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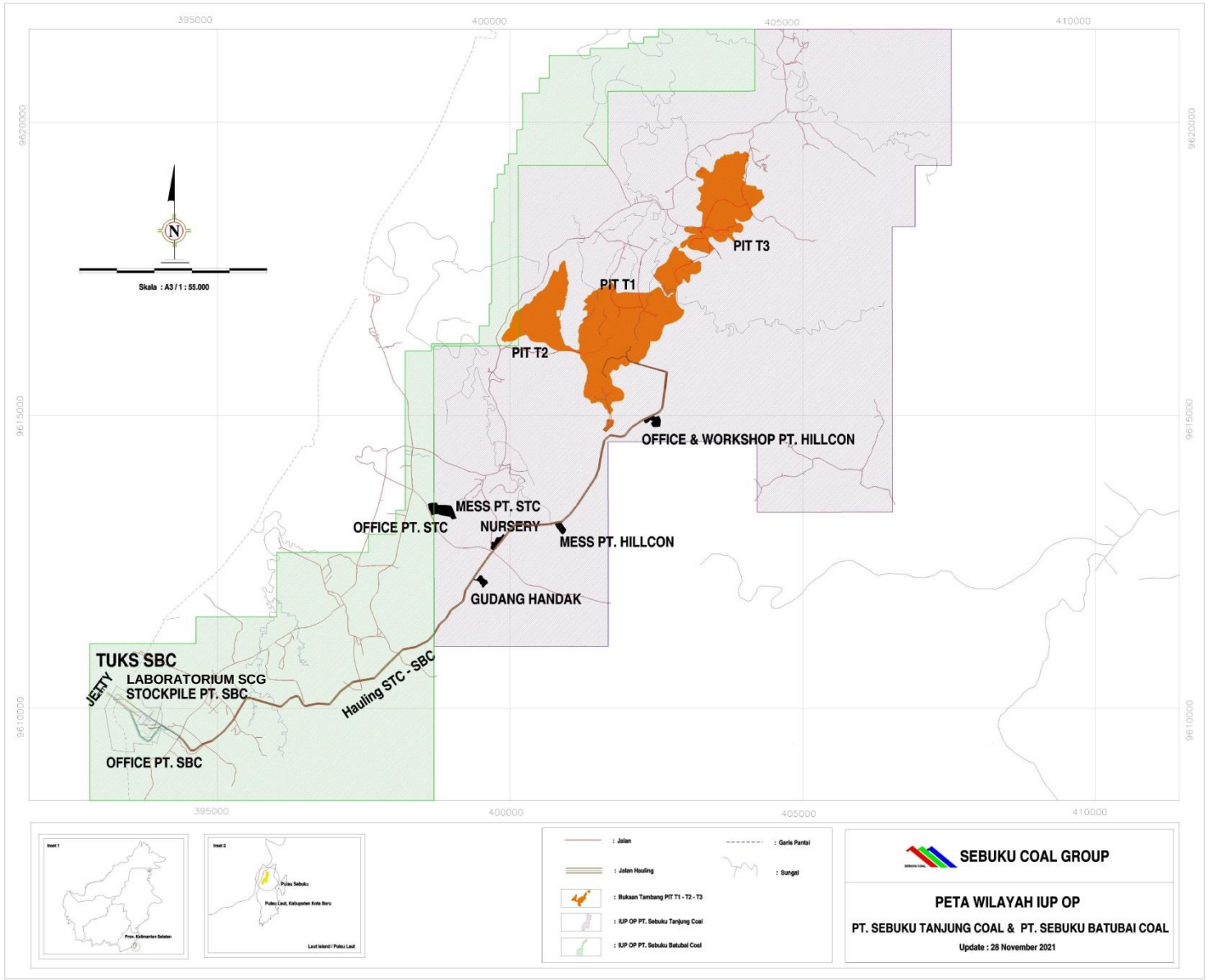
LAMPIRAN

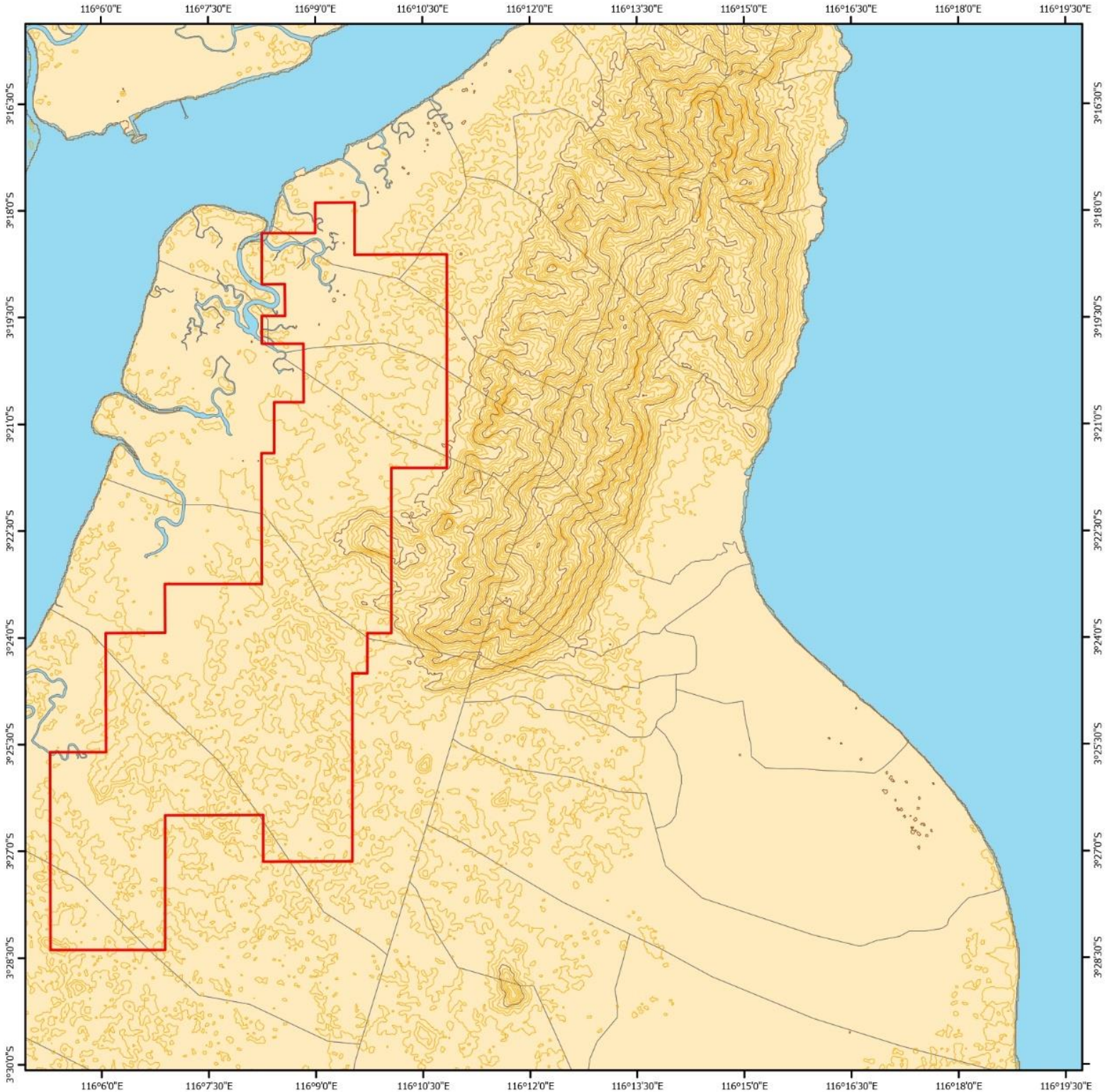
Lampiran A

Peta Situasi Wilayah IUP-OP PT Sebuku Tanjung Coal dan PT Sebuku Batubai Coal


395000
400000
405000
410000
9620000
9615000
9610000
N
Skala : A3 / 1 : 55.000
PIT T3
PIT T1
PIT T2
OFFICE & WORKSHOP PT. HILLCON
MESS PT. STC
OFFICE PT. STC
NURSERY
MESS PT. HILLCON
GUDANG HANDAK
TUKS SBC
LABORATORIUM SCG
STOCKPILE PT. SBC
JETTY
Hauling STC - SBC
OFFICE PT. SBC
Inset 1
Prov. Kalimantan Selatan
Inset 2
Pulau Sebuku
Pulau Laut, Kabupaten Kota Baru
Laut Island / Pulau Laut
: Jalan
: Jalan Hauling
: Bukaan Tambang PIT T1 - T2 - T3
: IUP OP PT. Sebuku Tanjung Coal
: IUP OP PT. Sebuku Batubai Coal
: Garis Pantai
: Sungai
SEBUKU COAL GROUP
PETA WILAYAH IUP OP
PT. SEBUKU TANJUNG COAL & PT. SEBUKU BATUBAI COAL
Update : 28 November 2021

Lampiran B

Peta Wilayah IUP-OP PT Sebuku Tanjung Coal



PETA

WILAYAH IUP
PT SEBUKU TANJUNG COAL

N
W E
S

1:100,000

0 0.75 1.5 3 4.5
Kilometers

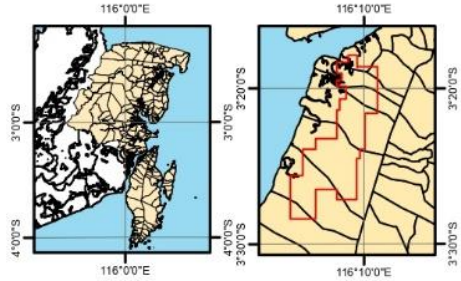
LEGENDA

- IUP OP STC
- KONTUR
- INDEKS KONTUR
- DARATAN
- LAUTAN

INDEKS PETA

Kabupaten Kotabaru

IUP OP PT STC



PEMBIMBING PENELITIAN
Setyarno Adi
(Quality Control Port)

SUMBER PETA
IGRSM and GIS 2016
PT Sebuku Tanjung Coal
Koordinat Sistem: WGS 1984 UTM Zona 50S

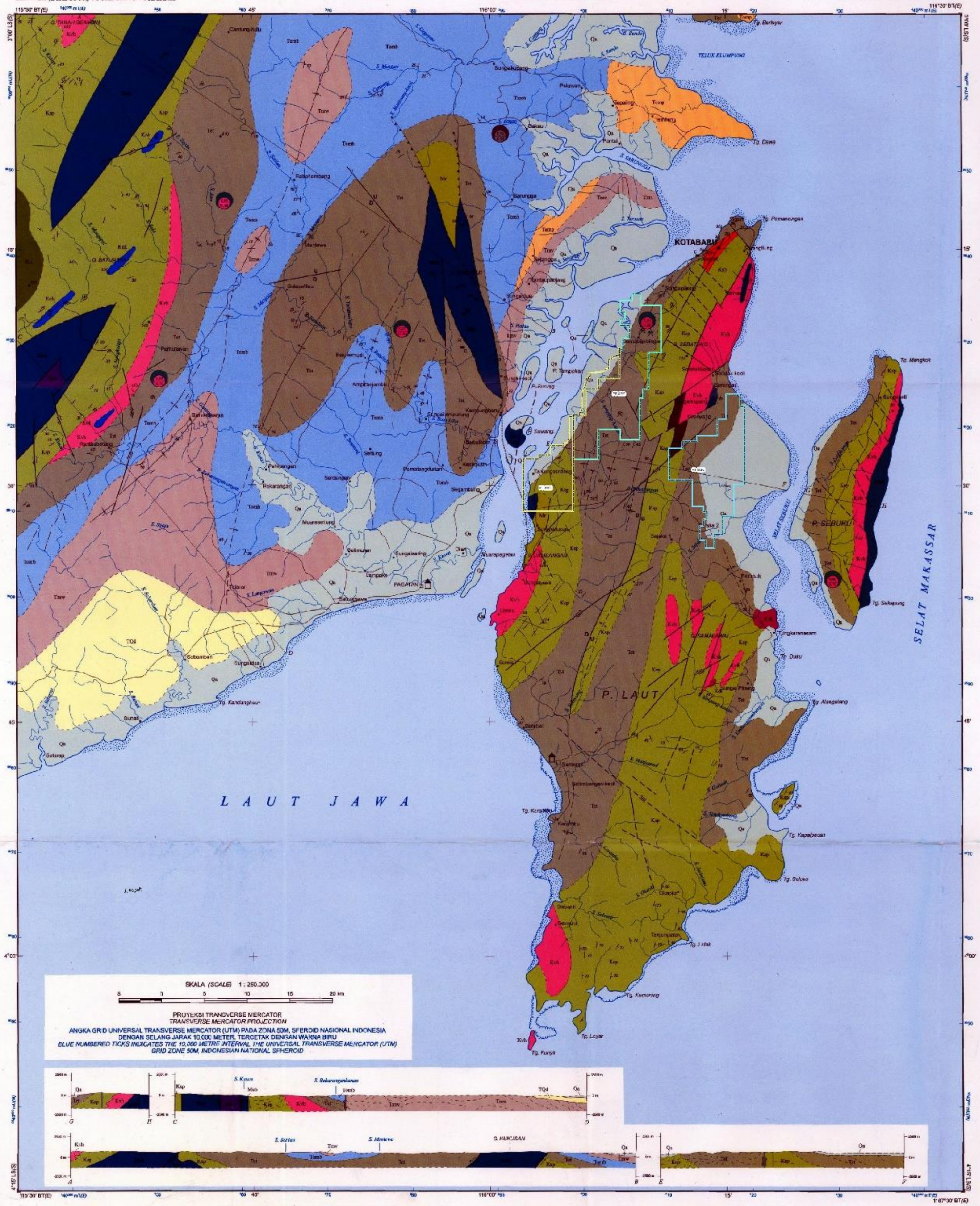
DEPARTEMEN TEKNIK PERTAMBANGAN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN

Lampiran C

Peta Geologi Regional Lembar Kotabaru

PUSAT SURVEI GEOLOGI
GEOLOGICAL SURVEY
KEPALA *(DIRECTOR)* : DJADJANG SUKARNA

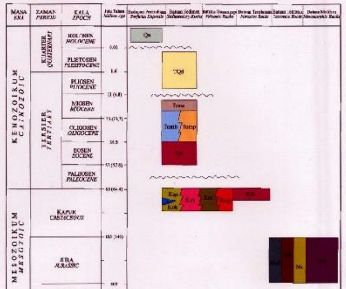
PETA GEOLOGI BERSISTEM, INDONESIA
SYSTEMATIC GEOLOGICAL MAP, INDONESIA
LEMBAR *(Quadrangle)* KOTABARU 1812
Skala *(Scale)* 1 : 250 000



PETA GEOLOGI LEMBAR KOTABARU, KALIMANTAN
GEOLOGICAL MAP OF THE KOTABARU SHEET, KALIMANTAN

Oleh *(By)*
E. RUSTANDI, E.S. NILA, P. SANYOTO dan *(and)* U. MARGONO
1995

KORELASI SATUAN PETA
CORRELATION OF MAP UNITS



LOKASI LEMBAR
COORDINATE LOCALITY

PETA INDEKS LIPUTAN POTRET UDARA

LINTASAN GEOLOGI
GEOLOGICAL TRAVERSE

KETERANGAN
EXPLANATION

Qa — ALLUVIUM : Kerakal, kerikil, pasir, lanau, lempung dan lumpur terdapat sebagai endapan sungai, rawa dan pantai.
ALLUVIUM : Gravel, pebble, sand, silt, clay and mud found as alluvial, swamp and coastal deposits.

STRUKTUR DAN TEKTONIKA

STRUCTURES AND TECTONICS

SUMBER DAYA MINERAL DAN ENERGI

MINERAL AND ENERGY RESOURCES

LAMBANG GEOLOGI DAN GEOGRAFI
GEOLOGICAL AND GEOGRAPHICAL SYMBOLS

DAFTAR ISTILAH
GLOSSARY

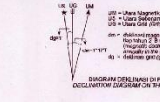


DIAGRAM DEKLINASI DI PUSAT LEMBAR PETA
DECLINATION DIAGRAM ON THE CENTRE OF THE SHEET

Lampiran D

HASIL ANALISIS KUALITAS BATUBARA PADA VARIABEL VOLUME AIR

1. Data Hasil Analisis Awal

Kode Sampel	Volume (L)	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS-1A-121021	0	8,88	4,13	13,95	6.528	6.205
IC2-WS-2A-121021	2	9,02	4,51	13,92	6.500	6.193
IC2-WS-3A-121021	4	8,88	4,39	13,91	6.511	6.205
IC2-WS-4A-121021	6	8,93	4,17	13,83	6.535	6.210
IC2-WS-5A-121021	8	9,06	3,76	13,82	6.568	6.206

2. Data Hasil Analisis Setelah Pencucian

Kode Sampel	Volume (L)	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS-1B-161021	0	8,34	4,75	13,95	6.474	6.230
IC2-WS-2B-161021	2	11,93	4,69	13,26	6.543	6.046
IC2-WS-3B-161021	4	12,16	4,26	12,76	6.620	6.073
IC2-WS-4B-161021	6	12,31	4,51	12,32	6.623	6.082
IC2-WS-5B-161021	8	12,45	4,53	11,44	6.697	6.141

3. Data Perubahan Kualitas Batubara

Kode Sampel	Volume (L)	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
Perubahan	0	-0,54	0,62	0,00	-54	25
	2	2,91	0,18	-0,66	43	-147
	4	3,28	-0,13	-1,15	109	-132
	6	3,38	0,34	-1,51	88	-128
	8	3,39	0,77	-2,38	129	-65

Lampiran E

PERUBAHAN MASSA BATUBARA

No	Volume	Massa Awal	Massa Setelah Pencucian	Massa Setelah Pendiaman	Δ Massa Setelah Pencucian	Δ Massa Setelah Pendiaman
	(L)	(Kg)	(Kg)	(Kg)	(Kg)	(Kg)
1.	0	8	8	8	0	0
2.	2	8	8,62	8,35	0,61	0,27
3.	4	8	8,34	8,06	0,34	0,28
4.	6	8	8,27	7,98	0,27	0,29
5.	8	8	8,21	7,92	0,21	0,29

Lampiran F

HASIL ANALISIS KUALITAS BATUBARA PADA VARIABEL WAKTU PENDIAMAN

1. Data Hasil Analisis Awal

Kode Sampel	Waktu (Menit)	TM (% Ar)	IM (% Adb)	*Ash* (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS-6A-121021	0	8,66	4,16	13,79	6.539	6.231
IC2-WS-7A-121021	30	8,60	3,89	13,97	6.546	6.225
IC2-WS-5A-121021	60	9,06	3,76	13,82	6.568	6.206
IC2-WS-8A-121021	90	8,89	4,14	13,51	6.562	6.237
IC2-WS-9A-121021	120	8,70	3,59	13,61	6.598	6.249

2. Data Hasil Analisis Setelah Pencucian

Kode Sampel	Waktu (Menit)	TM (% Ar)	IM (% Adb)	*Ash* (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS-6B-231021	0	16,06	4,98	11,58	6.651	5.876
IC2-WS-7B-231021	30	13,60	4,76	11,74	6.659	6.041
IC2-WS-5B-231021	60	12,45	4,53	11,44	6.697	6.141
IC2-WS-8B-231021	90	12,45	4,91	11,28	6.675	6.146
IC2-WS-9B-231021	120	12,30	4,57	11,27	6.705	6.162

3. Data Perubahan Kualitas Batubara

Kode Sampel	Waktu (Menit)	TM (% Ar)	IM (% Adb)	*Ash* (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
Perubahan	0	7,40	0,82	-2,21	112	-355
	30	5,00	0,87	-2,23	113	-184
	60	3,39	0,77	-2,38	129	-65
	90	3,56	0,77	-2,23	113	-91
	120	3,60	0,98	-2,34	107	-87

Lampiran G

HASIL ANALISIS KUALITAS BATUBARA PADA VARIABEL FRAKSI UKURAN

1. Data Hasil Analisis Awal

Kode Sampel	Fraksi	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS(+)31,5A-121121	(+) 31,5	7,74	4,85	9,38	6.835	6.628
IC2-WS(-)31,5A-121121	(-) 31,5	8,25	4,52	14,54	6.450	6.198
Kumulatif	Kumulatif	8,12	4,60	13,25	6.546	6.304

2. Data Hasil Analisis Setelah Pencucian

Kode Sampel	Fraksi	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
IC2-WS(+)31,5B-161121	(+) 31,5	8,44	4,70	8,98	6.876	6.606
IC2-WS(-)31,5B-161121	(-) 31,5	12,58	4,74	11,69	6.655	6.107
Kumulatif	Kumulatif	11,55	4,73	11,01	6.710	6.230

3. Data Perubahan Kualitas Batubara

Kode Sampel	Fraksi	TM (% Ar)	IM (% Adb)	Ash (% Adb)	GCV (cal/gr Adb)	GCV (cal/gr Ar)
Perubahan	(+) 31,5	0,7	-0,15	-0,4	41	-22
	(-) 31,5	4,33	0,22	-2,85	205	-91
	Kumulatif	3,43	0,13	-2,24	164	-74

Lampiran H

REPORT OF ANALYSIS

SEBUKU COAL GROUP

LABORATORY DIVISION

REPORT OF ANALYSIS

Date of Received : Oktober 12, 2021
Date of Analysis : Oktober 14, 2021
Date of Completed : Oktober 14, 2021
Standard Method : ASTM

ANALYSIS RESULTS

Sample Code			IC2-WS-1A-121021	IC2-WS-2A-121021	IC2-WS-3A-121021	IC2-WS-4A-121021	IC2-WS-4A-121021	IC2-WS-6A-121021	IC2-WS-7A-121021	IC2-WS-8A-121021	IC2-WS-9A-121021
Parameter Analysis :	**Unit**	**Basis**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Inherent Moisture	%	Adb	4,13	4,51	4,39	4,17	3,76	4,16	3,89	4,14	3,59
Total Moisture	%	Ar	8,88	9,02	8,88	8,93	9,06	8,66	8,60	8,89	8,70
Ash content	%	Adb	13,95	13,92	13,91	13,83	13,82	13,79	13,97	13,51	13,61
Nilai Kalori	cal/gr	Adb	6.528	6.500	6.511	6.535	6.568	6.539	6.546	6.562	6.598

Parameter Analysis :	**Standard Method**
Total Moisture	ASTM D3302/D3302M-20
Moisture in the analysis	ASTM D3173-17a
Ash content	ASTM D3174-18

Date : Oktober 14, 2021
Reported by

Zaenal Abidin

SEBUKU COAL GROUP

LABORATORY DIVISION

REPORT OF ANALYSIS

Date of Received : Oktober 16, 2021
Date of Analysis : Oktober 19, 2021
Date of Completed : Oktober 19, 2021
Standard Method : ASTM

ANALYSIS RESULTS

Sample Code			IC2-WS-1B-161021	IC2-WS-2B-161021	IC2-WS-3B-161021	IC2-WS-4B-161021	IC2-WS-5B-161021
Parameter Analysis :	**Unit**	**Basis**	**Result**	**Result**	**Result**	**Result**	**Result**
Inherent Moisture	%	Adb	4,75	4,69	4,26	4,51	4,53
Total Moisture	%	Ar	8,34	11,93	12,16	12,31	12,45
Ash content	%	Adb	13,95	13,26	12,76	12,32	11,44
Nilai Kalori	cal/gr	Adb	6.474	6.543	6.620	6.623	6.697

Parameter Analysis :	**Standard Method**
Total Moisture	ASTM D3302/D3302M-20
Moisture in the analysis	ASTM D3173-17a
Ash content	ASTM D3174-18

Date : Oktober 19, 2021
Reported by

Zaenal Abidin

SEBUKU COAL GROUP

LABORATORY DIVISION

REPORT OF ANALYSIS

Date of Received : Oktober 23, 2021
Date of Analysis : Oktober 26, 2021
Date of Completed : Oktober 26, 2021
Standard Method : ASTM

ANALYSIS RESULTS

Sample Code			IC2-WS-6B-231021	IC2-WS-7B-231021	IC2-WS-8B-231021	IC2-WS-9B-231021
Parameter Analysis :	**Unit**	**Basis**	**Result**	**Result**	**Result**	**Result**
Inherent Moisture	%	Adb	4,98	4,76	4,91	4,57
Total Moisture	%	Ar	16,06	13,60	12,45	12,30
Ash content	%	Adb	11,58	11,74	11,28	11,27
Nilai Kalori	cal/gr	Adb	6.651	6.659	6.675	6.705

Parameter Analysis :	**Standard Method**
Total Moisture	ASTM D3302/D3302M-20
Moisture in the analysis	ASTM D3173-17a
Ash content	ASTM D3174-18

Date : Oktober 26, 2021
Reported by

Zaenal Abidin

SEBUKU COAL GROUP

LABORATORY DIVISION

REPORT OF ANALYSIS

Date of Received : November 12, 2021
Date of Analysis : November 14, 2021
Date of Completed : November 14, 2021
Standard Method : ASTM

ANALYSIS RESULTS

Sample Code			IC2-WS(+)31,5A-121121	IC2-WS(-)31,5A-121121
Parameter Analysis :	**Unit**	**Basis**	**Result**	**Result**
Inherent Moisture	%	Adb	4,85	4,52
Total Moisture	%	Ar	7,74	8,25
Ash content	%	Adb	9,38	14,54
Nilai Kalori	cal/gr	Adb	6.835	6.450

Parameter Analysis :	**Standard Method**
Total Moisture	ASTM D3302/D3302M-20
Moisture in the analysis	ASTM D3173-17a
Ash content	ASTM D3174-18

Date : 14 November, 2021
Reported by

Zaenal Abidin

SEBUKU COAL GROUP

LABORATORY DIVISION

REPORT OF ANALYSIS

Date of Received : November 16, 2021
Date of Analysis : November 19, 2021
Date of Completed : November 19, 2021
Standard Method : ASTM

ANALYSIS RESULTS

Sample Code			IC2-WS(+)31,5B-191121	IC2-WS(-)31,5B-191121
Parameter Analysis :	**Unit**	**Basis**	**Result**	**Result**
Inherent Moisture	%	Adb	4,70	4,74
Total Moisture	%	Ar	8,44	12,58
Ash content	%	Adb	8,98	11,69
Nilai Kalori	cal/gr	Adb	6.876	6.655

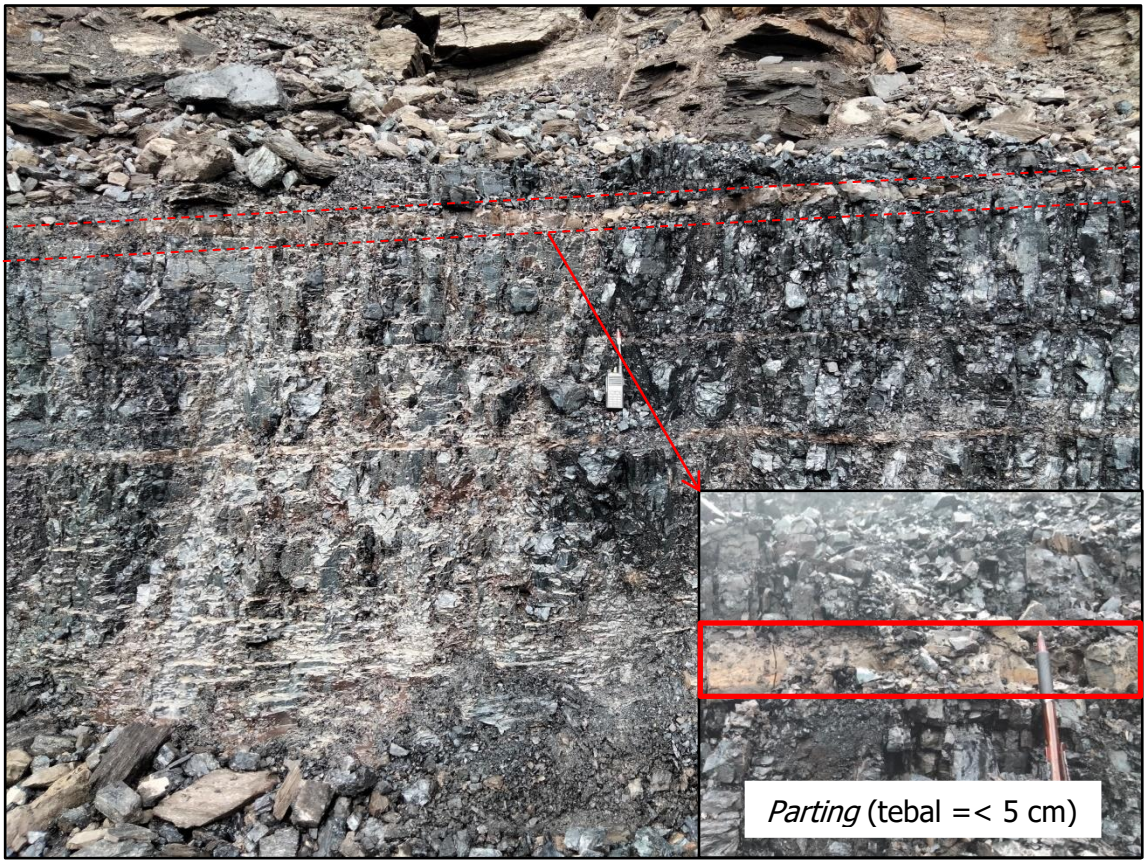
Parameter Analysis :	**Standard Method**
Total Moisture	ASTM D3302/D3302M-20
Moisture in the analysis	ASTM D3173-17a
Ash content	ASTM D3174-18

Date : 19 November, 2021
Reported by

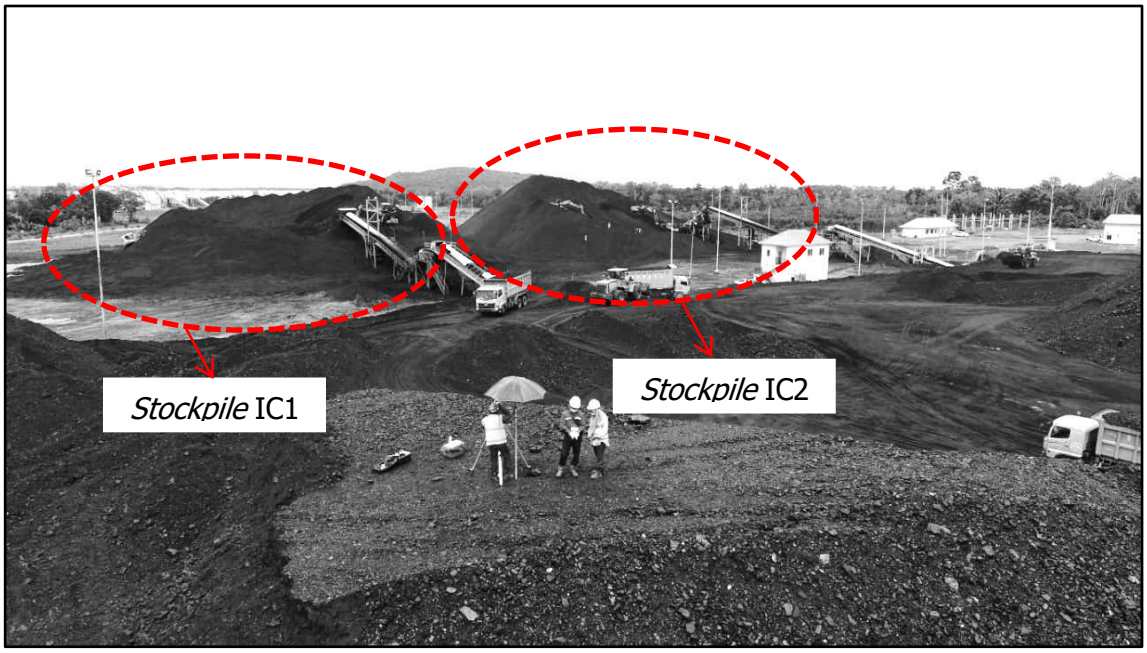
Zaenal Abidin

Lampiran I

DOKUMENTASI



Gambar 1 Singkapan Batubara Pit T3.



Gambar 2 Situasi *Stockpile* PT Sebuku Tanjung Coal.

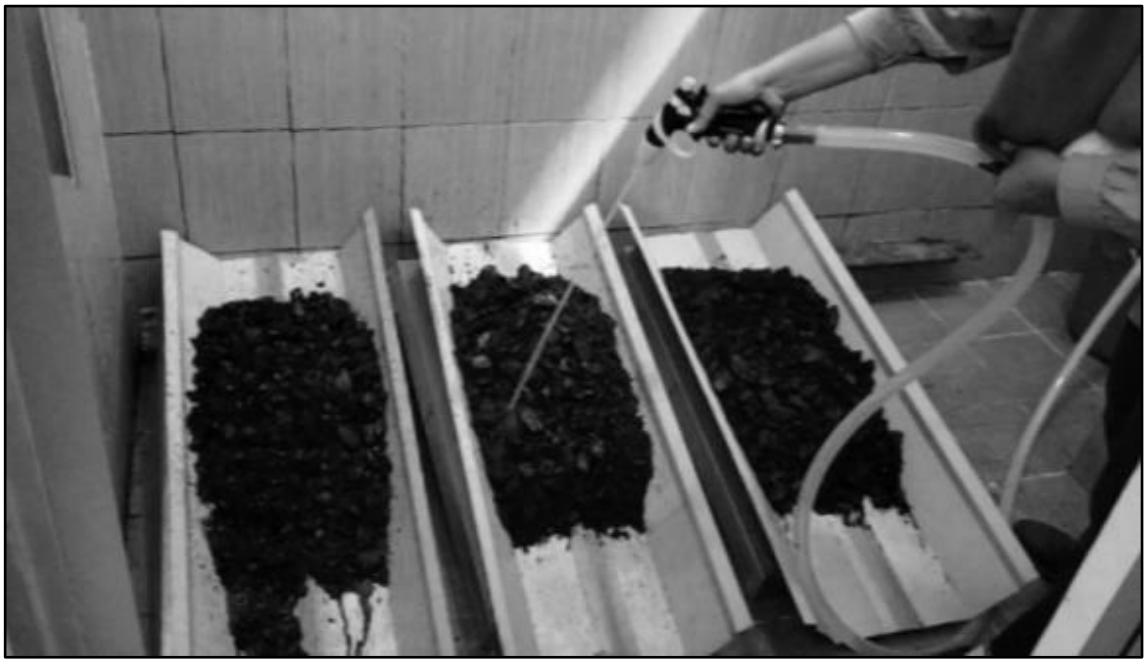
Gambar 3 Lokasi pengambilan sampel *stockpile* IC1.

Gambar 4 Ketampakan batubara terkontaminasi lumpur pada *stockpile* ROM Lot 2.

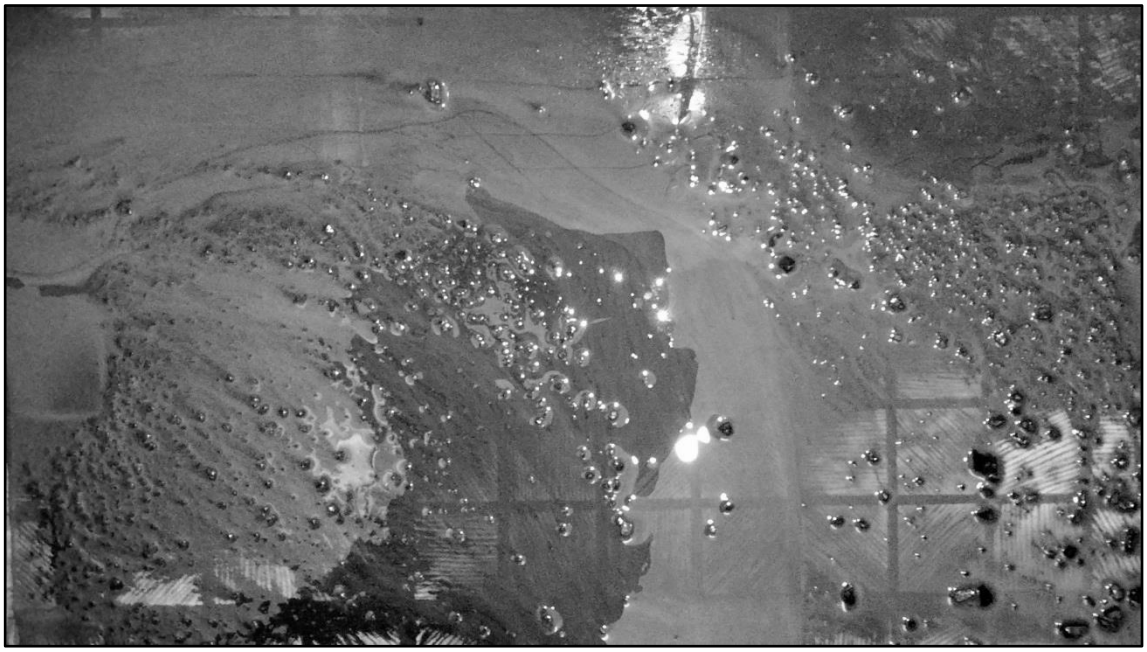
Gambar 5 Ruang menimbang sampel.

Gambar 6 Menimbang sampel dengan neraca digital.

Gambar 7 Ruang analisis nilai kalori.



Gambar 8 Ruang percobaan pencucian batubara.



Gambar 9 Produk tailing hasil pencucian.

Gambar 10 Pendiaman batubara hasil pencucian di bawah terik sinar matahari.

Gambar 11 Foto bersama pembimbing penelitian dan tim laboratorium perusahaan (1).

Gambar 12 Foto bersama pembimbing penelitian dan tim laboratorium perusahaan (2)

Lampiran B 10

Kartu Konsultasi Tugas Akhir

JUDUL: STUDI PENCUCIAN BATUBARA PT SEBUKU TANJUNG COAL KALIMANTAN SELATAN DENGAN METODE WATER SPRAY

(Konsultasi minimal 8 kali)

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
26 oktober 2021	Pak Sufriadin Penentuan judul tugas akhir	
17 November 2021	Pak Sufriadin Metode yang digunakan dalam penelitian Pendekatan teori terkait tugas akhir	
10 Desember 2021	Pak Sufriadin Hasil Penelitian Analisis yang dilakukan Pada sampel Penelitian	
24 Januari 2022	Pak Sufriadin Hasil Penelitian, Perubahan kadar abu dan air total	
18 maret 2022	Pak Sufriadin Tinjauan Pustaka, tujuan Penelitian Bagan alir Penelitian	
26 maret 2022	Pak Sufriadin Bagan alir Penelitian	

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
1 April 2022	Pak Fufriadin Variabel Penelitian Alur Penelitian	
1 April 2022	Pak Widodo Penggunaan Istilah Perbaikan teori yang digunakan	
24 Mei 2022	Pak Fufriadin Format Penulisan Skripsi Penyusunan abstrak Kesimpulan Pada skripsi Saran Pada skripsi Penggunaan Istilah	
27 Mei 2022	Pak Widodo Aturan Penulisan yang benar Setiap gambar ditulis dalam teks.	
03 Juni 2022		
03 Juni 2022	ACC Draft seminar hasil	
11 Juli 2022	Pak Widodo Revisi Seminar Hasil ACC	

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
11 Juli 2022	Pak Fuffiadin Revisi seminar hasil	
15 Agustus 2022	Pak Fuffiadin Revisi sidang tutup ACC Pak Widodo Revisi sidang tutup ACC	

Catatan: Lembar konsultasi asli dilampirkan pada satu dokumen skripsi.