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LAMPIRAN

LAMPIRAN A

HASIL ANALISIS NILAI KALORI



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
POLITEKNIK NEGERI UJUNG PANDANG

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Home Page : <http://www.poliupg.ac.id>

SURAT KETERANGAN HASIL ANALISIS SAMPEL

Nomor : 011/HI-TK/PNUP/VI/2021

Pengirim : Ryan Pratama
NIM : D111171505
Institusi : Teknik Pertambangan Universitas Hasanuddin
Parameter Uji : Nilai Kalor
Peralatan : Bomb Kalorimeter
Jenis Sampel : Batu Bara dan Minyak Jelantah
Tanggal Uji : 18 dan 21 Juni 2021

No.	Kode Sampel	Nilai Kalor (Kalori/gram)
1	Batu Bara	5296,1872
2	Minyak Jelantah	7080,3291

Makassar, 21 Juni 2021

Mengetahui,

Koordinator HI Jurusan Teknik Kimia

HI Jurusan Teknik Kimia
Politeknik Negeri Ujung Pandang

M. Yasser, S.Si, M.Si

NIP: 198807102015041006



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN

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SURAT KETERANGAN HASIL ANALISIS SAMPEL

Nomor : 017/HI-TK/PNUP/VIII/2021

Pengirim : Ryan Pratama
NIM : D111171505
Institusi : Teknik Pertambangan UNHAS
Parameter Uji : Nilai Kalor
Peralatan : Bomb Kalorimeter
Jenis Sampel : Batu Bara
Tanggal Uji : 6 Agustus 2021

No.	Kode Sampel	Nilai Kalor (Kalori/gram)
1	Sampel 1:1	6733,0191
2	Sampel 1:1,5	5694,5878
3	Sampel 1:2	5295,4474

Makassar, 8 Agustus 2021

Mengetahui,

Koordinator HI Jurusan Teknik Kimia



M. Yasser, S.Si., M.Si

NIP: 198807102015041006



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Website : <http://www.poliupg.ac.id/>
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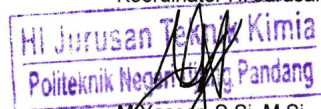
SURAT KETERANGAN HASIL ANALISIS SAMPEL

Nomor : 019/HI-TK/PNUP/VIII/2021

Pengirim : Ryan Pratama
NIM : D111171505
Institusi : Teknik Pertambangan UNHAS
Parameter Uji : Nilai Kalor
Peralatan : Bomb Kalorimeter
Jenis Sampel : Batu Bara
Tanggal Uji : 19 Agustus 2021

No.	Kode Sampel	Nilai Kalor (Kalori/gram)
1	175 C	6965,5120
2	200 C	6493,5907

Makassar, 20 Agustus 2021
Mengetahui,
Koordinator HI Jurusan Teknik Kimia



M. Yasser, S.Si., M.Si
NIP: 198807102015041006

LAMPIRAN B

HASIL ANALISIS PROKSIMAT

Moisture (%)

$$\text{Sampel Awal} = \frac{12,4900-12,3065}{1,0000} \times 100$$

$$= 18,35 \%$$

$$1:1(150) = \frac{11,9097-11,8744}{1,0000} \times 100$$

$$= 3,53 \%$$

$$1:1;5(150) = \frac{11,1812-11,1434}{1,0000} \times 100$$

$$= 3,78 \%$$

$$1:2(150) = \frac{12,3010-12,2854}{1,0000} \times 100$$

$$= 1,56 \%$$

$$1:1(175) = \frac{11,5788-11,5579}{1,0000} \times 100$$

$$= 2,09 \%$$

$$1:2(150) = \frac{12,2899-12,2766}{1,0000} \times 100$$

$$= 1,33 \%$$

Ash Content (%)

$$\text{Sampel Awal} = \frac{11,5514-11,4900}{12,3065-11,4900} \times 100$$

$$= 7,52\%$$

$$1:1(150) = \frac{10,9331-10,9097}{11,8744-10,9097} \times 100$$

$$= 2,43\%$$

$$1:1;5(150) = \frac{10,2019-10,1812}{11,1434-10,1812} \times 100$$

$$= 2,15\%$$

$$1:2(150) = \frac{11,3138-11,3010}{12,2854-11,3010} \times 100$$

$$= 1,30\%$$

$$1:1(175) = \frac{10,5964-10,5788}{11,5579-10,5788} \times 100$$

$$= 1,80\%$$

$$1:1(200) = \frac{11,3138-11,2899}{12,2766-11,2899} \times 100$$

$$= 2,42\%$$

Volatile Matter (%)

$$\text{Sampel Awal} = \frac{18,9439-19,4806}{19,4801-19,4806} \times 100 - 18,35 \%$$

$$= 35,29\%$$

$$1:1(150) = \frac{18,5516-19,2208}{18,2208-19,2208} \times 100 - 3,53\%$$

$$= 63,39\%$$

$$1:1,5(150) = \frac{18,3595-19,0584}{18,0572-19,0584} \times 100 - 3,78\%$$

$$= 66,03\%$$

$$1:2(150) = \frac{17,9487-18,6564}{17,6564-18,6564} \times 100 - 1,56\%$$

$$= 69,21\%$$

$$1:1(175) = \frac{18,2900-18,9501}{17,9501-18,9501} \times 100 - 2,09 \%$$

$$= 63,92\%$$

$$1:1(200) = \frac{19,3401-20,0170}{19,0170-20,0170} \times 100 - 1,33 \%$$

$$= 66,36\%$$

Fixed Carbon (%)

$$\text{Sampel Awal} = 100 - (18,35 + 7,52 + 35,29)$$

$$= 38,84\%$$

$$1:1(150) = 100 - (3,53 + 2,43 + 63,39)$$

$$= 30,65\%$$

$$1:1,5(150) = 100 - (3,78 + 2,15 + 66,03)$$

$$= 28,04\%$$

$$1:2(150) = 100 - (1,56 + 1,30 + 69,21)$$

$$= 27,93\%$$

$$1:1(175) = 100 - (2,09 + 1,80 + 63,92)$$

$$= 32,19\%$$


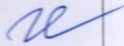






$$1:1(200) = 100 - (1,33 + 2,42 + 66,36)$$

$$= 29,89\%$$

Lampiran B 10
Kartu Konsultasi Tugas Akhir

JUDUL: "STUDI PENINGKATAN NILAI KALORI BATUBARA DENGAN MENGGUNAKAN MINYAK JELANTAH".

(Konsultasi minimal 8 kali)

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
3 SEP 2021	- BAB I PENDAHULUAN - Format penulisan	
4 SEP 2021	- BAB IV HASIL & PEMBAHASAN - PENULISAN DESIMAL	
5 SEP 2021	- ABSTRAK - KESIMPULAN	
6 SEP 2021	- TUJUAN PENELITIAN - JUDUL PENELITIAN	
8 SEP 2021	- BAB II - PENULISAN ISTILAH YANG BENAR	
13 SEP 2021	- BAB IV - FORMAT TABEL	
18 SEP 2021	- BAB II - BAB IV	 

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
20 SEP 2021	- BAB V - ABSTRAK 