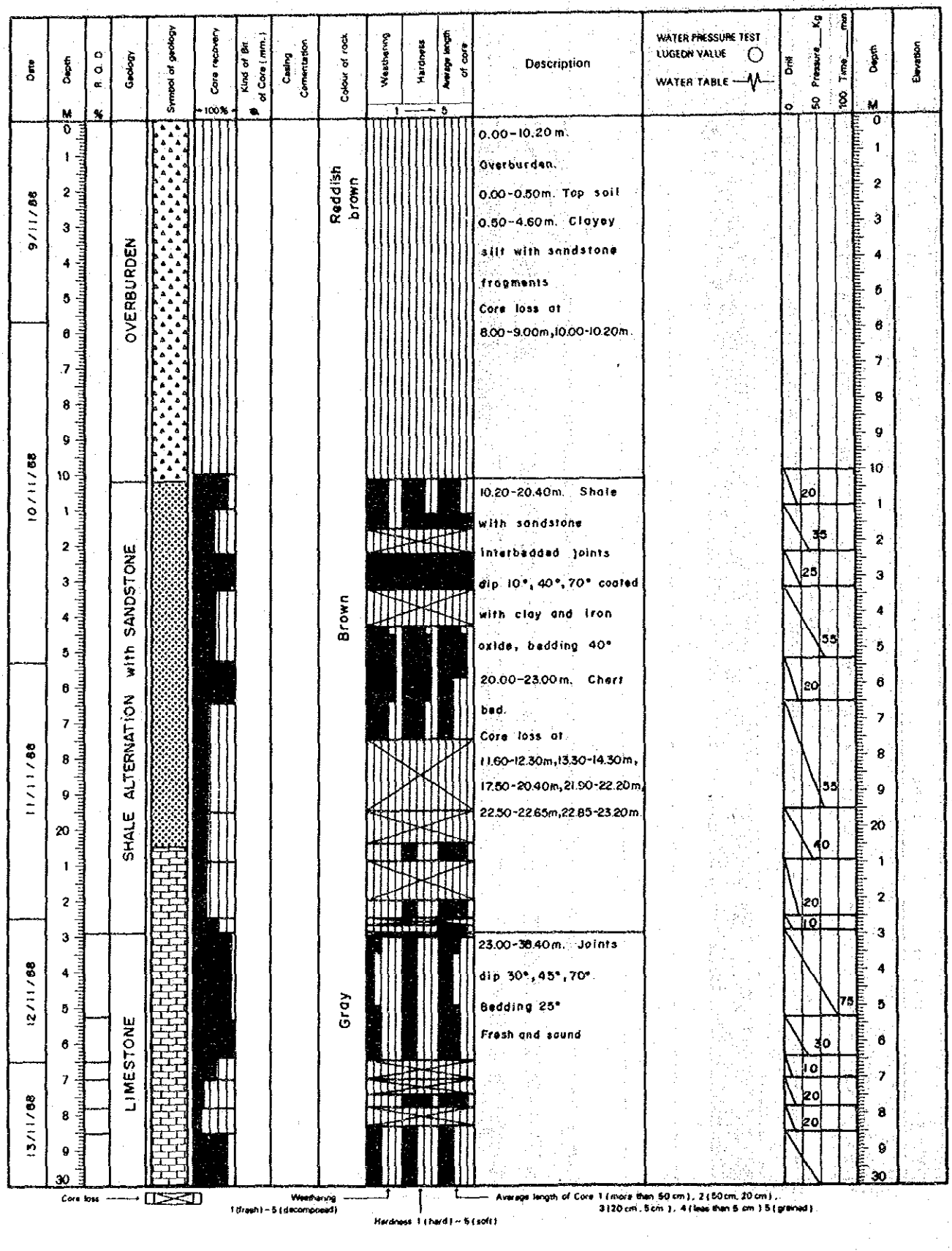
LOG OF BORING

Project	NAM NGAO SITE No. 2	Location	QUARRY	Boring No.	Q - 1
Co-ordinates	N1,966,848.595 E394,537.847	Elevation	342.581mMSL	Depth of Hole	59.40 m
Angle from Horizontal	90°	Core Recovery	74 %	Depth of Overburden	10.20 m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	45.90 m

Log No.	1 of 2		
Commenced	9/11/88		
Completed	15/11/88		
Logged by	V. Vichorn K. Takeda		



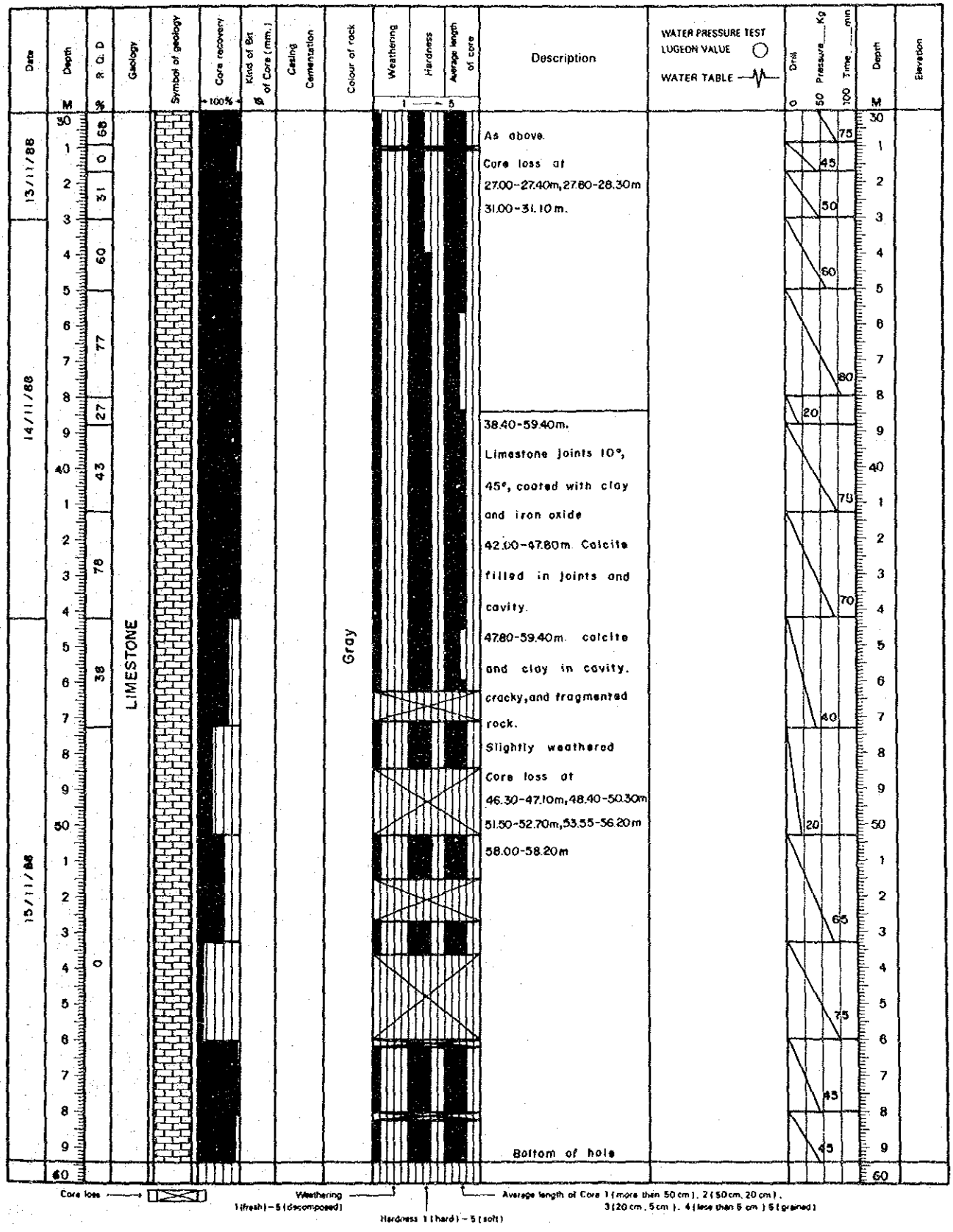
LOG OF BORING

Project NAM NGAO DITE No. 2 Location QUARRY Boring No. Q - 1 Log No. 2 of 2

Co-ordinates N1,966,848.895 E 394,637.847 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 EGAT Total length of core 43.90 m Logged by V. Vichorn, K. Takeda



B-3-(2) MAE LAMA LUANG SITE

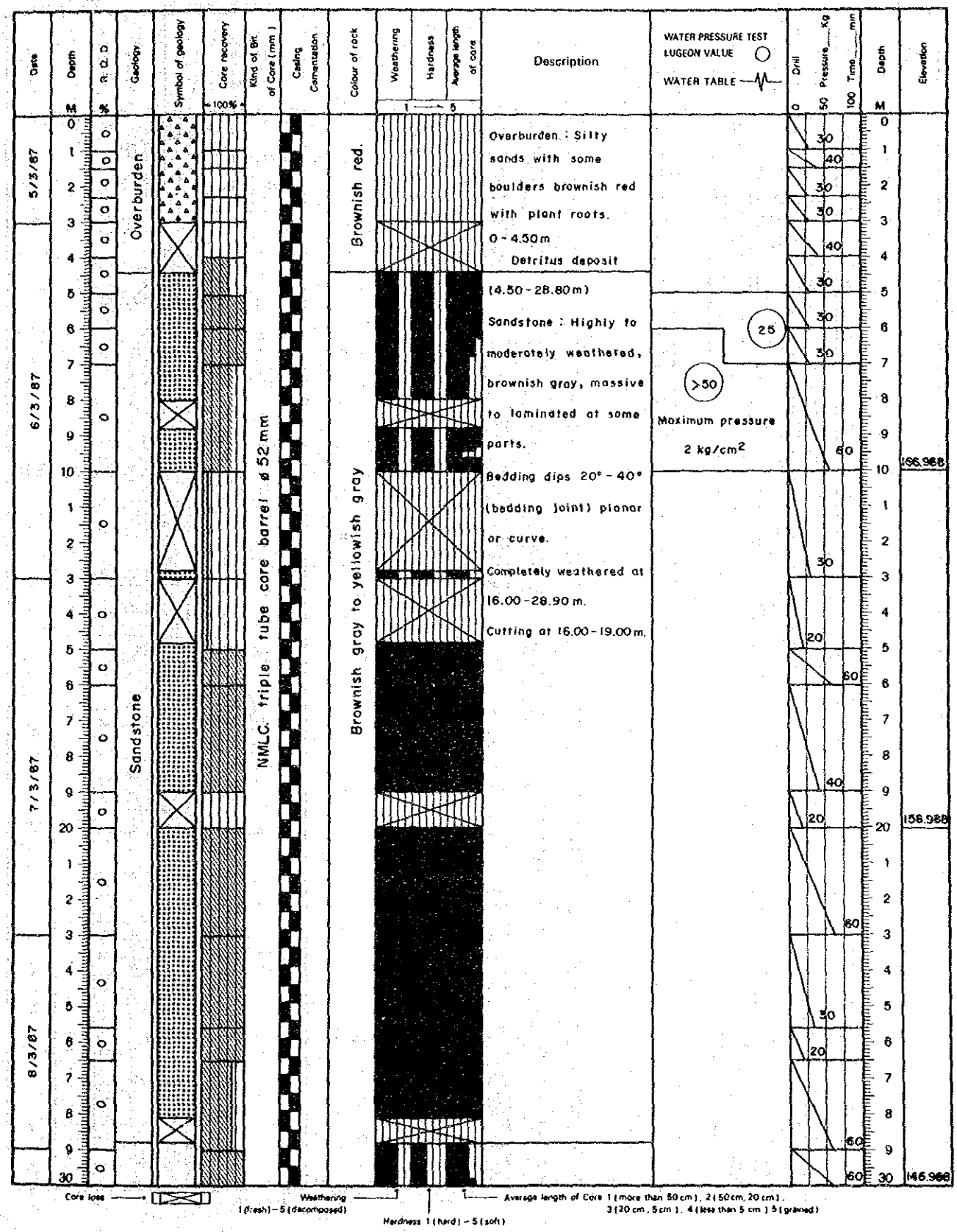
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Right Abutment | Boring No. LY/DR-1 | Log No. 1 of 4

Co-ordinates N1,966,275.870 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 4.50 m | Completed 25/3/87

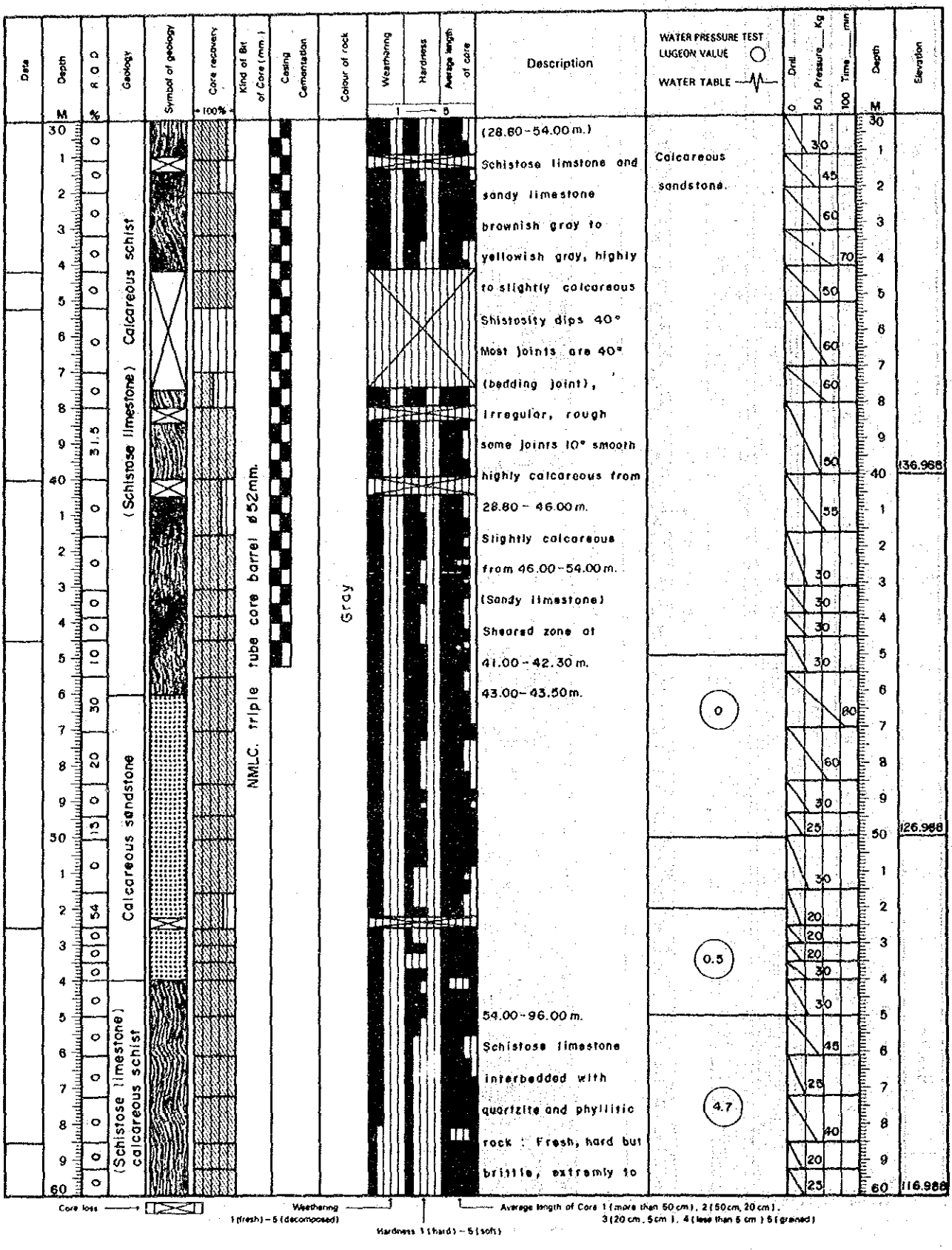
Bearing of Angle Hole — | Company EGAT | Total length of core 81.30m | Logged by V. Punpong, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Right Abutment	Boring No.	LY/DR-1
Co-ordinates	N1,966,275.870 E372,243.416	Elevation	176.988m MSL	Depth of Hole	96.00m
Angle from Horizontal	90°	Core Recovery	84.69 %	Depth of Overburden	4.50 m
Bearing of Angle Hole	—	Company	E G A T	Total length of core	81.30 m

Log No. 2 of 4
Commenced 5/3/87
Completed 25/3/87
Logged by V. Punpong, K. Takeda



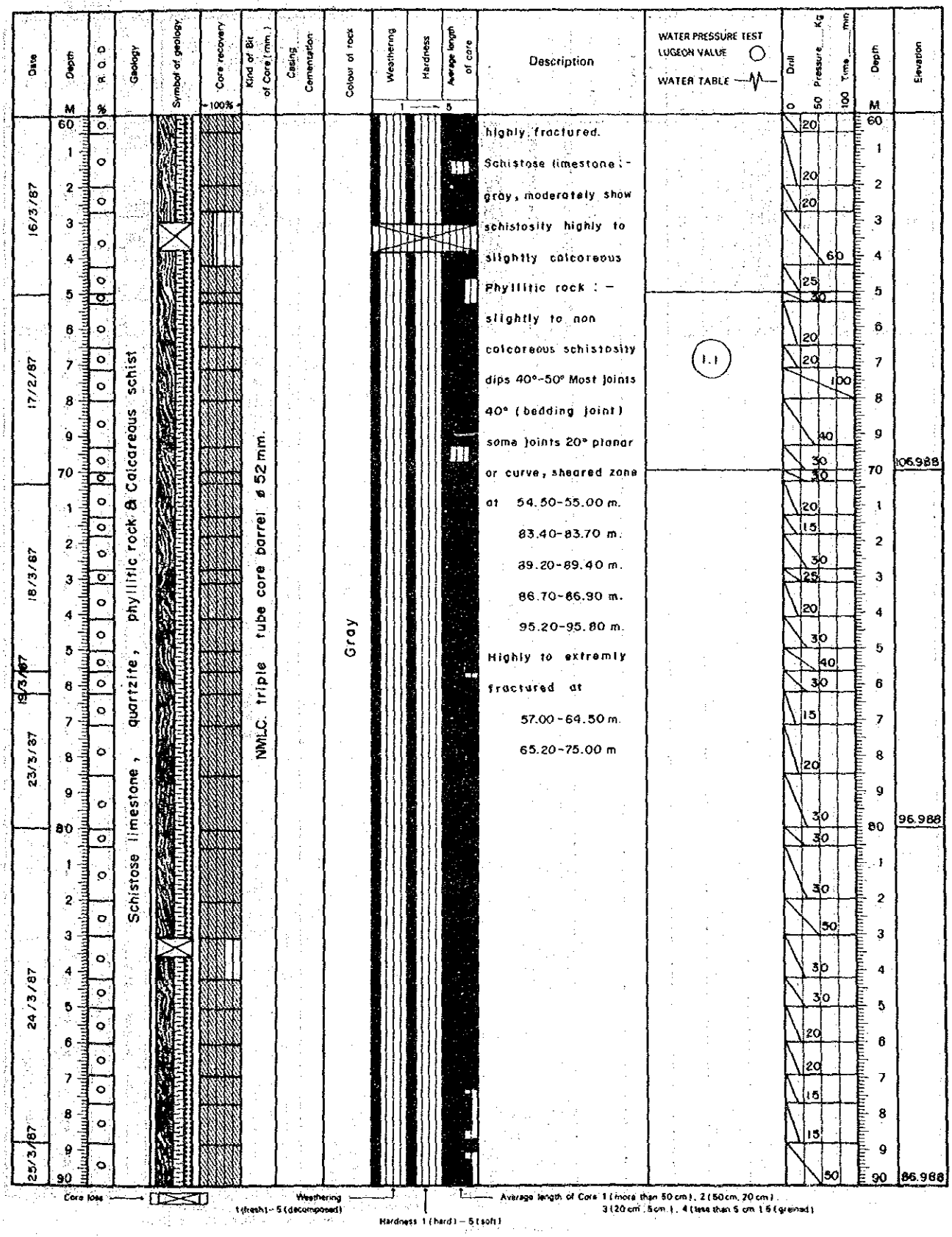
LOG OF BORING

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 EGAT | Total length of core 81.30m | Logged by V. Punpong, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Right Abutment	Boring No.	LY/DR-1	Log No.	4 of 4
Co-ordinates	N1,966,275.870 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	25/5/87
Bearing of Angle Hole	—	Company	EGAT	Total length of core	81.30m	Logged by	V.Punpeng, K.Takeda

Date	Depth (M)	RQD (%)	Geology	Symbol of geology	Core recovery (+100%+)	Kind of Bit / Ø of Core (mm.)	Casing Cementation	Colour of rock	Weathering (1 → 5)	Hardness	Average length of core	Description	WATER PRESSURE TEST / LUGEON VALUE / WATER TABLE	Drill (0)	Pressure (Kg, 50)	Time (min, 100)	Depth (M)	Elevation
25/3/87	90	0	Calcareous schist			NMCL triple tube		Gray				(54.00-96.00) (As above)		25			90	
	1	0															1	
	2	0												15			2	
	3	0												20			3	
	4	0												15			4	
	5	0													35		5	
	96	0										Bottom of hole 96.00 m. Elevation 80.988 m. MSL		30			96	80.988
	7																7	
	8																8	
	9																9	
	0																0	
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	
	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) 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)

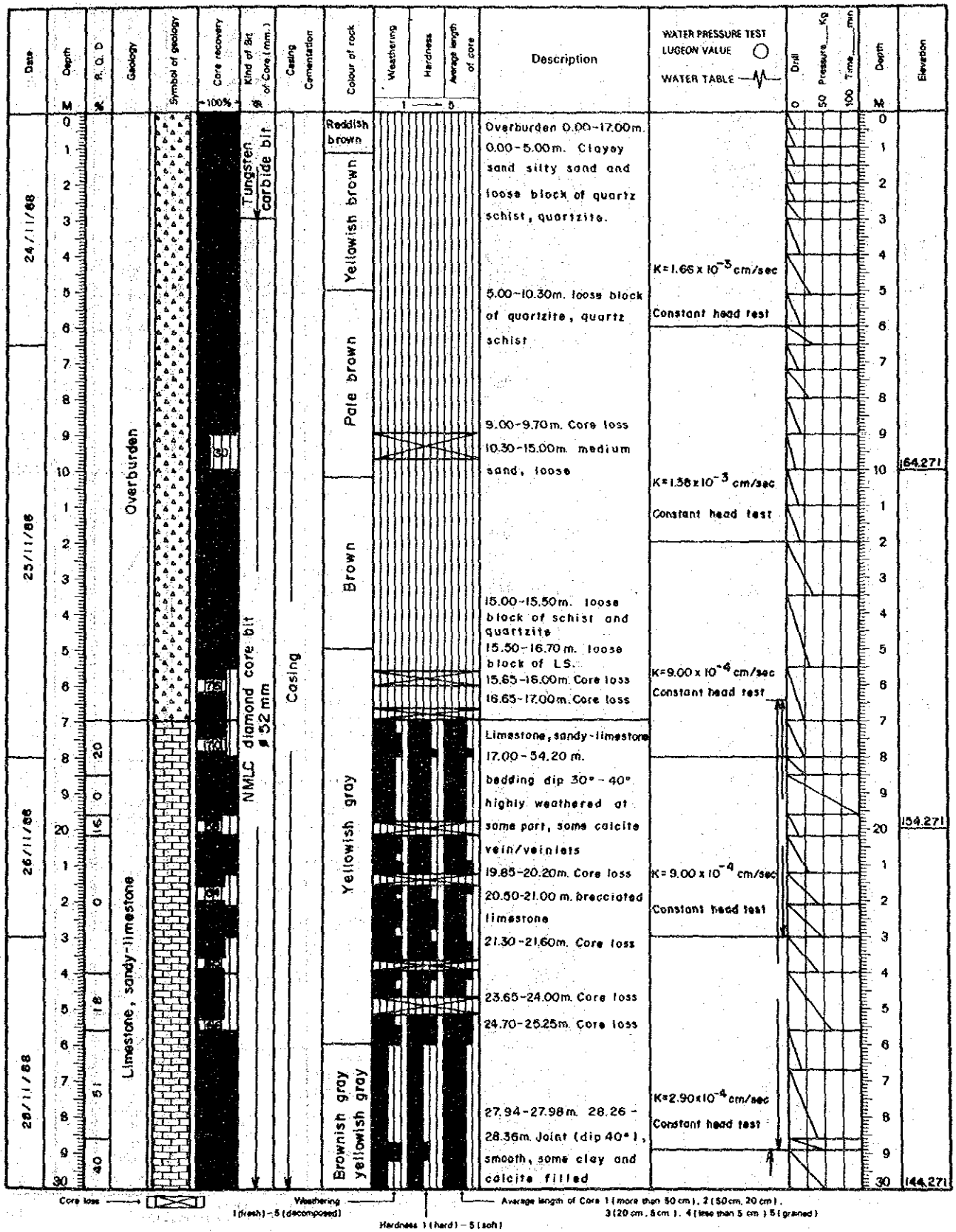
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Site (Right Abutment) | Boring No. LY/DR-1A | Log No. 1 of 3

Co-ordinates N1,986,262.42 E372,279.361 | Elevation 174.27m 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 EGAT | Total length of core 54.85 m | Logged by H.Pattana, K. Takeda



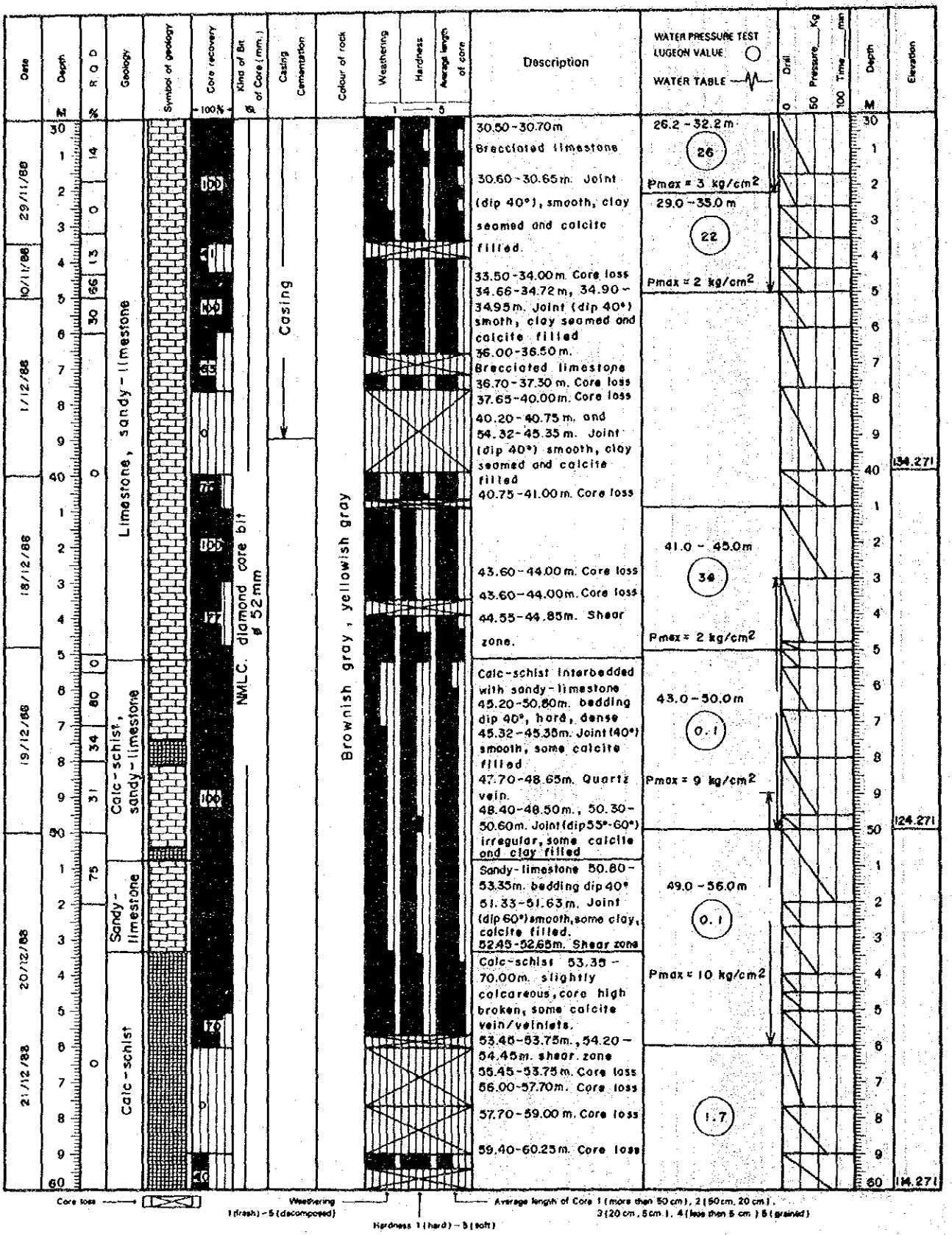
LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam 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 EGAT Total length of core 54.85m Logged by H. Pattana, K. Takeda



LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Sight(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 EGAT | Total length of core 54.85m | 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 (1—5)	Hardness	Average length of core	Description	WATER PRESSURE TEST / LUGEON VALUE / WATER TABLE	Drill 0 / Pressure Kg 50 / Time min 100	Depth M	Elevation
21/12/88	60				60							60.75-61.75 m Shear zone			60	
	1				54.5							61.10-61.45 m. Core loss	1.7		1	
					70							61.50-62.00 m. Core loss	Pmax = 11 kg/cm²			
	2											62.00-62.50 m. Core loss			2	
					50							62.80-63.00 m. Shear zone				
	3											63.00-63.40 m. Core loss			3	
					50								61.0-68.0 m			
	4											64.00-64.45 m. Core loss			4	
					55							64.80-65.00 m. Shear zone	1.4			
	5											65.50-65.80 m. Core loss			5	
					70							66.00-66.50 m. Core loss			6	
	6												Pmax = 12 kg/cm²			
24/12/88					60							67.00-67.45 m. Core loss			7	
	7											68.00-68.25 m. Core loss				
					55										8	
	8											68.50-68.70 m. Shear zone	67.0-70.0 m			
					55							69.00-69.40 m. Core loss	1.4		9	
	9											69.95-70.00 m. Shear zone	Pmax = 13 kg/cm²			
25/12/88	70	0	Calc-schist		60	NMLC diamond core bit ø 52 mm		Brownish gray, yellowish gray				Bottom of hole 70.00m			70	104.271
	1														1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
	0														0	
	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) | 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 (crained)

LOG OF BORING

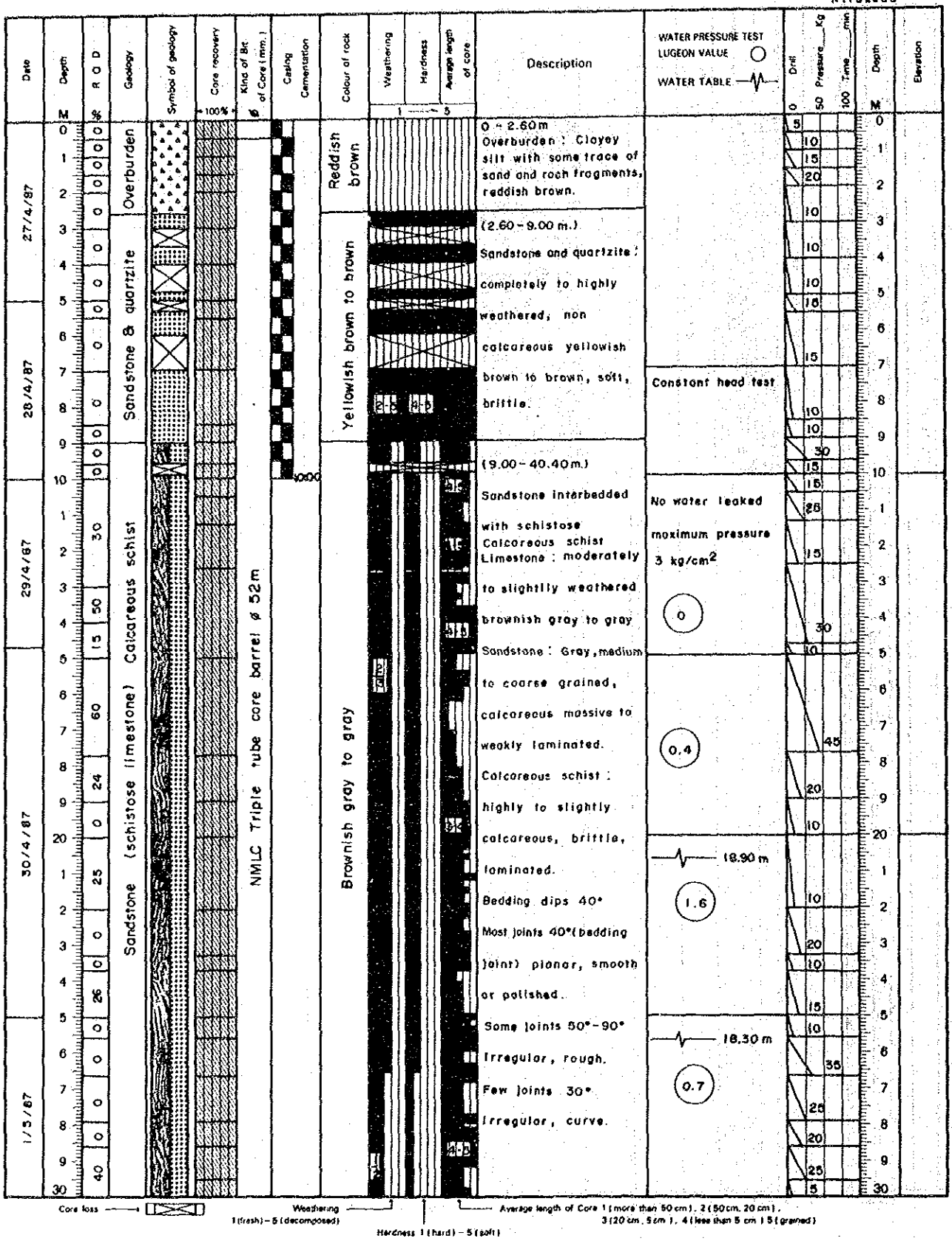
Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 1 of 2

Co-ordinates N1,966,216.272 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 EGAT Total length of core 41.50m Logged by V.Punpong

K.Takada



LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 2 of 2

Co-ordinates N1,966,218.272 E 372,239.320 Elevation 133360 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 EGAT Total length of core 41.50m 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	Hardness	Average length of core	Description	WATER PRESSURE TEST / LUGEON VALUE / WATER TABLE	Drill Pressure Kg Time min	Depth M	Elevation
2/5/87	30	0	Sandstone, (schistose limestone) calc schist			NMLC Triple tube core barrel ø52mm		Brownish gray to gray	1	5		(9.00-40.40 m.) Sheared zone at 10.40-10.60 m. 14.50-14.90 m. 36.00-36.30 m. 37.60-38.10 m. 39.60-39.80 m.	18.30m, 0.1	0 15 10 20 10 30	30	
	1	20													1	
	2	33													2	
	3	35													3	
	4	50													4	
	5														5	
4/5/87	6	0											19.61m, 0.7	30 10 15 20 15 15	6	
	7	0													7	
	8	0													8	
	9	0													9	
	40	0													40	
5/5/87	1	15	calc schist (Schistose limestone)					Yellowish gray to gray				40.40-45.00 m. Schistose limestone : yellowish gray to gray, slightly weathered, thinly laminated, calcareous, hard brittle. Most core are broken.	Constant head test from 10.00-45.00	20 30 15 15 15 10 10 10 40	1	
	2	0													2	
	3	0													3	
	4	0													4	
	5	0													5	
	6											Bedding dips 40° Most joints 40° planar smooth or polished Sheared zone of 41.80-42.00 m. 43.00-43.25 m. 44.00-44.25 m. Bottom of hole 45.00m.			6	
	7														7	
	8														8	
	9														9	
	0														0	
	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) 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)

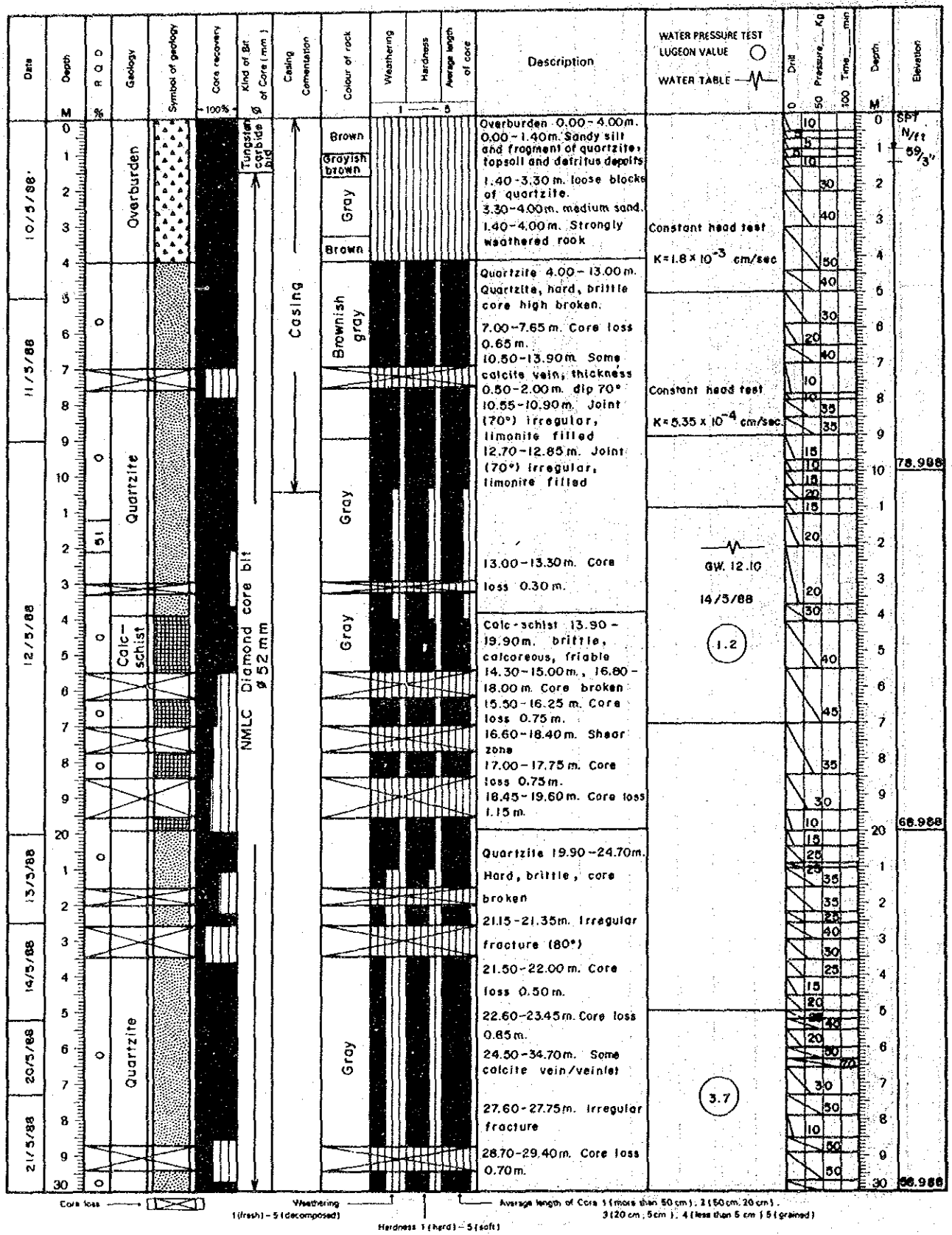
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Sight (Right Abutment) | Boring No. LY/DR-3 | Log No. 1 of 2

Co-ordinates N1,965,140.117 E 372,258.933 | Elevation 88.988m MSL | Depth of Hole 40.00m | Commenced 10/5/88

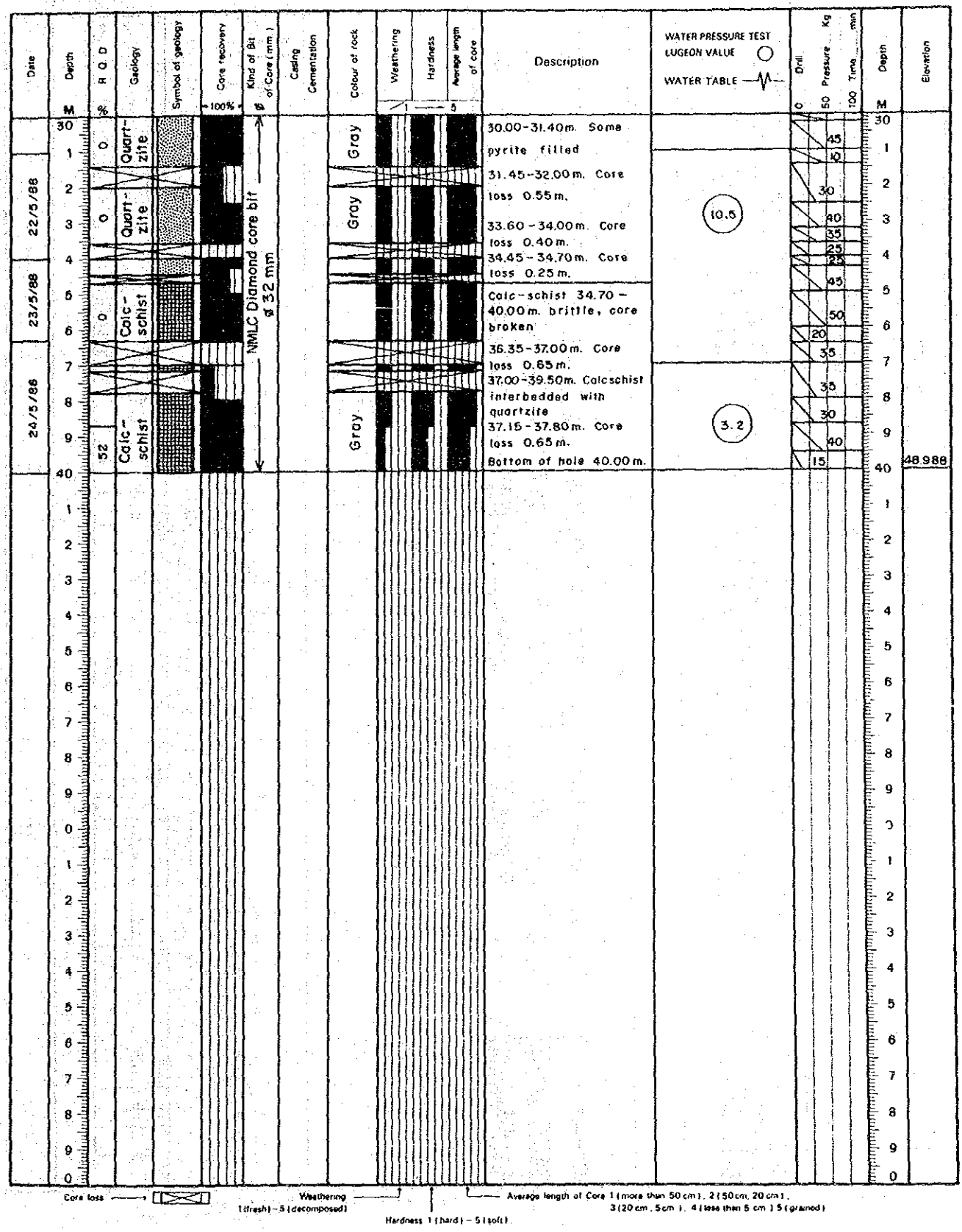
Angle from Horizontal 90° | Core Recovery 79.63% | Depth of Overburden 4.00m | Completed 24/5/88

Bearing of Angle Hole — | Company EGAT | Total length of core 31.85m | Logged by H. Pattano, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site (Right Abutment)	Boring No.	LY/DR-3	Log No.	2 of 2
Co-ordinates	N1,966,140.117 E372,258.933	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	EGAT	Total length of core	31.85m	Logged by	H.Pattana, K.Takeda



LOG OF BORING

(Middle of NAM)

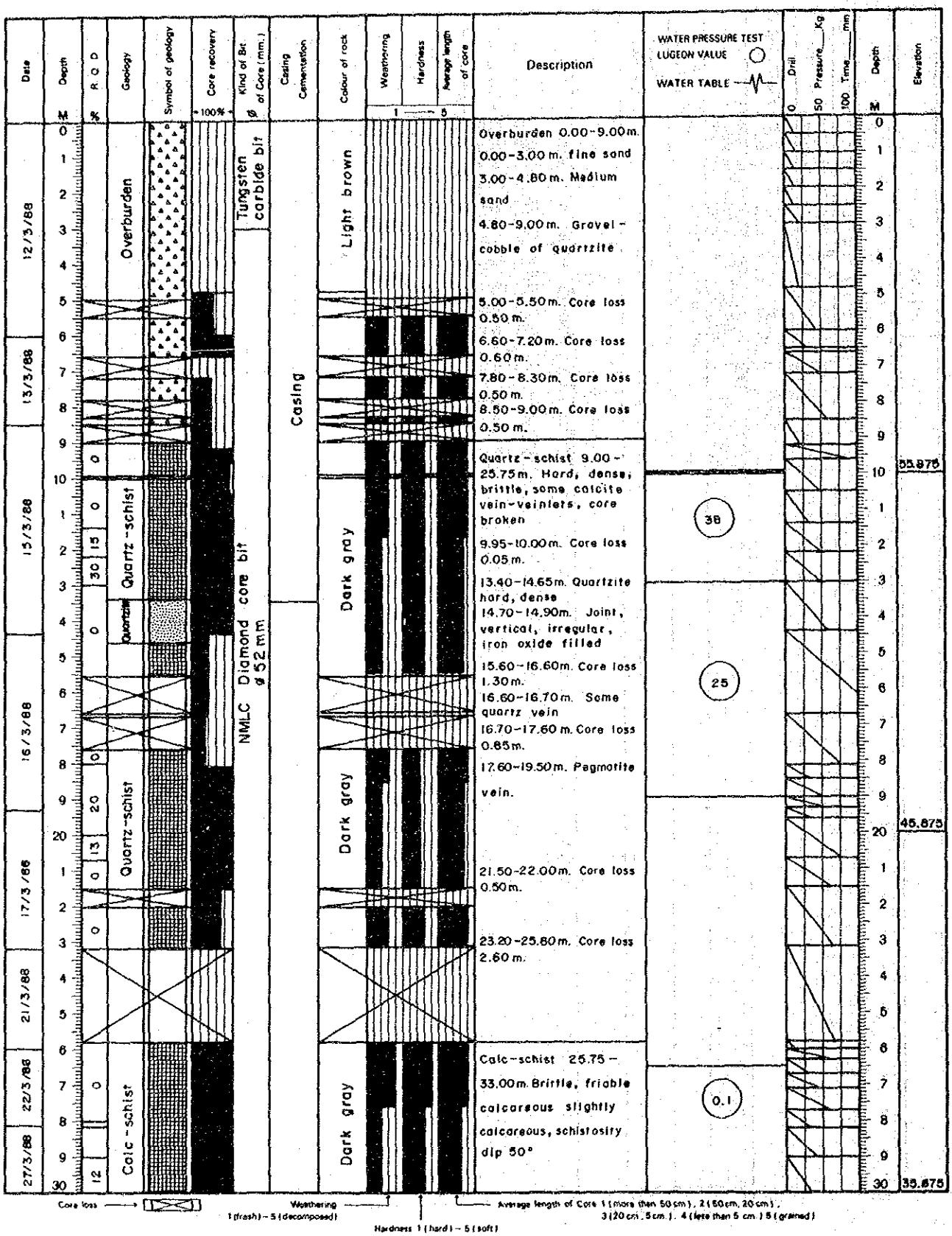
Project MAE LAMA LUANG DAM Location Dam Site MAE YUAM Boring No. LY/DR-4 Log No. 1 of 2

Co-ordinates N1,966,142.820 E372,178.792 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 EGAT Total length of core 50.45m Logged by H.Paitana

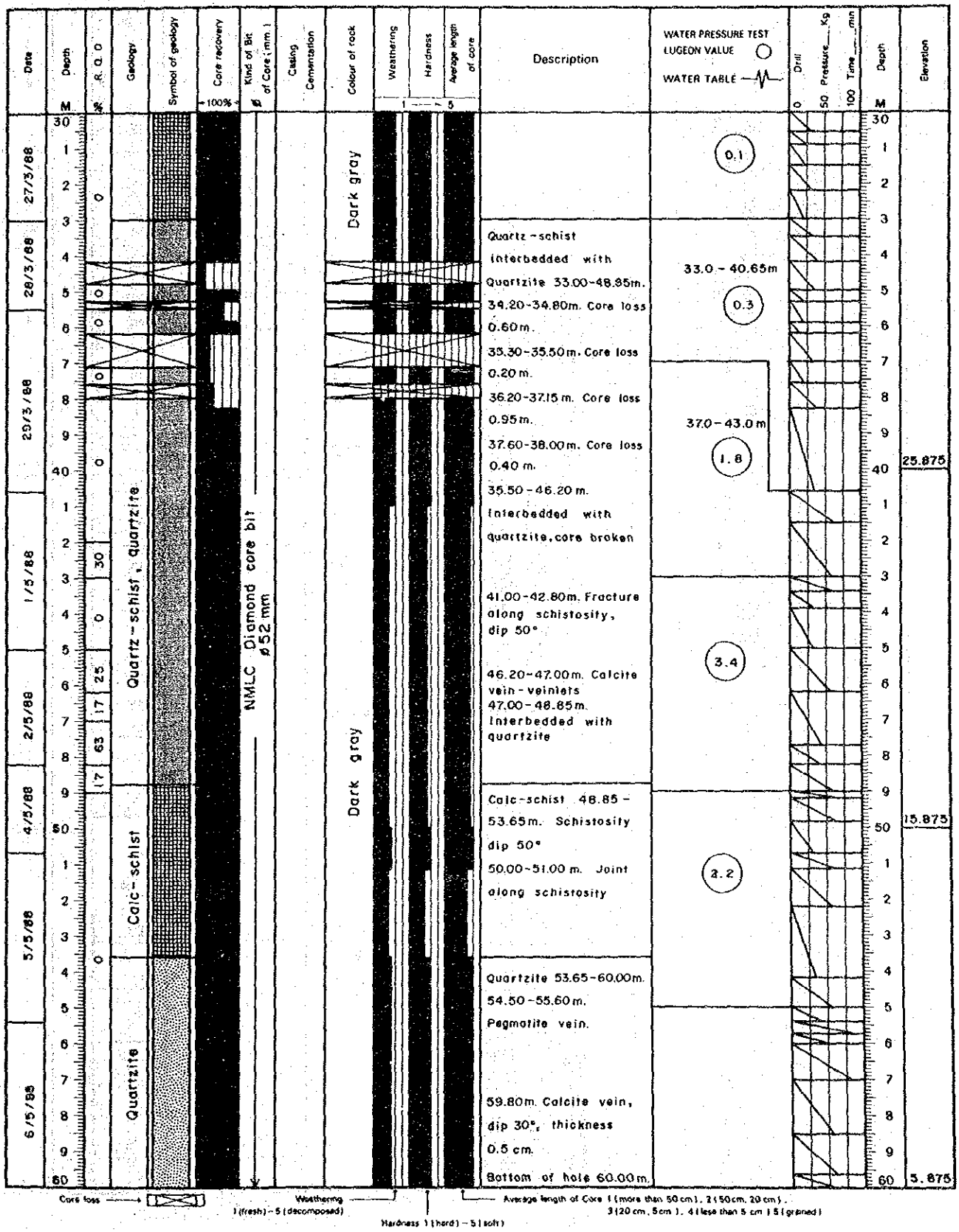
K.Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	DamSite (Middle of NAM MAE YUAM)	Boring No.	LY/DR-4
Co-ordinates	N1,966,142.920 E372,178.792	Elevation	65.875m MSL	Depth of Hole	60.00m
Angle from Horizontal	60°	Core Recovery	84%	Depth of Overburden	9.00m
Bearing of Angle Hole	40°	Company	EGAT	Total length of core	50.45m

Log No 2 of 2
Commenced 12/3/88
Completed 6/5/88
Logged by H. Pattana, K. Takeda



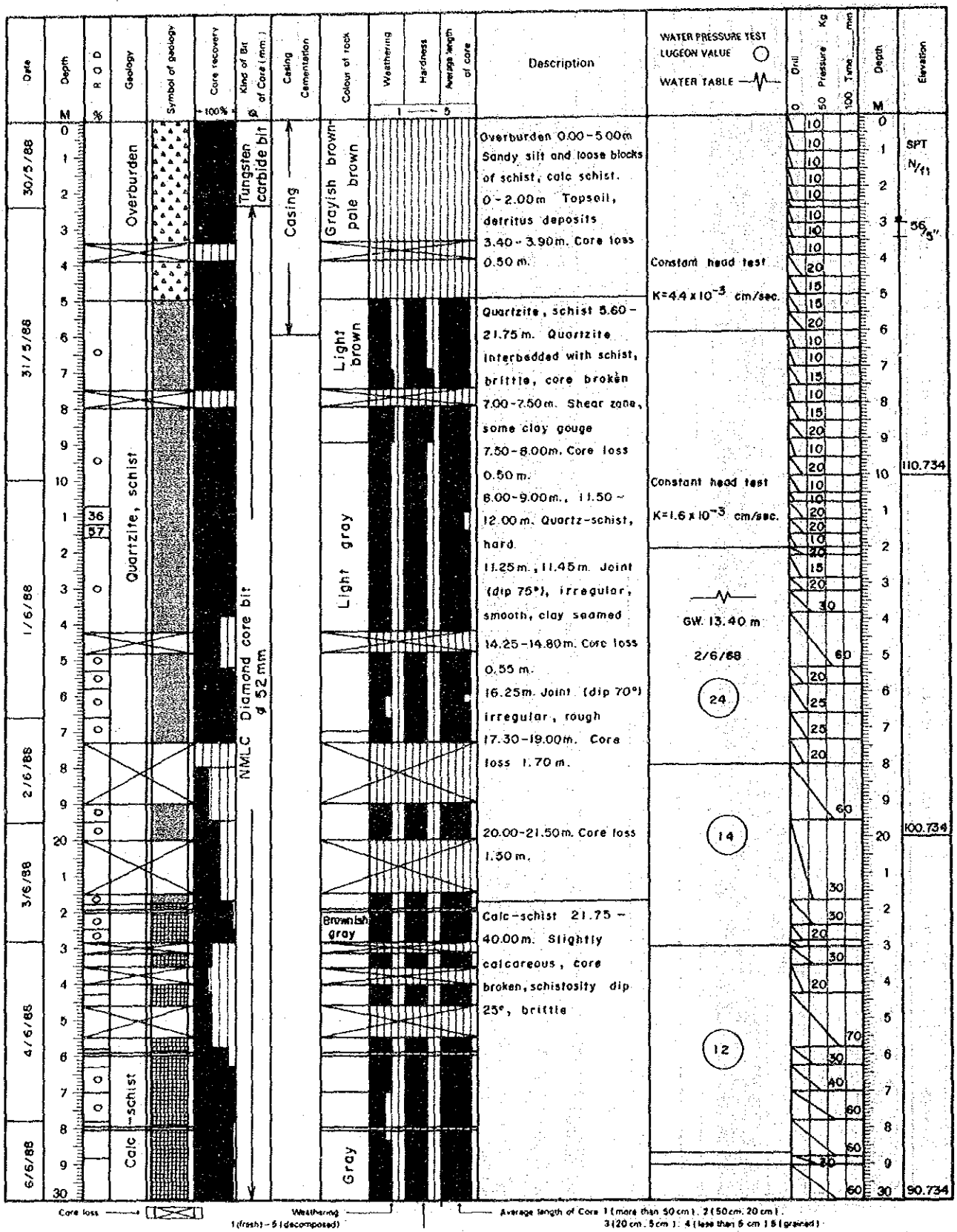
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Site(Right Abutment) | Boring No. LY/DR-5 | Log No. 1 of 2

Co-ordinates N1,966,224.832 E 372,147.308 | 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 6/6/88

Bearing of Angle Hole — | Company EGAT | Total length of core 33.20m | Logged by H. Pattana, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site(Right Abutment)	Boring No.	LY/DR-5
Co-ordinates	N.1,966,224.832 E 372,147.309	Elevation	120.734m MSL	Depth of Hole	40.00m
Angle from Horizontal	90°	Core Recovery	83%	Depth of Overburden	5.00m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	33.20m

Log No. 2 of 2
Commenced 30/5/88
Completed 8/6/88
Logged by H.Pattana, K.Takeda

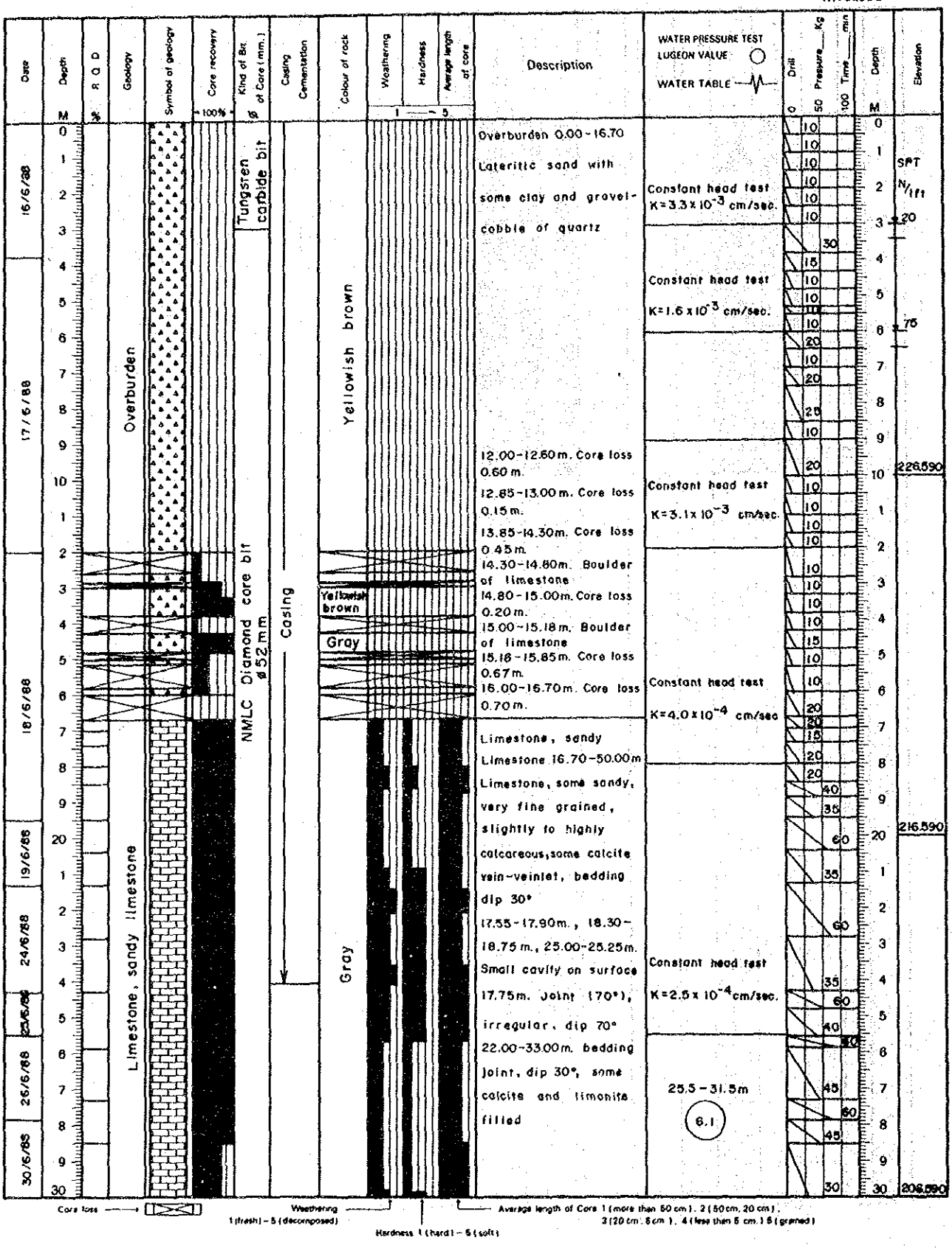
Depth (M)	R.Q.D (%)	Geology	Core recovery (100%)	Kind of Bit / Core (mm.)	Colour of rock	Weathering (1–5)	Hardness (1–5)	Description	Water Pressure Test / Lugeon Value / Water Table	Drill Pressure (Kg) / Time (min)	Depth (M)	Elevation
5/6/88												
8/6/88	0	Calc-schist		NMLC Diamond core bit. ø52mm	Gray			30.30m. Joint (dip 70°) rough, irregular	3.4	60	30	
	0							33.15m. Joint (dip 70°), planar.		40	31	
	0							34.85m. Joint, vertical, irregular, sligtly rough		30	32	
	0									70	33	
	0									40	34	
	0									20	35	
	0									40	36	
	0									70	37	
	0							39.30-39.60 m. Core loss			38	
								0.30 m.		60	39	80.734
								Bottom of hole 40.00m.			40	

Core loss
Weathering 1 (fresh) – 5 (decomposed)
Hardness 1 (hard) – 5 (soft)
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)

LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site(Right Abutment)	Boring No.	LY/DR-6
Co-ordinates	N1,966,340.371 E372,328.328	Elevation	236.590m MSL	Depth of Hole	50.00m
Angle from Horizontal	90°	Core Recovery	73%	Depth of Overburden	16.70m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	36.51m

Log No. 1 of 2
Commenced 16/6/88
Completed 10/7/88
Logged by H.Pattana
K.Takeda



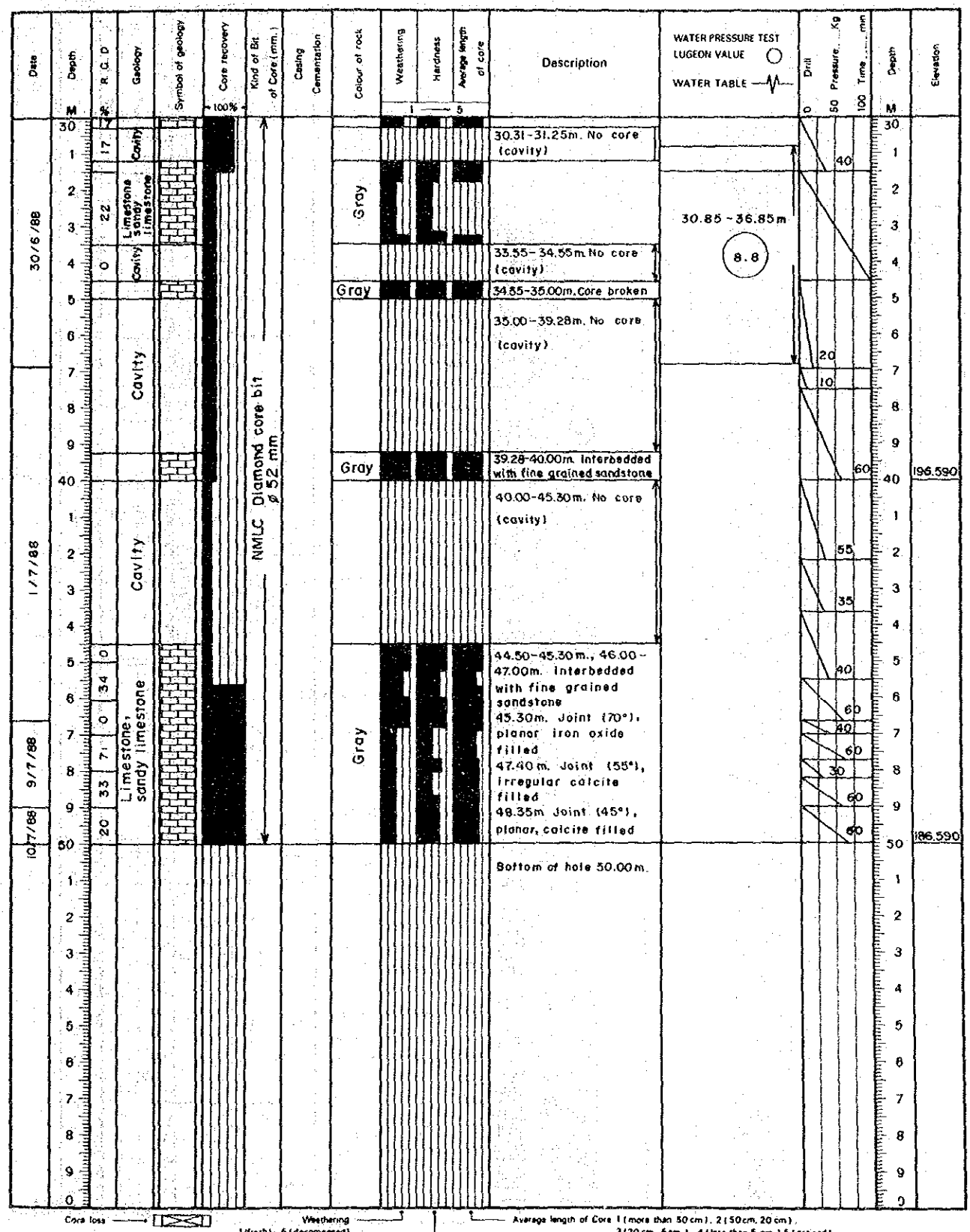
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Site (Right Abutment) | Boring No. LY/DR-6 | Log No. 2 of 2

Co-ordinates N1,966,340.371 E372,328.328 | 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

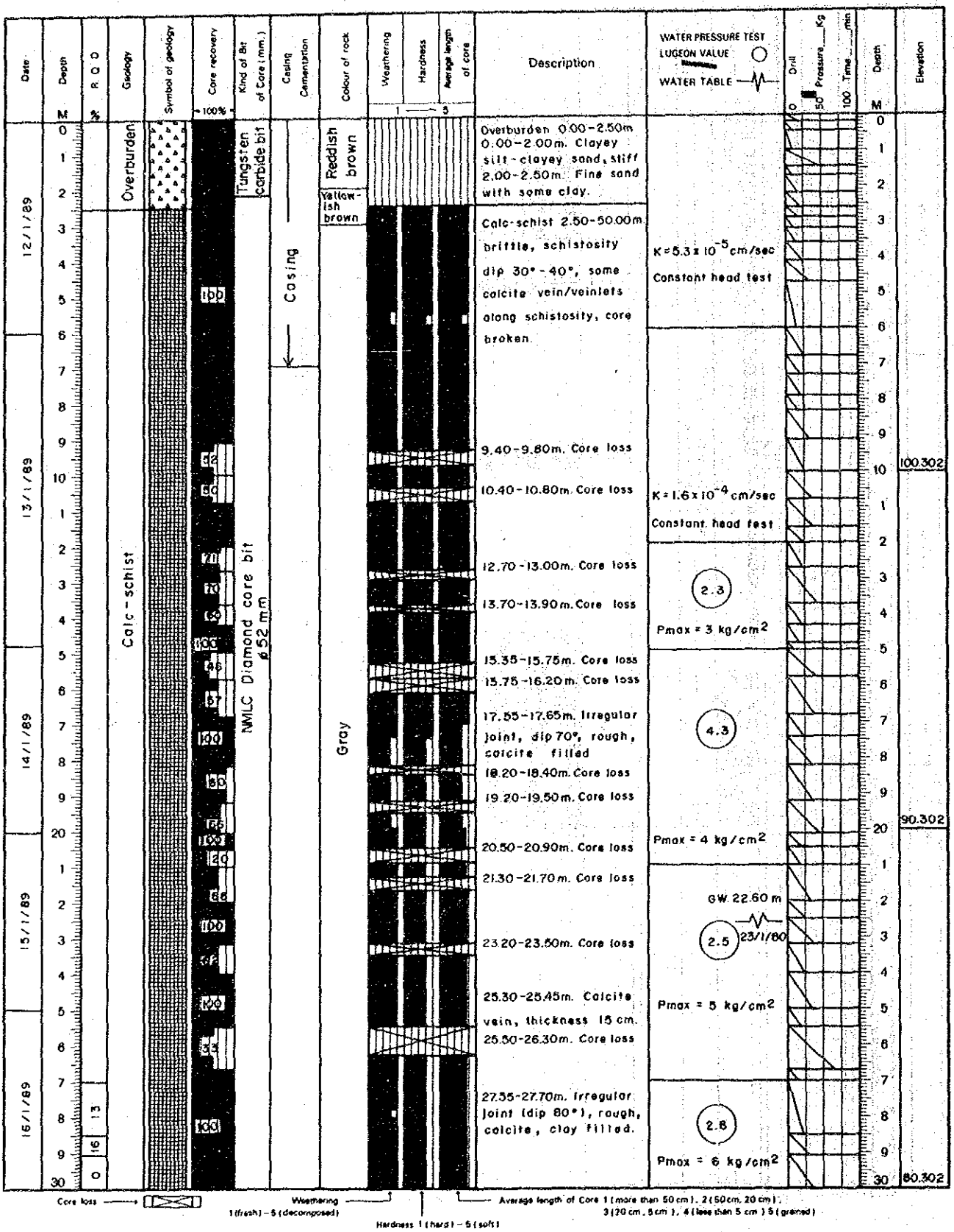
Bearing of Angle Hole — | Company E G A T | Total length of core 36.51 m | Logged by H. Pattana, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site (Right Bank)	Boring No.	LY/DR-7
Co-ordinates	N1,966,160.895 E 372,299.549	Elevation	110.302 m MSL	Depth of Hole	50.00 m
Angle from Horizontal	90°	Core Recovery	72%	Depth of Overburden	2.50 m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	36.05m

Log No. 1 of 2
Commenced 12/1/89
Completed 23/1/89
Logged by H. Pattaha, K. Takeda



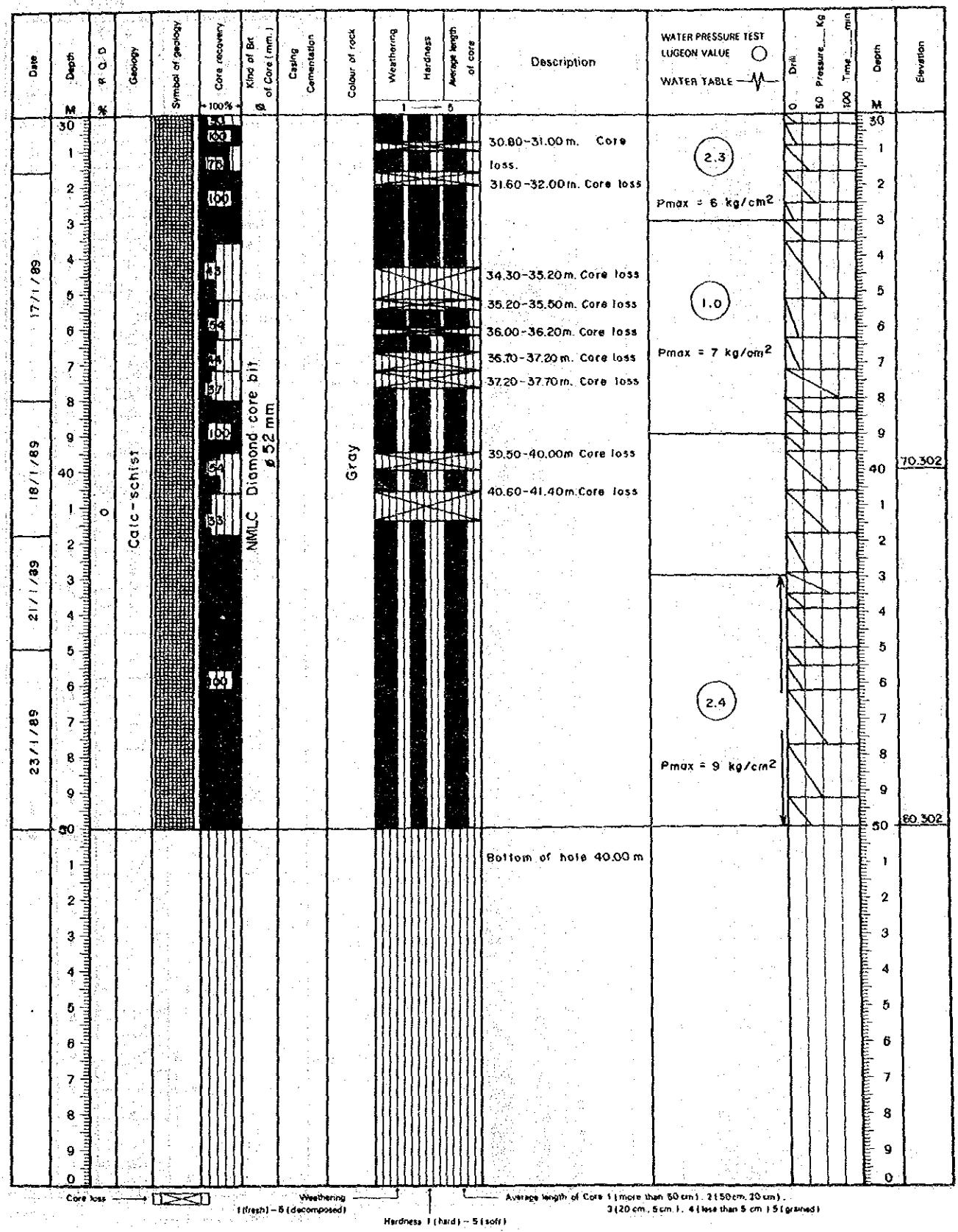
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Site (Right Bank) | Boring No. LY/DR-7 | Log No. 2 of 2

Co-ordinates N1,966,160.885 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



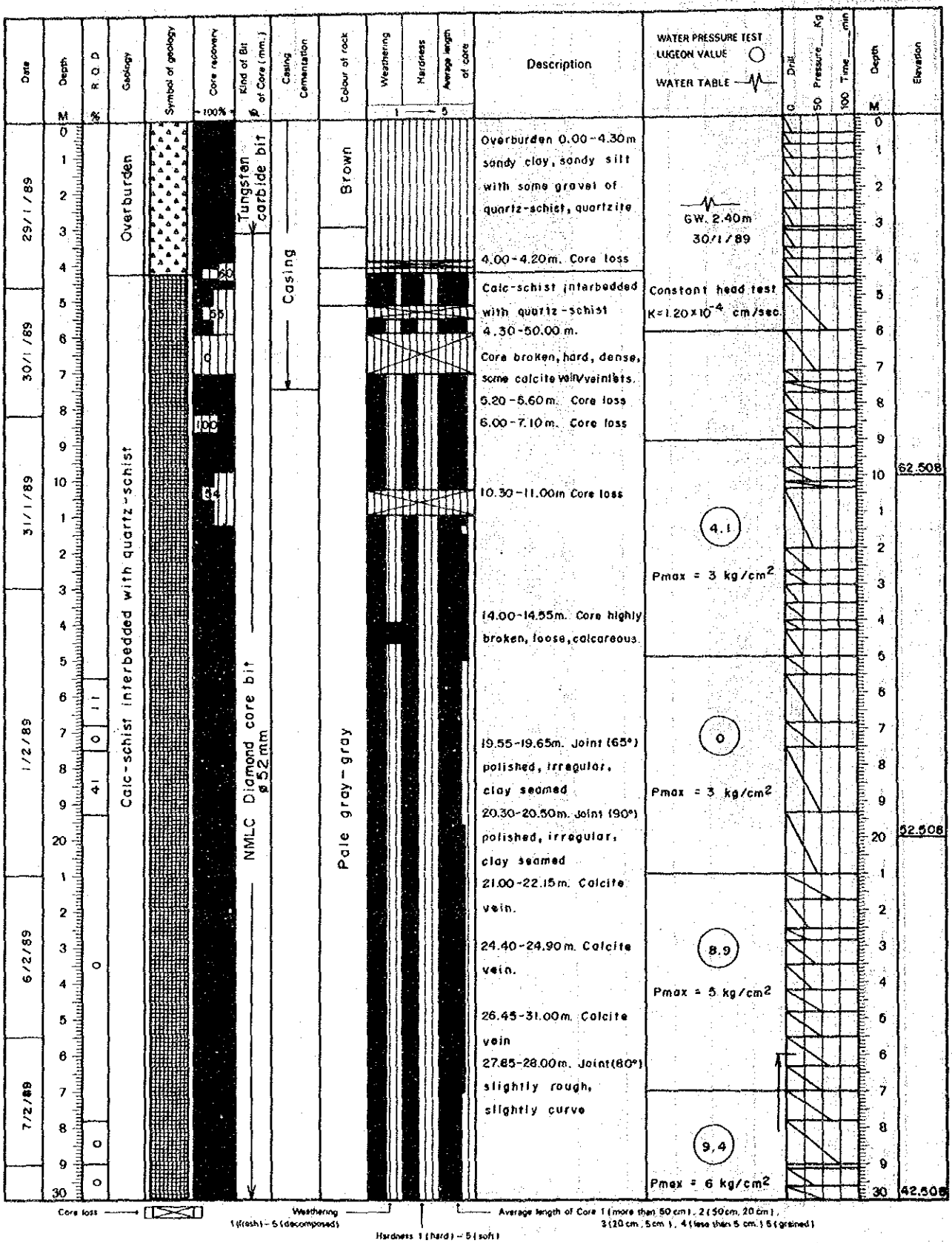
LOG OF BORING

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 E372,302.661 Elevation 72.509m MSL Depth of Hole 50.00 m Commenced 29/1/89

Angle from Horizontal 90° Core Recovery 88.6 % Depth of Overburden 4.30 m Completed 19/2/89

Bearing of Angle Hole — Company EGAT Total length of core 44.30m Logged by H.Pattana, K.Takeda



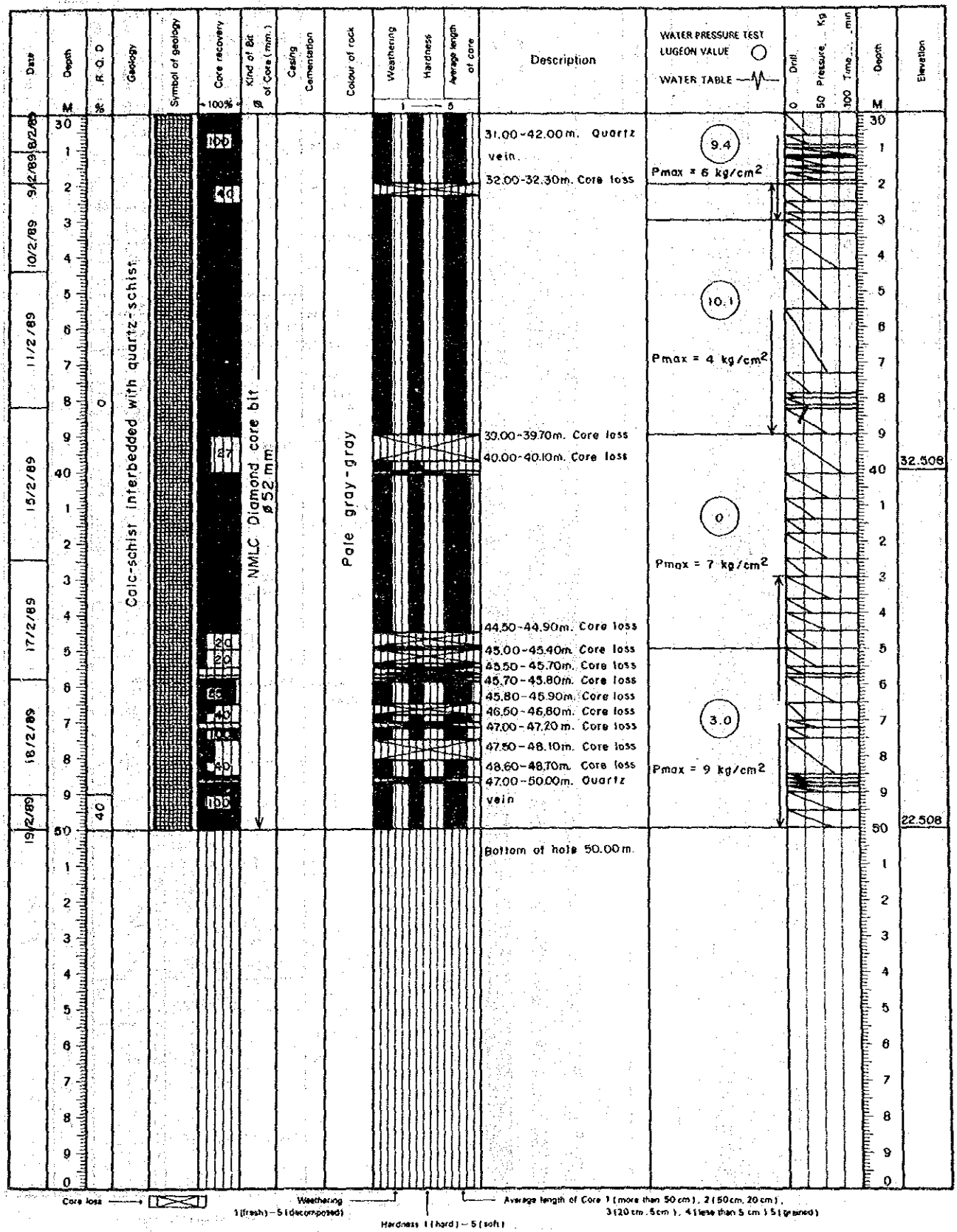
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Coffer Dam (Right Bank) | Boring No. LY/DR-8 | Log No. 2 of 2

Co-ordinates N1,966,052.742 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

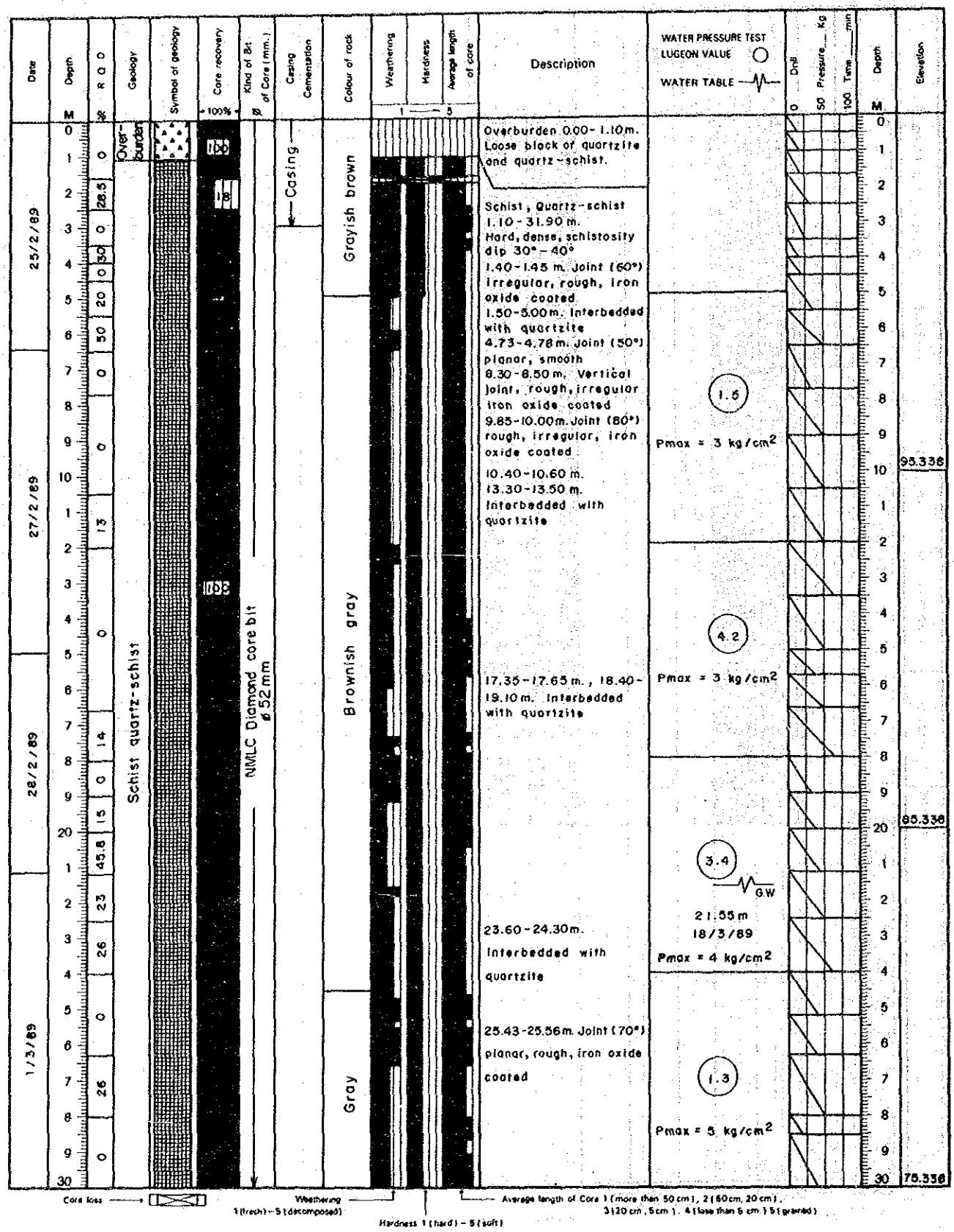
Bearing of Angle Hole — | Company EGAT | Total length of core 44.30m | Logged by H. Pattana, K. Takedo



LOG OF BORING

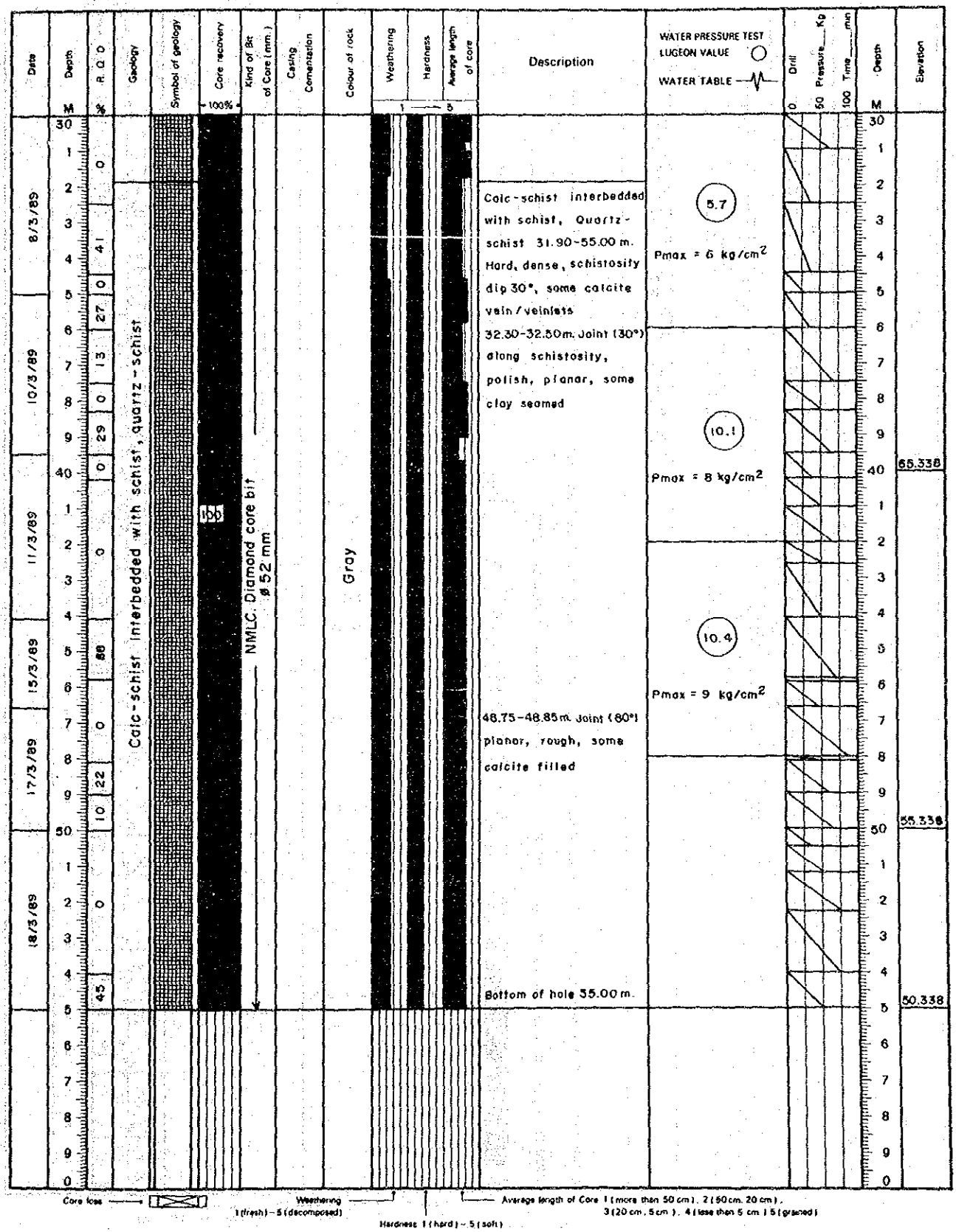
Project	MAE LAMA LUANG DAM	Location	Penstock (Right Bank)	Boring No.	LY/DR-9
Co-ordinates	N1,966,272.143 E372,110.324	Elevation	105.338 m MSL	Depth of Hole	56.00 m
Angle from Horizontal	90°	Core Recovery	99.7 %	Depth of Overburden	1.10 m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	54.85 m

Log No. 1 of 2
Commenced 25/2/89
Completed 18/3/89
Logged by H. Pattana, K. Takeda



LOG OF BORING

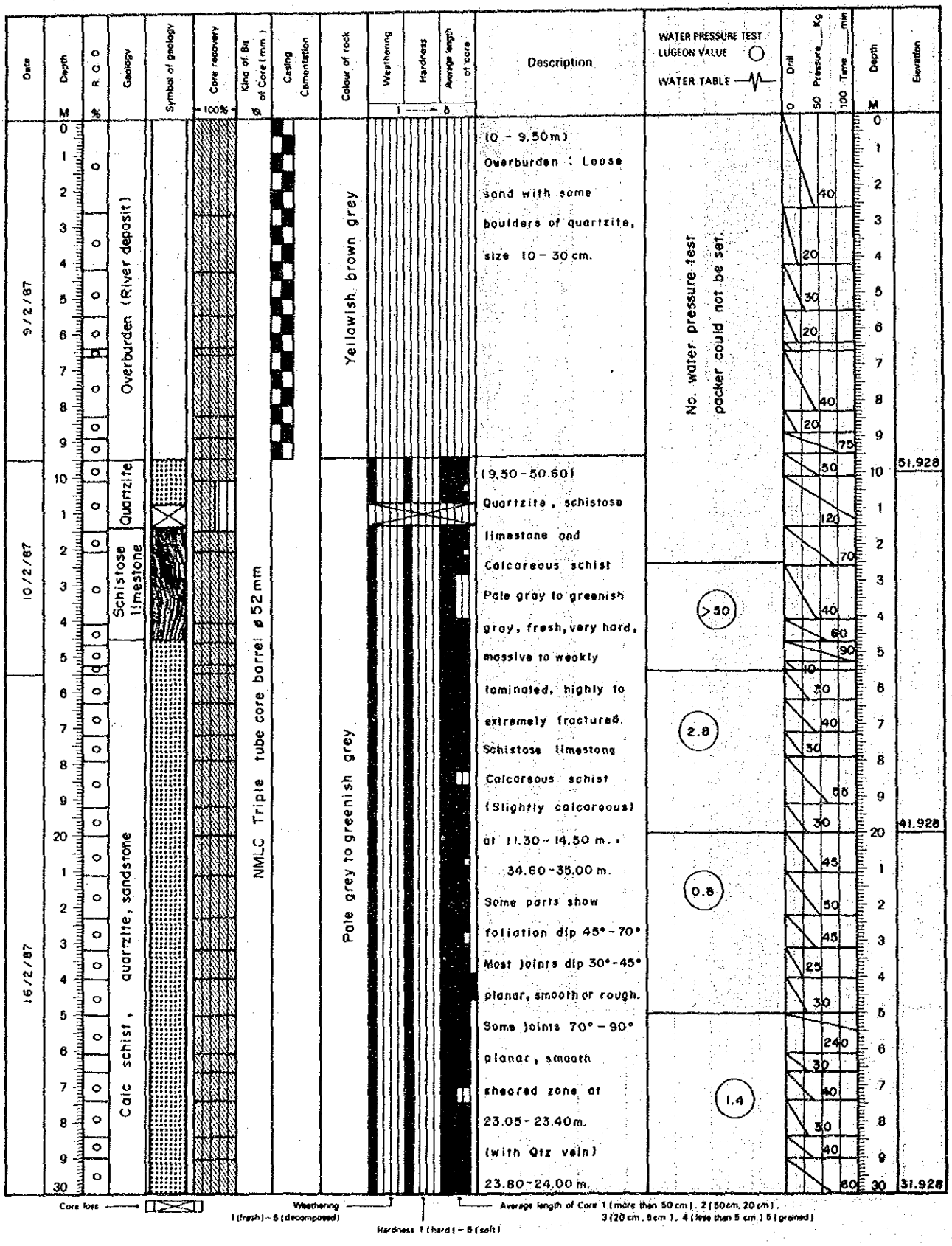
Project	MAE LAMA LUANG DAM	Location	Penstock (Right Bank)	Boring No.	LY/DR-9	Log No.	2 of 2
Co-ordinates	N1,966,272.143 E 372,110.324	Elevation	105.338m MSL	Depth of Hole	55.00m	Commenced	25/2/89
Angle from Horizontal	90°	Core Recovery	99.7%	Depth of Overburden	1.10m	Completed	18/3/89
Bearing of Angle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



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Axis (River Bed)	Boring No.	LY/DH-1
Co-ordinates	N1,966,190.000 E372,163.500	Elevation	61.928m MSL	Depth of Hole	50.60m
Angle from Horizontal	90°	Core Recovery	97.23%	Depth of Overburden	9.50m
Bearing of Angle Hole	—	Company	EGAT	Total length of core	49.20m

Log No. 1 of 2
Commenced 9/2/87
Completed 22/2/87
Logged by V. Punpong, K. Takeda



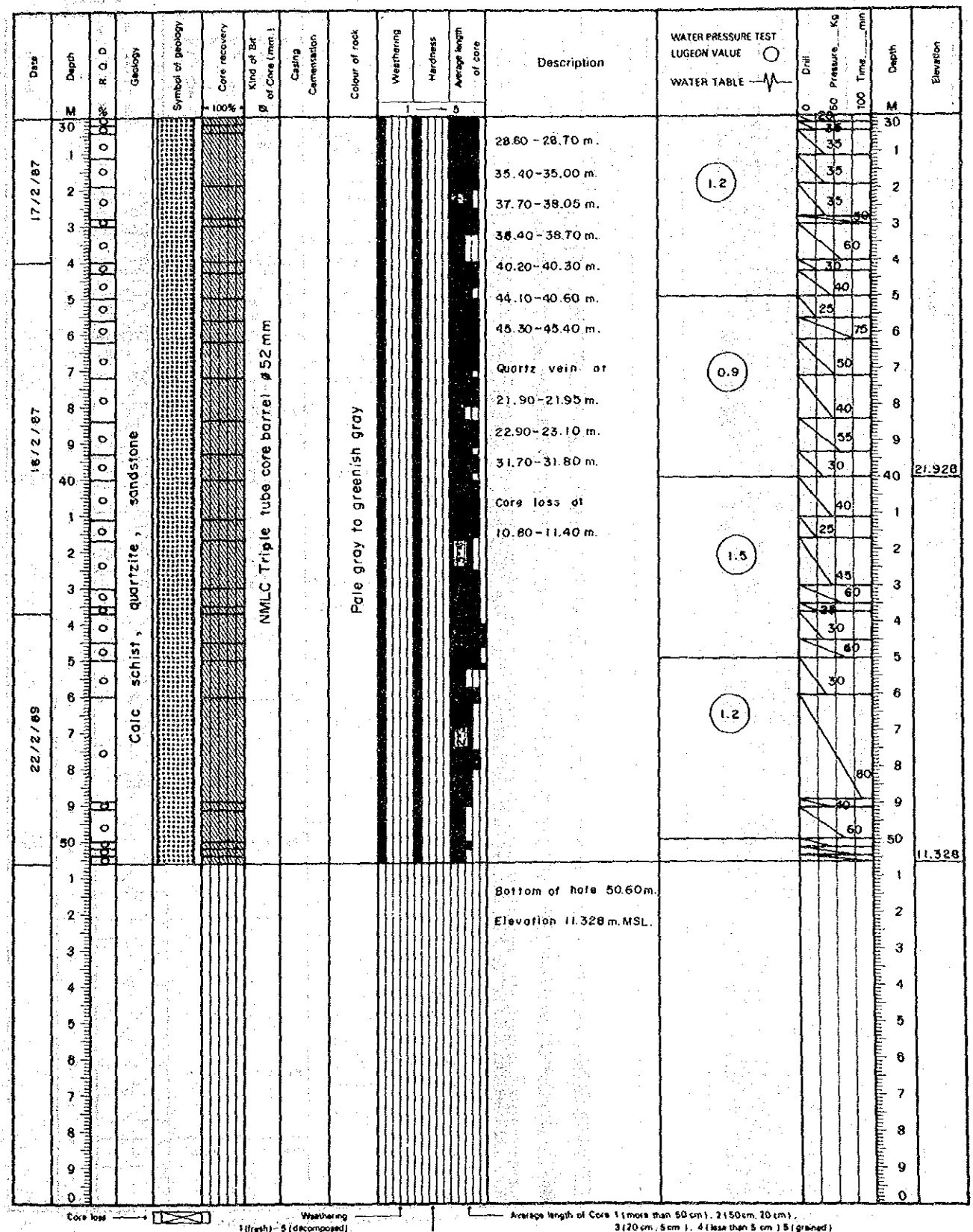
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Axis (River Bed) | Boring No LY/DH-1 | Log No. 2 of 2

Co-ordinates N1,966,190.000 E372,163.500 | Elevation 61.928 m MSL | Depth of Hole 50.60 m | Commenced 9/2/87

Angle from Horizontal 90° | Core Recovery 97.23% | Depth of Overburden 9.50 m | Completed 22/2/87

Bearing of Angle Hole — | Company EGAT | Total length of core 49.20 m | Logged by V. Punpong, K. Takeda



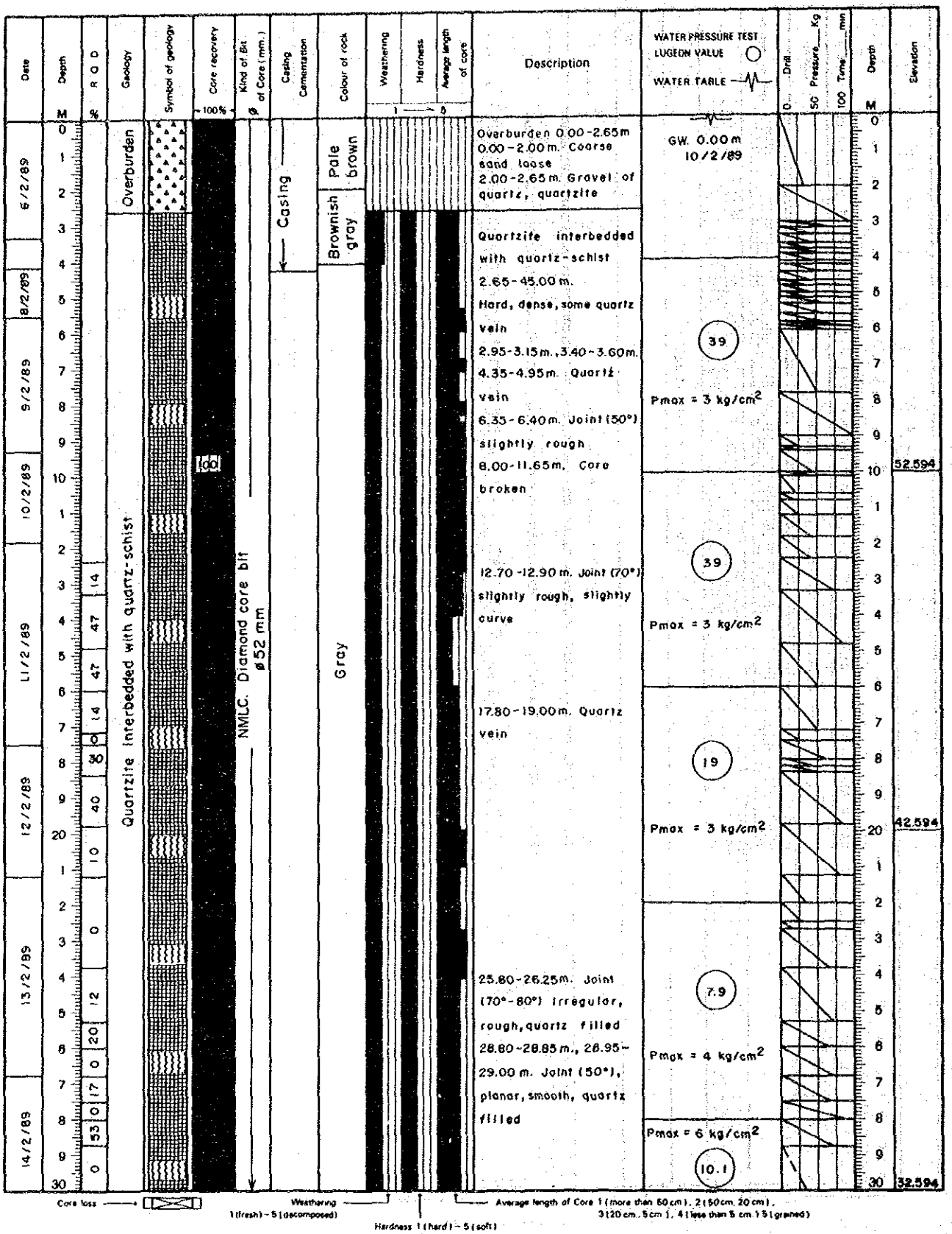
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Coffer Dam(Middle of River) | Boring No. LY/DH-2 | Log No. 1 of 2

Co-ordinates N1,866,019.441 E 372,283.531 | Elevation 62.594 m MSL | Depth of Hole 45.00 m | Commenced 6/2/89

Angle from Horizontal 90° | Core Recovery 100% | Depth of Overburden 2.65 m | Completed 20/2/89

Bearing of Angle Hole — | Company EGAT | Total length of core 45.00m | Logged by H. Pattano, K. Takeda



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

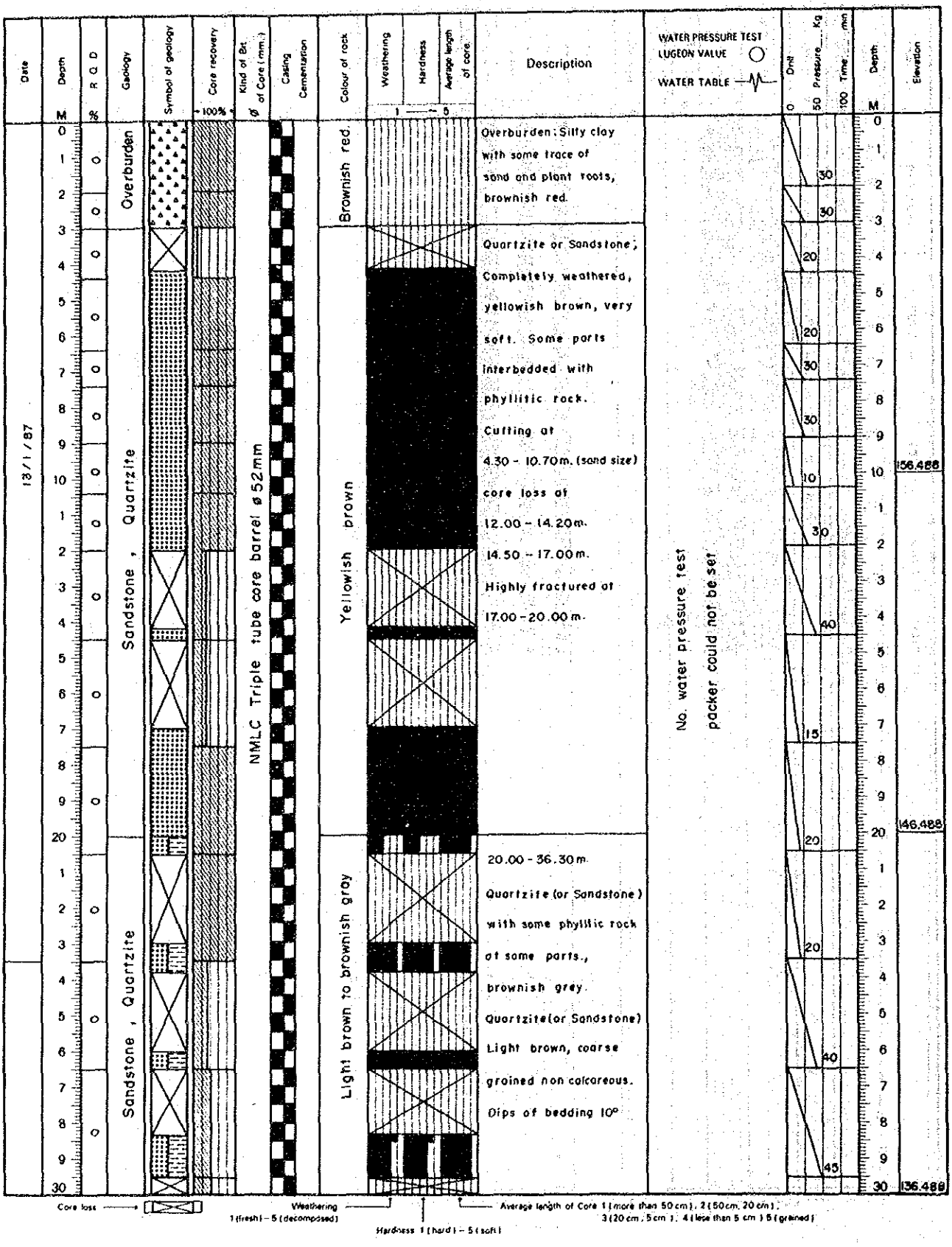
Bearing of Angle Hole — | Company E G A T | Total length of core 45.00m | Logged by H. Pattana, K. Takedo

Date	Depth M	R Q D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit, Core (mm) ø	Casing Cementation	Colour of rock	Weathering 1—5	Hardness	Average length of core	Description	WATER PRESSURE TEST / LUGEON VALUE / WATER TABLE	Drill Pressure Kg 0–50–100 Time min	Depth M	Elevation
15/2/89	0–3	0, 26, 0	Quartzite interbedded with quartz-schist		100%	NMLC. Diamond core bit ø52 mm		Gray				32.00-32.30m. Quartz vein 32.70-32.77m. Joint (65°) slightly rough, planar	(10.1) Pmax = 6 kg/cm²		0–3	
16/2/89	3–7	0, 24, 20										35.30-35.40m. Joint (70°) smooth, planar	(4.0) Pmax = 7 kg/cm²		3–7	
17/2/89	7–40	0										40.25-40.30m. Joint (70°) rough, slightly curve quartz filled 42.00-42.50m. Quartz vein			7–40	22.594
18/2/89	40–45	60, 27, 0, 50, 0, 20, 0										43.60-43.70m. Joint (60°) irregular, rough, quartz filled, some cavity on surface	(4.6) Pmax = 9 kg/cm²		40–45	17.594
20/2/89	45–0											Bottom of hole 45.00m			45–0	

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	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	EGAT	Total length of core	88.60m	Logged by	V. Punpong, K. Takeda



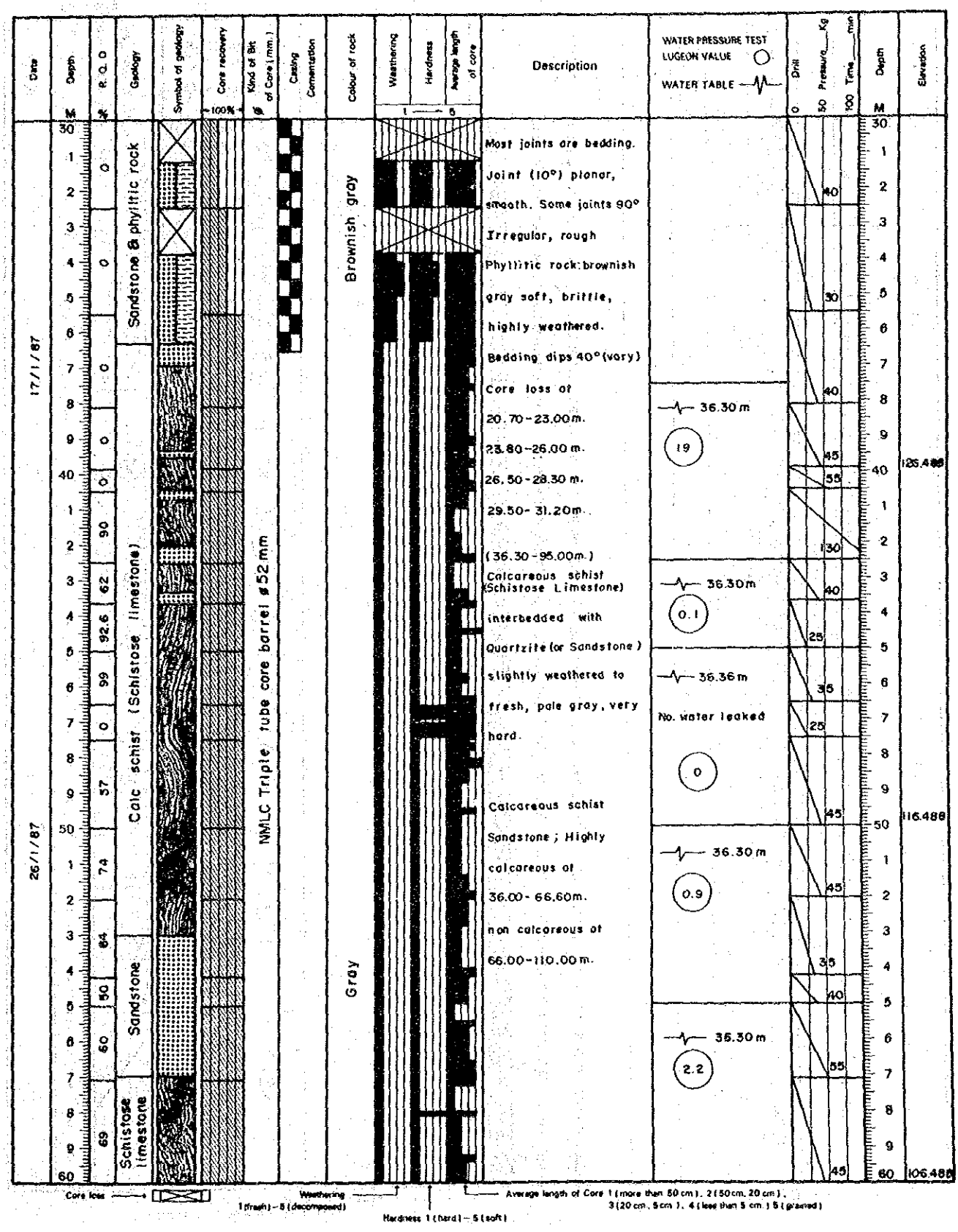
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Left Abutment | Boring No. LY/DL-1 | Log No. 2 of 4

Co-ordinates N1,965,980.672 E372,060.970 | Elevation 166.488 m MSL | Depth of Hole 110.00 m | Commenced 13/1/87

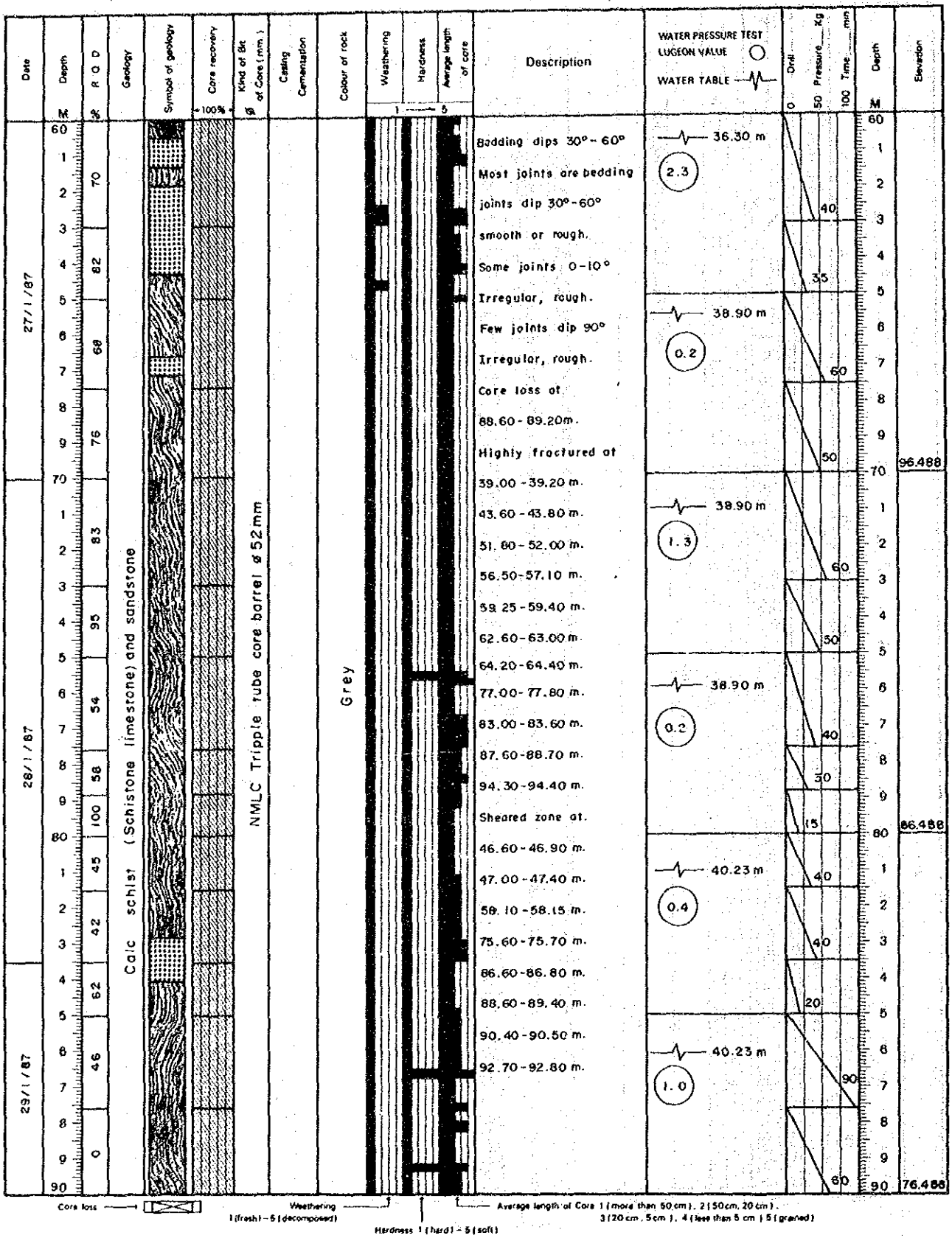
Angle from Horizontal 90° | Core Recovery 80.50% | Depth of Overburden 3.00 m | Completed 1/2/87

Bearing of Angle Hole — | Company EGAT | Total length of core 86.60 m | Logged by V. Pungsang, K.Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Left Abutment	Boring No.	LY/DL-1	Log No.	3 of 4
Co-ordinates	N1,963,980.672 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	EGAT	Total length of core	86.60m	Logged by	V. Punpong, K. Takeda



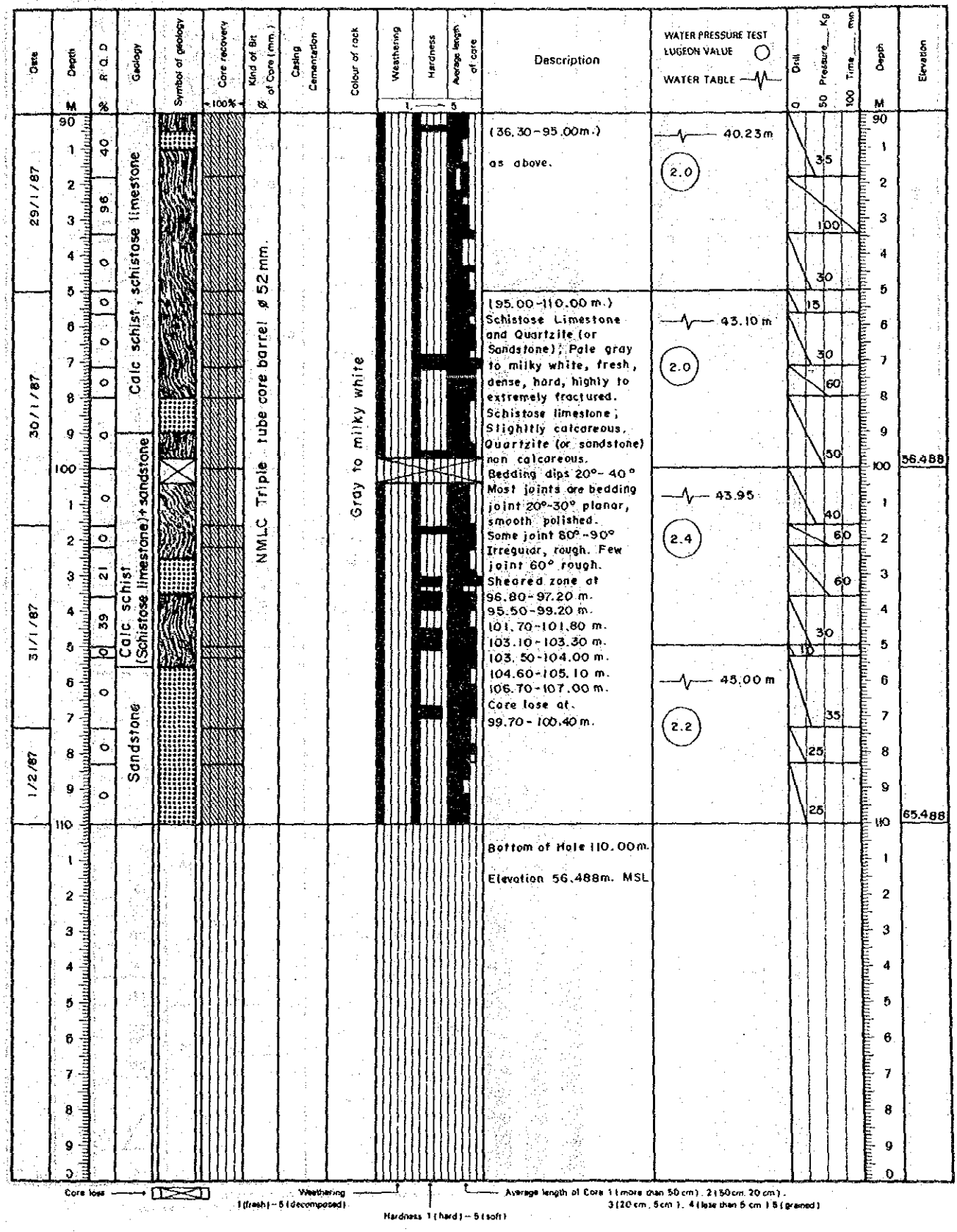
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Left Abutment | Boring No. LY/DL-1 | Log No. 4 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 EGAT | Total length of core 86.60m | Logged by V. Punpong, K. Tokeda



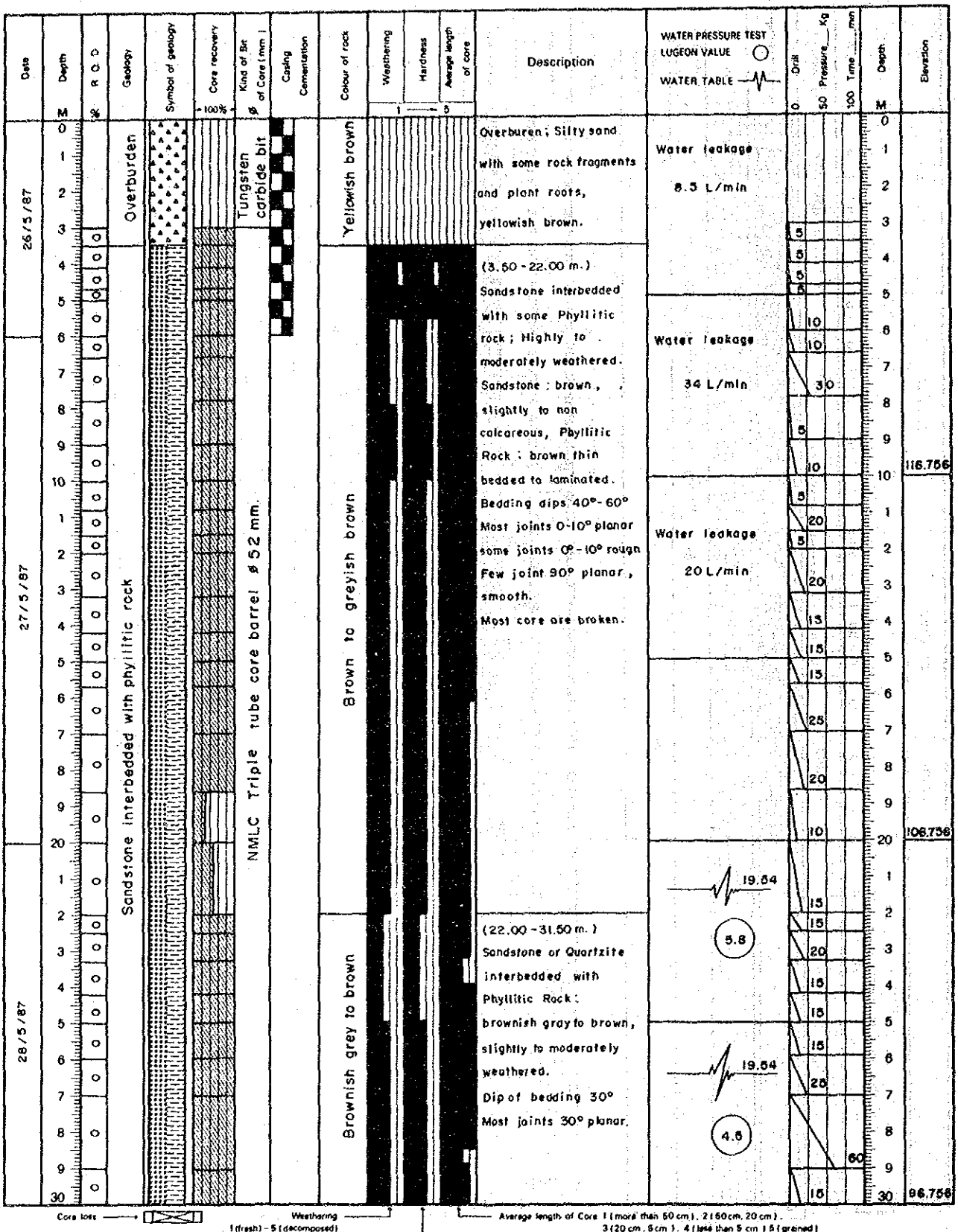
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Left Abutment | Boring No. LY/DL-2 | Log No. 1 of 2

Co-ordinates N1,966,046.939 E372,105.494 | Elevation 126.756m MSL | Depth of Hole 50.00m | Commenced 26/5/87

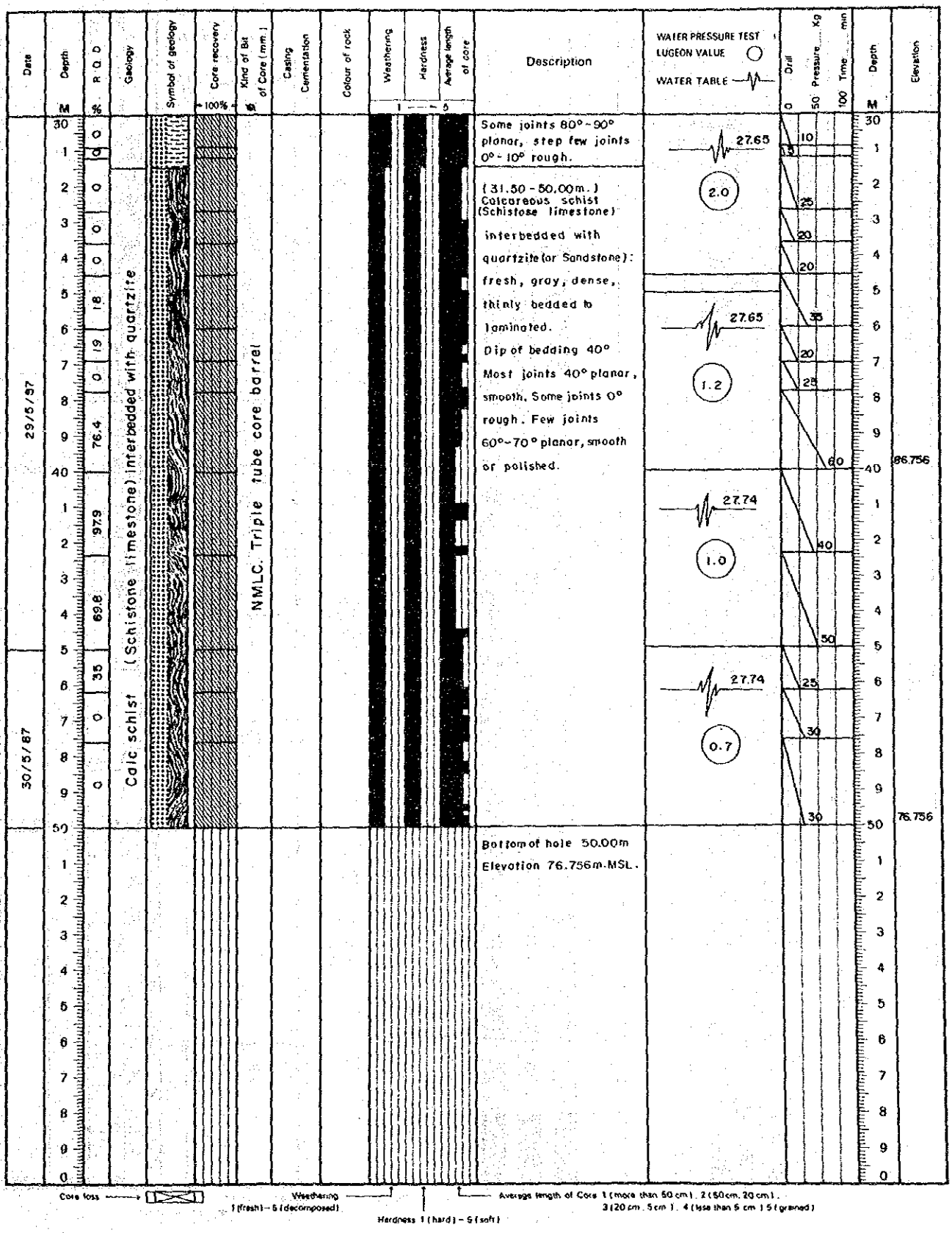
Angle from Horizontal 90° | Core Recovery 94.60% | Depth of Overburden 3.50 m | Completed 30/5/87

Bearing of Angle Hole — | Company EGAT | Total length of core — | Logged by V.Punpong, K.Takeda



LOG OF BORING

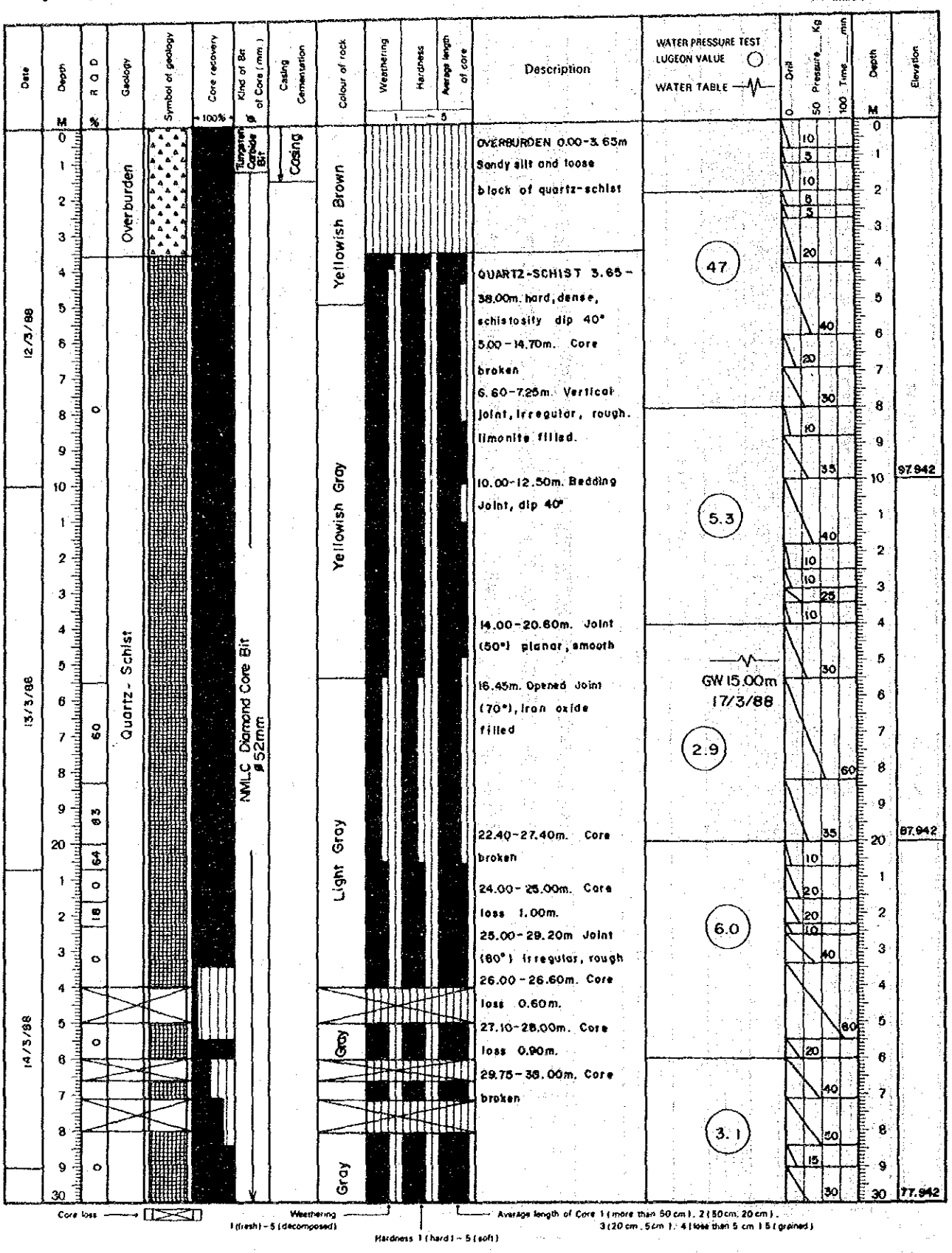
Project	MAE LAMA LUANG DAM	Location	Left Abutment	Boring No.	LY/DL-2	Log No.	2 of 2
Co-ordinates	N1,966,046.939 E372,103.494	Elevation	126.756m MSL	Depth of Hole	50.00m	Commenced	26/5/87
Angle from Horizontal	90°	Core Recovery	94.60%	Depth of Overburden	3.50m	Completed	30/5/87
Bearing of Angle Hole	—	Company	EGAT	Total length of core	—	Logged by	V. Punpong, K. Takeda



LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site (Left Abutment)	Boring No	LY/DL-3
Co-ordinates	N1,966,006.380 E372,172.175	Elevation	107.942m MSL.	Depth of Hole	45.00m
Angle from Horizontal	90°	Core Recovery	86 %	Depth of Overburden	3.65m
Bearing of Angle Hole	—	Company	E GAT	Total length of core	38.80m

Log No	1 of 2
Commenced	12/3/88
Completed	17/3/88
Logged by	H.Pattana K.Takeda



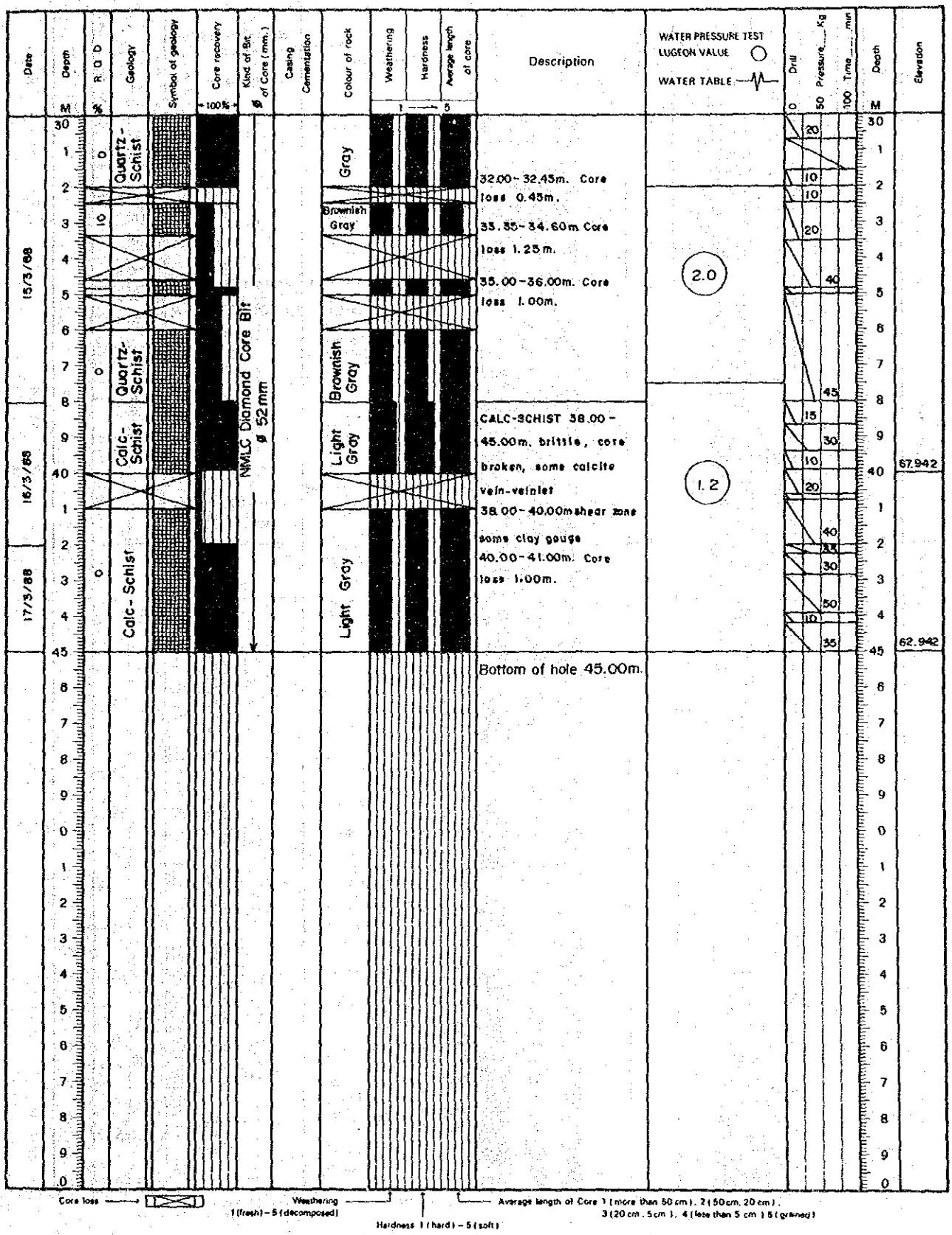
LOG OF BORING

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 E372,172.175 | 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 EGAT | Total length of core 38.80m | Logged by H. Pottono, K. Takeda



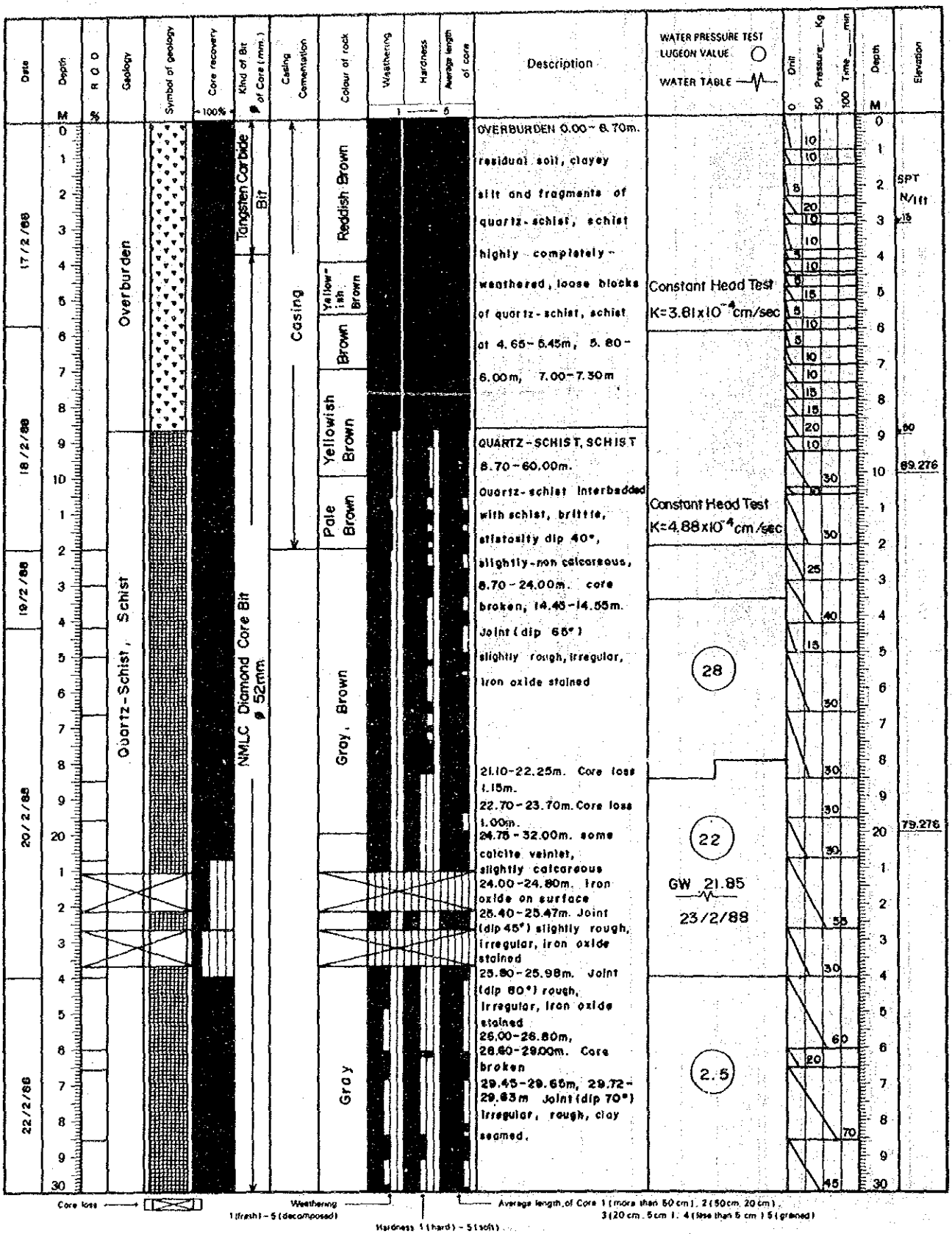
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Dam Site (Left Bank) | Boring No. LY/DL-4 | Log No. 1 of 2

Co-ordinates N1,966,096.882 E372,058.822 | Elevation 99.276m MSL | Depth of Hole 60.00m | Commenced 17/2/88

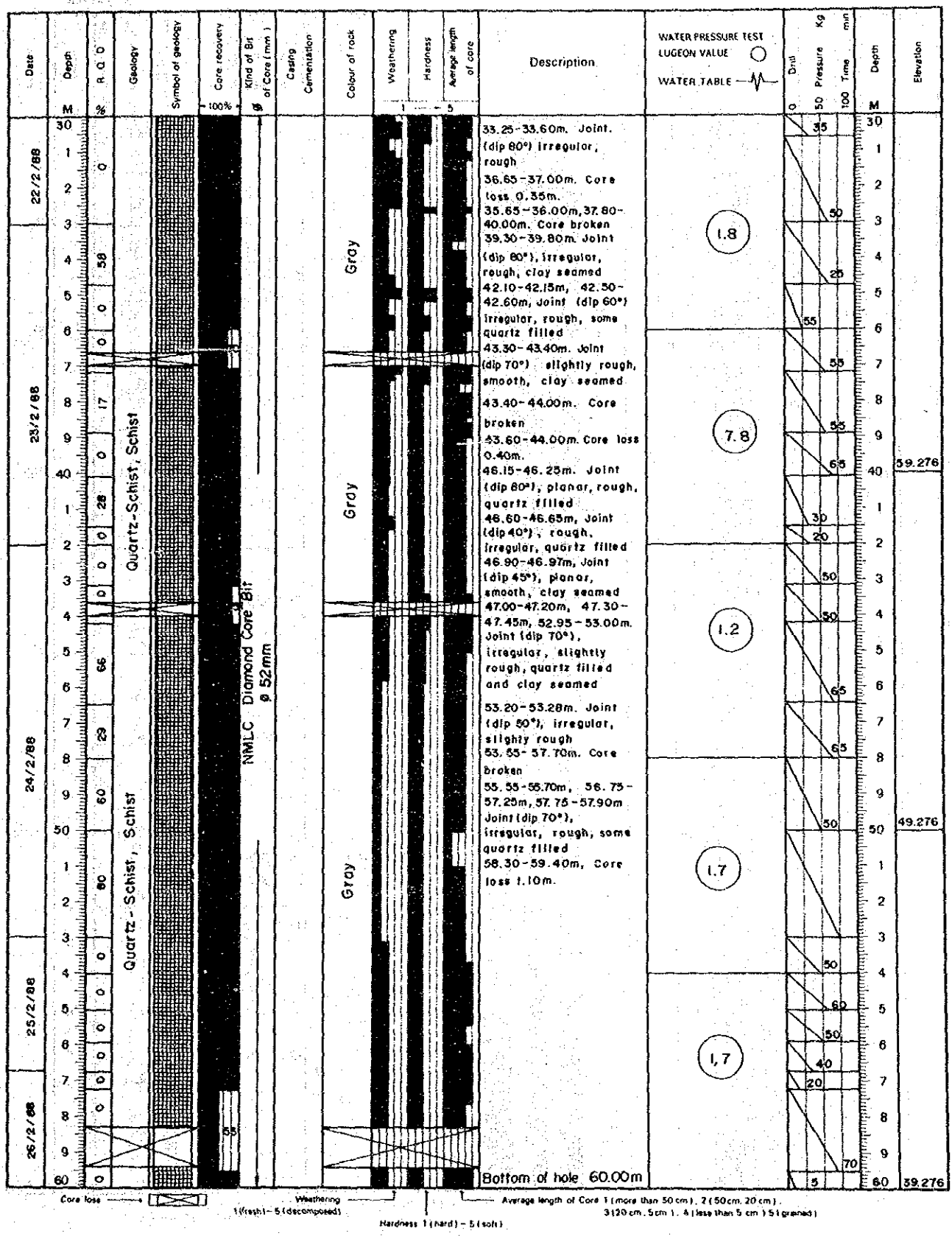
Angle from Horizontal 90° | Core Recovery 93.3 % | Depth of Overburden 8.70m | Completed 26/2/88

Bearing of Angle Hole — | Company EGAT | Total length of core 56.00m | Logged by H. Pattana, K. Takeda



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 E372,058.822	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. Takeda



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 1965,936.169 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.Q.D %	Geology	Symbol of geology	Core recovery → 100% ←	Kind of Bit / Core (mm)	Casing / Cementation	Colour of rock	Weathering 1 ← → 5	Hardness	Average length of core	Description	Water Pressure Test / Lugeon Value / Water Table	Drill: Pressure Kg / Time min	Depth M	Elevation
6/2/88	0–7.60		Overburden			Tungsten Carbide Bit	Casing	Reddish Brown; Yellowish Brown				OVERBURDEN, 0.00–17.60m, 0.00–7.00m. residual soil, clayey silt with trace of quartz fragment highly–completely weathered. 7.00–12.00m. sand silt and fragment of quartz and quartzite. 10.60–11.00 Quartz fragment. 11.00–17.60 sandy silt with fragment of quartz and quartz schist	Constant Head Test K=1.48x10⁻³cm/sec; Falling Head Test K=2.12x10⁻⁴cm/sec; Constant Head Test K=1.38x10⁻³cm/sec; Constant Head Test K=2.25x10⁻³cm/sec; Constant Head Test K=1.35x10⁻³cm/sec	0 / 50 / 100	0–30	SPT N/ft; 201.929
8/2/88	7.60–17.60							Brown								
9/2/88	17.60–28.60	0 0 0 13 0 0	Schist			NMLC Diamond Core Bit φ 52 mm		Gray				SCHIST, CALC-SCHIST 17.60–28.60m. Schist, brittle, high broken, schistosity dip. 70°–80° some part are Calc-Schist at 23.75–24.75m, 27.20–27.90m, fresh, hard, Crenulated slightly-highly calcareous, schistosity dip 40°	Constant Head Test K=1.08x10⁻³cm/sec; 19.0–25.0m (22)			181.929
10/2/88	28.60–40.00	44 0 0 0 25 25 70	Calc-Schist; Schist; Calc-Schist; Schist					Pale Brown; Brown; Brown Gray; Gray				JOINT 20.33–20.36m, irregular, slightly rough, dip 40°, iron oxide stained 20.40–20.60m, 21.60–21.85m. joint (dip75°–80°) smooth, planar 27.30–27.36m, joint (dip50°) irregular, rough, clay seamed. CALC-SCHIST 28.60–40.00m.	24.0–30.0m (19)			171.929

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 Dam Axis (Left Abutment) | Boring No. LY/DL-5 | Log No. 2 of 2

Co-ordinates N1,965,938.169 E371,959.855 | 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 EGAT | Total length of core 40.00m | Logged by H.Pattons, K.TAKEDA

Date	Depth M	R.Q.D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit & Core (mm.)	Casing Cementation	Colour of rock	Weathering 1—5	Hardness	Average length of core	Description	WATER PRESSURE TEST: LUGEON VALUE / WATER TABLE	Drill Pressure Kg (0, 50, 100) Time min	Depth M	Elevation
11/2/88	0–6	45, 15, 35, 60, 25, 0	Calc-Schist		100%	NMLC Diamond Core Bit ø52mm		Gray				fresh, hard, interlayering 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 broked 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, I.L. 1.8, GW. 28.77, 11/2/88	35, 50, 25, 15, 25, 65	0–6	
12/2/88	6–40	19, 0, 55, 0											34.0–40.0m, I.L. 1.5, GW. 28.77, 12/2/88	35, 30, 40, 35	6–40	161.929
	40											Bottom of hole 40.00m				

Core loss → | Weathering 1(fresh)–5(decomposed) | Hardness 1(hard)–5(soft) | 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)

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 1,965,992.088 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 EGAT | Total length of core 46.90m | 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 (1–5)	Hardness	Average length of core	Description	Water pressure test / Lugeon value / Water table	Drill (0) / Pressure (50, Kg) / Time (100, min)	Depth (M)	Elevation
17/11/88	0		Overburden			Tungsten Carbide Bit	Casing	Brown				OVERBURDEN 0.00–8.90m 0.00–5.40m Clayey sand	K=3.42x10⁻⁵cm/sec Falling head test		0	
	1														1	
	2														2	
	3														3	
	4											5.40–7.50m Clayey silt and loose block of schist, sandstone	K=2.58x10⁻⁵cm/sec Constant head test		4	
	5														5	
	6														6	
18/11/88	7							Yellowish Brown				7.50–8.00m Silty sand 8.00–8.90m loose block of schist	K=1.23x10⁻⁵cm/sec Constant head test		7	
	8														8	
	9							Brownish Gray Brown 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	K=1.23x10⁻⁵cm/sec Constant head test		9	
	10														10	135.289
	1							Gray							1	
	2							Brown					K=5.83x10⁻⁵cm/sec Constant head test		2	
	3														3	
	4				100			Gray				9.10–9.15m, 9.30–9.37m irregular joint, dip 40° rough, some quartz filled.			4	
	5														5	
	6							Brownish Gray					K=2.89x10⁻⁵cm/sec Constant head test		6	
	7							Gray				17.44–17.52m Joint, dip 70°, rough			7	
	8							Brown							8	
	9												K=2.30x10⁻³cm/sec Constant head test		9	
19/11/88	20		Schist interbedded with sandstone			NMLC Diamond Core Bit ø 52mm		Gray							20	125.289
	1														1	
	2							Brown							2	
	3														3	
	4							Gray				23.25–23.32m, 24.20–24.70m, 26.00–26.10m, 27.00–29.30m, quartz vein, dip 60° some cavity on surface	K=1.22x10⁻⁵cm/sec Constant head test		4	
	5														5	
	6														6	
	7											26.80–26.90m Joint, dip 70°, some clay seamed	(0.3) Pmax. = 5kg/cm²		7	
	8														8	
21/11/88	9														9	
	30											29.30–29.90m Core loss			30	115.289

Core loss

Weathering 1 (fresh) – 5 (decomposed)

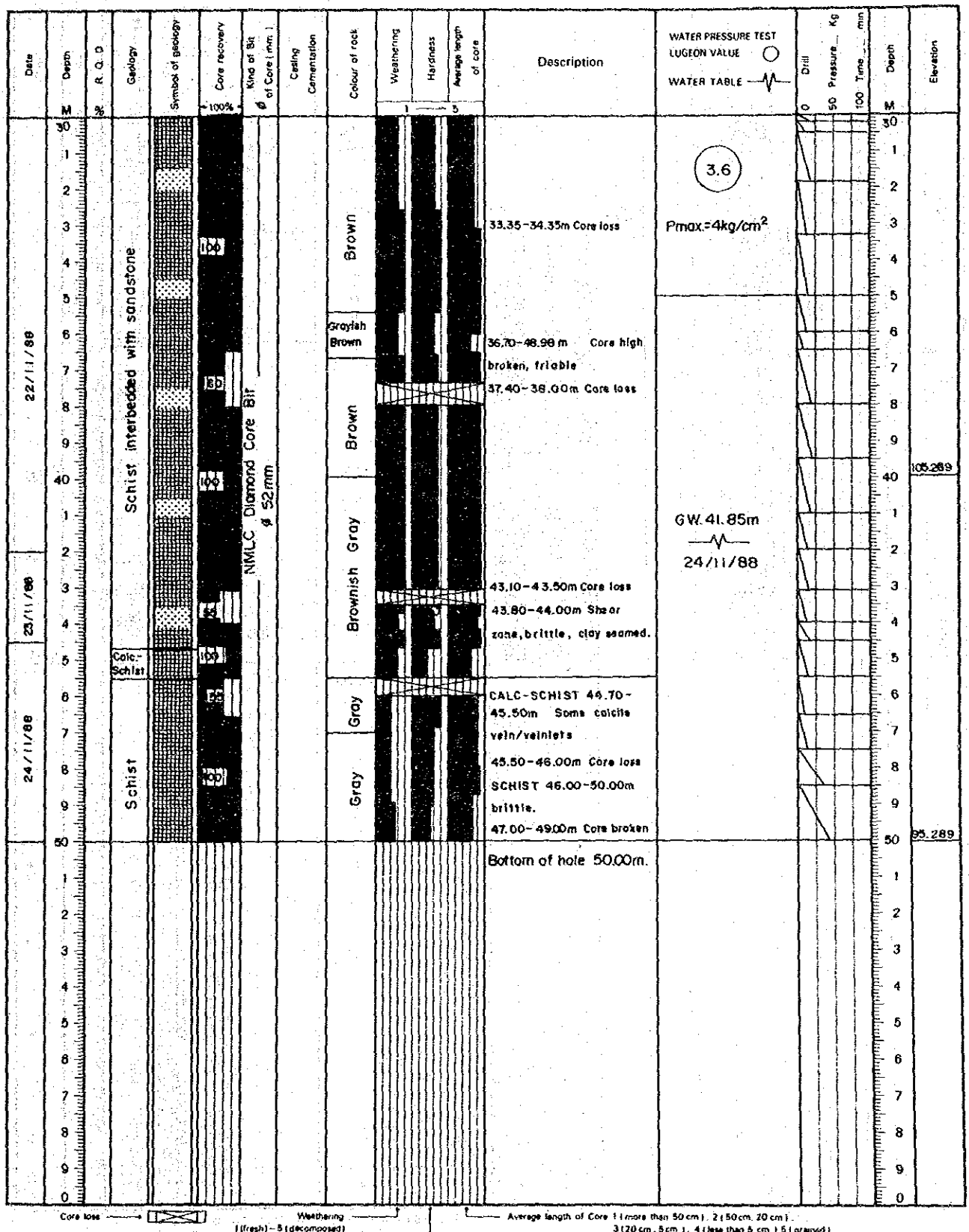
Hardness 1 (hard) – 5 (soft)

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 (crushed)

LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site (Left Abutment)	Boring No.	LY/DL-6
Co-ordinates	N1,965,992.088 E372,111.862	Elevation	145.289m MSL	Depth of Hole	50.00m
Angle from Horizontal	90°	Core Recovery	93.8 %	Depth of Overburden	8.90m
Bearing of Angle Hole	---	Company	E G A T	Total length of core	46.90m

Log No.	2 of 2
Commenced	17/11/88
Completed	24/11/88
Logged by	H. Pottana K. Takeda



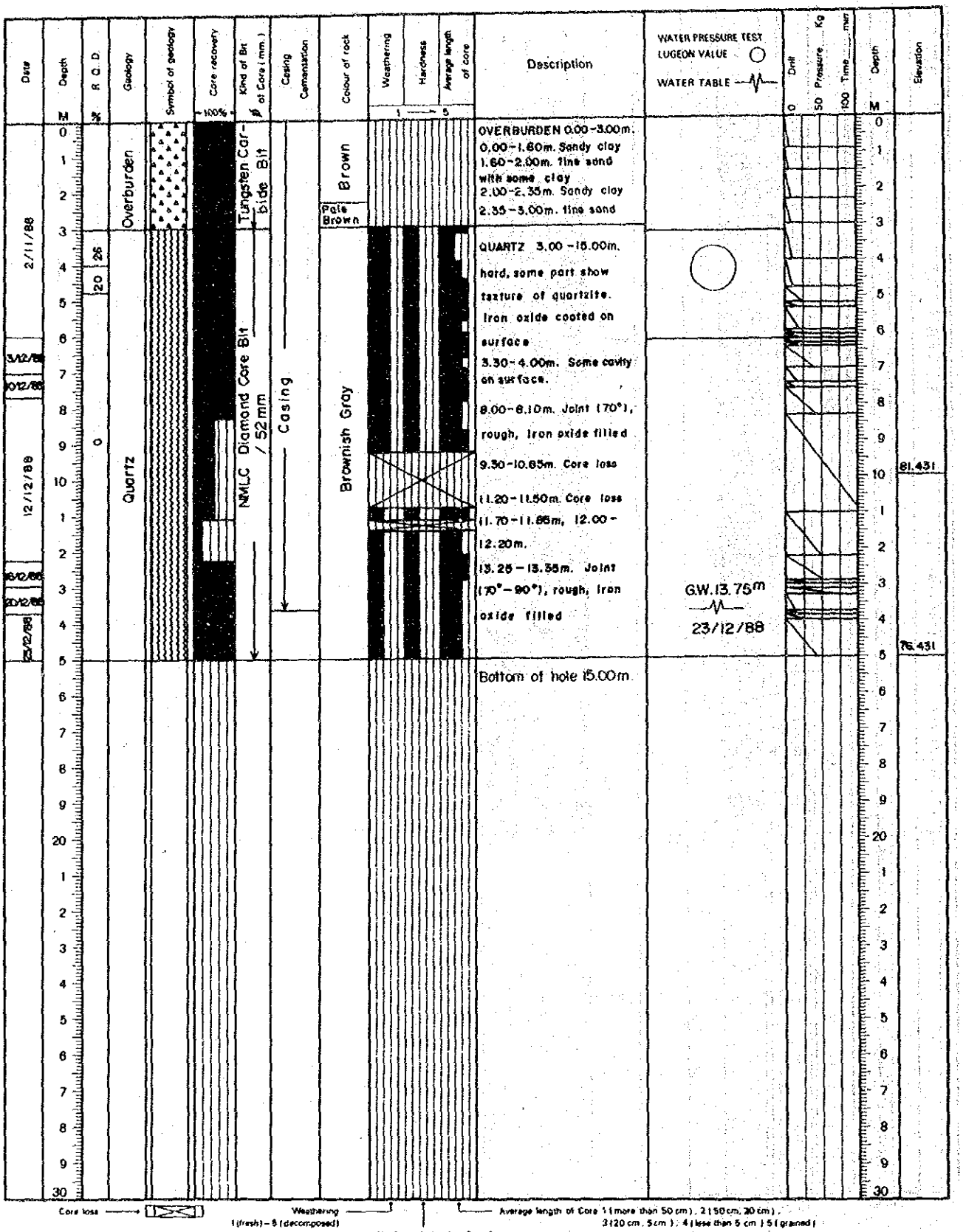
LOG OF BORING

Project MAE LAMA LUANG DAM | Location Cofferdam(Left Bank) | Boring No. LY/DL-7 | Log No. 1 of 1

Co-ordinates N1,965,976.430 E372,244.292 | Elevation 91.431mMSL | Depth of Hole 15.00m | Commenced

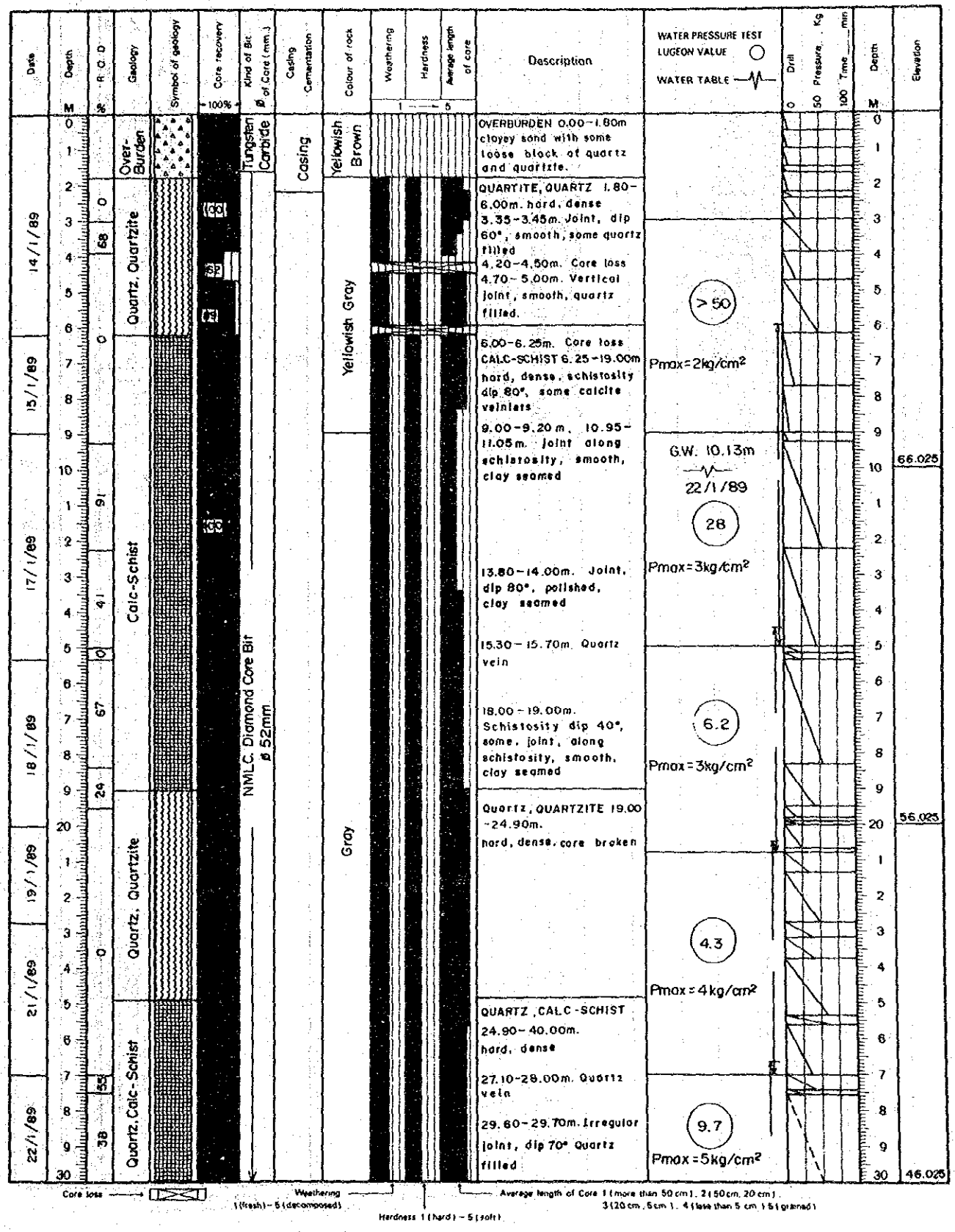
Angle from Horizontal 90° | Core Recovery 87.7% | Depth of Overburden 3.00m | Completed

Bearing of Angle Hole — | Company EGAT | Total length of core 13.15m | Logged by H.Pattana, K.Takeda



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. Pattana, K. Takeda



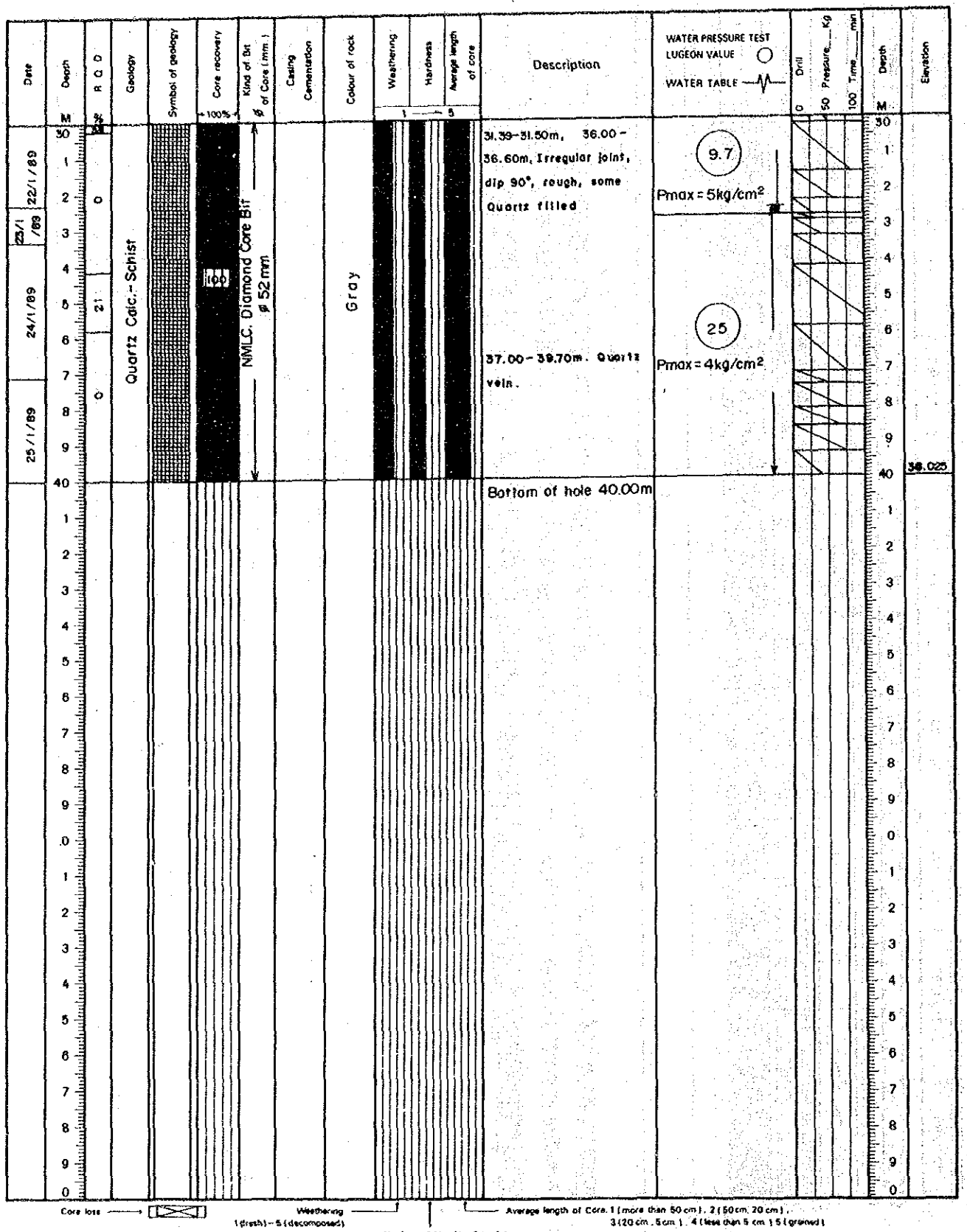
LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Left Bank) Boring No. LY/DL-7A Log No. 2 of 2

Co-ordinates N1,965,975.032 E372,260.205 Elevation 76.020m 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. Takeda



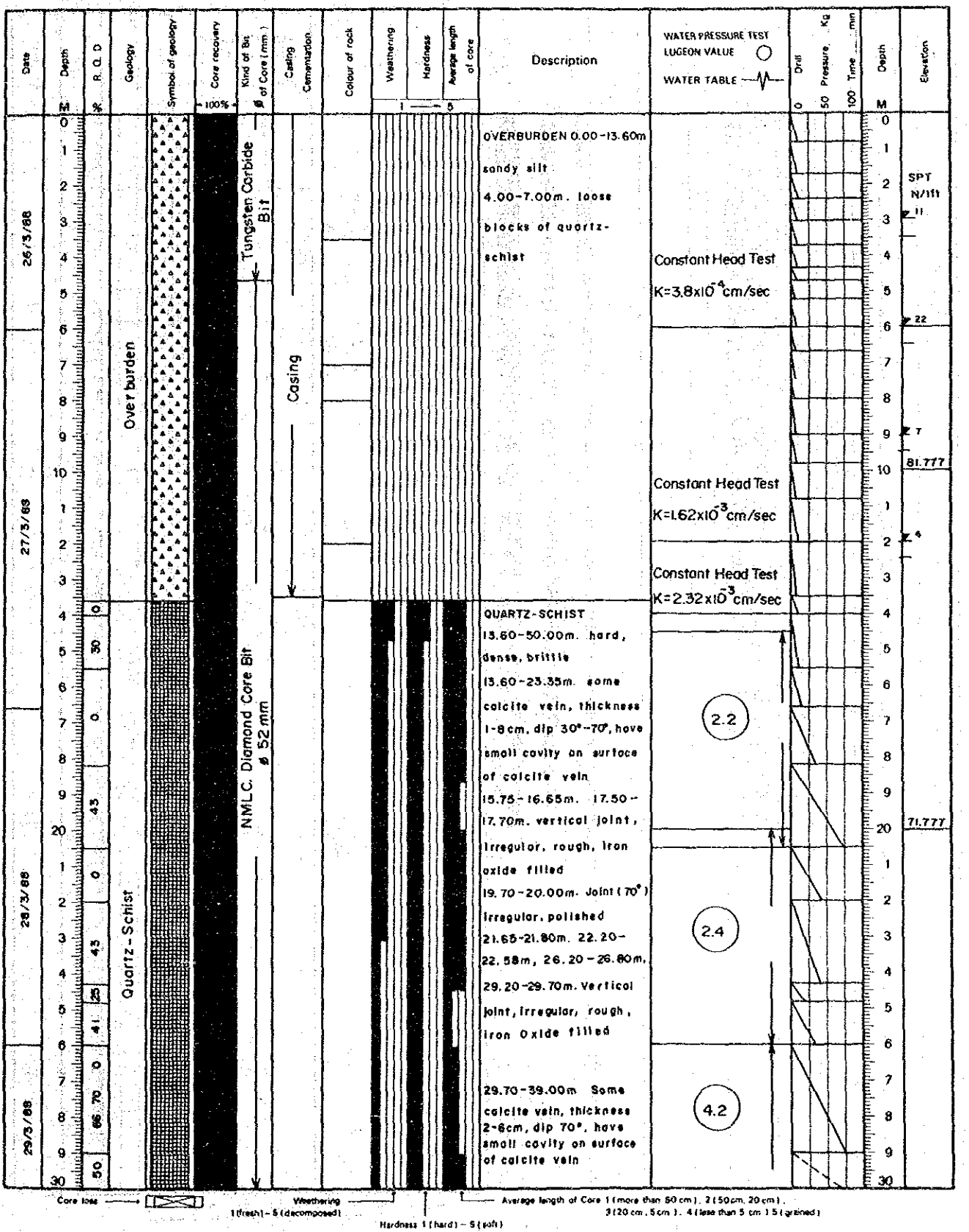
LOG OF BORING

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. Pattoos, K. Takeda



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 E371,960.621 | 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 EGAT | Total length of core 50.00m | Logged by H. Pattana, K. Takeda