ECT	: P	asi	g-M	arikina River Channel Imp.	Pro	j.	G (I	ROUND	El	EV.	um) .	+ 1	10.4	15_					R:				m.
ION:			<u> </u>	Maybunga, Pasig City			S	TATION	N	o.: _		3 +	150						): <u>2</u> ::				<u> </u>
	1-11	D	ATE	DRILLED: _20 - 21 February 2	2001	1		VEATH				FAII 161		1.25		N			0871				E
-			T		BL	.OW	s				1			1	ATTER	BERG	-	UNCON COMP.	FINED	SIE	E AN		IS
RECOVERY (%) SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	15	15 cm	15	PEN	ETR ( (N-	NDAR ATION SPT) VALUE	I TES E)		NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc			UX		A. %	Τ		40	-
1 100 2 89		СН		Silty CLAY; brownish gray; 93- 90% high plasticity silty clay; VERY SOFT.	1	0		L					70		75	51	2.61			99		97	
3 67 4 67 5 78				Sandy CLAY; dark gray; 19% fine sand with shell and little of gravel and coarse to medium sand; 74% high plasticity clay. SOFT		0							61		67	_45	2.60					100	<u>98*</u>
-6 89 1-1 100		GC		<b>Clayey GRAVEL;</b> dark gray; 62% angular gravel; 32% high plasticity clay; VERY LOOSE.	2 PF	1 ESS	2 ED						40 19	1.51	<u>62</u> 52	39 28	2.62 2.65	Cc 0.440 0.132 Cc	Pc 1.600 4.0 Pc	97 38	95 34	93 34	74* 32
3-2 90		СН		Sandy CLAY; dark gray; 85% high plasticity clay; 5% fine sand with traces of gravel and shell fragments; VERY SOFT to FIRM		<u>ES</u>							47	1.62	53	29	2.60	0.280	1.700	_91	91	90	85*
6-3 90		SM		Silty SAND; dark gray; 41% coarse to fine sand with equal amount of non-plastic silt; 18% angular gravel & shell fragments; VERY LOOSE.		ESS							33	1.81			2.64	Cc 0.195	Pc 1.080	82	54	49	41
3-8 56 S-9 56				Silty SAND; dark gray; 45% fine sand with little amount of gravel and coarse to medium sand; 45% non-plastic silt; MEDIUM DENSE.	5		10 10						29				2,63			97	93	90	45
5-10 89				Silty CLAY; brownish gray to		5																	
5-11 89 5-12 89	ľ			brown; 97% high plasticity silty clay; FIRM To STIFF.	4		3						38		63	38	2.60					100	97*
5-13 89 5-14 89	V	СН			4	4							32		73	46	2.60				100	99	98*
S-15 89 S-16 100				Silty CLAY; brownish gray to brown; 96-98% high plasticity silty clay; HARD.	4	15 50	17				1											,	
<u>S-17 89</u>	Z			End of Borehole (20.00 m)		11					1		32		_	35	2.60			99	98	97	96*
	2n	d F	AGE	MENT CORPORATION Prudential Bank Building, DF		EF RV	R: /IS	 OR: _	M.	E. I	RIE LA	FUE	RT					VS - W IDS - U CR - CO	PLIT SF IASH S JNDIS DRE S DROME	Sampi Turb Ampl	le Ed Sa E	MPL	E

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

SHEET

1 OF 1

MLL - 11

## Figure 5-3-3 (46/221) BORING LOGS (PHASEI)

**S-8** 

5-9

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5-11

5-12

S-13

S-14

S-15

S-16

SHEET	1	OF	1

ECT:	P			AL BOREHOLE LOG arikina River Channel Imp.				GROUND ELEV. (MLLW = Zero Datur	n) <u>+</u>	9.46		DE	PTH	OF V		R:	2.	00		m
	-	451	9 10.0	Maybunga, Pasig City			}	STATION NO.:			-				URED			00 P		<u>.</u>
ION:		-	ATE	DRILLED: 23 February 200	01		-	COORDINATES: _	FAI 161	2798	3.54		N			0877		69		E
			T		B	LOW		}		10.9					UNCON COMP.	FINED TEST		E AN		
	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	15	15 cm	15		EST	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/o	T		SPECIFIC GRAVITY	STRENGTH kg/cm <sup>2</sup>	STRAIN 2. %	4	10	40	2
44	TT	ML		Sandy CLAY; brownish gray; 51% low plasticity clay; 48% fine sand; VERY SOFT.	1	0	0			50				2.62				100	99	
44		сн		Silty CLAY; brownish gray; 93% high plasticity silty clay with little amount of medium to fine sand. VERY SOFT to SOFT.	1	0	0			72		68	44	2.61			100	99	97	
62 67		SM		Silty SAND; dark gray; 33% medium sand; 30% fine sand with little amount of sub-angular	3	5	5	5												
67		311		gravel and coarse sand; 27% non-plastic silt; MEDIUM DENSE.		6				38				2.64			94	90	57	
78	1			Silty CLAY; dark gray; 91% high plasticity silty clay with little amount medium fine to fine sand; SOFT.	P	RES	SEL	D		37	1.72	53	31	2.60	Cc 0.475 1.415 Cc	Part Parts		100	94	
100				Sandy CLAY; dark gray; 73% high plasticity clay; 25% fine sand; SOFT.	P	RES	SEL	<u>.</u>		34	1.74	65	37	2.61		2.130	100	99	98	-
89					1	2	2	2		66		69		2.61	Cc 0.525	Pc 0.840		99		
100						RES	SEI			62	1,58	64	42	2.61	0.473	12.0	99	97	96	1
89		СН		Silty CLAY; dark gray; 91-94% high plasticity silty clay with little		5 3				36		62	41	2.60	)		99	98	96	
89 X				amount of fine sand; STIFF.	2	2 3	~	3					-							
89					53	3 4	-	4					-							-
89										37		63	33	2.60			99	97	95	-
67	1			Silty CLAY; dark gray; 95% high plasticity silty clay with traces of fine sand; VERY STIFF.	1	3 11													,	
67				Sandy CLAY; brown; 84% high plasticity clay; 12% fine sand with		3 11	1 1	13		34		59	41	2.60			99	99	97	
89				little amount of coarse to medium sand; VERY STIFF. End of Borehole (20.00 m)		7 9 5 9	1			28		54	32	2.6	1		100	98	96	
	M/ 2n	AN/	AGE loor	ECHNOLOGY AND MENT CORPORATION Prudential Bank Building, DF	ACI RIL	HIN	IE R:	E: ACKE	IEZA	E	-	LEGE			SS - SF WS - V UDS - I	VASH	SAMP	LE BED S/		U

Figure 5-3-3 (47/221) BORING LOGS (PHASEI)

SHEET	1	OF	1
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IEC	T: F	asi	g-M	arikina Riv	er Channel Im	ip. P	roj	•	(M	ROUND E	ro Da	itum)			<u>3</u>					R:			200	т. 1
TION					Pasig City			_		ATION N			+ 65 AIR							D:				-
	-	2 [	ATE		24 - 25 Februa			_		ORDINA	_				4.70		_N,			5088				E
							BLC	OWS PT)					ŀ				BERG		UNCO	NFINED		E AN		
RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RaD	DES	CRIPTION		15	Ť		PENET	(SPT)	N TEST	SIGN INCLERN	CONTENT, %	WEIGHT, g/cc	LIMIT, %	PLASTICITY INDEX, %	GRAVITY		STRAIN 2, %	4	1		20
1 89		CL		low to medium	dark brownish gray; 5 plasticity clay w/ little a fine sand; VERY SO	imt.	1	0	0					37		47	28	2.62			95	95	94	5
2 100		SM		Silty SAND sand; 35% MEDIUM D	; dark gray; 63% f % non-plastic s ENSE.	ine silt;	3	5	6					30				2.63				100	98	3
3 89		-					11	10	9															-
4 89				brownish gr sitty clay with	; dark gray to d ay; 94% high plasti hittle amount sand a ell and wood grame	city and	11																	
5 100				VERY STIF	F To HARD.	113.		8			1			67		70	42	2.60			99	98	96	
6 100 7 100	M/							5																
8 100		1		brownish gi silty clay wi	Y; dark gray to d ay; 87% high plast th 10% fine to med ains shell and we	icity ium	7	5	5	- 11 H									-					
9 100		1		fragments.	HARD to STIFF.		6	6	5					84		64	37	2.60			99	97	92	
10 10		CH			Y; dark gray to c		7	6	7										-					
11 89	,	1		brownish g	ay; 99% high plast aces of shell and w	licity	6	5	6													-		-
12 89	N	1		Sandy CL	<b>\Y;</b> dark brownish g	wav.		6						53		70	40	2.60		_			100	2
13 89	M	1			icity clay; fine sa			8																
15 8	X	1			dark brownish gray; 9 y silty clay with little am STIFF.		7							41		69	39	2.60	0			100	99	•
16 81		1		gray; 82% 17% fine to	LAY; dark brow high plasticity o medium sand; Vi	clay;	9	7	9								-		-	_				_
-17 8	9	1	31	STIFF.	D OF BOREHOLE		8	8	8				-	36		54	30	2.6	1		10	99	93	3
1.1					(17.00 m)																			
		BAS	SIC	TECHNO	OGY AND	MA	L.CF					KER				LEG	END:			SPLIT			IPLE	
11		2nd	Floo	r Prudential Mabini St.,	Bank Building	DR	ILL	EF	<b>?</b> :		P	MAL	)ER	A					UDS	- UND		BED S	AMP	'L

Figure 5-3-3 (48/221) BORING LOGS (PHASEI)

JIE	EC	т	F	asi	g-N	larikina River Channel Imp	o. Pr	oj		(ML		= Ze	ero D	atur		+ 10.		2				VATE	17.00			200.	. n 1
ATI			-			ikina River, River Bank Righ					atio Eath					+ 92 FAIF		-				URE					-
			-14			E DRILLED:19 - 27 March :		1	_		ORD			B: _		1613		.90		N			5088				
		-						BLO (SF		T						tion in the second seco			ATTER				FINED		VE AN		
SAMPLE NO	RECOVERY (%)	SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION		5 1: n cr	5 1			NET (N	AND/ RATIO (SPT I-VAL 30	т ис ? UE)	EST 50	NATURAL MOI	CONTENT, % TOTAL UNIT	WEIGHT, g/o		PLASTICITY INDEX, %	SPECIFIC GRAVITY	STRENGTH kg/cm <sup>2</sup>	STRAIN A. %	4	10	40	2
55-1	67	X	1	СН		Sandy CLAY; dark gray; 89% high plasticity clay;10% find sand; VERY SOFT.	e  -		)							7.	4	_	79	58	2.60			100	99	99	
SS-2	67	X	1			Silty CLAY; dark gray; 100% plasticity silty clay. VERY SOFT	6			2						8			75	51	2.60						
SS-3	78	X	II	SM		Silty Gravelly SAND; dark gray; 47% fin to coarse sand; 40% sub-rounded grave 13% non-plastic silt; MEDIUM DENSE.	el;	3 8			11						2		15		2.65			60	52	33	
SS-4	56	X	1			Silty CLAY; dark gray; 95% hig plasticitysilty clay with decayed wood STIFF.	h d.	5			/	A					6		75	43					99		
SS-5 SS-6	100	X	/			Sandy CLAY; brownish gray; coars to fine sand with shell fragments medium to high plasticity. FIRM.	se s;			3	A					_											
SS-7	10	X	1				:	3	3	5						_											-
SS-8	89						-	3	4	4						5	6		66	37	2.60			100	99	98	-
SS-9	10		1	СН		Silty CLAY; dark greenish gray to dan brownish gray; 92-95% high plastici	ty F	4	4	4						-								-			-
SS-10	10	• X				silty clay with traces of fine sand an decayed wood and shell fragments FIRM To STIFF.	s	3	3	3						-		_									
SS-11	10	• X						3	3	4						6	3		80	59	2.60			99	99	98	1
SS-12	10	• X	1	1			-	3	4	5						-	+					2					-
SS-13	10	°X				Silty CLAY; brownish gray, 85% high plastic silty clay, 12% fine to coarse sand with ve	ity	4	4	5						-	-			-							
SS-14	10	0		1	-	Ittle amount of gravel; VERY STIFF.		8		11		1	/			2	35		80	55	2.61			97	94	90	_
SS-15	N	R		SP		Fine SAND; brownish gray; 72% fir sand and 19% medium sand; 9% no	ne	13	12	-					1	-				-			-	-			
SS-16	78	BX		SN		plastic silt. DENSE.		11	12	14			~			1	30				2.63	3			100	81	
SS-17	78	BX	K	СН		Silty CLAY; light creamy brown; 92 high plasticity silty clay with little amou of mediumo fine and LAPD		16	24	12						-						_					
SS-18		в				of mediumto fine sand. HARD.		18	26	25						-				-						-	-
<u>SS-19</u>	71	8	K	1	-	END OF BOREHOLE (19.00 m)		21	24	27							48		68	43	2.6	0			100	96	5
-			21	nd f	AGE Floor	EMENT CORPORATION		LE	R	_		A.	TE	N	ERI					ND:		ss - si ws - v uds -	VASH	SAMP	LE BED S		-

				TIN	AL BOREHOLE LOG	A	٧D		SUMMARY	OF '	TE	ST	RE	ESU		S			OF L -	1 15	
-					arikina River Channel Imp.			1 0	GROUND ELEV. (MLLW = Zero Datum				DE	PTH	OF W	ATEF	R:	0.	45		m.
			ası		. Bank, Rosario, Pasig			1	STATION NO.:	4 + '	150						o:0 ):				<u>-</u>
ITI	ON:			ATE	DRILLED:06 January 20	01			WEATHER:			6.21		N.			0885				E
COMPANY AND A				AIE		18	BLOW (SP1	vs			-		17700	BERG		JNCON COMP.	FINED		E AN		
OAINIPLE INU.	RECOVERY (%) SAMPLE	LOG SYMBOL	CLASSIFICATION	RaD	DESCRIPTION	15	T	15			NATURAL MOIS CONTENT, 9	TOTAL UNIT WEIGHT, g/cc	LIQUID LIMIT, %		SPECIFIC GRAVITY	STRENGTH kg/cm <sup>2</sup>	STRAIN 2. %	4	10	40	200
3-1	44		SP		Silty Gravelly SAND; brown; 31% coarse to medium sand; 32% fine sand; 26% sub-rounded gravel; 11% non-plastic silty fines; well-graded; LOOSE.	3		5			12				2.65			74	58	43	
5-2 S-3	78 100					2	2	2	2		51		63	39	2.60					100	95*
S-4	100		сн		Silty CLAY; brown to brownish gray; 93-95% high plasticity clay; traces of fine sand; SOFT.	1 P	2 RES	2 SEC			50	1.61	70	49_	2.60	Cc 0.480	Pc 0.590		100	99	93
DS-1	78					1	2	1	1												
S-6	78	X ,	ML		Sandy Gravelly SILT; brownish gray; 63% non-plastic silt; 23% sub-rounded gravel; 14% coarse to fine sand; STIFF.		2 3				36				2.64			77	73	69	63
SS-9	100				Silty CLAY; brownish gray; traces of fine sand; 79-97% high plasticity clay; traces of gravel at depth 10-11 meters; SOFT to FIRM.		1 1 PRES 2 2 2 3 3	<u>sser</u>	4		59 64	C 28 kp 1.51 C 26 kp	<u>65</u> 58			Cc	Pc ) 1.940	98	97 † 91		88
SS-11	100		СН				9RES 3					1.60			2.60				98		90
SS-13	100				Silty CLAY; brownish gray; high plasticity; STIFF.		5		<u>6</u>		_75	<u>,</u>	84	57	2.59			100	99		97
SS-1	100 100 100				Sandy Silty CLAY; grayish brown; 50% high plasticity clay 49% fine to coarse sand VERY STIFF.	1	7	8	10		3	1	53	31	2.6	2		99	91	77	5
SS-21	100	E N 2	IAN nd I	AGE	MENT CORPORATION DI	RIL		NE R:	J. D. D. BA M. E ISOR: <u>M. VIL</u>	STAUF	RA RTE		LEG	END:		WS - V UDS - CR - C	PLIT S WASH : UNDIS CORE S (DROM	Samp Sture Sampi	'LE BED S LE	AMPI	

		-	AL BOREHOLE LC	and the second second		-	The second	GROUND ELEV.	UF	IC	31		-	Coloradore and		-	ML	-	-	
ECT:	Pasi	g-M	arikina River Channel I	mp. F	Pro	j.	(	MLLW = Zero Dat			28					R: D:				_ n 1
TION:			L. Bank, Rosario, Pasig		-		1	STATION NO.: _ WEATHER:				1				D:				<u> </u>
		ATE	DRILLED: 06 January	2001		_	-	OORDINATES:					N		T	08,8				E
(%) 30L	TION					SPT		STANDAR	D	OIST.	urt g/cc	ATTER	BERG	0.	COMP	TEST	SIE % P/	ASSIN	IG SI	EV
RECOVERY (%) SAMPLE LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION			15 cm		PENETRATION (SPT) (N-VALUE 10 20 30 4	TEST ) 10 50	NATURAL M CONTENT,	TOTAL UNIT WEIGHT, g/cc	LIMIT, %	PLASTICITY INDEX, %	SPECIFIC	STRENGTH kg/cm <sup>2</sup>	STRAIN Z, %	4	10	40	2
1 100	сн		Sandy CLAY; light brown brownish gray; 68% high plast clay; 24% fine to coarse sa presence of gravel; SOFT.	ticity		1				34		51	29	2.61			92	87	79	
2 22			Silty Gravelly SAND; brow gray; 24% coarse to med sand; 26% fine sand; 28% ang gravel with 22% non-plastic VERY LOOSE.	lium Jular	1	1 0	1			29				2.64			72	62	48	
4 44 5 56 1	SM		Citte Concelle SAND: brow	nich		2														
6 56			Silty Gravelly SAND; brow gray; 15% coarse sand; 2 medium sand; 26% fine si 18% non-plastic silt; 1 angular gravel; LOOSE	25% and; I 6%	3	3	5			16				2.63	<u> </u>		84	69	44	
7 56	-		MEDIUM DENSE.			4												-		
8 56 9 89			Silty CLAY; brownish gra dark brown; 92% high plast silty clay; FIRM.		4	3	6			66		65	35	2.60	)		98	97	95	
0 89			Sandy CLAY; brownish gra		3		4													
11 78 12 67			brown; 78% high plasticity of 13% fine sand with little am of medium sand; FIRM.		4					89		75	48	2.61			100	98	91	
3 89					6	7	7													
4 100	СН		Sandy Gravelly CL brownish gray to brown; high plasticity clay; 12% angular gravel with little am	82% sub- ount	6	7	9							-			-	-		-
5 100			of fine sand; STIFF to V STIFF.	ERY	7	8	10			48		75	49	2.61		-	88	87	86	-
6 100 7 100					7		7													-
18 100			Gravelly CLAY; brownish to brown; 69% high plast clay; 27% sub-angular gra	ticity		9				51		57	36	2.6	1		73	72	71	
19 78			VERY STIFF.		8	8	10										-			_
2	nd F	AGE	End of Borehole (20.00 n ECHNOLOGY AND MENT CORPORATION Prudential Bank Building, Mabini St., Ermita, Manila	MAC		EF	E: 8:	ACK D. AN D. SA M. E	ER ACI DOYO YSON STAUR/ LAFUER	4				N L	NS - N JDS - I	PLIT SF /ASH S UNDIS ORE S	SAMPL	LE SED S/		E

CT: P	asig-	Marikina River Channel Imp	. Pr	oj.			N = 2	ero	Datu	m)+		75					R: D: _ 1			00
DN:		Maybunga, Pasig City			1	STAT WEA				<u>4 +</u> FA							D:			
BMLL-17	DA	TE DRILLED: 10 February 20	001		- 0	00	RDIN			16		8.10	00	N	ļ,	5	50878	30.1	00	
05	LION			(SP				STAN		1	%	E 8	ATTER	BERG		UNCON COMP.	IFINED TEST	SIEV % P/	VE AN	ALYS 3 SII
SAMPLE	CLASSIFICATION	DESCRIPTION	15 cm		15 cm		PENE	TRAT (SF	ION 1 T) LUE)	TEST	NATURAL MOIST. CONTENT, %	VEIGHT, 9	LIMIT, %	PLASTICITY INDEX, %	SPECIFIC GRAVITY	STRENGTH kg/cm <sup>2</sup>	STRAIN A. %	4	10	40
67	СН	Sandy CLAY; gray; 13% fine sand with little amount of med. sand; 82% high plasticity clay. SOFT.	1	1	2						60		65		2.61			100	99	95
37	sw	Gravelly SAND; dark gray, 27% sub-angular gravel 34% coarse sand; 28% medium sand; 6% fine sand w/ traces of fine sand & little arrit. of non-plastic sitt MED/UM DENSE.	1	6	8						16				2.65			73	39	11
9		Sandy CLAY; gray; 10% fine sand 78% high plasticity clay; traces o medium sand; with little amount of	f		5						34		61	38	2.62			97	94	88
00		gravel and coarse sand. SOFT TC FIRM.			2															
00		Silty CLAY; 97% high plasticity clay; with little amount of fine sand SOFT. Gravelly CLAY; 22% sub-rounded gravel	. 2		2						42	c	73	52	2.60	Cc	Pc			100
100		71% high plasticity clay; with little amoun of coarse to fine sand. VERY SOFT.	it	RES	SEL						34	36 kpa 1.67		30	2.61	0.350	1.250	78	76	74
89	СН				4 5															
00		Silty CLAY; gray to dark gray; 97		1 5	5 5						45		69	49	2.60	-				100
100		99% high plasticity; traces of fine sand. FIRM TO STIFF.		2 4	1 4						-					-	-			
100			4	5 (	5 5													-		
89				5	7 7	-	$\left \right\rangle$				71		73	46	2.60	<u></u>		100	99	99
89 100		Silty CLAY; gray to dark gray 92% high plasticity with little amount of fine sand. HARD	/; e		7 E	3.		•••			59		80	67	2.60			100	99	92
		END OF BOREHOLE (14.90 m)			2						29		00	57	2.00					
	A910												LEGE							
INI NI	ANA	SEMENT CORPORATION	AC							ER AC		-		12			PLIT SI			۲LE
INI NI	ANA	SEMENT CORPORATION	RIL							CAYA		-		X	,		VASH	SAMP		

Figure 5-3-3 (52/221) BORING LOGS (PHASEI)

10		-18	D		arikina River Channel Imp. Maybunga, Pasig City DRILLED:08 February 20			1						+ 8		£			AFAC	IDEI	D: _0	8 F	eb. :	200
RECOVERY (%)		-18	D	ATE	Maybunga, Pasig City DBILLED: 08 February 20			1 :	STAT	ION	NO.	.:		5 + 0	50									
RECOVERY (%)	T			ATE	DRILLED. OUTEDINARY 20	101			NEA	THE	R:			FAI 161		2 64					): 0876			M
RECOVERY	OAMPLE	AMBUL	0			в	LO	ws		<b>KDIN</b>		:5:									FINED	SIE	VE A	
	LIMHO	Z	A			-	(SP			S		DARE			MOIST 7, %	g/cc	LIM	ITS	UN L	COMP.		% P/	ASSIN	GS
		LOG	CLASSIFICATION	RQD	DESCRIPTION	cm		5 15 cm	}		(SF N-VA	TUE) على		,	NATURAL	VEIGHT	LIMIT, %	PLASTICIT	SPECIFIC GRAVITY	STRENGTH kg/cm <sup>2</sup>	STRAIN M, %	4	10	40
	R	1			Sandy CLAY; dark gray; 14% fine sand; 84% high plasticity clay. SOFT.	1	1	2							49		60	39	2.60			100	99	98
89		1	СН		Sandy CLAY; brownish gray; 14% sub-angular gravel, 26% fine sand; traces of medium sand; 49% high plasticity clay. STIFF	4	5	5																
67	AL IN	1	_	_	TO HAŘD.		20	30				/	/		45		63	41	2.63			86	84	75
94	因.			58	Sandy TUFF; light gray; well cemented; slightly weathered; broken; VERY HARD.	C	0 R								12	1.64				133.75				
97	圖.		11	52	Sandy TUFF; light gray to light brown; slightly		0 R				Ì				14	1.66			Ì	158.12				
93				93		,													}					
96		5		96	weathered, HAND.	C	0 F	RING	X						. 16	1.58				97.99				
99		5		66	Lapilli TUFF; brownish, gray,	, [	OF	<u>sini</u>	10						14	1.62				57.64				-
96	TELEVISION OF			44	slightly to moderately weathered; broken; HARD.	; <u>c</u>	<u>o</u> F	21111							11	1,85				132.5				
			LT	48								}											}	
								}	}			}			15	1.72				121.2	1			
	E TANK			0		; .			]			}	}											
				16	highly weathered; generally broken; HARD.																			
82	Section 2.	A		18								}			18	1.70				76.11	2.140			
					END OF BOREHOLE (15.00 m)																			
	Ш																							
P		B/	ASI	CT	ECHNOLOGY AND M	ACH	-111	VE:		1	ACI	KEI	RA	CE							LIT SI	2001	SAM	PLE
11		2110	1 1-	loor	Prudential Bank Building	RILI	_E	R:			R	D	AW	I		_		X	١	NS-W	ASH	AMP	LE	
	67 94 97 93 96 99 96 91 45 82 71 80	67 5 94 5 97 7 93 9 96 9 99 9 96 9 91 45 6 82 71 7 80 9	67   δ. 4.     94   δ. 4.     97   ζ. 4.     93   Δ.     96   Δ.     96   Δ.     91   Δ.     45   δ.     82   Δ.     80   Δ.     82   Δ.     83   Δ.     84   Δ.     82   Δ.     83   Δ.     84   Δ.     85   Δ.     86   Δ.     87   Δ.	67 94 97 45 45 45 45 45 45 45 45 45 45	67   λ   58     94   λ   58     97   λ   52     93   4   17     97   λ   93     96   4   96     96   4   44     91   Δ   43     45   Δ   25     82   Δ   0     71   Δ   16     82   Δ   18     80   Δ   18     81   Δ   18     82   Δ   18     80   Δ   18     81   Δ   18     82   Δ   18     81   Δ   18     82   Δ   18     83   Δ   18     84   Δ   18     85   Δ   18     84   Δ   18     85   Δ   18     86   Δ   18     87   Δ   18     87   Δ   18 <td< td=""><td>49% high plasticity clay. STIFF     67   2     94   58     94   58     97   4     97   4     97   4     93   53     94   54     97   4     97   4     97   4     93   53     Sandy TUFF; light gray to light brown; slightly to hight weathered; broken; HARD.     93   93     94   94     95   44     96   Lapilli TUFF; brown; moderately weathered; broken; HARD.     96   44     97   44     98   44     99   66     91   44     14   25     15   25     16   16     17   0     18   END OF BOREHOLE (15.00 m)     19   16     19   END OF BOREHOLE (15.00 m)     10   16     11   18     12   19     13   10</td><td>49% high plasticity clay. STIFF     7   3     94   58     94   58     97   4     97   4     97   4     93   4     93   4     93   4     93   4     93   4     94   58     Sandy TUFF; light gray to light bown; sightly to light weathered; boken; HARD.     93   4     93   4     94   56     95   66     Lapilli TUFF; brown; moderately weathered; broken; HARD.     96   66     Lapilli TUFF; brownish, gray, slightly to moderately weathered; c     97   4     44   25     62   0     10   Lapilli TUFF; brownish gray; highly weathered; generally broken; HARD.     91   16     125   0     16   16     17   10     18   END OF BOREHOLE (1500 m)     19   18     10   END OF BOREHOLE (1500 m)     116</td></td<> <td>49% high plasticity clay.   STIFF TO HARD.   10 20     94   58   Sandy TUFF; light gray; well cemented; slightly weathered; broken; VERY HARD.   COR     97   52   Sandy TUFF; light gray to light brown; slightly to highly weathered; broken; HARD.   COR     93   54   93   56   COR     93   54   52   COR     94   54   52   COR     95   54   52   COR     96   54   56   COR     97   52   Sandy TUFF; light gray to light brown; slightly to highly weathered; brown; moderately weathered; HARD.   COR     96   66   Lapilli TUFF; brownish, gray, slightly to moderately weathered; broken; HARD.   COR     91   64   25   COR   COR     62   0   Lapilli TUFF; brownish gray; highly weathered; generally broken; HARD.   COR     91   6   Lapilli TUFF; brownish gray; highly weathered; generally   COR     62   16   ENDOF BOREHOLE (15.00 m)   COR     64   16   ENDOF BOREHOLE (15.00 m)   COR     71   10   ENDOF BOREHOLE (15.00 m)   COR</td> <td>89   And the set of th</td> <td>89   Allow fuelows for the construction of the construction of</td> <td>89   Allow high plasticity clay. STIFF     70   50     84   55     56   Sandy TUFF; light gray; well control of the co</td> <td>89   A 10, Integer and the set of the set of</td> <td>89   Addition of the plasticity clay. STIFF     94   Addition of the plasticity clay. STIFF     94   56     94   58     94   58     94   58     95   58     96   58     97   52     98   58     99   59     91   96     92   58     93   58     94   58     95   58     96   101/11/11/11/11/11/11/11/11/11/11/11/11/</td> <td>89   A9% tigt plasticity clay. STIFF     94   A9% tigt plasticity clay. STIFF     94   55     97   A     94   53     95   Sandy TUFF; light gray; well control (sight) weathered; broken; VERY HARD.     97   A     97   A     98   Sandy TUFF; bit gray to bit brow; sight) weathered; broken; VERY HARD.     97   A     93   bigbt weathered; taken; HARD.     94   A4     95   CORING     96   Lapilli TUFF; brown; moderately weathered; conting     96   Lapilli TUFF; brownish, gray, conting     97   A     98   A     99   Lapilli TUFF; brownish, gray, conting     91   Lapilli TUFF; brownish gray; conting     92   CORING     93   Lapilli TUFF; brownish gray; conting     94   Lapilli TUFF; brownish gray; conting     95   CORING     96   Lapilli TUFF; brownish gray; conting     97   0     19   Lapilli TUFF; brownish gray; conting     98   16     99</td> <td>89   Addy tugt plasticity clay. STIFF     94   56     94   56     94   56     95   Sandy TUFF; light gray; well cemented; slightly weathered; broken; VERY HARD.   CoRING     97   52     98   Sandy TUFF; light gray to light brown; slightly to highty weathered; brown; slightly slightly to highty weathered; coRING   CoRING     93   96   Lapilli TUFF; brown; moderately weathered; HARD.   CoRING     96   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coRING   CoRING     91   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coRING   CoRING     91   Lapilli TUFF; brownish gray; slightly weathered; generally   CoRING     91   LT   48   CoRING     92   0   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     93   0   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     94   0   CoRING   CoRING     95   0   CoRING   CoRING     96   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     97   0   Lapilli TUFF; brownish gray; browent hare   CoRING</td> <td>89   A 196 in the positivity clay. STIFF   10 20 30   45     94   50   Sandy TUFF; light gray, well comented; slightly weathered; coming   coming   12     94   50   Sandy TUFF; light gray to light town; slightly comented; slightly weathered; coming   14     97   52   Coming   14     97   52   Coming   14     98   53   Sandy TUFF; light gray to light town; slightly coming   coming   14     97   54   66   Lapilli TUFF; brown; moderately coming   coming   17     96   14   66   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coming   11     96   14   48   Coming   11     97   44   slightly to moderately weathered; coming   11     96   14   48   Coming   11     97   14   14   Sometric to coming   11     98   14   14   Sometric to coming   11     99   14   14   Sometric to coming   11     91   14   15   Coming   11</td> <td>89   addr. up plasticity clay. STIFF     94   56     94   56     95   Sandy TUFF; light gray; well broker; vERY HARD.     97   56     98   56     97   56     98   56     99   56     90   56     91   56     92   56     93   56     94   56     95   Sandy TUFF; brown; body: two: staffy     96   97     97   4     98   98     99   96     90   10 [20 20]     91   11 [10 [F; brown; moderately weathered; c.g.entities     92   14     93   14     94   15     95   14     96   14     97   14     98   14     99   14     15   12     16   15     17   16     18   17     19   16</td> <td>89   Santy, transplasticity clay. STIFF   10/20/20   45   63     94   56   Sandy TUFF; light gray; well commented; slightly weathered; broken; VERY HARD.   commented; slightly weathered; broken; very well commented; slightly weathered; broken; very HARD.   commented; slightly weathered; broken; very well commented; slightly weathered; broken; very weathered; broken; very weathered; broken; very weathered; tablex, HARD.   commented; slightly weathered; commented; slightly weathered; commented; slightly to moderately weathered; commented; slightly weathered; commented; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; slightly weathered; commented; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; slightly weathered</td> <td>89   Age: high plasticity clay. STIFF   10   20   45   63   41     94   44   56   Sandy TUFF; light gray; well control weathered; continue broken; VERY HARD.   continue control weathered; continue broken; VERY HARD.   12   164   12   164   12   164   12   164   12   164   12   164   12   164   12   164   16   16   16   16   16   16   16   16   16   17   169   16   16   16   16   16   17   169   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   17   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   17   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16</td> <td>89   Age: high plasticity clay. STIFF   10   22   30   45   63   41   263     97   30   77   58   Sandy TUFF; light gray; well control broken; tightly weathered; continue broken; tightly weathered;   12   164   12   164   12   164   12   164   12   164   12   164   12   164   16   15   16   16   15   16   16   15   16   16   15   16   16   15   16   16   15   16   16   15   11   15   16   16   15   16   16   15   11   15   16   16   15   16   16   15   16   16   15   11   15   17   169   11   15   16   16   16   15   11   15   11   15   16   16   16   15   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16<td>89   Seet. high plasticity clay. STIFF     97   93   50   Sandy TUFF; light gray; well controls to booker; HVRD.   10.20.20     97   50   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   12.124     97   52   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   14.166   150.57     98   4   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   11.105   12.29     91   44   55   CORING   11.105   12.29     91   45   CORING   CORING   15.122   12.22     92   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     93   14   16   CORING   15.122   12.29     94   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     95   16   CORING   CORING   15.122   <td< td=""><td>00   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     03   Sandy TUFF; lightly veathered;     04   30% high planticity clay: STIFF     05   Sandy TUFF; light gray inglit how still be classed by clased by classed by classed</td><td>00   30% high plasticity day. STIFF     10   20.00     11   20.00     12   14     13   20.00     14   12     15   12     16   10     17   10     17   10     10   20.00     11   12     12   14     13   12     14   186     14   186     15   155     16   155     17   19     18   186     19   11     10   11     11   125     12   12     14   186     15   155     16   155     17   19     18   100     19   11     10   11     11   125     12   1272     14   120     15   122     15   120 <td>00   a 30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   56   Sandy TUFF; light gray. Well   contribution   contribution   contribution   14   166   153:12   16     02   57   58   Sandy TUFF; light gray to light brown did by bidt brown did by bidt brown did by bidt brown did by bidt brown did by contribution   contribution   14   166   153:12   17   169   69.34   16   155:12   17   169   69.34   16   155:12   16   16   15   12   16   155   12<!--</td--></td></td></td<></td></td>	49% high plasticity clay. STIFF     67   2     94   58     94   58     97   4     97   4     97   4     93   53     94   54     97   4     97   4     97   4     93   53     Sandy TUFF; light gray to light brown; slightly to hight weathered; broken; HARD.     93   93     94   94     95   44     96   Lapilli TUFF; brown; moderately weathered; broken; HARD.     96   44     97   44     98   44     99   66     91   44     14   25     15   25     16   16     17   0     18   END OF BOREHOLE (15.00 m)     19   16     19   END OF BOREHOLE (15.00 m)     10   16     11   18     12   19     13   10	49% high plasticity clay. STIFF     7   3     94   58     94   58     97   4     97   4     97   4     93   4     93   4     93   4     93   4     93   4     94   58     Sandy TUFF; light gray to light bown; sightly to light weathered; boken; HARD.     93   4     93   4     94   56     95   66     Lapilli TUFF; brown; moderately weathered; broken; HARD.     96   66     Lapilli TUFF; brownish, gray, slightly to moderately weathered; c     97   4     44   25     62   0     10   Lapilli TUFF; brownish gray; highly weathered; generally broken; HARD.     91   16     125   0     16   16     17   10     18   END OF BOREHOLE (1500 m)     19   18     10   END OF BOREHOLE (1500 m)     116	49% high plasticity clay.   STIFF TO HARD.   10 20     94   58   Sandy TUFF; light gray; well cemented; slightly weathered; broken; VERY HARD.   COR     97   52   Sandy TUFF; light gray to light brown; slightly to highly weathered; broken; HARD.   COR     93   54   93   56   COR     93   54   52   COR     94   54   52   COR     95   54   52   COR     96   54   56   COR     97   52   Sandy TUFF; light gray to light brown; slightly to highly weathered; brown; moderately weathered; HARD.   COR     96   66   Lapilli TUFF; brownish, gray, slightly to moderately weathered; broken; HARD.   COR     91   64   25   COR   COR     62   0   Lapilli TUFF; brownish gray; highly weathered; generally broken; HARD.   COR     91   6   Lapilli TUFF; brownish gray; highly weathered; generally   COR     62   16   ENDOF BOREHOLE (15.00 m)   COR     64   16   ENDOF BOREHOLE (15.00 m)   COR     71   10   ENDOF BOREHOLE (15.00 m)   COR	89   And the set of th	89   Allow fuelows for the construction of	89   Allow high plasticity clay. STIFF     70   50     84   55     56   Sandy TUFF; light gray; well control of the co	89   A 10, Integer and the set of	89   Addition of the plasticity clay. STIFF     94   Addition of the plasticity clay. STIFF     94   56     94   58     94   58     94   58     95   58     96   58     97   52     98   58     99   59     91   96     92   58     93   58     94   58     95   58     96   101/11/11/11/11/11/11/11/11/11/11/11/11/	89   A9% tigt plasticity clay. STIFF     94   A9% tigt plasticity clay. STIFF     94   55     97   A     94   53     95   Sandy TUFF; light gray; well control (sight) weathered; broken; VERY HARD.     97   A     97   A     98   Sandy TUFF; bit gray to bit brow; sight) weathered; broken; VERY HARD.     97   A     93   bigbt weathered; taken; HARD.     94   A4     95   CORING     96   Lapilli TUFF; brown; moderately weathered; conting     96   Lapilli TUFF; brownish, gray, conting     97   A     98   A     99   Lapilli TUFF; brownish, gray, conting     91   Lapilli TUFF; brownish gray; conting     92   CORING     93   Lapilli TUFF; brownish gray; conting     94   Lapilli TUFF; brownish gray; conting     95   CORING     96   Lapilli TUFF; brownish gray; conting     97   0     19   Lapilli TUFF; brownish gray; conting     98   16     99	89   Addy tugt plasticity clay. STIFF     94   56     94   56     94   56     95   Sandy TUFF; light gray; well cemented; slightly weathered; broken; VERY HARD.   CoRING     97   52     98   Sandy TUFF; light gray to light brown; slightly to highty weathered; brown; slightly slightly to highty weathered; coRING   CoRING     93   96   Lapilli TUFF; brown; moderately weathered; HARD.   CoRING     96   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coRING   CoRING     91   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coRING   CoRING     91   Lapilli TUFF; brownish gray; slightly weathered; generally   CoRING     91   LT   48   CoRING     92   0   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     93   0   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     94   0   CoRING   CoRING     95   0   CoRING   CoRING     96   Lapilli TUFF; brownish gray; broken; HARD.   CoRING     97   0   Lapilli TUFF; brownish gray; browent hare   CoRING	89   A 196 in the positivity clay. STIFF   10 20 30   45     94   50   Sandy TUFF; light gray, well comented; slightly weathered; coming   coming   12     94   50   Sandy TUFF; light gray to light town; slightly comented; slightly weathered; coming   14     97   52   Coming   14     97   52   Coming   14     98   53   Sandy TUFF; light gray to light town; slightly coming   coming   14     97   54   66   Lapilli TUFF; brown; moderately coming   coming   17     96   14   66   Lapilli TUFF; brownish, gray, slightly to moderately weathered; coming   11     96   14   48   Coming   11     97   44   slightly to moderately weathered; coming   11     96   14   48   Coming   11     97   14   14   Sometric to coming   11     98   14   14   Sometric to coming   11     99   14   14   Sometric to coming   11     91   14   15   Coming   11	89   addr. up plasticity clay. STIFF     94   56     94   56     95   Sandy TUFF; light gray; well broker; vERY HARD.     97   56     98   56     97   56     98   56     99   56     90   56     91   56     92   56     93   56     94   56     95   Sandy TUFF; brown; body: two: staffy     96   97     97   4     98   98     99   96     90   10 [20 20]     91   11 [10 [F; brown; moderately weathered; c.g.entities     92   14     93   14     94   15     95   14     96   14     97   14     98   14     99   14     15   12     16   15     17   16     18   17     19   16	89   Santy, transplasticity clay. STIFF   10/20/20   45   63     94   56   Sandy TUFF; light gray; well commented; slightly weathered; broken; VERY HARD.   commented; slightly weathered; broken; very well commented; slightly weathered; broken; very HARD.   commented; slightly weathered; broken; very well commented; slightly weathered; broken; very weathered; broken; very weathered; broken; very weathered; tablex, HARD.   commented; slightly weathered; commented; slightly weathered; commented; slightly to moderately weathered; commented; slightly weathered; commented; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; slightly weathered; commented; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; commented; slightly weathered; slightly weathered	89   Age: high plasticity clay. STIFF   10   20   45   63   41     94   44   56   Sandy TUFF; light gray; well control weathered; continue broken; VERY HARD.   continue control weathered; continue broken; VERY HARD.   12   164   12   164   12   164   12   164   12   164   12   164   12   164   12   164   16   16   16   16   16   16   16   16   16   17   169   16   16   16   16   16   17   169   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   17   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   17   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16	89   Age: high plasticity clay. STIFF   10   22   30   45   63   41   263     97   30   77   58   Sandy TUFF; light gray; well control broken; tightly weathered; continue broken; tightly weathered;   12   164   12   164   12   164   12   164   12   164   12   164   12   164   16   15   16   16   15   16   16   15   16   16   15   16   16   15   16   16   15   16   16   15   11   15   16   16   15   16   16   15   11   15   16   16   15   16   16   15   16   16   15   11   15   17   169   11   15   16   16   16   15   11   15   11   15   16   16   16   15   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16 <td>89   Seet. high plasticity clay. STIFF     97   93   50   Sandy TUFF; light gray; well controls to booker; HVRD.   10.20.20     97   50   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   12.124     97   52   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   14.166   150.57     98   4   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   11.105   12.29     91   44   55   CORING   11.105   12.29     91   45   CORING   CORING   15.122   12.22     92   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     93   14   16   CORING   15.122   12.29     94   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     95   16   CORING   CORING   15.122   <td< td=""><td>00   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     03   Sandy TUFF; lightly veathered;     04   30% high planticity clay: STIFF     05   Sandy TUFF; light gray inglit how still be classed by clased by classed by classed</td><td>00   30% high plasticity day. STIFF     10   20.00     11   20.00     12   14     13   20.00     14   12     15   12     16   10     17   10     17   10     10   20.00     11   12     12   14     13   12     14   186     14   186     15   155     16   155     17   19     18   186     19   11     10   11     11   125     12   12     14   186     15   155     16   155     17   19     18   100     19   11     10   11     11   125     12   1272     14   120     15   122     15   120 <td>00   a 30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   56   Sandy TUFF; light gray. Well   contribution   contribution   contribution   14   166   153:12   16     02   57   58   Sandy TUFF; light gray to light brown did by bidt brown did by bidt brown did by bidt brown did by bidt brown did by contribution   contribution   14   166   153:12   17   169   69.34   16   155:12   17   169   69.34   16   155:12   16   16   15   12   16   155   12<!--</td--></td></td></td<></td>	89   Seet. high plasticity clay. STIFF     97   93   50   Sandy TUFF; light gray; well controls to booker; HVRD.   10.20.20     97   50   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   12.124     97   52   Sandy TUFF; light gray; well controls to booker; HVRD.   CORING   14.166   150.57     98   4   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   14.162   92.92     99   66   Lapilli TUFF; brown; moderately weathered; conting   CORING   11.105   12.29     91   44   55   CORING   11.105   12.29     91   45   CORING   CORING   15.122   12.22     92   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     93   14   16   CORING   15.122   12.29     94   0   Lapilli TUFF; brownish gray;   CORING   15.122   12.29     95   16   CORING   CORING   15.122 <td< td=""><td>00   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     03   Sandy TUFF; lightly veathered;     04   30% high planticity clay: STIFF     05   Sandy TUFF; light gray inglit how still be classed by clased by classed by classed</td><td>00   30% high plasticity day. STIFF     10   20.00     11   20.00     12   14     13   20.00     14   12     15   12     16   10     17   10     17   10     10   20.00     11   12     12   14     13   12     14   186     14   186     15   155     16   155     17   19     18   186     19   11     10   11     11   125     12   12     14   186     15   155     16   155     17   19     18   100     19   11     10   11     11   125     12   1272     14   120     15   122     15   120 <td>00   a 30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   56   Sandy TUFF; light gray. Well   contribution   contribution   contribution   14   166   153:12   16     02   57   58   Sandy TUFF; light gray to light brown did by bidt brown did by bidt brown did by bidt brown did by bidt brown did by contribution   contribution   14   166   153:12   17   169   69.34   16   155:12   17   169   69.34   16   155:12   16   16   15   12   16   155   12<!--</td--></td></td></td<>	00   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     01   30% high planticity clay: STIFF     10   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     11   20     02   30% high planticity clay: STIFF     03   Sandy TUFF; lightly veathered;     04   30% high planticity clay: STIFF     05   Sandy TUFF; light gray inglit how still be classed by clased by classed by classed	00   30% high plasticity day. STIFF     10   20.00     11   20.00     12   14     13   20.00     14   12     15   12     16   10     17   10     17   10     10   20.00     11   12     12   14     13   12     14   186     14   186     15   155     16   155     17   19     18   186     19   11     10   11     11   125     12   12     14   186     15   155     16   155     17   19     18   100     19   11     10   11     11   125     12   1272     14   120     15   122     15   120 <td>00   a 30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   56   Sandy TUFF; light gray. Well   contribution   contribution   contribution   14   166   153:12   16     02   57   58   Sandy TUFF; light gray to light brown did by bidt brown did by bidt brown did by bidt brown did by bidt brown did by contribution   contribution   14   166   153:12   17   169   69.34   16   155:12   17   169   69.34   16   155:12   16   16   15   12   16   155   12<!--</td--></td>	00   a 30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   30% high planticity day. STIFF   10   20   30   45   63   41   203   66   64     01   56   Sandy TUFF; light gray. Well   contribution   contribution   contribution   14   166   153:12   16     02   57   58   Sandy TUFF; light gray to light brown did by bidt brown did by bidt brown did by bidt brown did by bidt brown did by contribution   contribution   14   166   153:12   17   169   69.34   16   155:12   17   169   69.34   16   155:12   16   16   15   12   16   155   12 </td

					F	IN	AL BOREHOLE LOG	i A	NI	C	S	UľV	IM/	٩R١	(	OF	TE	ST	RE	ESI	JLT	S	: 	ML	L -	19	
ł			F .	D	asic	I-Ma	arikina River Channel Imp	o. Pr	oj.		GF (M	NUOS	ND E = Ze	LEV. ro Da	tum)	+	9.78	34				VATE					n
31							Steel, Mangahan, Pasig Ci				ST	TATIO	и ис	10.:		5+	400		1			URE			eb. 2 00 A		<u> </u>
10	ATI	ON	•		P	ATE	DRILLED: 05 - 06 February	y 200	01	•			HEF	TES:		FA 16		8.12	L	N			087				E
T			T			T		T	BLC (SF	ws	-						H.		ATTER	BERG		UNCON COMP.			VE AN		
	NO.	RECOVERY (%)		SYMBOL	CLASSIFICATION		DECORRECTION	-		T	-	P		ANDA		ST	L MOIST.	N D	LIN		SPECIFIC GRAVITY						-
	SAMPLE NO.	SAMPI F		S	SSIFI	RaD	DESCRIPTION		5 1 n cr		15 m			(SPT)			NATURAL MOIS CONTENT, 9	VEIGH	LIMIT, %	PLASTICITY INDEX %	SPE	STRENGTH kg/cm2	STRAIN A, %	4	10	40	2
	SAN	REC	1	LOG	CLA							10		30		50	z			7 Z		ST	M		_		
T		F	X		sw		Sitty Gravelly SAND; gravish brown; 36% sub angular gravel; 51% coarse to fine sand w 13% non-plastic fines. MEDIUM DENSE.	v/	5 4	4	6						11				2.65			64	32	20	_1
	SS-1	89	X		SM		Sitty Gravelly SAND; gravish brown; 38% sub angular gravel; 54% coarse to fine sand w 8% non-plastic fines. DENSE.	N/	0 2	0 2	25			/			15				2.66			62	41	20	_
	SS-2	89				0	SANDSTONE; dark brown completely weathered; broker SOFT.	n;	QF		G																
	CR-1	20			ST		TUFFACEOUS Sandstone; ligt gray; slightly weathered; broker HARD.	ht n.																			
	CR-2	50		0.	-	0	HAND.		10:		IG						-	1									Γ
i	CR-3	61	b	0		56	Conglomerate; brown completely to lightly weathered broken. HARD.	n; d, <u>c</u>	01	211	IG						21	2.12	-			140.79					-
3	CR-4	37		.0.		12			<u>0</u>	RIN	١G						-							-			+
	CR-5	46	讈.	0		0			201	RI	١G						21	1.64				105.19					$\frac{1}{1}$
8	CR-6	40	1	o()	CG	33	Conglomerate; brown; con		20	RI	١G							-									+
9	CR-7	43		0.0		23	pletely to lightly weathered, broke HARD.	n;	20	RIJ	NG								_					-	-	-	+
10	CR-8	45		0		28			20	RI	NG													-			-
	CR-9	20	NIS .	0.		0			c 0	RI	NG																
11	CR-9	30	The second																								
12	CR-10	33	THE REAL			0	Conglomerate; grayish brow completely weathered; HARD	/n;	co	RI	NG								+-				-	+	1		†
13	CR-11	24		V°.		0			<u>c</u> 0	RI	NG								_								+
	CR-12	40	The second		Ss		SILTSTONE; reddish brow completely weathered; broke SOFT.	en.			NG																-
•14	CITE	40	and the second	al-arto	ST	_0_	SANDSTONE; brownish gra moderately to highly weathere	iy;			110											1					
-15	CR-13	47				0	SOFT. END OF BOREHOLE		<u>c o</u>	RI	NG						+			-		-	-	-	-	-	-
-16		1					(15.00 m)																				
-17																											
-18																											
-																											
-19													*														
20																											_
F	-	1					MENT CODDODATION	MAC								ACE	<u> </u>		LEG	END:		SS - S				IPLE	
L	-	11		2n	d F	loor	Prudential Bank Building,	DRI				05				YAN						WS - N UDS - CR - C	UNDI	STUR	BEDS	AMP	LE
CO IL			4.5	13	11	A. N	Mabini St., Ermita, Manila	SUF	E	۲V	15	UR:		M.	ES	TAU	RA			*		W/HY				LYSIS	;

SHEET 1 OF

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Figure 5-3-3 (54/221) BORING LOGS (PHASEI)

TE: + 15.02 + 700 A I R 161501 USW TVENUO 27 25 37 37	25 14.4	5 D D T .410	DEPTH DATE TIME M	I OF V MEAS MEAS		R: D: D: 5088 4FINED TEST	01 F 1: 71.2	.60 eb. 00	200 PM
+ 700 A I R 161501 USIOW TRANLEN USIOW TRANLEN 27 25	14.4	D T .410		MEAS MEAS Shecific	SUREI	D:	01 F 1: 71.2 % P	eb. 00 1 221 VE A ASSI	
AIR 161501 USIOW TRANLENOO 27 25	1	.410		SPECIFIC SPECIFIC	STRENGTH STRENGTH COMb KgCcm <sup>2</sup>	FINED TEST	71.2 SIE % P	221 VE A	NAL NG S
. INATURAL MOIST 52	1	ATTE	ERBERG	SPECIFIC GRAVITY	STRENGTH GUND	IFINED	SIE % P	VE A	NG S
27 25				SPECIFIC GRAVITY	STRENGTH Kg/cm <sup>2</sup>	TEST	% P	ASSI	NG S
27 25				2.63	STR STR	STRAIN 2, %	4	10	40
25									
				2.63	1		100	99	83
37				1			100	89	67
37									
				2.64			74	63	38
									-
	-				95.069	4.228	+-		-
			-						-
	-		<u> </u>		99.529	4.571	-	-	-
			_						
			_						$\vdash$
			_		65.32	3.125			
					106.40	4.741			
			_		109.7	5 4.780			
-	+		_	-	109.55	4.690	-	-	$\left  \right $
	+				-	-			-
						109.73	109.75 4.780		109.75 4.780

0.	JE	C	r: 1	Pas	ig-N	larikina River Channel Imp.	Pre	oj.	(		Zero	Dat		+ 16.1	85				VATE				201
		ON				n Mills, Mangahan, Pasig Cit				STATIO				5 + 900									
NO		RM	1-2			E DRILLED: 05 - 06 February		1	-	VEATH OORDI				FAIR 16150	03.1	_		I,		089			
SAMPLE NO.		RECOVERY (%)		CLASSIFICATION	RQD	DESCRIPTION	E	(SP		PEN			D TEST	NATURAL MOIST. CONTENT %	TAL UNIT		RBERG	SPECIFIC GRAVITY		TEST		VE AI	
SAMP		RECOV	LOG S	CLASS			cm	cm	cm	10	(N-V 20 3		:) 10 50		TO.	רושובי רוסח	PLASTI INDEX	50	STRENGTH kg/cm <sup>2</sup>	STRA Z. 9	4	10	40
	T	100		SM		Sitty SAND; brownish gray, 42% non-plastic sitt; 25% med. sand; 28% fine sand wilittle amt. of coarse sand and gravel. V. LOOSE.	2	1	2					32				2.62			97	95	70
SS-3		100		сн		Sandy CLAY; brownish gray; 20% fine sand; 78% high plasticity clay. FIRM.	3	2	3					55		65	43	2.61			100	99	98
SS		89				Sitty SAND; grayish brown; 35% non-plastic sit; 58% fine sand with fittle amount of coarse and medium sand; MEDIUM DENSE.	4	4	5					42				2.63			98	97	93
ss-	4	75		SM		Silty SAND; grayish brown; 27% non- plastic silt; 36% medium sand; 21% fine sand with traces of coarse sand and	20	31	19/10		1	1	·										
ss-t	5	71				gravel; VERY DENSE.	25	25	21/12					27	-			2.63			93	84	4
CR-	1	89	AA	Tf	78	cemented; fresh to slightly weathered; HARD.	c	OR	ING					22	1.75				90.302	3.144			-
CR-	2	70			23	Sandstone; gray slightly to moderately weathered; broken; HARD.	c	OR	ING					14	1.75				62.174	1.953			
CR-	3	52			32	Sandstone; light brown; slightly to moderately weathered; broken;	c	OR	ING					34	1.48				12,317	0.804			
CR-	4	65			54	SOFT. Sandstone; yellowish brown;	c	OR	ING					-									-
CR-	5	60		ST	0	highly to to completely weathered; generally broken; SOFT.		OR	ING							-							
CR-	6	62			44	Sandstone; light gray; slightly weathered to fresh; well cemented; broken; HARD.	с	OR	ING					13	1.84	-			87.316	2.756			
CR-	7	60			60		c	OR	ING					16	1.73			-	77.722	2.191			-
CR-	8	53			44	Tuffaceous Sandstone; light gray; fresh to slightly weathered; broken; HARD.		OR	INC					22	1.72	-			102.77	2.688			
CR-	9	52			25	Sandstone; light gray; slightly	_	OR	ING					21	1.73				116.979	3.735			
<u>CR-1</u>	0	57	<u> </u>	; 	39	Weathered broken; HARD. END OF BOREHOLE (15.00 m)		OR	ING		-			12	1.82				72.876	1.882	- 17		-
		-10	B	AS							AC		RAC		1	LEGE							L
		цÌ	21	AN/	AGE	MENT CORPORATION Prudential Bank Building, DF	RILL	.Ef	R:	OR:	R	. D.	AWI			1		v	SS - SP VS - W JDS - L	ASH S	AMPI	.E ED S/	

																		L	HEE	Т	1	OF	1
				FIN	AL BOREHOLE LOG		N					OF	= T	ES	ST	R	ESI	ULI	rs		ML	<u>L -</u>	2
OJ	ECT	Г: F	asi	g-M	arikina River Channel Imp	o. Pr	oj.	()	ROUNI MLLW =	Zero	Date				5_					R:		.10 an (	200
CAT	ION		B	ank,	PBM Steel Corp., Pasig	City	/	15	TATIO		).: _		+ 15 FAIF							):			
NO:	BM	LL-2		ATE	DRILLED: _30 - 31 January	/ 200	21		OORD	NAT	ES:		1614	859	1		BERG	l <u>.                                    </u>	5 UNCON	092		00 VE AN	
SAMPLE NO.	RECOVERY (%) SAMPLE	LOG SYMBOL	CLASSIFICATION	DESCRIPTION			(SF			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50				CONTENT, %	B/6	LIM	ITS	SPECIFIC GRAVITY	COMP.	TEST		10	
SS-1	89		GM		Silty Sandy GRAVEL; gray; 41% angula gravel; 41% fine to coarse sand; 18% non plastic silt; MEDIUM DENSE.	1-	) 9	9 6						28				2.66			59	45	29
SS-2	89					9	1:	2 13					-										
SS-3	89 89	V					7 0 1	1 12						55		69	_46_	2.60				100	9
SS-4 SS-5	89				Silty CLAY; grayish brown 85-97% high plasticity clay; with	h	ę	9 10					-										
SS-6	89		сн		traces of gravel and medium to fine sand; VERY STIFF.		2 1	2 14		$\left \right\rangle$			-	30		58	30	2.60			96	95	9
SS-7 SS-8	89 89							0 <u>11</u> 3 9						33		61	37	2.60			97	97	9
SS-9		P				2	1	0 12						26		70	48	2.60			97	93	8
SS-10	89				Gravelly CLAY; light gravish brown; 59% high plasticity clay; 23% sub-angula	% ar	2 1	3 13															-
	100	X			gravel; 18% fine to coarse sand. HARC			7 <u>19</u> 21 30						<u>30</u> 42		60 49	35 27	2.61			77 +- 100	<u>71</u> 97	
SS-13					Sandy CLAY; brown to ligh brown; 52-61% high to lov plasticity clay; 4-15% mediur sand; 30-34% fine sand; HARD	nt w 2 m 2	5 3	15						46		46	20	2.61			100	99	
SS-14	20				Sand, 00 0470 mile Sand, TIARL		6	22															
<u>SS-15</u>	63				End of Borehole (14.90 m)	2	5 3	38 5						45		53	23	2.61			100	99	1
:1		21	IAN/	AGE	MENT CORPORATION Prudential Bank Building,	RIL	LE	R:	OR:	J.	MA M. I	DER DER ESTAL	A URA	Ē					NS-W JDS-I CR-C	LIT SI ASH S UNDIS ORE S	Sampi Turb Ampl	LE ED S/ E	AM
					Figure 5-3-3 (57/221)	BO	RI	NG	LOC	s (	(PH	[AS]	EI)			naliçi e	a eteorita				******	. 5-	NOT IN

		_		_			NAL BOREHOLE LOG			G	ROL	JND	FIF	V	n) <u>+</u>							R:	ML 3.	The strends	
2 (	J	EC	ст	: <u>F</u>	asi	ig-l	Aarikina River Channel Imp.	,	1					:		650						D:			
C	AT	10	N:	-	<u> </u>	B	ank, Manggahan, Pasig City	200	)1			THE		S:		1478	2 10	1				0959			١M
1	10:			L-2		TAC	E DRILLED: 26 - 27 January		LOV	vs		(DIN	AIE	5	10	1		ATTER	BERG	I,	UNCON	FINED	SIE	VE AM	
	SAMPLE NO.	RECOVERY (%)	SAMPLE	LOG SYMBOL	DESCRIPTION 15 mm				(SP) 15 cm	15 cm	STANDARD PENETRATION T (SPT)			ION TI T) LUE)		NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc		PLASTICITY INDEX, %	SPECIFIC GRAVITY	STRENGTH S kg/cm2	M STRAIN	% P/	10	4G 8
	ss-1		X	1	0		Silty CLAY; gray; 97% high plasticity clay; FIRM.	2	2	3	1					37		73	49	2.60			100	99	9
	ss-2						Gravelly Sandy CLAY; gray; 22% sub-angular gravel; 47% high plasticity clay; 31% coarse to fine sand; SOFT To FIRM.	3		4						52		59		2.63			78	62	5
	SS-3		X		СН			2		3						68		68	43				10	100	
	SS-4 SS-5		X				Sandy CLAY; dark gray to gray; 69-90% high plasticity clay; 4- 11% medium sand; 6-14% fine		4							55		52	30	2.61			יי 100	99	
	SS-6		X				sand; with little amount of coarse sand; FIRM TO STIFF.	3	4	5						52		62	41	2.61			99	94	
	SS-7	8	• X		-	-	Silty Gravelly SAND; brown;	4	4	6		~													-
1100	SS-8	7	B		SM	И	66% fine to coarse sand with 21% sub-angular gravel and 13% non-plastic fines; MEDIUM DENSE to DENSE.	9		2 14						-									
	SS-9 SS-10		X					14		8 17			/	2						2.64			79	64	
	SS-11	8	9				Silty CLAY; light brown; 96% high plasticity silty clay with traces of fine sand; VERY	7	10	0 9						51		71	40	2.60			100	99	
	SS-12	2 8	9		CH		STIFF.		9	10						-		-							
	SS-13	8 8	e X						9	12			1			37		71	50	2.60	<u> </u>			100	
	SS-14		X				Sandy CLAY; brown; 82% high plasticity clay; 16% fine sand; HARD.			2 24 9 21					7	31		53	30	2.6	1			100	)
		0		1			End of Borehole (15.00 m)																		
		-		M	AN	AG	EMENT CORDORATION	ACH							R A		_		END:	,	ws-v	PLIT S VASH		LE	

Figure 5-3-3 (58/221) BORING LOGS (PHASEI)

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			FIN	AL BOREHOLE LOG	A	ND	5	UMMA	RY	0	FΤ	E	ST	RI	ESI	UL	ГS		ML.	L -	24
		Dec		arikina River Channel Imp.			G	ROUND EL	FV					DE	PTH	OF V	VATE	R:	1	.00	
		Pas	1	. Bank, Santolan, Pasig			S	TATION NO	D.: _		8 + 4	50						D: D:			
TION	1: 	24 1	DATE	DRILLED: 07 - 08 January	200	01	-	VEATHER: DORDINAT			FAII 1616		9.50	-	N			5085		*:	101
						BLOV	vs								BERG		UNCO	NFINED	SIE	VE AN	
RECOVERY (%)	LOG SYMBOL		RQD	DESCRIPTION	-	15		PENETR	SPT) /ALUE	I TEST E)		CONTENT, %	TOTAL UNIT WEIGHT, g/cc		PLASTICITY INDEX %	SPECIFIC GRAVITY			4	10	40
		СН		Silty CLAY; brown; traces of fine sand; 91% high plasticity silty clay; SOFT.	1	1	1				-	43		59	35	2.60				100	99
-1 89 -2 89	XII			Silty SAND; gray; 42% non-plastic silt; 49% fine sand with little amount of gravel and coarse to medium sand; VERY LOOSE.	1	1	2				-	46				2.62			97	94	91
-3 89		SM		Silty Gravelly SAND; gray; 14% non-plastic silt; 27% sub-rounded gravel; 11% medium sand; 45% fine sand with little amount of	2	3	10				-	32				2.64			73	70	59
4 89			10	coarse sand; MEDIUM DENSE. Silty CLAY; light gray; 81% high plasticity silty clay with traces of gravel		8	12				-										
-5 100	É			and coarse to fine sand; VERY STIFF.		13						27		70		2.61			91		85
-6 100	É			Sandy CLAY; brown; 2-14% fine sand; 85-97% high plasticity		5 18 3 20						31		64	39	2.60				100	99
-8 89	E			clay; HARD.		21															
-9 100					2	0 22	25			$\left  \right\rangle$		33		66	35	2.60	<u></u>		100	99	99
10 100		CH			2	3 24	26				-	56		66	36	2.60	<u></u>		100	98	97
-11 100					2	0 22	28				-										
12 100	K			Silty CLAY; light to dark gray; little amount of coarse to fine sand; 87-96% high plasticity silty		5 24	23				-	44		63	35	2.60	2		100	97	90
13 100	M			clay; HARD.		2 23	25					43		61	31	2.60	<u> </u>		100	98	97
14 100	X					5 24														05	
16 100	P					4 23						37		73	40	2.60			98		92
				End of Borehole (16.00 m)																	
	E	BAS		ECHNOLOGY AND M									1	LEGE	END:	1	1	1		1	
	2	nd f	AGE loor	Prudential Bank Building, DI	RILI	LEF	<b>२</b> :		CAS JIME M.	NEZ		E	-				WS-W UDS- CR-C	PLIT S VASH : UNDIS ORE S	SAMP	LE BED S. .E	

		EC	T · 1	Pas			AL BOREHOLE LOC arikina River Channel Im				GI (N	ROUND E	LEV. ro Da	itum)	_+ ^	3.98		DE	PTH	OF V	VATE	R:	1	.50	
				a	19	1	Bank, Santolan, Pasig			_ }		TATION N									URE				
)(	CAT	DN		5	D	TE	DRILLED:06 January 2	2001		_		ORDINA					3.10	1		I,		0838			
1													1						RBERG		UNCO	FINED	SIE % P	VE A	NAL NG :
	SAMPLE NO.	RECOVERY (%	LOG SYMBOL	CI ASSIFICATION		ROD	DESCRIPTION		15 :m	15 cm c	15 :m	PENET	(SPT) -VALU	N TE: JE)	50	NATURAL MOIST. CONTENT, %	TOTAL UNI WEIGHT, g/	LIMIT, %	PLASTICITY INDEX, %	SPECIFIC GRAVITY	STRENGTH kg/cm2	STRAIN Z. %	4	10	4
	SS-1		X	CI	H		Sandy CLAY; brown; 32% fir sand; 66% high plasticity cla SOFT.			2	L					30		54	32	2.61			100	99	5
	SS-2 SS-3						Clayey SAND; gray to grayis brown; 13% gravel; 10% coars	sh		2						31		55	32	2.63			87	77	
	SS-4		X	S	c		sand; 26% medium sand; 16 fine sand; 35% high plastici clay; LOOSE to DENSE.	%	5	7	7		/												
	SS-5		XII		_	_				21			1	7			-			200			0.9	93	
5	SS-6 SS-7			s	м		Silty SAND; grayish brown brown; 61% fine sand wi traces of coarse to mediu sand; 23% non-plastic silty fine DENSE.	ith		20										2.63			98	93	
	SS-8									22						23		52	27	2.6	2			100	
9	SS-9 SS-10		X	s	c		Clayey SAND; brown; 54% fi sand with little amount medium sand; 42% hi plasticity clay; DENSE.	of		23															
2	SS-11 SS-12		N.		_		Silty CLAY; brown; 97% hi			24 19					Å	33		62	42	2.6	0			10	0
3	SS-13		X		сн		plasticity clay; HARD.			28															
4	SS-14	4 89					Sandy CLAY; brownish gra 32% fine sand; 67% hi plasticity clay; HARD.	ay; igh		26	18.						-				-		+.		_
5	<u>SS-18</u>	5 78					End of Borehole (14.90 m)		32	32	15	5				25	5	57	36	2.6	1		-	10	0
17	4-11- 3-12-	8 8																							
20																									
ł	:				N/ F	GE	MENT CORPORATION Prudential Bank Building,	MA( DRI	LL	EF	<b>?</b> :	F	I. C. JEI	ASC. MEN	R A( AYAN EZ TAU AFUE	RA		LEC			WS - UDS - CR - 0	WASH UNDI CORE	SAM STUR SAMF	PLE BED PLE	SA

and the second se