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LAMPIRAN

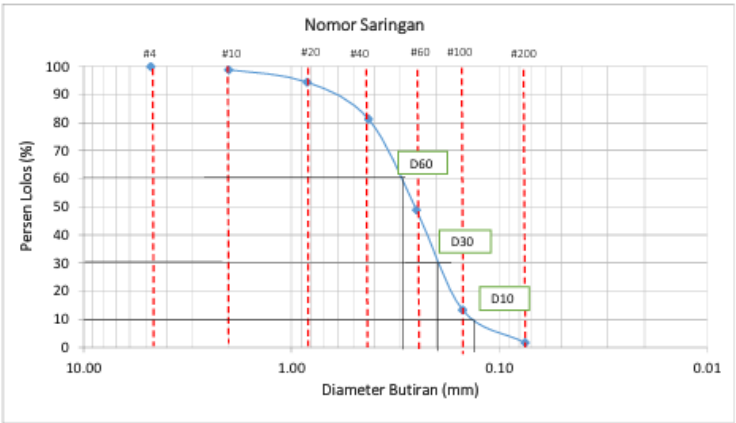
Lampiran 1 Lembar hasil uji analisis saringan

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 2 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 2	Tanggal	: September 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.34	0.34	0.1	99.9
10	2.000	3.41	3.75	1.3	98.8
20	0.840	13.18	16.93	5.6	94.4
40	0.425	39.51	56.44	18.8	81.2
60	0.250	96.73	153.17	51.1	48.9
100	0.150	106.88	260.05	86.7	13.3
200	0.075	34.89	294.94	98.3	1.7
Pan	-	5.06	300	100.0	0.0



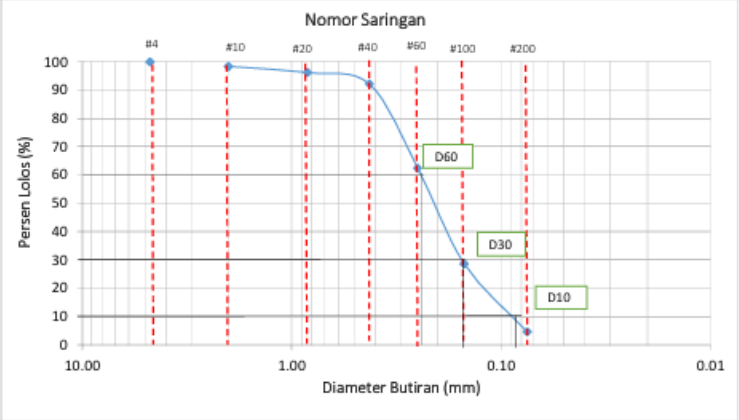
Rekapitulasi	D10(mm)	D30(mm)	D60(mm)	Cu	Cc
	0.129	0.197	0.310	2.410	0.972

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 3 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 3	Tanggal	: September 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.4	0.4	0.1	99.9
10	2.000	4.66	5.06	1.7	98.3
20	0.840	6.45	11.51	3.8	96.2
40	0.425	12.21	23.72	7.9	92.1
60	0.250	88.96	112.68	37.6	62.4
100	0.150	101.48	214.16	71.4	28.6
200	0.075	72.02	286.18	95.4	4.6
Pan	-	13.82	300	100.0	0.0



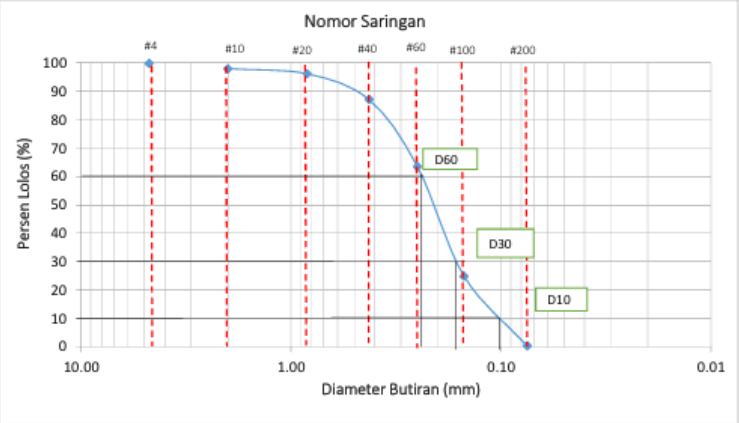
Rekapitulasi	D10 (mm)	D30 (mm)	D60 (mm)	Cu	Cc
	0.092	0.154	0.243	2.643	1.065

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 4 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 4	Tanggal	: September 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.43	0.43	0.1	99.9
10	2.000	5.63	6.06	2.0	98.0
20	0.840	5.45	11.51	3.8	96.2
40	0.425	27.2	38.71	12.9	87.1
60	0.250	70.76	109.47	36.5	63.5
100	0.150	116.11	225.58	75.2	24.8
200	0.075	73.4	298.98	99.7	0.3
Pan	-	1.02	300	100.0	0.0



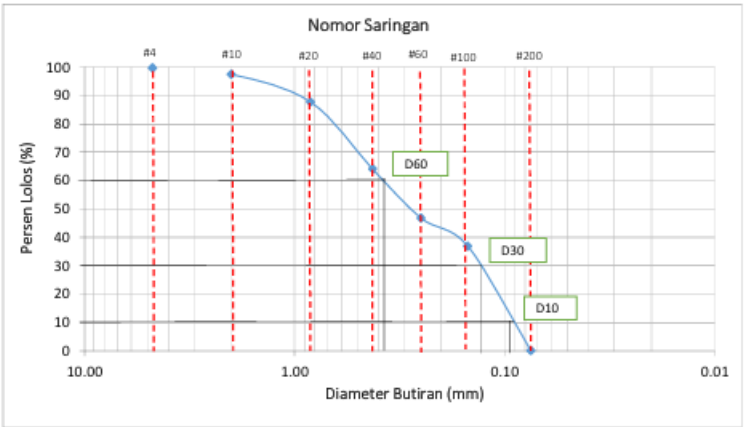
Rekapitulasi	D10 (mm)	D30 (mm)	D60 (mm)	Cu	Cc
	0.105	0.163	0.241	2.303	1.060

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 5 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 5	Tanggal	: Septembers 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.85	0.85	0.3	99.7
10	2.000	6.77	7.62	2.5	97.5
20	0.840	29.2	36.82	12.3	87.7
40	0.425	70.91	107.73	35.9	64.1
60	0.250	51.91	159.64	53.2	46.8
100	0.150	29.55	189.19	63.1	36.9
200	0.075	110.68	299.87	100.0	0.0
Pan	-	0.13	300	100.0	0.0



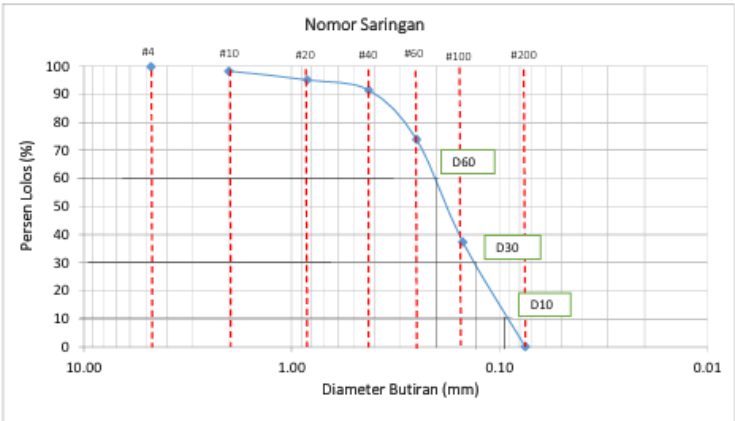
Rekapitulasi	D10(mm)	D30(mm)	D60(mm)	Cu	Cc
	0.095	0.136	0.384	4.028	0.505

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 6 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 6	Tanggal	: Septembers 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.66	0.66	0.2	99.8
10	2.000	4.76	5.42	1.8	98.2
20	0.840	9.2	14.62	4.9	95.1
40	0.425	11.02	25.64	8.5	91.5
60	0.250	52.8	78.44	26.1	73.9
100	0.150	109.5	187.94	62.6	37.4
200	0.075	111.89	299.83	99.9	0.1
Pan	-	0.17	300	100.0	0.0



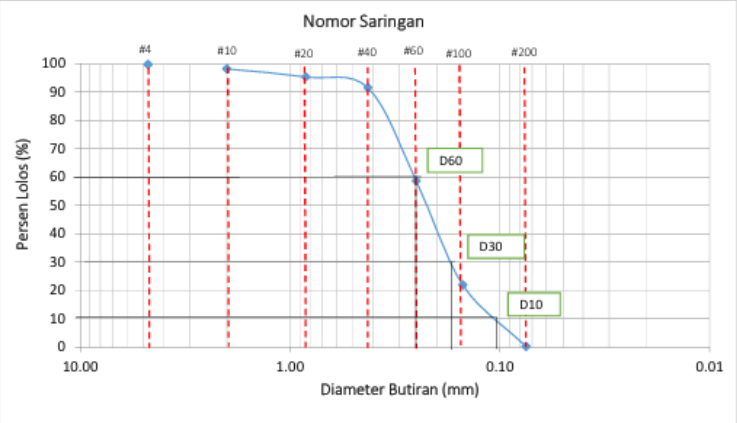
Rekapitulasi	D10 (mm)	D30(mm)	D60(mm)	Cu	Cc
	0.095	0.135	0.212	2.232	0.908

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 9 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 9	Tanggal	: Septembers 2023

Berat Tanah Kering		300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.89	0.89	0.3	99.7
10	2.000	4.67	5.56	1.9	98.1
20	0.840	8.46	14.02	4.7	95.3
40	0.425	11.51	25.53	8.5	91.5
60	0.250	98.56	124.09	41.4	58.6
100	0.150	110.23	234.32	78.1	21.9
200	0.075	64.83	299.15	99.7	0.3
Pan	-	0.85	300	100.0	0.0



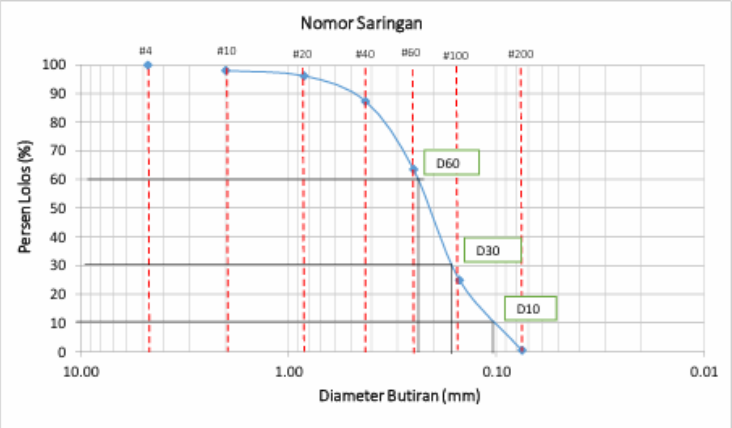
Rekapitulasi	D10 (mm)	D30 (mm)	D60 (mm)	Cu	Cc
	0.109	0.172	0.257	2.366	1.058

HASIL PENGUJIAN ANALISA SARINGAN

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 10 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	: Ansar 10	Tanggal	: Septembers 2023

Berat Tanah Kering	300 gram

Saringan No.	Diameter (mm)	Berat Tertahan (gram)	Berat Kumulatif (gram)	Persen (%)	
				Tertahan	Lolos
3"	0.00	0	0	0.0	0.0
2"	0.00	0	0	0.0	0.0
11/2"	0.00	0	0	0.0	0.0
1"	0.00	0	0	0.0	0.0
3/4"	0.00	0	0	0.0	0.0
3/8"	0.000	0	0	0.0	0.0
4	4.750	0.43	0.43	0.1	99.9
10	2.000	5.63	6.06	2.0	98.0
20	0.840	5.56	11.62	3.9	96.1
40	0.425	26.71	38.33	12.8	87.2
60	0.250	71.14	109.47	36.5	63.5
100	0.150	116.11	225.58	75.2	24.8
200	0.075	73.4	298.98	99.7	0.3
Pan	-	1.02	300	100.0	0.0



Rekapitulasi	D10 (mm)	D30 (mm)	D60 (mm)	Cu	Cc
	0.105	0.163	0.241	2.303	1.060

Lampiran 2 Lembar hasil uji analisis hidrometer

HASIL PENGUJIAN ANALISA SARINGAN DAN HIDROMETER

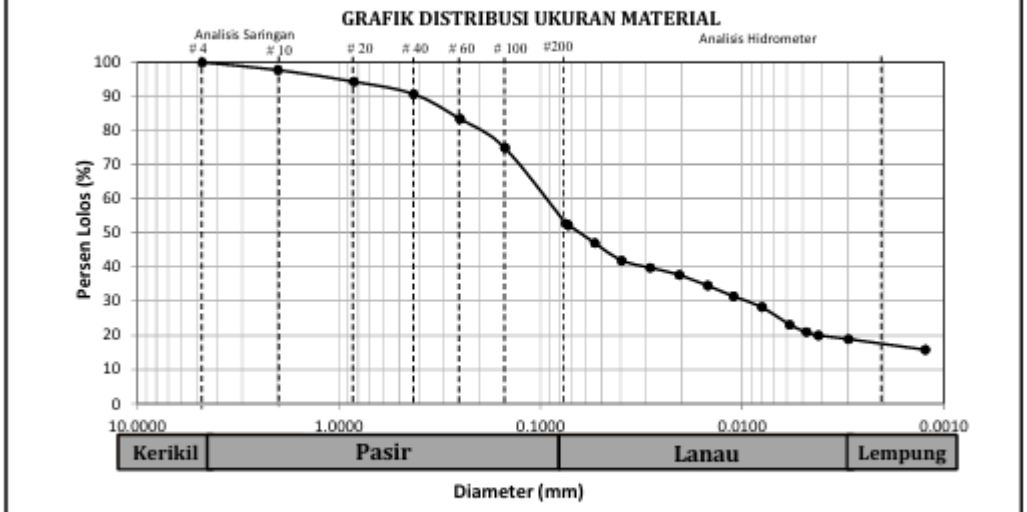
(Sieve-Mechanical and Hydrometer Methods)

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 0.0 - 1.0 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	Ansar-Hidro 1	Tanggal	: September 2023

Berat Tanah Kering :	300	gram	Berat Jenis (Gs)	2.700	Suhu (T)	28.0	°C

Analisa Saringan						Analisa Hidrometer							
Saringan No.	Diameter (mm)	Berat Tertahan (Gram)	Berat Kumulatif (gram)	Persen Kumulatif Tertahan (%)	Persen Lolos (%)	Waktu (menit)	R	Rcp =R+Ft-Fz	% Lolos = ((a x Rcp)/Ws)x100% * % Lolos Analisa Saringan	RcL= R + Fm	L (cm)	A	D=AvL/t (mm)
4	4.75	0.23	0.23	0.076667	99.9233	0.25	47	50.2	52.3	48	8.60	0.0124	0.0727
10	2	6.77	7	2.333333	97.6667	0.5	42	45.2	47.1	43	9.40	0.0124	0.0538
20	0.84	10.2	17.2	5.733333	94.2667	1	37	40.2	41.9	38	10.20	0.0124	0.0396
40	0.425	10.91	28.11	9.37	90.63	2	35	38.2	39.8	36	10.60	0.0124	0.0285
60	0.25	21.91	50.02	16.67333	83.3267	4	33	36.2	37.7	34	10.90	0.0124	0.0205
100	0.15	25.22	75.24	25.08	74.92	8	30	33.2	34.6	31	11.40	0.0124	0.0148
200	0.075	66.63	141.87	47.29	52.71	15	27	30.2	31.4	28	11.90	0.0124	0.0110
Pan	-	158.13	300	100	0	30	24	27.2	28.3	25	12.40	0.0124	0.0080
						60	19	22.2	23.1	20	13.20	0.0124	0.0058
						90	17	20.2	21.0	18	13.50	0.0124	0.0048
						120	16	19.2	20.0	17	13.70	0.0124	0.0042
						240	15	18.2	18.9	16	13.80	0.0124	0.0030
						1440	12	15.2	15.8	13	14.30	0.0124	0.0012

Berat jenis air terhadap temperatur, $g_{wat\,T}$	=	0.99624
faktor, K = [1000 x Gs x $g_{wat\,T}$]/(10 x Ws(Gs -1))	=	3.1645
Faktor Kt = f(Gs,T)	=	0.0124
Suhu Terkoreksi (Ft) = -4.85 + 0.25 T)	=	2.15
Koreksi Nol (Fz)	=	-1.0
Koreksi Meniskus (Fm)	=	1
Koreksi Berat Jenis	=	0.99



Hasil Analisis Saringan dan Hidrometer		
Kerikil	2.33	%
Pasir	44.96	%
Lanau	36.92	%
Lempung	15.79	%

HASIL PENGUJIAN ANALISA SARINGAN DAN HIDROMETER

(Sieve-Mechanical and Hydrometer Methods)

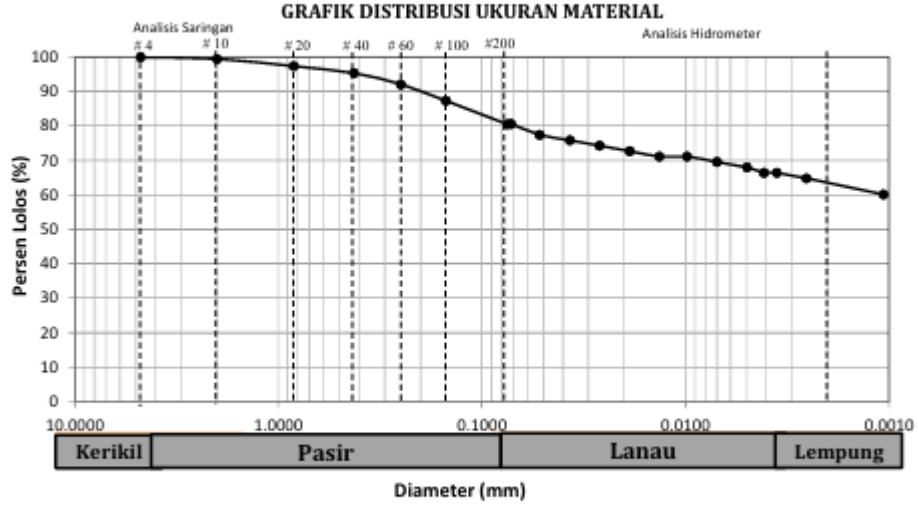
Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 6.1 - 7.0 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	Ansar-Hidro 7	Tanggal	: September 2023

Berat Tanah Kering :	300	gram	Berat Jenis (Gs)	2.748	Suhu (T)	28.0	°C

Analisa Saringan						Analisa Hidrometer							
Saringan No.	Diameter (mm)	Berat Tertahan (Gram)	Berat Kumulatif (gram)	Persen Kumulatif Tertahan (%)	Persen Lolos (%)	Waktu (menit)	R	Rcp =R+Ft-Fz	% Lolos = ((a x Rcp)/Ws)x100% * % Lolos Analisa Saringan	RcL= R + Fm	L (cm)	A	D=AvL/t (mm)
4	4.75	0.13	0.13	0.043333	99.9567	0.25	48	51.2	80.6	49	8.40	0.0124	0.0719
10	2	1.77	1.9	0.633333	99.3667	0.5	46	49.2	77.4	47	8.80	0.0124	0.0520
20	0.84	6.2	8.1	2.7	97.3	1	45	48.2	75.8	46	8.90	0.0124	0.0370
40	0.425	5.91	14.01	4.67	95.33	2	44	47.2	74.3	45	9.10	0.0124	0.0265
60	0.25	9.9	23.91	7.97	92.03	4	43	46.2	72.7	44	9.20	0.0124	0.0188
100	0.15	14.22	38.13	12.71	87.29	8	42	45.2	71.1	43	9.40	0.0124	0.0134
200	0.075	20.51	58.64	19.54667	80.4533	15	42	45.2	71.1	43	9.40	0.0124	0.0098
Pan	-	241.36	300	100	0	30	41	44.2	69.5	42	9.60	0.0124	0.0070
						60	40	43.2	68.0	41	9.70	0.0124	0.0050
						90	39	42.2	66.4	40	9.90	0.0124	0.0041
						120	39	42.2	66.4	40	9.90	0.0124	0.0036
						240	38	41.2	64.8	39	10.10	0.0124	0.0025
						1440	35	38.2	60.1	36	10.60	0.0124	0.0011

Berat jenis air terhadap temperatur, $g_{wat\,T}$	=	0.99624
faktor, K = [1000 x Gs x $g_{wat\,T}$]/[10 x Ws(Gs -1)]	=	3.1323
Faktor Kt = f(Gs,T)	=	0.0124
Suhu Terkoreksi (Ft) = -4.85 + 0.25 T)	=	2.15
Koreksi Nol (Fz)	=	-1.0
Koreksi Meniskus (Fm)	=	1
Koreksi Berat Jenis	=	0.98

GRAFIK DISTRIBUSI UKURAN MATERIAL



Hasil Analisis Saringan dan Hidrometer

Kerikil	0.63	%
Pasir	18.91	%
Lanau	20.37	%
Lempung	60.09	%

HASIL PENGUJIAN ANALISA SARINGAN DAN HIDROMETER

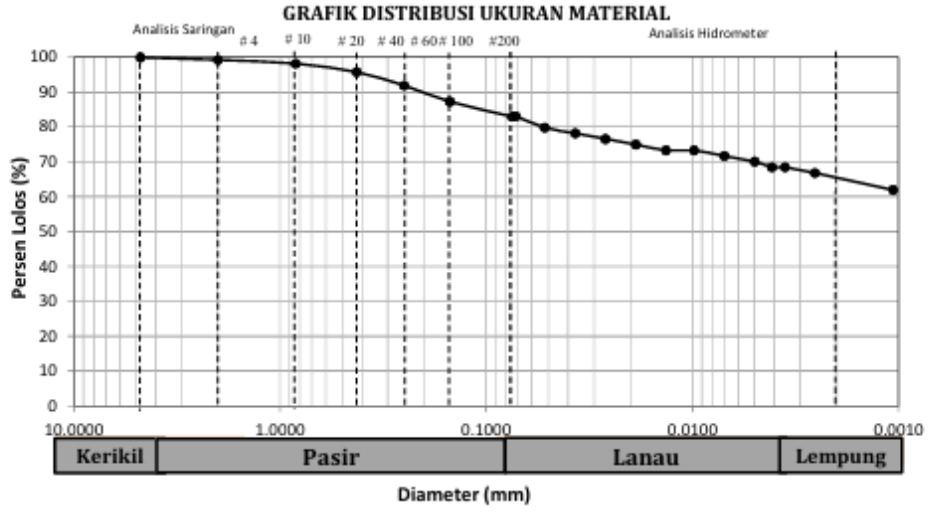
(Sieve-Mechanical and Hydrometer Methods)

Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 7.1 - 8.0 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	Ansar-Hidro 8	Tanggal	: September 2023

Berat Tanah Kering :	300	gram	Berat Jenis (Gs)	2.748	Suhu (T)	28.0	°C

Analisa Saringan						Analisa Hidrometer							
Saringan No.	Diameter (mm)	Berat Tertahan (Gram)	Berat Kumulatif (gram)	Persen Kumulatif Tertahan (%)	Persen Lolos (%)	Waktu (menit)	R	Rcp =R+Ft-Fz	% Lolos = ((a x Rcp)/Ws)x100% * % Lolos Analisa Saringan	Rcl= R + Fm	L (cm)	A	D=A√L/t (mm)
4	4.75	0.15	0.15	0.05	99.95	0.25	48	51.2	83.0	49	8.40	0.0124	0.0719
10	2	2.14	2.29	0.763333	99.2367	0.5	46	49.2	79.8	47	8.80	0.0124	0.0520
20	0.84	3.23	5.52	1.84	98.16	1	45	48.2	78.2	46	8.90	0.0124	0.0370
40	0.425	7.22	12.74	4.246667	95.7533	2	44	47.2	76.6	45	9.10	0.0124	0.0265
60	0.25	11.72	24.46	8.153333	91.8467	4	43	46.2	74.9	44	9.20	0.0124	0.0188
100	0.15	13.79	38.25	12.75	87.25	8	42	45.2	73.3	43	9.40	0.0124	0.0134
200	0.075	12.95	51.2	17.06667	82.9333	15	42	45.2	73.3	43	9.40	0.0124	0.0098
Pan	-	248.8	300	100	0	30	41	44.2	71.7	42	9.60	0.0124	0.0070
						60	40	43.2	70.1	41	9.70	0.0124	0.0050
						90	39	42.2	68.4	40	9.90	0.0124	0.0041
						120	39	42.2	68.4	40	9.90	0.0124	0.0036
						240	38	41.2	66.8	39	10.10	0.0124	0.0025
						1440	35	38.2	61.9	36	10.60	0.0124	0.0011

Berat jenis air terhadap temperatur, $g_{wt\,T}$	=	0.99624
faktor, K = (1000 x Gs x $g_{wt\,T}$)/(10 x Ws(Gs -1))	=	3.1323
Faktor Kt = f(Gs,T)	=	0.0124
Suhu Terkoreksi (Ft) = -4.85 + 0.25 T)	=	2.15
Koreksi Nol (Fz)	=	-1.0
Koreksi Meniskus (Fm)	=	1
Koreksi Berat Jenis	=	0.98



Hasil Analisis Saringan dan Hidrometer

Kerikil	0.76	%
Pasir	16.30	%
Lanau	20.99	%
Lempung	61.94	%

HASIL PENGUJIAN ANALISA SARINGAN DAN HIDROMETER

(Sieve-Mechanical and Hydrometer Methods)

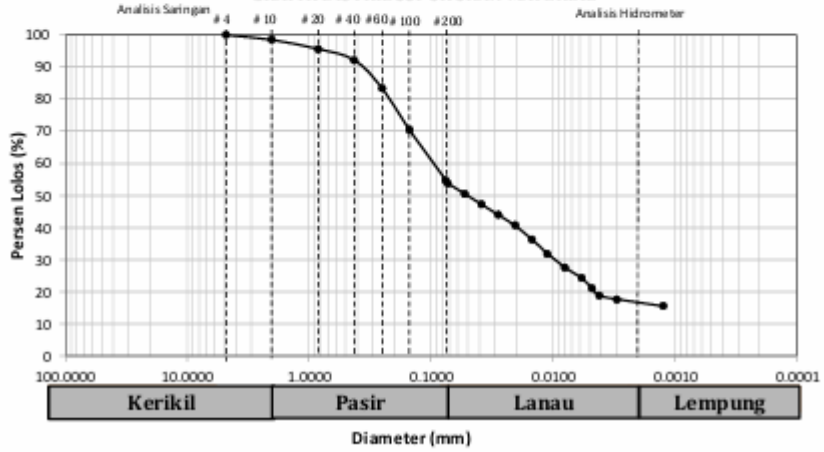
Pekerjaan : Laporan Penyelidikan Tanah
Lokasi : Bontomarannu
Kedalaman Sampel : 10.1-11.0 m
Metode Pengujian : ASTM D-6913, ASTM D-7928, SNI 3423:2008
Laboratorium : Universitas Hasanuddin — Dikerjakan : Nurhasanah
Nama Sampel : Ansar-Hidro 11 — Tanggal : September 2023

Berat Tanah Kering :	300	gram	Berat Jenis (Gs)	2.650	Suhu (T)	28.0	°C

Analisa Saringan						Analisa Hidrometer							
Saringan No.	Diameter (mm)	Berat Tertahan (Gram)	Berat Kumulatif (gram)	Persen Kumulatif Tertahan (%)	Persen Lolos (%)	Waktu (menit)	R	Rcp =R+F+Fz	% Lolos = (a x Rcp)/Ws)x100% * % Lolos Analisa Saringan	Rcl= R + Fm	L (cm)	A	D=AVL/t (mm)
4	4.75	0.3	0.3	0.1	99.9	0.25	46	49.2	53.74	47	8.60	0.0124	0.0727
10	2	4.53	4.83	1.61	98.39	0.5	43	46.2	50.5	44	9.00	0.0124	0.0526
20	0.84	8.49	13.32	4.44	95.56	1	40	43.2	47.2	41	9.60	0.0124	0.0384
40	0.425	10.24	23.56	7.853333	92.1467	2	37	40.2	43.9	38	10.10	0.0124	0.0279
60	0.25	26.32	49.88	16.62667	83.3733	4	34	37.2	40.6	35	10.70	0.0124	0.0203
100	0.15	39.06	88.94	29.64667	70.3533	8	30	33.2	36.2	31	11.30	0.0124	0.0147
200	0.075	47.06	136	45.33333	54.6667	15	26	29.2	31.9	27	11.95	0.0124	0.0111
Pan	-	164	300.00	100	0	30	22	25.2	27.5	23	12.30	0.0124	0.0079
						60	19	22.2	24.2	20	12.90	0.0124	0.0057
						90	16	19.2	20.9	17	13.20	0.0124	0.0047
						120	14	17.2	18.8	15	13.50	0.0124	0.0042
						240	13	16.2	17.7	14	13.90	0.0124	0.0030
						1440	11	14.2	15.5	12	14.30	0.0124	0.0012

Berat jenis air terhadap temperatur, $g_{wt\ T}$	=	0.99624
faktor, K = (1000 x Gs x $g_{wt\ T}$)/(10 x Ws(Gs-1))	=	3.2000
Faktor Kt = f(Gs,T)	=	0.0124
Suhu Terkoreksi (Ft) = -4.85 + 0.25 T)	=	2.15
Koreksi Nol (Fz)	=	-1.0
Koreksi Meniskus (Fm)	=	1
Koreksi Berat Jenis	=	1.00

GRAFIK DISTRIBUSI UKURAN MATERIAL



Hasil Analisis Saringan dan Hidrometer

Kerikil	1.61 %
Pasir	43.72 %
Lanau	39.20 %
Lempung	15.47 %

HASIL PENGUJIAN ANALISA SARINGAN DAN HIDROMETER

(Sieve-Mechanical and Hydrometer Methods)

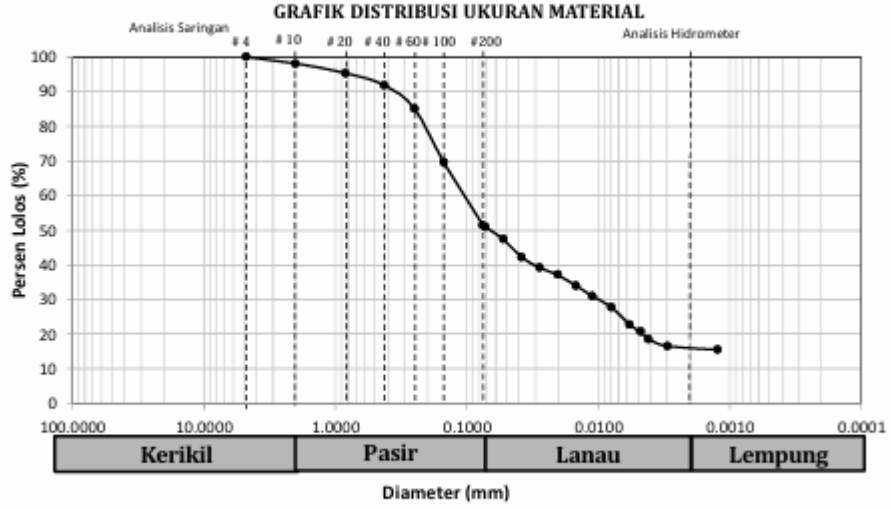
Pekerjaan	: Laporan Penyelidikan Tanah		
Lokasi	: Bontomarannu		
Kedalaman Sampel	: 12 m		
Metode Pengujian	: ASTM D-6913, ASTM D-7928, SNI 3423:2008		
Laboratorium	: Universitas Hasanuddin	Dikerjakan	: Nurhasanah
Nama Sampel	Ansar-Hidro 12	Tanggal	: September 2023

Berat Tanah Kering :	300	gram	Berat Jenis (Gs)	2.650	Suhu (T)	28.0	°C

Analisa Saringan						Analisa Hidrometer							
Saringan No.	Diameter (mm)	Berat Tertahan (Gram)	Berat Kumulatif (gram)	Persen Kumulatif Tertahan (%)	Persen Lolos (%)	Waktu (menit)	R	Rcp =R+Rt-Fz	% Lolos = (a x Rcp)/Ws)x100% * % Lolos Analisa Saringan	RcL=R + Fm	L (cm)	A	D=A*L/t (mm)
4	4.75	0.24	0.24	0.08	99.92	0.25	47	49.7	51.0	48	8.60	0.0124	0.0727
10	2	5.57	5.81	1.936667	98.0633	0.5	43	46.2	47.4	44	9.00	0.0124	0.0526
20	0.84	8.25	14.06	4.686667	95.3133	1	38	41.2	42.3	39	9.60	0.0124	0.0384
40	0.425	10.43	24.49	8.163333	91.8367	2	35	38.2	39.2	36	10.10	0.0124	0.0279
60	0.25	20.23	44.72	14.90667	85.0933	4	33	36.2	37.1	34	10.70	0.0124	0.0203
100	0.15	46.68	91.4	30.46667	69.5333	8	30	33.2	34.0	31	11.30	0.0124	0.0147
200	0.075	54.54	145.94	48.64667	51.3533	15	27	30.2	31.0	28	11.95	0.0124	0.0111
Pan	-	154.06	300.00	100	0	30	24	27.2	27.9	25	12.30	0.0124	0.0079
						60	19	22.2	22.7	20	12.90	0.0124	0.0057
						90	17	20.2	20.7	18	13.20	0.0124	0.0047
						120	15	18.2	18.6	16	13.50	0.0124	0.0042
						240	13	16.2	16.6	14	13.90	0.0124	0.0030
						1440	12	15.2	15.6	13	14.30	0.0124	0.0012

Berat jenis air terhadap temperatur, $\gamma_{wt\,T}$	=	0.99624
faktor, K = (1000 x Gs x $\gamma_{wt\,T}$)/(10 x Ws(Gs -1))	=	3.2000
Faktor Kt = f(Gs,T)	=	0.0124
Suhu Terkoreksi (Ft) = -4.85 + 0.25 T)	=	2.15
Koreksi Nol (Fz)	=	-1.0
Koreksi Meniskus (Fm)	=	1
Koreksi Berat Jenis	=	1.00

GRAFIK DISTRIBUSI UKURAN MATERIAL



Hasil Analisis Saringan dan Hidrometer

Kerikil	1.94 %
Pasir	46.71 %
Lanau	35.79 %
Lempung	15.56 %

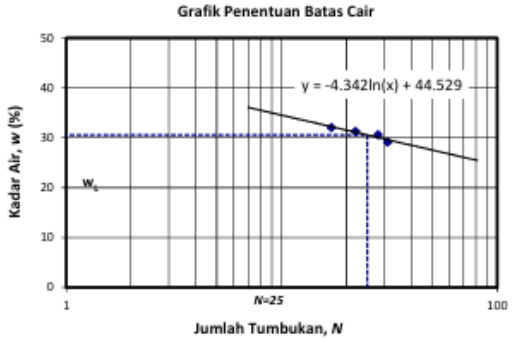
Lampiran 3 Lembar hasil uji batas Atterberg

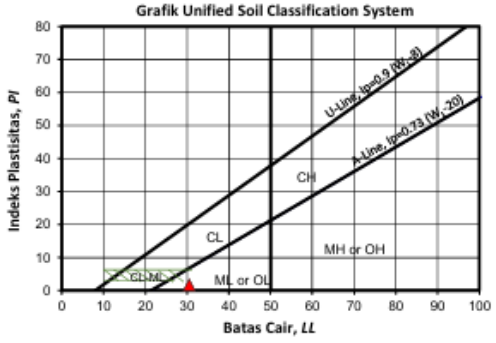
PEMERIKSAAN BATAS-BATAS ATTERBERG

(Atterberg Limit Test)

Pekerjaan	: Laporan Penyelidikan Tanah
Lokasi	: Bontomarannu
Laboratorium	: Universitas Hasanuddin
Metode Pengujian	: SNI 1966:2008, SNI 1967:2008, SNI 3422:2008
Dikerjakan	: Nurhasanah
Tanggal	: September 2023

Nomor Sampel		BH 01										
Kedalaman Sampel	m	0.0 - 1.0										
	Satuan	**Batas Plastis**		**Batas Cair**								**Batas Susut**
Nomor Uji	-	*1*	*2*	*1*		*2*		*3*		*4*		*1*
Jumlah Tumbukan, **N**	-	-	-	17		22		28		31		-
Nama Cawan	-	*A1*	*A2*	*B1*	*B2*	*C1*	*C2*	*D1*	*D2*	*E1*	*E2*	*F1*
Berat Cawan + Tanah Basah, ***W1***	gram	15.66	13.66	18.88	23.98	19.65	19.92	32.64	25.82	28.70	28.72	73.96
Berat Cawan + Tanah Kering, ***W2***	gram	15.21	13.20	16.01	20.44	16.90	17.25	28.65	23.09	25.65	25.71	51.94
Berat Air, ***Ww = W1-W2***	gram	0.45	0.46	2.87	3.54	2.75	2.67	3.99	2.73	3.05	3.01	22.02
Berat Cawan, ***W3***	gram	13.61	11.65	7.90	8.10	8.51	8.29	15.14	14.46	15.32	15.22	10.78
Berat Tanah Kering, ***Ws=W2-W3***	gram	1.60	1.55	8.11	12.34	8.39	8.96	13.51	8.63	10.33	10.49	41.16
Kadar Air, ***w=Ww/Ws*100%***	%	28.1	29.7	35.4	28.7	32.8	29.8	29.5	31.6	29.5	28.7	53.5
Kadar Air Rata-rata, ***w***	%	28.9		32.0		31.3		30.6		29.1		53.5
Berat Cawan Gelas + Raksa, ***W4***	gram											532.33
Berat Cawan Gelas, ***W5***	gram											32.98
Berat Cawan Gelas + Sisa Raksa	gram											406.5
Berat Jenis Raksa	gr/cm³											13.6
Volume Tanah Basah	cm³											38.35
Volume Tanah Kering	cm³											27.46
Batas Susut	%											27





Batas - Batas Atterberg	Nilai
Batas Plastis, ***PL***	29
Batas Cair, ***LL***	31
Indeks Plastisitas, ***PI = LL - PL***	2
Batas Susut, ***SL***	27

Klasifikasi berdasarkan USCS	ML

▲ : Klasifikasi Sampel pada Grafik

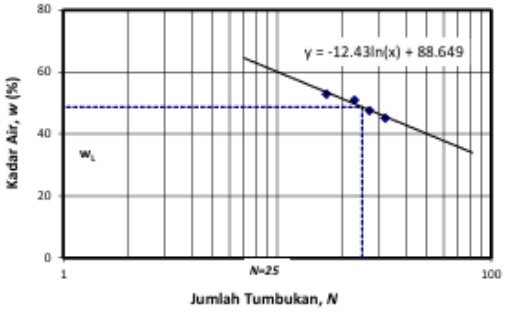
PEMERIKSAAN BATAS-BATAS ATTERBERG

(Atterberg Limit Test)

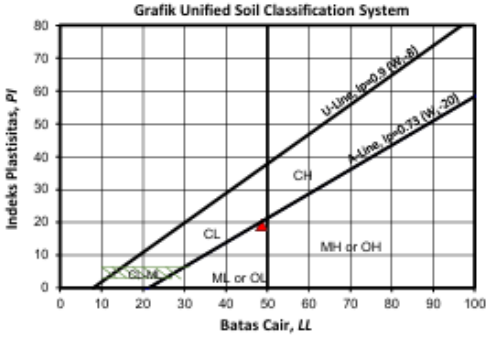
Pekerjaan	: Laporan Penyelidikan Tanah
Lokasi	: Bontomarannu
Laboratorium	: Universitas Hasanuddin
Metode Pengujian	: SNI 1966:2008, SNI 1967:2008, SNI 3422:2008
Dikerjakan	: Nurhasanah
Tanggal	: September 2023

Nomor Sampel		BH 01										
Kedalaman Sampel	m	7.1 - 8.0										
	Satuan	**Batas Plastis**		**Batas Cair**								**Batas Susut**
Nomor Uji	-	*1*	*2*	*1*		*2*		*3*		*4*		*1*
Jumlah Tumbukan, **N**	-	-	-	17		23		27		32		-
Nama Cawan	-	*A1*	*A2*	*B1*	*B2*	*C1*	*C2*	*D1*	*D2*	*E1*	*E2*	*F1*
Berat Cawan + Tanah Basah, ***W1***	gram	16.97	14.45	17.30	22.64	24.94	25.63	21.22	20.35	21.27	19.89	70.08
Berat Cawan + Tanah Kering, ***W2***	gram	16.29	14.10	14.82	16.74	18.33	20.94	16.39	17.07	17.03	16.37	48.38
Berat Air, ***Ww = W1-W2***	gram	0.68	0.35	2.48	5.90	6.61	4.69	4.83	3.28	4.24	3.52	21.7
Berat Cawan, ***W3***	gram	14.03	12.89	8.07	8.18	8.17	8.19	8.15	8.07	8.11	8.12	10.84
Berat Tanah Kering, ***Ws=W2-W3***	gram	2.26	1.21	6.75	8.56	10.16	12.75	8.24	9.00	8.92	8.25	37.54
Kadar Air, ***w=Ww/Ws*100%***	%	30.1	28.9	36.7	68.9	65.1	36.8	58.6	36.4	47.5	42.7	57.8
Kadar Air Rata-rata, ***w***	%	29.5		52.8		50.9		47.5		45.1		57.8
Berat Cawan Gelas + Raksa, ***W4***	gram											529.21
Berat Cawan Gelas, ***W5***	gram											33.01
Berat Cawan Gelas + Sisa Raksa	gram											400.37
Berat Jenis Raksa	gr/cm³											13.6
Volume Tanah Basah	cm³											38.12
Volume Tanah Kering	cm³											27.01
Batas Susut	%											28

Grafik Penentuan Batas Cair



Grafik Unified Soil Classification System



Batas - Batas Atterberg	Nilai
Batas Plastis, ***PL***	30
Batas Cair, ***LL***	49
Indeks Plastisitas, ***PI = LL - PL***	19
Batas Susut, ***SL***	28

Klasifikasi berdasarkan USCS	CL

▲ : Klasifikasi Sampel pada Grafik

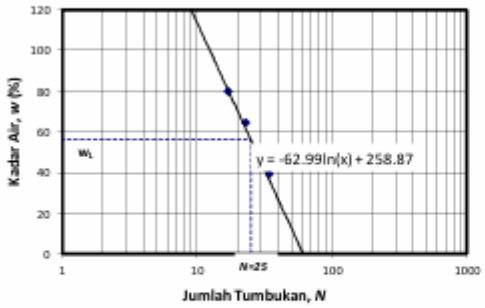
PEMERIKSAAN BATAS-BATAS ATTERBERG

(Atterberg Limit Test)

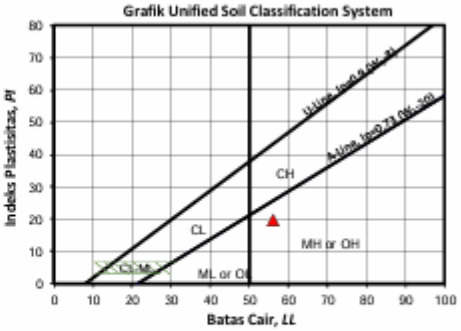
Pekerjaan : Laporan Penyelidikan Tanah
Lokasi : Bontomarannu
Laboratorium : Universitas Hasanuddin
Metode Pengujian : SNI 1966:2008, SNI 1967:2008, SNI 3422:2008
Dikerjakan : Nurhasanah
Tanggal : September 2023

Nomor Sampel		BH-01										
Kedalaman Sampel		10,01-11,00 m										
	Satuan	**Batas Plastis**		**Batas Cair**								**Batas Susut**
Nomor Uji	-	*1*	*2*	*1*		*2*		*3*		*4*		*1*
Jumlah Tumbukan, **N**	-	-	-	17		23		28		34		-
Nama Cawan	-	*A1*	*A2*	*B1*	*B2*	*C1*	*C2*	*D1*	*D2*	*E1*	*E2*	*F1*
Berat Cawan + Tanah Basah, ***W1***	gram	14.87	14.60	15.65	16.76	17.43	18.43	17.43	19.43	19.43	19.54	64.29
Berat Cawan + Tanah Kering, ***W2***	gram	14.20	13.87	11.87	13.54	12.97	15.64	14.87	15.76	16.89	15.76	33.54
Berat Air, ***Ww = W1-W2***	gram	0.67	0.73	3.78	3.22	4.46	2.79	2.56	3.67	2.54	3.78	30.75
Berat Cawan, ***W3***	gram	12.43	11.79	8.09	8.19	8.15	8.07	8.20	8.16	8.07	8.18	10.54
Berat Tanah Kering, ***Ws=W2-W3***	gram	1.77	2.08	3.78	5.35	4.82	7.57	6.67	7.60	8.82	7.58	23
Kadar Air, ***w=Ww/Ws*100%***	%	37.9	35.1	100.0	60.2	92.5	36.9	38.4	48.3	28.8	49.9	133.7
Kadar Air Rata-rata, ***w***	%	36.5		80.1		64.7		43.3		39.3		133.7
Berat Cawan Gelas + Raksa, ***W4***	gram											578
Berat Cawan Gelas, ***W5***	gram											30.42
Berat Cawan Gelas + Sisa Raksa	gram											232
Berat Jenis Raksa	gr/cm³											13.6
Volume Tanah Basah	cm³											41.73
Volume Tanah Kering	cm³											14.82
Batas Susut	%											17

Grafik Penentuan Batas Cair



Grafik Unified Soil Classification System



Batas - Batas Atterberg	**Nilai**
Batas Plastis, ***PL***	36
Batas Cair, ***LL***	56
Indeks Plastisitas, ***PI = LL - PL***	20
Batas Susut, ***SL***	17

Klasifikasi berdasarkan USCS	MH

▲ : Klasifikasi Sampel pada Grafik

z

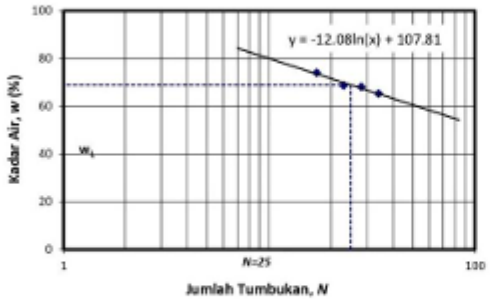
PEMERIKSAAN BATAS-BATAS ATTERBERG

(Atterberg Limit Test)

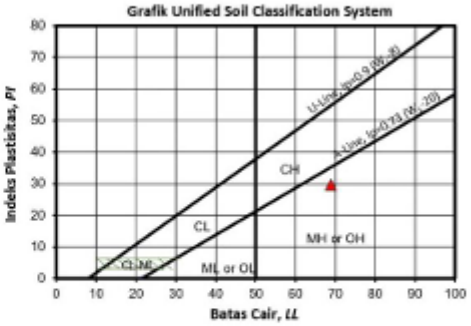
Pekerjaan	: Laporan Penyelidikan Tanah
Lokasi	: Bontomarannu
Laboratorium	: Universitas Hasanuddin
Metode Pengujian	: SNI 1966:2008, SNI 1967:2008, SNI 3422:2008
Dikerjakan	: Nurhasanah
Tanggal	: September 2023

Nomor Sampel		BH 01										
Kedalaman Sampel	m	11.5 - 12.0										
	Satuan	**Batas Plastis**		**Batas Cair**								**Batas Susut**
Nomor Uji	-	*1*	*2*	*1*		*2*		*3*		*4*		*1*
Jumlah Tumbukan, **N**	-	-	-	17		23		28		34		-
Nama Cawan	-	*A1*	*A2*	*B1*	*B2*	*C1*	*C2*	*D1*	*D2*	*E1*	*E2*	*F1*
Berat Cawan + Tanah Basah, ***W1***	gram	15.44	13.25	16.56	16.28	16.82	17.94	23.80	25.01	24.76	25.69	63.31
Berat Cawan + Tanah Kering, ***W2***	gram	14.64	12.58	12.89	12.81	13.43	14.03	20.32	20.75	21.10	21.61	34.89
Berat Air, ***Ww = W1-W2***	gram	0.80	0.67	3.67	3.47	3.39	3.91	3.48	4.26	3.66	4.08	28.42
Berat Cawan, ***W3***	gram	12.74	10.74	7.92	8.14	8.53	8.31	15.21	14.50	15.46	15.40	10.52
Berat Tanah Kering, ***Ws=W2-W3***	gram	1.90	1.84	4.97	4.67	4.90	5.72	5.11	6.25	5.64	6.21	24.37
Kadar Air, ***w=Ww/Ws*100%***	%	42.1	36.4	73.8	74.3	69.2	68.4	68.1	68.2	64.9	65.7	116.6
Kadar Air Rata-rata, ***w***	%	39.3		74.1		68.8		68.1		65.3		116.6
Berat Cawan Gelas + Raksa, ***W4***	gram											522
Berat Cawan Gelas, ***W5***	gram											32.96
Berat Cawan Gelas + Sisa Raksa	gram											258.86
Berat Jenis Raksa	gr/cm³											13.6
Volume Tanah Basah	cm³											37.61
Volume Tanah Kering	cm³											16.61
Batas Susut	%											30

Grafik Penentuan Batas Cair



Grafik Unified Soil Classification System



Batas - Batas Atterberg	Nilai
Batas Plastis, ***PL***	39
Batas Cair, ***LL***	69
Indeks Plastisitas, ***PI = LL - PL***	30
Batas Susut, ***SL***	30

Klasifikasi berdasarkan USCS	MH

▲ : Klasifikasi Sampel pada Grafik

Lampiran 4 Dataset CPT

Kedalaman (m)	**Perlawanan Konus (Kg/cm^2)**	**Perlawanan geser Lokal (Kg/cm^2)**	**Geseran Total ((Kg/cm)**	**Angka Banding Geser (%)**	**Klasifikasi**
0.20	48.54	0.14	2.71	0.280	1
0.40	26.29	0.61	14.93	2.323	1
0.60	20.22	0.14	17.64	0.671	1
0.80	22.25	0.27	23.07	1.220	1
1.00	20.22	0.07	24.43	0.336	1
1.20	13.15	0.20	28.50	1.549	2
1.40	11.12	0.07	29.86	0.610	2
1.60	28.31	0.14	32.57	0.479	2
1.80	30.34	0.20	36.64	0.671	2
2.00	35.39	0.20	40.72	0.575	2
2.20	33.37	0.07	42.07	0.203	2
2.40	35.39	0.07	43.43	0.192	2
2.60	41.46	0.07	44.79	0.164	2
2.80	28.31	0.07	46.14	0.240	2
3.00	30.34	0.14	48.86	0.447	2
3.20	24.27	0.07	50.22	0.280	2
3.40	28.31	0.14	52.93	0.479	2
3.60	21.24	0.07	54.29	0.320	2
3.80	29.33	0.07	55.64	0.231	2
4.00	22.25	0.07	57.00	0.305	2
4.20	28.31	0.07	58.36	0.240	2
4.40	26.29	0.20	62.43	0.774	2
4.60	35.39	0.07	63.79	0.192	2
4.80	26.29	0.20	67.86	0.774	2
5.00	27.30	0.07	69.22	0.249	2
5.20	30.34	0.48	78.72	1.566	2
5.40	38.43	0.07	80.07	0.177	2
5.60	30.34	0.07	81.43	0.224	2
5.80	28.31	0.14	84.15	0.479	2
6.00	26.29	0.14	86.86	0.516	2
6.20	11.12	0.27	92.29	2.440	3
6.40	14.16	0.07	93.65	0.479	3
6.60	11.12	0.48	103.15	4.270	3
6.80	10.11	0.20	107.22	2.013	3
7.00	9.10	0.07	108.57	0.746	3
7.20	10.11	0.14	111.29	1.342	3
7.40	8.09	0.20	115.36	2.516	3
7.60	9.10	0.07	116.72	0.746	3
7.80	11.12	0.07	118.08	0.610	3
8.00	15.17	0.07	119.43	0.447	3
8.20	16.18	0.07	120.79	0.419	2
8.40	21.24	0.07	122.15	0.320	2

8.60	17.19	0.07	123.50	0.395	2
8.80	22.25	0.48	133.00	2.135	2
9.00	23.26	0.14	135.72	0.584	2
9.20	35.39	0.07	137.08	0.192	2
9.40	30.34	0.27	142.50	0.895	2
9.60	36.40	0.95	161.51	2.610	2
9.80	45.51	0.07	162.86	0.149	2
10.00	50.56	0.34	169.65	0.671	2
10.20	40.45	0.34	176.43	0.839	4
10.40	35.39	1.36	203.58	3.835	4
10.60	30.34	1.02	223.94	3.355	4
10.80	121.35	1.36	251.08	1.118	4
11.00	151.69	0.34	257.87	0.224	4
11.20	101.12	1.02	278.22	1.007	4
11.40	48.54	0.14	280.94	0.280	4
11.60	101.12	1.70	314.87	1.678	4
11.80	146.63	0.34	321.65	0.231	4
12.00	156.74	0.34	328.44	0.216	4
0.20	15.17	0.07	1.36	0.447	1
0.40	20.22	0.95	20.36	4.697	1
0.60	22.25	0.88	38.00	3.965	1
0.80	23.26	0.95	57.00	4.085	1
1.00	25.28	1.36	84.15	5.368	1
1.20	25.28	1.22	108.57	4.832	2
1.40	22.25	0.54	119.43	2.440	2
1.60	25.28	0.54	130.29	2.147	2
1.80	12.13	0.61	142.50	5.033	2
2.00	8.09	0.95	161.51	11.743	2
2.20	12.13	0.75	176.43	6.151	2
2.40	121.35	0.34	183.22	0.280	2
2.60	96.07	5.43	291.79	5.651	2
2.80	50.56	3.05	352.87	6.039	2
3.00	50.56	3.05	413.94	6.039	2
3.20	80.90	0.68	427.51	0.839	2
3.40	31.35	0.34	434.30	1.082	2
3.60	20.22	0.81	450.59	4.026	2
3.80	25.28	1.02	470.94	4.026	2
4.00	30.34	0.20	475.01	0.671	2
4.20	29.33	0.07	476.37	0.231	2
4.40	15.17	0.34	483.16	2.237	2
4.60	10.11	0.14	485.87	1.342	2
4.80	18.20	0.34	492.66	1.864	2
5.00	25.28	0.14	495.37	0.537	2

5.20	60.67	0.34	502.16	0.559	2
5.40	50.56	0.34	508.94	0.671	2
5.60	35.39	0.34	515.73	0.959	2
5.80	55.62	0.34	522.52	0.610	2
6.00	75.84	0.34	529.30	0.447	2
6.20	85.96	0.20	533.37	0.237	3
6.40	65.73	0.34	540.16	0.516	3
6.60	75.84	0.34	546.95	0.447	3
6.80	91.01	0.34	553.73	0.373	3
7.00	80.90	0.34	560.52	0.419	3
7.20	70.79	0.34	567.30	0.479	3
7.40	60.67	0.34	574.09	0.559	3
7.60	55.62	0.34	580.88	0.610	3
7.80	60.67	0.34	587.66	0.559	3
8.00	75.84	0.34	594.45	0.447	3
8.20	60.67	0.34	601.23	0.559	2
8.40	45.51	0.34	608.02	0.746	2
8.60	70.79	0.34	614.80	0.479	2
8.80	65.73	0.34	621.59	0.516	2
9.00	55.62	0.34	628.38	0.610	2
9.20	65.73	0.34	635.16	0.516	2
9.40	91.01	0.34	641.95	0.373	2
9.60	85.96	0.34	648.73	0.395	2
9.80	91.01	0.34	655.52	0.373	2
10.00	111.24	0.34	662.31	0.305	2
10.20	101.12	0.34	669.09	0.336	4
10.40	156.74	0.34	675.88	0.216	4
10.60	151.69	0.34	682.66	0.224	4
0.40	50.56	0.14	2.71	0.268	1
0.60	26.29	0.14	5.43	0.516	1
0.80	17.19	0.14	8.14	0.789	1
1.00	25.28	0.20	12.21	0.805	1
1.20	20.22	0.20	16.29	1.007	1
1.40	45.51	0.34	23.07	0.746	2
1.60	40.45	0.34	29.86	0.839	2
1.80	50.56	0.34	36.64	0.671	2
2.00	30.34	0.34	43.43	1.118	2
2.20	50.56	0.34	50.22	0.671	2
2.40	55.62	0.34	57.00	0.610	2
2.60	55.62	0.34	63.79	0.610	2
2.80	45.51	0.34	70.57	0.746	2
3.00	35.39	0.34	77.36	0.959	2
3.20	40.45	0.34	84.15	0.839	2

3.40	30.34	0.34	90.93	1.118	2
3.60	25.28	0.34	97.72	1.342	2
3.80	30.34	0.34	104.50	1.118	2
4.00	40.45	0.34	111.29	0.839	2
4.20	20.22	0.34	118.08	1.678	2
4.40	35.39	0.34	124.86	0.959	2
4.60	45.51	0.34	131.65	0.746	2
4.80	50.56	0.34	138.43	0.671	2
5.00	35.39	0.34	145.22	0.959	2
5.20	40.45	0.34	152.00	0.839	2
5.40	45.51	0.34	158.79	0.746	2
5.60	25.28	0.34	165.58	1.342	2
5.80	20.22	0.34	172.36	1.678	2
6.00	35.39	0.34	179.15	0.959	2
6.20	45.51	0.34	185.93	0.746	2
6.40	25.28	1.02	206.29	4.026	3
6.60	35.39	0.34	213.08	0.959	3
6.80	55.62	0.34	219.86	0.610	3
7.00	25.28	0.34	226.65	1.342	3
7.20	38.43	0.14	229.36	0.353	3
7.40	30.34	0.54	240.22	1.789	3
7.60	30.34	0.68	253.79	2.237	3
7.80	30.34	0.34	260.58	1.118	3
8.00	35.39	0.14	263.29	0.383	3
8.20	20.22	0.34	270.08	1.678	3
8.40	15.17	0.34	276.87	2.237	2
8.60	45.51	0.68	290.44	1.491	2
8.80	55.62	0.34	297.22	0.610	2
9.00	65.73	0.34	304.01	0.516	2
9.20	75.84	0.34	310.80	0.447	2
9.40	85.96	0.34	317.58	0.395	2
9.60	85.96	0.34	324.37	0.395	2
9.80	75.84	0.34	331.15	0.447	2
10.00	96.07	0.34	337.94	0.353	2
10.20	75.84	0.34	344.72	0.447	2
10.40	85.96	0.34	351.51	0.395	4
10.60	96.07	0.34	358.30	0.353	4
10.80	85.96	0.34	365.08	0.395	4
11.00	101.12	0.34	371.87	0.336	4
11.20	126.40	0.34	378.65	0.268	4
11.40	146.63	0.34	385.44	0.231	4
11.60	151.69	0.34	392.23	0.224	4
11.80	156.74	0.34	399.01	0.216	4

Lampiran 5 Dokumentasi Pengujian