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Fig. 2.1.7 **DRILL LOG**

HOLE No. RA - 7

PROJECT	JATIBARANG DAM			DEPTH	30.00 M	ELEVATION	150.328 M
SITE	RESERVOIR	COORDINATE	X : 9,221,668.156 Y : 428,764.492	INCLINATION	VERTICAL	DRILL RIG	TONE UD - 5
CLIENT	J I C A	DATE	Dec. 31, 1997 till Jan. 02, 1998	DRILLED BY	SUMALI	LOGGED BY	SUPRIYADI

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R. Q. D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
DECEMBER 31, 1997		0.20	150.128		TOP SOIL			100	0	N = 18 X
		1						100	0	N = 36 X
		2			SECONDARY SEDIMENTS , include clay & breccia			100	0	N = 38 X
		2.45	147.878					100	0	N = 35 X
		3						100	0	N = 45 X
		4						100	0	N = 28 X
		5						100	0	N = 29 X
		6						100	0	N = 35 X
		7						100	0	N = 31 X
		8						100	0	N = 38 X
JANUARY 01, 1998		9						100	0	N = 37 X
		10						100	0	N = 37 X
		11			SILTSTONE , soft ~ stiff , brownish grey		CL - L	100	0	N = 39 X
		12						100	0	N = 34 X
		13						100	0	N = 41 X
		14						100	0	N = 43 X
		15						100	0	N = 49 X
		16						100	0	N = 45 X
JANUARY 02, 1998		17						100	0	>50
		18						100	0	N = 48 X
		19								
		20	20.00	130.328						
					END OF DRILLING					

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* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows)
* G. W. L. = Ground Water Level = Height of Spring Water

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Fig. 2.1.8 DRILL LOG

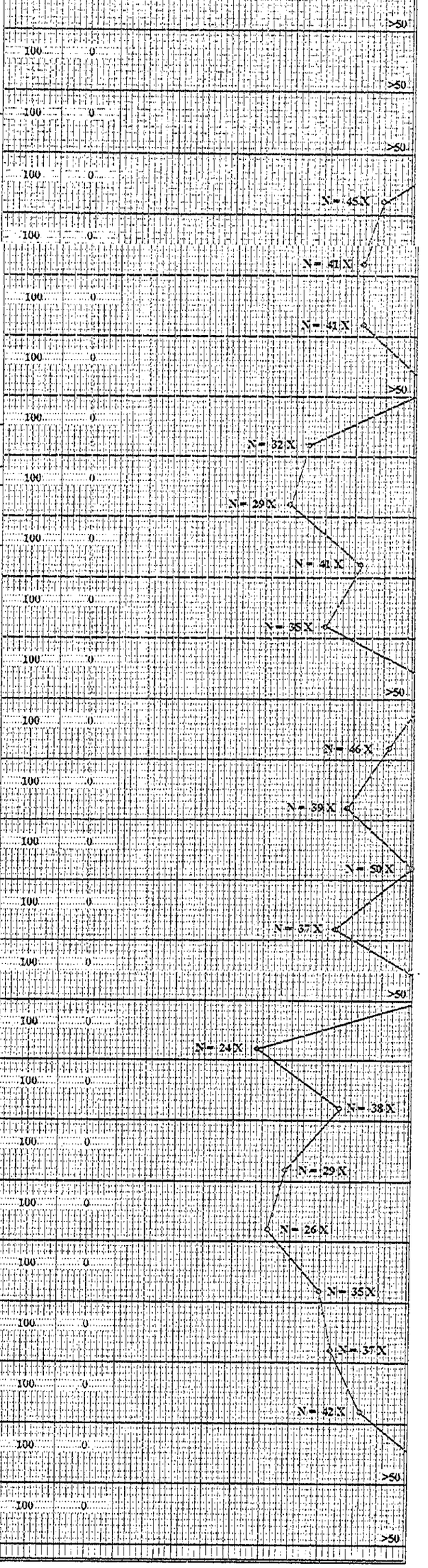
HOLE No. RI - 1

PROJECT	JATIBARANG DAM		DEPTH	30.00 M.	ELEVATION 165.433 M.
SITE	RESERVOIR	COORDINATE X= 9221.519.380 Y= 428.428.009	INCLINATION	VERTICAL	DRILL RIG TONE UD-5
CLIENT	JICA	DATE Dec. 12, 1997 till Dec. 18, 1997	DRILLED BY	SUMALI	LOGGED BY SUPRIYADI

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R.Q.D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
DEC. 12, 1997		0.20	165.233		TOP SOIL					
		1			TUFF. S'STONE . med. grained , dense , brownish grey		CL - L	100	0	>50
		2						100	0	N = 31 X
		2.36	163.133							
		2.50	162.933	V O V O V	VOLC. CONGLOMERATE . poor cemented . brown		CL - L	100	0	>50
		3								
DECEMBER 13, 1997		4			TUFF. SANDSTONE , coarse grained , soft ~ dense , brownish grey		CL - L	100	0	>50
		5						100	0	>50
		6						100	0	>50
		6.40	159.033							
		7						100	0	>50
DEC. 14, 1997		8						100	0	N = 45 X
		9			CONGL'TIC SANDSTONE , coarse grained , dense , with gravel Ø > 3 cm , brownish grey		CL - L	100	0	N = 42 X
		10						100	0	N = 41 X
		11						100	0	>50
		11.80	153.933							
		12		V O V O V	VOLC. CONGLOMERATE with gravel Ø 5 cm , brown		CL - L	100	0	N = 32 X
		12.20	153.233	V O V O V						
		12.80	152.933		SANDSTONE , fine grained , compact , light grey		CL - L	100	0	
DEC. 15, 1997		13			CONGL'TIC SANDSTONE (tuffaceous) , med. grained , dense , light grey		CL - L	100	0	N = 29 X
		13.80	151.933							
		14						100	0	N = 41 X
		15			TUFF. SANDSTONE , med. grained , soft , light grey		CL - L	100	0	N = 38 X
		16						100	0	>50
		16.50	148.933							
DECEMBER 16, 1997		17			CONGLOMERATE , matrix : sand , Ø > 5 cm , brown		CL - L	100	0	N = 46 X
		17.40	148.033							
		18			CONGL'TIC SANDSTONE (tuffaceous) , c. grained , dense , light grey		CL - L	100	0	N = 39 X
		19						100	0	N = 50 X
		20						100	0	N = 37 X
		20.40	145.033							
		21			CONGLOMERATE with matrix: sand , brownish grey		CL - L	100	0	>50

DEC. 14, 1997 | DECEMBER 13,
DEC. 15, 1997 | DECEMBER
DEC. 16, 1997 | DEC.
DEC. 17, 1997 | DECEMBER
DEC. 18, 1997 | DECEMBER

6.40	159.033			
11.80	153.933	CONGL'TIC SANDSTONE , coarse grained , dense , with gravel Ø >3 cm , brownish grey	CL - L	
12.20	153.533	VOLC. CONGLOMERATE with gravel Ø 5 cm , brown	CL - L	
12.80	152.933	SANDSTONE , fine grained , compact , light grey	CL - L	
13.80	151.933	CONGL'TIC SANDSTONE (tuffaceous) , med. grained , dense , light grey	CL - L	
16.80	148.933	TUFF. SANDSTONE , med. grained , soft , light grey	CL - L	
17.40	148.033	CONGLOMERATE , matrix : sand , Ø > 5 cm , brown	CL - L	
20.40	145.033	CONGL'TIC SANDSTONE (tuffaceous) , c. grained , dense , light grey	CL - L	
21.50	143.933	CONGLOMERATE with matrix: sand , brownish grey	CL - L	
22.50	142.933	SANDY TUFF , soft , light grey	CL - L	
27.60	137.833	SANDSTONE , medium ~ coarse grained , soft , with gravel & little tuffaceous , light grey	CL - L	
29.50	135.933	SILSTONE with some gravel , poor cemented , dark grey	CL - L	
30.06	135.433	SILSTONE , soft , brown	CL - L	
		END OF DRILLING		



* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows)
* G. W. L. = Ground Water Level = Height of Spring Water

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Fig. 2.1.9 DRILL LOG

HOLE No. RI - 2

PROJECT	JATIBARANG DAM			DEPTH	20.00 M.	ELEVATION	153.791 M
SITE	RESERVOIR	COORDINATE	X = 9,221,658.000 Y = 428,407.231	INCLINATION	VERTICAL	DRILL RIG	TONE UD - 5
CLIENT	JICA	DATE	Dec. 20, 1997 till Dec. 22, 1997	DRILLED BY	SUMALI	LOGGED BY	SUPRIYADI

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R. Q. D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
DEC. 21		0.30	153.491		TOP SOIL			100	0	N = 21 X
					TUFF. S'STONE , c. grained , p. cemented , l. brown		CL - L	100	0	N = 25 X
								100	0	N = 36 X
								100	0	N = 26 X
								100	0	N = 31 X
								100	0	N = 38 X
								100	0	N = 31 X
								100	0	N = 38 X
DECEMBER 20, 1997		8.20	145.591		CONGLOMERATIC SANDSTONE (tuffaceous) , coarse grained Ø max. = 2 cm , dense , light brown		CL - L	100	0	N = 41 X
								100	0	N = 44 X
		10.40	143.391		TUFF. S'STONE , m. grained , soft , greyish brown		CL - L	100	0	N = 26 X
		11.90	141.891					100	0	N = 32 X
		12.30	141.491		CONGL'TIC S'STONE (tuffaceous) Ø max. = 3 cm		CL - L	100	0	N = 32 X
					SANDSTONE , med. grained , soft , greyish brown		CL - L	100	0	N = 32 X
		14.58	139.291					100	0	N = 47 X
		15.06	138.791		SILTSTONE (very sandy) , soft , brownish black		CL - L	100	0	N = 42 X
					SILTSTONE , soft , black		CL - L	100	0	N = 46 X
DECEMBER 22, 1997		17.06	136.791					100	0	>50
					SILTSTONE , soft , black , with gravel Ø 3 ~ 5 cm		CL - L	100	0	N = 43 X
		19.24	134.591					100	0	N = 49 X
		20.00	133.791		SILTSTONE , soft , black		CL - L			
					END OF DRILLING					

* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows)
* G. W. L. = Ground Water Level = Height of Spring Water

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Fig. 2.1.10 DRILL LOG

HOLE No. RI - 3

PROJECT	JATIBARANG DAM			DEPTH	30.00 M.	ELEVATION	150.328 M.
SITE	RESERVOIR	COORDINATE	X : 9,221,501.728 Y : 428,491.635	INCLINATION	VERTICAL	DRILL RIG	TONE UD-5
CLIENT	J I C A	DATE	Dec. 27, 1997 till Jan. 01, 1998	DRILLED BY	SUMALI	LOGGED BY	SUPRIYADI

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R. Q. D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
DECEMBER 27, 1997		3.20	147.128		TOP SOIL , blackish brown			100	0	N = 7X
								100	0	N = 8X
								100	0	N = 9X
		4.50	145.828		CONGL'TIC S'STONE (tuffaceous) , c. grained , por cemented , reddish brown		CL - L	100	0	N = 7X
								100	0	N = 5X
								100	0	N = 8X
								100	0	N = 8X
								100	0	N = 10X
DECEMBER 28, 1997		12.50	137.828		TUFF. S'STONE , c. grained , dense , blackish brown		CL - L	100	0	N = 6X
								100	0	N = 8X
								100	0	N = 8X
								100	0	N = 10X
								100	0	N = 10X
DECEMBER 29, 1997		15.50	134.828		CONGL'TIC SANDSTONE , matrix : tuffaceous , Ø max. = 15 cm , dark brown		CL - L	100	0	N = 13X
								100	0	N = 16X
		17.20	133.128		CONGLOMERATE (matrix : sand) , poor cemented , brown		CL - L	100	0	N = 12X
								100	0	>50
								100	0	N = 18X
								100	0	N = 38X
								100	0	N = 28X
								100	0	N = 42X
								100	0	N = 30X

DECEMBER 28, '97 | DECEMBER 29, 1997 | DECEMBER 30, 1997 | JAN. 04'98 DEC. 31, 1998

		TUFF. S'STONE , c. grained , dense , blackish brown	CL - L	100 0	N = 8 X N = 10 X N = 6 X N = 8 X N = 8 X N = 10 X
12.50	137.828				
		CONGL'TIC SANDSTONE , matrix : tuffaceous , Ø max. = 15 cm , dark brown	CL - L	100 0	N = 10 X N = 13 X N = 16 X
15.50	134.828				
		CONGLOMERATE (matrix : sand) , poor cemented , brown	CL - L	100 0	N = 11 X >50 N = 18 X N = 35 X N = 38 X N = 42 X N = 30 X
17.20	133.128				
		SILTSTONE , stiff , greyish black (soft 17.20 ~ 17.60)	CL - L	100 0	N = 31 X N = 45 X N = 42 X N = 48 X >50 >50 >50
30.00	120.328				
		END OF DRILLING			

* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows)
* G. W. L. = Ground Water Level = Height of Spring Water

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Fig. 2.1.11 DRILL LOG

HOLE No. RI - 4

PROJECT	JATIBARANG DAM		DEPTH	30.00 M.	ELEVATION	170.189 M.	
SITE	RESERVOIR	COORDINATE X: 9,221,568.052 Y: 428,508.559	INCLINATION	VERTICAL	DRILL RIG	TOHO-D-1	
CLIENT	JICA	DATE Jan. 03, 1998 till Jan. 07, 1998	DRILLED BY	NGATIMAN	LOGGED BY	SUPRIYADI	

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R.Q.D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
JANUARY 03, 1998		0.40	169.789		TOP SOIL			100	0	N = 3 X
		1						100	0	N = 5 X
		2						100	0	N = 8 X
		3						100	0	N = 8 X
		4			CONGL'TIC SANDSTONE (tuffaceous) , poor cemented , with gravel Ø max. 7 cm , l. brown		CL - L	100	0	N = 13 X
		5						100	0	N = 14 X
		6						100	0	N = 10 X
		7						100	0	N = 9 X
		7.50	162.689					100	0	N = 11 X
		8						100	0	N = 5 X
		9						100	0	N = 4 X
		10			TUFFACEOUS SANDSTONE , medium grained , soft , light brown , with some gravel		CL - L	100	0	N = 4 X
		11						100	0	N = 5 X
		12						100	0	N = 4 X
		12.90	157.289					100	0	N = 5 X
		13			S'STONE , m. ~ c. grained with small gravel , brown		CL - L	100	0	N = 7 X
		13.40	156.789					100	0	N = 10 X
		14			TUFF. SANDSTONE , m. grained , dense , brown		CL - L	100	0	N = 11 X
		14.50	155.689					100	0	N = 39 X
		15			TUFF , soft , light brown		CL - L	100	0	N = 36 X
		15.20	154.989					100	0	N = 44 X
		16			S'STONE , m ~ c. grained , soft ~ dense , l. brown		CL - L			
		17								
		18								
		18.20	151.989							
		19			SILTSTONE , soft ~ stiff , greyish black		CL - L			
		20								
		21								

5					
6					
7					
7.50	162.689				
8					
9					
10			TUFFACEOUS SANDSTONE , medium grained , soft , light brown , with some gravel	CL - L	
11					
12					
13	12.90	157.289			
	13.40	156.789	S'STONE , m. ~ c. grained with small gravel , brown	CL - L	
14			TUFF. SANDSTONE , m. grained , dense , brown	CL - L	
	14.50	155.689			
15			TUFF , soft , light brown	CL - L	
	15.20	154.989			
16			S'STONE , m ~ c. grained , soft ~ dense , L brown	CL - L	
17					
18	18.20	151.989			
19			SILTSTONE , soft ~ stiff , greyish black	CL - L	
20					
21					
	22.45	148.739			
22			SILTSTONE , soft ~ stiff , greyish black with some gravels Ø max. 8 cm and sand	CL - L	
23					
	23.40	146.789			
24			MUDSTONE , soft , greyish black	CL - L	
25					
26					
27					
28					
29					
30	30.00	140.189			
			END OF DRILLING		

JANUARY 03, 1998

JANUARY 04, 1998

JANUARY 06, 1998

JANUARY 07, 1998

N = 14 X
N = 10 X
N = 8 X
N = 11 X
N = 5 X
N = 4 X
N = 4 X
N = 5 X
N = 4 X
N = 3 X
N = 7 X
N = 10 X
N = 11 X
N = 39 X
N = 36 X
N = 44 X
N = 42 X
>50
>50
>50
>50
>50
>50

F-2-11

* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows)
* G. W. L. = Ground Water Level = Height of Spring Water

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Fig. 2.1.12 **DRILL LOG**

HOLE No. RO - 1

PROJECT	JATIBARANG DAM			DEPTH	30.00 M.	ELEVATION	187.338 M.
SITE	RESERVOIR	COORDINATE	X : 9.221.450.622 Y : 428.672.370	INCLINATION	VERTICAL	DRILL RIG	KOKEN
CLIENT	JICA	DATE	Jan. 06, 1998 till Jan. 09, 1998	DRILLED BY	SUBIYAKTO	LOGGED BY	SUPRIYADI

DATE	SAMPLING	DEPTH		ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R.Q.D %	STANDARD PENETRATION TEST
									50	50	0 10 20 30 40 50
JANUARY 06, 1998		1	1.00			TOP SOIL			100	0	N = 10 X
			1.50			CONGLOMERATIC SANDSTONE (tuffaceous) with gravel Ø < 5 cm , dark brown		CL - L	100	0	
		2									N = 7 X
		3				TUF. SANDSTONE , c. grained , p. cemented , brown		CL - L	100	0	N = 9 X
		4	4.00						100	0	N = 10 X
			4.30			CONGL'TIC S'STONE (tuffaceous) , dark brown		CL - L			
		5				TUF. SANDSTONE , c. grained , dense , brown		CL - L	100	0	N = 7 X
		6							100	0	N = 11 X
		7	7.00						100	0	N = 7 X
		8				S'STONE , c. grained ~ congl'tic , dense , d. brown			100	0	N = 8 X
		9							100	0	N = 9 X
		10							100	0	N = 8 X
			10.80						100	0	N = 7 X
JANUARY 07, 1998		11				SILTSTONE with some gravel (Ø max. 3 cm) , l. brown		CL - L	100	0	N = 9 X
		12							100	0	N = 21 X
		13							100	0	N = 39 X
			13.45	173.888					100	0	N = 52 X
		14							100	0	N = 46 X
		15							100	0	N = 48 X
		16							100	0	N = 50 X
		17							100	0	>50
		18							100	0	N = 46 X
		19							100	0	>50
JANUARY 08, 1998		20							100	0	>50
		21									
		22				SILTSTONE , soft ~ stiff , greyish black		CL - L			

JANUARY 06, 1998 | JANUARY 07, 1998 | JANUARY 08, 1998 | JANUARY 09, 1998

6			TUF. SANDSTONE , c. grained , dense , brown	CL - L	100 0	N = 11 X
7	7.00				100 0	N = 7 X
8					100 0	N = 8 X
9			S'STONE , c. grained ~ congl'tic , dense , d. brown		100 0	N = 9 X
10					100 0	N = 8 X
11	10.80				100 0	N = 7 X
12			SILTSTONE with some gravel (Ø max. 3 cm) , l. brown	CL - L	100 0	N = 9 X
13					100 0	N = 11 X
14	13.45	173.888			100 0	N = 39 X
15					100 0	N = 42 X
16					100 0	N = 46 X
17					100 0	N = 48 X
18					100 0	N = 50 X
19					100 0	>50
20					100 0	N = 46 X
21					100 0	> 50
22			SILTSTONE , soft ~ stiff , greyish black	CL - L	100 0	> 50
23					100 0	> 50
24					100 0	> 50
25					100 0	> 50
26					100 0	> 50
27					100 0	> 50
28					100 0	> 50
29					100 0	> 50
30	30.00	157.338			100 0	> 50
			END OF DRILLING			

* R. Q. D. = Rock Quality Designation = (Total Length of Cylindric Cores longer than 10 cm) / (Total Core Length) x 100 %
* S. P. T. = Standard Penetration Test (Times Blows).
* G. W. L. = Ground Water Level = Height of Spring Water.

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Fig. 2.1.13 DRILL LOG

HOLE No. RO - 2

PROJECT	JATIBARANG DAM			DEPTH	30.00 M	ELEVATION	162.343 M
SITE	RESERVOIR	COORDINATE	X = 9,221,551.054 Y = 428,673.241	INCLINATION	VERTICAL	DRILL RIG	KOKEN
CLIENT	JICA	DATE	Dec. 27, 1997 till Jan. 02, 1998	DRILLED BY	SUBIYAKTO	LOGGED BY	SUPRIYADI

DATE	SAMPLING	DEPTH	ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R.Q.D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
DEC. 27, 1997		1.20	161.143		SECONDARY DEPOSITS			100	0	N = 4X
								100	0	N = 6X
								100	0	N = 4X
								100	0	N = 8X
								100	40	N = 15X
								100	0	N = 9X
								100	0	N = 9X
								100	0	N = 15X
DECEMBER 28, 1997								100	0	N = 13X
								100	0	N = 14X
								100	0	N = 36X
								100	45	N = 27X
								100	0	N = 37X
DECEMBER 29, 1997								100	0	N = 45X
								100	0	N = 37X
								100	0	N = 50X
DEC. 30, 1997					SILTSTONE , soft ~ stiff , greyish black		CL - L	100	0	N = 58X
								100	0	N = 42X
								100	0	N = 44X
								100	0	N = 48X
DEC. 31, 1997								100	0	> 50
								100	0	> 50
1998										

DEC. 31, 1997	DEC. 30, 1997	DECEMBER 29, '97	DECEMBER 2

JANUARY 10, 1998	JANUARY 09, 1998	JANUARY 08, 1998

| | | |

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Fig. 2.1.14 **DRILL LOG**

HOLE No. RRD - 3

PROJECT	JATIBARANG DAM		DEPTH	30.00 M.	ELEVATION	148.310 M.
SITE	RESERVOIR	COORDINATE X 9221.511.174 Y 428.152.841	INCLINATION	VERTICAL	DRILL RIG	YBM / YSO-2
CLIENT	JICA	DATE Jan. 05, 1998 till Jan. 07, 1998	DRILLED BY	NGATIMAN	LOGGED BY	SUPRIYADI

DATE: JANUARY 05, 1998 — JANUARY 06, 1998

SAMPLING	DEPTH		ELEVATION	COLUMN SECTION	DESCRIPTION	GROUND WATER LEVEL	ROCK GRADE	CORE RECOVERY %	R. Q. D %	STANDARD PENETRATION TEST
								50	50	0 10 20 30 40 50
	1				CONGLOMERATIC SANDSTONE , poor cemented , dark brown		CL - L	100	0	N = 5X
	2	2.00	146.310					100	0	N = 11X
		2.30	146.010		SANDSTONE , loose , med. grained , light brown		CL - L			
	3				CONGLOMERATIC SANDSTONE , medium ~ coarse grained , dense , brown		CL - L	100	0	N = 12X
	4	4.26	144.110					100	0	N = 8X
	5				TUFF. SANDSTONE , m. grained , compact , brown		CL - L	100	0	N = 8X
	6	6.06	142.310					100	0	N = 15X
	7				SILTSTONE , compact , no weathered , blackish grey		CL - L	100	0	N = 37X
	8							100	0	N = 44X
	9							100	0	N = 49X
	10							100	0	N = 47X
	11							100	0	N = 45X
	12							100	0	> 50
	13							100	0	> 50
	14							100	0	N = 50X
	15							100	0	> 50
	16							100	0	N = 48X
	17							100	0	N = 47X
	18							100	0	N = 45X
	19							100	0	N = 44X
	20							100	0	> 50
	21							100	0	> 50
	22							100	0	N = 50X

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