

LAMPIRAN I DATA

1.1 Data Pengamatan

Tabel L1.1. Data Pengamatan Proses *Startup*

No	Waktu Proses (hari)	Temperatur (°C)	pH	S ₁ (gr)	S ₂ (gr)	S ₃ (gr)	Ketinggian Manometer (cm)
1	2	30	6	10,0049	1,0020	0,4905	
2	3	30	6	10,0054	1,0079	0,4842	
3	4	30	6	10,0058	1,0121	0,4676	
4	5	30	6	10,0551	1,0198	0,3712	3,20
5	6	30	7	10,0039	1,0324	0,3252	7,80
6	7	30	7	10,0032	1,0866	0,3046	11,70
7	8	30	7	10,0233	1,0954	0,2593	13,60
8	9	30	7	10,0588	1,1176	0,2003	15,40
9	10	30	7	10,0087	1,3683	0,1181	17,80
10	11	30	7	10,0612	1,3757	0,1024	22,60
11	12	30	7	10,0181	1,3869	0,0834	25,10
12	13	30	7	10,1814	1,4306	0,0795	26,00
13	14	30	7	10,1174	1,4322	0,0767	26,50
14	15	30	7	10,0009	1,4327	0,0752	26,50

Keterangan :

S₁ = Massa *slurry* (gr)

S₂ = Massa *slurry* setelah oven (gr)

S₃ = Massa abu (gr)

1.2 Data Hasil Perhitungan

Tabel L1.2. Data Hasil Perhitungan *Total Solid* (TS) dan *Volatile Solid* (VS)

No	Waktu Proses (hari)	<i>Total Solid</i> (%)	<i>Volatile Solid</i> (%)
1	2	10,02	48,95
2	3	10,07	48,04

Lanjutan **Tabel L1.2.** Data Hasil Perhitungan *Total Solid* (TS) dan *Volatile Solid* (VS)

No	Waktu Proses (hari)	<i>Total Solid</i> (%)	<i>Volatile Solid</i> (%)
3	4	10,11	46,20
4	5	10,14	36,40
5	6	10,32	31,50
6	7	10,86	28,03
7	8	10,93	23,67
8	9	11,11	17,92
9	10	13,60	8,63
10	11	13,67	7,44
11	12	13,78	6,01
12	13	14,05	5,58
13	14	14,16	5,36
14	15	14,33	5,25

Tabel L1.3. Data Perhitungan BM Campuran Biogas

Komponen	% Vol	Mol	BM	BM Campuran (gr/mol)
CH ₄	58,5	0,59	16	9,39
CO ₂	27,6	0,28	44	12,14
N ₂	13,4	0,13	28	3,75
H ₂	0,3	0,00	2,0	0,01
H ₂ S	0,0	0,00	34	0,00
O ₂	0,2	0,00	32	0,06
Total	100	1,00		25,33

Sumber : Analisa Pertamina

Tabel L1.4. Data Hasil Perhitungan Rendemen (%)

No	Waktu Proses (hari)	Tekanan Biogas (atm)	Mol (mol)	Massa (kg)	Rendemen (%)
1	5	1,0031	71,8633	1,8200	24,27
2	6	1,0076	72,1823	1,8381	24,37

Lanjutan **Tabel L1.4.** Data Hasil Perhitungan Rendemen (%)

No	Waktu Proses (hari)	Tekanan Biogas (atm)	Mol (mol)	Massa (kg)	Rendemen (%)
3	7	1,0113	72,4528	1,8349	24,47
4	8	1,0132	72,5846	1,8383	24,51
5	9	1,0149	72,7094	1,8414	24,55
6	10	1,0172	72,8759	1,8457	24,61
7	11	1,0219	73,2088	1,8541	24,72
8	12	1,0243	73,3822	1,8585	24,78
9	13	1,0252	73,4447	1,8601	24,80
10	14	1,0257	73,4793	1,8609	24,81
11	15	1,0257	73,4793	1,8609	24,81