

**LAMPIRAN 1**

Jumlah Bakteri (CFU/mL) *Acetobacter aceti*, *Bacillus subtilis*, *Bacillus licheniformis*, *Cellulomonas* sp., *Cellvibrio* sp., *Cytophaga* sp., *Lactobacillus plantarum*, dan *Pseudomonas* sp. dalam Kultur Cair

No.	Jenis Bakteri	Optical Density (OD)	Jumlah Starter Bakteri (CFU/mL)
1.	<i>Acetobacter aceti</i>	0,22	$8,3 \times 10^{10}$
2.	<i>Bacillus subtilis</i>	0,23	$3,4 \times 10^{10}$
3.	<i>Bacillus licheniformis</i>	0,22	$8,8 \times 10^{11}$
4.	<i>Cellulomonas</i> sp.	0,23	$2,6 \times 10^{10}$
5.	<i>Cellvibrio</i> sp.	0,23	$6,4 \times 10^{10}$
6.	<i>Cytophaga</i> sp.	0,24	$4,5 \times 10^9$
7.	<i>Lactobacillus plantarum</i>	0,21	$5,9 \times 10^{10}$
8.	<i>Pseudomonas</i> sp.	0,21	$3,8 \times 10^{17}$

Jumlah Bakteri Anaerob (CFU/mL) dalam Substrat Fermentasi

No.	Substrat	Jumlah Starter Bakteri (CFU/mL)
1.	Bahan baku kompos	$3,3 \times 10^4$
2.	Kotoran sapi	$1,2 \times 10^6$

Jumlah Bakteri Aerob (CFU/mL) dalam Substrat Fermentasi

No.	Substrat	Jumlah Starter Bakteri (CFU/mL)
1.	Bahan baku kompos	$3,8 \times 10^{10}$
2.	Kotoran sapi	$2,6 \times 10^7$

**LAMPIRAN 2**

Kadar Metana (%) pada Tiap Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	SD
		K1	K2	K3	K4		
W1	I	60,82	65,42	68,11	68,05	68,26	3,16
	II	66,52	69,88	71,05	71,14		
	III	65,90	69,90	71,10	71,18		
	Rerata	64,41	68,40	70,09	70,12		
	SD	2,58	2,58	1,71	1,80		
W2	I	61,88	67,15	70,24	71,85	68,74	2,90
	II	65,82	69,32	70,50	70,91		
	III	66,36	69,30	70,50	71,05		
	Rerata	64,69	68,59	70,41	71,27		
	SD	2,45	1,25	0,15	0,51		
W3	I	63,80	68,56	70,76	71,50	68,96	2,58
	II	66,20	69,68	71,50	71,90		
	III	65,40	68,90	69,56	69,80		
	Rerata	65,13	69,05	70,61	71,07		
	SD	1,22	0,57	0,98	1,12		
W4	I	63,70	68,90	70,56	70,90	68,84	2,64
	II	65,50	69,82	70,98	70,99		
	III	64,80	68,90	70,50	70,54		
	Rerata	64,67	69,21	70,68	70,81		
	SD	0,91	0,53	0,26	0,24		
Rerata K		64,73	68,55	70,45	70,82		
SD		2,06	1,31	1,07	1,04		

Rata-rata Kadar Metana (%) pada Tiap Variasi Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu Fermentasi (W)	Konsentrasi Konsorsium Bakteri Hidrolitik (K)			
	K1	K2	K3	K4
W1	64,41 ± 2,58 <sup>a</sup>	68,40 ± 2,58 <sup>b</sup>	70,09 ± 1,71 <sup>b</sup>	70,12 ± 1,79 <sup>b</sup>
W2	64,69 ± 2,45 <sup>a</sup>	68,59 ± 1,25 <sup>b</sup>	70,41 ± 0,15 <sup>b</sup>	71,27 ± 0,51 <sup>b</sup>
W3	65,13 ± 1,22 <sup>a</sup>	69,05 ± 0,57 <sup>b</sup>	70,61 ± 0,98 <sup>b</sup>	71,07 ± 1,12 <sup>b</sup>
W4	64,67 ± 0,91 <sup>a</sup>	69,21 ± 0,53 <sup>b</sup>	70,68 ± 0,26 <sup>b</sup>	70,81 ± 0,24 <sup>b</sup>

Keterangan : Angka yang disertai dengan huruf berbeda menunjukkan perbedaan signifikansi pada uji *Games-Howell* ( $p=0,05$ ). W1 = 10 hari, W2 = 20 hari, W3 = 30 hari, W4 = 40 hari, K1= 0 %, K2 = 5 %, K3 = 10 %, dan K4 = 15 %.

**LAMPIRAN 3**

Volume Biogas (mL) pada Tiap Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	SD
		K1	K2	K3	K4		
W1	I	988,50	335,60	866,50	308,50	633,65	228,71
	II	615,80	510,60	876,50	498,60		
	III	504,40	510,80	905,40	682,60		
	Rerata	702,90	452,33	882,80	496,57		
	SD	253,53	101,09	20,20	187,06		
W2	I	836,80	1110,60	996,00	894,80	1025,46	97,71
	II	958,40	995,60	988,60	1085,20		
	III	1050,00	1120,40	1118,50	1150,60		
	Rerata	948,40	1075,53	1034,37	1043,53		
	SD	106,95	69,40	72,96	132,89		
W3	I	1253,50	1244,80	1246,50	813,80	1048,97	257,55
	II	1182,50	1056,40	1214,80	1198,60		
	III	1150,50	1080,10	680,50	465,60		
	Rerata	1195,50	1127,10	1047,27	826,00		
	SD	52,72	102,62	318,02	366,65		
W4	I	885,60	896,40	879,60	986,30	999,78	97,51
	II	1025,30	1156,20	1160,40	1108,50		
	III	987,80	976,80	985,90	948,50		
	Rerata	966,23	1009,80	1008,63	1014,43		
	SD	72,30	133,01	141,77	83,63		
Rerata K		953,26	916,19	993,27	845,13		
SD		219,94	296,63	166,53	295,09		

Rata-rata Volume Biogas (mL) pada Tiap Variasi Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu Fermentasi (W)	Konsentrasi Konsorsium Bakteri Hidrolitik (K)			
	K1	K2	K3	K4
W1	702,90 ± 253,53 <sup>ab</sup>	452,33 ± 101,09 <sup>a</sup>	882,80 ± 20,20 <sup>bcd</sup>	496,57 ± 187,06 <sup>a</sup>
W2	948,40 ± 106,95 <sup>bcd</sup>	1075,53 ± 69,39 <sup>cd</sup>	1034,37 ± 72,96 <sup>cd</sup>	1043,53 ± 132,89 <sup>cd</sup>
W3	1195,50 ± 52,72 <sup>d</sup>	1127,10 ± 102,62 <sup>cd</sup>	1047,27 ± 318,02 <sup>cd</sup>	826,00 ± 366,65 <sup>bc</sup>
W4	966,23 ± 72,30 <sup>bcd</sup>	1009,80 ± 133,01 <sup>bcd</sup>	1008,63 ± 141,77 <sup>bcd</sup>	1014,43 ± 83,63 <sup>bcd</sup>

Keterangan : Angka yang disertai dengan huruf berbeda menunjukkan perbedaan signifikansi pada uji *Games-Howell* ( $p=0,05$ ). W1 = 10 hari, W2 = 20 hari, W3 = 30 hari, W4 = 40 hari, K1= 0 %, K2 = 5 %, K3 = 10 %, dan K4 = 15 %.

**LAMPIRAN 4**

Rasio C/N Sebelum dan Setelah Fermentasi pada Tiap Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Sebelum Fermentasi	Waktu fermentasi (W)	Setelah Fermentasi				Rerata W
		Konsentrasi Konsorsium Bakteri Hidrolitik (K)				
		K1	K2	K3	K4	
38,91	W1	33,52	23,89	23,24	22,76	25,85
	W2	20,64	19,19	17,50	17,11	18,61
	W3	17,50	15,09	14,50	14,30	15,35
	W4	16,03	13,80	13,49	12,81	14,03
<b>Rerata K</b>		21,92	17,99	17,18	16,74	

Rasio C/N Sebelum dan Setelah Fermentasi pada Tiap Konsentrasi Konsorsium Bakteri Hidrolitik

Konsentrasi Konsorsium Bakteri Hidrolitik (K)	Rasio C/N	
	Sebelum Fermentasi	Setelah Fermentasi
K1	38,91	21,92
K2	38,91	17,99
K3	38,91	17,18
K4	38,91	16,74

Rasio C/N Sebelum dan Setelah Fermentasi pada Tiap Waktu Fermentasi

Waktu Fermentasi (W)	Rasio C/N	
	Sebelum Fermentasi	Setelah Fermentasi
W1	38,91	25,85
W2	38,91	18,61
W3	38,91	15,35
W4	38,91	14,03

Keterangan : K1= 0 % ; K2 = 5 % ; K3 = 10 % ; K4 = 15 %

W1 = 10 hari ; W2 = 20 hari ; W3 = 30 hari ; W4 = 40 hari



**LAMPIRAN 5**

Rata-rata pH Sebelum Fermentasi pada Tiap Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu Fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	Rerata SD
		K1	K2	K3	K4		
W1	I	6,60	6,60	6,60	6,60	6,80	0,15
	II	6,90	6,90	6,90	6,90		
	III	6,90	6,90	6,90	6,90		
	Rerata	6,80	6,80	6,80	6,80		
	SD	0,17	0,17	0,17	0,17		
W2	I	6,60	6,60	6,60	6,60	6,73	0,10
	II	6,80	6,80	6,80	6,80		
	III	6,80	6,80	6,80	6,80		
	Rerata	6,73	6,73	6,73	6,73		
	SD	0,12	0,12	0,12	0,12		
W3	I	6,60	6,60	6,60	6,60	6,60	0,17
	II	6,40	6,40	6,40	6,40		
	III	6,80	6,80	6,80	6,80		
	Rerata	6,60	6,60	6,60	6,60		
	SD	0,20	0,20	0,20	0,20		
W4	I	6,85	6,85	6,85	6,85	6,77	0,12
	II	6,85	6,85	6,85	6,85		
	III	6,60	6,60	6,60	6,60		
	Rerata	6,77	6,77	6,77	6,77		
	SD	0,14	0,14	0,14	0,14		
Rerata K		6,73	6,73	6,73	6,73		
Rerata SD		0,16	0,16	0,16	0,16		

Keterangan : K1= 0 % ; K2 = 5 % ; K3 = 10 % ; K4 = 15 %

W1 = 10 hari ; W2 = 20 hari ; W3 = 30 hari ; W4 = 40 hari

Rata-rata pH Setelah Fermentasi pada Tiap Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu Fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	Rerata SD
		K1	K2	K3	K4		
W1	I	6,90	6,90	6,90	6,85	6,94	0,04
	II	6,95	6,95	6,95	6,95		
	III	6,98	6,98	6,98	6,98		
	Rerata	6,94	6,94	6,94	6,93		
	SD	0,04	0,04	0,04	0,07		
W2	I	6,20	6,40	6,60	6,80	6,74	0,22
	II	6,90	6,85	6,85	6,85		
	III	6,85	6,85	6,85	6,85		
	Rerata	6,65	6,70	6,77	6,83		
	SD	0,39	0,26	0,14	0,03		
W3	I	6,90	6,90	6,90	6,80	6,90	0,05
	II	6,85	6,85	6,90	6,90		
	III	6,95	6,95	6,95	6,95		
	Rerata	6,90	6,90	6,92	6,88		
	SD	0,05	0,05	0,03	0,08		
W4	I	6,90	6,80	6,95	6,80	6,89	0,09
	II	6,70	6,90	6,80	6,95		
	III	6,95	6,95	6,95	7,00		
	Rerata	6,85	6,88	6,90	6,92		
	SD	0,13	0,08	0,09	0,10		
Rerata K		6,84	6,86	6,88	6,89		
rerata SD		0,21	0,15	0,10	0,07		

Keterangan : K1= 0 % ; K2 = 5 % ; K3 = 10 % ; K4 = 15 %

W1 = 10 hari ; W2 = 20 hari ; W3 = 30 hari ; W4 = 40 hari



**LAMPIRAN 6**

Rata-rata Suhu (°C) Sebelum Fermentasi pada Tiap Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	Rerata SD
		K1	K2	K3	K4		
W1	I	29,00	29,00	29,00	29,00	31,00	1,48
	II	32,00	32,00	32,00	32,00		
	III	32,00	32,00	32,00	32,00		
	Rerata	31,00	31,00	31,00	31,00		
	SD	1,73	1,73	1,73	1,73		
W2	I	29,00	29,00	29,00	29,00	30,33	0,98
	II	31,00	31,00	31,00	31,00		
	III	31,00	31,00	31,00	31,00		
	Rerata	30,33	30,33	30,33	30,33		
	SD	1,15	1,15	1,15	1,15		
W3	I	29,00	29,00	29,00	29,00	29,88	0,80
	II	30,00	30,00	30,00	30,00		
	III	31,50	31,00	30,00	30,00		
	Rerata	30,17	30,00	29,67	29,67		
	SD	1,26	1,00	0,58	0,58		
W4	I	31,00	31,00	31,00	31,00	30,67	0,49
	II	31,00	31,00	31,00	31,00		
	III	30,00	30,00	30,00	30,00		
	Rerata	30,67	30,67	30,67	30,67		
	SD	0,58	0,58	0,58	0,58		
Rerata K		30,54	30,50	30,42	30,42		
Rerata SD		1,12	1,09	1,08	1,08		

Keterangan : K1= 0 % ; K2 = 5 % ; K3 = 10 % ; K4 = 15 %

W1 = 10 hari ; W2 = 20 hari ; W3 = 30 hari ; W4 = 40 hari

Rata-rata Suhu Setelah Fermentasi pada Tiap Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi

Waktu fermentasi (W)	Ulangan	Konsentrasi Konsorsium Bakteri Hidrolitik (K)				Rerata W	Rerata SD
		K1	K2	K3	K4		
W1	I	32,00	32,00	32,00	32,00	31,97	0,08
	II	32,00	32,00	32,00	32,00		
	III	32,00	32,00	31,80	31,80		
	Rerata	32,00	32,00	31,93	31,93		
	SD	0,00	0,00	0,12	0,12		
W2	I	31,50	31,50	30,00	31,50	32,42	1,04
	II	33,50	33,00	33,00	33,00		
	III	33,00	33,00	33,00	33,00		
	Rerata	32,67	32,50	32,00	32,50		
	SD	1,04	0,87	1,73	0,87		
W3	I	32,00	32,00	32,00	32,00	32,75	0,58
	II	33,00	33,00	33,00	33,00		
	III	33,50	33,50	33,00	33,00		
	Rerata	32,83	32,83	32,67	32,67		
	SD	0,76	0,76	0,58	0,58		
W4	I	31,50	31,50	31,50	31,50	31,71	0,33
	II	31,50	31,50	31,50	31,50		
	III	32,00	32,00	32,00	32,50		
	Rerata	31,67	31,67	31,67	31,83		
	SD	0,29	0,29	0,29	0,58		
Rerata K		32,29	32,25	32,07	32,23		
Rerata SD		0,75	0,69	0,88	0,63		

Keterangan : K1= 0 % ; K2 = 5 % ; K3 = 10 % ; K4 = 15 %

W1 = 10 hari ; W2 = 20 hari ; W3 = 30 hari ; W4 = 40 hari

**LAMPIRAN 7**

Hasil Uji *One-Sample Kolmogorov-Smirnov* Pengaruh Variasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi terhadap Kadar Metana (%) dan Volume Biogas (mL)

		Kadar Metana	Volume Biogas
N		48	48
Normal Parameters <sup>a,b</sup>	Mean	68.7000	926.9625
	Std. Deviation	2.75403	248.64364
Most Extreme Differences	Absolute	.175	.154
	Positive	.123	.099
	Negative	-.175	-.154
Kolmogorov-Smirnov Z		1.211	1.067
Asymp. Sig. (2-tailed)		.107	.205

a. Test distribution is Normal.

b. Calculated from data.

Hasil uji *Levene* Pengaruh Variasi Konsentrasi Konsorsium Bakteri Hidrolitik terhadap Kadar Metana (%) dan Volume Biogas (mL)

	Levene Statistic	df1	df2	Sig.
Kadar Metana	2.509	3	44	.071
Volume Biogas	1.883	3	44	.146

Hasil uji *Levene* Pengaruh Variasi Waktu Fermentasi terhadap Kadar Metana (%) dan Volume Biogas (mL)

**Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Kadar Metana	.191	3	44	.902
Volume Biogas	5.279	3	44	.003

Hasil uji *Levene* Pengaruh Variasi Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi terhadap Kadar Metana (%) dan Volume Biogas (mL)

**Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Kadar Metana	5.080	15	32	.000
Volume Biogas	2.422	15	32	.017

**LAMPIRAN 8**

Hasil Uji *Anova* Satu Arah Pengaruh Variasi Konsentrasi Konsorsium Bakteri Hidrolitik terhadap Kadar Metana (%) dan Volume Biogas

<b>ANOVA</b>						
		Sum of Squares	df	Mean Square	F	Sig.
Kadar Metana	Between Groups	280.171	3	93.390	53.849	.000
	Within Groups	76.309	44	1.734		
	Total	356.480	47			
Volume Biogas	Between Groups	142796.841	3	47598.947	.758	.524
	Within Groups	2762915.172	44	62793.527		
	Total	2905712.012	47			

Hasil Uji *Anova* Satu Arah Pengaruh Variasi Waktu Fermentasi terhadap Kadar Metana (%)

<b>ANOVA</b>						
Kadar Metana						
		Sum of Squares	df	Mean Square	F	Sig.
Between Groups		3.457	3	1.152	.144	.933
Within Groups		353.023	44	8.023		
Total		356.480	47			

Hasil Uji *Brown-Forsythe* Pengaruh Variasi Waktu Fermentasi terhadap Volume Biogas (mL)

**Robust Tests of Equality of Means**

Volume Biogas

	Statistic <sup>a</sup>	df1	df2	Sig.
Brown-Forsythe	13.470	3	28.501	.000

a. Asymptotically F distributed.

Hasil Uji *Brown-Forsythe* Pengaruh Variasi Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi terhadap Kadar Metana (%) dan Volume Biogas (mL)

		Robust Tests of Equality of Means			
		Statistic <sup>a</sup>	df1	df2	Sig.
Kadar Metana	Brown-Forsythe	8.528	15	12.544	.000
Volume Biogas	Brown-Forsythe	4.785	15	11.415	.006

a. Asymptotically F distributed.





**LAMPIRAN 9**

Hasil Uji *Duncan* Pengaruh Variasi Konsentrasi Konsorsium Bakteri Hidrolitik terhadap Kadar Metana (%)

**Kadar Metana**Duncan<sup>a</sup>

Konsentrasi Konsorsium Bakteri Hidrolitik	N	Subset for alpha = 0.05		
		1	2	3
0%	12	64.7250		
5%	12		68.8108	
10%	12			70.4467
15%	12			70.8175
Sig.		1.000	1.000	.494

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.000.

Hasil Uji *Games-Howell* Pengaruh Variasi Waktu Fermentasi terhadap Volume Biogas (mL)

**Multiple Comparisons**

Volume Biogas

Games-Howell

Waktu Fermentasi	Waktu Fermentasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
10 hari	20 hari	-391.8083*	71.79728	.000	-598.9254	-184.6912
	30 hari	-415.3167*	99.43239	.002	-691.7295	-138.9038
	40 hari	-366.1250*	71.77358	.001	-573.1995	-159.0505
20 hari	10 hari	391.8083*	71.79728	.000	184.6912	598.9254
	30 hari	-23.5083	79.51925	.991	-254.4235	207.4068
	40 hari	25.6833	39.84919	.916	-84.9714	136.3380
30 hari	10 hari	415.3167*	99.43239	.002	138.9038	691.7295
	20 hari	23.5083	79.51925	.991	-207.4068	254.4235
	40 hari	49.1917	79.49785	.924	-181.6876	280.0709
40 hari	10 hari	366.1250*	71.77358	.001	159.0505	573.1995
	20 hari	-25.6833	39.84919	.916	-136.3380	84.9714
	30 hari	-49.1917	79.49785	.924	-280.0709	181.6876

Based on observed means.

The error term is Mean Square(Error) = 34424,274.

\*. The mean difference is significant at the 0,05 level.

Hasil Uji *Games-Howell* Pengaruh Variasi Kombinasi Konsentrasi Konsorsium Bakteri Hidrolitik dan Waktu Fermentasi terhadap Kadar metana (%) dan Volume Biogas (mL)

## Multiple Comparisons

Games-Howell

Dependent Variable	(I) kelompok_kombinasi	(J) kelompok_kombinasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Kadar Metana	W1K1	W1K2	-3.98667	2.34098	.872	-18.8512	10.8778
		W1K3	-5.67333	2.05841	.505	-20.8385	9.4918
		W1K4	-5.71000	2.08203	.507	-20.7268	9.3068
		W2K1	-.27333	2.29209	1.000	-15.0160	14.4693
		W2K2	-4.17667	1.94383	.711	-20.6374	12.2841
		W2K3	-6.00000	1.80764	.429	-26.2174	14.2174
		W2K4	-6.85667	1.82915	.350	-26.2233	12.5099
		W3K1	-.72000	1.93851	1.000	-17.2711	15.8311
		W3K2	-4.63333	1.83574	.604	-23.7637	14.4970
		W3K3	-6.19333	1.89197	.411	-23.6926	11.3059
		W3K4	-6.65333	1.91690	.366	-23.6075	10.3008
		W4K1	-.25333	1.88002	1.000	-18.0487	17.5420
		W4K2	-4.79333	1.83142	.580	-24.0774	14.4907
		W4K3	-6.26667	1.81186	.403	-26.3066	13.7733
		W4K4	-6.39667	1.81079	.391	-26.4814	13.6880

W1K2	W1K1	3.98667	2.34098	.872	-10.8778	18.8512
	W1K3	-1.68667	1.78806	.996	-13.8292	10.4559
	W1K4	-1.72333	1.81520	.996	-13.8336	10.3870
	W2K1	3.71333	2.05275	.837	-9.0720	16.4987
	W2K2	-.19000	1.65486	1.000	-13.0884	12.7084
	W2K3	-2.01333	1.49253	.939	-18.6633	14.6367
	W2K4	-2.87000	1.51851	.795	-18.5334	12.7934
	W3K1	3.26667	1.64861	.769	-9.7006	16.2340
	W3K2	-.64667	1.52645	1.000	-16.0493	14.7559
	W3K3	-2.20667	1.59363	.940	-15.9735	11.5601
	W3K4	-2.66667	1.62314	.877	-15.9579	10.6245
	W4K1	3.73333	1.57942	.643	-10.3078	17.7745
	W4K2	-.80667	1.52124	1.000	-16.3783	14.7650
	W4K3	-2.28000	1.49764	.900	-18.7182	14.1582
	W4K4	-2.41000	1.49634	.876	-18.9013	14.0813
	W1K3	W1K1	5.67333	2.05841	.505	-9.4918
W1K2		1.68667	1.78806	.996	-10.4559	13.8292
W1K4		-.03667	1.43242	1.000	-8.9551	8.8818
W2K1		5.40000	1.72356	.384	-6.0741	16.8741
W2K2		1.49667	1.22288	.977	-6.5354	9.5287
	W2K3	-.32667	.99223	1.000	-11.2833	10.6299
	W2K4	-1.18333	1.03089	.977	-10.8821	8.5154

W1K4	W3K1	4.95333	1.21441	.206	-3.0770	12.9837
	W3K2	1.04000	1.04256	.991	-8.3845	10.4645
	W3K3	-.52000	1.13865	1.000	-8.7473	7.7073
	W3K4	-.98000	1.17960	.999	-9.0483	7.0883
	W4K1	5.42000	1.11868	.157	-2.9429	13.7829
	W4K2	.88000	1.03492	.997	-8.7196	10.4796
	W4K3	-.59333	.99991	1.000	-11.2489	10.0622
	W4K4	-.72333	.99795	.999	-11.4527	10.0060
	W1K1	5.71000	2.08203	.507	-9.3068	20.7268
	W1K2	1.72333	1.81520	.996	-10.3870	13.8336
	W1K3	.03667	1.43242	1.000	-8.8818	8.9551
	W2K1	5.43667	1.75170	.389	-6.0395	16.9128
	W2K2	1.53333	1.26224	.978	-6.8933	9.9600
	W2K3	-.29000	1.04035	1.000	-11.7968	11.2168
	W2K4	-1.14667	1.07729	.985	-11.4221	9.1288
	W3K1	4.99000	1.25403	.224	-3.4441	13.4241
	W3K2	1.07667	1.08845	.991	-8.9218	11.0752
	W3K3	-.48333	1.18081	1.000	-9.1987	8.2320
	W3K4	-.94333	1.22035	.999	-9.4538	7.5671
	W4K1	5.45667	1.16157	.174	-3.4163	14.3296
	W4K2	.91667	1.08114	.997	-9.2591	11.0924
	W4K3	-.55667	1.04767	1.000	-11.7737	10.6604

W2K1	W4K4	-68667	1.04581	1.000	-11.9750	10.6017
	W1K1	.27333	2.29209	1.000	-14.4693	15.0160
	W1K2	-3.71333	2.05275	.837	-16.4987	9.0720
	W1K3	-5.40000	1.72356	.384	-16.8741	6.0741
	W1K4	-5.43667	1.75170	.389	-16.9128	6.0395
	W2K2	-3.90333	1.58495	.601	-15.9605	8.1538
	W2K3	-5.72667	1.41462	.317	-21.4931	10.0398
	W2K4	-6.58333	1.44200	.246	-21.3246	8.1579
	W3K1	-.44667	1.57842	1.000	-12.5650	11.6717
	W3K2	-4.36000	1.45036	.479	-18.8349	10.1149
	W3K3	-5.92000	1.52091	.288	-18.7790	6.9390
	W3K4	-6.38000	1.55180	.247	-18.7926	6.0326
	W4K1	.02000	1.50602	1.000	-13.1023	13.1423
	W4K2	-4.52000	1.44488	.454	-19.1673	10.1273
W2K2	W4K3	-5.99333	1.42002	.294	-21.5374	9.5507
	W4K4	-6.12333	1.41864	.284	-21.7230	9.4763
	W1K1	4.17667	1.94383	.711	-12.2841	20.6374
	W1K2	.19000	1.65486	1.000	-12.7084	13.0884
	W1K3	-1.49667	1.22288	.977	-9.5287	6.5354
	W1K4	-1.53333	1.26224	.978	-9.9600	6.8933
	W2K1	3.90333	1.58495	.601	-8.1538	15.9605
W2K3	-1.82333	.72522	.610	-9.7064	6.0598	



	W2K4	-2.68000	.77728	.361	-9.2096	3.8496
	W3K1	3.45667	1.00807	.299	-2.8130	9.7263
	W3K2	-.45667	.79268	1.000	-6.7697	5.8564
	W3K3	-2.01667	.91539	.687	-7.8984	3.8651
	W3K4	-2.47667	.96586	.549	-8.5259	3.5726
	W4K1	3.92333	.89044	.166	-1.9274	9.7741
	W4K2	-.61667	.78261	.999	-7.0645	5.8312
	W4K3	-2.09000	.73569	.520	-9.5959	5.4159
	W4K4	-2.22000	.73303	.478	-9.8152	5.3752
	W1K1	6.00000	1.80764	.429	-14.2174	26.2174
	W1K2	2.01333	1.49253	.939	-14.6367	18.6633
	W1K3	.32667	.99223	1.000	-10.6299	11.2833
	W1K4	.29000	1.04035	1.000	-11.2168	11.7968
	W2K1	5.72667	1.41462	.317	-10.0398	21.4931
	W2K2	1.82333	.72522	.610	-6.0598	9.7064
W2K3	W2K4	-.85667	.30536	.520	-3.7302	2.0169
	W3K1	5.28000	.71084	.105	-2.4362	12.9962
	W3K2	1.36667	.34267	.302	-1.9693	4.7027
	W3K3	-.19333	.57186	1.000	-6.2851	5.8984
	W3K4	-.65333	.64958	.988	-7.6564	6.3497
	W4K1	5.74667*	.53099	.048	.1376	11.3557
	W4K2	1.20667	.31868	.327	-1.8324	4.2458

	W4K3	-.26667	.17410	.914	-1.5226	.9893
	W4K4	-.39667	.16251	.602	-1.5230	.7296
	W1K1	6.85667	1.82915	.350	-12.5099	26.2233
	W1K2	2.87000	1.51851	.795	-12.7934	18.5334
	W1K3	1.18333	1.03089	.977	-8.5154	10.8821
	W1K4	1.14667	1.07729	.985	-9.1288	11.4221
	W2K1	6.58333	1.44200	.246	-8.1579	21.3246
	W2K2	2.68000	.77728	.361	-3.8496	9.2096
	W2K3	.85667	.30536	.520	-2.0169	3.7302
W2K4	W3K1	6.13667	.76388	.055	-.2263	12.4996
	W3K2	2.22333	.44232	.103	-.5515	4.9982
	W3K3	.66333	.63659	.991	-4.1451	5.4718
	W3K4	.20333	.70723	1.000	-5.4598	5.8665
	W4K1	6.60333	.60015	.015	2.2227	10.9840
	W4K2	2.06333	.42400	.112	-.5764	4.7030
	W4K3	.59000	.32944	.834	-1.9035	3.0835
	W4K4	.46000	.32347	.936	-2.0939	3.0139
	W1K1	.72000	1.93851	1.000	-15.8311	17.2711
	W1K2	-3.26667	1.64861	.769	-16.2340	9.7006
W3K1	W1K3	-4.95333	1.21441	.206	-12.9837	3.0770
	W1K4	-4.99000	1.25403	.224	-13.4241	3.4441
	W2K1	.44667	1.57842	1.000	-11.6717	12.5650

	W2K2	-3.45667	1.00807	.299	-9.7263	2.8130
	W2K3	-5.28000	.71084	.105	-12.9962	2.4362
	W2K4	-6.13667	.76388	.055	-12.4996	.2263
	W3K2	-3.91333	.77954	.156	-10.0659	2.2393
	W3K3	-5.47333	.90404	.060	-11.2525	.3059
	W3K4	-5.93333	.95510	.051	-11.9010	.0344
	W4K1	.46667	.87876	1.000	-5.2703	6.2036
	W4K2	-4.07333	.76930	.144	-10.3566	2.2099
	W4K3	-5.54667	.72151	.089	-12.8809	1.7876
	W4K4	-5.67667	.71880	.087	-13.1010	1.7477
	W1K1	4.63333	1.83574	.604	-14.4970	23.7637
	W1K2	.64667	1.52645	1.000	-14.7559	16.0493
	W1K3	-1.04000	1.04256	.991	-10.4645	8.3845
	W1K4	-1.07667	1.08845	.991	-11.0752	8.9218
	W2K1	4.36000	1.45036	.479	-10.1149	18.8349
W3K2	W2K2	.45667	.79268	1.000	-5.8564	6.7697
	W2K3	-1.36667	.34267	.302	-4.7027	1.9693
	W2K4	-2.22333	.44232	.103	-4.9982	.5515
	W3K1	3.91333	.77954	.156	-2.2393	10.0659
	W3K3	-1.56000	.65530	.625	-6.2426	3.1226
	W3K4	-2.02000	.72412	.499	-7.5042	3.4642
	W4K1	4.38000*	.61996	.047	.0902	8.6698

	W4K2	-1.16000	.45161	1.000	-2.9780	2.6580
	W4K3	-1.63333	.36430	.205	-4.5486	1.2820
	W4K4	-1.76333	.35890	.175	-4.7539	1.2272
	W1K1	6.19333	1.89197	.411	-11.3059	23.6926
	W1K2	2.20667	1.59363	.940	-11.5601	15.9735
	W1K3	.52000	1.13865	1.000	-7.7073	8.7473
	W1K4	.48333	1.18081	1.000	-8.2320	9.1987
	W2K1	5.92000	1.52091	.288	-6.9390	18.7790
	W2K2	2.01667	.91539	.687	-3.8651	7.8984
	W2K3	.19333	.57186	1.000	-5.8984	6.2851
W3K3	W2K4	-.66333	.63659	.991	-5.4718	4.1451
	W3K1	5.47333	.90404	.060	-.3059	11.2525
	W3K2	1.56000	.65530	.625	-3.1226	6.2426
	W3K4	-.46000	.85671	1.000	-5.8391	4.9191
	W4K1	5.94000*	.77069	.024	1.1318	10.7482
	W4K2	1.40000	.64308	.699	-3.3571	6.1571
	W4K3	-.07333	.58507	1.000	-5.7380	5.5913
	W4K4	-.20333	.58173	1.000	-5.9646	5.5579
	W1K1	6.65333	1.91690	.366	-10.3008	23.6075
W3K4	W1K2	2.66667	1.62314	.877	-10.6245	15.9579
	W1K3	.98000	1.17960	.999	-7.0883	9.0483
	W1K4	.94333	1.22035	.999	-7.5671	9.4538

	W2K1	6.38000	1.55180	.247	-6.0326	18.7926
	W2K2	2.47667	.96586	.549	-3.5726	8.5259
	W2K3	.65333	.64958	.988	-6.3497	7.6564
	W2K4	-.20333	.70723	1.000	-5.8665	5.4598
	W3K1	5.93333	.95510	.051	-.0344	11.9010
	W3K2	2.02000	.72412	.499	-3.4642	7.5042
	W3K3	.46000	.85671	1.000	-4.9191	5.8391
	W4K1	6.40000*	.82999	.026	1.1135	11.6865
	W4K2	1.86000	.71308	.557	-3.7338	7.4538
	W4K3	.38667	.66124	1.000	-6.2142	6.9875
	W4K4	.25667	.65829	1.000	-6.4376	6.9510
	W1K1	.25333	1.88002	1.000	-17.5420	18.0487
	W1K2	-3.73333	1.57942	.643	-17.7745	10.3078
	W1K3	-5.42000	1.11868	.157	-13.7829	2.9429
	W1K4	-5.45667	1.16157	.174	-14.3296	3.4163
	W2K1	-.02000	1.50602	1.000	-13.1423	13.1023
W4K1	W2K2	-3.92333	.89044	.166	-9.7741	1.9274
	W2K3	-5.74667*	.53099	.048	-11.3557	-.1376
	W2K4	-6.60333*	.60015	.015	-10.9840	-2.2227
	W3K1	-.46667	.87876	1.000	-6.2036	5.2703
	W3K2	-4.38000*	.61996	.047	-8.6698	-.0902
	W3K3	-5.94000*	.77069	.024	-10.7482	-1.1318

	W3K4	-6.40000 <sup>*</sup>	.82999	.026	-11.6865	-1.1135
	W4K2	-4.54000 <sup>*</sup>	.60703	.044	-8.8814	-.1986
	W4K3	-6.01333 <sup>*</sup>	.54520	.036	-11.1838	-.8429
	W4K4	-6.14333 <sup>*</sup>	.54161	.036	-11.4110	-.8756
	W1K1	4.79333	1.83142	.580	-14.4907	24.0774
	W1K2	.80667	1.52124	1.000	-14.7650	16.3783
	W1K3	-.88000	1.03492	.997	-10.4796	8.7196
	W1K4	-.91667	1.08114	.997	-11.0924	9.2591
	W2K1	4.52000	1.44488	.454	-10.1273	19.1673
	W2K2	.61667	.78261	.999	-5.8312	7.0645
	W2K3	-1.20667	.31868	.327	-4.2458	1.8324
W4K2	W2K4	-2.06333	.42400	.112	-4.7030	.5764
	W3K1	4.07333	.76930	.144	-2.2099	10.3566
	W3K2	.16000	.45161	1.000	-2.6580	2.9780
	W3K3	-1.40000	.64308	.699	-6.1571	3.3571
	W3K4	-1.86000	.71308	.557	-7.4538	3.7338
	W4K1	4.54000 <sup>*</sup>	.60703	.044	.1986	8.8814
	W4K3	-1.47333	.34183	.216	-4.1152	1.1685
	W4K4	-1.60333	.33607	.180	-4.3116	1.1049
	W1K1	6.26667	1.81186	.403	-13.7733	26.3066
W4K3	W1K2	2.28000	1.49764	.900	-14.1582	18.7182
	W1K3	.59333	.99991	1.000	-10.0622	11.2489



	W1K4	.55667	1.04767	1.000	-10.6604	11.7737
	W2K1	5.99333	1.42002	.294	-9.5507	21.5374
	W2K2	2.09000	.73569	.520	-5.4159	9.5959
	W2K3	.26667	.17410	.914	-.9893	1.5226
	W2K4	-.59000	.32944	.834	-3.0835	1.9035
	W3K1	5.54667	.72151	.089	-1.7876	12.8809
	W3K2	1.63333	.36430	.205	-1.2820	4.5486
	W3K3	.07333	.58507	1.000	-5.5913	5.7380
	W3K4	-.38667	.66124	1.000	-6.9875	6.2142
	W4K1	6.01333	.54520	.036	.8429	11.1838
	W4K2	1.47333	.34183	.216	-1.1685	4.1152
	W4K4	-.13000	.20421	1.000	-1.4062	1.1462
	W1K1	6.39667	1.81079	.391	-13.6880	26.4814
	W1K2	2.41000	1.49634	.876	-14.0813	18.9013
	W1K3	.72333	.99795	.999	-10.0060	11.4527
	W1K4	.68667	1.04581	1.000	-10.6017	11.9750
W4K4	W2K1	6.12333	1.41864	.284	-9.4763	21.7230
	W2K2	2.22000	.73303	.478	-5.3752	9.8152
	W2K3	.39667	.16251	.602	-.7296	1.5230
	W2K4	-.46000	.32347	.936	-3.0139	2.0939
	W3K1	5.67667	.71880	.087	-1.7477	13.1010
	W3K2	1.76333	.35890	.175	-1.2272	4.7539

Volume Biogas	W1K1	W3K3	.20333	.58173	1.000	-5.5579	5.9646
		W3K4	-.25667	.65829	1.000	-6.9510	6.4376
		W4K1	6.14333*	.54161	.036	.8756	11.4110
		W4K2	1.60333	.33607	.180	-1.1049	4.3116
		W4K3	.13000	.20421	1.000	-1.1462	1.4062
		W1K2	250.56667	157.58386	.891	-1083.9368	1585.0701
		W1K3	-179.90000	146.84014	.962	-1806.4871	1446.6871
		W1K4	206.33333	181.90548	.986	-983.5828	1396.2494
		W2K1	-245.50000	158.86742	.904	-1559.7451	1068.7451
		W2K2	-372.63333	151.76080	.619	-1832.5978	1087.3311
	W2K3	-331.46667	152.31602	.704	-1776.6440	1113.7107	
	W2K4	-340.63333	165.26595	.741	-1582.2973	901.0306	
	W3K1	-492.60000	149.50698	.422	-2020.2570	1035.0570	
	W3K2	-424.20000	157.91179	.541	-1753.3130	904.9130	
	W3K3	-344.36667	234.81736	.937	-1847.2878	1158.5544	
	W3K4	-123.10000	257.36608	1.000	-1843.9810	1597.7810	
	W4K1	-263.33333	152.21243	.846	-1711.2174	1184.5507	
	W4K2	-306.90000	165.29647	.813	-1548.3125	934.5125	
	W4K3	-305.73333	167.70785	.825	-1529.6141	918.1475	
	W4K4	-311.53333	154.13373	.754	-1712.8619	1089.7953	
W1K2	W1K1	-250.56667	157.58386	.891	-1585.0701	1083.9368	
W1K2	W1K3	-430.46667	59.52054	.103	-1042.7625	181.8292	

	W1K4	-44.23333	122.76104	1.000	-953.9106	865.4439
	W2K1	-496.06667	84.96778	.062	-1025.3653	33.2319
	W2K2	-623.20000	70.79554	.021	-1097.8271	-148.5729
	W2K3	-582.03333	71.97804	.026	-1056.2462	-107.8205
	W2K4	-591.20000	96.40281	.060	-1216.0180	33.6180
	W3K1	-743.16667	65.82556	.016	-1238.8836	-247.4497
	W3K2	-674.76667	83.16731	.019	-1191.9629	-157.5704
	W3K3	-594.93333	192.66515	.450	-2368.2009	1178.3342
	W3K4	-373.66667	219.58589	.854	-2481.9974	1734.6640
	W4K1	-513.90000	71.75857	.039	-988.0874	-39.7126
	W4K2	-557.46667	96.45512	.072	-1182.7786	67.8453
	W4K3	-556.30000	100.53155	.087	-1221.2992	108.6992
	W4K4	-562.10000	75.74877	.029	-1042.8354	-81.3646
	W1K1	179.90000	146.84014	.962	-1446.6871	1806.4871
	W1K2	430.46667	59.52054	.103	-181.8292	1042.7625
	W1K4	386.23333	108.62608	.385	-802.2108	1574.6775
W1K3	W2K1	-65.60000	62.84009	.985	-717.7694	586.5694
	W2K2	-192.73333	41.72962	.226	-587.3534	201.8867
	W2K3	-151.56667	43.70573	.380	-570.7221	267.5888
	W2K4	-160.73333	77.60705	.739	-988.1767	666.7100
	W3K1	-312.70000	32.59381	.038	-593.1569	-32.2431
	W3K2	-244.30000	60.38339	.305	-866.9797	378.3797

	W3K3	-164.46667	183.98155	.994	-2213.6957	1884.7624
	W3K4	56.80000	212.00782	1.000	-2310.2350	2423.8350
	W4K1	-83.43333	43.34333	.785	-498.0956	331.2290
	W4K2	-127.00000	77.67202	.870	-955.2082	701.2082
	W4K3	-125.83333	82.67977	.900	-1012.8537	761.1870
	W4K4	-131.63333	49.67120	.566	-624.3105	361.0438
	W1K1	-206.33333	181.90548	.986	-1396.2494	983.5828
	W1K2	44.23333	122.76104	1.000	-865.4439	953.9106
	W1K3	-386.23333	108.62608	.385	-1574.6775	802.2108
	W2K1	-451.83333	124.40440	.296	-1350.7937	447.1270
	W2K2	-578.96667	115.19088	.176	-1582.6870	424.7536
	W2K3	-537.80000	115.92139	.204	-1528.2958	452.6958
	W2K4	-546.96667	132.47804	.200	-1424.3927	330.4594
W1K4	W3K1	-698.93333	112.20488	.125	-1769.8201	371.9534
	W3K2	-630.53333	123.18170	.134	-1537.2112	276.1445
	W3K3	-550.70000	213.01828	.555	-2070.9866	969.5866
	W3K4	-329.43333	237.64447	.945	-2136.8753	1478.0087
	W4K1	-469.66667	115.78524	.269	-1462.5435	523.2102
	W4K2	-513.23333	132.51612	.235	-1390.6545	364.1878
	W4K3	-512.06667	135.51207	.245	-1391.3087	367.1753
	W4K4	-517.86667	118.29964	.218	-1472.3331	436.5998
W2K1	W1K1	245.50000	158.86742	.904	-1068.7451	1559.7451

	W1K2	496.06667	84.96778	.062	-33.2319	1025.3653
	W1K3	65.60000	62.84009	.985	-586.5694	717.7694
	W1K4	451.83333	124.40440	.296	-447.1270	1350.7937
	W2K2	-127.13333	73.60836	.860	-631.3489	377.0822
	W2K3	-85.96667	74.74638	.984	-588.2465	416.3131
	W2K4	-95.13333	98.48698	.996	-724.0427	533.7761
	W3K1	-247.10000	68.84175	.318	-778.9052	284.7052
	W3K2	-178.70000	85.57443	.732	-711.3259	353.9259
	W3K3	-98.86667	193.71639	1.000	-1848.4193	1650.6860
	W3K4	122.40000	220.50884	1.000	-1961.5946	2206.3946
	W4K1	-17.83333	74.53506	1.000	-520.3678	484.7011
	W4K2	-61.40000	98.53818	1.000	-690.7647	567.9647
	W4K3	-60.23333	102.53182	1.000	-726.4042	605.9376
	W4K4	-66.03333	78.38404	.999	-570.2114	438.1448
	W1K1	372.63333	151.76080	.619	-1087.3311	1832.5978
	W1K2	623.20000	70.79554	.021	148.5729	1097.8271
	W1K3	192.73333	41.72962	.226	-201.8867	587.3534
W2K2	W1K4	578.96667	115.19088	.176	-424.7536	1582.6870
	W2K1	127.13333	73.60836	.860	-377.0822	631.3489
	W2K3	41.16667	58.13351	1.000	-320.8293	403.1626
	W2K4	32.00000	86.55732	1.000	-619.4195	683.4195
	W3K1	-119.96667	50.31571	.618	-446.2149	206.2816



	W3K2	-51.56667	71.52250	1.000	-533.7293	430.5960
	W3K3	28.26667	187.93224	1.000	-1875.1796	1931.7129
	W3K4	249.53333	215.44519	.973	-1985.7098	2484.7765
	W4K1	109.30000	57.86155	.808	-250.8317	469.4317
	W4K2	65.73333	86.61557	.999	-586.3771	717.8438
	W4K3	66.90000	91.13319	.999	-639.3110	773.1110
	W4K4	61.10000	62.74187	.996	-336.8257	459.0257
	W1K1	331.46667	152.31602	.704	-1113.7107	1776.6440
	W1K2	582.03333	71.97804	.026	107.8205	1056.2462
	W1K3	151.56667	43.70573	.380	-267.5888	570.7221
	W1K4	537.80000	115.92139	.204	-452.6958	1528.2958
	W2K1	85.96667	74.74638	.984	-416.3131	588.2465
	W2K2	-41.16667	58.13351	1.000	-403.1626	320.8293
	W2K4	-9.16667	87.52713	1.000	-653.2023	634.8689
W2K3	W3K1	-161.13333	51.96635	.390	-503.3587	181.0921
	W3K2	-92.73333	72.69318	.970	-574.0753	388.6086
	W3K3	-12.90000	188.38088	1.000	-1902.1481	1876.3481
	W3K4	208.36667	215.83665	.991	-2013.5112	2430.2446
	W4K1	68.13333	59.30252	.986	-300.6232	436.8898
	W4K2	24.56667	87.58475	1.000	-620.1404	669.2737
	W4K3	25.73333	92.05481	1.000	-671.6804	723.1471
	W4K4	19.93333	64.07318	1.000	-382.7629	422.6296



	W1K1	340.63333	165.26595	.741	-901.0306	1582.2973
	W1K2	591.20000	96.40281	.060	-33.6180	1216.0180
	W1K3	160.73333	77.60705	.739	-666.7100	988.1767
	W1K4	546.96667	132.47804	.200	-330.4594	1424.3927
	W2K1	95.13333	98.48698	.996	-533.7761	724.0427
	W2K2	-32.00000	86.55732	1.000	-683.4195	619.4195
	W2K3	9.16667	87.52713	1.000	-634.8689	653.2023
W2K4	W3K1	-151.96667	82.54190	.814	-852.4495	548.5162
	W3K2	-83.56667	96.93792	.999	-709.2032	542.0699
	W3K3	-3.73333	198.99753	1.000	-1656.5569	1649.0903
	W3K4	217.53333	225.16244	.993	-1761.8265	2196.8932
	W4K1	77.30000	87.34674	.997	-568.0025	722.6025
	W4K2	33.73333	108.55299	1.000	-641.2424	708.7091
	W4K3	34.90000	112.19070	1.000	-664.3912	734.1912
	W4K4	29.10000	90.65338	1.000	-599.6181	657.8181
	W1K1	492.60000	149.50698	.422	-1035.0570	2020.2570
	W1K2	743.16667	65.82556	.016	247.4497	1238.8836
	W1K3	312.70000	32.59381	.038	32.2431	593.1569
W3K1	W1K4	698.93333	112.20488	.125	-371.9534	1769.8201
	W2K1	247.10000	68.84175	.318	-284.7052	778.9052
	W2K2	119.96667	50.31571	.618	-206.2816	446.2149
	W2K3	161.13333	51.96635	.390	-181.0921	503.3587

	W2K4	151.96667	82.54190	.814	-548.5162	852.4495
	W3K2	68.40000	66.60678	.991	-436.6072	573.4072
	W3K3	148.23333	186.11696	.998	-1817.3024	2113.7691
	W3K4	369.50000	213.86357	.844	-1923.0234	2662.0234
	W4K1	229.26667	51.66192	.162	-109.9580	568.4913
	W4K2	185.70000	82.60299	.678	-515.5447	886.9447
	W4K3	186.86667	87.32843	.715	-573.4136	947.1470
	W4K4	181.06667	57.07484	.383	-214.4920	576.6253
	W1K1	424.20000	157.91179	.541	-904.9130	1753.3130
	W1K2	674.76667	83.16731	.019	157.5704	1191.9629
	W1K3	244.30000	60.38339	.305	-378.3797	866.9797
	W1K4	630.53333	123.18170	.134	-276.1445	1537.2112
	W2K1	178.70000	85.57443	.732	-353.9259	711.3259
	W2K2	51.56667	71.52250	1.000	-430.5960	533.7293
W3K2	W2K3	92.73333	72.69318	.970	-388.6086	574.0753
	W2K4	83.56667	96.93792	.999	-542.0699	709.2032
	W3K1	-68.40000	66.60678	.991	-573.4072	436.6072
	W3K3	79.83333	192.93345	1.000	-1687.2217	1846.8884
	W3K4	301.10000	219.82134	.940	-1800.8975	2403.0975
	W4K1	160.86667	72.47587	.681	-320.5246	642.2579
	W4K2	117.30000	96.98995	.980	-508.8204	743.4204
	W4K3	118.46667	101.04480	.983	-546.5920	783.5254

	W4K4	112.66667	76.42862	.935	-373.9690	599.3023
	W1K1	344.36667	234.81736	.937	-1158.5544	1847.2878
	W1K2	594.93333	192.66515	.450	-1178.3342	2368.2009
	W1K3	164.46667	183.98155	.994	-1884.7624	2213.6957
	W1K4	550.70000	213.01828	.555	-969.5866	2070.9866
	W2K1	98.86667	193.71639	1.000	-1650.6860	1848.4193
	W2K2	-28.26667	187.93224	1.000	-1931.7129	1875.1796
	W2K3	12.90000	188.38088	1.000	-1876.3481	1902.1481
W3K3	W2K4	3.73333	198.99753	1.000	-1649.0903	1656.5569
	W3K1	-148.23333	186.11696	.998	-2113.7691	1817.3024
	W3K2	-79.83333	192.93345	1.000	-1846.8884	1687.2217
	W3K4	221.26667	280.22220	.999	-1541.5191	1984.0524
	W4K1	81.03333	188.29713	1.000	-1810.8325	1972.8992
	W4K2	37.46667	199.02288	1.000	-1614.9715	1689.9049
	W4K3	38.63333	201.03012	1.000	-1585.3437	1662.6103
	W4K4	32.83333	189.85361	1.000	-1812.7241	1878.3908
	W1K1	123.10000	257.36608	1.000	-1597.7810	1843.9810
	W1K2	373.66667	219.58589	.854	-1734.6640	2481.9974
W3K4	W1K3	-56.80000	212.00782	1.000	-2423.8350	2310.2350
	W1K4	329.43333	237.64447	.945	-1478.0087	2136.8753
	W2K1	-122.40000	220.50884	1.000	-2206.3946	1961.5946
	W2K2	-249.53333	215.44519	.973	-2484.7765	1985.7098

	W2K3	-208.36667	215.83665	.991	-2430.2446	2013.5112
	W2K4	-217.53333	225.16244	.993	-2196.8932	1761.8265
	W3K1	-369.50000	213.86357	.844	-2662.0234	1923.0234
	W3K2	-301.10000	219.82134	.940	-2403.0975	1800.8975
	W3K3	-221.26667	280.22220	.999	-1984.0524	1541.5191
	W4K1	-140.23333	215.76356	1.000	-2364.5833	2084.1166
	W4K2	-183.80000	225.18484	.998	-2162.7216	1795.1216
	W4K3	-182.63333	226.96082	.998	-2128.5809	1763.3142
	W4K4	-188.43333	217.12323	.996	-2368.5000	1991.6333
	W1K1	263.33333	152.21243	.846	-1184.5507	1711.2174
	W1K2	513.90000	71.75857	.039	39.7126	988.0874
	W1K3	83.43333	43.34333	.785	-331.2290	498.0956
	W1K4	469.66667	115.78524	.269	-523.2102	1462.5435
	W2K1	17.83333	74.53506	1.000	-484.7011	520.3678
	W2K2	-109.30000	57.86155	.808	-469.4317	250.8317
W4K1	W2K3	-68.13333	59.30252	.986	-436.8898	300.6232
	W2K4	-77.30000	87.34674	.997	-722.6025	568.0025
	W3K1	-229.26667	51.66192	.162	-568.4913	109.9580
	W3K2	-160.86667	72.47587	.681	-642.2579	320.5246
	W3K3	-81.03333	188.29713	1.000	-1972.8992	1810.8325
	W3K4	140.23333	215.76356	1.000	-2084.1166	2364.5833
	W4K2	-43.56667	87.40447	1.000	-689.5443	602.4110

	W4K3	-42.40000	91.88331	1.000	-741.3464	656.5464
	W4K4	-48.20000	63.82653	1.000	-449.9220	353.5220
	W1K1	306.90000	165.29647	.813	-934.5125	1548.3125
	W1K2	557.46667	96.45512	.072	-67.8453	1182.7786
	W1K3	127.00000	77.67202	.870	-701.2082	955.2082
	W1K4	513.23333	132.51612	.235	-364.1878	1390.6545
	W2K1	61.40000	98.53818	1.000	-567.9647	690.7647
	W2K2	-65.73333	86.61557	.999	-717.8438	586.3771
	W2K3	-24.56667	87.58475	1.000	-669.2737	620.1404
W4K2	W2K4	-33.73333	108.55299	1.000	-708.7091	641.2424
	W3K1	-185.70000	82.60299	.678	-886.9447	515.5447
	W3K2	-117.30000	96.98995	.980	-743.4204	508.8204
	W3K3	-37.46667	199.02288	1.000	-1689.9049	1614.9715
	W3K4	183.80000	225.18484	.998	-1795.1216	2162.7216
	W4K1	43.56667	87.40447	1.000	-602.4110	689.5443
	W4K3	1.16667	112.23565	1.000	-698.3601	700.6935
	W4K4	-4.63333	90.70901	1.000	-633.9589	624.6922
	W1K1	305.73333	167.70785	.825	-918.1475	1529.6141
	W1K2	556.30000	100.53155	.087	-108.6992	1221.2992
W4K3	W1K3	125.83333	82.67977	.900	-761.1870	1012.8537
	W1K4	512.06667	135.51207	.245	-367.1753	1391.3087
	W2K1	60.23333	102.53182	1.000	-605.9376	726.4042



	W2K2	-66.90000	91.13319	.999	-773.1110	639.3110
	W2K3	-25.73333	92.05481	1.000	-723.1471	671.6804
	W2K4	-34.90000	112.19070	1.000	-734.1912	664.3912
	W3K1	-186.86667	87.32843	.715	-947.1470	573.4136
	W3K2	-118.46667	101.04480	.983	-783.5254	546.5920
	W3K3	-38.63333	201.03012	1.000	-1662.6103	1585.3437
	W3K4	182.63333	226.96082	.998	-1763.3142	2128.5809
	W4K1	42.40000	91.88331	1.000	-656.5464	741.3464
	W4K2	-1.16667	112.23565	1.000	-700.6935	698.3601
	W4K4	-5.80000	95.03223	1.000	-683.1938	671.5938
	W1K1	311.53333	154.13373	.754	-1089.7953	1712.8619
	W1K2	562.10000	75.74877	.029	81.3646	1042.8354
	W1K3	131.63333	49.67120	.566	-361.0438	624.3105
	W1K4	517.86667	118.29964	.218	-436.5998	1472.3331
	W2K1	66.03333	78.38404	.999	-438.1448	570.2114
W4K4	W2K2	-61.10000	62.74187	.996	-459.0257	336.8257
	W2K3	-19.93333	64.07318	1.000	-422.6296	382.7629
	W2K4	-29.10000	90.65338	1.000	-657.8181	599.6181
	W3K1	-181.06667	57.07484	.383	-576.6253	214.4920
	W3K2	-112.66667	76.42862	.935	-599.3023	373.9690
	W3K3	-32.83333	189.85361	1.000	-1878.3908	1812.7241
	W3K4	188.43333	217.12323	.996	-1991.6333	2368.5000



W4K1	48.20000	63.82653	1.000	-353.5220	449.9220
W4K2	4.63333	90.70901	1.000	-624.6922	633.9589
W4K3	5.80000	95.03223	1.000	-671.5938	683.1938



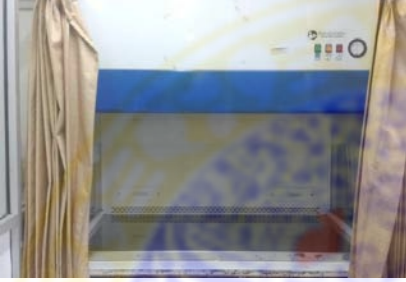

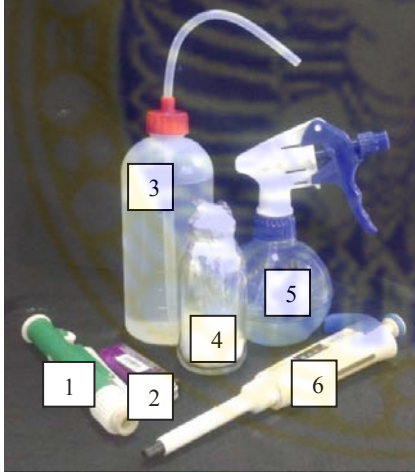
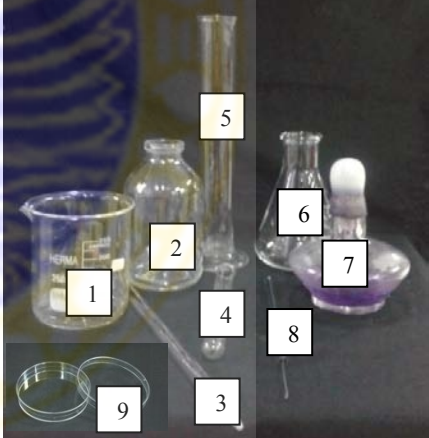
\*. The mean difference is significant at the 0.05 level.





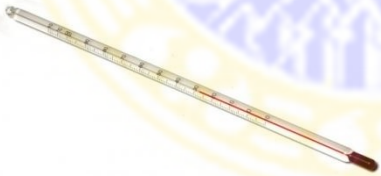
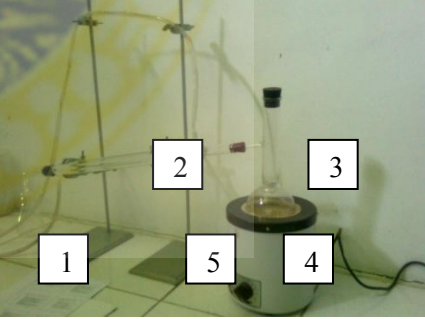


**LAMPIRAN 10**

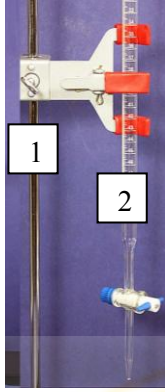
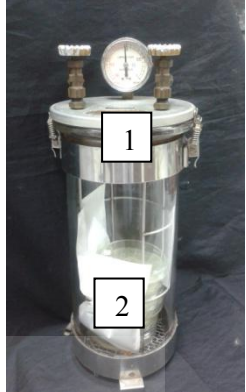
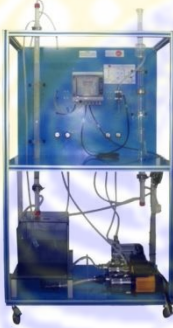
## Gambar Alat dan Bahan Penelitian

No	Gambar	No	Gambar
1.	 <p>8 isolat bakteri hidrolitik : <i>Acetobacter aceti</i>, <i>Bacillus subtilis</i>, <i>Bacillus licheniformis</i>, <i>Cellulomonas</i> sp., <i>Cellvibrio</i> sp., <i>Cytophaga</i> sp., <i>Lactobacillus</i> <i>plantarum</i>, <i>Pseudomonas</i> sp.</p>	4.	 <p>Kotoran sapi</p>
2.	 <p>Media <i>Nutrien broth</i>, <i>Nutrient</i> <i>Agar</i>, dan Glukosa</p>	5.	 <p>Bahan baku kompos</p>
3.	 <p>Kompur listrik</p>	6.	 <p>Spektrofotometer</p>

<p>7.</p>	 <p>Inkubator</p>	<p>10.</p>  <p>Oven</p>
<p>8.</p>	 <p>Laminar Air Flow (LAF)</p>	<p>11.</p>  <p>Shaker</p>
<p>9.</p>	 <p>1 : Vein; 2 : Korek api; 3 : Aquadest; 4 : Tip; 5 : Alkohol; 6 : Mikropipet</p>	<p>12.</p>  <p>1 : Gelas Beaker; 2 : Botol kultur; 3 : Pipet ukur; 4 : Tabung reaksi; 5 : Gelas ukur; 6 : Erlenmeyer; 7 : Spiritus; 8 : Jarum ose; 9 : Cawan Petri</p>



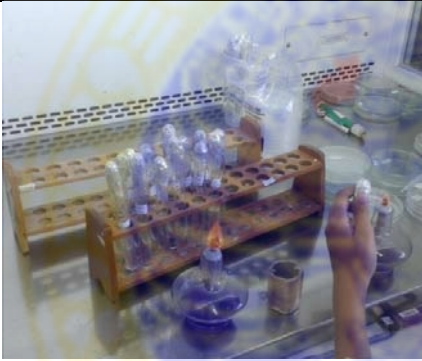
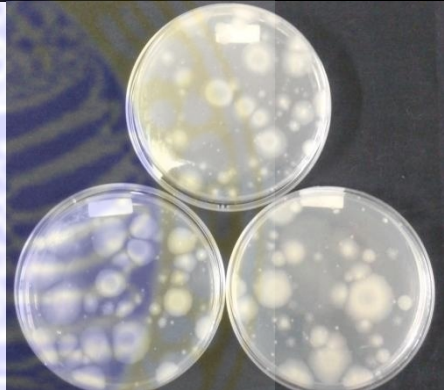


<p>13.</p>	 <p>Autoklaf</p>	<p>16.</p>  <p>Soil tester</p>
<p>14.</p>	 <p>Desikator</p>	<p>17.</p>  <p>Furnace</p>
<p>15.</p>	 <p>Termometer</p>	<p>18.</p>  <p>Seperangkat Alat Destilator          1 : Erlenmeyer ; 2 : Labu pendingin ; 3 : Labu destilator ; 4 : Pemanas ; 5 : Statif</p>





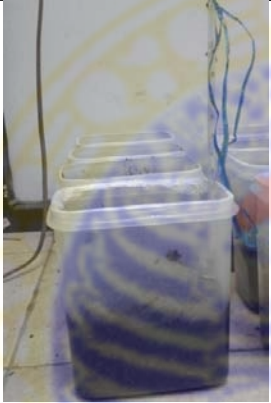
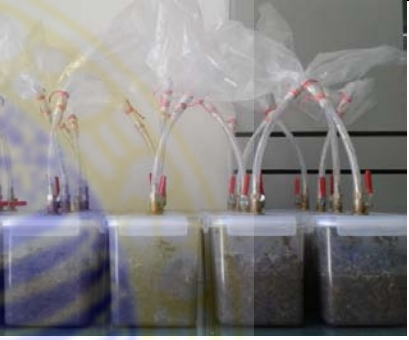



19.	 <p>Alat titrasi 1 : Statif ; 2 : Buret</p>	21.	 <p>1 : Anaerobic jar ; 2 : Anaerogen</p>
20.	 <p><i>Gasometer electric</i> atau kolom absorpsi</p>		

**LAMPIRAN 11**

## Gambar Dokumentasi Proses Penelitian

No	Gambar	No	Gambar
1.	 <p>Pengukuran nilai OD</p>	4.	 <p><i>Pour plate</i> untuk TPC</p>
2.	 <p>Pengenceran dengan larutan garam fisiologis untuk TPC</p>	5.	 <p>Hasil <i>pour plate</i> untuk TPC</p>
3.	 <p>Persiapan pembuatan konsorsium</p>	6.	 <p>Menimbang kotoran sapi sesuai dengan komposisi perlakuan</p>



<p>7.</p>	 <p>Pembuatan substrat</p>	<p>10.</p>	 <p>Pengukuran pH dan kelembapan substrat</p>
<p>8.</p>	 <p>Pengukuran suhu substrat</p>	<p>11.</p>	 <p>Volume dan tinggi substrat sama pada saat pengisian substrat</p>
<p>9.</p>	 <p>Warna substrat berubah setelah proses fermentasi</p>	<p>12.</p>	 <p>Sampel substrat yang akan dianalisis rasio C/N</p>  <p>Sampel biogas yang akan dianalisis kadar metana dan volume biogas</p>