

APPENDIX - A

**JAKARTA – BANDUNG HIGH SPEED RAILWAY PROJECT
FEASIBILITY STUDY PHASE-I**

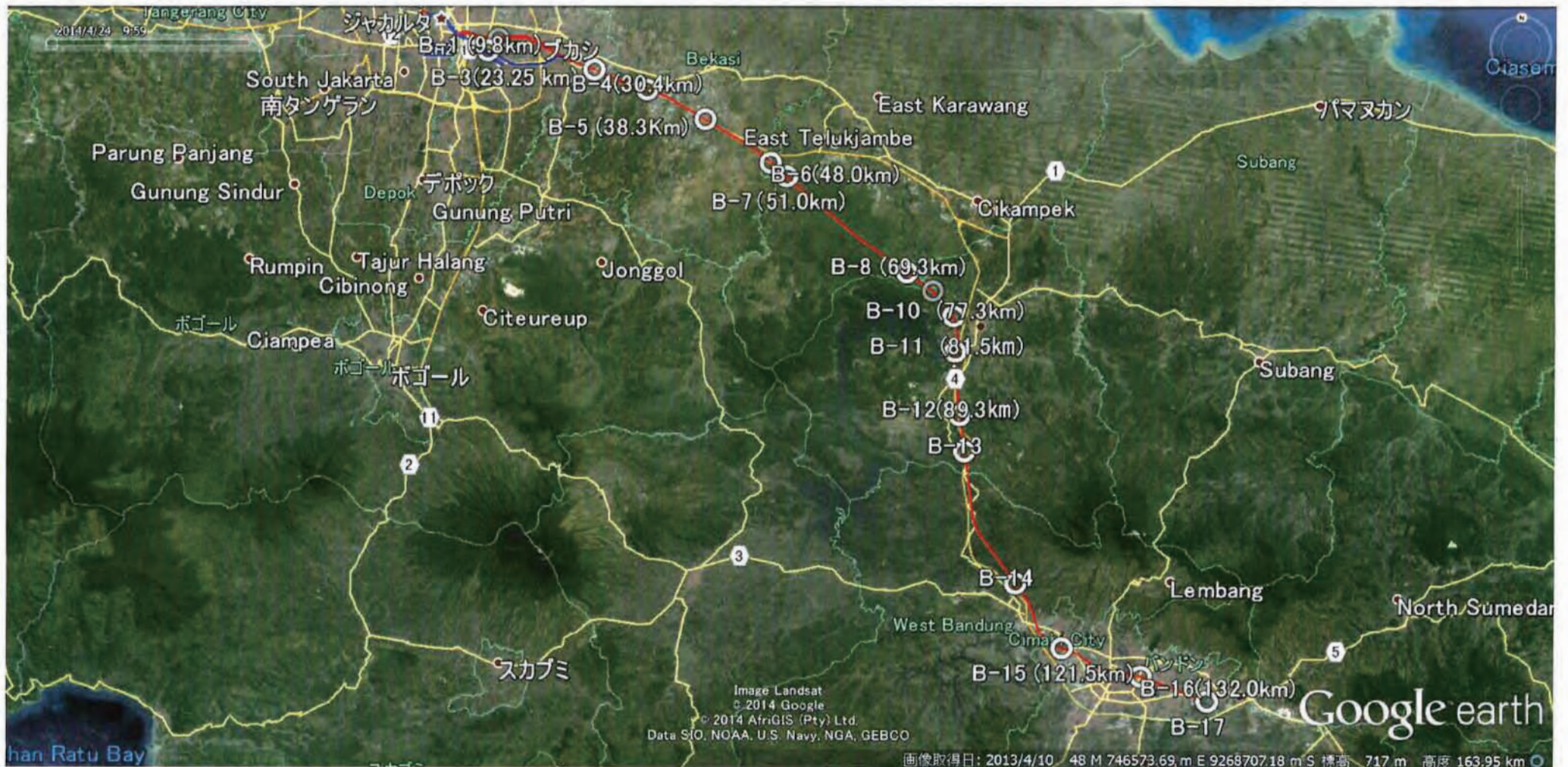


Figure-1 Location Map (All Boring Survey Points)



Boring point: B.1



Boring point: B.2



Boring point: B.3



Boring point: B.4



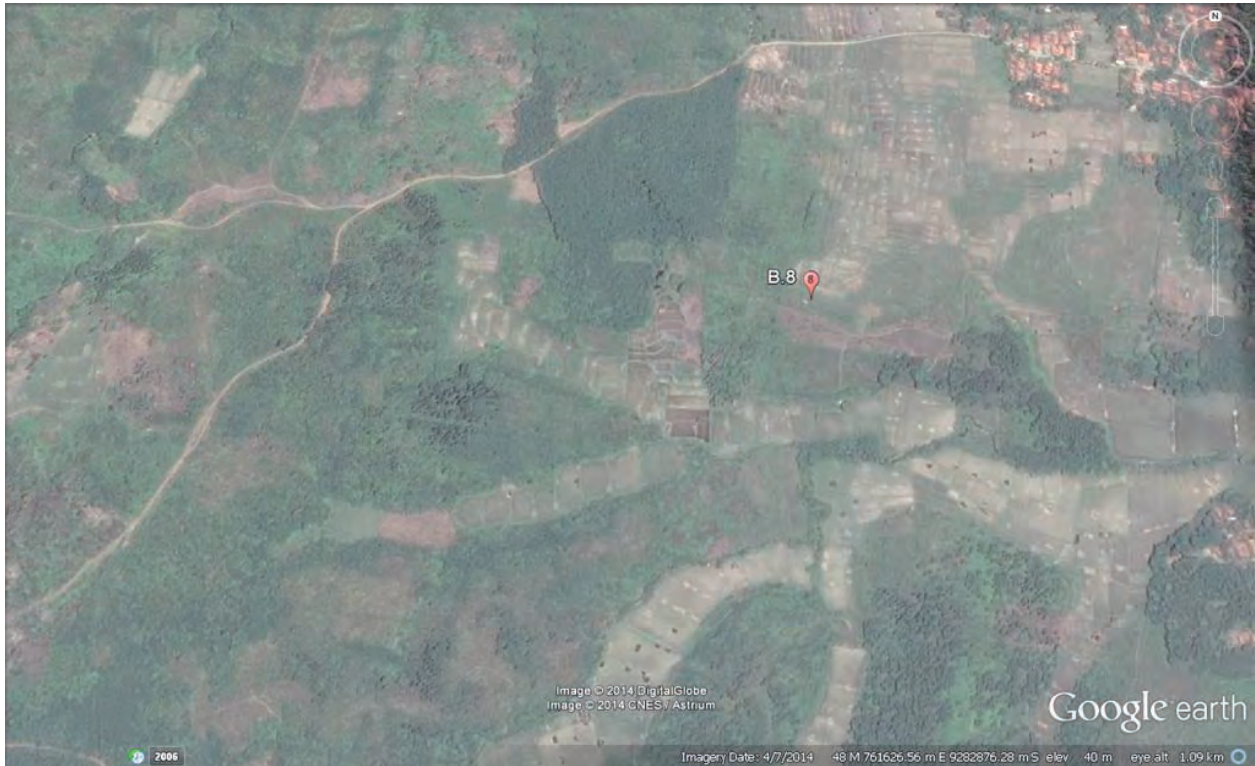
Boring point: B.5



Boring point: B.6



Boring point: B.7



Boring point: B.8



Boring point: B.9



Boring point: B.10



Boring point: B.11



Boring point: B.12



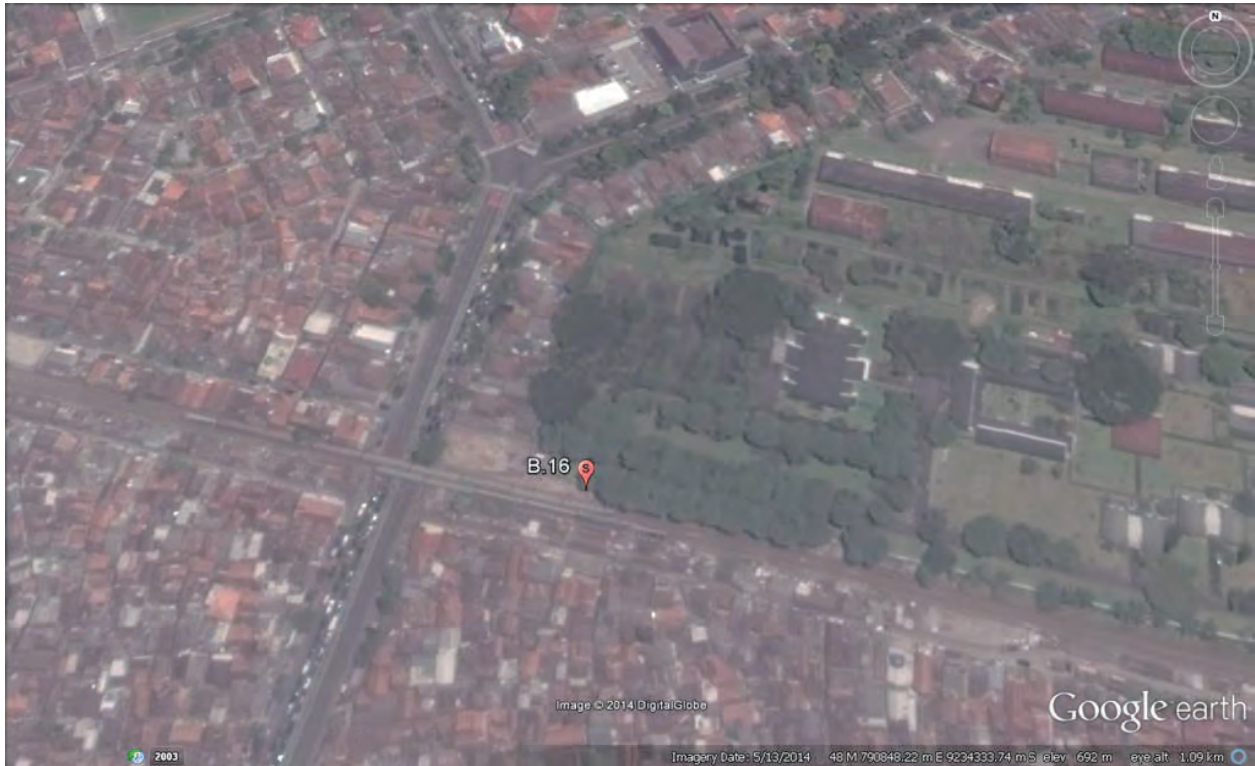
Boring point: B.13



Boring point: B.14



Boring point: B.15



Boring point: B.16



Boring point: B.17

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : JL.INSPEKSI TARUM BARAT KALI MALANG
 BORE HOLE NO. : B-1
 ELEVATION (M) : 25.00
 COORDINATES : E = 710072.00 ; N = 9309435.00
 DEPTH (M) : 21.45

WATER LEVEL (M) : - 1.90
 DATE : Octr 31 to Nov 5, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : A. Fido
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page : 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
1.70 2.00	00.00	CH		CLAY, red coloured (10R;5/8), medium to high plasticity, medium to high dry strength, medium to high toughness, clay with gravel at 0.00-0.30 m depth,	1.00	0.25	1.15	4/30				
	2.45			1.45	0.25	2.15	24/30					
5.70 6.00	2.45	CH		CLAY, light grey coloured (GLAY1;7/N), medium to high plasticity, medium to high dry strength, medium to high toughness, sandstone at 2.70-3.20 m and 3.80-4.00 m depth,	2.00	0.25	3.00	50/2				
	5.60			4.00	0.25	4.15	2/30					
5.70 6.00	5.60	CH		CLAY, light grey coloured (GLAY1;7/N), low to medium plasticity, low to medium dry strength, low to medium toughness,	4.45	0.25	5.15	9/30				
	7.00			5.00	0.50	5.45	1.50	6.15	10/30			
11.70 12.00	7.00	SC		CLAYEY SAND, brown coloured (7.5YR;4/4), About 60% fine to medium sand, about 40% silty and clayey fines low plasticity, clay at 11.00-11.80 m depth,	5.70	1.50	7.15	51/30				
	11.80			6.00	1.50	7.45	>4.50	8.15	53/30			
13.70 14.00	11.80	CH		CLAY, very dark greyish green coloured (GLAY1;3/5G_2), low to medium plasticity, low to medium dry strength, low to medium toughness, slightly silty,	7.45	1.50	9.15	47/30				
	13.45			7.00	>4.50	12.00	3.75	12.15	36/30			
15.70 16.00	13.45	CH		CLAY, dark greyish brown coloured (10YR;4/2), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, slightly sandy, clayey sand with gravel at 14.45-15.00,	12.45	3.75	13.15	48/30				
	15.00			13.00	>4.50	13.45	>4.50	14.15	42/30			
17.70 18.00	15.00	CH		CLAY, greenish black coloured, slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, slightly sandy.	14.00	>4.50	15.15	49/30				
	17.70			14.45	>4.50	16.15	49/30					
19.70 20.00	17.70	CH			15.70	1.50	17.15	64/30				
	19.70			16.00	1.50	18.15	51/30					
20.00 21.45	20.00	SP		SAND WITH GRAVEL, greenish black coloured, About 80% fine to medium sand, about 15% sub-rounded gravel max 30 mm in dia, 5% silty and clayey fines non plasticity,	17.45	>4.50	19.15	56/30				
	21.45			20.15	56/30							
	21.45			END OF THIS BORING. CASING DOWN TO - 21.00 METERS IN DEPTH.	21.15	>4.50	21.15	75/30				

BH01.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Jl.Inspeksi Tarum Barat KI Malang
 BORE HOLE NO. : B-2
 ELEVATION (M) : 26.00
 COORDINATES : E= 711347.00 ; N= 9310908.00
 DEPTH (M) : 20.25

WATER TABLE (M) : -7.00
 DATE : November 12 to 14, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : A. Fido
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80
									40	80		
	0.00	CL		LEAN CLAY, light brown (7.5YR 6/4), medium to low plasticity, medium dry strength, found subrounded gravel at 1.50-1.75m, medium stiff to stiff.			1.15	4/30				
	1.70	CH		SANDY FAT CLAY, dark gray (7.5YR 4/1), slightly silty, high to medium plasticity, high dry strength, moist, medium stiff.	1.45	0.25	2.15	5/30				
	2.00	SC		CLAYEY SAND, tuffaceous, light brown (7.5YR 6/4), sand is fine grained, medium dense.	2.00	0.25	3.15	7/30				
	2.70	SC					4.15	47/30				
	3.70						5.15	49/30				
	4.00						6.15	46/30				
	5.70						7.15	45/30				
	6.00	CH		SANDY FAT CLAY, tuffaceous, light brown (7.5YR 6/4), low plasticity, sand is fine grained, hard.			8.15	44/30				
	7.70						9.15	44/30				
	8.00						10.15	51/30				
	9.70	ML		SILT, tuffaceous, dark bluish gray (GLEY2 4/1), weakly cemented, hard.			11.15	54/30				
	10.00						12.15	53/30				
							13.15	54/30				
							14.15	57/30				
							15.15	61/30				
							16.15	53/30				
	14.00	SP		POORLY GRADED SAND, tuffaceous, dark bluish gray (GLEY2 4/1), weakly cemented, sand is fine to medium grained, slightly silty, very dense.			17.15	51/30				
							18.15	52/30				
							19.15	31/30				
							20.15	50/10				
	20.25											
				END OF THIS BORING. CASING DOWN TO 19.80 METER IN DEPTH.								

BH02.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 CLIENT : HIGH SPEED RAILWAY PROJECT (FS-I)
 LOCATION : JICA Study Team
 BORE HOLE NO. : B-3
 ELEVATION (M) : +36.00
 COORDINATES : E=723199.00 ; N=9307254.00
 DEPTH (M) : 50.45

WATER LEVEL (M) : -7.00
 DATE : Nov.02 to 07, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Aceng D.
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm2)	SPT - N value		RECOVERY (%)			
						Depth (m)	BLOWS PER CM		N PER FOOT		
						40	80	40	80		
00.00	CH		CLAY, red coloured (5YR;4/8), medium to high plasticity, medium to high dry strength, medium to high toughness, of weak strength coralline (chalk) at 0.60-0.70 m and 1.00-1.45 m depth, very stiff.	1.00	*	1.15	21/30				
1.70					1.45	*					
2.00					2.00	1.50	2.15	15/30			
3.70					2.45	3.00					
4.00					3.00	3.50	3.15	19/30			
5.70	CH		CLAY, light grey coloured (GLAY1;7/N) mottled strong brown coloured, slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, medium stiff to stiff.	3.45	3.50						
6.00					3.70	3.50	4.15	10/30			
7.00					4.00	1.50					
8.00					4.45	1.50	5.15	5/30			
9.70					5.00	1.00					
10.00	CH		CLAY, brown coloured (7.5YR;4/4), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, stiff to very stiff.	5.45	1.00	6.15	3/30				
10.70					6.00	1.00					
11.00					6.45	1.00	7.15	5/30			
11.70					6.70	1.00					
12.00					7.45	1.00	8.15	19/30			
13.00	MH		SAND SILT, brown coloured (7.5YR;4/4), About 60% fine to medium sand, 40% silty and clayey fines low plasticity, very stiff to hard.	8.45	*	9.15	9/30				
13.70					8.70	*					
14.00					9.00	*	10.15	6/30			
15.70					9.45	*					
16.00					10.00	1.50	11.15	17/30			
17.00	ML		SILT, brown coloured (7.5YR;5/4), low to medium plasticity, low to medium dry strength, low to medium toughness, slightly sandy, very stiff to hard.	10.45	3.50	12.15	11/30				
17.70					11.00	3.50					
18.00	CH		FAT CLAY with SAND, very dark greenish grey coloured (GLAY;3/N), silty fines, medium to high plasticity, organic clay at 19.60-20.00 m depth, very stiff.	11.45	2.00	13.15	25/30				
19.70					12.00	2.00					
20.00					12.45	2.00	14.15	33/30			
21.70					13.00	*	15.15	20/30			
22.00					13.45	*	16.15	27/30			
22.70	SM		SILTY SAND, black coloured (GLAY;2.5/N), about 90% fine to medium sand, about 10% clayey and silty fines non plasticity, sandy clay with silt at 23.45-24.00 m depth, medium dense.	14.00	4.00	17.15	48/30				
23.70					14.45	4.00					
24.00					14.70	4.00	18.15	23/30			
24.45					15.00	*	19.15	23/30			
25.00					15.45	*	20.15	29/30			
26.45	CH		CLAY, greenish grey coloured (GLAY;5/1), slightly silty, slightly sandy, medium to high plasticity, low to medium dry strength, low to medium toughness, very stiff to hard.	16.00	*	21.15	25/30				
26.45					16.45	*	22.15	26/14			
27.00					17.00	*	23.15	28/30			
27.45					17.45	*	24.15	30/30			
28.00					18.00	*	25.15	28/30			
28.45	CH		SANDY CLAY, very dark greenish brown coloured (10YR;3/2), slightly silty, medium to high plasticity, low to medium dry strength, low to medium toughness, hard.	18.45	4.00	26.15	86/30				
28.45					19.00	*					
28.45					19.45	*	27.15	48/30			
29.00					20.00	4.00	28.15	68/30			
29.00					20.45	4.00	29.15	76/30			
29.00	SP		POORLY GRADED SAND, black coloured (GLAY;2.5/N), about 90% very fine sand, about 10% clayey and silty fines non plasticity, few compacted clay, very dense.	21.00	*						
30.00					21.45	*					
			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.								

BH03.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : JL.RAYA JATI MULYA,JATI MULYA, BEKASI
 BORE HOLE NO. : B-3
 ELEVATION (M) : +36.00
 COORDINATES : E=723199.00 ; N=9307254.00
 DEPTH (M) : 50.45

WATER LEVEL (M) : -7.00
 DATE : Nov.02 to 07, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Aceng D.
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 2 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value		RECOVERY (%)		
						Depth (m)	BLOWS PER CM		N PER FOOT	
						40	80	40	80	
30.00	SP		POORLY GRADED SAND, black coloured (GLAY;2.5/N), about 90% very fine sand, about 10% clayey and silty fines non plasticity, few compacted clay, very dense,	30.45	*	30.15	49/30			
31.70	CH		CLAY, very dark greenish grey coloured (GLAY;3/N), slightly silty, slightly sandy, medium to high plasticity, low to medium dry strength, low to medium toughness, very stiff to hard.	31.00	1.00	31.15	10/30			
32.00				31.45	32.00	2.50	32.15	27/30		
33.70	CH		CLAY, yellowish brown coloured (10YR;5/4) mottled grey coloured (GLAY1;5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, laminated with very fine sand lenses, very stiff.	33.00	*	33.15	18/30			
34.00				33.45	34.00	*	34.15	28/30		
35.00	CH		CLAY, grey coloured (10YR;5/1), medium to high plasticity, medium to high dry strength, medium to high toughness, clay grey coloured (10YR;5/1) mottled red coloured (2.5YR;4/6) at 35.00-36.00 m depth, stiff to very stiff.	34.45	2.00	35.00	29/30			
35.70				35.55	35.00	2.00	35.15	29/30		
36.00	CH			35.45	2.00	36.00	17/30			
37.00				36.45	36.00	2.00	36.15	17/30		
37.70	CH			37.00	1.50	37.15	12/30			
38.00				37.45	37.15	1.50	38.15	15/30		
39.00	CH		CLAY, olive yellow coloured (2.5Y;6/6), medium to high plasticity, medium to high dry strength, medium to high toughness, laminated with very fine sand lenses, very stiff.	38.00	1.50	38.15	15/30			
39.70				38.45	39.00	1.00	39.15	14/30		
40.00	CH			39.45	1.50	40.00	21/30			
41.70				40.00	40.00	1.50	40.15	21/30		
42.00	CH			40.45	1.50	41.00	23/30			
43.70				41.00	41.00	1.50	41.15	23/30		
44.00	CH			41.45	2.00	42.00	24/30			
44.70				42.00	42.00	2.00	42.15	24/30		
45.45	SP		POORLY GRADED SAND, light olive brown coloured B.5Y;5/4), about 95% very fine to medium sand, about 5% clayey and silty fines non plasticity, hard.	42.45	2.00	43.00	23/30			
47.70				43.00	43.00	2.00	43.15	23/30		
48.00	SP		POORLY GRADED SAND, very dark greyish green coloured (GLAY;3/2), about 90% very fine to medium sand, about 10% clayey and silty fines low plasticity, dense.	43.45	2.00	44.00	24/30			
49.70				44.00	44.00	2.25	44.15	24/30		
49.45	CH		CLAY, black coloured (GLAY1;2.5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff to hard.	44.45	2.00	45.00	65/30			
50.00				50.00	45.45	3.50	45.15	65/30		
50.45			END OF THIS BORING. CASING DOWN TO 46.00 METERS IN DEPTH.	46.00	*	46.15	58/30			
				46.45	*	47.00	57/30			
				47.00	*	47.15	57/30			
				47.45	*	48.00	42/30			
				48.00	*	48.15	42/30			
				48.45	*	49.00	40/30			
				49.00	*	49.15	40/30			
				49.45	*	50.00	24/30			
				50.00	*	50.15	24/30			
				50.45	*					

BH03A.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : JL.KH.AHMAD,MARIUK,GANDASARI,CIKARANG BARAT
 BORE HOLE NO. : B-4
 ELEVATION (M) : +36.00
 COORDINATES : E=729719.00; N=9304856.00
 DEPTH (M) : 60.45

WATER LEVEL (M) : -1.53
 DATE : Oct.30 to Nov.06, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Dede Djudju
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 3

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)			
						Depth (m)	BLOWS PER CM	N PER FOOT		40	80	40	80
								40	80				
00.00	CH		CLAY, reddish brown coloured (5YR;4/4), slightly sandy, medium to high plasticity, medium to high dry strength, medium to high toughness, slightly silty, medium stiff.	1.00	0.75	1.15	5/30						
1.70	SC		CLAYEY SAND with GRAVELS, brown coloured (7.5YR;4/2), about 60% fine to medium sand, about 15% sub-rounded gravel max 20 mm in dia, 25% silty and clayey fines low plasticity, loose,	1.45	0.75	2.00	7/30						
2.00	CH		CLAY (TUFFACEOUS), brown coloured (7.5YR;5/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, slightly sandy, medium stiff to stiff.	1.70	*	2.15	6/30						
3.70	SC		CLAYEY SAND WITH GRAVEL, brown coloured (7.5YR;4/2), About 70% fine to medium sand, about 15% sub-rounded gravel max 20 mm in dia, 15% silty and clayey fines low plasticity, dense to very dense.	2.45	*	3.15	38/30						
4.00	CH		SANDY CLAY, brown coloured (7.5YR;5/4), slightly silty, medium to high plasticity, low to medium dry strength, low to medium toughness, trace gravel max 40 mm in dia, hard.	3.00	*	4.15	50/9						
5.70	SC		CLAYEY SAND, dark grey coloured (10YR;4/1), about 60% fine to coarse sand, about 30% silty and clayey fines low plasticity, about 10% gravel max 30 mm in dia, very stiff to hard.	4.45	*	5.15	N > 100						
6.00	CH		POORLY GRADED SAND, dark grey coloured (10YR;4/1), about 70% fine to coarse sand, about 5% clayey and silty fines non plasticity, about 25% sub-rounded gravel max 40 mm in dia, dense.	5.00	*	6.15	38/30						
7.70	SC		CLAYEY SAND, dark grey coloured (10YR;4/1), about 70% fine to medium sand, about 25% clayey and silty fines low plasticity, about 5% sub-rounded gravel max 20 mm in dia, dense.	6.00	>4.50	7.15	24/30						
8.00	SP		CLAY, very dark greyish green coloured (GLAY1;3/2), medium to high plasticity, medium to high dry strength, medium to high toughness, slightly sand, slightly silty, coarse sand at 16.45-16.55 m depth, very stiff to hard.	6.45	>4.50	8.15	57/30						
9.70	CH		SANDY CLAY, light olive brown coloured (2.5YR;5/3), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, trace gravel max 30 mm in dia, very stiff to hard.	7.00	*	9.15	64/30						
11.70	SC		CLAY, grey coloured (GLAY1;5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	7.45	*	10.15	37/30						
12.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	7.70	*	11.15	30/30						
13.70	CH		CLAY, greyish green coloured (GLAY1;4/GY-/2), low to medium plasticity, low to medium dry strength, low to medium toughness, very stiff to hard.	8.00	*	12.15	28/30						
14.00	CL		CLAY, dark greenish grey coloured (GLAY1;4/10Y), medium to high plasticity, medium to high dry strength, medium to high toughness, stiff to very stiff.	8.45	*	13.15	37/30						
15.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	8.70	*	14.15	26/30						
16.00	CH		CLAY, dark greenish grey coloured (GLAY1;4/10Y), medium to high plasticity, medium to high dry strength, medium to high toughness, stiff to very stiff.	9.00	*	15.15	26/30						
17.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	9.45	*	16.15	32/30						
18.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	9.70	*	17.15	22/30						
19.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	10.00	*	18.15	43/30						
20.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	10.45	*	19.15	16/30						
21.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	11.00	3.50	20.15	23/30						
22.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	11.45	*	21.15	11/30						
23.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	12.00	*	22.15	20/14						
24.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	12.45	*	23.15	18/30						
25.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	13.00	*	24.15	27/30						
25.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	13.45	*	25.15	30/30						
27.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	14.00	3.25	26.15	33/30						
27.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	14.45	3.25	27.15	20/30						
28.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	15.00	3.50	28.15	18/30						
29.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	15.45	4.00	29.15	14/30						
29.70	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	16.00	3.00								
30.00			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	17.45	2.75								
				18.00	>4.50								
				18.45	>4.50								
				19.00	>4.50								
				19.45	2.00								
				20.00	2.25								
				20.45	2.75								
				21.00	2.00								
				21.45	1.50								
				22.00	2.25								
				22.45	2.50								
				23.00	2.50								
				23.45	2.75								
				24.00	3.00								
				24.45	3.25								
				25.00	3.50								
				25.45	3.75								
				26.00	*								
				26.45	*								
				27.00	*								
				27.45	*								
				28.00	*								
				28.45	*								
				29.00	1.75								
				29.45	1.75								
				30.00	2.25								

BH04.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : JL.KH.AHMAD,MARIUK,GANDASARI,CIKARANG BARAT
 BORE HOLE NO. : B-4
 ELEVATION (M) : +36.00
 COORDINATES : E=729719.00; N=9304856.00
 DEPTH (M) : 60.45

WATER LEVEL (M) : -1.53
 DATE : Oct.30 to Nov.06, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Dede Djudju
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 2 of 3

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)			
						Depth (m)	BLOWS PER CM	N PER FOOT		40	80		
								40	80				
30.00	CH		CLAY, greyish green coloured (GLAY1;5/GY-/2), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	30.45	2.50	30.15	18/30						
31.70			31.00	2.25	31.15	17/30							
32.00			31.45	2.25									
			32.00	3.50	32.15	26/30							
			32.45	3.25									
33.70			33.00	2.50	33.15	21/30							
34.00			33.45	2.75									
			34.00	3.25	34.15	27/30							
			34.45	>4.50									
			35.00	3.50	35.15	20/30							
35.70	CH		CLAY, greenish grey coloured (GLAY1;6/10Y), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff.	35.45	2.50								
36.00			36.00	2.75	36.15	21/30							
			36.45	2.75									
37.70			37.00	2.75	37.15	22/30							
38.00			37.45	2.75									
			38.00	2.50	38.15	20/30							
			38.45	2.50									
39.70			39.00	2.75	39.15	26/30							
40.00			39.45	3.25									
			40.00	3.25	40.15	21/30							
	40.45	3.50											
41.70	CH		CLAY, light grey coloured (GLAY1;7/N) mottled brownish yellow A0YR;6/6), medium to high plasticity, medium to high dry strength, medium to high toughness, laminated with very fine sand lenses, hard.	41.00	3.75	41.15	32/30						
42.00			41.45	4.00									
			42.00	4.00	42.15	43/30							
			42.45	>4.50									
43.70			SC		CLAYEY SAND, brownish yellow A0YR;6/6), about 90% fine to coarse sand, about 10% clayey and silty fines non plasticity, dense to very dense.	43.00	>4.50	43.15	52/30				
44.00					43.45	>4.50							
			44.00	>4.50	44.15	22/30							
			44.45										
45.70			CH		CLAY, brownish yellow A0YR;6/6), medium to high plasticity, medium to high dry strength, medium to high toughness, fine sand at 45.00-45.45 m depth, hard.	45.00	3.50	45.15	32/30				
46.00					45.45								
	46.00	>4.50			46.15	34/30							
	46.45	>4.50											
47.70	47.00	>4.50			47.15	37/30							
48.00	47.45	>4.50											
	48.00	4.00			48.15	33/30							
	48.45	4.25											
49.70	49.00	4.00			49.15	30/30							
50.00	49.45	3.75											
	50.00	3.75											
			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	50.00	3.75								

BH04A.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : JL.KH.AHMAD,MARIUK,GANDASARI,CIKARANG BARAT
 BORE HOLE NO. : B-4
 ELEVATION (M) : +36.00
 COORDINATES : E=729719.00; N=9304856.00
 DEPTH (M) : 60.45

WATER LEVEL (M) : -1.53
 DATE : Oct.30 to Nov.06, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Dede Djudju
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 3 of 3

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)			
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80	
									40	80			
	50.00	CH	[Hatched]	CLAY, very dark grey coloured (10YR;3/1) medium to high plasticity, medium to high dry strength, medium to high toughness, Clay brownish yellow at 51.45-51.90 m depth, very stiff to hard.	50.45	4.00	50.15	32/30					
	51.70			51.00	3.75	51.15	29/30						
	52.00			51.45	3.75								
		51.90	CH	[Hatched]	CLAY, light grey coloured (GLAY1;7/N) mottled brownish yellow A0YR;6/6), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, few coralline, few sand, very stiff to hard.	52.00	3.50	52.15	27/30				
		53.70			52.45	3.25							
		54.00			53.00	3.50	53.15	29/30					
		54.00	CH	[Hatched]	CLAY, light grey coloured (GLAY1;7/N) mottled brownish yellow A0YR;6/6), medium to high plasticity, medium to high dry strength, medium to high toughness, laminated with very fine sand lenses, very stiff to hard.	54.00	3.50	54.15	30/30				
		55.70			54.45	3.75							
		56.00			55.00	3.75	55.15	28/30					
		57.70			55.45	3.50							
		58.00			56.00	3.50	56.15	29/30					
					56.45	4.00							
	58.45	CL	[Hatched]	SANDY CLAY, yellowish brown coloured (10YR;5/6), silty fines low plasticity, hard.	57.00	4.00	57.15	38/30					
	59.70			57.45	>4.50								
	60.00			58.00	3.75	58.15	34/30						
				58.45	3.50								
				59.00	*	59.15	23/30						
				59.45	*								
	60.00	*	60.15	22/30									
	60.45			END OF THIS BORING. CASING DOWN TO 50.10 METERS IN DEPTH.	60.45	*							

BH04B.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Jl.Inspeksi Tarum Barat
 BORE HOLE NO. : B-5
 ELEVATION (M) : 25.00
 COORDINATES : E= 710072.00; N= 9309435.00
 DEPTH (M) : 50.45

WATER TABLE (M) : -1.20
 DATE : November 13 to 18, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Aceng D
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 1 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
						Depth (m)	BLOWS PER CM	N PER FOOT			
								40	80		
0.00	CH		FAT CLAY, reddish brown (5YR 5/4), high plasticity, high dry strength, stiff.								
1.00	CH		FAT CLAY, light yellowish brown (10YR 6/4), high plasticity, high dry strength, slightly silty, moist, medium stiff.	1.00	1.25	1.15	7/30				
1.70				1.70	1.50						
2.00	CH			2.00	1.50	2.15	5/30				
3.00				3.00	1.50	3.15	8/30				
3.70				3.70	1.50						
4.00			FAT CLAY, light yellowish brown (10YR 6/4), high plasticity, high dry strength, slightly silty, moist, stiff. become very stiff below 13.00 m to the bottom.	4.00	2.00	4.15	9/30				
5.70				5.00	2.00	5.15	9/30				
6.00				6.00	2.00	6.15	13/30				
7.70				7.00	2.00	7.15	11/30				
8.00	CH			8.00	2.00	8.15	11/30				
9.70				9.00	2.00	9.15	12/30				
10.00				10.00	2.00	10.15	13/30				
11.70				11.00	2.25	11.15	15/30				
12.00				12.00	2.25	12.15	14/30				
13.70				13.00	2.50	13.15	18/30				
14.00				14.00	3.00	14.15	19/30				
15.70			FAT CLAY, bluish gray (GLEY2 5/1), high plasticity, high to medium dry strength, non dilatancy, very stiff.	15.00	3.00	15.15	18/30				
16.00				16.00	3.00	16.15	21/30				
17.70				17.00	3.00	17.15	18/30				
18.00	CH			18.00	2.50	18.15	15/30				
19.70				19.00	2.50	19.15	17/30				
20.00				20.00	3.50	20.15	28/30				
21.00				21.00	4.00	21.15	28/30				
21.70			SILT, tuffaceous, gray (GLEY1 6/N), low plasticity, slightly clay, moist, very stiff to hard.	22.00	>4.50	22.15	37/30				
23.70				23.00	>4.50	23.15	29/30				
24.00	ML			24.00	>4.50	24.15	23/30				
25.70				25.00	>4.50	25.15	49/30				
26.00				26.00	4.50	26.15	33/30				
27.70			FAT CLAY, light brownish gray (10YR 6/2), high to medium plasticity, medium dry strength, tuffaceous, very stiff.	27.00	4.50	27.15	25/30				
28.00	CH			28.00	>4.50	28.15	24/30				
29.70				29.00	4.50	29.15	23/30				
30.00				30.00	>4.50	30.15	27/30				
30.45			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.								

BH05.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-1)
 CLIENT : JICA Study Team
 LOCATION : Jl.Inspeksi Tarum Barat
 BORE HOLE NO. : B-5
 ELEVATION (M) : 25.00
 COORDINATES : E= 710072.00 N= 9309435.00
 DEPTH (M) : 50.45

WATER TABLE (M) : -1.20
 DATE : November 13 to 18, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Aceng D
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 2 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
						Depth (m)	BLOWS PER CM	N PER FOOT		40	80
								40	80		
30.45	CH		FAT CLAY, light brownish gray (10YR 6/2), high to medium plasticity, medium dry strength, tuffaceous, very stiff.	31.00	4.50	31.15	21/30				
31.70			32.00	32.00	4.00	32.15	21/30				
33.70			34.00	33.00	>4.50	33.15	32/30				
35.70			36.00	34.00	>4.50	34.15	42/30				
36.00			36.00	35.00	>4.50	35.15	29/30				
36.00	CL		LEAN CLAY, tuffaceous, gray (7.5YR 5/1), low plasticity, medium dry strength, slightly silty, trace fine grained sand, very stiff.	36.00	3.50	36.15	28/30				
37.00			37.00	4.50	37.15	29/30					
38.00	SC		CLAYEY SAND, tuffaceous, yellowish brown (10YR 5/6), about 60% fine to medium grained sand, very dense.	38.00		38.15	59/30				
41.70			42.00	39.15	59/30						
42.00			42.10	40.15	57/30						
43.70			44.00	41.15	61/30						
42.10	CH		FAT CLAY, pale brown (10YR 6/3), high plasticity, high to medium dry strength, non dilatancy, moist, very stiff to hard.	42.45	4.50	42.15	29/30				
43.70			44.00	43.00	>4.50	43.15	38/30				
45.70			46.00	44.00	>4.50	44.15	43/30				
47.70			48.00	45.00	>4.50	45.15	40/30				
49.70			50.00	46.00	4.00	46.15	35/30				
50.00			50.45	47.00	3.50	47.15	28/30				
				48.00	4.00	48.15	40/30				
				49.00	4.50	49.15	42/30				
				50.00	4.50	50.15	39/30				
					END OF THIS BORING. CASING DOWN TO 42.00 METER IN DEPTH.						

BH05A.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Cibeet Canal-Sukasari-T.Jambe
 BORE HOLE NO. : B-6
 ELEVATION (M) : 38.00
 COORDINATES : E= 745015.00 N= 9296103.00
 DEPTH (M) : 30.45

WATER TABLE (M) : -1.20
 DATE : November 11 to 13, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Dede DjuDju
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
	0.00	CH		FAT CLAY, pinkish gray (7.5YR 6/2), high plasticity, high dry strength, trace fine sand, medium stiff.								
	1.00	CH		FAT CLAY, light yellowish brown (10YR 6/4), high plasticity, high dry strength, slightly silty, moist, medium stiff to stiff.	1.00	0.50	1.15	3/30				
	2.00				0.50	2.15	5/30					
	3.00				0.75	3.15	7/30					
	4.00				0.75	4.15	8/30					
	5.00				1.00	5.15	10/30					
	6.00				1.25	6.15	10/30					
	7.00				1.25	7.15	10/30					
	8.00				1.25	8.15	8/30					
	9.00				1.00	9.15	8/30					
	10.00	MH		ELASTIC SILT, light yellowish brown (10YR 6/4), medium plasticity, few fine grained sand, moist, medium stiff. become gray (5YR 5/1), below 11.50m to ward the depth.	10.00	0.75	10.15	7/30				
	11.00				1.00	11.15	5/30					
	12.00	SP		POORLY GRADED SAND with SILT, gray (5YR 5/1), fine to medium grained, intercalated by thin silt and organic lenses, uncemented, loose. shown organic at the depth of: 12.85-13.00m and 13.50-13.70m.	12.00	0.75	12.15	9/30				
	13.15					10/30						
	14.15					6/30						
	14.60	CH		FAT CLAY, bluish gray (GLEY2 6/1), high plasticity, high to medium dry strength, non dilatancy, moist, medium stiff to stiff.	15.00	1.25	15.15	10/30				
	16.00				1.00	16.15	8/30					
	16.90	GP		POORLY GRADED GRAVEL with CLAY, grayish brown (2.5Y 5/2), about 60% gravel, max dia of 4.00cm in size, subangular, medium to low plastic fines, medium dense.	17.15		17.15	13/30				
	18.15					14/30						
	19.15					20/30						
	19.50	CH		FAT CLAY, bluish gray (GLEY2 6/1), high plasticity, high dry strength, non dilatancy, moist, very stiff. Become hard, found gravel at the depth of: 24.00-24.45m	20.00	1.75	20.15	14/30				
	21.00				2.00	21.15	20/30					
	22.00				2.50	22.15	22/30					
	23.00				2.75	23.15	19/30					
	24.00				2.50	24.15	47/30					
	25.45				3.50	25.15	28/30					
	26.00				>4.50	26.15	35/30					
	27.00	>4.50	27.15	35/30								
	28.00	>4.50	28.15	40/30								
	29.00	>4.50	29.15	46/30								
	30.00	>4.50	30.15	50/30								
	30.45			END OF THIS BORING. CASING DOWN TO 26.00 METER IN DEPTH.								

BH06.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Dusun Cicadas, Ds.wankerta, T.Jambe Barat
 BORE HOLE NO. : B-7
 ELEVATION (M) : 49.00
 COORDINATES : E= 747029.00 N= 9294481.00
 DEPTH (M) : 30.45

WATER TABLE (M) : -5.20
 DATE : December 09 to 11, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : A.Fido
 LOGGER : Supriadi
 DRAWN BY : Nick Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
0.00		CH		CLAY with SAND, dark reedish brown B.5YR.3/4), moist, medium stiff.								
1.20		CH		FAT CLAY, light reddish brown (2.5YR 3/6), medium to high plasticity, high dry strength, stiff.	1.00	1.25	1.15	11/30				
2.70		CH		FAT CLAY, brown (10YR 5/3), medium to high plasticity, high dry strength, slightly silty, moist, stiff.	2.00	1.50	2.15	14/30				
3.70		CH		FAT CLAY, dark brown (10YR 3/3), medium to high plasticity, high dry strength, stiff.	3.00	1.50	3.15	15/30				
6.00		CH		FAT CLAY, dark gray (GLEY1 3/1), high plasticity, dry strength, moist, hard.	4.00	4.00	4.15	30/30				
					5.00	>4.50	5.15	39/30				
					6.00	>4.50	6.15	50/30				
					7.00	>4.50	7.15	51/30				
		CL		CLAY, dark gray (GLEY 1/3), low plasticity, hard.	8.00	>4.50	8.15	50/30				
					9.00	>4.50	9.15	51/30				
					10.00	>4.50	10.15	51/30				
10.80				SILT, dark gray (GLEY 1/3), few very fine sand, low plasticity, hard.	11.00	>4.50	11.15	52/30				
					12.00	>4.50	12.15	53/30				
					13.00	>4.50	13.15	51/30				
					14.00	>4.50	14.15	53/30				
					15.00	>4.50	15.15	66/30				
					16.00	>4.50	16.15	62/30				
					17.00	>4.50	17.15	63/30				
					18.00	>4.50	18.15	63/30				
					19.00	>4.50	19.15	63/30				
					20.00	>4.50	20.15	58/30				
		ML			21.00	>4.50	21.15	59/30				
					22.00	>4.50	22.15	60/30				
					23.00	>4.50	23.15	61/30				
					24.00	>4.50	24.15	59/30				
					25.00	>4.50	25.15	62/30				
					26.00	>4.50	26.15	59/30				
					27.00	>4.50	27.15	61/30				
					28.00	>4.50	28.15	63/30				
					29.00	>4.50	29.15	62/30				
					30.00	>4.50	30.15	64/30				
	30.45			END OF THIS BORING. CASING DOWN TO 27.50 METER IN DEPTH.								

BH07.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Dusun Narotog, Ds. Tegalega, Ciampel, Karawang
 BORE HOLE NO. : B-8
 ELEVATION (M) : 40.00
 COORDINATES : E= 761821.00 N= 9282974.00
 DEPTH (M) : 30.45

WATER TABLE (M) : -4.20
 DATE : December 05 to 06, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : A. Fido
 LOGGER : Supriadi
 DRAWN BY : Nick Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
	0.00	CH		FAT CLAY, dark brown (10YR 3/3), medium to high plasticity, moist, high dry strength, medium stiff.								
	1.00	CH		FAT CLAY, yellowish brown (10YR 5/3), medium to high plasticity, high dry strength, moist, stiff.	1.00	1.25	1.15	10/30				
	2.45	CH		CLAY, dark brown (10YR 3/3), medium to high plasticity, high dry strength, slightly silt, trace fine grained sands, stiff to very stiff.	2.00	1.50	2.15	11/30				
		CH			3.00	1.50	3.15	11/30				
	4.60	CH		FAT CLAY, grayish brown (10YR 4/2), medium to high plasticity, high dry strength, hard.	4.00	2.50	4.15	16/30				
	6.00	CH			5.00	3.50	5.15	31/30				
		CL		CLAY, dark gray A0YR 3/2, low plasticity, hard.	6.00	>4.50	6.15	49/30				
		CL			7.00	>4.50	7.15	49/30				
		CL			8.00	>4.50	8.15	50/30				
		CL			9.00	>4.50	9.15	49/30				
		CL			10.00	>4.50	10.15	49/30				
		CL			11.00	>4.50	11.15	50/30				
		CL			12.00	>4.50	12.15	51/30				
		CL			13.00	>4.50	13.15	51/30				
		CL			14.00	>4.50	14.15	49/30				
		CL			15.00	>4.50	15.15	50/30				
		CL			16.00	>4.50	16.15	49/30				
	17.00	CL		CLAY, grayish brown (10YR 3/2), trace shell fragments, hard.	17.00	>4.50	17.15	51/30				
		CL			18.00	>4.50	18.15	53/30				
		CL			19.00	>4.50	19.15	53/30				
		CL			20.00	>4.50	20.15	49/30				
		CL			21.00	>4.50	21.15	52/30				
		CL			22.00	>4.50	22.15	49/30				
		CL			23.00	>4.50	23.15	51/30				
		CL			24.00	>4.50	24.15	52/30				
		CL			25.00	>4.50	25.15	51/30				
		CL			26.00	>4.50	26.15	49/30				
		CL			27.00	>4.50	27.15	54/30				
		CL			28.00	>4.50	28.15	52/30				
		CL			29.00	>4.50	29.15	54/30				
	30.45			END OF THIS BORING. CASING DOWN TO 27.00 METER IN DEPTH.	30.00	>4.50	30.15	56/30				

BH08.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : KP.SAWAH,CICADAS,BABAKAN CIKAO
 BORE HOLE NO. : B-9
 ELEVATION (M) : +46.00
 COORDINATES : E=765073.00; N=9280796.00
 DEPTH (M) : 21.45

WATER LEVEL (M) : -2.35
 DATE : Nov.15 to Nov.17, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Jojo S.
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 1

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)						
						Depth (m)	BLOWS PER CM	N PER FOOT		40	80	40	80			
								40	80							
00.00	CH		FAT CLAY, yellowish brown (10YR 5/4), high plasticity, high dry strength, non dilatancy, moist, medium stiff to stiff.	1.00	1.50	1.15	5/30									
1.70				1.45	1.50											
2.00	CH		FAT CLAY, dark gray (7.5YR 4/1), slightly silty, high plasticity, high to medium dry strength, non dilatancy, very stiff.	2.00	2.50	2.15	10/30									
2.45				4.00												
3.00				3.00	4.00	3.15	18/30									
3.45				>4.50												
4.00				>4.50	4.15	29/30										
4.45				>4.50												
5.00				>4.50	5.15	29/30										
5.45				>4.50												
6.00				CH		FAT CLAY, dark gray (7.5YR 4/1), slightly silty, high to medium plasticity, high to medium dry strength, non dilatancy, hard.	6.00	>4.50	6.15	33/30						
6.45							>4.50									
7.00	>4.50	7.15	32/30													
7.45	>4.50															
8.00	>4.50	8.15	30/30													
8.45	>4.50															
9.00	>4.50	9.15	31/30													
9.45	>4.50															
10.00	>4.50	10.15	33/30													
10.45	>4.50															
11.00	>4.50	11.15	37/30													
11.45	>4.50															
12.00	>4.50	12.15	39/30													
12.45	>4.50															
13.00	>4.50	13.15	38/30													
13.45	>4.50															
14.00	>4.50	14.15	49/30													
14.45	>4.50															
15.00	CL		CONSOLIDATED CLAY, dark gray (GLEY1 4/N), clay to silty character, interlaminated by fine sand and shell fragments, slacking when exposed, hard.	15.00	>4.50	15.15	57/30									
15.45				>4.50												
16.00				>4.50	16.15	56/30										
16.45				>4.50												
17.00				>4.50	17.15	53/30										
17.45				>4.50												
18.00				>4.50	18.15	53/30										
18.45				>4.50												
19.00				>4.50	19.15	50/30										
19.45				>4.50												
20.00	>4.50	20.15	48/30													
20.45	>4.50															
21.00	>4.50	21.15	47/30													
21.45	>4.50															
			END OF THIS BORING. CASING DOWN TO 16.00 METERS IN DEPTH.													

BH09.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Neglasari-Jatiluhur-Purwakarta
 BORE HOLE NO. : B-10
 ELEVATION (M) : 100.00
 COORDINATES : E= 767631.00; N= 9277691.00
 DEPTH (M) : 30.25

WATER TABLE (M) : -6.50
 DATE : November 16 to 19, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Tatang
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
	0.00	CL		LEAN CLAY, reddish brown (5YR 5/4), slightly sandy, low plasticity, low dry strength, stiff.								
	1.00	SM		SILTY SAND with GRAVEL, yellowish brown (10YR 5/4), fine to medium grained sand, about 15% subangular gravel with max dia of 4.00cm in size, loose.			1.15	9/30				
	2.45	CH		FAT CLAY, bluish gray (GLEY2 5/1), high plasticity, high to medium dry strength, non dilatancy, stiff to very stiff.	3.00	2.00	2.15	4/30				
							3.15	8/30				
					4.00	2.00	4.15	12/30				
					5.00	2.00	5.15	7/30				
					6.00	3.00	6.15	19/30				
					7.00	3.00	7.15	13/30				
					8.00	2.00	8.15	18/30				
	9.00	CH		FAT CLAY, bluish gray (GLEY2 5/1), high plasticity, high to medium dry strength, non dilatancy, hard.	9.00	4.50	9.15	33/30				
					10.00	>4.50	10.15	50/30				
					11.00	>4.50	11.15	77/30				
					12.00	>4.50	12.15	72/30				
					13.00	>4.50	13.15	67/30				
					14.00	>4.50	14.15	80/30				
					15.00	>4.50	15.15	80/30				
					16.00	>4.50	16.15	73/30				
					17.00	>4.50	17.15	73/30				
	18.00	CH		CONSOLIDATED CLAY, dark gray (GLEY1 4/N), clay to silty character, occasional shell fragments included, slacking when exposed, hard.	18.00	>4.50	18.15	52/30				
					19.00	>4.50	19.15	65/30				
					20.00	>4.50	20.15	54/30				
					21.00	>4.50	21.15	77/30				
					22.00	>4.50	22.15	80/30				
					23.00	>4.50	23.15	50/15				N > 100
					24.00	>4.50	24.15	90/24				N > 100
					25.00	>4.50	25.15	50/14				N > 100
					26.00	>4.50	26.15	50/10				N > 100
					27.00	>4.50	27.15	50/8				N > 100
					28.00	>4.50	28.00	50/14				N > 100
					29.00	>4.50	29.00	50/10				N > 100
	30.25	CL		END OF THIS BORING. CASING DOWN TO 25.02 METER IN DEPTH.	30.00	>4.50	30.15	50/10				N > 100

BH10.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : KP.CISUREN,DESA MEKARGALIH,PURWAKARTA
 BORE HOLE NO. : B-11
 ELEVATION (M) : +141.00
 COORDINATES : E=767899.00 ; N=9273355.00
 DEPTH (M) : 50.45

WATER LEVEL (M) : -6.05
 DATE : Oct.26 to Nov.02, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Jojo
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
00.00	4.00	CH		CLAY, dark reddish brown coloured (2.5R;3/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, trace angular gravel max 20 mm in dia, slightly sand, stiff.	1.00	3.50	1.15	10/30				
					1.45	3.50						
					2.00	2.50	2.15	14/30				
					2.45	2.50						
					3.00	2.50	3.15	18/30				
					3.45	2.50						
					4.00	2.50	4.15	14/30				
					4.45	2.50						
					5.00	1.75	5.15	15/30				
					5.45	1.75						
7.90	CL		SANDY CLAY, light greenish grey coloured (GLAY1;8/5GY) slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, stiff.	6.00	*	6.15	11/30					
				6.45	*							
				7.00	1.00	7.15	13/30					
				7.45	1.00							
				8.00	1.00	8.15	16/30					
				8.45	1.00							
				9.00	*	9.15	22/30					
				9.45	*							
				10.00	*	10.15	15/30					
				10.45	*							
12.90	SP		TUFACEOUS SAND, yellow coloured (2.5Y;7/6), About 60% sand, about 15% sub-angular gravel, about 25% silty and clayey fines, andesite at 12.00-12.90 m depth, medium dense.	11.00	*	11.15	16/30					
				11.45	*							
				12.00	*	12.00	50/5			N > 100		
				12.05	*							
				13.00	*	13.00	50/13			N > 100		
				13.28	*							
				14.00	*	14.15	40/30					
				14.45	*							
				15.00	*	15.15	19/30					
				15.45	*							
16.00	CH		CLAY, dark greyish brown coloured (2.5Y;4/2), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, stiff.	16.00	*	16.15	10/30					
				16.45	*							
17.50	SP		POORLY GRADED SAND WITH GRAVEL, dark greyish brown coloured (2.5Y;4/2), about 75% fine to coarse grained sand, about 15% sub-angular gravel max 15 mm in dia, about 10% silty and clay fines, medium dense.	17.00	*	17.15	9/30					
				17.45	*							
				18.00	*	18.15	20/30					
				18.45	*							
				19.00	*	19.15	26/30					
				19.45	*							
				20.00	*	20.15	33/30					
				20.45	*							
				21.00	*	21.15	38/30					
				21.45	*							
21.75	GP		POORLY GRADED GRAVEL WITH SAND, light olive brown coloured (2.5Y;5/4), about 45% fine to coarse sub-rounded gravel max 60 mm in dia, about 30% grained sand, about 25% silty and clay fines, dense to very dense.	22.00	*	22.00	50/14					
				22.29	*							
23.00	OH		ORGANIC CLAY, black coloured (GLAY1;2.5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, very stiff to hard.	23.00	*	23.15	24/30					
				23.45	>4.50							
				24.00	>4.50	24.15	58/30					
				24.45	>4.50							
				25.00	>4.50	25.15	46/30					
				25.45	>4.50							
				26.00	>4.50	26.15	43/30					
				26.45	>4.50							
				27.00	>4.50	27.15	31/30					
				27.45	>4.50							
30.00			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	28.00	>4.50	28.15	34/30					
				28.45	>4.50							
				29.00	>4.50	29.15	35/30					
				29.45	>4.50							
				30.00	>4.50							

BH1.1.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : KP.CISUREN,DESA MEKARGALIH,PURWAKARTA
 BORE HOLE NO. : B-11
 ELEVATION (M) : +141.00
 COORDINATES : E=767899.00 ; N=9273355.00
 DEPTH (M) : 50.45

WATER LEVEL (M) : -6.05
 DATE : Oct.26 to Nov.02, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Jojo
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 2 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT		
									40		80
	30.00	OH		ORGANIC CLAY, black coloured (GLAY1;2.5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, hard.	30.45	>4.50	30.15	35/30			
				31.00	>4.50	31.15	38/30				
				31.45	>4.50						
				32.00	>4.50	32.15	44/30				
				32.45	>4.50						
				33.00	>4.50	33.15	45/30				
				33.45	>4.50						
				34.00	>4.50	34.15	48/30				
				34.45	>4.50						
				35.00	>4.50	35.15	53/30				
				35.45	>4.50						
				36.00	>4.50	36.15	54/30				
				36.45	>4.50						
				37.00	>4.50	37.15	59/30				
				37.45	>4.50						
				38.00	>4.50	38.15	53/30				
				38.45	>4.50						
				39.00	>4.50	39.15	58/30				
				39.45	>4.50						
				40.00	>4.50	40.15	62/30				
				40.45	>4.50						
				41.00	>4.50	41.15	57/30				
				41.45	>4.50						
				42.00	>4.50	42.15	53/30				
				42.45	>4.50						
				43.00	>4.50	43.15	63/30				
				43.45	>4.50						
				44.00	>4.50	44.15	64/30				
				44.45	>4.50						
				45.00	>4.50	45.15	65/30				
		45.45	>4.50								
		46.00	>4.50	46.15	66/30						
		46.45	>4.50								
		47.00	>4.50	47.15	57/30						
		47.45	>4.50								
		48.00	>4.50	48.15	60/30						
		48.45	>4.50								
		49.00	>4.50	49.15	65/30						
		49.45	>4.50								
	50.45			50.00	>4.50	50.15	65/30				
				50.45	>4.50						
				END OF THIS BORING. CASING DOWN TO 48.00 METERS IN DEPTH.							

BH11A.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : PASAR MUNJUL,SUKATANI,CIANTING,PURWAKARTA
 BORE HOLE NO. : B-12
 ELEVATION (M) : 362.00 m
 COORDINATES : E=768512.00; N=9265613.00
 DEPTH : 30.28 m

WATER LEVEL : -6.50 m
 DATE : October 27 to 30, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Asep Wahyu
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 1

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)			
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80	40	80
									40	80				
	00.00	CH		CLAY, red coloured (2.5YR;5/8), slightly sandy, medium to high plasticity, medium to high dry strength, medium to high toughness, soft.	1.00	1.75	1.15	4/30						
	2.00			2.00	0.50	2.15	4/30							
		CH		CLAY, brown coloured (7.5YR;4/2), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, trace gravel, medium stiff.	2.45	0.50	3.15	7/30						
	4.00			3.00	0.50	4.15	7/30							
		CH		CLAY, brown coloured (7.5YR;5/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, medium stiff.	4.00	1.25	5.15	4/30						
	5.00			4.45	1.00	6.15	6/30							
		CL		SANDY CLAY, brown coloured (7.5YR;5/4), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, trace gravel, medium stiff.	5.00	0.75	6.45	6/30						
	6.45			5.45	0.50	7.15	4/30							
		SP		TUFFACEOUS SAND, brown coloured (7.5YR;5/4), about 60% fine to coarse sand, about 20% clayey and silty fines low plasticity, about 20% medium to coarse gravel, loose.	6.00	0.50	8.15	8/30						
	9.45			6.45	0.75	9.15	7/30							
		OH		ORGANIC CLAY, black coloured (GLAY1;2.5/N), medium to high plasticity, medium to high dry strength, medium to high toughness, hard.	7.00	0.50	10.15	47/30						
				7.45	0.50	11.15	81/25							
				8.00	0.50	12.15	75/28							
				8.45	3.00	13.15	58/30							
				9.00	2.75	14.15	85/23							
				9.45	2.25	15.15	50/9							
				10.00	>4.50	16.15	69/30							
				10.45	>4.50	17.15	79/30							
				11.00	>4.50	18.15	92/25							
				11.38	>4.50	19.15	94/25							
				12.00	>4.50	20.15	50/15							
				12.43	>4.50	21.15	50/14							
				13.00	>4.50	22.15	50/13							
				13.45	>4.50	23.15	50/9							
				14.00	>4.50	24.15	50/14							
				14.38	>4.50	25.15	50/13							
				15.00	>4.50	26.15	50/14							
				15.24	>4.50	27.15	50/12							
				16.00	>4.50	28.00	81/28							
				16.45	>4.50	28.53	>4.50							
				17.00	>4.50	29.00	>4.50							
				17.45	>4.50	29.42	>4.50							
				18.00	>4.50	30.00	>4.50							
		18.40	>4.50	30.28	>4.50									
	30.28			END OF THIS BORING. CASING DOWN TO 22.00 METERS IN DEPTH.										

B-12.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : TANAH PASIR,DARANGDAN, PURWAKARTA
 BORE HOLE NO. : B-13
 ELEVATION (M) : 492.00 m
 COORDINATES : E=769063.00; N=9261204.00
 DEPTH : 60.29 m

WATER LEVEL : -10.40 m
 DATE : Oct. 27 to Nov.4, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Tatang
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 3

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)			
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80	40	80
									40	80				
	00.00	CH		CLAY, brown coloured (7.5YR;4/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, medium stiff.										
	1.00	CH		CLAY, reddish brown coloured (2.5YR;4/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, stiff.	1.00	0.75	1.15	3/30						
	3.00	CH		CLAY, brown coloured (7.5YR;4/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, stiff to very stiff.	1.45	0.75								
					2.00	0.75	2.15	5/30						
					2.45	0.75								
					3.00	0.75	3.15	6/30						
					3.45	0.75								
					4.00	3.50	4.15	12/30						
					4.45	3.50								
					5.00	3.50	5.15	16/30						
					5.45	2.50								
					6.00	*	6.15	18/30						
					6.45	*								
	7.00	ML		TUFFACEOUS SILT, red coloured (2.5YR;5/8), slightly clay, slightly sandy, low plasticity, low dry strength, low toughness, trace gravel, stiff to very stiff.	7.00	*	7.15	15/30						
					7.45	*								
					8.00	*	8.15	10/30						
					8.45	*								
					9.00	*	9.15	5/30						
					9.45	*								
	10.00	ML		TUFFACEOUS SILT, reddish yellow coloured (5YR;6/6), slightly clay, slightly sandy, low plasticity, low dry strength, low toughness, trace gravel, stiff.	10.00	*	10.15	10/30						
					10.45	1.75								
					11.00	1.75	11.15	11/30						
					11.45	3.00								
	12.00	SM		SILTY SAND WITH GRAVEL, brown coloured (7.5YR;4/4) mottled with greyish green coloured (GLAY1;5 /5G_2), about 70% medium to coarse sand, about 20% silty and clay fines, about 10% sub-angular gravel max 15 mm in dia, medium dense to dense.	12.00	*	12.15	15/30						
					12.45	*								
					13.00	*	13.15	18/30						
					13.45	*								
					14.00	*	14.15	25/30						
					14.45	*								
					15.00	*	15.15	54/30						
					15.45	*								
	16.00	SM		SILTY SAND WITH GRAVEL, dark grey coloured (5YR;4/1) about 60% fine to coarse sand, about 20% silty and clay fines, about 20% sub-angular gravel max 10 mm in dia, sandstone at 18.60-18.80 m depth, medium dense.	16.00	*	16.15	39/30						
					16.45	*								
					17.00	*	17.15	47/30						
					17.45	*								
					18.00	*	18.15	58/30						
					18.45	*								
	19.00	CH		SANDY CLAY WITH GRAVEL, brown coloured (10YR;4/3), medium to high plasticity, medium to high dry strength, medium to high toughness, sub-rounded gravel max 30 mm in dia, sandstone at 20.10-20.25 m and 21.10-21.45 m depth, very stiff to hard.	19.00	*	19.00	50/14						
					19.14	*								
					20.00	*	20.00	50/12						
					20.12	*								
					21.00	*	21.00	50/10						
					21.10	*								
					22.00	*	22.00	50/10						
					22.10	*								
	22.70	SC		CLAYEY SAND WITH GRAVEL, very dark grey coloured (GLAY1;3/N), about 50% fine to coarse sand, about 35% silty and clayey fines low to medium plasticity, about 15% sub-angular gravel max 10 mm in dia, sandstone at 23.08-23.30 m depth, dense to very dense.	23.00	*	23.00	50/8						
					23.08	*								
					24.00	*	24.00	50/13						
					24.13	*								
					25.00	*	25.00	50/10						
					25.10	*								
					26.00	*	26.00	50/8						
					26.08	*								
					27.00	*	27.00	50/13						
					27.13	*								
					28.00	*	28.00	50/13						
					28.13	*								
	30.00			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	30.00	*								

B-13.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : TANAH PASIR,DARANGDAN, PURWAKARTA
 BORE HOLE NO. : B-13
 ELEVATION (M) : 492.00 m
 COORDINATES : E=769063.00; N=9261204.00
 DEPTH : 60.29 m

WATER LEVEL : -10.40 m
 DATE : Oct. 27 to Nov.4, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Tatang
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 2 of 3

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT		
									40		N
30.00	30.00	SC		CLAYEY SAND WITH GRAVEL, very dark grey coloured (GLAY1;3/N), about 50% fine to coarse sand, about 35% silty and clayey fines low to medium plasticity, about 15% sub-angular gravel max 10 mm in dia, dense to very dense.	30.14	*	30.00	50/14			40 80
					31.00	*	31.15	50/8		N > 100	
					31.23	*				N > 100	
					32.00	*	32.00	50/11			
					32.11	*				N > 100	
					33.00	*	33.15	50/10			
					33.25	*				N > 100	
					34.00	*	34.00	50/14			
					34.14	*				N > 100	
					35.00	*	35.00	50/9			
					35.09	*				N > 100	
					36.00	*	36.00	50/5			
					36.05	*				N > 100	
					37.00	*	37.00	50/8			
37.08	*				N > 100						
38.00	*	38.00	50/11								
38.11	*				N > 100						
39.00	*	39.00	50/13								
39.13	*										
40.00	*	40.15	55/30								
40.45	*										
41.00	*	41.15	53/30								
41.45	*				N > 100						
42.00	*	42.00	50/12								
42.12	*				N > 100						
43.00	*	43.00	50/10								
43.10	*				N > 100						
44.00	*	44.00	50/7								
44.07	*				N > 100						
45.00	*	45.00	50/9								
				END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.							

B-13a.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : TANAH PASIR, DARANGDAN, PURWAKARTA
 BORE HOLE NO. : B-13
 ELEVATION (M) : 492.00 m
 COORDINATES : E=769063.00; N=9261204.00
 DEPTH : 60.29 m

WATER LEVEL : -10.40 m
 DATE : Oct. 27 to Nov.4, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Tatang
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 3 of 3

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)			
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80	40	80
									40	80				
	45.00	CL		GRAVELLY CLAY WITH SAND, brown coloured (10YR;4/3), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, sub-angular gravel max 30 mm in dia, fine to coarse grained sand, sandstone at 46.20-46.40 m depth,	45.09	*								
	46.60					46.00	*	50/5						
		SC		CLAYEY SAND WITH GRAVEL, very dark grey coloured (GLAY1;3/N), about 60% fine to coarse sand, about 25% silty and clayey fines low to medium plasticity, about 15% sub-angular gravel max 10 mm in dia, sandstone at 47.30-47.40 m and 48.06-48.28 m depth, very dense.	46.05	*								
						47.00	*	50/8						
						47.08	*							
						48.00	*	50/6						
						48.06	*							
						49.00	*	50/5						
						49.05	*							
						50.00	*	50/11						
	50.90	SC		CLAYEY SAND, very dark grey coloured (GLAY1;3/N), about 50% medium to coarse sand, about 40% silty and clayey fines low to medium plasticity, about 10% sub-angular gravel max 10 mm in dia, very dense.	50.11	*								
						51.00	*	50/10						
						51.25	*							
						52.00	*	50/14						
						52.11	*							
						53.00	*	50/7						
		CL		SANDY CLAY, very dark grey coloured (GLAY1;3/N), low to medium plasticity, low to medium dry strength, low to medium toughness, trace sub-angular gravel max 60 mm in dia, Sandstone at 55.70-56.50 m depth, hard.	53.07	*								
						54.00	*	50/10						
						54.10	*							
	55.00					55.00	*	50/12						
		SC		CLAYEY SAND, very dark grey coloured (GLAY1;3/N), about 50% medium to coarse sand, about 40% silty and clayey fines low to medium plasticity, about 10% sub-angular gravel max 10 mm in dia, very dense.	55.12	*								
						56.00	*	50/5						
		CH		CLAY, very dark grey coloured (GLAY1;3/N), medium to high plasticity, medium to high dry strength, medium to high toughness, slightly silty, hard.	56.05	*								
						57.00	*	50/14						
				57.14	*									
				58.00	*	50/10								
				58.10	*									
				59.00	*	50/10								
				59.25	*									
	60.29			60.00	*	50/14								
				60.29	*									
				END OF THIS BORING. CASING DOWN TO 48.00 METERS IN DEPTH.										

B-13b.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : DESA BOJONGKONENG, KEC. NGAMPRAH
 BORE HOLE NO. : B-14
 ELEVATION (M) : 723.00 m
 COORDINATES : E=775364.00 ; N=9245371.00
 DEPTH : 40.05 m

WATER LEVEL : - 4.71 m
 DATE : November 10 to 13, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Tatang S
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page : 1 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT		40	80
									40	80		
00.00	2.00	CH		CLAY, dark reddish brown coloured (5YR;3/2), medium to high plasticity, medium to high dry strength, medium to high toughness, trace gravel max 10 mm in dia, slightly sand,	1.00	0.75	1.15	6/30				
					1.45	0.75						
8.00	16.00	CH		CLAY, strong brown coloured (7.5YR;4/6), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness,	2.00	0.75	2.15	2/30				
					2.45	0.75						
					3.00	0.25	3.15	3/30				
					3.45	0.25						
					4.00	0.25	4.15	3/30				
					4.45	0.25						
					5.00	0.75	5.15	3/30				
					5.45	0.75						
					6.00	0.75	6.15	5/30				
					6.45	0.75						
					7.00	1.00	7.15	4/30				
					7.45	1.00						
					8.00	1.00	8.15	5/30				
					8.45	1.00						
16.00	24.60	CH		CLAY, reddish brown coloured (5YR;4/4), medium to high plasticity, medium to high dry strength, medium to high toughness,	9.00	1.00	9.15	2/30				
					9.45	0.75						
					10.00	0.75	10.00	1/45				
					10.45	0.50						
					11.00	0.50	11.15	4/30				
					11.45	0.75						
					12.00	0.75	12.15	6/30				
					12.45	1.00						
					13.00	1.05	13.15	11/30				
					13.45	1.05						
					14.00	1.05	14.15	9/30				
					14.45	1.05						
					15.00	1.05	15.15	10/30				
					15.45	1.05						
24.60	25.45	SP		POORLY GRADED SAND (tuffaceous), brown coloured G.5YR;5/4), about 90% very fine to coarse sand, about 10% clayey and silty fines non plasticity,	16.00	1.05	16.15	5/30				
					17.15	5/30						
					18.15	10/30						
					19.15	12/30						
					20.15	17/30						
					21.15	29/30						
					22.00	>4.50	22.15	34/30				
					22.45	>4.50						
					23.00	>4.50	23.15	47/30				
					23.45	>4.50						
24.00	>4.50	24.15	73/30									
24.45	>4.50											
24.60	25.45	CH		CLAY, reddish brown coloured (5YR;4/4), medium to high plasticity, medium to high dry strength, medium to high toughness, slightly silty	25.00	>4.50	25.15	41/30				
					25.45	>4.50						
28.50	31.00	CH		CLAY (TUFACEOS), brown coloured (7.5YR;4/4), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, slightly sandy,	26.00	>4.50	26.15	24/30				
					26.45	>4.50						
					27.00	>4.50	27.15	33/30				
					27.45	>4.50						
					28.00	>4.50	28.15	30/30				
					28.45	>4.50						
28.50	31.00	CL		SANDY CLAY (TUFACEOS), light yellowish brown coloured (2.5Y;6/3), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, brown coloured at 28.50-29.00 m depth,	29.00	>4.50	29.00	43/30				
					30.00	>4.50	30.15	52/30				
					30.45	>4.50						
31.00				END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	31.00	>4.50						

B-14.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : DESA BOJONGKONENG, KEC. NGAMPRAH
 BORE HOLE NO. : B-14
 ELEVATION (M) : 723.00 m
 COORDINATES : E=775364.00 ; N=9245371.00
 DEPTH : 40.05 m

WATER LEVEL : - 4.71 m
 DATE : November 10 to 13, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Tatang S
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page : 2 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT		
									40		N
31.00	31.00	SC		CLAYEY SAND WITH GRAVEL, greenish grey coloured, about 60% fine to medium sand, about 20% clayey and silty fines low plasticity, about 20% sub-rounded gravel max 70 mm in dia, sanstone at 31.45-31.60 and 34.50-34.65 m depth,	31.00	>4.50	31.00	50/9			
					32.11	>4.50	32.00	50/11		N > 100	
					33.00	>4.50	33.00	50/7		N > 100	
					33.07	>4.50				N > 100	
					34.00	>4.50	34.00	50/5			
					34.05	>4.50					
					35.00	>4.50	35.15	38/30		N > 100	
					35.45	>4.50				N > 100	
					36.00	>4.50	36.00	50/13		N > 100	
					36.13	>4.50				N > 100	
35.00	35.00	SC		CLAYEY SAND WITH GRAVEL, brown coloured, about 60% fine to medium sand, about 20% clayey and silty fines low plasticity, about 20% sub-rounded gravel max 70 mm in dia, sanstone at 31.45-31.60 and 34.50-34.65 m depth,	37.00	>4.50	37.00	50/8			
					37.08	>4.50				N > 100	
					38.00	>4.50	38.00	50/5		N > 100	
					38.05	>4.50				N > 100	
					39.00	>4.50	39.15	50/6		N > 100	
					39.21	>4.50				N > 100	
					40.00	>4.50	40.00	50/5			
					40.05	>4.50					
40.05	40.05			END OF THIS BORING. CASING DOWN TO - 33.07 METERS IN DEPTH.	40.00	>4.50	40.00	50/5			
					40.05	>4.50					

B-14a.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : CITAMAN,CIGUGUR TENGAH,CIMINDI,CIMAHI
 BORE HOLE NO. : B-15
 ELEVATION (M) : 739.00 m
 COORDINATES : E=781894.00; N=9237433.00
 DEPTH : 33.45 m

WATER LEVEL : -2.23 m
 DATE : November 7 to 10, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Jojo
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 2

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
						Depth (m)	BLOWS PER CM	N PER FOOT			
								40	80	40	80
00.00	CH		CLAY, reddish black coloured (10R;2.5/1), medium to high plasticity, medium to high dry strength, medium to high toughness, trace organic matter, soft.	1.00	*	1.15	2/30				
1.45			SC		CLAYEY SAND WIT GRAVEL (TUFACEOUS), brownish yellow coloured (10YR;6/6), About 80% medium to coarse grained sand, about 10% sub-rounded gravel max 10 mm in dia, about 10% silty and clayey fines, sandstone at 3.60-4.00 m and 4.10-4.60 m depth, loose to medium dense.	1.45	*	2.00	10/30		
2.00	2.00	*			2.45						
2.45	2.45	*			3.00	10/30					
3.00	3.00	*			3.45						
3.45	3.45	*			4.00	50/10					
4.00	4.00	*			4.10						
4.10	4.10	*			5.00						
5.00	5.00	*			5.45	9/30					
5.45	5.45	*			6.00						
6.00	CL				TUFACEOUS CLAY, strong brown coloured (7.5YR;5/6), slightly silty, low to medium plasticity, low to medium dry strength, low to medium toughness, few sandy, trace sub-rounded gravel max 10 mm in dia, very stiff.	6.00	*	6.15	15/30		
6.00			6.00	*	6.45						
6.45			6.45	*	6.70						
6.70			6.70	*	7.00	21/30					
7.00			7.00	*	7.45						
7.45			7.45	*	8.00	43/30					
8.00	SP		POORLY GRADED SAND WITH GRAVEL, very dark greenish grey coloured (GLAY1;3/5GY), About 60% medium to coarse grained sand, About 30 % grained sub-angular gravel max 40 mm in dia, about 10% silty and clay fines, medium dense to very dense.	8.00	*	8.15					
8.00				8.00	*	8.45					
8.45				8.45	*	9.00	29/30				
9.00				9.00	*	9.45					
9.45				9.45	*	10.00	39/30				
10.00				10.00	*	10.45					
10.45				10.45	*	11.00	27/30				
11.00				11.00	*	11.45					
11.45				11.45	*	12.00	53/30				
12.00				12.00	*	12.45					
12.45				12.45	*	13.00	50/10				
13.00				13.00	*	13.10					
13.10				13.10	*	14.00	33/30				
14.00				14.00	*	14.45					
14.45	14.45	*	15.00	36/30							
15.00	15.00	*	15.45								
15.45	15.45	*	16.00	39/30							
16.00	16.00	*	16.45								
16.45	16.45	*	17.00	36/30							
17.00	17.00	*	17.45								
17.45	17.45	*	18.00	42/30							
18.00	18.00	*	18.45								
18.45	18.45	*	19.00	26/30							
19.00	19.00	*	19.45								
19.45	19.45	*	20.00	28/30							
20.00	20.00	*	20.45								
20.45	20.45	*	21.00	16/30							
21.00	21.00	*	21.45								
21.45	21.45	*	22.00	8/30							
22.00	22.00	*	22.45								
22.45	22.45	*	23.00	24/30							
23.00	23.00	*	23.45								
23.45	23.45	*	24.00	32/30							
24.00	24.00	*	24.45								
24.45	24.45	*	25.00	31/30							
25.00	25.00	*	25.45								
25.45	25.45	*	26.00	42/30							
26.00	26.00	*	26.45								
26.45	26.45	*	27.00	45/30							
27.00	27.00	*	27.45								
27.45	27.45	*	28.00	51/30							
28.00	28.00	*	28.45								
28.45	28.45	*	29.00	55/30							
29.00	29.00	*	29.45								
29.45	29.45	*	30.00								
30.00			END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.	30.00	*						


B-15.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : CITAMAN, CIGUGUR TENGAH, CIMINDI, CIMAHI
 BORE HOLE NO. : B-15
 ELEVATION (M) : 739.00 m
 COORDINATES : E=781894.00; N=9237433.00
 DEPTH : 33.45 m

WATER LEVEL : -2.23 m
 DATE : November 7 to 10, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Jojo
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 2 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)		
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40		80	
	30.00	SP		POORLY GRADED SAND WITH GRAVEL, very dark greenish grey coloured (GLAY1;3/5GY), About 60% medium to coarse grained sand, About 30 % grained sub-angular gravel max 40 mm in dia, about 10% silty and clay fines, medium dense to very dense.	30.45	*	30.15	56/30	█	█		
					31.00	*	31.15	59/30	█	█		
					31.45	*						
					32.00	*	32.15	56/30	█	█		
					32.45	*						
	33.45					*	33.00	58/30	█	█		
				33.45								
				END OF THIS BORING. CASING DOWN TO 26.00 METERS IN DEPTH.								

B-15a.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 CLIENT : HIGH SPEED RAILWAY PROJECT (FS-I)
 LOCATION : JICA Study Team
 BORE HOLE NO. : B-16
 ELEVATION (M) : 692.00 m
 COORDINATES : E=790830.00 ; N=9234286.00
 DEPTH : 30.45 m

WATER LEVEL : - 4.15 m
 DATE : November 1 to 4, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin Walled Shelby Tube
 SPT : Automatic Hammer (AH)
 DRILLER : Asep Wahyu
 LOGGER : B.W.Larasati
 DRAWN BY : B.W.Larasati Page 1 of 1

SAMPLE DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value		RECOVERY (%)	
						Depth (m)	BLOWS PER CM		N PER FOOT
						40	80	40	80
00.00	CH		SANDY CLAY WITH GRAVEL, reddish brown coloured (5YR;3/3), slightly silty, medium to high plasticity, medium to high dry strength, medium to high toughness, sub-angular gravel max 30 mm in dia, medium stiff.	1.00	>4.50	1.15	4/30		
1.70			1.45	0.50	2.15	4/30			
2.00	CH		CLAY, dark grey coloured (GLAY1;4/N), slighty sandy, medium to high plasticity, medium to high dry strength, medium to high toughness, medium stiff.	2.00	0.50	3.15	6/30		
3.70			2.45	0.75	4.15	24/30			
4.00	SC		CLAYEY SAND WITH GRAVEL, dark yellowish brown coloured (10YR;4/4), about 70% medium to coarse sand, about 15% sub-rounded gravel max 15 mm in dia, about 15% clayey and silty fines, sanstone at 6.90-7.00 m and 7.40-7.55 m depth, dense to very dense.	3.00	0.75	5.15	76/25		
4.00			3.45	1.00	6.15	78/27			
4.00			3.70	1.25	7.15	85/23			
4.00			4.00	1.75	N > 100				
4.00			4.45	>4.50					
4.00			5.00	>4.50					
4.00			5.45	>4.50					
4.00			6.00	>4.50					
4.00			6.45	>4.50					
4.00			7.00	>4.50					
8.00	SC		CAYEY SAND WITH GRAVEL, very dark greenish grey coloured (GLAY1;3/5GY), About 70% medium to coase grained sand, About 25 % sub-angular gravel max 30 mm in dia, about 5% silty and clay fines, medium dense to very dense.	7.45	>4.50	8.15	48/30		
8.00			8.45	>4.50	9.15	16/30			
8.00			9.00	>4.50	10.15	19/30			
8.00			9.45	*	11.15	25/30			
8.00			10.00	*	12.15	23/30			
8.00			10.45	*	13.15	38/30			
8.00			11.00	*	14.15	31/30			
8.00			11.45	*	15.15	27/30			
8.00			12.00	*	16.15	63/30			
8.00			12.45	*	17.15	38/30			
8.00			13.00	*	18.15	44/30			
8.00			13.45	*	19.15	37/30			
8.00			14.00	*	20.15	34/30			
8.00			14.45	*	21.15	36/30			
8.00			15.00	*	22.15	48/30			
8.00			15.45	*	23.15	34/30			
8.00			16.00	*	24.15	51/30			
8.00			16.45	*	25.15	28/30			
8.00			17.00	*	26.15	50/23			
8.00			17.45	*	27.15	66/30			
8.00	18.00	*	28.15	50/30					
8.00	18.45	*	29.15	44/30					
8.00	19.00	*	30.15	53/30					
8.00	19.45	*							
8.00	20.00	*							
8.00	20.45	*							
8.00	21.00	*							
8.00	21.45	*							
8.00	22.00	*							
8.00	22.45	*							
8.00	23.00	*							
8.00	23.45	*							
8.00	24.00	*							
8.00	24.45	*							
24.45	CL		CLAY, dark greenish grey coloured (GLAY1;4/10GY), slighty silty, low to medium plasticity, low to medium dry strength, low to medium toughness, very stiff.	24.45	*	25.15	28/30		
25.00	SP		POORLY GRADED SAND, very dark grey coloured (GLAY1;3/N), about 90% fine to coarse sand, about 5% sub-rounded gravel max 10 mm in dia, about 5% silty fines non plasticity, dense to very dense.	25.00	*	26.15	50/23		
25.00			25.45	*	27.15	66/30			
25.00			26.00	*	28.15	50/30			
25.00			26.38	*	29.15	44/30			
25.00			27.00	*	30.15	53/30			
25.00			27.45	*					
25.00			28.00	*					
25.00			28.45	*					
30.45			END OF THIS BORING. CASING DOWN TO 26.00 METERS IN DEPTH.	30.00	*	30.15	53/30		
30.45				30.45	*				

B-16.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Kp.Cilameta, Ds.Cimencrang, Kec.Gede Bage
 BORE HOLE NO. : B-17
 ELEVATION : 675.00 m
 COORDINATES : E=798842.00; N=9231364.00
 DEPTH : 60.11 M.

WATER LEVEL : -0.70 m
 DATE : November 7 to 15, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Asep Wahyu
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 1 of 2

SAMPLE	DEPTH (meter)	USCS CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value				RECOVERY (%)	
							Depth (m)	BLOWS PER CM	N PER FOOT			
									40	80		
	0.00	CH		FAT CLAY with GRAVEL, dark gray (GLEY1 4/N), high to medium plasticity, andesitic gravel max dia of 4.50cm, subangular, stiff.	1.00	1.25	1.15	4/30				
1.70	1.70			2.00	0.50	2.15	3/30					
	3.50	CH		FAT CLAY, bluish gray (GLEY2 5/1), high plasticity, high to medium dry strength, non dilatancy, soft.	3.00	0.50	3.15	3/30				
3.70	3.70			4.00	0.25	4.15	3/30					
4.00	4.45			5.00	0.50	5.00	1/45					
5.70	6.00			7.00		7.00	1/45					
	8.00	CL		LEAN CLAY, dark bluish gray (GLEY2 4/1), slightly silty, low plasticity, moist, very soft	8.45	<0.25	8.00	1/45				
7.70	8.00			9.00	<0.25	9.00	1/45					
9.70	10.00			10.00	<0.25	10.00	1/45					
11.70	12.00			11.00	0.50	11.15	4/30					
12.00	13.00			12.00	0.50	12.15	3/30					
13.70	14.00			13.00	<0.25	13.00	1/45					
14.00	15.00			14.00	<0.25	14.00	1/45					
15.70	16.00			15.00	<0.25	15.00	1/45					
16.00	17.00			16.00	<0.25	16.00	1/45					
17.70	18.00			17.00	<0.25	17.00	1/45					
	18.00	CH		FAT CLAY, tuffaceous, bluish gray (GLEY2 5/1), high to medium plasticity, high to medium dry strength, non dilatancy, moist, stiff to very stiff.	18.00	1.00	18.15	9/30				
19.70	19.00			2.00	19.15	13/30						
20.00	20.00			2.00	20.15	15/30						
21.70	21.00			2.00	21.15	22/30						
22.00	22.00			3.00	22.15	21/30						
23.70	23.00			3.00	23.15	4/30						
24.00	24.00			1.00	24.15	7/30						
	24.00	ML		SANDY SILT, tuffaceous, gray (5YR 5/1), low plasticity, sand is fine grained, moist, medium stiff to stiff.	25.00	1.00	25.00	1/45				
25.70	26.00			0.50	26.15	6/30						
27.70	27.00			0.75	27.15	11/30						
28.00	28.00			1.00	28.15	13/30						
29.00	29.00			-	29.15	32/30						
	29.00	SW		WELL GRADED SAND with SILT, dark gray (GLEY1 4/N), fine to coarse grained, tuffaceous, uncemented, dense.	30.00	-	30.15	32/30				
30.00	30.45											
				END OF THIS PAGE. CONTINUOUS TO NEXT PAGE.								

B-17.TXT - AvantGarde-Demi

BORING LOG

P.T. SOILENS

PROJECT : GEOLOGICAL (BORING) SURVEY JAKARTA-BANDUNG
 : HIGH SPEED RAILWAY PROJECT (FS-I)
 CLIENT : JICA Study Team
 LOCATION : Kp.Cilameta, Ds.Cimencrang, Kec.Gede Bage
 BORE HOLE NO. : B-17
 ELEVATION : 675.00 m
 COORDINATES : E=798842.00; N=9231364.00
 DEPTH : 60.11 M.

WATER LEVEL : -0.70 m
 DATE : November 7 to 15, 2014
 BORING METHOD : Coring, Sampling
 SAMPLING METHOD : Thin walled (Shelby) Tube
 SPT : Automatic Hammer
 DRILLER : Asep Wahyu
 LOGGER : Yan Yusuf
 DRAWN BY : Yan Yusuf Page 2 of 2

SAMPLE	DEPTH (meter)	USCS	CHART	GRAPH SYMBOL	ROCK/SOIL DESCRIPTION	DEPTH (meter)	qu (kg/cm ²)	SPT - N value			RECOVERY (%)								
								Depth (m)	BLOWS PER CM	N PER FOOT									
										40		80							
31.70 32.00	30.45	SW			WELL GRADED SAND with SILT, dark gray (GLEY1 4/N), fine to coarse grained, tuffaceous, weak cemented by tuff matrix, dense.			31.15	26/30										
33.70 34.00											32.15		40/30						
35.70 36.00											33.15		34/30						
37.70 38.00											34.15		36/30						
39.70 40.00											35.15		42/30						
41.70 42.00	40.45					SW			WELL GRADED SAND with SILT, dark gray (GLEY1 4/N), fine to coarse grained, tuffaceous, uncemented, medium dense.				36.15	34/30					
43.70 44.00																37.15	40/30		
45.70 46.00	43.45					CH			FAT CLAY, bluish gray (GLEY2 5/1), high plasticity, high to medium dry strength, non dilatancy, hard.				38.15	45/30					
47.70 48.00																39.15	39/30		
49.70 50.00	48.00									CH				FAT CLAY, light gray (GLEY2 4/1), high plasticity, high dry strength, non dilatancy, occasional shell fragments included, hard. Become very stiff at the depth of: 56.00-57.45 m			40.15	38/30	
57.70 58.00															41.15	22/30			
	59.00	ML			SILT with SAND, gray (5YR 5/1), tuffaceous, low plasticity, sand is fine grained, hard.											42.15	24/30		
	60.11																		43.15
						44.00	4.50	44.15	40/30										
						45.00	>4.50	45.15	30/30										
						46.00	>4.50	46.15	43/30										
						47.00	4.50	47.15	26/30										
						48.00	4.00	48.15	20/30										
						49.00	4.00	49.15	30/30										
						50.00	>4.50	50.15	43/30										
						51.00	>4.50	51.15	55/30										
						52.00	>4.50	52.15	69/30										
						53.00	>4.50	53.15	50/30										
						54.00	>4.50	54.15	50/30										
						55.00	>4.50	55.15	54/30										
						56.00	4.00	56.15	30/30										
						57.00	4.50	57.15	28/30										
						58.00	>4.50	58.15	33/30										
						59.00	>4.50	59.15	58/30										
						60.00		60.11	50/11										
					END OF THIS BORING. CASING DOWN TO 45.00 METER IN DEPTH.														

B-17a.TXT - AvantGarde-Demi

Table-1 Proposed Boring Specification (Location and Length)

No.of Drilling	Location (Km)	Depth (m)	Purpose	Note
B-1	9.8 Route B	40 21	Soil condition and depth of load bearing layer around Jakarta area. Near Halim Airport.	Foundation of structure (Flat plain)
B-2	10.6	50 20	Soil condition and depth of load bearing layer around Jakarta area	Foundation of structure (Flat plain)
B-3	21.8 23.3	50	Soil condition and depth of load bearing layer around Jakarta area	Foundation of structure (Flat plain)
B-4	30.2	40 60	Soil condition and depth of load bearing layer	Foundation of structure (Flat plain)
B-5	36.9 38.2	40 50	Soil condition and depth of load bearing layer	Foundation of structure (Flat plain)
B-6	48.0	30	Soil condition and depth of load bearing layer (Foundation of Embankment)	Foundation of structure (Hilly area)
B-7	54.5 51.0	40 30	Karawang industrial area Geological and geotechnical condition of Mudstone of Subang formation (Msc) at Tunnel area	General geotechnical property (Hilly area)
B-8	68.0 69.3	30	Geological and geotechnical condition Thickness of volcanic sediments, geological and geotechnical condition of Subang formation.	Foundation of structure (Hilly area)
B-9	73.2	30 21	Soil condition and depth of load bearing layer (along river)	Foundation of structure (Hilly area)
B-10	77.2	30	Soil condition and depth of load bearing layer (along small tunnel)	Foundation of structure (Hilly area) Low priority
B-11	81.6	50	Geological and geotechnical condition of Subang formation. Geotechnical condition of Subang formation. Thickness of talus deposit.	Slope condition of entrance of tunnel (Hilly area)
B-12	89.3	30	Geological and geotechnical condition Near the landslide area along the highway	Geotechnical condition of tunnel section (Hilly area)
B-13	93.9	60	Geological and geotechnical condition and surface layer Soil condition and depth of load bearing layer	Foundation of structure (Mountain area)
B-14	111.2 111.4	40	Geological and geotechnical condition around tunnel area Thickness of volcanic sediment Groundwater level	Foundation of Structure (Mountain area)
B-15	121.2 121.5	30 33	Geological and geotechnical condition of volcanic sediments (pimiceous tuff) and lake deposit. Depth of load bearing layer	Foundation of structure (Flat area)
B-16	132.0	30	Geological and geotechnical condition of volcanic sediments (pimiceous tuff) and lake deposit near planned Bandung station. Depth of load bearing layer	Foundation of structure (Flat area)
B-17	140.6	30 60	Geological and geotechnical condition of volcanic sediments (pimiceous tuff) and lake deposit around Gudebage station. Depth of load bearing layer	Foundation of structure (Flat area)
Total		650 645		

Location of some of borings were changed because of the land owner's permission and for suitable setting of boring machine.