



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
POLITEKNIK NEGERI SAMARINDA
LABORATORIUM TANAH DAN BAHAN TEKNIK SIPIL

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HIDROMETER TEST AND SIEVE ANALYSIS

Project : Perencanaan Teknis Pembangunan Jembatan
 : Sakaq Lataq
 Location : Desa Lataq Kabupaten Kutai Kartanegara
 Bor Hole : BH-1
 Depth : 5 m
 Tested : Didik
 Date : 1 September 2014
 Wt. Sample oven : 50 gr
 Specific Gravity : 2.53
 Meniskus Coreted (m) : 0.5
 Type Hidrometer : 152 H
 Hidrometer Corected (a) 1.028
 $k = a/W \times 100 = 2.056$
 $P = k \times R (\%) =$

Sieve mm	Weight Retained gr	Total Weight Retained gr	Prosentase (%)	
			Retained	Passing
			%	%
9.5	0	0	0.00	100.00
4.75	0	0	0.00	100.00
2	1.56	1.56	3.12	96.88
0.85	2.87	4.43	8.86	91.14
0.425	3.93	8.36	16.72	83.28
0.075	25.06	33.42	66.84	33.16

Time T (minute)	Hydrometer Reading R1	Hydrometer Reading R2	Temperatur t (°C)	Meniskus Corected R' = R1 - m	Depth L (cm)	Constanta K	Particle Diameter $D = K (L/T)^{1/2}$	Hidrometer Reading Corected R = R1 - R2	Prosentase Pass P (%)
0.5	13	-1	30	12.5	14.10	0.01268	0.0673	14.0	28.784
1	12	-1	30	11.5	14.40	0.01268	0.0481	13.0	26.728
2	11	-1	30	10.5	14.60	0.01268	0.0343	12.0	24.672
5	10	-1	30	9.5	14.75	0.01268	0.0218	11.0	22.616
15	9	-1	30	8.5	14.90	0.01268	0.0126	10.0	20.56
20	8	-1	29	7.5	15.10	0.01278	0.0111	9.0	18.504
60	7	-1	29	6.5	15.25	0.01278	0.0064	8.0	16.448
240	5	-1	29	4.5	15.55	0.01278	0.0033	6.0	12.336
1440	4	-1	29	3.5	15.70	0.01278	0.0013	5.0	10.28