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LAMPIRAN

Lampiran Data Pengujian Tanah Asli (Sedimen Bendungan Bili-bili)

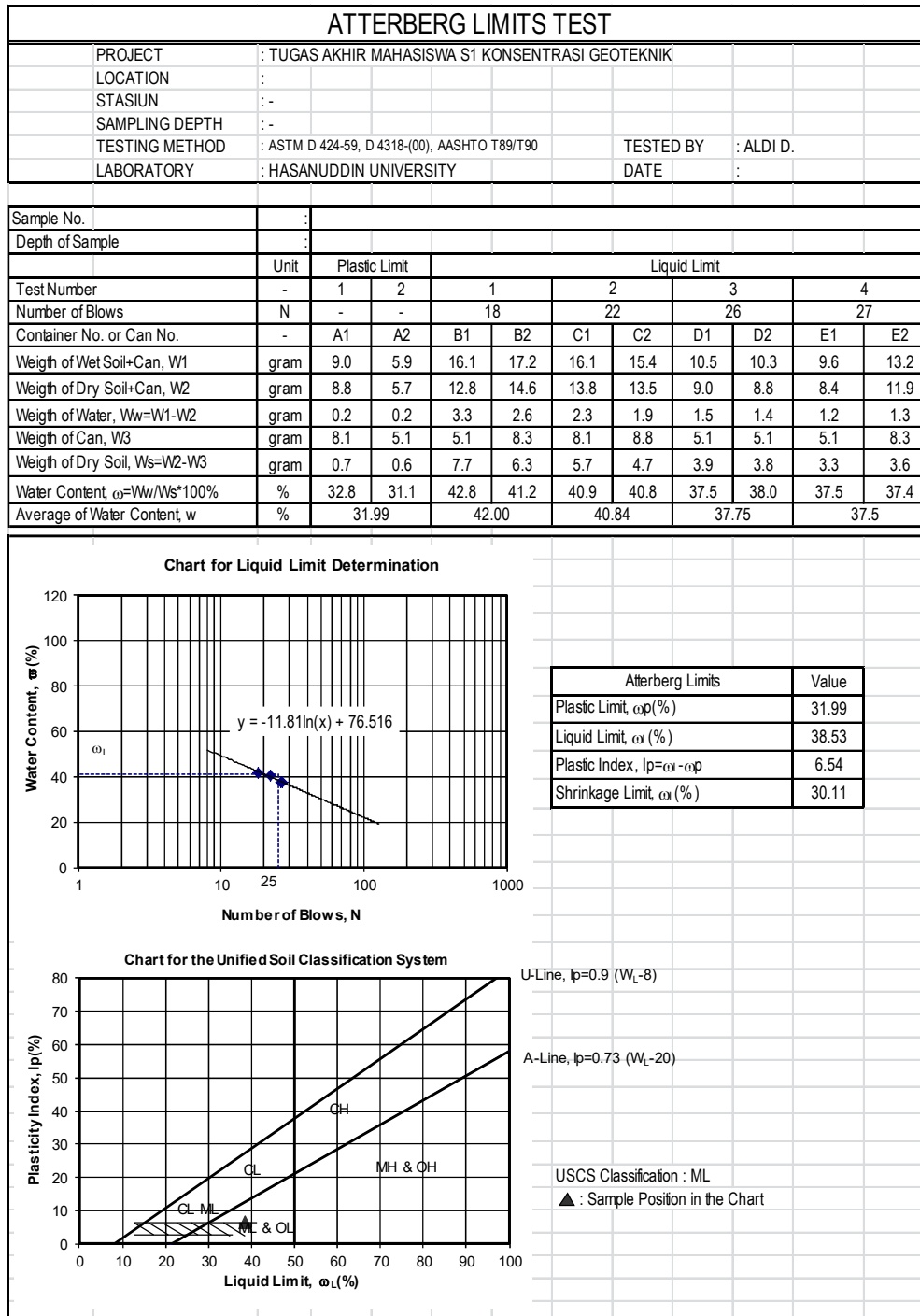
1. Berat Jenis

SPECIFIC GRAVITY TEST RESULTS							
PROJECT	: TUGAS AKHIR MAHASISWA S1 KONSENTRASI GEOTEKNIK						
LOCATION	: BENDUNGAN BILI-BILI						
BORING DEPTH	: -						
TESTING METHOD	: ASTM D 854-58(72)						
LABORATORY	: HASANUDDIN UNIVERSITY						
	TESTED BY	: ALDI D.					
	DATE	:					
Sample	-	01					
Sample Depth & Inclination	m						
Number of Volumetric Flask	-	A	B				
Weight of Vol. Flask + Soil (W2)	Gram	41.04	36.80				
Weight of Vol. Flask (W1)	Gram	31.04	26.80				
Weight of Dry Soil (Ws=W2-W1)	Gram	10.00	10.00				
Temperature, T (oC)	Degree	28.0	28.0				
Weight of Vol. Flask+Water at T (W4)	Gram	78.76	74.34				
Weight of Vol. Flask+Water+Soil (W3)	Gram	84.99	80.58				
Unit Weight of Water at T, γ_T	Gram/Cm ³	0.99624	0.99624				
Temp. Corr. Coefficient, $\alpha=\gamma_T/\gamma_{20}^{oC}$	-	0.99803	0.99803				
Weight of Soil, Wu	Gram	9.96	9.98				
Specific Gravity of Soil ($G_s=\alpha \cdot W_s/W_u$)	-	2.665	2.663				
Average of G_s	-	2.664					
Remarks:	Unit Weight of Water, $\gamma_{w,20}^{oC} = 0.99821$						

2. Kadar Air

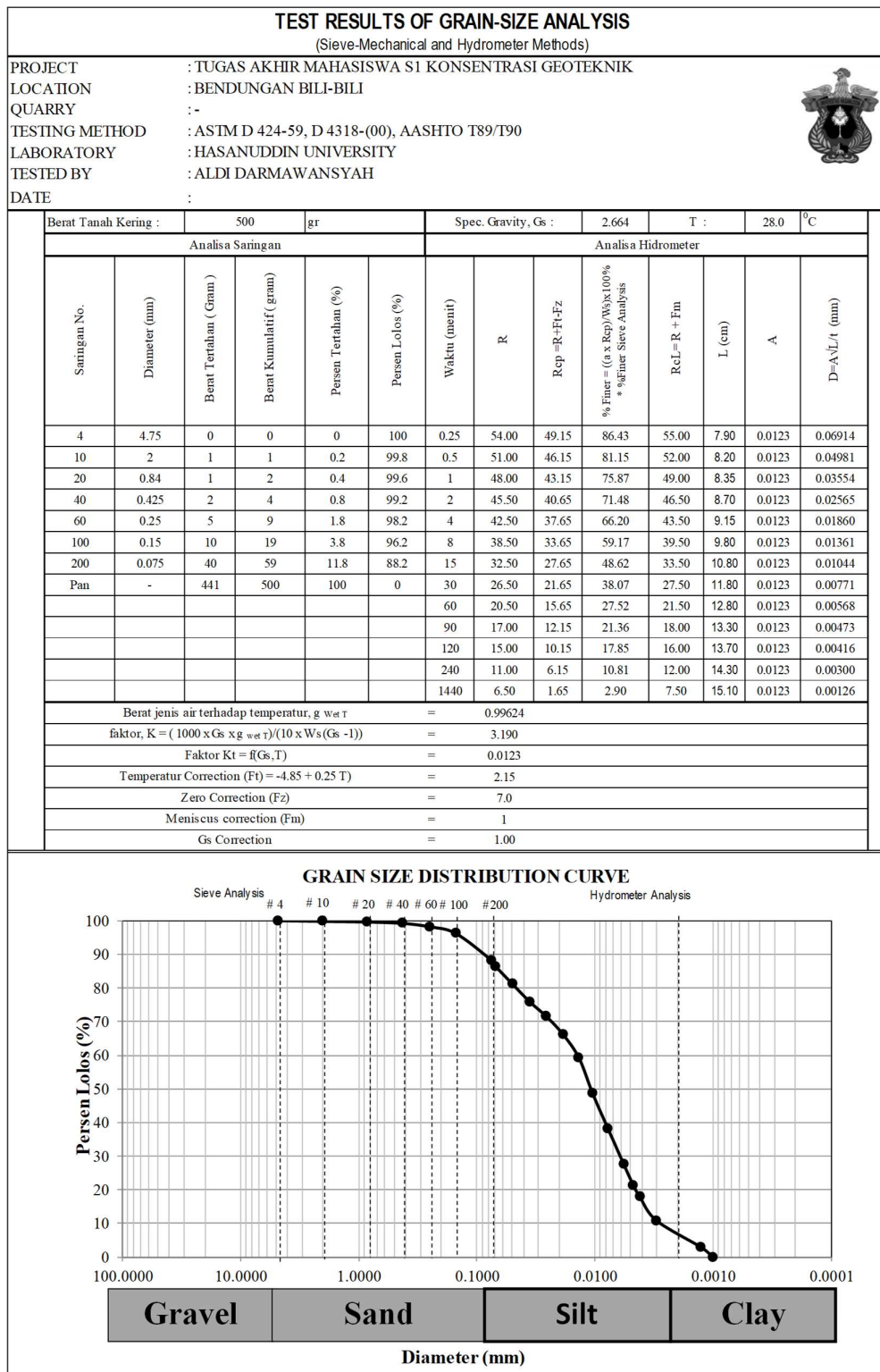
Berat container kosong	9.36	8.21	8.16
Berat container + tanah	51.94	45.18	35.38
Berat container + tanah setelah dioven	47.63	41.06	32.91
Kadar Air	11.26	12.54	9.98
Kadar Air rata-rata	11.26		

3. Batas-batas Atterberg



ATTERBERG LIMITS TEST												
PROJECT	:	TUGAS AKHIR MAHASISWA S1 KONSENTRASI GEOTEKNIK										
LOCATION	:											
STASIUN	:											
SAMPLING DEPTH	:											
TESTING METHOD	:	ASTM D 424-59, D 4318-(00), AASHTO T89/T90						TESTED BY		: ALDI D.		
LABORATORY	:	HASANUDDIN UNIVERSITY						DATE		:		
Sample No.	:											
Depth of Sample	:											
	Unit	Plastic Limit				Liquid Limit						Shrinkage Limit
Test Number	-	1	2	1	2	3	4	1				
Number of Blows	N	-	-	18	22	26	27	-				
Container No. or Can No.	-	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F1
Weigh of Wet Soil+Can, W1	gram	9.0	5.9	16.1	17.2	16.1	15.4	10.5	10.3	9.6	13.2	54.78
Weigh of Dry Soil+Can, W2	gram	8.8	5.7	12.8	14.6	13.8	13.5	9.0	8.8	8.4	11.9	32.84
Weigh of Water, Ww=W1-W2	gram	0.2	0.2	3.3	2.6	2.3	1.9	1.5	1.4	1.2	1.3	21.94
Weigh of Can, W3	gram	8.1	5.1	5.1	8.3	8.1	8.8	5.1	5.1	5.1	8.3	10.2
Weigh of Dry Soil, Ws=W2-W3	gram	0.7	0.6	7.7	6.3	5.7	4.7	3.9	3.8	3.3	3.6	11.74
Water Content, $\omega = Ww/Ws \cdot 100\%$	%	32.8	31.1	42.8	41.2	40.9	40.8	37.5	38.0	37.5	37.4	186.88
Average of Water Content, w	%	31.992		42.00		40.84		37.75		37.5		186.88
Weigh of Can+Hg, W1	gram											426.31
Weigh of Shrink dish	gram											10.2
Weight of displaced Hg + Shrink dish	gram											176
Hg content	gram											13.6
Volume of Wet Soil	gr/cm ³											30.60
Volume of Dry Soil	gr/cm ³											12.19
Shrinkage Limit	%											30.109
Average of Shrinkage Limit	%											30.109

4. Analisa Saringan dan Hidrometer



5. Kadar Organik

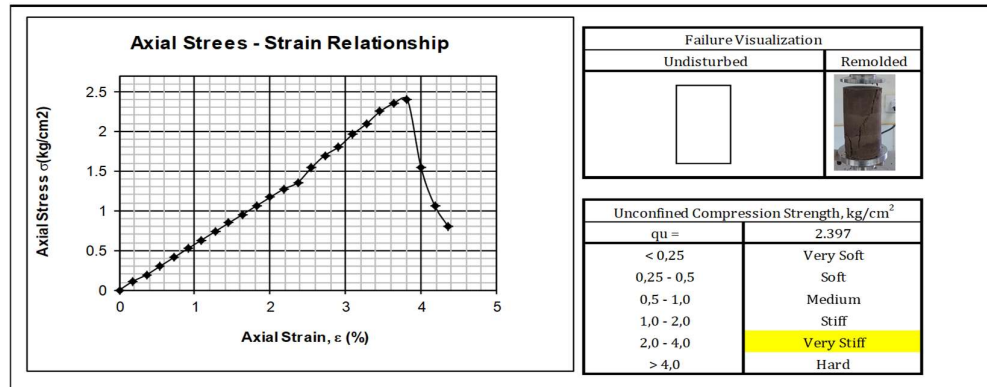
ORGANIC MATTER TEST RESULTS			
PROJECT	: SOIL INVESTIGATION PENELITIAN S1		
LOCATION	: LABORATORIUM MEKANIKA TANAH, FT-UH		
BORING NUMBER	:		
SAMPLING	: TANAH ASLI		
TESTING METHOD	: ASTM D 2974-00	TESTED BY	: ALDI DARMAWANSYAH
LABORATORY	: HASANUDDIN UNIVERSITY	DATE	: JANUARI 2022
PENGUJIAN KADAR BAHAN ORGANIK DENGAN PEMBAKARAN			
NO.	DESKRIPSI	NOMOR PENGUJIAN	
		1	2
PEMERIKSAAN KANDUNGAN AIR			
1	Berat cawan (W_5), gram	7.9	8.27
2	Berat contoh tanah + cawan (W_1), gram	57.9	58.27
3	Berat contoh tanah kering oven + cawan (W_2), gram	49.2	49.1
4	Kandungan air w , % = $\frac{W_1 - W_2}{W_1 - W_3} \times 100\%$	17.400	18.340
5	Kandungan air rata-rata w , %	17.870	
PEMERIKSAAN KANDUNGAN ABU			
6	Suhu Pembakaran, °C	450	450
7	Berat abu + cawan (W_4), gram	48.45	48.35
8	Kandungan abu w_{ash} , % = $\frac{W_4 - W_3}{W_1 - W_3} \times 100\%$	98.184	98.163
9	Kandungan abu rata-rata w_{ash} , %	98.174	
PERHITUNGAN KADAR BAHAN ORGANIK			
10	Kandungan Bahan Organik (O), % = $100 - (w + w_{ash})$	1.816	1.837
11	Kandungan Bahan Organik rata-rata (O), %	1.826	

6. Kompaksi (Pemadatan)

COMPACTION TEST RESULTS											
PROJECT	: SOIL INVESTIGATION REPORT PENELITIAN S1										
LOCATION	: BENDUNGAN BILI-BILI										
QUARRY	:-										
SAMPLE/ SAMPLE NO.	: SOIL										
TESTING METHOD	: ASTM D 698/ D 1567					TESTED BY	: ALDI D.				
LABORATORY	: HASANUDDIN UNIVERSITY					DATE	:				
Berat tanah	gram	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Kadar air mula-mula	%	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93
Penambahan air	ml	200	300	400	500	600					
Kadar air akhir	%	14.32	19.52	24.72	29.91	35.11					
Berat Isi Basah (Wet density)											
No. Mould	-	1	2	2	4	5					
Berat Mould	gram	1917	1917	1917	1917	1917					
Berat tanah basah + Mould	gram	3567	3638	3681	3671	3617					
Berat tanah basah, W_{wet}	gram	1650	1721	1764	1754	1700					
Volume Mould	cm ³	984	984	984	984	984					
Berat Volume Basah	gr/cm ³	1.676	1.748	1.792	1.782	1.727					
Kadar Air (Water Content)											
No. Container	-	1A	1B	2A	2B	2A	2B	4A	4B	5A	5B
Berat tanah basah + Container	gram	49.54	52.45	70.21	65.32	75.39	51.98	65.50	56.35	51.00	59.32
Berat tanah kering + Container	gram	42.17	44.34	58.15	53.36	61.25	42.61	54.37	44.04	41.57	47.88
Berat air	gram	7.37	8.11	12.06	11.96	14.14	9.37	11.13	12.31	9.43	11.44
Berat container	gram	9.48	8.27	5.05	5.02	5.03	5.01	5.02	5.01	8.84	8.22
Berat tanah kering	gram	32.69	36.07	53.10	48.34	56.22	37.6	49.35	39.03	32.73	39.66
Kadar air	%	22.55	22.48	22.71	24.74	25.15	24.92	22.55	31.54	28.81	28.85
Kadar air rata-rata	%	22.51	23.73	25.04	27.05	28.83					
Berat Isi Kering (Dry Density)											
Berat tanah basah, W_{wet}	gram	1650	1721	1764	1754	1700					
Kadar air rata-rata	%	22.51	23.73	25.04	27.05	28.83					
Berat kering $W_{dry} = \frac{W_{wet}}{1 + \left(\frac{W}{100}\right)}$	gram	1346.78	1390.97	1410.80	1380.60	1319.59					
Volume Mould	cm ³	984.44	984.44	984.44	984.44	984.44					
Berat isi kering $\gamma_{dry} = \frac{W_{dry}}{V_{mould}}$	gr/cm ³	1.368	1.413	1.433	1.402	1.340					
$g_{zav} = gw/(w+(1/Gs))$	gr/cm ³	1.67	1.63	1.60	1.55	1.51					

7. Unconfined Compression Strength (UCS)

UNCONFINED COMPRESSION TEST RESULTS											
PROJECT		: SOIL INVESTIGATION									
LOCATION		: BENDUNGAN BILI-BILI									
SAMPSEL		: TANAH ASLI									
TESTING METHOD		: ASTM D 2166-66					TESTED BY		: ALDI D.		
LABORATORY		: HASANUDDIN UNIVERSITY					DATE		: MARET 2021		
Sample Depth		m		-		Index Properties		Weight of Wet Soil		468.28 gram	
Sample Size		Diameter, d		5.50 cm		Weight of Dry Soil		374.50 gram			
		Height, h		11.00 cm		Water Content		20.60 %			
		Volume		261.34 cm ³		Dry Unit Weight		1.433 gram/cm ³			
		Area, A _o		23.76 cm ²		Proving Ring Calibration		1.316 kg/div			
Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
0.00	0.00	0.0	0.00	23.76	0.000						
0.20	0.18	2.0	2.63	23.80	0.111						
0.40	0.36	3.5	4.61	23.85	0.193						
0.60	0.55	5.5	7.24	23.89	0.303						
0.80	0.73	7.5	9.87	23.93	0.412						
1.00	0.91	9.5	12.50	23.98	0.521						
1.20	1.09	11.5	15.13	24.02	0.630						
1.40	1.27	13.5	17.77	24.06	0.738						
1.60	1.45	15.5	20.40	24.11	0.846						
1.80	1.64	17.5	23.03	24.15	0.953						
2.00	1.82	19.5	25.66	24.20	1.060						
2.20	2.00	21.5	28.29	24.24	1.167						
2.40	2.18	23.5	30.93	24.29	1.273						
2.60	2.36	25.0	32.90	24.33	1.352						
2.80	2.55	28.5	37.51	24.38	1.538						
3.00	2.73	31.5	41.45	24.42	1.697						
3.20	2.91	33.5	44.09	24.47	1.802						
3.40	3.09	36.5	48.03	24.52	1.959						
3.60	3.27	39.0	51.32	24.56	2.090						
3.80	3.45	42.0	55.27	24.61	2.246						
4.00	3.64	44.0	57.90	24.65	2.349						
4.20	3.82	45.0	59.22	24.70	2.397						
4.40	4.00	29.0	38.16	24.75	1.542						
4.60	4.18	20.0	26.32	24.80	1.061						
4.80	4.36	15.0	19.74	24.84	0.795						



Lampiran Data Pengujian Tanah Asli Terstabilisasi Tras dan Karet

1. Kompaksi Tanah Sedimen Stabilisasi Tras dan Karet

COMPACTION TEST RESULTS												
PROJECT	: SOIL INVESTIGATION REPORT PENELITIAN S1											
LOCATION	: BENDUNGAN BILL-BILI											
QUARRY	: -											
SAMPLE / SAMPLE NO.	: TANAH ASLI + 2% KARET + 6%											
TESTING METHOD	: ASTM D 698/ D 1567					TESTED BY		: ALDI DARMAWANSYAH				
LABORATORY	: HASANUDDIN UNIVERSITY					DATE		:				
Berat tanah	gram	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	
Kadar air mula-mula	%	4,35	4,35	4,35	4,35	4,35	4,35	4,35	4,35	4,35	4,35	
Penambahan air	ml	200	300	400	500	600	500	600	500	600	600	
Kadar air akhir	%	14,79	20,00	25,22	30,44	35,66	30,44	35,66	30,44	35,66	35,66	
Berat Isi Basah (Wet density)												
No. Mould	-	1	2	2	4	5						
Berat Mould	gram	1917	1917	1917	1917	1917	1917	1917	1917	1917	1917	
Berat tanah basah + Mould	gram	3569	3665	3710	3688	3619	3688	3619	3688	3619	3619	
Berat tanah basah, W_{wet}	gram	1652	1748	1793	1771	1702	1771	1702	1771	1702	1702	
Volume Mould	cm ³	984	984	984	984	984	984	984	984	984	984	
Berat Volume Basah	gr/cm ³	1,678	1,776	1,821	1,799	1,729	1,799	1,729	1,799	1,729	1,729	
Kadar Air (Water Content)												
No. Container	-	1A	1B	2A	2B	2A	2B	4A	4B	5A	5B	
Berat tanah basah + Container	gram	49,54	52,45	70,21	65,32	75,39	51,98	65,50	56,35	51,00	59,32	
Berat tanah kering + Container	gram	42,20	44,34	57,29	53,28	60,71	42,28	54,37	44,04	41,57	47,88	
Berat air	gram	7,34	8,11	12,92	12,04	14,68	9,70	11,13	12,31	9,43	11,44	
Berat container	gram	9,48	8,27	5,05	5,02	5,03	5,01	5,02	5,01	8,84	8,22	
Berat tanah kering	gram	32,72	36,07	52,24	48,26	55,68	37,27	49,35	39,03	32,73	39,66	
Kadar air	%	22,43	22,48	24,73	24,95	26,36	26,03	22,55	31,54	28,81	28,85	
Kadar air rata-rata	%	22,46	24,84	26,20	27,05	28,83	27,05	28,83	27,05	28,83	28,83	
Berat Isi Kering (Dry Density)												
Berat tanah basah, W_{wet}	gram	1652	1748	1793	1771	1702	1771	1702	1771	1702	1702	
Kadar air rata-rata	%	22,46	24,84	26,20	27,05	28,83	27,05	28,83	27,05	28,83	28,83	
Berat kering $W_{dry} = \frac{W_{wet}}{1 + \left(\frac{W}{100}\right)}$	gram	1349,03	1400,19	1420,81	1393,98	1321,14	1393,98	1321,14	1393,98	1321,14	1321,14	
Volume Mould	cm ³	984,44	984,44	984,44	984,44	984,44	984,44	984,44	984,44	984,44	984,44	
Berat isi kering $\gamma_{dry} = \frac{W_{dry}}{V_{mould}}$	gr/cm ³	1,370	1,422	1,443	1,416	1,342	1,416	1,342	1,416	1,342	1,342	
gzav = gw/(w+(1/Gs))	gr/cm ³	1,67	1,60	1,57	1,55	1,51	1,55	1,51	1,55	1,51	1,51	

COMPACTION TEST RESULTS											
PROJECT	: SOIL INVESTIGATION REPORT PENELITIAN S1										
LOCATION	: BENDUNGAN BILI-BILI										
QUARRY	: -										
SAMPLE / SAMPLE NO.	: TANAH ASLI + 2%KARET + 9%										
TESTING METHOD	: ASTM D 698/ D 1567					TESTED BY	: ALDI DARMAWANSYAH				
LABORATORY	: HASANUDDIN UNIVERSITY					DATE	:				
Berat tanah	gram	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Kadar air mula-mula	%	4,44	4,44	4,44	4,44	4,44	4,44	4,44	4,44	4,44	4,44
Penambahan air	ml	200	300	400	500	600					
Kadar air akhir	%	14,89	20,11	25,33	30,55	35,77					
Berat Isi Basah (Wet density)											
No. Mould	-	1	2	2	4	5					
Berat Mould	gram	1917	1917	1917	1917	1917					
Berat tanah basah + Mould	gram	3571	3672	3720	3692	3619					
Berat tanah basah, W_{wet}	gram	1654	1755	1803	1775	1702					
Volume Mould	cm ³	984	984	984	984	984					
Berat Volume Basah	gr/cm ³	1,680	1,783	1,831	1,803	1,729					
Kadar Air (Water Content)											
No. Container	-	1A	1B	2A	2B	2A	2B	4A	4B	5A	5B
Berat tanah basah + Container	gram	49,54	52,45	70,21	65,32	75,39	51,98	65,50	56,35	51,00	59,32
Berat tanah kering + Container	gram	42,19	44,34	57,21	53,28	60,79	42,28	54,29	44,04	41,56	47,88
Berat air	gram	7,35	8,11	13	12,04	14,6	9,70	11,21	12,31	9,44	11,44
Berat container	gram	9,48	8,27	5,05	5,02	5,03	5,01	5,02	5,01	8,84	8,22
Berat tanah kering	gram	32,71	36,07	52,16	48,26	55,76	37,27	49,27	39,03	32,72	39,66
Kadar air	%	22,47	22,48	24,92	24,95	26,18	26,03	22,75	31,54	28,85	28,85
Kadar air rata-rata	%	22,48		24,94		26,10		27,15		28,85	
Berat Isi Kering (Dry Density)											
Berat tanah basah, W_{wet}	gram	1654	1755	1803	1775	1702					
Kadar air rata-rata	%	22,48	24,94	26,10	27,15	28,85					
Berat kering $W_{dry} = \frac{W_{wet}}{1 + \left(\frac{W}{100}\right)}$	gram	1350,46	1404,72	1429,76	1396,03	1320,94					
Volume Mould	cm ³	984,44	984,44	984,44	984,44	984,44					
Berat isi kering $\gamma_{dry} = \frac{W_{dry}}{V_{mould}}$	gr/cm ³	1,372	1,427	1,452	1,418	1,342					
$g_{zav} = gw/(w+(1/Gs))$	gr/cm ³	1,67	1,60	1,57	1,55	1,51					

COMPACTION TEST RESULTS											
PROJECT	: SOIL INVESTIGATION REPORT PENELITIAN S1										
LOCATION	: BENDUNGAN BILI-BILI										
QUARRY	: -										
SAMPLE / SAMPLE NO.	: TANAH ASLI + 3% KARET + 6%										
TESTING METHOD	: ASTM D 698/ D 1567					TESTED BY	: ALDI DARMAWANSYAH				
LABORATORY	: HASANUDDIN UNIVERSITY					DATE	:				
Berat tanah	gram	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Kadar air mula-mula	%	4,46	4,46	4,46	4,46	4,46	4,46	4,46	4,46	4,46	4,46
Penambahan air	ml	200	300	400	500	600					
Kadar air akhir	%	14,91	20,13	25,35	30,57	35,80					
Berat Isi Basah (Wet density)											
No. Mould	-	1	2	2	4	5					
Berat Mould	gram	1917	1917	1917	1917	1917					
Berat tanah basah + Mould	gram	3568	3664	3705	3689	3620					
Berat tanah basah, W_{wet}	gram	1651	1747	1788	1772	1703					
Volume Mould	cm ³	984	984	984	984	984					
Berat Volume Basah	gr/cm ³	1,677	1,775	1,816	1,800	1,730					
Kadar Air (Water Content)											
No. Container	-	1A	1B	2A	2B	2A	2B	4A	4B	5A	5B
Berat tanah basah + Container	gram	49,54	52,45	70,21	65,32	75,39	51,98	65,50	56,35	51,00	59,32
Berat tanah kering + Container	gram	42,19	44,34	57,25	53,28	60,75	42,28	54,33	44,04	41,55	47,88
Berat air	gram	7,35	8,11	12,96	12,04	14,64	9,70	11,17	12,31	9,45	11,44
Berat container	gram	9,48	8,27	5,05	5,02	5,03	5,01	5,02	5,01	8,84	8,22
Berat tanah kering	gram	32,71	36,07	52,20	48,26	55,72	37,27	49,31	39,03	32,71	39,66
Kadar air	%	22,47	22,48	24,83	24,95	26,27	26,03	22,65	31,54	28,89	28,85
Kadar air rata-rata	%	22,48		24,89		26,15		27,10		28,87	
Berat Isi Kering (Dry Density)											
Berat tanah basah, W_{wet}	gram	1651	1747	1788	1772	1703					
Kadar air rata-rata	%	22,48	24,89	26,15	27,10	28,87					
Berat kering $W_{dry} = \frac{W_{wet}}{1 + \left(\frac{W}{100}\right)}$	gram	1348,01	1398,85	1417,36	1394,22	1321,51					
Volume Mould	cm ³	984,44	984,44	984,44	984,44	984,44					
Berat isi kering $\gamma_{dry} = \frac{W_{dry}}{V_{mould}}$	gr/cm ³	1,369	1,421	1,440	1,416	1,342					
$g_{zav} = gw/(w+(1/Gs))$	gr/cm ³	1,67	1,60	1,57	1,55	1,51					

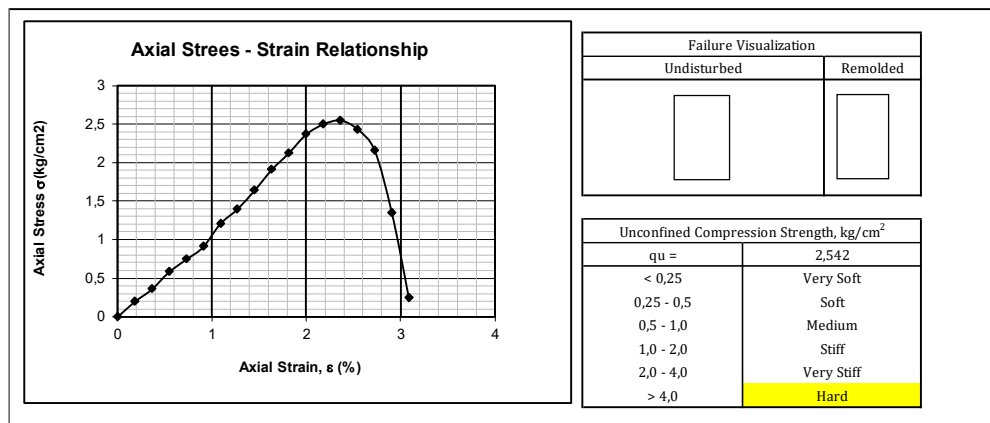
COMPACTION TEST RESULTS											
PROJECT	: SOIL INVESTIGATION REPORT PENELITIAN S1										
LOCATION	: BENDUNGAN BILI-BILI										
QUARRY	: -										
SAMPLE / SAMPLE NO.	: TANAH ASLI + 3% KARET + 9%										
TESTING METHOD	: ASTM D 698/ D 1567					TESTED BY	: ALDI DARMAWANSYAH				
LABORATORY	: HASANUDDIN UNIVERSITY					DATE	:				
Berat tanah	gram	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Kadar air mula-mula	%	4,24	4,24	4,24	4,24	4,24	4,24	4,24	4,24	4,24	4,24
Penambahan air	ml	200	300	400	500	600					
Kadar air akhir	%	14,67	19,88	25,09	30,30	35,51					
Berat Isi Basah (Wet density)											
No. Mould	-	1	2	2	4	5					
Berat Mould	gram	1917	1917	1917	1917	1917					
Berat tanah basah + Mould	gram	3569	3670	3715	3687	3620					
Berat tanah basah, W_{wet}	gram	1652	1753	1798	1770	1703					
Volume Mould	cm ³	984	984	984	984	984					
Berat Volume Basah	gr/cm ³	1,678	1,781	1,826	1,798	1,730					
Kadar Air (Water Content)											
No. Container	-	1A	1B	2A	2B	2A	2B	4A	4B	5A	5B
Berat tanah basah + Container	gram	49,54	52,45	70,21	65,32	75,39	51,98	65,50	56,35	51,00	59,32
Berat tanah kering + Container	gram	42,23	44,34	57,22	53,28	60,84	42,28	54,29	44,04	41,58	47,88
Berat air	gram	7,31	8,11	12,99	12,04	14,55	9,70	11,21	12,31	9,42	11,44
Berat container	gram	9,48	8,27	5,05	5,02	5,03	5,01	5,02	5,01	8,84	8,22
Berat tanah kering	gram	32,75	36,07	52,17	48,26	55,81	37,27	49,27	39,03	32,74	39,66
Kadar air	%	22,32	22,48	24,90	24,95	26,07	26,03	22,75	31,54	28,77	28,85
Kadar air rata-rata	%	22,40		24,92		26,05		27,15		28,81	
Berat Isi Kering (Dry Density)											
Berat tanah basah, W_{wet}	gram	1652	1753	1798	1770	1703					
Kadar air rata-rata	%	22,40	24,92	26,05	27,15	28,81					
Berat kering $W_{dry} = \frac{W_{wet}}{1 + \left(\frac{W}{100}\right)}$	gram	1349,65	1403,26	1426,44	1392,10	1322,12					
Volume Mould	cm ³	984,44	984,44	984,44	984,44	984,44					
Berat isi kering $\gamma_{dry} = \frac{W_{dry}}{V_{mould}}$	gr/cm ³	1,371	1,425	1,449	1,414	1,343					
$g_{zav} = gw/(w+(1/Gs))$	gr/cm ³	1,67	1,60	1,57	1,55	1,51					

2. UCS Tanah Sedimen Stabilisasi Tras dan 2%Karet Pemeraman 3 hari

UNCONFINED COMPRESSION TEST RESULTS			
PROJECT	:	SOIL INVESTIGATION	
LOCATION	:	-	
SAMPEL	:	TANAH ASLI + 2% KARET + 3% TRAS	
TESTING METHOD	:	ASTM D 2166-66	TESTED BY : ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE : MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	3,5	4,61	23,80	0,194						
0,40	0,36	6,5	8,55	23,85	0,359						
0,60	0,55	10,5	13,82	23,89	0,578						
0,80	0,73	13,5	17,77	23,93	0,742						
1,00	0,91	16,5	21,71	23,98	0,906						
1,20	1,09	22,0	28,95	24,02	1,205						
1,40	1,27	25,5	33,56	24,06	1,394						
1,60	1,45	30,0	39,48	24,11	1,638						
1,80	1,64	35,0	46,06	24,15	1,907						
2,00	1,82	39,0	51,32	24,20	2,121						
2,20	2,00	43,5	57,25	24,24	2,361						
2,40	2,18	46,0	60,54	24,29	2,492						
2,60	2,36	47,0	61,85	24,33	2,542						
2,80	2,55	45,0	59,22	24,38	2,429						
3,00	2,73	40,0	52,64	24,42	2,155						
3,20	2,91	25,0	32,90	24,47	1,344						
3,40	3,09	4,5	5,92	24,52	0,242						

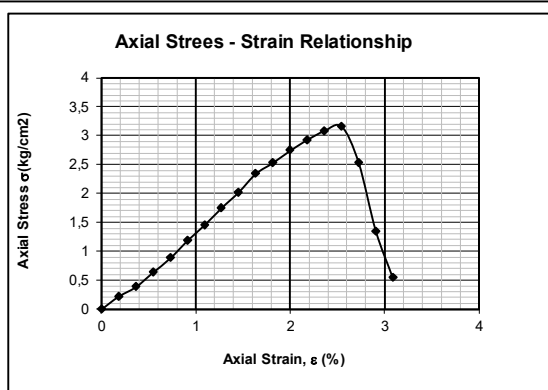


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 2% KARET + 6% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm	Weight of Dry Soil	374,50	gram	
	Height, h	11,00	cm	Water Content	20,60	%	
	Volume	261,34	cm ³	Dry Unit Weight	1,433	gram/cm ³	
	Area, A _o	23,76	cm ²	Proving Ring Calibration	1,316	kg/div	

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,0	5,26	23,80	0,221						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	11,5	15,13	23,89	0,634						
0,80	0,73	16,0	21,06	23,93	0,880						
1,00	0,91	21,5	28,29	23,98	1,180						
1,20	1,09	26,5	34,87	24,02	1,452						
1,40	1,27	32,0	42,11	24,06	1,750						
1,60	1,45	37,0	48,69	24,11	2,020						
1,80	1,64	43,0	56,59	24,15	2,343						
2,00	1,82	46,5	61,19	24,20	2,529						
2,20	2,00	50,5	66,46	24,24	2,741						
2,40	2,18	54,0	71,06	24,29	2,926						
2,60	2,36	57,0	75,01	24,33	3,083						
2,80	2,55	58,5	76,99	24,38	3,158						
3,00	2,73	47,0	61,85	24,42	2,532						
3,20	2,91	25,0	32,90	24,47	1,344						
3,40	3,09	10,0	13,16	24,52	0,537						



Failure Visualization	
Undisturbed	Remolded

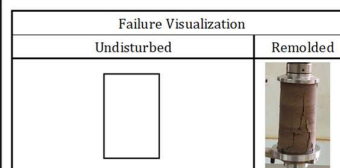
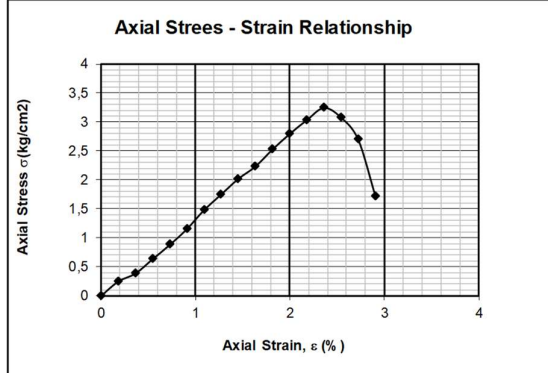
Unconfined Compression Strength, kg/cm ²	
qu =	3,158
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 2% KARET + 9% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,5	5,92	23,80	0,249						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	11,5	15,13	23,89	0,634						
0,80	0,73	16,0	21,06	23,93	0,880						
1,00	0,91	21,0	27,64	23,98	1,153						
1,20	1,09	27,0	35,53	24,02	1,479						
1,40	1,27	32,0	42,11	24,06	1,750						
1,60	1,45	37,0	48,69	24,11	2,020						
1,80	1,64	41,0	53,96	24,15	2,234						
2,00	1,82	46,5	61,19	24,20	2,529						
2,20	2,00	51,5	67,77	24,24	2,796						
2,40	2,18	56,0	73,70	24,29	3,034						
2,60	2,36	60,0	78,96	24,33	3,245						
2,80	2,55	57,0	75,01	24,38	3,077						
3,00	2,73	50,0	65,80	24,42	2,694						
3,20	2,91	32,0	42,11	24,47	1,721						



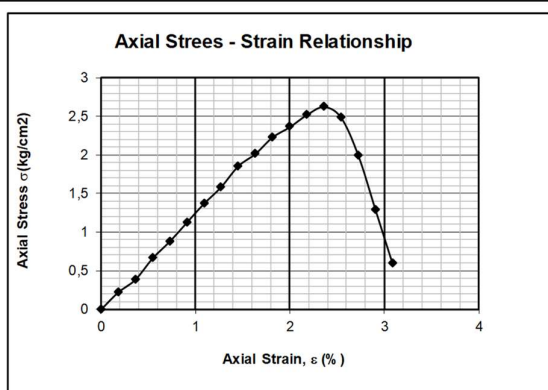
Unconfined Compression Strength, kg/cm ²	
qu =	3,245
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION		
LOCATION	: -		
SAMPEL	: TANAH ASLI + 2% KARET + 12% TRAS		
TESTING METHOD	: ASTM D 2166-66	TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY	DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm	Weight of Dry Soil	374,50	gram	
	Height, h	11,00	cm	Water Content	20,60	%	
	Volume	261,34	cm ³	Dry Unit Weight	1,433	gram/cm ³	
	Area, A _o	23,76	cm ²	Proving Ring Calibration	1,316	kg/div	

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,0	5,26	23,80	0,221						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	12,0	15,79	23,89	0,661						
0,80	0,73	16,0	21,06	23,93	0,880						
1,00	0,91	20,5	26,98	23,98	1,125						
1,20	1,09	25,0	32,90	24,02	1,370						
1,40	1,27	29,0	38,16	24,06	1,586						
1,60	1,45	34,0	44,74	24,11	1,856						
1,80	1,64	37,0	48,69	24,15	2,016						
2,00	1,82	41,0	53,96	24,20	2,230						
2,20	2,00	43,5	57,25	24,24	2,361						
2,40	2,18	46,5	61,19	24,29	2,519						
2,60	2,36	48,5	63,83	24,33	2,623						
2,80	2,55	46,0	60,54	24,38	2,483						
3,00	2,73	37,0	48,69	24,42	1,994						
3,20	2,91	24,0	31,58	24,47	1,291						
3,40	3,09	11,0	14,48	24,52	0,590						



Failure Visualization	
Undisturbed	Remolded

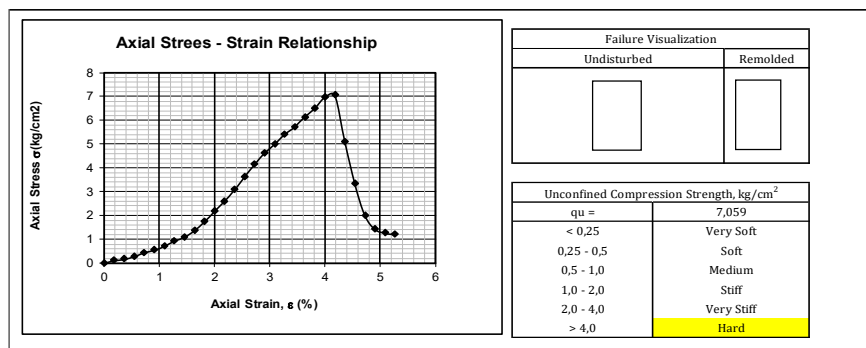
Unconfined Compression Strength, kg/cm ²	
qu =	2,623
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

3. UCS Tanah Sedimen Stabilisasi Tras dan 2%Karet Pemeraman 7 hari

UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 2% KARET + 3% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, Ao	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

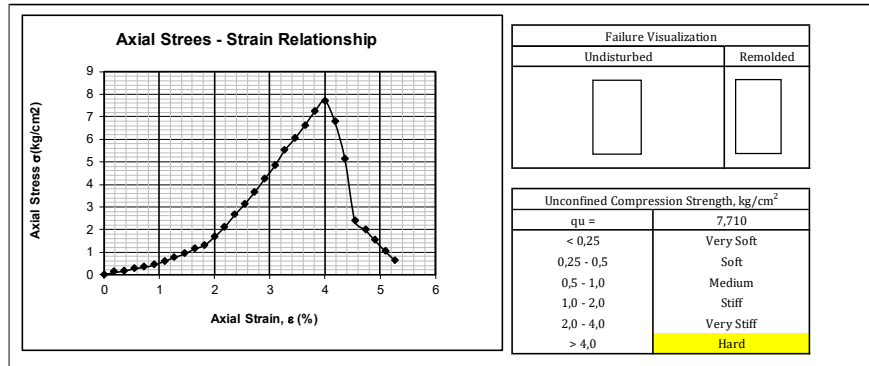
Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	2,0	2,63	23,80	0,111						
0,40	0,36	3,0	3,95	23,85	0,166						
0,60	0,55	5,0	6,58	23,89	0,275						
0,80	0,73	8,0	10,53	23,93	0,440						
1,00	0,91	10,0	13,16	23,98	0,549						
1,20	1,09	13,0	17,11	24,02	0,712						
1,40	1,27	17,0	22,37	24,06	0,930						
1,60	1,45	20,0	26,32	24,11	1,092						
1,80	1,64	25,0	32,90	24,15	1,362						
2,00	1,82	32,0	42,11	24,20	1,740						
2,20	2,00	40,0	52,64	24,24	2,171						
2,40	2,18	48,0	63,17	24,29	2,601						
2,60	2,36	57,0	75,01	24,33	3,083						
2,80	2,55	67,0	88,17	24,38	3,617						
3,00	2,73	77,0	101,33	24,42	4,149						
3,20	2,91	86,0	113,18	24,47	4,625						
3,40	3,09	93,0	122,39	24,52	4,992						
3,60	3,27	101,0	132,92	24,56	5,411						
3,80	3,45	107,0	140,81	24,61	5,722						
4,00	3,64	115,0	151,34	24,65	6,138						
4,20	3,82	122,0	160,55	24,70	6,500						
4,40	4,00	131,0	172,40	24,75	6,966						
4,60	4,18	133,0	175,03	24,80	7,059						
4,80	4,36	96,0	126,34	24,84	5,086						
5,00	4,55	63,0	82,91	24,89	3,331						
5,20	4,73	38,0	50,01	24,94	2,005						
5,40	4,91	27,0	35,53	24,98	1,422						
5,60	5,09	24,0	31,58	25,03	1,262						
5,80	5,27	23,0	30,27	25,08	1,207						



UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 2% KARET + 6% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

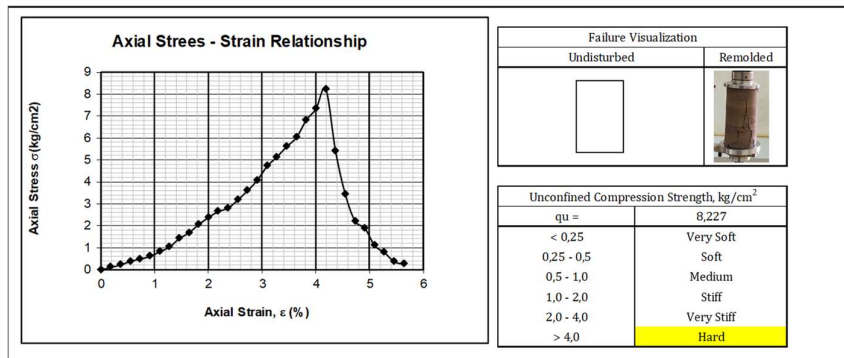
Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, Ao	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial		Axial Load & Stress				Axial		Axial Load & Stress			
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	2,0	2,63	23,80	0,111						
0,40	0,36	3,0	3,95	23,85	0,166						
0,60	0,55	5,0	6,58	23,89	0,275						
0,80	0,73	6,0	7,90	23,93	0,330						
1,00	0,91	8,0	10,53	23,98	0,439						
1,20	1,09	11,0	14,48	24,02	0,603						
1,40	1,27	14,0	18,42	24,06	0,766						
1,60	1,45	17,0	22,37	24,11	0,928						
1,80	1,64	21,0	27,64	24,15	1,144						
2,00	1,82	24,0	31,58	24,20	1,305						
2,20	2,00	31,0	40,80	24,24	1,683						
2,40	2,18	39,0	51,32	24,29	2,113						
2,60	2,36	49,0	64,48	24,33	2,650						
2,80	2,55	58,0	76,33	24,38	3,131						
3,00	2,73	68,0	89,49	24,42	3,664						
3,20	2,91	79,0	103,96	24,47	4,249						
3,40	3,09	90,0	118,44	24,52	4,831						
3,60	3,27	103,0	135,55	24,56	5,519						
3,80	3,45	113,0	148,71	24,61	6,043						
4,00	3,64	124,0	163,18	24,65	6,619						
4,20	3,82	136,0	178,98	24,70	7,246						
4,40	4,00	145,0	190,82	24,75	7,710						
4,60	4,18	128,0	168,45	24,80	6,794						
4,80	4,36	97,0	127,65	24,84	5,138						
5,00	4,55	45,0	59,22	24,89	2,379						
5,20	4,73	38,0	50,01	24,94	2,005						
5,40	4,91	29,0	38,16	24,98	1,527						
5,60	5,09	20,0	26,32	25,03	1,051						
5,80	5,27	12,0	15,79	25,08	0,630						



UNCONFINED COMPRESSION TEST RESULTS							
PROJECT	:	SOIL INVESTIGATION					
LOCATION	:	-					
SAMPEL	:	TANAH ASLI + 2% KARET + 9% TRAS					
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.		
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021		
Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

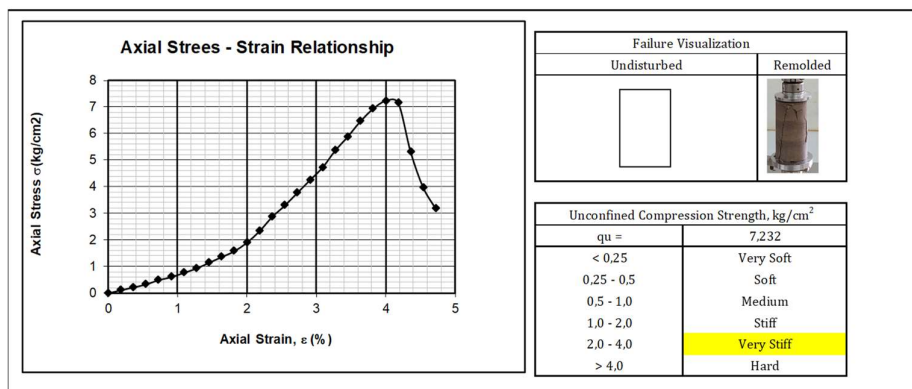
Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	2,0	2,63	23,80	0,111						
0,40	0,36	4,0	5,26	23,85	0,221						
0,60	0,55	7,0	9,21	23,89	0,386						
0,80	0,73	9,0	11,84	23,93	0,495						
1,00	0,91	11,0	14,48	23,98	0,604						
1,20	1,09	15,0	19,74	24,02	0,822						
1,40	1,27	19,0	25,00	24,06	1,039						
1,60	1,45	26,0	34,22	24,11	1,419						
1,80	1,64	31,0	40,80	24,15	1,689						
2,00	1,82	38,0	50,01	24,20	2,067						
2,20	2,00	44,0	57,90	24,24	2,388						
2,40	2,18	49,0	64,48	24,29	2,655						
2,60	2,36	52,0	68,43	24,33	2,812						
2,80	2,55	59,0	77,64	24,38	3,185						
3,00	2,73	67,0	88,17	24,42	3,610						
3,20	2,91	76,0	100,02	24,47	4,087						
3,40	3,09	88,0	115,81	24,52	4,724						
3,60	3,27	96,0	126,34	24,56	5,144						
3,80	3,45	105,0	138,18	24,61	5,615						
4,00	3,64	113,0	148,71	24,65	6,032						
4,20	3,82	128,0	168,45	24,70	6,819						
4,40	4,00	138,0	181,61	24,75	7,338						
4,60	4,18	155,0	203,98	24,80	8,227						
4,80	4,36	102,0	134,23	24,84	5,403						
5,00	4,55	65,0	85,54	24,89	3,437						
5,20	4,73	42,0	55,27	24,94	2,216						
5,40	4,91	36,0	47,38	24,98	1,896						
5,60	5,09	21,0	27,64	25,03	1,104						
5,80	5,27	15,0	19,74	25,08	0,787						
6,00	5,45	7,0	9,21	25,13	0,367						
6,20	5,64	5,0	6,58	25,18	0,261						



UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 2% KARET + 12% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	2,0	2,63	23,80	0,111						
0,40	0,36	4,0	5,26	23,85	0,221						
0,60	0,55	6,0	7,90	23,89	0,331						
0,80	0,73	9,0	11,84	23,93	0,495						
1,00	0,91	11,0	14,48	23,98	0,604						
1,20	1,09	14,0	18,42	24,02	0,767						
1,40	1,27	17,0	22,37	24,06	0,930						
1,60	1,45	21,0	27,64	24,11	1,146						
1,80	1,64	25,0	32,90	24,15	1,362						
2,00	1,82	29,0	38,16	24,20	1,577						
2,20	2,00	35,0	46,06	24,24	1,900						
2,40	2,18	43,0	56,59	24,29	2,330						
2,60	2,36	53,0	69,75	24,33	2,866						
2,80	2,55	61,0	80,28	24,38	3,293						
3,00	2,73	70,0	92,12	24,42	3,772						
3,20	2,91	79,0	103,96	24,47	4,249						
3,40	3,09	88,0	115,81	24,52	4,724						
3,60	3,27	100,0	131,60	24,56	5,358						
3,80	3,45	110,0	144,76	24,61	5,883						
4,00	3,64	121,0	159,24	24,65	6,459						
4,20	3,82	130,0	171,08	24,70	6,926						
4,40	4,00	136,0	178,98	24,75	7,232						
4,60	4,18	135,0	177,66	24,80	7,165						
4,80	4,36	100,0	131,60	24,84	5,297						
5,00	4,55	75,0	98,70	24,89	3,966						
5,20	4,73	60,0	78,96	24,94	3,166						

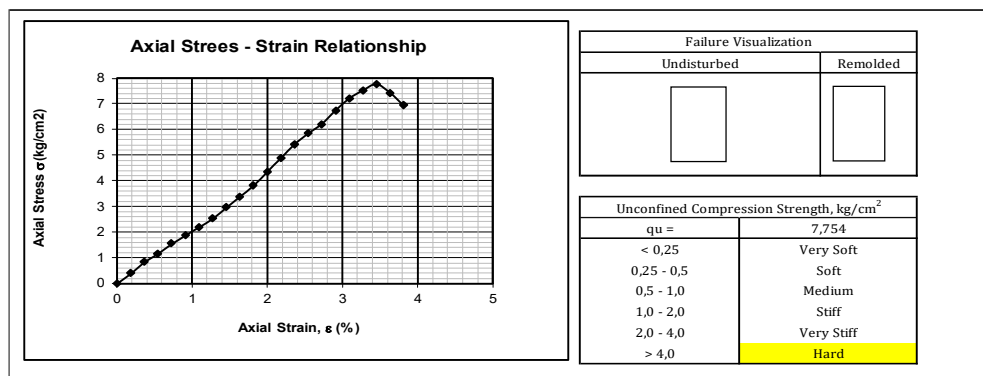


4. UCS Tanah Sedimen Stabilisasi Tras dan 2%Karet Pemeraman 14 hari

UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 2% KARET + 3% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	7,0	9,21	23,80	0,387						
0,40	0,36	15,0	19,74	23,85	0,828						
0,60	0,55	21,0	27,64	23,89	1,157						
0,80	0,73	28,0	36,85	23,93	1,540						
1,00	0,91	34,0	44,74	23,98	1,866						
1,20	1,09	40,0	52,64	24,02	2,191						
1,40	1,27	46,0	60,54	24,06	2,516						
1,60	1,45	54,0	71,06	24,11	2,948						
1,80	1,64	62,0	81,59	24,15	3,378						
2,00	1,82	70,0	92,12	24,20	3,807						
2,20	2,00	80,0	105,28	24,24	4,343						
2,40	2,18	90,0	118,44	24,29	4,876						
2,60	2,36	100,0	131,60	24,33	5,408						
2,80	2,55	108,0	142,13	24,38	5,830						
3,00	2,73	115,0	151,34	24,42	6,196						
3,20	2,91	125,0	164,50	24,47	6,722						
3,40	3,09	134,0	176,34	24,52	7,193						
3,60	3,27	140,0	184,24	24,56	7,501						
3,80	3,45	145,0	190,82	24,61	7,754						
4,00	3,64	139,0	182,92	24,65	7,419						
4,20	3,82	130,0	171,08	24,70	6,926						

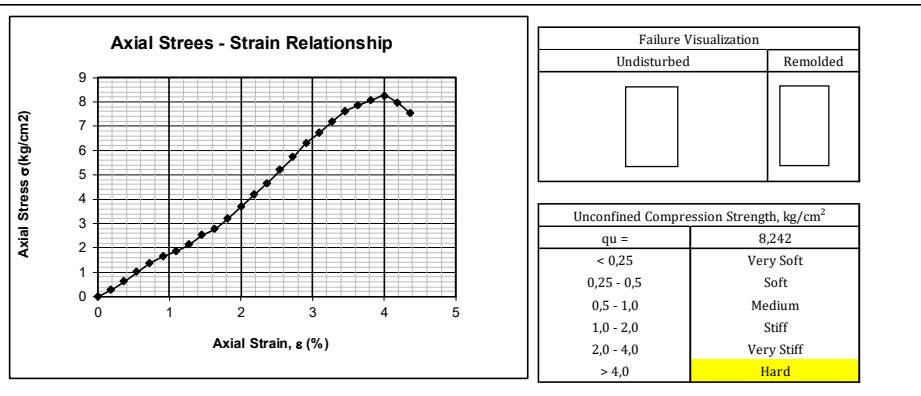


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION			TESTED BY	: ALDI D.		
LOCATION	: -			DATE	: MARET 2021		
SAMPEL	: TANAH ASLI + 2% KARET + 6% TRAS						
TESTING METHOD	: ASTM D 2166-66						
LABORATORY	: HASANUDDIN UNIVERSITY						

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Axial Load		Axial Stress		Axial Load		Axial Stress		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	5,0	6,58	23,80	0,276						
0,40	0,36	11,0	14,48	23,85	0,607						
0,60	0,55	18,0	23,69	23,89	0,992						
0,80	0,73	25,0	32,90	23,93	1,375						
1,00	0,91	30,0	39,48	23,98	1,647						
1,20	1,09	34,0	44,74	24,02	1,863						
1,40	1,27	39,0	51,32	24,06	2,133						
1,60	1,45	46,0	60,54	24,11	2,511						
1,80	1,64	51,0	67,12	24,15	2,779						
2,00	1,82	59,0	77,64	24,20	3,209						
2,20	2,00	68,0	89,49	24,24	3,691						
2,40	2,18	77,0	101,33	24,29	4,172						
2,60	2,36	86,0	113,18	24,33	4,651						
2,80	2,55	96,0	126,34	24,38	5,182						
3,00	2,73	106,0	139,50	24,42	5,711						
3,20	2,91	117,0	153,97	24,47	6,292						
3,40	3,09	125,0	164,50	24,52	6,710						
3,60	3,27	134,0	176,34	24,56	7,180						
3,80	3,45	142,0	186,87	24,61	7,594						
4,00	3,64	147,0	193,45	24,65	7,846						
4,20	3,82	151,0	198,72	24,70	8,045						
4,40	4,00	155,0	203,98	24,75	8,242						
4,60	4,18	150,0	197,40	24,80	7,961						
4,80	4,36	142,0	186,87	24,84	7,522						

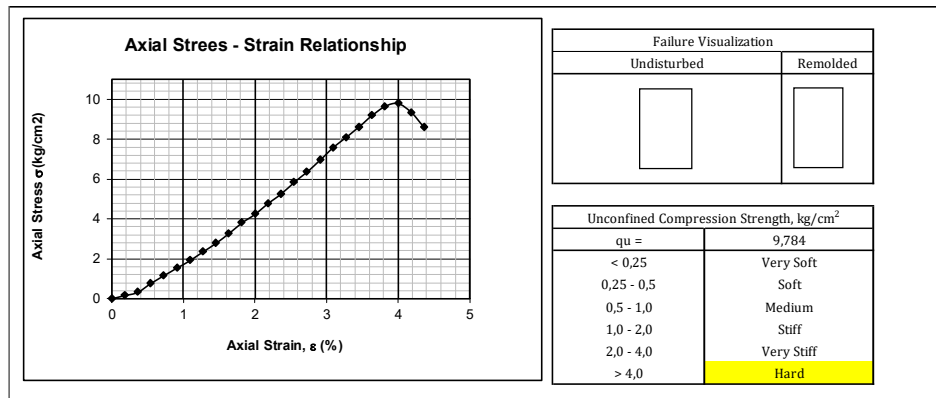


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION			TESTED BY	: ALDI D.		
LOCATION	:			DATE	: MARET 2021		
SAMPEL	: TANAH ASLI + 2% KARET + 9% TRAS						
TESTING METHOD	: ASTM D 2166-66						
LABORATORY	: HASANUDDIN UNIVERSITY						

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Axial Strain		Axial Load		Axial Stress		Axial Strain		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	3,0	3,95	23,80	0,166						
0,40	0,36	6,0	7,90	23,85	0,331						
0,60	0,55	14,0	18,42	23,89	0,771						
0,80	0,73	21,0	27,64	23,93	1,155						
1,00	0,91	28,0	36,85	23,98	1,537						
1,20	1,09	35,0	46,06	24,02	1,918						
1,40	1,27	43,0	56,59	24,06	2,352						
1,60	1,45	51,0	67,12	24,11	2,784						
1,80	1,64	60,0	78,96	24,15	3,269						
2,00	1,82	70,0	92,12	24,20	3,807						
2,20	2,00	78,0	102,65	24,24	4,234						
2,40	2,18	88,0	115,81	24,29	4,768						
2,60	2,36	97,0	127,65	24,33	5,246						
2,80	2,55	108,0	142,13	24,38	5,830						
3,00	2,73	118,0	155,29	24,42	6,358						
3,20	2,91	129,0	169,76	24,47	6,938						
3,40	3,09	141,0	185,56	24,52	7,569						
3,60	3,27	151,0	198,72	24,56	8,090						
3,80	3,45	161,0	211,88	24,61	8,610						
4,00	3,64	172,0	226,35	24,65	9,181						
4,20	3,82	181,0	238,20	24,70	9,643						
4,40	4,00	184,0	242,14	24,75	9,784						
4,60	4,18	176,0	231,62	24,80	9,341						
4,80	4,36	162,0	213,19	24,84	8,582						

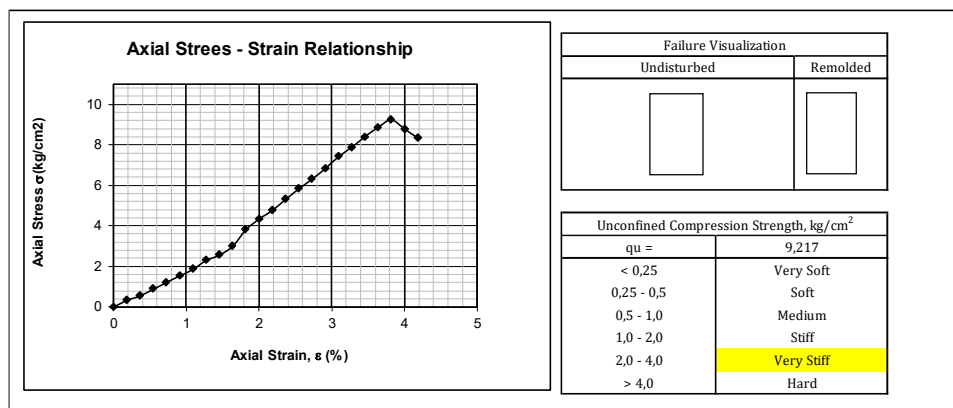


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION		
LOCATION	: -		
SAMPEL	: TANAH ASLI + 2% KARET + 12% TRAS		
TESTING METHOD	: ASTM D 2166-66	TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY	DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(kg)	(cm ²)	(kg/cm ²)		
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	10,0	13,16	23,85	0,552						
0,60	0,55	16,0	21,06	23,89	0,881						
0,80	0,73	22,0	28,95	23,93	1,210						
1,00	0,91	28,0	36,85	23,98	1,537						
1,20	1,09	34,0	44,74	24,02	1,863						
1,40	1,27	42,0	55,27	24,06	2,297						
1,60	1,45	47,0	61,85	24,11	2,566						
1,80	1,64	55,0	72,38	24,15	2,997						
2,00	1,82	70,0	92,12	24,20	3,807						
2,20	2,00	80,0	105,28	24,24	4,343						
2,40	2,18	88,0	115,81	24,29	4,768						
2,60	2,36	98,0	128,97	24,33	5,300						
2,80	2,55	108,0	142,13	24,38	5,830						
3,00	2,73	117,0	153,97	24,42	6,304						
3,20	2,91	127,0	167,13	24,47	6,830						
3,40	3,09	138,0	181,61	24,52	7,408						
3,60	3,27	147,0	193,45	24,56	7,876						
3,80	3,45	157,0	206,61	24,61	8,396						
4,00	3,64	166,0	218,46	24,65	8,861						
4,20	3,82	173,0	227,67	24,70	9,217						
4,40	4,00	165,0	217,14	24,75	8,774						
4,60	4,18	157,0	206,61	24,80	8,333						

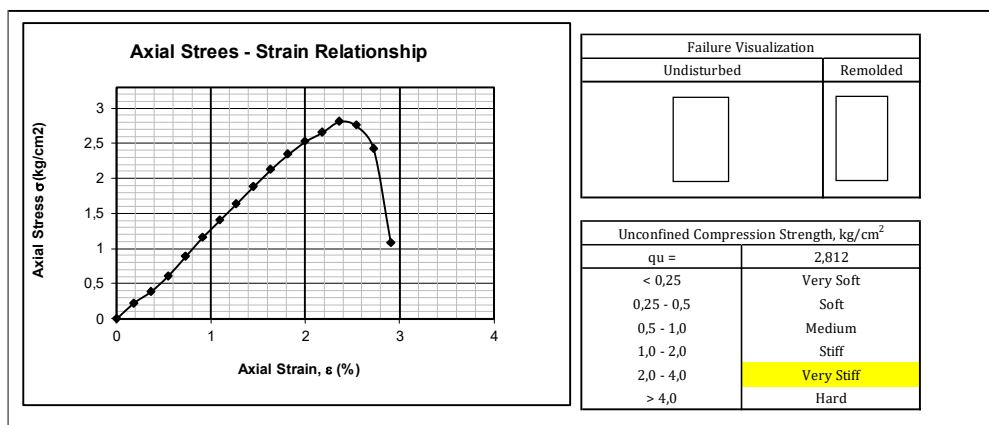


5. UCS Tanah Sedimen Stabilisasi Tras dan 3%Karet Pemeraman 3 hari

UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 3% KARET + 3% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,0	5,26	23,80	0,221						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	11,0	14,48	23,89	0,606						
0,80	0,73	16,0	21,06	23,93	0,880						
1,00	0,91	21,0	27,64	23,98	1,153						
1,20	1,09	25,5	33,56	24,02	1,397						
1,40	1,27	30,0	39,48	24,06	1,641						
1,60	1,45	34,5	45,40	24,11	1,883						
1,80	1,64	39,0	51,32	24,15	2,125						
2,00	1,82	43,0	56,59	24,20	2,339						
2,20	2,00	46,5	61,19	24,24	2,524						
2,40	2,18	49,0	64,48	24,29	2,655						
2,60	2,36	52,0	68,43	24,33	2,812						
2,80	2,55	51,0	67,12	24,38	2,753						
3,00	2,73	45,0	59,22	24,42	2,425						
3,20	2,91	20,0	26,32	24,47	1,076						

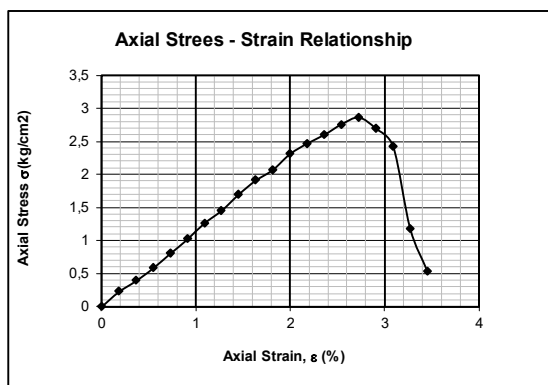


UNCONFINED COMPRESSION TEST RESULTS

PROJECT : SOIL INVESTIGATION	TESTED BY : ALDI D.
LOCATION : -	DATE : MARET 2021
SAMPEL : TANAH ASLI + 3% KARET + 6% TRAS	
TESTING METHOD : ASTM D 2166-66	
LABORATORY : HASANUDDIN UNIVERSITY	

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,0	5,26	23,80	0,221						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	10,5	13,82	23,89	0,578						
0,80	0,73	14,5	19,08	23,93	0,797						
1,00	0,91	18,5	24,35	23,98	1,015						
1,20	1,09	23,0	30,27	24,02	1,260						
1,40	1,27	26,5	34,87	24,06	1,449						
1,60	1,45	31,0	40,80	24,11	1,692						
1,80	1,64	35,0	46,06	24,15	1,907						
2,00	1,82	38,0	50,01	24,20	2,067						
2,20	2,00	42,5	55,93	24,24	2,307						
2,40	2,18	45,5	59,88	24,29	2,465						
2,60	2,36	48,0	63,17	24,33	2,596						
2,80	2,55	51,0	67,12	24,38	2,753						
3,00	2,73	53,0	69,75	24,42	2,856						
3,20	2,91	50,0	65,80	24,47	2,689						
3,40	3,09	45,0	59,22	24,52	2,416						
3,60	3,27	22,0	28,95	24,56	1,179						
3,80	3,45	10,0	13,16	24,61	0,535						



Failure Visualization	
Undisturbed	Remolded

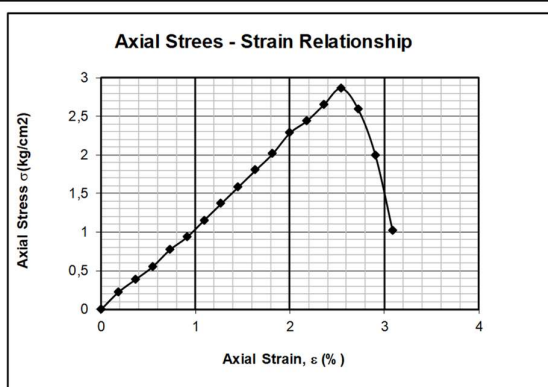
Unconfined Compression Strength, kg/cm ²	
qu =	2,856
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 3% KARET + 9% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm	Weight of Dry Soil	374,50	gram	
	Height, h	11,00	cm	Water Content	20,60	%	
	Volume	261,34	cm ³	Dry Unit Weight	1,433	gram/cm ³	
	Area, Ao	23,76	cm ²	Proving Ring Calibration	1,316	kg/div	

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	4,0	5,26	23,80	0,221						
0,40	0,36	7,0	9,21	23,85	0,386						
0,60	0,55	10,0	13,16	23,89	0,551						
0,80	0,73	14,0	18,42	23,93	0,770						
1,00	0,91	17,0	22,37	23,98	0,933						
1,20	1,09	21,0	27,64	24,02	1,151						
1,40	1,27	25,0	32,90	24,06	1,367						
1,60	1,45	29,0	38,16	24,11	1,583						
1,80	1,64	33,0	43,43	24,15	1,798						
2,00	1,82	37,0	48,69	24,20	2,012						
2,20	2,00	42,0	55,27	24,24	2,280						
2,40	2,18	45,0	59,22	24,29	2,438						
2,60	2,36	49,0	64,48	24,33	2,650						
2,80	2,55	53,0	69,75	24,38	2,861						
3,00	2,73	48,0	63,17	24,42	2,586						
3,20	2,91	37,0	48,69	24,47	1,990						
3,40	3,09	19,0	25,00	24,52	1,020						



Failure Visualization	
Undisturbed	Remolded

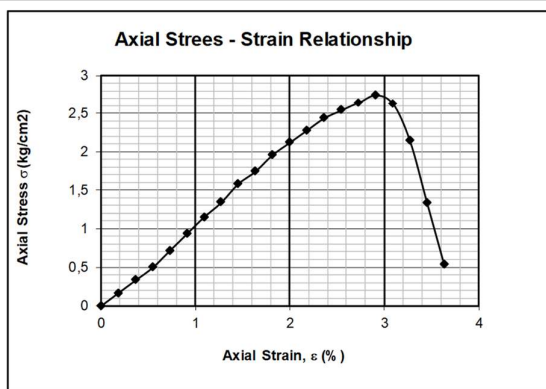
Unconfined Compression Strength, kg/cm ²	
qu =	2,861
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 3% KARET + 12% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	3,0	3,95	23,80	0,166						
0,40	0,36	6,0	7,90	23,85	0,331						
0,60	0,55	9,0	11,84	23,89	0,496						
0,80	0,73	13,0	17,11	23,93	0,715						
1,00	0,91	17,0	22,37	23,98	0,933						
1,20	1,09	21,0	27,64	24,02	1,151						
1,40	1,27	24,5	32,24	24,06	1,340						
1,60	1,45	29,0	38,16	24,11	1,583						
1,80	1,64	32,0	42,11	24,15	1,744						
2,00	1,82	36,0	47,38	24,20	1,958						
2,20	2,00	39,0	51,32	24,24	2,117						
2,40	2,18	42,0	55,27	24,29	2,276						
2,60	2,36	45,0	59,22	24,33	2,434						
2,80	2,55	47,0	61,85	24,38	2,537						
3,00	2,73	49,0	64,48	24,42	2,640						
3,20	2,91	51,0	67,12	24,47	2,743						
3,40	3,09	49,0	64,48	24,52	2,630						
3,60	3,27	40,0	52,64	24,56	2,143						
3,80	3,45	25,0	32,90	24,61	1,337						
4,00	3,64	10,0	13,16	24,65	0,534						

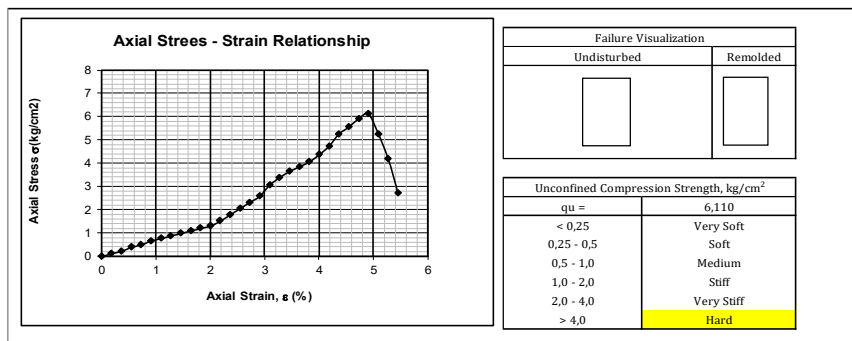


Failure Visualization	
Undisturbed	Remolded

Unconfined Compression Strength, kg/cm ²	
qu =	2,743
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

6. UCS Tanah Sedimen Stabilisasi Tras dan 3%Karet Pemeraman 7 hari

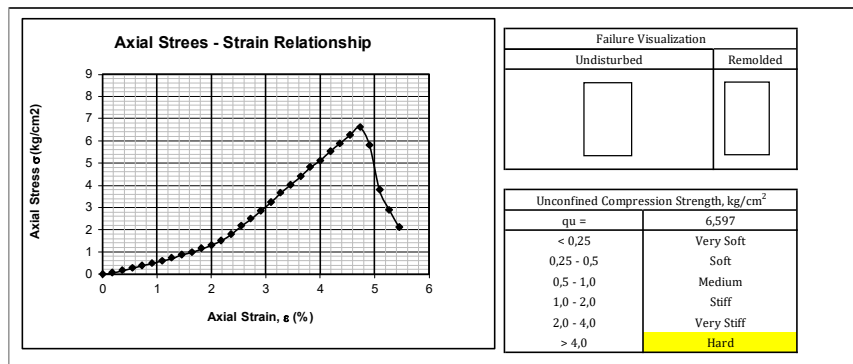
UNCONFINED COMPRESSION TEST RESULTS															
PROJECT : SOIL INVESTIGATION															
LOCATION : -															
SAMPel : TANAH ASLI + 3% KARET + 3% TRAS															
TESTING METHOD : ASTM D 2166-66						TESTED BY : ALDI D.									
LABORATORY : HASANUDDIN UNIVERSITY						DATE : MARET 2021									
Sample Depth		m		-		m		Index Properties		Weight of Wet Soil		468,28		gram	
Sample Size		Diameter, d		5,50		cm		Weight of Dry Soil		374,50		gram			
		Height, h		11,00		cm		Water Content		20,60		%			
		Volume		261,34		cm ³		Dry Unit Weight		1,433		gram/cm ³			
		Area, Ao		23,76		cm ²		Proving Ring Calibration		1,316		kg/div			
Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress							
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress					
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress				
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$						
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)				
0,00	0,00	0,0	0,00	23,76	0,000										
0,20	0,18	2,0	2,63	23,80	0,111										
0,40	0,36	4,0	5,26	23,85	0,221										
0,60	0,55	7,0	9,21	23,89	0,386										
0,80	0,73	9,0	11,84	23,93	0,495										
1,00	0,91	12,0	15,79	23,98	0,659										
1,20	1,09	14,0	18,42	24,02	0,767										
1,40	1,27	16,0	21,06	24,06	0,875										
1,60	1,45	18,0	23,69	24,11	0,983										
1,80	1,64	20,0	26,32	24,15	1,090										
2,00	1,82	22,0	28,95	24,20	1,196										
2,20	2,00	24,0	31,58	24,24	1,303										
2,40	2,18	28,0	36,85	24,29	1,517										
2,60	2,36	33,0	43,43	24,33	1,785										
2,80	2,55	38,0	50,01	24,38	2,051										
3,00	2,73	43,0	56,59	24,42	2,317										
3,20	2,91	48,0	63,17	24,47	2,581										
3,40	3,09	57,0	75,01	24,52	3,060										
3,60	3,27	63,0	82,91	24,56	3,375										
3,80	3,45	68,0	89,49	24,61	3,636										
4,00	3,64	72,0	94,75	24,65	3,843										
4,20	3,82	76,0	100,02	24,70	4,049										
4,40	4,00	82,0	107,91	24,75	4,360										
4,60	4,18	89,0	117,12	24,80	4,724										
4,80	4,36	99,0	130,28	24,84	5,244										
5,00	4,55	105,0	138,18	24,89	5,552										
5,20	4,73	112,0	147,39	24,94	5,911										
5,40	4,91	116,0	152,66	24,98	6,110										
5,60	5,09	100,0	131,60	25,03	5,257										
5,80	5,27	80,0	105,28	25,08	4,198										
6,00	5,45	52,0	68,43	25,13	2,723										



UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	:	SOIL INVESTIGATION			
LOCATION	:	-			
SAMPEL	:	TANAH ASLI + 3% KARET + 6% TRAS			
TESTING METHOD	:	ASTM D 2166-66	TESTED BY	:	ALDI D.
LABORATORY	:	HASANUDDIN UNIVERSITY	DATE	:	MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial		Axial Load & Stress				Axial		Axial Load & Stress			
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	A = A _o /(1 - $\delta h/h$)	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	A = A _o /(1 - $\delta h/h$)	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	1,0	1,32	23,80	0,055						
0,40	0,36	3,0	3,95	23,85	0,166						
0,60	0,55	5,0	6,58	23,89	0,275						
0,80	0,73	7,0	9,21	23,93	0,385						
1,00	0,91	9,0	11,84	23,98	0,494						
1,20	1,09	11,0	14,48	24,02	0,603						
1,40	1,27	13,0	17,11	24,06	0,711						
1,60	1,45	16,0	21,06	24,11	0,873						
1,80	1,64	18,0	23,69	24,15	0,981						
2,00	1,82	21,0	27,64	24,20	1,142						
2,20	2,00	24,0	31,58	24,24	1,303						
2,40	2,18	28,0	36,85	24,29	1,517						
2,60	2,36	33,0	43,43	24,33	1,785						
2,80	2,55	40,0	52,64	24,38	2,159						
3,00	2,73	46,0	60,54	24,42	2,479						
3,20	2,91	53,0	69,75	24,47	2,850						
3,40	3,09	60,0	78,96	24,52	3,221						
3,60	3,27	68,0	89,49	24,56	3,643						
3,80	3,45	75,0	98,70	24,61	4,011						
4,00	3,64	82,0	107,91	24,65	4,377						
4,20	3,82	90,0	118,44	24,70	4,795						
4,40	4,00	96,0	126,34	24,75	5,105						
4,60	4,18	104,0	136,86	24,80	5,520						
4,80	4,36	111,0	146,08	24,84	5,880						
5,00	4,55	118,0	155,29	24,89	6,239						
5,20	4,73	125,0	164,50	24,94	6,597						
5,40	4,91	110,0	144,76	24,98	5,794						
5,60	5,09	72,0	94,75	25,03	3,785						
5,80	5,27	55,0	72,38	25,08	2,886						
6,00	5,45	40,0	52,64	25,13	2,095						



UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	: SOIL INVESTIGATION				
LOCATION	: -				
SAMPEL	: TANAH ASLI + 3% KARET + 9% TRAS				
TESTING METHOD	: ASTM D 2166-66			TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY			DATE	: MARET 2021
Sample Depth	m		-		m
Sample Size	Diameter, d	5,50		cm	Index Properties
	Height, h	11,00		cm	Weight of Wet Soil
	Volume	261,34		cm ³	Weight of Dry Soil
	Area, A _o	23,76		cm ²	Water Content
					Dry Unit Weight
					1,433 gram/cm ³
					Proving Ring Calibration
					1,316 kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	A = A _o /(1 - $\delta h/h$)	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	A = A _o /(1 - $\delta h/h$)	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	1,0	1,32	23,80	0,055						
0,40	0,36	3,0	3,95	23,85	0,166						
0,60	0,55	5,0	6,58	23,89	0,275						
0,80	0,73	7,0	9,21	23,93	0,385						
1,00	0,91	9,0	11,84	23,98	0,494						
1,20	1,09	11,0	14,48	24,02	0,603						
1,40	1,27	13,0	17,11	24,06	0,711						
1,60	1,45	15,0	19,74	24,11	0,819						
1,80	1,64	17,0	22,37	24,15	0,926						
2,00	1,82	20,0	26,32	24,20	1,088						
2,20	2,00	23,0	30,27	24,24	1,249						
2,40	2,18	27,0	35,53	24,29	1,463						
2,60	2,36	32,0	42,11	24,33	1,731						
2,80	2,55	38,0	50,01	24,38	2,051						
3,00	2,73	44,0	57,90	24,42	2,371						
3,20	2,91	50,0	65,80	24,47	2,689						
3,40	3,09	55,0	72,38	24,52	2,952						
3,60	3,27	62,0	81,59	24,56	3,322						
3,80	3,45	68,0	89,49	24,61	3,636						
4,00	3,64	77,0	101,33	24,65	4,110						
4,20	3,82	83,0	109,23	24,70	4,422						
4,40	4,00	89,0	117,12	24,75	4,733						
4,60	4,18	93,0	122,39	24,80	4,936						
4,80	4,36	101,0	132,92	24,84	5,350						
5,00	4,55	106,0	139,50	24,89	5,605						
5,20	4,73	109,0	143,44	24,94	5,752						
5,40	4,91	114,0	150,02	24,98	6,005						
5,60	5,09	122,0	160,55	25,03	6,414						
5,80	5,27	130,0	171,08	25,08	6,821						
6,00	5,45	101,0	132,92	25,13	5,289						
6,20	5,64	84,0	110,54	25,18	4,391						
6,40	5,82	64,0	84,22	25,23	3,339						
6,60	6,00	42,0	55,27	25,27	2,187						

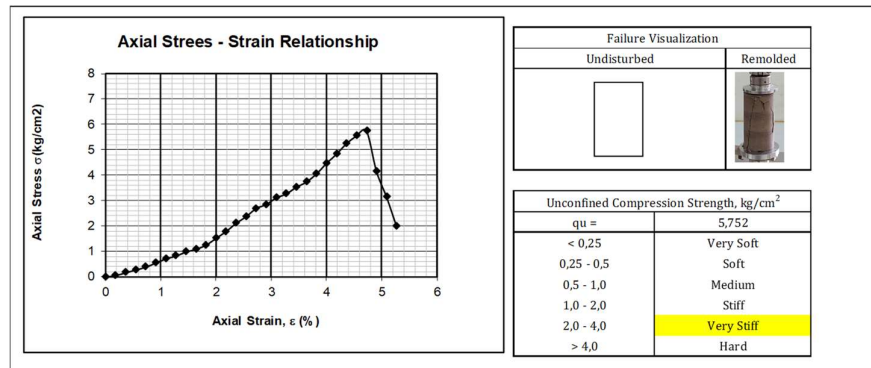
Axial Stress - Strain Relationship

The graph plots Axial Stress σ (kg/cm²) on the y-axis (0 to 9) against Axial Strain ϵ (%) on the x-axis (0 to 8). The curve shows a non-linear increase in stress with strain, reaching a peak of 6.821 kg/cm² at 5.8% strain, followed by a sharp drop in stress as strain increases further.

Failure Visualization	
Undisturbed	Remolded

Unconfined Compression Strength, kg/cm ²	
qu =	6,821
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS																	
PROJECT		: SOIL INVESTIGATION															
LOCATION		: -															
SAMPSEL		: TANAH ASLI + 3% KARET + 12% TRAS															
TESTING METHOD		: ASTM D 2166-66					TESTED BY		: ALDI D.								
LABORATORY		: HASANUDDIN UNIVERSITY					DATE		: MARET 2021								
Sample Depth		m		-		m		Index Properties		Weight of Wet Soil		468,28		gram			
Sample Size		Diameter, d		5,50		cm				Weight of Dry Soil		374,50		gram			
		Height, h		11,00		cm				Water Content		20,60		%			
		Volume		261,34		cm ³				Dry Unit Weight		1,433		gram/cm ³			
		Area, Ao		23,76		cm ²		Proving Ring Calibration				1,316		kg/div			
Axial		Axial Load & Stress						Axial		Axial Load & Stress							
Deformation		Axial Load		Axial Stress				Deformation		Axial Load		Axial Stress					
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000												
0,20	0,18	1,0	1,32	23,80	0,055												
0,40	0,36	3,0	3,95	23,85	0,166												
0,60	0,55	5,0	6,58	23,89	0,275												
0,80	0,73	7,0	9,21	23,93	0,385												
1,00	0,91	10,0	13,16	23,98	0,549												
1,20	1,09	13,0	17,11	24,02	0,712												
1,40	1,27	15,0	19,74	24,06	0,820												
1,60	1,45	18,0	23,69	24,11	0,983												
1,80	1,64	20,0	26,32	24,15	1,090												
2,00	1,82	23,0	30,27	24,20	1,251												
2,20	2,00	28,0	36,85	24,24	1,520												
2,40	2,18	33,0	43,43	24,29	1,788												
2,60	2,36	39,0	51,32	24,33	2,109												
2,80	2,55	44,0	57,90	24,38	2,375												
3,00	2,73	50,0	65,80	24,42	2,694												
3,20	2,91	53,0	69,75	24,47	2,850												
3,40	3,09	58,0	76,33	24,52	3,113												
3,60	3,27	61,0	80,28	24,56	3,268												
3,80	3,45	66,0	86,86	24,61	3,530												
4,00	3,64	70,0	92,12	24,65	3,736												
4,20	3,82	76,0	100,02	24,70	4,049												
4,40	4,00	84,0	110,54	24,75	4,467												
4,60	4,18	91,0	119,76	24,80	4,830												
4,80	4,36	99,0	130,28	24,84	5,244												
5,00	4,55	105,0	138,18	24,89	5,552												
5,20	4,73	109,0	143,44	24,94	5,752												
5,40	4,91	79,0	103,96	24,98	4,161												
5,60	5,09	60,0	78,96	25,03	3,154												
5,80	5,27	38,0	50,01	25,08	1,994												



7. UCS Tanah Sedimen Stabilisasi Tras dan 3%Karet Pemeraman 14 hari

UNCONFINED COMPRESSION TEST RESULTS												
PROJECT		: SOIL INVESTIGATION										
LOCATION		: -										
SAMPel		: TANAH ASLI + 3% KARET + 3% TRAS										
TESTING METHOD		: ASTM D 2166-66					TESTED BY		: ALDI D.			
LABORATORY		: HASANUDDIN UNIVERSITY					DATE		: MARET 2021			
Sample Depth		m		-		m		Index Properties				
Sample Size		Diameter, d		5,50		cm		Weight of Wet Soil		468,28		gram
		Height, h		11,00		cm		Weight of Dry Soil		374,50		gram
		Volume		261,34		cm ³		Water Content		20,60		%
		Area, A _o		23,76		cm ²		Dry Unit Weight		1,433		gram/cm ³
								Proving Ring Calibration		1,316		kg/div
Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress				
Disp. Reading		Axial Load		Axial Stress		Disp. Reading		Axial Load		Axial Stress		
Axial Strain		Axial Stress		Corrected Area		Axial Strain		Axial Stress		Corrected Area		
Stress		Stress		Stress		Stress		Stress		Stress		
δh		P		A = A _o /(1 - δh/h)		σ = P/A		δh		ε = δh/h		
ε = δh/h		P		A = A _o /(1 - δh/h)		σ = P/A		δh		ε = δh/h		
(mm)		(kg)		(cm ²)		(kg/cm ²)		(mm)		(%)		
0,00	0,00	0,0	0,00	23,76	0,000							
0,20	0,18	5,0	6,58	23,80	0,276							
0,40	0,36	11,0	14,48	23,85	0,607							
0,60	0,55	18,0	23,69	23,89	0,992							
0,80	0,73	26,0	34,22	23,93	1,430							
1,00	0,91	34,0	44,74	23,98	1,866							
1,20	1,09	42,0	55,27	24,02	2,301							
1,40	1,27	51,0	67,12	24,06	2,789							
1,60	1,45	59,0	77,64	24,11	3,221							
1,80	1,64	68,0	89,49	24,15	3,705							
2,00	1,82	78,0	102,65	24,20	4,242							
2,20	2,00	88,0	115,81	24,24	4,777							
2,40	2,18	96,0	126,34	24,29	5,202							
2,60	2,36	104,0	136,86	24,33	5,625							
2,80	2,55	113,0	148,71	24,38	6,100							
3,00	2,73	120,0	157,92	24,42	6,466							
3,20	2,91	126,0	165,82	24,47	6,776							
3,40	3,09	112,0	147,39	24,52	6,012							
3,60	3,27	99,0	130,28	24,56	5,304							

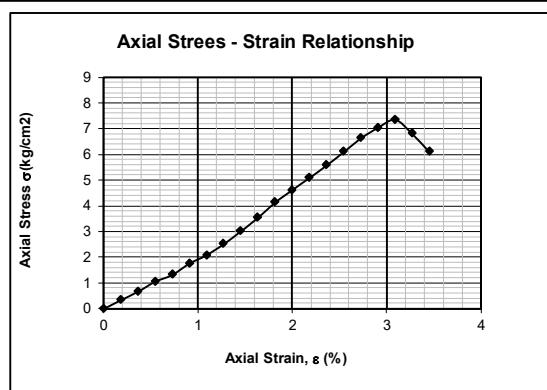
Axial Stress - Strain Relationship																							
<p>The graph plots Axial Stress (kg/cm²) on the y-axis (0 to 8) against Axial Strain, ε (%) on the x-axis (0 to 4). The data points form a curve that rises to a peak of approximately 6.776 kg/cm² at 3.2% strain, then slightly declines.</p>	<table border="1"> <thead> <tr> <th colspan="2">Failure Visualization</th> </tr> <tr> <th>Undisturbed</th> <th>Remolded</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">Unconfined Compression Strength, kg/cm²</th> </tr> </thead> <tbody> <tr> <td>qu =</td> <td>6,776</td> </tr> <tr> <td>< 0,25</td> <td>Very Soft</td> </tr> <tr> <td>0,25 - 0,5</td> <td>Soft</td> </tr> <tr> <td>0,5 - 1,0</td> <td>Medium</td> </tr> <tr> <td>1,0 - 2,0</td> <td>Stiff</td> </tr> <tr> <td>2,0 - 4,0</td> <td>Very Stiff</td> </tr> <tr> <td>> 4,0</td> <td>Hard</td> </tr> </tbody> </table>	Failure Visualization		Undisturbed	Remolded			Unconfined Compression Strength, kg/cm ²		qu =	6,776	< 0,25	Very Soft	0,25 - 0,5	Soft	0,5 - 1,0	Medium	1,0 - 2,0	Stiff	2,0 - 4,0	Very Stiff	> 4,0	Hard
Failure Visualization																							
Undisturbed	Remolded																						
Unconfined Compression Strength, kg/cm ²																							
qu =	6,776																						
< 0,25	Very Soft																						
0,25 - 0,5	Soft																						
0,5 - 1,0	Medium																						
1,0 - 2,0	Stiff																						
2,0 - 4,0	Very Stiff																						
> 4,0	Hard																						

UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 3% KARET + 6% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Deformation		Axial Load		Axial Stress		Deformation		Axial Load		Axial Stress	
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	12,0	15,79	23,85	0,662						
0,60	0,55	19,0	25,00	23,89	1,047						
0,80	0,73	24,0	31,58	23,93	1,320						
1,00	0,91	32,0	42,11	23,98	1,756						
1,20	1,09	38,0	50,01	24,02	2,082						
1,40	1,27	46,0	60,54	24,06	2,516						
1,60	1,45	55,0	72,38	24,11	3,002						
1,80	1,64	65,0	85,54	24,15	3,542						
2,00	1,82	76,0	100,02	24,20	4,133						
2,20	2,00	85,0	111,86	24,24	4,614						
2,40	2,18	94,0	123,70	24,29	5,093						
2,60	2,36	103,0	135,55	24,33	5,570						
2,80	2,55	113,0	148,71	24,38	6,100						
3,00	2,73	123,0	161,87	24,42	6,627						
3,20	2,91	131,0	172,40	24,47	7,045						
3,40	3,09	137,0	180,29	24,52	7,354						
3,60	3,27	127,0	167,13	24,56	6,804						
3,80	3,45	114,0	150,02	24,61	6,096						



Failure Visualization	
Undisturbed	Remolded

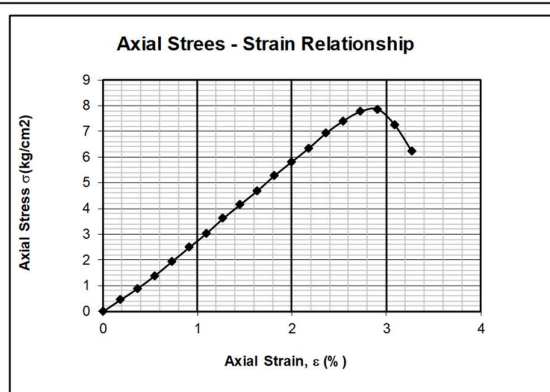
Unconfined Compression Strength, kg/cm ²	
qu =	7,354
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard



UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION
LOCATION	: -
SAMPEL	: TANAH ASLI + 3% KARET + 9% TRAS
TESTING METHOD	: ASTM D 2166-66
LABORATORY	: HASANUDDIN UNIVERSITY
TESTED BY	: ALDI D.
DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$		P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	8,0	10,53	23,80	0,442						
0,40	0,36	16,0	21,06	23,85	0,883						
0,60	0,55	25,0	32,90	23,89	1,377						
0,80	0,73	35,0	46,06	23,93	1,925						
1,00	0,91	45,0	59,22	23,98	2,470						
1,20	1,09	55,0	72,38	24,02	3,013						
1,40	1,27	66,0	86,86	24,06	3,609						
1,60	1,45	76,0	100,02	24,11	4,148						
1,80	1,64	86,0	113,18	24,15	4,686						
2,00	1,82	97,0	127,65	24,20	5,275						
2,20	2,00	107,0	140,81	24,24	5,808						
2,40	2,18	117,0	153,97	24,29	6,339						
2,60	2,36	128,0	168,45	24,33	6,922						
2,80	2,55	137,0	180,29	24,38	7,395						
3,00	2,73	144,0	189,50	24,42	7,759						
3,20	2,91	146,0	192,14	24,47	7,852						
3,40	3,09	135,0	177,66	24,52	7,247						
3,60	3,27	116,0	152,66	24,56	6,215						



Failure Visualization	
Undisturbed	Remolded
	

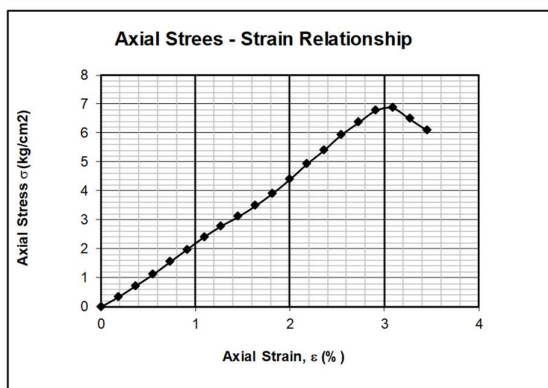
Unconfined Compression Strength, kg/cm ²	
qu =	7,852
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

UNCONFINED COMPRESSION TEST RESULTS

PROJECT : SOIL INVESTIGATION	
LOCATION : -	
SAMPEL : TANAH ASLI + 3% KARET + 12% TRAS	
TESTING METHOD : ASTM D 2166-66	TESTED BY : ALDI D.
LABORATORY : HASANUDDIN UNIVERSITY	DATE : MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	13,0	17,11	23,85	0,717						
0,60	0,55	20,0	26,32	23,89	1,102						
0,80	0,73	28,0	36,85	23,93	1,540						
1,00	0,91	36,0	47,38	23,98	1,976						
1,20	1,09	44,0	57,90	24,02	2,411						
1,40	1,27	51,0	67,12	24,06	2,789						
1,60	1,45	57,0	75,01	24,11	3,111						
1,80	1,64	64,0	84,22	24,15	3,487						
2,00	1,82	72,0	94,75	24,20	3,916						
2,20	2,00	81,0	106,60	24,24	4,397						
2,40	2,18	91,0	119,76	24,29	4,931						
2,60	2,36	100,0	131,60	24,33	5,408						
2,80	2,55	110,0	144,76	24,38	5,938						
3,00	2,73	118,0	155,29	24,42	6,358						
3,20	2,91	126,0	165,82	24,47	6,776						
3,40	3,09	128,0	168,45	24,52	6,871						
3,60	3,27	121,0	159,24	24,56	6,483						
3,80	3,45	114,0	150,02	24,61	6,096						



Failure Visualization	
Undisturbed	Remolded

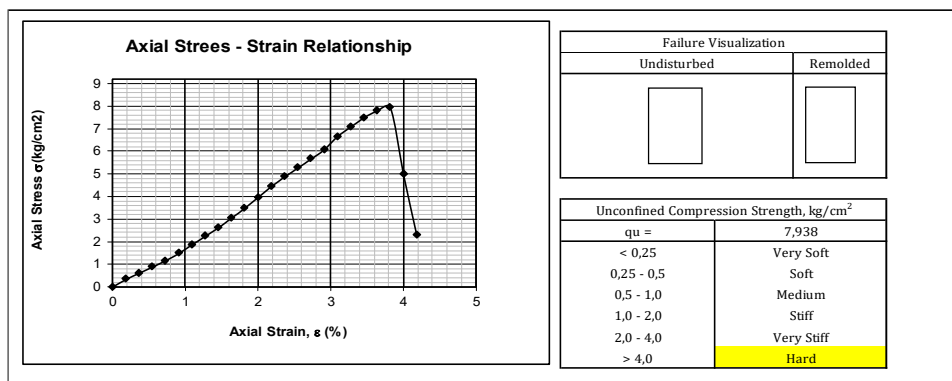
Unconfined Compression Strength, kg/cm ²	
qu =	6,871
< 0,25	Very Soft
0,25 - 0,5	Soft
0,5 - 1,0	Medium
1,0 - 2,0	Stiff
2,0 - 4,0	Very Stiff
> 4,0	Hard

8. UCS Tanah Sedimen Stabilisasi Tras dan 3%Karet Pemeraman 28 hari

UNCONFINED COMPRESSION TEST RESULTS					
PROJECT	: SOIL INVESTIGATION				
LOCATION	: -				
SAMPEL	: TANAH ASLI + 3% KARET + 3% TRAS				
TESTING METHOD	: ASTM D 2166-66			TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY			DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	11,0	14,48	23,85	0,607						
0,60	0,55	16,0	21,06	23,89	0,881						
0,80	0,73	21,0	27,64	23,93	1,155						
1,00	0,91	27,0	35,53	23,98	1,482						
1,20	1,09	34,0	44,74	24,02	1,863						
1,40	1,27	41,0	53,96	24,06	2,242						
1,60	1,45	48,0	63,17	24,11	2,620						
1,80	1,64	56,0	73,70	24,15	3,051						
2,00	1,82	64,0	84,22	24,20	3,481						
2,20	2,00	73,0	96,07	24,24	3,963						
2,40	2,18	82,0	107,91	24,29	4,443						
2,60	2,36	90,0	118,44	24,33	4,867						
2,80	2,55	97,5	128,31	24,38	5,263						
3,00	2,73	105,0	138,18	24,42	5,657						
3,20	2,91	113,0	148,71	24,47	6,077						
3,40	3,09	124,0	163,18	24,52	6,656						
3,60	3,27	132,0	173,71	24,56	7,072						
3,80	3,45	140,0	184,24	24,61	7,487						
4,00	3,64	146,0	192,14	24,65	7,793						
4,20	3,82	149,0	196,08	24,70	7,938						
4,40	4,00	94,0	123,70	24,75	4,999						
4,60	4,18	43,0	56,59	24,80	2,282						

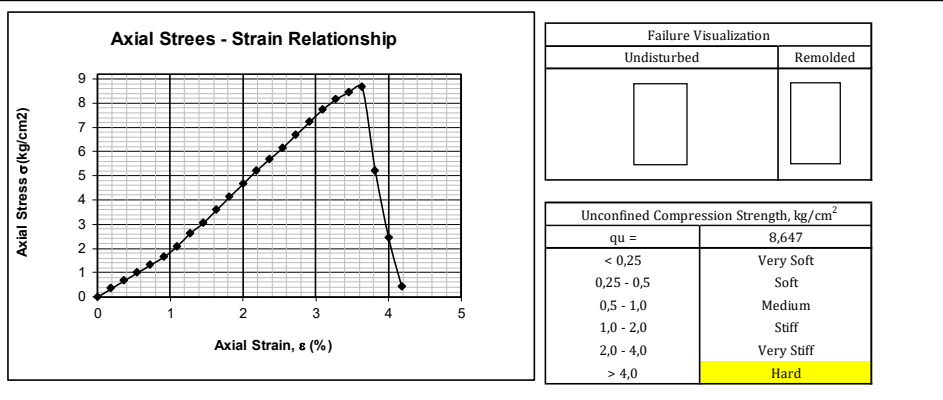


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION		
LOCATION	: -		
SAMPEL	: TANAH ASLI + 3% KARET + 6% TRAS		
TESTING METHOD	: ASTM D 2166-66	TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY	DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	12,0	15,79	23,85	0,662						
0,60	0,55	18,0	23,69	23,89	0,992						
0,80	0,73	24,0	31,58	23,93	1,320						
1,00	0,91	30,0	39,48	23,98	1,647						
1,20	1,09	38,0	50,01	24,02	2,082						
1,40	1,27	48,0	63,17	24,06	2,625						
1,60	1,45	56,0	73,70	24,11	3,057						
1,80	1,64	66,0	86,86	24,15	3,596						
2,00	1,82	76,0	100,02	24,20	4,133						
2,20	2,00	86,0	113,18	24,24	4,668						
2,40	2,18	96,0	126,34	24,29	5,202						
2,60	2,36	105,0	138,18	24,33	5,679						
2,80	2,55	114,0	150,02	24,38	6,154						
3,00	2,73	124,0	163,18	24,42	6,681						
3,20	2,91	134,0	176,34	24,47	7,206						
3,40	3,09	144,0	189,50	24,52	7,730						
3,60	3,27	152,0	200,03	24,56	8,144						
3,80	3,45	158,0	207,93	24,61	8,449						
4,00	3,64	162,0	213,19	24,65	8,647						
4,20	3,82	98,0	128,97	24,70	5,221						
4,40	4,00	46,0	60,54	24,75	2,446						
4,60	4,18	8,0	10,53	24,80	0,425						

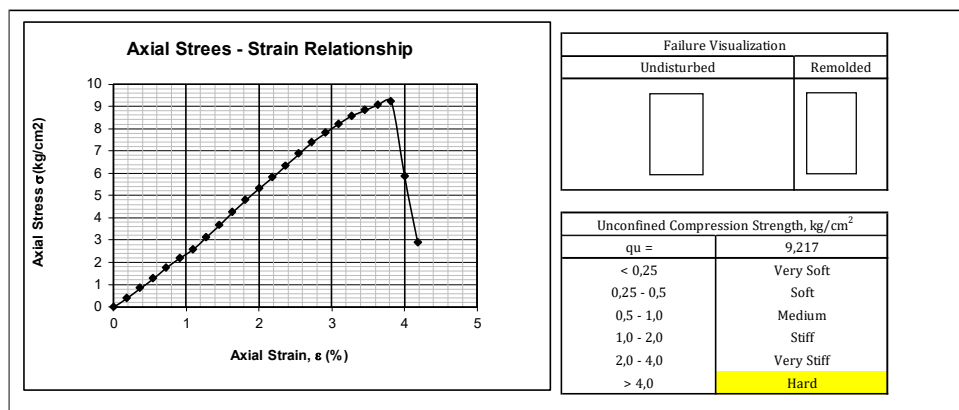


UNCONFINED COMPRESSION TEST RESULTS

PROJECT	: SOIL INVESTIGATION		
LOCATION	: -		
SAMPEL	: TANAH ASLI + 3% KARET + 9% TRAS		
TESTING METHOD	: ASTM D 2166-66	TESTED BY	: ALDI D.
LABORATORY	: HASANUDDIN UNIVERSITY	DATE	: MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$	δh	$\epsilon = \delta h/h$	P	$A = A_o/(1 - \delta h/h)$	$\sigma = P/A$		
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	7,0	9,21	23,80	0,387						
0,40	0,36	15,0	19,74	23,85	0,828						
0,60	0,55	23,0	30,27	23,89	1,267						
0,80	0,73	32,0	42,11	23,93	1,760						
1,00	0,91	40,0	52,64	23,98	2,196						
1,20	1,09	47,0	61,85	24,02	2,575						
1,40	1,27	57,0	75,01	24,06	3,117						
1,60	1,45	67,0	88,17	24,11	3,657						
1,80	1,64	78,0	102,65	24,15	4,250						
2,00	1,82	88,0	115,81	24,20	4,786						
2,20	2,00	98,0	128,97	24,24	5,320						
2,40	2,18	107,0	140,81	24,29	5,798						
2,60	2,36	117,0	153,97	24,33	6,328						
2,80	2,55	127,0	167,13	24,38	6,856						
3,00	2,73	137,0	180,29	24,42	7,382						
3,20	2,91	145,0	190,82	24,47	7,798						
3,40	3,09	153,0	201,35	24,52	8,213						
3,60	3,27	160,0	210,56	24,56	8,573						
3,80	3,45	165,0	217,14	24,61	8,824						
4,00	3,64	170,0	223,72	24,65	9,074						
4,20	3,82	173,0	227,67	24,70	9,217						
4,40	4,00	110,0	144,76	24,75	5,849						
4,60	4,18	54,0	71,06	24,80	2,866						

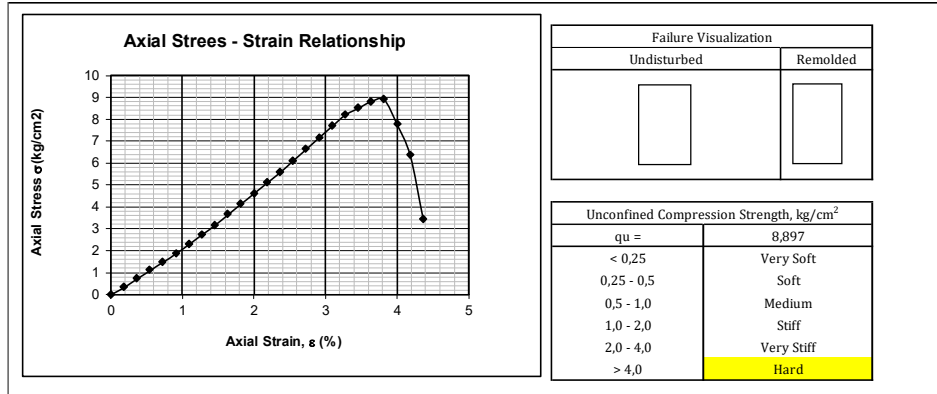


UNCONFINED COMPRESSION TEST RESULTS

PROJECT : SOIL INVESTIGATION	
LOCATION : -	
SAMPEL : TANAH ASLI + 3% KARET + 12% TRAS	
TESTING METHOD : ASTM D 2166-66	TESTED BY : ALDI D.
LABORATORY : HASANUDDIN UNIVERSITY	DATE : MARET 2021

Sample Depth	m	-	m	Index Properties	Weight of Wet Soil	468,28	gram
Sample Size	Diameter, d	5,50	cm		Weight of Dry Soil	374,50	gram
	Height, h	11,00	cm		Water Content	20,60	%
	Volume	261,34	cm ³		Dry Unit Weight	1,433	gram/cm ³
	Area, A _o	23,76	cm ²	Proving Ring Calibration		1,316	kg/div

Axial Deformation		Axial Load & Stress				Axial Deformation		Axial Load & Stress			
Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress	Disp. Reading	Axial Strain	Disp. Reading	Axial Stress	Corrected Area	Stress
(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)	(mm)	(%)	(div)	(kg)	(cm ²)	(kg/cm ²)
0,00	0,00	0,0	0,00	23,76	0,000						
0,20	0,18	6,0	7,90	23,80	0,332						
0,40	0,36	13,0	17,11	23,85	0,717						
0,60	0,55	20,0	26,32	23,89	1,102						
0,80	0,73	27,0	35,53	23,93	1,485						
1,00	0,91	34,0	44,74	23,98	1,866						
1,20	1,09	42,0	55,27	24,02	2,301						
1,40	1,27	50,0	65,80	24,06	2,734						
1,60	1,45	58,0	76,33	24,11	3,166						
1,80	1,64	67,0	88,17	24,15	3,650						
2,00	1,82	76,0	100,02	24,20	4,133						
2,20	2,00	85,0	111,86	24,24	4,614						
2,40	2,18	94,0	123,70	24,29	5,093						
2,60	2,36	103,0	135,55	24,33	5,570						
2,80	2,55	113,0	148,71	24,38	6,100						
3,00	2,73	123,0	161,87	24,42	6,627						
3,20	2,91	133,0	175,03	24,47	7,153						
3,40	3,09	143,0	188,19	24,52	7,676						
3,60	3,27	153,0	201,35	24,56	8,197						
3,80	3,45	159,0	209,24	24,61	8,503						
4,00	3,64	165,0	217,14	24,65	8,807						
4,20	3,82	167,0	219,77	24,70	8,897						
4,40	4,00	146,0	192,14	24,75	7,764						
4,60	4,18	120,0	157,92	24,80	6,369						
4,80	4,36	65,0	85,54	24,84	3,443						



Lampiran Dokumentasi

1. Dokumentasi Pengujian Benda Uji



2. Dokumentasi Hasil Pengujian Benda Uji

