GEOLOGIC.	AL DRILL L	.OG Bore Hole N	10. A6 -15
PROTECT THE FEAS	IBILITY STUDY OF	LOCATION AMAMPERES.	DEPTH 15.45 m.
AGNO KIVE	DATE May 29-30, '90 DRILL RIG	VILLASIS, PANG.	LOGGED H. FUNAOKA
D & T E  D E P T H  SOIL SOIL CLAS. SOIL TYPE FORMATION	DESCRIPTION	TASS I DRIBBLE HONORIO  RESTANDARD PENETRATION  TEST (SPT)  NOW HE N-VALUE  O D 20 40 69 80	CORE CORE (%) REMARKS DEPTH
SANDY SILT	Light gray gravelly rand with some fines; traces of roots; dry; dense; fill motival.  Light brown sandy silt; traces of slight organic materials; non-plastel silt; wet; hard, stiff to medium stiff.	1.15 1.45 2.15 2.15 2.15 3.0 (15 15) 3.15 3.15 3.45 (15 15) 3.15 3.15 3.15 (15 15) 3.45 (17 15) 3.45 (17 15)	D.D. 2 D.D. 3 D.D. 3
8 8.00 MH CLAYEY SILT	stratified; low dry strength; wet, medium stiff.	(5/30) 10.15 R H III	D.D. 7
CL SILTY CLAY	Brown to brownish gray sitty clay; med to high plasticity; wet; medium stiff to stiff.  Dark brown clay with some silt; highly plastic medium to high dry strangth, saturated; very stiff.		W.B. 11
15.45		15.45 15.45 15.45 15.45	

G	EC	) L	00	sic.	AL DRILL L	0	G	
PRO.	JEC	T = j	THE AGN(	FEAS RIVE	K PROOF CONTROL	LOC	CAT	TION PINDANGAN, ALCALA DEPTH 15.45 m.
ELEV	AΤ	ION	26.	444 m.	DATE May 24-26, '90 DRILL RIG	Kok	EN I	
4 t	ਸ਼ਹਮੁਜ਼ਹ	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION		GROUND WATER		
7 <u>4</u>	<b>2.45</b>		МL	SANDY SILT CLAYEY SILT	at 7.45-10.45 m; moist; very stiff at 2.45-4.6m,	4.30 (%) <del>V</del> 4.45 (%)	5.45 2.15	5 3 (
7/45 1.11 1.12 1.13	10.45		C L.	SILTY	Brown sitty clay; medium plasticity; med- ium to high day strength; wet; staff; poor core necovery.		7.45 10.15 10.45	W.B. 2 9 10 10 10 10 10 10 10 10 10 10
	15,45						15.15 15.45	

	C	SE C	) L.	00	SI C		AL DRILL	r o	G	alvendini provident	Во	re F	lole h	10. <u>AG</u>	- 17	_
	PR	OJEC		THE AGNO			R FLOOD CONTROL	·	CAT	ION	ALCA	LA .PA	NGASINA	DEPTH	15.45	m.
E	LE	VAT	ION	20	, 195	m.	DATE May 28-30, '90 DRIL RIG	Kok	EN I	D	RILL	ED J.	DELEON	LOGGED	H.FUNA	OKA
	D # 1 B	日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日	SOIL	SOIL CLAS.	SOIL TYPE	FORMATION	DESCRIPTION	GROUND			TEST			CORE RECOVERY	REMARKS	DEPTH
	يترابي فأبدها سياسياس أيساس	/ /45 2 2.45 3 3.00 3.45		LCT WT	SAND SILT CLAY SILT CLAY SILT	EΥ	Light brown to dark from sandy silt : non-plastic; im clemented; moist: Milto v. still Dark brown claysy silt: hadim plasticity; moist; nony still.  Dark brown silty clay; neclim plasticity; neclim sity clay; neclim strong still moist; new still.  Dark brown claysy silt; neclim plasticity; low dry strength;		25 X 25 X 25 X 35 X 35 X 35 X 35 X 35 X	1	) 30	1 9 15 15 15 15 15 15 15 15 15 15 15 15 15			D.D. w.B w.B	2
5)	والمساويون المساويون المساويون	5 5.00 5.95 6		SM SM	SAND SILT CLA SILT SAND	¥ Y	moist! very tiff.  Dark brown to brownish gray samp silt i non-plathe: inchested; moist! Riff To very park brown pilty clay; medium planticit; wet; tiff.  Brown silty sand; non-plant saturated; medium deurs.	(5/20)	5.45			4 2 4			W.B.	5
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ուլուսիսակատիսակատիրույլու 	8		СH	SILT	ļ	Light gray silty clay; hig plasticity; in organic silt with 0-10% of fine sanda 12.0-12.8 m; saturated; stiff to very stiff; poor core recovery.	i	7.15 7.45 10.15 10.45		10 30 30	5 4 7			w.B	8 9
	<u> սումուսիստեստնում</u>	12 /12.80		SM	SILT	. [	Light brownish gray silty Named: very fine grained Sand with much silt; wat Medium dense; poor core Necovery.	;;	12:15 \(\sum_{12.45}\)		30	2 2 1	g)		w.B	/2
Y	سينسلسالسالسالسالسا	15 15.00 15.45		SP_	SAND FINE SAND		Bray very fine grained sand non-plantic; wet; medium danse.		15.15 15.45		-/ <b>\$</b> .		<b>P P P P P P P P P P</b>			25 11 11 11 11 11 11 11 11 11 11 11 11 11
	mountainment and in the															tine franche estate and itse

GEO	roc	SIC	AL DRILL :		G	Pira Indonesia (I.C.)	Вс	ore	Ho.	le 1	١٥٠	AG	/	8	
PROJECT	THE		IBILITY STUDY OF	LO	CAT	ION			NTE		DE	РТН	15.	45	m .
ELEVATI	<del></del>	,23/ m.	Ingii.	L KO	ÐΝ	r D	RILI				1	GEL	HF	UNA	OKA
A E	SOIL CLAS.	SOIL TYPE	DESCRIPTION	GROUND			TEST	ľ (: VAL	UE	so ION		RECOVERY	(%)	REMARKS	DEPTH
1 1.00	SM	SAND	Brown sitty sand : none to slight peditivity; moist.		1.15			4 12							1
2 2	III ML	SANDY SILT	Brown samely silt; none to slight plasticity; wet; very stiff.		1.45 2.15 2.45		_\	30 15						1	2
3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sp	FINE	Light brown fine sand with some medium sand; about 0-15% of hon-plastic fines wet to moist; dense to	.]	2.45 3.15 3.45		$/\!\!\!\perp\!\!\!\perp$	30 15 30 15							3
5			predium dense	4.40, <del>▽</del> (5/33)	5.15										5
5,45			Grayish brown to gray	<u></u>	5.45		-	10 9	分				i		بالنقسات
7 5/2	SP	MEDIUM	accounting layer of fine		7.15 7.45			20 29 30 15	<del>"</del> )	1					2
8		SAND	sand and med sand at 7.0-10.0m; moist; mediu densa.	<b>,</b>	-	1									9
10.00		r			10.15		\$ 30	3 2	)						lQ.
			Brownish gray to dark gray sandy clay; stight to medium plasticity;	-	10.45		30	15 15							11.
12 13	CL	SANDY	wet; medium stiff, sty to very stiff.	4	12:15 12:45	3	30	,3 8	2)		7				/2 /3
14		-													<i>14</i>
75 75 75 75					15,15		1	24 // 20 //	· (5)		1				/5
					<i>15.4</i> 5										mlan m
															فاستامينا
THE COLUMN															untanatur
														- 1	1

,	ЭE	OL	00	SIC	AL DRILL LOG Bore	Hole No. <u>AG - 19</u>
PI	ROJE	СТ		O RIVE	R FLOOD CONTROL LUCATION ACACA.	PANG. DEFTI 13.45 III.
EL	EVA	TON	17.	945 m.	DATE May 29-31, 90 DRILL KOKEN I DRILLED R	BRUNO LOGGED H. FUNAOKA
DATE	ОЕРТН	SOIL	S.	SOIL TYPE	DESCRIPTION DESCRI	CORE RECOVE (%) REMARK
	0.6	5	ML	21rl 2vdl	Brown Landy silt; slightly plantic; uncommuted; moist.	0.0.
	0.د و		5М	V.FINE SAND	Brownish gray very fine sand 1.15 9 13 6 with some sitt; moist; 1.45 30 15 15	) D.D.
<u>5/39</u>	-				Dark gray fine to medium 2.15 30 15 11	D.D. 3
	4				non-plastic; moist: 4.0m 3.45 30 5	(4) D.D. 4
	5				mainly medium dense. (5/31) 5.15	5
	- 6			FINE	5.45	F) NR 6
5/30	2		SP	To MEDIUM SAND	7.15 2.45 7.45 7.45	(本)
	8					W.B.
	. 9 					
	, j				10,15 10,45	8/7)
	 J2				12.15	*
	13 13.0	x			Brown very fine sand with	/3
	14		SM	V. FINE SAND	Brown reny fine sandwith silt; moist; medium dense.	* 4
別	.15 .75.4	ر ا			15,15   1   24   1"   54   1"   15   15   15   15   15   15   15	45
					J55.45	
	_					

	3EC		00	SIC	AL DE	RILL	, I	.0	G	greenship to	Во	re	Hol	e ì	۱oر	4 <i>G</i>	- 20	
PF	ROJEC	$T \mid T \mid$	HE	FEAS RIVI	R FLOOD	STUDY CONTROL		LOC	AT	гои	MANG, BAUT	AMPA STA	G, PAN	s	DEP	тн	15.45	m
EL	EVAT:			.132 m	DATE May 2	2-23,90	RILL RIG	Koki	N I		RILL				LOGG	- 1	H.FUM	40KA
DATE	Овртн	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESC	RIPTIO	N	GROUND WATER	DEPTH				PT) JE		© CORE	KECOVER S	Σ Ω	EPTE
5/2	2 2,00 2 2,45 3 2,45 4 4 5 8 8 8 8 7 10 11 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		S ନ କ	FINE TO SAND  FINE TO SAND  FINE TO SAND  SAND	Light bro fine To me about 20-3 plastic; us light brown at 0-1,45 m 2.0m; moi Gray rein Arme silt uncementes Gray fine about 204 at 2,45-3. medium A fine to coe 3.45-10.0m coarse sa traces of 5.0-5.45 m gravel are its size N mon to 1cm sub-norm to wet; at appar f loose.	dium pa 0 % of pili comented to grayed , gray at st; low fine same ! non-pil to coars of pilty 1 om, fine and at 3, we samd , medium and 7,0- scattero ange from ded; mo medium medium	brown, brown, brown, chief of the stand, at the stand, at the stand, at the stand at 12.45m, at and and 4.75 d and ist dead	(5/33) 4.5%	1.15 1.45 2.15 2.45 3.45 5.15		30 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	4 1- 15 15 15 15	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3					) 1 2 3 4 1 5 6 7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11
																		anglari anglari

	G	ΕC	D L	00	sic.	AL DRILL LOG Bore Hole No. A6 -21
F	RO	JEC		THE AGN	O_RIVE	R FLOOD CONTROL PANGASINAN DEFTI 13.43 III
E	LEV	TAV	ION	21		DATE May 19-20, '90 DRILL KOKEN I DRILLED J. DELEON LOGGED H. FUNAOK
H T E		DEPTH	SOIL	0	SOIL TYPE / FORMATION	DESCRIPTION  DESCR
				ML	SANDY SILT	Brown to light brown  sandy silt; traces of  fine gravel (4 max. 2cm),  rounded and sub-rounded;  traces of roots at 1.0-1.45m;  uncernanted; slightly  plastic; wet; hard to  stiff.
	1 5	5:45				5.15 5.45 7.55 7.55 7.55 7.55 7.55 7.55 7.5
	-6	7.00		SM	SILTY	Light brown silty sand; about 20-30% of silt; slightly platfic; met; nedium danse.
5/		8.00		ML	SANDY	Light brown sandy silt; about 0-104, of hon-plastic 7.45 30 5 15
				eL	SILTY	Light brown to brownish quay sitty clay; low to medium plasticity; wet; 10.15 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
	12				. !	12.15 12.45 10 15 18)
	15					W.B. 14
<u>1/2</u>		15.45	2	-		15.15 9 4 F) 15.45
	m:h:::::::::::::::::::::::::::::::::::					
	سننسلسلي					
	والمساسية					

GEOLOGIC.	AL DRILL I	.00	3	Bore Hole	No. 46 -	22,
PROJECT THE FEAS	R FLOOD CONTROL	<u> </u>		ATAYNAN , BAYAMBAN PANGASINAN		.45 m
ELEVATION 16,728 m.	DATE May 29-30,90 DRILL	TONE	S II D	RILLEDN SOTERI		TUNAOKA
DEPTH SOIL SOIL SOIL CLAS. SOIL TYPE SOIL TYPE	DESCRIPTION	GROUND WATER	вртн	RD PENETRATION TEST (SPT) N-VALUE	CORE RECOVERY (%)	REMARKS DEPTH
ML SANDY SILT	Brown Soudy Silt; Traces of organic materials; none to slightly plattic; wet; poft.		1.15	3 (+ 12)		D.D. ,
SM SILTY SAND	Light brown silty sand: about 20-30% of non- plastic silt: moist; loose to medium dense;		2.15 2.45 3.45	10 (4 (A) 50 (7 (H))		D.D. 3
SM SILTY	includes brown silt at 3,2-3.4m.		5.75			D.D. 5
29	Brown sandy clay; slight to medium plasticity; medium dry strangth:	5.56 <sub>m</sub>	5, 43	30 (4 15)		N.R. 6
CL SANDY CLAY	soft to medium stiff.		7.45	10 (75 (15) 10 (15 (15)		w.B. 9
10 /0,00	Dark gray clay with some		0.15	9 4 5		
CH CLAY	silt; high plasticity; tigh dry strength; saturated; stiff to very stiff; poor core recovery.	,	2.15	17/8 9 36/15/45		/2
LA CONTROLLA (						w.p. 14
7,5.45			5.45	\$\frac{\frac{7}{1}\cdot \frac{2}{1}\cdot \frac{7}{1}\cdot \frac{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def{7}\ta\def		

<u> </u>	G	ΕC	<b>ン</b> エ	00	SIC	AL DRILL	-0	G		Вс	ore	Нс	ole I	νο. <u>Д</u>	<b>9</b> –	3	_
PI	RO.	JEC		THE AGNO	O RIVE	IBILITY STUDY OF R FLOOD CONTROL	<u>.i</u>	CAT	ION	BALI	υ Υο1 Θ	r, 8,4 PANC	γΑM • 3.	DEPTI	I 15	. <i>4</i> 5	m.
EL	ΕV	AT	ION	12.	966 m.	DATE June 13-15.90 DRILI	Kok	EN	I D	RILI	LED	JO	ELEON	LOGGE	D <i>H.I</i>	UNA	OKA
A T E	1	ы С.	OIL	IL CLAS.	OIL TYPE	DESCRIPTION	GROUND WATER			RD P TEST	r (	SP	<del>,</del> .	CORE	(%)	EMARKS	EPTH
	1	Ω 	(C)	SO	N E		1	DE	2	0 4	0	60	<b>8</b> 0	20 40 6	າ ຄາ   🖊   🗸	œ,	
	E /	1.00		SM	ONITO	Brownish gray silty seared; about 20-30% of non-plastic silt; traces of slightly organic moto	1	1,15							1		1
	2	145		SP	FINE SAND	Brownish gray fine sand i small percentage of non- please fines; Net; were to		1.15 1.45 2.15		<del>30</del> ()		( )					2
	3	* :		ML	SANDY SILT	Brown to hight brownish gra		2.45 3.15		33 (							3:
6/13	E	4.00				Sandy silt; slightly pleated incerented; about 0-10960 Sand; wet; stiff to ned stiff	1	3.45		<del>3</del> 6	- /5	1	,				4
	5	5.00		SM	SILTY	Light brown to light brown ish gray silty sand; about	(6/15)	13.73			. 6-1						5
	6				C4.05~	20-30 yet rion-plastic fines; wet; looks to madicum dance. Dark brown pandy silt; ro		5.45		30	<i>y</i> ,	(4)				· :	6
	7			ML	SANDY	plantic; about 0-15 y, of clay at 5.46-8.0m with medium		2.15		4	4						7
	- - - 8	8.00				plasticity and nedium dry strangth; wet; stiff to ned.	<u>.</u> .	7.45	1	30 (7	5 75				//		8 3
	9			SP	TINE SAND	Dark brown fine sand with		Z.	<b>X</b>				1				9
	10	10.00	77			appreciable amount of non- plantic fines; wet; medium dense.		10.15		75	. 6	b.			1/		10
1/14	: !					Gray silty clay; high place		10.45	i	30	( <del>.</del>	*	-		7		<u>"</u>
	12				SILTY	ticity; traces of fine sand wet to saturated; stiff to very stiff.	<b>'</b>	12:15		16	17	9.			1		/2
	73			CL	CLAY			12.45	1	30	(7 <del>2</del>	2			7		13 17
	14	.; • •															14
l in	15	<i>1-11</i>						15.15			26 (	<u>/</u> }	(글)	11/	1		/5
7/3	11	15.45	1					15.4			30		(*)				
	سوراسيط																
	1			2.0							-						
	بسأسيا																

[	G:	EC	) L	00	SIC	AL DRILL	LO	G		Во	re E	lole	e N	lo. <u>A</u>	·G -	24	
PF	RO	JEC		HE	FEAS RIVE	IBILITY STUDY OF R FLOOD CONTROL			ІОИ	MANA BAYAI	MBANG	ig, G,PAI	NG.	DEPT	'Ĥ /5	.45	m.
EL	EV	ΆΤ	ION	14	019 m.	DATE May 24-26, 90 RIG	L T0	NE 455	I DF	RILL	EDN.	SOTE	RIO	LOGG		FUNA	)KA
DATE	£ 1	그 편 프	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND		ANDAI	N-V		T)	ON	A CORE		REMARKS	DEPTH
	/	1.45		ML SM	SANDY SILT V. FINE SAND	Brown to light brown sand silt; low plasticity; wet; medium stiff.  Brown very fine sand; also 0-1096 of silt; uncerented.	<b>x</b>	1.15 1.45 2.15			赤赤					D.D.	7 milani
7/_4	3 4 5	3.00		CL CH	SILTY	moist; medium dence.  Brown to grayish brown sill clay; low to medium platicity at 3.0-3.45m, medium to his placticity at 3.45-7.0m; wet to saturated; medium styl to stiff.	V	3.15 3.45		30 (1)	1 .					0.0	3 4
		700 800		ML	SANDY SILT	Brown sandy silt; uncan ented; vet; soft.		7.15 7.45		<del>4</del> (- <del>1</del>	4(5)						7
<u> </u>	9	10.45		SM	V. FINE SAND	Brown very fine sand with some silt; moist; medius dense to dense.  Brown to gray fine to	•	10.15			34 // 30 //	6 /4	)				g 10
1	12			SP	FINE TO MEDIUM SAND	medium sand; with appreciable amount of fores; brown at 10.45-	5	12:15 12:45	•	**************************************	)   <u>\$</u>	32. [8				*	/2 /3
5/36	14	/\$. <b>4</b> 5						15.15 15.45		13	美)	63					1 <del>4</del>
																	. Marthan Landan
		:															intra malan

	G	ΕC	)L	00	3 I.C		AL DRILL I	.0	G	.com.Tile	В	ore	Нc	ole N	10. <u>A</u>	>	<u></u>	
	<u></u>	JEC	·m .	ΓHE	FEA	S	IBILITY STUDY OF R FLOOD CONTROL			ION	SAN	GAI	BRIE		DEDTE			m.
EI	E	AT	ION				DATE May 24-26, 90 DRILL	To	NE Ass	n D					LOGGE			
DATE		E E E E E E E E E E E E E E E E E E E	SOIL	CLAS.	OIL TYPE	FORMATION	DESCRIPTION	GROUND	ST	ANDA	TES	PENE T ( VA!	SPT	~	% CORE	(%)	_	DEPTH
		2,00		ML	SANDY		Light brown soudy silt; non-plastic; uncamented; wet; medium stiff-tostiff.		1,15 1,45 2,15		8 (30)	11	<del>t</del> )				o.o. T	1
	11111111111111111111111111111111111111	≥.45		CL	CLAY		Brown aity clay; slight to medium pleating; wet;		2.45		30 30	4/5	8) 8)					3:
	4	4.60		МН	SILT		Brown clayer sitt; traces of fine sand; slight to medium plasticty; wet; stiff.	Δ.	3,45		30	1/5	'S'			7		4
<u>724</u>	5	\$.∞		ML	SILT		about 0- 1/2 of clay; wet. Gray brown to hight brown	5.00	5.15		1/3	d (;}	(2)					(A)
				CL	SILT	i	silty clay; nechium to ligh planticity; saturated; very styf.		7./5 7.45		-	10 c Z	11:					7
	- 8 - 8 - 8					ä.											w.B.	з ?
	10	10.00		Мн	CLAY!	=Y	Light brown clayey sist; low to medium pleaticity; saturated; stiff.		10.15		) /2 34	(4	( <del>1</del> )					10 11
	12	/2,00					Light brown sandy sitt; uncernanted; wat; stiff to		12:15		<u>11</u>	14	8)			1		/2
	14			ML	SAND SILT	1	very stiff.											14
7/16	-	15.00 15.AS		SP	FINE THE SAND	M M	Dark gray fine to medium \ sand; moist; dense.		15.15			32	45	(2)	///	d:   	<u>*</u>	<i>1</i> 5
																-	• •	
																		-
	اسطسا																	_

	GE	OL	00	SICA	AL DRILL	L	0	G		В	ore	Но	le	No.	AG	!	26	
P	ROJE	ЕСТ	THE		IBILITY STUDY O		LOC	CAT	ION	ALC	ALA	, PA	NG.	Id	ЕРТН	15.	<b>4</b> 5	m.
EI	LEVA	TION	16.	619 m.	DATE May 19-20, '90 DRI	LL G	TON T	135	<u>u                                    </u>						GGEI	H.F	UNAC	OKA
DATE	EPTI	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	(	GROUND	DEPTH	ANDA	TES N-	r (S	UE	) 	- E	်မှု	(%)	REMARKS	DEPTH
	_/_	62   1   1   1   1   1   1   1   1   1	SM SP	SAND FINE SAND	Light brownish gray sittle sand; about 10-2040 of sitt traces of decayed plant mat moint.  Light brownish gray fine so about 0-1440 of sitt traces of	tero;		1,15 1.45	•	3 t/ 30 t/	हि						1	1 2 1
	33.	os :: :	SM	SANDY	fine gravel (phan 2 cm), and rounded; moint; very love Light brown to dark gree silty sand; about 0-10% silt; traces of gravel at	4 7		3.15 3.45		<u>3</u> (//	**						U,D	3 4
5/19	5 5.	45	MĹ	SILT	Dark gray to brown same silt; about 0-104. of no to slightly plastic clay; wet; very soft to nost.	ty .		5.15 5.45		30 15	   **		14					9 <b>6</b>
	7				Brownish gray to dark gray fine sand with so medium sand; about	2 5m2		7.15		30 (7	2) (S			7			*	7 7
	5 & C		SP	FINE	20% of selt; moist; loose to very loose.												*	9 111
	10							10.15		30 (15	48			7			*	71 miles
	12	45	6.3	SILTY	Brownish gray sitty son noist; re lovae to lovae	nd;		12:15 12:45		3 ¢/	1						*	13
5/20	15 15.	2.77	SM SP	SAND MEDIUM SAND	Dark gray medium to for pand; moist; loose.	<b>a</b> \		15.15 >		5 (2 30 (H	: 1							15
								15. <b>4</b> 5										
	المندالسيطيسا	.* _																dunkan kan
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	JEC /AT	ION	AGN	O RIVE	IBILITY STUDY OF REPORT OF THE PARTY OF THE								PU 60 NG: 'UNO	LOG	TH /		
₩ .	DEPH H	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND		AND,	TE	ST	AL	TRATS PT		ŀ	S RECOVERY (%)	REMARKS	DEPTH
Transministra	2.45		ML	SANDY SILT	Light brown to gray sandy silt; light brown at 0-1.0m light gray at 1.0-2.0m, gray to brown at 2.0-2.95 m; non-plain wet; stiff to madrium stiff.	2.00	1,15 1,45 2,15				$\perp$					D.D.	1
3 4	3. <b>4</b> 5		МН	CLAYEY SILT	wet; stiff to madium stiff.  Gray to brown clayer sitt; medium to high planticity saturated: medium stiff.	3.95, (5.21)	3.45 3.45			्रे ।	1				<u> </u>	<b>T</b>	3
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					Dark brown to gray silty clay; medium to high plasticity; high dry strength; dark		5.15 5.45	4	30	()	123						5
2 1 1 8			CL	SILTY	brown at 3.45-2.0m, gray at 7.0-12.0m; saturated medium stiff to stiff.		7.15 7.45			<u>//</u> 30 (	5 /5	<b>(</b> -)				w.B.	7.
9 - 10							10.15 <u>.</u>		,	8 .4	2 4						9
11	12.00						10.45	•	-tox			)	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				/1 /2
13 14			ML	SANDY SILT	Darks gray sandy sitt with some clay; saturated; very soft to soft; poor core recovery	<b>X</b>	12.45	1	30	<del>(</del> <del>)</del>	杉						13 14
	15,00 15.45	9783	SM	SILTY SAND	Dark gray pulty sand; uncernanted; wet; medius dense.		15.15 15.45	1	\	劣	<b>(4:</b> ;	( <u>†</u> )		1		_  _	15
Landard method																	

GEOLOGIC.	AL DRILL L	SOG Bore Hole No. 46 -28
DROIDCE THE FEAS	IBILITY STUDY OF	LOCATION NAMOACAN NORTE DEPTH 15 45 m
ELEVATION 19.379 m.	DETET.	IBAUTSIA, PANG
DATE DEPTH SOIL SOIL SOIL CLAS. SOIL TYPE FORMATION	DESCRIPTION	STANDARD PENETRATION  MATH  MATH  LEST (SPT)  COONE  COONE
SANDY SILT  SILT  CH SILTY CLAY  700  ML SANDY SILT  CH SILTY CLAY  SILTY CLAY	Light brown to brownish gray sandy sill; slightly plastic; very low dry strength; uncommitted; wet to moist; hard to very stiff; poor core ne covery.  Bray silty clay; medium to light plasticity; with fine sand wet; stiff to medium stiff.  Grayish brown clayey silt; slight plasticity; nedium dry strength; wet; stiff.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
CL SILTY CLAY  CLAY  SILTY  SAND	Brown selty pand; about 20-30% of sellium platticity; medium dry strongth; saturated; stiff.  Brown selty pand; about 20-30% of selt; non-plastic; uncernanted; moist; medium dense.	10.15 1 M ( 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Hara Lara Lara Lara Lara Lara Lara Lara		

(	3E(	コレ	00	SIC		AL DRILL I	.0	G	Bore Hole No. AG - 29	
PR	OJEC		HE GNO	FEA O RI	AS VE	IBILITY STUDY OF R FLOOD CONTROL	LO	CAT	ION MANAMBONG PARTE DEPTH 15.45	m.
EL	EVAT	ION	12.6	366	m .	DATE May 2  - 22, 90 DRILL	TON	E ASS	I DRILLED N. SOTERIO LOGGED H. FUNA	OKA
DATE	ОЕРТН	SOIL	SOIL CLAS.	SOIL TYPE	FORMATION	DESCRIPTION	GROUND	DEPTH	ANDARD PENETRATION TEST (SPT)	DEPTH
			SM	SILT		Brown silty sand; truces of slightly organic materials (roots); wet; very loose.	2.45m	1.15 7.45	1 30 13 5 U.C	1 2
<u>У</u> ы	5 5,10 5.45		CH ML	SILT CLA	۲	Gray sitty clay; medium to high plasticity; saturated; stiff to medium stiff.  Gray with brown clay ex sitt;	(3/23)	3.45 5.45 5.45		4
1,234 123113131311111111111111111111111111	7 7.00		ML	SAND		low to medium planticity; about 0-10-10 of fine satist; wet; nedium stiff. Brown sandy selt; non- plantic; uncernated; wet; nodium stiff.		2.15 7.45		2
	8 - - - - - - - - - - - - - - - - - - -		SÞ	MED To FINE SAN		Grayish brown to gray mainly medium to fine pand; medium to coarse pand at 7.25-10.0 m, fine to modium sand at 10.0-15.45 m; small percentage of non-plaths fines; grayish brown at 7.0-8.7 m, gray at 8.7-15.45 m; wet; mainly medium		10.15 10.45		7 10 11 12 12 13
7. minimum.	14 15 15.95					dense to very dense, medium dense to losse at lowest part (15.0-154)		15.15 15.45		15
	•									

GEOLOG	SICAL DRILL L	OG Bore Hole No. AL-1
	FEASIBILITY STUDY OF OR RIVER FLOOD CONTROL	LOCATION BUNDAN SABANGAN DEPTH 15.45 m.
	352 m. DATE JUNE 18-19, % DRILL RIG	
DATE DEPTH SOIL SYMBOL SOIL CLAS.	SOIL TYPE FORMATION DESCRIPTION	GROUND MATER LAST (SA) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%
SP	l	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
5 C SP SP SP SP	CLAYET Dark gray to gray clayey  SAND Sand: wot; low to madium  planticity; very loose to  loose.  PINE  TO medium Sand; wet poorly  MEDIUM graded Sand: about 0-  SAND 10% of sult with trace of  Shells; medium dense to  dense.  DD: DRY DRILLING  * SLUDGE	12:15

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	 3Е			00	B I	C	<u> АГ</u> ,	DI	RII	-I	L	.0	G	<del>- ALB</del> ORNA	]	Воз	·e	Hol	le l	۷o.	AL	- 2	)	
	SOJI	·	m 1	HE	FE	AS	IBIL R FL		STU CONT		OF	LOC	CAT	ION	PA	NTA TY	L, L	AAC	UPAN	DEI	тн	15	<b>4</b> 5	m
EL	EVA	ΤI		~~~~	88		DATE				ILL IG	TONE	7AS	SIL						LOG		H.Fc	MAA	KA
DATE	DEPTH		SOIL SYMBOL	SOIL CLAS	SOIL TYPE	FORMATION	D	ESC	RIPT	ION		GROUND	DEPTH		TE	ST	NET) (S	JE-		& CORE	RECOVERY	80		рвртн
		92		SP	SAV.	P	Track	1 01 1	to dark and; rhell f	regmon	fina to at s	0.60 (6/19)	1:15		7	3 4			 <del>                                    </del>				DD	7.1
	′′ د			So	۸۸۵		0.60-0	7.92	Lores	· •			1.45	Ш.	$\coprod$	3 4 15 15						乜	DD	7
	3								very for				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		7			_					DD	3
<u>4/17</u>	4						Sand	; wet	fine to	acer.	<i>‡</i>		3.45	1	\$ 1	2/3/3	2).	-					*	4
<u>.</u>	5						to 1.43	5 m -	nants with a non-	pjerec	iable		<u>5:15</u>	-   -     k	 	(5.	\$ 15							5
	6						fines	; la	ree fr	ion le			্বিদ্ জ	1									**	6
1, ±1					FIN		dens	e to	dense to 15.4	e pro	· · · · · · ·		7:15			30	岩岩	35				7		2
	8			SP	NEC SAA		:	· · · · · · · · · · · · · · · · · · ·						-									*	93
	10			-				:					10,15										:	10
6/18 	<u></u>						: . :	:-		 		-	10.45			20 30 	\$ 12 	?)  -	-					<u>u</u>
- i - c	- -									,	- 		12:15	-		18 (	3.48	-)			1		*	22.11
	/3					3 (1 ) 1 2223 1					 		12.45			20	9 /8	+		X				/3
	<b>74</b>			- 4						- · · · ·	. <b></b>				1	-							*	14,111,1
6/19	_K /.	5.45		- ( <del></del>				. 1	<u></u>		2 - 1 - 2 - 3 · · · · · · · · · · · · · · · · · ·		/5./5 /5,45				10/	5 19 5 15			H		·	<u>/</u> 5
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S L			ION		. 630 ш		DATE	Tune 22	-24,4	DR R		B.			ARD	PE	NE]	rRA	TI		LOC		D <i>H.</i> 7	ß	OK III
D A T E	£ C	다. 다. 나. 다.	SOIL	b	1 _	FORMATION		SCR	:	ŧ		GROUNI	DEP		T E	S T I – V	ΆL				≈ CORE	RECOVE	(%)	REMARK	DEPT
			::::				Dank g medium	vray to	gray	1 fin	e to	0.62 <u>V</u>									1			D.D.	,
	ر د						gray at to wet	4.05	-5.0	'm , "	roese	( <sup>6</sup> /24)	1.15 1.45		30	( <del>,</del>	(S)						//	D.D.	د
	3						to den	se up	to	Эм,			245 3.15				# (·		. 1.	10				D.D.	3
/22	4						dense Traces	at 1	7-15A	R,			3.45				1	5/ 30	( <del>%</del>	*	<b>/</b>			*	4
	5						from o. Some f	30m i	ip to	1.451 ce.9	n , ravel		<i>5.1</i> 5				_	5/ 30	( <del>*</del>	46)	K		4		د ا
	6			ļ	- 1		from o.  maximu  2 cm to	n.si	a. ne	mge	from		5.45					30	/\$		// //			*	6
	Z			SF	ME SA	DIUM	and so	uln	وإحبيان	d			7.15	1			1 4	7 (	23 75	*)					2
	8						- 10.45 clable	M 2	contac	in ap	יפיסק		7.43							<u> </u>	7			*	8
	2				.		plasti			 				-						1				1	9
13	10						******			ii			10.15 10.45	1		1	30	(	12 Z 15 /	5			7		<i>11</i>
	//				-		••						40.41											*	12
	<u>رع</u>												12.45				200	30	( 18 18	75					- قار
	19																							*	14
	<u>.</u>	15 45									,		15.15		+			47	( <del>)</del>	25			4		15
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G	EC	)L	00	SICA	AL DRILL L	.0	6 Bore	Hole N	10. AL-4	<u>+</u>
PRO	JEC		HE		IBILITY STUDY OF R FLOOD CONTROL	l	ATION LINOC BINMAL	EAST EY, PANG.	DEPTH /5	.45 m .
ELEV	TAT	ГОИ	2	,07 m.	DATE June 20-22, 90 DRILL RIG	KOK	W I DRILLED	R. BRUNO	LOGGED <i>H.F</i>	UNAOKA
A	U E P T H	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENE TEST (	SPT)	c CORE RECOVERY	REMARKS DEPTH
السلسلسلسلام	2.45		SM	VERY FINE SAND	Brown very fine pand; about 0-20% of silt me- luded; tracks of plight organic materials (roots); dry to wet; loose to medium dakse.	1.45 <u>又</u> (4知)	1.15 \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	)		D.D. /
ين دارسدانسدانس					Brownish gray to dark gray fine to medium sand; bearwish gray at 2.45 - 5.0 m; gray to		7.15	**		# + · · · · · · · · · · · · · · · · · ·
					dark gray at 5.0-15.45m; small percentage of sitty fines; wet; medium dense		18 6 10 15	(\$)		* 2
8 1			SP	FINE TO MEDIUM SAND			7.75 1 30 (22	1/5		***
hudenday adams							0.15 20 (1)	<del>}</del> )		10
				· · · · · ·			30 75	<b>给</b>		* /2
										* /4
/22	15.45			- 12 <del>- 1</del> 4 - 14 - 14 - 14 - 14 - 14 - 14 - 14			5.45	15)		, s
տահասհամու										n in part
ավավումիավարևումունու										

GEOLOGIC.	AL DRILL I	.OG Bore Hole No. AL-5
PROJECT THE FEAS	R FLOOD CONTROL	LOCATION SAN JOSE, GAYAMAN DEPTH 15.45 m.
ELEVATION 1.044 m.	DATE June 20-23, 90 RILL RIG	TONE TASS I DRILLED N. SOTERIO LOGGED H. FUNAORA
D A T E D E P T H SOIL SOIL CLAS. SOIL TYPE FORMATION	DESCRIPTION	STANDARD PENETRATION  WANTED  TEST (SPT)
SP FINE SAND 1.45 SC CLAYEY	Brown fine sand; 20-35% of silts; traces of routs; traces of clay with four plasticity at 0.76-1.0m; dry; very borse to loose.	$\begin{array}{c c} \hline 0.28_{B} \\ (6/43) \\ 1.495 \\ \hline 2.45 \\ \hline 2.45 \\ \hline 2.65 \\ \hline 2.65 \\ \hline 2.75 \\ 2.75 \\ \hline 2.75 \\ 2.$
3	Dark brown clayey sand; Sond is fine grained; low to slight plasticity; moist; loose,	3:75 3:45 3:45 3:45 3:45 3:00 3:15 3:00 3:15 3:00 3:00 3:00 3:00 3:00 4:00
6	Browish gray to dark gray fine to medium sand; yellowish brown at 1.6  — 1.8 m; brownish gray	5.15 5.45 5.45 5.45
7 FINE TO SP MEDIUM	from 1.8 m up to 4.5 m and gradually turn to gray to dark gray from	7.45   49, 44, 25   7
3 SAND	about 0-30 % of silt from 1.6 m up to 2.0 m in appreciable amount of	* 9
10 10 10 11	fines from 2.2m up to 1548 m; wet to paturated; medium dense to dense.	10.45 32 (45.47) 10.45 130 (45.47)
		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
		* /*
½3 15 45 · · ·	+ 4940	15,45   30 (11 12)   15,45   15   15   15   15   15   15   15
	NOTE: Losing water at 8.40m	

		EC	1 1		O RIVE	IBILITY STUDY OF R FLOOD CONTROL	1			MANAT, BINN PANGA SINAN			15.
EL	EV.	AT.	ГОИ	1.		DATE June 19-21, 90 DRILI RIG	TONE	TAS	SIZIDR	ILLED F. H	DINORIO		1.FU
DATE	1 1 1 1 1	-i -i -i	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND	DEPTH	Т	D PENETRA EST (SPT N-VALUE	`)	© CORE	1
		1.10		SP	FINE SAND	Brown fine sand with some silt (about 0-20 % of silt);	<u>∇</u> 0.40 <sub>4</sub> (6/2.1)	1:15	2		B 2		
	<b>چ</b> ر			OL-	ORGANIC SILT	traces of fine gravel (sub- rounded and rounded); traces of white shells; wet. Dark brown to dark gray		1.15 1.45 2.15 2.45	30 (				Z
419	3	3.00				organic silt; mostly decayed plant matters; traces of clay of low plasticity from 1.45m to 2.0m; become a sandy at		3.45		28 /3 /5 1 30 /5 /5	)		4
	5					wet; soft to medium stiff.		5:75		20 9 12			4
	6	· ·				Brownish gray to dark gray fine to medium sand smount of non-		5.45	1	24 ( ) 12 30 ( ) 15			
	2			1.1. 2.1.	TOUE.	plastic fines: wet; medium donse up to about		7.15		30 15 15	·		4
	9			sP	FINE TO MEDIUM	10 m., then becomes dense from 10 m to 15.45 m.							
6/20	10				SAND			10:15		34 (78	16)		
	//	ali Alii		<u>.</u>				10.45					
	/3							12:15		38 (49	23		
	14												
121	<i>1</i> 5	15:45					<u> </u>	15,45		47 30	( <sup>2</sup> / <sub>4</sub> 2 - <sup>25</sup> / <sub>5</sub>		4
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PR	OJEC	T	HE	FE C R I		BILIT R FLOOD	CONTR		.i	CAT	ON	BALL	GASI	BINMA NAN	LEY,	DEF	тн	15.45	m.
EL	EVAT	4		827		DATE Jun			TONE	7455	I D	RIL	LED	E. HOX	IORIO	LOG	GED	H. FUNI	A0XA
m	出	OL	CLAS.	TYPE	ION				ER	STA	NDA	RD F	PENE' T (	TRAT SPT	ION )		ERY	KS X	HH
Ęų	EL Cl	IL	]	l `	[-4	DES	CRIPTI	ОИ	WAT	ТН	<u> </u>	··-	<del></del>	UE		CORE	RECOVER	EMARKS	G.
DA	日	SOI	JI.	SOIL	ORMA	• • •	,		GRO	띱		. IV	VAL					Ω.	U E
1			SO	S	[t.	Brown	ilty sand	4. TK 45	e <u>V</u>	Ω.	<u> </u>	70 4	<u> </u>	69	\$0 	20 4	2 69 8	77	
						fine sand	•		0.45,	7:7 <del>5</del>							1	D.1	
4	-		SM	SAN		silt and 0 up to 1.			(7257	1.15	1	0 15	(海)				12	D.I	$\left  \frac{1}{2} \right $
722						fine to		•		2:15 2:45		9 (5	1					Д.	
	33.00					1.45-2.0) silt at 2			<u> </u>	3:15		8 (-1	1 1 15					D.1	, 3
	- 44			,		of clay a	- 2,453,04	A CONTRACTOR OF THE CONTRACTOR		3.45°		30 1	5		-	//		7	4
	- ]					to wet;	loose.	<u></u>		·	1							/*	<u>+</u>
- 1	<u>.</u> S					Brownis	h gray t	dark		5:15 5:45		30	<u>(6</u> .)	2)		2 2			
	6					gray fin	e to medi	um pand,		5.75	1				+		X	/	6
	7						h gray a pray to de			7-15	-					X	1		2
6½3	-			FINE	_	from 5.0	m up to 1.	5.45m;		2.45		16 30	(3)	2) 5)			1	7	0
	8		SP	70		moist to	wet in	-											. 0_
	9			MED		medium	dense f			· 	+				$\bot \bot$	X		/ *	2
1	-		·	,		up to 1	5.45m.						-						lo.
	ΖΩ -									10.45		17 30	/8 /5						
6/29	<i>1</i> /												$\vdash$					/ *	- 1/2
15.00	/2									12:15		<u> </u>				X	1/	Δ.	/2
	-		- d			:				)2, <b>4</b> 5	-	1 3	*(指	( <del>3</del> )			//		//3
1100	<u> </u>			•••											11		X		
	/4							,						+	-			/*	14
1	- /5				2					15.15						X			1/5
6/25	15.45	: :								75. <b>4</b> 5			29 30	14.15	)		-		-
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	OJEC EVAT	n p	GNO		R FLO	OD CONTE	OL				7741	3,11			LOGGE		
	CANT				DATE	June 15-20, 7	RIG	1 ONE	ZAT				TRAT			1	
田田	- ## [	IL	CLAS.	TYPE				TE		NUDA	TES	T (	SPT	)	ORE	%   0.00 %   0.00 %	4   "
Ą	Ст	OIL		\ <b>4</b>	DE	ESCRIPT	LON	- SS	Ë		· N -	-VAI	JUE	··	ORE	%) M	五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五五
ρ	Ω	S	soıi	S F			•	GR	DEP	2		40	60	80 :	20 49 65	ρ	Ω
	0.77		ML	CLAYEY SILT	traces	rown clayey of organic mat	erials and								M	D.	D. =
	1.30		СН	SILTY	lety; w	tole to mediet; soft.		<i>]</i> [	1:15		( /5	· <del>2</del> )	+	++-			/
	2.00 د		ѕм	SILTY	Brown medium moist	silty clay; tre to high plant	city;	\ <u>\\</u>	2:15			11			M	D.:	D. 3
	2.45	TI II	SP	FINE SAND SILTY	Brown	ish gray to gr	ey silty		2.45	30	( 1/3	15				, D.	$D_{\alpha}$
	3.45		SM	SAND	very 1	vi de	<i>a</i>	/	3:15	1 3	0 (1/5	4					3.
- 1	4				about l	poorly-graded 0-5% of fines;	wet; very	<b> </b>	3. <b>4</b> 5		1	+		++		Ho.	D 7
Ė	5				Gray &	ilty sand; love vet; very love	w platic-		E (P							1	2
	-								5:15 5.45			(35 4 /5 /	5	36			
	.6			· · · · · · · · · · · · · · · · · · ·		rish gray to						11,	+	+		<b>/</b>   0.	D, 6
	2				gray a	t 3.45 - 3.9m ,	grey at		7.15			14	/ /			2	. 7
6/25				Tear		5.95m; sma preciable fir		•	7.45		•		学	18			
11	_R			FINE	donse	to very don	se from					11				71.	- 0
	2		SP	MEDIUM		пр То 15.45 т	· 				╁├-	\		++		*	9
- [	20			SAND		. <del>.</del>											10
	-					: ·			10.45	.	( 2	野海)	岩岩	;		7	
	//			,			:			$\vdash$	++			+		$A_{\overline{*}}$	- //
	<u>/</u>	 ., . :				· · · · · · · · · · · · · · · · · · ·			12.15		- -	3/			14/1	4	/2
	-								12.45		( 12/5	.36 /5	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				ورا
	<b>∠</b> ₹						<del></del>										
	14		••				.a -^	.			$\vdash \vdash$	+		+		//*	r /1
	۸5			<i>i</i> .				,					1				15
<u>%</u>	15.45			1		<u> </u>			15.45		H	(3) /3	15/1	73 30			
12.11						1		.			+	++	++	+		-	
- 1				14 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -							1					_   _	
	•					•									-		
										$\parallel \parallel$		++		1		-	
	_ .:		<u>.</u> :.			#44.7.1.4.	· · · · · · · · · · · · · · · · · · ·						++	1 1			
	-			4.	,			·   ·		·							

	GE	οĽ	00	sic.	AL DRILL LOG Bore Hole No. AL-	-9
PI	ROJE	1 . 1 1 1 1	THE AGN	FEAS O RIVE	IBILITY STUDY OF LOCATION CAPATAN, DEPTH	15.45 m
EL	EVAI	TION			DATE June 25-27, 90 DRILL KOKEN I DRILLED R. BRUND LOGGED	H. FUNAOKA
DATE	пвртн	SOIL	SOIL CLAS.	SOIL TYPE FORMATION	DESCRIPTION  DESCR	REMP DRE
	2 2.0		ML SM CL	SANDY SILT / V. FINE SAND SILTY CLAY	Brownish gray samely sell;  traces of roots and slightly organic matters; moist; boose.  Brown very fine sand with some silt; Gravel (\$930m) at 1.65 m; moist to wet; bose.  Dark bluish gray silty clay; 2.45	0.0
6/25	3 3.0	0 / /			Dork bluish gray silty clay; medium to high placticity; moist to wet; soft  Brownish gray to gray fine to medium sand i brown: ish gray at 3.0-12.5m, gray  13.45  2.45  3.45  3.45  3.45  3.45  3.45  3.45  3.45  3.45  3.45	D.O. 5
	2			FINE	at 125-15.45 m; moist to  wet; loose at only upper  part, medium dance to  2.15  dance from 5.0 m up to  7.45	* 7
	9		SP	MEDIUH SAND	15.45 m.	* 9
	//				72-15 32 (15 17)	* 2
	/3 /4				72.45	* /4
%7	15.4	5			15.15 15.45 15.45 15.45	[d]25 
			* :	- , <b>-</b>		

	G	ΕC	) L	00	SIC	AL DRILL I	.0	G	<b>****</b> ********************************	В	ore	Но	le 1	۷o	41-7	0	
P	RO.	JEC		HE GN(		R FLOOD CONTROL	1	CAT	ION	MA SA	MANL/ V CAR	40. LOS, P	₩ <del>Q</del> .	DEPI	H 15	,45	m.
ΕI	ΈV	AT:	CON	20	)/3 m.	DATE June 15-16. 90 DRILL RIG	TONE	ZAT:	I	ORII	LED	N. SOT	ERIO	Logg	ED W.	FUNA	OKA
DATE		표 대 대	SOIL	SOIL CLAS.	SOIL TYPE	DESCRIPTION	GROUND			TES	PENE' T ( -VAL	UE-	····	CORE		REMARKS	DEPTH
-	E .	0,24	IJŢ	MH S	CLAYEY	Brown clayer silt; with fine		1-1	<del>-</del>	7	17	63 <u>8</u>	<u> </u>	20 40	ŽЙ		
	1	1.45		СН	SILTY	sand; trales of slight organic material; medium to high plasticity; moist		1.15	7	13 (	\$ - 2 15 - 75					D.D.	/
	2			ML	CLAYEY SILT	Brown silty clay; medium to high plasticity; dry; stiff Brown to gravish brown clayer silt; low to medium plasticit;	2,26m	2 44	1	1	3 4)					D.D. D.D.	2
	3	3.45 4.00		СН	SILTY	traces of fine sand; moist; medium stiff		3.15 3.45	1	30 (7	3 75)						4
	4	7.00		SM	VERY	Brown silty clay; medium to high plasticity; moist; medium stiff Gray very fine sand with		5.15								D.D.	5
	6	6.00		5.1	SAND	some clay; selty sand with 50% of clay; wet; loose to		5.45	•	30 /	7					D.D.	4
4 1	7	. 6 1		-		cary to dark gray fine to		7.45	1.		34	12	4.		1/2	*	7
9/15	8					modition sand; small amount of non-plastic fines	ļ	7.45		1	30	18 - 1	<b>(大)</b>		1		8 11
	2	- 1 - :		· · · · ·	FINE	uncemented; wet; medium dense to dense.										*	9
	10			SP	TO -MEDIUM SAND			10.15			    } -	46 20 15	- <del>26</del> 15				10
					3-010			10.45			<u> </u>					*	<i>1</i> 11111111111111111111111111111111111
 :	12/2							+2;15 12:A5		•	1 35	19 . 4	¥)			1	/2
	3				:						<del>\</del>					*	/3
	14 14										1						14
46	- /5	<u> 15.45</u>			· · · · · · · · · · · · · · · · · · ·			15,15		( <u>22</u> .	#1	36					3 111111
	111111111111111111111111111111111111111			-										-			ma lan
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PR	OJEC		HE	FEA:	5TI ER		TY	STU		OF	ro	CAT	10				(NDE		\$7.	DEF	TH	15	,45	m.
EL	EVAT			,640 m		ATE				RILL RIG	KOK	ZΝ	I	DR	ĹĹĹ	ED	J.DE	tro	N	LOG		H.FO	INAO	¢;A
DATE	ប្រធា្ឋ	SOIL	SOIL CLAS.	SOIL TYPE	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DI	ESCI	RIPI	TION		GROUND WATER		AND	· ·	EST	Aİ	FRA' SPT JUE	`)	N	0	* RECOVERY	(%) &	REMARKS	DEPTH
	1.45 2 2.00		SM ML	SILTY SAND SANDY SILT		Dark sand; gravel coarse organic wet; Dark	about at 0-10 at	1,0-10 1,0-1, ials;	% of for becomes to some plants	in b omed little lastic;	<u> </u>	1.4S 2.15		$\perp$	4 15								D.D.	1
	4					includ subson soft to Brown to mea fine t	mded medi ish.q ium	inco um st ray to sand	y gray tra	fine ces of		2.45 3.45 5.15		1	(5) (7)								D.D. *	ν (γ
8/16	6			FINE		5.45- Amall plasti to 15.1	7.0 m percen c fin	and 10 tage es fro about	0.45-12 of non on 2.6	45m; m up 40 of		5.45 7.15		3	20 30		(2)						*	6
	8 - 9		SP.	TO MEDIU SAND	M	silt o loose densa brown gray o	up to to de ish g	3.0m. use at ray at	and t 30-1 t 2.0-	madium 15.45m;		7.45				73 4							*	2
	10 11 12						· · · · · · · · · · · · · · · · · · ·					10.15 10.45 12:15			30	•							*	נו
	13 - M			-		· · · · · · · · · · · · · · · · · · ·					- · ·	12.45				32 (	卷	25					*	/3 /4
6/17	15.45							· · · · · · · · · · · · · · · · · · ·		: 	.:	15.15 15.45			3	\$ <u>(/</u>	2.18	)					: - <u>i</u>	<b>∆</b> \$
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PRO	JE(	т	TH AG	E NC	FEAS RIVE	IBIL R FLO	ITY OOD	S1 CO1	TUDY VTRO	L	. ]	TAC	10	N I	ER AG	EZ UP/	\$7	citi	,	I	EP	ТН	/5.	45	m
LE	TAV	ION	ـــبــــــــــــــــــــــــــــــــــ	2. (	655 m.	DATE	June	16-17,	, 190	ORILI RIG		7A\$\$	Ί	DR	ΙLJ	LEI	D N	:507	ERIC	1		GED	H.I	UNA	04
<u>ย</u>	H	OIL	מ מ מ מ	CHAD	TYPE		ESC.	RÍE	PTIC	N	OUND		ANE	ARI T	) P ES	ENI r	ETI (S	RAT PT	)	I   .	CORE	OVERY	%	RKS	Į.
- 1	다 터 다	SOIL	2011	. 1	SOIL TYPE / FORMATION		100				GROU	рвртн		20	N —		L U		80			ာ စ က က က		REMARK	מ
T-Library 1					EINE					sand; terial	0.60m	_										X		D.D.	
اسلسا			s	Р	TO MEDIUM	and	pea s	hells	i; with	stration; wet;	(7/1)	1:15 1:45 2:15	ì	# 30	2 /5	2 /5	)						Z	D. <i>D</i> .	ند
100				: :	SAND	very k	oose 7	t lo	10 de .		.  -  -	2.45 3.15		30	1/5			:			$\mathbf{z}$	1	12	D.D	3
	3.54 3.54	777	<u>; c</u>	Н	CLAY /				dium k dr	to high		3.45	١	30	75	7	(-)					1/2			4
	 						ga;	inar	gonic	, wet	/	5.15		1	1						2	4	1	D.D.	
						1.7				um san J. fines		5.45		- i.	30	(-	5 /	<del>}</del> }				1		D.D.	6
	ļ					trace	ned hea	shall dium	fraga dens	ents;		·····		-	1	30					2			*	2
मास्याम					FINE	dens		ccasi	maly	very		2. <del>4</del> 5			1	30	(75	15		7	7	1	1		. 2
	2		S	Ρ.	TO MEDIUM										\  -	\ \ \		-						*	ر ا
	<b> </b>			. <del></del>	SAND							70,15		1	-			51 (°	20 . 7	Z) (	2	4	1	: 	_ 2
6 E.	<u> </u>					:	,	· :				10,45				И		30	15 /	5' Z	Z	4	1	*	_
	ļ					*				- · · · · · · · · · · · · · · · · · · ·		12.15		-		70	12.1	(多)			12	4		_	
	3				- ,		. y					12,45		_	1 3	(	/5	/57					/		Z
E.Zs				***					· · · · ·					-	+			+					7	*	
. E /s	15,4	5			<u></u>			, 1 		·		<i>15:15</i>			1	3	8 (	16 2	4 4 1		12				.k
1										· · ·		15,45			+			<u> </u>					1	ļ	-
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<u> </u>			CONTRACTOR OF THE PARTY OF THE		T TO TO TO TO DO NOT	. Holo P	No. AL-13	
	SEC			SICA	DAY CHANGE	· · · · · · · · · · · · · · · · · · ·		
PR	ROJEC		THE AGNO	RIVE	R FLOOD CONTROL DAGUPAN	V CITY	DEPTH 15.4	
EL	EVAT	ION	0.4		DATE June 18-20, 90 DRILL KOKEN I DRILLED	J. DELEON	LOGGED <i>H.F</i> L	WAOKA
μı	)Ľ	O.L.	CLAS.	TYPE	© STANDARD PENE		ERY	KS H
E-1	Б	LABOL	2	\ <b>₹</b>	DESCRIPTION 54 H		CORE RECOVER (%)	EMARK EPT
A	(L)	S	OIL	OIL	ON H N-VA	LU 15	CO RE	NEW C
	Ω.	S	S	(C) (E)	· Q 20 40	မေ &	20 40 60 80	
	1,00		мн	SANDY	of gravel, maximum size 1.10m			D.D.
	77.00			CLAYEY	2 cm, put-rounded; about \ \frac{1:15}{5} \ \ \frac{6}{15} \ \ \frac{3}{15} \ \ \frac{1}{15} \ \ \ \frac{1}{15} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2	7 7 7 7	
	2		ML	SILT	organic materials (200ts);			D.D.
4/18		╟╫╫	1,2,1	SANDY	Brown to dark brown clayey 245 30 15 15			0.0
	3.25		МН	SILT	plasticity; traces of fine 3.15 30 18	12/5		
	4				0-10% of fine sand at 2.0			* 12
	_		1	<u>.</u>	-2,45m; moist; medium sliff:			5
					Dark gray sandy silt; 5:15 17 17 17 includes fine sand; non starting to the start to your 5:45	(5)		
E	6			النسيد	plastic; wet; stiff to very 5.75			K
	_			-	Gray to dark gray fine 20			"
6/19	7			FINE	to medium sand; small	14)		
	8			TO	amount of non-plastic			8
			SP.		fines; uncenented; wet			*   -
- [	<del>-</del> 9		. <u>.</u>	SAND	to saturated; medium			
[	10					18 12		_ ko
111	-		·		10AS 30 (	华-号		
	<i>71</i>							*
	/2					10 (2)	XXX	
נונגונו					2.45	19 12		
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1/20	.15 15.45				75.75	12 15		
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	G	ΕC	) L.	00	ilC	AL DRILL LOG Bore Hole No. AL-14	_
P	RO	JEC	.1.1	HE GN(		IBILITY STUDY OF LOCATION LASIP CHICO DEPTH 15.45	m .
EI	E	/AT	ION	0,4	796 m.	DATE June 19-20,90 DRILL TONE TASS I DRILLED N. SOTERIO LOGGED H. FUNAO,	<i>KA</i>
E		ር ከ	IL	CLAS.	IL TYPE / RMATION	DESCRIPTION  DESCR	БРТН
DA	1 .	D 편	50] S	SOIL	SO FO	四 日 日 日 20 40 63 80 20 40 68 80 20 40 68 80 20 40 68 80 20 40 68 80 20 40 68 80 20 40 68 80 20 40 68 80 80 80 80 80 80 80 80 80 80 80 80 80	a
	1	0.20		MH.	CLAYEY SILT	Dark brownish gray clayey 0.60 p.D. D.D. D.D. (3/20) 1.15	
				SP	FINE	some will at hyperpart(0,2 2:15)	2
	11 mm	2.53	3111	SM	SILTY SAND	0-57m); traces of roots; about 2.45 30 D.D.  0-50%; of clay at 1.0-1.45m; 3:15 9 (4.5)  roint to wet; very love.	3
	استاسا					Gray silty sand with some clay: slightly plastic; not:	# 1
	<u> </u>				: <del></del>	Gray fine to medium sand 5:15 10 (\$ 5) with small amount of fines; 5:45 30 15 15	5
	1				<del></del>	gravel and shells at 10.0	ر الم
					FINE TO	medium dense at upper 7.05 10 (17 10)  pant, and dense to medium	8
				SP	MEDIUM	1'	9
أدنيا					:	10.15	la
				: **		70.45 36 (15 17) 70.45 1 36 (15 15)	"
: ! -	4					12.15 29 13 16 bo (15 15 15 1	/2
	2				1. s		13
						*	14
	- /S	15. <del>4</del> 5				75.75 75.45 75.45	25
	Lundami						1
	E.						

	3 F. C	or.		SICA	AL DRILL LOG Bore Hole No. AL-15	
	OJEC		HE	FEAS	IBILITY STUDY OF LOCATION ZASIP, CALASIAO. DEPTH 15.4	5 m.
<u> </u>	EVAT			5 <i>44</i> m.	DATE June 8-10, 90 DRILL TONE TASS I DRILLED N. SOTERIO LOGGED H. FUI	VAOKA
DATE	ОЕРТН	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION  ON TEST (SPT)  HO NO NO NO NO NO NO NO NO NO NO NO NO NO	DEPTH
	/ 1.0Q		МН	CLAYEY SILT	peasition sand and made (1.23m) 115	),D.   1
4/8	2,00 د		СН	SILTY CLAY SILTY		D. 2
	2.75 3		SM	SAND	gray sitty pand; none to 3:15 \$ 1/2	* 3
	4				slight plasticity: about 10- 3.45 30 5 5	k 4
	\$				Gray to dark gray fine to 5.15 8 (3 5)	4
	.6				0-10% of silt; Net;	k 111
49	. 2 . 8			FINE TO	very losse at upper part 7.15  (2.75-7.0n), and medium  dense to dense from 7.0n 7.45	7
	9		\$P	MEDIUM SAND	up th 15.45m.	* g
	~ /0				70.15	<b>/</b>
			:	; ;	10.75 10.45 12 12 12 12 12 12 12 12 12 12 12 12 12	*   T
	/2			· · · · · · · · · · · · · · · · · · ·		/2
	/3		<b></b>		7.45	28
11.11.11.11	<u>/4</u>		i	<u>.</u>		<b>*</b> /4
1/10	/\$ 			· · · · · · · · · · · · · · · · · · ·	15.15 1 12 6 6 75 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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فسناسيط						million
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mergenn	-					111111111111111111111111111111111111111

GEOLOGIC	AL DRILL I	OG Bore Hole No. AL-16
PROJECT THE FEAS		LOCATION MALABAGO, CALASAO DEPTH 15, 45 m.
ELEVATION 3.667 m.	DATE June 11-13, 90 DRILL RIG	TONE TASSIE DRILLED E. HONORIO LOGGED H. FUNAOKA
DEPTH SOIL SOIL SOIL CLAS. SOIL TYPE SOIL TYPE	DESCRIPTION	GROUND WATER OF TH COURT LEST (SATE COVERY (%) REMARKS  OF F H  OF F H  H  OF F H  OF
SM SILTY SAND  6///E 1.45  2.00  ML CLAYEY SILTY CL SILTY CL CLAY	Brown silty sand; about 10- 20% of silt; traces of slight organic materials; moist; loves.  Dark brown clayer sitt; Alight to medium plasticity up to 1.75 m; sitty clay with organic material of medium plasticity up to 20 m; wet loves  Dark brown to light brownish	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
ML SANDY	gray silty clay i saturated; medium stiff to stiff. Light brown to dark gray pandy pilt with pome fine sand; wet; medium stiff.	5.15 5.45 D.D. 47 (22.23) 3p (23.5) D.D. 45 D.D. 45
57 4/2 8 FINE	Dark gray fine to nadium sand; non-plastic; small amount of appraciable fines; with little clay and tracas of shalls at 12.0-15.45m;	7.15 7.45 7.45 98 (17.2) 90 (15.15)
SP MEDIUM SAND	wet; dense to very dense, occasionaly medium donse.	70./15 10.45 10.45
		72.18 72.48 230 (15.15)
14 14 15.45		* /4 /* /5 /* /5 /* /5
		/5,45

		E	)L		SIC	AL DRILL I	.0	G	Bore Hole No. AL-17
F	PR(	JEC		HE	FEAS	IBILITY STUDY OF R FLOOD CONTROL	LO	CAT.	TION MALABAGO. DEPTH 15.95 m
E	LE	VAT			195 m.	DATE June 12-14,70 DRILL RIG	KOK	EN	
ת ת ת	4	ОЕРТН	SOIL	SOIL CLAS.	SOIL TYPE	DESCRIPTION	GROUND		FANDARD PENETRATION TEST (SPT)  N-VALUE  N-VALUE  20 40 60 80 20 40 80 80 80 80 80 80 80 80 80 80 80 80 80
	سلسياسية	/ 1.00		ML	CLAYEY SILT	Dank brown clayer, silt; traces of slight organic material (noote); about 0-10% of fine sand at 0.0-1.0m; hedrem plasticity; wet; medium stiff.	-	1.15 1.45	D.D.
6/12	الإسلسلسلا					Dark gray to gray fine to medium sand with appreciable fines; traces of gravel maximus size 3 cm, subsounded and	1	2.15 2.15 2.15 3.15	D.D. 3
	سلسساس			sP	FINE TO MEDIUM	rounded at 1.0-1.52 m; fine to traces of white sea shells at 3.0-3.45 m; very loose to loose at upper part, nedium dense at lover		\$.15	* * * <u>*</u>
	أسينسلسل	Z			SAND	part; wet to saturated.		₹.4£ 2.1\$	* 2
	علسسلسساسا	3				Dark gray clay; inorganic; medium to high plasticity; saturated; soft.		7. <del>1</del> 5	
	ankandan Ka	2 /0.00	V / Z	ĊН	CLAY	Dank gray sandy clay; slight to medium plasticity; saturated; soft to med. stiff Dank gray sitty sand; none		10.15	
	سلسلسلس	10.45		CL SM	SANDY CLAY SILTY SAND	to slight plasticity; wet;  medium danse.  Dark gray silty clay; slight		10.45	*
6/1	31 1			СН	SILTY	to medium plasticity; patenet ed; stiff.  Dark gray sandy selt; medium plasticity; traces of		12.45	3 (35 (75 75)
	and a	\$ 14.00 \$ 15.00		ML	SANDY SILT	shells; naturatels; stiff; lower part grade into sainty.  Danke gray fine saind with small amount of silt; satura	\ \ \ \ 	15.15	* 14
6/1	mandage	15.45		SP	ENE	ted; nedium dense.		15.45	T   1 4 (3 - 2)
	मित्ताकृत्तात्ता								
	سيليس أستليد		-						

C	SE(	) L	o c	3IC.	AL DRILL E	.0		-					io. <u>/</u>	14 -	18	_
PR	OJEC		THE AGN(	FEAS O RIVE	IBILITY STUDY OF R FLOOD CONTROL	LO	TAC	ION	NILII	VTAP.	541 146.	,	DEPT	гн /5	. <i>45</i>	m .
ELI	TAVE	ION	7.	/73 m.	DATE June 15-17, 90 RIG	TONE	2.PS	I D	RILL	EDE	HOW	OR10	LOGG		FUNAC	XA
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	рертн с		RD PI TEST	' (S	PT) JE		CORE	á	REMARKS	DEPTH
_   1412	2 2.45		ML	SANDY SILT	Dark gray to hight brown sand, silt; Dark gray at 0-0.15 m; hight brown at 0.15-2.45 m; traces of organic materials; moist; stiff.  Light brown to brown silty aand; small amount of		1.15 1.45 2:15 2.45 3.45		14 30	( \$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	8				D.D. D.D.	7
	5		SM	SILTY SAND.	coarse sand; wet; medium danse.		5./5		16	, 2 2				1	p.D	5
<u> Ալուտիուսիո</u>	6						5.45	<i>i</i>	30	75 /5	) 				D.D.	4
5/16	7 7.00 2,32 7.70		\SP	FINE TO MEDIUM SAND	Light brown fine to medium sand with 0-10% of sitt;		7.15 7.45	1	7 30 (7)	75)						7
dualandan	9		/ML	SWDY	Dark gray sandy silt with some clay; wet; medium stiff to stiff.										D.D.	9
يساسسلسما	10		<del>-</del>		Dark gray mainly medium sand, fine to medium		10.15			35 (7) 70 (7)	14 )					10
طنتمالسها	12		SP	MEDIUM SAND	sand at upper part (??- 8.0m); with little amount of sitt; wet; medium		12:15		1		17	23 h		1	*	/2
	<b></b>				dense, dense to very dense		12.45			4	2 (17 7 (15	23)				13
	<i>14</i>						15,15								*	14 15
							75.45		(#F	*/ <sub>6</sub> } •	56 30			+		211111111111111111111111111111111111111
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																The land
1 mandada															:	

	3.E	 E C	) L.	00	BIC.	AL DRILL I	.0	G						o. <u>/</u>	14-	19	
PF	ROJI	EC		THE AGN(	FEAS O RIVE	IBILITY STUDY OF R FLOOD CONTROL	LO	CAT	ION	ANO.	721N 74N (	'ARL	20	DEP	CH 1	5. <b>4</b> 5	m.
EL	EVA	T	гои	3,	649 m.	DATE June 15-17, 90 DRILI	KOK	EN	II D	RILLI	DRE	RUM	9	LOGG	EDH.	FUNA	OKA
иı	н		OL.	AS.	YPE		ER	ST		RD PECTEST			N	7.07		KS	TH
[-t	Ļ.		I L YMB	CLA	A T	DESCRIPTION	OUNI	TH	<u> </u>	N <b>-</b> V	Δ Γ. ΓΤ	F		ORE	3 %	EMARK	ո
DA	日日		50. S	OIL	SOIL		GRO	DEP			٠	•		On		RE	O
		.55	Ш	ง MH	SILT	Dark brown silt with 0-34 of				XO 40	T 69	(8)		Ä	ڒؖڒ	D.D.	
	_/	***			~×~~×	fine sand; inorganic; moist, moist,	Liite k	1.15		5 (3	2/5			44		1	1
	2			ML	CLAYEY SILT	plasticity; traces of fine to	2.0m	1.45 2.15						11	1	D.D.	2
	2	. <del>4</del> 5			7-118-	about 0-10% of fire sand at		2.45		30 ( ]	15				1	D.D.	11111
6/15	<u>3</u> 3.	45		SP	FINE	1.45-2.0m; wet to moist; soft to hedium stiff.		3.15		5 (2	3 75					1	7
	3,	,80 .00	[]]	SC SP	CLAYEY SAND	30% of silt at 2.45-3.0mg.  Small amount of fines at 3.0		3.45	-		-		+	$\mathcal{A}$	4-	D.D.	4
	5 5	.00		СL	SAND SANDY	-3.45 m; wet; loosa.		b	1					1			5 -
					CLAY	Brownish gray clayey sand; slight plasticity; about 0-104, if silt; wet; loose.		5.15 5.45		8 ( <u>3</u> 30 (5	5/3		.	$\frac{1}{1}$	1	<b></b>	1111
	۵.	:: <del>T</del>	//			Gray fine hand with 0-5% of silt; wet; losses					-				$\mathcal{X}$	D.D.	6-
				CL	SILTY	Gray sandy clay; slight place		7.15	<del>                                      </del>	2	-			1/	1/2	4	7
4/16	-			1.4	CLAY	Dark gray silty clay;		7.45	1	30 (/s	<b>/</b> 多			d	1		8 :
	_0					medium planticity; Traces								1		D.D	11111
	2/2	20	/ <u>/</u> .	-121 		of shello at 7.0-7.95 m; wet medium stiff to soft.		/	-			$\vdash$	1	4	X		9
	10			jaukista		Gray fine to medium sand	,	10:15		7 -				//	11	1	10
	-	.:				small amount of none		10.15	\ 	30 (15	例			<del>}</del>		1	7,1
	-//-			,	FINE	plastic fines; traces of shells at 9.2 - 10.0 m; wet			1					11	1	*	
	12		· . · . · · · · · · · · · · · · · · · ·	sp	TO MEDIUM	loose to madium dense.		12:15		1 3	2 (10)	12)	$\frac{1}{1}$	4	14	4	/2
	/3				SAND			12.45		j 3	1 15	15			1/	4_	/3
									-				-			*	14
	14												11		1	1	
417	_/5			·				<u>/5:/5</u>				145		1	<u> </u>	4	/5
//7:	_							15.45			1 7 5	13					
1000000	- }																
1 5		-	,		1,7							T				<b> </b>	
TATE OF THE STATE						The State of the S			-		-		+		++	<u> </u>	-
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GEC	ono	GIC	AL DRILL I	-0	G		Во	re	Hol	le ì	No. <u>/</u>	17	- 20	
PROJEC	T TH AG		IBILITY STUDY OF ER FLOOD CONTROL	LO	CAT	ION	BALII STA E	V GUE	D BR KA F	IDGE XW4.	DEPT	CH.	15.45	m.
ELEVATI	ION 2	.823 m.	DATE June 12-13, 90 RIG	70NZ	72S	ID	RILI	ΈD	v.307	ERIO	rogg	ED/	Y.FUNA	OKA
D A T E DEPTH	SOIL SYMBOL SOIL CLAS	OIL TYP	DESCRIPTION	GROUND	1		RD PITEST	) (S	UE-	<u> </u>	S CORE	(%)	REMA	DEPTH
1,00	М	CLAYEY SILT	Brown clayey silt; with organi materials: low to medium platicit moist; soft to medium stiff.	0.88, V									D.D.	7.1
3.45	ci	CLAT	Brown to greenish gray with cl medium to high plasticity; med dry strength: brown up to 2.9 gray to greenish gray up to 3.45, moist; medium stiff to stiff. Bray candy silt; traces of gravil; moist; soft.		1,15 1.45 2,15 2.45 3.15 3,45			4 . 75	7)				D.D.	
3.75	c i	SILTY CLAY	Gray setty clay with small anount of fines; slight to medium planticity; moist; medium stiff.										D.D.	5
5.45	sı	SILTY.	Groy fine sand with some silt wet; brown silty of grand gray silty clay; medity plasticity; met; med. stiff		5./5 5.45		<del>2</del> 30 (	2 5 5 15	?				0.0.	6
7 6.84 7 7.00	1111 51		Gray pilty sand; low prostricty; wet; bross and with 10-30% of Gray fine sand with 10-30% of	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2.15	1	5 , 3	1						7
8.56	sı	FINE	ailt; wet; loose.  Gray pitty clay; poul amount of shells; low to medium place		7.45		30 (1	5 (5						8
9	c	1000	Tierty; moist; medium stiff.  Gray fine to medium sand;	\ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>									D.D.	8 13 17
= 10 10.00	SI SI	SUTY	Gray sity sand : traces of shalls; low plasticity; wet;		10.15 10.45		3 30 (13	2 75					2 2	11
11.46	sı	7-11-	Gray fine sand with some madium sand; wet; very losse.		12:15		3 /2						D.D	/2
12 12 12.45	// ci	SILTY	Gray silty clay with some fine sand; traces of shells and organic materials; saturated	-	12.45	1	30 (7)	1/5					0.0.	/3
13.84	// sı		post to redium stiff. Others fine said with some medium sand; wet; medium									1/	*	14
_/S _//3 		SAND	dense.		15:15 15:45		3	9 (8.	<u>//</u> )				<u>/</u>	/5
1 1 1 1 2							 							

	SE(	or.	$\circ$	s I C		AL DRILL I		G			Bor	е Н	ole	N	0. 2	<u>4</u>	- 2/	
PR	OJE	ст	CHE	FEA O RIV	Š E	IBILITY STUDY OF R FLOOD CONTROL	LO	CAT	101	BR	AY. L	ASIP, O	ALAS	540,	DEF	тн	<i>15.45</i>	m.
EL	EVAT				_	DATE June 6-11, 190 DRILI	' Ko	KEN	Į I			,		W	LOG	GED	H.FUNA	OKA
DATE	рертн	SOIL	SOIL CLAS.	IL TY	FORMALLON	DESCRIPTION	GROUND		ı —	TE	ST	ETR (SP ALU		N	O,	RECOVERY	REMA	DEPTH
	-		SM	SAND		Brown silty sand with some fine sand; about	,					1:					D.D	1
6731417444	1 1.01	34 EVEL				10-20% of non-plastic silt; wet; loose.		1.15 1.45 2:15	1	7 30		3 75)					D.0	2 2
6/2	3					Brown, brownish gray to gray fine to medium	3,20 <sub>m</sub>	2.45 3.15		30 30 30					1	22	D. 0	3
	4					sand; with some silt at 1.0-2.0m; traces of fine gravel, maximum	(6/11)	3,45		) 30 \	15	/3 			<i>X</i>		*	4,1111
Ludanduoi.	5					size 3 to 4 cm, sub- rounded to rounded at 20-3.0m and at 14t-		5.15 5.45		1	2 <u>3</u> 30	70					Z	9
4/0	7		sP	FINE TO MEDIU		5.0 m; fine to medium pand with appreciable	4.5	7.15			•	25 30 (7	2 25	)	4		*	7
79	. 8		ອເ - ∵	SAND	ļ	amount of non-plantic fines from 3 cm up to 7.45 m to 15.45 m;		7.45			1	30 \	\$ 13 					8
undumbun Hariban	9					Brown up to 3.0 m, gray at 3.0-3.95 m, brownish gray at 3.45 - 7.0 m, and		10:15							1			9
the state of the						gray from 7.0 m up to 18.95 moist to wet; loose	;	10.45			26 . 3 75	<b>{</b> > }	30				*	7
6/10	<u>12</u>		<del></del>		-	to medium dense up to 500, and mediums dense, dense to very		12:15 12:45				/     4/   3/	<i>(</i> †:	<del>33</del> ) /5	4			/2
Talenthan	13					dense from 5,0 in hyp to 15.45 m.											*	14
والمساليسة	 			· · · · · ·				/5. <i>IS</i>		72	3 34		57		1			15
4/11	/5.4.							15.45		1 1	5 75		30		<u> </u>			- Trunstanti
առագույանու	 			- • • • • · • · • · • · • · · · · · · ·						1 1								Translation 1
طعيدانينظ																		
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P	RO	JEC			FEAS RIVE		TY STO	UDY OI TROL	L	OC	AT	10	N	TA L	-18A 4 S/A	EW O,	, PAN	14.	Ľ	EP	тн	/5	. <i>45</i>	m.
EI	ΈV	AT.	ION	2.	884 m.	DATE	June 11-12	% DRI	GL/	OK	EN.		L		ĻE)							H.F	UNAC	)KA
BTEO	!	о Э Н	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DE	SCRIP	TION	GROUND	:	ST/	AND	T ——	N-	YA VA	(81	T)	) 		CORE	s RECOVERY	(%) 8	344	DEPTH
		7.00		ML	SANDY SILT	sandy	To dark silt ; no	me plastic						1.							1		D.D.	/ 
		2.00		ML	CLAYEY SILT	Brown	to dark t	brown cla	707		1.15 1.45	•	1	<i>15</i>	(15	. 7	•		-			1	D. D.	2:
411		3.00		SP	FINE	Sty 2	low plast very sti	H	[]_3.	0	2.15 2.45				0	9 1.	)		7				D.D	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		3.00			MEDIUM	Sand;	fine to re moist in	Livem dan	че./Г	7 - (2)	3.15 3,45		1			<del>4</del> / 30 (	8	23 75	>					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	E_4 E_ E_	1		SP	COARSE	media	to dark - to evar	se sand;						\ <i>i</i>					/		1	1	D.D.	41111
	<u> </u>	\$,00	3.03				, dense				5:15 5.45			<u>{</u>	25 30	( /3	13	2.			1			21
-	<u> </u>						fine to						+				-				1	//	D.D.	6.1
	7					1 : .	from 5.0		_ [		7.15 7.45		-	1	3	3 1	4 - /	<del>2</del> )	_ <u>/</u>		1	1	: : ::	7.
	- 8				FINE	be	coming ca	marker a	t			: :		+			<u> </u>				1		*	8 1111
	2		 	SP	TO		, dense	and very	/												1	4.	- Co- 11 11 11 11 11 11 11 11 11 11 11 11 11	9
	10				SAND			:			10:15		-			<u>38</u>	15	.23 /S	)			4_		(0) 11
								·	.	٠.,				-		-	-			Z	1	1	*	<u>//</u>
	12				·						12:15 12:45		_ -	_		39 30	15	24 15	)		4	4	1	/2
	/3	1).     1											1	-	1		-			1			*	/3 =
	14						si			 		12	-	+	<u>                                   </u>	:   -	+-		-	1		4		14
9/12	./5	15.45									/5 ; <i>I</i> 5			실 성 성	22	<u> </u>	54			<u>/</u>		4		/5
	ن اسلا				10.00		<del> </del>		·		15.45		-		$\parallel$	-			+	1				Little
	مواسط		المناسبة		· · · · · · · · · · · · · · · · · · ·							$\left  \cdot \right $	-	<u> </u> 										111111111
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	المتالية			:					:					-		-	-			<u> </u>				
				1 7										$\perp$										

PROJECT THE FEASIBILITY STUDY OF LOCATION DALONQUE, STA AGNO RIVER FLOOD CONTROL  ELEVATION 4.727 m. DATE June 4-6, 90 DRILL DRILLED R. BRUNO LOGGED H.FUN  H H O O H H O DESCRIPTION  A DID H H D O O O O O O O O O O O O O O O O	m
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H H O D H H DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D DESCRIPTION  A D D D D D D D D D D D D D D D D D D	1 <i>0KP</i>
1,000   SM SILTY   Brown pilty pand; traces of plant matches; moint; medium demas   1,15   11 (8.5)   12   145   15   15   15   15   15   15   1	FL
1,00   SM SAND   SAND   SAND   Brown sandy silt; uncernated;   1,15   11 (8.5)   15   15   16   16   16   16   16   16	
ML SANDY   Brown fine sand; about 10 - 2.15   30 (\$\frac{1}{15}\$   10.5   10.	).  -  -
SM SAND  SAND  SAND  SAND  SAND  SAND  SAND  SAND  SAND  Brown to brownish gray and sold (6/6)  ML SANDY  Alt; none to alight plasticity;  Alt; none to alight plasticity;  Alt sold of clay at 3.0-3.45 (13 15)  Light gray to gray fine to medium stiff.  Light gray to gray fine to 5.45 (15 15)  Light gray to gray fine to 5.45 (15 15)  ME SILT  Althory  ME SANDY  Althory  Althory  ME SANDY  Althory	۔ 2
ML SANDY pilt; none to alight plasticity;  A solution to 20% of clay at 30;  3.45 SILT about 0-20% of clay at 30;  3.45 Sils solution sout to medium stiff.  Light gray to gray fine to 5.45 30 (75.75)  Light gray to gray fine to 5.45 30 (75.75)  medium sand; with small amount of non-plastic fines at 5.0-10.0m; traces of fine grand at 5.0-5.5m, and 9.45 JO 15.16)	2 3
3.45 m; wet to mint; soft to  medium stiff.  Light gray to gray fine to  medium sand; with small  amount of non-plastic fines  at 5.0-10.0 m; traces of fine  granel at 5.0-5.5 m, and  7.45  9.45  9.45	4
Light gray to gray fine to 5.45 30 (\$ 5)  medium sand; with small amount of non-plastic fines at 5.0-10.0m; traces of fine gravel at 5.0-5.5m, and 9.45 30 (\$ 2 8)	,
2 amount of non-plastic fines at 5.0-10.0m; traces of fine gravel at 5.0-5.5m, and 9.45  9.45	,
grand at 5.0-5.50, and 100 15 15	-   -
	-   Z.
TO wet; loose to medium	8_
SAND dense.	_ 9
10 10 10 10 10 10 10 10 10 10 10 10 10 1	10
10.45 1 / 30 / 31 **	_ 11_
12.15 / 14 (\$ 12.5)	/2
13/13.00	
SP FINE sand; with some clay	_ 14
dense.	/5
4/6 15.45 15.45 15.45 15.45 15.45	
	.   .

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-			1. 7	CHE	SIC.	AL DRILL I	10				Bor MA							······································		-
-		JEC	1 <i>I</i>	GNO		ER FLOOD CONTROL		CAT			ANAI A.B	- 1				******			45	
EI	ıEV	AT	ION			DATE June 6-8, '90 DRILI RIG	7	7AS:		DR I							اــــا	H.FC	MAU	XA
ជា		II .	SOL	CLAS	TYPE		DER	ST	ANL	ARD TE	ST						א ק א	_	X S	TH
H	l .	ጉ ጉ	IL	<b>.</b>	\ <b>~</b> \	DESCRIPTION	OUN	TH		N	ı – V	л <del>г</del> 1		· · ·		ORE.	5 · . §	%	4	<u>م</u>
DA	i	ii D	SO	OIL	OIO		GRO	用用		14						ပ္ပံုပဲ	u		REI	D E
	F		77	้ง	N E	N 11 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	<u>P</u>	<u> </u> 	20	40 	6:	) 	80 		0 40	60	<u>∞</u> 1 1	_	_
						Dark brown to brown										1	1	ď	D.D.	,=
6/6					C.1. 77~	none plastic; with some		1.15	•	. 6 30	( <del>}</del>	3 /5			<b></b>					1
	2			CL	SILTY	gravel (\$1-20m) at 3.45-		2:15				2	+			14	44	44	D.D.	2:
	)   					3.55 m; moist; loose.		2.45		30	传	2 15	<b>'</b>			7	$\frac{1}{2}$	7	D. D.	3 1
	. J							3.15 3.45	1	<u>5</u>	(35	2 75								1
	4	4.22					4.23 m		1	-	-	-	+		+		4	$\mathcal{H}$	D. D.	4
					FINE TO	Brownish gray fine to redien sand; with 0-20% of silt.	(4/8)				.		• • •				$\mathbb{Z}$			= 5 =
	- y			SP	MEDIUM SAND	with coarse sand at 5.0-		5.15 5.45		λ. ,	12 30 ()	1	52							
1	<u>ر</u>	દે.કે	· · · · · ·			5.45 m; moist to wel;	-			1	-		-	$\frac{1}{1}$		H	4	$\mathcal{A}$	*	6.
	وردالي	5.57 5.87		сн	SILTY	Brown sitty clay; medium	<b>.</b>			•	$\bigcup_{i=1}^{n}$					17	//	1	D. D.	7
1		7.00		SC	SANDEY	to high plasticity; moist.  Brown clayey sand; rone To	1	2.15			1	4	3 (15	28	>					
1.2.	8					slight plasticity; wet; loose,	l	7.45					_				$\angle$	$\mathcal{A}$	-	8
		'	•			Gray medium to course							\ \ 	-		1	X	1	*	
	- Y		: • •	ماند. د		sand; fine to nedium.										1	1	$\sqrt{1}$		
}	10				MENUM.	to course sand at 7.45-		10.15				:	0/2	\		1	4	14		10
6.7	11111				MEDIUM TO	non-plastic fines; mois		10.45	l i				岩		/	H	+	H		
	E.//	<del></del>	****	SP.	COARSE	to saturated; dense to	·					T		1		7	1	Ħ	*	" =
	12				On M	very dense.		12:15					4			4	4	14		/2
	13	15	· · ·					12.45			.		3/4	15.	** '5	$\downarrow$	+	$\bot$	·[	1
	: /3		<b></b>		-2717	· · · · · · · · · · · · · · · · · · ·	-			-	- -		-	╁		1	4	1	i i	/3
	14		•				<u> </u>										1	$\mathcal{A}$	*	14
	ilu e li						ļ					:   :				$\mathcal{I}$	X	$\mathcal{U}$		- 1
6/8	<u>/S</u>	 15 45						15:15			╂╌╂╁	4	5/	2 2		14	4	H	•===	<i>1</i> 5 =
			•••					15.45					0-1/5					П	:	
	l med m.																			, lenn
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	un bin				*							1:					ا ا			- =
	nului.				*****												T		, , ,	
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C	SE(	コレ	00	SICA	AL DRILL L	.0	G		В	ore	Hol	le l	/o	AL	- 25	r Parrel
PR	OJEC		HE GNO	FEAS O RIVE	IBILITY STUDY OF R FLOOD CONTROL	LO	CAT	ION		TINILL BARA			DEF	тн	/5.45	m.
ELI	TAVE	иол	6.		DATE June 7-11, '90 DRILL RIG	אסד	7/155	77 1	QRIL	LED	E HON	ORIO	ļ		H FUNA	OKA
DATE	ОБРТН	SOIL	SOIL CLAS.	SOIL TYPE		GROUND			N	T (	SPT)	ION )	CORE.	S RECOVERY	REMA	DEPTH
uuluu	1 1.00		ML	SANDY SILT	Brown sandy silt; traces of grand and slight organic mater- icle; wet; nedium stiff.		7.78								0.0	1
landing dan dan dan dan dan da	2 3 2.94 3.40		CL: ML	SILTY CLAY SANDY SILT	Brown to dark brown silty clay; medium plasticity; wet; very stiff to stiff.  Brown sandy silt; none plastic; wet; stiff.		1.45 2:15 2.45 3.15 3.45		\$2	( <u>6</u> . ;	9 /5 -> (5)				D.D	
6/8	5 5.00		SM	SILTY- SAND SILTY CLAY	Brown silty clay; low to medium plasticity; moist; stiff	4.35,, \(\frac{1}{2}\)	5.15 5.45		14 30	(.6	\$ )				D.D	5
عليسلسطسيدا	7 7.00	777	ML CL	SANDY SILT SILTY CLAY	Brown sandy silt with 0- 10 40 of clay; wet; stiff. Gray silty clay; medium plasticity; wet; stiff.		7.15 2.45		30	6	\$ (5)				D.D	7
ահահահահա	8 9 9.45		CL	SANDY CLAY	Gray sandy clay; slightly plastic; wet; stiff.										0.1	).
4/9	10 10.00		SM	SILTY SAND	Gray sitty sand with about 0-10% of non-plastic silt; saturated; modium sense;		10.15 10.45			27 (4 30	77 <u>/0</u> /5 /5	) )				10
الساسط	12		ML	CLAYET SILT	Gray to dark gray clayer silt; slight to medium place ticity; traces of fine rand and fine gravel at 10.0-10.4 mg traces of organic material was		12:15 12:45	1	1 30	(4)	\$				W.	3 /2
ակապետակույ	13 13.00 14		SP	FINE SAND	0-10 % of fine sand at soil!  13.0 m; wet; very stiff to stiff!  Dark gray fine sand;  Traces of silt; wet;										*	14
6/11	15.45				lovsa,	"	15.15 15.45	1.1.	30	<u>5</u>	2)					. <i>1</i> 5
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GEOL	OGIC.	AL DRILL I	oG	Bore Hole 1	10. AL - 26
		IBILITY STUDY OF R FLOOD CONTROL	LOCATIO	ON LEET. STA. BARBARA	DEPTH 15.45 m
ELEVATION	9.639 m.	DATE June 7-11, '90 DRILL RIG	KOKEN II	DRILLED R. BRUNO	LOGGED H. FUNAOK
D A T E DEPTH SOIL SYMBOL	SOIL CLAS. SOIL TYPE. FORMATION	DESCRIPTION	GROUND WATE DEPTH	NDARD PENETRATION TEST (SPT)N-VALUE	CORE RECOVERY REMARKS
1.00	SM SAND	Light brown sitty sand; traces of fine to course gravel, man.  size Icm, rounded to subrounded			D.D.
2 2 00	ML SANDY SILT	ing to 0.60; Day to moist (66-120) madium dense  Brown samply silt; slightly platic; not; madium striff	1.45	7 ( 3 4 4 5 ) 30 ( 4 5 5 ) 30 ( 4 5 5 5 ) 30 ( 4 5 5 5 )	D.D.
3	CL SILTY	Dark brown sitty clay; medium plasticity; wat; very stiff to stiff.	2.45 3.50m 3.15 3.45 (6/11)	14 (\$ .8 30 ()\$ .85)	D.D.
5 5,00 4/7 5,45	ML CLAYEY SILT CL SILTY CLAY	Dark brown clayey silt; slightly plastic; wet; very stiff Gray silty slay; traces of fine sand; shight to medium plastic.	<u>5,75</u> 5,45	21 (8 3)	
7.45	ML SANDY	Dark brown sandy silt is wet; very stiff.	7.15	30 (75 155)	D.D.
8	FINE SP To	Array to hight gray fine to medium rand; traces of fine graval; about 0-10 %	7.43		*
9/9 <u> </u>	SM SAND	of silt, becoming coarses at 10.45-12.0m; wet; very danse.	10.15	30 /S /S	
12 12.00	CL SANDY	Gray sandy clay; low plac- treity, wet; hard.	12:15		*
14	FINE SM TO MEDIUM	Light gray to gray fine to medium sand traces of fine gravel , sounded and			*
15.45 !	SAND	subnounded i wet i danse to medium dense.	15.15 15.45	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
		G - 5	5		

C	3EC	) L	00	SIC	AL DRILL I	.0	G	terni spratt		Bor	·е	но	le	No.	<u>u</u>	<u>A -</u>	1	
PR	OJEC	T T	HE GN(	O RIVE	IBILITY STUDY OF R FLOOD CONTROL	<u> </u>	CAT			1 G	AS!		Ni	1/1	PTI	1 1 1	5.0	m.
EL	ĖVAT I	ION	りる	767 m.	DATE Dec 19-27 8 DRILL RIG	TON	E T.	ASS I	ORI	LLE	ED 8	TU	170	LO	GGE	DU	iek (	YUZ
DATE	рертн	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER		AND		PEN ST -V	(\$	PT JE		- Bacc	RECOVERY	(% ) &	REMARKS	DEPTH
	2 2 2 2		ML	YDVA2 SILT	Brown, SANDY SILT, ION plasticity, traces of clay, up to 0.80m, then beco- ming clayey sift of low to medium plasticity, trap	1.30,	1.45	<u> </u>	$\prod$	(15.	300	1				H H	0.0	1
18	<u>3</u> 3.30		M2	SILTY FINE SILTY	ces of fine sand dry to moist, medium stift	/26	2 43 3.15			30	15)	15,	1	7		///	D Y	3
ىئىسىئىيىلى	4				Brown, SILTY FINE SAND, fine growned conditra-		3.49			5 '(-	5	程)				1	不	
%	5	3000			low plasticity clay, about 5% medium sand.	:											1	Summi.
merman	7	00		GPAULL	Moist, dense.  Grayish, Gravel - SAND  MIXTUPE: alternating layer					: .								
	:	00	80	SAND	of gravel and cobbles, gravel is fine to coarse.  rounded and subtounded		e profite									4	WB	2,71111111
mali malana		0.0		WITH.	maximum size range from 6cm to 16cm, alternated by fresh collect and boulders													131
7/16	<u>;</u> ;	$\mathcal{S}(\cdot)$		povlot <b>k</b>	about 20% - 40% considera- ble amount of fire was							-						
וווידורוויזיין		0		· - <i></i>	Observed from drilling Cludge, core length range from som to 12 cm, pap													15
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	•	$\mathcal{O}_{\mathcal{O}_{\mathcal{O}_{\mathcal{O}_{\mathcal{O}}}}}$		.:	oravel is mainly could of quarts porphyry as s													13.11
		.; O			andees to alluvial deficit												<b>\</b>	15
ւայիուսիու	-		-		丰ND of BOFING	. :												- Internal
			: .		ho bu hoilean	-											<del> </del>	Turburdin
التعييليسيدليه					DO = Dry Orining WB = NOSh Ecryo													
Turnium.		.																

	G	ΕC	) L	00	SICA	and the second s	-0	G		<u> </u>					No.	UA - 2		_
Р	RO	JEC		HE GN	O RIVE	IBILITY STUDY OF R FLOOD CONTROL	1	TAC		N P	X No	5 <b>∤</b> ¢į	N N N N	}		···	5.0	
EI	LEV	AT	ION	<b>6</b> 5.	983 m.	DATE JAN 2-C, '31 DRILI	ToN	E TAS	2.	DRI	$\Gamma\Gamma$	ED	k. Tu	Y0 -		GED,	leh C	SW
DATE		표 는 나 과	SOIL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND	l .	ANE		ST	'AL	TRAT SPT UE			RECOVERY 8 (%)	REMARKS	DEPTH
	muluu-	£10		ML CL	SILT.	Brown to brownish gray, CLAYEY SILT; low to me- dium plasticity, trace,	[·20#	માદ									DD	
	5			SM	DE DIANI LINE LO	of roots, about 5-18%	(%)	2115	1	30 14	/3	   <del>\$</del>					00	2:
た		3 45		CP	FINE TO	GMY, FINE TO NIEDIUM SILTY SAUD; traces of low plas- thaty clay, traces of roots moist to wet, loose.		24 34 34 34 54 54 54 54 54 54 54 54 54 54 54 54 54		38	15 /	( <u> </u>	13 (·	23 30 15 5			DD	3
	umuhandan	A-25	0 c	SP	MEDIVM [SAND]	Gray FINE SAND; apprecion ble amount of non-lattice fines, moist to wet, nichiar derive to verydrise.												<b>6</b>
	10 to 100		0000			Brown to brownish gray, FINE TO MEDIVM SAND; traces of root, about 1-66												G I
1/4	والمساليسا		7.50		GANEL SAND	non-plastic sitts with fine to coasse gravel, tounded out subsounced, maximum size zon,												200
	4	-		GΡ	MIYTUPE	Wet, very dense. Light gray to grayith white, ERAVEL -SAND-											_ W	S S
	, multur	· .	0.98	eri	•	MYTURE, will cobblece and boulders, alternating fine to coarse gravel, maximum size range from 20m to					: . 6 . !							Tritle Little
	-  2  -  -  2		)°, Ö°, °(		:	scm, with fine to coarse car mixture being wash												ו <u>כ</u>
	3					fresh cubbles as our 30% were recovered life size is ranging from Gem to												7
<i>Y</i> <sub>C</sub>	7	12.18	<u>ن</u> ان	· · · · · · · · · · · · · · · · · · ·		8cm, light gray to gra- yish white boulders are hard and fresh, very		2.5				-						2
	استراساس					Alluvial deposits pravel is motally consist of que to porphyry and				-		1:						and man
	سترساس		er ger			andresite #ND IF RORING		- <del>3-</del>										Tan land
	علسسانيينا					DD - DRY DRILLING WE WASH BORING												then made

ſ	G	EC	) L.	o c	SIC	AL DRILL I	.0	Ġ		l	3or	e E	lol	e ì	ł٥.	ila	-3		_
I	PRC	JEC	T	HE	FEAS	IBILITY STUDY OF R FLOOD CONTROL	LO	AT.	ION			SINA			DE	PTH.	IC	Ü	m.
E	LE	VAT	ION			DATE JAN. 7-10,'01 DRILL RIG	TON	E TA	ss I	RI	LE	DB.	TUY	0	roc		4.6	ela a	2012
	៤	OEPTH	SOIL	SOIL CLAS.	SOIL TYPE	DESCRIPTION	GROUND	DEPTH	* = 40.00		ST	ETR (SI	T)		& CORE	AS RECOVERY	(%) 80	REMARKS	DEPTH
<u>y</u>	ավավայանակայիայի ու		00000	ML SM SP	SAMDY SILTY SAND GPMELLY SAND	Brown, SANDY SILT; very fine same, tracas of rook, about 6-10% fine to coarse tounded or subrounded orayel, maximum size transc from 4cm to 5cm, maist, stiff to hard, brown; SILTY SAND, fine to coarse sand, about	(Vio)	京 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (			30	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)						DD DD	idere traditional and a
	الساسيلسلسان				<b>ГИБ Т</b> о	5-16% fine to coarse gravel, maximum size tange from 4cm to 5cm rounded and subrounded; small amount of clay, medium dence to decure		till Lat			स्थ	Tic V						DD DD	∆ mayan magana
У				SP.	COKPSE SAMD	Brown to dark brown, GRAVELLY SAND; SUBTOUNED, MAXIMUM SIZE THANGU FROM ZOM to 4 CM, Appreciable omount of find, At 3.45 to 4 CBS m gravel take from		7145			( SE 15	(1)	7023	2					7
	introduction of the		000			ton to GCM, what I densed to medium dense.  Grayich brown, FINE TO COMPSE SAND I Tracks of												W	10 111111
<u> </u>			$\bigcirc \circ \circ \circ \bigcirc \circ \circ$	GР	CHAVEL SA HO MIXTUAL WITH	bark brown, ERAUEL-EAND	-												יווייון וייון וייון וייון
l v	يسلسسلسساسساسي	15:15	0000		Corples And Boulders	MIXTURE, after nating layer of sand and gravel mixture, rounded and sub-rounded, about 20'h-30'h fines, Pad range from													Tentum tentum
	يسيفسياسين					of cobbles and boulders.  Bom - 13 cm.  #NO of BORING													molument
	بعينايسا بسايسا			'		DD - DRY DRILLING WB - WASH ROPING													in line and
	malian				- -														- Internal

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Р	RO	JEC		HE GN(		IBILITY R FLOOD C	ONTRO	OL		CAT	· ——	1	4 116 (N )	1:24	144		DEP		15.0		m .
EI	ĿΥ	TAT	ГОИ	٤١	975 m.	DATE JAN 6	-12 71	RIG	TON	E TA	\$S ]	OR I	LL	ED¦F	Bre	YMEGY	LOGO		R. MA	(TIA:	S
田	١.	T.	) I.	AS.	TYPE		٠		ER	ST	AND	ARD	PE	NET	RAT PT	ION		ECOVERY (%)		S	Ξ.
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			000	SP	<b>БРАЙШИ</b>	fines, trac		oots,										X	;    ·		
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1.25			0000			t-106 NON-	plasti	c files,			ΓŤ	1									
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	1		9 . O	GW		Gray, GRAV	ELLY !	SAND;										; ;		: .	1
			20.0	6.p	ZYV)D	fine to coord			,						+				-		e -
1/2			0.0		MITTURE	rounded to												X			2 H
7:	<u> </u>		0,00			from 3-5 cm										11	100				- 1
	ا ا	10.C	. 00 C0.0			amount of				l								4.	<u> </u>		10.
	1111		20			fines, very							-		1			4			unt
	<u>- 11</u>	· .	0:		: الإسلام الح	Dark gray,						_									11
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ELEV	ΑΤ		43.			DATE			DR	ILL	TON	E TAS	2;	DR:	ΙL	LE	$\mathrm{D}_{\mathrm{i}}^{ }$	ኮሃ	o	L	ogg	ED	.β, ω20γ	
A 6	ם ו	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE	FORMATION			RIPT			GROUND WATER	DEPTH	AND	T ]	¥-	T	ETR (SI LU	PT)	ION		S CORE	3	REMARKS	
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<u> </u>	.:		SW	1	нЬ	coars	e gr	ovel, pour ded	00 mg	20n)	-	£11C		30	( <u>8</u>	<u>9</u> 15	)							
7				-		fines	we	, Med AVELL)	IUM	derec		-7 <sub>1</sub> {\$		$\bigwedge$	.   28	1/12	1/2						DI	D
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GEOLOG	SICAL DRILL I	JOG Bore Hole No. MA-2
PROJECT THE AGNO	FEASIBILITY STUDY OF RIVER FLOOD CONTROL	LOCATION STATMARIA, DEPTH ZOO M
ELEVATION 36, 4	TATAL A PROTEIN	
D A T E D E P T H SOIL SYMBOL SOIL CLAS.	FORMATION DESCRIPTION	GROUND STANDARD PENETRATION  WAS TEST (SPT)  WAS TEST (SPT)  WAS TEST (SPT)  WAS TEST (SPT)  WE WAS TEST (SP
7. ML 1/12	Brown, SANDY SILT; slight- ly plastic, traces of rook, traces of gravel, \$120 range from zem to zem at o:co to 6:0 m, medium dence to deuse, dry.  SANDY SAND; traces of non- plastic fines, slightly ptactic sit; medium deuse moist.  Brown, fine to medium	2:300   114c   21 / 10 , 11   11
ς (κ. SC	SAND; brown from Gidm- 7.0 M. traces of non-plas- tic fines, traces of clay, becoming gray, from 7.0 - 0.0 m. medium demenment  Grayish, ERAUEL - SAND MIXTURE; alternating layer	$\begin{array}{c c} & \begin{array}{c c} & \begin{array}{c c} & \begin{array}{c c} & \\ \hline & 3 \end{array} & \begin{array}{c c} & \\ \hline & 1 \end{array} & \begin{array}{c c} & \\ \hline \end{array} & \begin{array}{c c} & \\ \end{array} & \end{array} & \begin{array}{c c} & \\ \end{array} & \begin{array}{c c} & \\ \end{array} & \begin{array}{c c} & \\ \end{array} & \begin{array}{c c} & \\ \end{array} & $
6P	FINE of sand and gravel, about 70 consideration amount of fines, being washed out during drilling, rounded and subrounded gravel, moist to wet.	9 Ad
15.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ollyvial deposits, gravel is Inaivaly consist of quartz. porphyry and andesik.  GRAVEL Grayish brown to lightgry SANO GRAVEL - SAND MOTUPE WITH COBFLEE and BOULDERS after nating fine to coarce Gravel, rounded and sub- tounded, Size range-from 3cm to 4cm, hard free h Cobb tes and bouldets, Cote length 10-14cm,	WR II IZ IZ IZ
	ADD range from 10-16%, appreciable amount of fines.  AND ZOBBLES MIXTURE = NO of BORING  DD-DRY DRILLING WB-WASH BORING TS-TELT SAMPLE	W/R 17
	G - 61	