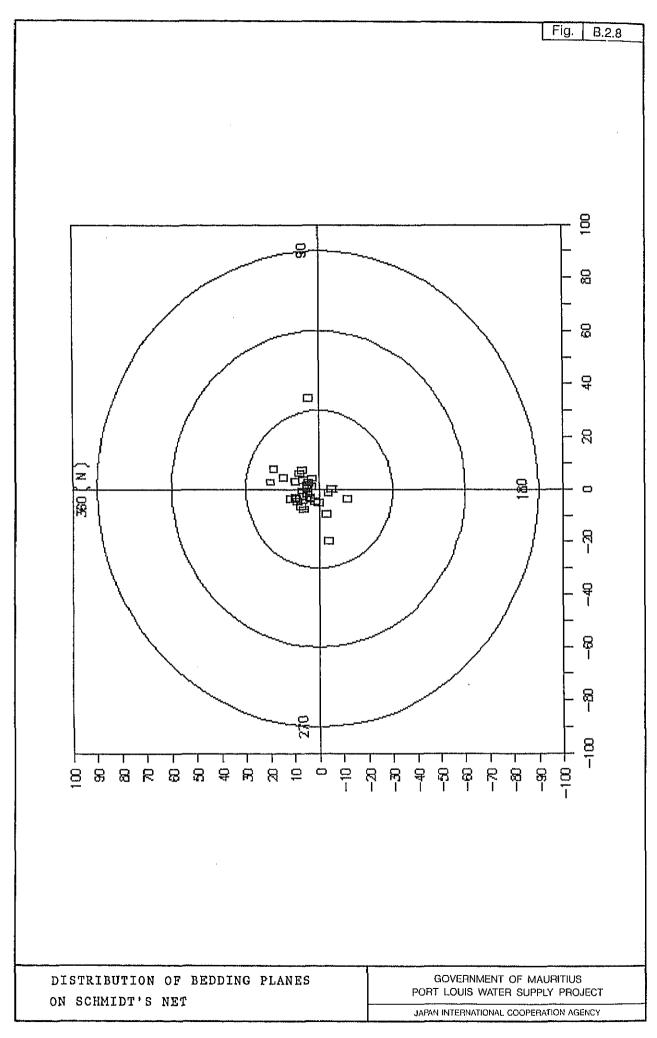


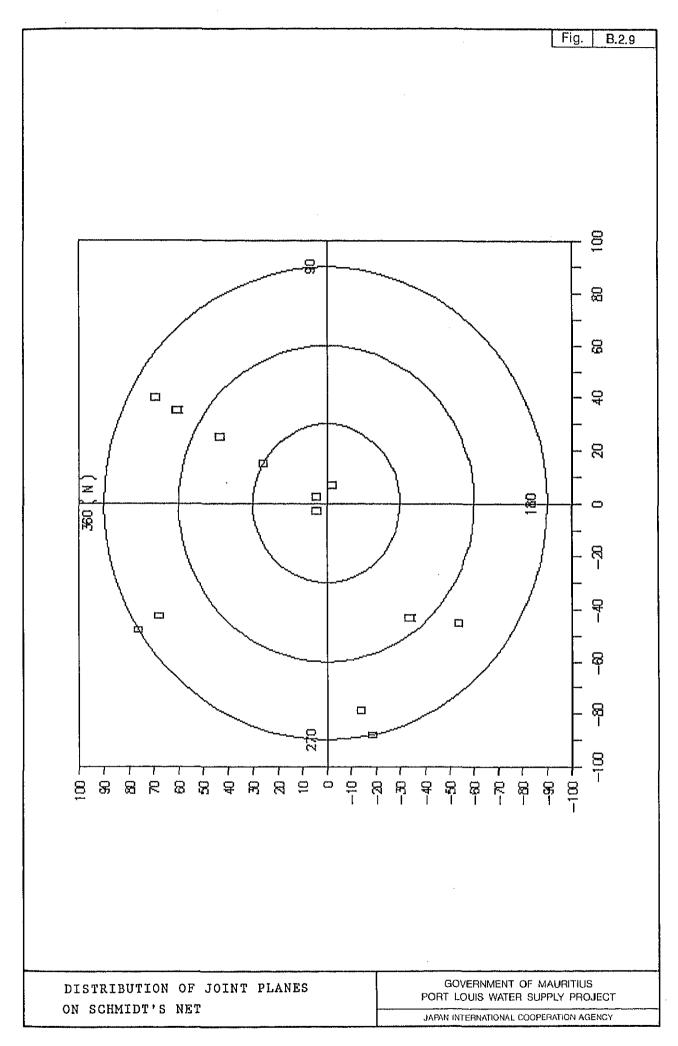


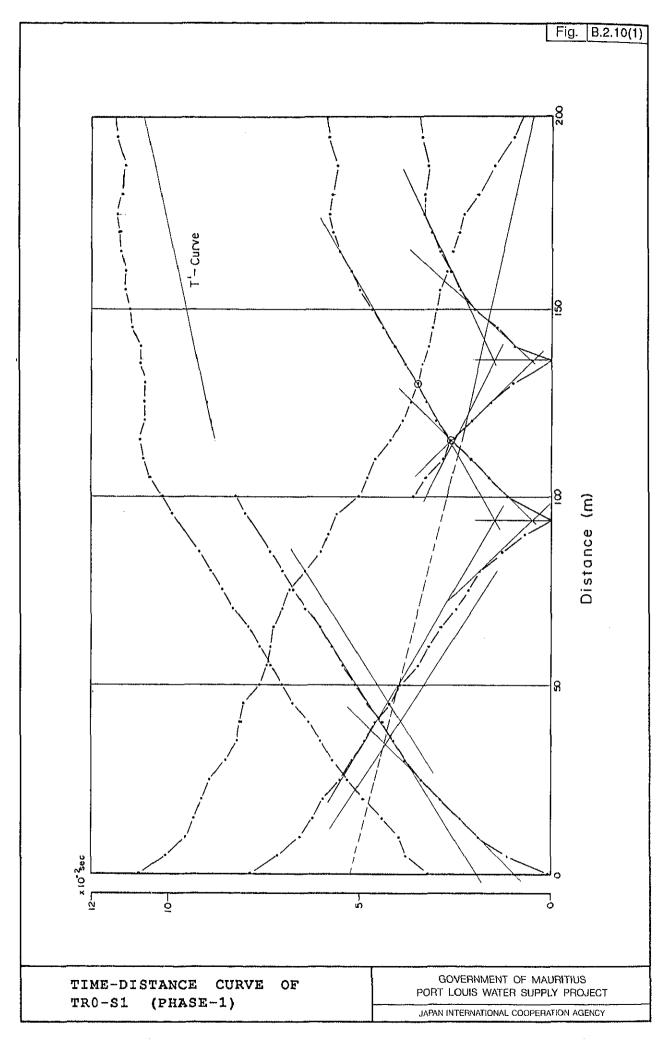


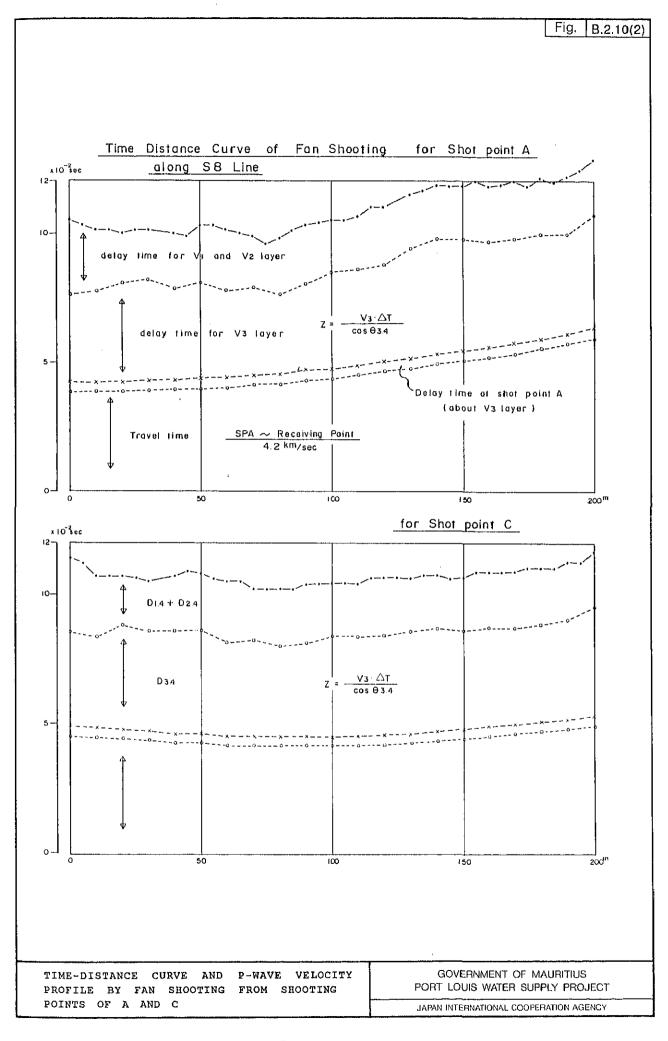


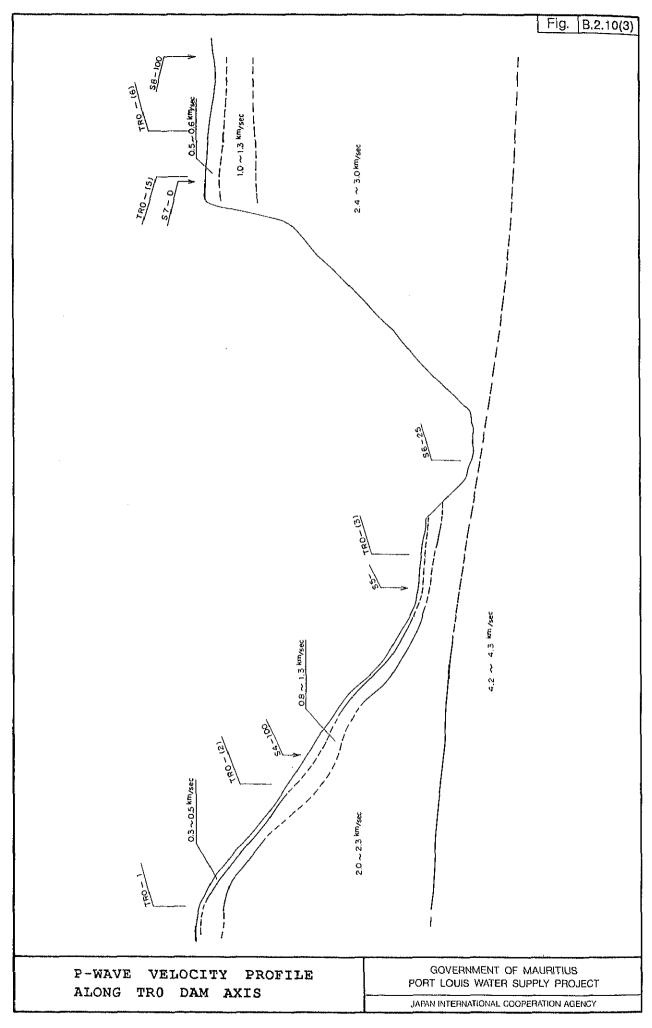


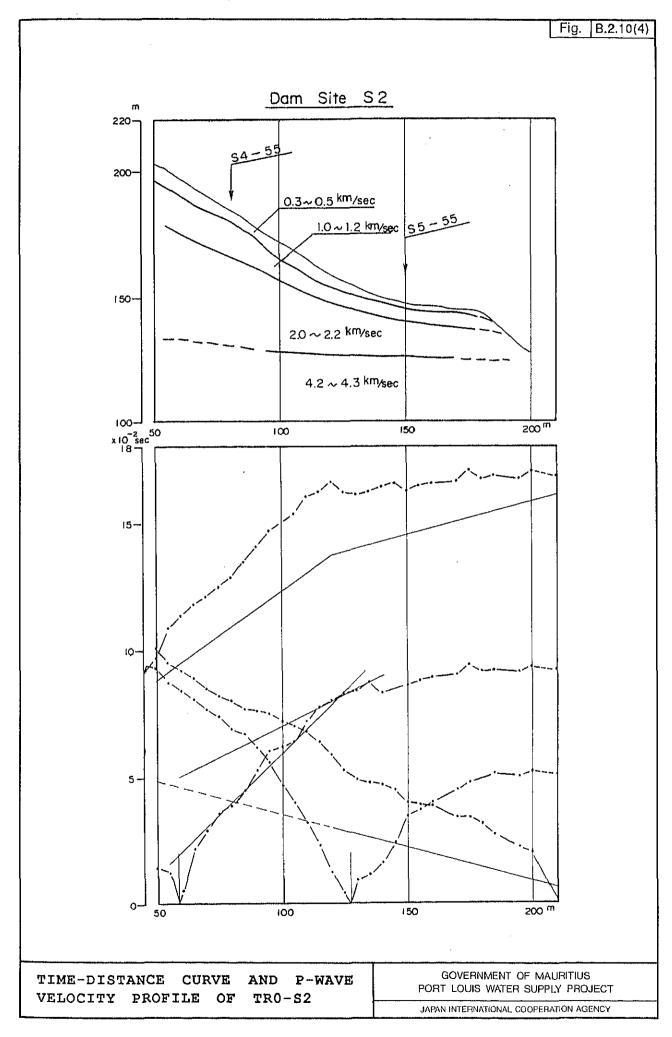


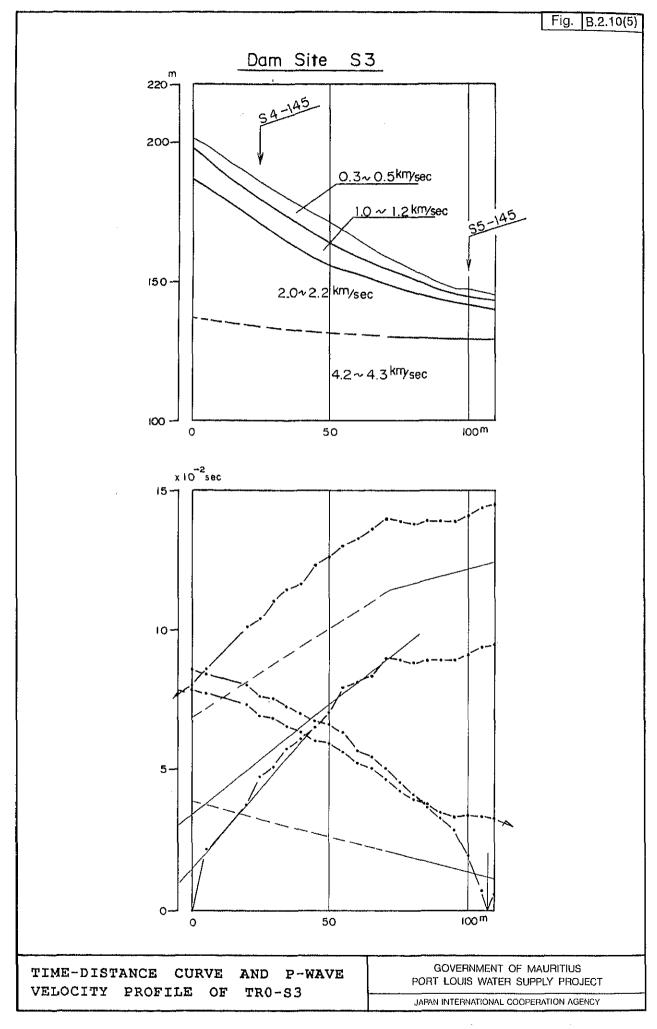


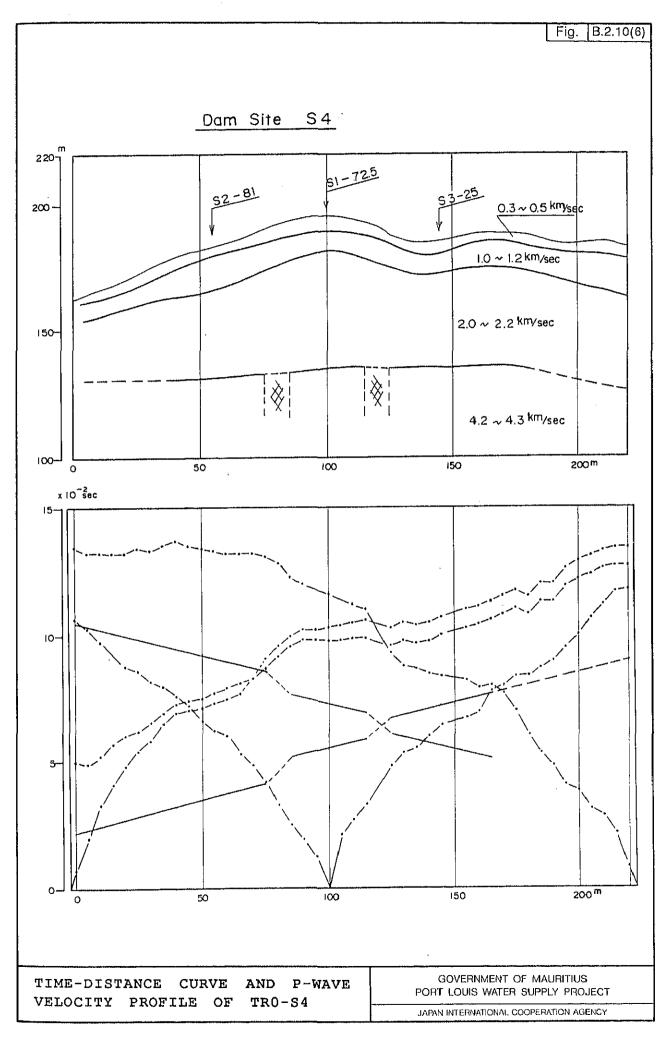


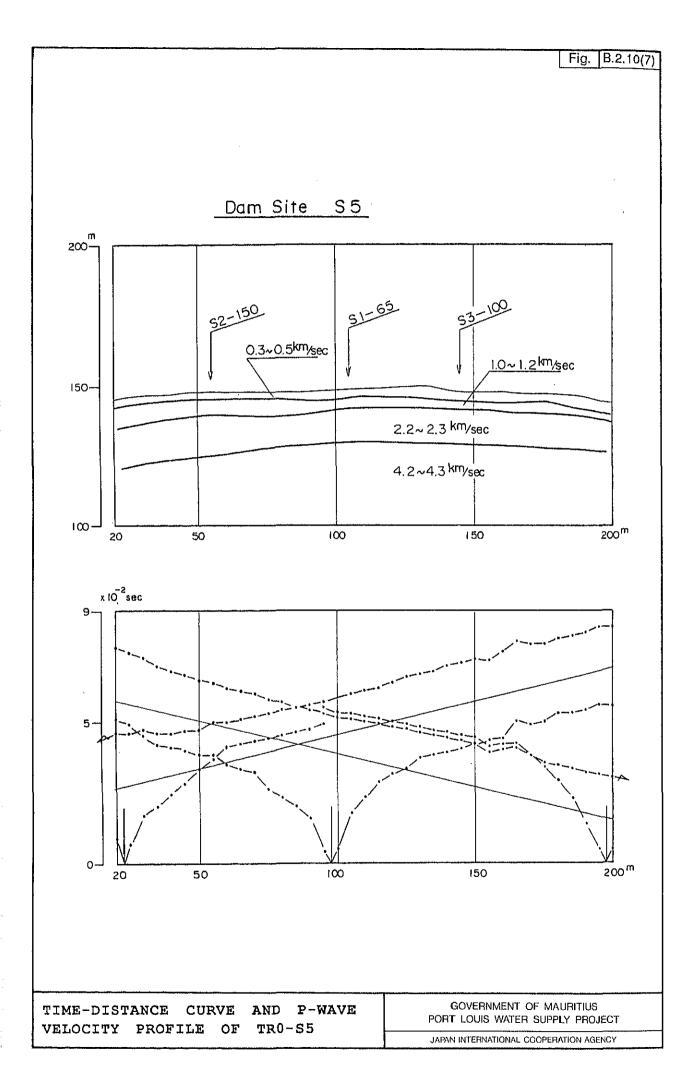


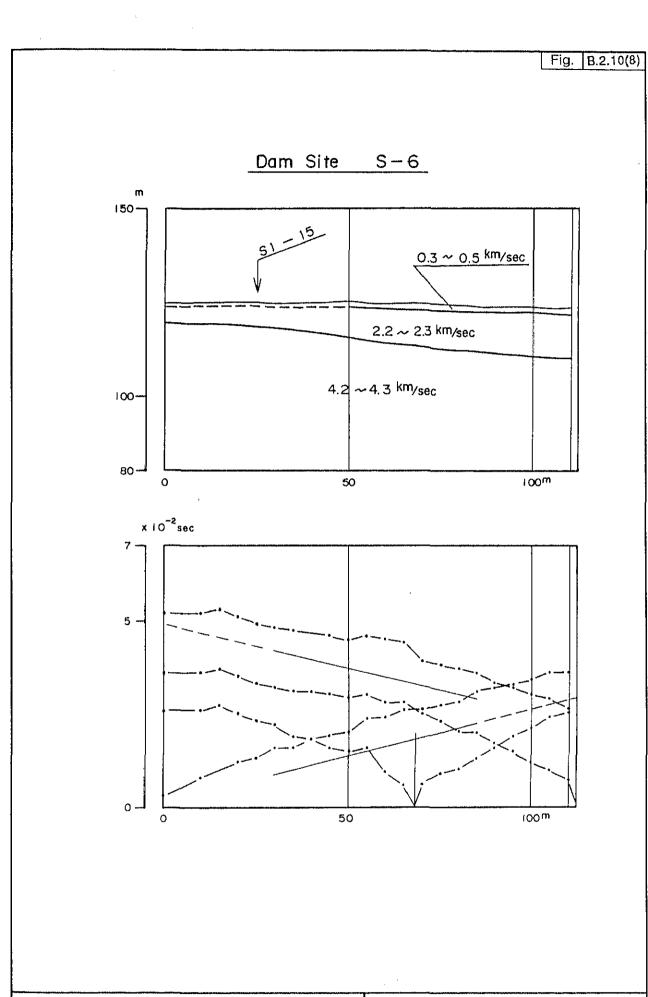








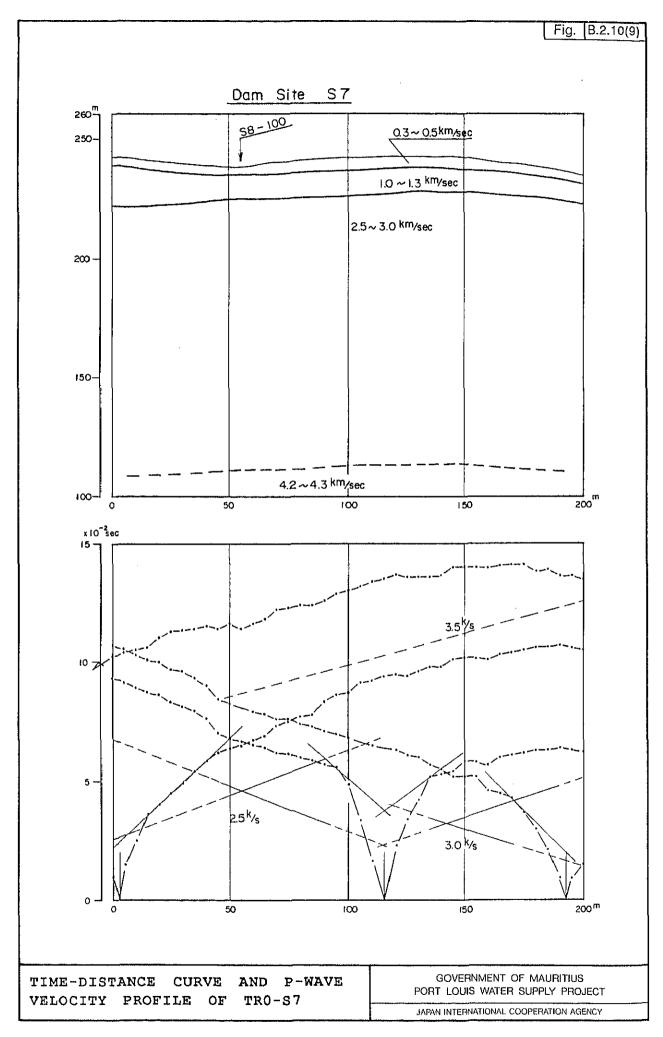


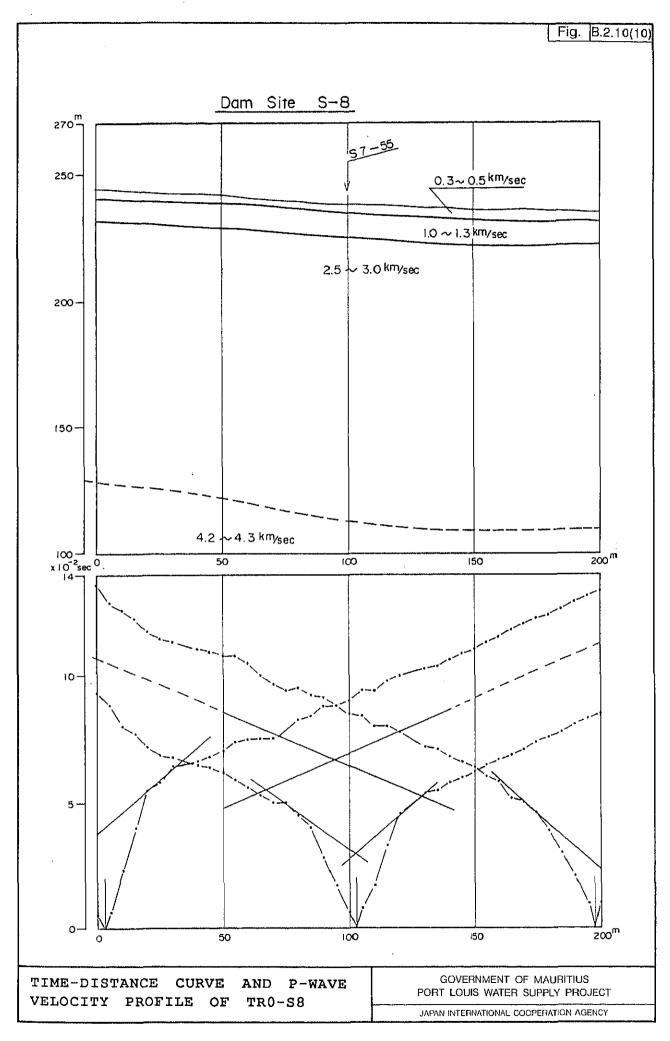


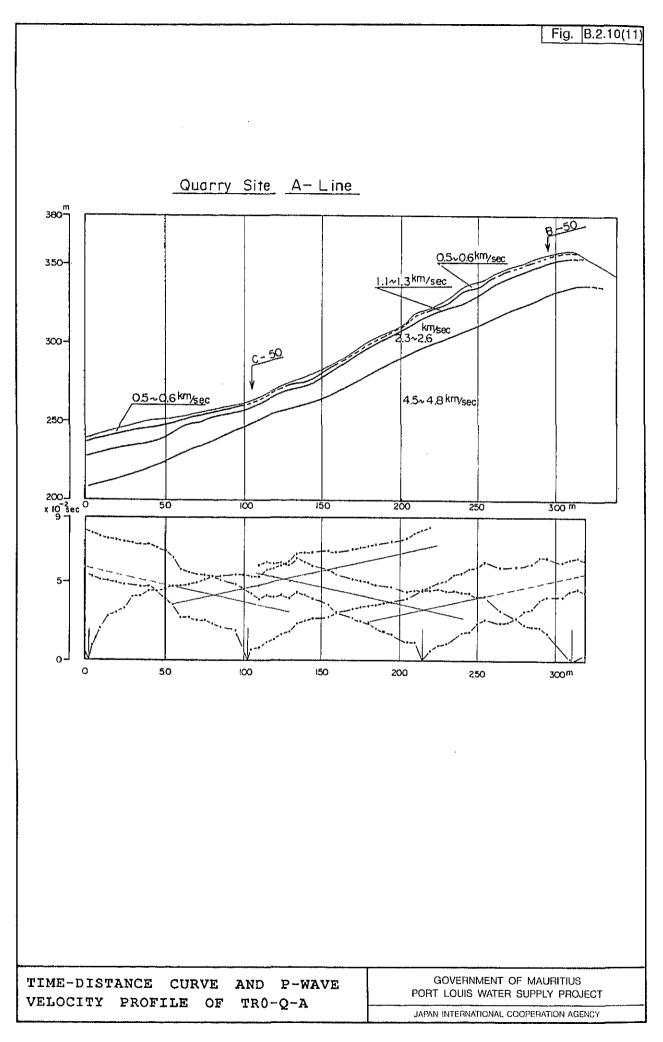
TIME-DISTANCE CURVE AND P-WAVE VELOCITY PROFILE OF TRO-S6

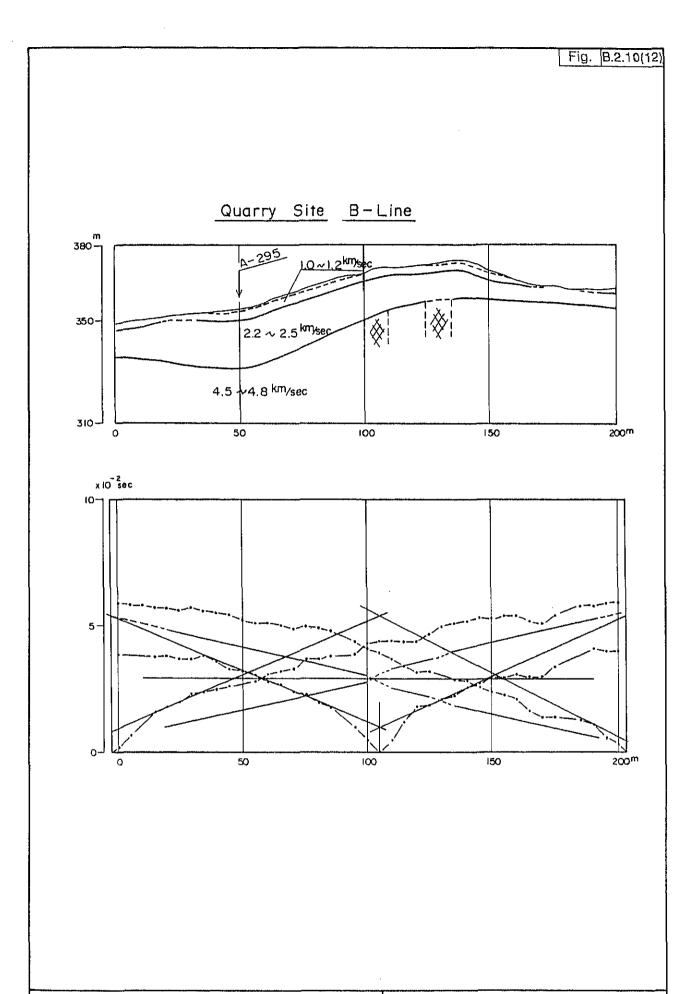
GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY





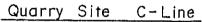


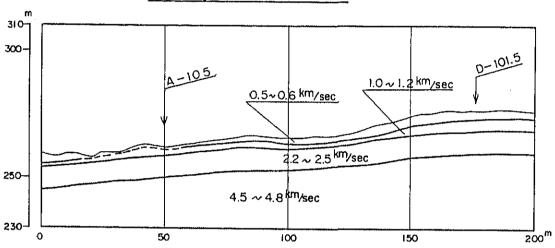


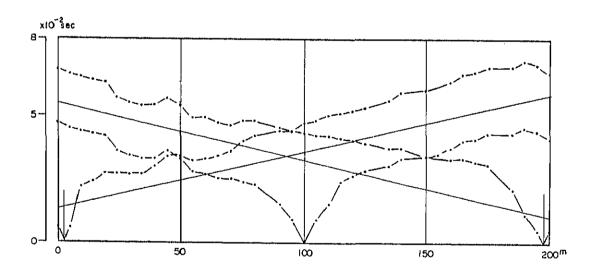
TIME-DISTANCE CURVE AND P-WAVE VELOCITY PROFILE OF TRO-Q-B

GOVERNMENT OF MAURITIUS
PORT LOUIS WATER SUPPLY PROJECT
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. B.2.10(13)







TIME-DISTANCE CURVE AND P-WAVE VELOCITY PROFILE OF TRO-Q-C

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. B.2.10(14) Quarry Site D -Line 3∞<u>m</u> 1.0 ~ 1.2 km/sec  $0.5 \sim 0.6 \, \text{km/sec}$ 250- $2.2 \sim 2.5 \, \text{km/sec}$ 4.5 ~ 4.8 km/sec 220-100m x 10<sup>-2</sup>sec 5 50  $100 \, \mathrm{m}$ 

TIME-DISTANCE CURVE AND P-WAVE VELOCITY PROFILE OF TRO-Q-D

GOVERNMENT OF MAURITIUS PORT LOUIS WATER SUPPLY PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

#### HOLE NO. TRO-(1) SHEET NO. 1 OF 2

[	PROJEC.	Г	PORT LOUI	S WATER	SUPPLY		<u></u>				DEPTH	120 m		ELEVATION	247,5	$\neg$
}	SITE AVERAGE ( RECOVE	CORE	TRO DAM			COORDINATE	:	:			INCLINATION	·	CAL	DRILL RIG		
}	RECOVE			1		DATE	FROM	TO	l æ		DRILLED	DDS		LOGGED	M.Y	
	DATE	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION		DESCRIPT	TION	BIT &	GROUNDWATER	LEVEL	CORE RECOVERY	RQD (%)		Lugeon Valuermeability coe	fficient (K)	
}	2		Residual soil			yey with weat	thered (ragments	<del></del>	G		26 cm	50		o a	30 40	2
LOG FORM-B					1.5–1.9  4.0–5.1 5.1–5.9 6.0–8.0 8.0–9.0 portion; Vesicula brownis 12.0–14 and shoth street shows a street show a	m; doleritte I m; doleritte I m; intensivel; m; vesicular o m; reddish br prock texture ar lavas; fragile h. 4.0 m; only fra rt cylindric co weathered vesi sownish; freque 9.1 m; very h; r doleritte lava sus materials fi —; doleritte ha cullar.  0.0 m; core lo 0.3 m; doleritt r. 4.0 m; weather r lavas; dark b 6.0 m; slightly r lavas 8.0 m; weather la material are ous materials vered with so 5.0 m; core lo 7.3 m; vesicul 6.2 46.9—47 s 8.6 m; dark gr cular doleritic 2.10 m; moder lavas; appea	boulders  lavas  y weathered  (CH)  rown weathered  remains.  c; grey—light  (CM-CL)  agmental cores  res are recovered  (CL)  icular lavas;  and less  as mainly;  lx or inside  and lavas;  (CM)  along joints.  along joints.  ass; washed out.  (CM-CL)  red and fragment  recovered.  are along cracks.  vely weathered;  as soil materials  me cylindric  (CL)  coss; washed out  are basaltic lavas  m; fragile;  recenish grey  clavas. (CM)  retely vesicular  tal. (CM)  rately vesicular  y weathered							2	7.57 7.57 7.57 7.57 7.57 7.57 7.57 7.57	20 20 30 31 31 34 34
	जी  .60		v Dealeration, R.O.D.	A A A A		1.5 m; fresh v	esicular lavas. (CM)					DDON				60

<sup>\*</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total Bength of cylindric cores longer than 10 cm)/(Total core length) x 100%

\*\*LUGEON VALUE is | //min/m under injection water pressure of 10kg/cm|

\*\*DEPTH and ELEVATION are in meter

\*\*DIAMETER is in millimeter

DRILL CORE LOG OF TRO-(1

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

HOLE NO. TRO-(1) SHEET NO. 2 OF 2

DATE DEPTH	ELEVATION	ROCK TYPE OR	COLUMN	DESCRIPTION	ROCK	8	7.	CORE RECOVERY	R. Q. D	WATER PRESSURE TEST	РТН
DEP		FORMATION	SECTION		RO GRV	CROUN		, ,		LUGEON VALUE	рертн
		Intercalation of vesicular basaltic to doleritic lava and less vesicular doleritic lavas  Vesicular doleritic lava accompanished by agglomerates (Old lava?)	**************************************	58.0-61.5 m; fresh vesicular lavas; whitish tuff in pipes and along cracks  62.5-66.7 m; very hard vesicular lavas  66.6-68.0 m; reddish brown (CL) fragments with soil materials; intensively weathered.  68.0-72.0 m; weathered doleritic lavas; samples appear to be brownish  72.0-78.0 m; weathered vesicular lavas (CM)  79.0-82.0 m; less vesicular sandy basalt; slightly weathered.  (CM)  82.0-86.0 m; doleritic hard lava; less vesicular; mechanical breaks occur (CH)  86.0-87.0 m; weathered vesicular lavas; pipes are filled up by whitish tuffaccous materials.  (CM)  87.0-96.0 m; slightly weathered t vesicular lavas; appears to be reddish brown.  (CM)  90.0-91.0 m; fresh  White tuffaccous materials fix. in pipes and along cracks Zeolite crystals are at 94.3 m.  96.0-99.0 m; weathered agglomerate or tuff breccia; cores are broken by finger pressure; similar to the cores fro GUB-1  (CL)  Below 99.0 m, greyish doleritic lavas; whitish tuff along cracks. Zeolite crystals at 104.0 m, 102.7 m.  (CH)-CP.	m	-74.4	7. (5 m)			Lu=93  Lu=93  Lu=93  Lu=93  Lu=98   第1	
Harata Manda		(Old lava?)		Pipe size is 0.2-3.0 cm φ; insides of pipes are fresh. (CH)  111.1-112.5 m; agglomeratic weathered portion. (CM)  112.5-115.1 m; vesicular doleritic lavas; pipe size is 0.5-3.0 cm φ, insides of pipes ara fresh.  115.1-117.0 m; dark greyish very hard doleritic lavas. (CM)  Below 117.0 m weathered vesicular lavas; whitish tuffaceous materials are found along joints and cracks.						Lu=70.4 Lu=70.9 X=7.4×70:4 X=7.4×70:4 DN KOEL CO., LT	HOLE IVO.

DRILL CORE LOG OF TRO-(1),2/2

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

### HOLE NO. TRO-(2) SHEET NO. 1 OF 2

1	PROJEC	Т	PORT LOUI	S WATE	R SUPPL	Y					DEPTH	80.0	m	EL.EVATION	207,3	<del></del> 1
	SITE AVERAGE RECOVE	CORE	TRD DAM			DATE	FROM	: TO			INCLINATION	VERTIC		DRILL RIG		
			ROCK TYPE	Ī		DATES	r non	4	4   6	·	DRILLED	DDS	1	LOGGED	M,Y	=
	DATE DEPTH	ELEVATION	OR FORMATION	COLUMN	:	DESCRIPT	ION	BIT	DIAME LEK	LEVEL	CORE RECOVERY	RQD (%) 50	Perm	ugeon Unit	fficient (K)	рерти
	4		Talus deposits	Δ Δ Δ Δ Δ	Only frag the section 5.0-5.3 r Below 7.3 with soil 4.0-5.0;	no core recon ment and soil in between 3.9 n; stiff clayey 5 m; weathere materials. 5.3–6.0 m; b 3 m; subround	materials in 5-4.0 m. soil. d fragments									2 4 - 6 - 7
	74		(Weathered zone)		vesicular fragile we are recove Below 14	tavas; only bro athered rock : ered. .0 m; vesicula	and fragments (D) rbasaltic	    - 		ì						12 14
			Vesicular Iava	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	fix on ins	liish tuffaceou ide pipes, 6 m; doleritle 0 m; dark bro	(C <sub>M</sub> )									γ6   (Β
			(Weathered zone)		21.0-26. mostly de brown so cores and	y weathered d O m; intensive steriorated to	loleritic lavas.  ly weathered;  be reddish  th some short  (D-CL)							Lu=   X=9	63 ?0x/0:5	20 22 24 26
	֍ <sup>ֈ</sup> ՠև֍աև <b>֍</b> աև <b>֍</b> աև <b>֍</b> աև <b>֍</b>		Doleritic lava		33.5-37. less, vesico		ated hard lavas; is 0.55 cm.				13314114111 111			 X-2	4 P.	32 32 34 34 36 36
	30 32 34		(Weathered zone)		recovered	O m; fragile fr l. 5.2 m; bluish l	(D-C <sub>L</sub> )							Χ- 6	6.1 7.0×10.5 6.9	HOLE 7
			Doleritie lava	^ ^ ^ ^ ^ ^ ^ ^	Pipe size vesicles a materials		ceous							K=0 - £,⁄,≠ -	/ (/ ×/ (2 ) 4	46 Ö 18
LOG FORM-B	ականուն արանական արա	,		C   A   C   C   C   C   C   C   C   C	53.055 doleritic 51.6-53 basaltic v	tuff; less avesid .0, 55.0—56.5 vesicular lavas; as materials in	(CH) m; very hard cular. , 58.0-60.0 m; ; whitish		-					Lu:		52 54 54 56 58
L.	#P.O.O.: D.		Designation ROD=		<del></del>	<del></del>		<u> </u>			HERENI III	DOM I	OF	CO	TAL	<u></u>

<sup>\*</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric corea lunger than 10 cm)/(Total core length) × 100%

\*LUGEON VALUE is [/min/m under injection water pressure of 10kg/cm]

\*DEPTH and ELEVATION are in meter

\*DIAMETER is in millimeter

NIPPON KOEI CO., LTD.

CONSULTING ENGINEERS, TOKYO.

HOLE NO. TRO (2) SHEET NO. 2 OF 2

DRILL CORE LOG OF TRO-(2),2/2

CONSULTING ENGINEERS. TOKYO.

HOLE NO. TRO-(3) SHEET NO. 1 OF 2

DROIFOR	DODT LOU	10 10 10	n armni v					SHEEL		1 OF		
PROJECT	PORT LOU	US WATE	R SUPPLY COORDINATE	:	<del></del>		DEPTH	100.0 i		ELEVATION	146.2	
VERAGE CORE RECOVERY	1110 15/11/1	<del></del>	DATE	FROM	: TO		DRILLED	VERTIC	ΛL	LOGGED	X t V	
	ROCK TYPE	l		I		ia R	CORE	1	1		M,Y	
DEPTH ELEVATION	OR FORMATION	COLUMN SECTION	DESCRIPT	ION	BIT & DIAMETER	GROUNDWATER LEVEL	RECOVERY	RQD (%) <i>50</i>	L	RMEABILIT ugeon Value eability Coe	(Lu)	1
4	Talus deposit	Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ	0-3.0 m; dark brownls soil with weathered roo 3.0-4.5 m; no core-rec 4.5-5.5 m; gravels of v 3.5-7.8 m; doleritic la grains of glass are foun	ck fragments. covery weathered lavas. vas; small d; very hard;								4
- 12 - 14 - 16 - 18 - 18 - 18 - 18 - 18 - 18 - 18	Vesicular basaltic lavas including fragment zeolite pipes (Old lava?)		Below 7.8 m; vesicular are filled up by whitish cores appear to be gree  Tuff layers at 9.8, 12.2 15.1–15.2 m;  Generally cores appear greenish grey.  Vesicles are filled up by  Almost homogeneous of basaltic to doleritic include zeolite pipes, and  27.0–29.8 m; doleritic include zeolite pipes, and  27.0–29.8 m; doleritic vesicular layas  30.5–32.0 m; reddish layas; vesicles are filled zeolite or whitish tuffar materials.  40.0–43.5 m; very harzeolite pipes 42.9–43.0, 44.5–44.6 tuffaceous layers for 10 Recovered core sample fresh and intact condit  Small granular zeolites of vesicles 53.1–54.9 m; weather reddish brown.  53.8–54.7 m; no core 55.0–57.0 m; greenish less vesicular.	lavas; pipes a zeolites; nish brown.  (CH)  (14.0)  to be  y zeolite.  core samples lavas which re recovered.  (CH)  brown vesicular up with ceons  (CH)  d; rounded  m; bluish  o cm.  (CM-CH)  fix insides  ed to be  recovery.  grey basaltic;		\[ \sqrt{-\lambda_1\text{\tiny{\tint{\text{\tiny{\tint{\text{\text{\text{\text{\tiny{\tinicl{\text{\tinit}\\ \tinity}\\ \text{\tex{\tex				Lu=6.7 Lu=6.7 Lu=6.4 Lu=6.4 Lu=6.4	<i>θ</i>	B - 10 - 12 - 14 - 16 - 16 - 12 - 12 - 12 - 12 - 13 - 13 - 13 - 13

<sup>#</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric cores longer than 10 cm)/(Total core length) x 100%
#LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm'
#DEPTH and ELEVATION are in meter
#DIAMETER is in millimeter

DDIII CORFIGE OF TRO-(3)

NIPPON KOEI CO., LTD.

CONSULTING ENGINEERS, TOKYO.

HOLE NO. TRO-(3) SHEET NO. 2 OF 2

V	DATE DEPTH ELEVATION	ROCK TYPE OR FORMATION	COLUMN	DESCRIPTION	BIT & DIAMETER	GROUNDWATER	CORE	 WATER PRESSURE TEST LUGEON VALUE	рерти
	12 14 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Vesicular basaltic lavas including gealite pipes		brecciated lavas,  62.5-67.5 m; weathered and short cylindric greenish grey tuffaceous materials are contained much.  (CM)  63.0-65.0, 67.0-67.8 m; intensively weathered zone.  (CL-CM)  Below 67.5 m; dark greyish doleritic to basalitic lavas; vesicles are filled up with whitish zeolite.  Slightly vesicular parts are at 73.0-74.0 m; zeolites and quartz:  (CM)  Bluish grey massive very hard doleritic lavas; zeolites are along cracks and in vesicles (C11-CM)  Weathering along cracks are at 77.8, 80.8, 78.0, 91.3-91.6, 93.8-94.0 and 97.8 m.  Vesicular parts are at 81.1-81.3 and 88.5-89.3 m. (C11)  Zeolite pipes are 0.5-3 cm \$\phi\$ in general. 80.0-84.5 m; short cylindric cores because of mechanical breaks.  (C11)  97.8-98.0 m; dark greyish sandy tuff layer; carbonated small wood pieces are observed. (CH)		ORC .			100 100 100 100 100 100 100 100 100 100

DRILL CORE LOG OF TRO-(3),2/2

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

HOLE NO.TRO-(5) SHEET NO. 1 OF 2

	DDAI	.a. 1	DO DO D						7 110,1		711551	NO	1 Ur	<u></u>	
-	PROJE		PORT LOU	IS WATE	R SUPPI	COORDINATE	T .		<u>'i</u>	DEPTH	120 n	n	ELEVATION	24.30	
ÁV		CORE ERY	TRO DAM		<del></del> -	DATE	FROM	TO	<del></del>	DRILLED	· · · · · · · · · · · · · · · · · · ·		DRILL RIG		
1	RECOV		Tassu auga	<del>i                                     </del>	<del></del>	) On to	1 11014		T ##	<del> </del>	'		LOGGED	M.Y	
DATE	DEPTH	ELEVATION	ROCK TYPE OR	COLUMN		DESCRIPT	TENT	BIT & DIAMETER	CROUNDWATER	CORE	RQD		ERMEABILIT Lu - Value		≞
ă	DE	LEV	FORMATION	SECTION		DESCRIFT	1011	T W	- E - E	NECUVERT	(%)		(K - Value cm/	; s)	рертн
				<u> </u>				# C	5	% cm	50 100	Hiii lii	10 20	30 40	
	2					to dark brow	nish clayey;	ļ							
			Residual			re recovery no core recove	) PSE								
	4	1	lioz		02111,	no core recore	:iy								4
12.0	<u>-</u>				1		(D)								
	으 <u>6</u> 3	L	-	* * * * *		·····	· · · · · · · · · · · · · · · · · · ·	_				***			6
	<u>8</u>			***	Moderat	ely vesicular l: m; slightly we:	avas continue								,
	-	i		*	yellowis	h clayey mate									
1 6	10			1 1 2 1 2 1	cracks		. (C <sub>M</sub> )								10
	/2. -	Ì		*	 	l.8 m; freguen	tly vectoular								
	-			1 A A A A		pes size is 5-1			•						
	14 - 16 -	-		^ ^	13.8_10	.3 m; massive	vary band								4
1	16			۸۸	dorelitic	lavas.	•	1							1,5
	_			^^	Weather cracks.	ing is develope	ed atong (CH)								
1 2	·			,,,,,,,,,,,,,			(-11)								18
	- 20	}	1			.0 m; frequen	tly vesicular								21
] 🗈	_ i	1	Intercalation of vesicular	^ ^ ^ ^	lavas										10
	22	İ	lavas and	6 × × ×	21.0-22	2.0 m; hard do	leritic lavas						122=7	4	22
	- 21		hard massive lavas			.0 m; weather							K+19	x10-5	
	_		,	11/1/		h vesicular lava									- [ <i>a</i> 4]
	26			^ ^	25.026 few vest	5.0 m; hard ma cles	issive lava; (CH)					16 11			26
	æ		-	11/1/			; short cores an	.							
[5	-	1		^^^^^	fragmen	is are recovere	d (CM)	"						2.4	20
1 1	30			^^ ^	28.4-32	l.6 m; doleritic cles (max 5 m)	hard lavas;						K =47	x <i>10</i> - 4	30
1 102	- 32			٨	vesicles	ries (max 3 mi are fresh,	nφ); inside (C <sub>H</sub> )		•						20
	_			^ ^			(-11)								"
1	24	j	i	12.2.3			ed tuff breccia;	1					$L\mathcal{C} = \mathcal{E}$	22	34
	3 <i>6</i>	1		A 6 A A A	only frag	gments with so vered.	oil materials (CL-CM	,					Z E cz	771-A	,_
	_		1	, , , , , , , , , , , , , , , , , , , ,				·							XO
100	38			^ ^ ^			5.5, 36.0, 36.9 r Itard doleritic	"				ЩЩ	(K - Value (K - Value		38
	10		-	^ ^	lavas.	tuffaceous ma									
	-]			^ ^	along cra		terials stain (CH-CM	)							#2
	12		Interelizate	<u> </u>	Slightly	weathered lava							K = 20	x/Q=4	42 II
	- 12 - 12 - 14		Intensively weathered		_	it brownish.							Eu=/4		#2 HOLE
			Zone	1. 1/2. 1/2	41.7-44	.0 m; reddish	brown clayey 42.0-43,4 m								94
			1	1. 1. 1. S.			(D)								46 S
	16 - 18					.8 m; short cy	lindrie; re of veslcular					IVFC	$\alpha : A \cap A \cap C \cap M$	1112 312:00	VIII([]
The state of	-			, , , , , , , , , , , , , , , , , , ,	lavas rem	iains; dark bro	wn weathered						omduete.	7	10
	50 -			12/2/2/2/2/		lavas continu whitish tuffac	e to be eous materials								50
] [	52			200		de pipes.									52
11 F				1.5%	ı		(CL-CM	'					LU=199	2	
	54				Only fra	gments are rec	ovared from						Κ₹22χ	10-3	54
	-						overed from , 56.3–56.9 m	-							
	54 - 56 -		1	. ,								11:17	Lu=199 K=22x 19eon Lest	Was hol	C  36
	<b>S</b> 9			//////// AAAAA								11E 741	THE SELL	ion! bethe	U. CO
1	50			^^	58.0-61 lavas	.2m; less vesio		۱,				115	0.0~64	?//	
	χ/L		<u>.l</u>	A A	16743		(CM-CH	<u>''                                   </u>	L			Hilif		[H11]H11H1	111 60 J

<sup>\*</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric cores longer than 10 cm)/(Total core length) x 100% \*LUGEON VALUE Is | //min/m under injection water pressure of | 10kg/cm' \*DEPTH and ELEVATION are in meter \*DRILL CORE LOG OF TRO-(5).

LOG FORM-B

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

DRILL CORE LOG OF TRO-(5),1/2

HOLE NO. TRO(5) SHEET NO. 2 OF 2

DATE	рертн	ELEVATION	ROCK TYPE OR	COLUMN	DESCRIPTION	ROCK GRADE	GROUNDWATER LEVEL	CORE RECOVERY	R. Q. D	WATER PRESSURE TEST	ОЕРТН
la la	<u> </u>	ELE	FORMATION	5ECTION		GR.	GROUP	% cm	30 %	LUGEON VALUE	H C
22. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			Predominaat vesicular lavas	A A A A A A A A A A A A A A A A A A A	Less vesicular lavas continue to be 65.0 m; weathered at 61.2-62.0 m 2-3 cm¢ pipes are at 62.3-62.5 m inside pipes are fresh.  (CH-CM)  65.0-67.0 m; weathered lavas; dark brownish-reddish brown; fragments with short cylindric cores.  68.6-72.3 m; vesicular lavas; diabasic. Weathered zones at 69.4-69.6, 70.5-71.5, 74.5-74.7, 75.3-75.4; 75.9-76.0 m  Whitish tuffaceous materials stain along cracks.  (CM-CH)		∇ -ಟ.2				
102 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					81.1–89.0 m; vesicular lavas; weathering develops at 82.2–83.7, 84.3–84.4, 87.1–87.5 m, 87.1–88.0 m; weathered lavas appear to be dark brownish.  (CM)  89.0–90.5 m; less vesicular doleritle lavas; cooling joints at 10 cm interval.  (CM)  91.0–92.0 m; vesicular lavas, dark brownish.  94.0–96.0, 97.8–99.1 m; highly weathered portion  Doleritic vesicular lavas; weathered portions at 100.0–100.2, 100.9–101.2 102.5–102.7 m					Liz=13:5   K=1.9x/0=4=   Liz=52:6   K=7.3x/0=4   Liz=63:4   K=88x/0=4	
102					103.2-104.0 m; intensively weathered; reddish brown soil. 104.0-109.0 m; brownish soil with rock fragments. (CL-D) 109.0-109.6 m; highly weathered vesicular lavas.					Lu=69.8 K=96x/0-4 Lu=9.5 X=1.3×70-4	MOLE HOLE
11/2			Old lavas including zeolite eristals	· · · · · · · · · · · · · · · · · · ·	Below 109.6 m; zeolites are observed in pipes.  112.0-112.7 m; weathered fragmental 116.0-116.2, 116.8-116.9, 118.5-118.6, 119.8-120.0 m; weathered and fragmental Generally cores appear to be light brownish to greyish.  (CL-CM)					Lu=12.7 K=18×10-4	10 NO.
and and and and and and and and and					(Bottom of borehole)				NIPPO	ON KOEL CO LT	

DRILL CORE LOG OF TRO-(5),2/2

NIPPON KOEI CO., LTD.

### HOLE NO. TRO-(6) SHEET NO. 1 OF 3

P	ROJECT	r	PORT LOUI	S WATER	SUPPLY					DEPTH	160.0	m E	.EVATION	241.1	
VÉ	SITE RAGE ( ECOVEI	ORE	TRO DAM		COORDINATE	:	;			INCLINATION	00, 101	·	RILL RIG		
T				<u> </u>	DATE	FROM	TO ਕਿਲ	i es		DRILLED	DOS	1	.OGGED	M,Y	
a iva	рертн	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPT	ION	BIT & DIAMETER	GROUNDWATER	LEVEL	CORE RECOVERY	RQD (%)	Permea	eon Unit ( bility Co	(Lu) efficient (K)	111111111111111111111111111111111111111
	1.0		Residual soil		0.2-2.0 m; reddish bro	own clayey soil.	<del>                                     </del>	<u> </u>		% cm	50			<i>30 40</i>	
2	3.0		Intensively weathered lava		Vesicular lavas; fragme	ents only,	]								ź
4	J	<del></del>	weathered jaya		Below 4.0 m; short cyl	(C·C1)	4								
					vesicular lavas.										4
6					Cracks appear to be bli of weathering.	ackish because (CL)									é
8	4			A A A	6.8-10.5 m; slightly to	o moderately									1
-10	,		Interculation of vesicular	^ ^ ^	weathered deleritic lav hard; almost without v	as; greyish;									
-12	, [		basaitic lavas and doleritic	1.22.2.	10.5-15.8 m; intensive	ely weathered									
	1		lavas.		vesicular lavas; whitish , material in pipes or alc	tuffaceous									
14	4				below 14.5 m.	(CL)	-								,
16	,			17/1/2											
				\^^^	15.8-19.0 m; less vesion doleratie lavas; dark gre										
16	4			A A A	18.0-18.3 m; vertical										/
20	a			<i>??</i> ??}	19.5-20.6 m; weather										2
22				اممما	Below 20.6 m; vestcula	(CM·CL)									
_				\^^^	lavas; very hard; greyis								lii li k		2
24	1				22.0-23.8 m; doleritic vesicular	: lavas;								i i i	2
26		•		A A A	23.8-25.0 m; purplish	prown	1								2
28				^ ^ ^	vesicular lavas; pipes ar by whitish tuffaceous i				ļ						
<u>:</u>				11/1/1/1	• • • • • • • • • • • • • • • • • • • •	(CM)					J		, i	.u=/.i /=/.5x/0	5 6
30	1			****	31.5-35.4 m; very har	d daleritic									3
33				Å Å Å Å Å Å	lavas; insides of pipes a Pipe size is 0.3-1.0 cm	tre very fresh.									,
- 34	.			^ ^ ^	tuffaceous materials fil	ll up vesicles.									
2.7				^^^		(CH)	1						1	μ=18.5 '=67×10	] 3
36	4				35.4-39.0 m; light bro								k	-67×10	3
_ 38	} }				weathered vesicular lav Pipes and cracks are fil	led up by									١,
40				1.57.57.51	tuffaceous yellowish n	naterials. (C <sub>M</sub> )									
				^ ^ ^	39.0-53.0 m; less vesion								1	u=56.7.	##
42				^ ^ ^	doleritic lavas; very.ha									(5.77/x/Q	4
- 44	4 1			^ ^ ^	Ocassionally 0.5-2 cm										4
- 4				_^ ^	found; insides of pipes	are tresh.									
-					45.6-49.2 m; chocolated soil with v									α=( / ( ·	1
48					core are recovered.	(CL)	1						1 1	(=2 1.×/O	4
- 50	2	ı		\(\frac{1222\frac{12}{2}}{\lambda \lambda \lam				, ,	,						
					50.051.0 m; weather			-50:	2711					11   11   1   1   1   1   1   1   1   1	9991.
.56	1 1			^ ^ ^	51.0-57.3 m; hard do except 53.0-54.0 m.	leritic lavas (CM)							,	.u=40θ	
5	4 ]				,								ji ji	ζ= <i>57χ[0</i>	4
5	<u> </u>			^ ^ ^	54.055.5 m; 0.53.0 insides of pipes are fre									(=±7x10	١,
L.	1 1			^ ^ ^	••	(CH-CM)									
<u>58</u>					Helow 57.3 m; very fre developed vesicles are c	quently			-				1	u=36.6	
60	2			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Core are brownish beca	oserveu. use of weatherin	<u>.</u>						1	(†5/x/0	1

#RQ.D is Rock Quality Designation, R.Q.D=(Total length of cylindric cores longer than 10 cm)/(Total core length) x 100%
#LUGEON VALUE is I/min/m under injection water pressure of 10kg/cm'
#DEPTH and ELEVATION are in meter

DRILL CORE LOG OF TRO-(6),1/3

CONSULTING ENGINEERS, TOKYO.

HOLE NO. TRO-(6) SHEET NO. 2 OF 3

	DKILL	LU							
DATE DEPTH ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	ROCK	CROUNDWATER LEVEL	CORE RECOVERY	R. Q. D	WATER PRESSURE TEST LUGEON VALUE	ОЕРТН
PATE TO THE PATE T	ROCK TYPE OR	COLUMN SECTION  A A A A A A A A A A A A A A A A A A A	Cores appear brownish grey but they are hard in general whitish tuffaceous material along cracks are in pipes. (CM)  64.8–70.5 m; very hard; greyish doleritic lavas; less vesicular; weathered steep cracks are 66.0–66.3 m. (CH-CM)  Below 68.5 m; vesicular lavas; 68.5–70.4 m; intensively weathered zone.  Tuffaceous materials along cracks are in pipes.  (CH)  78.4–79.3 m; weathered and fragile 78.0–86.2 m; vesicular lavas; vesicles develop fragmently; vesicles size is 2–7 mm. (CM)  Weathered portions are; 80.0–80.4, 82.0–82.4, 84.6–85.1, 87.7–87.9, 88.7–89.5 m.  86.3–87.7 m; less vesicular doleritic doleritic lavas. (CM)  90.0–92.0, 92.7–93.4, 94.7–95.0 m; weathered portions.  There are tuffaceous materials in vesicles partly. (CM)  97.5–95.5 m; intensively weathered 96.0–97.5 m; doleritic lavas. 97.5–99.5 m; intensively weathered doleritic vesicular lavas; tuff fills pipes and joint. (CM)  Below 104.2 m; purplish brown weathered basaltic vesicular lavas; tuff fills pipes and joint. (CM)  Below 104.0 m; purplish brown weathered basaltic vesicular lavas; pipes and joints are filled up with whitish tuffaceous materials.  103.5–106.0, 106.3–107.8, 109.1–109.4, 110.0–110.2 and 111.8–112.4 m; weathered portions.		CROUNDHATER CROUNDHATER	RECOVERY			1 2 10 110 HOLE NO.
11.5 11.5 11.6	Basaltic	**************************************	(CM)  Reddish brown weathered cracks are at 115.8 m.  116.4—121.0 m; weathered and deteriorated to be brownish soil with weathered fragments.  (CL-CM)  Bedding of lava layers dip about 10° at 122.5—123.0 m.  125.0—128.0 m; slightly to moderately weathered less vesicular doleritic lavas.					Lu = 4.0. K = 5.6×10-6 Lu = 3.3 Lu = 3.3 K = 4.6×10-5	
1 200	vesicular lava (Old lava?)	v v v v	Below 126.0 m; basaltic vesicular lavas including zeolite pipes.				NIPPO	N KOEI CO., LT	S S

DRILL CORE LOG OF TRO-(6),2/3

NIPPON KOEI CO., LTD. consulting engineers, tokyo.

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DRIL	سله	LOG

HOLE NO, TRO-(6) SHEET NO. 3 OF 3

	7	DKILL	$\frac{LU}{LU}$	T			RO-(6)	SHEET	NO. 3 OF 3
DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	TEAST SHARINGENERALER	CORE RECOVERY	R. Q. D	WATER PRESSURE TEST LUGEON VALUE
130 130 140 141 141		Basaltic vesicular lavas including zeolites and pyrixene or olivine crystale (Old lavas?)		Basaltic vesicular lavas including zeolites and pyroxene or olivine crystals  131.5-133.5 m; deteriorated parts. (CL-CM)  133.5-137.1 m; light greenish grey basaltic lava. (CM)					$\begin{array}{cccccccccccccccccccccccccccccccccccc$
		Basaltic vesicular lavas including zeolite pipes (Old lavas?)		including zeolite pipes; weathered.  (CM-CH)  Below 146.1 m; bluish grey; very hard lavas; zeolites are included often in vesicles and along cracks; zeolite pipes are 0.5-1.01 m\$\phi\$  (CH)  The same condition continue to the bottom of the borehole.					$Lu = 7.5 \qquad 1.3$ $- k - 7.4 \times (0^{-5}) \qquad 93$ $- 1.3$ $- 3.2$ $- 3.2$ $- 3.3$ $- 3.3$ $- 3.4$
				(Bottom of burchole)					

DRILL CORE LOG OF TRO-(6),3/3

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

### HOLE NO. TRO-(7) SHEET NO. 1 OF 1

PROJECT	PORT LOUIS WATE	R SUPPLY		DEPTH	50.0 m	ELEVATION 256.7	7
SITE	TRO DAM	COORDINATE :	;	INCLINATION	VERTIC		
		DATE FROM	TO	DRILLED	DDS	LOGGED M.Y	
DEPTH DEPTH ELEVATION	ROCK TYPE COLUMN OR FORMATION SECTION	DESCRIPTION	BIT & DIAMETER ROUNDWATER LEVEL	CORE RECOVERY	RQD (%)		DEITH
AVERAGE CORE  AV	OR COLUMN	DESCRIPTION  0-0.5 m; Top soil 0.5-4.0 m; light brownish clayey soil.  4.0-5.2 m; weathered fragments of vesicular doleritic lavas.  7.3-9.0, 17.0-18.4, 19.0-19.8, 20.2-21.5, 22.0-22.3 m; weathered portions;  Weathered portion appears to be dark brownish.  10.5-11.6 m; small zeolits pipes are found.  18.0-21.0 m; basaltic vesicular lavas; weathered; greenish brown.  (CL-CM)  24.0-25.0 m; whitish tuffaceous material.  25.9-27.6 m; doleritic vesicular lavas.  27.0-32.1 m; weathered vesicular brownish grey; mostly fragmental (CL)  32.1-37.0 m; doleritic less vesicular lavas; steep joints developed often; whitish tuffs are along joints  (CM)  Below 37.0 m; intensively weathered; reddish brown clayey soil with weathered fragments only.  40.9-41.3 m; core loss 41.3-41.5 m; subrounded gravel like materials. 39.4-40.7, 42.0-43.0 m; less vesicular doleritic lava. Below 43.0 m; tragmental cores are tecovered mostly.  (CL-D)	& E E	CORE RECOVERY  96 cm  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	RQD (%) 50	PERMEABILITY TEST Lugeon Value (Liu) Permeability Coefficient (K)  10 20 30 40  2 30 40  3 40  4 5 5 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7	HL130 2 4 4 8 10 12 14 15 18 19 19 12 14 15 18 19 10 12 14 15 18 10 12 14 15 18 10 12 14 15 18 10 12 14 15 16 18
		(Bottom of borehole)					1

<sup>\*</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric cores longer than 10 cm)/(Total core length) × 100% \*LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm<sup>3</sup> \*DEPTH and ELEVATION are in meter \*DIAMETER is in millimeter DRILL CORE LOG OF TRO-(7)

DRILL CORE LOG OF TRO-(7)

HOLE NO. Q-(1) SHEET NO. 1 OF 1

PROJECT	PORT LOUI:			1	IOLE	NO		DEPTH	SHEET 30.0 n		I OF	<u>- 1</u>	
SITE VERAGE CORE RECOVERY	ROCK QUAI	RRY	COORDINATE	: Enou	:	·i		INCLINATION	VERTI	CAL	DRILL RIG		
		· · · · · · · · · · · · · · · · · · ·	DATE	FROM	TO	Ħ		DRILLED	DDS		LOGGED	M.Y	
DEPTH ELEVATION	OR	COLUMN	DESCRIPT	ION	BIT & DIANETER	GROUNDWATER	LEVEL	CORE RECOVERY	RQD (%) 50 100	4	2. 20	30 40	
2 1.8	Talus o	Δ Δ 0-1 Δ Δ with	.8 m dark brownis! i weathered fragme	ı clayey soil nts.									
4 		1.8-blac 4.5- v v Beto	-4.0 m; weathered ckish lavas. -5.4 m; shost cylind ow 5.4-12.3 m; bla lavas; very hard; sn ns are included.	fragments of dric, ckish dike									
16 18 18 4	Agglomerate	A Beld	ow 12.3 m; brownisks; very hard consul	idated.									,
20 22 24 24 26 27 P	Dike rock like lava	V grey V Zeo V 20.3	4–27.8 m; blackish yish dike like lavas; ditecrystals are at 1 7–21.4, 22.7–23.7 2–23.5 m; rather cr	very hard 8.9 m , 27.4—27.8 m (CH)									2
30	Agglomerate	A Belo	ow 27.8 m; reddish hard	brown; (CH)									2
			(Boltom of borel	nale)									

<sup>\*</sup>RQB is Rock Quality Designation, R.Q.D=(Total length of cytindric cores longer than 10 cm)/(Total core length) x 100% \*LUGEON VALUE is \*Umin/m under injection water pressure of 10kg/cml\*

\*\*DELTH and ELEVATION are in meter DRILL CORE LOG OF TRO Q-(\*\*DIAMETER is in millimeter

DRILL CORE LOG OF TRO Q-(1)

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

HOLE NO. Q-(2) SHEET NO. 1

PROJECT SITE	PORT LOUIS WAT		:	DEPTH INCLINATION	30.0 m VERTICAL	ELEVATION	<u>-</u>
AVERAGE CORE RECOVERY		DATE FROM	то	DRILLED	DDS	LOGGED	M,Y
DATE DEPTH ELEVATION	ROCK TYPE COLUMN OR SECTION	DESCRIPTION	BIT & DIAMETER GROUNDWATER LEVEL	CORE RECOVERY	RQD (%)	10 20	БЕРТН
2 13 13 14 14 16 17 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	FORMATION SECTION  A A A A A A A A A A A A A A A A A A	0.0-1.0 m; top soil 1.0-8.0 m; light brownish to reddish brown weathered fragments.  8.0-12.0 m; fragmental dike rock like lavas; only fragmental samples are recovered.  Light brownish weathered boulders of basaltic lavas; partly vesicular but generally blackish massive lavas.  (D)  19.0-21.2 m; dark greyish weathered basaltic lavas; fragile, (CL-D) 21.2-22.4 m; light greyish weathered short cores of basaltic lavas. (CL)	BIT DIAN CROUN	96 cm			2 4 4 6 P P P P P P P P P P P P P P P P P
minimatini matani minimatini mini		agglomerate; yellowish tuffaceous materials are matrix of agglomerate.  Below 28.0 m; dark grey less vesicula lavas; joints are weathered and brownish. (CM)  (Bottom of borehole)  This borehole was drilled in very gentle lower slope surrounding steep mountain ranges.	1				\$\tag{\alpha}{\alpha}\$

<sup>\*</sup>R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindric corea longer than 10 cm)/(Total core length) x 100%

\*LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm'

\*DEPTH and ELEVATION are in meter

\*DIAMETER is in millimeter

\*DIAMETER is in millimeter

DRILL CORE LOG OF TRO Q-(2)

