

DAFTAR PUSTAKA

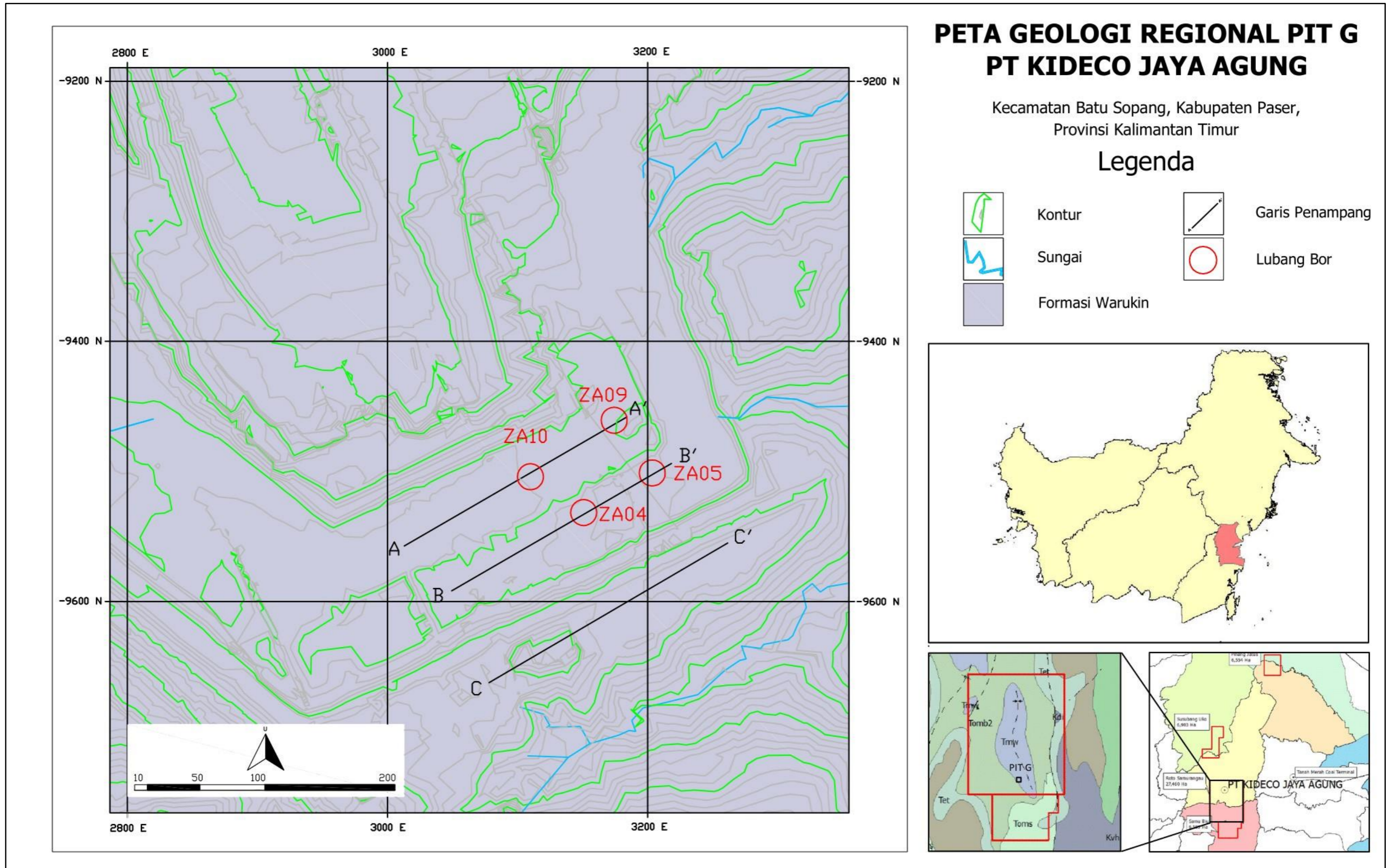
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LAMPIRAN

LAMPIRAN 1
PETA GEOLOGI REGIONAL
LOKASI PENELITIAN



Lampiran 1. Peta geologi regional Pit G

LAMPIRAN 2
DATABASE SURVEY DAN LITHOLOGY

2.1 Database Survey

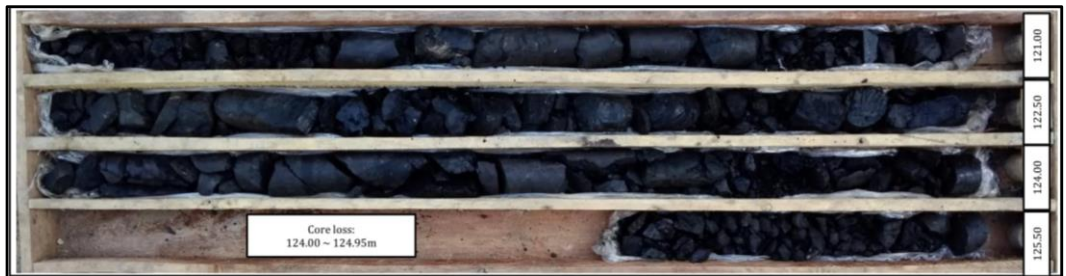
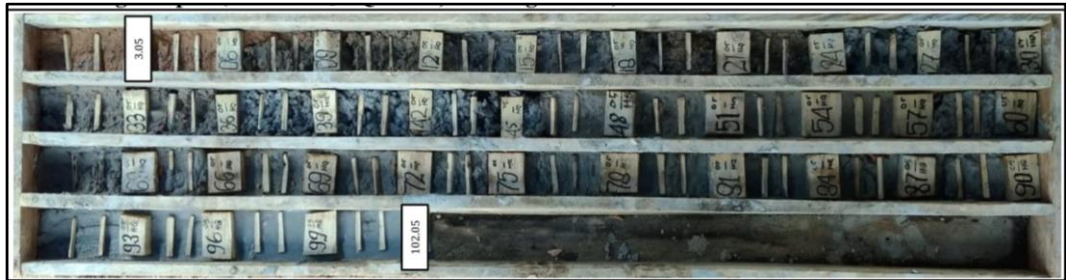
Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Azimuth (°)	Inclination (°)
ZA04	3150,77	-9531,62	110,03	128,5	240	70
ZA05	3203,48	-9501,18	89,89	121,7	240	72
ZA09	3174,21	-9460,64	71,6367	307,85	240	70
ZA10	3109,783	-9504,13	71,8807	308,8	240	70

2.2 Database Lithology

Hole ID	Depth (m)		Lithology
	From	To	
ZA04	102,1	128,5	CO
ZA05	106,2	115,9	CO
ZA09	67,6	75,9	CO
ZA09	88,65	114,9	CO
ZA09	248,5	280,2	CO
ZA10	31,3	58,8	CO
ZA10	85,8	87,8	CO
ZA10	209,6	213,85	CO
ZA10	214,7	216,1	CO
ZA10	243	245,1	CO
ZA10	290,5	291,8	CO

LAMPIRAN 3
DOKUMENTASI *COREBOX*

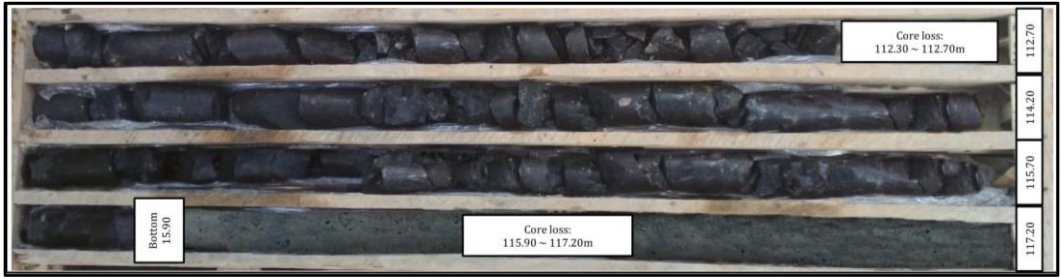
3.1 Dokumentasi Corebox Lubang Bor ZA04





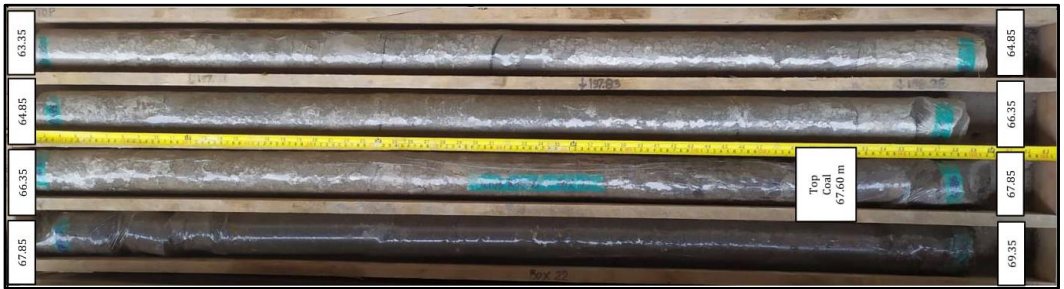
3.2 Dokumentasi Corebox Lubang Bor ZA05





3.3 Dokumentasi Corebox Lubang Bor ZA09









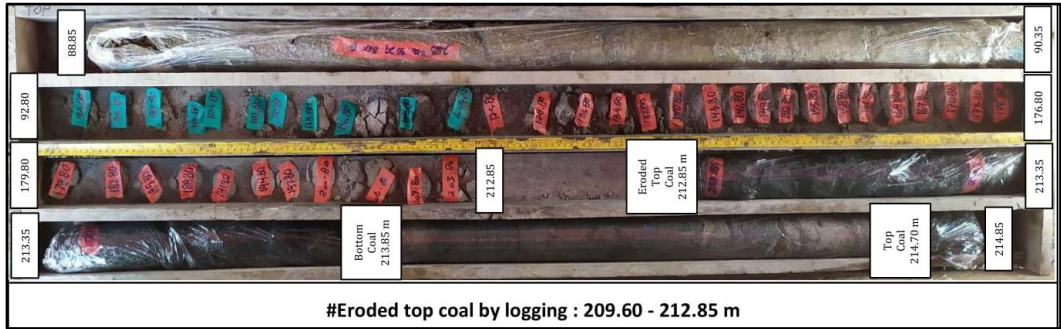




3.4 Dokumentasi Corebox Lubang Bor ZA10

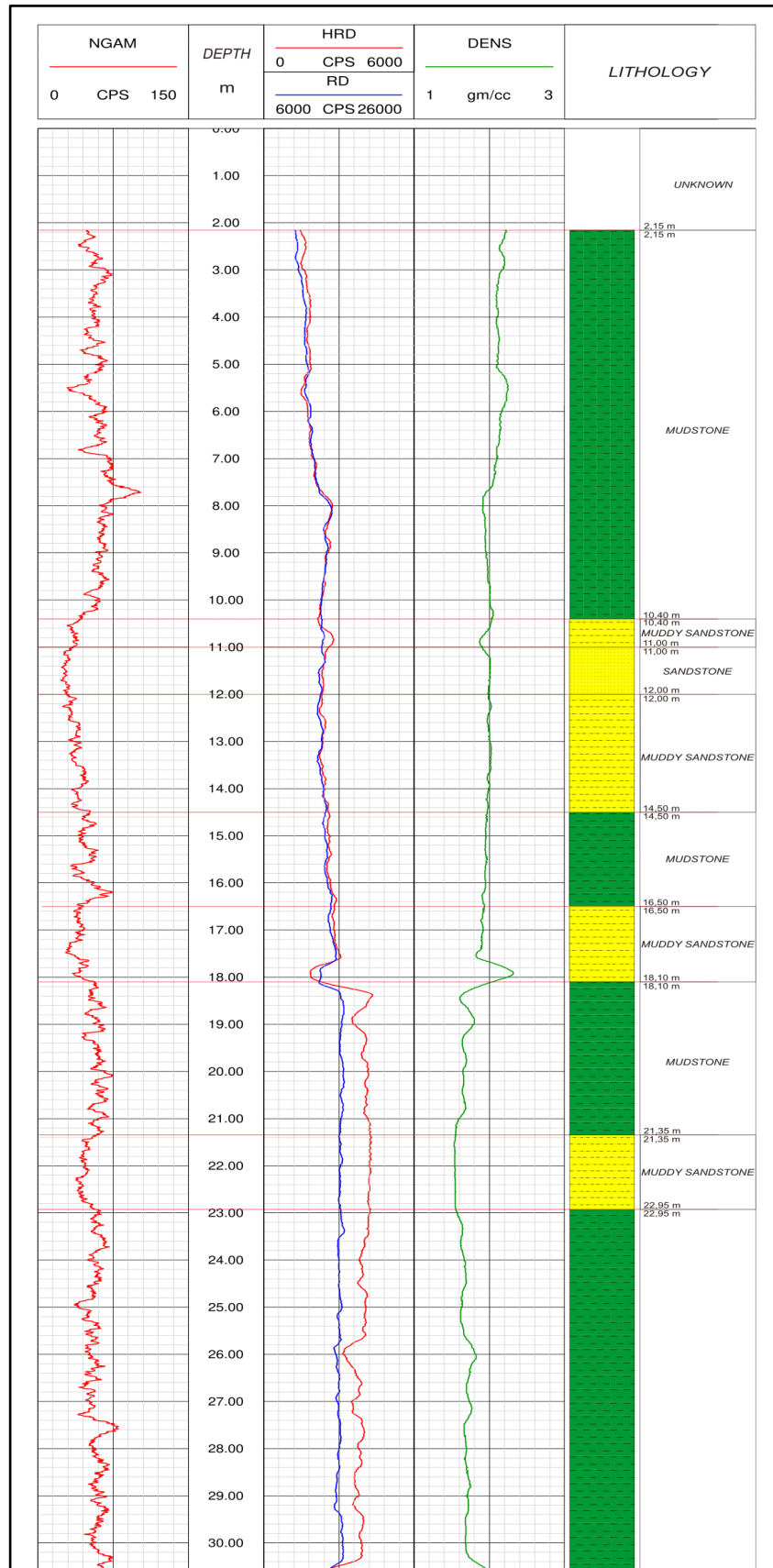


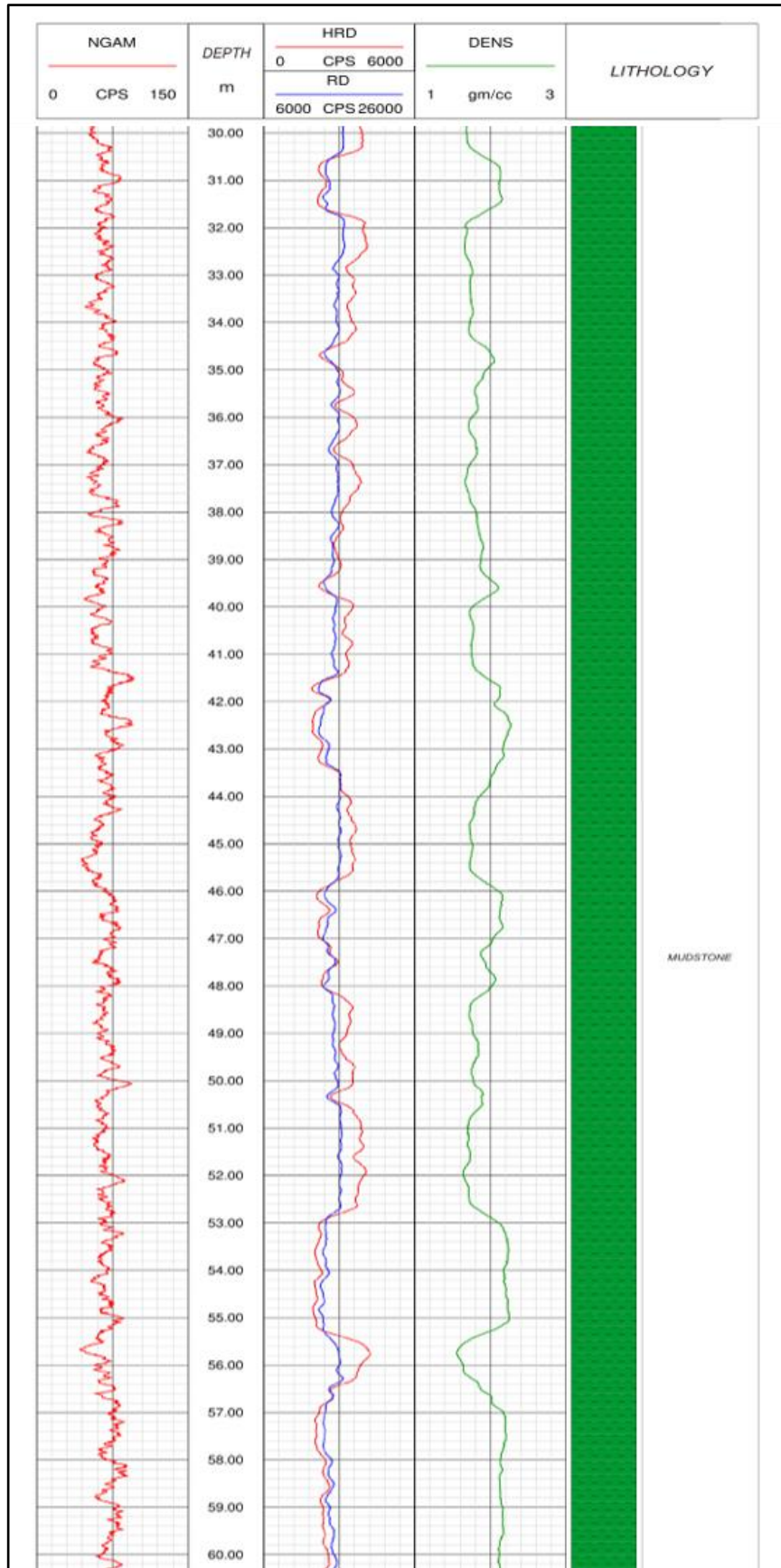


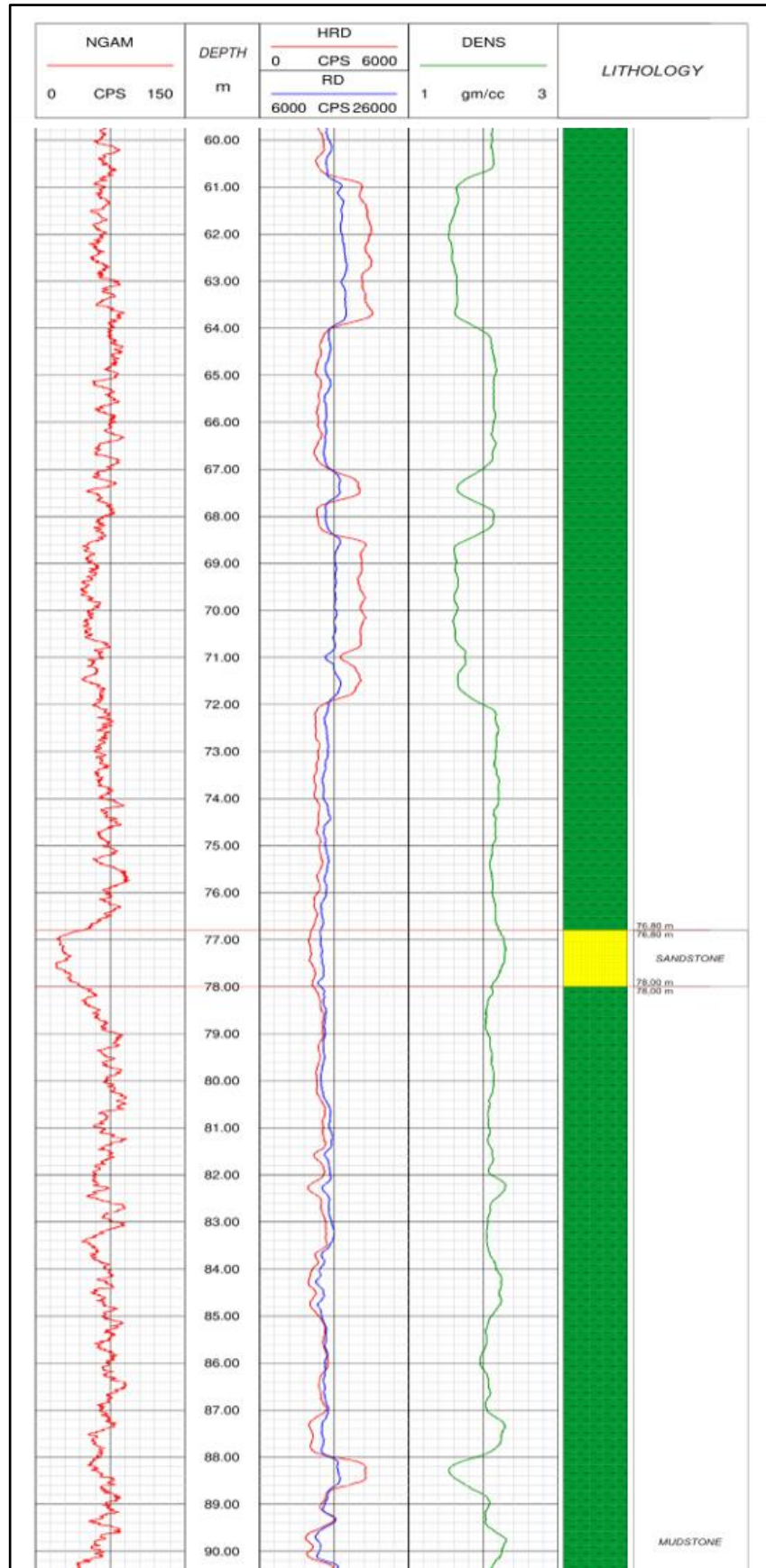


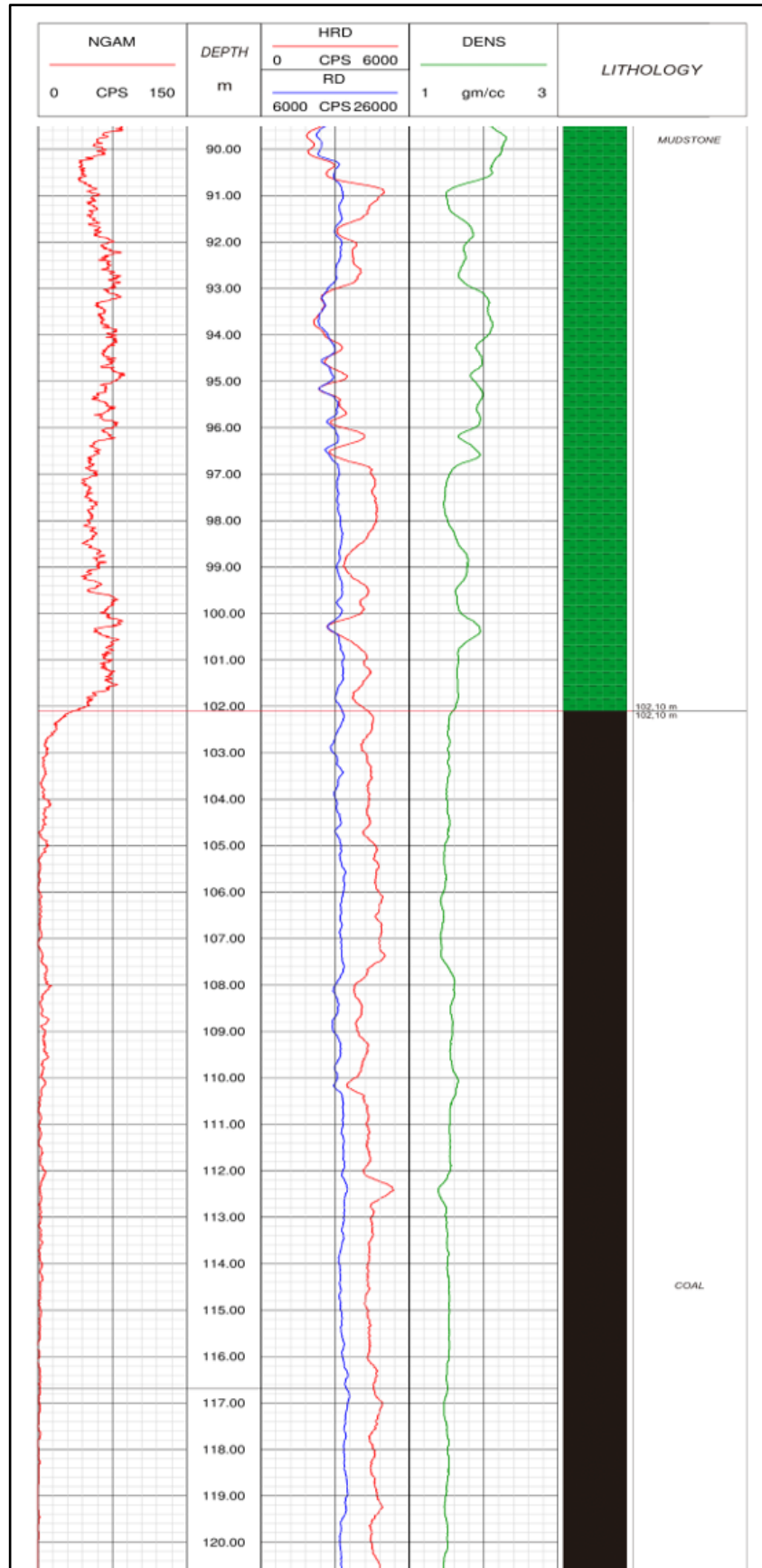
LAMPIRAN 4
INTERPRETASI LITOLOGI LUBANG BOR

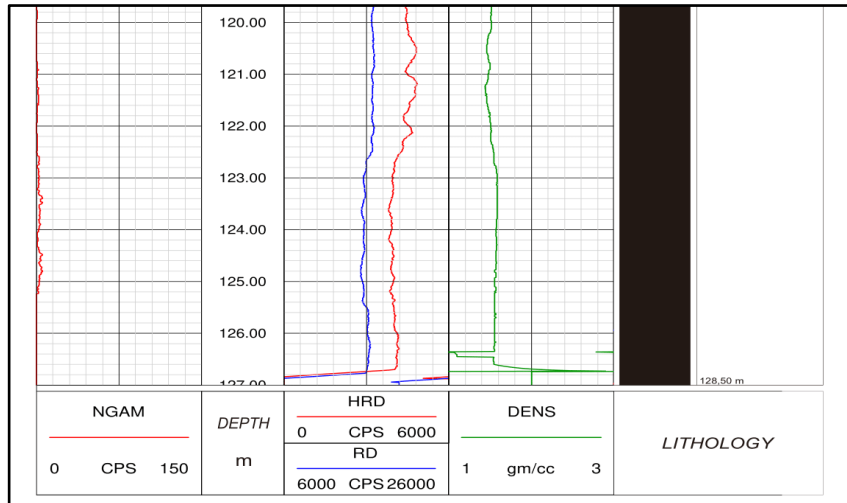
4.1 Interpretasi Litologi Lubang Bor ZA04



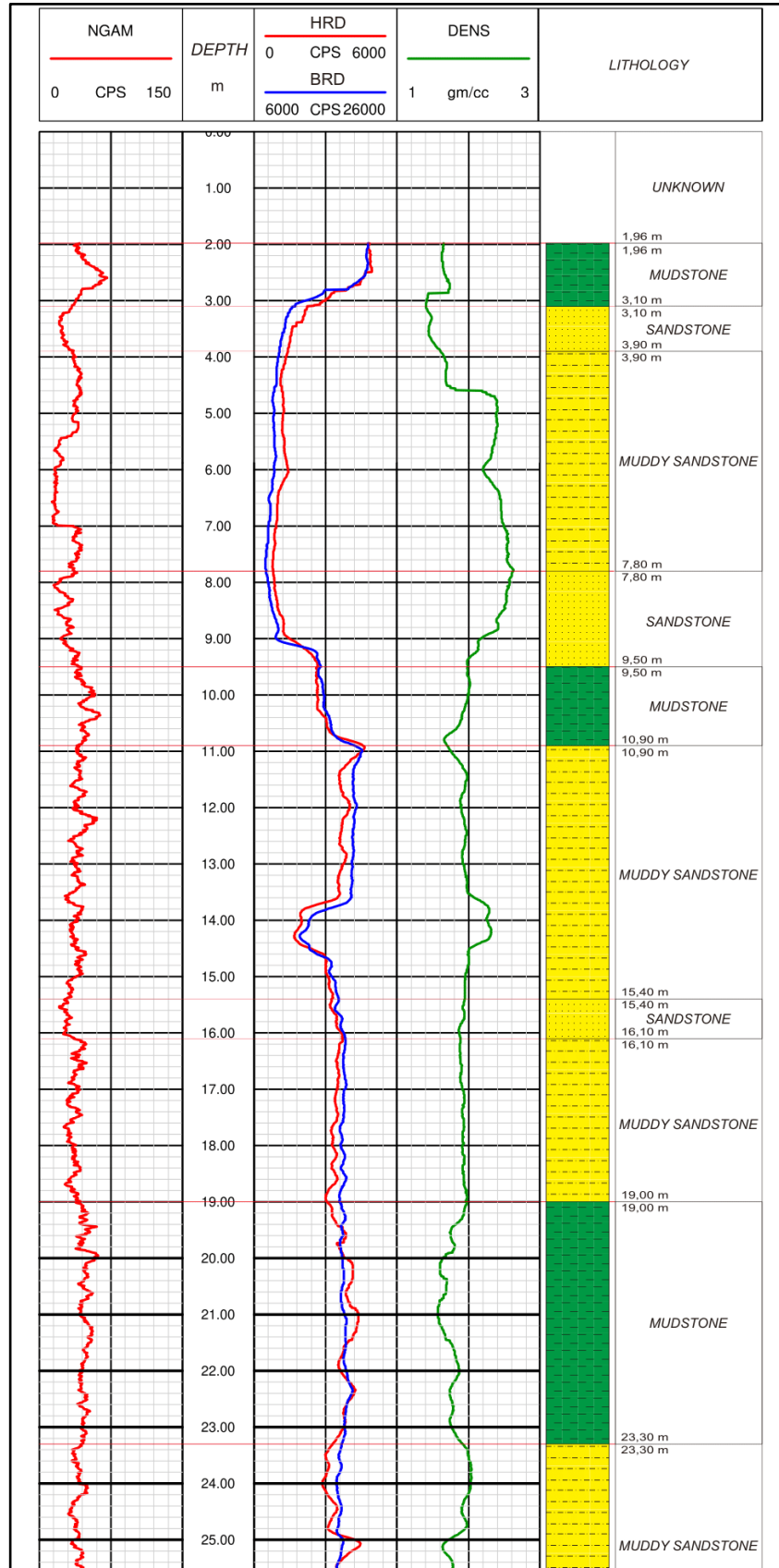


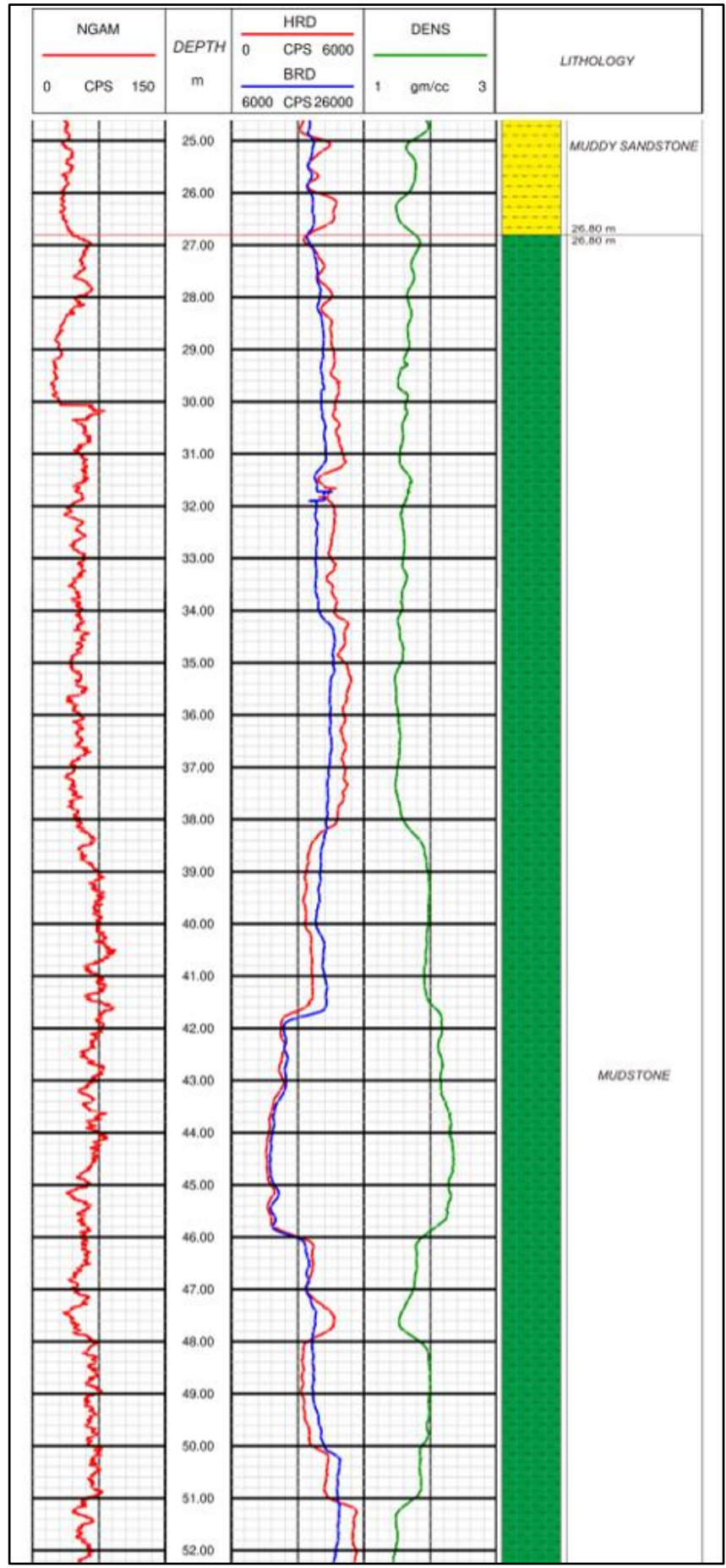


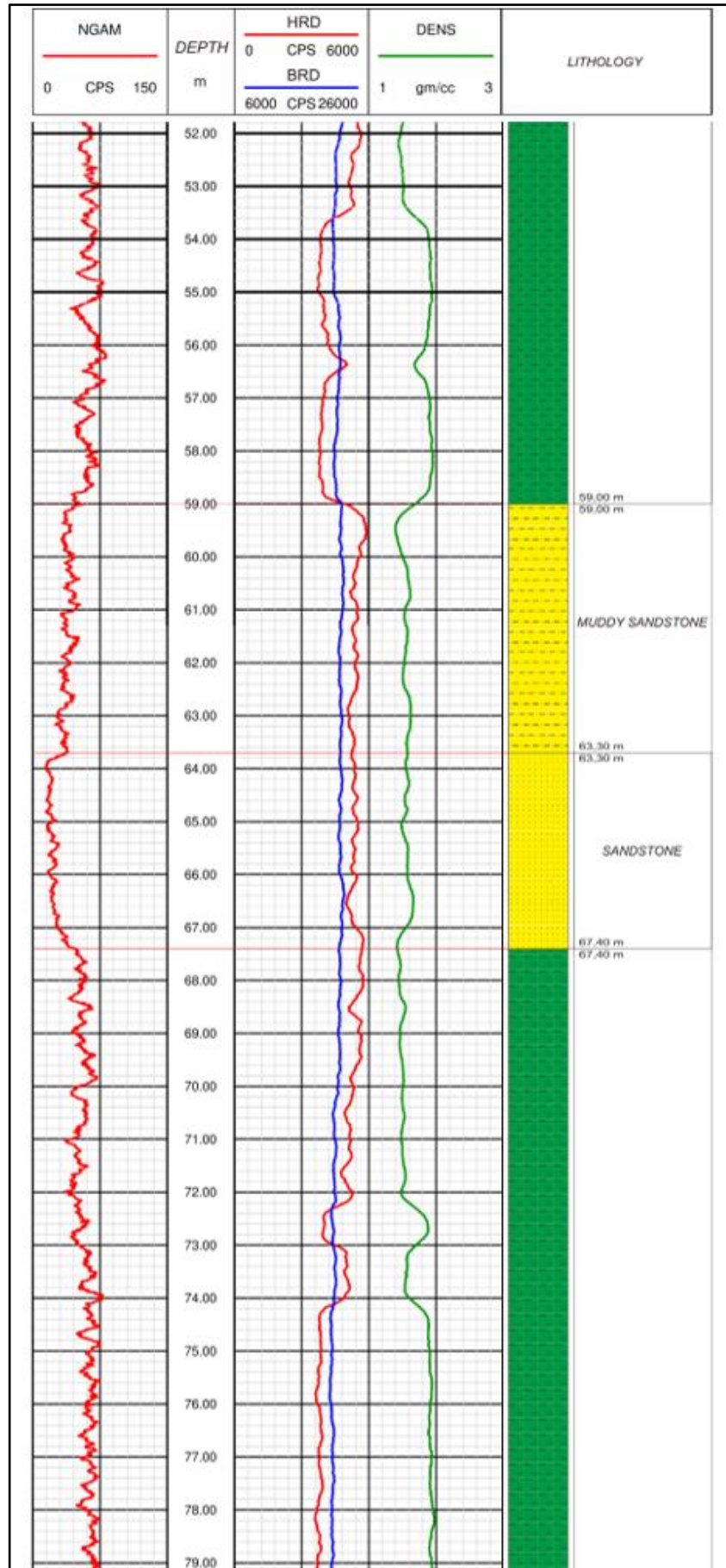


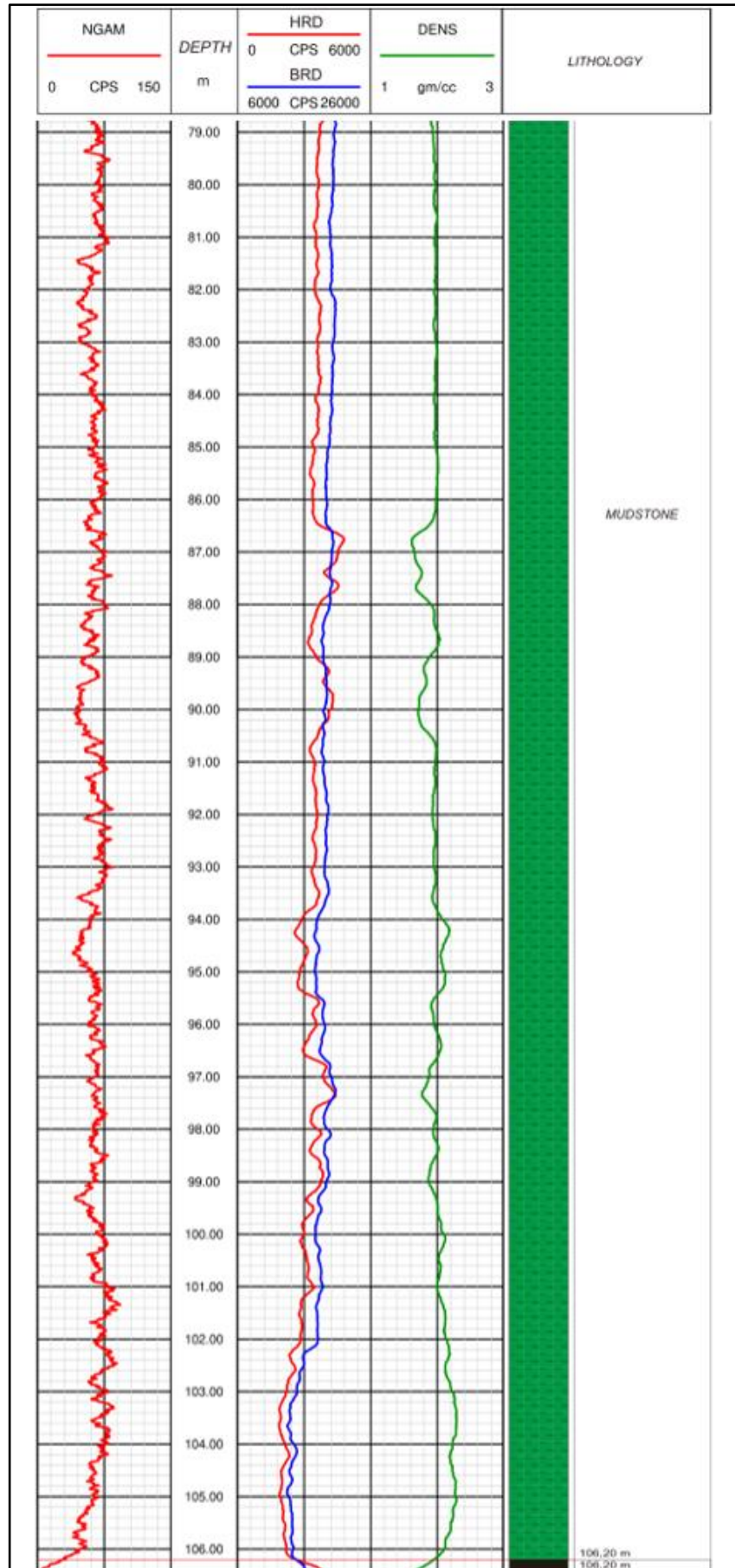


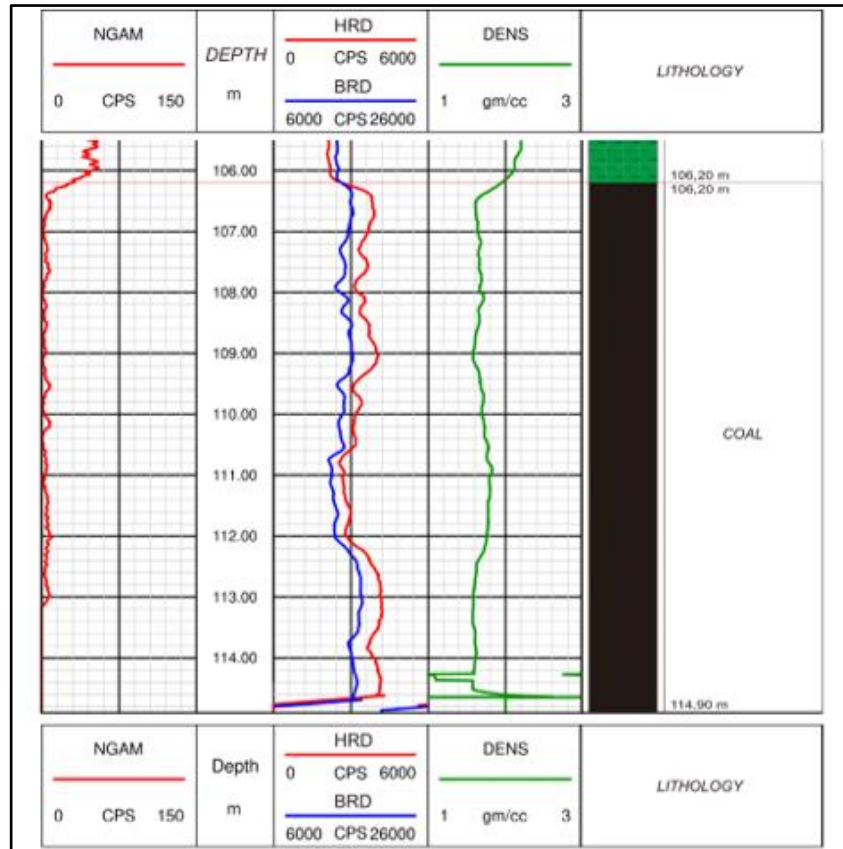
4.2 Interpretasi Litologi Lubang Bor ZA05



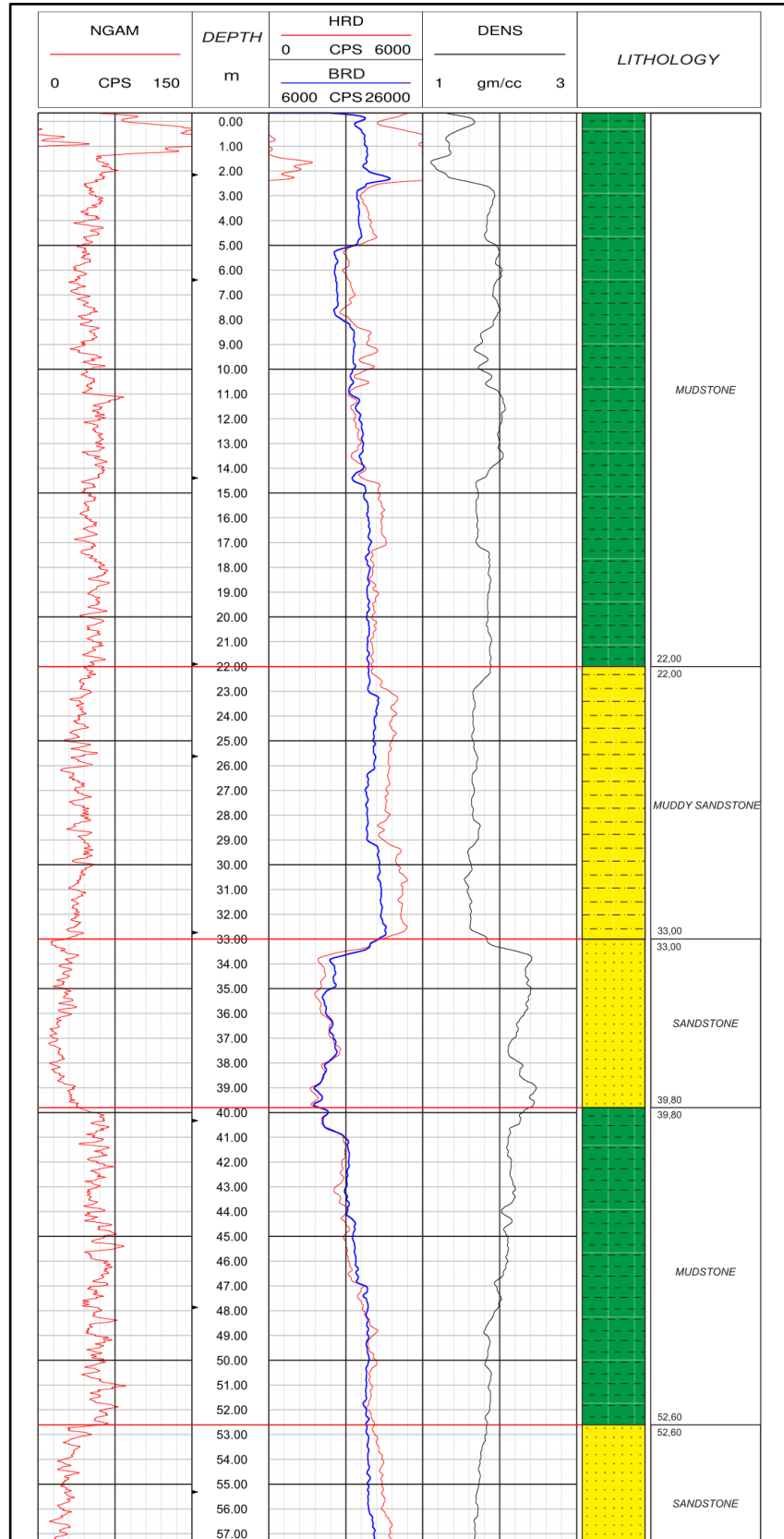


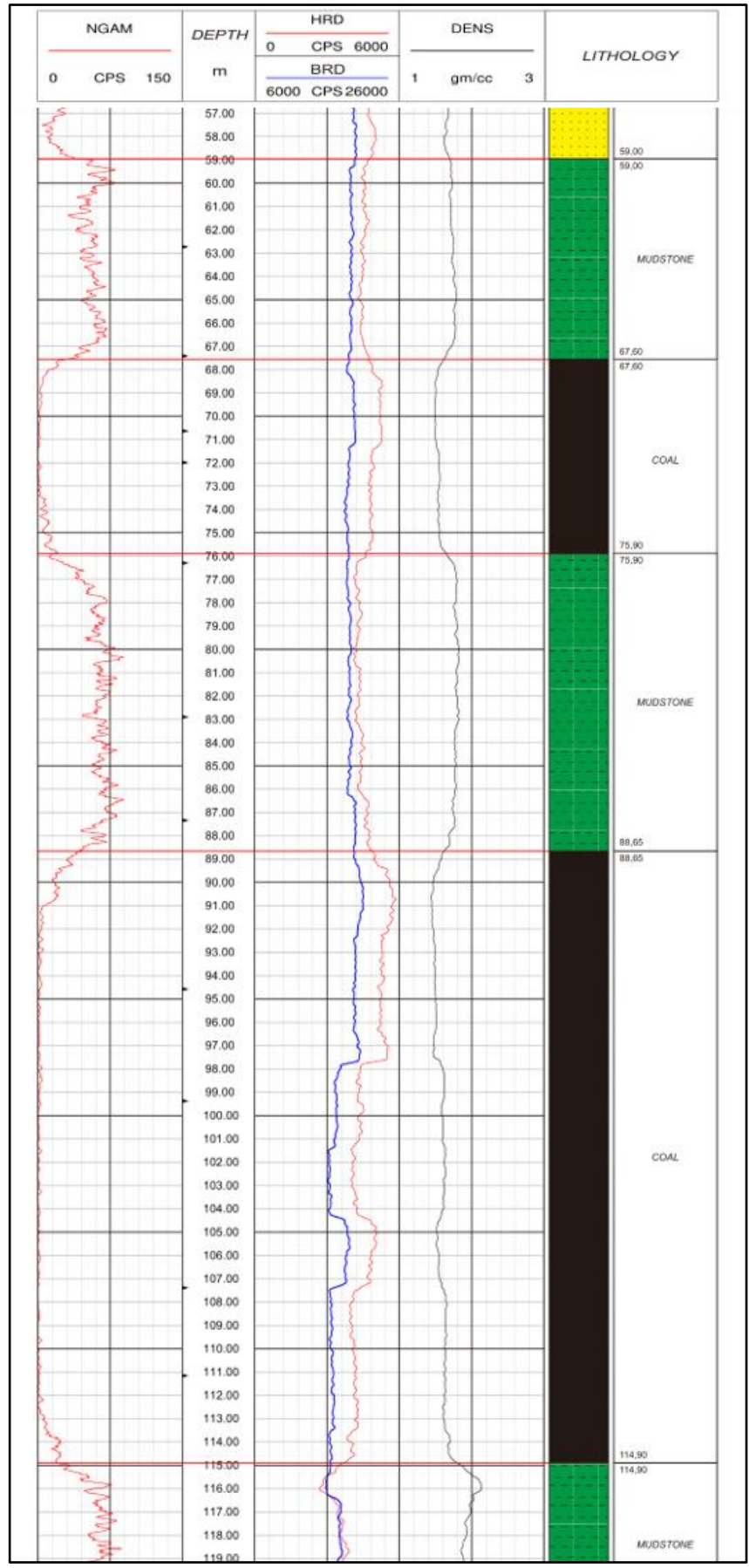


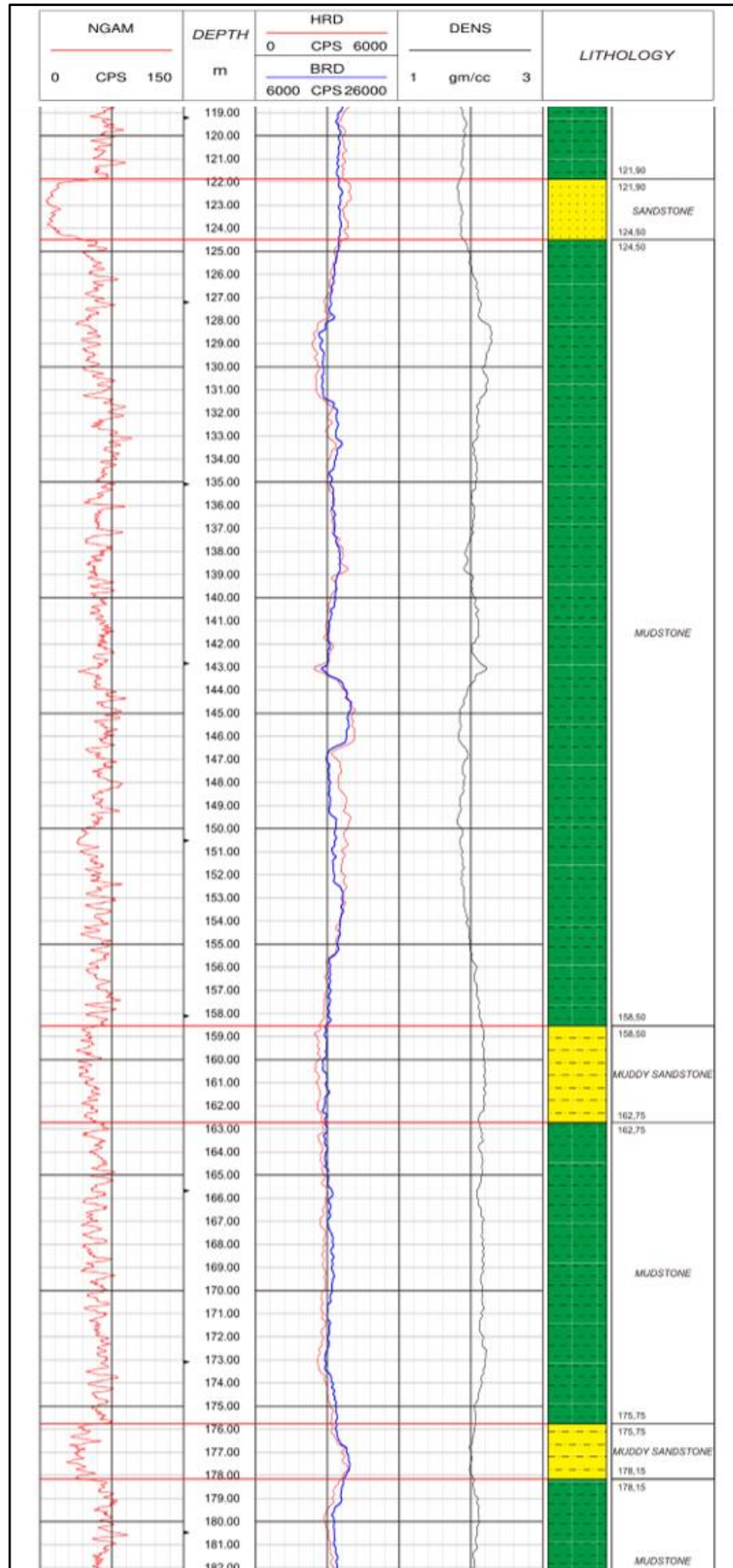


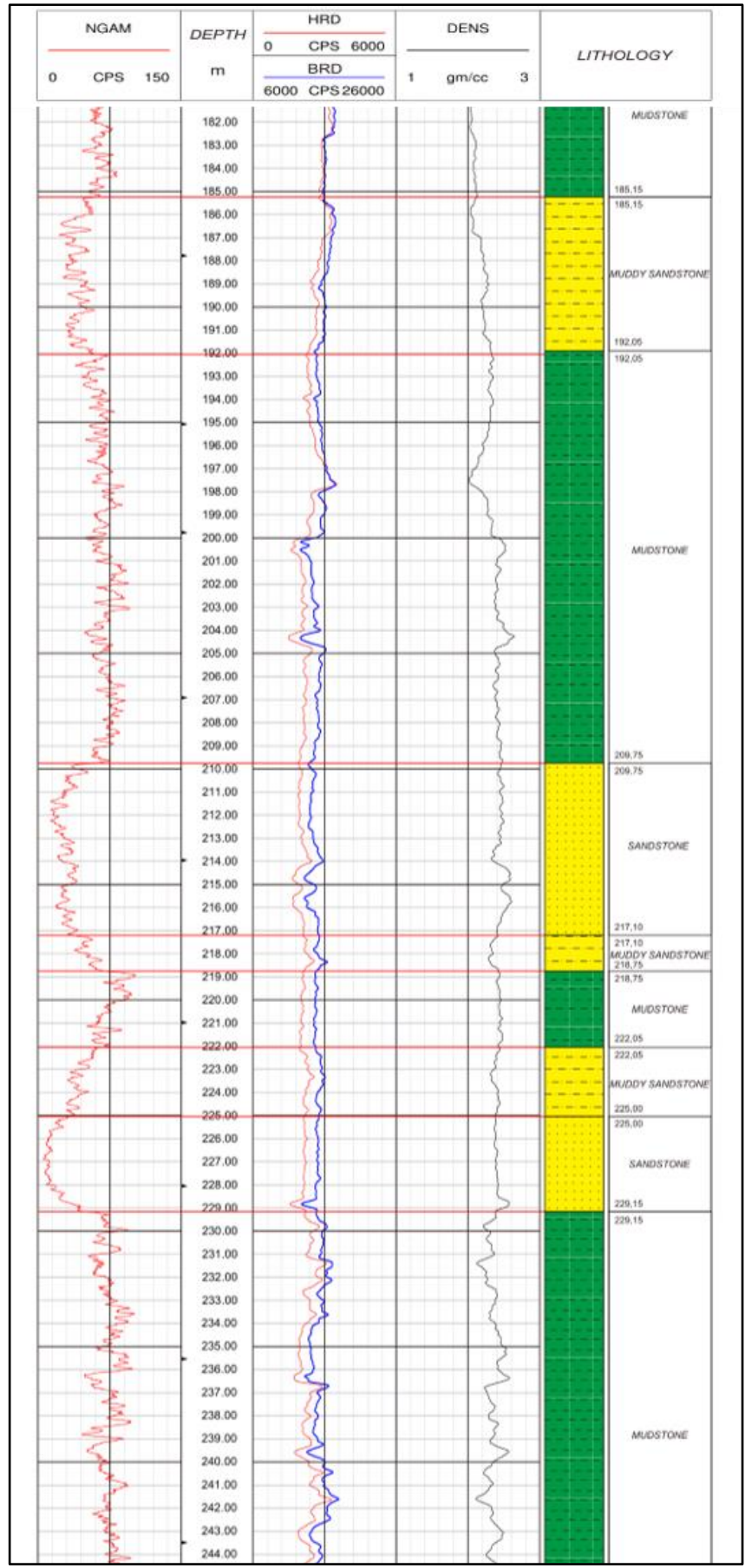


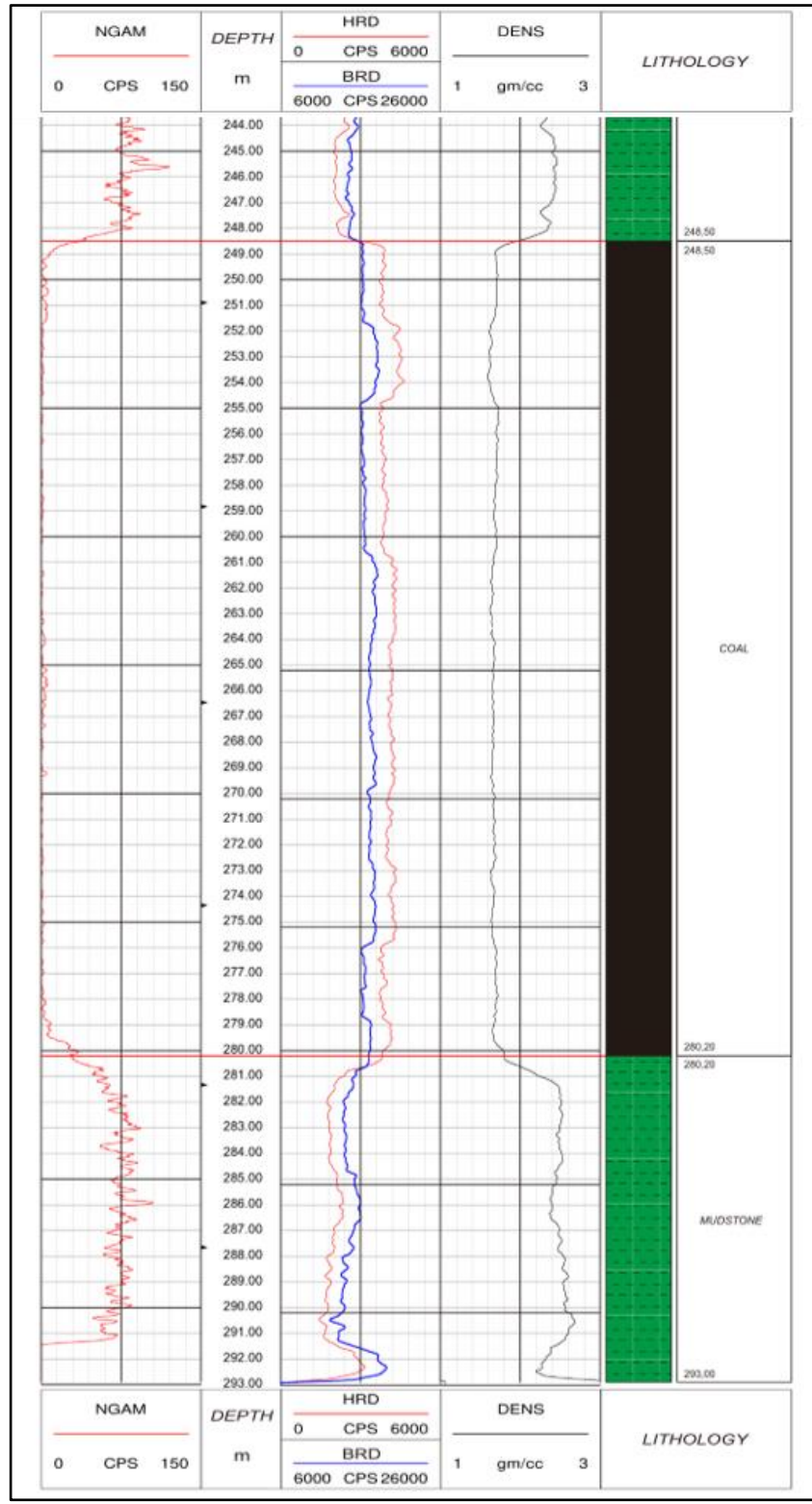
4.3 Interpretasi Litologi Lubang Bor ZA09



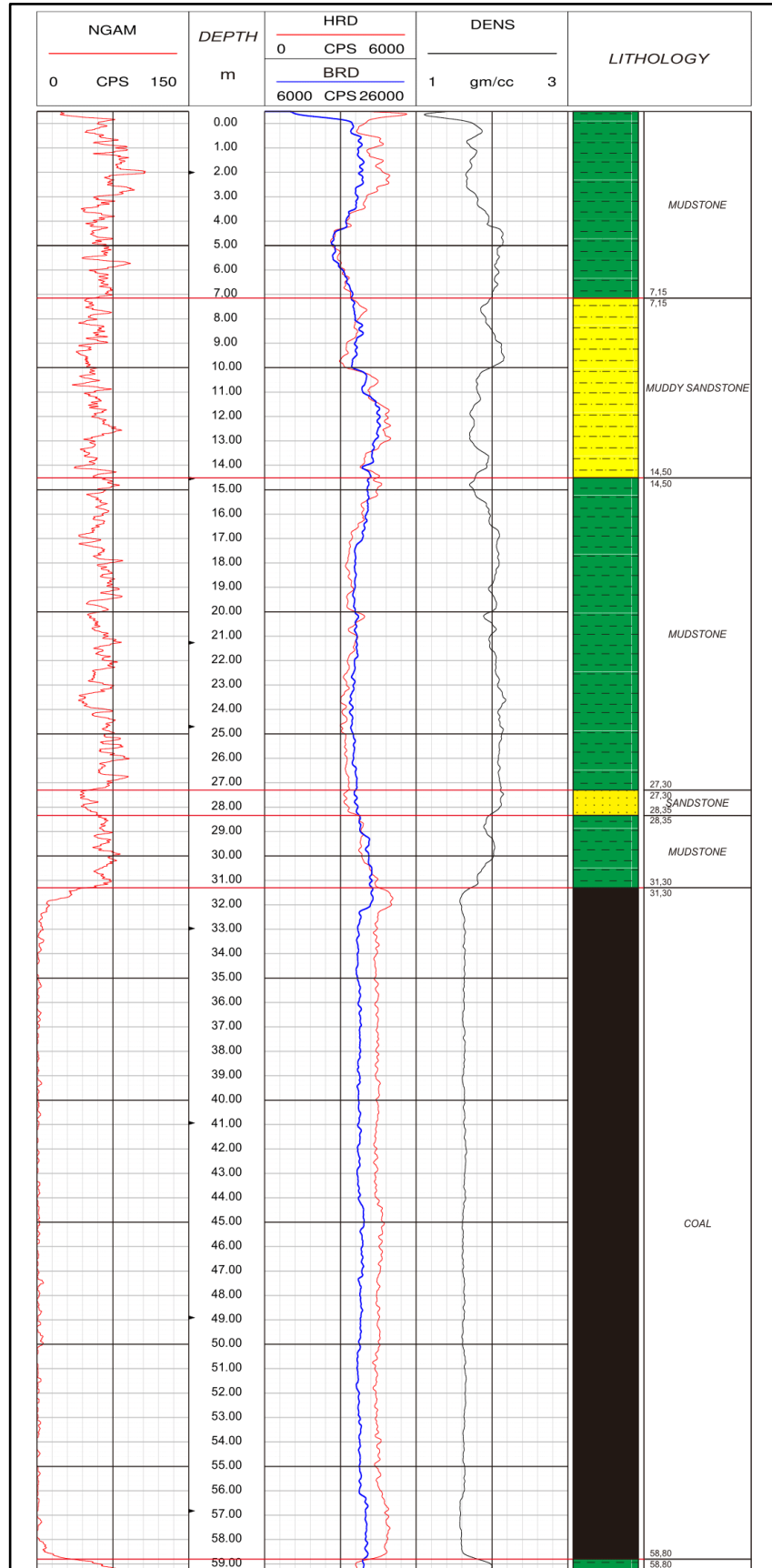


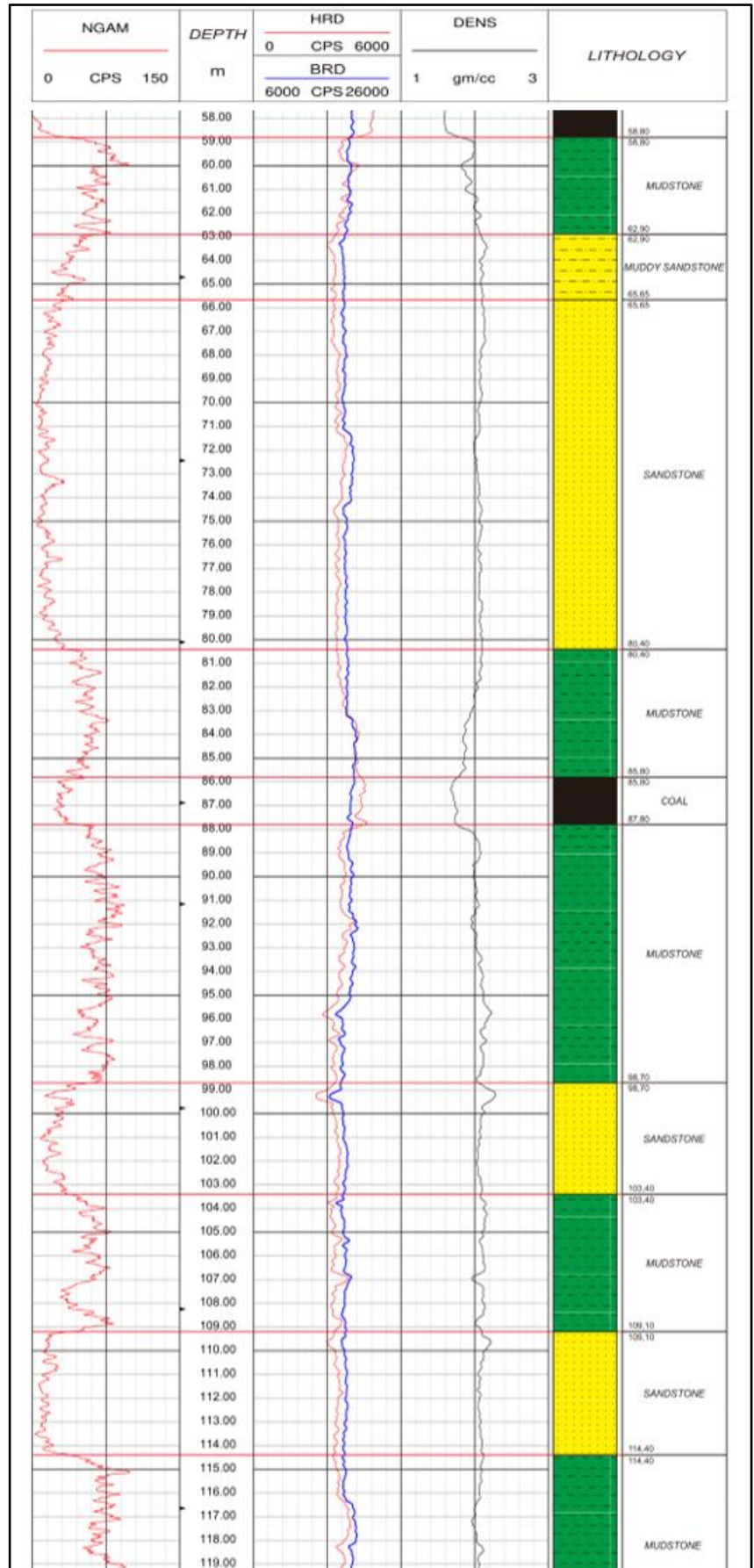


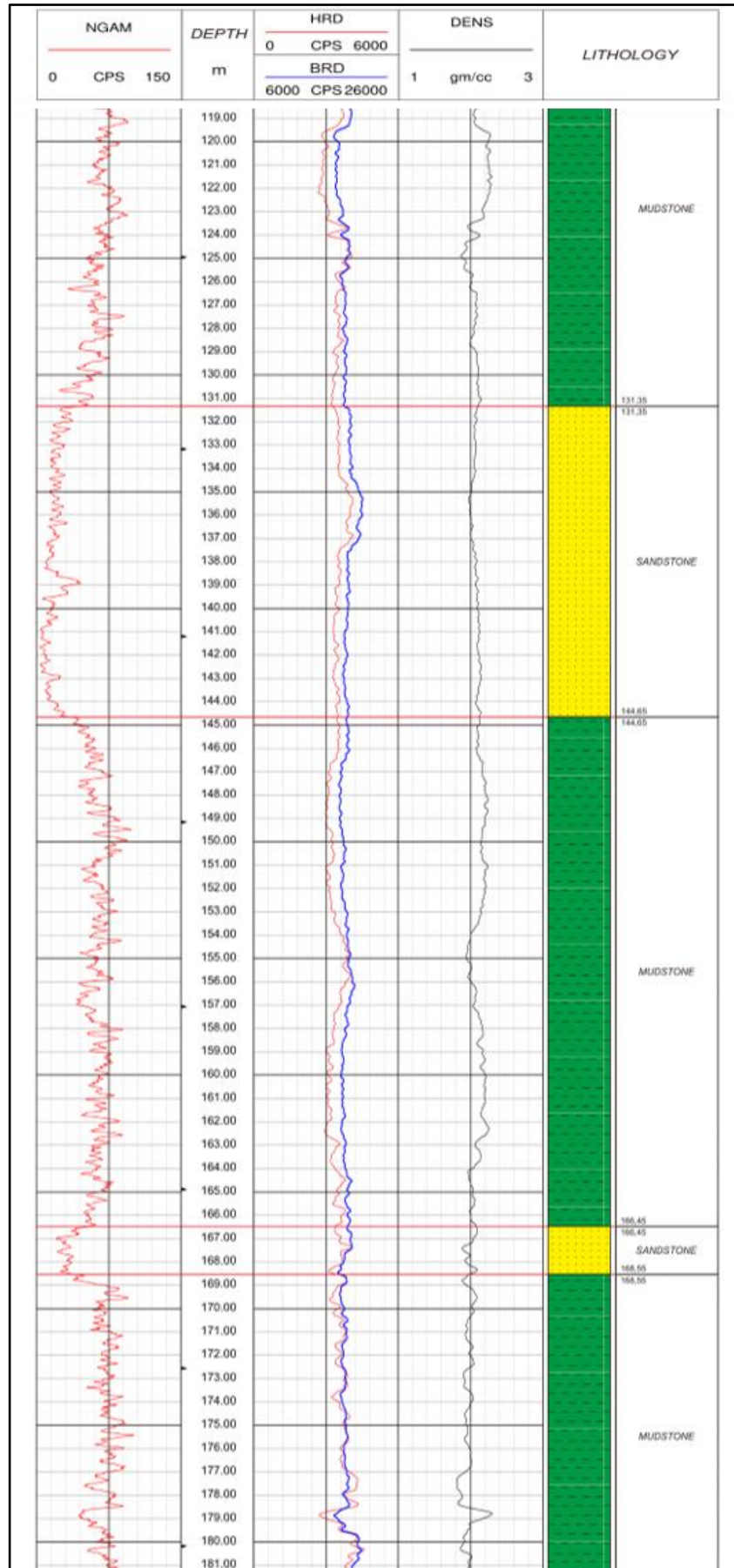


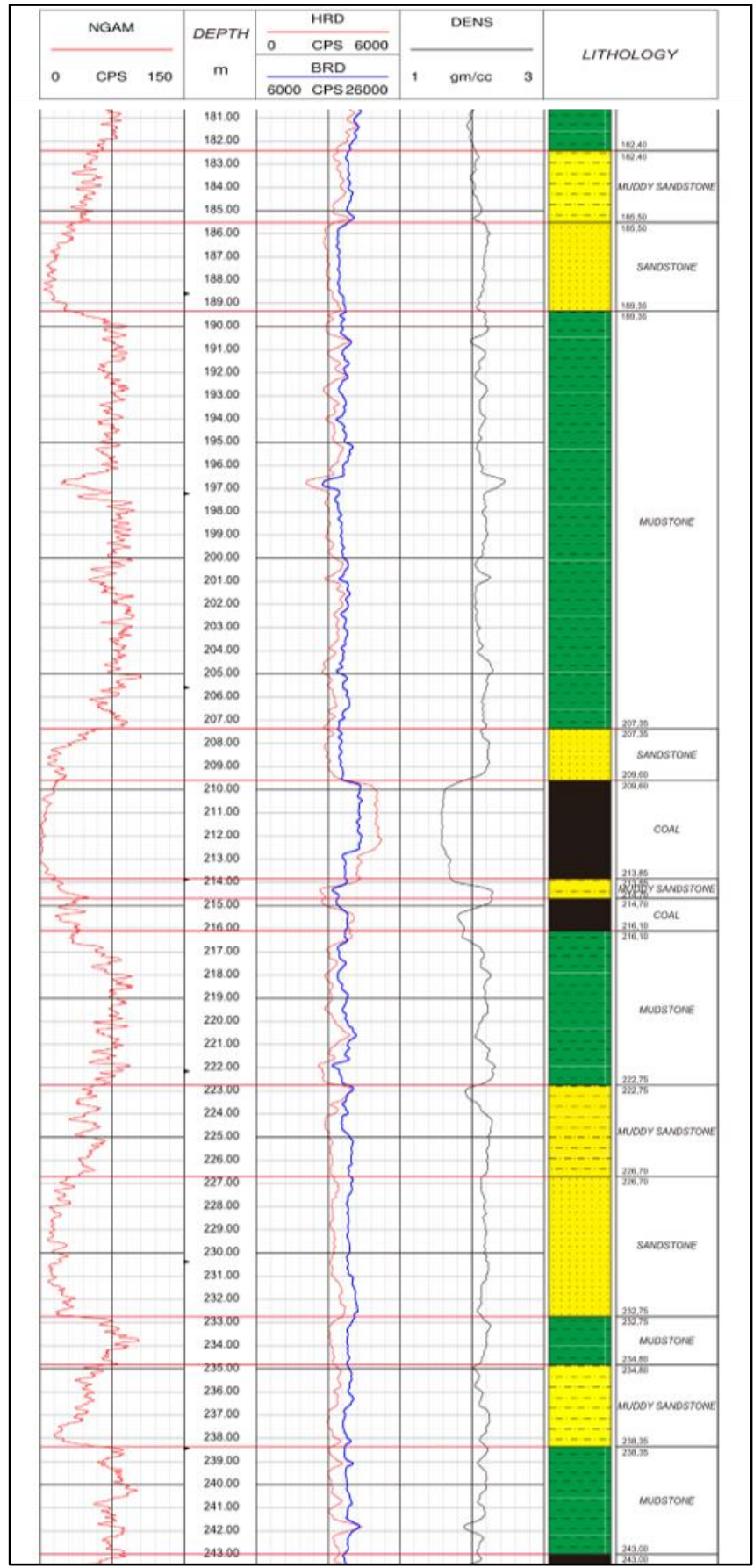


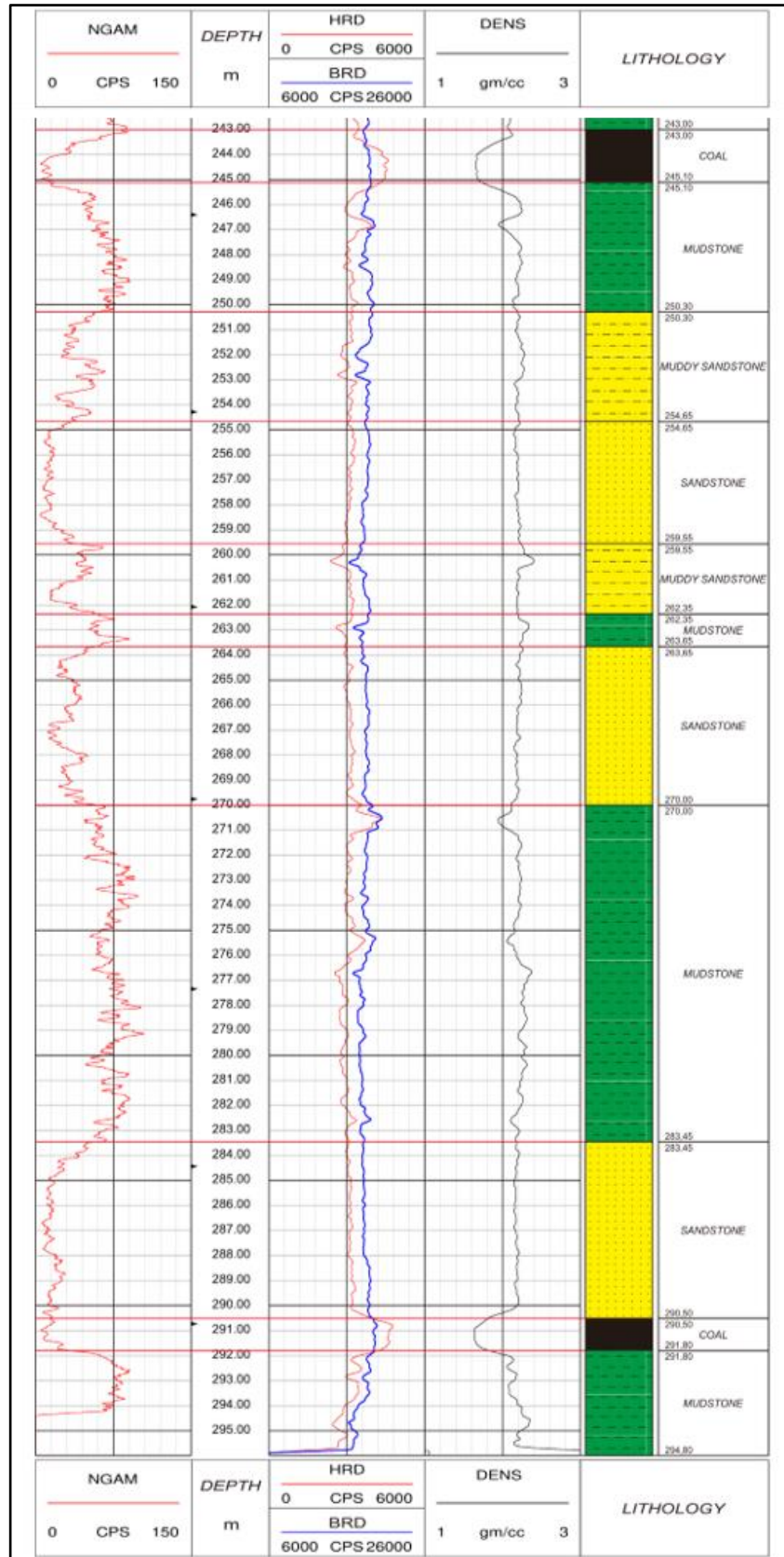
4.4 Interpretasi Litologi Lubang Bor ZA10







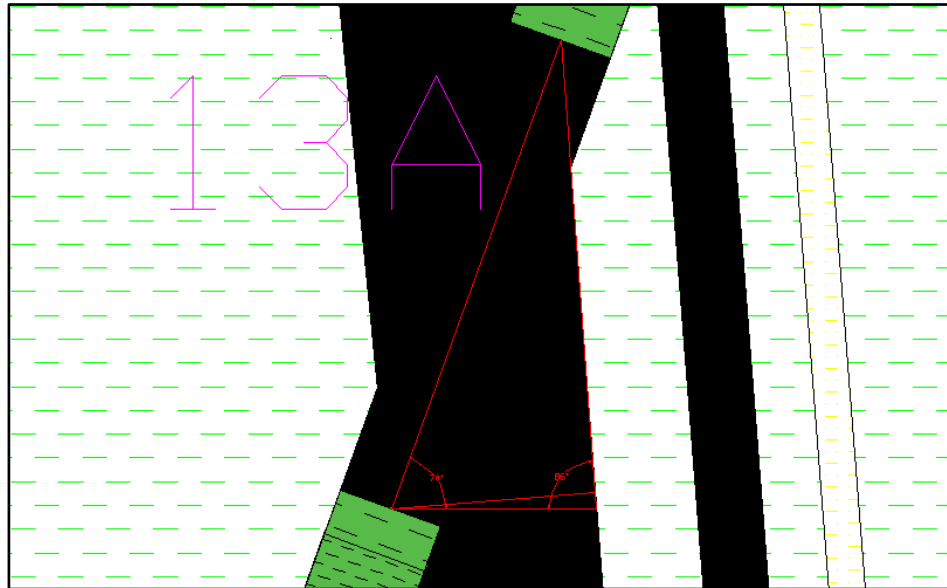




LAMPIRAN 5
PERHITUNGAN KETEBALAN AKTUAL
SEAM BATUBARA

5.1 Penampang A-A'

1. Seam 13A



Diketahui :

$$B = 70^\circ$$

$$C = 86^\circ$$

$$c = 26,25 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (86^\circ + 70^\circ)$$

$$A = 24^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

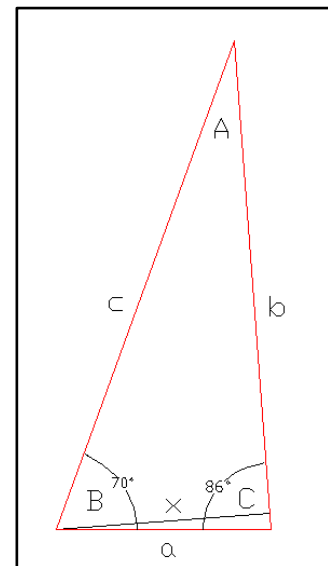
$$a = \frac{26,25 \text{ m} \times \sin 24^\circ}{\sin 86^\circ}$$

$$a = 10,70 \text{ m}$$

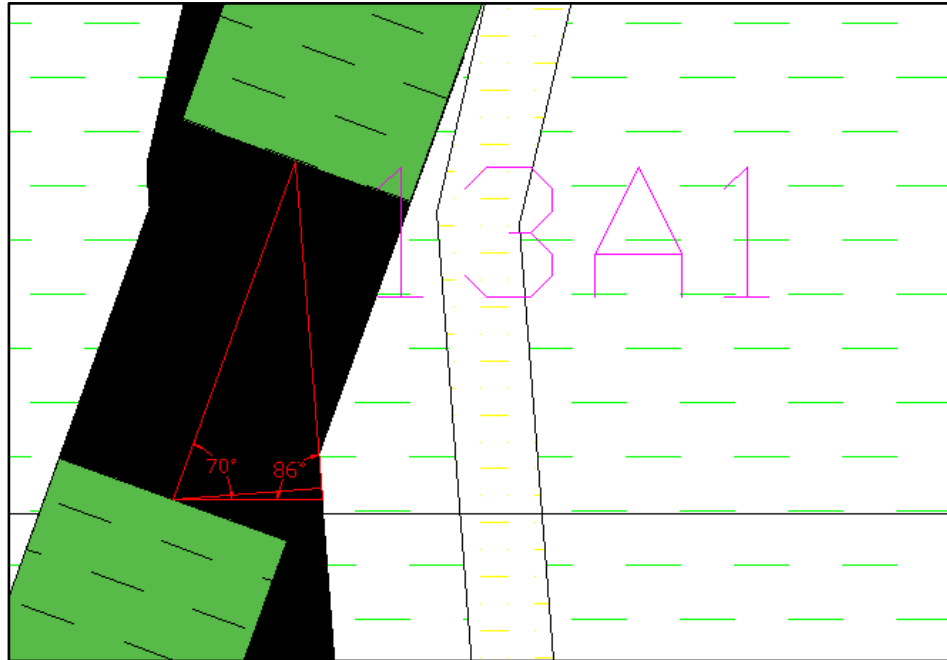
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{10,70 \text{ m} \times \sin 86^\circ}{\sin 90^\circ}$$

$$X = 10,68 \text{ m}$$



2. Seam 13A1



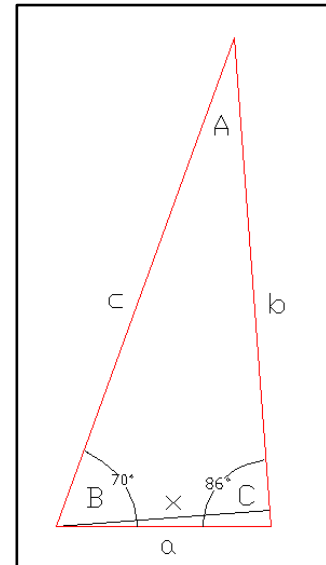
Diketahui :

- B = 70°
- C = 86°
- c = 8,30 m

Ditanyakan : X = ?

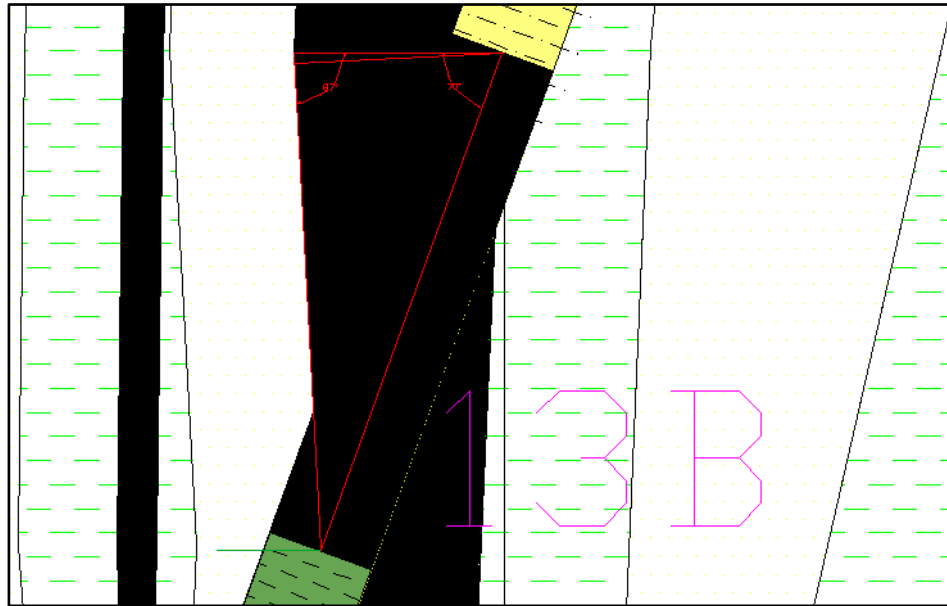
Jawaban :

$$\begin{aligned}
 A + B + C &= 180^\circ \\
 A &= 180^\circ - (86^\circ + 70^\circ) \\
 A &= 24^\circ \\
 a &= \frac{c \times \sin A}{\sin C} \\
 a &= \frac{8,30 \text{ m} \times \sin 24^\circ}{\sin 86^\circ} \\
 a &= 3,38 \text{ m} \\
 X &= \frac{a \times \sin C}{\sin x} \\
 X &= \frac{3,38 \text{ m} \times \sin 86^\circ}{\sin 90^\circ} \\
 X &= 3,38 \text{ m}
 \end{aligned}$$



3. Seam 13B

Titik Pengamatan ZA10



Diketahui :

$$B = 70^\circ$$

$$C = 87^\circ$$

$$c = 27,50 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (87^\circ + 70^\circ)$$

$$A = 23^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

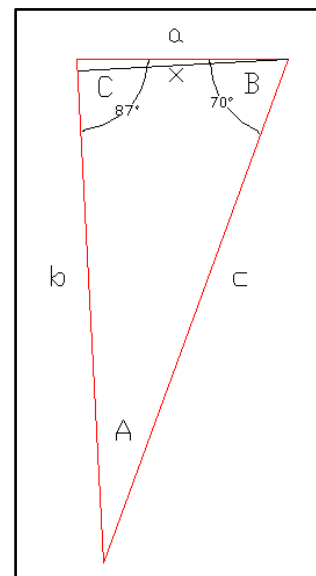
$$a = \frac{27,50 \text{ m} \times \sin 23^\circ}{\sin 87^\circ}$$

$$a = 10,76 \text{ m}$$

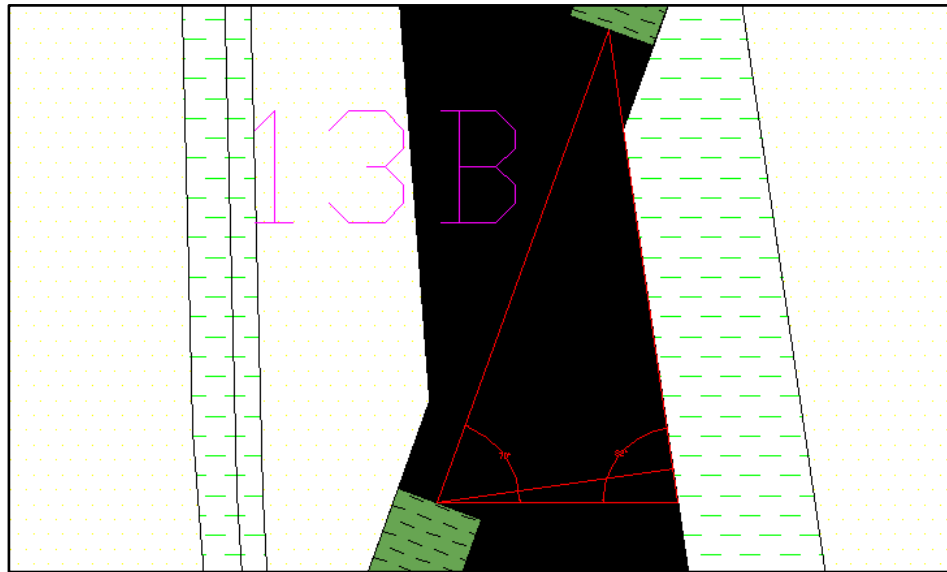
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{10,76 \text{ m} \times \sin 87^\circ}{\sin 90^\circ}$$

$$X = 10,75 \text{ m}$$



Titik Pengamatan ZA09



Diketahui :

$$B = 70^\circ$$

$$C = 82^\circ$$

$$c = 31,70 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (82^\circ + 70^\circ)$$

$$A = 28^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

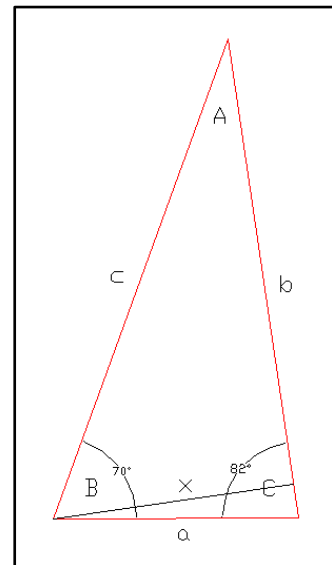
$$a = \frac{31,70 \text{ m} \times \sin 28^\circ}{\sin 82^\circ}$$

$$a = 15,03 \text{ m}$$

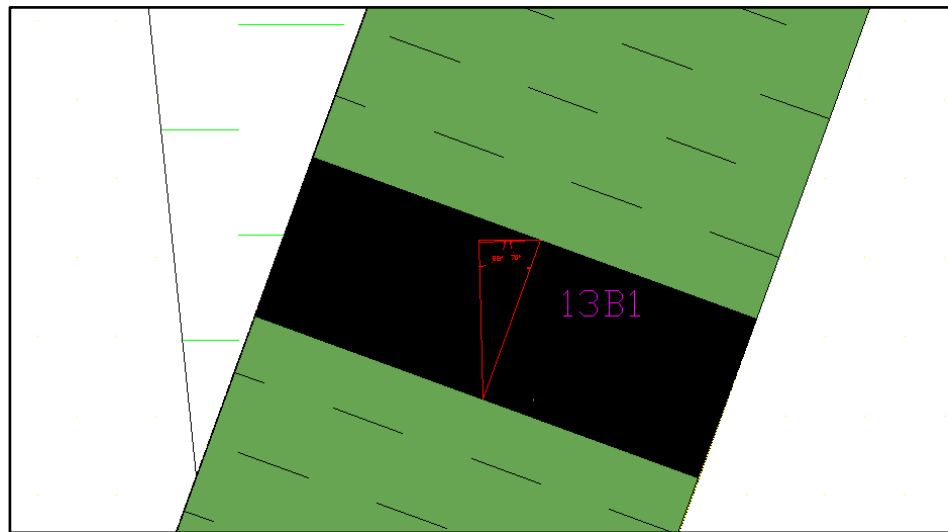
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{15,03 \text{ m} \times \sin 82^\circ}{\sin 90^\circ}$$

$$X = 14,88 \text{ m}$$



4. Seam 13B1



Diketahui :

$$B = 70^\circ$$

$$C = 88^\circ$$

$$c = 2,00 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (88^\circ + 70^\circ)$$

$$A = 22^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

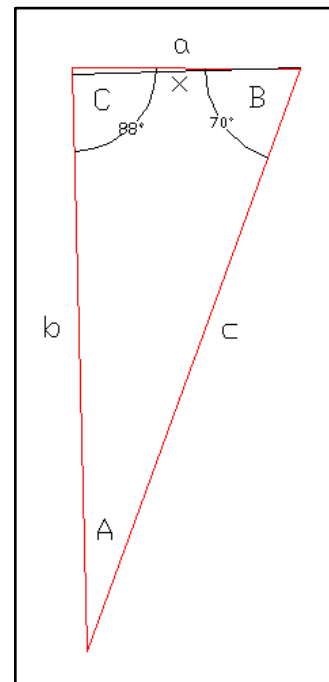
$$a = \frac{2,00 \text{ m} \times \sin 22^\circ}{\sin 88^\circ}$$

$$a = 0,75 \text{ m}$$

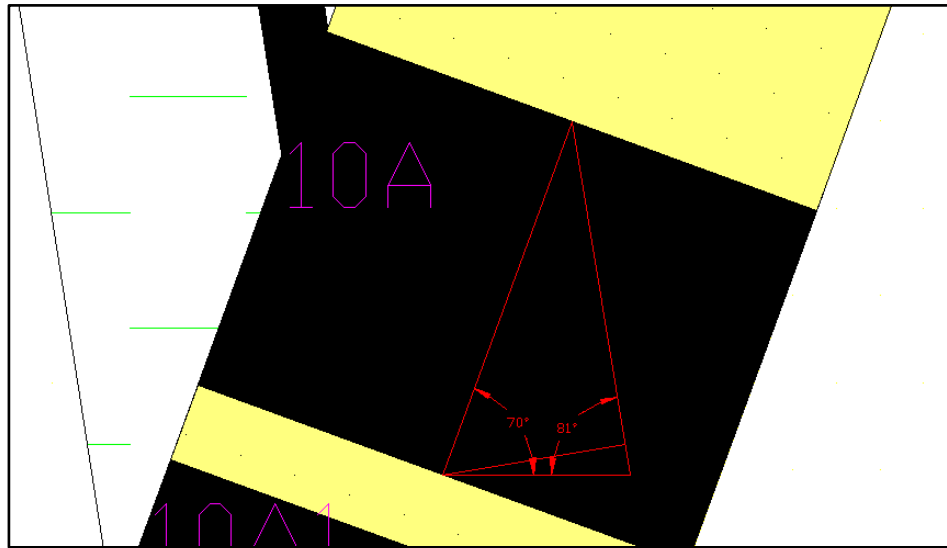
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{0,75 \text{ m} \times \sin 88^\circ}{\sin 90^\circ}$$

$$X = 0,75 \text{ m}$$



5. Seam 10A



Diketahui :

B = 70°

C = 81°

c = 4,25 m

Ditanyakan : X = ?

Jawaban :

A + B + C = 180°

A = 180° - (81° + 70°)

A = 29°

$$a = \frac{c \times \sin A}{\sin C}$$

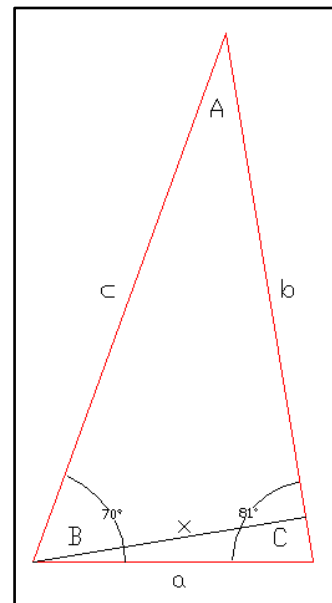
$$a = \frac{4,25 \text{ m} \times \sin 29^\circ}{\sin 81^\circ}$$

a = 2,09 m

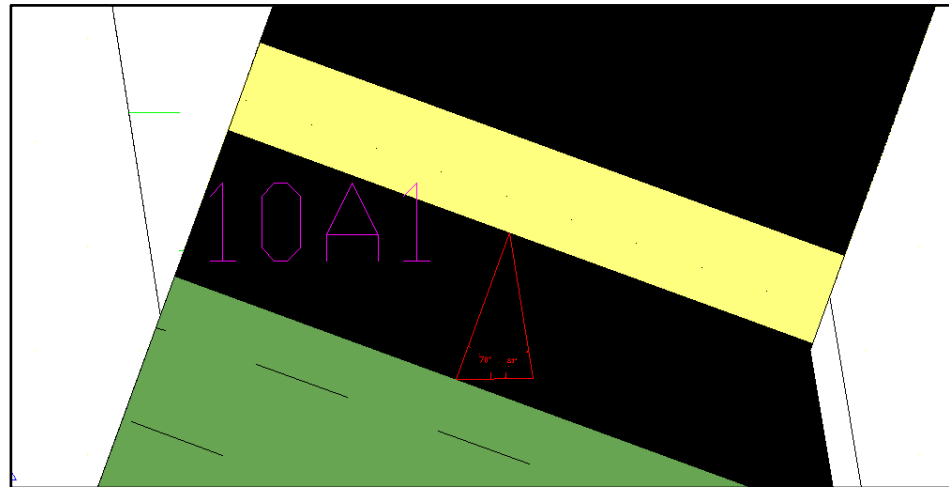
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{2,09 \text{ m} \times \sin 81^\circ}{\sin 90^\circ}$$

X = 2,06 m



6. Seam 10A1



Diketahui :

$$B = 70^\circ$$

$$C = 81^\circ$$

$$c = 1,40 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (81^\circ + 70^\circ)$$

$$A = 29^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

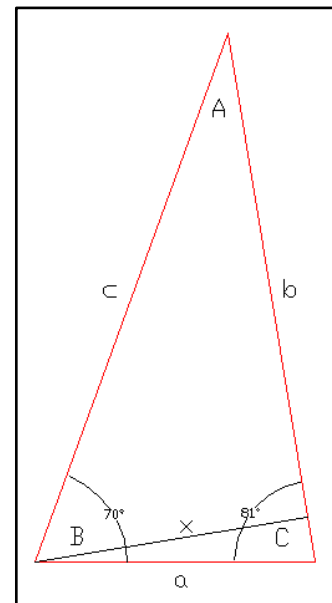
$$a = \frac{1,40 \text{ m} \times \sin 29^\circ}{\sin 81^\circ}$$

$$a = 0,69 \text{ m}$$

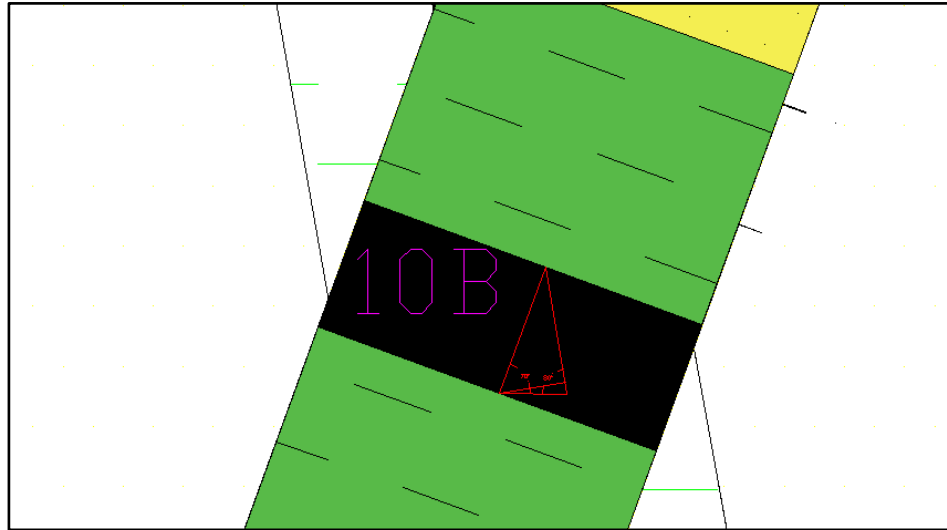
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{0,69 \text{ m} \times \sin 81^\circ}{\sin 90^\circ}$$

$$X = 0,68 \text{ m}$$



7. Seam 10B



Diketahui :

$$B = 70^\circ$$

$$C = 80^\circ$$

$$c = 2,10 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (80^\circ + 70^\circ)$$

$$A = 30^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

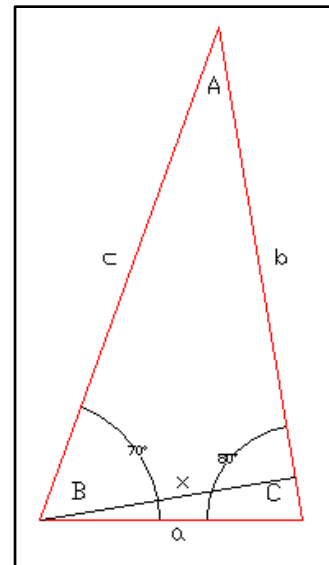
$$a = \frac{2,10 \text{ m} \times \sin 30^\circ}{\sin 80^\circ}$$

$$a = 1,07 \text{ m}$$

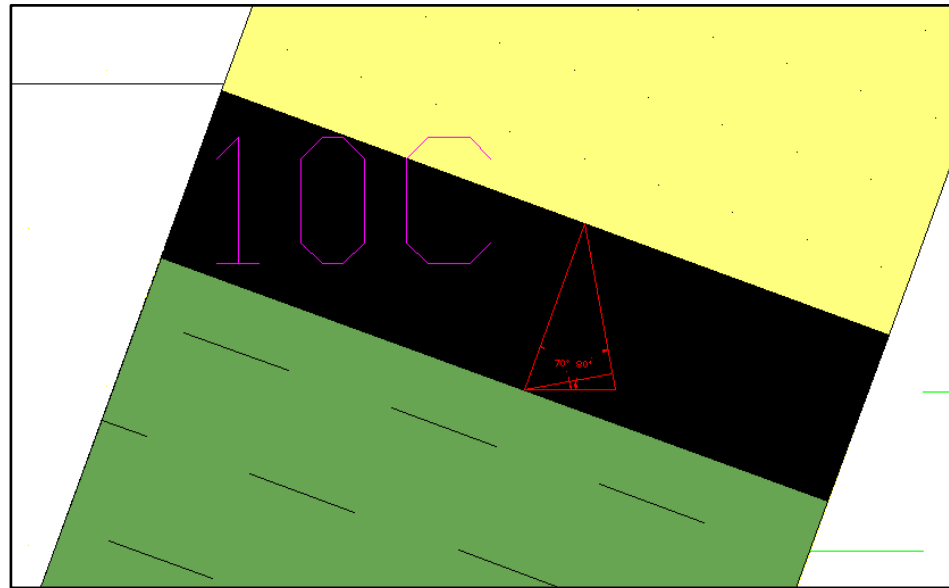
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{1,07 \text{ m} \times \sin 80^\circ}{\sin 90^\circ}$$

$$X = 1,05 \text{ m}$$



8. Seam 10C



Diketahui :

$$B = 70^\circ$$

$$C = 80^\circ$$

$$c = 1,30 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (80^\circ + 70^\circ)$$

$$A = 30^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

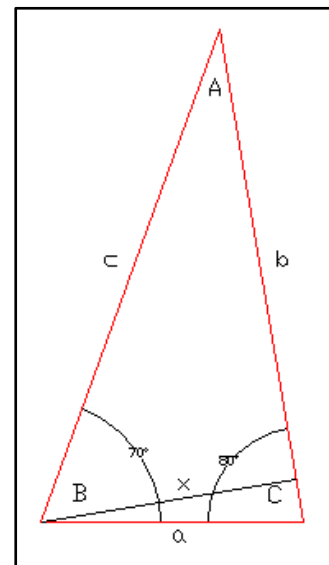
$$a = \frac{1,30 \text{ m} \times \sin 30^\circ}{\sin 80^\circ}$$

$$a = 0,66 \text{ m}$$

$$X = \frac{a \times \sin C}{\sin x}$$

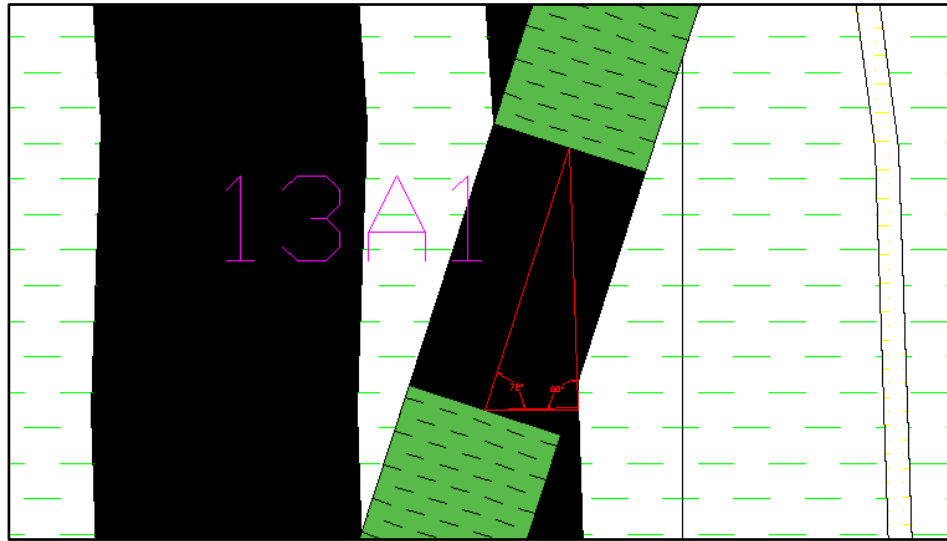
$$X = \frac{0,66 \text{ m} \times \sin 80^\circ}{\sin 90^\circ}$$

$$X = 0,65 \text{ m}$$



5.2 Penampang B-B'

1. Seam 13A1



Diketahui :

$$B = 72^\circ$$

$$C = 88^\circ$$

$$c = 9,70 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (88^\circ + 72^\circ)$$

$$A = 20^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

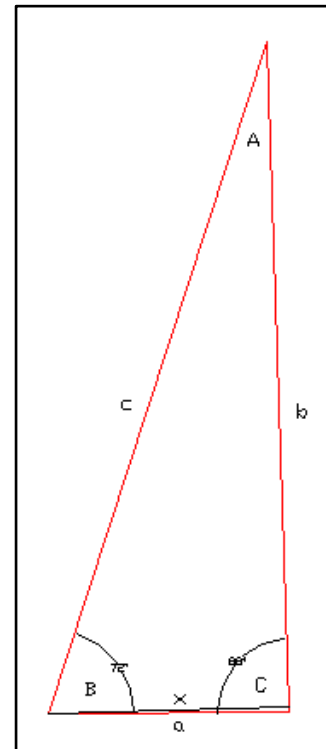
$$a = \frac{9,70 \text{ m} \times \sin 22^\circ}{\sin 88^\circ}$$

$$a = 3,32 \text{ m}$$

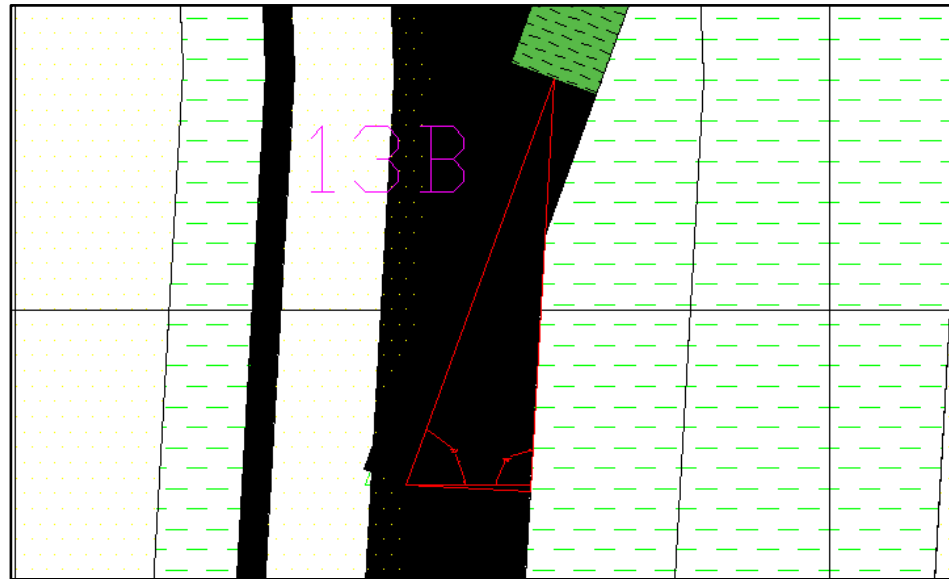
$$X = \frac{a \times \sin C}{\sin x}$$

$$X = \frac{3,32 \text{ m} \times \sin 88^\circ}{\sin 90^\circ}$$

$$X = 3,32 \text{ m}$$



2. Seam 13B



Diketahui :

$$B = 70^\circ$$

$$C = 93^\circ$$

$$c = 26,40 \text{ m}$$

Ditanyakan : $X = ?$

Jawaban :

$$A + B + C = 180^\circ$$

$$A = 180^\circ - (93^\circ + 70^\circ)$$

$$A = 17^\circ$$

$$a = \frac{c \times \sin A}{\sin C}$$

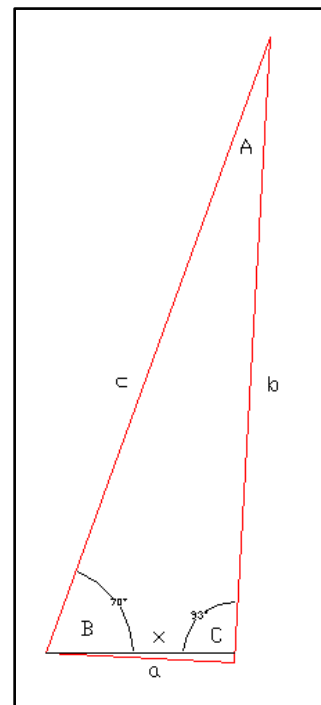
$$a = \frac{26,40 \text{ m} \times \sin 17^\circ}{\sin 93^\circ}$$

$$a = 7,73 \text{ m}$$

$$X = \frac{a \times \sin C}{\sin a}$$

$$X = \frac{7,73 \text{ m} \times \sin 93^\circ}{\sin 90^\circ}$$

$$X = 7,72 \text{ m}$$



5.3 Penampang C-C'

Diketahui :

$$\text{Dip lapisan} = 75^\circ$$

$$\text{Tebal semu seam 13A} = 8,67 \text{ m}$$

$$\text{Tebal semu seam 13A1} = 2,99 \text{ m}$$

$$\text{Tebal semu seam 13B} = 12,07 \text{ m}$$

$$\text{Tebal semu seam 13B1} = 2,53 \text{ m}$$

Ditanyakan : Tebal aktual tiap *seam* = ?

Jawaban :

$$\begin{aligned}\text{Tebal aktual seam 13A} &= \text{Tebal semu seam 13A} \times \sin 75^\circ \\ &= 8,67 \text{ m} \quad \times \quad \sin 75^\circ \\ &= 8,37 \text{ m}\end{aligned}$$

$$\begin{aligned}\text{Tebal aktual seam 13A1} &= \text{Tebal semu seam 13A1} \times \sin 75^\circ \\ &= 2,99 \text{ m} \quad \times \quad \sin 75^\circ \\ &= 2,89 \text{ m}\end{aligned}$$

$$\begin{aligned}\text{Tebal aktual seam 13B} &= \text{Tebal semu seam 13B} \times \sin 75^\circ \\ &= 12,07 \text{ m} \quad \times \quad \sin 75^\circ \\ &= 11,66 \text{ m}\end{aligned}$$






$$\begin{aligned}\text{Tebal aktual seam 13B1} &= \text{Tebal semu seam 13B1} \times \sin 75^\circ \\ &= 2,53 \text{ m} \quad \times \quad \sin 75^\circ \\ &= 2,44 \text{ m}\end{aligned}$$







LAMPIRAN 6
LEMBAR KONSULTASI TUGAS AKHIR

Lampiran B 10
Kartu Konsultasi Tugas Akhir

JUDUL: Analisis Kontinuitas Seam Batubara Berdasarkan Grafik Geophysical Well Logging dan Sampel Pengeboran

(Konsultasi minimal 8 kali)

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
10 Oktober 2021	- Konsultasi data penelitian dan Judul penelitian yang akan diangkat - Penentuan metode penelitian dan rumusan masalah	
08 November 2021	- konsultasi proposal penelitian - Acc Proposal penelitian	
02 Desember 2021	- Konsultasi Bab I dan Bab III - konsultasi hasil pengolahan data	
20 Desember 2021	- konsultasi hasil pengolahan data - Perbaiki Bab I, II dan III	
24 Januari 2022	- konsultasi laporan lengkap - melengkapi peta tunjuk lokasi, peta sebaran lubang bor - penambahan tinjauan pustaka	

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
10 Februari 2022	<ul style="list-style-type: none"> - Perbaiki abstrak - perbaiki kelengkapan laporan lengkap (daftar isi, daftar gambar, daftar tabel) - perbaiki penulisan gelar - koreksi penyusunan kalimat 	
12 Februari 2022	<ul style="list-style-type: none"> - Perbaiki penulisan kapital dan EYD 	
14 Februari 2022	Laporan lengkap	
10 Desember 2021	<ul style="list-style-type: none"> - Konsultasi Judul dan rumusan masalah 	
26 Januari 2022	<ul style="list-style-type: none"> - koreksi pengolahan data (perhitungan tebalan aktual menggunakan rumus trigonometri) - penambahan lampiran 	
10 Februari 2022	Konsultasi hasil revisi pengolahan data	
14 Februari 2022	Laporan lengkap	