

# LOG OF BORING

Project NAM NGAO SITE No. 2 Location QUARRY Boring No. Q-1 Log No. 1 of 2  
 Co-ordinates N1,966,648.995 E394,537.847 Elevation 342.581 m MSL Depth of Hole 59.40 m Commenced 9/11/88  
 Angle from Horizontal 90° Core Recovery 74 % Depth of Overburden 10.20 m Completed 15/11/88  
 Bearing of Angle Hole - Company EGAT Total length of core 43.90 m Logged by V. Vichorn K. Takeda

Date	Depth M	R.O.D.	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Commentation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LOGGED VALUE			Depth M	Elevation																																																							
													WATER TABLE	Drift	Pressure Kg																																																									
9/11/88	0		OVERBURDEN		100%	-		Reddish brown		1	5	0.00-10.20 m. Overburden.																																																												
	1	2										3					4	5	6	7	8	9	10																																																	
	10/11/88	1															SHALE ALTERNATION with SANDSTONE		100%	-		Brown		2	5	10.20-20.40 m. Shale with sandstone interbedded joints dip 10°, 40°, 70° coated with clay and iron oxide, bedding 40°																																														
		2										3														4					5	6	7	8	9	10																																				
		11/11/88										1																			LIMESTONE		100%	-		Gray		3	5	20.00-23.00 m. Chert bed. Core loss at 11.60-12.30m, 13.30-14.30m, 17.50-20.40m, 21.90-22.20m, 22.50-22.65m, 22.85-23.20m.																																
												2														3														4					5	6	7	8	9	10																						
												12/11/88														1																			LIMESTONE		100%	-		Gray		3	5	23.00-38.40 m. Joints dip 30°, 45°, 70° Bedding 25° Fresh and sound																		
																										2														3														4					5	6	7	8	9	10								
																										13/11/88														1																			LIMESTONE		100%	-		Gray		3	5					
																																								2														3														4				

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained) Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project NAM NGAO DITE No. 2 Location QUARRY Boring No. Q - 1 Log No. 2 of 2  
 Co-ordinates N 1,966,848.895 E 394,337.847 Elevation 342.581m MSL Depth of Hole 59.40 m Commenced 9/11/88  
 Angle from Horizontal 90° Core Recovery 74% Depth of Overburden 10.20 m Completed 15/11/88  
 Bearing of Angle Hole - Company E G AT Total length of core 43.90 m Logged by V. Vicharn K. Tokedo

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation
													LOGEON VALUE	WATER TABLE		
13/11/88	30	58	LIMESTONE	[Symbol]	100%	6		Gray	1	5	1	As above.	0	0	30	60
	1	1										75				
	2	2										45				
	3	3										50				
	4	4										60				
	5	5														
	6	6														
	7	7										80				
14/11/88	8	27	LIMESTONE	[Symbol]	100%	6		Gray	1	5	1	38.40-59.40m.	0	0	40	60
	1	1										70				
	2	2														
	3	3														
	4	4										70				
	5	5														
	6	6														
	7	7										40				
15/11/88	8	43	LIMESTONE	[Symbol]	100%	6		Gray	1	5	1	Limestone joints 10°, 45°, coated with clay and iron oxide	0	0	40	60
	1	1										70				
	2	2														
	3	3														
	4	4										70				
	5	5														
	6	6														
	7	7										40				
	8	8														
9	9	20														
	10	38	LIMESTONE	[Symbol]	100%	6		Gray	1	5	1	47.80-59.40m. calcite and clay in cavity. cracky, and fragmented rock.	0	0	50	60
	1	1										65				
	2	2														
	3	3														
	4	4										75				
	5	5														
	6	6														
	7	7										45				
	8	8														
9	9	45														
60												Bottom of hole			60	

Core loss → [Symbol] Weathering 1(fresh) - 5(discomposed) Hardness 1(hard) - 5(soft)  
 Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)



B-3-(2) MAE LAMA LUANG SITE



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 1 of 4  
 Co-ordinates N1,966,275.870 E 372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50 m Completed 25/3/87  
 Bearing of Angle Hole - Company E G A T Total length of core 81.30m Logged by V. Punnong  
K. Takeda

Date	Depth M	R. Q. D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1-5	Hardness 1-5	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		D/H 0 50 100	Pressure Kg min	Depth M	Elevation									
													○	—													
5/3/87	0	0	Overburden	[Symbol: Dotted]	[Symbol: Dotted]	[Symbol: Dotted]	[Symbol: Dotted]	Brownish red.	[Symbol: Vertical lines]	[Symbol: Vertical lines]	[Symbol: Vertical lines]	Overburden : Silty sands with some boulders brownish red with plant roots. 0-4.50m Detritus deposit															
	1	0																									
	2	0																									
	3	0																									
6/3/87	4	0	Sandstone	[Symbol: Cross-hatch]	[Symbol: Cross-hatch]	[Symbol: Cross-hatch]	[Symbol: Cross-hatch]	Brownish gray to yellowish gray	[Symbol: Cross-hatch]	[Symbol: Cross-hatch]	[Symbol: Cross-hatch]	(4.50 - 28.80m)															
	5	0																									
	6	0																			Sandstone : Highly to moderately weathered, brownish gray, massive to laminated at some parts.						
	7	0																			Bedding dips 20° - 40° (bedding joint) planar or curve.						
	8	0																			Completely weathered at 16.00 - 28.90 m.						
	9	0																			Cutting at 16.00 - 19.00m.						
	10	0																									166.988
	1	0																									
7/3/87	2	0																									
	3	0																									
	4	0																									
	5	0																									
	6	0																									
	7	0																									
	8	0																									
	9	0																									
	20	0																									
	8/3/87	1	0																								
2		0																									
3		0																									
4		0																									
5		0																									
6		0																									
7		0																									
8		0																									
9		0																									
30		0																	146.988								

Core loss [Symbol: X-hatch] Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 80 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 2 of 4  
 Co-ordinates N1966,275.870 E372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole — Company E G A T Total length of core 81.30m Logged by V. Punpong  
K. Takeda

Date	Depth M	R %	Geology	Symbol of geology	Core recovery +100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Pressure Kg	Time min	Depth M	Elevation
													WATER TABLE	○				
	30	0	(Schistose limestone) Calcareous schist		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	(28.80-54.00m.) Schistose limestone and sandy limestone brownish gray to yellowish gray, highly to slightly calcareous Schistosity dips 40° Most joints are 40° (bedding joint), irregular, rough some joints 10° smooth highly calcareous from 28.80-46.00m. Slightly calcareous from 46.00-54.00m. (Sandy limestone) Sheared zone at 41.00-42.30m. 43.00-43.50m.	Calcareous sandstone.	○	30	70	30	1	176.988
	1	0																
	2	0																
	3	0																
	4	0																
	5	0																
	6	0																
	7	0																
	8	0																
	9	0																
	40	31.5	Calcareous sandstone		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	54.00-96.00m. Schistose limestone interbedded with quartzite and phyllitic rock. Fresh, hard but brittle, extremely to	○	30	80	25	50	126.988	
	1	0																
	2	0																
	3	0																
	4	0																
	5	10																
	50	13	Calcareous sandstone		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	54.00-96.00m. Schistose limestone interbedded with quartzite and phyllitic rock. Fresh, hard but brittle, extremely to	○	30	25	30	1	116.988	
	1	0																
	2	54																
	54	0	(Schistose limestone) calcareous schist		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	54.00-96.00m. Schistose limestone interbedded with quartzite and phyllitic rock. Fresh, hard but brittle, extremely to	○	30	45	25	4	116.988	
	3	0																
	4	0																
	5	0																
	60	0	(Schistose limestone) calcareous schist		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	54.00-96.00m. Schistose limestone interbedded with quartzite and phyllitic rock. Fresh, hard but brittle, extremely to	○	30	40	20	9	116.988	
	6	0																
	7	0																
	8	0																
	60	0	(Schistose limestone) calcareous schist		100%	NMLC, triple tube core barrel ø52mm.	Gray		1-5	1-5	54.00-96.00m. Schistose limestone interbedded with quartzite and phyllitic rock. Fresh, hard but brittle, extremely to	○	30	25	23	60	116.988	
	9	0																
	60	0																
	60	0																

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No LY/DR-1 Log No. 3 of 4  
 Co-ordinates N1,966,275.850 E372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole — Company E G A T Total length of core 81.30m Logged by V. Punpong  
K. Tokeda

Date	Depth M	R.O.C.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation									
													LUGEON VALUE	WATER TABLE			Drill Pressure Kg	Time min							
16/3/87	60	0	Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%			Gray		1-5	highly fractured. Schistose limestone - gray, moderately show schistosity highly to slightly calcareous	1.1		1	60.988										
	1	1																							
	2	2																							
	3	3																							
	4	4																							
17/2/87	5	0												Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	Phyllitic rock : - slightly to non calcareous schistosity dips 40°-50° Most joints 40° (bedding joint) some joints 20° planar or curve, sheared zone at 54.50-55.00 m.	1.1		5	60.988
	6	6																							
	7	7																							
	8	8																							
	9	9																							
18/3/87	10	0	Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	83.40-83.70 m.	1.1		10											60.988	
	11	11																							
	12	12																							
	13	13																							
	14	14																							
23/3/87	15	0											Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	89.20-89.40 m.	1.1		15	60.988	
	16	16																							
	17	17																							
	18	18																							
	19	19																							
24/3/87	20	0	Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	86.70-86.90 m.	1.1												20	60.988	
	21	21																							
	22	22																							
	23	23																							
	24	24																							
25/3/87	25	0											Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	95.20-95.80 m.	1.1		25	60.988	
	26	26																							
	27	27																							
	28	28																							
	29	29																							
25/3/87	90	0	Schistose limestone, quartzite, phyllitic rock & Calcareous schist		100%		Gray		1-5	Highly to extremely fractured at 57.00-64.50 m. 65.20-75.00 m	1.1												90	86.988	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm) 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (green)



# LOG OF BORING

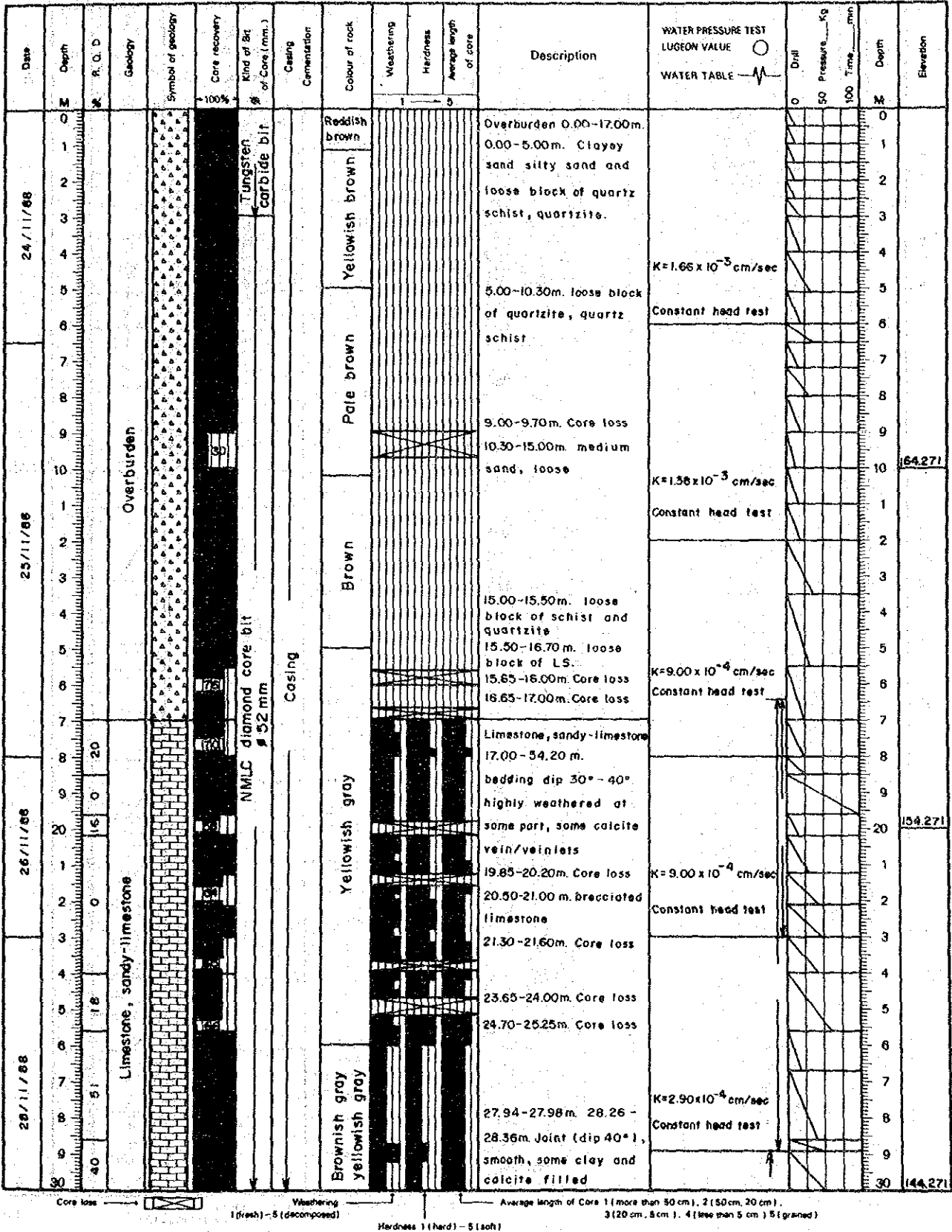
Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 4 of 4  
 Co-ordinates N1,966,275.670 E372,245.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole - Company E G A T Total length of core 81.30m Logged by V. Punpong  
K. Takeda

Date	Depth M	R.O.D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST			Depth M	Elevation									
													LUGEON VALUE	Pressure Kg	Time min											
25/3/87	90	0	Calcareous schist		100%	NMCL triple tube		Gray				(54.00-96.00)				90										
	1	0										(As above)														
	2	0																								
	3	0																								
	4	0																								
	5	0																								
	96											Bottom of hole 96.00 m. Elevation 80.988 m. MSL				96	80.988									
	7																									
	8																									
	9																									
	0																									
	1																									
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	0																									

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project: MAE LAMA LUANG DAM Location: Dcm Site (Right Abutment) Boring No.: LY/DR-1A Log No. 1 of 3  
 Co-ordinates: N1966,262.421 E372,279.351 Elevation: 174.271m MSL Depth of Hole: 70.00 m Commenced: 24/11/88  
 Angle from Horizontal: 90° Core Recovery: 78.4% Depth of Overburden: 17.00 m Completed: 25/12/88  
 Bearing of Angle Hole: - Company: E G A T Total length of core: 54.85 m Logged by: H. Pattana  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Site (Right Abutment) Boring No. LY/DR-1A Log No. 2 of 3  
 Co-ordinates N1,966,262.421 E 372,279.361 Elevation 174.271m Depth of Hole 70.00m Commenced 24/11/88  
 Angle from Horizontal 90° Core Recovery 78.4% Depth of Overburden 17.00m Completed 25/12/88  
 Bearing of Angle Hole — Company E G A T Total length of core 54.85m Logged by H. Pasteno  
K. Toledo

Date	Depth M	R O D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Kg Time min	Depth M	Elevation	
													LUGEON VALUE	WATER TABLE				
29/11/88	30	14	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5	30.50-30.70m Brecciated limestone	26.2-32.2m		0	30	174.271	
	1	30.60-30.65m. Joint (dip 40°), smooth, clay seamed and calcite filled.										26	1					
	2	33.50-34.00m. Core loss 34.66-34.72m, 34.90- 34.95m. Joint (dip 40°) smooth, clay seamed and calcite filled										Pmax = 3 kg/cm <sup>2</sup>	2					
	3	36.00-36.50m. Brecciated limestone 36.70-37.30m. Core loss 37.65-40.00m. Core loss 40.20-40.75m. and 54.32-45.35m. Joint (dip 40°) smooth, clay seamed and calcite filled										29.0-35.0m	22					3
10/11/88	4	13	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5	40.75-41.00m. Core loss	41.0-45.0m		0	40	174.271	
	5	43.60-44.00m. Core loss										34						5
	6	43.60-44.00m. Core loss										Pmax = 2 kg/cm <sup>2</sup>						6
	7	44.55-44.85m. Shear zone.										0.1						7
1/12/88	8	0	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5	45.20-50.60m. bedding dip 40°, hard, dense 45.32-45.38m. Joint (40°) smooth, some calcite filled	43.0-50.0m		0	30	174.271	
	9	47.70-48.65m. Quartz vein.										Pmax = 9 kg/cm <sup>2</sup>						9
	10	48.40-48.50m., 50.30- 50.60m. Joint (dip 55°-60°) irregular, some calcite and clay filled										0.1						10
	11	50.80-53.35m. bedding dip 40° 51.33-51.63m. Joint (dip 60°) smooth, some clay, calcite filled.										Pmax = 10 kg/cm <sup>2</sup>						11
18/12/88	12	0	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5	52.45-52.65m. Shear zone	49.0-56.0m		0	20	174.271	
	13	53.35-70.00m. slightly calcareous, core high broken, some calcite vein/veinlets.										1.7						13
	14	53.45-53.75m., 54.20- 54.45m. shear zone																14
	15	55.45-53.75m. Core loss																15
19/12/88	16	0	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5	56.00-57.70m. Core loss	49.0-56.0m		0	30	174.271	
	17	57.70-59.00m. Core loss																17
	18	59.40-60.25m. Core loss																18
	19																	19
20/12/88	20	75	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5		49.0-56.0m		0	40	174.271	
	21																	21
	22																	22
	23																	23
21/12/88	24	0	Limestone, sandy - limestone		100	52	Casing	Brownish gray, yellowish gray		1	5		49.0-56.0m		0	50	174.271	
	25																	25
	26																	26
	27																	27

Core loss Weathering 1 (fresh) - 5 (discomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Sigh(Right Abutment) Boring No. LY/DR-1A Log No. 3 of 3  
 Co-ordinates N1,966,262.421 E372,279.361 Elevation 174.271mMSL Depth of Hole 70.00m Commenced 24/11/88  
 Angle from Horizontal 90° Core Recovery 78.4 % Depth of Overburden 17.00m Completed 25/12/88  
 Bearing of Angle Hole -- Company E G AT Total length of core 54.85m Logged by H. Pattana  
K. Takeda

Date	Depth M	R. Q. D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Depth M	Elevation						
													WATER TABLE	Drill								
21/12/88	60		Calc - schist	[Symbol]	60.75	NMLC diamond core bit # 52 mm		Brownish gray, yellowish gray	[Weathering]	[Hardness]	[Average length]	60.75-61.75m Shear zone	(1.7) Pmax = 11 kg/cm <sup>2</sup>	[Water Table]	60	104.271						
24/12/88	1				61.10-61.45m Core loss							(1.4) Pmax = 12 kg/cm <sup>2</sup>			1							
	2				61.50-62.00m Core loss										610-68.0m		2					
	3				62.00-62.50m Core loss												(1.4) Pmax = 13 kg/cm <sup>2</sup>	3				
	4				62.80-63.00m Shear zone													670-70.0m	4			
	5				63.00-63.40m Core loss														(1.4) Pmax = 13 kg/cm <sup>2</sup>	5		
	6				64.00-64.45m Core loss															Bottom of hole 70.00m	6	
	7				64.80-65.00m Shear zone																[Water Table]	7
	8				65.50-65.80m Core loss																	[Water Table]
9		66.00-66.50m Core loss	[Water Table]	9																		
25/12/88	70			67.00-67.45m Core loss	[Water Table]	10																
	1			68.00-68.25m Core loss		[Water Table]	11															
	2			68.50-68.70m Shear zone			[Water Table]	12														
	3			69.00-69.40m Core loss				[Water Table]	13													
	4			69.95-70.00m Shear zone					[Water Table]	14												
	5									[Water Table]	15											
	6										[Water Table]	16										
	7			[Water Table]								17										
	8				[Water Table]							18										
9			[Water Table]			19																
0						[Water Table]	20															

Core loss → [Symbol]      Weathering (fresh) - 5 (decomposed)      Average length of Core 1 (more than 50 cm), 2 (50cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)

Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 1 of 2  
 Co-ordinates N1,966,218.272 E372,239.320 Elevation 133.360MMSL Depth of Hole 45.60m Commenced 27/4/87  
 Angle from Horizontal 90° Core Recovery 92.20% Depth of Overburden 2.60m Completed 5/5/87  
 Bearing of Angle Hole \_\_\_\_\_ Company E G A T Total length of core 41.50m Logged by V. Punpong

K. Tokada

Date	Depth M ROD	Geology	Symbol of geology	Core recovery 100% %	Kind of Bt. of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE			Depth M	Elevation
												Pressure Kg	Time min	WATER TABLE		
27/4/87	0	Overburden					Reddish brown				0 - 2.60m Overburden: Clayey silt with some trace of sand and rock fragments, reddish brown.					
	1															
28/4/87	2	Sandstone & quartzite					Yellowish brown to brown				(2.60 - 9.00 m.) Sandstone and quartzite, completely to highly weathered; non calcareous yellowish brown to brown, soft, brittle.		Constant head test			
	3															
29/4/87	4	Calcareous schist					Brownish gray to gray				(9.00 - 40.40 m.) Sandstone interbedded with schistose Calcareous schist Limestone: moderately to slightly weathered brownish gray to gray	No water leaked maximum pressure 3 kg/cm <sup>2</sup>				
	5															
30/4/87	6	Sandstone (schistose limestone)					Brownish gray to gray				Sandstone: Gray, medium to coarse grained, calcareous massive to weakly laminated.	0.4				
	7															
1/5/87	8						Brownish gray to gray				Calcareous schist: highly to slightly calcareous, brittle, laminated.	1.6				
	9															
1/5/87	10						Brownish gray to gray				Bedding dips 40° Most joints 40° (bedding joints) planar, smooth or polished.	0.7				
	11															
1/5/87	12						Brownish gray to gray				Some joints 50°-90° Irregular, rough.					
	13															
1/5/87	14						Brownish gray to gray				Few joints 30° Irregular, curve.					
	15															

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 15 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 2 of 2  
 Co-ordinates N1,966,219.272 E 972,239.320 Elevation 135360 m MSL Depth of Hole 45.00m Commenced 27/4/87  
 Angle from Horizontal 90° Core Recovery 92.20% Depth of Overburden 2.60m Completed 5/5/87  
 Bearing of Angle Hole --- Company E G A T Total length of core 41.50m Logged by V. Punpong  
K. Takeda

Date	Depth M	R.O.D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Kg	Time min	Depth M	Elevation
													WATER TABLE	Value				
2/5/87	30	0	Sandstone, (schistose limestone) calc schist		100%	B		Brownish gray to gray		1-5		(9.00-40.40 m.)	18.30m	0.1		30		
	1	Sheared zone at																
	2	10.40-10.60 m.																
	3	14.50-14.90 m.																
	4	36.00-36.30 m.																
4/5/87	5	0	Sandstone, (schistose limestone)		100%	B		Brownish gray to gray				37.60-38.10 m.	19.61m	0.7		40		
	6	39.60-39.80 m.																
	7																	
	8																	
	9																	
5/5/87	10	0	Calc schist (Schistose limestone)		100%	B		Yellowish gray to gray				40.40-45.00 m.	Constant head test from 10.00-45.00			45		
	1	Schistose limestone : yellowish gray to gray, slightly weathered, thinly laminated, calcareous, hard brittle. Most core are broken.																
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	9																	
	10	0																
	1	Bedding dips 40°																
	2	Most joints 40° planar smooth or polished																
	3	Sheared zone of																
	4	41.80-42.00 m.																
	5	43.00-43.25 m.																
	6	44.00-44.25 m.																
	7																	
	8																	
	9																	
10	Bottom of hole 45.00m.																	

Core loss Weathering (1(fresh)-5(decomposed)) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Slight (Right Abutment) Boring No. LY/DR-3 Log No. 1 of 2  
 Co-ordinates N1,966,140.117 E 372,258.933 Elevation 88.988m MSL Depth of Hole 40.00m Commenced 10/5/88  
 Angle from Horizontal 90° Core Recovery 79.63% Depth of Overburden 4.00m Completed 24/5/88  
 Bearing of Angle Hole - Company E G AT Total length of core 31.85m Logged by H. Pattana K. Takeda

Date	Depth M	R.O.D.	Geology	Symbol of geology	Cores recovery 100%	Kind of Bit (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Dmt	Depth M	Elevation	
													Pressure, Kg	Time, min				
10/5/88	0		Overburden		100%	Tungsten carbide bit	Casing	Brown		1-5	-	Overburden 0.00-4.00m.	-	-	-	-	-	-
	1	Grayish brown						0.00-1.40m. Sandy silt and fragment of quartzite, topsoil and detritus deposits										
	2	Gray						1.40-3.30m. loose blocks of quartzite.										
	3	Brown						3.30-4.00m. medium sand. 1.40-4.00m. Strongly weathered rock										
11/5/88	4		Quartzite		100%	NMLC Diamond core bit #52mm	Casing	Brownish gray		1-5	-	Quartzite 4.00-13.00m. Quartzite, hard, brittle core high broken.	-	-	-	-	-	-
	5							7.00-7.65m. Core loss 0.65m.										
	6							10.50-13.90m. Some calcite vein, thickness 0.50-2.00m. dip 70°										
	7							10.55-10.90m. Joint (70°) irregular, limonite filled										
	8							12.70-12.85m. Joint (70°) irregular, limonite filled										
	9																	
	10																	
	1																	
	2																	
	3																	
12/5/88	4		Calc-schist		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5	-	Calc-schist 13.90-19.90m. brittle, calcareous, friable	-	-	-	-	-	-
	5							14.30-15.00m., 16.80-18.00m. Core broken										
	6							15.50-16.25m. Core loss 0.75m.										
	7							16.60-18.40m. Shear zone										
	8							17.00-17.75m. Core loss 0.75m.										
	9							18.45-19.60m. Core loss 1.15m.										
	1																	
	2																	
	3																	
	4																	
13/5/88	5		Quartzite		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5	-	Quartzite 19.90-24.70m. Hard, brittle, core broken	-	-	-	-	-	-
	6							21.15-21.35m. Irregular fracture (80°)										
14/5/88	7		Quartzite		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5	-	21.50-22.00m. Core loss 0.50m.	-	-	-	-	-	-
	8							22.60-23.45m. Core loss 0.85m.										
20/5/88	9		Quartzite		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5	-	24.50-34.70m. Some calcite vein/veinlet	-	-	-	-	-	-
	10							27.60-27.75m. Irregular fracture										
21/5/88	11		Quartzite		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5	-	28.70-29.40m. Core loss 0.70m.	-	-	-	-	-	-
	12																	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)

# LOG OF BORING

Project **MAE LANA LUANG DAM** Location **Dom Site (Right Abutment)** Boring No. **LY/DR-3** Log No. **2** of **2**  
 Co-ordinates **N1,966,140.117 E 372,258.933** Elevation **88.988m MSL** Depth of Hole **40.00 m** Commenced **10/5/88**  
 Angle from Horizontal **90°** Core Recovery **79.63%** Depth of Overburden **4.00 m** Completed **24/5/88**  
 Bearing of Angle Hole **---** Company **E G A T** Total length of core **31.85 m** Logged by **H. Pattano  
K. Takeda**

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Kg Pressure	min Time	Depth M	Elevation
													WATER TABLE	○				
22/5/88	30	0	Quartzite		100	NMLC Diamond core bit ø 52 mm		Gray				30.00-31.40m. Some pyrite filled	10.5	45		1	48.988	
	31.45-32.00m. Core loss 0.55m.	30	2															
33.60-34.00m. Core loss 0.40m.	35	3																
34.45-34.70m. Core loss 0.25m.	25	4																
23/5/88	5	0	Calc-schist		100		Calc-schist 34.70 - 40.00m. brittle, core broken							45		45		5
	6	0			20		6											
24/5/88	7	0	Calc-schist		100		36.35-37.00m. Core loss 0.65m.							35		35		7
	8	0			35		8											
	9	0	Calc-schist		100		37.15-37.80m. Core loss 0.65m.		Gray					30		30		9
	40						Bottom of hole 40.00m.							15		15		40

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (granod)  
 Hardness 1 (hard) - 5 (soft)



# LOG OF BORING

Project: MAE LAMA LUANG DAM Location: Dom Site (Middle of NAM) MAE YUAM Boring No.: LY/DR-4 Log No.: 1 of 2  
 Co-ordinates: N1,966,142.820 E 372,170.792 Elevation: 65.875m MSL Depth of Hole: 60.00m Commenced: 12/3/88  
 Angle from Horizontal: 60° Core Recovery: 84% Depth of Overburden: 9.00m Completed: 6/3/89  
 Bearing of Angle Hole: 40° Company: E G A T Total length of core: 50.45m Logged by: H. Pattana  
K. Takeda

Date	Depth M	R.O.D. M	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1-5	Hardness 1-5	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill 0	50 Pressure Kg	100 Time mm	Depth M	Elevation	
													○	—						
12/3/88	0		Overburden		100%	Tungsten carbide bit	Casing	Light brown	1-5	1-5	Average length of core	Overburden 0.00-9.00m.	38	25	0.1	0	0	0	0	65.875
	1	0.00-3.00m. fine sand										1							65.875	
	2	3.00-4.80m. Medium sand										2							65.875	
	3	4.80-9.00m. Gravel-cobble of quartzite										3							65.875	
	4											4							65.875	
13/3/88	5											5.00-5.50m. Core loss 0.50m.								
	6											6.60-7.20m. Core loss 0.60m.								
	7											7.80-8.30m. Core loss 0.50m.								
15/3/88	8		Quartz-schist		NMLC Diamond core bit ø 52 mm	Casing	Dark gray	1-5	1-5	1-5	Average length of core	9.00-25.75m. Hard, dense, brittle, some calcite vein-veinlets, core broken	38	25	0.1	0	0	0	10	35.875
	9	9.95-10.00m. Core loss 0.05m.										9							35.875	
	10	13.40-14.65m. Quartzite hard, dense										10							35.875	
	11	14.70-14.90m. Joint, vertical, irregular, iron oxide filled										11							35.875	
	12	15.60-16.60m. Core loss 1.30m.										12							35.875	
16/3/88	13											16.60-16.70m. Some quartz vein								
	14											16.70-17.60m. Core loss 0.85m.								
	15											17.60-19.50m. Pagmatite vein.								
17/3/88	16											21.50-22.00m. Core loss 0.50m.								
	17											23.20-25.80m. Core loss 2.60m.								
	18																			
21/3/88	19																			
	20																			
	21																			
22/3/88	22																			
	23																			
	24																			
27/3/88	25																			
	26																			
	27																			
30	28																			
	29																			
	30																			

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location/Dam Site **(Middle of NAM MAE YUAM)** Boring No. **LY/DR-4** Log No. **2** of **2**  
 Co-ordinates **N1966142.020 E372178.792** Elevation **65.875m MSL** Depth of Hole **60.00m** Commenced **12/3/88**  
 Angle from Horizontal **60°** Core Recovery **84%** Depth of Overburden **9.00m** Completed **6/5/88**  
 Bearing of Angle Hole **40°** Company **E G A T** Total length of core **50.45m** Logged by **H. Pattana K. Tokeda**

Date	Depth M	R. Q. O	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill 0	50 Pressure Kg	100 Time min	Depth M	Elevation
													○	—					
27/3/88	30							Dark gray						0.1				30	
28/3/88	1											Quartz - schist interbedded with Quartzite 33.00-48.85m.	33.0 - 40.65m					1	
	2																	2	
	3																	3	
	4											34.20-34.80m. Core loss 0.60m.		0.3				4	
	5											35.30-35.50m. Core loss 0.20m.						5	
	6											36.20-37.15m. Core loss 0.95m.						6	
	7											37.60-38.00m. Core loss 0.40m.						7	
	8											35.50-46.20m. Interbedded with quartzite, core broken	37.0 - 43.0m					8	
	9											41.00-42.80m. Fracture along schistosity, dip 50°		1.8				9	25.875
1/5/88	40		Quartz - schist, quartzite															40	
	1	30																1	
	2																	2	
	3																	3	
	4	0										46.20-47.00m. Calcite vein - veinlets 47.00-48.85m. Interbedded with quartzite		3.4				4	
	5	25																5	
	6	17																6	
	7	63																7	
	8	17																8	
4/5/88	9		Calc - schist									Calc - schist 48.85 - 53.65m. Schistosity dip 50°						9	15.875
	50											50.00-51.00 m. Joint along schistosity		2.2				50	
5/5/88	1																	1	
	2																	2	
	3																	3	
	4											Quartzite 53.65-60.00m. 54.50-55.60m. Pegmatite vein.						4	
	5																	5	
	6																	6	
	7																	7	
	8											59.80m. Calcite vein, dip 30°, thickness 0.5 cm.						8	
	9																	9	
6/5/88	60		Quartzite									Bottom of hole 60.00m.						60	5.875

Core loss →

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (graded)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Dom Site (Right Abutment)** Boring No. **LY/DR-5** Log No. **1 of 2**  
 Co-ordinates **N 966,224.832 E 372,147.309** Elevation **120.734m MSL** Depth of Hole **40.00 m** Commenced **30/5/88**  
 Angle from Horizontal **90°** Core Recovery **83%** Depth of Overburden **5.00 m** Completed **8/6/88**  
 Bearing of Angle Hole **-** Company **EGAT** Total length of core **33.20m** Logged by **H. Pattana K. Takeda**

Date	Depth (M)	R O D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST			Depth (M)	Elevation
													LUGEON VALUE	Pressure (Kg)	Time (min)		
30/5/88	0		Overburden		100%	Tungsten carbide bit	Casing	Gray/ish brown-pale brown				Overburden 0.00-5.00m Sandy silt and loose blocks of schist, calc schist. 0-2.00m Topsoil, detritus deposits 3.40-3.90m. Core loss 0.50 m.	Constant head test $K=4.4 \times 10^{-3}$ cm/sec.	0	10	0	SPT N/ft 56.3"
	1	10															
	2	10															
	3	10															
	4	10															
31/5/88	5		Quartzite, schist			NMLC Diamond core bit $\phi$ 52 mm	Light brown				Quartzite, schist 5.60-21.75 m. Quartzite interbedded with schist, brittle, core broken 7.00-7.50m. Shear zone, some clay gouge 7.50-8.00m. Core loss 0.50 m. 8.00-9.00m., 11.50-12.00m. Quartz-schist, hard. 11.25m., 11.45m. Joint (dip 75°), irregular, smooth, clay seamed 14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	Constant head test $K=1.6 \times 10^{-3}$ cm/sec.	5	15		110.734	
	6	20															
	7	10															
	8	15															
	9	20															
	10	20															
	1	10															
	2	20															
	3	20															
	4	30															
1/6/88	5		Quartzite, schist			NMLC Diamond core bit $\phi$ 52 mm	Light gray				14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	GW. 13.40 m 2/6/88	5	60		100.734	
	6	20															
	7	25															
	8	20															
	9	60															
	20	60															
	1	30															
	2	30															
2/6/88	3		Quartzite, schist			NMLC Diamond core bit $\phi$ 52 mm	Light gray				14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	GW. 13.40 m 2/6/88	3	20		100.734	
	4	20															
	5	25															
	6	25															
	7	25															
	8	20															
	9	60															
	20	60															
3/6/88	1		Quartzite, schist			NMLC Diamond core bit $\phi$ 52 mm	Light gray				14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	GW. 13.40 m 2/6/88	1	30		100.734	
	2	30															
	3	20															
	4	50															
	5	20															
	6	70															
	7	40															
	8	60															
4/6/88	1		Quartzite, schist			NMLC Diamond core bit $\phi$ 52 mm	Light gray				14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	GW. 13.40 m 2/6/88	1	30		100.734	
	2	30															
	3	20															
	4	20															
	5	70															
	6	30															
	7	40															
	8	60															
6/5/88	1		Calc-schist			NMLC Diamond core bit $\phi$ 52 mm	Gray				14.25-14.80m. Core loss 0.55 m. 16.25m. Joint (dip 70°) irregular, rough 17.30-19.00m. Core loss 1.70 m. 20.00-21.50m. Core loss 1.50 m.	GW. 13.40 m 2/6/88	1	30		100.734	
	2	30															
	3	20															
	4	20															
	5	70															
	6	30															
	7	40															
	8	60															

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm - 20 cm), 3 (20 cm - 5 cm), 4 (less than 5 cm) 5 (gravel)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Right Abutment) Boring No. LY/DR-5 Log No. 2 of 2  
 Co-ordinates N 1,966,224.632 E 572,147.309 Elevation 120,734 m MSL Depth of Hole 40.00 m Commenced 30/5/88  
 Angle from Horizontal 90° Core Recovery 83% Depth of Overburden 5.00 m Completed 8/6/88  
 Bearing of Angle Hole --- Company EGAT Total length of core 33.20 m Logged by H. Pattana  
K. Tokada

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Pressure Kg	Time min	Depth M	Elevation	
													○	—					
6/5/88	30	0	Calc-schist		100%	NMLC Diamond core bit # 52 mm		Gray		1-5	30.30 m. Joint (dip 70°) rough, irregular	(3.4)	○		0	50	30	60.734	
	1	0			33.15 m. Joint (dip 70°), planar.		40										59		
	2	0			34.85 m. Joint, vertical, irregular, slightly rough		30										58		
	3	0					70										57		
	4	0					40										56		
	5	0					20										55		
	6	0					40										54		
	7	0					40										53		
	8	0					70										52		
	9	0					60										51		
	40					39.30-39.60 m. Core loss 0.30 m.													
	1										Bottom of hole 40.00 m.								
	2																		
	3																		
	4																		
	5																		
	6																		
	7																		
	8																		
	9																		
	0																		

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (ground)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Right Abutment) Boring No. LY/DR-6 Log No. 1 of 2  
 Co-ordinates N 966,340.371 E 372,328.328 Elevation 295.590m MSL Depth of Hole 50.00m Commenced 16/6/88  
 Angle from Horizontal 90° Core Recovery 75% Depth of Overburden 16.70m Completed 10/7/88  
 Bearing of Angle Hole - Company E.G.A.T Total length of core 36.51m Logged by H.Pattana  
K.Takeda

Date	Depth M	R O D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill C 50 100	Pressure Kg mm	Depth M	Elevation
													WATER TABLE	Time				
16/6/88	0		Overburden		100%	Tungsten carbide bit		Yellowish brown		1-5		Overburden 0.00-16.70	Constant head test $K=3.3 \times 10^{-3}$ cm/sec.	10	10	0	SPT N <sub>100</sub>	20
	1	10										1						
	2	10										2						
17/6/88	3		Overburden		100%	Tungsten carbide bit		Yellowish brown		1-5		Lateritic sand with some clay and gravel-cobble of quartz	Constant head test $K=1.6 \times 10^{-3}$ cm/sec.	10	10	3	75	
	4	15										4						
	5	10										5						
	6	10										6						
	7	10										7						
	8	20										8						
	9	20										9						
	10	20										10						
	11	10										11						
	18/6/88	1												Limestone				100%
2		10	12															
3		10	13															
4		10	14															
5		15	15															
6		10	16															
7		20	17															
8		20	18															
9		15	19															
10		10	20															
19/6/88	1		Limestone, sandy		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5		Limestone, sandy	Constant head test $K=4.0 \times 10^{-4}$ cm/sec.	10	10	20	216.590	
	2	10										21						
	3	10										22						
	4	15										23						
	5	10										24						
	6	20										25						
	7	20										26						
	8	40										27						
	9	35										28						
	10	60										29						
24/6/88	1		Limestone, sandy		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5		Limestone, some sandy, very fine grained, slightly to highly calcareous, some calcite vein-veinlet, bedding dip 30°	Constant head test $K=2.5 \times 10^{-4}$ cm/sec.	35	10	30	206.590	
	2	60										31						
	3	35										32						
25/6/88	4		Limestone, sandy		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5		17.55-17.90m., 18.30-18.75m., 25.00-25.25m. Small cavity on surface	Constant head test $K=2.5 \times 10^{-4}$ cm/sec.	35	10	34		
	5	60										35						
26/6/88	6		Limestone, sandy		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5		22.00-33.00m. bedding joint, dip 30°, some calcite and limonite filled	Constant head test $K=2.5 \times 10^{-4}$ cm/sec.	40	10	36		
	7	45										37						
30/6/88	8		Limestone, sandy		100%	NMLC Diamond core bit #52mm	Casing	Gray		1-5		25.5-31.5m	Constant head test $K=2.5 \times 10^{-4}$ cm/sec.	45	10	38		
	9	45										39						
	10	30										40						

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm, 1.5 (grained))

Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Dam Site (Right Abutment)** Boring No. **LY/DR-6** Log No. **2** of **2**  
 Co-ordinates **N 966,340.371 E 372,328.328** Elevation **236.590m MSL** Depth of Hole **50.00m** Commenced **16/6/88**  
 Angle from Horizontal **90°** Core Recovery **73%** Depth of Overburden **16.70 m** Completed **10/7/88**  
 Bearing of Angle Hole **---** Company **E G A T** Total length of core **36.51 m** Logged by **H. Pattana**  
K. Takeda

Date	Depth M	R. G. D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation
													LUGEON VALUE	WATER TABLE		
30/6/88	30	17	Cavity		100%	52		Gray			5	30.31-31.25m. No core (cavity)	30.85 - 36.85 m		40	196.590
	1	22										Limestone, sandy limestone				
	2	0	Cavity	34.55-35.00m. Core broken	10											
	3	0	Cavity			35.00-39.28m. No core (cavity)	60									
	4	0	Cavity	39.28-40.00m. Interbedded with fine grained sandstone	55											
5	0	Cavity	40.00-45.30m. No core (cavity)			35										
1/7/88	6	0		Limestone, sandy limestone			100%	52	Gray			5	44.50-45.30m., 46.00-47.00m. Interbedded with fine grained sandstone	40	60	196.590
	7	0	Cavity			45.30m. Joint (70°), planar iron oxide filled							60			
	8	0	Cavity	47.40m. Joint (55°), irregular calcite filled	40											
	9	0	Cavity			48.35m. Joint (45°), planar, calcite filled	30									
	10	0	Cavity	Bottom of hole 50.00m.	60											
9/7/88	1	34	Limestone, sandy limestone				100%	52	Gray			5		60	196.590	
	2	34		Cavity	30											
	3	34	Cavity	30												
	4	34	Cavity		30											
	5	34	Cavity	30												
10/7/88	6	34	Limestone, sandy limestone			100%	52	Gray			5		60	196.590		
	7	34		Cavity								30				
	8	34	Cavity	30												
	9	34	Cavity		30											
	10	34	Cavity	30												

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (granad)

# LOG OF BORING

Project: MAE LAMA LUANG DAM      Location: Dam Site (Right Bank)      Boring No.: LY/DR-7      Log No.: 1 of 2  
 Co-ordinates: N1,966,160.895 E 372,299.549      Elevation: 110.302m MSL      Depth of Hole: 30.00m      Commenced: 12/1/89  
 Angle from Horizontal: 90°      Core Recovery: 72%      Depth of Overburden: 2.50m      Completed: 23/1/89  
 Bearing of Angle Hole: —      Company: EG AT      Total length of core: 36.05m      Logged by: H. Parfaho K. Tokedo

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Pressure Kg Time min	Depth M	Elevation	
													LUGEON VALUE	WATER TABLE				
12/1/89	0		Overburden		100%	Tungsten carbide bit		Reddish brown				Overburden 0.00-2.50m						
	1							Yellowish brown				0.00-2.00m. Clayey silt-clayey sand, stiff						
	2											2.00-2.50m. Fine sand with some clay.						
13/1/89	3		Calc - schist			NMLC Diamond core bit φ 52 mm	Casing	Gray				Calc-schist 2.50-50.00m	K = 5.3 x 10 <sup>-5</sup> cm/sec Constant head test					
	4											brittle, schistosity						
	5											dip 30°-40°, some calcite vein/veinlets						
	6											along schistosity, core broken.						
	7																	
	8																	
	9																	
	9.40-9.80m. Core loss																	
	10.40-10.80m. Core loss											K = 1.6 x 10 <sup>-4</sup> cm/sec Constant head test						
	12.70-13.00m. Core loss											(2.3)						
13.70-13.90m. Core loss		Pmax = 3 kg/cm <sup>2</sup>																
15.35-15.75m. Core loss																		
15.75-16.20m. Core loss																		
17.55-17.65m. Irregular joint, dip 70°, rough, calcite filled		(4.3)																
18.20-18.40m. Core loss																		
19.20-19.50m. Core loss																		
20.50-20.90m. Core loss		Pmax = 4 kg/cm <sup>2</sup>																
21.30-21.70m. Core loss																		
23.20-23.50m. Core loss		GW 22.60 m (2.5) 23/1/89																
25.30-25.45m. Calcite vein, thickness 15 cm.		Pmax = 5 kg/cm <sup>2</sup>																
25.50-26.30m. Core loss																		
27.55-27.70m. Irregular joint (dip 80°), rough, calcite, clay filled.		(2.8)																
		Pmax = 6 kg/cm <sup>2</sup>																

Core loss →      Weathering 1 (fresh) - 5 (decomposed)      Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Site (Right Bank) Boring No. LY/DR-7 Log No. 2 of 2  
 Co-ordinates N1,966,160.883 E 372,299.549 Elevation 110.302m MSL Depth of Hole 50.00m Commenced 12/1/89  
 Angle from Horizontal 90° Core Recovery 72% Depth of Overburden 2.50m Completed 23/1/89  
 Bearing of Angle Hole - Company EGAT Total length of core 36.03m Logged by H. Pattana  
K. Takeda

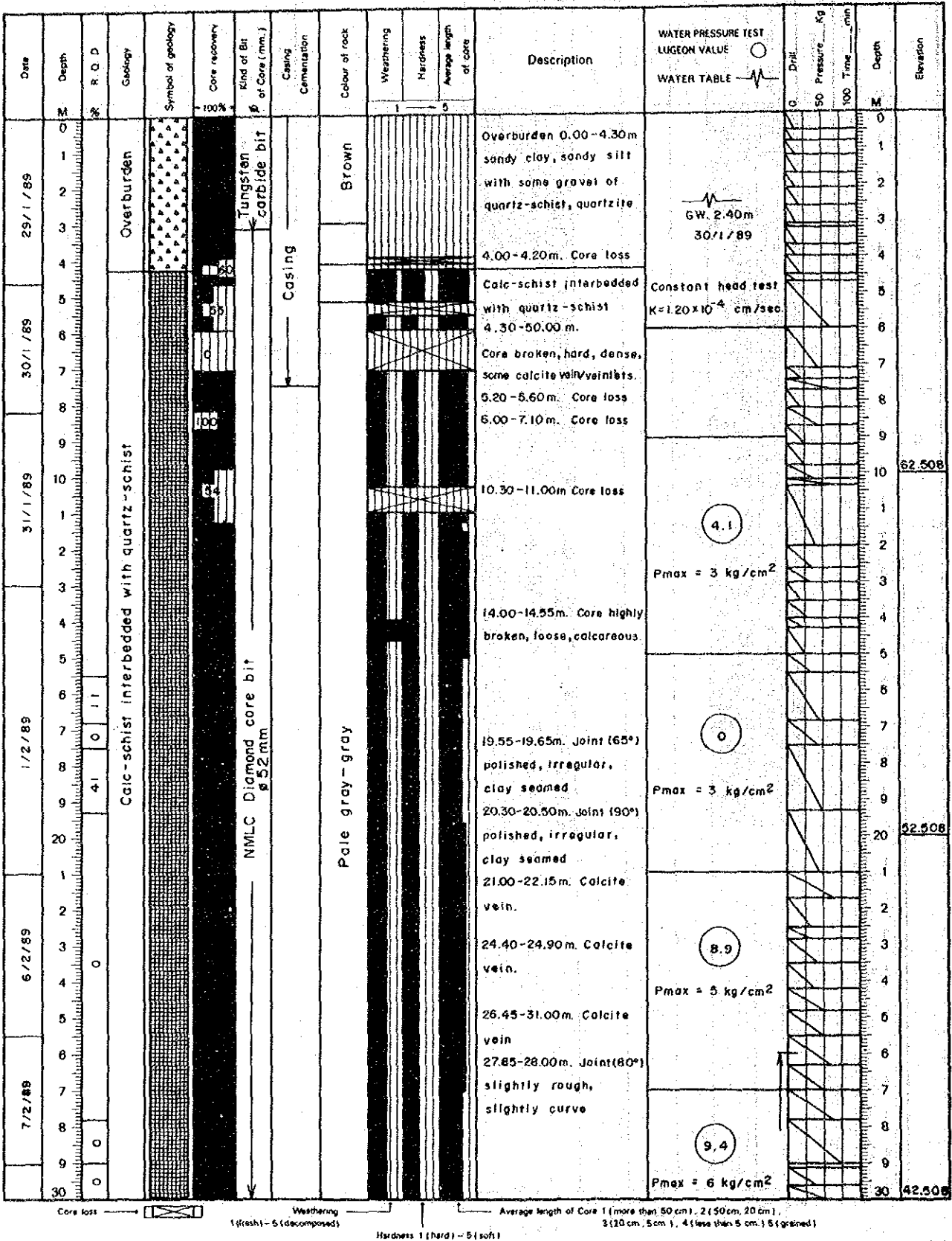
Date	Depth M	R.Q.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1 5	Hardness 1 5	Average length of core	Description	WATER PRESSURE TEST		Drill Kg Pressure	Time min	Depth M	Elevation
													LUGEON VALUE	WATER TABLE				
17/1/89	30		Calc-schist		100	NMLC Diamond core bit φ 52 mm		Gray				30.80-31.00m. Core loss.	2.3 Pmax = 6 kg/cm <sup>2</sup>				30	70.302
	1	78			31.60-32.00m. Core loss							1						
	2	60			34.30-35.20m. Core loss							2						
	3				35.20-35.50m. Core loss							3						
	4	23			36.00-36.20m. Core loss							4						
	5	54			36.70-37.20m. Core loss							5						
	6	34			37.20-37.70m. Core loss							6						
	7	57			39.50-40.00m. Core loss							7						
	8	100			40.60-41.40m. Core loss							8						
	9	58										9						
18/1/89	40		Calc-schist		100	NMLC Diamond core bit φ 52 mm		Gray					1.0 Pmax = 7 kg/cm <sup>2</sup>				40	70.302
	1	58										1						
	2											2						
	3											3						
	4											4						
	5											5						
	6											6						
	7											7						
	8											8						
	9											9						
23/1/89	50		Calc-schist		100	NMLC Diamond core bit φ 52 mm		Gray					2.4 Pmax = 9 kg/cm <sup>2</sup>				50	80.302
	1											1						
	2											2						
	3											3						
	4											4						
	5											5						
	6											6						
	7											7						
	8											8						
	9											9						
	Bottom of hole 40.00 m		Calc-schist			NMLC Diamond core bit φ 52 mm		Gray									Bottom of hole 40.00 m	80.302
	1											1						
	2											2						
	3											3						
	4											4						
	5											5						
	6											6						
	7											7						
	8											8						
	9											9						

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained) Hardness 1 (hard) - 5 (soft)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam(Right Bank) Boring No. LY/DR-8 Log No. 1 of 2  
 Co-ordinates N1,966,052.742 E 372,302.661 Elevation 72.508m MSL Depth of Hole 50.00m Commenced 29/1/89  
 Angle from Horizontal 90° Core Recovery 88.6% Depth of Overburden 4.30m Completed 19/2/89  
 Bearing of Angle Hole - Company E GAT Total length of core 44.30m Logged by H. Pattana  
K. Takeda



Core lost

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Right Bank) Boring No. LY/DR-8 Log No. 2 of 2  
 Co-ordinates N1966,052.742 E372,302.661 Elevation 72.508m MSL Depth of Hole 50.00m Commenced 29/1/89  
 Angle from Horizontal 90° Core Recovery 88.6% Depth of Overburden 4.30m Completed 19/2/89  
 Bearing of Angle Hole — Company E G A T Total length of core 44.30m Logged by H. Pattana  
K. Takado

Date	Depth M	R. Q. D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Pressure, Kg	Time, min	Depth M	Elevation
													LUGEON VALUE	WATER TABLE				
8/2/89	30				100							31.00-42.00m. Quartz vein.	9.4				30	
9/2/89	1				40							32.00-32.30m. Core loss	Pmax = 6 kg/cm <sup>2</sup>				1	
10/2/89	2																2	
	3																3	
	4																4	
11/2/89	5												10.1				5	
	6												Pmax = 4 kg/cm <sup>2</sup>				6	
	7																7	
	8																8	
15/2/89	9				47							39.00-39.70m. Core loss					9	
	40											40.00-40.10m. Core loss					40	32.508
	1												0				1	
	2												Pmax = 7 kg/cm <sup>2</sup>				2	
	3																3	
17/2/89	4											44.50-44.90m. Core loss					4	
	5											45.00-45.40m. Core loss					5	
	6											45.50-45.70m. Core loss					6	
	7											45.70-45.80m. Core loss					7	
	8											45.80-45.90m. Core loss					8	
18/2/89	9				43							46.50-46.80m. Core loss					9	
	40											47.00-47.20m. Core loss					40	
	1											47.50-48.10m. Core loss					1	
	2											48.60-48.70m. Core loss					2	
	3											47.00-50.00m. Quartz vein					3	
	4												3.0				4	
	5												Pmax = 9 kg/cm <sup>2</sup>				5	
	6																6	
	7																7	
	8																8	
19/2/89	9				100												9	
	50											Bottom of hole 50.00m.					50	22.508

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Penstock(Right Bank) Boring No. LY/DR-9 Log No. 1 of 2  
 Co-ordinates N1,986,272.143 E372,110.324 Elevation 105.336 m MSL Depth of Hole 55.00 m Commenced 25/2/89  
 Angle from Horizontal 90° Core Recovery 99.7% Depth of Overburden 1.10 m Completed 18/3/89  
 Bearing of Angle Hole - Company EGAT Total length of core 54.85 m Logged by H. Pattana  
K. Takada

Date	Depth M	R.O.D.	Geology	Symbol of geology	Core recovery % of Core (mm.)	Kind of Bit # of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation
													LUGEON VALUE	WATER TABLE		
25/2/89	0	0	Overburden		100							Overburden 0.00-1.10m. Loose block of quartzite and quartz-schist.			0	
	1	0	Schist quartz-schist		100	NMLC Diamond core bit Ø 52 mm	Casing	Grayish brown		1	1.10-31.90 m. Schist, Quartz-schist. Hard, dense, schistosity dip 30°-40°. 1.40-1.45 m. Joint (60°) irregular, rough, iron oxide coated. 1.50-5.00 m. Interbedded with quartzite. 4.73-4.78 m. Joint (50°) planar, smooth. 6.30-8.50 m. Vertical joint, rough, irregular iron oxide coated. 9.85-10.00 m. Joint (80°) rough, irregular, iron oxide coated. 10.40-10.60 m. 13.30-13.50 m. Interbedded with quartzite.	1.5	Pmax = 3 kg/cm <sup>2</sup>	0	95.336	
	2	0												1		
	3	0												2		
	4	0												3		
	5	0												4		
	6	0												5		
	7	0												6		
	8	0												7		
	9	0												8		
10	0	9														
27/2/89	1	13	Schist quartz-schist		100	NMLC Diamond core bit Ø 52 mm	Casing	Brownish gray		2	17.35-17.65 m., 18.40-19.10 m. Interbedded with quartzite.	4.2	Pmax = 3 kg/cm <sup>2</sup>	1		
	2	0												2		
	3	0												3		
	4	0												4		
	5	0												5		
	6	0												6		
	7	0												7		
	8	0												8		
	9	0												9		
	10	0												10		
28/2/89	1	14	Schist quartz-schist		100	NMLC Diamond core bit Ø 52 mm	Casing	Brownish gray		3	23.60-24.30 m. Interbedded with quartzite.	3.4	Pmax = 4 kg/cm <sup>2</sup>	1		
	2	0												2		
	3	0												3		
	4	0												4		
	5	0												5		
	6	0												6		
	7	0												7		
	8	0												8		
	9	0												9		
	10	0												10		
1/3/89	1	45.8	Schist quartz-schist		100	NMLC Diamond core bit Ø 52 mm	Casing	Gray		4	25.43-25.56 m. Joint (70°) planar, rough, iron oxide coated.	1.3	Pmax = 5 kg/cm <sup>2</sup>	1		
	2	0												2		
	3	0												3		
	4	0												4		
	5	0												5		
	6	0												6		
	7	0												7		
	8	0												8		
	9	0												9		
	10	0												10		

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (gravel)

Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project: MAE LAMA LUANG DAM      Location: Pantlock (Right Bank)      Boring No. LY/DR-9      Log No. 2 of 2  
 Co-ordinates: N1,966,272.143 E 372,110.324      Elevation: 105.338m MSL      Depth of Hole: 55.00m      Commenced: 25/2/89  
 Angle from Horizontal: 90°      Core Recovery: 99.7%      Depth of Overburden: 1.10m      Completed: 18/3/89  
 Bearing of Angle Hole: —      Company: EGAT      Total length of core: 54.85m      Logged by: H. Pattana, K. Takeo

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Time min	Depth M	Elevation
													○	—			
8/3/89	30	0	Calc-schist interbedded with schist, quartz-schist		100	NMLC. Diamond core bit # 52 mm		Gray				Calc-schist interbedded with schist, Quartz-schist 31.90-55.00m. Hard, dense, schistosity dip 30°, some calcite vein/veinless 32.30-32.50m. Joint (30°) along schistosity, polish, planar, some clay seamed	5.7	Pmax = 6 kg/cm <sup>2</sup>		30	65.338
	1	0											1				
	2	0											2				
	3	4											3				
	4	0											4				
	5	27											5				
10/3/89	6	0									48.75-48.85m. Joint (60°) planar, rough, some calcite filled	10.1	Pmax = 8 kg/cm <sup>2</sup>		6		
	7	13										7					
	8	0										8					
	9	29										9					
11/3/89	40	0										10.4	Pmax = 9 kg/cm <sup>2</sup>		40		
	1	0										1					
	2	0										2					
	3	0										3					
15/3/89	4	88													4		
	5	0													5		
	6	0													6		
	7	0													7		
17/3/89	8	22													8		
	9	10													9		
	50	0													50		
	55	45													55		
18/3/89	1	0													1	50.338	
	2	0													2		
	3	0													3		
	4	0													4		
	5	0													5		
	6	0													6		
	7	0													7		
	8	0													8		
	9	0													9		
	0	0													0		

Core loss      Weathering 1 (fresh) - 5 (decomposed)      Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Axis (River Bed) Boring No. LY/DH-1 Log No. 1 of 2  
 Co-ordinates N1,966,190.000 E372,163,500 Elevation 61.928m MSL Depth of Hole 50.60m Commenced 9/2/87  
 Angle from Horizontal 90° Core Recovery 97.23% Depth of Overburden 9.50m Completed 22/2/87  
 Bearing of Angle Hole - Company EGAT Total length of core 49.20m Logged by V.Punpong  
K.Takeda

Date	Depth M	R C D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1-5	Hardness 1-5	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE			Depth M	Elevation	
													Drill	Pressure Kg	Time min			
9/2/87	0		Overburden (River deposit)		100%			Yellowish brown grey				(0 - 9.50m) Overburden : Loose sand with some boulders of quartzite, size 10 - 30 cm.				0		
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
10/2/87	9		Quartzite Schistose limestone					Pate grey to greenish grey				(9.50 - 50.60) Quartzite, schistose limestone and Calcareous schist Pale gray to greenish gray, fresh, very hard, massive to weakly laminated, highly to extremely fractured. Schistose limestone Calcareous schist (slightly calcareous) at 11.30 - 14.50 m., 34.60 - 35.00 m. Some parts show foliation dip 45° - 70° Most joints dip 30° - 45° planar, smooth or rough. Some joints 70° - 90° planar, smooth sheared zone at 23.05 - 23.40 m. (with Qtz vein) 23.80 - 24.00 m.				9	51.928	
	10															10		
	1															1		
	2															2		
	3															3		
	4															4		
	5															5		
	6															6		
	7															7		
	8															8		
16/2/87	9		Calc schist, quartzite, sandstone												9			
	10														10			
	1														1			
	2														2			
	3														3			
	4														4			
	5														5			
	6														6			
	7														7			
	8														8			
	9												9					
	10												10		41.928			
	1												1					
	2												2					
	3												3					
	4												4					
	5												5					
	6												6					
	7												7					
	8												8					
	9												9					
	10												10		31.928			

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Axi (River Bed) Boring No. LY/DH-1 Log No. 2 of 2  
 Co-ordinates N1,866,190.000 E 372,163.500 Elevation 61.928m MSL Depth of Hole 50.60m Commenced 9/2/87  
 Angle from Horizontal 90° Core Recovery 97.23% Depth of Overburden 9.50m Completed 22/2/87  
 Bearing of Angle Hole \_\_\_\_\_ Company EGAT Total length of core 49.20m Logged by V. Pungpong  
K. Takeda

Date	Depth M	R.O.D.	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Commentation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation											
													LUGEON VALUE	WATER TABLE			Drill Pressure, KG	Time, min									
17/2/87	30		Calc schist, quartzite, sandstone		100%	NMLC Triple tube core barrel $\phi$ 52 mm		Pale gray to greenish gray		1-5		28.60 - 28.70 m.	1.2	25	30	30	21.928										
	1	35.40 - 35.00 m.										35		35	1												
	2	37.70 - 38.05 m.										35		35	2												
	3	38.40 - 38.70 m.										60		60	3												
	4	40.20 - 40.30 m.										30		30	4												
	5	44.10 - 40.60 m.										40		40	5												
16/2/87	6											Core loss of											45.30 - 45.40 m.	0.9	75	75	6
	7	Quartz vein at																					50		50	7	
	8	21.90 - 21.95 m.																					40		40	8	
	9	22.90 - 23.10 m.																					55		55	9	
	40	31.70 - 31.80 m.	30	30	40																						
	1	Core loss of	40	40	1																						
	2	10.80 - 11.40 m.	25	25	2																						
	3		45	45	3																						
	4		30	30	4																						
22/2/89	5											10.80 - 11.40 m.	1.2	60	60	5											
	6											30		30	6												
	7											30		30	7												
	8											80		80	8												
	9											90		90	9												
	50											60		60	50												
	1														1												
	2														2												
	3														3												
4				4																							
5				5																							
6				6																							
7				7																							
8				8																							
9				9																							
0				0																							

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm) 2 (15 cm, 20 cm) 3 (20 cm, 5 cm) 4 (less than 5 cm) 5 (grained) Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Cofferdam (Middle of River) Boring No. LY/DH-2 Log No. 1 of 2  
 Co-ordinates N1,966,019.441 E 372,283.531 Elevation 62.594m MSL Depth of Hole 45.00m Commenced 6/2/89  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 2.65m Completed 20/2/89  
 Bearing of Angle Hole - Company EGAT Total length of core 45.00m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R O D	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEDN VALUE		Drill 50 Pressure Kg 100 Time min	Depth M	Elevation
													WATER TABLE				
6/2/89	0		Overburden		100%		Casing	Pale brown				Overburden 0.00-2.65m 0.00-2.00m. Coarse sand loose 2.00-2.65m. Gravel of quartz, quartzite	GW. 0.00 m 10/2/89			0	52.594
	1																
	2																
9/2/89	3		Quartzite interbedded with quartz-schist		100%		Brownish gray				Quartzite interbedded with quartz-schist 2.65-45.00 m. Hard, dense, some quartz vein	39			3	52.594	
	4																
	5																
9/2/89	6		Quartzite interbedded with quartz-schist		100%		Gray				2.95-3.15m., 3.40-3.60m. 4.35-4.95m. Quartz vein 6.35-6.40m. Joint (50°) slightly rough	39			6	52.594	
	7																
	8																
10/2/89	9		Quartzite interbedded with quartz-schist		100%		Gray				8.00-11.65m. Core broken	39			9	52.594	
	10																
	1																
11/2/89	2		Quartzite interbedded with quartz-schist		100%		Gray				12.70-12.90 m. Joint (70°) slightly rough, slightly curve	39			2	52.594	
	3																
	4																
12/2/89	5		Quartzite interbedded with quartz-schist		100%		Gray				17.80-19.00m. Quartz vein	19			5	42.594	
	6																
	7																
13/2/89	8		Quartzite interbedded with quartz-schist		100%		Gray				25.80-26.25m. Joint (70°-80°) irregular, rough, quartz filled	7.9			7	42.594	
	9																
	10																
14/2/89	11		Quartzite interbedded with quartz-schist		100%		Gray				28.80-28.85 m., 28.95-29.00 m. Joint (50°), planar, smooth, quartz filled	10.1			8	32.594	
	12																
	13																

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Middle of River) Boring No. LY/DH-2 Log No. 2 of 2  
 Co-ordinates 1,966,019.441 E 372,283.531 Elevation 62.594m MSL Depth of Hole 45.00m Commenced 6/2/89  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 2.65m Completed 20/2/89  
 Bearing of Angle Hole - Company E G A T Total length of core 45.00m Logged by H. Pattana  
K. Tokedo

Date	Depth M	R Q D	Geology	Symbol of geology	Core recovery %	Kind of bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation											
													LUGEON VALUE	WATER TABLE			Drill Kg	min									
15/2/89	30	0	Quartzite interbedded with quartz-schist		100%	N.M.C. Diamond core bit ø 52 mm		Gray				32.00-32.30m. Quartz vein	10.1	Pmax = 6 kg/cm <sup>2</sup>	1	22.594											
	1	2										3			4												
	2	3										4			5												
	3	4										5			6												
16/2/89	6	24	Quartzite interbedded with quartz-schist		100%	N.M.C. Diamond core bit ø 52 mm	Gray					35.30-35.40m. Joint (70°)	4.0	Pmax = 7 kg/cm <sup>2</sup>	6	22.594											
	7	8										9			10												
	8	9										10			11												
	9	10										11			12												
17/2/89	40	0	Quartzite interbedded with quartz-schist		100%	N.M.C. Diamond core bit ø 52 mm	Gray					40.25-40.50m. Joint (70°)	4.6	Pmax = 3 kg/cm <sup>2</sup>	40	17.594											
	1	2										3			4												
	2	3										4			5												
	3	4										5			6												
20/2/89	45	0	Quartzite interbedded with quartz-schist		100%	N.M.C. Diamond core bit ø 52 mm	Gray					Bottom of hole 4500m			45	17.594											
	6	7										8			9		10	11	12	13	14	15	16	17	18	19	20

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm - 20 cm), 3 (20 cm - 5 cm), 4 (less than 5 cm) 5 (grained)  
 Hardness 1 (hard) - 5 (soft)



# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Left Abutment** Boring No. **LY/DL-1** Log No. **1** of **4**  
 Co-ordinates **N1,965,980.672 E372,060.970** Elevation **166.488mMSL** Depth of Hole **110.00m** Commenced **13/1/87**  
 Angle from Horizontal **90°** Core Recovery **80.50m** Depth of Overburden **3.00m** Completed **1/2/87**  
 Bearing of Angle Hole **---** Company **E GAT** Total length of core **88.60m** Logged by **V. Punpong K. Takeda**

Date	Depth M	R Q D %	Geology	Symbol of geology	Core recovery -100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1-5	Hardness 1-5	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Depth M	Elevation			
													WATER TABLE	Pressure Kg					
13/1/87	0		Overburden	[Symbol]				Brownish red.				Overburden: Silty clay with some trace of sand and plant roots, brownish red.			0				
	1	0													1				
	2	0													2				
	3	0													3				
	4	0		Sandstone, Quartzite	[Symbol]				Yellowish brown				Quartzite or Sandstone, Completely weathered, yellowish brown, very soft. Some parts interbedded with phyllitic rock.			4			
	5	0															5		
	6	0															6		
	7	0															7		
	8	0															8		
	9	0															9		
	10	0													Cutting at 4.30 - 10.70m. (sand size) core loss at 12.00 - 14.20m. 14.50 - 17.00m. Highly fractured at 17.00 - 20.00m.			10	166.488
	11	0															11		
	12	0															12		
	13	0															13		
	14	0													14				
	15	0													15				
	16	0													16				
	17	0													17				
	18	0													18				
	19	0													19				
	20	0		Sandstone, Quartzite	[Symbol]				Light brown to brownish gray				20.00 - 36.30m. Quartzite (or Sandstone) with some phyllitic rock at some parts., brownish grey. Quartzite (or Sandstone) Light brown, coarse grained non calcareous. Dips of bedding 10°			20	146.488		
	21	0															21		
	22	0															22		
	23	0															23		
	24	0															24		
	25	0															25		
	26	0															26		
	27	0															27		
	28	0															28		
	29	0															29		
30	0													30	136.488				

No. water pressure test packer could not be set

Core loss [Symbol]      Weathering 1 (fresh) - 5 (decomposed)      Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-1 Log No. 2 of 4  
 Co-ordinates N1,955,990.672 E572,060.970 Elevation 166.488mMSL Depth of Hole 110.00m Commenced 13/1/87  
 Angle from Horizontal 90° Core Recovery 80.50% Depth of Overburden 3.00m Completed 1/2/87  
 Bearing of Angle Hole - Company EGAT Total length of core 86.60m Logged by V. Pungpong  
K. Tokeda

Date	Depth M	R.Q.D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Commentation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Pressure Kg	Time min	Depth M	Elevation
													○	—				
17/1/87	30		Sandstone & phyllitic rock		100%	9	-	Brownish gray		1	0	Most joints are bedding.	-	-	-	-	-	-
	1	Joint (10°) planar,																
	2	smooth. Some joints 90°																
	3	Irregular, rough																
	4	Phyllitic rock: brownish																
	5	gray soft, brittle,																
	6	highly weathered.																
	7	Bedding dips 40° (vary)																
	8	Core loss of																
	9	20.70-23.00m.																
26/1/87	40		Calc schist (Schistose limestone)		90	9	-	Gray		1	0	23.80-25.00m.	-	-	-	-	-	-
	1	26.50-28.30m.																
	2	29.50-31.20m.																
	3	(36.30-95.00m.)																
	4	Calcareous schist																
	5	(Schistose Limestone)																
	6	interbedded with																
	7	Quartzite (or Sandstone)																
	8	slightly weathered to																
	9	fresh, pale gray, very																
	50		Sandstone		69	9	-	-		1	0	hard.	-	-	-	-	-	-
	1	Calcareous schist																
	2	Sandstone; Highly																
	3	calcareous of																
	4	36.00-66.60m.																
	5	non calcareous of																
	6	66.00-110.00m.																
	7																	
	8																	
	9																	

NMLC Triple tube core barrel #52mm

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (ground)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-1 Log No. 3 of 4  
 Co-ordinates N1,965,980.672 E372,060.970 Elevation 166.488m MSL Depth of Hole 110.00m Commenced 13/1/87  
 Angle from Horizontal 90° Core Recovery 80.50% Depth of Overburden 3.00m Completed 1/2/87  
 Bearing of Angle Hole --- Company E G A T Total length of core 86.60m Logged by V. Punpong  
K. Takeda

Date	Depth M	R O D	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation
													LOGEON VALUE	WATER TABLE		
27/1/87	60		Calc schist (Schistose limestone) and sandstone		100%	52		Grey	1-5	1-5	36.30 m	Bedding dips 30°-60° Most joints are bedding joints dip 30°-60° smooth or rough. Some joints 0-10° Irregular, rough. Few joints dip 90° Irregular, rough. Core loss at 88.60-89.20m. Highly fractured at 39.00-39.20m.	2.3	36.30	60	96.488
	1															
	2															
	3															
	4															
	5															
	6															
	7															
	8															
	9															
28/1/87	70		Calc schist (Schistose limestone) and sandstone		100%	52		Grey	1-5	1-5	38.90 m	43.60-43.80m. 51.80-52.00m. 56.50-57.10m. 59.25-59.40m. 62.60-63.00m. 64.20-64.40m. 77.00-77.80m. 83.00-83.60m. 87.60-88.70m. 94.30-94.40m. Sheared zone at 46.60-46.90m.	1.3	38.90	70	96.488
	1															
	2															
	3															
	4															
	5															
	6															
	7															
	8															
	9															
29/1/87	80		Calc schist (Schistose limestone) and sandstone		100%	52		Grey	1-5	1-5	40.23 m	47.00-47.40m. 58.10-58.15m. 75.60-75.70m. 86.60-86.80m. 88.60-89.40m. 90.40-90.50m. 92.70-92.80m.	0.4	40.23	80	76.488
	1															
	2															
	3															
	4															
	5															
	6															
	7															
	8															
	9															

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-1 Log No. 4 of 4  
 Co-ordinates N1965,980.672 E372,060.970 Elevation 166.488m MSL Depth of Hole 110.00m Commenced 13/1/87  
 Angle from Horizontal 90° Core Recovery 80.50% Depth of Overburden 3.00m Completed 1/2/87  
 Bearing of Angle Hole --- Company E G AT Total length of core 86.60m Logged by V. Punpong  
K. Tokedo

Date	Depth M	R. Q. D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill Pressure - Kg Time - min	Depth M	Elevation									
												○	⚡												
29/1/87	90		Calc schist, schistose limestone		100%	NMLC Triple tube core barrel φ 52 mm.		Gray to milky white	1-5		(36.30-95.00m.) as above.	40.23 m	2.0	35	1	56.488									
	1																				2				
	2																						3		
	3																							4	
	4																							5	
30/1/87	5		Calc schist, schistose limestone		100%	NMLC Triple tube core barrel φ 52 mm.		Gray to milky white	1-5		(95.00-110.00 m.) Schistose Limestone and Quartzite (or Sandstone); Pale gray to milky white, fresh, dense, hard, highly to extremely fractured. Schistose limestone; Slightly calcareous. Quartzite (or sandstone) non calcareous. Bedding dips 20°-40° Most joints are bedding joint 20°-30° planar, smooth polished. Some joint 80°-90° Irregular, rough. Few joint 60° rough.	43.10 m	2.0	15	6	56.488									
	6																					7			
	7																							8	
	8																							9	
	9																							100	
31/1/87	1		Calc schist (Schistose limestone)+ sandstone		100%	NMLC Triple tube core barrel φ 52 mm.		Gray to milky white	1-5		Sheared zone at 96.80-97.20 m. 95.50-99.20 m. 101.70-101.80 m. 103.10-103.30 m. 103.50-104.00 m. 104.60-105.10 m. 106.70-107.00 m. Core lose at 99.70-100.40 m.	43.95	2.4	40	1	56.488									
	2																							2	
	3																								3
	4																								4
	5																								5
1/2/87	6		Sandstone		100%	NMLC Triple tube core barrel φ 52 mm.		Gray to milky white	1-5		Core lose at 99.70-100.40 m.	45.00 m	2.2	30	6	56.488									
	7																							7	
	8																								8
	9																								9
	10																								10
	110										Bottom of Hole 110.00m. Elevation 56.488m. MSL														
	1																								
	2																								
	3																								
	4																								
	5																								
	6																								
	7																								
	8																								
	9																								
0																									

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm - 20 cm), 3 (20 cm - 5 cm), 4 (less than 5 cm) 1 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/OL-2 Log No. 1 of 2  
 Co-ordinates N1,985,046.939 E 372,105.494 Elevation 126.756m MSL Depth of Hole 50.00m Commenced 26/5/87  
 Angle from Horizontal 90° Core Recovery 94.60% Depth of Overburden 3.50 m Completed 30/5/87  
 Bearing of Angle Hole - Company E G AT Total length of core - Logged by V. Punpong  
K. Tokedo

Date	Depth M	R O D	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Kg	Depth M	Elevation				
													LUGEON VALUE	WATER TABLE				50 Pressure	100 Time		
26/5/87	0		Overburden			Tungsten carbide bit		Yellowish brown				Overburden; Silty sand with some rock fragments and plant roots, yellowish brown.	Water leakage 8.5 L/min				0				
	1			5	1																
	2			5	2																
	3			5	3																
27/5/87	4		Sandstone interbedded with phyllitic rock		NMLC Triple tube core barrel $\phi$ 52 mm.		Brown to greyish brown				(3.50 - 22.00 m.) Sandstone interbedded with some Phyllitic rock; Highly to moderately weathered. Sandstone: brown, slightly to non calcareous, Phyllitic Rock: brown thin bedded to laminated. Bedding dips 40°-60° Most joints 0-10° planar some joints 0°-10° rough. Few joint 90° planar, smooth. Most core are broken.	Water leakage 34 L/min				4					
	5			5		5															
	6			10		6															
	7			10		7															
	8			30		8															
	9			5		9															
	10			10		10		116.756													
	1			5		1															
	2			20		2															
	3			5		3															
28/5/87	4		Sandstone or Quartzite interbedded with Phyllitic Rock: brownish gray to brown, slightly to moderately weathered. Dip of bedding 30° Most joints 30° planar.	Brownish grey to brown																	
	5																		15	5	
	6																		15	6	
	7																		25	7	
	8																		20	8	
	9																		10	9	
	20																		10	20	106.756
	1																		15	1	
	2																		15	2	
	3																		20	3	
4		15	4																		
5		15	5																		
6		15	6																		
7		25	7																		
8		15	8																		
9		60	9																		
30		15	30	96.756																	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (40 cm - 50 cm), 3 (20 cm - 40 cm), 4 (less than 20 cm) 5 (grained)

# LOG OF BORING

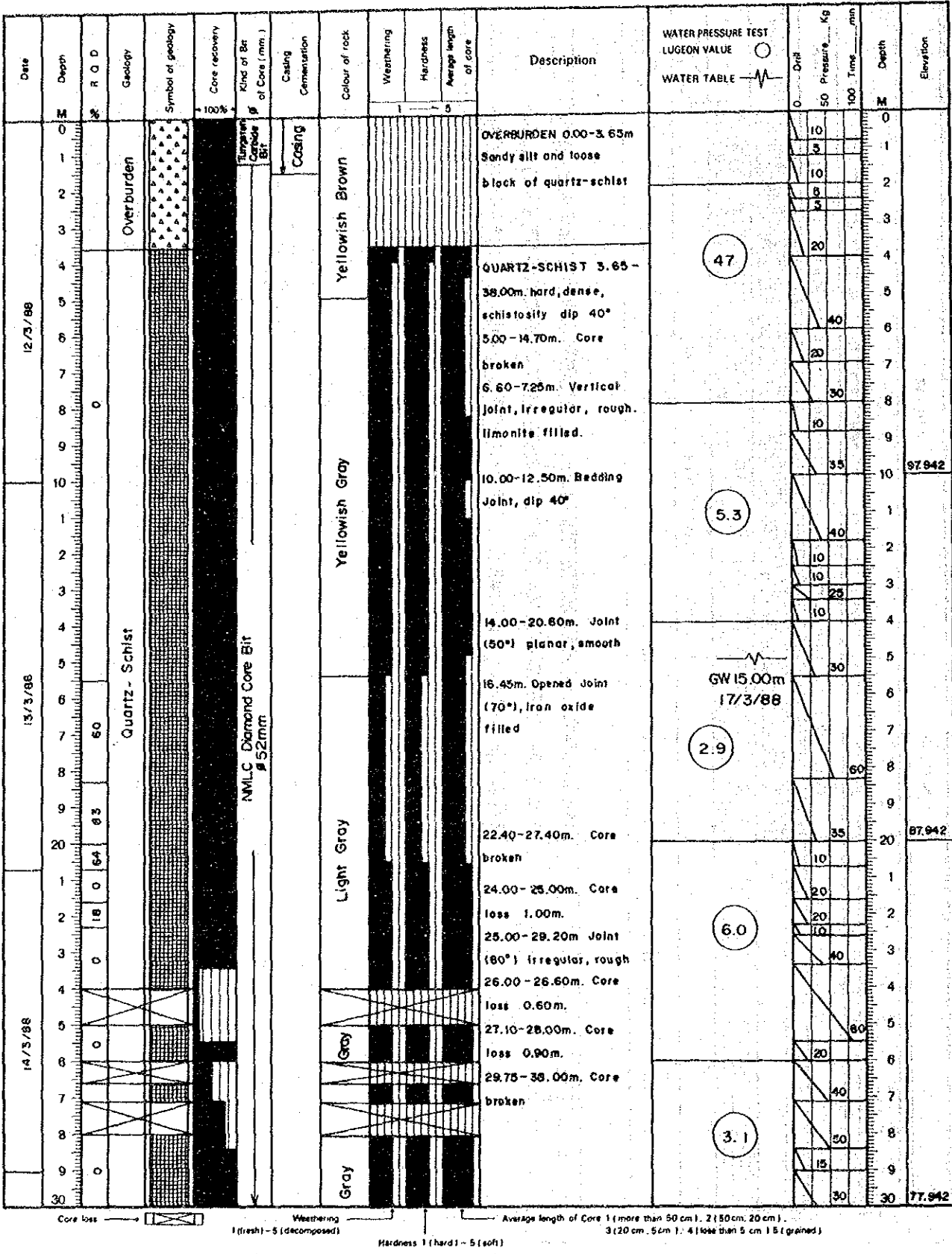
Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-2 Log No. 2 of 2  
 Co-ordinates N 966,048.939 E 372,103.494 Elevation 126.756m MSL Depth of Hole 50.00m Commenced 26/5/87  
 Angle from Horizontal 90° Core Recovery 94.60% Depth of Overburden 3.50m Completed 30/5/87  
 Bearing of Angle Hole — Company EGAT Total length of core — Logged by V.Punpong  
K.Takeda

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST			Depth M	Elevation
													LUGEON VALUE	Drill	Pressure		
29/5/87	30	0	Calc schist (Schistose limestone) interbedded with quartzite		100	NMLC. Triple tube core barrel						Some joints 80°-90° planar, step few joints 0°-10° rough.  [31.50 - 50.00m.] Colcareous schist (Schistose limestone) interbedded with quartzite (or Sandstone): fresh, gray, dense, thinly bedded to laminated.  Dip of bedding 40° Most joints 40° planar, smooth. Some joints 0° rough. Few joints 60°-70° planar, smooth or polished.	27.65	10	30	86.756	
	1	0											2.0	3	29		
	2	0												25	28		
	3	0												20	27		
	4	0												20	26		
	5	18													25		
	6	19												27.65	35		24
	7	0												20	23		
	8	0												25	22		
	9	76.4													60		21
30/5/87	40	97.9	Calc schist (Schistose limestone) interbedded with quartzite		100	NMLC. Triple tube core barrel						Bottom of hole 50.00m Elevation 76.756m.MSL.	27.74	40	40	76.756	
	1	0											1.0	40	39		
	2	0												50	38		
	3	69.8													37		
	4	0												25	36		
	5	35													35		
	6	0												27.74	25		34
	7	0												30	33		
	8	0													32		
	9	0													31		
30/5/87	50	0	Calc schist (Schistose limestone) interbedded with quartzite		100	NMLC. Triple tube core barrel						Bottom of hole 50.00m Elevation 76.756m.MSL.		30	50	76.756	
	1	0													50		
	2	0													49		
	3	0													48		
	4	0													47		
	5	0													46		
	6	0													45		
	7	0													44		
	8	0													43		
	9	0													42		

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Dam Site (Left Abutment)** Boring No. **LY/DL-3** Log No. **1** of **2**  
 Co-ordinates **N 966,006.380 E 372,172.175** Elevation **107.942m MSL** Depth of Hole **45.00m** Commenced **12/3/88**  
 Angle from Horizontal **90°** Core Recovery **85%** Depth of Overburden **3.65m** Completed **17/3/88**  
 Bearing of Angle Hole **—** Company **E G AT** Total length of core **38.80m** Logged by **H. Pottans K. Tokeda**



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Left Abutment) Boring No. LY/DL-3 Log No. 2 of 2  
 Co-ordinates N1,966,006.380 E 372,172.175 Elevation 107.342m MSL Depth of Hole 45.00m Commenced 12/3/88  
 Angle from Horizontal 90° Core Recovery 86% Depth of Overburden 3.65m Completed 17/3/88  
 Bearing of Angle Hole — Company E G AT Total length of core 38.80m Logged by H. Potton & K. Takeda

Date	Depth (M)	R.O.D. (%)	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE			Drill Pressure (Kg)	Time (min)	Depth (M)	Elevation
													0	50	100				
15/3/88	30		Quartz-Schist		100%	NMLC Diamond Core Bit # 52mm		Gray	1	5	32.00-32.45m. Core loss 0.45m.		2.0	20		30			
	1													10		2			
	2													10		3			
	16/3/88	3		Quartz-Schist		100%		Brownish Gray	1	5	33.35-34.60m. Core loss 1.25m.		2.0	20		3			
		4												20		4			
		5		40		40		5											
16/3/88	6		Quartz-Schist		100%		Brownish Gray	1	5	35.00-36.00m. Core loss 1.00m.		1.2	45		6				
	7												15		7				
	8		Calc-Schist		100%		Light Gray	1	5	38.00-45.00m. brittle, core broken, some calcite vein-veinlet		1.2	30		8	67.942			
	9		10		9														
17/3/88	40		Calc-Schist		100%		Light Gray	1	5	38.00-40.00m. shear zone some clay gouge		1.2	20		40				
	1												40		1				
	2		Calc-Schist		100%		Light Gray	1	5	40.00-41.00m. Core loss 1.00m.		1.2	30		2	62.942			
	3		10		3														
	4		50		4														
45		35		45					Bottom of hole 45.00m.						0				

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (gravel)  
 Hardness 1 (hard) - 5 (soft)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Left Bank) Boring No. LY/DL-4 Log No. 1 of 2  
 Co-ordinates N1956098.882 E372058.822 Elevation 99.276m MSL Depth of Hole 60.00m Commenced 17/2/88  
 Angle from Horizontal 90° Core Recovery 93.3% Depth of Overburden 8.70m Completed 26/2/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 56.00m Logged by H. Pattana K. Tehedo

Date	Depth M	R O D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Dnrl 0 50 100 Kg Pressure Time min	Depth M	Elevation	
													WATER TABLE					
17/2/88	0		Overburden		100%	Tungsten Carbide Bit	Casing	Reddish Brown				OVERBURDEN 0.00 - 8.70m.						
	1	residual soil, clayey																
	2	silt and fragments of quartz-schist, schist																
	3	highly completely weathered, loose blocks of quartz-schist, schist at 4.65-6.45m, 5.80-6.00m, 7.00-7.30m										Constant Head Test $K=3.81 \times 10^{-4}$ cm/sec						
	4																	
18/2/88	5		Quartz-Schist		100%	NMLC Diamond Core Bit # 52mm	Casing	Yellowish Brown				QUARTZ-SCHIST, SCHIST 8.70 - 60.00m.						
	6	Quartz-schist interbedded with schist, brittle, attasolity dip 40°, slightly non calcareous, 8.70-24.00m. core broken, 14.45-14.55m. Joint (dip 65°) slightly rough, irregular, iron oxide stained						Constant Head Test $K=4.88 \times 10^{-4}$ cm/sec										
	7																	
	8																	
	9																	
	10																	
	11																	
	12																	
	13																	
	14																	
19/2/88	15		Quartz-Schist		100%	NMLC Diamond Core Bit # 52mm	Casing	Pale Brown				21.10-22.25m. Core loss 1.15m.						
	16	22.70-23.70m. Core loss 1.00m.																
	17	24.75-32.00m. some calcite veinlet, slightly calcareous																
	18	24.00-24.80m. iron oxide on surface																
	19	25.40-25.47m. Joint (dip 45°) slightly rough, irregular, iron oxide stained																
	20	25.80-25.98m. Joint (dip 80°) rough, irregular, iron oxide stained																
	21	26.00-26.80m, 26.60-29.00m. Core broken																
	22	29.45-29.65m, 29.72-29.83m Joint (dip 70°) irregular, rough, clay seamed.																
	23																	
	24																	
20/2/88	25		Quartz-Schist		100%	NMLC Diamond Core Bit # 52mm	Casing	Gray, Brown				21.10-22.25m. Core loss 1.15m.						
	26	22.70-23.70m. Core loss 1.00m.																
	27	24.75-32.00m. some calcite veinlet, slightly calcareous																
	28	24.00-24.80m. iron oxide on surface																
	29	25.40-25.47m. Joint (dip 45°) slightly rough, irregular, iron oxide stained																
	30	25.80-25.98m. Joint (dip 80°) rough, irregular, iron oxide stained																
	31	26.00-26.80m, 26.60-29.00m. Core broken																
	32	29.45-29.65m, 29.72-29.83m Joint (dip 70°) irregular, rough, clay seamed.																
	33																	
	34																	
22/2/88	35		Quartz-Schist		100%	NMLC Diamond Core Bit # 52mm	Casing	Gray				21.10-22.25m. Core loss 1.15m.						
	36	22.70-23.70m. Core loss 1.00m.																
	37	24.75-32.00m. some calcite veinlet, slightly calcareous																
	38	24.00-24.80m. iron oxide on surface																
	39	25.40-25.47m. Joint (dip 45°) slightly rough, irregular, iron oxide stained																
	40	25.80-25.98m. Joint (dip 80°) rough, irregular, iron oxide stained																
	41	26.00-26.80m, 26.60-29.00m. Core broken																
	42	29.45-29.65m, 29.72-29.83m Joint (dip 70°) irregular, rough, clay seamed.																
	43																	
	44																	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm) 2 (50 cm, 20 cm) 3 (20 cm, 5 cm) 4 (less than 5 cm) 5 (ground)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Dam Site (Left Bank)** Boring No. **LY/DL-4** Log No. **2** of **2**  
 Co-ordinates **N1,966,096.882 E372,066.822** Elevation **99.276m MSL** Depth of Hole **60.00m** Commenced **17/2/88**  
 Angle from Horizontal **90°** Core Recovery **93.3%** Depth of Overburden **8.70m** Completed **26/2/88**  
 Bearing of Angle Hole **—** Company **EGAT** Total length of core **56.00m** Logged by **H. Pattana K. Tokeda**

Date	Depth M	R. Q. O. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE			Depth M	Elevation
												Drill	Pressure Kg	Time min		
22/2/88	30		Quartz-Schist, Schist		100%	95		Gray	1	5	33.25-33.60m. Joint (dip 80°) irregular, rough	1.8	35	30	39.276	
	1	36.65-37.00m. Core loss 0.35m.									50					
	2	35.65-36.00m, 37.80-40.00m. Core broken									25					
23/2/88	3	58	Quartz-Schist, Schist		100%	95	Gray	1	5	39.30-39.80m. Joint (dip 80°), irregular, rough, clay seamed	7.8	55	30	39.276		
	4	42.10-42.15m, 42.50-42.60m. Joint (dip 60°) irregular, rough, some quartz filled								55						
	5	43.30-43.40m. Joint (dip 70°) slightly rough, smooth, clay seamed.								55						
24/2/88	6	17	Quartz-Schist, Schist		100%	95	Gray	1	5	43.40-44.00m. Core broken	1.2	55	30	49.276		
	7	53.60-44.00m. Core loss 0.40m.								65						
	8	46.15-46.25m. Joint (dip 80°), planar, rough, quartz filled								30						
25/2/88	9	28	Quartz-Schist, Schist		100%	95	Gray	1	5	46.60-46.65m. Joint (dip 40°), rough, irregular, quartz filled	1.7	20	30	49.276		
	1	46.90-46.97m. Joint (dip 45°), planar, smooth, clay seamed								50						
	2	47.00-47.20m, 47.30-47.45m, 52.95-53.00m. Joint (dip 70°), irregular, slightly rough, quartz filled and clay seamed								50						
26/2/88	3	66	Quartz-Schist, Schist		100%	95	Gray	1	5	53.20-53.28m. Joint (dip 80°), irregular, slightly rough	1.7	65	30	49.276		
	4	53.55-57.70m. Core broken								55						
	5	55.55-56.70m, 56.75-57.25m, 57.75-57.90m. Joint (dip 70°), irregular, rough, some quartz filled								50						
26/2/88	6	29	Quartz-Schist, Schist		100%	95	Gray	1	5	58.30-59.40m. Core loss 1.10m.	1.7	60	30	49.276		
	7									40						
	8									20						
26/2/88	9	80										70	60	39.276		
	60										Bottom of hole 60.00m		5			

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Axis (Left Abutment) Boring No. LY/DL-5 Log No. 1 of 2  
 Co-ordinates N 965,936.69 E 371,959.855 Elevation 201.929m MSL Depth of Hole 40.00m Commenced 6/2/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 17.60m Completed 12/2/88  
 Bearing of Angle Hole — Company E G A T Total length of core 40.00m Logged by H. Pattana K. Takeda

Date	Depth M	R O D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE			Depth M	Elevation
													0	50	100		
6/2/88	0		Overburden		100%	Tungsten Carbide Bit		Reddish Brown				OVERBURDEN, 0.00-17.60m,				0	
	1											0.00-7.00m, residual	5			1	
	2											soil, clayey silt with	5			2	
	3											trace of quartz	5			3	
	4											fragment highly-completely	5			4	
	5											weathered	10			5	
	6											7.00-12.00m, sand silt	10			6	
	7											and fragment of quartz	15			7	
	8											and quartzite	10			8	
	9											10.60-11.00 Quartz	5			9	
8/2/88	10		Overburden		100%	Tungsten Carbide Bit		Yellowish Brown				11.00-17.60 sandy silt	10			10	191.929
	1											with fragment of	5			11	
	2											quartz and quartz	15			12	
	3											schist	5			13	
	4												10			14	
	5												15			15	
	6												10			16	
	7												5			17	
	8												5			18	
	9												10			19	
9/2/88	10		Schist		100%	NMLC Diamond Core Bit φ 52mm		Brown				SCHIST, CALC-SCHIST	10			20	181.929
	1											17.60-28.60m. Schist,	5			21	
	2											brittle, high broken,	15			22	
	3											schistosity dip.	5			23	
	4											70°-80° some part are	5			24	
	5											Calc-Schist at 23.75-	5			25	
	6											24.75m, 27.20-27.90m,	5			26	
	7											fresh, hard, crenulated	5			27	
	8											slightly-highly	5			28	
	9											calcareous, schistosity	15			29	
10/2/88	10		Schist		100%	NMLC Diamond Core Bit φ 52mm		Gray				Joint 20.33-20.36m,	10			30	
	1											irregular, slightly	5			31	
	2											rough, dip 40°, iron	5			32	
	3											oxide stained	5			33	
	4											20.40-20.60m, 21.60-	5			34	
	5											21.85m. joint (dip 75-80°)	5			35	
	6											smooth, planar	20			36	
	7											27.30-27.36m, joint (dip 40°)	20			37	
	8											irregular, rough, clay	20			38	
	9											seamed.	20			39	
	30		Schist		100%	NMLC Diamond Core Bit φ 52mm		Gray				CALC-SCHIST	30			40	171.929
		28.60-40.00m.															

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project: MAE LAMA LUANG DAM      Location: Dam Axis (Left Abutment)      Boring No.: LY/DL-5      Log No.: 2 of 2  
 Co-ordinates: N: 965,935.169    E: 371,553.855      Elevation: 201.929m MSL      Depth of Hole: 40.00m      Commenced: 6/2/88  
 Angle from Horizontal: 90°      Core Recovery: 100%      Depth of Overburden: 17.60m      Completed: 12/2/88  
 Bearing of Angle Hole: —      Company: EGAT      Total length of core: 40.00m      Logged by: H. Pattana, K. TAKEDA

Date	Depth M	R. Q. D.	Geology	Symbol of geology	Core recovery → 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Pressure, Kg Time, min	Depth M	Elevation												
													LUGEON VALUE	WATER TABLE															
11/2/88	30	45	Calc - Schist		100%	NMLC Diamond Core Bit # 52mm		Gray				fresh, hard, interlocking with argillaceous band, schistosity dip 50°, highly - slightly calcareous 29.88 - 29.91m, 30.14 - 30.17m, joint (dip 40°) slightly rough, clay seamed 30.00 - 32.60m, core broken 32.85 - 33.00m, 34.00 - 34.45m. joint (dip 80°) irregular, clay seamed 35.00 - 36.00m, core broken 37.00 - 38.50m, 39.50 - 39.90m. joint (dip 90°), irregular, calcite filled and some clay seamed	29.6-35.6m	 (1.8) GW. 28.77 11/2/88	 35 50 15 25 65	30	161.929												
12/2/88	34	55											35	30	40	35		34.0-40.0m	 (1.5) GW. 28.77 12/2/88	 35 30 40	34								
	40																						Bottom of hole 40.00m						
	1																												
	2																												
	3																												
	4																												
	5																												
	6																												
	7																												
	8																												
	9																												
	0																												

Core loss:      Weathering: 1 (fresh) - 5 (decomposed)      Average length of Core: 1 (more than 60 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

Hardness: 1 (hard) - 5 (soft)

# LOG OF BORING

Project: MAE LAMA LUANG DAM      Location: Dam Site (Left Abutment)      Boring No: LY/DL-6      Log No: 1 of 2  
 Co-ordinates: N 1,985,992.088 E 372,111.862      Elevation: 145.289m MSL      Depth of Hole: 50.00m      Commenced: 17/11/88  
 Angle from Horizontal: 90°      Core Recovery: 93.8%      Depth of Overburden: 8.90m      Completed: 24/11/88  
 Bearing of Angle Hole: —      Company: E.G.A.T.      Total length of core: 46.90m      Logged by: H. Pattana, K. Takeda

Date	Depth (M)	R.O.D.	Geology	Symbol of geology	Core recovery (%)	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill	Depth (M)	Elevation
													LUGEM VALUE	WATER TABLE			
17/11/88	0		Overburden		100%	Tungsten Carbide Bit		Brown				OVERBURDEN 0.00-8.90m				0	145.289
	1	0.00-5.40m Clayey sand		K=3.42x10 <sup>-6</sup> cm/sec													
	2			Falling head test													
	3																
	4	5.40-7.50m Clayey silt and loose block of schist, sandstone		K=2.58x10 <sup>-5</sup> cm/sec													
	5			Constant head test													
18/11/88	6		Casing			NMLC Diamond Core Bit φ 52mm	Yellowish Brown					7.50-8.00m Silty sand				6	145.289
	7	8.00-8.90m loose block of schist		K=1.23x10 <sup>-5</sup> cm/sec													
	8			Constant head test													
19/11/88	9		Schist interbedded with sandstone			NMLC Diamond Core Bit φ 52mm	Brownish Gray					SCHIST, SANDSTONE 8.90-44.70m schist, brittle, core broken, schistosity dip 40°, interbedded with sandstone, hard, at 9.00-9.25m, 15.35-15.43m, 17.62-17.90m				9	125.289
	10			K=1.23x10 <sup>-5</sup> cm/sec													
	1			Constant head test													
	2																
	3			K=5.83x10 <sup>-5</sup> cm/sec													
	4			Constant head test													
	5																
	6			K=2.89x10 <sup>-5</sup> cm/sec													
	7			Constant head test													
	8																
9		K=2.30x10 <sup>-5</sup> cm/sec															
10		Constant head test															
21/11/88	20		Schist interbedded with sandstone			NMLC Diamond Core Bit φ 52mm	Brownish Gray					23.25-23.32m, 24.20-24.70m, 28.00-28.10m, 27.00-28.30m, quartz vein, dip 60°				20	115.289
	1			K=1.22x10 <sup>-5</sup> cm/sec													
	2			Constant head test													
	3																
	4																
	5																
	6																
	7																
	8																
	9																
10																	
	29.30-29.90m											Core loss					

Core loss:      Weathering: 1 (fresh) - 5 (decomposed)      Average length of Core 1 (more than 50cm): 2 (50cm, 20cm), 3 (20cm, 5cm), 4 (less than 5cm), 5 (grained)  
 Hardness: 1 (hard) - 5 (soft)

# LOG OF BORING

Project: **MAE LAMA LUANG DAM** Location: **Don Site (Left Abutment)** Boring No.: **LY/DL-6** Log No.: **2 of 2**  
 Co-ordinates: **N1,965,992.088 E372,111.862** Elevation: **145.289m MSL** Depth of Hole: **50.00m** Commenced: **17/11/88**  
 Angle from Horizontal: **90°** Core Recovery: **93.8%** Depth of Overburden: **8.90m** Completed: **24/11/88**  
 Bearing of Angle Hole: **---** Company: **E G AT** Total length of core: **46.90m** Logged by: **H. Pettano  
K. Takeda**

Date	Depth M	R. Q. D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Commentation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill 50 Pressure Kg 100 Time min	Depth M	Elevation
													LUGEON VALUE	WATER TABLE			
22/11/88	30		Schist interbedded with sandstone		100%	NMLC Diamond Core Bit # 52mm		Brown				33.35-34.35m Core loss	WATER PRESSURE TEST LUGEON VALUE $\bigcirc$ WATER TABLE	 3.6 Pmax=4kg/cm <sup>2</sup>	30	105.289	
	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
23/11/88	40		Schist		100%	NMLC Diamond Core Bit # 52mm		Brownish Gray				WATER PRESSURE TEST LUGEON VALUE $\bigcirc$ WATER TABLE	 GW.41.85m 24/11/88	40	85.289		
	1																
	2																
	3																
	4																
24/11/88	50		Schist		100%	NMLC Diamond Core Bit # 52mm		Gray				WATER PRESSURE TEST LUGEON VALUE $\bigcirc$ WATER TABLE		50	85.289		
	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
0																	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm) 2 (50 cm - 20 cm) 3 (20 cm - 5 cm) 4 (less than 5 cm) 5 (ground)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffar Dam(Left Bank) Boring No. LY/DL-7 Log No. 1 of 1  
 Co-ordinates N1965,976.430 E372,244.292 Elevation 91.431mMSL Depth of Hole 15.00m Commenced 2/11/88  
 Angle from Horizontal 90° Core Recovery 87.7% Depth of Overburden 3.00m Completed 23/12/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 13.15m Logged by H. Pattana  
K. Takeda

Date	Depth M	R. Q. D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Depth M	Elevation
													LUCEON VALUE	WATER TABLE		
2/11/88	0		Overburden		100%	Turkish Carbide Bit	Casing	Brown				OVERBURDEN 0.00-3.00m. 0.00-1.60m. Sandy clay 1.60-2.00m. fine sand with some clay 2.00-2.35m. Sandy clay 2.35-3.00m. fine sand	○		0	81.431
	1	1														
	2	2														
12/12/88	3	25	Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray				QUARTZ 3.00-15.00m. hard, some part show texture of quartzite. Iron oxide coated on surface 3.30-4.00m. Some cavity on surface. 8.00-8.10m. Joint (70°), rough, Iron oxide filled 9.30-10.65m. Core loss 11.20-11.50m. Core loss 11.70-11.85m, 12.00- 12.20m. 13.25-13.35m. Joint (70°-90°), rough, Iron oxide filled	○		3	76.431
	4	4														
23/12/88	5		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray				Bottom of hole 15.00m.	○		5	76.431
	6	6														
	7		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		7	
	8	8														
	9		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		9	
	10	10														
	11		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		11	
	12	12														
	13		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		13	
	14	14														
	15		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		15	
	16	16														
	17		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		17	
	18	18														
	19		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		19	
	20	20														
	21		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		21	
	22	22														
	23		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		23	
	24	24														
	25		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		25	
	26	26														
	27		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		27	
	28	28														
	29		Quartz		100%	NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray					○		29	
	30	30														

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained) Hardness 1 (Hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Left Bank) Boring No. LY/DL-7A Log No. 1 of 2  
 Co-ordinates N1,965,975.032 E372,260.205 Elevation 76.025m MSL Depth of Hole 40.00m Commenced 14/1/89  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 1.80m Completed 25/1/89  
 Bearing of Angle Hole — Company EGAT Total length of core 39.45m Logged by H. Patrano  
K. Takeo

Date	Depth M	R.C.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit Ø of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill 0 50 100 Kg Time min	Depth M	Elevation
													○	—			
14/1/89	0		Over-Burden				Casing	Yellowish Brown				OVERBURDEN 0.00-1.80m clayey sand with some loose block of quartz and quartzite.				0	
	1		Quartz, Quartzite					Yellowish Gray				QUARTZITE, QUARTZ 1.80- 6.00m. hard, dense 3.35-3.45m. Joint, dip 60°, smooth, some quartz filled	○ > 50		1		
	2											4.20-4.50m. Core loss 4.70-5.00m. Vertical joint, smooth, quartz filled.			2		
15/1/89	3	58	Calc-Schist					Yellowish Gray				6.00-6.25m. Core loss CALC-SCHIST 6.25-19.00m hard, dense, schistosity dip 80°, some calcite veinlets	Pmax=2kg/cm <sup>2</sup>		3		
	4											9.00-9.20m. 10.95- 11.05m. joint along schistosity, smooth, clay seamed			4		
	5											13.80-14.00m. Joint, dip 80°, polished, clay seamed			5		
17/1/89	6		Quartz, Quartzite					Gray				15.30-15.70m. Quartz vein	Pmax=3kg/cm <sup>2</sup>		6		
	7											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			7		
	8											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			8		
18/1/89	9	24	Quartz, Calc-Schist									18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed	Pmax=3kg/cm <sup>2</sup>		9		
	10											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			10	66.025	
	11	91										Quartz, Quartzite					
12		18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed	12														
13		Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken	13														
19/1/89	14		Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=5kg/cm <sup>2</sup>		14		
	15											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			15		
	16											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			16		
21/1/89	17	0	Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=4kg/cm <sup>2</sup>		17		
	18											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			18		
	19											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			19		
22/1/89	20	24	Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=5kg/cm <sup>2</sup>		20	56.025	
	21											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			21		
	22											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			22		
22/1/89	23	55	Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=5kg/cm <sup>2</sup>		23		
	24											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			24		
	25											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			25		
22/1/89	26	38	Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=5kg/cm <sup>2</sup>		26		
	27											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			27		
	28											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			28		
22/1/89	29	55	Quartz, Calc-Schist									15.30-15.70m. Quartz vein	Pmax=5kg/cm <sup>2</sup>		29		
	30											18.00-19.00m. Schistosity dip 40°, some, joint, along schistosity, smooth, clay seamed			30		
	31											Quartz, QUARTZITE 19.00- 24.90m. hard, dense, core broken			31		

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (graded)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Left Bank) Boring No. LY/DL-7A Log No. 2 of 2  
 Co-ordinates N1965,975.032 E372,260.205 Elevation 78.025m MSL Depth of Hole 40.00m Commenced 14/1/89  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 1.80m Completed 25/1/89  
 Bearing of Angle Hole - Company EGAT Total length of core 39.45m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R C D	Geology	Symbol of geology	Core recovery %	Kind of bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Pressure - Kg Time - min	Depth M	Elevation
													LUGEON VALUE	WATER TABLE			
22/1/89	30		Quartz Cdic. - Schist		100%	NMLC Diamond Core Bit # 52 mm		Gray				31.39-31.50m, 36.00-36.60m, Irregular joint, dip 90°, rough, some Quartz filled	9.7		30	38.025	
23/1/89	1											Pmax = 5kg/cm <sup>2</sup>		1			
24/1/89	2													2			
	3													3			
	4													4			
	5													5			
	6													6			
	7													7			
	8													8			
	9													9			
25/1/89	40											Bottom of hole 40.00m					
	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
	0																

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core: 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (gravel)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Spillway(Left Abutment) Boring No. LY/SP-1 Log No. 1 of 2  
 Co-ordinates N1,966,113.451 E 371,960.521 Elevation 91.77m MSL Depth of Hole 50.00m Commenced 26/3/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 13.60m Completed 31/3/88  
 Bearing of Angle Hole - Company EGAT Total length of core 50.00m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R.O.D %	Geology	Symbol of geology	Core recovery %	Kind of Bit Kind of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE			Drift	Depth M	Elevation
													0	50	100			
26/3/88	0		Overburden		100%	Tungsten Carbide Bit						OVERBURDEN 0.00-13.60m	Constant Head Test $K=3.8 \times 10^{-4}$ cm/sec					
	1											sandy silt						
	2											4.00-7.00m. loose						
	3											blocks of quartz-						
	4											schist						
	5																	
	6																	
	7																	
	8																	
	9																	
27/3/88	10		Overburden		100%	NMLC. Diamond Core Bit Ø 52 mm						Constant Head Test $K=1.62 \times 10^{-3}$ cm/sec						
	11																	
	12																	
	13																	
	14																	
	15																	
	16																	
	17																	
	18																	
	19																	
28/3/88	20		Quartz - Schist		100%	NMLC. Diamond Core Bit Ø 52 mm						QUARTZ-SCHIST						
	21											13.60-50.00m. hard,						
	22											dense, brittle						
	23											13.60-23.35m. some						
	24											calcite vein, thickness						
	25											1-8cm, dip 30°-70°, have						
	26											small cavity on surface						
	27											of calcite vein						
	28											15.75-16.65m. 17.50-						
	29											17.70m. vertical joint,						
30		Irregular, rough, iron																
29/3/88	31		Quartz - Schist		100%	NMLC. Diamond Core Bit Ø 52 mm						29.70-39.00m. Some						
	32											calcite vein, thickness						
	33											2-6cm, dip 70°, have						
	34											small cavity on surface						
	35											of calcite vein						
	36																	
	37																	
	38																	
	39																	
	40																	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Spillway(Left Abutment) Boring No. LY/SP-1 Log No. 2 of 2  
 Co-ordinates N1,966, 113,451 E 371,960.021 Elevation 91.777m MSL Depth of Hole 50.00m Commenced 26/3/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 13.60m Completed 31/3/88  
 Bearing of Angle Hole - Company E G A T Total length of core 50.00m Logged by H. Pattana  
K. Takeda

Date	Depth M	R. Q. D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE		Drill 0 50 Pressure, Kg 100 Time, min	Depth M	Elevation		
													○	—					
29/3/88	30	50	Quartz - Schist		100%	NMLC, Diamond Core Bit φ 52mm		Dark grey/black	1-5	1-5	31.00-31.55m, 31.75-31.90m, Vertical joint irregular, rough, iron oxide filled	(1.9)	○	—		30	91.777		
	1																		
	2																		
	3																		
	4																		
	5																		
30/3/88	6	0										36.20-36.60m, 42.50-42.60m, 45.50-45.90m	Vertical joint, irregular, calcite filled	(1.7)	○	—		6	91.777
	7																		
	8																		
	9																		
	10																		
31/3/88	11	0	Bottom of Hole 50.00m	(1.8)	○	—		11	91.777										
	12																		
	13																		
	14																		
	15																		

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (gravel)