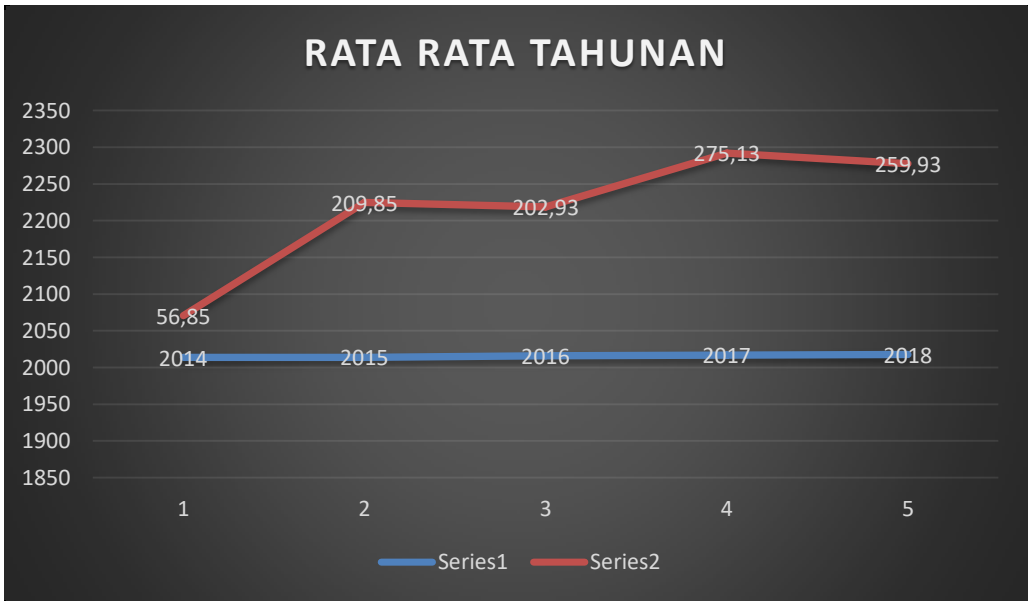
LAMPIRAN A

DATA CURAH HUJAN

Tabel A.1 Data Curah Hujan 2014-2018

Bulan	Curah Hujan (mm/jam)					Jumlah
	2014	2015	2016	2017	2018	
Januari	117,17	366,8	324,3	164,4	103,2	1.075,87
Februari	30,48	360,9	240	532,5	385,2	1.549,08
Maret	46,17	412,8	286,3	491,8	461,3	1.698,37
April	64,62	363,6	292,3	209,2	236	1.165,72
Mei	86,38	150	201	277	233,9	948,28
Juni	21,09	84,2	112	74,3	68,9	360,49
Juli	35,73	7	274,1	127,5	204,1	648,43
Agustus	43,47	43,4	59,2	210,8	114,5	471,37
September	14,63	34	78,3	233	117	476,93
Oktober	12,17	12	107,7	273,7	327,9	733,47
November	103,53	407,3	393,2	398	512,7	1.814,73
Desember	106,77	276,2	66,8	309,4	354,5	1.113,67
Rata-Rata	56,85	209,85	202,93	275,13	259,93	1.004,70



Gambar A.1 Grafik Curah Hujan Tahun 2014 - 2018

Tabel A.2 Curah Hujan Bulan Maret 2019

Maret				
Curah Hujan				
Tanggal	Rain (mm)	Slippery (mm)	Volume (mm)	Freq
1	6,17	10,51	31,4	3
2	-	1,54	-	
3	0,17	-	0,3	1
4	0,81	0,53	0,1	1
5	-	-	-	-
6	1,46	2,71	9,5	1
7	-	-	-	-
8	-	-	-	-
9	2,38	1,96	10	2
10	4,17	1,85	37,9	1
11	0,18	0,89	0,5	1
12	-	-	-	-
13	-	-	-	-
14	-	-	-	-
15	-	-	-	-
16	-	-	-	-
17	-	-	-	-
18	-	-	-	-
19	7,84	3,26	41	2
20	0,32	2,69	1	1
21	4,24	4,21	18	2
22	1,51	5,92	5	1
23	-	-	-	-
24	1,04	0,48	1	1
25	2,58	2,54	38,5	2
26	1,94	1,54	3,3	1
27	4,96	1,26	2,5	1
28	-	-	-	-
29	1,59	3,06	16,9	2
30	-	0,6	-	-
31	3,75	1,99	2,1	1
	45,11	47,54	219	24
Hari Hujan = 17 Hari				

Tabel A.3 Curah Hujan Bualn April 2019

April				
Curah Hujan				
Tanggal	Rain (mm)	Slippery (mm)	Volume (mm)	Freq
1	9,83	1,92	8	3
2	-	2,34	-	
3	0,25	0,16	0,5	1
4	5,75	4,26	46	2
5	0,26	0,31	0,5	1
6	0,87	1,67	4,5	1
7	1,38	0,128	2	2
8	-	-	-	-
9	2,59	1,71	2,7	1
10	1,5	1,67	14	2
11	7,47	2,08	9	2
12	1,18	1,71	1	2
13	-	-	-	-
14	-	-	-	-
15	1,02	0,42	2	2
16	9,16	1,85	57	2
17	-	-	-	-
18	5,2	4,98	32,5	2
19	1,42	4,95	6	2
20	4,38	4,05	31,5	1
21	1,39	0,756	8,5	2
22	1,25	4,55	0,2	1
23	7,61	4,77	52,5	3
24	2,99	7,04	4,9	2
25	3,54	4,38	8,3	1
26	6,94	4,14	8,5	4
27	1,46	0,36	0,1	2
28	-	-	-	-
29	-	-	-	-
30	-	-	-	-
	77,44	60,2	300,2	41
Hari Hujan = 22 Hari				

Tabel A.4 Curah Hujan Bulan Mei Tahun 2019

Maret				
Curah Hujan				
Tanggal	Rain (mm)	Slippery (mm)	Volume (mm)	Freq
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	4,45	5,02	37,5	2
5	6,33	5,74	13,7	2
6	-	5,38	-	-
7	-	-	-	-
8	-	-	-	-
9	-	-	-	-
10	-	-	-	-
11	-	-	-	-
12	-	-	-	-
13	-	-	-	-
14	0,35	0,66	0,5	1
15	1,68	0,95	3	3
16	6,33	1,98	38	1
17	5,37	5,49	16	1
18	5,5	-	12,2	1
19	1,42	2,08	19,7	1
20	5,87	7,5	13	4
21	-	-	-	-
22	-	-	-	-
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	-	-	-	-
27	-	-	-	-
28	-	-	-	-
29	-	-	-	-
30	1,94	4,54	6,8	2
31	1,18	1,06	2	1
	40,42	40,4	162,4	19
Hari Hujan = 17 Hari				

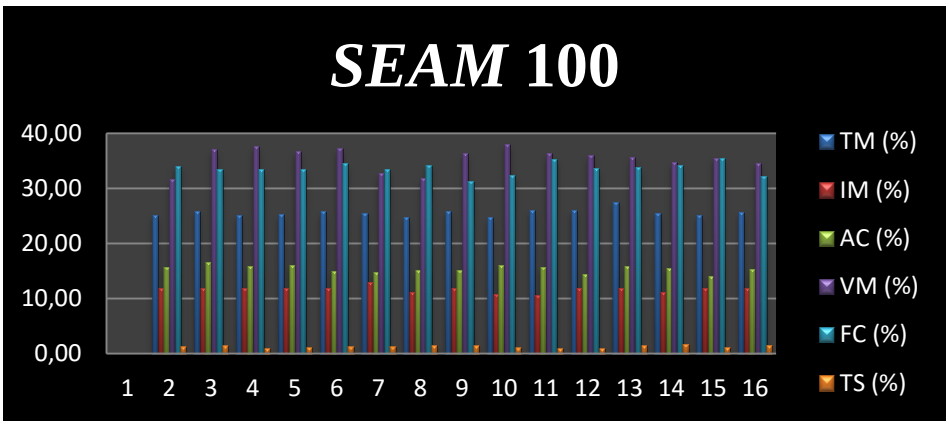
LAMPIRAN B

KUALITAS BATUBARA

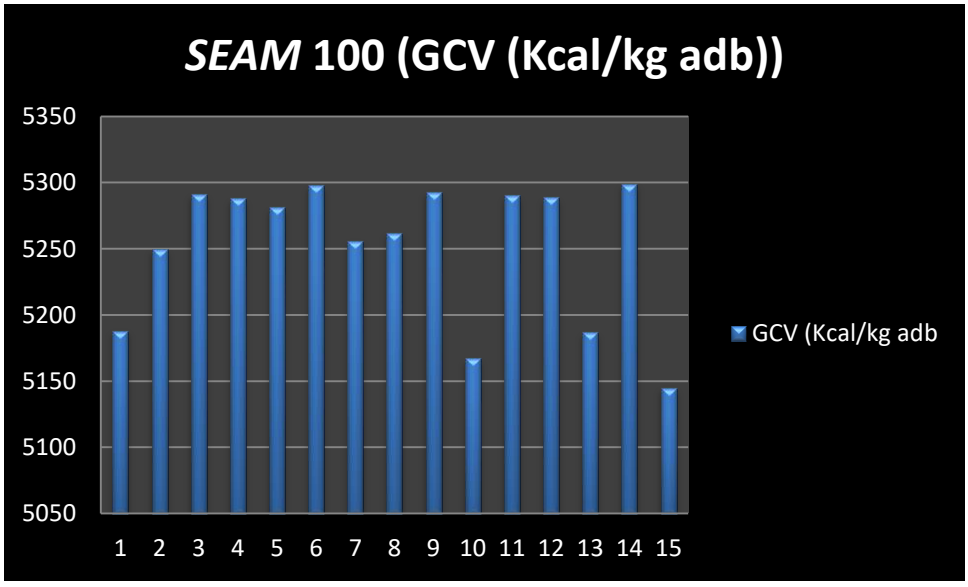
Tabel B.1 Hasil Analisis Data Sampel *Seam* 100 Pada PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg Adb
1	SEAM 100 01	2000	25,21	11,80	15,76	31,64	34,16	1,26	5188
2	SEAM 100 02	2000	25,93	11,78	16,58	37,08	33,55	1,45	5250
3	SEAM 100 03	2000	25,12	11,82	15,78	37,69	33,41	1,02	5291
4	SEAM 100 04	2000	25,28	11,84	16,01	36,80	33,55	1,20	5288
5	SEAM 100 05	2000	25,80	11,87	15,01	37,30	34,52	1,26	5281
6	SEAM 100 06	2000	25,57	12,90	14,76	32,78	33,53	1,28	5298
7	SEAM 100 07	2000	24,81	11,10	15,10	31,95	34,27	1,50	5256
8	SEAM 100 08	2000	25,89	11,98	15,20	36,44	31,28	1,47	5262
9	SEAM 100 09	2000	24,77	10,88	16,03	37,98	32,44	1,07	5293
10	SEAM 100 10	2000	26,12	10,67	15,73	36,36	35,24	1,05	5167
11	SEAM 100 11	2000	26,11	11,83	14,45	36,02	33,70	1,06	5290

12	SEAM 100 12	2000	27,55	11,87	15,80	35,79	33,82	1,51	5289
13	SEAM 100 13	2000	25,60	11,07	15,55	34,77	34,29	1,78	5187
14	SEAM 100 14	2000	25,19	11,81	14,11	35,55	35,53	1,15	5299
15	SEAM 100 15	2000	25,74	11,78	15,29	34,67	32,26	1,55	5145
AVERAGE		30000	25,65	11,67	15,41	35,52	33,70	1,31	5252



Gambar B.1 Grafik Hasil Analisis Data Sampel *Seam* 100

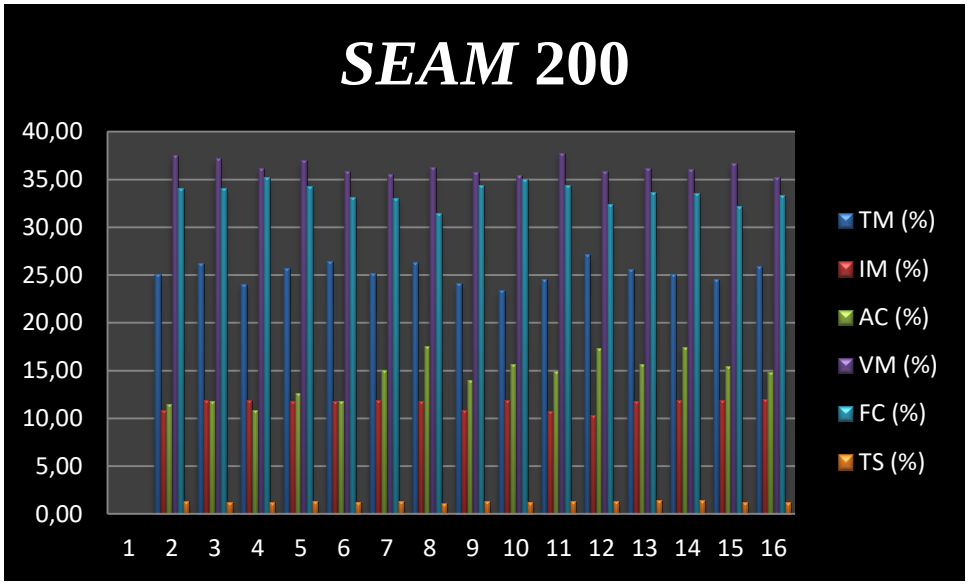


Gambar B.2 Grafik GCV Data Sampel *Seam* 100

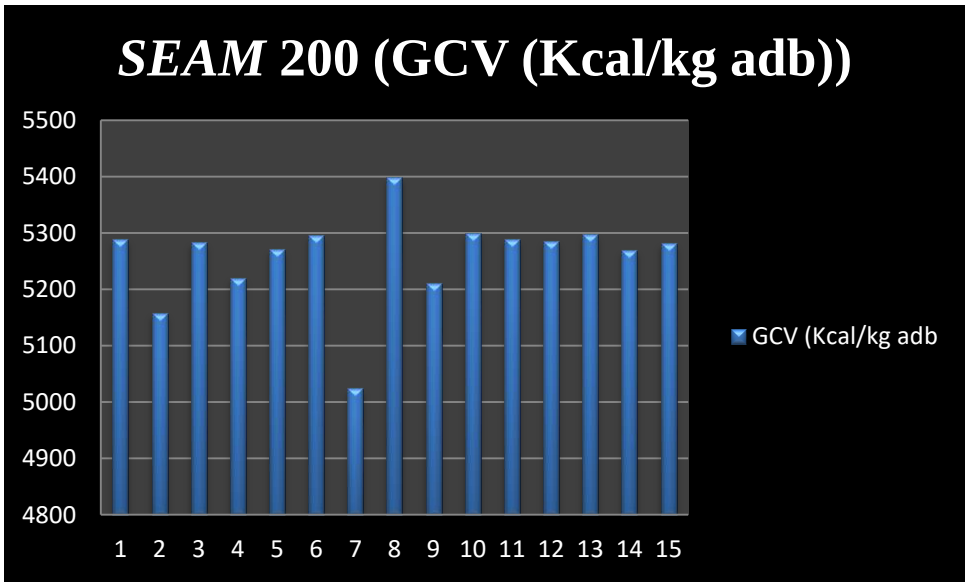
Tabel B.2 Hasil Analisis Data sampel *seam* 200 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg Adb
1	KCP SEAM 200 01	2000	25,04	10,87	11,51	37,60	34,02	1,35	5289
2	KCP SEAM 200 02	2000	26,21	11,90	11,82	37,21	34,07	1,22	5157
3	KCP SEAM 200 03	2000	24,06	11,86	10,81	36,13	35,20	1,25	5283
4	KCP SEAM 200 04	2000	25,72	11,81	12,64	36,98	34,27	1,37	5220
5	KCP SEAM 200 05	2000	26,44	11,78	11,83	35,83	33,12	1,28	5271
6	KCP SEAM 200 06	2000	25,19	11,87	15,04	35,53	33,06	1,34	5295
7	KCP SEAM 200 07	2000	26,28	11,76	17,53	36,27	31,44	1,05	5024

8	KCP SEAM 200 08	2000	24,10	10,84	14,03	35,77	34,36	1,31	5398
9	KCP SEAM 200 09	2000	23,41	11,92	15,65	35,44	35,03	1,28	5210
10	KCP SEAM 200 10	2000	24,54	10,76	14,93	37,77	34,42	1,33	5299
11	KCP SEAM 200 11	2000	27,18	10,28	17,38	35,82	32,42	1,32	5289
12	KCP SEAM 200 12	2000	25,55	11,76	15,69	36,15	33,64	1,44	5286
13	KCP SEAM 200 13	2000	25,13	11,90	17,42	36,10	33,58	1,39	5298
14	KCP SEAM 200 14	2000	24,51	11,93	15,45	36,67	32,15	1,22	5269
15	KCP SEAM 200 15	2000	25,89	11,94	14,84	35,25	33,37	1,20	5282
AVERAGE		30000	25,28	11,55	14,44	36,30	33,61	1,29	5258



Gambar B.3 Grafik Hasil Analisis Data Sampel *Seam* 200

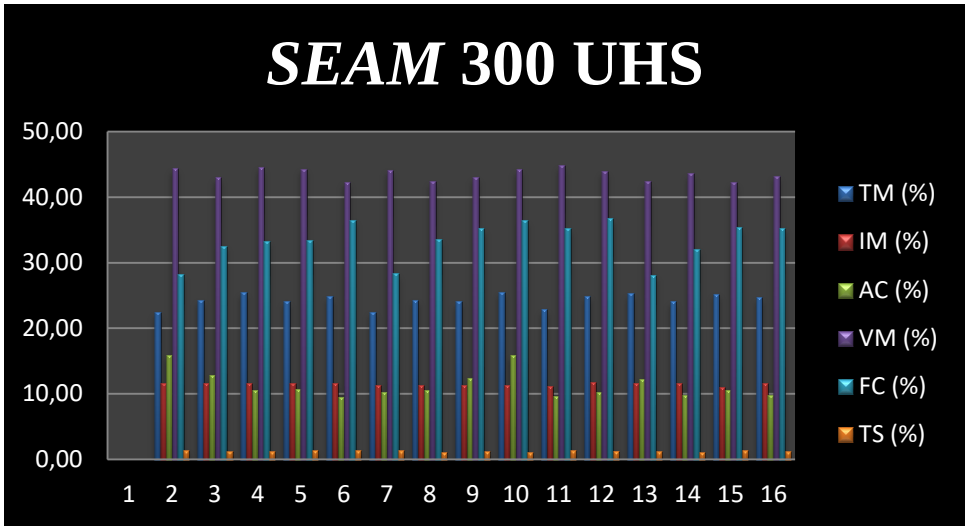


Gambar B.4 Grafik GCV Data Sampel *Seam* 200

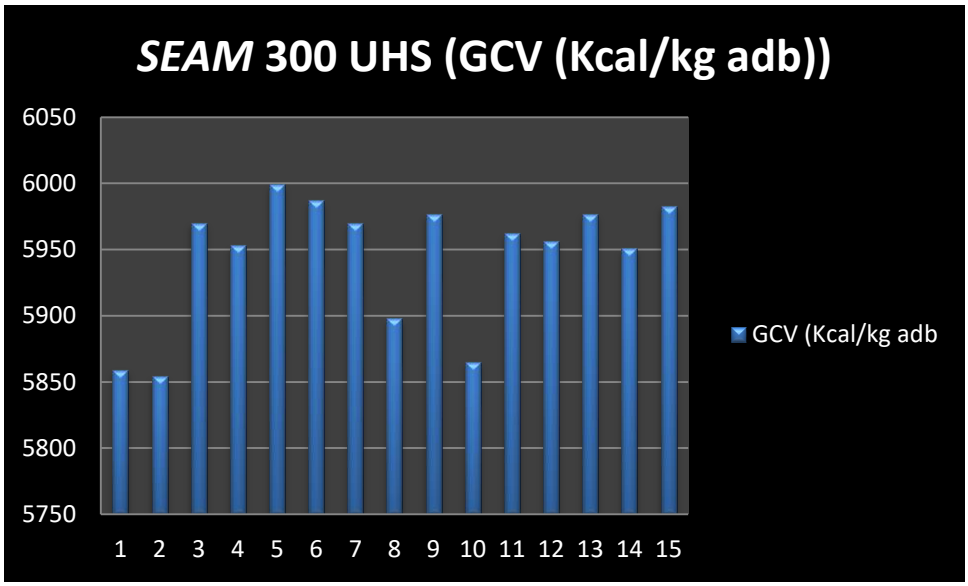
Tabel B.3 Hasil Analisis Data sampel *seam* 300 UHS PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 300 UHS 01	2000	22,41	11,53	15,85	44,41	28,21	1,38	5859
2	SEAM 300 UHS 02	2000	24,33	11,55	12,85	43,02	32,58	1,29	5854
3	SEAM 300 UHS 03	2000	25,50	11,59	10,48	44,61	33,32	1,20	5970
4	SEAM 300 UHS 04	2000	24,05	11,57	10,69	44,31	33,43	1,41	5953
5	SEAM 300 UHS 05	2000	24,87	11,64	9,50	42,34	36,52	1,38	5999
6	SEAM 300 UHS 06	2000	22,47	11,33	10,27	44,20	28,34	1,33	5987
7	SEAM 300 UHS 07	2000	24,37	11,32	10,45	42,41	33,54	1,12	5970

8	SEAM 300 UHS 08	2000	24,09	11,26	12,43	43,06	35,25	1,29	5898
9	SEAM 300 UHS 09	2000	25,53	11,28	15,88	44,27	36,44	1,11	5977
10	SEAM 300 UHS 10	2000	22,86	11,17	9,59	44,85	35,21	1,38	5865
11	SEAM 300 UHS 11	2000	24,90	11,77	10,22	43,96	36,81	1,31	5962
12	SEAM 300 UHS 12	2000	25,33	11,59	12,22	42,39	28,11	1,25	5956
13	SEAM 300 UHS 13	2000	24,05	11,62	9,85	43,66	32,14	1,14	5977
14	SEAM 300 UHS 14	2000	25,24	11,05	10,59	42,28	35,48	1,34	5951
15	SEAM 300 UHS 15	2000	24,71	11,63	9,78	43,28	35,33	1,21	5983
AVERAGE		30000	24,31	11,46	11,38	43,54	33,38	1,28	5944



Gambar B.5 Grafik Hasil Analisis Data Sampel *Seam* 300 UHS

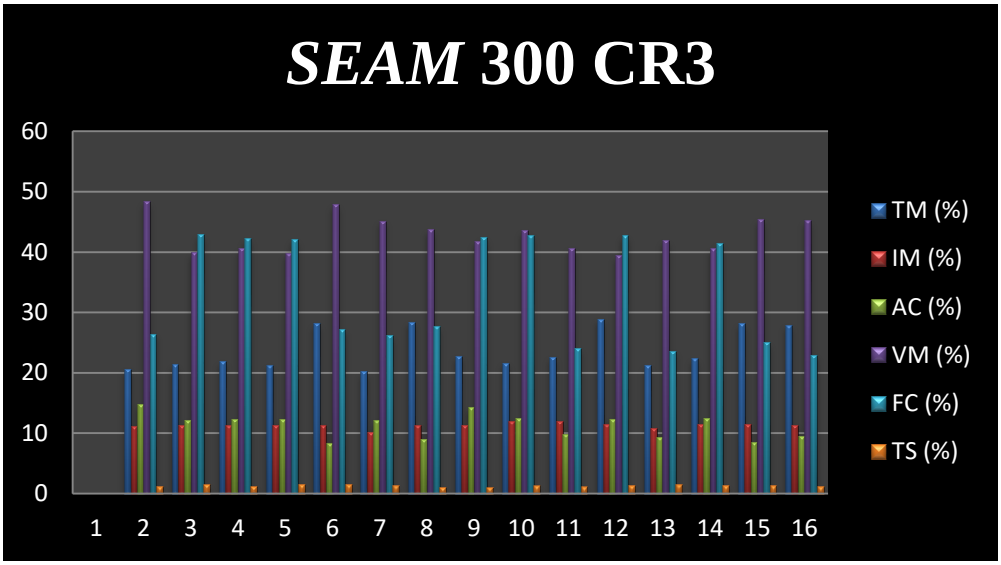


Gambar B.6 Grafik GCV Data Sampel *Seam* 300 UHS

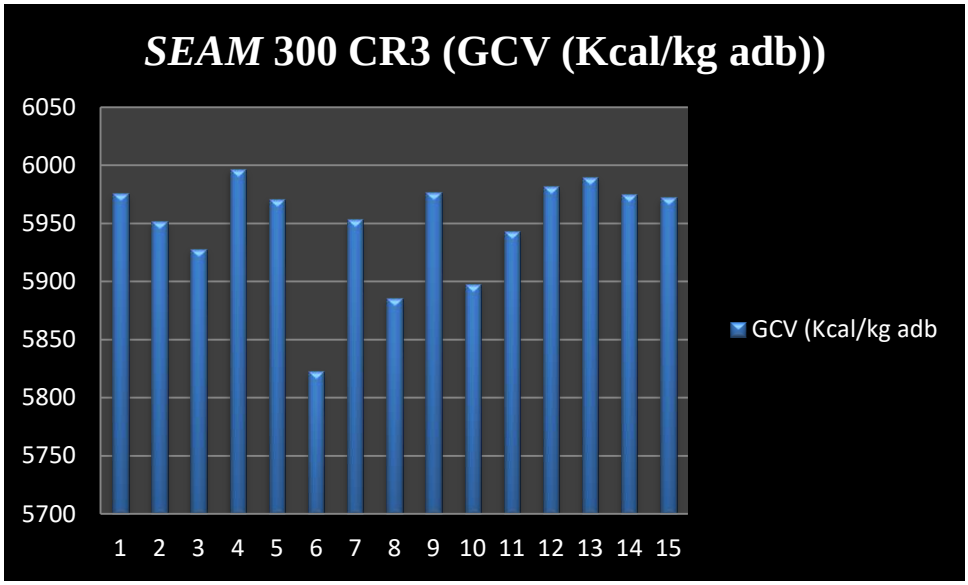
Tabel B.4 Hasil Analisis Sampel Pada *Seam* 300 CR3 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 300 CR3 01	2000	20,58	11,19	14,72	48,37	26,41	1,15	5976
2	SEAM 300 CR3 02	2000	21,39	11,21	12,03	39,97	42,93	1,5	5952
3	SEAM 300 CR3 03	2000	21,89	11,22	12,3	40,59	42,23	1,22	5928
4	SEAM 300 CR3 04	2000	21,25	11,27	12,22	39,71	42,08	1,48	5997
5	SEAM 300 CR3 05	2000	28,12	11,33	8,38	47,81	27,19	1,47	5971
	SEAM 300 CR3 06	2000	20,21	10,16	12,03	45,14	26,15	1,34	5823
	SEAM 300 CR3 07	2000	28,44	11,25	8,92	43,72	27,62	1,07	5954
	SEAM 300 CR3 08	2000	22,75	11,29	14,26	41,76	42,44	1,05	5886
	SEAM 300 CR3 09	2000	21,58	11,89	12,43	43,52	42,8	1,26	5977
	SEAM 300 CR3 10	2000	22,6	11,97	9,75	40,64	23,97	1,09	5898

	SEAM 300 CR3 11	2000	28,87	11,52	12,37	39,39	42,77	1,28	5943
	SEAM 300 CR3 12	2000	21,23	10,76	9,27	41,9	23,55	1,42	5982
	SEAM 300 CR3 13	2000	22,31	11,43	12,38	40,57	41,38	1,33	5990
6	SEAM 300 CR3 14	2000	28,08	11,37	8,44	45,39	25,01	1,32	5975
7	SEAM 300 CR3 15	2000	27,91	11,34	9,54	45,27	22,95	1,12	5972
AVERAGE		30000	23,81	11,28	11,27	42,92	33,30	1,27	5948



Gambar B.7 Grafik Hasil Analisis Data Sampel *Seam* 300 CR3

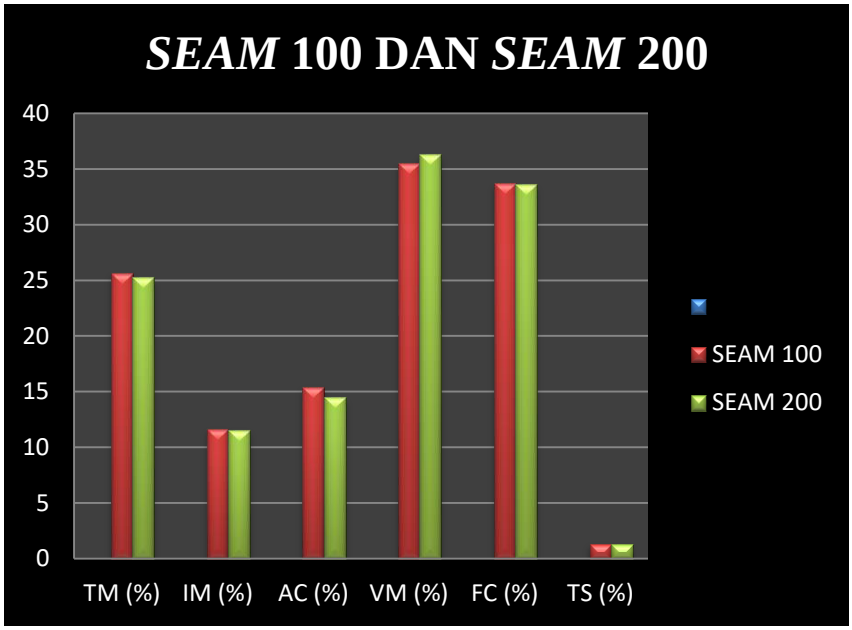


Gambar B.8 Grafik GCV Data Sampel *Seam* 300 CR3

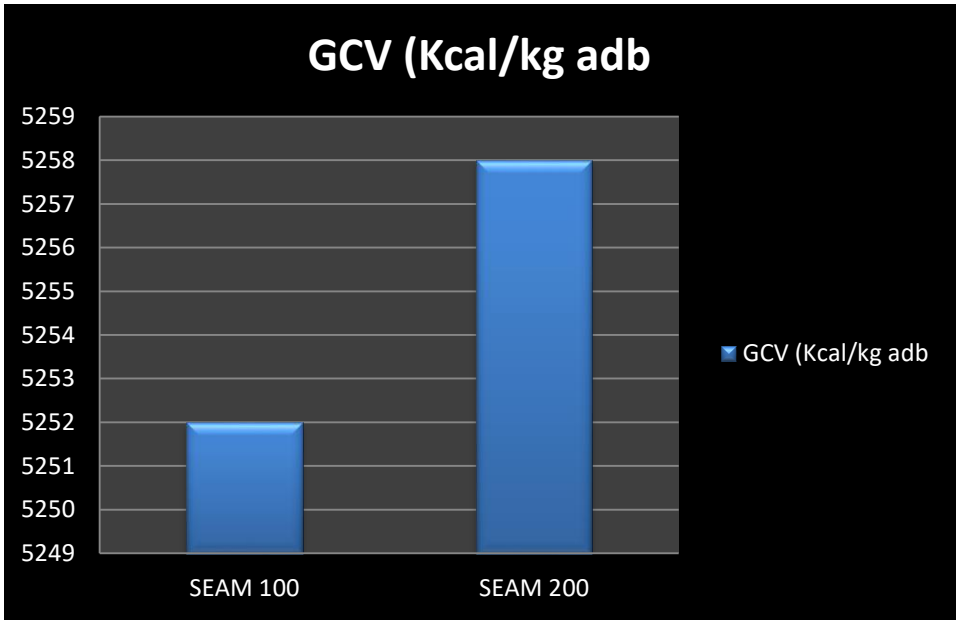
Disini kita bahas tentang perbedaan seberapa besar selisih antar seam

Tabel B.5 Selisih Hasil Analisis Sampel Pada *Seam* 100 dan 200 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg Adb
1	SEAM 100	30000	25,65	11,67	15,41	35,52	33,70	1,31	5252
2	SEAM 200	30000	25,28	11,55	14,44	36,30	33,61	1,29	5258
SELISIH		60000	0,37	0,12	0,97	-0,78	0,09	0,02	-6



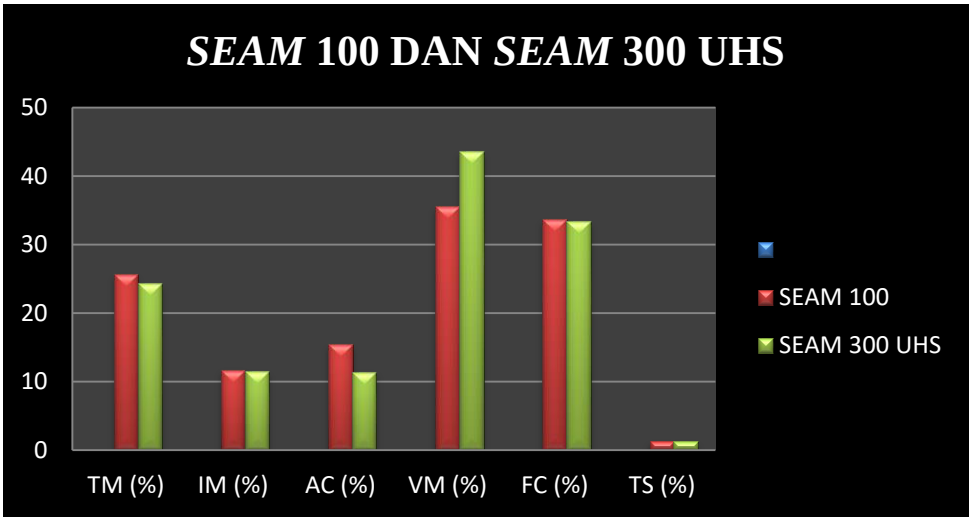
Gambar B.9 Grafik Selisih Hasil Analisis Data Sampel *Seam* 100 dan *Seam* 200



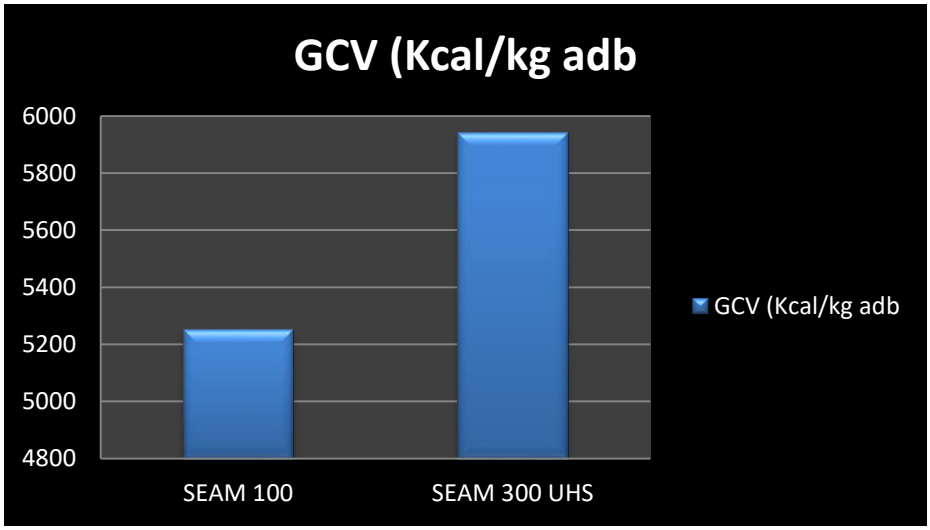
Gambar B.10 Grafik Selisih GCV Data Sampel *Seam* 100 dan *Seam* 200

Tabel B.6 Selisih Hasil Analisis Sampel Pada *Seam* 100 dan *Seam* 300 UHS PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 100	30000	25,65	11,67	15,41	35,52	33,70	1,31	5252
2	SEAM 300 UHS	30000	24,31	11,46	11,38	43,54	33,38	1,28	5944
SELISIH		60000	1,34	0,21	4,03	-8,02	0,32	0,03	-692



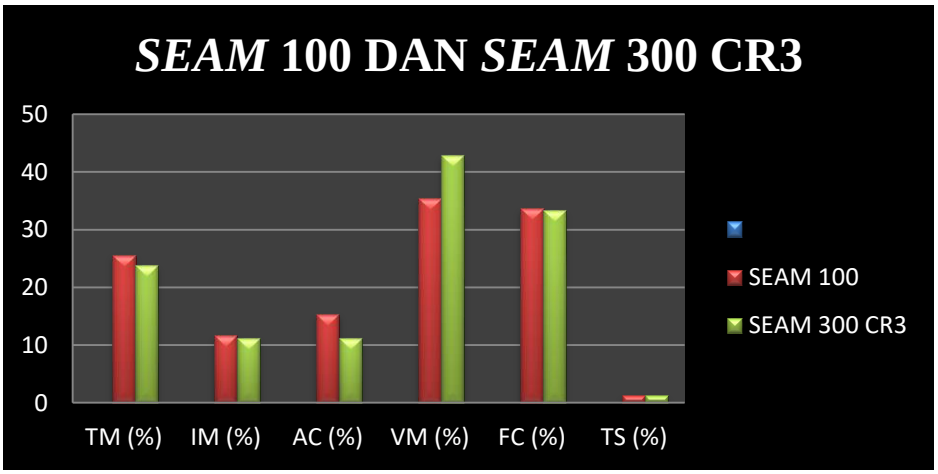
Gambar B.11 Grafik Selisih Hasil Analisis Data Sampel *Seam* 100 Dan 300 UHS



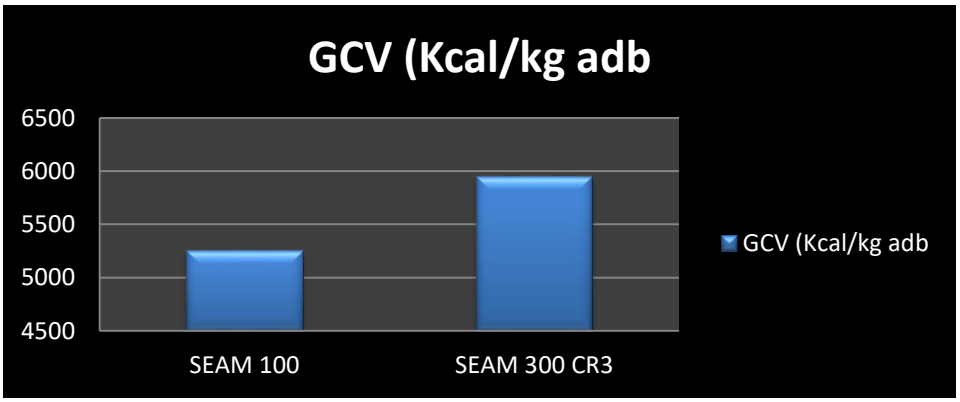
Gambar B.12 Grafik Selisih GCV Data Sampel *Seam* 200 Dan 300 UHS

Tabel B.7 Selisih Hasil Analisis Sampel Pada *Seam* 100 dan *Seam* 300 CR3 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 100	30000	25,65	11,67	15,41	35,52	33,70	1,31	5252
2	SEAM 300 CR3	30000	23,81	11,28	11,27	42,92	33,30	1,27	5948
SELISIH		60000	1,84	0,39	4,14	-7,40	0,40	0,04	-696



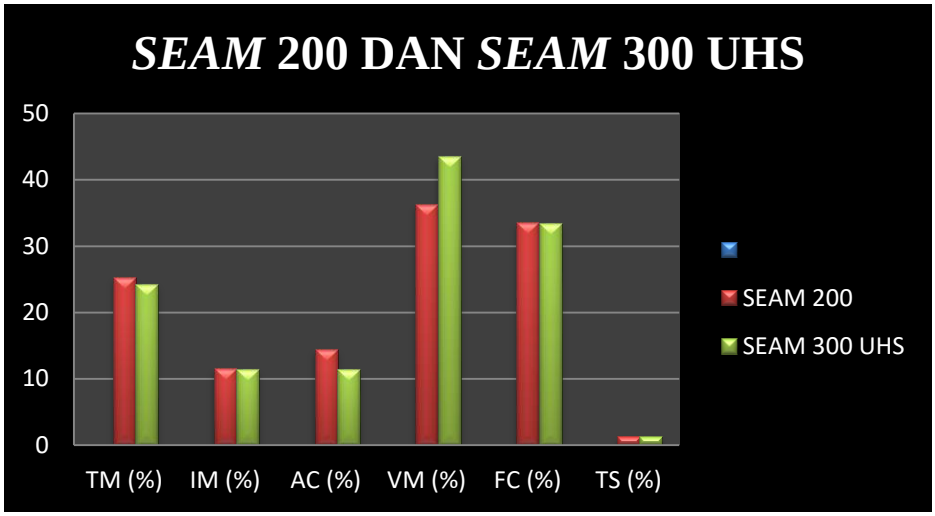
Gambar B.13 Grafik Selisih Hasil Analisis Data Sampel *Seam* 100 dan *Seam* 300 CR3



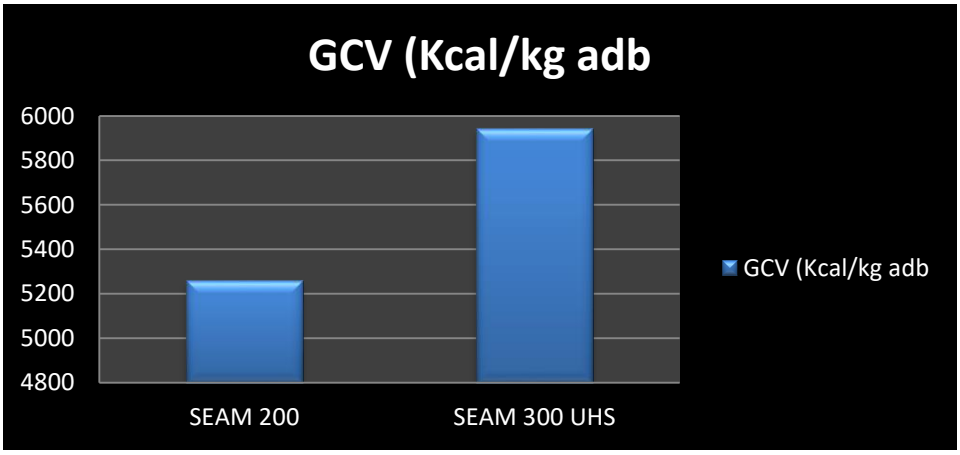
Gambar B.14 Grafik Selisih Hasil GCV Data Sampel *Seam* 100 dan *Seam* 300 CR3

Tabel B.8 Selisih Hasil Analisis Sampel Pada *Seam* 200 Dan 300 UHS PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 200	30000	25,28	11,55	14,44	36,30	33,61	1,29	5258
2	SEAM 300 UHS	30000	24,31	11,46	11,38	43,54	33,38	1,28	5944
SELISIH		60000	0,97	0,09	3,06	-7,24	0,23	0,01	-686



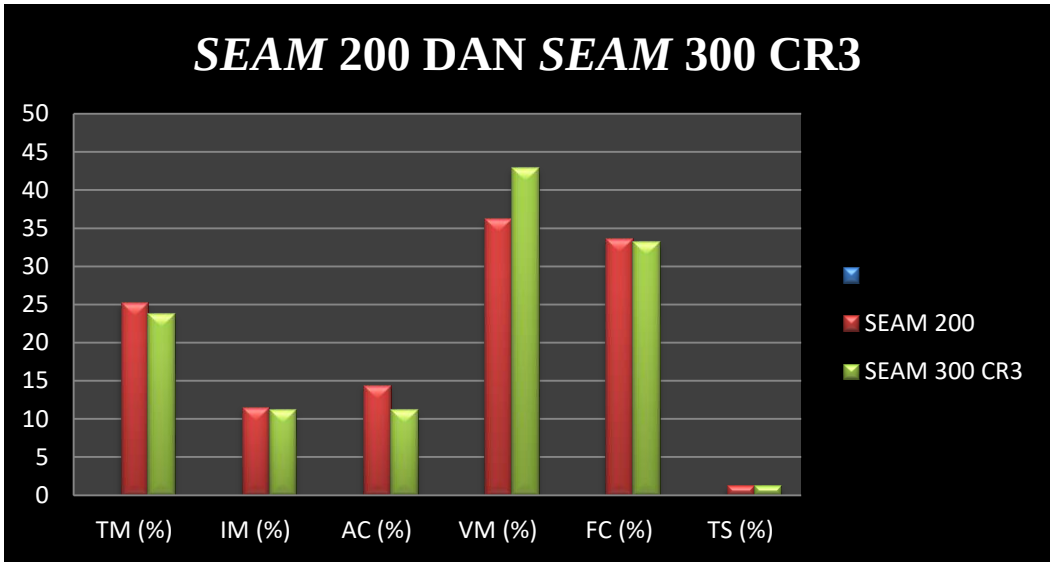
Gambar B.15 Grafik Selisih Hasil Analisis Data Sampel *Seam* 200 dan *Seam* 300 UHS



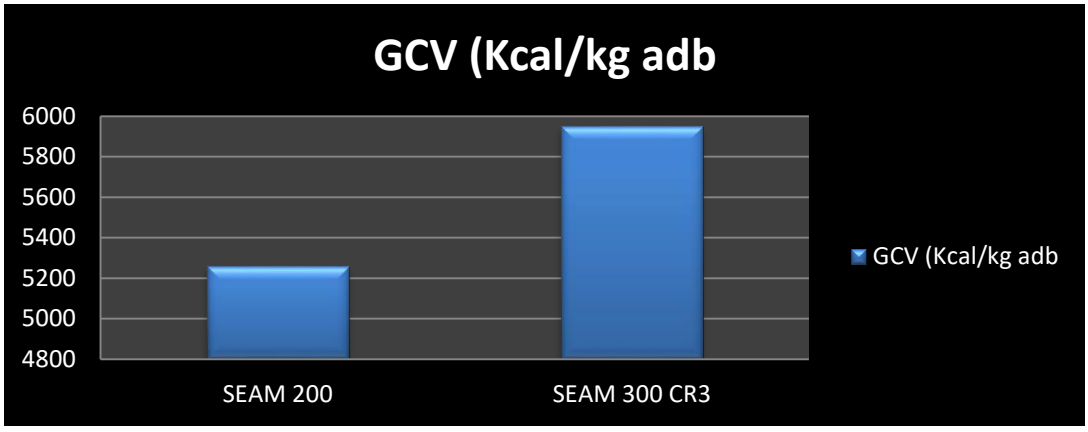
Gambar B.16 Grafik Selisih Hasil GCV Data Sampel *Seam* 200 Dan *Seam* 300 UHS

Tabel B.9 Selisih Hasil Analisis Sampel Pada *Seam* 200 dan *seam* 300 CR3 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 200	30000	25,28	11,55	14,44	36,30	33,61	1,29	5258
2	SEAM 300 CR3	30000	23,81	11,28	11,27	42,92	33,30	1,27	5948
SELISIH		60000	1,47	0,27	3,17	-6,62	0,31	0,02	-690



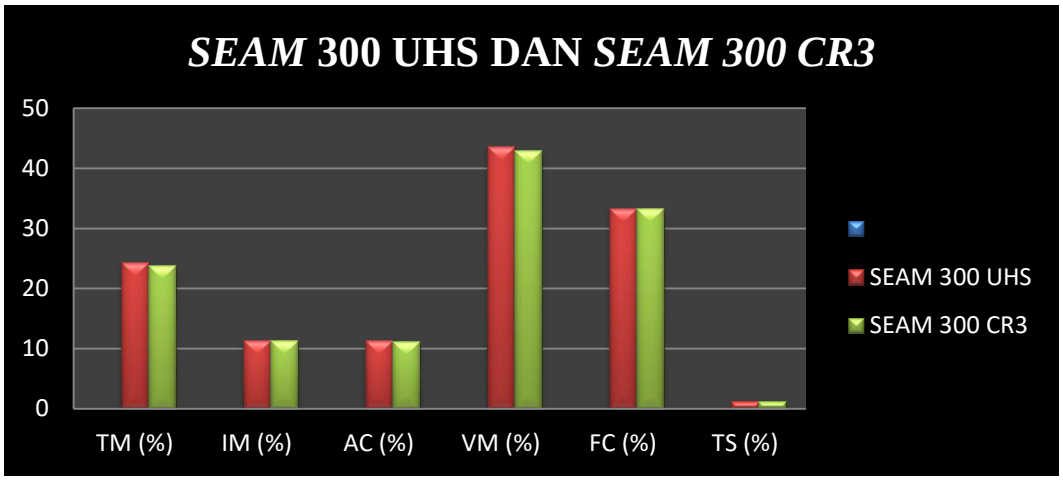
Gambar B.17 Grafik Selisih Hasil Analisis Data Sampel 200 Dan 300 CR3



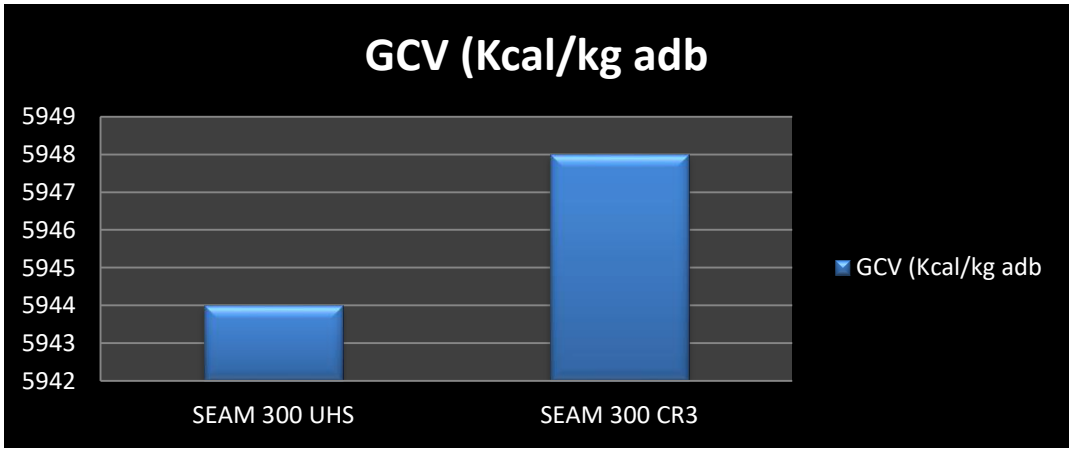
Gambar B.18 Grafik Selisih GCV Data Sampel *Seam* 200 Dan *Seam* 300 CR3

Tabel B.10 Selisih Hasil Analisis Sampel Pada *Seam* 300 UHS Dan *Seam* 300 CR3 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg Adb
1	SEAM 300 UHS	30000	24,31	11,46	11,38	43,54	33,38	1,28	5944
2	SEAM 300 CR3	30000	23,81	11,28	11,27	42,92	33,30	1,27	5948
SELISIH		60000	0,50	0,18	0,11	0,62	0,08	0,01	-4



Gambar B.19 Grafik Selisih Hasil Analisis Data Sampel *Seam* 300 UHS Dan *Seam* 300 CR3



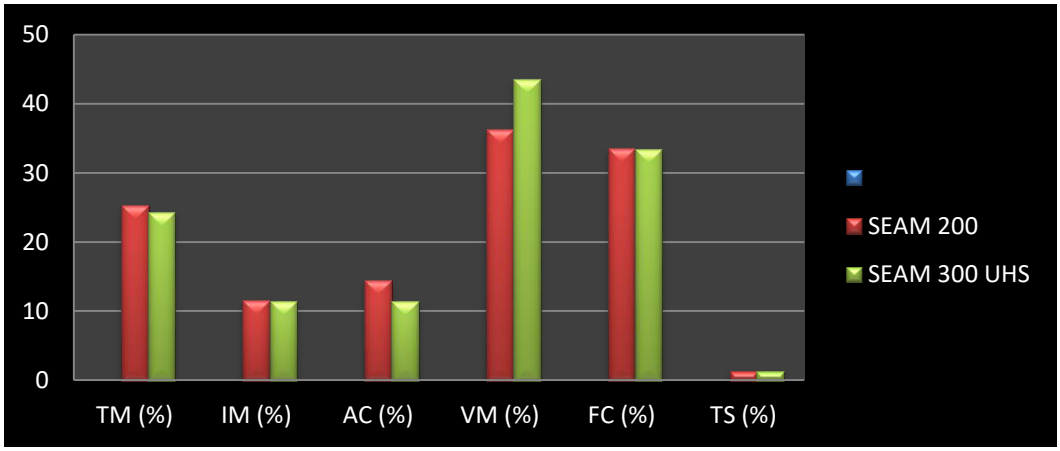
Gambar B.20 Grafik Selisih Hasil GCV Data Sampel *Seam* 300 UHS Dan *Seam* 300 CR3

Tabel B.11 Permintaan Buyer LPPI DAN IKPP

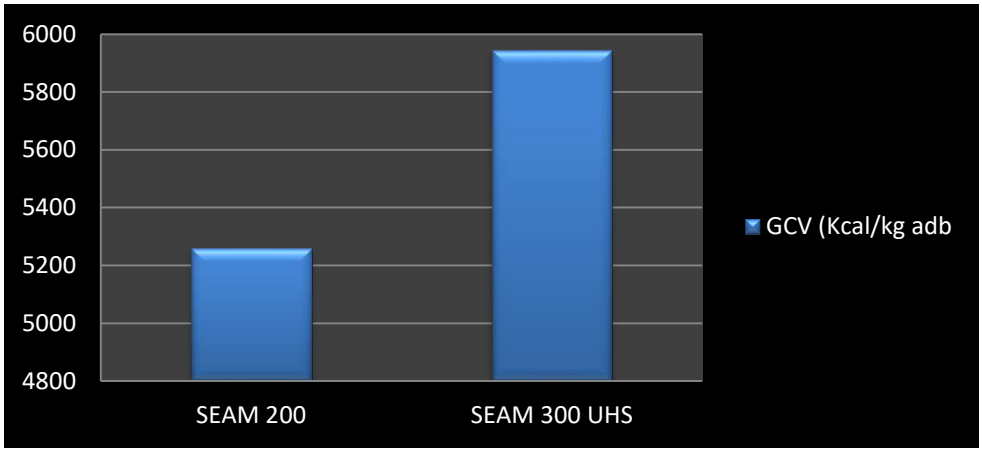
NO	PARAMETER	RESULT	
1	TOTAL MOISTURE (%)	AR	ADB
2	PROXIMATE (%)	25,25	
	IM (%)		11,5
	AC (%)		13,43
	VM (%)		42,28
	FC (%)		33,5
3	TS (%)		1,3
4	GCV (Kcal/Kg)		5600

Tabel B.12 Hasil sumproduk Blending batubara Pada *Seam* 200 dan *Seam* 300 UHS PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg adb
1	SEAM 200	30000	25,28	11,55	14,438	36,301	33,61	1,29	5258
2	SEAM 300 UHS	30000	24,31	11,46	11,377	43,537	33,381	1,276	5944
SUMPRODUCT		60000	24,80	11,51	12,91	39,92	33,50	1,29	5601



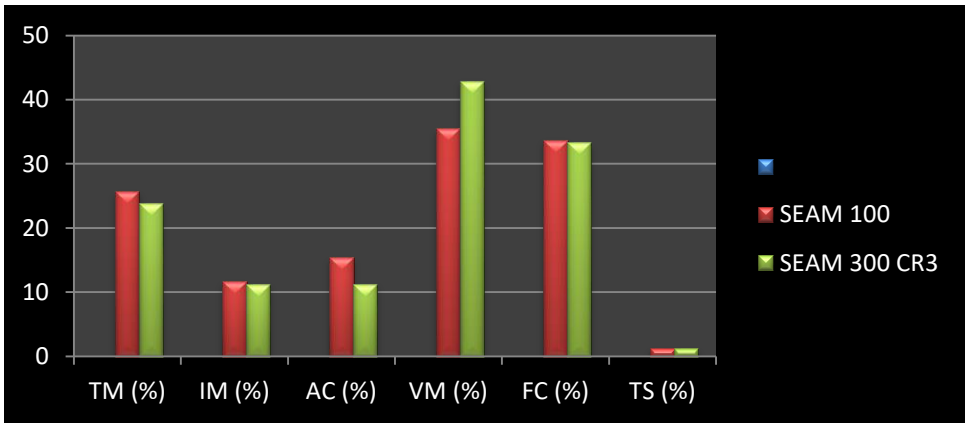
Gambar B.21 Grafik sumproduk seam 200 dan 300 UHS



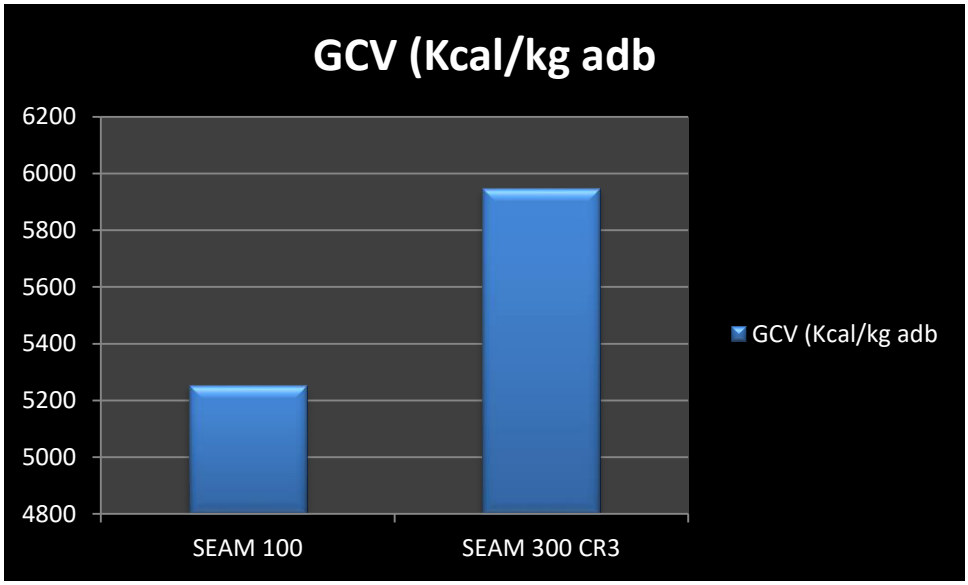
Gambar B.22 Grafik SumProduk seam 200 dan 300 UHS

Tabel B.13 Hasil sumproduk Blending batubara Pada *Seam* 200 dan *Seam* 300 CR3 PT. Kuansing Inti Makmur

NO	KODE	TONASE	TM (%)	IM (%)	AC (%)	VM (%)	FC (%)	TS (%)	GCV (Kcal/kg Adb
1	SEAM 100	30000	25,646	11,667	15,411	35,5213	33,703	1,307	5252
2	SEAM 300 CR3	30000	23,814	11,28	11,269	42,9167	33,299	1,273	5948
SUMPRODUCT		60000	24,73	11,48	13,34	39,22	33,50	1,29	5600



Gambar B.23 Grafik sumproduk Pada *Seam* 100 dan *Seam* 300 CR3



Gambar B.24 Grafik Hasil GCV Sumproduk Pada Seam 100 dan Seam 300 CR3

LAMPIRAN C

PERHITUNGAN *BLENDING* BATUBARA

Rumus *Blending* yang digunakan yaitu :

$$\frac{(X.A) + (Y.B)}{X + Y} = Z$$

Keterangan :

X = Berat/*tonase* batubara A

Y = Berat/*tonase* batubara B

A = *Calorific value*/Nilai kalori batubara A

B = *Calorific value*/Nilai kalori batubara B

Z = *Calorivic Value*/Nilai kalori batubara yang diinginkan

Dari rumus blending batubara di atas maka dapat kita cari hasil blendingan batubara yang akan kita buat

A. Blending Batubara *Seam* 200 Dan *Seam* 300 UHS

Diketahui

Seam 200		Seam 300 UHS	
Tonase	: 30.000 Ton	Tonase	: 30.000 Ton
TM	: 25,28%	TM	: 24,31%
IM	: 11,55%	IM	: 11,46%
AC	: 14,44%	AC	: 11,38%
VM	: 36,30%	VM	: 43,54%
FC	: 33,61%	VM	: 33,38%
TS	: 1,29%	TS	: 1,28%
GCV	: 5258 Kcal/Kg	GCV	: 5944 Kcal/Kg

Perhitungan

$$\% TM = \frac{25,28 + 24,31}{2} = \frac{49,59}{2} = 24,80\ \%$$

$$\% IM = \frac{11,55 + 11,46}{2} = \frac{23,01}{2} = 11,51\%$$

$$\% AC = \frac{14,44 + 11,38}{2} = \frac{25,82}{2} = 12,91\ \%$$

$$\% VM = \frac{36,30 + 43,54}{2} = \frac{79,84}{2} = 39,92\%$$

$$\% FC = \frac{33,61 + 33,38}{2} = \frac{66,99}{2} = 33,50\ \%$$

$$\% TS = \frac{1,29 + 1,28}{2} = \frac{2,57}{2} = 1,29\%$$

$$CV = \frac{(30.000 \times 5258) + (30.000 \times 5944)}{30.000 + 30.000}$$

$$\frac{(157.740.000) + (178.320.000)}{60.000}$$

$$= 5601\ Kcal/Kg$$

Blending Batubara *Seam* 100 Dan *Seam* 300 CR3

Seam 100		Seam 300 CR3	
Tonase	: 30.000 Ton	Tonase	: 30.000 Ton
TM	: 25,65%	TM	: 23,81%
IM	: 11,67%	IM	: 11,28%
AC	: 15,41%	AC	: 11,27%
VM	: 35,52%	VM	: 42,92%
FC	: 33,70%	VM	: 33,30%
TS	: 1,31%	TS	: 1,27%
GCV	: 5252 Kcal/Kg	GCV	: 5948 Kcal/Kg

Perhitungan

$$\% TM = \frac{25,65 + 23,81}{2} = \frac{49,46}{2} = 24,73\ \%$$

$$\% IM = \frac{11,67 + 11,28}{2} = \frac{22,95}{2} = 11,48\%$$

$$\% AC = \frac{15,41 + 11,27}{2} = \frac{26,68}{2} = 13,34\ \%$$

$$\% VM = \frac{35,52 + 42,92}{2} = \frac{78,44}{2} = 39,22\%$$

$$\% FC = \frac{33,70 + 33,30}{2} = \frac{67}{2} = 33,50\ \%$$

$$\% TS = \frac{1,31 + 1,27}{2} = \frac{2,58}{2} = 1,29\%$$

$$CV = \frac{(30.000 \times 5252) + (30.000 \times 5948)}{30.000 + 30.000}$$

$$\frac{(157.560.000) + (178.440.000)}{60.000}$$

$$= 5600\ Kcal/Kg$$

SUCOFINDO

PT. SUPERINTENDING COMPANY OF INDONESIA

SERTIFIKAT

PRAKTIK KERJA INDUSTRI
NO. : 0465.1/PDG-V/B02/2019

PT SUCOFINDO (Persero) Cabang Padang menerangkan bahwa :

MUHAMMAD ZICKY PRADANA
No. induk mahasiswa : 710015109

Adalah Mahasiswa pada :

Program Studi Teknik Pertambangan
Institut Teknologi Nasional Yogyakarta

Telah melakukan Praktik Kerja Industri dengan Judul Penelitian **"Analisis Quality Control Batubara dari Stockpile menuju Pengiriman untuk menentukan kualitas batubara dari PT Kuansing Inti Makmur (KIM) di desa Tanjung Belit, Kecamatan Jujuhan, Kabupaten Bungo, Provinsi Jambi pada Uji Laboratorium PT Sucofindo (Persero) Cabang Padang"** dari tanggal 18 Maret sampai 16 Mei 2019dengan hasil **SANGAT BAIK.**

Padang, 16 Mei 2019

SUCOFINDO

Drs. H. Bosri, MM
Kepala Cabang PT Sucofindo