

BAB 6

KESIMPULAN DAN SARAN

6.1. Kesimpulan

Dari hasil pembahasan dan analisis pada bab sebelumnya, dapat disimpulkan sebagai berikut :

1. Menurut klasifikasi *USCS*, tanah yang diuji termasuk dalam golongan CL (lempung inorganik berplastisitas rendah).
2. Menurut klasifikasi *AASHTO*, tanah yang diuji termasuk dalam golongan A-7-6,
3. Hasil pengujian pemadatan standar diperoleh nilai OMC 34% dan nilai MDD sebesar 1,54 gr/cm³.
4. Dari hasil pengujian triaxial tanah asli diperoleh nilai kohesi sebesar 0,1023 kg/cm². Dari pengujian triaxial campuran tanah + abu ampas tebu + kapur + styrofoam diperoleh nilai kohesi maksimum sebesar 0,1129 kg/cm² pada kadar styrofoam 0,5%. Pada kadar styrofoam 1%, nilai kohesi juga meningkat dengan nilai 0,1029 kg/cm², pada kadar styrofoam 2% dan 2,5% nilai kohesi menurun jika dibandingkan dengan nilai kohesi tanah asli yakni 0,0814 kg/cm² dan 0,0503 kg/cm². Hal ini disebabkan semakin banyaknya penambahan kadar styrofoam semakin membuat berkurangnya lekatan pada campuran sehingga nilai kohesi tanah menurun.
5. Dari pengujian triaxial yang dilakukan pada tanah asli diperoleh nilai sudut geser dalam sebesar 12,1047°. Sedangkan dari komposisi campuran tanah dengan abu ampas tebu, kapur, dan styrofoam diperoleh nilai maksimum pada variasi komposisi styrofoam sebesar 1% yakni 13,62°. Hal ini disebabkan semakin

banyaknya penambahan kadar styrofoam semakin membuat berkurangnya lekatan pada campuran sehingga nilai kuat geser tanah menurun.

6.2. Saran

1. Perlu dilakukan penelitian lanjutan dengan kadar styrofoam yang berbeda.
2. Penggunaan styrofoam sebagai salah satu bahan untuk stabilisasi tanah lempung dapat dijadikan pertimbangan.

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PEMERIKSAAN KADAR AIR

Asal Tanah : klaten

Kelompok :

No. contoh :

Tanggal : 24-11-2014

Kedalaman : -1 meter

1.	No. cawan timbang		I	II
2.	Berat cawan kosong	W_1 gram	14	15,5
3.	Berat cawan + tanah basah	W_2 gram	49	49,2
4.	Berat cawan + tanah kering	W_3 gram	41,6	42,3
5.	Berat air	$(W_2 - W_3)$ gram	7,4	6,9
6.	Berat tanah kering	$(W_3 - W_1)$ gram	27,6	29,5
7.	Kadar air	$w = \frac{W_2 - W_3}{W_3 - W_1} \times 100\%$	26,8%	25,7 %
8.	Kadar air rata-rata %		26,25 %	

PEMERIKSAAN BERAT JENIS TANAH

Asal Tanah : klaten

Kelompok :

No. contoh :

Tanggal : 24-11-2014

Kedalaman : -1

1	No. <i>Piknometer</i>		2	3	3
2	Berat <i>Piknometer</i> kosong	W ₁ gr	26,3	32,2	31,3
3	Berat <i>Piknometer</i> + tanah kering	W ₂ gr	41,5	46,7	47
4	Berat <i>Piknometer</i> + tanah + air	W ₃ gr	85,6	89,5	90,8
5	Berat <i>Piknometer</i> + air	W ₄ gr	76,4	80,47	81,1
6	Temperatur, t° C		28°	28°	28°
7	A = W ₂ – W ₁ , gram		15,2	14,5	15,7
8	B = W ₃ – W ₄ , gram		9,2	8,8	9,7
9	C = A – B , gram		6	5,7	6
10	Berat jenis, G ₁ = A/C		2,533	2,54	2,617
11	Rata-rata harga G ₁		2,56		
12	G untuk 27,5° = $G_1 \times \frac{b.j\ air\ ^\circ t}{b.j\ air\ 27,5^\circ}$		$2,56 \times \frac{0,9963}{0,9964} = 2,55$		

TABEL PEMERIKSAAN BATAS PLASTIS

Asal Tanah : Klaten

Kelompok :

Kedalaman : -1 m

Tanggal : 26-11-2014

No	No. Cawan Timbang		I	II
1	Berat cawan kosong	W_1	14,61	14,82
2	Berat cawan + tanah basah	W_2	64,53	63,20
3	Berat cawan + tanah kering	W_3	54,8	53,87
4	Berat air	$A = (W_2 - W_3)$	9,73	9,33
5	Berat tanah kering	$B = (W_3 - W_1)$	40,19	39,05
6	Kadar air	$C = (A/B) * 100\%$	24,21%	23,89%
7	Kadar air rata – rata (w %)		24,05%	
8	Batas Plastis = PL =		24,05%	

PEMERIKSAAN DISTRIBUSI UKURAN BUTIR

Asal tanah : klaten Kelompok :

No. Contoh :

Tanggal : 26-11-2014

Kedalaman : -1m

1. Berat total contoh tanah basah / lembab yang akan diperiksa	$B_0 = 50 \text{ gram}$
2. Kadar air contoh tanah	$w = 26,25 \%$
3. Berat total contoh tanah kering oven yang diperiksa	$W = \frac{B_0}{(1 + w)} = 39,6 \text{ gram}$
4. Berat total contoh tanah kering oven yang berdiameter $> 0,075 \text{ mm}$	$B_1 = W - B_2 = 19,3 \text{ gram}$
5. Berat tanah berdiameter $< 0,075 \text{ mm}$	$B_2 = 20,3 \text{ gram}$

PEMERIKSAAN KADAR AIR CONTOH TANAH YANG DIPERIKSA				
1.	No. cawan timbang		I	II
2.	Berat cawan kosong	$W_1 \text{ gram}$	14	15,5
3.	Berat cawan + tanah basah	$W_2 \text{ gram}$	49	49,2
4.	Berat cawan + tanah kering	$W_3 \text{ gram}$	41,6	42,3
5.	Berat air	$(W_2 - W_3) \text{ gram}$	7,4	6,9
6.	Berat tanah kering	$(W_3 - W_1) \text{ gram}$	27,6	29,5
7.	Kadar air	$w = \frac{W_2 - W_3}{W_3 - W_1} \times 100\%$	26,8%	25,7 %
8.	Kadar air rata-rata %		26,25 %	

ANALISA SARINGAN BUTIR PASIR (SETELAH ANALISA PENGENDAPAN)				
<u>Berat benda-uji yang diperiksa</u> <u>Kadar-air benda-uji</u> Berat benda-uji kering-oven			$B_o = 50 \text{ gram}$ $w = 26,25 \%$ $W = \frac{B_o}{(1 + w)} = 39,6 \text{ gram}$	
Saringan	Ukuran butir (mm)	Berat tertahan saringan (gr)	Berat lewat saringan (gr)	Persen lewat saringan $\frac{C}{W} \times 100 (\%)$
No.200	0,075	$b_6 = 3$	$c_6 = 20,3$	55,01%
No.140	0,106	$b_5 = 5$	$c_5 = 23,3$	58,83%
No. 60	0,250	$b_4 = 7,1$	$c_4 = 28,3$	71,46%
No. 40	0,425	$b_3 = 4,2$	$c_3 = 35,4$	89,4%
No. 20	0,850	$b_2 = 0$	$c_2 = 39,6$	100%
No. 10	2,000	$b_1 = 0$	$c_1 = 39,6$	100%
Berat butiran lebih kecil 0,075 mm		$B_2 = 20,3$		
Jumlah		$W = 39,6$		
Catatan : $c_6 = B_2$ $c_5 = c_6 + b_6$ $c_4 = c_5 + b_5$ $c_3 = c_4 + b_4$ $c_2 = c_3 + b_3$ $c_1 = c_2 + b_2$				

PERCOBAAN PEMADATAN

Asal tanah : Klaten

Kelompok :

No. contoh :

Tanggal :2-12-2014

Kedalaman : -1 m

Jenis tanah:

Ukuran Silinder :

Diameter = 10,1 cm

Berat penumbuk = 4,26 kg

Tinggi = 11,5633 cm

Jumlah lapisan = 3 lapis

Volume = 925,87 cm³

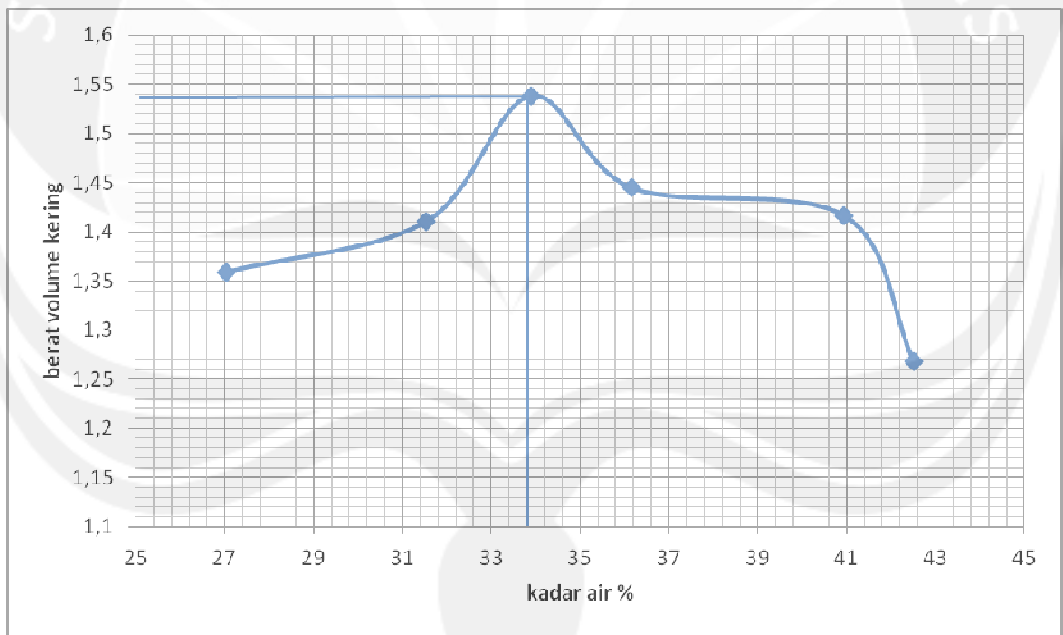
Jumlah tumbukan tiap lapis = 25 kali

Kadar air optimum,

“OMC” = 34 %

Padat kering maximum

“ MDD” = 1,54 gr/cm³



Grafik pemadatan

Percobaan nomor	1	2	3	4	5	6
Berat silinder + tanah padat , gram	3413	3530	3718	3633	3650	3686
Berat silinder, gram	1825	1825	1825	1825	1825	1825
Berat tanah padat , A gram	1588	1705	1893	1808	1835	1661
Berat volume basah, $\gamma = \frac{A}{V}$, gram/cm ³	1,727	1,855	2,0596	1,9671	1,9965	1,8072

No. Cawan timbang		IA	IB	IIA	IIB	IIIA	IIIB	IVA	IVB	VA	VB	VIA	VIB
Berat cawan kosong	W1,gram	14,54	16,54	14,87	14,75	14,15	16,35	15,45	14,45	14,71	14,35	15,01	16,67
Berat cawan + tanah basah	W2,gram	54,33	51,01	53,01	53,79	65,47	63,66	62,66	58,33	56,21	59,31	76,68	77,30
Berat cawan + tanah kering	W3, gram	44,61	44,85	44,03	44,27	48,71	50,97	50,33	46,40	44,07	46,34	58,25	59,25
Berat air	A = (W2-W3) gram	9,72	6,16	8,98	9,52	10,76	12,69	12,33	11,93	12,14	12,97	18,43	18,05
Berat tanah kering	B = (W3-W1) gram	30,07	28,31	29,16	29,52	34,56	34,62	34,88	32,25	29,36	31,99	43,24	42,58
Kadar air	$W = \left(\frac{A}{B}\right) \times 100\%$	32,32	21,75	30,8	32,25	31,13	36,65	35,35	36,99	41,35	40,54	42,62	42,4
Kadar air rata-rata, %		27,035		31,525		33,89		36,17		40,945		42,51	
Berat volume kering, $\gamma_d = \frac{\gamma}{1 + w}$		1,3594		1,4103		1,5383		1,4446		1,4165		1,2681	

ANALISA PENGENDAPAN / HYDROMETER

Tipe hydrometer	152 H	Berat kering tanah oven yang diperiksa	W = 50 gr
Koreksi Meniskus	m = 1	Untuk hidrometer 151 H, $K_1 = \left(\frac{100000}{w} \times \frac{G}{G-1} \right)$	-
Berat jenis tanah	G = 2,55	Untuk hidrometer 152 H, $K_2 = \left(\frac{a}{W} \right) \times 100$	2,5757
Koreksi hidrometer 152 (daftar 2)	a = 1,02		
Reagen	Na ₂ SiO ₃ / NaPO ₃		
Banyak Reagen	1 sendok makan		

Tanggal	Jam 09.20	Waktu T (menit)	Pembacaan hidrometer dalam suspensi R ₁ /TL	Pembacaan hidrometer dalam cairan, R ₂	Temperatur t °C R1/TL R2/AD		Pembacaan Hydrometer Terkoreksi meniskus, R' = R ₁ + m	Kedalaman L*) (cm)	Konstan K**)	Diameter butir (mm)	Pembacaan hidrometer terkoreksi R=R ₁ -R ₂ (mm)	Persen berat lebih kecil P***) (%)
17-09-08	09.22	2	22	2	27°	27°	23	12,5	0,01297	0,0324	20	40,8
	09.27	5	22	2	27°	27°	23	12,5	0,01297	0,0205	20	40,8
	9.57	30	15	2	27°	27°	16	13,7	0,01297	0,0087	13	26,52
	10.57	60	13	2	27°	27°	14	14,2	0,01297	0,0063	11	22,44
	15.07	250	11	2	27°	27°	12	14,5	0,01297	0,0031	9	18,36
18-09-08	09.22	1440	9	2	27°	27°	10	14,7	0,01297	0,0013	7	14,28

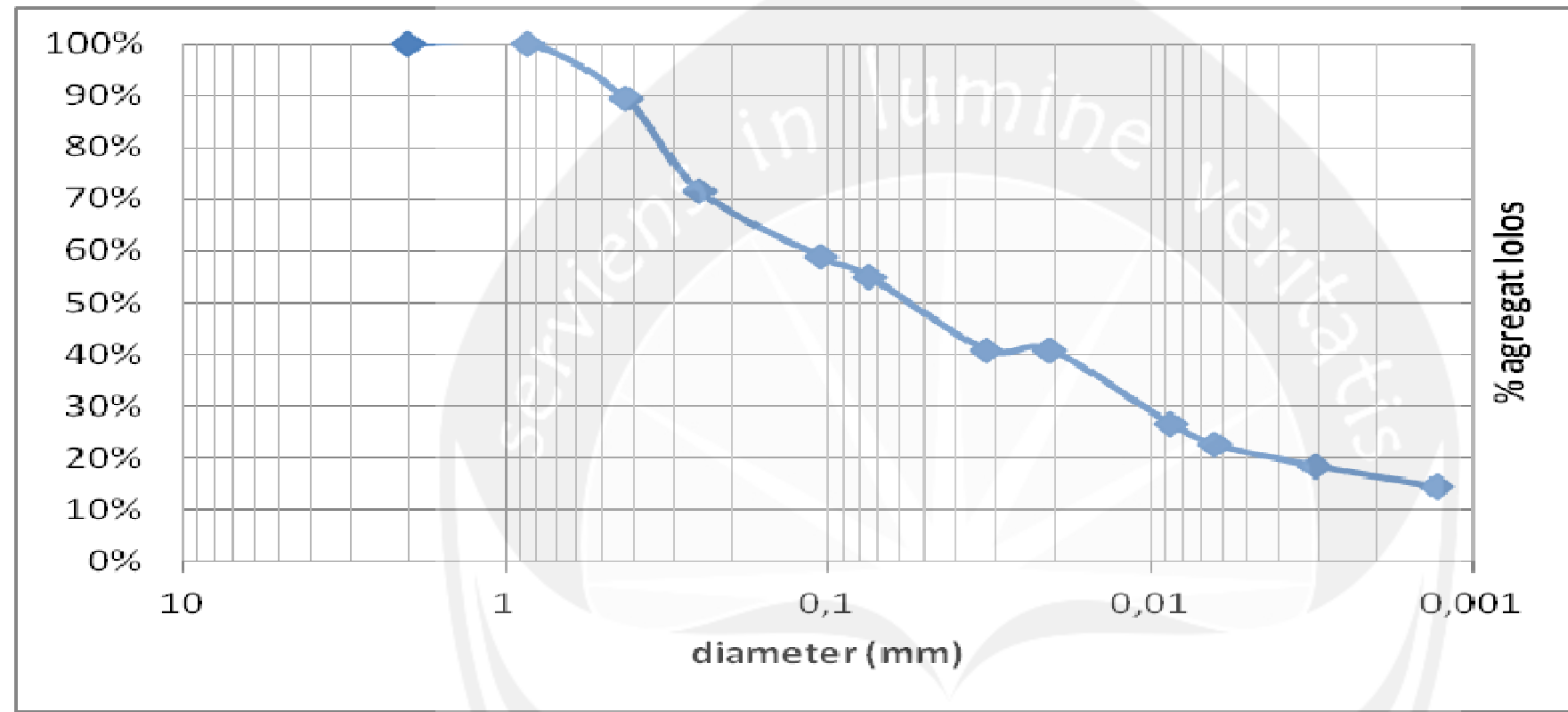
*) dibaca dari daftar 2 berdasar R'

**) Dibaca dari daftar 3 berdasar t dan G

***) Dihitung berdasar rumus

untuk hidrometer 151 H, p = K₁(R-1)

untuk hidrometer 152 H, p = K₁ x R



Grafik distribusi ukuran butir dan hidrometer



PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8%

Tanggal : 18-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter Φ = 3,6000 cm berat = 162,53 gr
tinggi H= 7,8000 cm berat vol = 2,046299894 gr/cm³
Luas Fo= 10,1829 cm²
Volume V= 79,4263 cm³

Data benda uji : Percobaan 2

diameter Φ = 3,7830 cm berat = 163,21 gr
tinggi H= 7,7500 cm berat vol = 1,872870419 gr/cm³
Luas A= 11,2444 cm²
Volume V= 87,1443 cm³

Data benda uji : Percobaan 3

diameter Φ = 3,8130 cm berat = 161,4 gr
tinggi H= 7,7510 cm berat vol = 1,822835733 gr/cm³
Luas A= 11,4235 cm²
Volume V= 88,5434 cm³

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1 - \sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,2214	0,7214
2	1	0,2588	1,2588
3	2	0,325	2,35

PENGUJIAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR 8%

PERCOBAAN 1

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	11,24443
20,0000	5	0,5000	0,2564	0,0413	0,0206	0,5206	18,9	200	11,45284
40,0000	7	0,5000	0,5128	0,0576	0,0288	0,5288	18,9	200	11,48236
60,0000	8	0,5000	0,7692	0,0657	0,0328	0,5328	18,9	200	11,51203
80,0000	9	0,5000	1,0256	0,0737	0,0368	0,5368	18,9	200	11,54185
100,0000	11	0,5000	1,2821	0,0898	0,0449	0,5449	18,9	200	11,57183
120,0000	11	0,5000	1,5385	0,0896	0,0448	0,5448	18,9	200	11,60197
140,0000	12	0,5000	1,7949	0,0975	0,0487	0,5487	18,9	200	11,63226
160,0000	12	0,5000	2,0513	0,0972	0,0486	0,5486	18,9	200	11,66271
180,0000	13	0,5000	2,3077	0,1051	0,0525	0,5525	18,9	200	11,69332
200,0000	14	0,5000	2,5641	0,1128	0,0564	0,5564	18,9	200	11,72409
220,0000	15	0,5000	2,8205	0,1206	0,0603	0,5603	18,9	200	11,75503
240,0000	16	0,5000	3,0769	0,1283	0,0641	0,5641	18,9	200	11,78613
260,0000	16	0,5000	3,3333	0,1279	0,0640	0,5640	18,9	200	11,81739
280,0000	17	0,5000	3,5897	0,1356	0,0678	0,5678	18,9	200	11,84882
300,0000	18	0,5000	3,8462	0,1432	0,0716	0,5716	18,9	200	11,88041
320,0000	19	0,5000	4,1026	0,1507	0,0754	0,5754	18,9	200	11,91218
340,0000	19	0,5000	4,3590	0,1503	0,0752	0,5752	18,9	200	11,94412
360,0000	20	0,5000	4,6154	0,1578	0,0789	0,5789	18,9	200	11,97622
380,0000	21	0,5000	4,8718	0,1653	0,0826	0,5826	18,9	200	12,00851
400,0000	21	0,5000	5,1282	0,1648	0,0824	0,5824	18,9	200	12,04096
420,0000	22	0,5000	5,3846	0,1722	0,0861	0,5861	18,9	200	12,07359
440,0000	23	0,5000	5,6410	0,1795	0,0898	0,5898	18,9	200	12,1064
460,0000	23	0,5000	5,8974	0,1790	0,0895	0,5895	18,9	200	12,13939
480,0000	23	0,5000	6,1538	0,1786	0,0893	0,5893	18,9	200	12,17256
500,0000	25	0,5000	6,4103	0,1936	0,0968	0,5968	18,9	200	12,20591
520,0000	27	0,5000	6,6667	0,2085	0,1042	0,6042	18,9	200	12,23944
540,0000	27	0,5000	6,9231	0,2079	0,1039	0,6039	18,9	200	12,27316
560,0000	28	0,5000	7,1795	0,2150	0,1075	0,6075	18,9	200	12,30706
580,0000	28	0,5000	7,4359	0,2144	0,1072	0,6072	18,9	200	12,34115
600,0000	29	0,5000	7,6923	0,2214	0,1107	0,6107	18,9	200	12,37543
620,0000	29	0,5000	7,9487	0,2208	0,1104	0,6104	18,9	200	12,4099
640,0000	28	0,5000	8,2051	0,2126	0,1063	0,6063	18,9	200	12,44457
660,0000	28	0,5000	8,4615	0,2120	0,1060	0,6060	18,9	200	12,47943

PENGUJIAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR 8%

PERCOBAAN 2

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	11,24443
20,0000	8	1,0000	0,2581	0,0660	0,0330	1,0330	18,9	200	11,45303
40,0000	13	1,0000	0,5161	0,1070	0,0535	1,0535	18,9	200	11,48274
60,0000	15	1,0000	0,7742	0,1231	0,0616	1,0616	18,9	200	11,51261
80,0000	17	1,0000	1,0323	0,1392	0,0696	1,0696	18,9	200	11,54263
100,0000	18	1,0000	1,2903	0,1470	0,0735	1,0735	18,9	200	11,5728
120,0000	19	1,0000	1,5484	0,1547	0,0774	1,0774	18,9	200	11,60314
140,0000	21	1,0000	1,8065	0,1706	0,0853	1,0853	18,9	200	11,63363
160,0000	22	1,0000	2,0645	0,1782	0,0891	1,0891	18,9	200	11,66429
180,0000	22	1,0000	2,3226	0,1778	0,0889	1,0889	18,9	200	11,6951
200,0000	22	1,0000	2,5806	0,1773	0,0886	1,0886	18,9	200	11,72608
220,0000	24	1,0000	2,8387	0,1929	0,0965	1,0965	18,9	200	11,75723
240,0000	25	1,0000	3,0968	0,2004	0,1002	1,1002	18,9	200	11,78854
260,0000	27	1,0000	3,3548	0,2159	0,1079	1,1079	18,9	200	11,82002
280,0000	27	1,0000	3,6129	0,2153	0,1076	1,1076	18,9	200	11,85166
300,0000	27	1,0000	3,8710	0,2147	0,1074	1,1074	18,9	200	11,88348
320,0000	28	1,0000	4,1290	0,2221	0,1110	1,1110	18,9	200	11,91547
340,0000	28	1,0000	4,3871	0,2215	0,1107	1,1107	18,9	200	11,94763
360,0000	29	1,0000	4,6452	0,2288	0,1144	1,1144	18,9	200	11,97996
380,0000	30	1,0000	4,9032	0,2360	0,1180	1,1180	18,9	200	12,01247
400,0000	30	1,0000	5,1613	0,2354	0,1177	1,1177	18,9	200	12,04516
420,0000	30	1,0000	5,4194	0,2347	0,1174	1,1174	18,9	200	12,07803
440,0000	30,5	1,0000	5,6774	0,2380	0,1190	1,1190	18,9	200	12,11107
460,0000	31	1,0000	5,9355	0,2412	0,1206	1,1206	18,9	200	12,1443
480,0000	31	1,0000	6,1935	0,2406	0,1203	1,1203	18,9	200	12,17771
500,0000	32	1,0000	6,4516	0,2476	0,1238	1,1238	18,9	200	12,2113
520,0000	32	1,0000	6,7097	0,2470	0,1235	1,1235	18,9	200	12,24508
540,0000	32,5	1,0000	6,9677	0,2501	0,1251	1,1251	18,9	200	12,27905
560,0000	32,5	1,0000	7,2258	0,2494	0,1247	1,1247	18,9	200	12,3132
580,0000	33	1,0000	7,4839	0,2526	0,1263	1,1263	18,9	200	12,34755
600,0000	33	1,0000	7,7419	0,2519	0,1259	1,1259	18,9	200	12,38209
620,0000	34	1,0000	8,0000	0,2588	0,1294	1,1294	18,9	200	12,41682
640,0000	33	1,0000	8,2581	0,2504	0,1252	1,1252	18,9	200	12,45175
660,0000	33	1,0000	8,5161	0,2497	0,1249	1,1249	18,9	200	12,48687
680,0000	32	1,0000	8,7742	0,2415	0,1207	1,1207	18,9	200	12,5222
700,0000	32	1,0000	9,0323	0,2408	0,1204	1,1204	18,9	200	12,55772

PENGUJIAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR 8%

PERCOBAAN 3

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	11,42348
20,0000	9,0000	2,0000	0,2580	0,0743	0,0371	2,0371	18,9	200	11,45303
40,0000	13,0000	2,0000	0,5161	0,1070	0,0535	2,0535	18,9	200	11,48273
60,0000	15,0000	2,0000	0,7741	0,1231	0,0616	2,0616	18,9	200	11,51259
80,0000	18,0000	2,0000	1,0321	0,1474	0,0737	2,0737	18,9	200	11,54261
100,0000	19,0000	2,0000	1,2902	0,1551	0,0776	2,0776	18,9	200	11,57278
120,0000	22,0000	2,0000	1,5482	0,1792	0,0896	2,0896	18,9	200	11,60311
140,0000	23,0000	2,0000	1,8062	0,1868	0,0934	2,0934	18,9	200	11,6336
160,0000	25,0000	2,0000	2,0642	0,2025	0,1013	2,1013	18,9	200	11,66426
180,0000	28,0000	2,0000	2,3223	0,2262	0,1131	2,1131	18,9	200	11,69507
200,0000	30,0000	2,0000	2,5803	0,2418	0,1209	2,1209	18,9	200	11,72604
220,0000	31,0000	2,0000	2,8383	0,2492	0,1246	2,1246	18,9	200	11,75718
240,0000	32,0000	2,0000	3,0964	0,2565	0,1283	2,1283	18,9	200	11,78849
260,0000	33,0000	2,0000	3,3544	0,2638	0,1319	2,1319	18,9	200	11,81997
280,0000	34,0000	2,0000	3,6124	0,2711	0,1356	2,1356	18,9	200	11,85161
300,0000	36,0000	2,0000	3,8705	0,2863	0,1431	2,1431	18,9	200	11,88342
320,0000	36,0000	2,0000	4,1285	0,2855	0,1428	2,1428	18,9	200	11,9154
340,0000	37,0000	2,0000	4,3865	0,2927	0,1463	2,1463	18,9	200	11,94756
360,0000	38,0000	2,0000	4,6446	0,2998	0,1499	2,1499	18,9	200	11,97989
380,0000	38,0000	2,0000	4,9026	0,2989	0,1495	2,1495	18,9	200	12,01239
400,0000	38,0000	2,0000	5,1606	0,2981	0,1491	2,1491	18,9	200	12,04508
420,0000	39,0000	2,0000	5,4187	0,3051	0,1526	2,1526	18,9	200	12,07794
440,0000	40,0000	2,0000	5,6767	0,3121	0,1561	2,1561	18,9	200	12,11098
460,0000	41,0000	2,0000	5,9347	0,3190	0,1595	2,1595	18,9	200	12,1442
480,0000	41,0000	2,0000	6,1927	0,3182	0,1591	2,1591	18,9	200	12,1776
500,0000	42,0000	2,0000	6,4508	0,3250	0,1625	2,1625	18,9	200	12,21119
520,0000	41,0000	2,0000	6,7088	0,3164	0,1582	2,1582	18,9	200	12,24497
540,0000	41,0000	2,0000	6,9668	0,3155	0,1578	2,1578	18,9	200	12,27893
560,0000	40,0000	2,0000	7,2249	0,3070	0,1535	2,1535	18,9	200	12,31308

**PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 0,5%**

Tanggal : 18-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter	$\Phi=$	3,8000 cm	berat =	149,28 gr
tinggi	H=	7,6310 cm	berat vol =	1,724202737 gr/cm ³
Luas	Fo=	11,3457 cm ²		
Volume	V=	86,5791 cm ³		

Data benda uji : Percobaan 2

diameter	$\Phi=$	3,7870 cm	berat =	148,08 gr
tinggi	H=	7,7120 cm	berat vol =	1,704017792 gr/cm ³
Luas	A=	11,2682 cm ²		
Volume	V=	86,9005 cm ³		

Data benda uji : Percobaan 3

diameter	$\Phi=$	3,7540 cm	berat =	149,18 gr
tinggi	H=	7,6710 cm	berat vol =	1,756327227 gr/cm ³
Luas	A=	11,0727 cm ²		
Volume	V=	84,9386 cm ³		

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1-\sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,2925	0,7214
2	1	0,3236	1,3236
3	2	0,3895	2,3895

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 0,5%
 (PERCOBAAN 1)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	11,26822
20,0000	8	0,5000	0,2632	0,0681	0,0340	0,5340	18,9	200	11,10191
40,0000	9	0,5000	0,5263	0,0764	0,0382	0,5382	18,9	200	11,13128
60,0000	11	0,5000	0,7895	0,0931	0,0466	0,5466	18,9	200	11,1608
80,0000	13	0,5000	1,0526	0,1098	0,0549	0,5549	18,9	200	11,19049
100,0000	13	0,5000	1,3158	0,1095	0,0547	0,5547	18,9	200	11,22033
120,0000	15	0,5000	1,5789	0,1260	0,0630	0,5630	18,9	200	11,25033
140,0000	15	0,5000	1,8421	0,1257	0,0628	0,5628	18,9	200	11,28049
160,0000	16	0,5000	2,1053	0,1337	0,0668	0,5668	18,9	200	11,31081
180,0000	16	0,5000	2,3684	0,1333	0,0667	0,5667	18,9	200	11,3413
200,0000	17	0,5000	2,6316	0,1413	0,0706	0,5706	18,9	200	11,37195
220,0000	18	0,5000	2,8947	0,1492	0,0746	0,5746	18,9	200	11,40277
240,0000	19	0,5000	3,1579	0,1570	0,0785	0,5785	18,9	200	11,43376
260,0000	21	0,5000	3,4211	0,1731	0,0865	0,5865	18,9	200	11,46491
280,0000	22	0,5000	3,6842	0,1808	0,0904	0,5904	18,9	200	11,49624
300,0000	23	0,5000	3,9474	0,1885	0,0943	0,5943	18,9	200	11,52773
320,0000	25	0,5000	4,2105	0,2044	0,1022	0,6022	18,9	200	11,5594
340,0000	27	0,5000	4,4737	0,2201	0,1101	0,6101	18,9	200	11,59125
360,0000	28	0,5000	4,7368	0,2276	0,1138	0,6138	18,9	200	11,62327
380,0000	29	0,5000	5,0000	0,2351	0,1176	0,6176	18,9	200	11,65546
400,0000	30	0,5000	5,2632	0,2426	0,1213	0,6213	18,9	200	11,68784
420,0000	30	0,5000	5,5263	0,2419	0,1209	0,6209	18,9	200	11,7204
440,0000	31	0,5000	5,7895	0,2493	0,1246	0,6246	18,9	200	11,75314
460,0000	32	0,5000	6,0526	0,2566	0,1283	0,6283	18,9	200	11,78606
480,0000	34	0,5000	6,3158	0,2718	0,1359	0,6359	18,9	200	11,81916
500,0000	35	0,5000	6,5789	0,2791	0,1395	0,6395	18,9	200	11,85246
520,0000	35	0,5000	6,8421	0,2783	0,1391	0,6391	18,9	200	11,88594
540,0000	36	0,5000	7,1053	0,2854	0,1427	0,6427	18,9	200	11,91961
560,0000	37	0,5000	7,3684	0,2925	0,1463	0,6463	18,9	200	11,95347
580,0000	36	0,5000	7,6316	0,2838	0,1419	0,6419	18,9	200	11,98753
600,0000	36	0,5000	7,8947	0,2830	0,1415	0,6415	18,9	200	12,02178
620,0000	35	0,5000	8,1579	0,2743	0,1372	0,6372	18,9	200	12,05623
640,0000	35	0,5000	8,4211	0,2736	0,1368	0,6368	18,9	200	12,09087
660,0000	34	0,5000	8,6842	0,2650	0,1325	0,6325	18,9	200	12,12571

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 0,5%
 (PERCOBAAN 2)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	11,26822
20,0000	13	1,0000	0,2597	0,1107	0,0553	1,0553	18,9	200	11,10153
40,0000	14	1,0000	0,5195	0,1189	0,0594	1,0594	18,9	200	11,13051
60,0000	15	1,0000	0,7792	0,1270	0,0635	1,0635	18,9	200	11,15965
80,0000	15	1,0000	1,0390	0,1267	0,0633	1,0633	18,9	200	11,18894
100,0000	18	1,0000	1,2987	0,1516	0,0758	1,0758	18,9	200	11,21838
120,0000	20	1,0000	1,5584	0,1680	0,0840	1,0840	18,9	200	11,24798
140,0000	22	1,0000	1,8182	0,1843	0,0922	1,0922	18,9	200	11,27774
160,0000	23	1,0000	2,0779	0,1922	0,0961	1,0961	18,9	200	11,30766
180,0000	26	1,0000	2,3377	0,2167	0,1084	1,1084	18,9	200	11,33773
200,0000	28	1,0000	2,5974	0,2328	0,1164	1,1164	18,9	200	11,36796
220,0000	30	1,0000	2,8571	0,2487	0,1244	1,1244	18,9	200	11,39836
240,0000	31	1,0000	3,1169	0,2563	0,1282	1,1282	18,9	200	11,42892
260,0000	32	1,0000	3,3766	0,2639	0,1319	1,1319	18,9	200	11,45964
280,0000	32	1,0000	3,6364	0,2632	0,1316	1,1316	18,9	200	11,49053
300,0000	33	1,0000	3,8961	0,2707	0,1353	1,1353	18,9	200	11,52158
320,0000	35	1,0000	4,1558	0,2863	0,1431	1,1431	18,9	200	11,55281
340,0000	35	1,0000	4,4156	0,2855	0,1428	1,1428	18,9	200	11,5842
360,0000	35,5	1,0000	4,6753	0,2888	0,1444	1,1444	18,9	200	11,61577
380,0000	35,5	1,0000	4,9351	0,2880	0,1440	1,1440	18,9	200	11,6475
400,0000	36	1,0000	5,1948	0,2913	0,1456	1,1456	18,9	200	11,67941
420,0000	36	1,0000	5,4545	0,2905	0,1452	1,1452	18,9	200	11,7115
440,0000	37	1,0000	5,7143	0,2977	0,1489	1,1489	18,9	200	11,74376
460,0000	38	1,0000	5,9740	0,3049	0,1525	1,1525	18,9	200	11,7762
480,0000	38	1,0000	6,2338	0,3041	0,1520	1,1520	18,9	200	11,80883
500,0000	39	1,0000	6,4935	0,3112	0,1556	1,1556	18,9	200	11,84163
520,0000	39,5	1,0000	6,7532	0,3143	0,1572	1,1572	18,9	200	11,87461
540,0000	40	1,0000	7,0130	0,3174	0,1587	1,1587	18,9	200	11,90778
560,0000	40	1,0000	7,2727	0,3166	0,1583	1,1583	18,9	200	11,94114
580,0000	41	1,0000	7,5325	0,3236	0,1618	1,1618	18,9	200	11,97468
600,0000	41	1,0000	7,7922	0,3226	0,1613	1,1613	18,9	200	12,00841
620,0000	40	1,0000	8,0519	0,3139	0,1569	1,1569	18,9	200	12,04233
640,0000	40	1,0000	8,3117	0,3130	0,1565	1,1565	18,9	200	12,07645
660,0000	39	1,0000	8,5714	0,3043	0,1522	1,1522	18,9	200	12,11076
680,0000	39	1,0000	8,8312	0,3035	0,1517	1,1517	18,9	200	12,14526
700,0000	39	1,0000	9,0909	0,3026	0,1513	1,1513	18,9	200	12,17996

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 0,5%
 (PERCOBAAN 3)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	11,07269
20,0000	15,0000	2,0000	0,2635	0,1277	0,0638	2,0638	18,9	200	11,10195
40,0000	16,0000	2,0000	0,5270	0,1358	0,0679	2,0679	18,9	200	11,13135
60,0000	18,0000	2,0000	0,7905	0,1524	0,0762	2,0762	18,9	200	11,16092
80,0000	19,0000	2,0000	1,0540	0,1604	0,0802	2,0802	18,9	200	11,19064
100,0000	20,0000	2,0000	1,3175	0,1684	0,0842	2,0842	18,9	200	11,22052
120,0000	21,0000	2,0000	1,5810	0,1764	0,0882	2,0882	18,9	200	11,25057
140,0000	21,0000	2,0000	1,8445	0,1759	0,0880	2,0880	18,9	200	11,28077
160,0000	24,0000	2,0000	2,1080	0,2005	0,1003	2,1003	18,9	200	11,31113
180,0000	27,0000	2,0000	2,3715	0,2250	0,1125	2,1125	18,9	200	11,34166
200,0000	27,0000	2,0000	2,6350	0,2244	0,1122	2,1122	18,9	200	11,37236
220,0000	30,0000	2,0000	2,8986	0,2486	0,1243	2,1243	18,9	200	11,40322
240,0000	32,0000	2,0000	3,1621	0,2645	0,1322	2,1322	18,9	200	11,43425
260,0000	33,0000	2,0000	3,4256	0,2720	0,1360	2,1360	18,9	200	11,46545
280,0000	35,0000	2,0000	3,6891	0,2877	0,1438	2,1438	18,9	200	11,49682
300,0000	38,0000	2,0000	3,9526	0,3115	0,1557	2,1557	18,9	200	11,52836
320,0000	40,0000	2,0000	4,2161	0,3270	0,1635	2,1635	18,9	200	11,56007
340,0000	42,0000	2,0000	4,4796	0,3424	0,1712	2,1712	18,9	200	11,59196
360,0000	43,0000	2,0000	4,7431	0,3496	0,1748	2,1748	18,9	200	11,62403
380,0000	43,0000	2,0000	5,0066	0,3486	0,1743	2,1743	18,9	200	11,65627
400,0000	44,0000	2,0000	5,2701	0,3557	0,1779	2,1779	18,9	200	11,6887
420,0000	44,0000	2,0000	5,5336	0,3547	0,1774	2,1774	18,9	200	11,7213
440,0000	45,0000	2,0000	5,7971	0,3618	0,1809	2,1809	18,9	200	11,75409
460,0000	46,0000	2,0000	6,0606	0,3688	0,1844	2,1844	18,9	200	11,78706
480,0000	47,0000	2,0000	6,3241	0,3758	0,1879	2,1879	18,9	200	11,82021
500,0000	48,5000	2,0000	6,5876	0,3867	0,1933	2,1933	18,9	200	11,85356
520,0000	49,0000	2,0000	6,8511	0,3895	0,1948	2,1948	18,9	200	11,88709
540,0000	49,0000	2,0000	7,1146	0,3884	0,1942	2,1942	18,9	200	11,92081
560,0000	47,0000	2,0000	7,3781	0,3715	0,1858	2,1858	18,9	200	11,95473
580,0000	47,0000	2,0000	7,6416	0,3705	0,1852	2,1852	18,9	200	11,98883
600,0000	45,0000	2,0000	7,9051	0,3537	0,1768	2,1768	18,9	200	12,02314

**PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1%**

Tanggal : 18-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter	Φ =	3,8790 cm	berat =	148,21 gr
tinggi	H=	7,6310 cm	berat vol =	1,6428 gr/cm ³
Luas	A=	11,8224 cm ²		
Volume	V=	90,2164 cm ³		

Data benda uji : Percobaan 2

diameter	Φ =	3,7870 cm	berat =	146,87 gr
tinggi	H=	7,7120 cm	berat vol =	1,69 gr/cm ³
Luas	A=	11,2682 cm ²		
Volume	V=	86,9005 cm ³		

Data benda uji : Percobaan 3

diameter	Φ =	3,6530 cm	berat =	147,63 gr
tinggi	H=	7,5740 cm	berat vol =	1,859 gr/cm ³
Luas	A=	10,4849 cm ²		
Volume	V=	79,4126 cm ³		

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1 - \sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,3081	0,8081
2	1	0,3236	1,3236
3	2	0,486862	2,4869

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1%
 (PERCOBAAN 1)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	11,26822
20,0000	10	0,5000	0,2621	0,0899	0,0449	0,5449	18,9	200	10,51244
40,0000	10	0,5000	0,5242	0,0897	0,0448	0,5448	18,9	200	10,54014
60,0000	11	0,5000	0,7863	0,0984	0,0492	0,5492	18,9	200	10,56799
80,0000	12	0,5000	1,0484	0,1070	0,0535	0,5535	18,9	200	10,59598
100,0000	13	0,5000	1,3104	0,1156	0,0578	0,5578	18,9	200	10,62412
120,0000	14	0,5000	1,5725	0,1242	0,0621	0,5621	18,9	200	10,65241
140,0000	15	0,5000	1,8346	0,1327	0,0664	0,5664	18,9	200	10,68085
160,0000	15	0,5000	2,0967	0,1324	0,0662	0,5662	18,9	200	10,70944
180,0000	16	0,5000	2,3588	0,1408	0,0704	0,5704	18,9	200	10,73819
200,0000	18	0,5000	2,6209	0,1580	0,0790	0,5790	18,9	200	10,76709
220,0000	19	0,5000	2,8830	0,1663	0,0832	0,5832	18,9	200	10,79614
240,0000	19	0,5000	3,1451	0,1659	0,0829	0,5829	18,9	200	10,82536
260,0000	19	0,5000	3,4072	0,1654	0,0827	0,5827	18,9	200	10,85473
280,0000	21	0,5000	3,6692	0,1823	0,0912	0,5912	18,9	200	10,88426
300,0000	21	0,5000	3,9313	0,1818	0,0909	0,5909	18,9	200	10,91396
320,0000	23	0,5000	4,1934	0,1986	0,0993	0,5993	18,9	200	10,94381
340,0000	23	0,5000	4,4555	0,1981	0,0990	0,5990	18,9	200	10,97383
360,0000	23	0,5000	4,7176	0,1975	0,0988	0,5988	18,9	200	11,00402
380,0000	24	0,5000	4,9797	0,2055	0,1028	0,6028	18,9	200	11,03437
400,0000	24	0,5000	5,2418	0,2050	0,1025	0,6025	18,9	200	11,06489
420,0000	26	0,5000	5,5039	0,2214	0,1107	0,6107	18,9	200	11,09558
440,0000	27	0,5000	5,7660	0,2293	0,1147	0,6147	18,9	200	11,12644
460,0000	29	0,5000	6,0280	0,2456	0,1228	0,6228	18,9	200	11,15747
480,0000	31	0,5000	6,2901	0,2618	0,1309	0,6309	18,9	200	11,18868
500,0000	32	0,5000	6,5522	0,2695	0,1348	0,6348	18,9	200	11,22006
520,0000	32	0,5000	6,8143	0,2688	0,1344	0,6344	18,9	200	11,25161
540,0000	33	0,5000	7,0764	0,2764	0,1382	0,6382	18,9	200	11,28335
560,0000	34	0,5000	7,3385	0,2840	0,1420	0,6420	18,9	200	11,31526
580,0000	37	0,5000	7,6006	0,3081	0,1541	0,6541	18,9	200	11,34736
600,0000	37	0,5000	7,8627	0,3073	0,1536	0,6536	18,9	200	11,37964
620,0000	36	0,5000	8,1248	0,2981	0,1491	0,6491	18,9	200	11,4121
640,0000	36	0,5000	8,3868	0,2973	0,1486	0,6486	18,9	200	11,44475
660,0000	36	0,5000	8,6489	0,2964	0,1482	0,6482	18,9	200	11,47758

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1%
 (PERCOBAAN 2)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	11,26822
20,0000	11	1,0000	0,2593	0,0989	0,0494	1,0494	18,9	200	10,51215
40,0000	12	1,0000	0,5187	0,1076	0,0538	1,0538	18,9	200	10,53956
60,0000	13	1,0000	0,7780	0,1163	0,0581	1,0581	18,9	200	10,56711
80,0000	14	1,0000	1,0373	0,1249	0,0624	1,0624	18,9	200	10,5948
100,0000	16	1,0000	1,2967	0,1423	0,0712	1,0712	18,9	200	10,62263
120,0000	20	1,0000	1,5560	0,1775	0,0887	1,0887	18,9	200	10,65062
140,0000	22	1,0000	1,8154	0,1947	0,0973	1,0973	18,9	200	10,67875
160,0000	25	1,0000	2,0747	0,2206	0,1103	1,1103	18,9	200	10,70703
180,0000	26	1,0000	2,3340	0,2289	0,1144	1,1144	18,9	200	10,73546
200,0000	27	1,0000	2,5934	0,2370	0,1185	1,1185	18,9	200	10,76404
220,0000	29	1,0000	2,8527	0,2539	0,1270	1,1270	18,9	200	10,79278
240,0000	30	1,0000	3,1120	0,2620	0,1310	1,1310	18,9	200	10,82167
260,0000	31	1,0000	3,3714	0,2700	0,1350	1,1350	18,9	200	10,85071
280,0000	32	1,0000	3,6307	0,2779	0,1390	1,1390	18,9	200	10,87991
300,0000	32	1,0000	3,8900	0,2772	0,1386	1,1386	18,9	200	10,90927
320,0000	33	1,0000	4,1494	0,2851	0,1425	1,1425	18,9	200	10,93878
340,0000	33	1,0000	4,4087	0,2843	0,1422	1,1422	18,9	200	10,96846
360,0000	34	1,0000	4,6680	0,2921	0,1461	1,1461	18,9	200	10,9983
380,0000	35	1,0000	4,9274	0,2999	0,1500	1,1500	18,9	200	11,0283
400,0000	37	1,0000	5,1867	0,3162	0,1581	1,1581	18,9	200	11,05846
420,0000	37	1,0000	5,4461	0,3153	0,1577	1,1577	18,9	200	11,0888
440,0000	39	1,0000	5,7054	0,3315	0,1657	1,1657	18,9	200	11,11929
460,0000	40	1,0000	5,9647	0,3390	0,1695	1,1695	18,9	200	11,14996
480,0000	40	1,0000	6,2241	0,3381	0,1690	1,1690	18,9	200	11,18079
500,0000	41	1,0000	6,4834	0,3456	0,1728	1,1728	18,9	200	11,2118
520,0000	41	1,0000	6,7427	0,3446	0,1723	1,1723	18,9	200	11,24298
540,0000	42	1,0000	7,0021	0,3520	0,1760	1,1760	18,9	200	11,27433
560,0000	42	1,0000	7,2614	0,3511	0,1755	1,1755	18,9	200	11,30586
580,0000	42	1,0000	7,5207	0,3501	0,1750	1,1750	18,9	200	11,33756
600,0000	40	1,0000	7,7801	0,3325	0,1662	1,1662	18,9	200	11,36945
620,0000	39	1,0000	8,0394	0,3232	0,1616	1,1616	18,9	200	11,40151
640,0000	39	1,0000	8,2988	0,3223	0,1612	1,1612	18,9	200	11,43375
660,0000	39	1,0000	8,5581	0,3214	0,1607	1,1607	18,9	200	11,46618
680,0000	38	1,0000	8,8174	0,3123	0,1561	1,1561	18,9	200	11,49879
700,0000	38	1,0000	9,0768	0,3114	0,1557	1,1557	18,9	200	11,53159

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1%
 (PERCOBAAN 3)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	10,48489
20,0000	18,0000	2,0000	0,2641	0,1618	0,0809	2,0809	18,9	200	10,51265
40,0000	20,0000	2,0000	0,5281	0,1793	0,0897	2,0897	18,9	200	10,54056
60,0000	24,0000	2,0000	0,7922	0,2146	0,1073	2,1073	18,9	200	10,56862
80,0000	26,0000	2,0000	1,0562	0,2319	0,1159	2,1159	18,9	200	10,59682
100,0000	26,0000	2,0000	1,3203	0,2312	0,1156	2,1156	18,9	200	10,62518
120,0000	27,0000	2,0000	1,5844	0,2395	0,1197	2,1197	18,9	200	10,65369
140,0000	29,0000	2,0000	1,8484	0,2565	0,1283	2,1283	18,9	200	10,68235
160,0000	31,0000	2,0000	2,1125	0,2735	0,1367	2,1367	18,9	200	10,71117
180,0000	32,0000	2,0000	2,3766	0,2816	0,1408	2,1408	18,9	200	10,74014
200,0000	34,0000	2,0000	2,6406	0,2983	0,1492	2,1492	18,9	200	10,76927
220,0000	35,0000	2,0000	2,9047	0,3063	0,1531	2,1531	18,9	200	10,79856
240,0000	37,0000	2,0000	3,1687	0,3229	0,1615	2,1615	18,9	200	10,828
260,0000	37,0000	2,0000	3,4328	0,3220	0,1610	2,1610	18,9	200	10,85761
280,0000	39,0000	2,0000	3,6969	0,3385	0,1693	2,1693	18,9	200	10,88738
300,0000	41,0000	2,0000	3,9609	0,3549	0,1774	2,1774	18,9	200	10,91732
320,0000	43,0000	2,0000	4,2250	0,3712	0,1856	2,1856	18,9	200	10,94742
340,0000	46,0000	2,0000	4,4890	0,3960	0,1980	2,1980	18,9	200	10,97769
360,0000	48,0000	2,0000	4,7531	0,4121	0,2060	2,2060	18,9	200	11,00812
380,0000	50,0000	2,0000	5,0172	0,4280	0,2140	2,2140	18,9	200	11,03872
400,0000	52,0000	2,0000	5,2812	0,4439	0,2220	2,2220	18,9	200	11,0695
420,0000	54,0000	2,0000	5,5453	0,4597	0,2299	2,2299	18,9	200	11,10044
440,0000	55,0000	2,0000	5,8093	0,4669	0,2335	2,2335	18,9	200	11,13156
460,0000	55,0000	2,0000	6,0734	0,4656	0,2328	2,2328	18,9	200	11,16286
480,0000	57,0000	2,0000	6,3375	0,4812	0,2406	2,2406	18,9	200	11,19433
500,0000	57,0000	2,0000	6,6015	0,4798	0,2399	2,2399	18,9	200	11,22598
520,0000	58,0000	2,0000	6,8656	0,4869	0,2434	2,2434	18,9	200	11,25781
540,0000	58,0000	2,0000	7,1297	0,4855	0,2427	2,2427	18,9	200	11,28982
560,0000	57,0000	2,0000	7,3937	0,4758	0,2379	2,2379	18,9	200	11,32201
580,0000	57,0000	2,0000	7,6578	0,4744	0,2372	2,2372	18,9	200	11,35439
600,0000	57,0000	2,0000	7,9218	0,4730	0,2365	2,2365	18,9	200	11,38695

**PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1,5%**

Tanggal : 18-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter	$\Phi=$	3,8790 cm	berat =	145,57 gr
tinggi	H=	7,6310 cm	berat vol =	1,7965 gr/cm ³
Luas	A=	11,8224 cm ²		
Volume	V=	90,2164 cm ³		

Data benda uji : Percobaan 2

diameter	$\Phi=$	3,7870 cm	berat =	145,62 gr
tinggi	H=	7,7120 cm	berat vol =	1,9555 gr/cm ³
Luas	A=	11,2682 cm ²		
Volume	V=	86,9005 cm ³		

Data benda uji : Percobaan 3

diameter	$\Phi=$	3,6530 cm	berat =	145,77 gr
tinggi	H=	7,5740 cm	berat vol =	1,8912 gr/cm ³
Luas	A=	10,4849 cm ²		
Volume	V=	79,4126 cm ³		

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1-\sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,2328	0,7328
2	1	0,297	1,297
3	2	0,324	2,324

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1,5%
 (PERCOBAAN 1)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	9,702154
20,0000	6	0,5000	0,2749	0,0561	0,0280	0,5280	18,9	200	10,11472
40,0000	6	0,5000	0,5498	0,0559	0,0280	0,5280	18,9	200	10,14268
60,0000	7	0,5000	0,8247	0,0650	0,0325	0,5325	18,9	200	10,1708
80,0000	7	0,5000	1,0997	0,0649	0,0324	0,5324	18,9	200	10,19907
100,0000	8	0,5000	1,3746	0,0739	0,0370	0,5370	18,9	200	10,2275
120,0000	9	0,5000	1,6495	0,0829	0,0415	0,5415	18,9	200	10,25609
140,0000	10	0,5000	1,9244	0,0919	0,0459	0,5459	18,9	200	10,28483
160,0000	11	0,5000	2,1993	0,1008	0,0504	0,5504	18,9	200	10,31374
180,0000	12	0,5000	2,4742	0,1096	0,0548	0,5548	18,9	200	10,34282
200,0000	12	0,5000	2,7491	0,1093	0,0547	0,5547	18,9	200	10,37206
220,0000	13	0,5000	3,0241	0,1181	0,0591	0,5591	18,9	200	10,40146
240,0000	13	0,5000	3,2990	0,1178	0,0589	0,5589	18,9	200	10,43103
260,0000	14	0,5000	3,5739	0,1265	0,0632	0,5632	18,9	200	10,46077
280,0000	14,5	0,5000	3,8488	0,1306	0,0653	0,5653	18,9	200	10,49068
300,0000	14,5	0,5000	4,1237	0,1302	0,0651	0,5651	18,9	200	10,52076
320,0000	15	0,5000	4,3986	0,1343	0,0672	0,5672	18,9	200	10,55101
340,0000	15	0,5000	4,6735	0,1340	0,0670	0,5670	18,9	200	10,58144
360,0000	16	0,5000	4,9485	0,1425	0,0712	0,5712	18,9	200	10,61204
380,0000	16	0,5000	5,2234	0,1421	0,0710	0,5710	18,9	200	10,64283
400,0000	17	0,5000	5,4983	0,1505	0,0753	0,5753	18,9	200	10,67379
420,0000	18	0,5000	5,7732	0,1589	0,0794	0,5794	18,9	200	10,70493
440,0000	19	0,5000	6,0481	0,1672	0,0836	0,5836	18,9	200	10,73625
460,0000	19	0,5000	6,3230	0,1667	0,0834	0,5834	18,9	200	10,76776
480,0000	20	0,5000	6,5979	0,1750	0,0875	0,5875	18,9	200	10,79945
500,0000	20	0,5000	6,8729	0,1745	0,0872	0,5872	18,9	200	10,83133
520,0000	22	0,5000	7,1478	0,1914	0,0957	0,5957	18,9	200	10,8634
540,0000	23	0,5000	7,4227	0,1995	0,0997	0,5997	18,9	200	10,89566
560,0000	25	0,5000	7,6976	0,2162	0,1081	0,6081	18,9	200	10,92811
580,0000	27	0,5000	7,9725	0,2328	0,1164	0,6164	18,9	200	10,96076
600,0000	24	0,5000	8,2474	0,2063	0,1032	0,6032	18,9	200	10,9936
620,0000	24	0,5000	8,5223	0,2057	0,1028	0,6028	18,9	200	11,02664
640,0000	23	0,5000	8,7973	0,1965	0,0983	0,5983	18,9	200	11,05988
660,0000	23	0,5000	9,0722	0,1959	0,0980	0,5980	18,9	200	11,09332

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1,5%
 (PERCOBAAN 2)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	9,702154
20,0000	10	1,0000	0,2606	0,0934	0,0467	1,0467	18,9	200	10,11327
40,0000	10	1,0000	0,5212	0,0932	0,0466	1,0466	18,9	200	10,13976
60,0000	11	1,0000	0,7818	0,1022	0,0511	1,0511	18,9	200	10,16639
80,0000	11	1,0000	1,0423	0,1020	0,0510	1,0510	18,9	200	10,19316
100,0000	11	1,0000	1,3029	0,1017	0,0509	1,0509	18,9	200	10,22007
120,0000	12	1,0000	1,5635	0,1107	0,0553	1,0553	18,9	200	10,24713
140,0000	13	1,0000	1,8241	0,1196	0,0598	1,0598	18,9	200	10,27433
160,0000	13	1,0000	2,0847	0,1193	0,0596	1,0596	18,9	200	10,30167
180,0000	15	1,0000	2,3453	0,1372	0,0686	1,0686	18,9	200	10,32916
200,0000	17	1,0000	2,6059	0,1551	0,0776	1,0776	18,9	200	10,3568
220,0000	19	1,0000	2,8664	0,1729	0,0865	1,0865	18,9	200	10,38458
240,0000	21	1,0000	3,1270	0,1906	0,0953	1,0953	18,9	200	10,41252
260,0000	24	1,0000	3,3876	0,2172	0,1086	1,1086	18,9	200	10,4406
280,0000	25	1,0000	3,6482	0,2257	0,1128	1,1128	18,9	200	10,46884
300,0000	26	1,0000	3,9088	0,2341	0,1170	1,1170	18,9	200	10,49723
320,0000	27	1,0000	4,1694	0,2424	0,1212	1,1212	18,9	200	10,52577
340,0000	28	1,0000	4,4300	0,2507	0,1253	1,1253	18,9	200	10,55447
360,0000	28	1,0000	4,6906	0,2500	0,1250	1,1250	18,9	200	10,58333
380,0000	29	1,0000	4,9511	0,2582	0,1291	1,1291	18,9	200	10,61234
400,0000	29	1,0000	5,2117	0,2575	0,1288	1,1288	18,9	200	10,64152
420,0000	31	1,0000	5,4723	0,2745	0,1373	1,1373	18,9	200	10,67086
440,0000	31	1,0000	5,7329	0,2738	0,1369	1,1369	18,9	200	10,70035
460,0000	32	1,0000	5,9935	0,2818	0,1409	1,1409	18,9	200	10,73001
480,0000	32	1,0000	6,2541	0,2810	0,1405	1,1405	18,9	200	10,75984
500,0000	33	1,0000	6,5147	0,2890	0,1445	1,1445	18,9	200	10,78983
520,0000	34	1,0000	6,7752	0,2970	0,1485	1,1485	18,9	200	10,81999
540,0000	31	1,0000	7,0358	0,2700	0,1350	1,1350	18,9	200	10,85032
560,0000	31	1,0000	7,2964	0,2692	0,1346	1,1346	18,9	200	10,88082
580,0000	31	1,0000	7,5570	0,2685	0,1342	1,1342	18,9	200	10,91149
600,0000	30	1,0000	7,8176	0,2591	0,1295	1,1295	18,9	200	10,94234
620,0000	30	1,0000	8,0782	0,2584	0,1292	1,1292	18,9	200	10,97336

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 1,5%
 (PERCOBAAN 3)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	10,08691
20,0000	15,0000	2,0000	0,2617	0,1402	0,0701	2,0701	18,9	200	10,11338
40,0000	15,5000	2,0000	0,5235	0,1445	0,0722	2,0722	18,9	200	10,13999
60,0000	17,0000	2,0000	0,7852	0,1580	0,0790	2,0790	18,9	200	10,16675
80,0000	18,0000	2,0000	1,0470	0,1669	0,0834	2,0834	18,9	200	10,19364
100,0000	18,0000	2,0000	1,3087	0,1664	0,0832	2,0832	18,9	200	10,22067
120,0000	19,0000	2,0000	1,5705	0,1752	0,0876	2,0876	18,9	200	10,24785
140,0000	21,0000	2,0000	1,8322	0,1931	0,0966	2,0966	18,9	200	10,27518
160,0000	23,0000	2,0000	2,0940	0,2110	0,1055	2,1055	18,9	200	10,30265
180,0000	23,0000	2,0000	2,3557	0,2104	0,1052	2,1052	18,9	200	10,33026
200,0000	23,5000	2,0000	2,6175	0,2144	0,1072	2,1072	18,9	200	10,35803
220,0000	23,5000	2,0000	2,8792	0,2138	0,1069	2,1069	18,9	200	10,38595
240,0000	25,0000	2,0000	3,1410	0,2269	0,1134	2,1134	18,9	200	10,41401
260,0000	25,0000	2,0000	3,4027	0,2262	0,1131	2,1131	18,9	200	10,44223
280,0000	26,0000	2,0000	3,6644	0,2347	0,1173	2,1173	18,9	200	10,4706
300,0000	27,0000	2,0000	3,9262	0,2430	0,1215	2,1215	18,9	200	10,49913
320,0000	29,0000	2,0000	4,1879	0,2603	0,1302	2,1302	18,9	200	10,52781
340,0000	29,5000	2,0000	4,4497	0,2641	0,1320	2,1320	18,9	200	10,55665
360,0000	29,5000	2,0000	4,7114	0,2634	0,1317	2,1317	18,9	200	10,58565
380,0000	31,0000	2,0000	4,9732	0,2760	0,1380	2,1380	18,9	200	10,61481
400,0000	31,0000	2,0000	5,2349	0,2752	0,1376	2,1376	18,9	200	10,64412
420,0000	32,0000	2,0000	5,4967	0,2833	0,1417	2,1417	18,9	200	10,6736
440,0000	32,0000	2,0000	5,7584	0,2825	0,1413	2,1413	18,9	200	10,70325
460,0000	35,0000	2,0000	6,0202	0,3082	0,1541	2,1541	18,9	200	10,73306
480,0000	35,0000	2,0000	6,2819	0,3073	0,1537	2,1537	18,9	200	10,76304
500,0000	37,0000	2,0000	6,5436	0,3240	0,1620	2,1620	18,9	200	10,79318
520,0000	37,0000	2,0000	6,8054	0,3230	0,1615	2,1615	18,9	200	10,82349
540,0000	36,0000	2,0000	7,0671	0,3134	0,1567	2,1567	18,9	200	10,85398
560,0000	36,0000	2,0000	7,3289	0,3126	0,1563	2,1563	18,9	200	10,88464
580,0000	36,0000	2,0000	7,5906	0,3117	0,1558	2,1558	18,9	200	10,91547
600,0000	36,0000	2,0000	7,8524	0,3108	0,1554	2,1554	18,9	200	10,94647

**PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2%**

Tanggal : 19-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter	Φ =	3,8790 cm	berat =	144,65 gr
tinggi	H=	7,6310 cm	berat vol =	1,7397 gr/cm ³
Luas	A=	11,8224 cm ²		
Volume	V=	90,2164 cm ³		

Data benda uji : Percobaan 2

diameter	Φ =	3,7870 cm	berat =	144,23 gr
tinggi	H=	7,7120 cm	berat vol =	1,7390 gr/cm ³
Luas	A=	11,2682 cm ²		
Volume	V=	86,9005 cm ³		

Data benda uji : Percobaan 3

diameter	Φ =	3,6530 cm	berat =	144,76 gr
tinggi	H=	7,5740 cm	berat vol =	1,6804 gr/cm ³
Luas	A=	10,4849 cm ²		
Volume	V=	79,4126 cm ³		

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1 - \sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,2269	0,7269
2	1	0,2596	1,2596
3	2	0,2799	2,2799

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2%
 (PERCOBAAN 1)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	10,53662
20,0000	7	0,5000	0,2663	0,0594	0,0297	0,5297	18,9	200	11,1437
40,0000	7	0,5000	0,5327	0,0592	0,0296	0,5296	18,9	200	11,17354
60,0000	9	0,5000	0,7990	0,0759	0,0380	0,5380	18,9	200	11,20354
80,0000	9	0,5000	1,0654	0,0757	0,0379	0,5379	18,9	200	11,23371
100,0000	11	0,5000	1,3317	0,0923	0,0461	0,5461	18,9	200	11,26403
120,0000	12	0,5000	1,5981	0,1004	0,0502	0,5502	18,9	200	11,29452
140,0000	12	0,5000	1,8644	0,1001	0,0501	0,5501	18,9	200	11,32517
160,0000	13	0,5000	2,1308	0,1082	0,0541	0,5541	18,9	200	11,35599
180,0000	13	0,5000	2,3971	0,1079	0,0539	0,5539	18,9	200	11,38698
200,0000	14	0,5000	2,6635	0,1159	0,0579	0,5579	18,9	200	11,41814
220,0000	15	0,5000	2,9298	0,1238	0,0619	0,5619	18,9	200	11,44947
240,0000	15	0,5000	3,1962	0,1235	0,0617	0,5617	18,9	200	11,48097
260,0000	17	0,5000	3,4625	0,1395	0,0698	0,5698	18,9	200	11,51265
280,0000	17	0,5000	3,7289	0,1392	0,0696	0,5696	18,9	200	11,5445
300,0000	18	0,5000	3,9952	0,1469	0,0735	0,5735	18,9	200	11,57653
320,0000	19	0,5000	4,2616	0,1547	0,0773	0,5773	18,9	200	11,60874
340,0000	19	0,5000	4,5279	0,1542	0,0771	0,5771	18,9	200	11,64112
360,0000	21	0,5000	4,7942	0,1700	0,0850	0,5850	18,9	200	11,67369
380,0000	21	0,5000	5,0606	0,1695	0,0848	0,5848	18,9	200	11,70644
400,0000	22	0,5000	5,3269	0,1771	0,0885	0,5885	18,9	200	11,73937
420,0000	22	0,5000	5,5933	0,1766	0,0883	0,5883	18,9	200	11,77249
440,0000	23	0,5000	5,8596	0,1841	0,0921	0,5921	18,9	200	11,8058
460,0000	23	0,5000	6,1260	0,1836	0,0918	0,5918	18,9	200	11,8393
480,0000	24	0,5000	6,3923	0,1910	0,0955	0,5955	18,9	200	11,87298
500,0000	25	0,5000	6,6587	0,1984	0,0992	0,5992	18,9	200	11,90686
520,0000	27	0,5000	6,9250	0,2137	0,1068	0,6068	18,9	200	11,94094
540,0000	27	0,5000	7,1914	0,2131	0,1065	0,6065	18,9	200	11,9752
560,0000	28	0,5000	7,4577	0,2203	0,1102	0,6102	18,9	200	12,00967
580,0000	28	0,5000	7,7241	0,2197	0,1098	0,6098	18,9	200	12,04434
600,0000	29	0,5000	7,9904	0,2269	0,1134	0,6134	18,9	200	12,0792
620,0000	29	0,5000	8,2568	0,2262	0,1131	0,6131	18,9	200	12,11427
640,0000	28	0,5000	8,5231	0,2178	0,1089	0,6089	18,9	200	12,14954
660,0000	28	0,5000	8,7895	0,2172	0,1086	0,6086	18,9	200	12,18502

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2%
 (PERCOBAAN 2)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	10,53662
20,0000	8	1,0000	0,2581	0,0678	0,0339	1,0339	18,9	200	11,14278
40,0000	10	1,0000	0,5161	0,0846	0,0423	1,0423	18,9	200	11,17168
60,0000	12	1,0000	0,7742	0,1012	0,0506	1,0506	18,9	200	11,20074
80,0000	12	1,0000	1,0323	0,1010	0,0505	1,0505	18,9	200	11,22995
100,0000	14	1,0000	1,2903	0,1175	0,0588	1,0588	18,9	200	11,2593
120,0000	15	1,0000	1,5484	0,1256	0,0628	1,0628	18,9	200	11,28882
140,0000	16	1,0000	1,8065	0,1336	0,0668	1,0668	18,9	200	11,31849
160,0000	17	1,0000	2,0645	0,1416	0,0708	1,0708	18,9	200	11,34831
180,0000	18	1,0000	2,3226	0,1495	0,0747	1,0747	18,9	200	11,37829
200,0000	18	1,0000	2,5806	0,1491	0,0746	1,0746	18,9	200	11,40843
220,0000	19	1,0000	2,8387	0,1570	0,0785	1,0785	18,9	200	11,43874
240,0000	21	1,0000	3,0968	0,1730	0,0865	1,0865	18,9	200	11,4692
260,0000	21	1,0000	3,3548	0,1726	0,0863	1,0863	18,9	200	11,49982
280,0000	22	1,0000	3,6129	0,1803	0,0902	1,0902	18,9	200	11,53061
300,0000	23	1,0000	3,8710	0,1880	0,0940	1,0940	18,9	200	11,56157
320,0000	23	1,0000	4,1290	0,1875	0,0937	1,0937	18,9	200	11,59269
340,0000	24	1,0000	4,3871	0,1951	0,0976	1,0976	18,9	200	11,62398
360,0000	25	1,0000	4,6452	0,2027	0,1013	1,1013	18,9	200	11,65544
380,0000	27	1,0000	4,9032	0,2183	0,1092	1,1092	18,9	200	11,68707
400,0000	28	1,0000	5,1613	0,2258	0,1129	1,1129	18,9	200	11,71887
420,0000	28	1,0000	5,4194	0,2252	0,1126	1,1126	18,9	200	11,75084
440,0000	29	1,0000	5,6774	0,2326	0,1163	1,1163	18,9	200	11,78299
460,0000	29	1,0000	5,9355	0,2319	0,1160	1,1160	18,9	200	11,81532
480,0000	30	1,0000	6,1935	0,2393	0,1196	1,1196	18,9	200	11,84782
500,0000	32	1,0000	6,4516	0,2545	0,1273	1,1273	18,9	200	11,88051
520,0000	32	1,0000	6,7097	0,2538	0,1269	1,1269	18,9	200	11,91337
540,0000	32,5	1,0000	6,9677	0,2571	0,1285	1,1285	18,9	200	11,94642
560,0000	32,5	1,0000	7,2258	0,2564	0,1282	1,1282	18,9	200	11,97965
580,0000	33	1,0000	7,4839	0,2596	0,1298	1,1298	18,9	200	12,01307
600,0000	33	1,0000	7,7419	0,2589	0,1294	1,1294	18,9	200	12,04667
620,0000	32	1,0000	8,0000	0,2503	0,1252	1,1252	18,9	200	12,08046
640,0000	29	1,0000	8,2581	0,2262	0,1131	1,1131	18,9	200	12,11444
660,0000	29	1,0000	8,5161	0,2256	0,1128	1,1128	18,9	200	12,14862
680,0000	28	1,0000	8,7742	0,2172	0,1086	1,1086	18,9	200	12,18298
700,0000	28	1,0000	9,0323	0,2166	0,1083	1,1083	18,9	200	12,21754

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2%
 (PERCOBAAN 3)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	11,11402
20,0000	16,0000	2,0000	0,2580	0,1357	0,0678	2,0678	18,9	200	11,14278
40,0000	16,0000	2,0000	0,5161	0,1353	0,0677	2,0677	18,9	200	11,17168
60,0000	17,0000	2,0000	0,7741	0,1434	0,0717	2,0717	18,9	200	11,20073
80,0000	17,0000	2,0000	1,0321	0,1431	0,0715	2,0715	18,9	200	11,22993
100,0000	19,0000	2,0000	1,2902	0,1595	0,0797	2,0797	18,9	200	11,25929
120,0000	19,0000	2,0000	1,5482	0,1591	0,0795	2,0795	18,9	200	11,2888
140,0000	19,5000	2,0000	1,8062	0,1628	0,0814	2,0814	18,9	200	11,31846
160,0000	19,5000	2,0000	2,0642	0,1624	0,0812	2,0812	18,9	200	11,34828
180,0000	21,0000	2,0000	2,3223	0,1744	0,0872	2,0872	18,9	200	11,37826
200,0000	23,0000	2,0000	2,5803	0,1905	0,0953	2,0953	18,9	200	11,4084
220,0000	26,0000	2,0000	2,8383	0,2148	0,1074	2,1074	18,9	200	11,43869
240,0000	26,0000	2,0000	3,0964	0,2142	0,1071	2,1071	18,9	200	11,46915
260,0000	26,0000	2,0000	3,3544	0,2137	0,1068	2,1068	18,9	200	11,49977
280,0000	27,0000	2,0000	3,6124	0,2213	0,1106	2,1106	18,9	200	11,53056
300,0000	27,0000	2,0000	3,8705	0,2207	0,1103	2,1103	18,9	200	11,56151
320,0000	29,0000	2,0000	4,1285	0,2364	0,1182	2,1182	18,9	200	11,59263
340,0000	31,0000	2,0000	4,3865	0,2520	0,1260	2,1260	18,9	200	11,62391
360,0000	31,0000	2,0000	4,6446	0,2513	0,1257	2,1257	18,9	200	11,65536
380,0000	33,0000	2,0000	4,9026	0,2668	0,1334	2,1334	18,9	200	11,68699
400,0000	33,0000	2,0000	5,1606	0,2661	0,1331	2,1331	18,9	200	11,71879
420,0000	34,0000	2,0000	5,4187	0,2734	0,1367	2,1367	18,9	200	11,75076
440,0000	34,0000	2,0000	5,6767	0,2727	0,1363	2,1363	18,9	200	11,7829
460,0000	35,0000	2,0000	5,9347	0,2799	0,1400	2,1400	18,9	200	11,81522
480,0000	35,0000	2,0000	6,1927	0,2792	0,1396	2,1396	18,9	200	11,84772
500,0000	33,0000	2,0000	6,4508	0,2625	0,1312	2,1312	18,9	200	11,8804
520,0000	33,0000	2,0000	6,7088	0,2618	0,1309	2,1309	18,9	200	11,91326
540,0000	32,0000	2,0000	6,9668	0,2531	0,1266	2,1266	18,9	200	11,9463
560,0000	32,0000	2,0000	7,2249	0,2524	0,1262	2,1262	18,9	200	11,97953

**PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2,5%**

Tanggal : 19-06-2015

Kedalaman : -1,00 m

Data benda uji : Percobaan 1

diameter	Φ =	3,8790 cm	berat =	142,56 gr
tinggi	H=	7,6310 cm	berat vol =	1,7088 gr/cm ³
Luas	A=	11,8224 cm ²		
Volume	V=	90,2164 cm ³		

Data benda uji : Percobaan 2

diameter	Φ =	3,7870 cm	berat =	143,02 gr
tinggi	H=	7,7120 cm	berat vol =	1,6652 gr/cm ³
Luas	A=	11,2682 cm ²		
Volume	V=	86,9005 cm ³		

Data benda uji : Percobaan 3

diameter	Φ =	3,6530 cm	berat =	142,85 gr
tinggi	H=	7,5740 cm	berat vol =	1,6842 gr/cm ³
Luas	A=	10,4849 cm ²		
Volume	V=	79,4126 cm ³		

Percobaan	Tekanan sel σ_3 , kg/cm ²	Tekanan deviator pecah ($\sigma_1 - \sigma_3$), kg/cm ²	σ_1 pecah kg/cm ²
1	0,5	0,129	0,629
2	1	0,1758	1,1758
3	2	0,2121	2,2121

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2,5%
 (PERCOBAAN 1)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	0,5000	0,0000	0,0000	0,0000	0,5000	18,9	200	11,36364
20,0000	7	0,5000	0,2628	0,0596	0,0298	0,5298	18,9	200	11,10186
40,0000	7	0,5000	0,5256	0,0594	0,0297	0,5297	18,9	200	11,13119
60,0000	8	0,5000	0,7883	0,0677	0,0339	0,5339	18,9	200	11,16067
80,0000	8	0,5000	1,0511	0,0676	0,0338	0,5338	18,9	200	11,19031
100,0000	8,5	0,5000	1,3139	0,0716	0,0358	0,5358	18,9	200	11,22011
120,0000	8,5	0,5000	1,5767	0,0714	0,0357	0,5357	18,9	200	11,25007
140,0000	10	0,5000	1,8394	0,0838	0,0419	0,5419	18,9	200	11,28018
160,0000	10	0,5000	2,1022	0,0836	0,0418	0,5418	18,9	200	11,31046
180,0000	11	0,5000	2,3650	0,0917	0,0458	0,5458	18,9	200	11,3409
200,0000	11	0,5000	2,6278	0,0914	0,0457	0,5457	18,9	200	11,37151
220,0000	11,5	0,5000	2,8906	0,0953	0,0477	0,5477	18,9	200	11,40228
240,0000	12	0,5000	3,1533	0,0992	0,0496	0,5496	18,9	200	11,43322
260,0000	14	0,5000	3,4161	0,1154	0,0577	0,5577	18,9	200	11,46432
280,0000	14,5	0,5000	3,6789	0,1192	0,0596	0,5596	18,9	200	11,4956
300,0000	14,5	0,5000	3,9417	0,1189	0,0594	0,5594	18,9	200	11,52705
320,0000	15	0,5000	4,2044	0,1226	0,0613	0,5613	18,9	200	11,55867
340,0000	15	0,5000	4,4672	0,1223	0,0611	0,5611	18,9	200	11,59046
360,0000	15,5	0,5000	4,7300	0,1260	0,0630	0,5630	18,9	200	11,62243
380,0000	16	0,5000	4,9928	0,1297	0,0649	0,5649	18,9	200	11,65458
400,0000	16	0,5000	5,2556	0,1294	0,0647	0,5647	18,9	200	11,6869
420,0000	16	0,5000	5,5183	0,1290	0,0645	0,5645	18,9	200	11,71941
440,0000	16	0,5000	5,7811	0,1287	0,0643	0,5643	18,9	200	11,75209
460,0000	15	0,5000	6,0439	0,1203	0,0601	0,5601	18,9	200	11,78496
480,0000	15	0,5000	6,3067	0,1199	0,0600	0,5600	18,9	200	11,81801
500,0000	14	0,5000	6,5694	0,1116	0,0558	0,5558	18,9	200	11,85125
520,0000	14	0,5000	6,8322	0,1113	0,0557	0,5557	18,9	200	11,88468
540,0000	14	0,5000	7,0950	0,1110	0,0555	0,5555	18,9	200	11,91829
560,0000	14	0,5000	7,3578	0,1107	0,0553	0,5553	18,9	200	11,9521

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2,5%
 (PERCOBAAN 2)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0	1,0000	0,0000	0,0000	0,0000	1,0000	18,9	200	11,36364
20,0000	9	1,0000	0,2646	0,0766	0,0383	1,0383	18,9	200	11,10207
40,0000	10	1,0000	0,5292	0,0849	0,0424	1,0424	18,9	200	11,1316
60,0000	11	1,0000	0,7939	0,0931	0,0466	1,0466	18,9	200	11,1613
80,0000	11	1,0000	1,0585	0,0929	0,0464	1,0464	18,9	200	11,19115
100,0000	11,5	1,0000	1,3231	0,0968	0,0484	1,0484	18,9	200	11,22116
120,0000	12	1,0000	1,5877	0,1008	0,0504	1,0504	18,9	200	11,25133
140,0000	12	1,0000	1,8523	0,1005	0,0503	1,0503	18,9	200	11,28167
160,0000	13	1,0000	2,1170	0,1086	0,0543	1,0543	18,9	200	11,31217
180,0000	13	1,0000	2,3816	0,1083	0,0542	1,0542	18,9	200	11,34283
200,0000	14	1,0000	2,6462	0,1163	0,0582	1,0582	18,9	200	11,37366
220,0000	15	1,0000	2,9108	0,1243	0,0621	1,0621	18,9	200	11,40466
240,0000	15	1,0000	3,1754	0,1240	0,0620	1,0620	18,9	200	11,43583
260,0000	16	1,0000	3,4401	0,1319	0,0659	1,0659	18,9	200	11,46717
280,0000	16	1,0000	3,7047	0,1315	0,0657	1,0657	18,9	200	11,49868
300,0000	17	1,0000	3,9693	0,1393	0,0697	1,0697	18,9	200	11,53037
320,0000	17,5	1,0000	4,2339	0,1430	0,0715	1,0715	18,9	200	11,56223
340,0000	17,5	1,0000	4,4985	0,1426	0,0713	1,0713	18,9	200	11,59426
360,0000	19	1,0000	4,7632	0,1544	0,0772	1,0772	18,9	200	11,62648
380,0000	19	1,0000	5,0278	0,1540	0,0770	1,0770	18,9	200	11,65887
400,0000	20	1,0000	5,2924	0,1617	0,0808	1,0808	18,9	200	11,69145
420,0000	20	1,0000	5,5570	0,1612	0,0806	1,0806	18,9	200	11,72421
440,0000	21	1,0000	5,8216	0,1688	0,0844	1,0844	18,9	200	11,75715
460,0000	21	1,0000	6,0863	0,1683	0,0842	1,0842	18,9	200	11,79028
480,0000	22	1,0000	6,3509	0,1758	0,0879	1,0879	18,9	200	11,82359
500,0000	22	1,0000	6,6155	0,1753	0,0877	1,0877	18,9	200	11,8571
520,0000	20	1,0000	6,8801	0,1589	0,0795	1,0795	18,9	200	11,89079
540,0000	20	1,0000	7,1447	0,1585	0,0792	1,0792	18,9	200	11,92468

PEMERIKSAAN TRIAXIAL TANAH + ABU AMPAS TEBU 10% + KAPUR
8% + STYROFOAM 2,5%
 (PERCOBAAN 3)

ΔH	Proving ring	σ_3	ϵ	$\sigma_1 - \sigma_3$	$(\sigma_1 - \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	C	K	A'
mm	div.	kg/cm ²	%	kg/cm ²					
0,0000	0,0000	2,0000	0,0000	0,0000	0,0000	2,0000	18,9	200	11,07269
20,0000	14,0000	2,0000	0,2609	0,1192	0,0596	2,0596	18,9	200	11,10165
40,0000	14,0000	2,0000	0,5218	0,1189	0,0594	2,0594	18,9	200	11,13077
60,0000	15,0000	2,0000	0,7827	0,1270	0,0635	2,0635	18,9	200	11,16004
80,0000	15,0000	2,0000	1,0436	0,1267	0,0633	2,0633	18,9	200	11,18946
100,0000	16,0000	2,0000	1,3045	0,1348	0,0674	2,0674	18,9	200	11,21904
120,0000	16,0000	2,0000	1,5654	0,1344	0,0672	2,0672	18,9	200	11,24877
140,0000	18,0000	2,0000	1,8262	0,1508	0,0754	2,0754	18,9	200	11,27867
160,0000	18,0000	2,0000	2,0871	0,1504	0,0752	2,0752	18,9	200	11,30872
180,0000	20,0000	2,0000	2,3480	0,1667	0,0833	2,0833	18,9	200	11,33893
200,0000	21,0000	2,0000	2,6089	0,1745	0,0873	2,0873	18,9	200	11,36931
220,0000	22,0000	2,0000	2,8698	0,1824	0,0912	2,0912	18,9	200	11,39985
240,0000	22,0000	2,0000	3,1307	0,1819	0,0909	2,0909	18,9	200	11,43055
260,0000	23,0000	2,0000	3,3916	0,1896	0,0948	2,0948	18,9	200	11,46142
280,0000	23,0000	2,0000	3,6525	0,1891	0,0946	2,0946	18,9	200	11,49245
300,0000	24,0000	2,0000	3,9134	0,1968	0,0984	2,0984	18,9	200	11,52366
320,0000	24,0000	2,0000	4,1743	0,1963	0,0981	2,0981	18,9	200	11,55503
340,0000	26,0000	2,0000	4,4352	0,2121	0,1060	2,1060	18,9	200	11,58658
360,0000	26,0000	2,0000	4,6961	0,2115	0,1057	2,1057	18,9	200	11,61829
380,0000	25,5000	2,0000	4,9570	0,2068	0,1034	2,1034	18,9	200	11,65019
400,0000	25,5000	2,0000	5,2178	0,2063	0,1031	2,1031	18,9	200	11,68225
420,0000	24,0000	2,0000	5,4787	0,1936	0,0968	2,0968	18,9	200	11,7145
440,0000	24,0000	2,0000	5,7396	0,1931	0,0965	2,0965	18,9	200	11,74692
460,0000	23,0000	2,0000	6,0005	0,1845	0,0923	2,0923	18,9	200	11,77952
480,0000	23,0000	2,0000	6,2614	0,1840	0,0920	2,0920	18,9	200	11,81231