

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 5a

PROJECT: Pasig-Marikina River Channel Imp. Proj.					GROUND ELEV. (MLLW = Zero Datum) + 13.290					DEPTH OF WATER: 4.00 m.				
LOCATION: Left Bank, Lambingan Br., Sta. Ana, Mla.					STATION NO.: 9 + 925					DATE MEASURED: 22 Nov. 2000				
BH NO: BL-5 DATE DRILLED: 21 - 22 November 2000					WEATHER: FAIR					TIME MEASURED: 2:00 PM				
					COORDINATES: 1613200.727 N, 501933.024 E									

DEPTH, m	SAMPLE NO.	RECOVERY (%)	SAMPLE LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	200
1	SS-1	67		CH		Sandy CLAY; grayish brown; 47% medium to high plasticity clayey fines; 29% fine to coarse sand; 24% gravel; SOFT To FIRM.	3	5	3	10	24	59	33	2.64			76	68	58	47	
2	SS-2	67		CH			4	3	4												
3	SS-3	67		SM		Silty Fine SAND; dark gray; 72% fine sand; 11% medium sand; 14% non-plastic silt; LOOSE.	2	3	6												
4	SS-4	56		SM			3	3	3		30			2.63			99	97	86	14	
5	SS-5	67		SM			5	3	8												
6	SS-6	67		SP		Fine to Medium SAND; dark gray; 73% fine to medium sand; 13% non-plastic silt; 8% coarse sand and 6% gravel; LOOSE TO MEDIUM DENSE.	5	7	6												
7	SS-7	67		SP			3	5	7		23			2.63			94	86	62	13	
8	SS-8	67		SP			1	3	6												
9	SS-9	67		SW			13	14	14												
10	SS-10	67		SW		Gravelly SAND; dark gray; 68% well-graded sand; 29% gravel; very little fines; MEDIUM DENSE.	10	10	12		14			2.64			71	45	15	3	
11	SS-11	67		SW			7	11	11												
12	SS-12	67		SW			2	2	2												
13	UDS-1	100		CH		Silty CLAY; dark gray; 88-91% very high plasticity clay with about 9% fine to coarse sand and traces of gravel and shell fragments; FIRM TO VERY STIFF towards the bottom layer.	PRESSED				91	1.34	81	52	2.60	0.16	8.00	97	92	91	88*
14	SS-13	67		CH			4	3	3												
15	SS-14	67		CH			3	2	2												
16	SS-15	67		CH			2	2	3												
17	SS-16	67		CH		Silty CLAY (same as above) VERY STIFF	10	14	16		93	80	45	2.60			100	99	97	91	
18	SS-17	67		SM		Silty SAND; dark gray; fine to coarse sand with shell fragments and non-plastic silt; DENSE.	11	13	25												
19	CR-1	45		ST	15	SILTSTONE; brown; fine grained; moderately cemented; broken core; HARD.	CORING														
20	CR-2	39		ST	23		CORING				31	1.62			46.14	1.48					



BASIC TECHNOLOGY AND MANAGEMENT CORPORATION
 2nd Floor Prudential Bank Building,
 1377 A. Mabini St., Ermita, Manila

MACHINE: ACKER ACE

DRILLER: R. ANDO

SUPERVISOR: M. Estaura

LEGEND:




SS - SPLIT SPOON SAMPLE
 WS - WASH SAMPLE
 UDS - UNDISTURBED SAMPLE
 CR - CORE SAMPLE
 W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (16/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 5b

PROJECT: Pasig-Marikina River Channel Imp. Proj.GROUND ELEV.
(MLLW = Zero Datum) + 13.290DEPTH OF WATER: 4.00 mLOCATION: Left Bank, Lambingan Br., Sta. Ana, Mla.STATION NO.: 9 + 925DATE MEASURED: 22 Nov. 2000BH NO: BL-5 DATE DRILLED: 21 - 22 November 2000WEATHER: FAIRTIME MEASURED: 2:00 PMCOORDINATES: 1613200.727 N, 501933.024 E

DEPTH, m	SAMPLE NO.	RECOVERY (%) SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200
21	CR-3	44		SS	0	SILTSTONE; brown; fine-grained; moderately cemented; broken core; HARD.	CORING														
21						End of Boring (21.00 m)															
22																					
23																					
24																					
25																					
26																					
27																					
28																					
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31																					
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38																					
39																					
40																					



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* W/ HYDROMETER ANALYSIS

Figure 5-3-3 (17/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 6

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 12.923

DEPTH OF WATER: 0.75 m

LOCATION: Left Bank, Mabini St., Poblacion Makati

STATION NO.: 12 + 955

DATE MEASURED: 23 Nov. 2000

BH NO: BL - 6 DATE DRILLED: 22 - 23 Nov. 2000

WEATHER: FAIR

TIME MEASURED: 4:15 PM

COORDINATES: 1611162.445 N, 503385.667 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT)					NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm	(N-VALUE)							LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	200
										10	20	30	40	50											
1	SS-1	67		CH		Sandy CLAY; brown to dark gray; 59% medium to high plasticity clay with 31% fine sand and 10% medium to coarse sand; FIRM To VERY STIFF.	7	8	8						35	52	28	2.62			100	97	90	56	
2	SS-2	78		CH			4	3	2																
3	SS-3	78		CH			4	5	5																
4	SS-4	67		GM		Sandy GRAVEL; dark gray; 49% sub-angular gravel with 31% fine to coarse sand and 20% non-plastic silt; DENSE.	15	50						38				2.63			51	43	33	20	
5	SS-5	78		GM			25	50																	
6	CR-1	100			100		CORING																		
7	CR-2	100			100		CORING																		
8	CR-3	100		LT	100	Lapilli TUFF; light brown to yellowish brown; medium to coarse grained; well cemented; solid cores; VERY HARD.	CORING																		
9	CR-4	100		LT	100		CORING							24	1.77			18.50	1.44						
10	CR-5	100		LT	100		CORING																		
11	CR-6	100		LT	100		CORING																		
12						End of Boring (10.55 m)																			
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									



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CR - CORE SAMPLE
W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (18/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 7

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 17.415

DEPTH OF WATER: 4.80 m

LOCATION: Left Bank, West Rembo, Makati

STATION NO.: 15+ 255

DATE MEASURED: 23 Nov. 2000

BH NO: BL - 7 DATE DRILLED: 22 - 23 Nov. 2000

WEATHER: FAIR

TIME MEASURED: 7:30 AM

COORDINATES: 1610995.762 N, 505572.421 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200
1	SS-1	55		SM		Silty SAND; dark brown; 43% fine to coarse sand; 23% gravel; 34% non-plastic silt; MEDIUM DENSE.	5	10	7		18				2.64			77	67	51	3
2	SS-2	11					50/8														
3	SS-3	11		TS		Tuffaceous SANDSTONE; light to dark brown; fine to medium grained, moderately cemented; broken cores; HARD.	50/9														
4	CR-1	100			80		CORING														
5	CR-2	30			20		CORING														
6	CR-3	25		SP	20		CORING														
7	SS-4	44				Gravelly SAND; dark brown; about 50% coarse sand with 40% sub-angular gravel; VERY DENSE.	15	50/5													
8	CR-4	71			47		CORING														
9	CR-5	90			85		CORING														
10	CR-6	90			80		CORING				24	1.73			44.82	2.35					
11	CR-7	91		TS	82	Tuffaceous SANDSTONE; dark brown to yellowish brown; medium to coarse grained; well cemented; moderately fractured cores; VERY HARD to HARD.	CORING														
12	CR-8	30			20		CORING														
13																					
14	CR-9	70			47		CORING														
15	CR-10	25			12		CORING														
16						End of Borehole (15.36 m)															
17																					
18																					
19																					
20																					



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WI - HYDROMETER ANALYSIS

Figure 5-3-3 (19/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 8

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 7.700

DEPTH OF WATER: 3.50 m.

LOCATION: Left Bank, Napindan Flood Gate, Pasig

STATION NO.: 0 + 400

DATE MEASURED: 10 Dec. 2000

BH NO: BL - 8 DATE DRILLED: 10 December 2000

WEATHER: FAIR

TIME MEASURED: 7:00 AM

COORDINATES: 1610157.687 N, 507538.111 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200
1	SS-1	89		SW		Gravelly SAND; gray; 50-69% well graded sand with 29-47% gravel; very little fines; LOOSE to MEDIUM DENSE.	1	5	4		12				2.64			71	46	12	2
2	SS-2	89					3	2	2												
3	SS-3	89					11	9	6		9				2.65			53	31	12	3
4	SS-4	78		ML		Clayey SILT; brownish gray; low plasticity silt with fine sand and traces of gravel; VERY STIFF.	4	7	11												
5	SS-5	89		CH		Sandy CLAY; grayish brown; 60 - 86% medium to high plasticity clay with 14 - 31% fine to coarse sand and traces of gravel; VERY STIFF.	6	8	8												
6	SS-6	89					5	5	10		40				2.64			91	78	67	60
7	SS-7	89					6	7	9												
8	SS-8	89					7	9	8												
9	SS-9	89		SM		Silty SAND; brown; 63% very fine sand with 15% non-plastic silty fines; 16% medium sand and 5% gravel; MEDIUM DENSE To DENSE.	8	8	9		29	58	29	2.61				100	99	97	86
10	SS-10	78					7	8	11												
11	SS-11	78					8	12	13												
12	SS-12	78					9	13	20		29			2.64				95	84	78	15
13	SS-13	44		ST		SANDSTONE; brown; fine grained; generally broken; HARD.	15	16	34												
14	CR-1	20			0		CORING														
15	CR-2	20			0		CORING														
16						End of Borehole (15.00 m)															
17																					
18																					
19																					
20																					



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SUPERVISOR: M. Estaura

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SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ HYDROMETER ANALYSIS

Figure 5-3-3 (20/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 9a

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 13.736

DEPTH OF WATER: 0.75 m.

LOCATION: Left Bank, Vargas Bridge, Pasig City

STATION NO.: 1 + 325

DATE MEASURED: 14 Nov. 2000

BH NO: BL-9 DATE DRILLED: 12 - 14 November 2000

WEATHER: FAIR

TIME MEASURED: 12:00 NN

COORDINATES: 1611031.716 N, 507843.905 E

COORDINATES: 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																							
DEPTH, m	SAMPLE NO.	RECOVERY (%)	SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE				
								15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200	
1	SS-1	33			GM		Sandy GRAVEL; brown to gray; 37% sub-angular gravel; 33% fine to coarse sand; 30% non-plastic fines; VERY DENSE.	4	9	50		17			2.63			63	52	44	30		
2	SS-2	33			SW		Fine To Coarse SAND; gray; well-graded with some gravel; LOOSE.	5	3	2													
3	SS-3	33						2	4	2													
4	SS-4	33			SW		Gravelly SAND; gray; 46% well-graded sand with 40% sub-angular gravel; 14% non-plastic silty fines; VERY LOOSE To MEDIUM DENSE.	2	1	1		14			2.64			60	47	28	14		
5	SS-5	67			GW			4	9	2													
6	SS-6	33						2	2	2													
7	SS-7	44			SW		Gravelly SAND; dark gray; 69% coarse to medium sand; 28% gravel; with little amount of non-plastic silt; MEDIUM DENSE to LOOSE.	12	11	12		11			2.63			72	35	3	2		
8	SS-8	100						4	3	4													
9	SS-9	100						4	2	2													
10	UDS-1	100						PRESSED				39	1.73	71	47	2.61	Cc 0.455 Pc 1.930	0.24	14.25	100	93	83	76*
11	SS-10	100						2	2	2		48		63	39	2.60			99	98	98	92	
12	UDS-2	100			CH			PRESSED				50	1.62	67	38	2.60	Cc 0.625 Pc 1.650	0.86	6.86	100	99	98*	
13	SS-11	100					Silty CLAY; dark gray; 76-98% very high plasticity clay with little amount of very fine sand; FIRM.	2	3	3													
14	UDS-3	100						PRESSED				55	1.52	71	44	2.60	Cc 1.060 Pc 2.170		100	91	90	89	
15	SS-12	100						3	2	2													
16	SS-13	100						4	2	2		77		74	50	2.61			100	98	95	91*	
17	SS-14	100						3	2	2													
18	SS-15	100						3	3	3													
19	SS-16	100						2	3	3		51		64	37	2.61			100	98	85		
20	SS-17	67			GW		Sandy GRAVEL; dark gray; angular gravel with coarse to medium sand; (Tuffaceous Sandstone); VERY DENSE.	50	10														



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SUPERVISOR: M. Estaura

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (21/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 9b

PROJECT: Pasig-Marikina River Channel Imp. Proj.GROUND ELEV.
(MLLW = Zero Datum) + 13.736DEPTH OF WATER: 0.75 m.LOCATION: Left Bank, Vargas Bridge, Pasig CitySTATION NO.: 1 + 325DATE MEASURED: 14 Nov. 2000BH NO: BL-9 DATE DRILLED: 12 - 14 November 2000WEATHER: FAIRTIME MEASURED: 12:00 NNCOORDINATES: 1611031.716 N, 507843.905 E

DEPTH, m	SAMPLE NO.	RECOVERY (%) SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %,	4	10	40	200
21	CR-1	50		TS	48	Tuffaceous SANDSTONE; dark gray; medium to coarse grained; well-cemented; HARD.	CORING														
22	CR-2	50			46		CORING														
23						End of Boring (22.00 m)															
24																					
25																					
26																					
27																					
28																					
29																					
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WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
* - HYDROMETER ANALYSIS

Figure 5-3-3 (22/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 10a

PROJECT: Pasig-Marikina River Channel Imp. Proj.					GROUND ELEV. (MLLW = Zero Datum) + 15.581					DEPTH OF WATER: 5.70 m.				
LOCATION: Left Bank, Antonio Dr., Maybunga, Pasig					STATION NO.: 3 + 275					DATE MEASURED: 14 Nov. 2000				
BH NO: BL-10 DATE DRILLED: 11 - 14 November 2000					WEATHER: FAIR					TIME MEASURED: 10:00 AM				
					COORDINATES: 1612670.611 N, 508777.181 E									

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN N, %	4	10	40	200
1	SS-1	67		SW		Gravelly SAND; light brown; 66% well-graded sand; 24% gravel; 10% non-plastic fines; MEDIUM DENSE.	14	15	8		33			2.64		76	54	27	10		
2	SS-2	33					1	1	0												
3	SS-3	44					1	2	3												
4	SS-4	44		GW		Sandy GRAVEL; brown; 59% sub-angular gravel; with 28% coarse to medium sand; little amount of non-plastic fines; VERY LOOSE TO LOOSE.	2	3	3		29			2.65		41	24	13	9		
5	SS-5	44					3	3	2												
6	SS-6	33					2	3	2												
7	SS-7	44		GM		Sandy GRAVEL; gray; 42% sub-angular gravel; 38% fine to coarse sand; 20% non-plastic fines; MEDIUM DENSE.	8	7	5		52			2.64		58	47	31	20		
8	SS-8	89					11	7	5												
9	SS-9	67					8	26	20												
10	SS-10	56		SW		Gravelly SAND; gray to brown; 67% fine to coarse sand with 26% sub-angular gravel; 7% non-plastic fines; MEDIUM DENSE TO DENSE.	8	10	16		11			2.65		74	54	20	7		
11	SS-11	56					15	19	21												
12	SS-12	56					17	21	23												
13	SS-13	89					3	3	3		62	72	49	2.60		100	99	98	94		
14	SS-14	89					5	2	2												
15	UDS-1	56					PRESSED				45	1.60	69	43	2.60	1.05	4.57	100	99	87*	
16	SS-15	89		CH			3	3	3												
17	UDS-2	56					PRESSED				26	1.90	57	36	2.61	1.13	4.57	100	99	79*	
18	SS-16	89				Sandy CLAY; gray; 74-79% medium to high plasticity clayey fines with 20-26% very fine sand; STIFF.	2	4	6		35	56	34	2.61				100	74		
19	SS-17	89					3	4	4												
20	SS-18	89					4	4	4												



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DRILLER: E. RIEZA

SUPERVISOR: M. Estaura

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ HYDROMETER ANALYSIS

Figure 5-3-3 (23/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 10b

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 15.581

DEPTH OF WATER: 5.70 m.

LOCATION: Left Bank, Antonio Dr., Maybunga, Pasig

STATION NO.: 3 + 275

DATE MEASURED: 14 Nov. 2000

BH NO: BL-10 DATE DRILLED: 11 - 14 November 2000

WEATHER: FAIR

TIME MEASURED: 10:00 AM

COORDINATES: 1612670.611 N, 508777.181 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	200
21	UDS-3	56								PRESSED											
22	SS-19	89					4	5	3		38	68	46	2.60					100	99	
23	SS-20	78					8	10	13												
24	SS-21	78					8	10	10												
25	SS-22	89					7	12	14		35	72	46	2.60				100	99	96	
26	SS-23	78					13	18	18												
27	SS-24	89					7	9	13												
28	SS-25	89					9	13	17		36	70	44	2.60				100	99		
29	SS-26	89					8	10	12												
30	SS-27	80					50/48	9			13			2.65			56	41	22	13	
31	SS-28	33					50/40														
32	SS-29	89					24	13	17												
33	SS-30	89					11	13	16		42	61	40	2.60				100	99	98	
34	SS-31	89					10	13	14												
35	SS-32	67					10	14	14		51	67	43	2.60				100	98		
36						End of Boring (35.00 m)															
37																					
38																					
39																					
40																					



BASIC TECHNOLOGY AND MANAGEMENT CORPORATION
2nd Floor Prudential Bank Building,
1377 A. Mabini St., Ermita, Manila

MACHINE: ACKER ACE

DRILLER: E. RIEZA

SUPERVISOR: M. Estaura

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
* W/ HYDROMETER ANALYSIS

Figure 5-3-3 (24/221) BORING LOGS (PHASE1)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 11

PROJECT: Pasig-Marikina River Channel Imp. Proj.LOCATION: Left Bank, Litton Mills, Manggahan, PasigBH NO: BL - 11 DATE DRILLED: 09 - 10 Dec. 2000GROUND ELEV.
(MLLW = Zero Datum) + 7.990STATION NO.: 4 + 900WEATHER: F A I RDEPTH OF WATER: 2.50 mDATE MEASURED: 10 Dec. 2000TIME MEASURED: 7:50 AMCOORDINATES: 1614296.587 N, 508760.641 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE) 10 20 30 40 50	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200
1	SS-1	89		CH		Sandy CLAY; gray; 83% very high plasticity clay with 16% very fine sand; VERY SOFT.	1	0	0		71		76	55	2.61			100	99	99	8
2	SS-2	89		CH		Sandy CLAY; dark gray; 63% high plasticity clay with 19% fine to coarse sand and 18% gravel; FIRM.	1	0	0												
3	SS-3	89		CH			11	2	3		51		59	35	2.61			82	76	69	6
4	SS-4	89		SM		Silty SAND; yellowish brown; 75% fine to coarse sand; 23% non-plastic silt; VERY DENSE.	19	30	20												
5	SS-5	100		SM			50		7		48				2.63			98	64	42	2
6	CR-1	72		TS	50	Tuffaceous SANDSTONE; gray; medium grained; moderately weathered; HARD.	CORING				28	1.70				149.286	3.808				
7	CR-2	50		ST	45	SILTSTONE; light brown; fine grained; broken cores; HARD.	CORING														
8	CR-3	30		ST	24		CORING														
9	CR-4	60		ST	51		CORING				35	1.68				54.82	1.841				
10	CR-5	75		LT	64	Lapilli TUFF; brown; medium to coarse grained; moderately cemented; HARD.	CORING				23	1.90				78.928	2.253				
11																					
12	CR-6	53		LT	42		CORING														
13	CR-7	67		LT	54		CORING														
14																					
15	CR-8	75		TS	60	Tuffaceous SANDSTONE; dark gray; medium grained; well cemented; solid cores; VERY HARD.	CORING				27	1.91				132.004	3.181				
16						End of Borehole (15.00 m)															
17																					
18																					
19																					
20																					



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2nd Floor Prudential Bank Building,
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MACHINE: ACKER ACEDRILLER: E. RIEZASUPERVISOR: M. ESTAURA

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (25/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 12

PROJECT: Pasig-Marikina River Channel Imp. Proj.

LOCATION: Left Bank, PBM Steel, Manggahan, Pasig

BH NO: BL - 12 DATE DRILLED: 07 Dec. 2000

GROUND ELEV.
(MLLW = Zero Datum) + 8.340

STATION NO.: 6 + 175

WEATHER: FAIR

DEPTH OF WATER: 4.20 m

DATE MEASURED: 07 Dec. 2000

TIME MEASURED: 3:00 PM

COORDINATES: 1614838.573 N, 509235.042 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	20
1	SS-1	100		CH		Silty CLAY; brownish gray; 82% medium to high plasticity clay with 17% fine to coarse sand; SOFT.	1	1	3		44	57	36	2.61				99	96	91	87
2	SS-2	100				Silty CLAY; brownish gray; medium to high plasticity; STIFF to VERY STIFF.	3	5	7												
3	SS-3	89					7	12	13												
4	SS-4	100				Silty CLAY; light brown to creamy brown; 71% medium plasticity clay; 18% fine to coarse sand; 11% gravel; HARD.	14	17	17		40	52	30	2.61				89	82	76	71
5	SS-5	100					9	12	24												
6	SS-6	89		CL			13	21	21												
7	SS-7	88				Sandy CLAY; brown; 52% low to medium plasticity silt; 41% fine sand; 6% gravel; HARD.	19	20	30		50	46	20	2.63				94	94	93	52
8	SS-8	78		SM		Silty SAND; brown; 65% medium to fine sand; 13% gravel and coarse sand; 22% non-plastic silt; DENSE.	12	23	27		49			2.63				95	87	49	27
9																					
10	CR-1	40		Tf	17	Sandy TUFF; brown; medium to coarse grained; moderately cemented; VERY HARD.	CORING														
11																					
12	CR-2	34			30		CORING														
13																					
14	CR-3	29			22		CORING														
15																					
16	CR-4	29		LT	18	Lapilli TUFF; light creamy gray; medium to coarse grained; well cemented; VERY HARD.	CORING														
17																					
18																					
19																					
20																					
						End of Borehole (15.00 m)															



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MACHINE: ACKER ACE

DRILLER: J. MADERA

SUPERVISOR: M. ESTAURA

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
* / HYDROMETER ANALYSIS

Figure 5-3-3 (26/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 13

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 13.794

DEPTH OF WATER: 4.50 m

LOCATION: Left Bank, Santolan, Pasig City

STATION NO.: 7 + 775

DATE MEASURED: 12 Nov. 2000

BH NO: BL-13 DATE DRILLED: 09 - 12 November 2000

WEATHER: FAIR

TIME MEASURED: 8:00 AM

COORDINATES: 1615729.117 N, 509023.674 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	W, %	4	10	40	200
1	SS-1	89				Sandy CLAY; brown to brownish gray; 66% high plasticity clayey fines with 34% very fine sand; SOFT to FIRM.	2	1	1		49		56	34	2.61					100	6
2	SS-2	89					1	1	1												
3	UDS-1	50					PRESSED				43	1.71	75	48	2.61		Cc 0.305 Pc 1.290			100	66
4	SS-3	89				Silty CLAY; dark gray to brown; 90-92% very high plasticity clay with 4-7% fine sand and trace of medium to coarse sand; FIRM to VERY STIFF.	2	1	4												
5	SS-4	89		CH			1	2	3		44		73	45	2.60			99	98	97	9
6	SS-5	89					2	3	4												
7	SS-6	100					4	5	7												
8	SS-7	100					6	6	7		44		74	51	2.60			100	99	96	9
9	SS-8	100				Sandy GRAVEL; brown; 47% gravel with 24% fine to coarse sand and 29% silt; MED. DENSE.	5	8	11												
10	SS-9	100					5	6	8												
11	SS-10	67		GM			9	10	14		21				2.65			53	49	46	2
12	SS-11	67				Silty CLAY; brownish gray to gray; 88-98% high plasticity clay with 2-12% fine sand and traces of gravel; VERY STIFF to HARD.	8	8	13												
13	SS-12	44					8	8	11												
14	SS-13	78					7	9	12		52		65	44	2.60					100	8
15	SS-14	78		CH			9	11	18												
16	SS-15	100					10	11	13												
17	SS-16	100					9	12	12		53		71	50	2.60			97	96	96	9
18	SS-17	89					9	12	20												
19	SS-18	89					11	14	24												
20	SS-19	100					9	12	17		50		70	43	2.60				100	99	9



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1377 A. Mabini St., Ermita, Manila

MACHINE: ACKER ACE

DRILLER: E. RIEZA

SUPERVISOR: M. Estaura

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (27/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 13b

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 13.794

DEPTH OF WATER: 4.50 m

LOCATION: Left Bank, Santolan, Pasig City

STATION NO.: 7 + 775

DATE MEASURED: 12 Nov. 2000

BH NO: BL-13 DATE DRILLED: 09 - 12 November 2000

WEATHER: FAIR

TIME MEASURED: 8:00 AM

COORDINATES: 1615729.117 N, 509023.674 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	SAMPLE	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
								15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN W, %	4	10	40	200
21	SS-20	100			CH		Silty CLAY; brownish gray to gray; 88-98% high plasticity clayey fines with 2-12% fine sand and traces of gravel; HARD.	13	18	19												
22	SS-21	33						15	17	21												
23	SS-22	33						15	38	12/5												
24	SS-23	33						18	50			43	75	48	2.60						100	98
25	SS-24	33						20	50/7													
26							End of Boring (24.77 m)															
27																						
28																						
29																						
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						



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MACHINE: ACKER ACE

DRILLER: E. RIEZA

SUPERVISOR: M. Estaura

LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
* W/ HYDROMETER ANALYSIS

Figure 5-3-3 (28/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 14

PROJECT: Pasig-Marikina River Channel Imp. Proj.					GROUND ELEV. (MLLW = Zero Datum) + 15.938					DEPTH OF WATER: 2.60 m				
LOCATION: Left Bank, Santolan, Pasig					STATION NO.: 9 + 375					DATE MEASURED: 07 Nov. 2000				
BH NO: BL - 14 DATE DRILLED: 06 - 07 Nov. 2000					WEATHER: RAINY					TIME MEASURED: 11:00 AM				
					COORDINATES: 1616860.369 N, 508595.320 E									

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT) (N-VALUE)	NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS % PASSING SIEVE			
							15 cm	15 cm	15 cm				LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	20
1	SS-1	56		CH		Sandy CLAY; brown; 80% high plasticity clay with 20% fine sand; FIRM.	2	3	2		27	64	42	2.61							
2	SS-2	33						2	3	2											
3	SS-3	78					Sandy CLAY; brown; 89% medium to high plasticity silt with 10% fine sand; SOFT.	2	2	1											
4	SS-4	89		SM			2	1	1		32	54	31	2.61				100	99	8	
5	SS-5	67					Silty SAND; brown to dark gray; very fine sand with non-plastic silty fines; MEDIUM DENSE.	3	4	12											
6	SS-6	78						4	5	10											
7	SS-7	44		GM		Sandy Gravel; dark gray; 47% sub-angular gravel with 33% coarse to fine sand and 20% non-plastic silt; MEDIUM DENSE.	7	5	6		9			2.64			53	39	27	2	
8	SS-8	67		CL			5	4	7												
9	SS-9	89					Gravelly to Sandy CLAY; dark gray; poorly graded gravel-sand-clay mixtures of low plasticity with 20% gravel; 25% coarse sand and 49% silty to clayey fines; STIFF to VERY STIFF.	14	7	13											
10	SS-10	89						3	4	6		30			2.63			80	55	51	4
11	SS-11	78						5	9	11											
12	SS-12	78		CH			8	11	14												
13	SS-13	89					Silty CLAY; light yellowish brown; 96% high plasticity clay with little fine sand; VERY STIFF to HARD.	11	12	16		32	57	37	2.61			100	99	9	
14	SS-14	89						10	17	27											
15	SS-15	67				Sandy CLAY; brown; 79% clay with 15% fine sand; HARD.	11	13	19		32	58	34	2.61			96	95	94	7	
16						End of Borehole (15.00 m)															
17																					
18																					
19																					
20																					



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MACHINE: ACKER ACE
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SUPERVISOR: M. ESTAURA

LEGEND:



SS - SPLIT SPOON SAMPLE
 WS - WASH SAMPLE
 UDS - UNDISTURBED SAMPLE
 CR - CORE SAMPLE
 W - HYDROMETER ANALYSIS

Figure 5-3-3 (29/221) BORING LOGS (PHASE I)

FINAL BOREHOLE LOG AND SUMMARY OF TEST RESULTS

BL - 15

PROJECT: Pasig-Marikina River Channel Imp. Proj.

GROUND ELEV.
(MLLW = Zero Datum) + 14.793

DEPTH OF WATER: 1.50

LOCATION: Left Bank, Calumpang, Marikina

STATION NO.: 11 + 875

















DATE MEASURED: 06 Nov. 2000

BH NO: BL - 15 DATE DRILLED: 05 - 06 Nov. 2000

WEATHER: FAIR

TIME MEASURED: 4:00 PM

COORDINATES: 1617415.056 N, 509909.907 E

DEPTH, m	SAMPLE NO.	RECOVERY (%)	LOG SYMBOL	CLASSIFICATION	RQD	DESCRIPTION	BLOWS (SPT)			STANDARD PENETRATION TEST (SPT)					NATURAL MOIST. CONTENT, %	TOTAL UNIT WEIGHT, g/cc	ATTERBERG LIMITS		SPECIFIC GRAVITY	UNCONFINED COMP. TEST		SIEVE ANALYSIS				
							15 cm	15 cm	15 cm	(N-VALUE)							LIQUID LIMIT, %	PLASTICITY INDEX, %		STRENGTH kg/cm ²	STRAIN %	4	10	40	200	
										10	20	30	40	50												
1	SS-1	100		CH		Silty CLAY; brown; 89% high plasticity clay with 11% fine sand; SOFT.	1	2	2						36		62	42	2.60						100	
2	SS-2	100		SM		Silty SAND; gray; grayish brown; 51% fine sand; 22% medium sand; 16% non-plastic silt; 11% coarse sand and gravel; LOOSE.	2	2	1																	
3	SS-3	78		SM			2	2	3																	
4	SS-4	89		CH			9	4	3						17				2.64			95	89	67		1
5	SS-5	100		CH		Silty CLAY; greenish gray; 89% high plasticity clay with little fine sand and gravel; STIFF To VERY STIFF.	4	5	6																	
6	SS-6	100		CH			5	5	8																	
7	SS-7	100		CH			5	9	10						27		61	41	2.60			96	95	95		8
8	SS-8	100		CH			8	16	18																	
9	SS-9	100		CH		Sandy CLAY; brown; 80% high plasticity clay with 18% fine to coarse sand and traces of gravel; HARD.	9	9	23																	
10	SS-10	100		CH			7	13	17						29		63	38	2.61			98	94	84		8
11	SS-11	89		CH			9	14	19																	
12	SS-12	100		CH		Gravelly CLAY; brown; 66% high plasticity clay with 23% gravel and little fine sand; VERY STIFF to HARD.	9	9	12																	
13	SS-13	100		CH			10	17	18						33		58	37	2.61			77	75	73		6
14	CR-1	40		GW	0	GRAVEL; broken cores; HARD.	CORING																			
15	SS-14	100		CH		Sandy CLAY; brown; 77% high plasticity clay; 22% fine sand; VERY STIFF.	9	11	13																	
15	SS-15	100		CH			10	12	18						48		63	43	2.61			100	99			7
16						End of Borehole (15.00 m)																				
17																										
18																										
19																										
20																										



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LEGEND:



SS - SPLIT SPOON SAMPLE
WS - WASH SAMPLE
UDS - UNDISTURBED SAMPLE
CR - CORE SAMPLE
W/ - HYDROMETER ANALYSIS

Figure 5-3-3 (30/221) BORING LOGS (PHASE I)