

GEOLOGICAL DRILL LOG

Bore Hole No. AG-15

PROJECT: THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION: AMAMPRES, VILLASIS, PANG.

ELEVATION: 25.526 m. DATE: May 29-30, '90 DRILL RIG: TONE TASS I DRILLED: E. HONORIO LOGGED: H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							N-VALUE										
							20	40	60	80							
	1		SP	GRAVELLY SAND	Light gray gravelly sand with some fines; traces of roots; dry; dense; fill material.												
	2																
	3																
	4		ML	SANDY SILT	Light brown sandy silt; traces of slight organic materials; non-plastic silt; wet; hard, stiff to medium stiff.												
	5																
	6																
	7																
	8	8.00															
	9		MH	CLAYEY SILT	Light brown clayey silt; slightly plastic; none stratified; low dry strength; wet; medium stiff.	9.15m											
	10	10.00				(5/30)											
	11		CL	SILTY CLAY	Brown to brownish gray silty clay; med. to high plasticity; wet; medium stiff to stiff.												
	12	12.00															
	13		CH	CLAY	Dark brown clay with some silt; highly plastic; medium to high dry strength; saturated; very stiff.												
	14																
	15	15.95															
	15	15.95															

GEOLOGICAL DRILL LOG

Bore Hole No. AG-16

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		PINDANGAN, ALCALA PAGASINAN		DEPTH		15.45 m.									
ELEVATION		26,444 m.		DATE		May 24-26, '90		DRILL RIG		KOKEN II		DRILLED		R. BRUNO		LOGGED		H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH							
							DEPTH	N-VALUE												
								20	40	60				80						
	1		ML	SANDY SILT	Light brown sandy silt; non-plastic; uncemented; moist; stiff.		1.15													
	2						1.45													
	2.45						2.15													
	3						2.45													
	3.15						3.15													
	4						3.45													
	4.30 (13%)						4.30													
	5						4.45 (13%)													
	5.15						5.15													
	6		MH	CLAYEY SILT	Brown clayey silt; slightly plastic at 2.45-7.45m, medium to high plasticity at 7.45-10.45m; moist; very stiff at 2.45-4.6m, stiff at 4.6-10.45m; poor core recovery.		5.45													
	7						5.45													
	7.15						7.15													
	8						7.45													
	9																			
	10						10.15													
	10.45						10.45													
	11																			
	12						12.15													
	13						12.45													
	14																			
	15						15.15													
	15.45						15.45													

GEOLOGICAL DRILL LOG

Bore Hole No. AG - 17

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		ALCALA, PANGASINAN		DEPTH		15.45 m.						
ELEVATION		20.195 m.		DATE		May 28-30, '90		DRILL RIG		KOKEN I		DRILLED J. DELEON		LOGGED H. FUNAOKA			
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							DEPTH	N-VALUE									
								20	40	60				80			
	1.95	ML	SANDY SILT		Light brown to dark brown sandy silt; non-plastic; unconsolidated; moist; stiff to v. stiff.	1.15									D.D.	1	
	2.95	ML	CLAYEY SILT		Dark brown clayey silt; medium plasticity; moist; very stiff.	1.45										W.B.	2
	3.00	CL	SILTY CLAY		Dark brown silty clay; medium plasticity; medium dry strength; moist; very stiff.	2.15										W.B.	3
	3.95	ML	CLAYEY SILT		Dark brown clayey silt; medium plasticity; low dry strength; moist; very stiff.	2.45											4
	5.00	ML	SANDY SILT		Dark brown to brownish gray sandy silt; non-plastic; unconsolidated; moist; stiff to very stiff.	3.15											5
5/28	5.95	CL	SILTY CLAY		Dark brown silty clay; medium plasticity; wet; stiff.	3.45											6
	7.00	SM	SILTY SAND		Brown silty sand; non-plastic; saturated; medium dense.	5.35m 5.45											7
						(5/30)											8
						7.15											9
						7.45											10
		CH	SILTY CLAY		Light gray silty clay; high plasticity; inorganic silt; with 0-10% of fine sand at 12.0-12.8m; saturated; stiff to very stiff; poor core recovery.	10.15											11
5/29						10.45											12
	12.80					12.15											13
		SM	SILTY SAND		Light brownish gray silty sand; very fine grained sand with much silt; wet; medium dense; poor core recovery.	12.45											14
	15.00					12.15											15
5/30	15.45	SP	FINE SAND		Gray very fine grained sand; non-plastic; wet; medium dense.	15.15											16
						15.45											17

GEOLOGICAL DRILL LOG

Bore Hole No. AG -18

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	SAN VICENTE, ALCALA, PANG.		DEPTH	15.45 m.						
ELEVATION		19.231 m.		DATE	May 22-23, '90		DRILL RIG	KOKEN I		DRILLED	J. DELEON		LOGGED	H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	1.00	SM	SILTY SAND		Brown silty sand; none to slight plasticity; moist.										
	1.95	ML	SANDY SILT		Brown sandy silt; none to slight plasticity; wet; very stiff.										
	2.15														
	2.45														
	3.15														
	3.45														
	4.40														
	5.45														
	5.95														
	6.15														
	7.15														
	7.45														
	7.75														
	8.15														
	8.45														
	10.00														
	10.15														
	10.45														
	12.15														
	12.45														
	15.15														
	15.45														

GEOLOGICAL DRILL LOG

Bore Hole No. AG-19

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		CARANGLAAN, ALCALA, PANG.		DEPTH	15.45 m.						
ELEVATION		17.945 m.		DATE	May 29-31, 190		DRILL RIG	KOKEN II		DRILLED	R. BRUNO		LOGGED	H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							DEPTH	N-VALUE								
							20	40	60	80	20	40	60	80		
	0.65		ML	SANDY SILT	Brown sandy silt; slightly plastic; uncemented; moist.											D.D.
	2.00		SM	V. FINE SAND	Brownish gray very fine sand with some silt; moist; loose.	1.15 1.45										D.D.
	5/30					2.15 2.45										D.D.
	3					3.15 3.45										D.D.
	4					4.0m 4.35										D.D.
	5					5.15 5.45										
	6															N.R.
	7		SP	FINE TO MEDIUM SAND	Dark gray fine to medium grained sand; uncemented; non-plastic; moist; loose at upper part, mainly medium dense.	7.15 7.45										
	8															
	9															W.B.
	10					10.15 10.45										
	11															*
	12					12.15 12.45										
	13															
	13.00															
	14		SM	V. FINE SAND	Brown very fine sand with silt; moist; medium dense.											*
	15					15.15 15.45										
	15.45															

GEOLOGICAL DRILL LOG

Bore Hole No. AG-20

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MANGAMPAG, BAUTISTA, PANG.		DEPTH	15.45 m.						
ELEVATION		16.132 m.		DATE	May 22-23, '90		DRILL RIG	KOKEN I DRILLED R. BRUNO		LOGGED	H. FUNAOKA					
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							DEPTH	N-VALUE								
							20	40	60	80	20	40	60	80		
	1		SP	FINE TO MEDIUM SAND	Light brown to gray fine to medium sand; about 20-30% of silt; non-plastic; uncemented; light brown to grayish brown at 0-1.45m, gray at 1.45-2.0m; moist; loose.	1.15									D.D.	
	2		SM	V. FINE SAND		2.15										D.D.
	3					3.15										D.D.
	4				Gray very fine sand with some silt; non-plastic; uncemented; wet; loose.	4.15									*	
	5					5.15										
	6				Gray fine to coarse sand, about 20% of silty fines at 2.45-3.0m, fine to medium sand at 3.0-3.45m, fine to coarse sand at 3.45-10.0m, medium to coarse sand at 10.0-15.45m; traces of fine gravel at 5.0-5.45m and 7.0-12.45m, gravel are scattered and its size range from 4.75 mm to 1cm, rounded and sub-rounded; moist to wet; medium dense at upper part, mainly loose.	6.15										*
	7					7.15										
	8		SP	FINE TO COARSE SAND		8.15										*
	9					9.15										
	10					10.15										*
	11				11.15										*	
	12				12.15										*	
	13				13.15										*	
	14				14.15										*	
	15				15.15										*	
	15.45				15.45											

GEOLOGICAL DRILL LOG

Bore Hole No. AG -21

PROJECT: THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION: ANULID, ALCALA, PANGASINAN DEPTH: 15.45 m.

ELEVATION: 21.686 m. DATE: May 19-20, '90 DRILL RIG: KOKEN I DRILLED: J. DELEON LOGGED: H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
								20	40	60				80	
	1		ML	SANDY SILT	Brown to light brown sandy silt; traces of fine gravel (φ max. 2cm), rounded and sub-rounded; traces of roots at 1.0-1.45m; uncemented; slightly plastic; wet; hard to stiff.	1.15							D.D.	1	
	2					1.45	(25/15)	(23/15)						N.R.	2
	3					2.15									3
	4					2.45	(27/15)	(26/15)							4
	5					3.15									5
	5.45				3.45									6	
	6		SM	SILTY SAND	Light brown silty sand; about 20-30% of silt; slightly plastic; wet; medium dense.	5.15								6	
	7.00				5.45									7	
5/19	8.00		ML	SANDY SILT	Light brown sandy silt; about 0-10% of non-plastic clay; moist to wet; medium stiff.	7.15								8	
	9				7.45									9	
	10				10.15									10	
	11		CL	SILTY CLAY	Light brown to brownish gray silty clay; low to medium plasticity; wet; stiff.	10.45								11	
	12				12.15									12	
	13				12.45									13	
	14				15.15									14	
5/20	15.45				15.45									15	

GEOLOGICAL DRILL LOG

Bore Hole No. AG - 22

PROJECT	THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL	LOCATION	ATAYAN, BAYAMBANG PANGASINAN	DEPTH	15.45 m.
ELEVATION	16.728 m.	DATE	May 29-30, 90	DRILL RIG	TONE TASS II
					DRILLED N. SOTERIO
					LOGGED H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH	
							DEPTH	N-VALUE						
								20	40	60				80
	1.45		ML	SANDY SILT	Brown sandy silt; traces of organic materials; none to slightly plastic; wet; soft.	1.15 1.45		3	4	15			D.D.	1
	2.20		SM	SILTY SAND	Light brown silty sand; about 20-30% of non-plastic silt; moist; loose to medium dense; includes brown silt at 3.2-3.4m.	2.15 2.45		10	4	6			D.D.	2
	3.20		ML	SILT		3.15 3.45		10	4	6			D.D.	3
	3.90		SM	SILTY SAND		5.15 5.45		2	4	15				
	5.500					5.56m								5
			CL	SANDY CLAY	Brown sandy clay; slight to medium plasticity; medium dry strength; wet to saturated; very soft to medium stiff.	7.15 7.45		11	5	6				6
														7
	10.00													8
			CH	CLAY	Dark gray clay with some silt; high plasticity; high dry strength; saturated; stiff to very stiff; poor core recovery.	10.15 10.45		9	4	5				9
														10
														11
														12
														13
														14
														15
	15.45					15.15 15.45		19	10	9				15

GEOLOGICAL DRILL LOG

Bore Hole No. AG - 23

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		BALUYOT, BAYAM-BANG. PANG.		DEPTH	15.45 m.					
ELEVATION		12.966 m.		DATE	June 13-15, '90		DRILL RIG	KOKEN I		DRILLED	J. DELEON		LOGGED	H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80					
	1.00		SM	SILTY SAND	Brownish gray silty sand; about 20-30% of non-plastic silt; traces of slightly organic matter (algae roots); moist; loose	1.15									
	1.25		SP	FINE SAND		1.45									
	2.00		ML	SANDY SILT	Brownish gray fine sand; small percentage of non-plastic fines; wet; loose to medium dense.	2.15									
	3.00		ML	SANDY SILT	Brown to light brownish gray sandy silt; slightly plastic; unconsolidated; about 0-20% of sand; wet; stiff to med. stiff	2.45									
6/13	4.00		ML	SANDY SILT		3.15									
	4.40		ML	SANDY SILT		3.45									
	5.00		SM	SILTY SAND	Light brown to light brownish gray silty sand; about 20-30% of non-plastic fines; wet; loose to medium dense.	4.35									
	5.50		SM	SILTY SAND		5.15									
	6.00		ML	SANDY SILT	Dark brown sandy silt; non-plastic; about 0-15% of clay at 5.45-8.0m with medium plasticity and medium dry strength; wet; stiff to med. stiff.	5.45									
	7.00		ML	SANDY SILT		7.15									
	8.00		ML	SANDY SILT		7.45									
	9.00		SP	FINE SAND	Dark brown fine sand with appreciable amount of non-plastic fines; wet; medium dense.	10.15									
	10.00		SP	FINE SAND		10.45									
6/14	11.00		CL	SILTY CLAY	Gray silty clay; high plasticity; traces of fine sand; wet to saturated; stiff to very stiff.	12.15									
	12.00		CL	SILTY CLAY		12.45									
	13.00		CL	SILTY CLAY		15.15									
6/15	15.45					15.45									

GEOLOGICAL DRILL LOG										Bore Hole No. <u>AG - 24</u>					
PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MANAMBONG, BAYAMBANG, PANG.		DEPTH		15.45 m.				
ELEVATION		14.019 m.		DATE		May 24-26, '90		DRILL RIG		TONE TASS I		DRILLED N. SOTERIO		LOGGED H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	1		ML	SANDY SILT	Brown to light brown sandy silt; low plasticity; wet; medium stiff.										D.D.
	2		SM	V. FINE SAND	Brown very fine sand; about 0-10% of silt; uncemented; moist; medium dense.										D.D.
	3														D.D.
	4		CL-CH	SILTY CLAY	Brown to grayish brown silty clay; low to medium plasticity at 3.0-3.45m, medium to high plasticity at 3.45-7.0m; wet to saturated; medium stiff to stiff.										
	5														
	6														
	7														
	8		ML	SANDY SILT	Brown sandy silt; uncemented; wet; soft.										
	9		SM	V. FINE SAND	Brown very fine sand with some silt; moist; medium dense to dense.										
	10														
	11														*
	12														*
	13		SP	FINE TO MEDIUM SAND	Brown to gray fine to medium sand; with appreciable amount of fines; brown at 10.45-12.0m, gray at 12.0-15.45m; moist; very dense.										
	14														
	15														

GEOLOGICAL DRILL LOG

Bore Hole No. AG-25

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		SAN GABRIEL I BAYAMBANG, PANG.		DEPTH		15.45 m.									
ELEVATION		13.921 m.		DATE		May 24-26, '90		DRILL RIG		TONE TASS II		DRILLED		E. HONORIO		LOGGED		H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH							
							DEPTH	N-VALUE												
								20	40	60				80						
	1		ML	SANDY SILT	Light brown sandy silt; non-plastic; uncemented; wet; medium stiff to stiff.	1.15 1.45	8 30	12 15	4 15											
	2		CL	SILTY CLAY	Brown silty clay; slight to medium plasticity; wet; stiff.	2.15 2.45	5 30	4 15	4 15											
	3		MH	CLAYEY SILT	Brown clayey silt; traces of fine sand; slight to medium plasticity; wet; stiff.	3.15 3.45	12 30	4 15	8 15											
	4					4.75m ▽														
	5		ML	SANDY SILT	Dark gray sandy silt; about 0-5% of clay; wet.	5.00 5.45	16 30	8 15	8 15											
	6					5.00 ▽														
	7		CL	SILTY CLAY	Gray, brown to light brown silty clay; medium to high plasticity; saturated; very stiff.	5.45 7.15 7.45	18 30	17 15	11 15											
	8					(5/21)														
	9																			
	10																			
	11		MH	CLAYEY SILT	Light brown clayey silt; low to medium plasticity; saturated; stiff.	10.15 10.45	12 30	4 15	6 15											
	12																			
	13		ML	SANDY SILT	Light brown sandy silt; uncemented; wet; stiff to very stiff.	12.15 12.45	15 30	7 15	8 15											
	14																			
	15		SP	FINE TO MEDIUM SAND	Dark gray fine to medium sand; moist; dense.	15.15 15.45	33 30	15 15	17 15											

GEOLOGICAL DRILL LOG

Bore Hole No. AG-26

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		ALCALA, PANG.		DEPTH		15.45 m.				
ELEVATION		16.619 m.		DATE		May 19-20, '90		DRILL RIG		TONE TASS II		DRILLED E. HONORIO		LOGGED H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80					
5/19 5/20	0.62		SM	SILTY SAND	Light brownish gray silty sand; about 10-20% of silt; traces of decayed plant matter; moist.	1.15 1.45									
	1.45		SP	FINE SAND											
	2		SM	SILTY SAND	Light brownish gray fine sand; about 0-11% of silt; traces of fine gravel (φ max. 2mm), sub-rounded; moist; very loose.	3.15 3.45									UD.
	3	3.05													
	4		ML	SANDY SILT	Light brown to dark gray silty sand; about 0-10% of silt; traces of gravel at 1.0-1.45m; moist; very loose.	5.15 5.45									
	5	5.45													
	6		SP	FINE SAND	Dark gray to brown sandy silt; about 0-10% of none to slightly plastic clay; wet; very soft to soft.	7.15 7.45									*
	7														
	8														
	9				Brownish gray to dark gray fine sand with some medium sand; about 0-20% of silt; moist; loose to very loose.	10.15 10.45									*
	10														
	11														
	12				Brownish gray silty sand; non-plastic; moist; very loose to loose	12.15 12.45									*
	13	12.45													
	14		SM	SILTY SAND	Dark gray medium to fine sand; moist; loose.	15.15 15.45									
15	15.00														
15	15.45		SP	MEDIUM SAND											

GEOLOGICAL DRILL LOG

Bore Hole No. AG-27

PROJECT	THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	MANGAMPAG, PUGO BAUTISTA, PANG.	DEPTH	15.45 m.
ELEVATION	16.218 m.	DATE	May 19-22, '90	DRILL RIG	KOKEN II	DRILLED	R. BRUNO
						LOGGED	H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH
							DEPTH	N-VALUE					
								20	40	60			
5/19	1		ML	SANDY SILT	Light brown to gray sandy silt; light brown at 0-1.0m, light gray at 1.0-2.0m, gray to brown at 2.0-2.95m; non-plastic; wet; stiff to medium stiff.	1.15					D.D.	1	
	2.0m					1.45						9	5
	2	2.95	MH	CLAYEY SILT	Gray to brown clayey silt; medium to high plasticity; saturated; medium stiff.	2.15	3.95m	3.15	4	2	T	3	
	3					2.45						6	4
5/20	4		CL	SILTY CLAY	Dark brown to (gray silty clay; medium to high plasticity; high dry strength; dark brown at 3.45-7.0m, gray at 7.0-12.0m; saturated; medium stiff to stiff.	3.45	5/21	7.15	11	5	6	W.B.	5
	5					5.15							5
	6					5.45						7	
	7					7.15						11	5
5/21	8					7.45						9	
	9					10.15						8	4
	10					10.45						11	
	11					12.15						2	1
5/22	12	12.00	ML	SANDY SILT	Dark gray sandy silt with some clay; saturated; very soft to soft; poor core recovery.	12.15						13	
	13					12.45						2	1
	14					15.15						15	
	15					15.45						18	6
5/22	15	15.00	SM	SILTY SAND	Dark gray silty sand; uncemented; wet; medium dense.	15.15						15	
	15					15.45						18	6

GEOLOGICAL DRILL LOG

Bore Hole No. AG-28

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		NAMOACAN NORTE, BAUTISTA, PANG.		DEPTH	15.45 m.						
ELEVATION		19.379 m.	DATE	May 23, '90	DRILL RIG	TONE TASS I		DRILLED	N. SOTERIO	LOGGED	H. FUNAOKA					
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							N-VALUE									
							20	40	60	80						
	1				Light brown to brownish gray sandy silt; slightly plastic; very low dry strength; uncemented; wet to moist; hard to very stiff; poor core recovery.	1.15									D.D.	
	2					1.45										
	3		ML	SANDY SILT		2.15										
	4					2.45										
	5					3.15										
	5.45				3.45											
	6		CH	SILTY CLAY	Gray silty clay; medium to high plasticity; with fine sand wet; stiff to medium stiff.	5.15									W.B.	
	7.00					5.45										
	7		ML	CLAYEY SILT	Grayish brown clayey silt; slight plasticity; medium dry strength; wet; stiff.	7.15										
	7.45					7.45										
	8		CL	SILTY CLAY	Grayish brown silty clay; medium plasticity; medium dry strength; saturated; stiff.	10.15										
	9					10.45										
	10					10.15										
	11				10.45										N.R.	
	12				12.15											
	13				12.45											
	14		SM	SILTY SAND	Brown silty sand; about 20-30% of silt; non-plastic; uncemented; moist; medium dense.	15.15										
	15					15.45										
5/23	15.45															

GEOLOGICAL DRILL LOG

Bore Hole No. AG-29

PROJECT THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION MANAMBONG PARTE BAYAMBANG, D.A.N.G. DEPTH 15.45 m.

ELEVATION 12.666 m. DATE May 21-22, '90 DRILL RIG TONE TASS I DRILLED N. SOTERIO LOGGED H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							20	40	60	80						
	1		SM	SILTY SAND	Brown silty sand; traces of slightly organic materials (roots); wet; very loose.	1.15										
	2					1.45										
	2.91					2.45m										
	3		CH	SILTY CLAY	Gray silty clay; medium to high plasticity; saturated; stiff to medium stiff.	3.15										
	4					3.45										
	5		ML	CLAYEY SILT	Grayish brown clay or silt; low to medium plasticity; about 0-10% of fine sand; wet; medium stiff.	5.15										
	5.10					5.45										
	5.95		ML	SANDY SILT	Brown sandy silt; non-plastic; uncemented; wet; medium stiff.	7.15										
	7.00					7.45										
	8		SP	MEDIUM TO FINE SAND	Grayish brown to gray mainly medium to fine sand; medium to coarse sand at 7.95-10.0 m, fine to medium sand at 10.0-11.45 m; small percentage of non-plastic fines; grayish brown at 7.0-8.7 m, gray at 8.7-15.45 m; wet; mainly medium dense to very dense, medium dense to loose at lowest part (15.0-15.45).	10.15										
	9					10.45										
	10					12.15										
	11					12.45										
	12					15.15										
	13					15.45										
	14															
	15															
	15.45															

GEOLOGICAL DRILL LOG										Bore Hole No. AL-1						
PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL				LOCATION		BUNOAN SABANGAN SUR. PANGASINAN		DEPTH		15.45 m.				
ELEVATION		0.352 m.		DATE		JUNE 18-19, 90		DRILL RIG		KOKEN II DRILLED R. BRUNO		LOGGED		H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLASS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							N-VALUE									
							20	40	60	80	20	40	60	80		
	1				Gray to dark gray fine to medium sand; poorly-graded sand with white sea shells; medium dense. Traces of organic materials at 0.0-1.0 m; about 0-10% of non-plastic fines. Scattered fragments of sea shells at 1.0-10.0 m. Shore deposits.	0.30										
	2					1.15	15	7	8							DD
	3					1.45										DD
	4					2.15	21	11	10							*
	5					2.45										*
	6					3.15	12	6	6							*
	7					3.45										*
	8					5.15	18	8	10							*
	9					5.45										*
5/18	10					7.15	17	7	10							*
	11				7.45										*	
	12				10.15	2	1	1							*	
	13				10.45										*	
	14				12.15	32	7	12							*	
	15				12.45										*	
6/19	15.45				15.15	10	16	14							*	
					15.45											

DD: DRY DRILLING
 *: SLUDGE

GEOLOGICAL DRILL LOG

Bore Hole No. AL-2

PROJECT: THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION: PANTAL, DAQUPAN CITY, PANGASINAN DEPTH: 15.45 m.

ELEVATION: 0.688 m. DATE: June 17-18, 90 DRILL RIG: TONE TASS II DRILLED BY: E. HONORIO LOGGED BY: H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH		
							N-VALUE											
							20	40	60	80	20	40	60	80				
	0.92		SP	FINE TO MEDIUM SAND	Light gray to dark gray fine to medium sand; moist; traces of shell fragments at 0.60-0.92m; loose.	0.60												
	1.00		SO	V. FINE SAND			1.15											
	2				Dark gray very fine sand; moist organic soil; fibrous soil; loose.	1.45												
	2.45					2.15												
	3				Dark gray fine to medium sand; wet; traces of shell fragments at 1.0 up to 1.45 m; with appreciable amount of non-plastic fines; loose from 1.0 up to 5.0m and medium dense to dense from 5.0 m up to 15.45 m.	3.15												
	3.45					3.15												
	5					5.15												
	5.45					5.45												
	7					7.15												
	7.45					7.45												
	10					10.15												
	10.45					10.45												
	12					12.15												
	12.45					12.45												
	15					15.15												
	15.45					15.45												

GEOLOGICAL DRILL LOG

Bore Hole No. AL-3

PROJECT	THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL	LOCATION	CALHAY DAGUPAN CITY	DEPTH	15.45 m.
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ELEVATION	0.630 m.	DATE	June 22-24, '90	DRILL RIG	KOKEN I	DRILLED	J. DELEON	LOGGED	H. FUNAOKA
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DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH								
							DEPTH	N-VALUE													
								20	40	60				80							
						0.62 ▽ (6/24)															
	1				Dark gray to gray fine to medium sand; brownish gray at 4.65 - 5.0 m; moist to wet; medium dense to dense up to 3 m; very dense at 3 - 6 m; dense at 7 - 15 m. Traces of shell fragments from 0.30 m up to 1.45 m; Some fine to coarse gravel from 0.30 m up to 15.45 m; maximum size range from 2 cm to 3 cm; rounded and sub-rounded. Fragments of shells at 10.0 - 10.45 m; contain appreciable amount of non-plastic fines.	1.15													D.D.	1	
	2					1.45														D.D.	2
	3					2.15														D.D.	3
	4					2.45															
	5					3.15															
	6					3.45															
	7					5.15															
	8					5.45															
	9					7.15															
	10					7.45															
	11					10.15															
	12					10.45															
	13					12.15															
	14					12.45															
	15					15.15															
	15.45				15.45																

GEOLOGICAL DRILL LOG

Bore Hole No. AL-4

PROJECT THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION LINC EAST BINMALEY, PANG. DEPTH 15.95 m.

ELEVATION 2.07 m. DATE June 20-22, '90 DRILL RIG KOKEN I DRILLED R. BRUNO LOGGED H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							DEPTH	N-VALUE									
								20	40	60				80			
			SM	VERY FINE SAND	Brown very fine sand; about 0-20% of silt included; traces of slight organic material (roots); dry to wet; loose to medium dense.	1.95	1.15	6	3	3							
	2.95					(4/2)	1.95	10	4	6							
							2.15	10	4	6							
							2.45	10	4	6							
							3.15	10	4	6							
							3.95	10	4	6							
							5.15	18	6	14							
							5.45	18	6	14							
							7.15	28	12	13							
			SP	FINE TO MEDIUM SAND	Brownish gray to dark gray fine to medium sand; brownish gray at 2.45-5.0m; gray to dark gray at 5.0-15.45m; small percentage of silty fines; wet; medium dense.		7.95	28	12	13							
							10.15	28	11	9							
							10.45	28	11	9							
							12.15	17	7	19							
							12.45	17	7	19							
							15.15	25	10	15							
6/22	15.95						15.45	25	10	15							

GEOLOGICAL DRILL LOG

Bore Hole No. AL-5

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	SAN JOSE, GAYAMAN BINMALEY, PANG.		DEPTH	15.45 m.								
ELEVATION		1.044 m.		DATE	June 20-23, '90		DRILL RIG	TONE TASS I DRILLED N. SOTERIO		LOGGED	H. FUNAOKA						
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							N-VALUE										
							20	40	60	80	20	40	60	80			
	1		SP	FINE SAND	Brown fine sand; 20-35% of silts; traces of roots; traces of clay with low plasticity at 0.76-1.0m; dry; very loose to loose.	0.28m (1/4)										D.D.	1
	1.45						1.15										
	2		SC	CLAYEY SAND	Dark brown clayey sand; sand is fine grained; low to slight plasticity; moist; loose.											D.D.	2
	1.60						1.45										
	3				Dark brown clayey sand; sand is fine grained; low to slight plasticity; moist; loose.											D.D.	3
							2.15										
	4				Dark brown clayey sand; sand is fine grained; low to slight plasticity; moist; loose.											D.D.	4
							2.45										
	5				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											D.D.	5
							3.15										
	6				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											D.D.	6
							3.45										
	7		SP	FINE TO MEDIUM SAND	Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											D.D.	7
							5.15										
	8				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											D.D.	8
							5.45										
	9				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	9
							7.15										
	10				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	10
							7.45										
	11				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	11
							10.15										
	12				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	12
							10.45										
	13				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	13
							12.15										
	14				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.											*	14
							12.45										
	15				Browish gray to dark gray fine to medium sand; yellowish brown at 1.6 - 1.8m; brownish gray from 1.8m up to 4.5m and gradually turns to gray to dark gray from 4.5m up to 15.45m; about 0-30% of silt from 1.6m up to 2.0m; appreciable amount of fines from 2.0m up to 15.45m; wet to saturated; medium dense to dense.												
							15.15										
	15.45					15.45											

NOTE: Losing water at 8.90m

GEOLOGICAL DRILL LOG

Bore Hole No. AL-6

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MANAT, BINMALEY PANGASINAN		DEPTH	15.95 m.				
ELEVATION		1.100 m.		DATE	June 19-21, '90		DRILL RIG	TONE TASS II DRILLED E. HONORIO		LOGGED H. FUNAOKA				
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH	
							DEPTH	N-VALUE						
								20	40	60				80
	1		SP	FINE SAND	Brown fine sand with some silt (about 0-20% of silt); traces of fine gravel (sub-rounded and rounded); traces of white shells; wet.	0.40m	1.15	2	1	1			D.D.	1
	2		OL	ORGANIC SILT		Dark brown to dark gray organic silt; mostly decayed plant matters; traces of clay of low plasticity from 1.45m to 2.0m; becomes sandy at 2.0-2.6m; earthy, odbr; wet; soft to medium stiff.	(6/2)	1.45	5	2	1			D.D.
	3						2.15	5	2	3			D.D.	3
	4						2.45							
	5						3.15							
	6						3.45							
	7						5.15							
	8						5.45							
	9						7.15							
	10						7.45							
	11						10.15							
	12						10.45							
	13						12.15							
	14						12.45							
	15						15.15							
	15.95						15.45							

GEOLOGICAL DRILL LOG

Bore Hole No. AL-7

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	BALOGO, BINMNEY, PANGASINAN		DEPTH	15.45 m.							
ELEVATION		0.827 m.		DATE	June 21-25, '90		DRILL RIG	TONE TASS II		LOGGED	H. FUNAORA					
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							N-VALUE									
							20	40	60	80	20	40	60	80		
						▽										
						0.45m (1/25)									D.D.	
			SM	SILTY SAND	Brown silty sand with some fine sand; with 0-10% of silt and 0-10% of clay from 0 up to 1.95m; traces of fine to coarse gravel at 1.45-2.0m; about 0-30% of silt at 2.0-2.95m and 0-10% of clay at 2.95-3.0m; moist to wet; loose.	1.15									D.D.	
						1.45										D.D.
						2.15										D.D.
						2.45										D.D.
					3.15											
					3.45										*	
					5.15										*	
					5.45										*	
					7.15										*	
					7.95										*	
			SP	FINE TO MEDIUM SAND	Brownish gray to dark gray fine to medium sand; brownish gray at 3.0-5.0 m and gray to dark gray from 5.0 m up to 15.45m; moist to wet; loose at only upper part, and medium dense from 5.0m up to 15.45m.	10.15									*	
						10.95										*
						12.15										*
						12.45										*
					15.15										*	
					15.45										*	

GEOLOGICAL DRILL LOG

Bore Hole No. AL-8

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		BALAGAN, BINHALE, PANGASINAN		DEPTH	15.95 m.					
ELEVATION		0.922 m.		DATE	June 25-26, '90		DRILL RIG	TONE TASS I		DRILLED	N. SOTERIO		LOGGED	H. FUNAKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	0.77		ML	CLAYEY SILT	Dark brown clayey silt; traces of organic materials and roots; low to medium plasticity; wet; soft.										D.D.
	1.30		CH	SILTY CLAY											
	2.00		SM	SILTY SAND	Brown silty clay; traces of roots; medium to high plasticity; moist; soft.	1.15									
	2.45		SP	FINE SAND			1.45	3	1	2					
	3.00		SM	SILTY SAND	Brownish gray to gray silty sand; low plasticity; wet; very loose.	2.15									
	3.45		SM	SAND			2.45	3	1	2					
	4.00				Gray poorly graded fine sand, about 0-5% of fines; wet; very loose.	3.15									
	4.95						3.45	2	1	1					
	5.00				Gray silty sand; low plasticity; wet; very loose.	5.15									
	5.95						5.45								
	6.00				Brownish gray to gray fine to medium sand; brownish gray at 3.45-3.9m, gray at 3.9-15.95m; small amount of appreciable fines; wet; dense to very dense from 3.5m up to 15.95m.	7.15									
	7.45						7.45	36	18	18					
	8.00				FINE TO MEDIUM SAND	10.15									
	10.45						10.45	29	15	14					
	12.00				FINE TO MEDIUM SAND	12.15									
	12.45						12.45	29	15	15					
	14.00				FINE TO MEDIUM SAND	15.15									
	15.45						15.45	32	15	19					

GEOLOGICAL DRILL LOG

Bore Hole No. AL-9

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		CAPATAN, SAN CARLOS, PANG.		DEPTH	15.45 m.					
ELEVATION		1,621 m.		DATE	June 25-27, '90		DRILL RIG	KOKEN II		DRILLED	R. BRUNO		LOGGED	H. FUNAKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	0.27	ML	SANDY SILT		Brownish gray sandy silt; traces of roots and slightly organic matters; moist; loose.	0.43m (1/2)									D.D.
	2.00	SM	V. FINE SAND		Brown very fine sand with some silt; Gravel (φ 3cm) at 1.65m; moist to wet; loose.	1.15 1.45 2.15									D.D.
	3.00	CL	SILTY CLAY		Dark bluish gray silty clay; medium to high plasticity; moist to wet; soft.	2.45 3.15 3.45									D.D.
	4.25														
	5.00				Brownish gray to gray fine to medium sand; brownish gray at 3.0-12.5m, gray at 12.5-15.45m; moist to wet; loose at only upper part, medium dense to dense from 5.0m up to 15.45m.	5.15 5.45									D.D.
	6.00														*
	7.00														
	8.00	SP	FINE TO MEDIUM SAND			7.15 7.45									*
	9.00														*
	10.00														
	10.26					10.15 10.45									*
	11.00														
	12.00														
	12.25					12.15 12.45									*
	13.00														
	14.00														
	15.00														
	15.27					15.15 15.45									*

GEOLOGICAL DRILL LOG

Bore Hole No. AL-10

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MAMALAO, SAN CARLOS, PANG.		DEPTH		15.45 m.					
ELEVATION		2.013 m.		DATE		June 15-16, '90		DRILL RIG		TONE TASSI		DRILLED H. SOTERIO		LOGGED H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH
							N-VALUE									
							20	40	60	80	20	40	60	80		
	0.24		MH	CLAYEY SILT	Brown clayey silt; with fine sand; traces of slight organic material; medium to high plasticity; moist											
	1.45		CH	SILTY CLAY												
	2				Brown silty clay; medium to high plasticity; dry; stiff	2.26m										
	2.15		ML	CLAYEY SILT	Brown to grayish brown clayey silt; low to medium plasticity; traces of fine sand; moist; medium stiff	(6/16)										
	2.45															
	3.15															
	3.45		CH	SILTY CLAY	Brown silty clay; medium to high plasticity; moist; medium stiff											
	4.00															
	5		SM	VERY FINE SAND	Gray very fine sand with some clay; silty sand with 50% of clay; wet; loose to very loose.											
	5.15															
	5.45															
	6.00															
	7				Gray to dark gray fine to medium sand; small amount of non-plastic fines; uncemented; wet; medium dense to dense.											
	7.15															
	7.45															
	8															
	9															
	10		SP	FINE TO MEDIUM SAND												
	10.15															
	10.45															
	11															
	11.15															
	12															
	12.15															
	12.45															
	13															
	13.15															
	14															
	14.15															
	15															
	15.15															
	15.45															
	6/16															
	15.45															

GEOLOGICAL DRILL LOG

Bore Hole No. AL-11

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	A.B. FERNANDEZ ST. DAGUPAN CITY		DEPTH	15.45 m.						
ELEVATION		0.640 m.		DATE	June 16-17, '90		DRILL RIG	KOKEN I		DRILLED	J. DELEON		LOGGED	H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80	20	40	60	80	
	1.45	SM	SILT	SANDY	Dark brown to gray silty sand; about 0-10% of fine gravel at 0-1.0m, it becomes coarser at 1.0-1.45m; little organic materials; non-plastic; wet; loose.	0.30 m (9/17)									D.D.
	2.00	ML	SANDY SILT		Dark brown sandy silt; includes about 0-10% of gravel; subrounded; unconsolidated; wet; soft to medium stiff										D.D.
	3.00														D.D.
	4.00														*
	5.00														*
6/16	6.00														*
	7.00														*
	8.00	SP	FINE TO MEDIUM SAND		Brownish gray to gray fine to medium sand; traces of fine to coarse gravel at 5.45-7.0m and 10.45-12.45m; small percentage of non plastic fines from 2.0m up to 15.0m; about 0-10% of silt at 15.0-15.45m; wet; loose up to 3.0m and medium dense to dense at 3.0-15.45m; brownish gray at 2.0-3.0m gray at 3.0-15.45m.										*
	9.00														*
	10.00														*
	11.00														*
	12.00														*
	13.00														*
	14.00														*
6/17	15.45														*

GEOLOGICAL DRILL LOG

Bore Hole No. AL-12.

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	PEREZ ST. DAGUPAN CITY		DEPTH	15.45 m.						
ELEVATION		0.655 m.		DATE	June 16-17, '90		DRILL RIG	TONE TASS I		DRILLED	N. SOTERIO		LOGGED	H. FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	1		SP	FINE TO MEDIUM SAND	Gray fine to medium sand; traces of organic material and sea shells; with stratum of clay at 1.45-2.0m; wet; very loose to loose.	0.60m 1.15									D.D.
	2					1.45									D.D.
	3					2.15									D.D.
	3.45					2.95									D.D.
	3.54		CH	CLAY	Gray clay; medium to high plasticity; high dry strength; inorganic; wet.	3.15									D.D.
	4					3.45									D.D.
	5					5.15									D.D.
	6				Gray fine to medium sand with small amount of fines; traces of shell fragments; wet; medium dense to dense, occasionally very dense.	5.45									D.D.
	7					7.15									*
	8		SP	FINE TO MEDIUM SAND		7.45									*
	9														*
	10					10.15									*
	11					10.45									*
	12					12.15									*
	13					12.45									*
	14														*
	15					15.15									*
	15.45					15.45									*

GEOLOGICAL DRILL LOG

Bore Hole No. AL-13

PROJECT	THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	ZAMORA ST. DAGUPAN CITY	DEPTH	15.95 m.
ELEVATION	0.467 m.	DATE	June 18-20, '90	DRILL RIG	KOKEN I	DRILLED	J. DELEON
						LOGGED	H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH								
							DEPTH	N-VALUE													
								20	40	60				80							
	1.00		MH	SANDY SILT	Brown sandy silt; traces of gravel, maximum size 2cm, sub-rounded; about 0-5% of clay; traces of slight organic materials (roots); moist; medium stiff.	1.10m															
							1.15	6	3	3											
	2.45		ML	CLAYEY SILT			1.45	7	4	3											
					Brown to dark brown clayey silt; slight to medium plasticity; traces of fine to coarse gravel; about 0-10% of fine sand at 2.0-2.45m; moist; medium stiff.		2.15	7	4	3											
	3.25		MH	SANDY SILT			2.45														
							3.15	21	9	12											
							3.45														
							5.15	17	7	10											
					Dark gray sandy silt; included fine sand; non-plastic; wet; stiff to very stiff.		5.75														
							7.15	24	10	14											
					Gray to dark gray fine to medium sand; small amount of non-plastic fines; uncemented; wet to saturated; medium dense.		7.45														
							10.15	25	12	12											
							10.45														
					FINE TO MEDIUM SAND		12.15	22	12	12											
							12.45														
					FINE TO MEDIUM SAND		15.15	25	12	15											
							15.45														
	15.95																				

GEOLOGICAL DRILL LOG

Bore Hole No. AL-14

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		LASIP CHICO DAGUPAN CITY		DEPTH		15.95 m.				
ELEVATION		0.496 m.		DATE	June 19-20, '90		DRILL RIG	TONE TASS I		DRILLED N. SOTERIO		LOGGED	H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	0.20		MH	CLAYEY SILT	Dark brownish gray clayey silt; overburden included roots.	0.60 _m									D.D.
			SP	FINE SAND	Brownish gray to gray fine sand; very fine sand with some silt at upper part (0.2-0.57m); traces of roots; about 0-50% of clay at 1.0-1.45m; moist to wet; very loose.	1.15 (5/20)									D.D.
	2.53					1.45									D.D.
	2.63		SM	SILTY SAND	Gray silty sand with some clay; slightly plastic; wet; loose.	2.15									D.D.
						2.45									D.D.
						3.15									D.D.
						3.45									D.D.
						5.15									D.D.
						5.45									D.D.
						7.15									*
						7.45									*
						10.15									*
						10.45									*
						12.15									*
						12.45									*
						15.15									*
	15.95					15.45									

GEOLOGICAL DRILL LOG

Bore Hole No. AL-15

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	LASIP, CALASIAO, PANGASINAN		DEPTH	15.45 m.								
ELEVATION		1.544 m.		DATE	June 8-10, '90		DRILL RIG	TONE TASS I		DRILLED	N. SOTERIO		LOGGED	H. FUNAOKA			
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							N-VALUE										
							20	40	60	80	20	40	60	80			
	1.00	MH	CLAYEY SILT		Brown clayey silt; high plasticity; traces of fine to medium sand, and organic materials slightly; moist; Brown to gray silty clay; medium to high plasticity; with organic materials slightly; moist; medium stiff.	1.23m										D.D.	
	2.00	CH	SILTY CLAY			1.45	18	5	3								D.D.
	2.25	SM	SILTY SAND			2.15	3	1	1								*
	3.00				2.45	3	1	1								*	
	4.00				3.15	8	1	2								*	
	5.00				3.45	8	3	5								*	
	6.00				5.15	8	3	5								*	
	7.00				5.45	8	3	5								*	
	8.00				7.15	29	11	18								*	
	9.00				7.45	29	11	18								*	
	10.00				10.75	17	7	10								*	
	11.00				10.95	17	7	10								*	
	12.00				12.75	35	14	21								*	
	13.00				12.95	35	14	21								*	
	14.00				15.15	12	6	6								*	
	15.00				15.45	12	6	6								*	

GEOLOGICAL DRILL LOG

Bore Hole No. AL-16

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MALABAGO, CALASAO PANGASINAN		DEPTH	15.45 m.						
ELEVATION		3.667 m.		DATE	June 11-13, '90		DRILL RIG	TONE TASS II		DRILLED	E. HONORIO		LOGGED	H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							DEPTH	N-VALUE								
							20	40	60	80	20	40	60	80		
6/11 6/12 6/13	1		SM	SILTY SAND	Brown silty sand; about 10-20% of silt; traces of slight organic materials; moist; loose.	1.15									D.D.	
	2	1.45		ML	CLAYEY SILT	Dark brown clayey silt; slight to medium plasticity up to 1.75m; silty clay with organic material of medium plasticity up to 2.0m; wet loose.	1.45								D.D.	
	3	2.00		CL	SILTY CLAY		2.15									D.D.
	4	3.90		ML	SANDY SILT	Dark brown to light brownish gray silty clay; saturated; medium stiff to stiff.	2.45									D.D.
	5	5.00		SP	FINE TO MEDIUM SAND	Light brown to dark gray sandy silt with some fine sand; wet; medium stiff.	3.15									D.D.
	6						3.45									D.D.
	7					Dark gray fine to medium sand; non-plastic; small amount of appreciable fines; with little clay and traces of shells at 12.0-15.45m; wet; dense to very dense, occasionally medium dense.	5.15									D.D.
	8						5.45									D.D.
	9						7.15									*
	10						7.45									*
	11						10.15									*
	12						10.45									*
	13						12.15									*
	14						12.45									*
	15						15.15									*
15.45						15.45										

GEOLOGICAL DRILL LOG

Bore Hole No. AL-17

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	MALABAGO, CALASIAO, PANG.		DEPTH	15.95 m.							
ELEVATION	1.195 m.		DATE	June 12-14, '90		DRILL RIG	KOKEN II DRILLED R. BRUNO		LOGGED	H. FUNAOKA						
DATE	DEPTH	SOIL SYMBOL	SOIL GLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							DEPTH	N-VALUE								
								20	40	60	80	20	40	60	80	
	1.00		ML	CLAYEY SILT	Dark brown clayey silt; traces of slight organic material (roots); about 0-10% of fine sand at 0.0-1.0m; medium plasticity; wet; medium stiff.	1.15										D.D.
	2.00					1.95										D.D.
	3.00					2.15										D.D.
6/12	3.12					2.85										D.D.
	4.00					3.15										D.D.
	4.12					3.85										D.D.
	5.00		SP	FINE TO MEDIUM SAND	Dark gray to gray fine to medium sand with appreciable fines; traces of gravel maximum size 3cm, subrounded and rounded at 1.0-1.52m; fine to traces of white sea shells at 3.0-3.45m; very loose to loose at upper part, medium dense at lower part; wet to saturated.	5.15										*
	6.00					5.85										*
	7.00					7.15										*
	8.00				Dark gray clay; inorganic; medium to high plasticity; saturated; soft.	7.45										*
	9.00				Dark gray sandy clay; slight to medium plasticity; saturated; soft to med. stiff.	10.15										*
	10.00		CH	CLAY		10.45										*
	11.00		CL	SANDY CLAY	Dark gray silty sand; none to slight plasticity; wet; medium dense.	10.85										*
	12.00		SM	SILTY SAND	Dark gray silty clay; slight to medium plasticity; saturated; stiff.	12.15										*
6/13	12.13					12.45										*
	13.00		CH	SILTY CLAY	Dark gray sandy silt; medium plasticity; traces of shells; saturated; stiff; lower part grade into sandy.	15.15										*
	14.00		ML	SANDY SILT		15.15										*
6/14	15.00		SP	FINE SAND	Dark gray fine sand with small amount of silt; saturated; medium dense.	15.45										*

GEOLOGICAL DRILL LOG

Bore Hole No. AL-18

PROJECT: THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL LOCATION: NILINTAP, SAN CARLOS, PANG. DEPTH: 15.45 m.

ELEVATION: 7.173 m. DATE: June 15-17, '90 DRILL RIG: _____ TONE TASS I: _____ DRILLED: E. HONORIO LOGGED: H. FUNAOKA

DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH	
							N-VALUE							
							20	40	60	80				
6/15 6/16 6/17	1	ML	SANDY SILT		Dark gray to light brown sandy silt; Dark gray at 0-0.15 m, light brown at 0.15-2.45 m; traces of organic materials; moist; stiff.	1.15							D.D.	1
	2					1.45	14	(5, 8)				D.D.	2	
	3					2.15	15	(7, 8)				D.D.	3	
	4	2.45	SM	SILTY SAND.	Light brown to brown silty sand; small amount of coarse sand; wet; medium dense.	3.15							D.D.	4
	5	3.45				12	(5, 7)				D.D.	5		
	6	5.15				16	(7, 9)				D.D.	6		
	7	7.00	SP	FINE TO MEDIUM SAND	Light brown fine to medium sand with 0-10% of silt; wet; loose.	7.15							D.D.	7
	8	7.45				7	(3, 4)				D.D.	8		
	9	7.70	ML	SANDY SILT	Dark gray sandy silt with some clay; wet; medium stiff to stiff.	10.15							D.D.	9
	10	10.45				25	(7, 24)				D.D.	10		
	11	12.15				40	(17, 23)				*	11		
	12	12.45	SP	MEDIUM SAND	Dark gray mainly medium sand, fine to medium sand at upper part (7.7-8.0 m); with little amount of silt; wet; medium dense, dense to very dense.	12.45							D.D.	12
	13	15.15				35	(31, 36)				*	13		
	14	15.45				56	(30)					14		
	15													

GEOLOGICAL DRILL LOG

Bore Hole No. AL-19

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		AND. SAN CARLOS DANGASINAN		DEPTH	15.45 m.					
ELEVATION		3.649 m.		DATE	June 15-17, '90 <th>DRILL RIG</th> <td colspan="2">KOKEN II DRILLED R. BRUNO</td> <th>LOGGED</th> <td>H. FUNAOKA</td>		DRILL RIG	KOKEN II DRILLED R. BRUNO		LOGGED	H. FUNAOKA				
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							DEPTH	N-VALUE							
							20	40	60	80	20	40	60	80	
	0.55		MH	SILT	Dark brown silt with 0-3% of fine sand; inorganic; moist; medium stiff.										D.D.
			ML	CLAYEY SILT	Dark brown clayey silt; slight plasticity; traces of fine to coarse sand at 0.55-7.0m; about 0-10% of fine sand at 1.45-2.0m; wet to moist; soft to medium stiff.	2.0m	1.15	5	3	2					D.D.
	2.95						1.45	30	15	15					
			SP	FINE SAND		(6/17)	2.15	3	2	1					D.D.
							2.45	30	15	15					
			SP	FINE SAND			2.45	3	2	3					D.D.
	3.45		SC	CLAYEY SAND	Gray fine sand; about 20-30% of silt at 2.95-3.0m; small amount of fines at 3.9-3.95m; wet; loose.		3.15	5	2	3					
	3.80		SP	FINE SAND			3.45	30	15	15					D.D.
	4.00		CL	SANDY CLAY	Brownish gray clayey sand; slight plasticity; about 0-10% of silt; wet; loose.		5.15	8	3	5					
	5.00						5.45	30	15	15					D.D.
			CL	SILTY CLAY	Gray fine sand with 0-5% of silt; wet; loose.		7.15	2	1	1					
					Gray sandy clay; slight plasticity; wet; medium stiff.		7.45	30	15	15					D.D.
	9.20				Dark gray silty clay; medium plasticity; traces of shells at 7.0-7.45m; wet; medium stiff to soft.		10.15	6	2	4					
							10.45	30	15	15					
			SP	FINE TO MEDIUM SAND	Gray fine to medium sand; small amount of non-plastic fines; traces of shells at 9.2-10.0m; wet; loose to medium dense.		12.15	27	10	17					*
							12.45	30	15	15					
							15.15	25	11	13					*
							15.45	30	15	15					

GEOLOGICAL DRILL LOG

Bore Hole No. AL - 20

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		BALINGUED BRIDGE STA. BARBARA, PANP.		DEPTH		15.45 m.						
ELEVATION		2.823 m.		DATE		June 12-13, '90		DRILL RIG		TONE TASS I		DRILLED N. SOTERIO		LOGGED H. FUNAOKA			
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							N-VALUE										
							20	40	60	80							
	1.00	ML	CLAYEY SILT		Brown clayey silt; with organic materials; low to medium plasticity; moist; soft to medium stiff.	0.88m										D.D.	
	2.00	CH	SILTY CLAY		Brown to greenish gray silty clay medium to high plasticity; med. dry strength; brown up to 2%; gray to greenish gray up to 3.45m; moist; medium stiff to stiff.	1.15 (16/13)	4/30	2/15	2/15								D.D.
	3.00				Gray sandy silt; traces of gravel; moist; soft.	2.15											D.D.
	3.75	ML	SANDY SILT		Gray silty clay with small amount of fines; slight to medium plasticity; moist; medium stiff.	2.45											D.D.
	4.00	CL	SILTY CLAY		Gray fine sand with some silt; wet; loose.	3.15											D.D.
	5.00	SP	FINE SAND		Greenish gray silty clay; med. high plasticity; wet; med. stiff.	3.45											D.D.
	6.00	CH	SILTY CLAY		Gray silty sand; low plasticity; wet; loose.	5.15											D.D.
	7.00	SM	SILTY SAND		Gray fine sand with 10-30% of silt; wet; loose.	5.45											D.D.
	8.00	SP	FINE SAND		Gray silty clay; small amount of shells; low to medium plasticity; moist; medium stiff.	7.15											D.D.
	9.00	CL	SILTY CLAY		Gray fine to medium sand; wet; loose.	7.45											D.D.
	10.00	SP	FINE TO MED. SAND		Gray silty sand; traces of shells; low plasticity; wet; very loose.	10.15											D.D.
	11.00	SM	SILTY SAND		Gray fine sand with some medium sand; wet; very loose.	10.45											D.D.
	12.00	SP	FINE SAND		Gray silty clay with some fine sand; traces of shells and organic materials; saturated; soft to medium stiff.	12.15											D.D.
	13.00	CL	SILTY CLAY		Gray fine sand with some medium sand; wet; medium dense.	12.45											D.D.
	14.00	SP	FINE SAND			15.15											*
	15.45					15.45											

GEOLOGICAL DRILL LOG

Bore Hole No. AL - 21

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		BRAY, LASIP, CALASAO, PANGASINAN		DEPTH	15.45 m.								
ELEVATION		2.769 m.		DATE	June 6-11, '90		DRILL RIG	KOKEN I		DRILLED	J. DELEON		LOGGED	H. FUNAOKA				
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH		
							DEPTH	N-VALUE										
								20	40	60	80	20	40	60			80	
	1.00		SM	SILTY SAND	Brown silty sand with some fine sand; about 10-20% of non-plastic silt; wet; loose.	1.15		7	4	3							D.D.	1
	2					1.45		30	15	15							D.D.	2
6/9						2.15		11	4	7							D.D.	3
	3					2.45		30	15	15								4
	4					3.15	3.20m	9	5	4								5
	5					3.45	(6/11)	30	15	15								6
	6					5.15		23	10	12								7
	7					5.45		30	15	15								8
	8					7.15		35	12	25								9
6/9						7.45		30	15	15								10
	9					10.15		26	32	63								11
	10					10.45		15	15	30								12
	11					12.15		48	25	23								13
6/10						12.45		30	15	15								14
	12					15.15		23	34	57								15
6/11						15.45		15	15	30								15.45

GEOLOGICAL DRILL LOG										Bore Hole No. <u>AL - 22</u>												
PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL				LOCATION		TALIBAEW, CALASIAO, PANG.		DEPTH		15.45 m.										
ELEVATION		2.884 m.		DATE		June 11-12, '90		DRILL RIG		KOKEN I		DRILLED		J. DELEON		LOGGED		H. FUNAOKA				
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH						
							DEPTH	N-VALUE														
								20	40	60	80	20	40	60			80					
	1.00		ML	SANDY SILT	Brown to dark brown sandy silt; none plastic; wet; medium stiff to stiff.		1.15												D.D.	1		
	2.00		ML	CLAYEY SILT	Brown to dark brown clayey silt; low plasticity; moist; stiff to very stiff.		1.45	15	8	7										D.D.	2	
4/11	3.00		SP	FINE SAND	Gray fine to very fine sand; moist; medium dense.	3.0 m	2.15	21	9	12										D.D.	3	
	4.00		SP	MEDIUM TO COARSE SAND	Brown to dark brown medium to coarse sand; with some gravel (#2-4); moist; dense.	(5/12)	2.45	21	9	12											D.D.	4
	5.00						3.15	21	18	23											D.D.	5
	6.00						3.45	21	18	23											D.D.	6
	7.00						5.15	25	10	15											D.D.	7
	8.00						5.45	25	10	15											D.D.	8
	9.00						7.15	23	14	12											*	9
	10.00		SP	FINE TO MEDIUM SAND	Gray fine to medium sand; with small amount of non-plastic fines from 5.0 m up to 15.0 m, becoming coarser at 15.0-15.6 m; wet; medium dense, dense and very dense.		7.45	23	14	12											*	10
	11.00						10.15	38	15	28											*	11
	12.00						10.45	38	15	28											*	12
	13.00						12.15	39	15	29											*	13
	14.00						12.45	39	15	29											*	14
4/12	15.45						15.15	25	22	34												15
							15.45	25	15	15												

GEOLOGICAL DRILL LOG										Bore Hole No. <u>AL-23</u>						
PROJECT			THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		DALONGUE, STA BARBARA, PANG.		DEPTH	15.45 m.					
ELEVATION		4.727 m.	DATE	June 4-6, '90		DRILL RIG	KOKEN II	DRILLED	R. BRUNO	LOGGED	H. FUNAOKA					
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							N-VALUE									
							20	40	60	80	20	40	60	80		
	1.00		SM	SILTY SAND	Brown silty sand; traces of plant matters; moist; medium dense										D.D.	1
6/4	2.00		ML	SANDY SILT	Brown sandy silt; uncemented; moist; stiff.	2.10m									D.D.	2
	2.95		SM	FINE SAND	Brown fine sand; about 10-20% of silt; wet; med. dense	(4/6)									D.D.	3
	3.00		ML	SANDY SILT	Brown to brownish gray sandy silt; none to slight plasticity; about 0-20% of clay at 3.0-3.45m; wet to moist; soft to medium stiff.										D.D.	4
	5.00				Light gray to gray fine to medium sand; with small amount of non-plastic fines at 5.0-10.0m; traces of fine gravel at 5.0-5.5m, and coarse sand at 10.0-10.45m; wet; loose to medium dense.										*	6
6/5	7.00														*	7
	8.00		SP	FINE TO MEDIUM SAND											*	8
	9.00														*	9
	10.00														*	10
	11.00														*	11
	12.00														*	12
	13.00														*	13
	14.00		SP	FINE SAND	Gray fine to very fine sand; with some clay at 13.0-13.45m; wet; dense.										*	14
6/6	15.45														*	15

GEOLOGICAL DRILL LOG										Bore Hole No. AL - 24								
PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		MANAMBA BRIDGE, STA. BARBARA, PANG.		DEPTH		15.45 m.							
ELEVATION		6.220 m.		DATE		June 6-8, '90		DRILL RIG		TONE TASS I		DRILLED N. SOTERIO		LOGGED		H. FUNAOKA		
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER DEPTH	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH		
							N-VALUE											
							20	40	60	80	20	40	60	80				
6/6	1		CL	SILTY CLAY	Dark brown to brown silty clay; unconsolidated; none plastic; with some gravel (φ1-2cm) at 3.95-3.55m; moist; loose.	1.15	6	3	3								D.D.	1
	2		CL	SILTY CLAY		1.45	6	3	3								D.D.	2
	3		CL	SILTY CLAY		2.15	6	4	2								D.D.	3
	4		CL	SILTY CLAY		2.45	6	4	2								D.D.	4
	5		SP	FINE TO MEDIUM SAND	Brownish gray fine to medium sand; with 10-20% of silt; with coarse sand at 5.0-5.45m; moist to wet; medium dense.	4.23m 5.15	12	1	5								D.D.	5
	6		CH	SILTY CLAY	Brown silty clay; medium to high plasticity; moist.	5.45	12	1	5								*	6
	7		SC	CLAYEY SAND	Brown clayey sand; none to slight plasticity; wet; loose.	7.15	43	15	28								D.D.	7
	8		SP	MEDIUM TO COARSE SAND	Gray medium to coarse sand; fine to medium sand at 7.0-7.45m, med. to coarse sand at 7.45-15.45m; about 0-10% of non-plastic fines; moist to saturated; dense to very dense.	7.45	43	15	28								*	8
	9		SP	MEDIUM TO COARSE SAND		10.15	57										*	9
	10		SP	MEDIUM TO COARSE SAND		10.45	57										*	10
	11		SP	MEDIUM TO COARSE SAND		12.15	51	21	30								*	11
	12		SP	MEDIUM TO COARSE SAND		12.45	51	21	30								*	12
	13		SP	MEDIUM TO COARSE SAND		15.15	45	19	24								*	13
	14		SP	MEDIUM TO COARSE SAND		15.45	45	19	24								*	14
6/8	15		SP	MEDIUM TO COARSE SAND		15.45	45	19	24								*	15

GEOLOGICAL DRILL LOG										Bore Hole No. <u>AL-25</u>							
PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL				LOCATION		VENTINILLA, STA. BARBARA, PANG		DEPTH		15.45 m.					
ELEVATION		6.750 m.		DATE		June 7-11, '90		DRILL RIG		TONE TASS II		DRILLEDE HONORIO		LOGGED		H.FUNAOKA	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							DEPTH	N-VALUE									
							20	40	60	80	20	40	60	80			
	1.00		ML	SANDY SILT	Brown sandy silt; traces of gravel and slight organic materials; wet; medium stiff.												D.D.
	2.00		CL	SILTY CLAY	Brown to dark brown silty clay; medium plasticity; wet; very stiff to stiff.												D.D.
	2.94																D.D.
	3.90		ML	SANDY SILT	Brown sandy silt; none plastic; wet; stiff.												D.D.
	4.00																D.D.
	5.00		SM	SILTY SAND	Brown silty sand; moist to wet; medium dense.	4.35m											D.D.
	6.00		CL	SILTY CLAY	Brown silty clay; low to medium plasticity; moist; stiff.	(6/11)											D.D.
6/8	7.00		ML	SANDY SILT	Brown sandy silt with 0-10% of clay; wet; stiff.												D.D.
	7.95		CL	SILTY CLAY	Gray silty clay; medium plasticity; wet; stiff.												D.D.
	8.00																D.D.
	9.00		CL	SANDY CLAY	Gray sandy clay; slightly plastic; wet; stiff.												D.D.
	10.00		SM	SILTY SAND	Gray silty sand with about 0-10% of non-plastic silt; saturated; medium dense.												D.D.
6/9	11.00																D.D.
	12.00		ML	CLAYEY SILT	Gray to dark gray clayey silt; slight to medium plasticity; traces of fine sand and fine gravel at 10.0-10.45m; traces of organic material with 0-10% of fine sand at 10.45-13.0m; wet; very stiff to stiff.												WB
	13.00																WB
	14.00		SP	FINE SAND	Dark gray fine sand; traces of silt; wet; loose.												*
6/11	15.45																

GEOLOGICAL DRILL LOG

Bore Hole No. AL-26

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		LEET. STA. BARBARA		DEPTH	15.45 m.										
ELEVATION		9.639 m.		DATE	June 7-11, '90		DRILL RIG	KOKEN II	DRILLED	R. BRUNO		LOGGED	H. FUNAOKA							
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH				
							DEPTH	N-VALUE			20	40	60	80			20	40	60	80
								20	40	60										
	1.00	SM		SILTY SAND	Light brown silty sand; traces of fine to coarse gravel, max. size 3cm, rounded to subrounded up to 0.6m; Dry to moist (0.6-1.2m); medium dense.	1.15										D.D.	1			
	2.00	ML		SANDY SILT	Brown sandy silt; slightly plastic; wet; medium stiff.	1.45											D.D.	2		
		CL		SILTY CLAY	Dark brown silty clay; medium plasticity; wet; very stiff to stiff.	2.15											D.D.	3		
						2.45											D.D.	3		
	5.00				Dark brown clayey silt; slightly plastic; wet; very stiff.	3.15											D.D.	4		
						3.45											D.D.	4		
	5.95	ML		CLAYEY SILT	Gray silty clay; traces of fine sand; slight to medium plasticity; wet; very stiff.	5.15											D.D.	5		
4/7		CL		SILTY CLAY		5.45											D.D.	6		
	6.00				Dark brown sandy silt; wet; very stiff.												D.D.	7		
		ML		SANDY SILT		7.15											D.D.	7		
	7.95					7.45											D.D.	8		
					Gray to light gray fine to medium sand; traces of fine gravel; about 0-10% of silt, becoming coarser at 10.45-12.0m; wet; very dense.												*	9		
		SP		FINE TO MEDIUM SAND		10.15											*	10		
6/9		SM		SAND		10.45											*	11		
	12.00				Gray sandy clay; low plasticity, wet; hard.	12.15												12		
	12.95	CL		SANDY CLAY		12.45												13		
					Light gray to gray fine to medium sand; traces of fine gravel, rounded and subrounded; wet; dense to medium dense.													14		
		SM		FINE TO MEDIUM SAND		15.15												15		
6/10	15.45					15.45														

GEOLOGICAL DRILL LOG

Bore Hole No. JA-1

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION	SAN MANUEL BANGASINAN		DEPTH	15.0 m.								
ELEVATION		02.767 m.		DATE	Dec. 19-27 82		DRILL RIG	TONE TASS DRILLED & TUYO		LOGGED	Dek Cruz						
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH				
							N-VALUE										
							20	40	60	80	20	40	60	80			
	1		ML	SANDY SILT	Brown, SANDY SILT, low plasticity, traces of clay, up to 0.80m, then becoming clayey silt of low to medium plasticity, traces of fine sand, dry to moist, medium stiff to stiff.	1.30									D.O	1	
	2					1.45	11	30	15	6						D.O	2
	3		SM	SILTY FINE SAND		2.15	2	30	15	15						D.O	3
	4				Brown, SILTY FINE SAND, fine grained sand, traces of roots, about 5-10% low plasticity clay, about 5% medium sand, moist, dense.	2.25											
	5					3.15	44	25	15	40							4
	6				Grayish, GRAVEL-SAND MIXTURE, alternating layers of gravel and cobbles, gravel is fine to coarse, rounded and subrounded, maximum size range from 6cm to 10cm, alternated by fresh cobbles and boulders about 20% - 40% considerable amount of fines was observed from drilling (cludge, core length range from 8cm to 12cm, RQD range from 15-20%, gravel is mainly consist of quartz porphyry and andesite, alluvial deposits)	3.25											
	7																
	8		SP	GRAVEL and SAND MIXTURE WITH CORBBLES and BOULDERS													
	9																
	10																
	11																
	12																
	13																
	14																
	15																
	16.00				END of BORING												

D.O = Dry Drilling
 WB = Wash Bar

GEOLOGICAL DRILL LOG

Bore Hole No. UA-2

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		SAN MANUEL PANGASINAN		DEPTH		15.6 m.				
ELEVATION		65.983 m.		DATE		JAN. 2-C, '91		DRILL RIG		TONE TASS		DRILLED R. TUYO		LOGGED J. dela CRUZ	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80	20	40	60	80	
	1	ML CL	CLAYEY SILT		Brown to brownish gray, CLAYEY SILT, low to medium plasticity, traces of roots, about 5-10% fine sand, moist to wet, loose.	120m 11E 11.45 (1/6)					5 30	2 15	2 15		DD
	2	SM	FINE TO MEDIUM SILTY SAND			21.15 2.45					14 30	3 15	5 15		DD
	3	SP	FINE SAND		Gray, FINE TO MEDIUM SILTY SAND; traces of low plasticity clay, traces of roots moist to wet, loose.	2.45 3.15					53 30	28 15	30 15		DD
	4	SP	FINE TO MEDIUM SAND		Gray FINE SAND; appreciable amount of non-plastic fines, moist to wet, medium dense to very dense.	3.45									
	5														
	6														
	7														
	8														
	9	GP	GRAVEL SAND MIXTURE		Brown to brownish gray, FINE TO MEDIUM SAND; traces of roots, about 5-10% non-plastic silts, with fine to coarse gravel, rounded and sub-rounded, maximum size 2cm, wet, very dense.										WB
	10														
	11														
	12														
	13														
	14														
	15														
	15.6				Light gray to grayish white, GRAVEL-SAND-MIXTURE, with cobble and boulders, alternating fine to coarse gravel, maximum size range from 2cm to 8cm, with fine to coarse sand mixture being washed out, light gray to gray, fresh cobbles about 30% were recovered, its size is ranging from 6cm to 8cm, light gray to grayish white boulders are hard and fresh, very small amount of fines. Alluvial deposits, gravel is mainly consist of quartz porphyry and andresite.										
					END OF BORING										
					DD- DRY DRILLING										
					WB- WASH BORING										

GEOLOGICAL DRILL LOG										Bore Hole No. UA-3									
PROJECT				THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL				LOCATION		SAN MANUEL, PANGASINAN		DEPTH		15.0 m.					
ELEVATION		67.025 m.		DATE		JAN. 7-10, '91		DRILL RIG		TONE TASS		DRILLED		B. TUYO		LOGGED		J. Dela Cruz	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)				REMARKS	DEPTH			
							N-VALUE												
							20	40	60	80	20	40	60	80					
	1		ML	SANDY SILT	Brown, SANDY SILT; very fine sand, traces of rock, about 5-10% fine to coarse rounded to subrounded gravel, maximum size range from 4cm to 5cm, moist, stiff to hard.	1.40 m										DD			
	2		CL	SILTY SAND		1.45										DD			
7/8	3		SP	GRAVELLY SAND	Brown, SILTY SAND, fine to coarse sand, about 5-10% fine to coarse gravel, maximum size range from 4cm to 5cm rounded and subrounded; small amount of clay, medium dense to dense.	2.15										DD			
	4					2.45										DD			
	5					3.15										DD			
	6					3.45										DD			
	7		SP	FINE TO COARSE SAND	Brown to dark brown, GRAVELLY SAND; subrounded, maximum size range from 3cm to 4cm, appreciable amount of fines, at 3.45 to 4.65 m gravel range from 5cm to 6cm, wet, dense to medium dense.	5.15										DD			
	8					5.45										DD			
7/8	9					7.15										DD			
	10					7.45										DD			
7/8	11				Grayish brown, FINE TO COARSE SAND; trace of gravel size range from 1cm to 3.8cm, about 5-10% fines, wet, dense to very dense.											WB			
	12		GP	GRAVEL SAND MIXTURE WITH COBBLES AND BOULDERS	Dark brown, GRAVEL-SAND MIXTURE, alternating layer of sand and gravel mixture, rounded and sub-rounded, about 20%-30% fines, P&Q range from 15-20%, moist, core length of cobbles and boulders 3cm - 13cm.											WB			
	13															WB			
	14															WB			
7/8	15															WB			
					END of BORING														

GEOLOGICAL DRILL LOG

Bore Hole No. UA-4

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		SAN MANUEL PANGASINAN		DEPTH	15.0 m.						
ELEVATION		51.276 m.		DATE	JAN 6-12, '91		DRILL RIG	TONE TASS	DRILLED	R. B. CAMERA						
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH			
							N-VALUE									
							20	40	60	80	20	40	60	80		
	1.0		ML	SANDY SILT	Light brown, SAND SILT; about 10%-20% non-plastic, traces of organic materials, becoming silty sand from 0.20m to 1.0m, silt is about 15-30%, dry, medium dense											
	2.0		SP	FINE SAND												
	4.0		SP	FINE TO COARSE SAND	Brown, FINE SAND; about 10%-20% low plasticity fines, trace of roots, moist, loose.											
	5.5		SP-SW	GRAVELLY SAND												
	10.0		GP	GRAVEL and SAND MIXTURE	Gray, GRAVELLY SAND; fine to coarse sand about 15% rounded to subrounded gravel, max. size range from 3-5 cm appreciable amount of non-plastic fines, very dense.											
	12.0		GP-GW	GRAVEL SAND and COBBLES MIXTURE												
	15.0				Dark gray, GRAVEL and SAND MIXTURE, fine to coarse sand, maximum size of gravel, range from 4cm-6cm, rounded and subrounded, trace of silt, very dense, wet.											
					Grayish, GRAVEL-SAND-COBLES MIXTURE; alternating layer of gravel, sand and cobbles, fine to coarse gravel consist of tuff breccia, quartz, porphyry, andesite and basalt, traces of fresh boulders, about 20-40% considerable amount of fines was observed from drilling sludges, range from 15%-25%, wet, very dense.											

END of BORING

GEOLOGICAL DRILL LOG

Bore Hole No. MA-1

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL			LOCATION		STA. MARIA, PANGASINAN		DEPTH	16.45 m.					
ELEVATION		43.149 m.		DATE	JAN. 12-14, '91		DRILL RIG	TONE TASS		DRILLED	B. TUYO		LOGGED	B. DALUSONG	
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80	20	40	60	80	
	1.80	SM		SILTY SAND	BROWN, SILTY SAND, very fine sand, traces of rocks, moist, loose.	1.15									
	2.10	CL		SANDY CLAY	BROWN, SANDY CLAY; low to medium plasticity	1.45									
	2.10	SP		FINE SAND	about 15-35% non-plastic fines, moist, loose.	2.15									
	3.15				Brown, FINE SAND; appreciable amount of fines, moist, medium dense.	2.45									
	3.45					3.15									
	3.45					3.45									
	5.15	SP-SW		FINE TO COARSE SAND	Dark gray, FINE TO COARSE SAND; about 5% fine to coarse gravel, rounded and subrounded, (0.1-20)	5.15									
	6.45				appreciable amount of fines, wet, medium dense	6.45									
	7.15					7.15									
	7.45					7.45									
	8.00														
	10.00	SP		GRAVELLY SAND	Gray, GRAVELLY SAND; gravel is about 20%-30%, size range from 0.5 cm to 2.5 cm rounded and subrounded, moist to wet, medium dense.	10.15									
	10.45					10.45									
	12.15					12.15									
	12.45	SP		MEDIUM TO COARSE SAND	Dark gray, MEDIUM TO COARSE SAND; about 5-15% fine to coarse gravel, rounded and subrounded, maximum size range from 1.00 cm to 4 cm (φ), moist to wet, medium dense.	12.45									
	15.45					15.15									
	15.45					15.45									
					END OF BORING										
					DD - DRY DRILLING										

GEOLOGICAL DRILL LOG

Bore Hole No. MA-2

PROJECT		THE FEASIBILITY STUDY OF AGNO RIVER FLOOD CONTROL				LOCATION		STA. MARTA, PANGASINAN		DEPTH		20.0 m.			
ELEVATION		36.423 m.		DATE		Jan. 12-16, '91		DRILL RIG		TONE TACS		DRILLED N. SOTEP 10			
LOGGED		B. DALUSON		LOGGED		B. DALUSON		LOGGED		B. DALUSON		LOGGED			
DATE	DEPTH	SOIL SYMBOL	SOIL CLAS.	SOIL TYPE / FORMATION	DESCRIPTION	GROUND WATER	STANDARD PENETRATION TEST (SPT)				CORE RECOVERY (%)	REMARKS	DEPTH		
							N-VALUE								
							20	40	60	80	20	40	60	80	
	1		ML	SANDY SILT	Brown, SANDY SILT; slightly plastic, traces of roots, traces of gravel, size range from 2cm to 3cm at 0.60 to 6.0 m, medium dense to dense, dry.	1.15									DD
	2		ML	SANDY SILT		1.45									DD
	3		ML	SANDY SILT		2.15									DD
	4		ML	SANDY SILT	Dark brown, CLAYEY SAND; traces of non-plastic fines, slightly plastic silt; medium dense moist.	3.15									DD
	5		ML	SANDY SILT		3.45									DD
	6		ML	SANDY SILT		4.15									DD
	7		SC	CLAYEY SAND	Brown, FINE TO MEDIUM SAND; brown from 6.0m-7.0m, traces of non-plastic fines, traces of clay, becoming gray, from 7.0-9.0 m. medium dense, moist.	4.45									DD
	8		GP	FINE TO MEDIUM SAND	Grayish, GRAVEL-SAND MIXTURE; alternating layer of sand and gravel, about 20-30% considerable amount of fines, being washed out during drilling, rounded and subrounded gravel, moist to wet, alluvial deposits, gravel is mainly consist. of quartz, porphyry and andesite.	7.15								DD	
	9		GP	FINE TO MEDIUM SAND		7.45									TS
	10		GP	FINE TO MEDIUM SAND		9.15									DD
	11		GP	GRAVEL SAND MIXTURE		9.45									WB
	12		GP	GRAVEL SAND MIXTURE	Grayish brown to light gray GRAVEL-SAND MIXTURE WITH COBBLES and BOULDERS alternating fine to coarse gravel, rounded and sub-rounded, size range from 3cm to 4cm, hard fresh cobbles and boulders, core length 10-14cm, RQD range from 10-16%, appreciable amount of fines.										DD
	13		GP	GRAVEL SAND MIXTURE											TS
	14		GP	GRAVEL SAND MIXTURE											WB
	15		GP	GRAVEL SAND MIXTURE											WB
	16		GP	GRAVEL SAND MIXTURE											WB
	17		GP	GRAVEL SAND MIXTURE											WB
	18		GP	GRAVEL SAND MIXTURE											WB
	19		GP	GRAVEL SAND MIXTURE											WB
	20		GP	GRAVEL SAND MIXTURE											WB

END OF BORING

DD - DRY DRILLING
WB - WASH BORING
TS - TEST SAMPLE