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ศูนย์วิจัยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

## APPENDICES

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ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

GEOLOGICAL DRILL CHART

SHEET 1 OF 2

COMMENCED 23/9/82

CO-ORDINATE N14.02 W3.11 TD. 140.00 M.

COMPLETED 28/9/82

N 2,025,374.760 M. COL. ELEV. (MSL.) 260.267 M.

DRILLING MACHINE RAK-III

E 577,706.069 M. CASING DEPTH - M.

DRILLER DMR

MODIFIED AFTER (GEOLOGIST) OPHAS

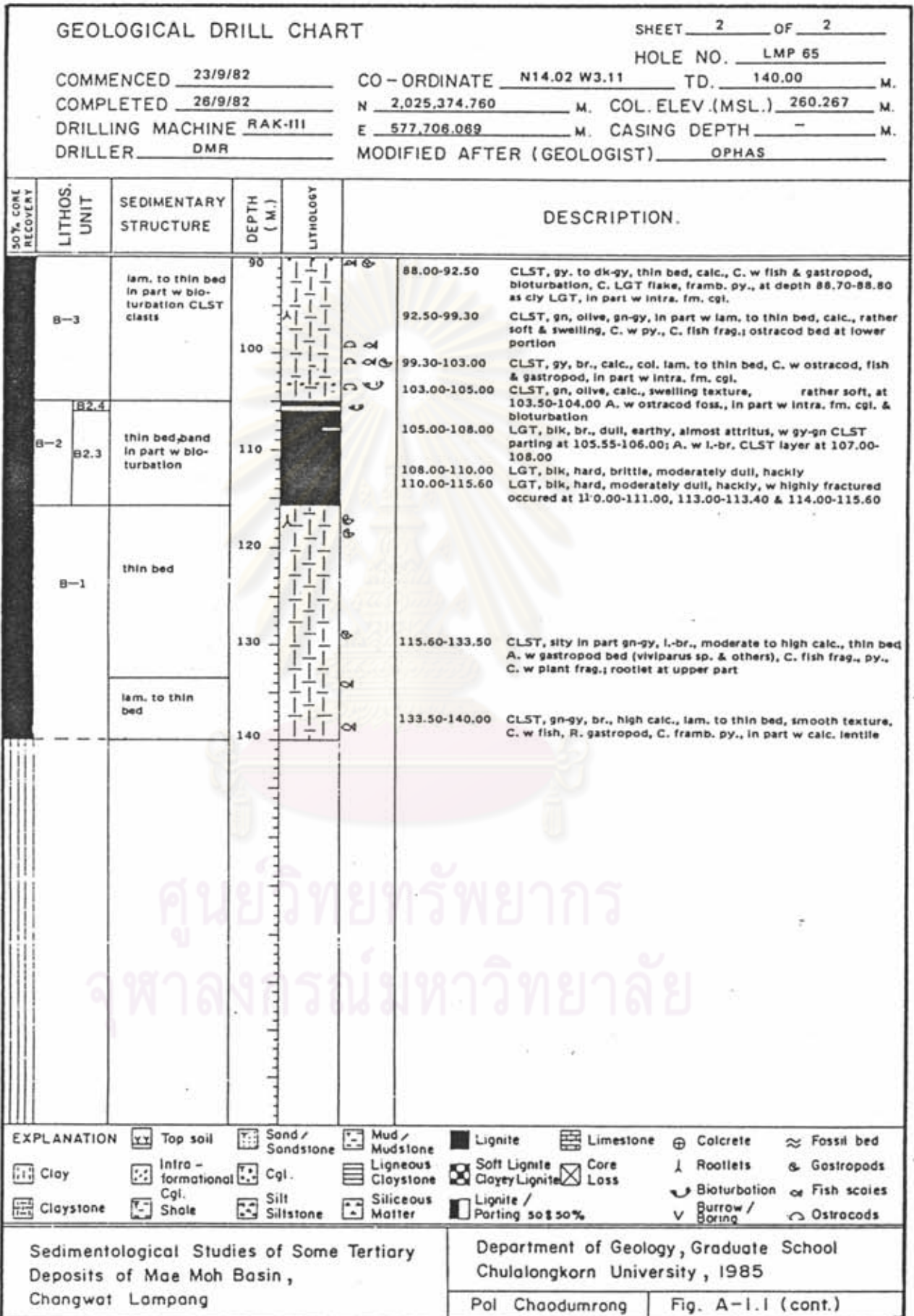
50% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	B-5	thin to m. bed	0-10		0.00-3.00 CLST, gn-gy, hard, dense, calc.
		lam. to thin bed in part w syn-fault flame	10-26.35		3.00-12.00 CLST, gn-gy, gy-br., thin to m. bed, moderately calc., C. fish frag., C. py., replaced plant frag. & framb. py., some rootlet, bed dip 10°, fracture angle about 60°-80°
		lam. to m. bed	26.35-33.50		12.00-26.35 CLST, gn-gy, gy-br., br., lam. to thin bed, moderately calc., R. rootlet, C. fish frag. & ostracod, some LGT flake at lower part, all w framb. py., at depth 25.00-25.60 as swelling texture, in part w thin lam. of wh. col. & calc., some penecontemporaneous fault
		lam. to thin CLST clasts bioturbation	33.50-38.00		26.35-33.50 CLST, sily in part, gn-gy, l-br., br. to dk-br., lam. to m. bed, slightly calc. except in dk col. which rich in organic content, C. w fish frag. & framb. py., lamination of l-br. calc. CLST lentile occurred in part, some rootlet at lower part, at depth 30.00-31.00 as swelling texture
		thin bed, band in part w bioturbation	38.00-45.00		33.50-38.00 CLST, gn-gy, gy-br. to br., lam. to thin bed of dk-col. which high organic content & l-col., calc., C. w fish frag., rootlet & framb. py.; some calc. CLST lentile at lower part
	B-4	thin bed, band in part w bioturbation	45.00-52.00		38.00-45.00 CLST, sily in part, gy, gn-gy, dk-gy, hard & compact, moderately to high calc., lam. to thin bed, intercalation w calc. CLST lentile, R. Intra. fm. cgl., C. w fish frag. & ostracod, all C. w framb. py., bed dip 10°
			52.00-52.60		45.00-52.00 CLST, sily in part, gy to dk-gy, w highly carb. (organic) rich layer, lam. to thin bed, py. xal., C. fish frag., Intb. w calc. CLST lentile & intra. fm. cgl. especially at lower part & A. LGT flake also
			52.60-53.00		52.00-52.60 LGT, blk, dull to moderate shiny, hacky to earthy texture ligneous CLST, gn-gy, br., high calc., bioturbation, rootlet, gastropod & C. w LGT flake
			53.00-61.30		52.60-53.00 LGT, blk, dull to moderately shiny, hacky, disseminated w wh. to l-br. calc. frag., some gastropod & fish remain, at 56.00-58.00 as clay LGT.
			61.30-64.00		53.00-61.30 LGT, blk, dull, earthy w some clay content in part
	B-3		64.00-77.75		61.30-64.00 sily CLST, l. to dk-br., dk-gy, high calc., bioturbation, rootlet, C. fish, gastropod & ostracod, C. w LGT flake, disseminated w wh. calc. spot (sand size), at depth 62.40-63.65 intervening w LGT, blk, dull, earthy to moderately dull, earthy to hacky, scattered w calc. br. to dk-br. frag., C. w gastropod, at middle part A. w clay matter
			77.75-84.00		64.00-77.75 LGT, blk, hard, moderately dull, earthy to hacky, scattered w calc. br. to dk-br. frag., C. w gastropod, at middle part A. w clay matter
			84.00-88.00		77.75-84.00 LGT, blk, hard, moderately dull, earthy to hacky C. w gastropod; at depth 80.40-81.70 as clay LGT; 81.70-81.90 as blk siliceous hard band, & at 83.00-83.25 as ligneous CLST
			88.00-90.00		84.00-88.00 CLST, gy, dk-gy, lam. to thin bed, calc., w high organic or carb. content in upper part, A. w LGT flake, C. framb. py.,

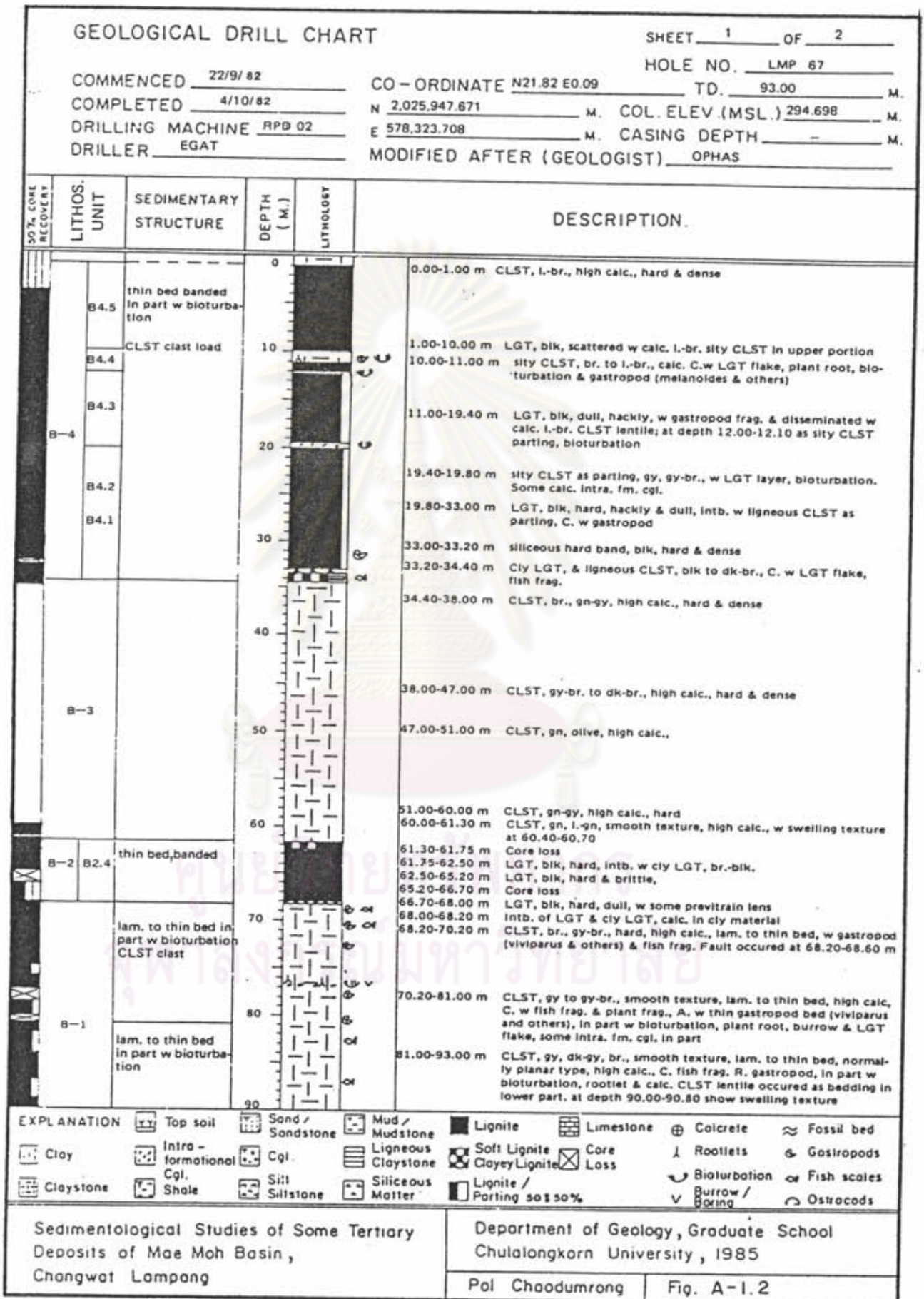
EXPLANATION	Top soil	Sand / Sandstone	Mud / Mudstone	Lignite	Limestone	Calcrete	Fossil bed
Clay	Intra-formational Cgl.	Cgl.	Ligneous Claystone	Soft Lignite	Core Loss	Rootlets	Gastropods
Claystone	Shale	Sill Siltstone	Siliceous Matter	Lignite / Parting 50% 50%		Bioturbation	Fish scales
						Burrow / Boring	Ostracods

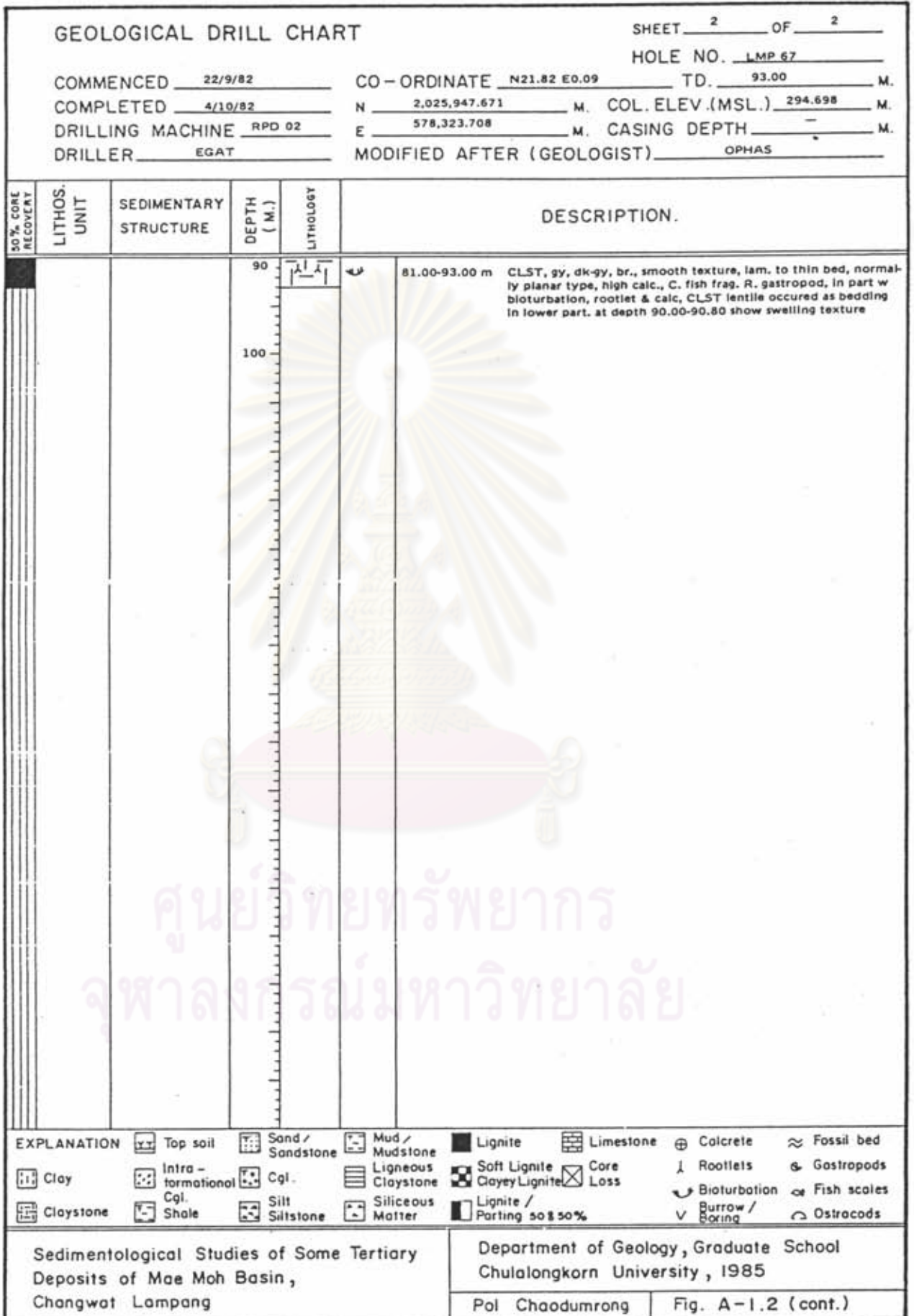
Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampang

Department of Geology, Graduate School Chulalongkorn University, 1985

Pol Chaodumrong Fig. A-1.1









**GEOLOGICAL DRILL CHART**

SHEET 1 OF 5

HOLE NO. LM 2472

COMMENCED 26/1/83

CO-ORDINATE N21 W16 TD. 376.50 M.

COMPLETED 14/2/83

N 2,026,542.864 M. COL. ELEV.(MSL.) 327.69 M.

DRILLING MACHINE OLY 3

E 576,829.088 M. CASING DEPTH - M.

DRILLER DMR

MODIFIED AFTER (GEOLOGIST) OPHAS

30% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	C-3		0		0.00-3.00 Top soil, Cl, mixed, red, stiff
			3		3.00-6.00 Semi-consolidated sity Cl, y.-br., wd, rather soft
		mottle CLST clasts	10		6.00-10.00 Semi-consolidated sity Cl, rd, y.-br., gy, wd, some gy Cl veinlet? stiff to hard, calcrete
			18		10.00-18.00 Semi-consolidated sity Cl, rd, brick-rd, mottle, w gy Cl veinlet & calc. gy CLST clasts in part, in part w slickenside
			20		18.00-20.00 Core loss
			30		20.00-31.50 Semi-consolidated sity Cl, rd, brick-rd, x, mottle, w gy Cl veinlet, in part w calcrete & iron concretion
		cycle fining upward	31.5		31.50-39.00 Four cycles of fining upward seq., semi-consolidated, rd, brick-rd, cglit-Sd, c.g. Sd grade to sity Cl. Clasts are composed of qtz, SS & volcanic rocks, ang. to subround, size up to 0.5 cm., in part w mottle & calcrete, iron concretion
mottle CLST clasts	40		39.00-53.85 Semi-consolidated sity Cl, Sl in part, rd to brick rd, y., mottle, in part w wd, in part w gy Cl veinlet & gy CLST clasts.		
	50		53.85-65.00 Semi-consolidated sity Cl, sdy in part, varicolored, rd, y., brick-rd in part w gy Cl veinlet, alternating w gy sity Cl & Sl., wd, all w mottle & gy-gn iron concretion, secondary gyp. xal.		
	60		65.00-90.05 Fining upward seq., hard sity Cl to sity CLST, rd to brick-rd, mottle w iron concretion at upper portion; rd SLST, w mottle at mid. & upper of low. portion; gy SS, w rd mottle, poor sorting, subround; cglit-SS, clasts are mainly of wh. qtz, SS, chert & size up to 2 cm.(at bottom)		
	70				
	80				
	90				

EXPLANATION	Top soil	Sand / Sandstone	Mud / Mudstone	Lignite	Limestone	Calcrete	Fossil bed
Clay	Intra-formational Cgl.	Cgl.	Ligneous Claystone	Soft Lignite	Clayey Lignite	Core Loss	Rootlets & Gastropods
Claystone	Shale	Silt Siltstone	Siliceous Matter	Lignite / Parting 50±50%	Burrow / Boring	Fish scales	Ostracods

Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampong	Department of Geology, Graduate School Chulalongkorn University, 1985	
	Pol Chaodumrong	Fig. A-1.3

**GEOLOGICAL DRILL CHART**

SHEET 2 OF 5

HOLE NO. LM 2472

COMMENCED 26/1/83 CO-ORDINATE N21 W18 TD. 378.50 M.

COMPLETED 14/2/83 N 2,026,542.864 M. COL. ELEV.(MSL.) 327.69 M.

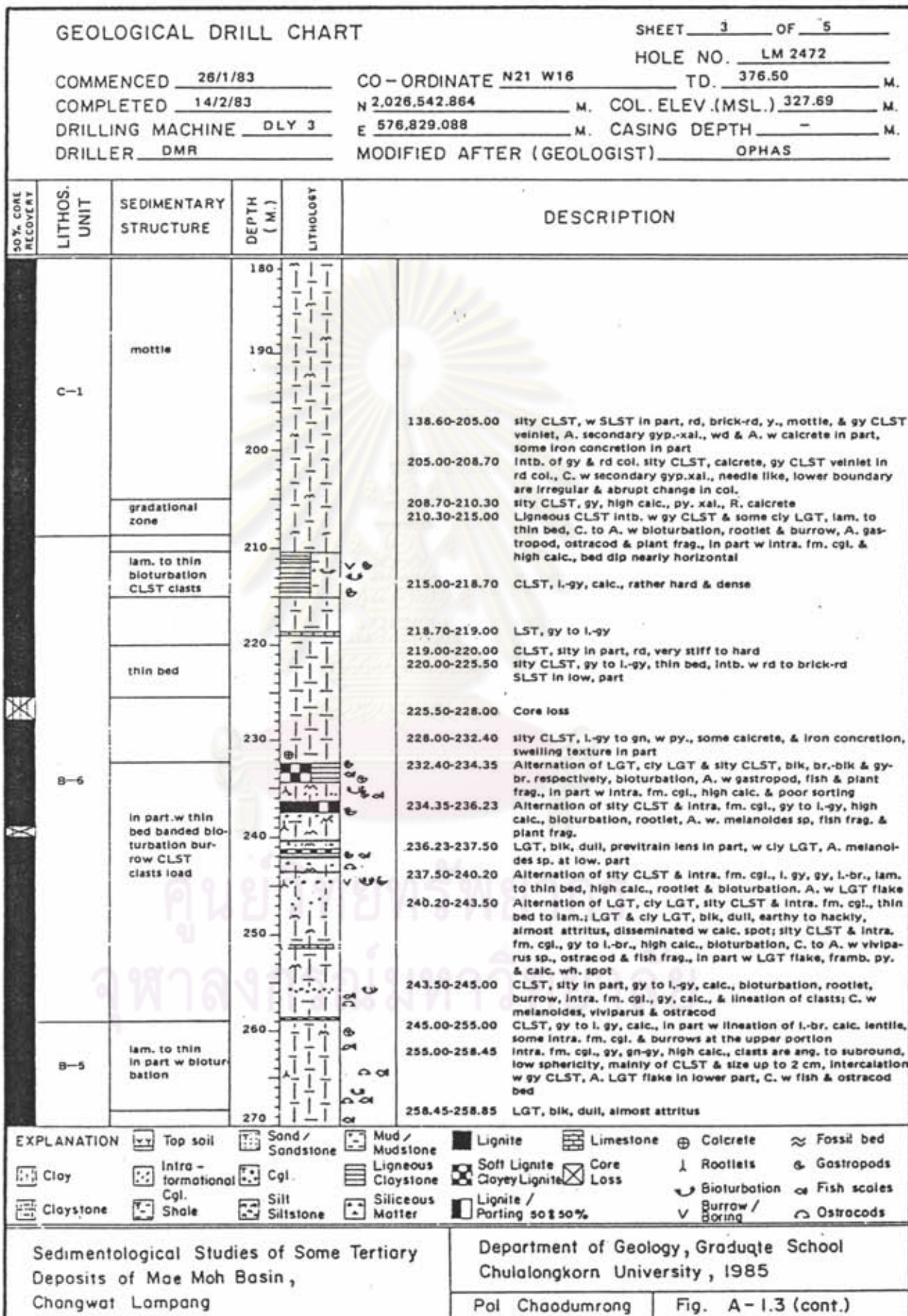
DRILLING MACHINE DLY 3 E 578,829.088 M. CASING DEPTH - M.

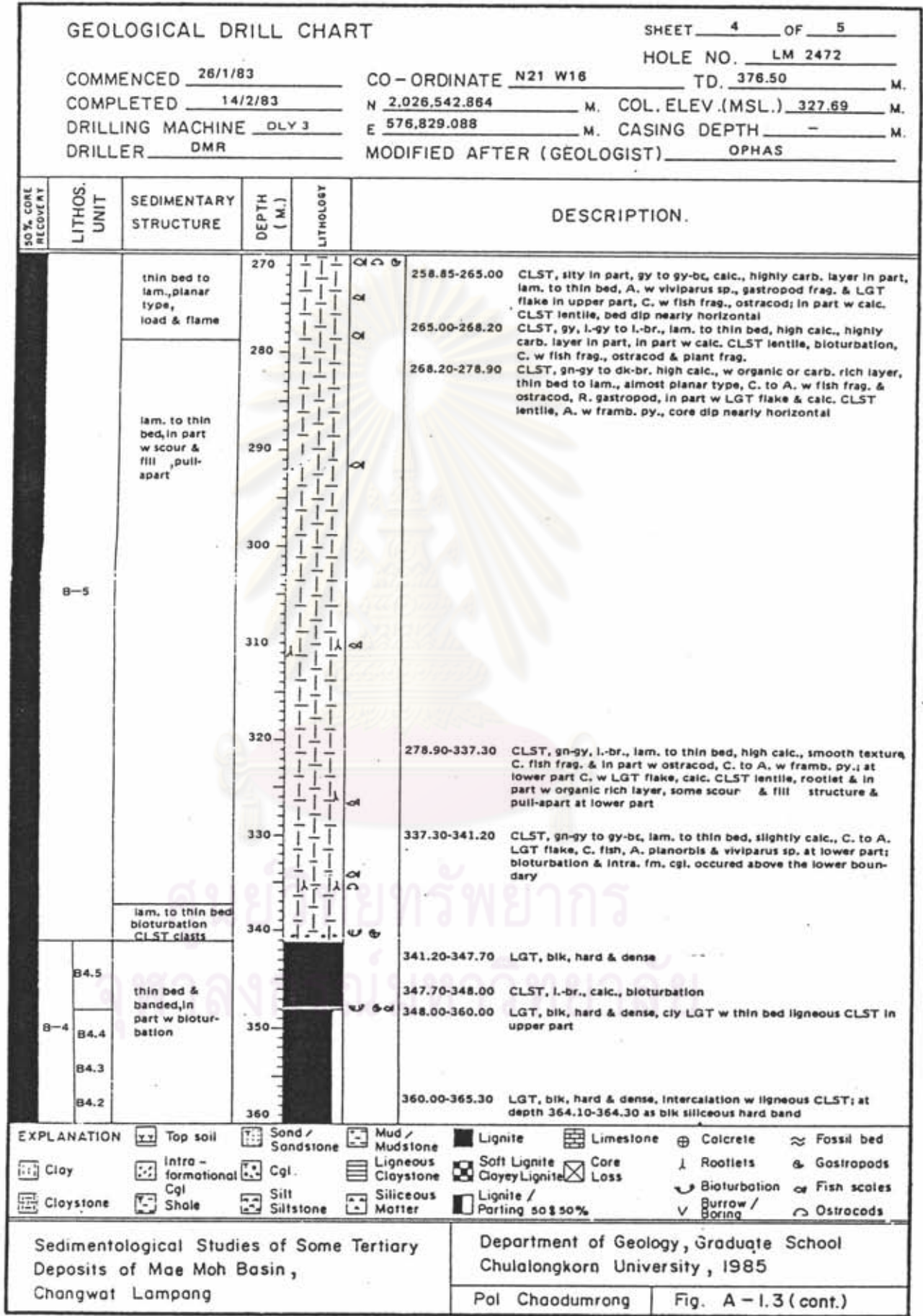
DRILLER DMR MODIFIED AFTER (GEOLOGIST) OPHAS

90% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	C-2	cycle, fining upward, mottled closed work	90	[Symbol]	90.05-98.30 Fining upward seq., rd, poor sorted Cgl. grade upward to sity CLST, mottled & some slip plane, lower boundary are erosional surface
		mottled	100	[Symbol]	98.30-114.80 sity CLST, rd to brick rd, in the upper part, w rd SLST & f. g. SS, poor sorting, calcrete & some qtz clasts, size up to 1 cm. In the lower part, all w mottled & iron concretion
		fining upward mottled	110	[Symbol]	114.80-116.70 sity CLST, rd, y., mottled, w calcrete 116.70-119.50 Fining upward seq., sity CLST, gy, mottled & calcrete in upper part; gy SS & Cgl., poor sorting, calcrete in lower part, clasts are round, mainly of wh. qtz., SS & volcanic rocks, size up to 2 cm.
	C-1	mottled	120	[Symbol]	119.50-138.60 Sity CLST, rd to brick rd, w f. g. SS, rd in lower part, all in part w calcret, mottled & iron concretion & A. w gyp. xal. (secondary origin), some gy Cl veinlet in lower part.
		mottled	130	[Symbol]	138.60-205.00 sity CLST, w SLST in part, rd, brick-rd, y., mottled, & gy CLST veinlet, A. secondary gyp-xal, wd & A. w calcrete in part, some iron concretion in part
		mottled	140	[Symbol]	
			150	[Symbol]	
			160	[Symbol]	
			170	[Symbol]	
			180	[Symbol]	

EXPLANATION	[Symbol] Top soil	[Symbol] Sand / Sandstone	[Symbol] Mud / Mudstone	[Symbol] Lignite	[Symbol] Limestone	[Symbol] Calcrete	[Symbol] Fossil bed
[Symbol] Clay	[Symbol] Intra-formational Cgl.	[Symbol] Cgl.	[Symbol] Ligneous Claystone	[Symbol] Soft Lignite / Clayey Lignite	[Symbol] Core Loss	[Symbol] Rootlets	[Symbol] Gastropods
[Symbol] Claystone	[Symbol] Shale	[Symbol] Silt / Siltstone	[Symbol] Siliceous Matter	[Symbol] Lignite / Parting 50% 50%	[Symbol] Burrow / Boring	[Symbol] Bioturbation	[Symbol] Fish scales
						[Symbol] Ostracods	

Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampang	Department of Geology, Graduate School Chulalongkorn University, 1985
Pol Chaodumrong	Fig. A-1.3 (cont.)





**GEOLOGICAL DRILL CHART**

SHEET 5 OF 5

HOLE NO. LM 2472

COMMENCED 26/1/83 CO-ORDINATE N21 W16 TD. 376.50 M.

COMPLETED 14/2/83 N 2,026,542.864 M. COL. ELEV. (MSL.) 327.69 M.

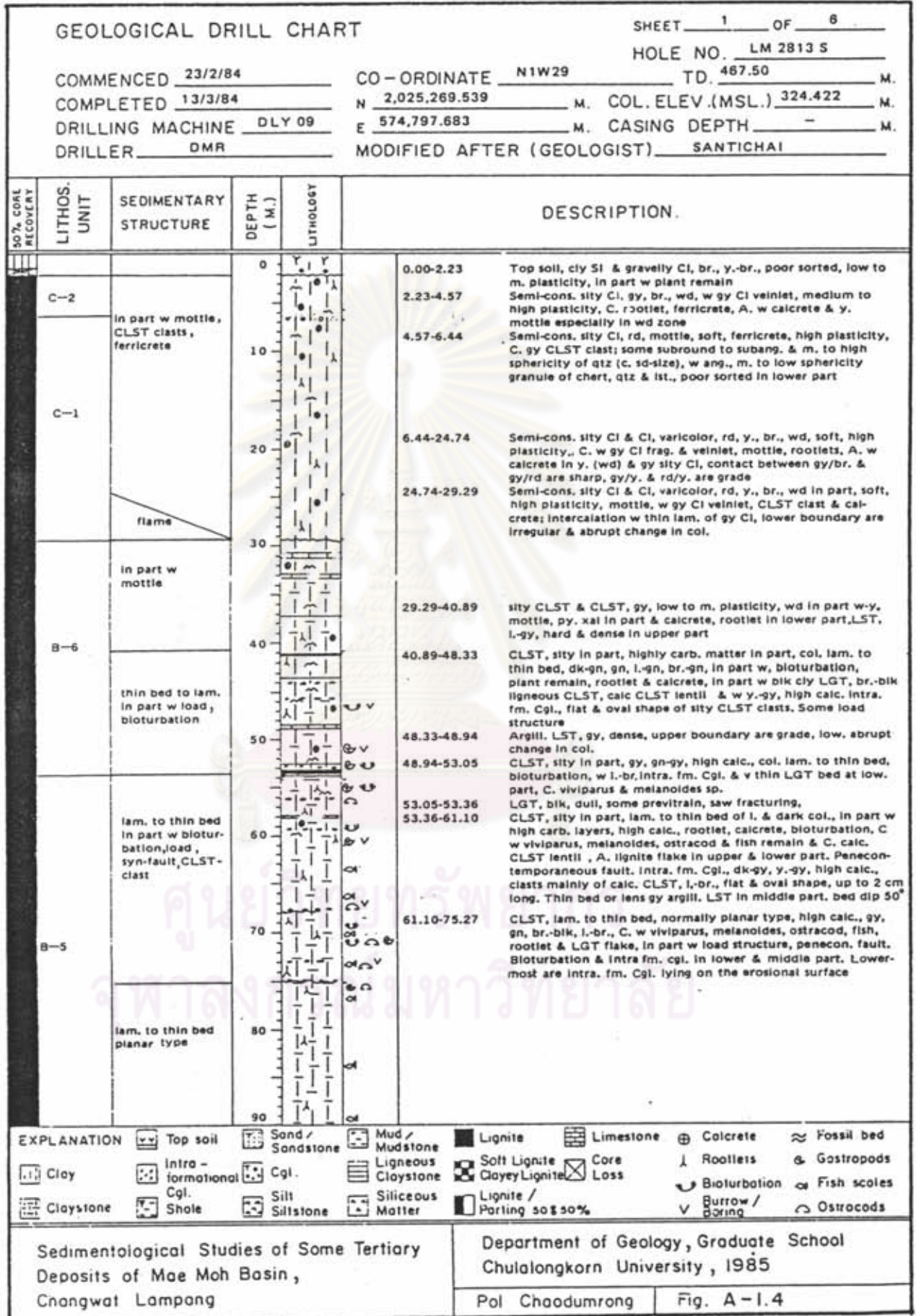
DRILLING MACHINE DLY 3 E 576,829.088 M. CASING DEPTH - M.

DRILLER DMR MODIFIED AFTER (GEOLOGIST) OPHAS

50% COAL RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION.
B-4	B4.1		360	█	360.00-365.30 LGT, blk, hard & dense, intercalation w ligneous CLST; at depth 364.10-364.30 as blk siliceous hard band
	B-3	lam. to thin bed	370		365.30-373.70 CLST, br., l-br., lam. to thin bed, calc., A. w LGT flake, C. calc. CLST lentile & py.
		thin bed to lam.	380		373.70-376.50 CLST, l-gy, thin bed to lam., calc., C. fish frag.

EXPLANATION	<input type="checkbox"/> Top soil <input type="checkbox"/> Clay <input type="checkbox"/> Claystone	<input type="checkbox"/> Sand / Sandstone <input type="checkbox"/> Cgl. <input type="checkbox"/> Silt Siltstone	<input type="checkbox"/> Mud / Mudstone <input type="checkbox"/> Ligneous Claystone <input type="checkbox"/> Siliceous Matter	<input type="checkbox"/> Lignite <input type="checkbox"/> Soft Lignite <input type="checkbox"/> Lignite / Parting 50% 50%	<input type="checkbox"/> Limestone <input type="checkbox"/> Core Loss	<input type="checkbox"/> Calcrete <input type="checkbox"/> Rootlets <input type="checkbox"/> Bioturbation <input type="checkbox"/> Burrow / Boring	<input type="checkbox"/> Fossil bed <input type="checkbox"/> Gastropods <input type="checkbox"/> Fish scales <input type="checkbox"/> Ostracods
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Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampang	Department of Geology, Graduate School Chulalongkorn University, 1985 Pol Chaodumrong Fig. A-1.3 (cont.)
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**GEOLOGICAL DRILL CHART**

SHEET 2 OF 6  
HOLE NO. LM 2813 S

COMMENCED 23/2/84 CO-ORDINATE N1 W29 TD. 467.50 M.  
 COMPLETED 13/3/84 N 2,025,269.539 M. COL. ELEV. (MSL.) 324.422 M.  
 DRILLING MACHINE DLY 09 E 574,797.683 M. CASING DEPTH - M.  
 DRILLER DMR MODIFIED AFTER (GEOLOGIST) SANTICHAH

90% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	B-5	lam. to thin bed planar	90		75.27-103.64 CLST, lam. to thin bed, planar type, gy, gn, gn-blk, l-br., smooth texture, high calc., C. fish, framb. py., R. w rootlet, gastropod & ostracod; A. calc. CLST lentil in part. bed dip 5°. 7°
	B-5	lam. to thin bed in part w bioturbation, burrow, CLST clasts	110		103.64-116.90 CLST, gn, gn-gy, l-br., lam. to thin bed, highly carb. content in part, high calc., C. w rootlet, calc. CLST lentil, fish & ostracod bed, A. w viviparus & melanoides sp, in part w bioturbation, burrows. Intra. fm. Cgl. & A. w LGT flake in lower part
	B-4	in part w bioturbation thin bed banded	120		116.90-122.07 LGT, blk, hard, almost attritus, dull, partly previtralin lens & layer, some l-br. calc. lentil, R. calc. wh. spot, C. fish, A. gastropod in part. Intervening w parting of thin bed, l-br. sity CLST
122.07-122.41				sity CLST, dk-gy, high calc., A. w calc. wh. spot (shell frag. ?), melanoides sp., LGT flake, some intra. fm. cgl., strongly bioturbation, upper boundary is grade and abrupt change in lower	
122.41-122.89				LGT, blk, hard, dull, almost attritus coal, w some calc. wh. spot (shell frag. ?)	
122.89-122.98				Sity CLST, y-gy, high calc., A. w bioturbation, LGT flake, & intra. fm. cgl., C. gastropod, R. calc. wh. spot	
122.98-134.70				LGT, blk, hard, almost attritus, some previtralin, saw fracturing, w some cly. LGT, intercalation w thin bed sity CLST, high calc., dk-gy, w A. LGT flake, viviparus & planorbis sp. SLST dk-gy, hard, non-calc., w plant remain at 134.41-134.51, lower boundary are grade, upper are abrupt	
	B-3	lam. to thin bed in part w swelling, bioturbation, CLST clasts	140		134.70-144.89 CLST, sity in part, lam. to thin bed, planar type, gy, gn-gy, dk-gy, high carb. content & A. LGT flake in upper part, C. bioturbation, rootlet, fish & ostracod in lower part. Lower boundary are abrupt change in col.
	B-2	in part w bioturbation thin bed banded	150		144.89-145.94 CLST, gn, pale-gn, stiff, high calc., swelling in part, C. ostracod layer
145.94-147.64				CLST, gy, gy-br., high calc., bioturbation, C. rootlet, LGT flake & planorbis sp.	
147.64-148.48				CLST, gn, high calc., lam. to thin bed, C. ostracod	
148.48-149.00				Intra. fm. cgl. & sity CLST, y-gy, high calc., bioturbation, C. rootlet & planorbis sp.	
149.00-154.56				LGT, blk to br.-blk, hard, dull, almost attritus coal, at depth 149.43-145.45 & 152.78-152.98, intb. w irregular surface of gn sity CLST, hard, high calc. & v thin bed	
	B-1	Thin bed to lam. bioturbation, CLST clasts	160		154.56-154.74 Sity CLST, gy, high calc., A. w calc wh. spot & LGT flake, upper boundary are grade, lower are abrupt
154.74-157.90				LGT, blk, hard, almost dull	
157.90-160.59				LGT, blk, hard, dull, almost attritus, w cly LGT at depth 158.87-160.20. Sity CLST, gy, high calc., C. w rootlet, viviparus, carb. matter & bioturbation at depth 160.33-160.59	
			170		160.59-162.50 LGT, blk to br.-blk, hard, dull to moderately shiny, at depth 161.83-161.90 as SLST, dk-gy, hard & dense, lower boundary are grade
			180		162.50-169.07 CLST, gn-gy, y-gy, high calc., thin bed to lam., w highly carb. content near the upper contact, A. viviparus thin bed, C. rootlet, strongly bioturbation some intra. fm. Cgl. in part
					169.07-174.69 CLST, gy, dk-gy, high calc., thin bed to lam., high carb. content in part, C. viviparus bed & fish remain, in part w bioturbation & some intra. fm. Cgl.

EXPLANATION	Top soil	Sand / Sandstone	Mud / Mudstone	Lignite	Limestone	Colcrete	Fossil bed
Clay	Intra-formational Cgl.	Cgl.	Ligneous Claystone	Soft Lignite	Core	Rootlets	Gastropods
Claystone	Shale	Silt / Siltstone	Siliceous Mottler	Clayey Lignite	Loss	Bioturbation	Fish scales
				Lignite / Parting 50:50%		Burrow / Boring	Ostracods

Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampang	Department of Geology, Graduate School Chulalongkorn University, 1985 Pol Chaodumrong Fig. A-1.4 (cont.)
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**GEOLOGICAL DRILL CHART**

SHEET 3 OF 6  
HOLE NO. LM 2813 S

COMMENCED 23/2/84 CO-ORDINATE N1 W29 TD. 467.50 M.  
 COMPLETED 13/3/84 N 2,025,269.539 M. COL. ELEV. (MSL.) 324.422 M.  
 DRILLING MACHINE DLY09 E 574,797.683 M. CASING DEPTH - M.  
 DRILLER DMR MODIFIED AFTER (GEOLOGIST) SANTICHAJ

30% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	B-1	thin bed to lam. in part w bioturbation, burrow	180		174.69-205.07 CLST, sity in part, gn-gy, l. to dk-gy, l-br., thin bed to lam., normally planar type, high calc., C. framb. py. in dk-gy, C. fish frag. & rootlet, R. w gastropod bed, bioturbation, in part w LGT flake & C. calc. CLST lentil; % of silt normally higher in l-col. than dk-col., bed dip 10°-15° 205.07-208.85 CLST, sity in part, gn, high calc., A. w calc. wh. spot & CLST lentil in upper part, gn-gy w A. thin gastropod bed (mostly viviparus, melanoides), burrow & boring in lower part 208.85-216.50 CLST, gy, gn-gy, y-gy, high calc., C. to A. rootlet, fish, viviparus & melanoides, strongly bioturbation, burrow & boring in middle & lower part, in part with intra. fm. cgl. 216.50-217.70 LGT, blk, hard, dull, w v thin sity CLST parting, gy, high calc., bioturbation, gastropod & LGT flake 217.70-225.45 CLST, sity in part, gn-gy, gy, y-gy, high calc., thin bed, bioturbation, A. viviparus & melanoides sp., C. ostracod, C. w LGT flake, calc. CLST lentil & intra. fm. cgl. in part 225.45-239.61 CLST, sdy & sity in part, gy, l-gy, thin bed, planar type, high calc., load cast in part, C. w calc. CLST lentil, fish, C. rootlet, some fining upward sequence of l. & dk-gy col. 239.61-267.92 CLST, gy, dk-gy, smooth, high calc., thin to m. bed, planar type, C. fish & plant root, l. col. are more sity than dk col.
		burrow, bioturbation, CLST-clast, thin bed to lam.	190		
		thin bed in part w load	200		
		thin to m. bed	210		
		thin to m. bed	220		

EXPLANATION	Top soil	Sand / Sandstone	Mud / Mudstone	Lignite	Limestone	Coalcrete	Fossil bed
Clay	Intra-formational Cgl.	Cgl.	Ligneous Claystone	Soft Lignite	Core Loss	Rootlets	Gastropods
Claystone	Shale	Silt Siltstone	Siliceous Matter	Lignite / Parting 50% 50%		Bioturbation	Fish scales
						Burrow / Boring	Ostracods

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Pol Chaodumrong	Fig. A-1.4 (cont.)



GEOLOGICAL DRILL CHART

SHEET 4 OF 6

COMMENCED 23/2/84  
 COMPLETED 13/3/84  
 DRILLING MACHINE DLY 09  
 DRILLER DMR

CO-ORDINATE N1 W29 TD. 467.50 M.  
 N 2,025,269.539 M. COL. ELEV.(MSL.) 324.422 M.  
 E 574,797.683 M. CASING DEPTH - M.  
 MODIFIED AFTER (GEOLOGIST) SANTICHAH

50% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION
	B-1	thin to m. bed in part w lamination, bioturbation	270		
			280		267.92-298.15 CLST, gy., stly CLST, l-gy., y-gy, high calc., thin bed, planar type, plant root, fish, A. lamination of calc. CLST lentil, in part w bioturbation, complete dicotyledon leave at lowerpart, stly content depend on col., l. higher than dk.-col.
		thin bed to lam.	300		298.15-313.50 CLST, stly in part, dk to l-gy., high calc., C. rootlet & LGT flake, A. gastropod bed (viviparus & other) in part
			310		313.50-322.00 CLST, stly in part, l-gy., high calc., lam. to thin bed, C. fish, R. plant root, LGT flake & scour & fill 322.00-323.90 Cycles of carb. rich layer grade up to gy stly CLST, lam. to thin bed, in part w load struc., calc. wh. CLST, gastropod, R. LGT flake 323.90-324.60 Ciy LGT, blk, hard, dull, stly in part, lowe& upper boundary are grade 324.60-327.83 Stly CLST, gn, gn-gy, stiff, non-calc. to calc. in part; some calcrete at upper part 327.83-331.11 stly CLST, gn-br., wd, stiff, A. w gn stly CLST fragment & calcrete
	A-2	lam. to thin bed in part w load, scour & fill	320		331.11-339.45 CLST, stly & sdy in lowerpart, gn, bl-gy, soft to stiff w y-br. & rd mottle, calcrete & wd in part
		in part w col. mottle	330		339.45-347.82 Six cycles, fining upward seq., gy., bl-gy., complete & incomplete cycle, thickness in each cycle varies from 10-270 cm, Cgl. grade to stly CLST, clasts are qtz, chert, ss, stly CLST, subang. to subround, low sphericity. SS are composed mainly of qtz & chert, ang. to subround, m. sphericity. C. calcrete & wd in part
		fining upward, closed work	340		347.82-357.71 Intb. of rd & gy stly CLST, thick bed, soft & stiff, w gy stly CLST frag., y. mottle, calcrete, wd in part 357.71-364.54 Fining upward seq., 3 cycles, gy., w y-br. mottle, Cgl. to stly CLST, complete & incomplete cycle, C. to A. calcrete
		thick bed col. mottle	350		364.54-366.31 cly SLST, gy., wd w rd, y-br. & purple mottle, A. calcrete 366.31-368.25 stly CLST, rd, w A. gy. CLST frag. & veinlet 368.25-369.93 Fining upward seq., y-br., wd, w y. & br. mottle, Cgl. to stly CLST
			360		

EXPLANATION	Top soil	Sand / Sandstone	Mud / Mudstone	Lignite	Limestone	Calcrete	Fossil bed	
	Clay	Intra-formational Cgl.	Cgl.	Ligneous Claystone	Soft Lignite Clayey Lignite	Core Loss	Rootlets	Gastropods
	Claystone	Shale	Silt Siltstone	Siliceous Matter	Lignite / Parting 50% 50%	Bioturbation	Fish scales	Ostracods
						Burrow / Boring		

Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Changwat Lampang

Department of Geology, Graduate School Chulalongkorn University, 1985

Pol Chaodumrong

Fig. A-1.4 (cont.)

**GEOLOGICAL DRILL CHART**

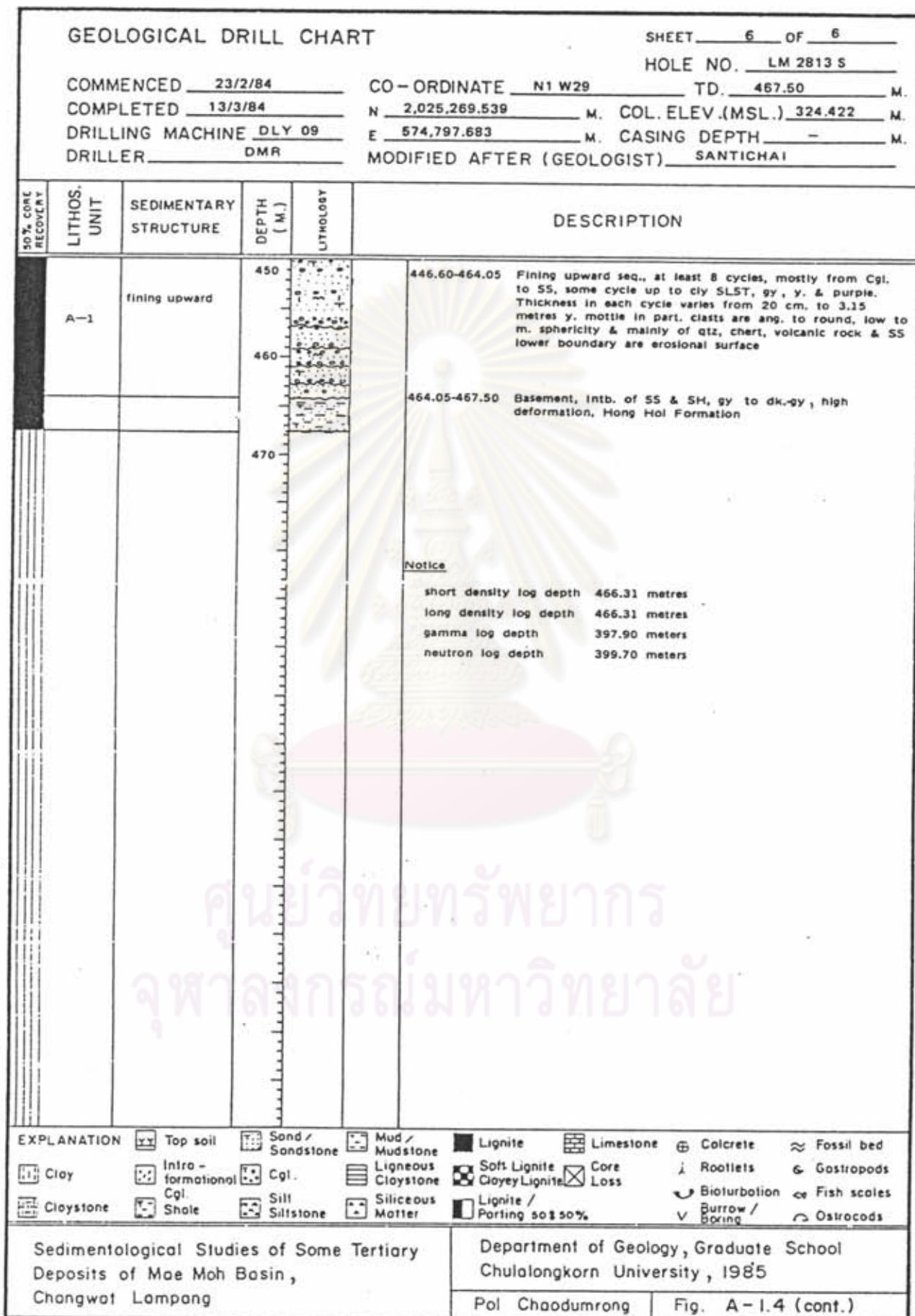
SHEET 5 OF 6  
HOLE NO. LM 2813 S

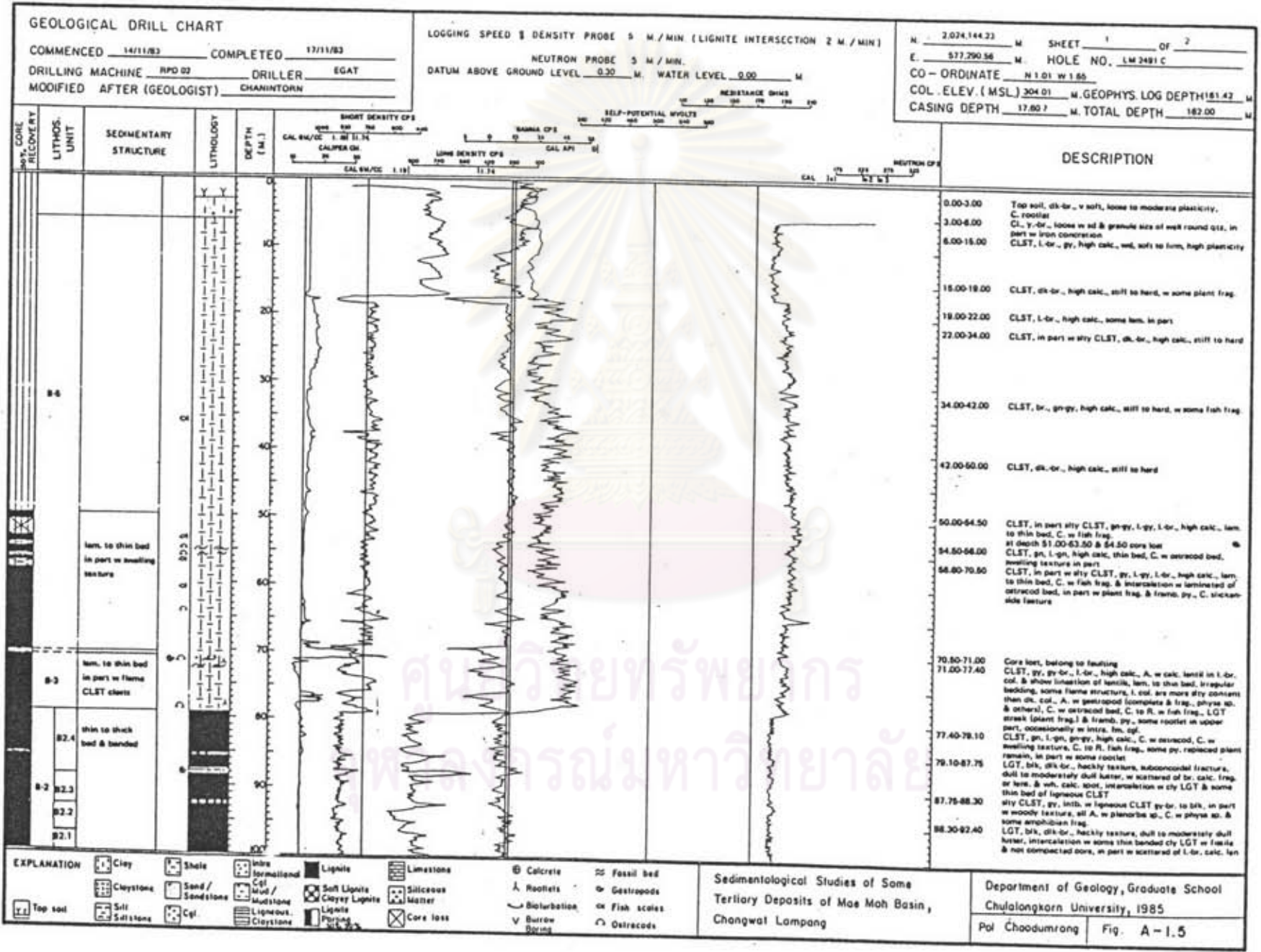
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 COMPLETED 13/3/84 N 2,025,269.539 M. COL. ELEV. (MSL.) 324.422 M.  
 DRILLING MACHINE DLY 09 E 574,797.683 M. CASING DEPTH - M.  
 DRILLER DMR MODIFIED AFTER (GEOLOGIST) SANTICHAJ

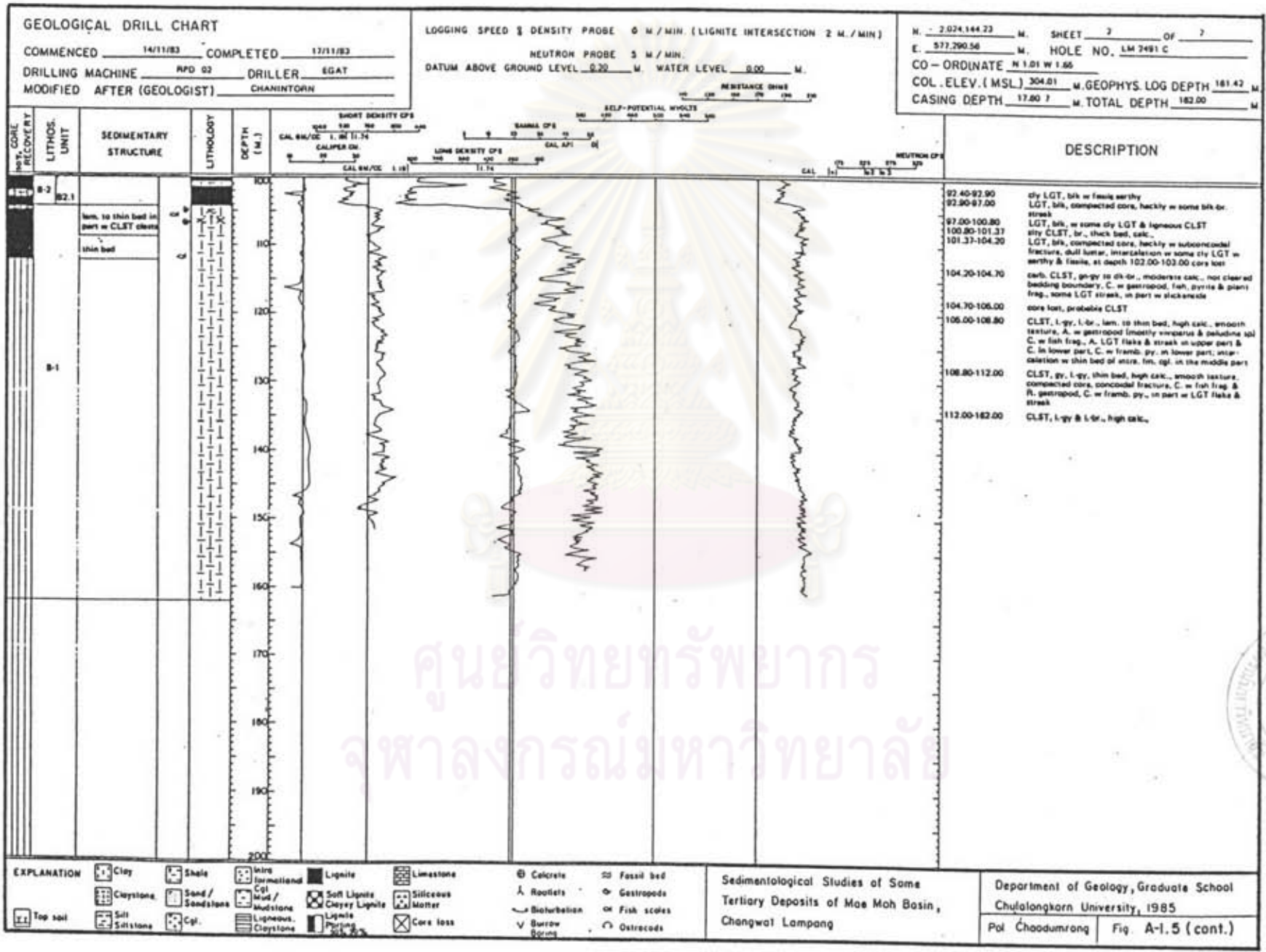
50% CORE RECOVERY	LITHOS. UNIT	SEDIMENTARY STRUCTURE	DEPTH (M.)	LITHOLOGY	DESCRIPTION.	
A-2		fining upward, closed work	360			
		col. mottile				
		fining upward	370			369.93-385.56 Intb. of gy & rd silty CLST, m. to thick bed, C. calcrete, rd & y-br. mottile, C. gy. CLST frag. in rd. col., lower boundary are grade
		m. to thick bed, col. mottile, CLST clast	380			
		col. mottile	390			385.56-392.70 clay SLST, sdy in part, y., purple, gy, col. mottile, R. calcrete, R. gy. Cl veinlet, lower boundary are grade
			392.70-394.50 Sdy CLST grade to Cgl. in lowerpart, stiff to hard, bl-gy to y-br., A. calcrete, lower boundary are erosional surface			
			394.50-396.95 Clay SLST grade to V c. g. SS in lower part, gy., purple w y-br. mottile, calcrete, lower boundary are erosional surface			
		fining upward, closed work, in part w col. mottile	400			396.95-404.93 silty CLST, rd, y., br., purple in upper & lowerpart, w gy. frag. in-low. part: gy. CLST w y. mottile & plant remain in middle part. C. calcrete. lower boundary are grade
			410			404.93-412.83 Fining upward seq., gy., y., wd, C. calcrete & mottile, silty CLST grade to Cglt-SS, clasts are ang. to subround, low sphericity, up to granule size
			420			412.83-420.92 Alternation of SS, SLST, clay SLST & Cglt-SS, gy, y-br., purple, wd, C. to A. calcrete. Intb. of rd & gy. CLST, lamination in lowerpart
A-1		in part w fining upward	420	420.92-427.55 clay SLST, varicolor, y., br., gy & purple, wd, A. calcrete & mottile, w SS in lower part		
			430	427.55-432.60 clay SLST, y., w some gy. CLST frag., rd mottile in upper & middlepart. SS, y. f. to c. g. in lowerpart		
			440	432.60-437.00 Fining upward seq., clay SLST to Cgl., gy, w purple & y-br. mottile, C. calcrete		
			440	437.00-442.10 Clay SLST, y mottile, w gy. frag.		
			440	442.10-445.40 Clay SLST, gy., rd mottile, C. calc. veinlet, % of silty increase to bottom, lower boundary are grade		
A-1			450	445.40-446.60 Cgl. w thin layer of SS & Cglt-SS on top, gy. w A. purple & rd mottile		

EXPLANATION		Top soil		Sand / Sandstone		Mud / Mudstone		Lignite		Limestone		Calcrete		Fossil bed	
	Clay		Intro-formational Cgl.		Cgl.		Ligneous Claystone		Soft Lignite		Core Loss		Rootlets		Gastropods
	Claystone		Shale		Silt / Siltstone		Siliceous Matter		Lignite / Parting 50% 50%		Bioturbation		Burrow / Boring		Fish scales
											Ostracods				

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Pol Chaodumrong	Fig. A-1.4 (cont.)	







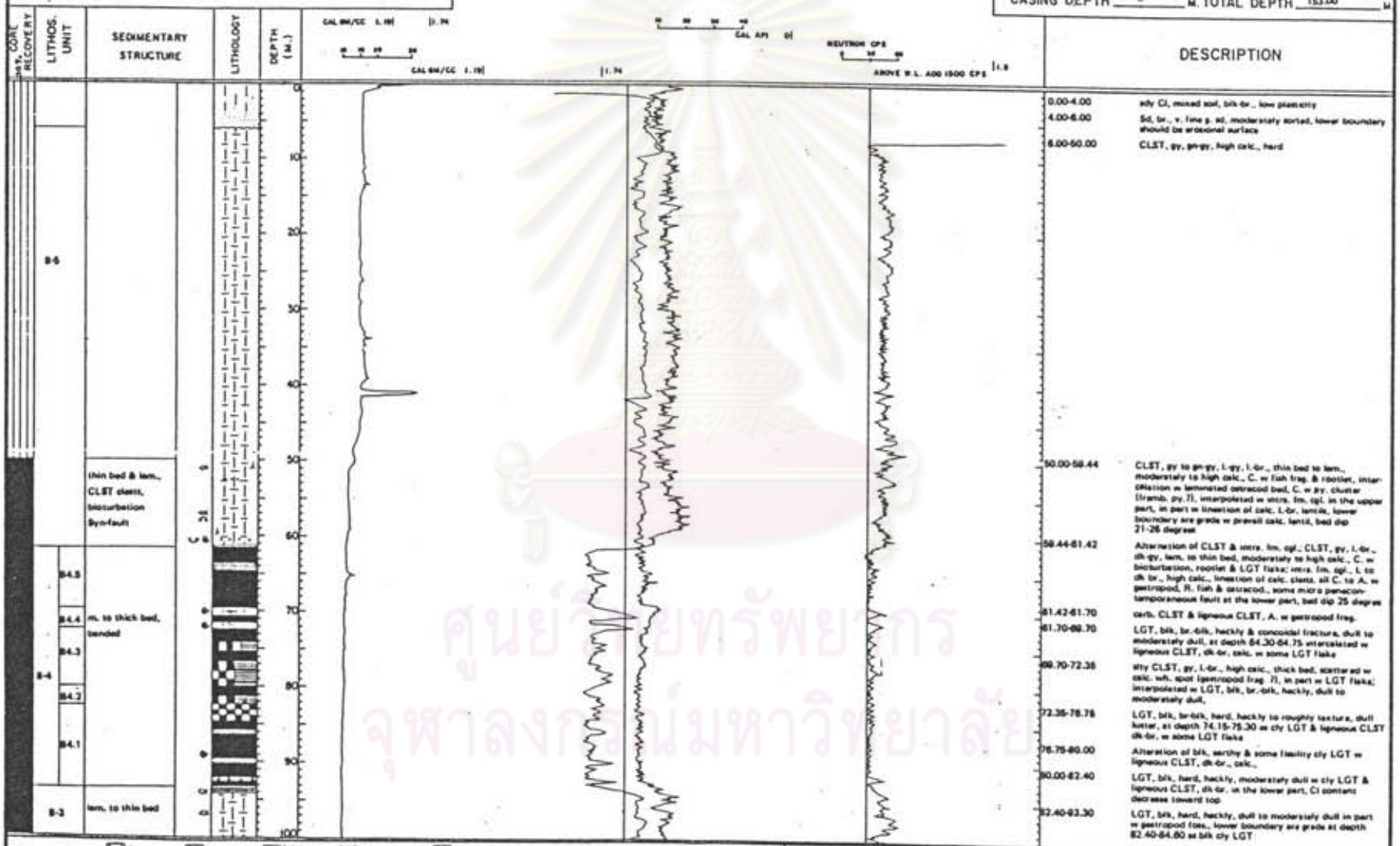
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**GEOLOGICAL DRILL CHART**  
 COMMENCED 14/11/83 COMPLETED 18/11/83  
 DRILLING MACHINE DLY 08 DRILLER EGAT  
 MODIFIED AFTER (GEOLOGIST) CHAMNARIN

LOGGING SPEED & DENSITY PROBE 5 M./MIN. (LIGMITE INTERSECTION 2 M./MIN)  
 NEUTRON PROBE 5 M./MIN.  
 DATUM ABOVE GROUND LEVEL 0.00 M. WATER LEVEL 0.0 M.

N. - 2,024,279.72 M SHEET 1 OF 2  
 E. - 577,447.80 M HOLE NO. LM 2492 C  
 CO-ORDINATE N3 W 0.79  
 COL. ELEV. (MSL) 303.04 M. GEOPHYS. LOG DEPTH 110.58 M  
 CASING DEPTH - M. TOTAL DEPTH 153.00 M



EXPLANATION	Clay	Shale	Interformational Cgl Mud / Mudstone	Lignite	Limstone	Concretes	Fossil bed
Claystone	Sand / Sandstone	Soft Lignite	Clayey Lignite	Siliceous Matter	Rootlets	Gastropods	
Silt / Siltstone	Cgl.	Lignitoid Claystone	Lignite Parting	Core loss	Disturbance	Fish scales	Ostracods
Top soil					Burrow		

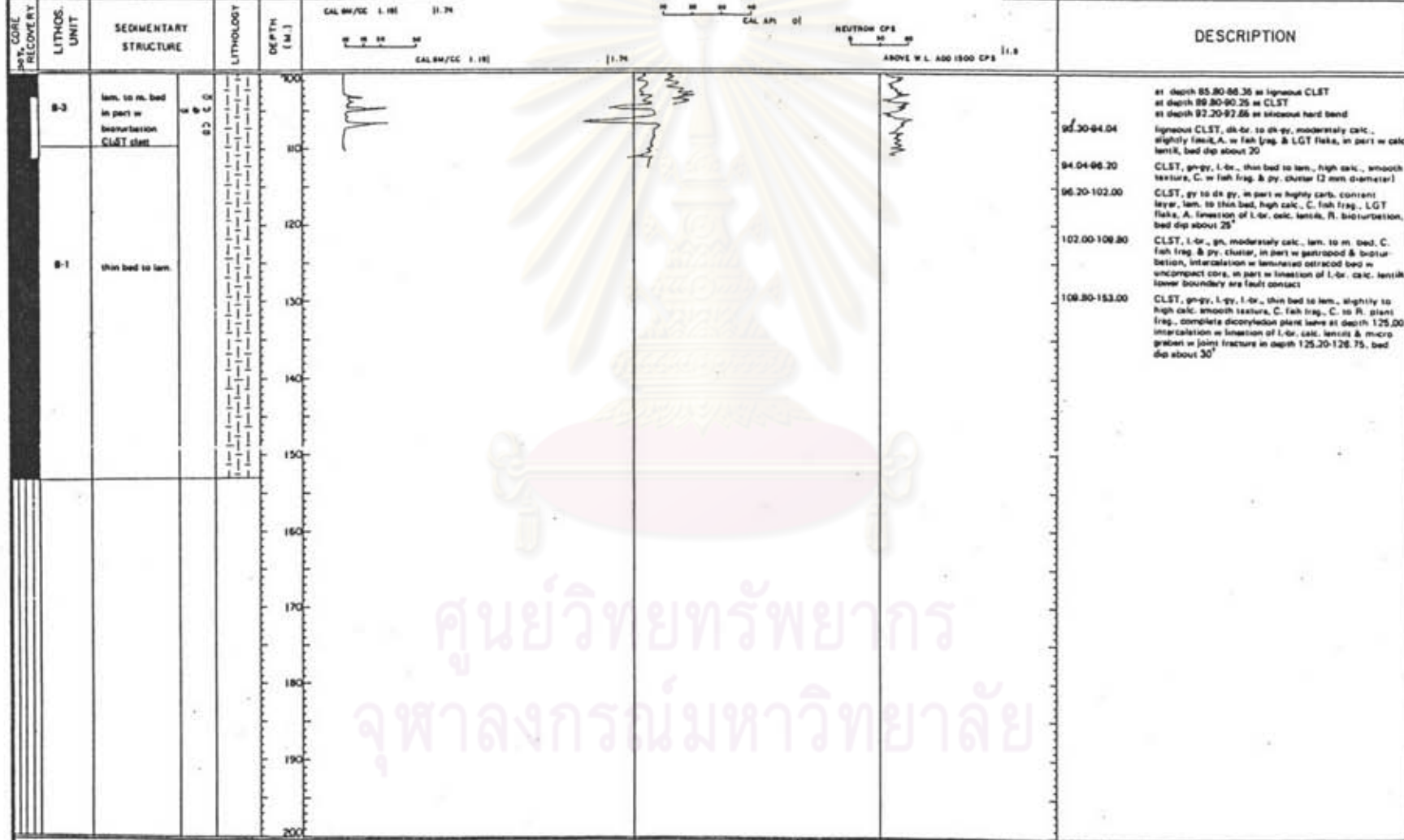
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 Department of Geology, Graduate School Chulalongkorn University, 1985  
 Pol Choodumrong Fig A-1.6

**GEOLOGICAL DRILL CHART**

LOGGING SPEED & DENSITY PROBE 5 M./MIN (LIGHTITE INTERSECTION 2 M./MIN.)  
 NEUTRON PROBE 5 M./MIN.  
 DATUM ABOVE GROUND LEVEL 0.00 M. WATER LEVEL 0.0 M.

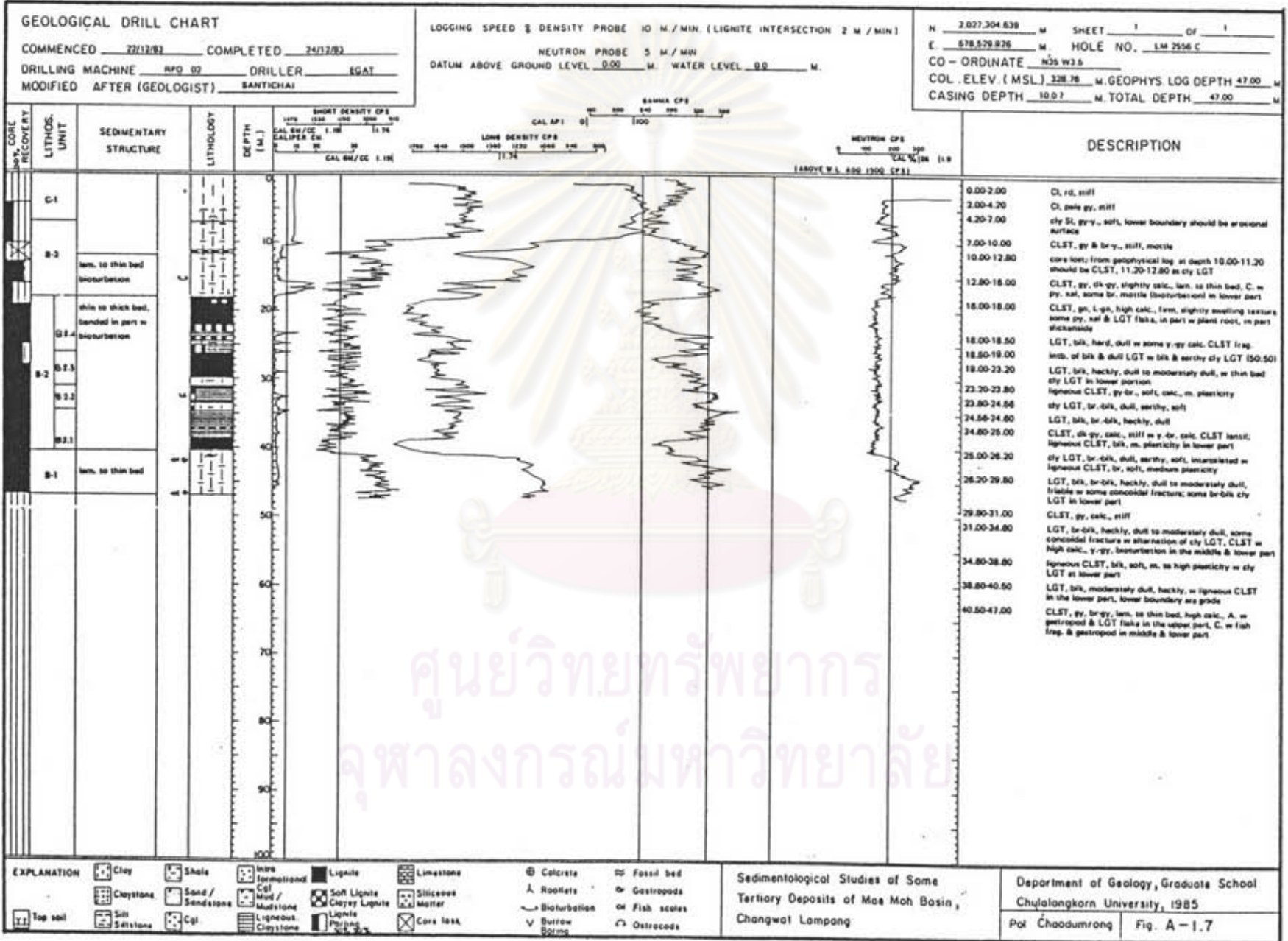
COMMENCED 14/11/83 COMPLETED 18/11/83  
 DRILLING MACHINE DLY 08 DRILLER EGAT  
 MODIFIED AFTER (GEOLOGIST) CHAMNARH

N 2,024,279.72 M SHEET 2 OF 2  
 E 577,447.80 M HOLE NO. LM 2492 C  
 CO-ORDINATE N3 WD 79  
 COL. ELEV. (MSL) 202.04 M. GEOPHYS. LOG DEPTH 110.58 M  
 CASING DEPTH - M. TOTAL DEPTH 153.00 M



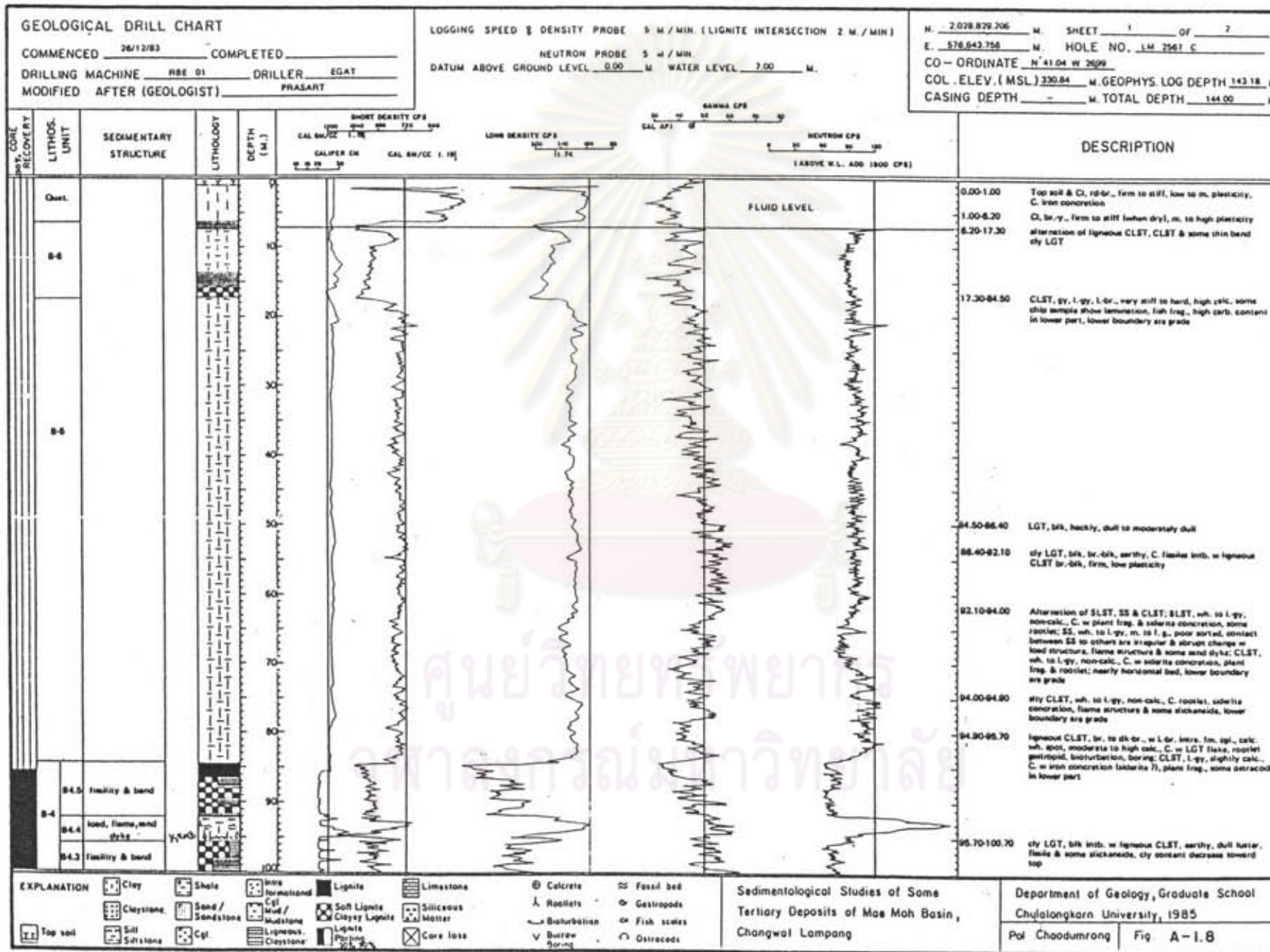
<b>EXPLANATION</b>	<ul style="list-style-type: none"> <li>Clay</li> <li>Claystone</li> <li>Top soil</li> </ul>	<ul style="list-style-type: none"> <li>Shale</li> <li>Sand / Sandstone</li> <li>Silt / Siltstone</li> </ul>	<ul style="list-style-type: none"> <li>Iron / Hematite</li> <li>Mud / Mudstone</li> <li>Lignous / Claystone</li> </ul>	<ul style="list-style-type: none"> <li>Lignite</li> <li>Soft Lignite / Cherty Lignite</li> <li>Lignite / Lignite</li> </ul>	<ul style="list-style-type: none"> <li>Limestone</li> <li>Siliceous Matter</li> <li>Core loss</li> </ul>	<ul style="list-style-type: none"> <li>Concrete</li> <li>Rootlets</li> <li>Bioturbation</li> <li>Burrow / Spring</li> </ul>	<ul style="list-style-type: none"> <li>Fossil bed</li> <li>Gastropods</li> <li>Fish scales</li> <li>Ostracode</li> </ul>	Sedimentological Studies of Some Tertiary Deposits of Mae Moh Basin, Chongwat Lampang	Department of Geology, Graduate School Chulalongkorn University, 1985 Pol Choodumrong Fig A-1.6 (cont.)
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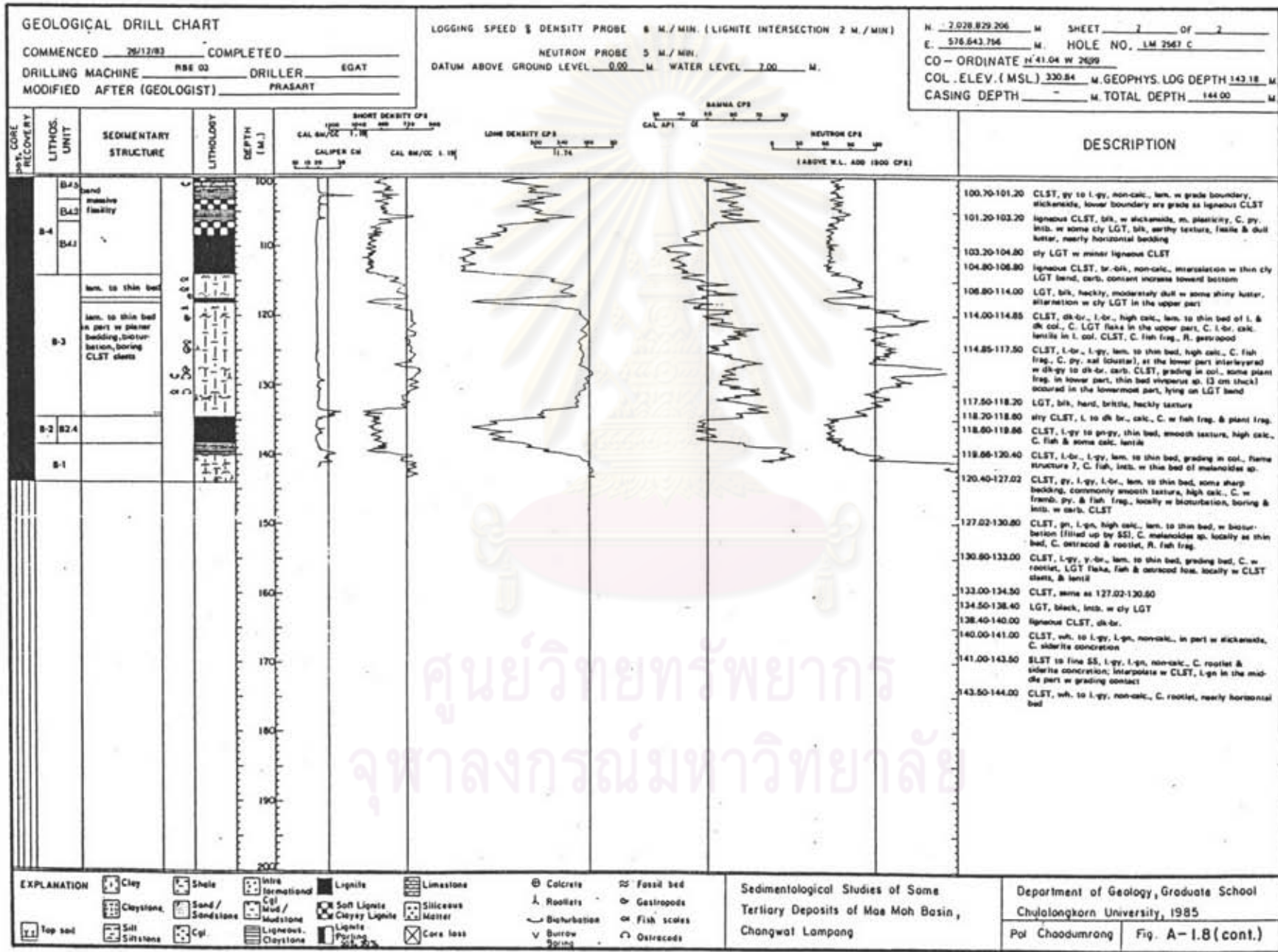
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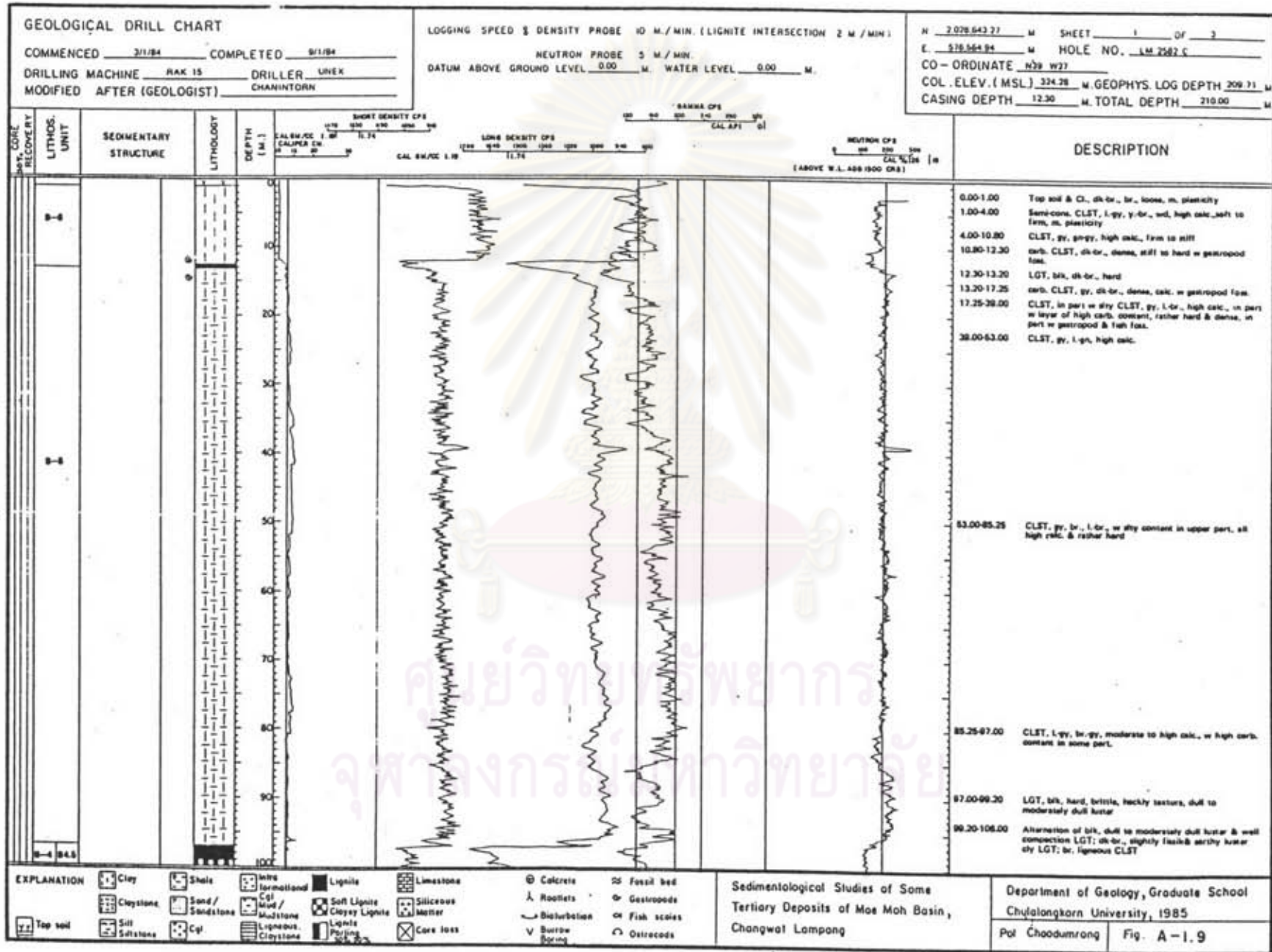


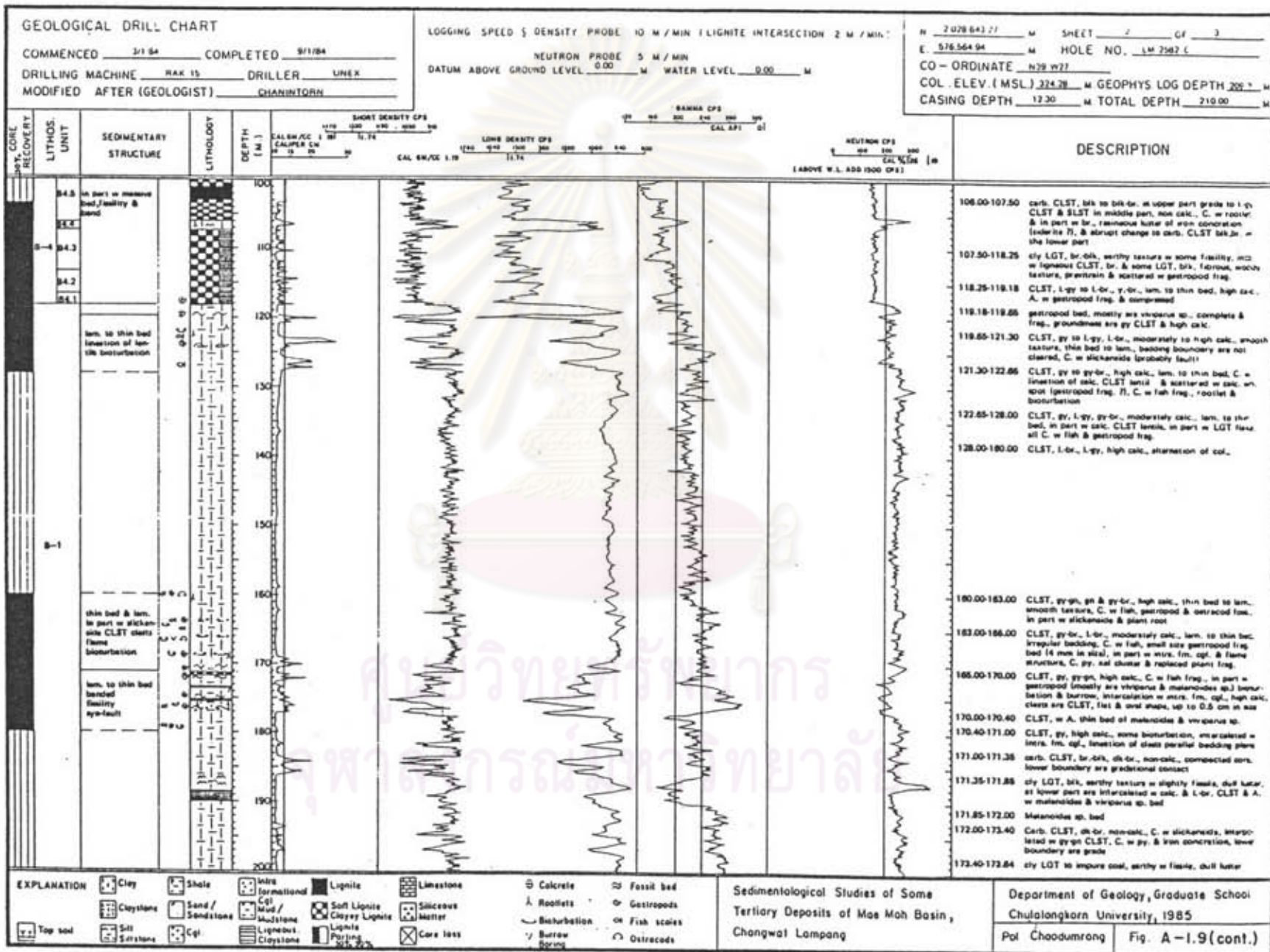
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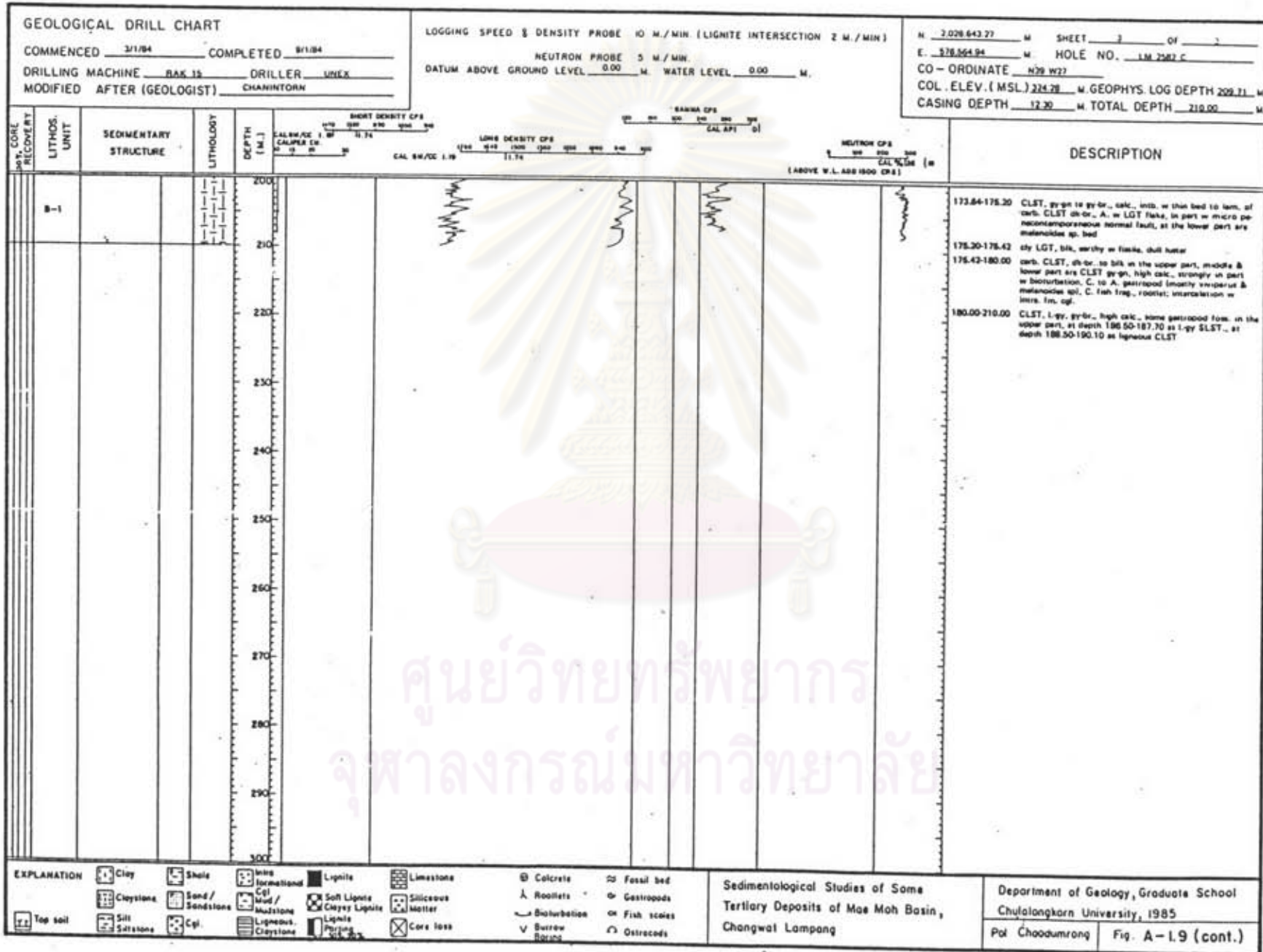




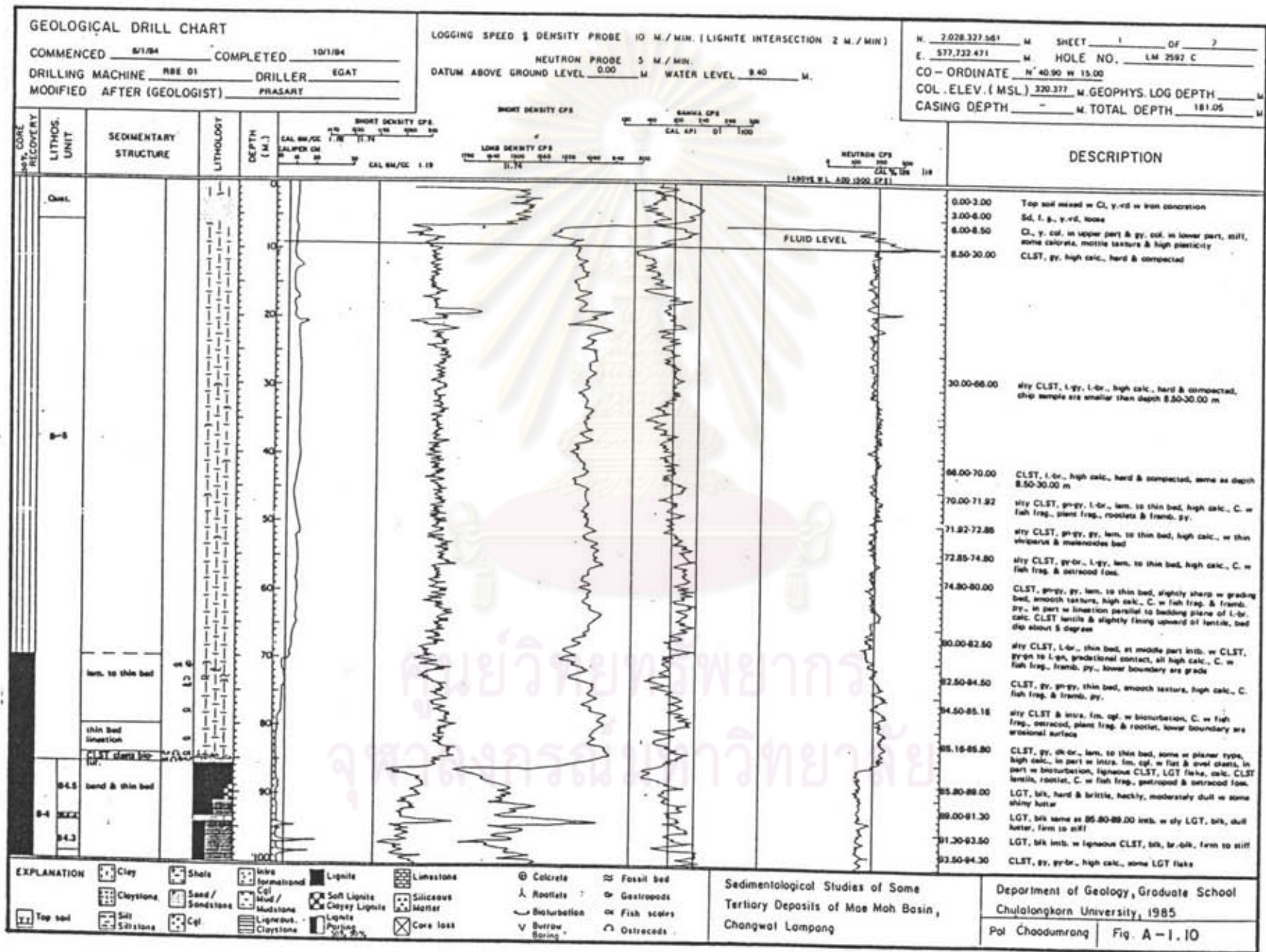








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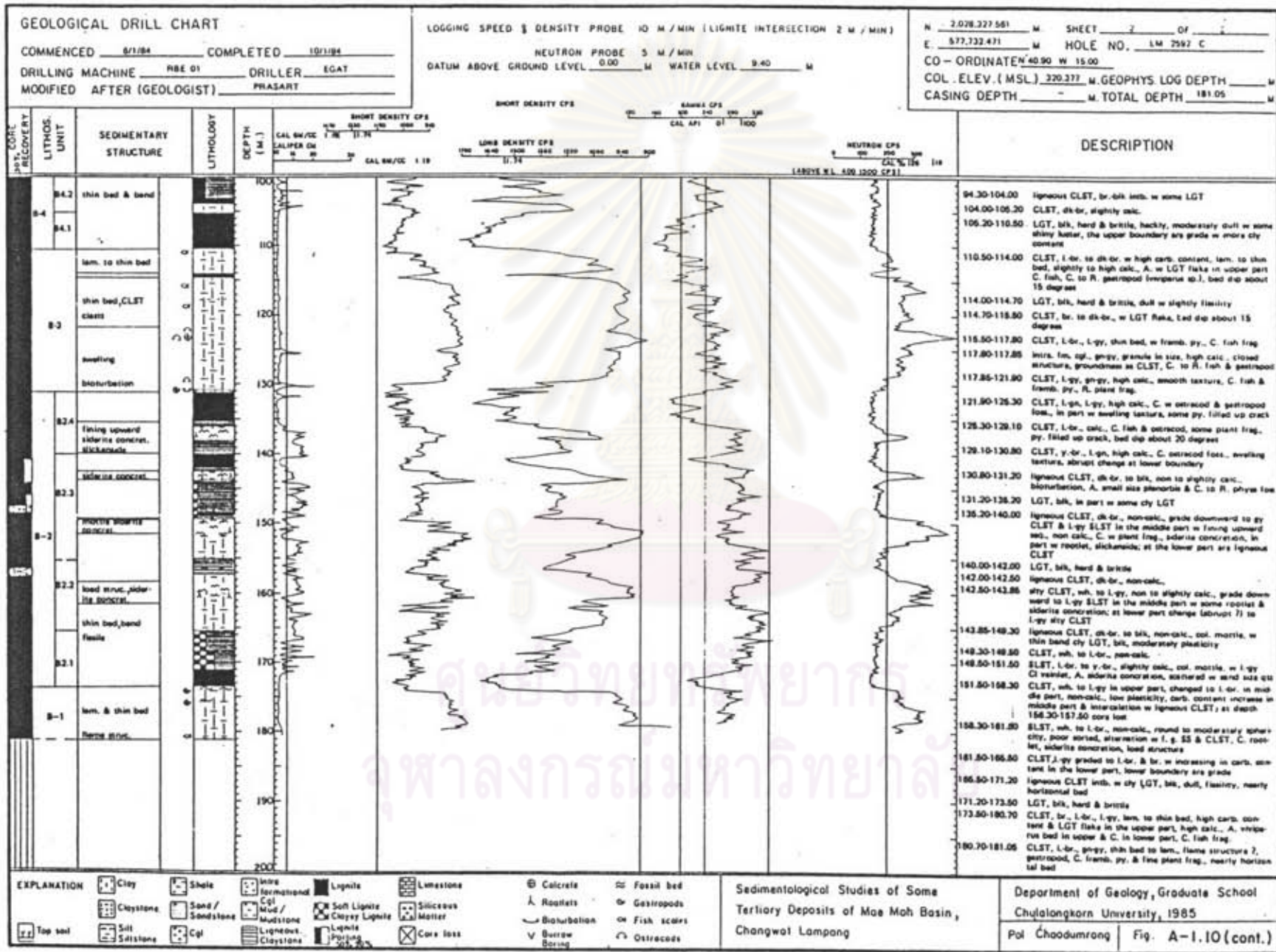


Table A-2.1 The elevation on floor of each lithostratigraphic unit.

Well Ref. No. LM	Co-ordinate (mine-grid)	Col. Elev. (m)	MAE MOH GROUP										
			Formation C			Formation B					Formation A		
			C-3	C-2	C-1	B-6	B-5	B-4	B-3	B-2	B-1	A-2	A-1
LMP 65	N 14.02 W 3.11	260.28	?	?	?	?	208.28	176.28	155.28	144.68	-	-	-
LMP 67	N 21.82 E 0.09	294.70	?	?	?	?	293.70	260.30	232.95	226.50	-	-	-
1734	S 7 W 5	301.39	NP	225.39	202.09	188.09	100.65	55.59	12.04	-16.44	-	-	-
1738 G	N 13 W 11	307.18	258.08	223.98	102.88	74.98	-2.82	-30.32	-65.00	-76.72	-	-	-
1745	N 30 W 39	323.89	NP	NP	NP	316.69	256.09	237.09	211.39	-	-	-	-
1747	N 37.6 W 25.9	322.16	NP	NP	NP	300.66	257.56	251.48	233.66	194.56	-	-	-
1750 G	N 13 W 23	328.47	225.47	157.97	36.47	6.97	-71.73	-85.03	-	-	-	-	-
1751	N 46 W 30	328.08	NP	NP	324.53	NP	NP	NP	NP	289.48	-	-	-
1752	N 46 W 26	338.15	NP	NP	332.55	275.05	190.15	162.35	144.15	99.15	-	-	-
1753	N 46 W 18	324.88	NP	NP	318.28	304.08	233.68	191.88	-	-	-	-	-
1755	N 17.72 W 1.66	276.82	NP	NP	NP	NP	235.32	206.02	176.82	152.82	-	-	-
1767	N 46 W 14	311.53	NP	NP	NP	NP	NP	296.43	282.48	241.73	-	-	-
1769	N 46 W 10	310.60	NP	NP	301.95	NP	NP	296.95	275.20	248.20	-	-	-
1770 G	N 13 W 33	325.66	NP	NP	NP	NP	278.26	249.26	242.86	NP	-	-	-
1774 G	N 30 W 26	329.45	NP	NP	294.45	258.55	182.75	161.15	146.45	139.05	-	-	-
1775 G	N 13 E 0	280.61	NP	NP	NP	NP	NP	265.61	236.21	210.21	-	-	-
1778 G	N 30 E 2.03	314.66	NP	NP	NP	NP	NP	NP	NP	NP	-	-	-
1781 G	N 29.98 W 15.11	313.28	NP	NP	217.28	150.38	55.28	NP	50.43	37.48	-	-	-
1783 G	N 30.03 W 0.95	320.09	NP	NP	NP	NP	NP	NP	297.79	275.99	-	-	-
1788	N 30 W 17	322.32	NP	308.82	199.72	162.02	77.42	67.32	47.42	25.32	-	-	-
1789 G	N 30 W 5	321.78	NP	NP	NP	NP	297.98	271.78	240.38	219.38	-	-	-
1790	N 30 W 36	319.61	NP	NP	NP	NP	299.56	283.31	260.21	251.41	-	-	-
1791 (T8)	N 30 W 19.5	331.23	NP	308.83	224.23	171.13	80.53	56.63	27.53	8.43	-	-	-
1792 (T9)	N 30.05 W 22.15	340.13	NP	332.13	285.13	225.73	143.03	122.43	99.13	82.13	-	-	-
1793	N 30 W 33	320.90	NP	NP	NP	NP	263.35	241.70	213.4	192.25	-	-	-
1794	N 30 W 30	317.95	NP	NP	NP	282.45	246.05	NP	234.95	219.15	-	-	-
1795	N 25.10 W 22.13	325.99	290.79	264.99	175.99	137.19	51.69	46.99	1.89	-16.61	-	-	-
1797	N 30 W 27.58	329.60	NP	NP	257.00	241.95	216.50	192.60	167.60	NP	-	-	-
1798	N 46 W 3	332.90	NP	NP	NP	NP	NP	NP	NP	NP	-	-	-
1800	N 45.94 W 0	332.90	NP	NP	NP	NP	NP	NP	NP	NP	288.90	?	-
1801	N 30 W 10	312.33	NP	NP	294.15	233.63	151.03	129.33	100.33	91.33	-	-	-
1808	N 34 W 35	327.88	NP	NP	317.58	NP	273.12	253.58	NP	NP	-	-	-
1809	N 21 W 19	331.50	214.60	202.00	94.00	58.50	-17.90	-39.60	-	-	-	-	-
1810	N 25 W 28	284.62	NP	NP	276.00	250.82	216.91	NP	NP	NP	79.62	?	-
1814	N 25 W 38	318.45	NP	NP	313.83	NP	277.41	257.18	239.02	232.55	-	-	-
1815 (T19)	N 21 W 15.05	324.52	278.52	254.92	98.52	73.52	-5.48	-31.48	-63.48	-73.48	-	-	-
1816	N 25 W 26	325.19	276.29	258.99	257.77	251.01	191.48	171.89	147.48	130.12	-	-	-
1818	N 21 W 26.05	328.32	NP	NP	281.32	225.12	165.32	146.42	127.72	118.77	-	-	-
1821	N 21 W 30.12	315.87	NP	NP	310.87	NP	NP	NP	NP	NP	-	-	-
1822	N 40 W 25.98	324.15	NP	NP	321.80	292.81	194.78	178.89	158.60	115.15	-	-	-
1824	N 40 W 35	320.99	NP	NP	NP	NP	272.39	255.09	NP	227.29	-	-	-
1826	N 17 W 11.09	307.52	256.52	203.52	123.52	100.52	35.92	14.92	- 4.38	-23.98	-	-	-
1828	N 34.01 W 26.01	330.91	NP	NP	297.91	274.81	217.51	196.81	170.51	155.51	-	-	-
1829	N 17.41 W 19	326.01	219.01	201.51	45.51	18.71	-65.44	-76.19	-98.09	-114.99	-	-	-
1835 (T22)	N 17.08 W 26.03	317.43	?	?	227.43	177.43	147.43	NP	NP	NP	5.43	?	-
1836	N 40 W 20	331.79	NP	NP	270.19	234.79	135.34	104.69	83.69	39.35	-	-	-
1837	N 8.03 W 25.97	318.41	NP	NP	230.41	212.41	149.31	131.51	116.41	102.41	-	-	-
1839	N 4.98 W 25.97	341.89	274.89	241.49	205.89	183.89	148.89	145.39	138.89	123.89	-	-	-
1841	N 1 W 26	336.25	313.75	275.75	233.35	208.25	157.05	138.55	121.79	110.15	-	-	-
1842	S 3 W 26.02	331.22	285.22	277.22	233.22	194.22	139.12	119.42	102.82	88.62	-	-	-
1844(T43)	S 7 W 26	327.04	264.84	243.34	215.04	120.04	96.04	91.94	75.64	62.04	-	-	-
1845	N 46 W 24	339.98	NP	NP	322.98	271.18	182.18	144.78	129.98	-	-	-	-
1846(T44)	S 7 W 23	317.36	210.56	168.56	32.06	21.36	-25.24	-47.64	-62.44	-79.54	-	-	-
1847	N 30 W 12.92	308.80	NP	NP	236.20	177.90	98.80	-	-	-	-	-	-
1849	N 46 W 22	334.12	NP	NP	318.12	259.52	170.32	126.62	107.82	50.62	-	-	-
1850	N 46 W 12	318.04	NP	NP	NP	NP	NP	NP	NP	290.44	-	-	-
1851	S 29.96 W 22.98	308.11	253.11	250.11	213.46	198.11	154.61	99.81	78.11	-	-	-	-
1852	S 18 W 23	321.20	287.70	249.20	183.20	167.20	102.20	39.20	15.90	-8.96	-	-	-
1853	N 46 W 32	332.49	NP	NP	321.49	NP	NP	NP	NP	NP	-	-	-
1857	S 7 W 28	324.58	281.58	243.58	214.58	168.78	103.98	82.68	63.78	49.08	-	-	-
1864(T50)	S 18 W 17	314.19	262.69	250.69	200.19	NP	147.79	97.69	90.38	57.89	-	-	-
1866	S 17.99 W 13.04	313.14	246.94	233.84	219.44	196.14	124.94	36.14	-2.06	-47.26	-	-	-
1868	S 17.99 W 27.99	327.84	NP	NP	260.34	NP	153.84	116.44	96.34	80.34	-	-	-
1873	N 1 W 30	322.80	NP	NP	294.70	283.50	220.80	202.80	187.40	174.80	-	-	-
1874	S 7 W 30	318.89	306.39	254.89	221.89	202.09	153.39	133.69	117.49	104.69	-	-	-
1875	S 18 W 32	333.33	NP	309.03	296.33	284.63	254.83	224.33	210.33	198.33	-	-	-
1876	S 18.08 W 25.96	327.22	275.82	231.22	189.22	155.22	102.22	50.82	38.02	28.22	-	-	-
1880	N 17 W 35	316.90	NP	NP	NP	NP	267.73	256.20	248.90	234.10	-	-	-
1881	N 13.06 W 30.43	317.34	NP	NP	309.34	NP	268.94	251.74	234.84	222.34	-	-	-
1884	N 12.32 W 8.01	308.24	92.54	73.24	57.79	23.74	1.44	NP	NP	-2.96	-	-	-
1887	N 9 W 5	310.00	176.00	166.00	143.00	102.70	31.00	NP	NP	NP	-	-	-
1888	N 0.83 W 5.11	306.96	NP	NP	254.96	190.26	103.18	96.82	76.52	49.52	-	-	-
1889	N 13.01 W 35.97	326.36	NP	NP	NP	NP	NP	NP	282.16	276.36	-	-	-
1903	S 26 W 16.07	305.75	226.55	199.35	182.55	?	124.75	56.75	28.75	-	-	-	-
1904	S 26.11 W 10.09	302.12	246.12	235.32	206.12	?	182.62	114.92	95.22	-	-	-	-
1906	S 7.06 W 15.90	326.28	187.18	177.78	26.78	12.88	-65.32	-93.32	-114.72	-131.72	-	-	-
1907	S 30 W 13.01	305.21	260.21	257.71	227.01	NP	-	-	-	-	-	-	-



Table A-2,1 (continued)

Well Ref. No. LM	Co-ordinate (mine-grid)	Col. Elev. (m)	MAE MOH GROUP											
			Formation C			Formation B					Formation A			
			C-3	C-2	C-1	B-6	B-5	B-4	B-3	B-2	B-1	A-2	A-1	
1908	S 30 W 14.99	304.88	208.38	163.38	NP	NP	-	-	-	-	-	-	-	-
1914	N 13 W 8	307.79	203.79	182.29	162.29	127.99	49.39	26.19	7.79	NP	-	-	-	-
1917	N 25 W 15	315.03	NP	NP	111.03	NP	35.53	13.53	-11.17	-29.37	-	-	-	-
1920	N 5 W 23	322.11	228.11	131.71	35.11	-0.59	-74.39	-95.09	-108.09	-117.89	-	-	-	-
1924	N 1 W 23	318.28	225.28	159.28	23.28	-9.92	-81.32	-102.32	-	-	-	-	-	-
1927	S 10.04 W 23.04	317.78	190.78	128.78	19.78	3.78	-44.12	-79.62	-98.22	-116.72	-	-	-	-
1929	S 7.02 W 24.55	319.90	259.40	217.50	113.80	NP	75.20	53.00	35.50	20.20	-	-	-	-
1931	S 10 W 26	324.42	255.42	209.92	138.92	128.92	59.92	31.42	10.92	-6.88	-	-	-	-
1932	S 18 W 35	326.94	NP	NP	NP	NP	NP	NP	318.49	249.94	-	-	-	-
1935	S 18 W 9.99	306.80	256.80	236.80	224.80	NP	184.60	91.60	57.90	48.00	-	-	-	-
1937	N 8.95 W 13.18	322.58	250.58	156.98	-16.62	-47.42	-124.82	-149.92	-173.42	-	-	-	-	-
1938	N 1 W 10	306.33	231.33	145.83	-131.67	-149.67	-	-	-	-	-	-	-	-
1940	S 17.99 W 15.02	317.36	191.66	180.06	165.56	124.36	62.36	23.36	3.36	-57.64	-	-	-	-
1946	S 6.99 E 1.99	323.49	NP	NP	NP	NP	NP	NP	305.79	278.49	-	-	-	-
1947	S 9.96 W 3.95	299.84	NP	NP	275.34	269.84	186.54	137.54	102.44	73.14	-	-	-	-
1948	N 29.96 W 8.33	313.38	NP	NP	NP	285.58	194.28	169.28	139.38	122.38	-	-	-	-
1949	N 16.99 W 3.10	300.07	NP	NP	NP	264.57	184.07	NP	167.07	143.87	-	-	-	-
1951	N 38 W 2	323.63	NP	NP	315.53	NP	NP	NP	NP	NP	-	-	-	-
1953	N 38 W 5	324.17	NP	NP	313.17	NP	NP	NP	NP	NP	-	-	-	-
1967	N 46 W 28	339.89	NP	NP	332.99	312.49	252.49	225.19	207.39	155.84	-	-	-	-
1969	N 34.01 W 5.01	315.38	NP	NP	311.38	NP	NP	NP	301.18	279.38	-	-	-	-
1970	N 34 W 15.29	313.43	NP	NP	283.43	224.43	170.43	156.33	127.43	103.03	-	-	-	-
1972	S 11 W 10	308.49	263.79	99.49	44.49	NP	37.49	-0.21	-34.31	-57.11	-	-	-	-
1974	N 46.02 W 19.50	322.75	NP	NP	314.75	252.75	199.55	188.25	170.85	104.15	-	-	-	-
1977	N 17.1 W 6.6	310.32	NP	NP	229.62	197.92	110.92	87.42	62.02	49.72	-	-	-	-
1980	N 9 W 4	304.72	237.12	224.72	218.92	171.62	101.12	69.32	44.72	NP	-	-	-	-
1984	S 6.88 W 8	312.57	185.17	178.87	-11.43	-35.43	-	-	-	-	-	-	-	-
1985	S 3.92 W 4.98	302.38	NP	NP	226.46	210.56	126.56	88.96	51.86	22.96	-	-	-	-
1986	N 25 W 5	317.05	NP	NP	280.55	244.05	149.55	127.05	106.25	?	-	-	-	-
1987	N 17 W 4.8	307.45	NP	NP	265.45	240.75	162.55	133.15	104.65	79.85	-	-	-	-
1993	N 5.06 W 12.1	321.19	182.69	151.19	?	-95.81	-170.81	-194.81	-222.81	-	-	-	-	-
1994	S 7 W 11.5	321.35	203.55	201.35	-	-	-	-	-	-	-	-	-	-
1995	S 22.01 W 20	316.89	NP	NP	276.69	248.69	182.89	101.89	76.39	24.69	-	-	-	-
1996	N 13 W 4.37	308.27	NP	NP	268.87	235.47	156.87	126.37	96.89	69.87	-	-	-	-
1998	S 6.82 E 0.29	315.06	NP	NP	309.86	NP	NP	274.26	250.26	240.66	-	-	-	-
2003	N 21.19 E 0.91	308.77	NP	NP	NP	NP	287.07	256.77	236.77	232.37	-	-	-	-
2004	S 22 W 28.91	318.39	290.39	234.69	221.89	219.39	151.39	?	-	-	-	-	-	-
2005	S 1 W 5	304.94	NP	NP	249.94	NP	134.29	100.74	67.44	39.64	-	-	-	-
2006	S 18 W 33	336.19	NP	NP	306.69	NP	281.69	245.19	234.69	222.49	-	-	-	-
2007	S 26 W 20	306.79	279.59	271.09	255.79	236.79	190.29	116.79	93.19	-	-	-	-	-
2009	S 13.81 W 24.75	317.44	239.84	188.44	120.34	103.44	45.04	11.74	-6.36	-23.26	-	-	-	-
2010	S 22.02 W 25.59	315.76	295.76	294.76	275.76	236.76	194.06	128.76	113.46	93.46	-	-	-	-
2013	N 5.08 W 1.01	304.21	NP	NP	NP	NP	239.71	211.21	189.11	164.51	-	-	-	-
2016	S 6.98 W 2.8	301.45	NP	NP	297.45	NP	214.25	195.85	157.65	127.95	-	-	-	-
2018	S 26 W 30	336.24	?	?	251.24	NP	201.04	164.34	152.74	133.54	-	-	-	-
2019	N 18.71 W 4.96	312.61	NP	NP	282.61	249.61	183.21	157.61	130.71	108.61	-	-	-	-
2020	S 25.99 W 6.92	302.44	227.14	158.34	NP	NP	NP	136.94	90.64	-	-	-	-	-
2032	N 3.01 W 5.03	309.62	?	?	218.22	199.62	121.42	92.62	63.42	48.12	-	-	-	-
2036	N 5 W 29	313.52	NP	NP	301.52	281.02	217.32	199.02	182.52	169.32	-	-	-	-
2041	N 38 W 20.1	333.69	NP	NP	279.19	228.09	129.09	107.19	82.39	39.69	-	-	-	-
2043	S 6.95 W 31.6	320.39	NP	NP	NP	298.39	233.99	221.29	204.94	194.49	-	-	-	-
2045	N 9 W 26	318.24	NP	NP	249.24	242.24	173.54	155.94	141.34	127.54	-	-	-	-
2047	N 6.5 W 26	328.52	286.52	267.02	182.52	168.02	139.62	NP	NP	130.12	-	-	-	-
2066	N 1 W 34	321.90	NP	NP	317.60	NP	NP	307.40	291.40	279.90	-	-	-	-
2073	S 25.98 W 26	319.00	289.00	277.20	NP	NP	219.20	151.90	135.00	80.50	-	-	-	-
2074	N 12.81 W 24.60	317.78	234.48	189.38	165.48	105.38	-	-	-	-	-	-	-	-
2076	S 18.15 W 2.84	300.85	NP	NP	NP	NP	NP	260.15	232.35	194.65	-	-	-	-
2079	S 18 W 0.02	303.71	NP	NP	NP	NP	NP	296.41	277.46	257.91	-	-	-	-
2081	S 14 W 5	301.28	NP	NP	209.28	194.28	122.87	70.28	66.68	55.68	-	-	-	-
2089	S 11.96 W 29.97	329.85	?	?	232.85	210.85	154.85	137.04	121.15	108.25	-	-	-	-
2093	N 25 W 34.04	318.86	NP	NP	NP	296.16	211.26	NP	NP	NP	-	-	-	-
2095	N 30 W 37	322.36	NP	NP	320.46	NP	273.66	257.36	250.16	244.66	-	-	-	-
2097	S 4.08 W 30.08	323.54	264.54	251.74	246.24	?	175.14	156.04	138.44	126.34	-	-	-	-
2111	N 17.37 W 13.90	311.47	281.47	193.57	88.77	63.55	-18.53	-43.23	-68.73	-89.03	-	-	-	-
2119	N 21.51 W 9.95	307.46	196.46	184.06	171.46	159.46	58.01	38.36	15.91	8.76	-	-	-	-
2123	N 12.96 W 31.38	326.31	NP	NP	320.81	NP	285.81	277.01	266.51	253.81	-	-	-	-
2134	N 9.01 W 25.95	321.21	?	?	225.01	200.41	136.01	129.21	123.71	108.21	-	-	-	-
2136	N 45.95 W 16.07	318.20	NP	NP	NP	NP	296.90	262.00	247.20	187.80	-	-	-	-
2139	N 25.08 W 8.39	310.69	NP	NP	241.09	188.89	104.44	78.94	52.09	30.19	-	-	-	-
2148	N 30 W 3.92	324.37	NP	NP	NP	NP	296.94	NP	262.57	238.87	-	-	-	-
2151	S 18.35 W 7.99	296.97	203.47	185.12	NP	NP	NP	90.77	67.77	?	-	-	-	-
2157	S 21.70 W 5.42	299.15	NP	NP	NP	228.55	213.85	112.45	84.55	31.25	-	-	-	-
2159	N 5 W 34.03	318.88	NP	NP	315.88	NP	NP	310.88	299.18	292.88	-	-	-	-
2164	N 12.97 W 18.24	326.03	?	?	36.03	-61.97	-127.97	-136.97	-161.97	-166.97	-	-	-	-
2174	N 18.99 W 34.95	315.19	NP	NP	NP	293.19	236.89	232.39	218.69	201.69	-	-	-	-
2175	N 24.99 W 30	324.84	NP	NP	316.84	NP	294.44	281.34	266.84	253.14	-	-	-	-
2176	N 30 W 31	318.13	NP	NP	NP	NP	275.13	259.13	237.53	229.93	-	-	-	-

Table A-2.1 (continued)

Well Ref. No. LM	Co-ordinate (mine-grid)	Col. Elev. (m)	MAE MOH GROUP										
			Formation C			Formation B						Formation A	
			C-3	C-2	C-1	B-6	B-5	B-4	B-3	B-2	B-1	A-2	A-1
2178	N 12.98 W 2.01	267.90	NP	NP	NP	NP	220.10	207.30	195.08	177.50	75.90	?	?
2180	S 6.97 W 1.32	311.93	NP	NP	305.93	NP	284.33	242.23	206.93	-	-	-	-
2189	N'46 E 2	334.39	NP	NP	NP	NP	NP	NP	NP	NP	NP	?	-
2191	N'46 W 7	317.55	NP	NP	NP	NP	NP	NP	296.05	252.35	-	-	-
2217	N'46.03 W 8.05	316.13	NP	NP	NP	NP	NP	295.13	278.73	234.63	-	-	-
2219	N'46 W 5	322.62	NP	NP	NP	NP	NP	NP	NP	303.42	-	-	-
2233	N'46 W 1	324.88	NP	NP	NP	NP	NP	NP	NP	NP	-	-	-
2399	N'32 W 15	311.46	NP	NP	258.46	215.96	142.36	118.66	89.26	67.76	-	-	-
2408	N'44 W 17	322.16	NP	NP	317.16	NP	265.16	235.16	218.16	155.76	-	-	-
2472	N 20.95 W 15.97	327.69	237.64	208.19	118.99	68.84	-13.51	-37.61	-	-	-	-	-
2483	N 7 E 2	311.41	NP	NP	NP	NP	NP	NP	287.21	260.61	-	-	-
2489	N 14 W 5	307.89	NP	NP	260.39	222.99	135.99	107.79	77.99	52.39	-	-	-
2491 C	N 1.01 W 1.85	304.01	NP	NP	NP	NP	233.01	NP	224.91	199.81	-	-	-
2492 C	N 3 W 0.79	303.04	NP	NP	NP	NP	241.34	209.74	193.24	NP	-	-	-
2551 C	N 3 W 3	305.46	NP	NP	263.46	235.46	188.46	156.46	146.46	122.46	-	-	-
2556	N'35 W 3.5	328.76	NP	NP	321.76	NP	NP	NP	310.76	288.26	-	-	-
2567	N'41.04 W 26.99	330.84	NP	NP	324.84	313.54	246.34	216.84	196.34	-	-	-	-
2582	N'39 W 27	324.28	NP	NP	320.28	311.08	227.28	206.30	?	NP	-	-	-
2586 C	N'41 W 23	330.90	NP	NP	310.80	233.10	192.70	163.60	142.90	87.70	-	-	-
2592 C	N'40.90 W 15	320.38	NP	NP	NP	NP	234.58	209.88	189.18	146.88	-	-	-
2813 S	N 1 W 29	324.42	NP	317.98	295.13	271.06	212.52	189.72	175.42	161.92	2.42	-88.41	-140.18
2963 S	N 15 W 15	315.09	227.64	182.49	51.94	20.72	-60.81	-85.91	-110.00	-129.81	-344.13	-374.41	-
2988 G	S 10 W 33	328.63	NP	NP	NP	NP	276.93	259.63	243.98	233.63	-	-	-
3382 S	N 29.64 W 10.36	312.73	NP	NP	290.07	224.73	135.03	116.43	89.73	62.83	-64.22	-85.85	-

ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

Table A-3.1 Thickness in meters of each lithostratigraphic unit

Well Ref. No. Lm.	Co-ordinate	Qzst.	Thickness in metres of each unit																					Total Depth (m.)				
			Formation C				Formation B										B-1											
			C-3	C-2	C-1	Total C	B-6	B-5	B-4				B-3	B-2														
									B 4.5		B 4.4			B 4.3		B 4.2		B 4.1		Total B-4	B 2.4		B 2.3		B 2.2		B 2.1	Total B-2
Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting									
1747	N37.8 W25.9	2.00	NP	NP	NP	NP	19.50	43.1	NP	NP	NP	NP	NP	NP	8.08	8.08	17.82	4.50	2.05	4.25	8.90	1.10	11.90	6.40	29.10	-	300.88	
1750G	N13 W23	5.10	97.90	67.50	121.50	286.90	29.50	78.70	5.80	1.60	3.70	1.50	2.70	0.30	7.70	23.30	-	-	-	-	-	-	-	-	-	-	429.00	
1751	N48 W30	1.60	NP	NP	1.95	1.95	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	1.00	3.90	20.55	2.00	5.00	2.60	35.05	-	150.00		
1752	N48 W28	3.50	NP	NP	2.10	2.10	57.50	84.90	7.80	5.40	5.80	4.40	2.80	1.60	NP	27.80	18.20	2.00	8.80	NP	8.20	NP	23.00	3.00	45.00	-	257.00	
1753	N48 W18	2.00	NP	NP	4.60	4.60	14.20	70.40	8.20	5.80	1.00	8.70	7.10	2.80	10.40	41.80	-	-	-	-	-	-	-	-	-	-	150.00	
1755	N17.72 W1.66	?	NP	NP	NP	NP	NP	41.50	7.80	2.70	4.20	2.00	3.20	0.50	9.10	29.30	29.20	8.10	0.60	4.40	NP	3.90	NP	7.00	24.00	-	134.00	
1767	N48 W14	10.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	3.95	1.15	5.10	13.95	0.95	3.50	NP	18.40	NP	15.90	2.00	40.75	-	140.00	
1769	N48 W10	2.50	NP	NP	6.15	6.15	NP	NP	NP	NP	NP	NP	NP	NP	5.00	5.00	21.75	3.90	8.70	4.00	2.80	0.90	3.40	3.30	27.00	-	144.00	
1770G	N13 W33	8.00	NP	NP	NP	NP	NP	41.40	3.80	0.50	4.30	NP	4.50	NP	15.90	29.00	6.40	5.10	NP	NP	NP	NP	NP	NP	5.10	-	141.02	
1774G	N30 W38	3.00	NP	NP	32.00	32.00	35.90	75.80	6.40	0.80	2.90	NP	3.00	0.80	7.70	21.60	14.70	NP	NP	0.40	0.60	0.60	1.20	4.60	7.40	-	250.50	
1775G	N13 E3	?	NP	NP	NP	NP	NP	NP	NP	NP	6.00	0.40	1.90	NP	6.70	15.00	29.40	8.60	0.70	4.20	0.80	4.00	1.40	6.30	26.00	-	130.00	
1778G	N30 E2.03	?	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	35.00	
1780G	N29.98 W15.11	6.00	NP?	NP?	90.00	90.00	68.90	85.10	NP	NP	NP	NP	NP	NP	NP	NP	NP	4.85	4.15	0.90	6.10	1.20	0.80	NP	NP	12.95	-	380.20
1783G	N30.03 W0.95	6.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	16.30	7.20	0.80	6.00	0.70	0.80	0.60	5.70	21.80	-	100.00
1788	N30 W17	?	NP	13.50?	109.10	122.60	37.70	84.60	4.60	0.70	4.80	NP	NP	NP	NP	10.10	19.90	6.90	0.80	5.60	1.40	0.70	0.90	5.80	22.10	-	329.70	
1789G	N30 W5	1.00	NP	NP	NP	NP	NP	22.80	8.20	1.00	4.50	0.30	3.20	0.80	8.20	26.20	31.40	6.70	0.90	5.70	0.50	1.10	0.70	5.40	21.00	-	160.00	
1790	N30 W38	4.25	NP	NP	NP	NP	NP	15.80	3.80	0.35	2.25	NP	2.55	NP	7.10	16.25	23.10	2.90	0.40	1.80	0.30	0.70	0.50	2.20	8.80	-	164.50	
1791 (T8)	N30 W19.5	2.00	NP	20.40	84.60	105.00	53.10	90.60	7.00	0.80	5.20	1.20	0.50	1.00	8.20	23.90	29.10	5.00	1.80	4.55	0.35	1.20	0.80	5.40	19.10	-	341.88	
1792 (T9)	N30.05 W22.15	0.50	NP	7.50	47.00	54.50	59.40	82.70	6.50	1.60	4.20	0.20	0.80	0.40	6.90	20.60	23.30	4.80	1.70	3.70	0.80	0.80	1.00	4.20	17.00	-	282.48	
1793	N30 W33	5.40	NP	NP	NP	NP	NP	52.15	6.75	0.70	5.00	NP	1.00	0.60	7.60	21.65	28.30	4.75	2.35	4.60	1.80	1.00	1.50	5.15	21.15	-	177.00	
1794	N30 W30	4.00	NP	NP	NP	NP	NP	31.50	36.40	NP	NP	NP	NP	NP	NP	NP	11.10	5.50	0.50	2.50	1.45	0.85	1.20	4.00	15.80	-	233.45	
1795	N25.10 W22.13	0.50	34.70	25.80	89.00	149.50	38.80	85.5	6.70	0.60	6.40	0.30	2.90	0.40	5.40	22.70	27.10	6.40	0.50	4.80	0.70	0.80	0.70	4.60	18.50	-	354.72	
1797	N30 W27.58	4.45	NP	NP	68.15	68.15	15.05	25.45	6.90	0.60	5.00	NP	4.00	NP	7.40	23.90	25.00	NP	NP	NP	NP	NP	NP	NP	NP	-	244.00	
1798	N46 W3	3.80	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	150.00
1800	N45.94 W0	6.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	38.00	119.50
1801	N30 W10	9.00	NP	NP	9.18	9.18	60.52	82.60	7.20	2.00	2.30	0.60	1.90	NP	7.70	21.70	29.00	7.00	0.60	1.40	NP	NP	NP	NP	NP	9.00	-	278.11
1808	N34 W35	0.60	NP	NP	9.70	9.70	NP	44.46	4.52	3.22	2.50	1.07	2.63	NP	5.60	19.54	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	150.80	
1809	N21 W19	6.00	110.90	12.60	108.00	231.50	35.50	78.20	5.75	1.45	4.40	1.20	1.60	0.30	7.20	21.90	-	-	-	-	-	-	-	-	-	-	391.22	
1810	N25 W28	5.08	NP	NP	3.42	3.42	25.30	33.91	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	137.29	284.62
1814	N25 W38	1.55	NP	NP	3.07	3.07	NP	36.42	5.89	0.67	4.40	NP	2.50	NP	6.77	20.23	18.15	NP	NP	2.47	0.30	0.50	NP	3.20	6.47	-	195.31	
1816	N25 W26	0.88	48.02	17.30	1.22	66.54	6.76	59.53	5.29	1.60	3.20	0.50	2.80	NP	6.20	19.59	24.41	4.69	1.75	3.25	1.60	0.70	0.60	4.57	17.36	-	205.50	
1818	N21 W26.05	4.00	NP	NP	43.00	43.00	56.20	59.8	4.80	1.40	3.70	NP	2.30	NP	8.70	18.90	18.70	3.30	0.45	3.85	0.50	0.85	NP	NP	8.95	-	220.00	
1821	N21 W30.12	0.50	NP	NP	4.50	4.50	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	168.00	
1826	N17 W11.09	9.00	42.00	53.00	80.00	175.00	23.00	64.60	4.60	2.20	5.10	0.50	2.60	0.40	5.60	21.00	19.30	7.00	0.30	5.80	NP	1.20	NP	5.30	19.60	-	391.35	

Table A-3.1 (Continued).

Well Ref. No. Lm.	Coordinate	Qual.	Thickness in metres of each unit																								Total Depth (m.)	
			Formation C				Formation B										Formation B											
			C-3	C-2	C-1	Total C	B-6	B-5	B-4					Total B-4	B-3	B-2					Total B-2	B-1						
									B 4.5	B 4.4	B 4.3	B 4.2	B 4.1			B 2.4	B 2.3	B 2.2	B 2.1									
Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting									
1828	N34.01 W26.01	10.00	NP	NP	23.00	23.00	23.10	57.30	7.20	1.50	?	?	?	?	5.90	20.70	26.30	4.00	2.60	3.40	3.00	2.00	NP	NP	15.00	-	204.48	
1829	N17.41 W19	8.00	99.00	17.50	156.00	272.50	26.80	74.15	5.45	1.50	2.85	1.55	2.60	0.60	6.40	20.75	21.90	5.60	1.50	3.80	0.40	0.90	NP	4.70	16.90	-	453.34	
1835 (T22)	N17.06 W26.03	?	NP	NP	90.00	90.00	50.00	30.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	142.00	353.00	
1836	N40 W20	3.00	NP	NP	58.60	58.60	35.40	99.45	8.55	2.00	7.30	0.30	2.80	1.50	8.20	30.65	21.00	3.50	2.10	5.30	10.00	2.00	15.00	6.44	44.34	-	294.90	
1837	N8.03 W25.97	33.00	NP	NP	55.00	55.00	18.00	83.10	4.70	1.20	2.80	1.00	1.90	0.50	5.70	17.80	15.10	5.00	1.00	5.00	NP	1.00	NP	2.00	14.00	-	228.00	
1839	N4.98 W25.97	1.00	66.00	33.40	35.60	135.00	22.00	35.00	3.50	NP	NP	NP	NP	NP	NP	3.50	6.50	5.60	NP	2.80	NP	1.60	NP	5.00	15.00	-	274.0	
1841	N1 W26	2.00	20.50	38.00	42.50	101.00	25.00	51.20	5.00	1.20	2.70	0.90	1.00	NP	7.70	18.50	16.78	0.84	0.50	4.20	NP	3.50	0.50	2.10	11.64	-	237.00	
1842	S3 W26.02	19.00	27.00	8.00	44.00	79.00	39.00	55.10	5.50	1.20	3.40	0.30	0.40	NP	5.90	19.70	16.60	4.90	0.90	4.10	0.50	1.20	0.40	2.20	14.20	-	252.00	
1844 (T43)	S7 W26	32.00	30.20	21.50	28.30	80.00	95.00	24.00	NP	NP	NP	NP	NP	NP	4.10	4.00	16.30	4.80	0.80	3.00	0.60	0.40	0.60	3.40	13.60	-	311.35	
1845	N48 W24	1.00	NP	NP	16.00	16.00	51.80	89.00	7.60	7.60	4.00	3.80	3.20	5.00	6.20	37.40	14.80	3.20	-	-	-	-	-	-	-	-	217.47	
1846 (T44)	S7 W23	35.00	71.80	42.00	136.50	250.3	10.70	46.60	2.70	3.90	5.00	0.60	1.20	1.00	8.00	22.40	14.80	5.90	1.30	3.80	0.70	0.50	1.00	3.90	17.10	-	421.51	
1847	N30 W12.92	18.40	NP	NP	54.20	54.20	58.30	79.10	2.70	1.40	2.90	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	221.33	
1849	N46 W22	1.00	NP	NP	15.00	15.00	58.60	89.20	8.40	7.40	6.40	3.40	5.00	5.60	7.50	43.70	18.80	3.70	13.60	2.50	15.10	3.80	15.40	3.10	57.20	-	300.00	
1850	N46 W12	7.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	16.10	4.50	20.60	-	150.00
1851	S29.96 W22.98	4.00	51.00	3.00	36.65	90.65	15.35	43.50	3.40	24.10	NP	12.00	NP	13.50	1.80	54.80	21.70	NP	-	-	-	-	-	-	-	-	250.00	
1852	S18 W23	12.00	21.50	38.50	66.00	136.00	16.00	65.00	1.20	18.00	4.40	13.80	NP	18.30	7.50	63.00	23.30	5.90	1.60	2.10	1.30	1.50	3.50	-	24.86	-	330.16	
1853	N46 W32	?	NP	NP	11.10	11.10	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	234.00
1857	S7 W28	14.00	29.00	38.00	29.00	96.00	45.80	64.80	2.40	1.80	7.20	0.70	4.50	NP	4.70	21.30	18.90	5.00	0.50	5.10	0.60	1.00	0.50	2.00	14.70	-	287.23	
1864 (T50)	S18 W17	2.00	49.50	12.00	50.50	112.00	NP?	52.40	0.90	10.30	4.10	9.90	1.20	20.40	3.30	50.10	7.30	7.20	1.70	4.50?	9.20	2.60	3.00	4.30	32.50	-	326.09	
1866	S17.99 W13.04	?	66.20	13.10	14.40	93.70	23.30	71.00	2.40	18.40	6.00	21.50	1.70	28.80	10.20	88.80	38.20	11.30	1.60	6.10	12.10	3.20	5.30	5.80	45.20	-	373.15	
1873	N1 W30	2.50	NP	NP	25.80	25.60	11.80	62.70	4.90	0.40	3.70	NP	NP	NP	9.00	18.00	15.40	3.80	1.00	4.40	NP	1.20	0.70	1.50	12.60	-	159.57	
1874	S7 W30	4.00	8.50	51.50	33.00	93.00	19.80	48.70	2.30	1.20	7.00	0.40	3.40	NP	5.50	19.70	16.20	4.40	1.00	4.00	0.20	1.30	0.30	1.60	12.80	-	271.45	
1875	S18 W32	1.50	NP	22.50	13.00	35.50	11.70	29.80	2.00	7.30	2.70	3.50	NP	9.00	6.00	30.50	14.00	4.00	0.80	2.00	NP	0.60	3.10	1.50	12.00	-	154.00	
1876	S18.08 W25.96	2.00	49.40	44.60	42.00	156.00	34.00	53.00	1.00	18.50	6.20	10.30	NP	8.20	7.20	51.40	12.80	3.80	0.50	0.70	0.30	0.50	0.80	3.20	9.80	-	310.00	
1880	N17 W35	5.00	NP	NP	NP	NP	NP	44.17	0.83	0.60	1.90	NP	2.20	0.60	5.30	11.53	7.30	5.60	1.40	3.00	1.30	1.70	0.20	1.60	14.80	-	128.89	
1881	N13.06 W30.43	0.30	NP	NP	7.70	7.70	NP	40.40	4.40	0.40	3.90	NP	2.30	NP	6.20	17.20	16.90	4.50	1.00	2.90	NP?	0.70	0.70	2.70	12.50	-	122.70	
1884	N12.32 W8.01	18.00	187.70	19.30	15.45	232.45	34.05	22.30	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	4.40	4.40	-	382.05
1887	N9 W5	6.00	128.00	10.00	23.00	161.00	40.30	71.70	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	380.69
1888	N0.83 W5.11	8.00	NP	NP	44.00	44.00	84.70	87.08	4.12	2.24	NP	NP	NP	NP	NP	6.38	20.30	8.56	0.30	4.90	NP	4.80	NP	8.44	27.00	-	269.11	
1889	N13.01 W35.97	0.50	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	33.70	5.80	NP	NP	NP	NP	NP	NP	NP	5.80	-	150.00
1903	S26 W16.07	2.00	77.20	27.20	16.80	121.20	?	57.80	NP	17.00	NP	24.00	NP	12.80	14.20	88.00	28.00	0.80	-	-	-	-	-	-	-	-	-	298.83
1904	S26.11 W10.09	3.00	53.00	10.80	29.20	93.00	?	23.50	1.80	42.10	NP	17.60	2.00	4.20	5.30	73.00	14.40	2.20	25.10	-	-	-	-	-	-	-	-	255.00

Table A-3.1 (Continued).

Well Ref. No. Lm.	Co-ordinate	Quat.	Thickness in metres of each unit																				Total Depth (m.)					
			Formation C				Formation B																	B-1				
			C-3	C-2	C-1	Total C	B-8	B-5	B-4				Total B-4	B-3	B-2													
									B 4.5		B 4.3				B 4.2		B 4.1	B 2.4		B 2.3		B 2.2			B 2.1	Total B-2		
Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal									
1906	S7.06 W15.90	28.00	111.10	9.40	151.00	271.50	13.90	78.20	2.80	2.30	6.20	1.10	5.40	1.20	9.00	28.00	21.40	?	?	?	?	?	?	?	?	17.00	-	458.00
1907	S30 W13.01	10.00	35.00	2.50	30.70	68.00	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150.27
1908	S30 W14.99	29.50	67.00	45.00	NP	112.00	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150.00
1914	N13 W6	8.00	96.00	11.50	20.00	137.50	34.30	78.60	7.20	2.10	4.80	0.90	2.70	NP	5.50	23.20	18.40	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	371.00
1917	N25 W15	83.00	NP	NP	151.00	151.00	NP	75.50	6.00	1.50	4.60	NP	2.70	0.40	6.80	22.00	24.70	6.20	0.60	5.00	0.50	1.00	0.90	4.00	18.20	-	360.00	
1920	N5 W23	40.00	54.00	96.40	96.60	247.00	35.70	73.80	5.50	1.50	2.80	1.50	0.60	1.20	6.60	20.70	13.00	NP	NP	4.80	0.50	0.90	0.30	3.30	9.80	-	458.00	
1924	N1 W23	56.00	37.00	66.00?	136.00	239.00	33.20	71.40	5.60	1.60	3.20	NP	8.00	NP	4.60	21.00	-	-	-	-	-	-	-	-	-	-	434.80	
1927	S10.04 W23.04	35.50	91.50	62.00	109.00	262.50	16.00	47.90	3.10	8.60	7.10	1.30	6.50	0.90	8.00	35.50	18.60	6.20	0.20	5.90	0.30	1.70	NP	4.20	18.50	-	454.00	
1929	S7.02 W24.55	32.50	27.50	41.90	103.60	173.50	NP	38.70	2.20	2.00	7.60	1.50	3.00	0.40	8.50	22.20	17.50	4.90	1.50	3.30	0.30	1.00	0.70	3.70	15.30	-	434.80	
1931	S10 W26	8.00	81.00	45.50	71.00	177.50	10.00	69.00	2.50	8.50	8.00	0.50	5.00	NP	8.00	28.50	20.50	6.80	0.30	3.80	0.50	1.10	0.60	4.60	17.80	-	353.00	
1935	S18 W9.99	0.30	49.70	20.00	12.00	81.70	?	40.20	2.40	24.50	1.10?	23.30	1.90	29.60	10.20	83.00	33.70	9.90	NP	NP	NP	NP	NP	NP	NP	9.90	-	366.30
1937	N8.95 W13.18	16.00	56.00	93.80	173.60	323.20	30.80	77.40	6.20	1.80	4.30	1.70	2.50	0.60	8.00	25.10	23.50	-	-	-	-	-	-	-	-	-	-	501.29
1938	N1 W10	5.50	69.50	85.00	277.50	432.50	18.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	488.00
1940	S17.99 W15.02	8.00	119.70	11.60	14.50	145.80	41.20	62.00	1.60	16.90	3.60	5.50	1.10	8.30	2.00	39.00	20.00	NP	10.00	NP	32.00	NP	19.00	NP	61.00	-	426.00	
1946	S6.99 E1.99	5.30	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	12.40	8.20	1.10	3.60	0.50	5.90	NP	8.00	27.30	-	150.55	
1947	S8.95 W3.95	?	NP	NP	24.50	24.50	5.50	83.30	4.20	4.50	10.40	7.60	8.00	2.00	12.30	48.00	35.10	4.90	0.90	11.90	1.20	1.70	0.50	8.20	29.30	-	250.20	
1948	N29.96 W8.33	4.00	NP	NP	NP	NP	23.80	91.30	7.30	1.00	5.50	0.70	2.90	NP	7.60	25.00	29.90	6.00	2.50	3.70	0.80	0.50	0.70	2.80	17.00	-	218.92	
1949	N16.99 W3.10	?	NP	NP	NP	NP	35.50	80.50	NP	NP	NP	NP	NP	NP	NP	NP	17.00	7.80	0.60	4.60	NP	3.10	NP	7.10	23.20	-	258.89	
1951	N38 W2	3.60	NP	NP	4.70	4.70	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	140.88
1953	N38 W5	6.50	NP	NP	4.50	4.50	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	140.8
1967	N48 W28	4.00	NP	NP	2.90	2.90	20.50	60.00	1.60	1.70	6.10	4.00	5.70	3.50	4.70	27.30	17.80	3.90	5.90	3.30	8.40	NP	27.20	2.85	51.55	-	300.00	
1969	N34.01 W5.01	2.00	NP	NP	2.00	2.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	10.20	5.50	0.80	7.20	0.50	1.60	0.70	5.50	21.80	-	86.00	
1970	N34 W15.29	3.00	NP	NP	27.00	27.00	59.00	54.00	2.10	0.40	2.20	0.30	2.60	NP	6.50	14.10	28.9	5.70	2.00	6.80	0.50	1.60	0.90	6.90	24.40	-	250.00	
1972	S11 W10	5.60	29.10	164.30?	55.00?	258.40	NP	7.00?	4.80	6.80	4.40	2.80	3.70	1.50	13.70	37.70	34.10	5.50	0.50	6.00	1.00	6.40	1.20	3.20	22.80	-	450.00	
1974	N46.02 W19.50	1.00	NP	NP	7.00	7.00	62.00?	53.20	NP	NP	NP	NP	NP	3.30	8.00	11.30	17.40	3.10	13.60	1.70	15.00	NP	32.70	0.60	66.70	-	299.05	
1977	N17.1 W6.8	4.00	NP	NP	76.70	76.70	31.70	87.00	8.00	2.70	3.90	0.40	0.90	0.70	6.90	23.50	25.40	4.30	NP	1.90	0.70	0.30	0.40	4.70	12.30	-	280.00	
1980	N9 W4	5.50	82.10	12.40	5.80	80.30	47.30	70.50	6.00	2.60	5.80	2.10	3.50	NP	9.80	31.80	24.60	NP	NP	NP	NP	NP	NP	NP	NP	-	300.00	
1984	S6.88 W8	9.00	118.40	6.30	190.30	315.00	24.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	452.28	
1985	S3.92 W4.98	5.90	NP	NP	70.00	70.00	15.90	85.00	9.90	1.50	7.60	0.40	4.00	0.35	12.85	38.60	37.10	9.50	0.60	5.40	0.60	3.80	NP	9.00	28.90	-	283.65	
1987	N17 W4.8	0.50	NP	NP	41.50	41.50	24.70	78.20	8.20	2.70	7.00	NP	2.90	NP	8.60	29.40	28.50	8.20	0.70	5.00	NP	3.70	NP	7.20	24.80	-	245.00	
1993	N5.06 W12.1	30.00	108.50	31.5?	200.00?	340.00?	47.00?	75.00	6.50	1.90	4.10	0.60	3.00	NP	7.50	24.00	28.00	-	-	-	-	-	-	-	-	-	557.00	
1994	S7 W11.5	16.50	101.30	2.60	>38.53	>136.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156.33	
1995	S22.01 W20	2.00	NP	NP	38.00	38.00	28.00	65.80	0.40	23.20	1.60	20.30	NP	25.00	10.50	81.00	25.50	2.20	3.10	11.20	20.20	3.80	8.20	5.00	51.70	-	315.00	
1996	N13 W4.37	8.00	NP	NP	31.40	31.40	33.40	78.60	8.10	2.50	5.20	0.90	3.80	0.50	9.40	30.50	29.70	8.80	0.80	4.30	0.70	4.20	NP	8.00	26.80	-	245.96	
1998	S6.82 E0.29	?	NP	NP	5.20	5.20	NP	NP	6.10	8.00	6.40	0.80	3.50	1.00	7.60	30.40	29.20	NP	NP	NP	NP	1.00	NP	8.60	9.60	-	128.14	

Table A-3.1 (Continued).

Well Ref. No. Lm.	Co-ordinate	Qual.	Thickness in metres of each unit																							Total Depth (m.)		
			Formation C						Formation B										Formation B									
			C-3	C-2	C-1	Total C	B-8	B-5	B-4					B-3	B-2							B-1						
									B 4.5	B 4.4	B 4.3		B 4.2		B 4.1	Total B-4	B 2.4		B 2.3		B 2.2		B 2.1	Total B-2				
Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting					
2003	N21.19 E0.91	NP	NP	NP	NP	NP	NP	21.70	8.30	2.10	6.80	0.50	5.60	0.50	6.50	30.30	20.00	NP	NP	NP	NP	NP	NP	4.40	4.40	-	152.48	
2007	S26 W20	2.50	24.70	8.50	15.30	48.50	19.00	48.50	1.70	18.80	4.00	24.00	NP	11.00	14.00	173.50	23.60	3.40	22.40	1.40	-	-	-	-	>38.40	-	252.00	
2009	S13.81 W24.75	10.40	87.20	51.40	68.00	186.70	17.00	58.40	2.80	11.40	4.80	1.00	5.20	1.00	7.10	33.30	18.10	5.80	0.60	4.00	0.40	1.00	1.70	3.40	16.90	-	364.64	
2010	S22.02 W25.59	7.50	12.50	1.00	19.00	32.50	39.00	42.70	NP	17.80	NP	9.50	NP	29.60	8.40	65.30	15.30	0.50	3.50	2.20	10.30	0.70	3.90	0.90	20.00	-	302.53	
2013	N6.08 W1.01	?	NP	NP	NP	NP	NP	64.50	7.60	2.10	4.20	1.90	5.45	0.45	6.80	28.50	22.10	6.00	0.50	6.60	0.40	5.40	NP	5.70	24.60	-	195.45	
2019	N18.71 W4.96	?	NP	NP	30.00	30.00	33.00	66.40	7.20	0.80	6.60	NP	3.70	0.60	6.70	25.60	26.90	7.70	0.80	4.00	NP	4.40	NP	5.20	22.10	-	214.62	
2020	S25.99 W6.92	?	75.30	68.80	NP	144.10	NP	NP	NP	NP	NP	NP	NP	6.90	7.50	7.00	21.40	46.30	1.00	-	-	-	-	-	-	-	231.72	
2036	N5 W29	0.50	NP	NP	11.50	11.50	20.50	64.00	4.80	1.30	3.10	NP	3.90	NP	5.10	18.30	16.50	3.40	0.40	4.90	NP	0.80	NP	3.70	13.20	-	150.40	
2041	N38 W20.1	1.50	NP	NP	53.00	53.00	51.10	99.00	3.60	1.50	6.00	0.80	1.40	2.70	5.90	21.90	24.80	6.10	6.80	2.20	8.60	2.00	10.00	7.00	42.70	-	302.91	
2043	S6.95 W31.8	5.50	1.	NP	NP	NP	16.50	64.40	1.90	0.50	1.80	0.40	2.30	NP	5.80	12.70	16.35	4.55	1.20	1.70	0.80	0.90	0.20	1.30	10.45	-	136.92	
2045	N9 W26	2.00	?	?	67.00	67.00	7.00	68.70	4.90	0.90	2.00	1.70	2.50	1.10	4.50	17.60	14.60	4.80	0.40	3.90	NP	2.70	0.40	1.60	13.80	-	220.00	
2047	N6.5 W25	0.20	41.80	18.50	84.50	145.80	13.50	28.40	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	4.40	NP	1.10	NP	4.00	10.40	-	250.00	
2066	N1 W34	?	NP	NP	4.30	4.30	NP	NP	NP	NP	0.50	NP	2.40	1.60	5.70	10.20	16.00	4.20	NP	4.10	NP	1.00	0.70	1.50	11.50	-	101.17	
2073	S25.98 W26	3.00	27.00	11.80	NP	38.80	NP	58.00	1.20	11.00	NP	24.00	NP	18.00	13.10	67.30	16.90	NP	12.00	NP	12.00	NP	28.00	2.50	54.50	-	264.45	
2074	N12.81 W24.60	8.00	75.30	45.10	23.90	144.30	60.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	326.18	
2076	S18.15 W2.84	11.25	NP	NP	NP	NP	NP	NP	NP	NP	NP	4.25	4.50	8.30	12.40	29.45	27.80	13.50	0.90	7.50	6.60	2.80	0.70	5.70	37.70	-	303.03	
2079	S18 W0.02	?	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	6.40	0.90	7.30	18.95	4.75	0.40	2.90	?	NP	4.50	7.00	19.55	-	153.39
2081	S14 W5	5.00	NP	NP	87.00	87.00	15.00	71.41	3.99	13.90	7.10	9.60	6.40	2.10	9.50	52.59	3.60	NP	NP	NP	NP	2.10	2.80	6.10	11.00	-	303.19	
2093	N25 W34.04	1.80	NP	NP	NP	NP	20.90	84.90	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	153.13
2097	S4.08 W30.08	12.70	46.30	12.80	5.50	64.6	NP	71.10	5.40	1.20	3.10	0.60	2.30	0.70	5.80	19.10	17.60	3.90	0.70	3.30	0.20	1.90	0.40	1.70	12.10	-	204.42	
2111	N17.37 W13.90	4.00	26.00	87.90	104.80	218.70	25.22	82.08	6.50	2.00	5.00	0.70	5.30	0.50	4.70	24.70	25.50	6.50	0.90	5.90	0.40	0.80	0.30	5.50	20.30	-	442.25	
2119	N21.51 W9.95	12.00	99.00	12.40	12.60	124.00	12.00	101.45	8.55	1.00	1.00	0.30	1.60	1.10	5.90	19.65	22.45	7.15	NP	NP	NP	NP	NP	NP	7715	-	321.81	
2123	N12.96 W31.35	1.00	NP	NP	4.50	4.50	NP	35.00	5.20	0.70	2.90	NP	NP	NP	NP	8.90	10.50	4.40	0.40	3.90	NP	0.60	0.50	2.90	12.70	-	78.17	
2134	N19.01 W25.95	0.50	NP?	NP?	95.70?	95.70	24.60	64.40	6.80	NP	NP	NP	NP	NP	NP	6.80	5.50	6.10	0.40	?	?	?	?	?	?	15.50	-	221.71
2136	N45.95 W16.07	4.00	NP	NP	NP	NP	NP	17.30	6.80	5.20	1.00	7.20	0.60	9.00	5.20	34.90	14.80	4.50	9.50	3.70	18.50	3.90?	17.40?	3.90	59.00	-	165.19	
2148	N30 W3.92	6.50	NP	NP	NP	NP	NP	20.93	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	96.53
2151	S18.35 W7.99	5.00	88.50	18.35	NP	106.85	NP	NP	NP	27.65	3.60	17.50	NP	NP	37.80	7.90	94.35	15.00	NP	10.80	?	?	?	?	?	-	-	304.59
2157	S21.70 W5.42	7.0	NP	NP	NP	NP	64.60	14.70	NP	27.70	0.60	28.70	0.30	28.30	14.80	101.40	27.90	2.20	8.60	17.60	8.60	1.70	12.90	1.70	53.30	-	303.38	
2174	N18.99 W34.95	4.60	NP	NP	NP	NP	17.40	58.30	4.60	NP	NP	NP	NP	NP	NP	4.60	13.60	5.30	1.80	3.90	0.60	0.60	0.50	4.30	17.00	-	122.66	
2175	N24.99 W30	4.00	NP	NP	4.00	4.00	NP	22.40	1.60	1.50	2.00	NP	2.50	NP	5.50	13.50	14.50	4.50	0.50	3.60	0.50	0.80	0.40	3.40	13.70	-	80.03	
2176	N30 W31	6.00	NP	NP	NP	NP	NP	37.00	0.50	0.50	4.20	NP	3.80	NP	7.00	16.00	21.60	4.90	1.10	1.60	NP	NP	NP	NP	7.60	-	101.60	
2180	S6.97 W1.32	?	NP	NP	6.00	6.00	NP	21.60	6.80	2.20	9.20	3.60	7.80	NP	12.30	42.10	35.30	-	-	-	-	-	-	-	-	-	-	105.47
2189	N48 E2	7.05	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	55.00
2191	N48 W7	9.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	101.48
2217	N46.03 W8.5	7.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	3.50	14.00	16.40	2.60	3.60	NP	15.40	NP	17.40	5.10	44.10	-	100.39	

Table A-3.1 (Continued).

Well Ref. No. Lm.	Coordinate	Quat.	Thickness in metres of each unit																							Total Depth (m.)		
			Formation C				Formation B										Formation B											
			C-3	C-2	C-1	Total C	B-6	B-5	B-4						B-3	B-2									B-1			
									B 4.5		B 4.4		B 4.3			B 4.2		B 4.1		Total B-4	B 2.4		B 2.3				B 2.2	
Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting	Coal	Parting		Coal	Parting						
2219	N46 W5	?	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	7.30	NP	5.90	NP	2.80	3.20	11.90	-	158.00	
2233	N46 W1	0.20	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	79.50
2399	N32 W15	9.00	NP	NP	44.00	44.00	42.50	73.60	5.90	1.70	5.80	0.40	3.10	NP	6.80	23.70	29.40	6.80	1.30	4.30	1.40	1.20	0.40	6.10	21.50	-	352.00	
2408	N44 W17	?	NP	NP	5.00	5.00	NP	52.00	6.30	2.20	6.30	1.60	3.20	1.40	9.00	30.00	17.00	3.70	11.90	1.10	15.60	4.70	22.80	2.60	82.40	-	200.00	
2472	N20.95 W15.97	3.00	87.05	29.45	89.20	205.70	50.15	82.35	6.50	?	?	?	?	?	?	24.10	-	-	-	-	-	-	-	-	-	-	-	376.50
2483	N7 E2	?	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	24.20	8.10	2.00	5.20	NP	3.80	NP	7.50	26.60	-	80.00
2489	N14 W5	6.20	NP	NP	41.30	41.30	37.40	87.00	7.50	2.40	4.90	1.70	2.80	1.50	7.40	28.20	29.80	8.50	0.50	4.10	0.70	4.80	0.30	6.50	25.60	-	268.00	
2491C	N1.01 W1.65	6.00	NP	NP	NP	NP	NP	65.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	8.10	8.65	0.55	4.10	0.50	4.10	NP	7.20	25.10	-	162.00
2492C	N3 W0.79	6.00	NP	NP	NP	NP	NP	55.70	8.00	2.65	7.65	NP	2.40	NP	10.90	31.60	16.50	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	153.00
2551C	N3 W3	10.00	NP	NP	32.00	32.00	28.00	47.00	8.00	2.40	7.30	NP	2.80	NP	11.50	32.00	10.00	?	?	?	?	?	?	?	?	24.00	-	201.00
2556	N35 W3.6	NP	NP	NP	7.00	7.00	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	11.00	4.20	4.00	3.60	1.20	2.80	0.80	5.90	22.50	-	47.00
2567	N41.04 W26.99	1.00	NP	NP	5.00	5.00	11.30	67.20	7.60	2.80	5.80	2.50	1.60	1.60	7.60	29.50	20.50	3.90	-	-	-	-	-	-	-	-	-	144.00
2582	N39 W27	1.00	NP	NP	3.00	3.00	9.20	83.80	9.00	1.50	3.90	1.80	2.00	1.50	1.55	21.25	?	NP	NP	NP	NP	NP	NP	NP	NP	NP	-	210.00
2588C	N41 W23	1.90	NP	NP	18.20	18.20	77.70	40.40	7.00	2.80	4.00	3.40	2.10	2.50	7.30	29.10	20.70	3.50	4.30	7.80	12.90	NP	21.20	5.50	55.20	-	263.00	
2592C	N40.90 W15	6.00	NP	NP	NP	NP	NP	79.80	7.70	0.80	3.30	1.20	5.20	1.20	5.30	24.70	20.70	4.00	4.80	9.30	0.20	NP	16.00	8.00	42.30	-	181.05	
28135	N1 W29	2.00	NP	4.44	22.85	27.29	24.07	58.54	5.10	1.00	2.40	1.00	0.90	0.60	6.80	17.80	14.30	5.30	0.40	3.10	0.20	1.00	NP	3.50	13.50	159.50	467.50	
29635	N15 W15	7.53	79.92	45.15	130.65	255.82	31.22	81.53	6.19	1.71	5.60	1.30	6.50	1.00	9.70	25.10	24.09	6.81	NP	6.10	NP	2.00	NP	4.90	19.81	217.8	704.50	
2988G	S10 W33	2.00	NP	NP	NP	NP	NP	49.70	0.50	2.90	3.15	1.75	1.20	1.00	6.80	17.30	15.65	2.95	1.50	2.60	0.20	0.35	1.05	1.80	10.35	-	125.00	
33825	N29.64 W10.36	2.00	NP	NP	20.66	20.66	65.34	89.70	8.50	2.30	3.80	NP	4.20	NP	NP	18.60	26.70	8.50	0.80	7.40	1.10	1.00	2.20	5.90	26.90	116.80	400.47	

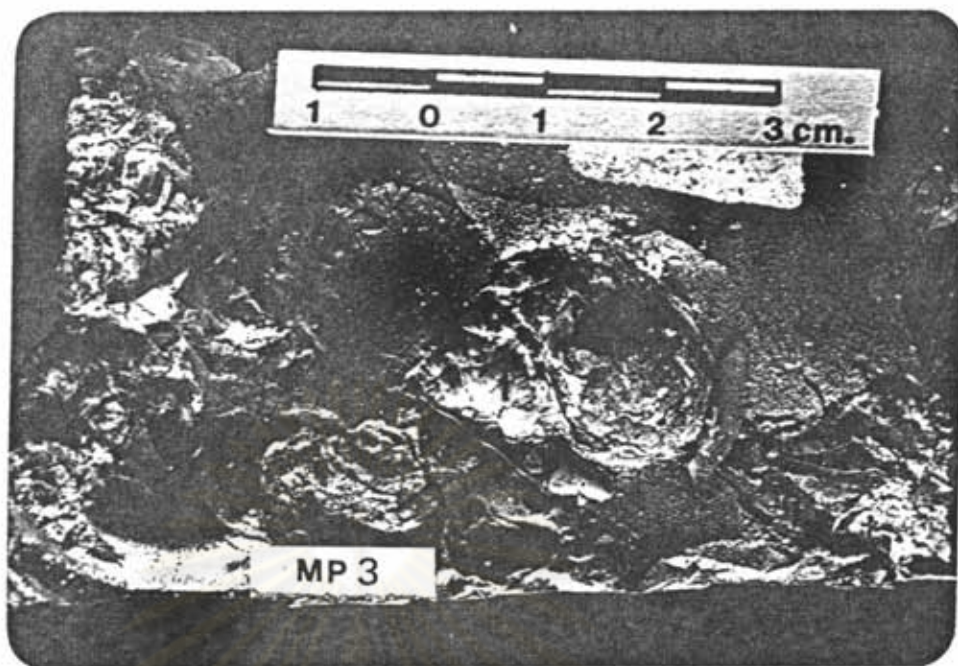


Photo A-4.1 Gastropods of *Paludina* sp. of B-1 Member, Mae Moh Group.



Photo A-4.2 Gastropods of *Viviparus* sp. of B-1 Member, Mae Moh Group



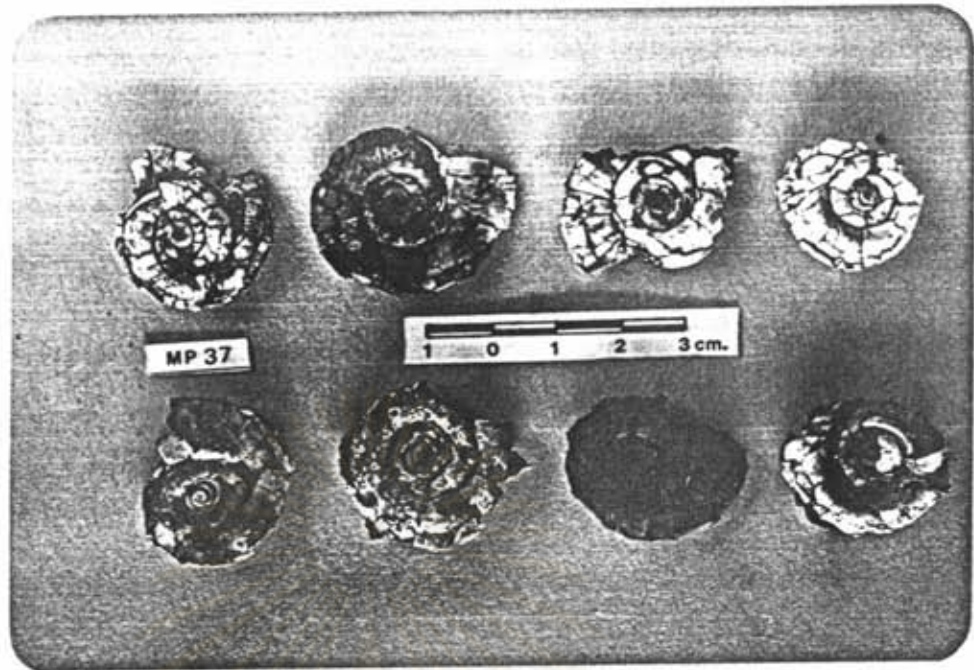


Photo A-4.3 Gastropods of *Planorbis* sp. collected from B4.4 Bed of Mae Moh basin.

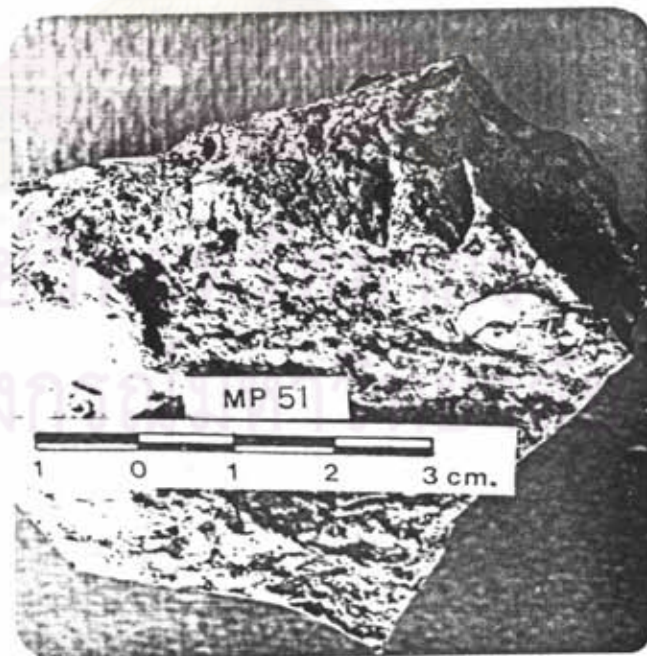


Photo A-4.4 Gastropods of *Physa* sp. collected from B4.4 Bed of Mae Moh basin.

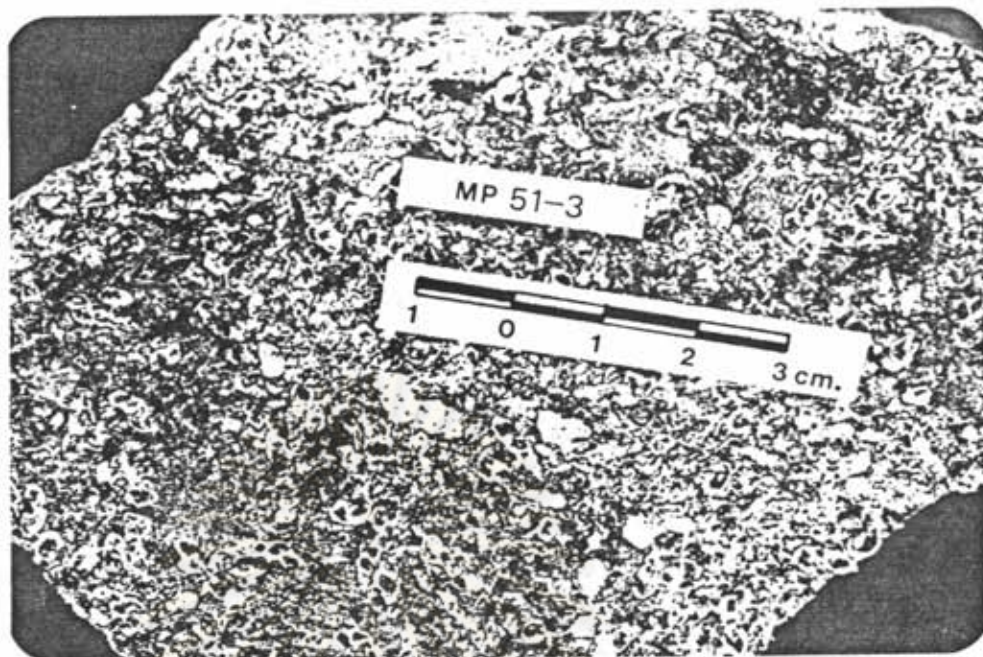


Photo A-4.5 Gastropods of *Melanoides* sp. collected from B4.4 Bed of Mae Moh basin.

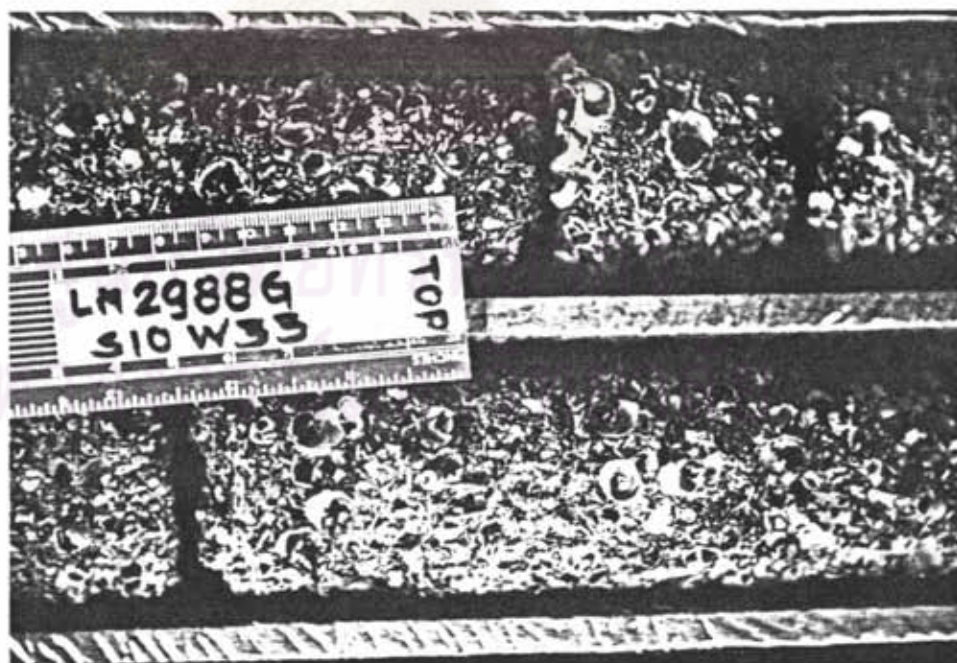


Photo A-4.6 Gastropods bed mainly *Viviparus* sp. from the upper part of B-3 Member collected from LM 2988 G, at depth 71.0 metres from ground level.



Photo A-4.7 Ostracods collected from borehole no. LMP 65, at depth 97.50 metres from ground level.



Photo A-4,8 Turtle rib collected from B4.4 Bed of Mae Moh basin.

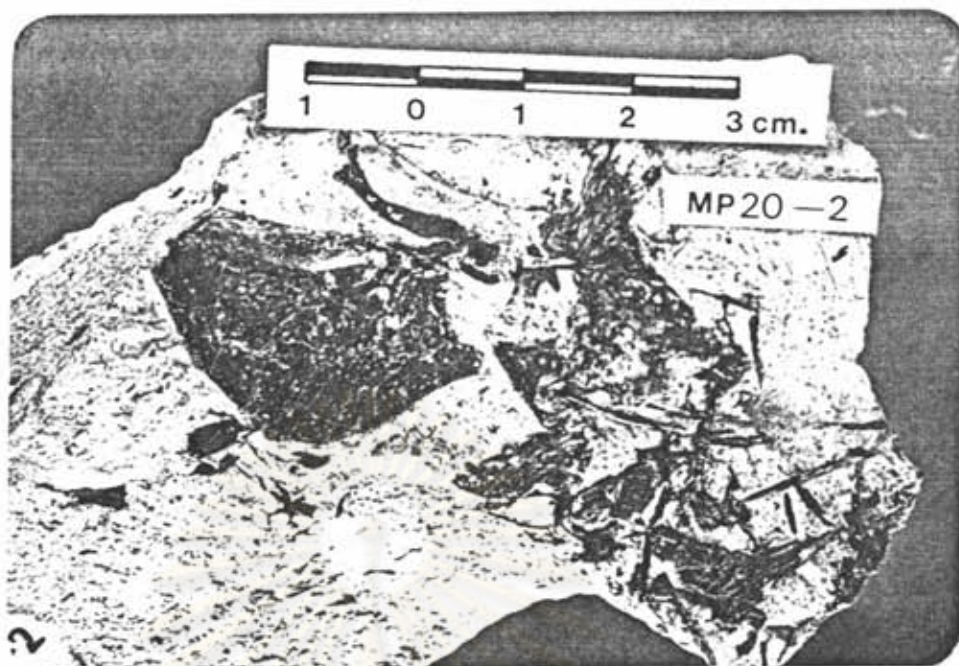


Photo A-4.9 Fish fragments of cheek and spine, collected from the upper part of B-1 Member, Mae Moh basin.

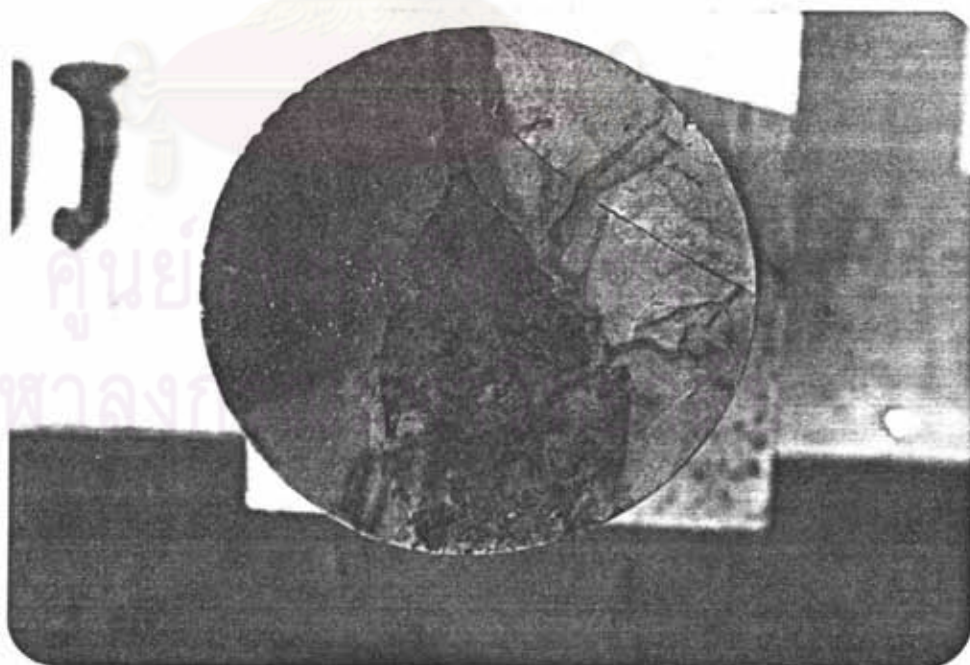


Photo A-4.10 Leaf fossil of B-1 Member collected from LM 2813S, at depth 288.60 metres.

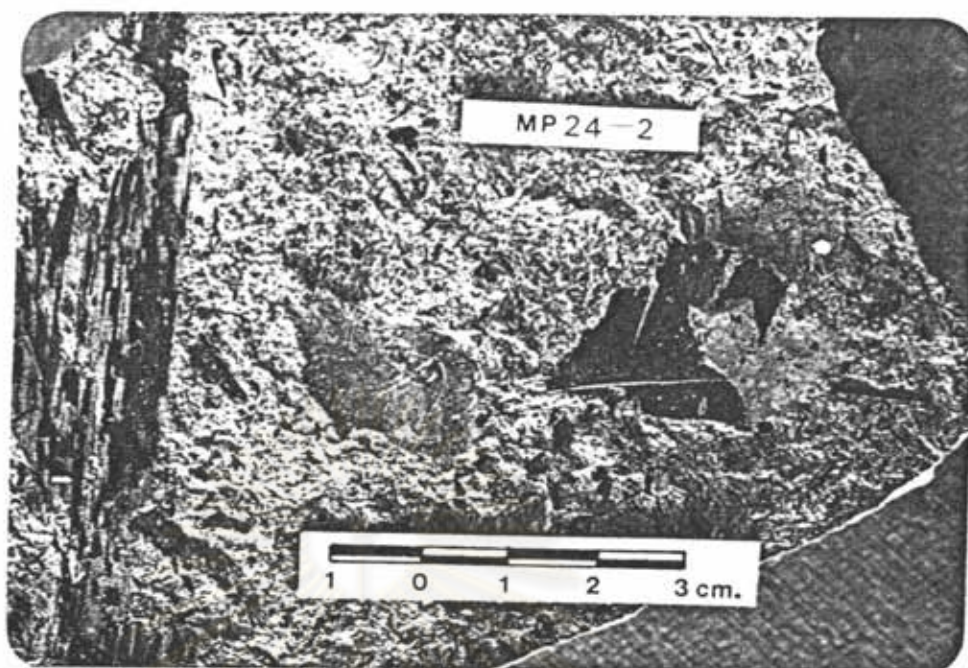


Photo A-4.11 Leaves fossils of B-3 Member collected from Mae Moh lignite mine pit.

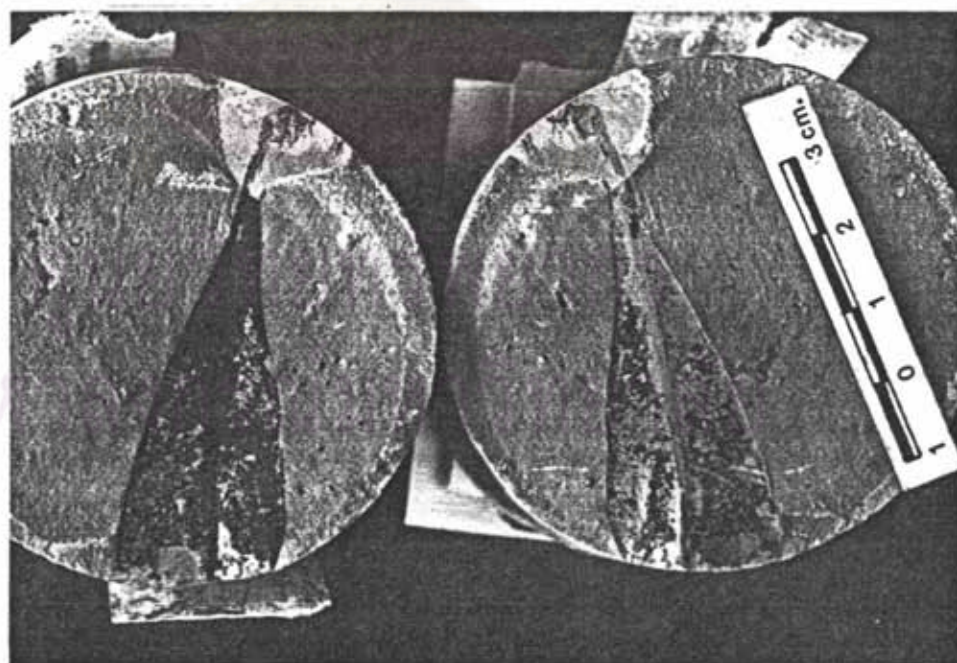


Photo A-4.12 Leaves fossils of B-1 Member collected from LM 2463 (N'48 W17), at depth 217.30 metres.

Table A-5.1 Semi-quantitative analysis of relative abundance in percentage of clay minerals analysis by XRD.

No.	Location Depth (m)	Litho- Strati. Unit	Kaolinite %	Illite %	Montmo rillite %	Remarks
1	LM 2567 C 95.65-95.70	B 4.4	49	51	-	CLST, l.-gy, slightly calc., lam. to thin bed, iron concretion, ostracods.
2	LM 2567 C 100.80-100.85	B 4.3	41	59	-	CLST, gy to l.-gy, slightly calc., A. carb., lam. bioturbation
3	LM 2567 C 116.80-116.87	B-3	33	65	2	CLST, dk-gy to dk-br. & l.-br interbedded, C. fish, R. plant, high calc.
4	LM 2567 C 122.00-122.10	B-3	37	63	-	CLST, l.-gy & l.-br., lam. to thin bed, high calc., C. fish, A. framb. py.
5	LM 2567 C 127.40-127.60	B-3	40	60	-	CLST, gn to l.-gn, high calc., bioturbation, C. ostracod, R. plant & fish
6	LM 2567 C 132.50-132.55	B-3	33	67	-	CLST, l.-gy & l.-br., lam. to thin bed, C. w rootlet, LGT flake, ostracod, fish, gastropod, Intra. fm. Cgl., high calc.
7	LM 2567 C 140.50	B-1	42	58	-	CLST, gn & l.-gn, non-calc., siderite concretion
8	LM 2582 C 118.50-118.59	B 4.3	36	64	-	CLST, y.-br., high calc., lam. to thin bed, A. gastropod
9	LM 2582 C 160.30-160.39	B-1	23	77	-	CLST, gn, gy-gn & gy-br., high calc., lam. to thin bed, C. ostracod, gastropod & fish, R. rootlet
10	LM 2582 C 175.80-175.90	B-1	35	65	-	CLST, gy-gn to gy-br., high calc., bioturbation, intra. fm. Cgl., C. fish, gastropod & rootlet
11	LM 2592 C 73.63-73.68	B-5	40	57	3	Stly CLST, l.-gy to gy-br., high calc., lam. to thin bed, A. lentil, C. fish & ostracod
12	LM 2592 C 85.75-85.80	B-5	38	62	-	CLST, gy to l.-gy, high calc., lam. to thin bed, C. fish
13	LM 2592 C 111.20	B-3	23	77	-	CLST, dk-br. & l.-br., high calc., lam. to thin bed, A. LGT flake, C. fish, R. gastropod
14	LM 2592 C 122.70	B-3	30	70	-	CLST, gn, l.-gn, high calc., thin bed, swelling ?, R. ostracod
15	LM 2592 C 129.80	B-3	22	78	-	CLST, y.-br. to l.-gn, high calc., swelling ?, A. ostracod
16	LM 2592 C 135.55	B 2.4	47	53	-	CLST, gy to gn-gy, non-calc., slickenside, high plasticity, C. plant
17	LM 2592 C 142.70-142.85	B 2.3	45	55	-	Stly CLST & SLST, l.-br. to gy-gn, slightly calc., some rootlet & siderite concretion
18	LM 2592 C 159.75-160.00	B 2.2	49	51	-	CLST, l.-gy to l.-gn, some siderite concretion
19	LM 2592 C 181.05	B-1	39	61	-	CLST, gy & l.-br., thin bed to lam., high calc., C. w fish & plant debris, R. gastropod

Table A-5.1 (continued)

No.	Location Depth (m)	Litho- Strati. Unit	Kaolinite %	Illite %	Montmo- rillonite %	Remarks
20	M 126	Volcanic Fm.	41	59	—	weathering product of probably tuffaceous & andesite. white col. soil
21	M 130	Hong Hoi Fm.	10	67	23	SH, gn-gy, concoidal fracture
22	LM 2472 335.20	B-5	19	54	27	CLST, sl in part, dk-gy, gy, l.-gy to l.-br., lam. to thin bed, high calc., A. lentil C. fish & framb. py.
23	LMP 67 10.50	B 4.4	31	66	3	Silty CLST, dk-gy to dk-br., high calc., C. rootlet, LGT flake, A. bioturbation & gastropod
24	LMP 67 19.80	B 4.3	—	—	—	Carb. CLST & Intra. fm. Cgl., high calc., C. gastropod & fish
25	LMP 67 76.80	B-1	25	75	—	Intra. fm. Cgl., br.-gy, bioturbation, high calc.
26	LMP 67 84.70	B-1	38	62	—	CLST, gn-gy, l.-br., thin to lam., high calc., R. plant & fish
27	LMP 67 92.50	B-1	22	78	—	CLST, gy, gn-gy & gy-br., lam. to thin bed, high calc., lentil
28	LMP 65 7.50	B-5	19	43	38	CLST, gy-br., br., high calc., thin bed, C. fish, R. plant
29	LMP 65 26.45	B-5	23	41	36	CLST, gy-br., high calc., lam. to thin bed, lentil, rootlet, C. fish & framb. py.
30	LMP 65 41.65	B-5	16	53	31	CLST, gy, lam., slightly calc., high carb., lentil, framb. py.
31	LMP 65 46.10	B-5	18	45	37	CLST, dk-gy, high carb., lam. to thin, lentil, C. fish, framb. py.
32	LMP 65 90.20	B-3	26	53	21	CLST, br. & dk-gy, lam. to thin bed, lentil, A. framb. py., some plant
33	LMP 65 95.60	B-3	32	67	1	CLST, gy to l.-br., lam. to thin bed, lentil, framb. py., some rootlet
34	LMP 65 117.20	B-1	32	68	—	CLST, gy-br. to l.-br., slightly calc., rootlet, A. gastropod, C. fish, lam. to thin bed
35	LMP 65 128.70	B-1	41	59	—	CLST, gy-gn, thin bed to lam., high calc., some plant, R. fish
36	LMP 65 134.80	B-1	26	74	—	CLST, gy-br. to br., lam. to thin, high calc., C. plant
37	LM 2813 S 75.38-75.61	B-5	15	51	34	CLST, gn, gy-gn, thin bed, high calc., C. gastropod
38	LM 2813 S 92.00-92.70	B-5	17	53	30	CLST, gy, gn, l.-br., high calc., C. fish & framb. py., R. gastropod, lentil
39	LM 2813 S 109.65-109.90	B-5	36	50	14	CLST, gn, gn-gy, l.-br., lam. to thin bed, high carb., high calc., lentil, C. fish & gastropod

Table A-5.1 (continued)

No.	Location Depth (m)	Litho- Strati. Unit	Kaolinite %	Illite %	Montmo- rillonite %	Remarks
40	LM 2813 S 115.25-115.45	B-5	29	63	8	CLST, gn, gn-gy, high carb., high calc., lam. to thin bed, lentil, Intra. fm. Cgl., C. fish & gastropod. LGT flake
41	LM 2813 S 134.00-134.20	B-4	37	63	—	Parting, dk-br.,
42	LM 2813 S 145.00-145.27	B-3	26	74	—	CLST, gn, pale-gn, high calc., swelling, C. ostracod
43	LM 2813 S 166.30-166.50	B-1	26	74	—	CLST, gn-gy, y.-gy, high calc., lam. to thin bed, bioturbation. A. gastropod

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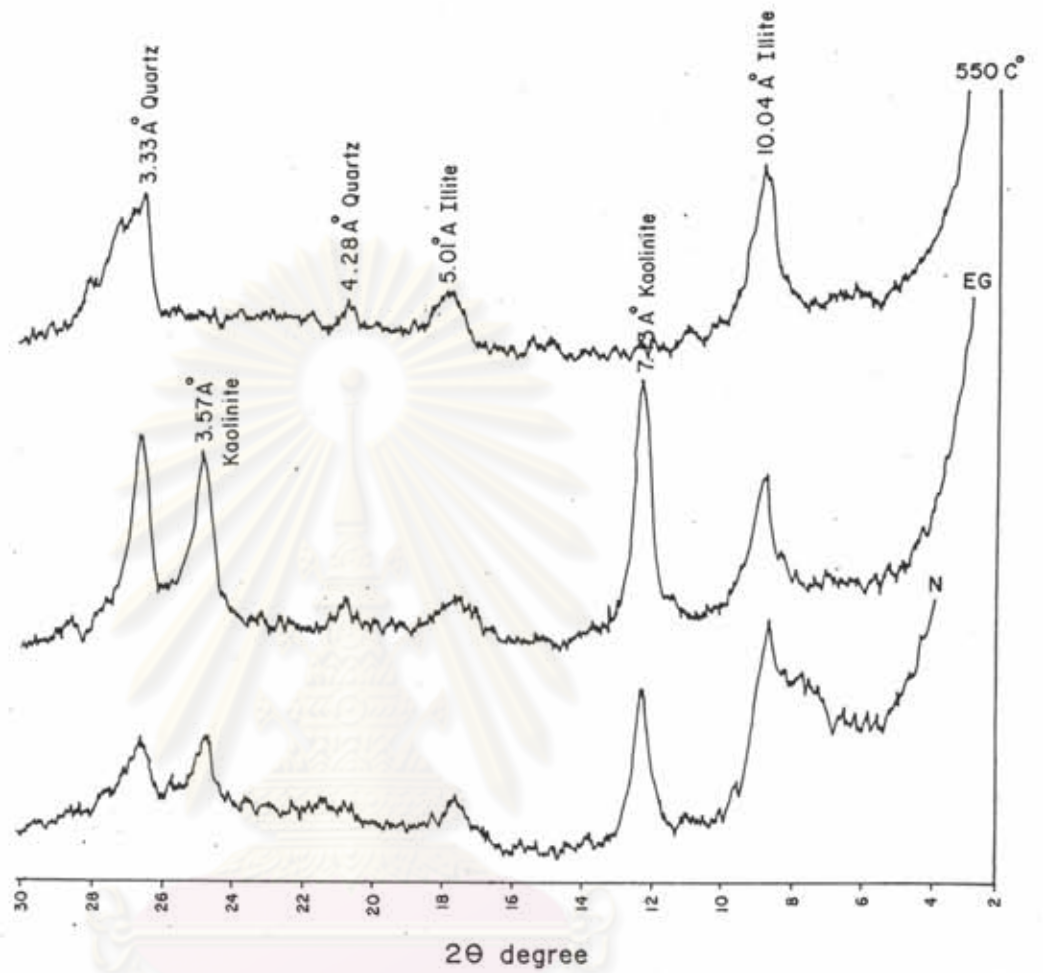


Fig. A-5.1 X-ray diffractogram of oriented clay minerals of untreated (N), ethylene glycol (EG) and heating treatments (550°C) of borehole LM 2567, at depth 132.50-132.55 metres from ground level.

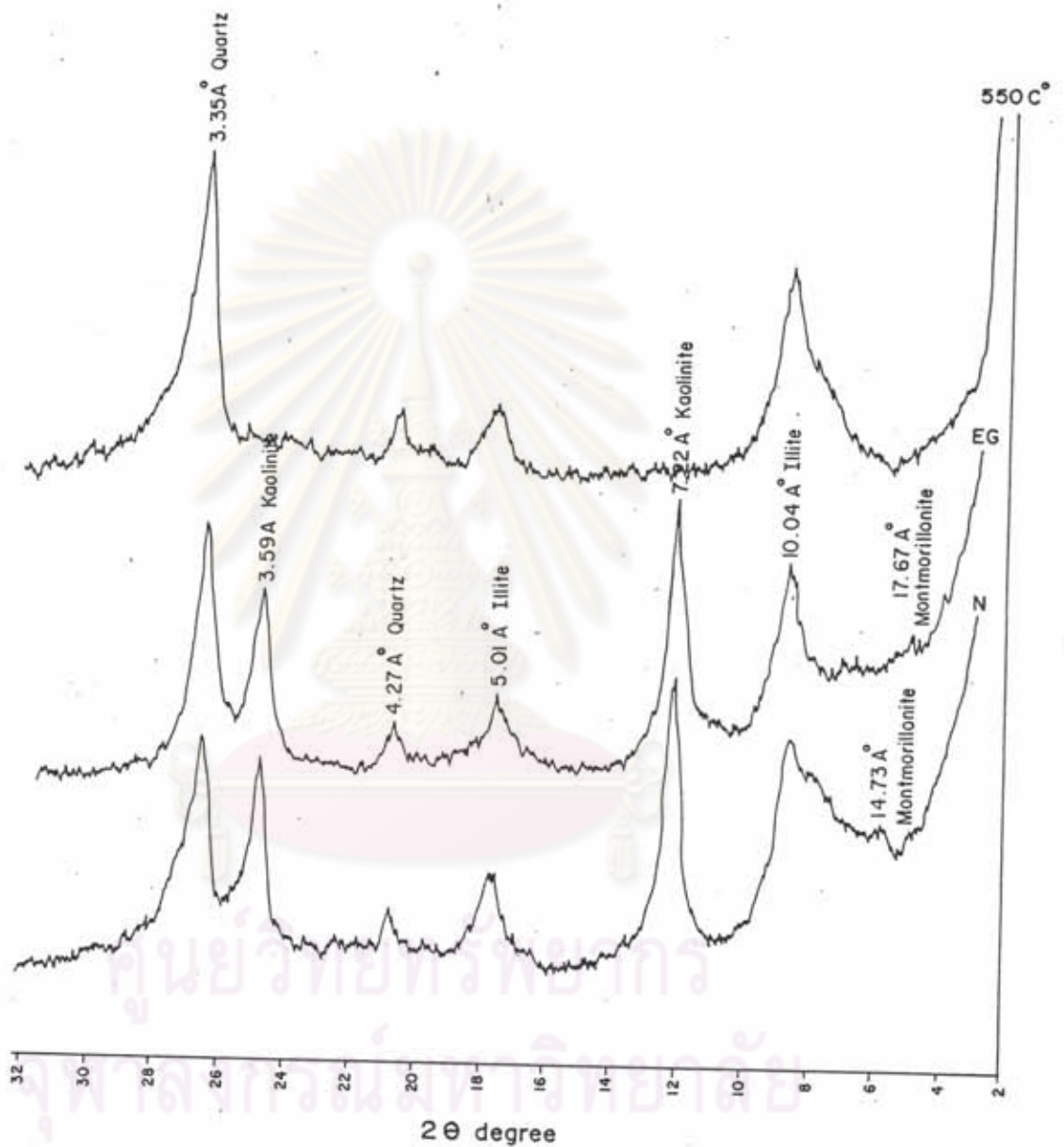


Fig. A-5.2 X-ray diffractogram of oriented clay minerals of untreated (N), ethylene glycol (EG) and heating treatment ( $550^\circ\text{C}$ ) from the upper part of B-3 Member, LM 2567C, 116.80-116.87 metres depth.

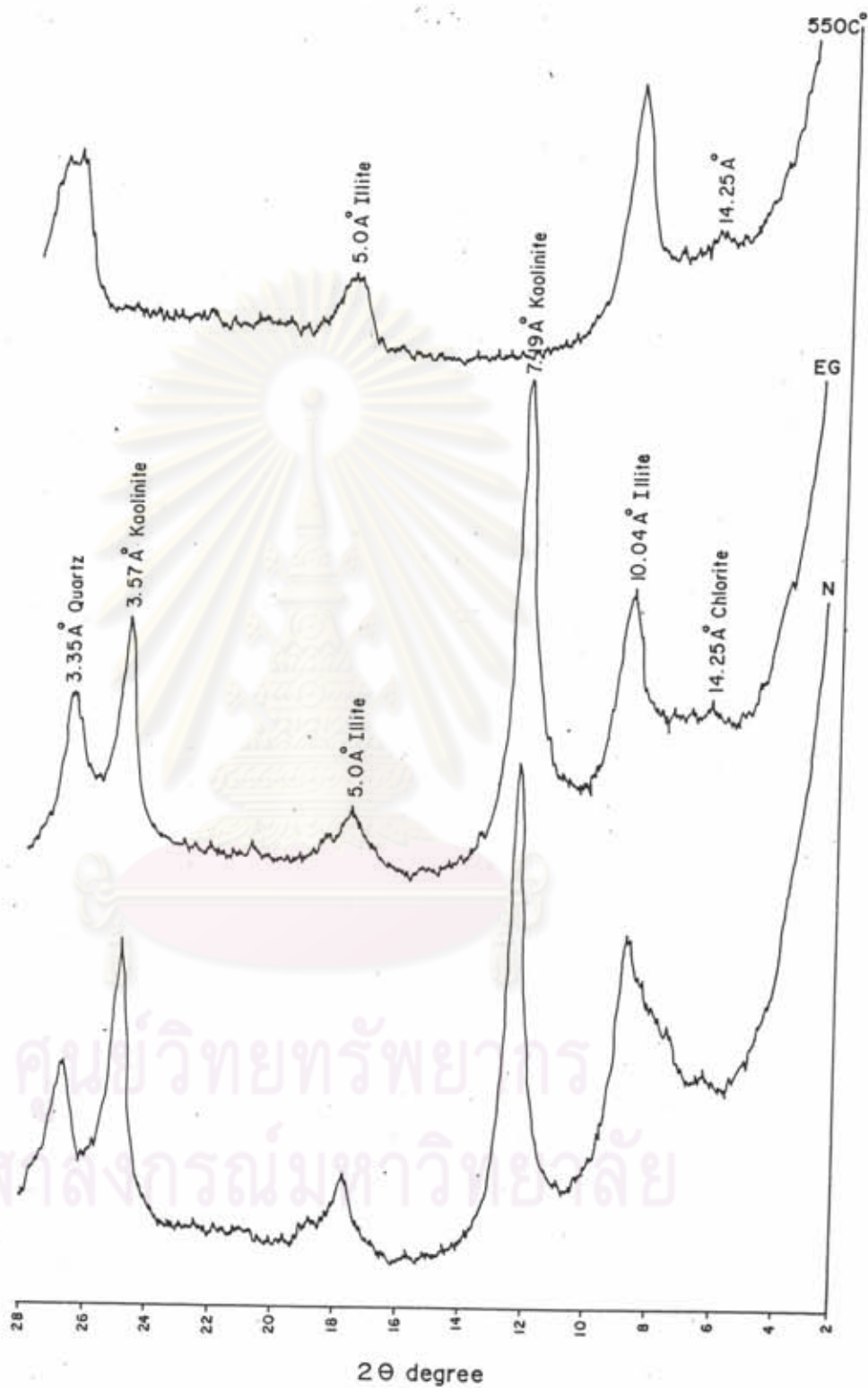


Fig. A-5.3 X-ray diffractogram of oriented clay minerals of untreated (N), ethylene glycol (EG) and heating treatment (550 C) of B4.3 Bed from LM 2567 C, at depth 100.80-100.85 metres from ground level.

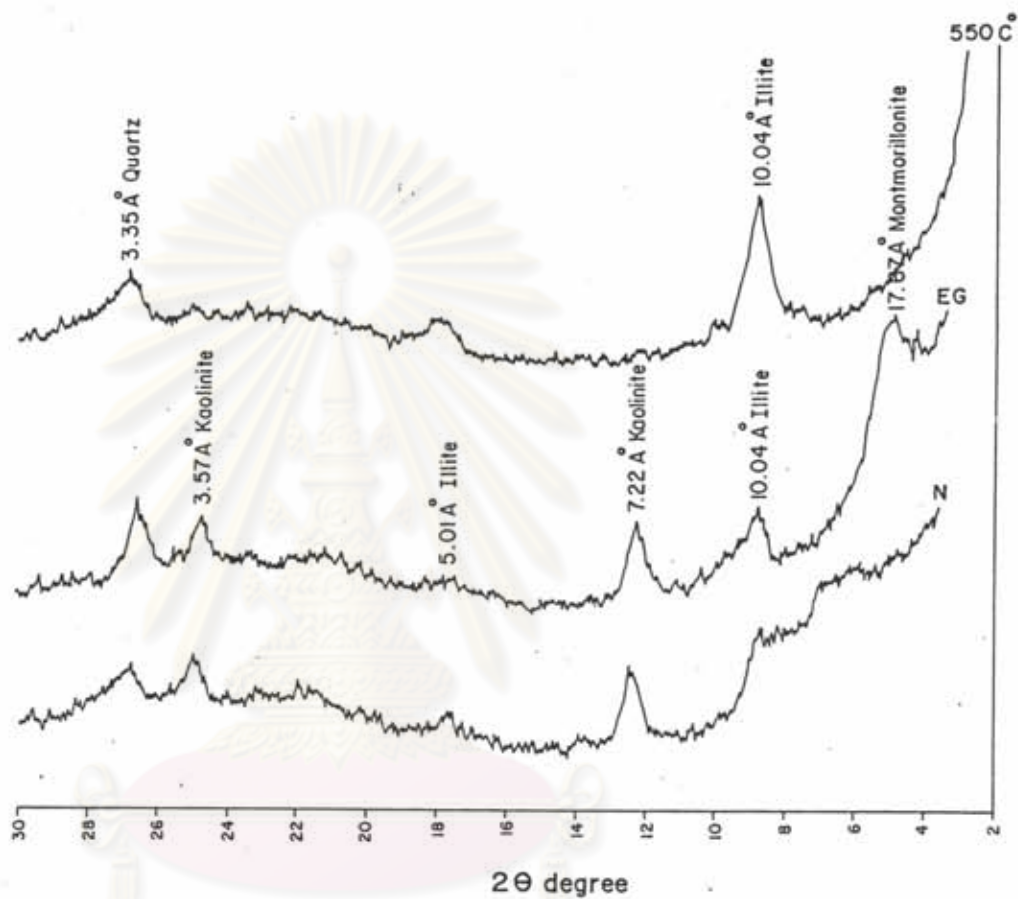


Fig. A-5.4 X-ray diffractogram of oriented clay minerals of untreated (N), ethylene glycol (EG) and heating treatment ( $550^\circ\text{C}$ ) of B-5 Member from LM 2472, 335.20 metres depth.

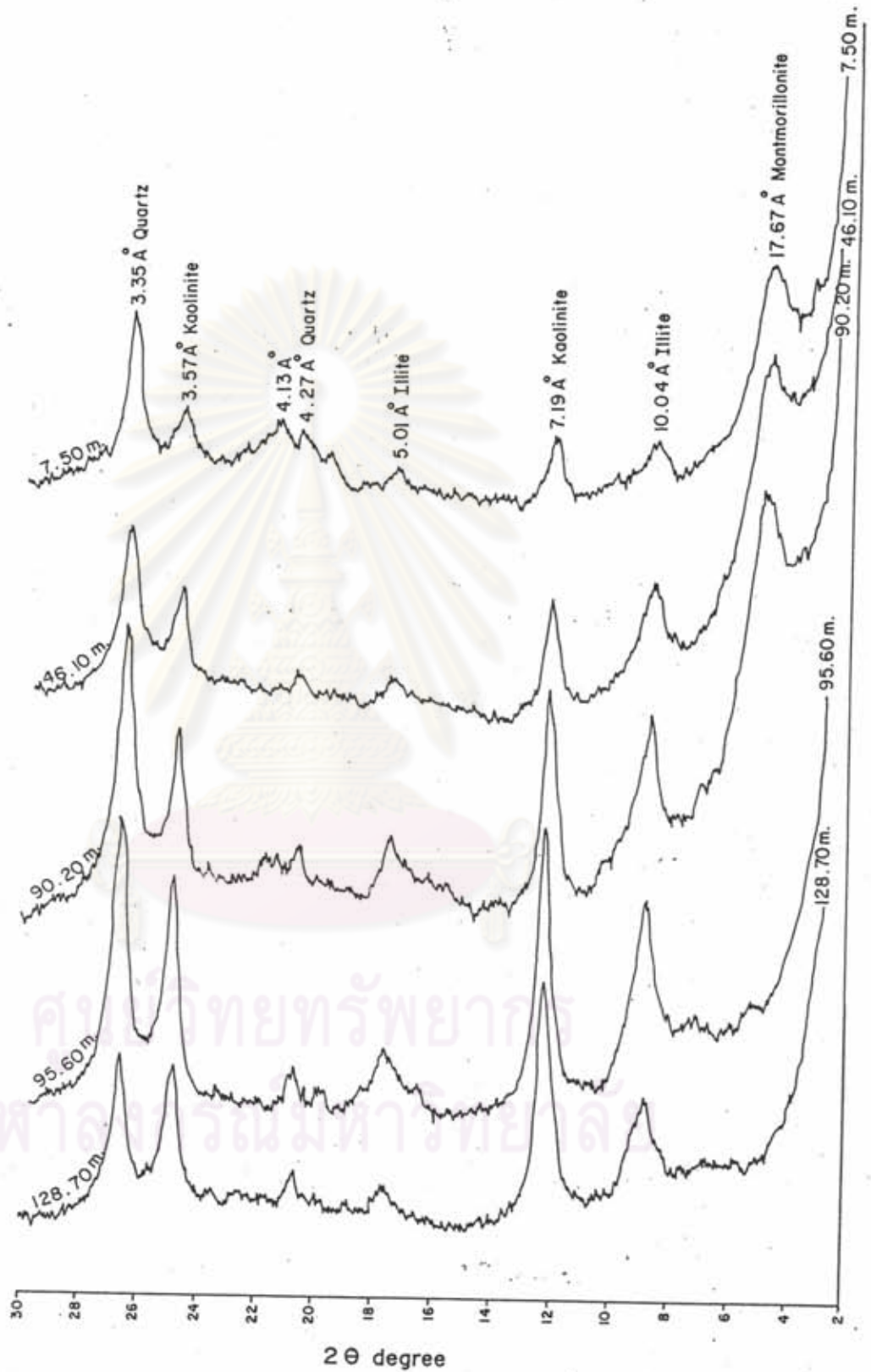


Fig. A-5.5 X-ray diffractogram of oriented clay minerals after ethylene glycol treatment of LMP 65 with respect to depth.

## BIOGRAPHY

Mr. Pol Chaodumrong was born in Changwat Nakhon Pathom, central part of Thailand on July 26, 1951. He lived in Amphoe Sanpathong Changwat Chiang Mai, northern part of Thailand during 1957 to 1975. In 1973, he graduated with a B.Sc. degree in Geology from Chiang Mai University. After graduation, he worked at Phanosit Company for 2 years. His assignments were in the field of various ore deposits especially the tungsten deposit at Mae La Ma Mine, Changwat Mae Hong Son, and manganese deposit at Ban Pa Phai Mine, Changwat Lamphun, He has been working at Geological Survey Division, Department of Mineral Resources since 1975. He spent his first 4 years for geological mapping in scale 1:250,000 of Sheet Changwat Prachuap Khirikhan and Sheet Changwat Satun, southern part of Thailand. At present, he joints Tertiary Research Project as a assistant chief. His responsibility covers all sedimentary rocks within the Tertiary basins of Thailand.



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