Regresi Hasil Perhitungan 7

Pan. lantai bawah

m		s			
Kelompok Gradasi					
Jagger		s1			
	11	9.1	9.077731	Regression Output:	
	28	9.3	9.349308	Constant	8.902005
	42	9.6	9.572959	Std Err of Y Est	0.060484
				R Squared	0.971118
				No. of Observations	3
				Degrees of Freedom	1
				X Coefficient(s) 0.015975	
				Std Err of Coef. 0.002754	
Schocklisth		s2			
	11	6.1	6.237482	Regression Output:	
	28	5.9	5.595573	Constant	6.652835
	42	4.9	5.066943	Std Err of Y Est	0.373425
				R Squared	0.831314
				No. of Observations	3
				Degrees of Freedom	1
				X Coefficient(s) -0.03775	
				Std Err of Coef. 0.017009	
Eggenberger		s3			
	11	21.7	22.04177	Regression Output:	
	28	20.7	19.94322	Constant	23.39965
	42	17.8	18.21500	Std Err of Y Est	0.928304
				R Squared	0.894993
				No. of Observations	3
				Degrees of Freedom	1
				X Coefficient(s) -0.12344	
				Std Err of Coef. 0.042283	

Kelompok debit

Lacey s4

11	2.3	2.401659	Regression Output:	
28	2.2	1.974396	Constant	2.677800
42	1.5	1.623443	Std Err of Y Est	0.276124
			R Squared	0.789355
			No. of Observations	3
			Degrees of Freedom	1
			X Coefficient(s)	-0.02510
			Std Err of Coef.	0.012577

Breuser s5

11	3.6	3.525449	Regression Output:	
28	2.2	2.365076	Constant	4.276279
42	1.5	1.409474	Std Err of Y Est	0.202491
			R Squared	0.982068
			No. of Observations	3
			Degrees of Freedom	1
			X Coefficient(s)	-0.06825
			Std Err of Coef.	0.009223

Veronesse s6

11	3.6	3.674550	Regression Output:	
28	3.3	3.134923	Constant	4.023720
42	2.6	2.690525	Std Err of Y Est	0.202491
			R Squared	0.922146
			No. of Observations	3
			Degrees of Freedom	1
			X Coefficient(s)	-0.03174
			Std Err of Coef.	0.009223

Lampiran 2.h

Regresi hail perhitungan 8

Gradasi butiran

mm	s1			
Jagger				
0.2	14.3	8.876477	Regression Output:	
1.75	6	8.313742	Constant	8.949088
5	3.8	7.133812	Std Err of Y Est	4.102825
15	2.1	3.503260	R Squared	0.532982
25	1.5	-0.12729	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.36305
			Std Err of Coef.	0.186210

Schocklisth	s2			
0.2	8.3	4.997234	Regression Output:	
1.75	3.3	4.657004	Constant	5.041134
5	1.9	3.943618	Std Err of Y Est	2.511371
15	0.8	1.748587	R Squared	0.528833
25	0.6	-0.44644	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.21950
			Std Err of Coef.	0.120191

Eggenberger	s3			
0.2	22.9	14.72369	Regression Output:	
1.75	10.7	13.80218	Constant	14.84260
5	6.5	11.86997	Std Err of Y Est	6.260554
15	3.6	5.924705	R Squared	0.567916
25	2.6	-0.02056	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.59452
			Std Err of Coef.	0.299400

Lampiran 2.i

Regresi hail perhitungan 9

Gradasi butiran

mm	s1			
Jagger				
0.2	14.3	8.876477	Regression Output:	
1.75	6	8.313742	Constant	8.949083
5	3.8	7.133812	Std Err of Y Est	4.102825
15	2.1	3.503260	R Squared	0.532982
25	1.5	-0.12729	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.36305
			Std Err of Coef.	0.196210

Schocklisth	s2			
0.2	8.3	4.997234	Regression Output:	
1.75	3.3	4.657004	Constant	5.041134
5	1.9	3.943618	Std Err of Y Est	2.511371
15	0.8	1.748587	R Squared	0.526833
25	0.6	-0.44644	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.21950
			Std Err of Coef.	0.120101

Eggenberger	s3			
0.2	22.9	14.72369	Regression Output:	
1.75	10.7	13.80218	Constant	14.84260
5	6.5	11.86997	Std Err of Y Est	6.260554
15	3.6	5.924705	R Squared	0.567916
25	2.6	-0.02056	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s)	-0.59452
			Std Err of Coef.	0.299400

Regresi hail perhitungan 10

Gradasi butiran

mm	s1			
Jagger				
0.2	14.3	8.876477	Regression Output:	
1.75	6	8.313742	Constant	8.949086
5	3.8	7.133812	Std Err of Y Est	4.102625
15	2.1	3.503260	R Squared	0.532982
25	1.5	-0.12729	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s) -0.36305	
			Std Err of Coef. 0.186210	

Schooklisth	s2			
0.2	8.3	4.997234	Regression Output:	
1.75	3.3	4.657004	Constant	5.041134
5	1.9	3.943618	Std Err of Y Est	2.511371
15	0.8	1.748567	R Squared	0.526883
25	0.6	-0.44644	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s) -0.21950	
			Std Err of Coef. 0.120101	

Eggenberger	s3			
0.2	22.9	14.7269	Regression Output:	
1.75	10.7	13.8022	Constant	14.84260
5	6.5	11.8698	Std Err of Y Est	6.280554
15	3.6	5.2605	R Squared	0.567916
25	2.6	-0.0206	No. of Observations	5
			Degrees of Freedom	3
			X Coefficient(s) -0.59452	
			Std Err of Coef. 0.299400	

Regresi Hasil Perhitungan 1
Kedalaman Gerusan Vs Bilangan Froude

Bil Froude s1
Jagger

3.53	0.7	-0.78906	Regression Output:	
3.92	1.5	1.672075	Constant	
4.33	2.9	4.259424	Std Err of Y Est	
4.82	5.8	7.351621	R Squared	
5.51	13.3	11.70593	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	6.310605
			Std Err of Coef.	1.121134

Schocklisth s2

3.53	0.5	-0.01488	Regression Output:	
3.92	0.9	0.970996	Constant	
4.33	1.5	2.007433	Std Err of Y Est	
4.82	2.8	3.246102	R Squared	
5.51	5.5	4.990349	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	2.527834
			Std Err of Coef.	0.370264

Eggenberger s3

3.53	1.6	-1.77441	Regression Output:	
3.92	2.9	3.154983	Constant	
4.33	5.2	8.337168	Std Err of Y Est	
4.82	10.8	14.53051	R Squared	
5.51	27	23.25174	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	12.63947
			Std Err of Coef.	2.616585

Lampiran 2.k.2

Kelompok Debit

Lacey s4

3.53	0	-0.17899		Regression Output:
3.92	0	-0.01329	Constant	
4.33	0	0.160910	Std Err of Y Est	
4.82	0.1	0.369105	R Squared	
5.51	0.9	0.662277	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	0.424887
			Std Err of Coef.	0.161233

Breuser s5

3.53	0	-4.14246		Regression Output:
3.92	0.1	0.484396	Constant	
4.33	1.7	5.348534	Std Err of Y Est	
4.82	6.4	11.16177	R Squared	
5.51	24	19.34776	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	11.86375
			Std Err of Coef.	3.227295

Veronesse s6

3.53	0	-0.16373		Regression Output:
3.92	0	-0.02218	Constant	
4.33	0	0.126610	Std Err of Y Est	
4.82	0	0.304444	R Squared	
5.51	0.8	0.554864	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	0.362926
			Std Err of Coef.	0.165096

Lampiran 2.1.1

Regresi Hasil Perhitungan 3

Kedalaman Gerusan Vs Bilangan Froude

Kelompok Gradasi

Bil Froude s1

Jagger

3.8	0.9	0.216957		Regression Output:
4.06	1.6	1.724275	Constant	
4.32	2.5	3.231594	Std Err of Y Est	
4.58	3.8	4.738913	R Squared	
4.83	7.3	6.188258	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	5.797380
			Std Err of Coef.	1.252876

Schocklisth s2

3.8	0.6	-0.83162		Regression Output:
4.06	0.9	0.971508	Constant	
4.32	1.3	2.874639	Std Err of Y Est	
4.58	1.9	4.777770	R Squared	
4.83	9.6	6.607703	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	7.319733
			Std Err of Coef.	3.324046

Eggenberger s3

3.8	1.6	0.910416		Regression Output:
4.06	2.6	2.912910	Constant	
4.32	4.2	4.915403	Std Err of Y Est	
4.58	6.5	6.917697	R Squared	
4.83	9.6	8.843372	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	7.701886
			Std Err of Coef.	0.957883

Lampiran 2.1.2

Kelompok Debit

Lacey s4

3.8	0	-0.01984	Regression Output:	
4.06	0	0.000156	Constant	
4.32	0	0.020153	Std Err of Y Est	
4.58	0	0.040151	R Squared	
4.83	0.1	0.059379	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	0.076913
			Std Err of Coef.	0.045100

Breuser s5

3.8	0	-0.74567	Regression Output:	
4.06	0.5	0.843273	Constant	
4.32	1.7	2.432222	Std Err of Y Est	
4.58	3.5	4.021172	R Squared	
4.83	6.4	5.549008	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	6.111344
			Std Err of Coef.	1.050974

Veronesse s6

3.8	0	0	Regression Output:	
4.06	0	0	Constant	
4.32	0	0	Std Err of Y Est	
4.58	0	0	R Squared	
4.83	0	0	No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	0
			Std Err of Coef.	0

Lampiran 2.m.1

Regresi Hasil Perhitungan 5
Kedalaman Gerusan Vs Bilangan Froude
Kelompok Gradasi

Bil Froude	s1			
Jagger				
0.83	3	3.025848	Regression Output:	
0.66	10	9.960420	Constant	
0.34	23	23.01373	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-40.7915
			Std Err of Coef.	0.139807
Schocklisth	s2			
0.83	1.5	1.597361	Regression Output:	
0.66	5.2	5.050915	Constant	
0.34	11.5	11.55172	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-20.3150
			Std Err of Coef.	0.526983
Eggenberger	s3			
0.83	5.3	3.581098	Regression Output:	
0.66	19.2	21.83206	Constant	
0.34	57.1	56.18683	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-107.358
			Std Err of Coef.	9.303827

Lampiran 2.m.2

Kelompok Debit

Lacey	s4			
0.83	0	0.031017		Regression Output:
0.66	1.6	1.552504	Constant	
0.34	4.4	4.416478	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-8.94991
			Std Err of Coef.	0.167888

Breuser	s5			
0.83	0	0.466128		Regression Output:
0.66	2.7	1.986241	Constant	
0.34	4.6	4.847630	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-8.94184
			Std Err of Coef.	2.522992

Veronesse	s6			
0.83	0.1	-0.07318		Regression Output:
0.66	2.5	2.765185	Constant	
0.34	8.2	8.107996	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-16.6962
			Std Err of Coef.	0.937378

Regresi Hasil Perhitungan 7
Kedalaman Gerusan Vs Bilangan Froude
Kelompok Gradasi

Bil Froude s1
Jagger

0.91	9.1	9.120300	Regression Output:	
0.83	9.3	9.270676	Constant	
0.65	9.6	9.609022	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	-1.87969
			Std Err of Coef.	0.195344

Schocklisth s2

0.91	6.1	6.174436	Regression Output:	
0.83	5.9	5.792481	Constant	
0.65	4.9	4.933082	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	4.774436
			Std Err of Coef.	0.716261

Eggenberger s3

0.91	21.4	21.57932	Regression Output:	
0.83	20.7	20.44097	Constant	
0.65	17.8	17.87969	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	14.22932
			Std Err of Coef.	1.725539

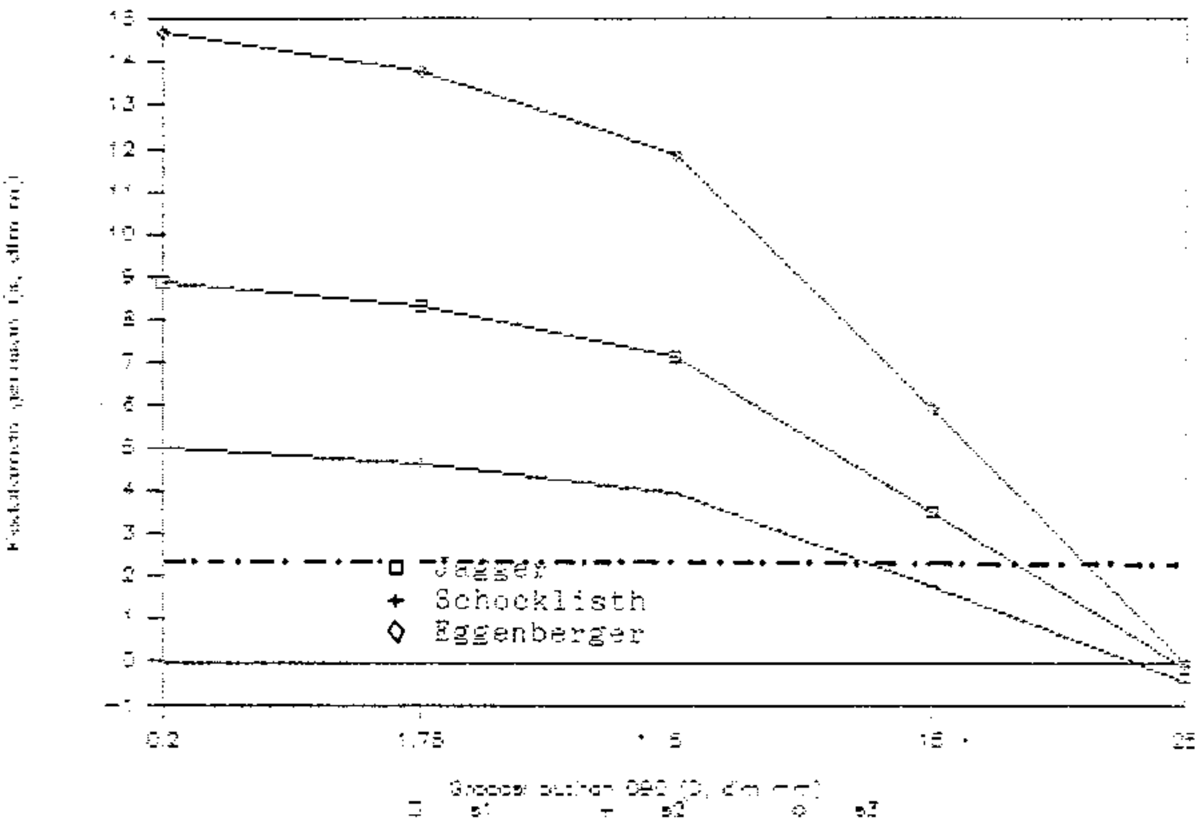
Lampiran 2.n.2

Kelompok Debit

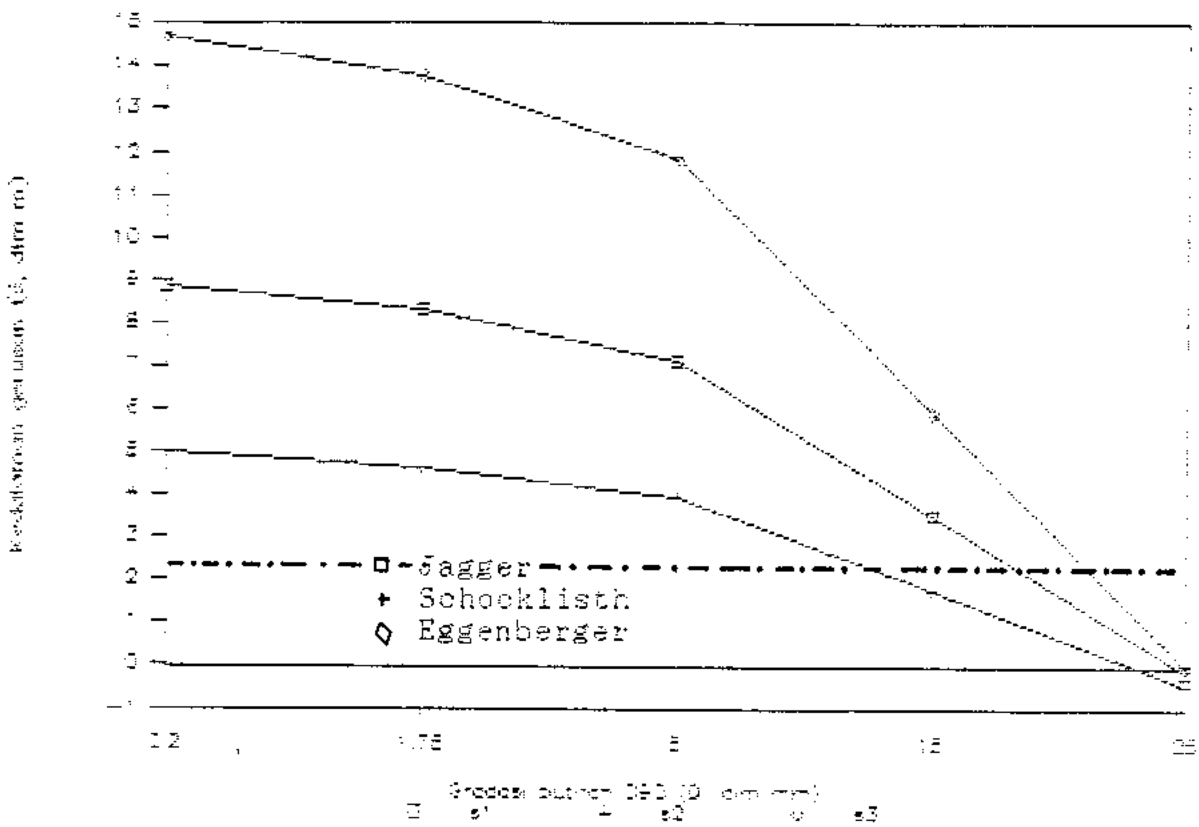
Lacey	s4			
0.91	2.3	2.364285	Regression Output:	
0.83	2.2	2.107142	Constant	
0.65	1.5	1.528571	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	3.214285
			Std Err of Coef.	0.618589

Breuser	s5			
0.91	3.6	3.603383	Regression Output:	
0.83	3.3	3.285112	Constant	
0.65	2.6	2.601503	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	3.853383
			Std Err of Coef.	0.032557

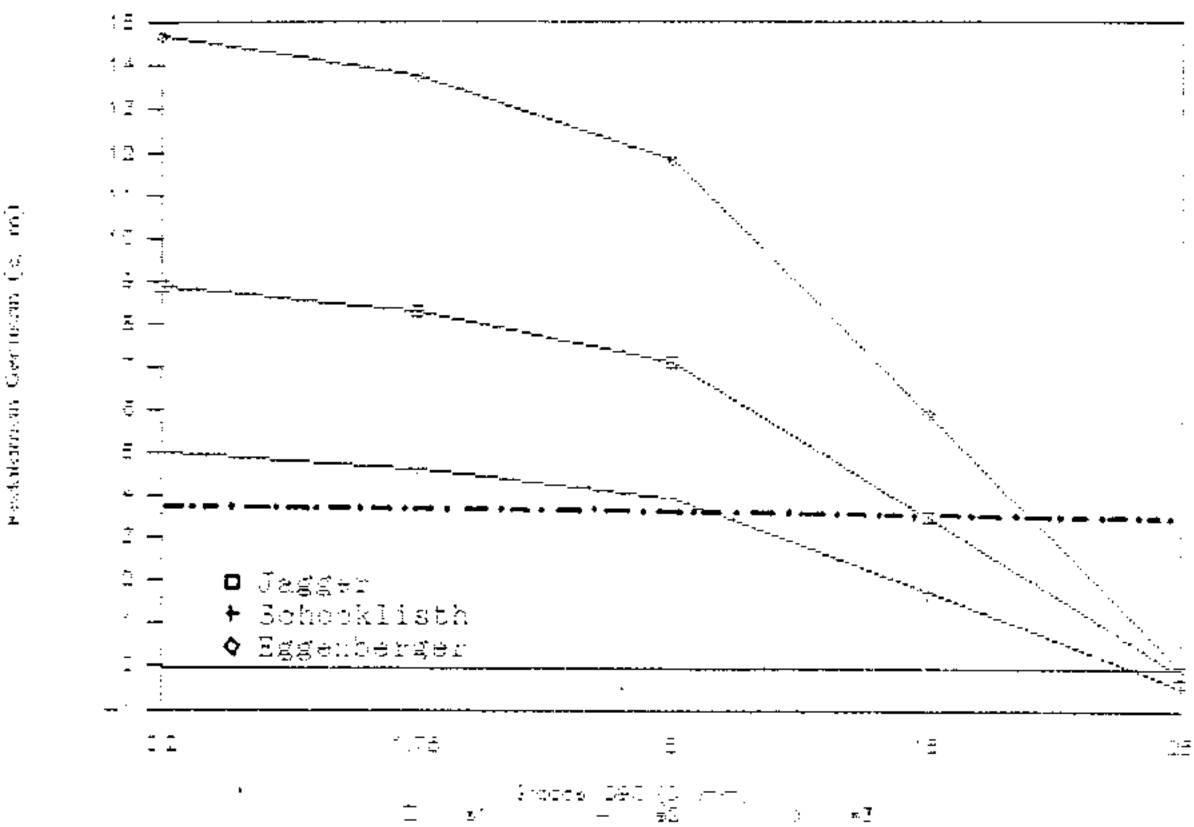
Veronesse	s6			
0.91	3.2	3.250751	Regression Output:	
0.83	3.1	3.026691	Constant	
0.65	2.5	2.522556	Std Err of Y Est	
			R Squared	
			No. of Observations	
			Degrees of Freedom	
			X Coefficient(s)	2.800751
			Std Err of Coef.	0.483360

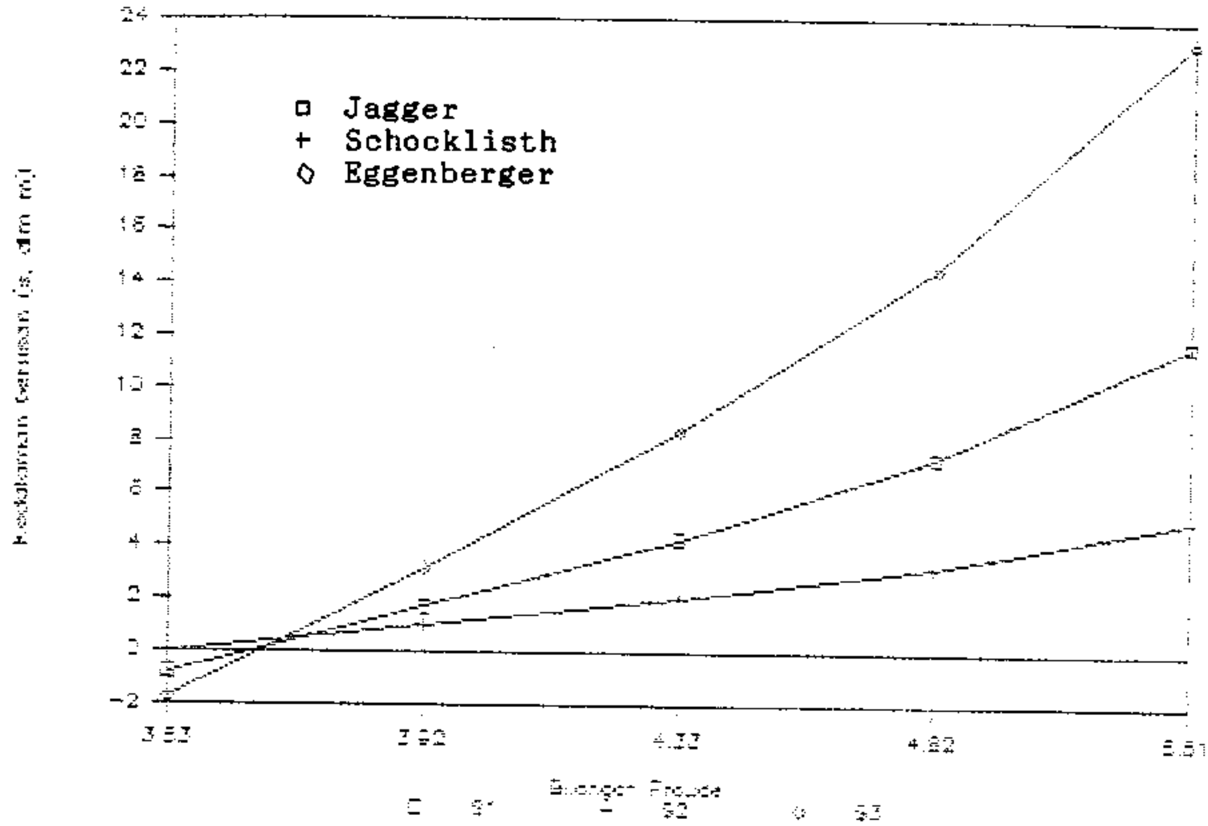


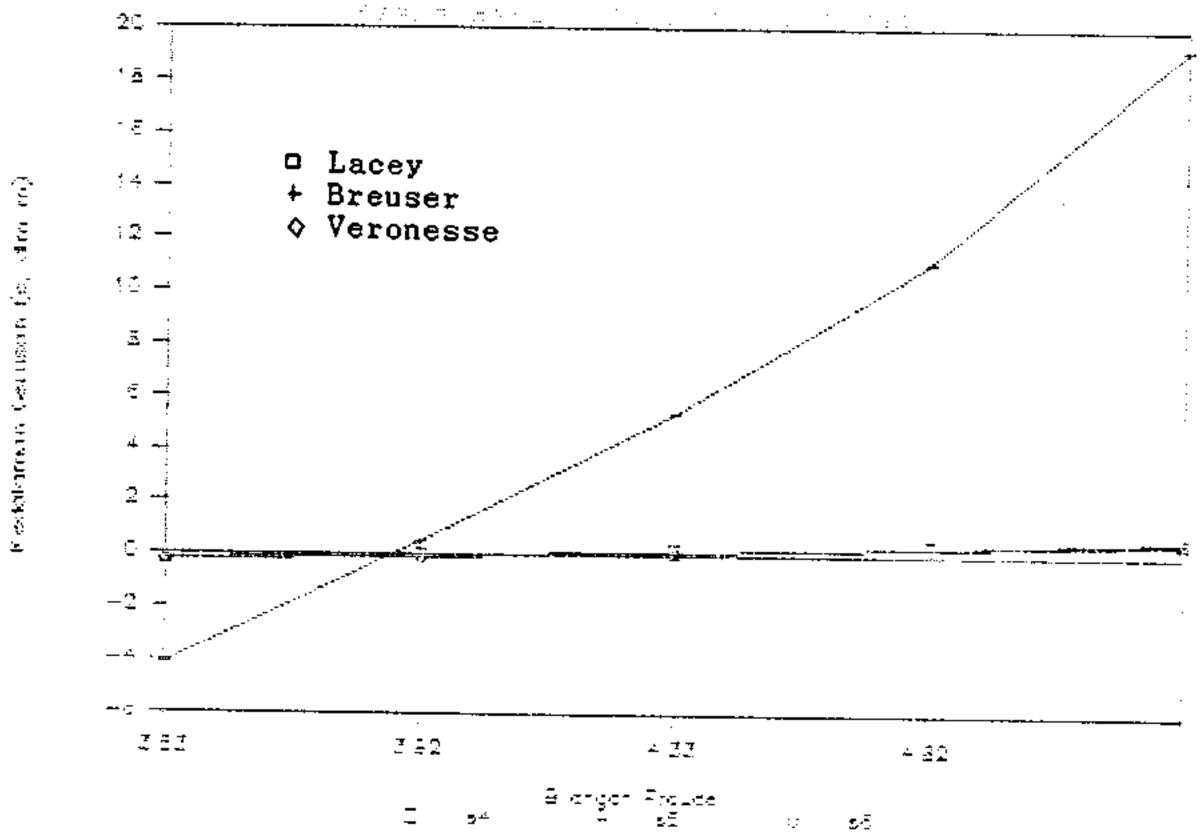
Gambar [illegible]
Regresi Kedalaman Gerusan vs Variasi Gradasi
Kasus Seri [illegible] pada Debit ke 4

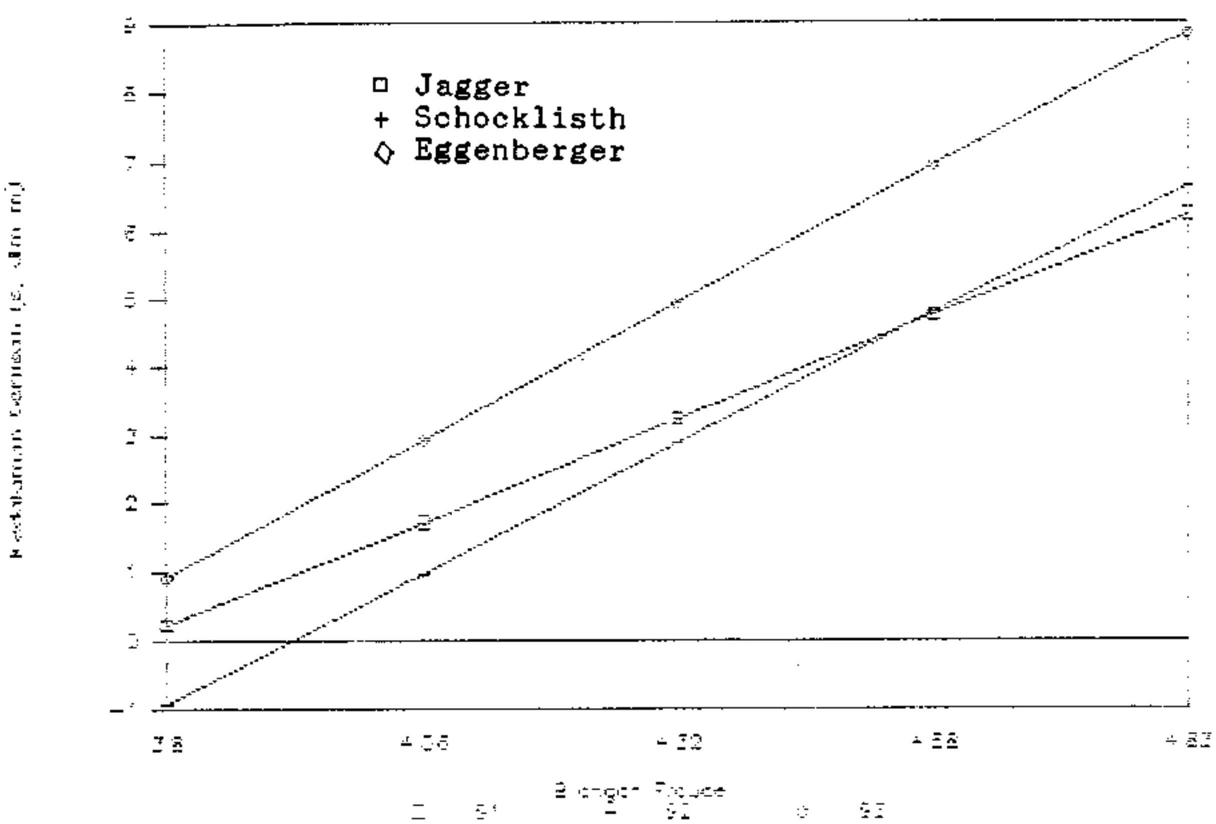


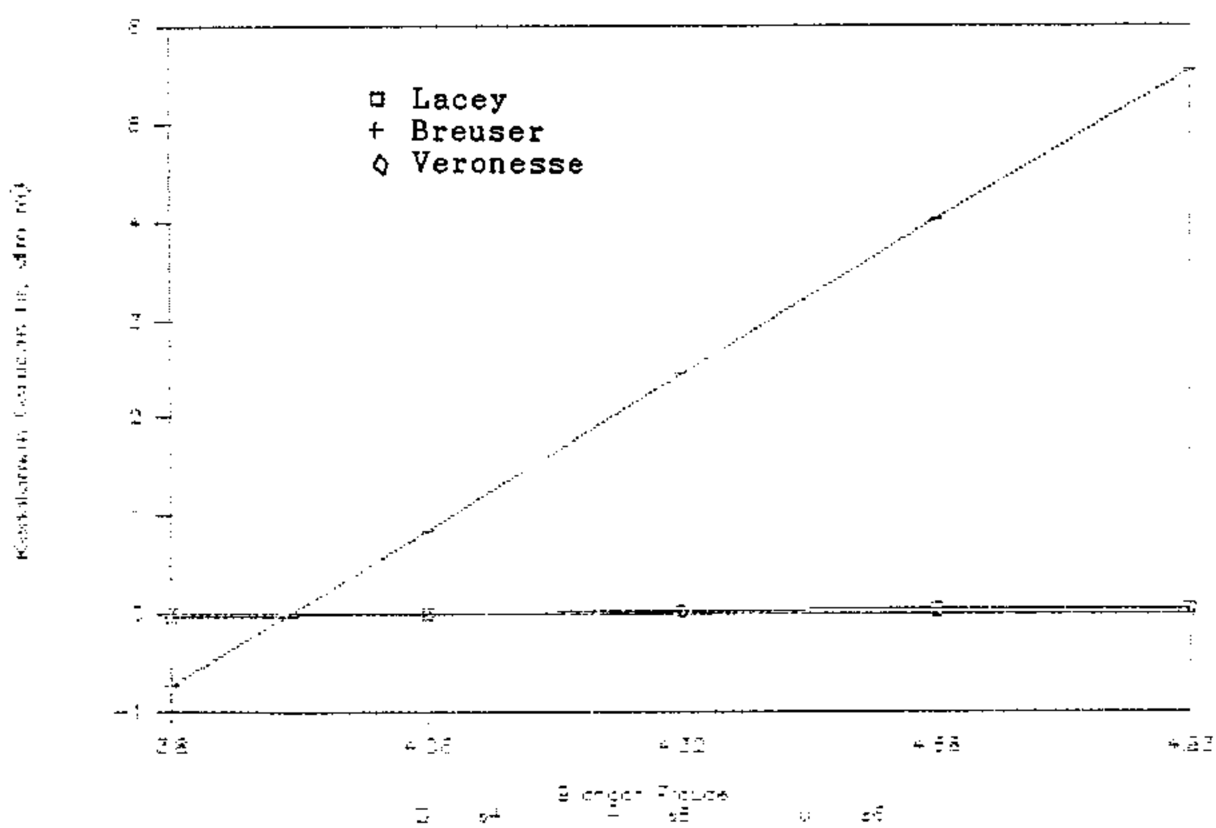
Gambar ...9
Regresi Kedalaman Gerusan Vs Variasi Gradasi
Kasus Seri A pada Debit ...

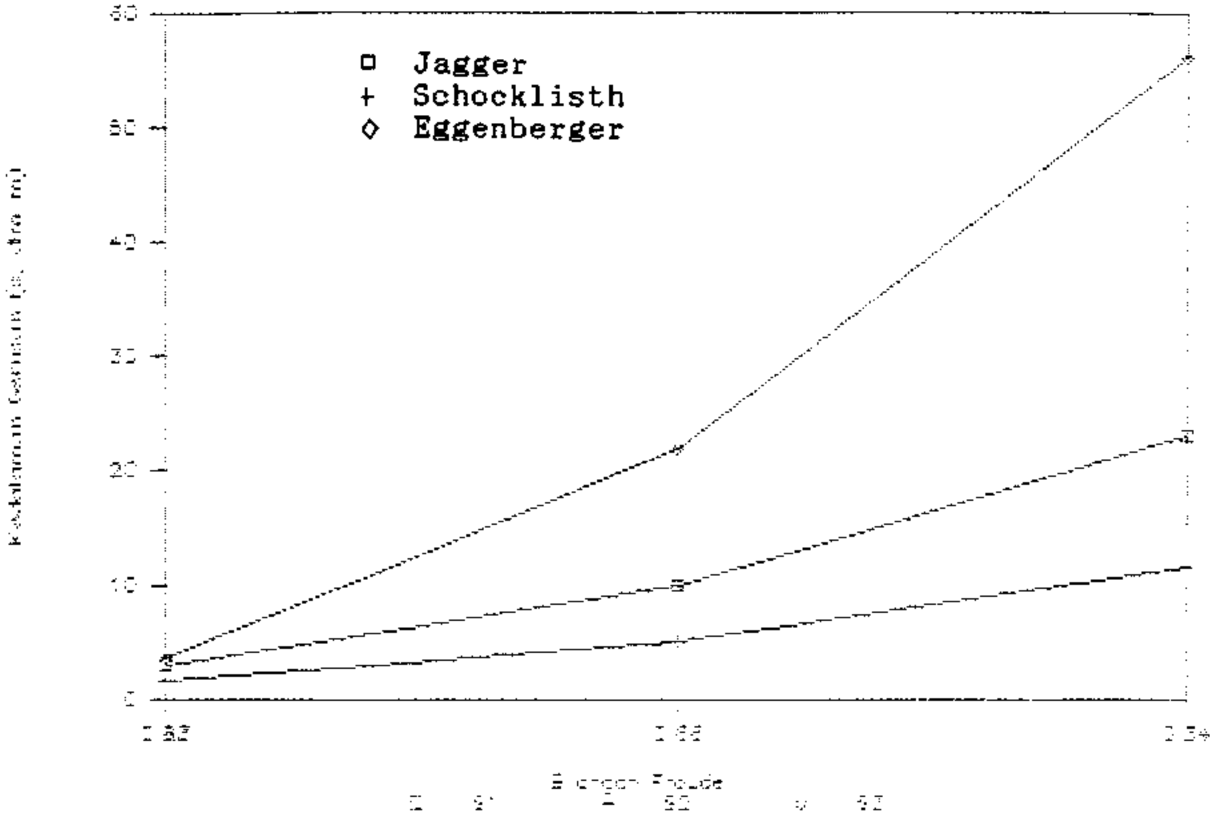

Jagger
Schocklisth
Eggenberger

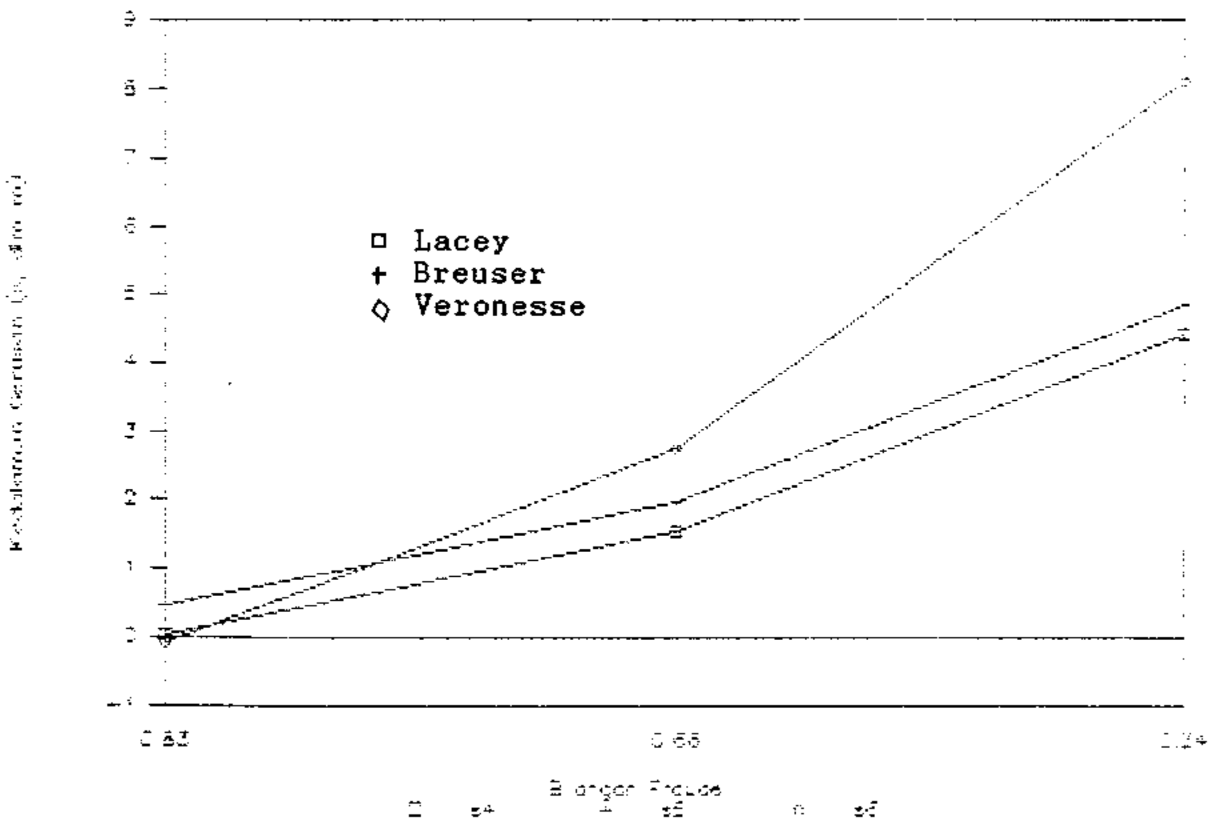

Jagger
Schocklisth
Eggenberger
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
3.53
3.92
4.33
4.82
5.51
Bilangan Froude

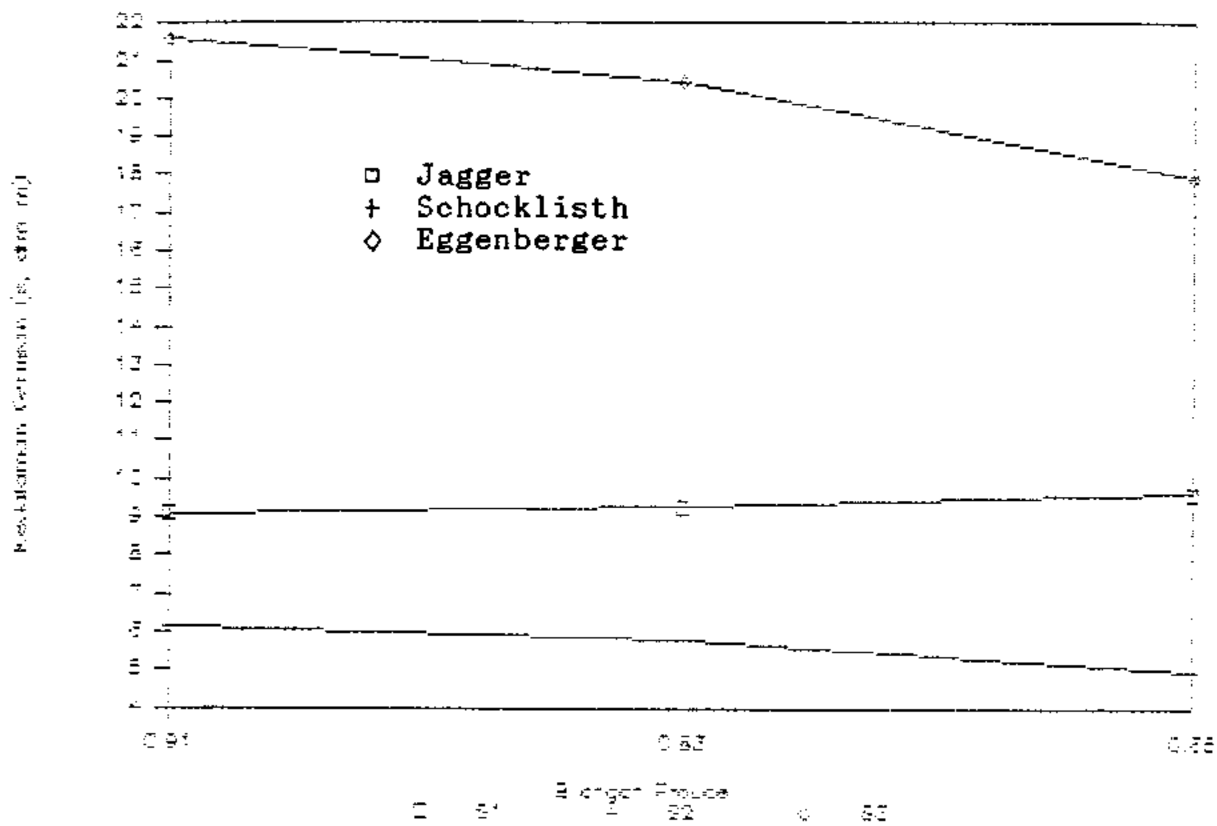

Lacey
Breuser
Veronesse
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
3.53
3.92
4.33
4.82
Bilangan Froude


Jagger
Schocklisth
Eggenberger


Lacey
Breuser
Veronesse


Jagger
Schocklisth
Eggenberger


Lacey
Breuser
Veronesse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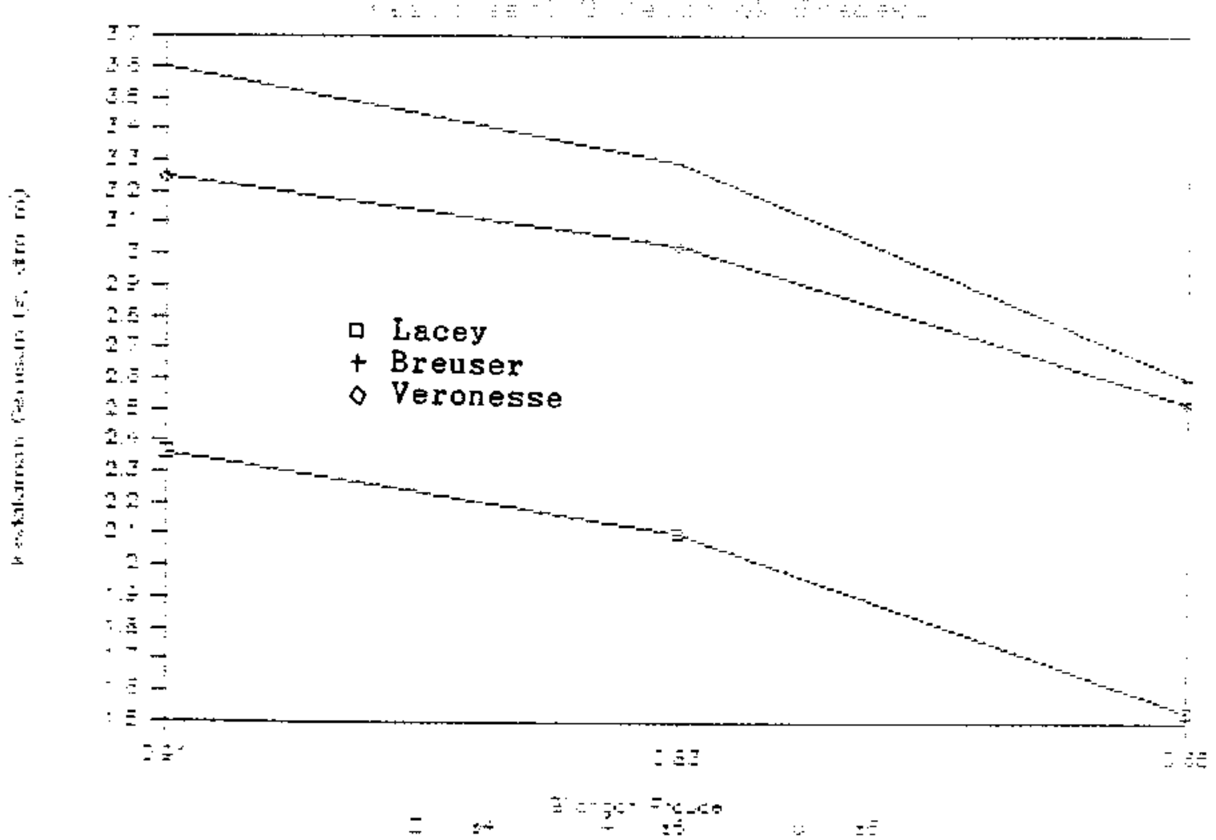
Schocklisth
Eggenberger


Lacey
Breuser
Veronesse

Lampiran 4.a

```
' Program   : RUMUS.BAS (.EXE)
' Untuk     : Menghitung Gerusan
' Date      : July, 1995
' ----------------------------
color 7,1
cls
INPUT " Kelompok perhitungan yang dikerjakan   = ",k

?"DAFTAR CONSTANTA LACEY:
?"-----------------------------------------"
?" 1. Lempung lower Missisipi          0,357
?" 2. Lempung standar Kennedy          1,000
?" 3. Pasir sedang                     1,310
?" 4. Pasir pantai                     1,500
?" 5. Kerikil                          2,000
?" 6. Kerikil besar dan pasir pantai   4,680
?" 7. Pecahan batu kecil dan kerikil   6,120
?" 8. Pecahan batu sedang dan kerikil  9,750
?" 9. Pecahan batu besar dan kerikil  20,900
?"10. Batuan besar                    38,600
?"11. Bongkahan batu > 25 inchi       39,600
?"-----------------------------------------":?
color 15
INPUT "Pilihlah salah satu (1-11) ! ",s:?
?     "Untuk menentukan constanta EGGENBERGER - MULLER, tentukan apakah ada'
input "aliran melalui lobang (Qd) atau tidak (Y/T) ",Y$
if Y$="t" or Y$="T" then
    C=10.35
    else
    input "Masukkan constanta C (Lihat tabel 9.9), C = ",C
end if
cls
if s=1 then F=0.357
if s=2 then F=1
if s=3 then F=1.31
if s=4 then F=1.5
if s=5 then F=2
if s=6 then F=4.68
if s=7 then F=6.12
if s=8 then F=9.75
if s=9 then F=20.9
if s=10 then F=38.6
if s=11 then F=39.6
?:input "Berapa banyak variabel debit Q ? ",x
DIM Q(x),ds1(x),ds2(x),hs(x),gs(x)
input "Apakah varibel debit berubah-ubah (Y/T) ? ",Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan Q";i;" ";
   input "Debit Sungai Q(m3/dt)       = ",Q1(i)
   next
   else
   input "Debit Sungai Q(m3/dt)       = ",QT
   for i=1 to x
   Q1(i)=QT
```

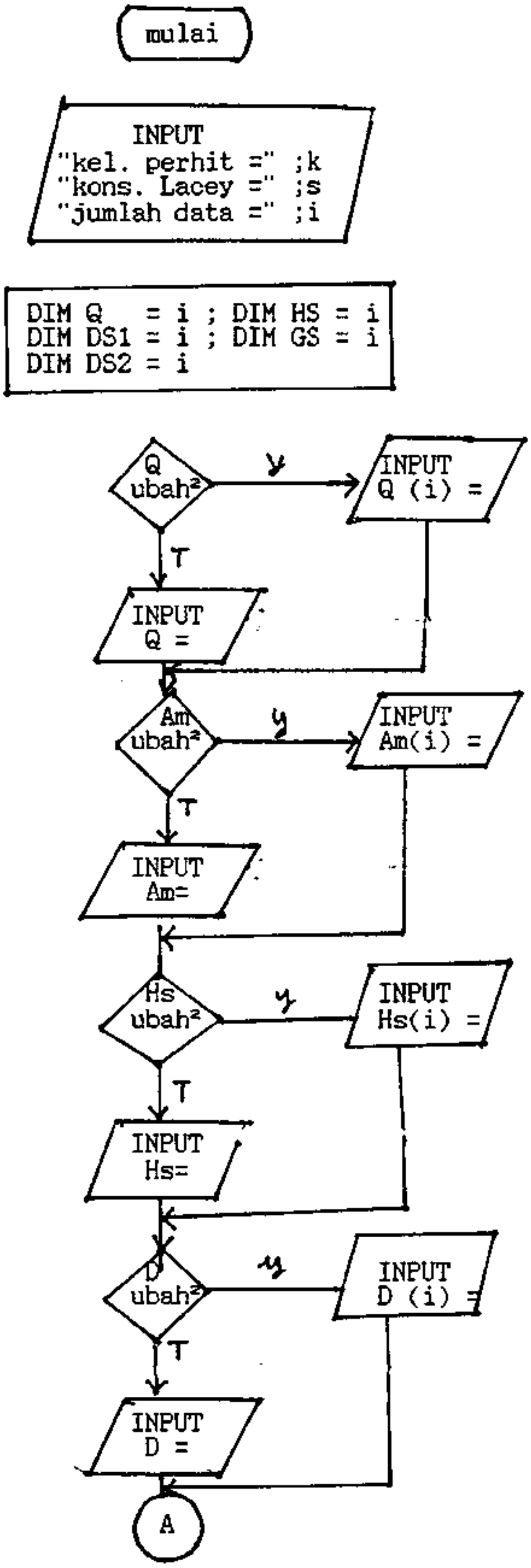
```
   next
end if

?:input "Apakah ambang bawah bendung berubah-ubah (Y/T) ? ",Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan am";i;" ";
   input "tinggi ambang bawah bendung (A, meter) = ";Am(i)
   next
   else
   input "tinggi ambang bawah bendung (A, meter) = ",Am
   for i=1 to x
   Am(i)=HS
   next
end if



?:input "Apakah Selisih muka air hulu-hilir berubah-ubah (Y/T) ? ",Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan HS";i;" ";
   input "Selisih muka air hulu-hilir (H, meter) = ";HS(i)
   next
   else
   input "Selisih muka air hulu-hilir (H, meter) = ",HS
   for i=1 to x
   HS(i)=HS
   next
end if

?:input "Apakah Variabel Gradasi butiran berubah-ubah (Y/T) ? ";Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan D";i;
   input "Gradasi Butiran D90 (mm)    = ",D(i)
   next
   else
   input "Gradasi Butiran D90 (mm)    = ",Dt
   for i=1 to x
   D(i)=dt
   next
end if
?:input "Apakah variabel tinggi m.a hulu berubah-ubah (Y/T)? ",Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan H";i;
   input "Tinggi muka air hulu     (hu, m)  = ",H(i)
   next
   else
   input "Tinggi muka air  hulu     (hu, m)  = ",Ht
   for i=1 to x
   H(i)=Ht
   next
end if
```

```
?:input "Apakah variabel tinggi m.a hilir berubah-ubah (Y/T)? ",Y$
if Y$="y" or Y$="Y" then
   for i=1 to x
   ?"Masukkan Hi";i;
   input "Tinggi muka air hilir     (hi, m)  = ",Hi(i)
   next
   else
   input "Tinggi muka air  hili     (hi, m)  = ",Hit
   for i=1 to x
   Hi(i)=Hit
   next
end if

input "Lebar Sungai b(m)            = ",B
' *** Menurut kelompok Gradasi Butiran ***
for i=1 to x


Q2(i)=Q1(i)/B
     'Menurut Jagger
     'ds1 = 6 HS^0,25 q^0,54 (HS/D(i))^1/3
     ds1(i)=6*HS(i)^0.25*Q2(i)^0.54*((Hi(i)/D(i))^(1/3))
     gs1(i)= ds1(i)-H(i)-Am(i)
     if gs1(i)<0 then g1(i)=0 else g1(i)=gs1(i)

  'Perhitungan Gerusan menurut Schocklisth
     '?:?"ds2 = 4,75 X ((HS(i)^0,2*q^0,5)/D(i)^0,32)
     ds2(i)=4.75*((HS(i)^0.2*Q2(i)^0.5)/D(i)^0.32)
     gs2(i)= ds2(i)-H(i)-Am(i)
     if gs2(i)<0 then g2(i)=0 else g2(i)=gs2(i)
     'Menurut Eggenberger
     'ds3= (C X HS(i)^0,5 X q^0,6)/D(i)^0,4
     ds3(i)=(C*HS(i)^.5*Q2(i)^.6)/D(i)^.4
     gs3(i)= ds3(i)-H(i)-Am(i)
     if gs3(i)<0 then g3(i)=0 else g3(i)=gs3(i)

     ' *** Menurut kelompok Debit Aliran ***
     'Menurut LACEY
     'ds4= 1,35*(q2(i)^2/f)^(1/3)
     ds4(i)=1.35*(q2(i)^2/f)^(1/3)
     gs4(i)= ds4(i)-H(i)-Am(i)
     if gs4(i)<0 then g4(i)=0 else g4(i)=gs4(i)

     'Menurut BREUSER
     'ds5(i)=2.6XQ2(i)^1.33XH(i)^-1.25X(H(i)/B)^0.38
     ds5(i)=2.6*Q2(i)^1.33*H(i)^-1.25*(H(i)/B)^0.38
     gs5(i)= ds5(i)-H(i)-Am(i)
     if gs5(i)<0 then g5(i)=0 else g5(i)=gs5(i)

     'Menurut Veronesse
     'ds6 = 1,9 X H(i)^0,225 X q^0,54
     ds6(i) = 1.9*H(i)^.225*q2(i)^.54
     gs6(i)= ds6(i)-H(i)-Am(i)
     if gs6(i)<0 then g6(i)=0 else g6(i)=gs6(i)
```

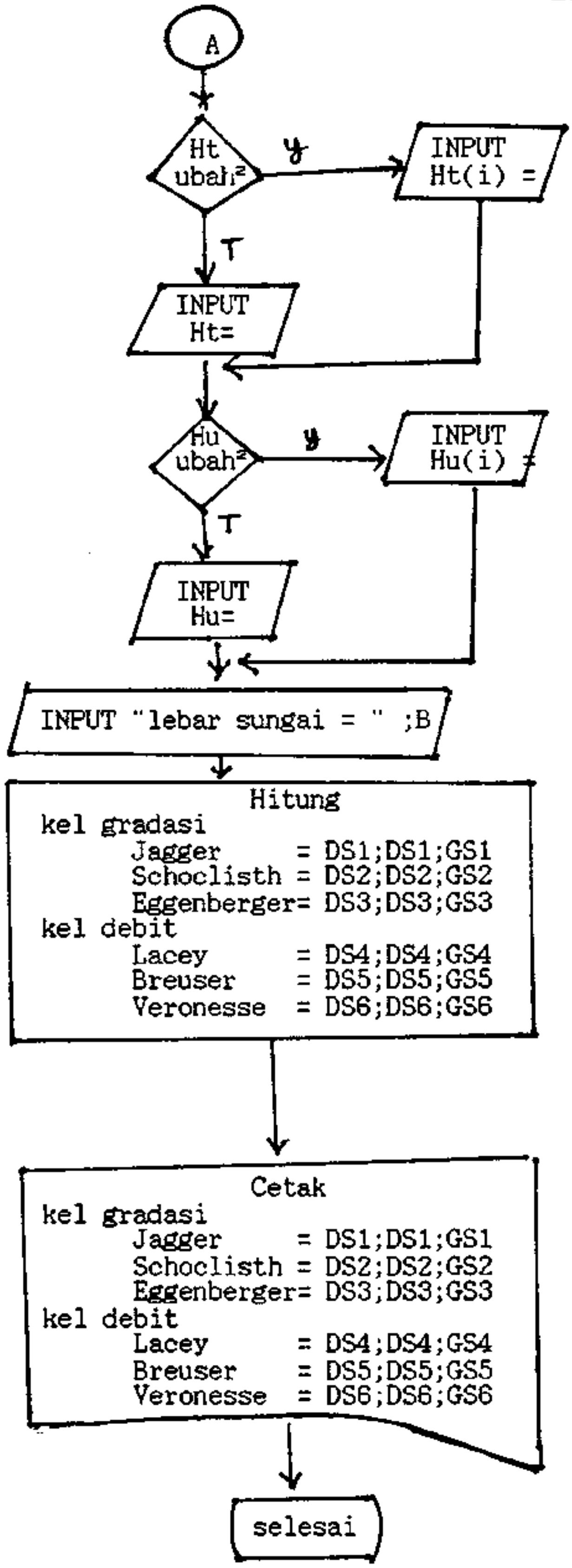
```
next
Color 14
?
?"Variabel-varibel yang digunakan :":?
?       "Debit     Tinggi muka air   Beda M.A hulu-hilir      Gradasi     "
?       "(m3/dt)       (meter)             (meter)           (milimeter)  "
for i=1 to x
? using"######.##    ###.##                ###.##            ####.####    "
;Q1(i);H(i);HS(i);D(i)
next
?
' TABEL
?string$(79,chr$(205))
?    "                  Kadalaman Gerusan Diukur dari Tinggi Air Hulu             "
?    "            Menurut Kelompok Gradasi (m)      3   Menurut  Kelompok Debit (m) "
?    "  Q(i)   Jagger   Schocklisth  Eggenberger 3 Lacey      Breuser     Veronessa"
?    "m3/dt/m'     m           m             m           m            m           m  "
?string$(79,chr$(196))
for i=1 to x
?using"####.##3######.#  #####.#       ####.#        3######.# #######.#  ########.#";
Q2(i);ds1(i);ds2(i);ds3(i);ds4(i);ds5(i);ds6(i)
next
?string$(79,chr$(205)):?

Tekan$=Input$(1)

?string$(79,chr$(205))
?    "                       Kedalaman Gerusan Diukur dari Muka Dasar Hilir          "
?    "             Menurut Kelompok Gradasi (m)      3   Menurut  Kelompok Debit (m) "
?    "  Q(i)   Jagger   Schocklisth  Eggenberger 3 Lacey      Breuser     Veronessa"
?    "m3/dt/m'     m           m             m           m            m           m  "
?string$(79,chr$(196))
for i=1 to x
?using"####.##3######.#  #####.#       ####.#        3######.# #######.#  ########.#"
;Q2(i);g1(i);g2(i);g3(i);g4(i);g5(i);g6(i)
next
?string$(79,chr$(205)):?
' *** Pencetakan ***

?:input "Apakah ingin dicetak (Y/T) ?",Y$
if Y$="Y" or Y$="y" then goto cetak else end

cetak:
Lprint chr$(15)
Lprint "HASIL PERHITUNGAN GERUSAN" :Lprint
Lprint
Lprint "Kelompok Perhitungan adalah ";K
Lprint "Dengan kondisi batas :"
Lprint      "Konstanta Lacey                F = ";F
Lprint using"Konstanta  Egenberger Muller C = ##.##";C
Lprint using"Lebar sungai  (meter)          B = ##.#";B
Lprint
' ** CETAK TABEL VARIABEL **

Lprint "Variabel-varibel yang digunakan :":?
```

```
Lprint "Debit        Tinggi m.a   Tinggi m.a   Selisih m.a    Gradasi    Tinggi "
Lprint "              hulu          hilir     hulu-hilir     butiran    ambang "
Lprint "(m3/dt)     (meter)        (meter)      (meter)       (mm)      (meter)"
for i=1 to x
Lprint using "######.##      ###.##       ###.##       ###.##       ###.##    ###.## ";
Q1(i);H(i);Hi(i);HS(i);D(i);Am(i)
next
Lprint
Lprint "Adapun tabel perhitungannya sebagai berikut :":Lprint
Lprint string$(79,chr$(205))
Lprint "                   Kedalaman Gerusan Diukur dari Muka air hilir                  "
Lprint "              Menurut Kelompok  Gradasi (m)    3     Menurut Kelompok  Debit (m)  "
Lprint "  Q(i)   Jagger   Schocklisth  Eggenberger 3 Lacey      Greuser    Veronesse"
Lprint "m3/dt/m'    m           m            m          m          m            m  "
Lprint string$(79,chr$(196))
for i=1 to x
Lprint using "####.##3#####.#  #####.#      ####.#       3######.#  ######.#   ######.#";
Q2(i);ds1(i);ds2(i);ds3(i);ds4(i);ds5(i);ds6(i)
next
Lprint string$(79,chr$(205))

Lprint
Lprint
Lprint string$(79,chr$(205))
Lprint "                Kedalaman Gerusan Diukur dari Muka Dasar Hilir                 "
Lprint "                Menurut Kelompok Gradasi (m)    3      Menurut Kelompok  Debit (m) "
Lprint "  Q(i)   Jagger   Schocklisth  Eggenberger 3 Lacey      Greuser    Veronesse"
Lprint "m3/dt/m'    m           m            m          m          m            m  "
Lprint string$(79,chr$(196))
for i=1 to x
Lprint using "####.##3#####.#  #####.#      ####.#       3######.#  ######.#   ######.#";
Q2(i);g1(i);g2(i);g3(i);g4(i);g5(i);g6(i)
next
Lprint string$(79,chr$(205))
Lprint "Catatan : Bila harga gerusan diukur dari muka tanah hilir"
Lprint "          berharga negatif, maka kedalaman gerusan dianggap Nol"
END

' eof()
```

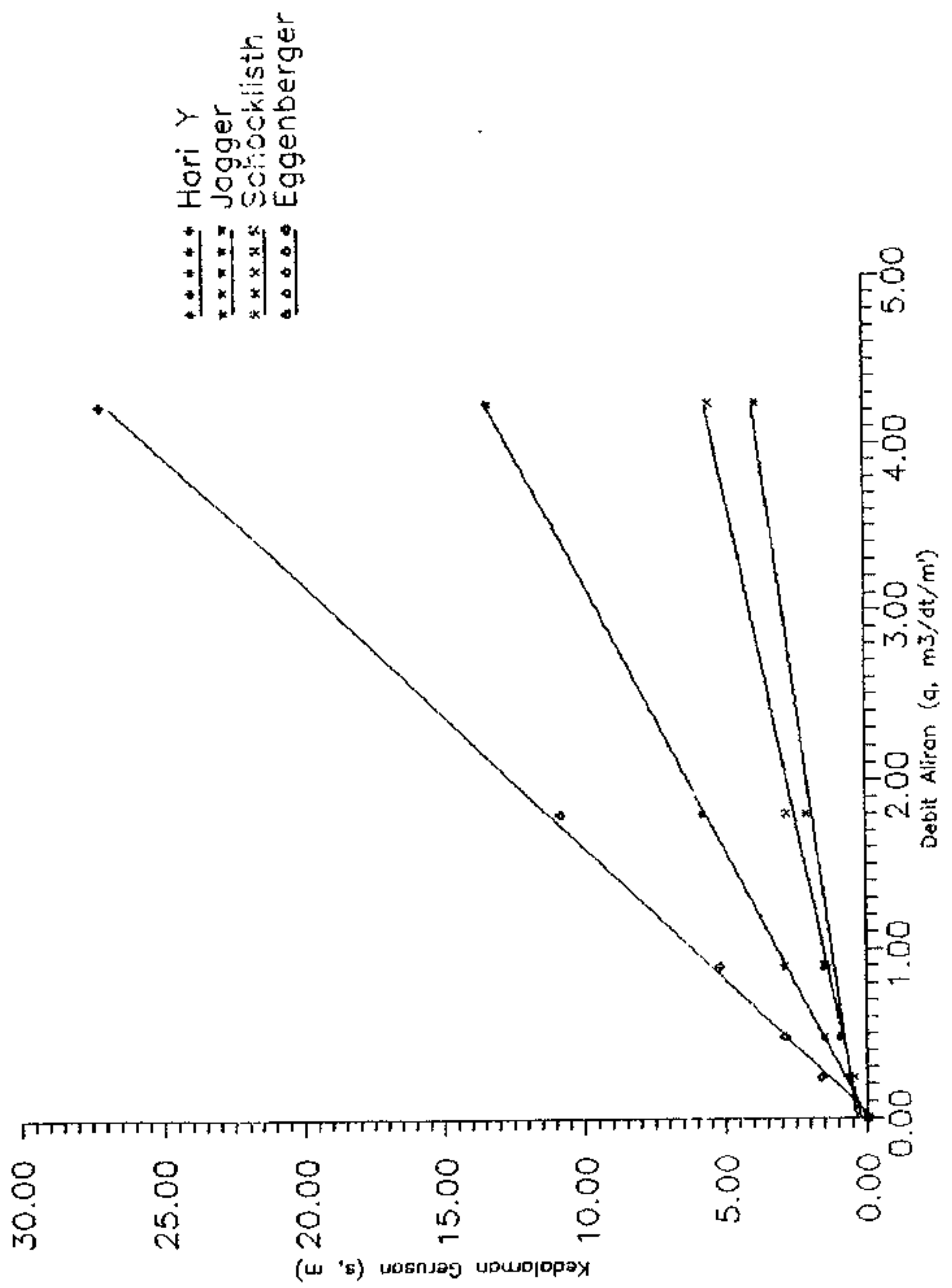
Lampiran 5a


mulai
INPUT
"kel. perhit =" ;k
"kons. Lacey =" ;s
"jumlah data =" ;i
DIM Q = i ; DIM HS = i
DIM DS1 = i ; DIM GS = i
DIM DS2 = i
Q ubah²
y
INPUT Q (i) =
T
INPUT Q =
Am ubah²
y
INPUT Am(i) =
T
INPUT Am=
Hs ubah²
y
INPUT Hs(i) =
T
INPUT Hs=
D ubah²
y
INPUT D (i) =
T
INPUT D =
A

Lampiran 5b

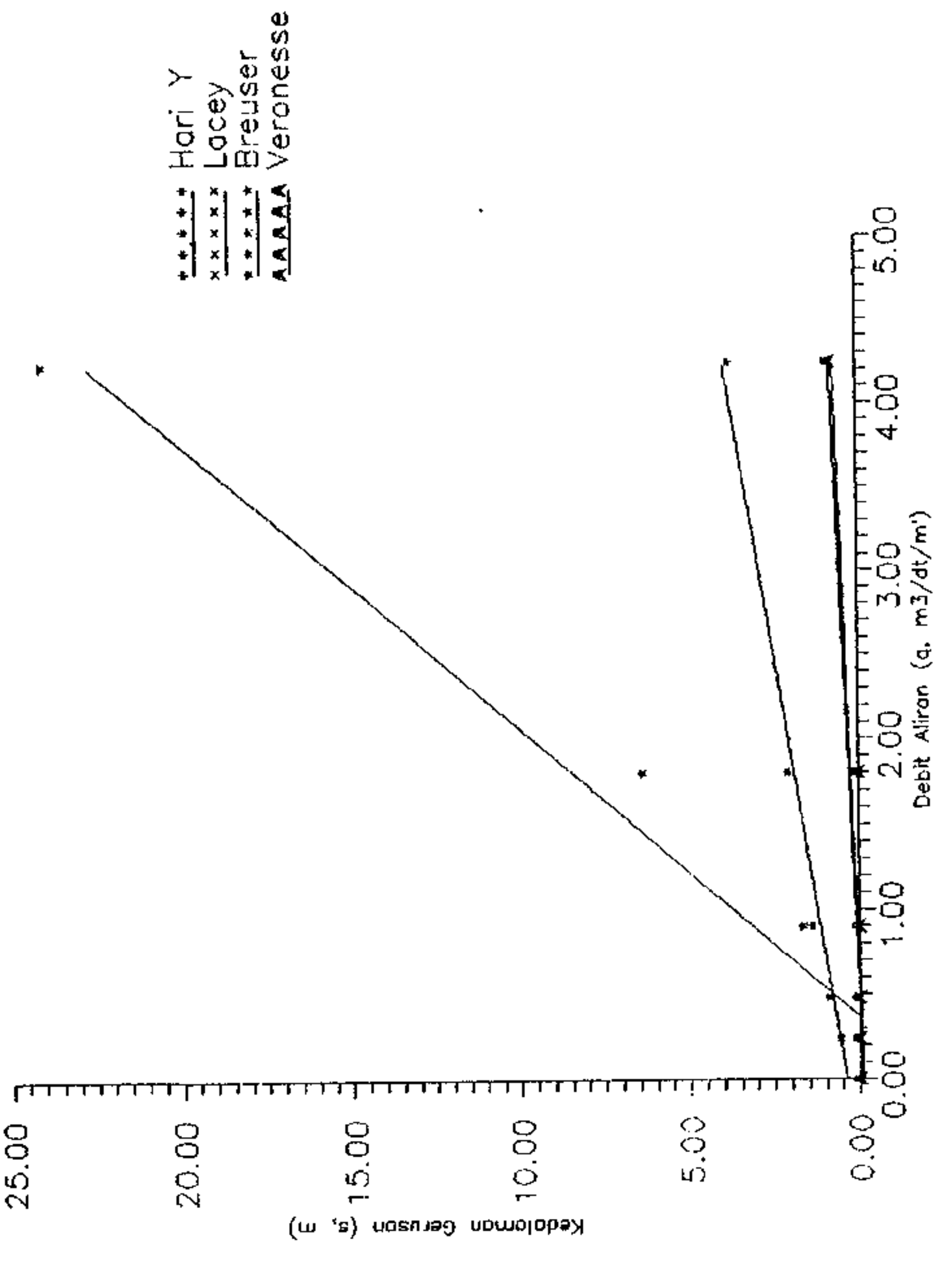

A
Ht ubah²
y
INPUT Ht(i) =
T
INPUT Ht=
Hu ubah²
y
INPUT Hu(i) =
T
INPUT Hu=
INPUT "lebar sungai = " ;B
Hitung
kel gradasi
Jagger = DS1;DS1;GS1
Schoclisth = DS2;DS2;GS2
Eggenberger= DS3;DS3;GS3
kel debit
Lacey = DS4;DS4;GS4
Breuser = DS5;DS5;GS5
Veronesse = DS6;DS6;GS6
Cetak
kel gradasi
Jagger = DS1;DS1;GS1
Schoclisth = DS2;DS2;GS2
Eggenberger= DS3;DS3;GS3
kel debit
Lacey = DS4;DS4;GS4
Breuser = DS5;DS5;GS5
Veronesse = DS6;DS6;GS6
selesai

Lampiran 6.a.1

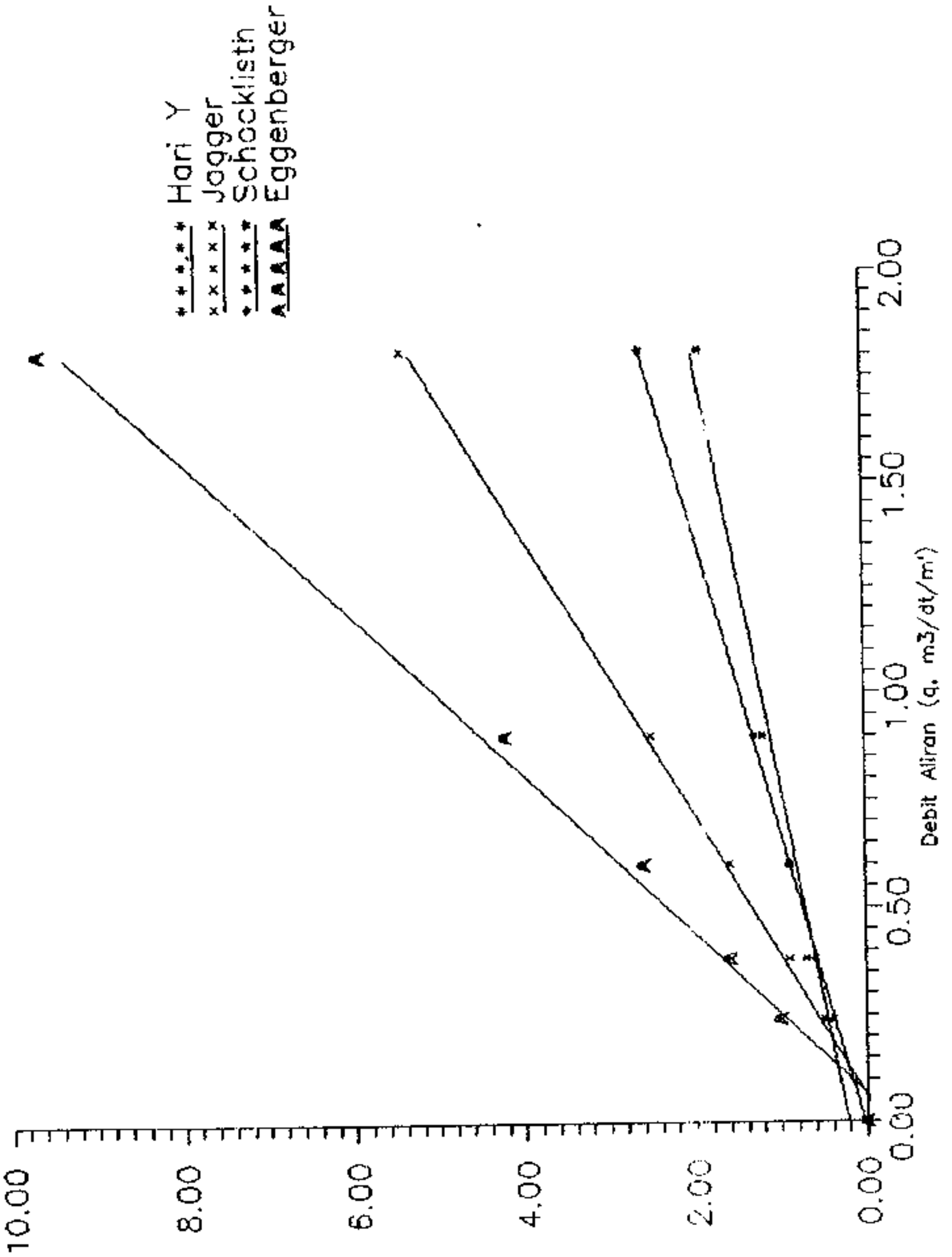


Kedalaman Gerusan Kasus Seri A Kel. Gradasi

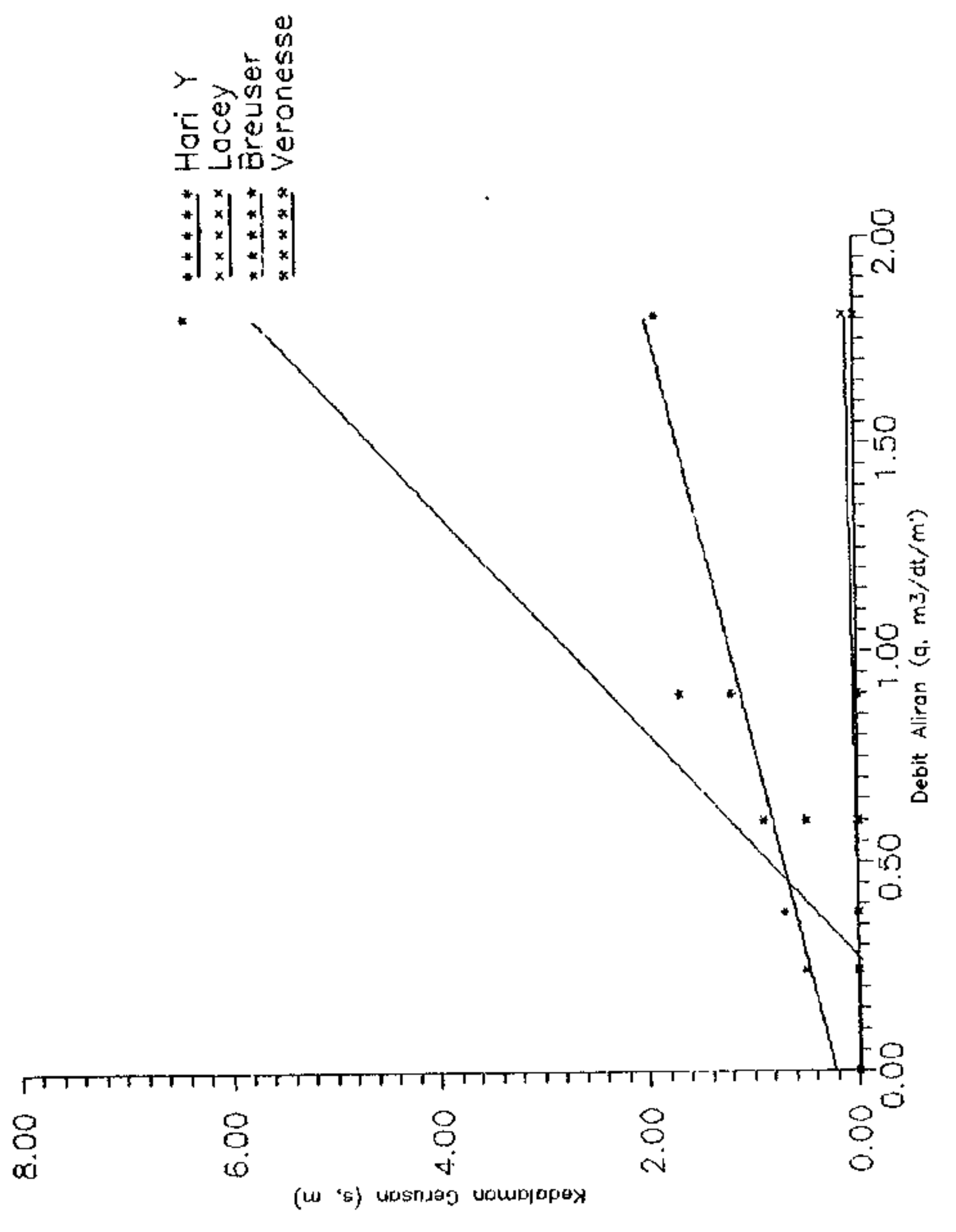
Lampiran 6.a.2



Kedalaman Gerusan Kasus Seri A Kel. Debit

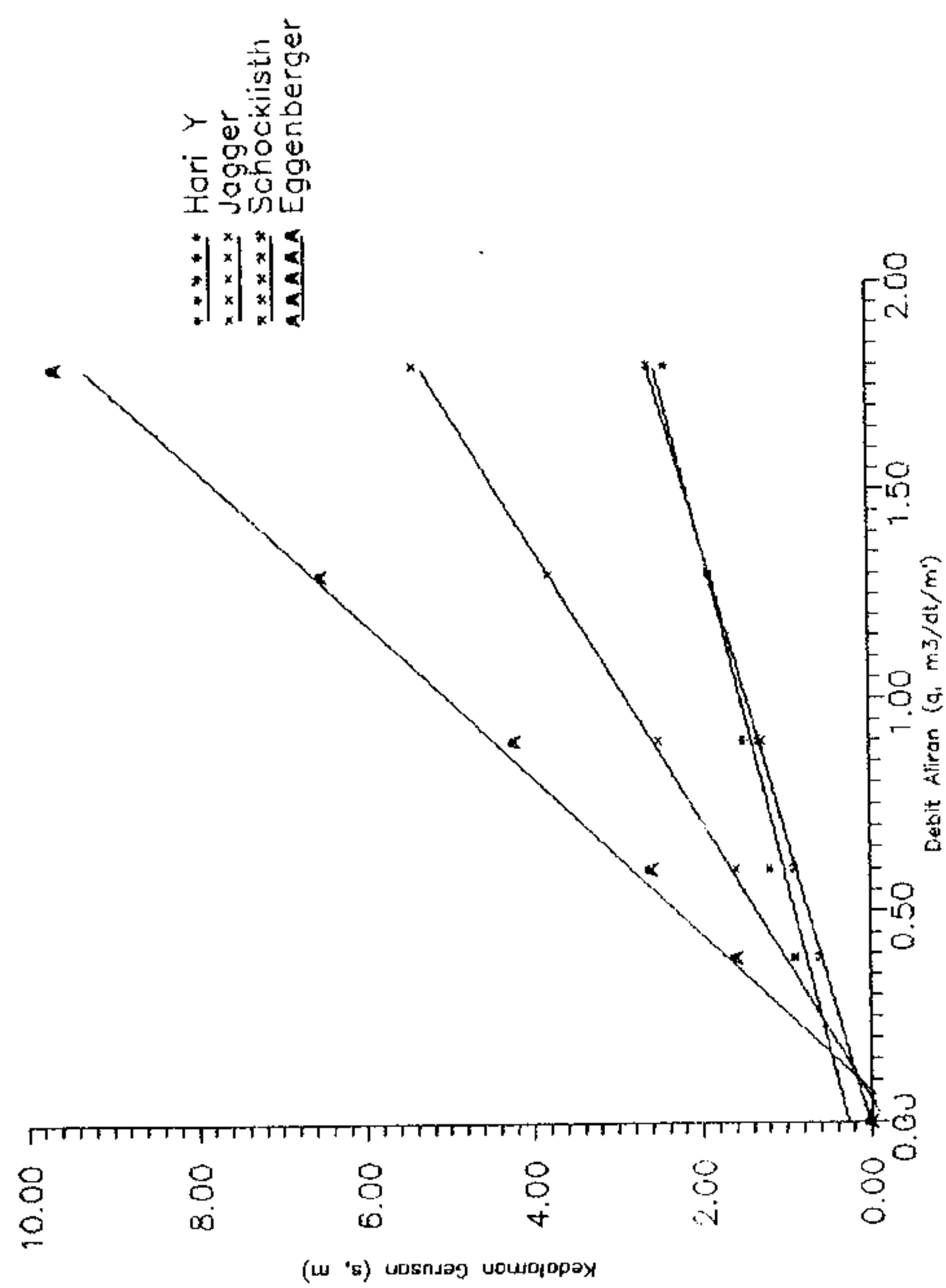


Kedalaman Gerusan Kasus Seri B Kel. Gradasi



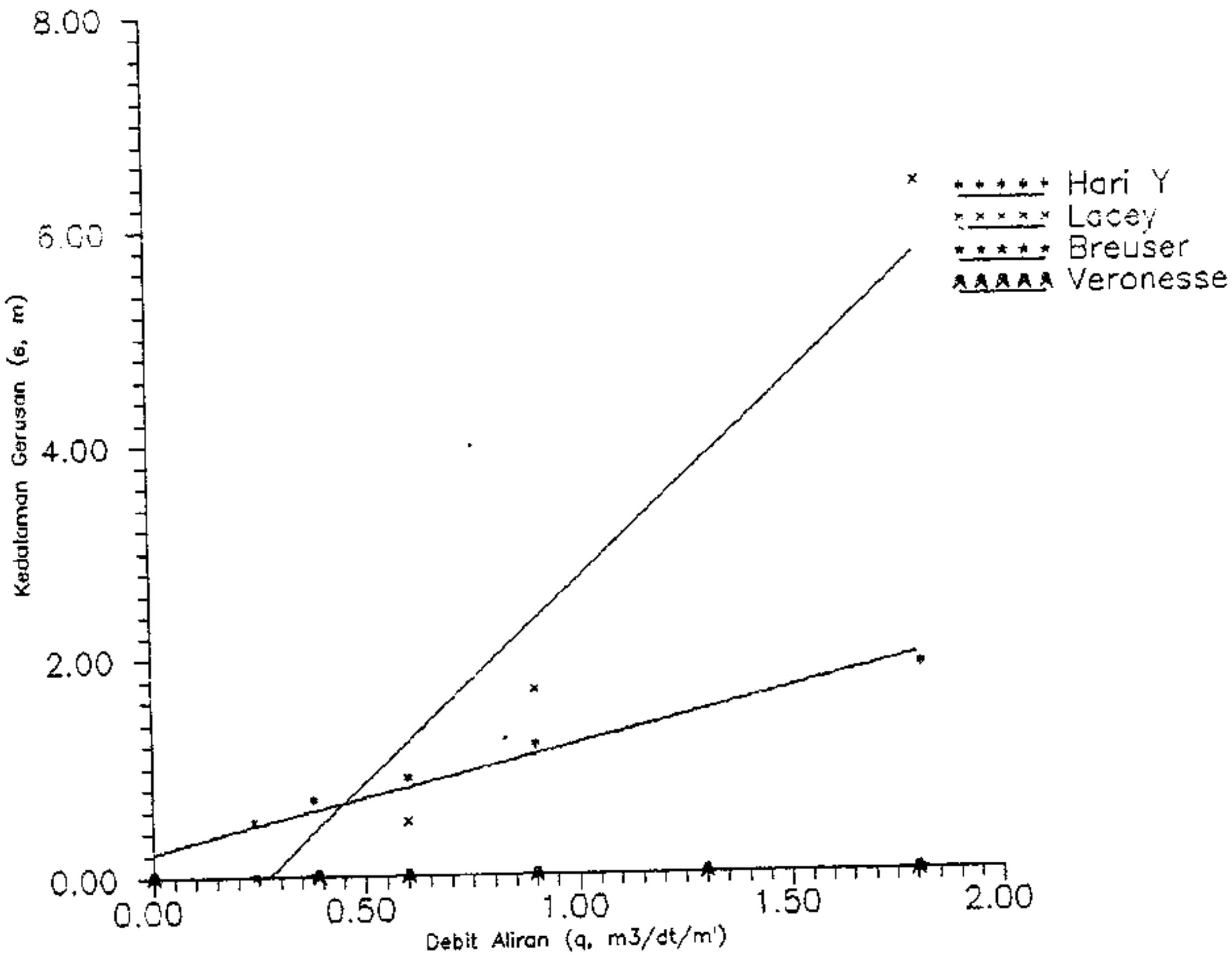
Kedalaman Gerusan Kasus Seri B Kel. Debit

Lampiran 6.c.1

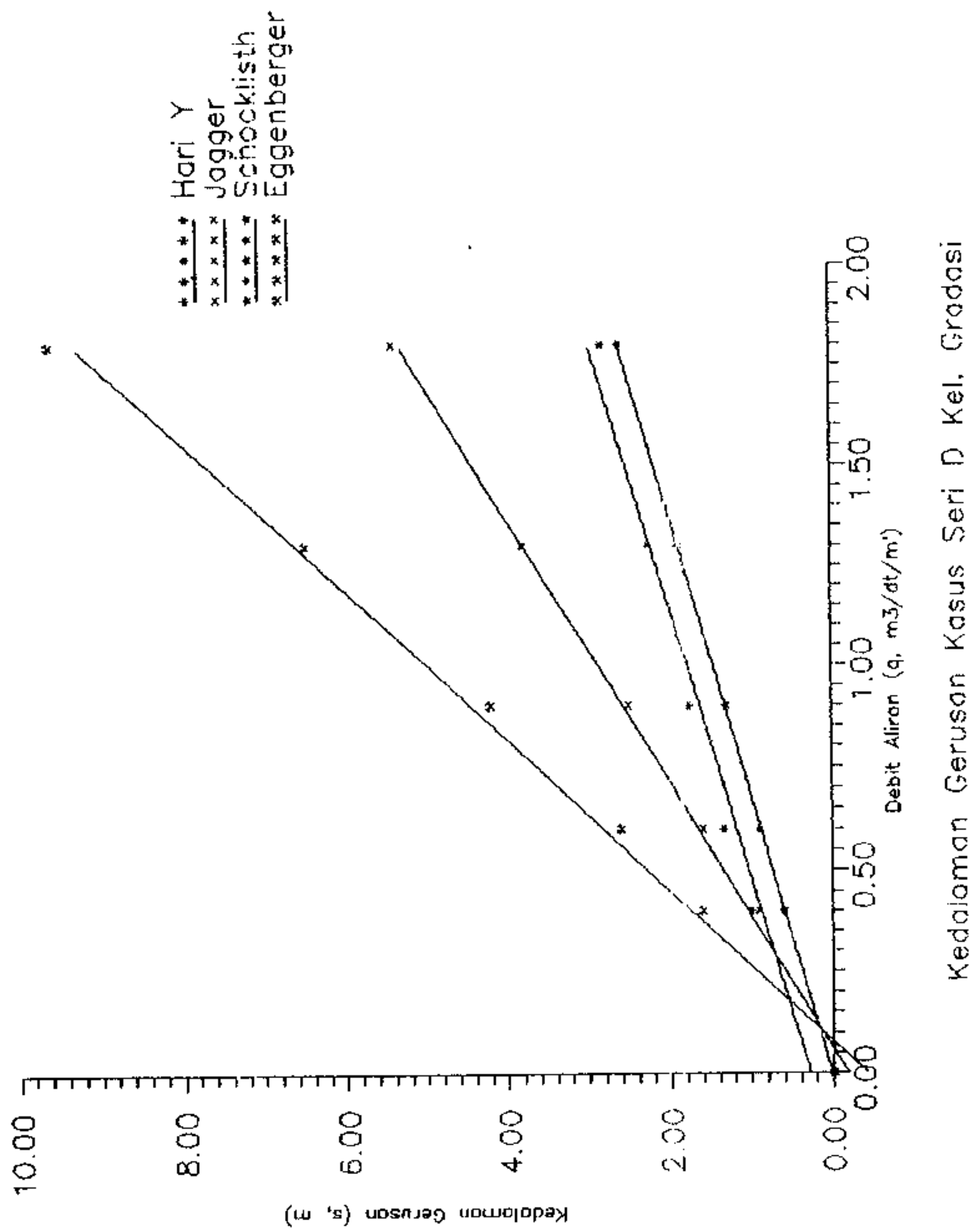


Kedalaman Gerusan Kasus Seri C Kel. Gradasi

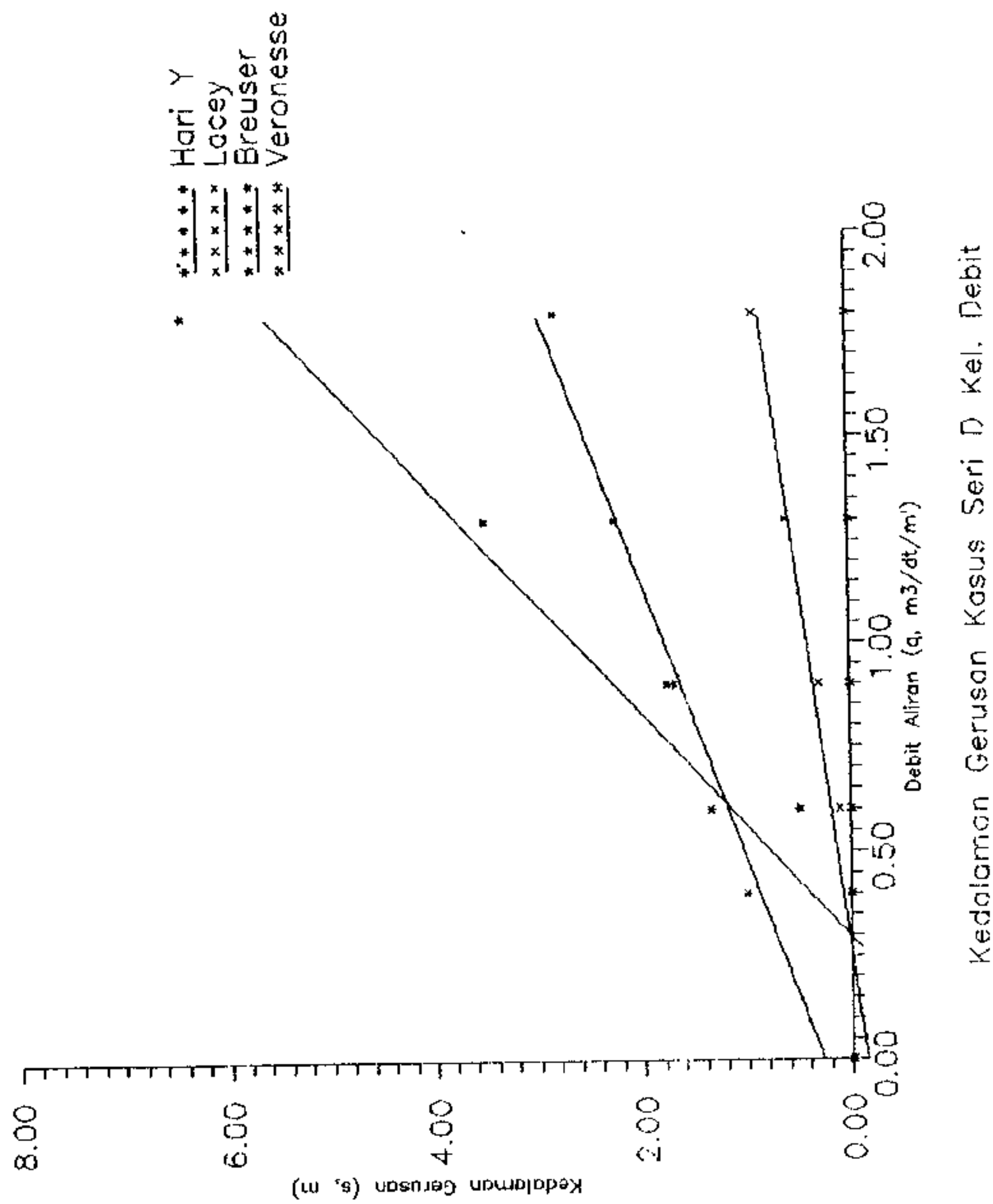
Lampiran 6.c.2



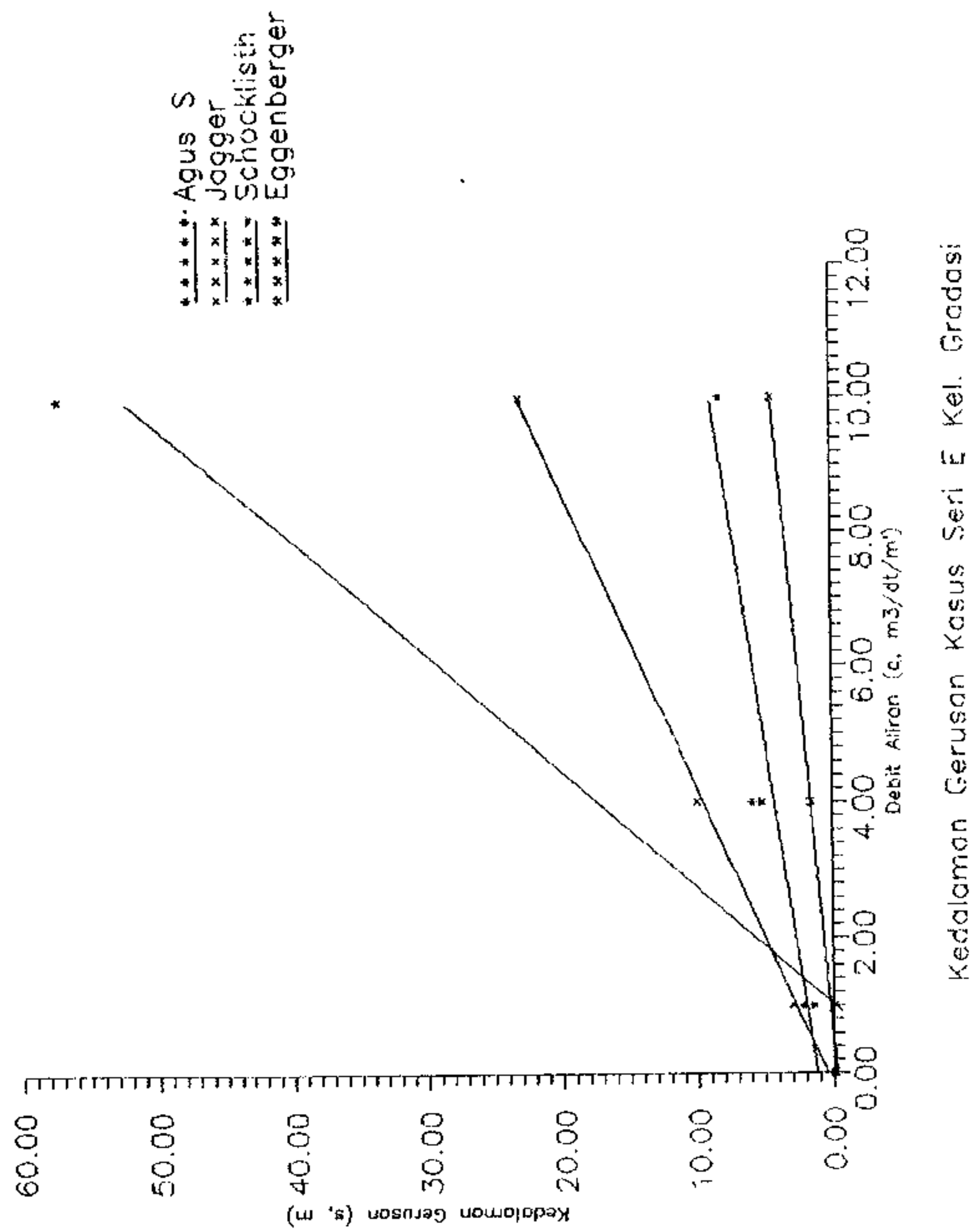
Kedalaman Gerusan Kasus Seri C Kel. Debit


Hari Y
Jagger
Schocklisth
Eggenberger
10.00
8.00
6.00
4.00
2.00
0.00
Kedalaman Gerusan (s, m)
0.00
0.50
1.00
1.50
2.00
Debit Aliran (q, m3/dt/m')
Kedalaman Gerusan Kasus Seri D Kel. Gradasi

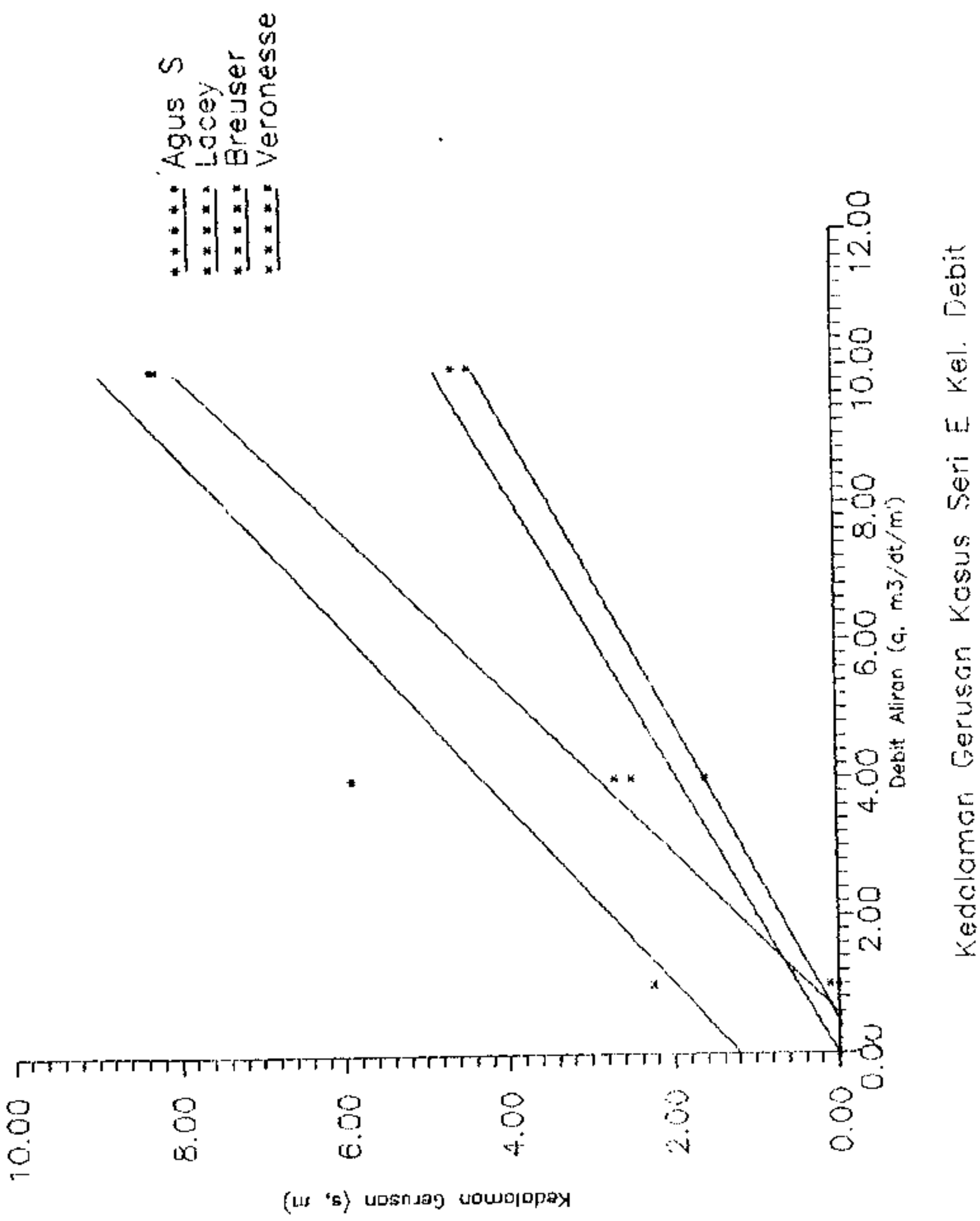
Lampiran 6.d.2

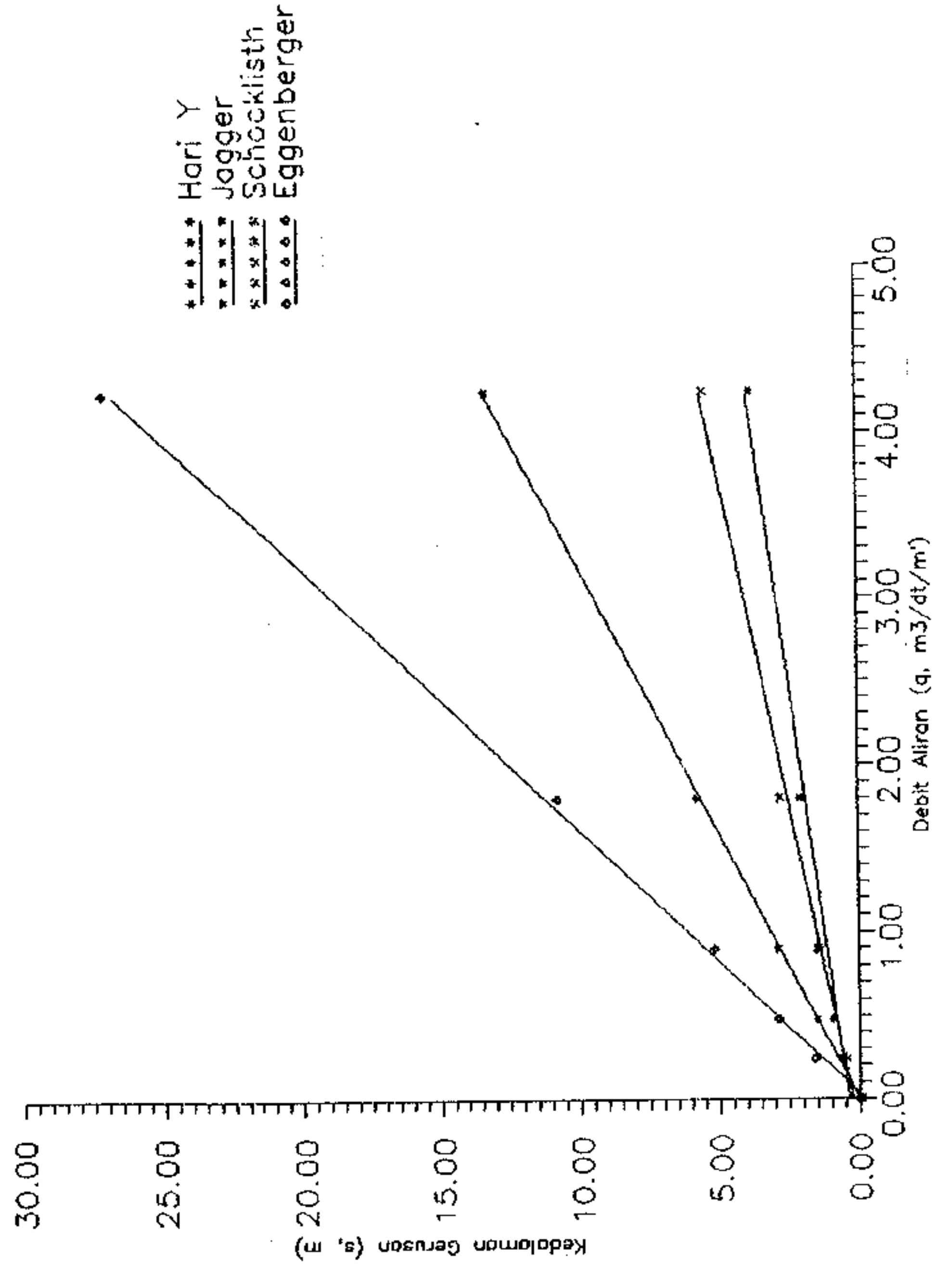


Lampiran 6.e.2



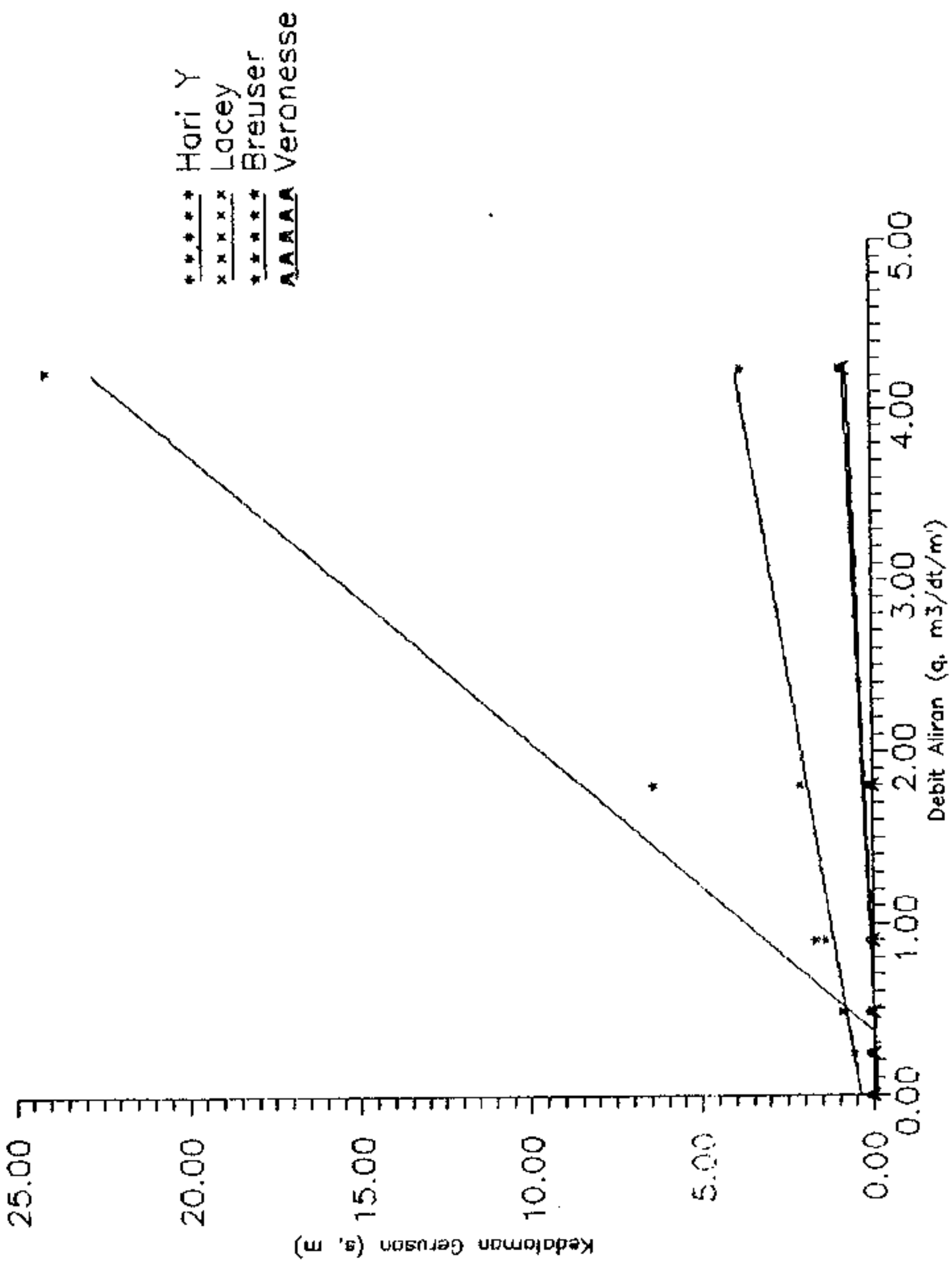
Lampiran 6.e.2





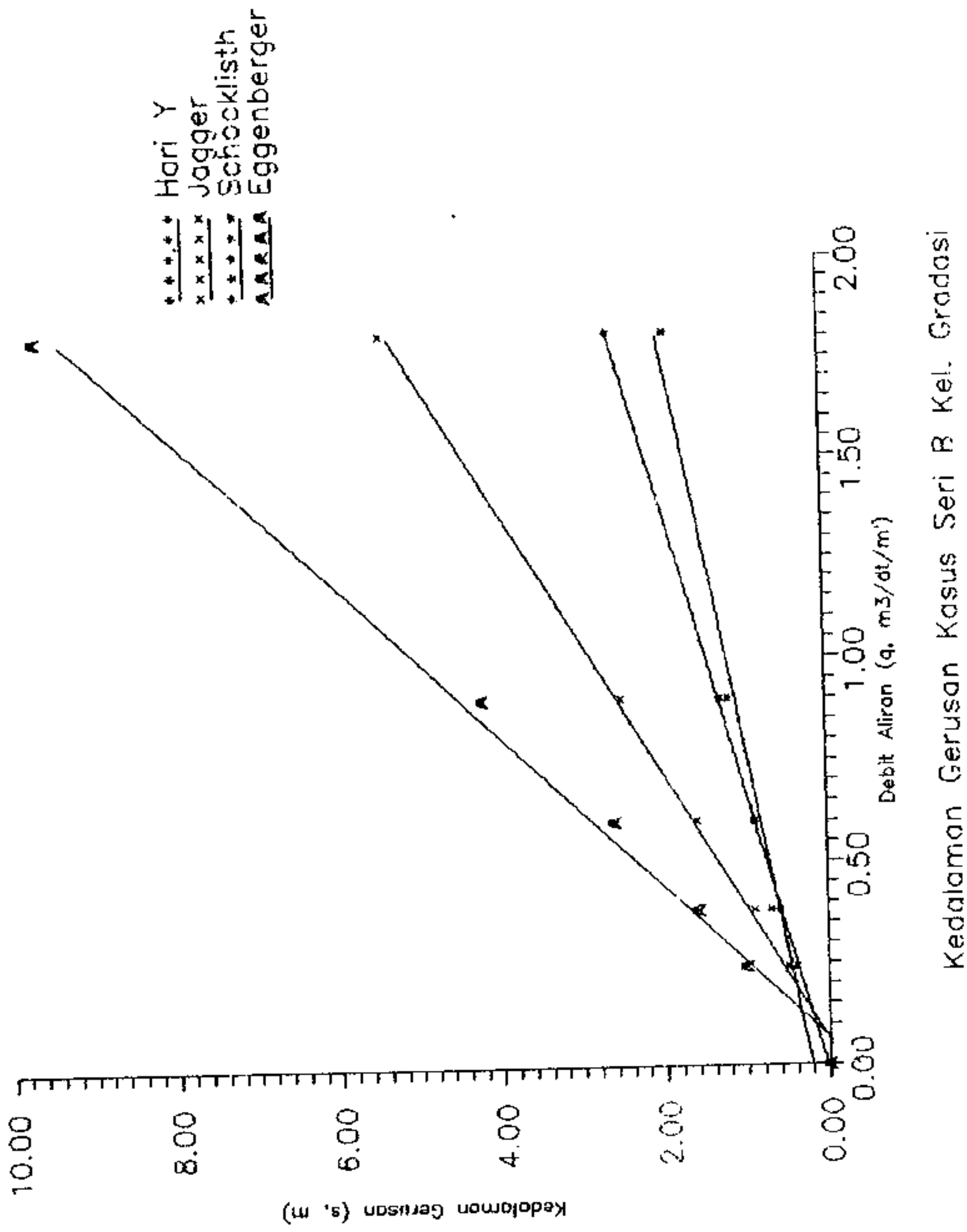
Kedalaman Gerusan Kasus Seri A Kel. Gradasi

Lampiran 6.a.2



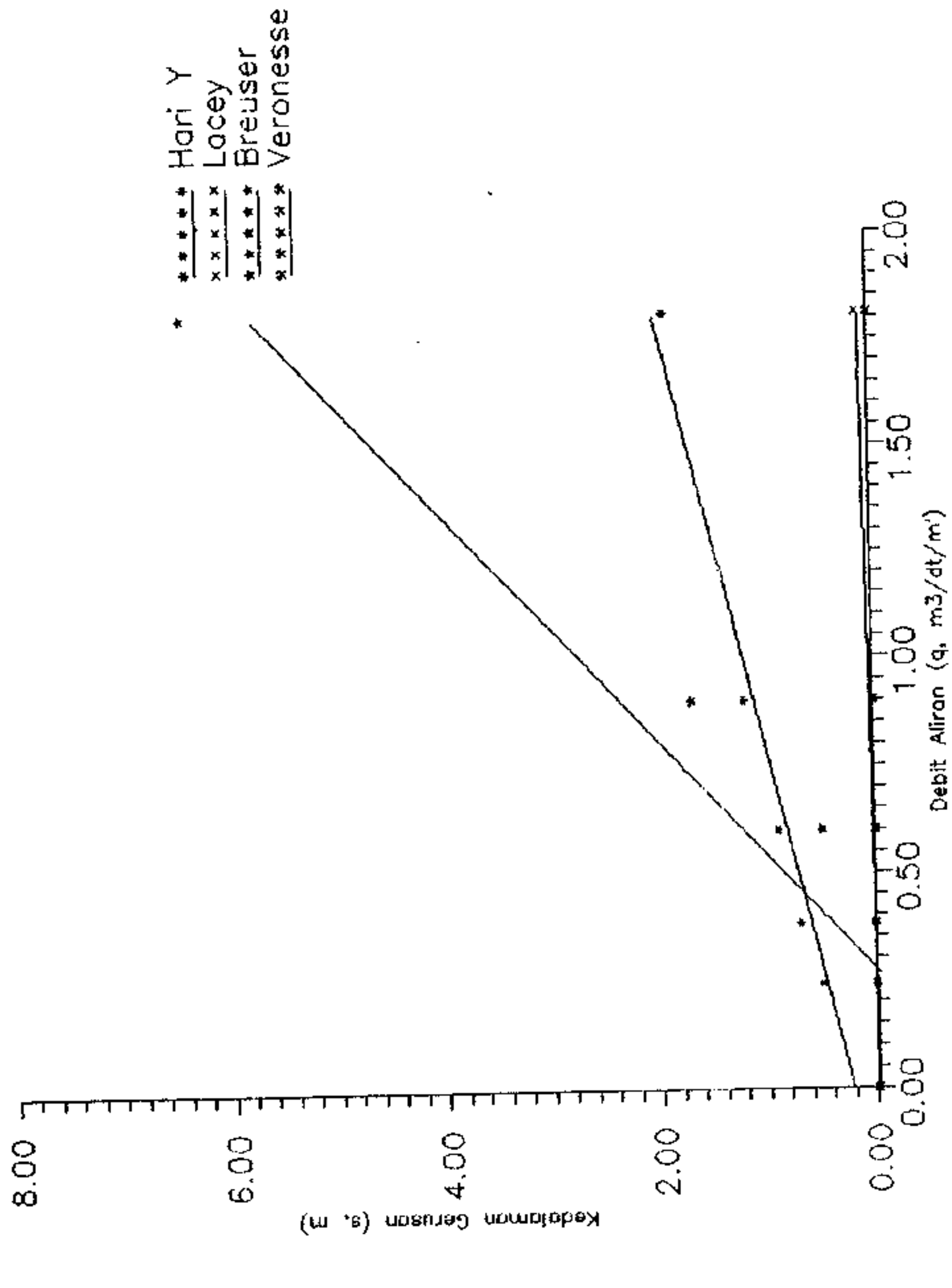
Kedalaman Gerusan Kasus Seri A Kel. Debit

Lapiran 6.b.1



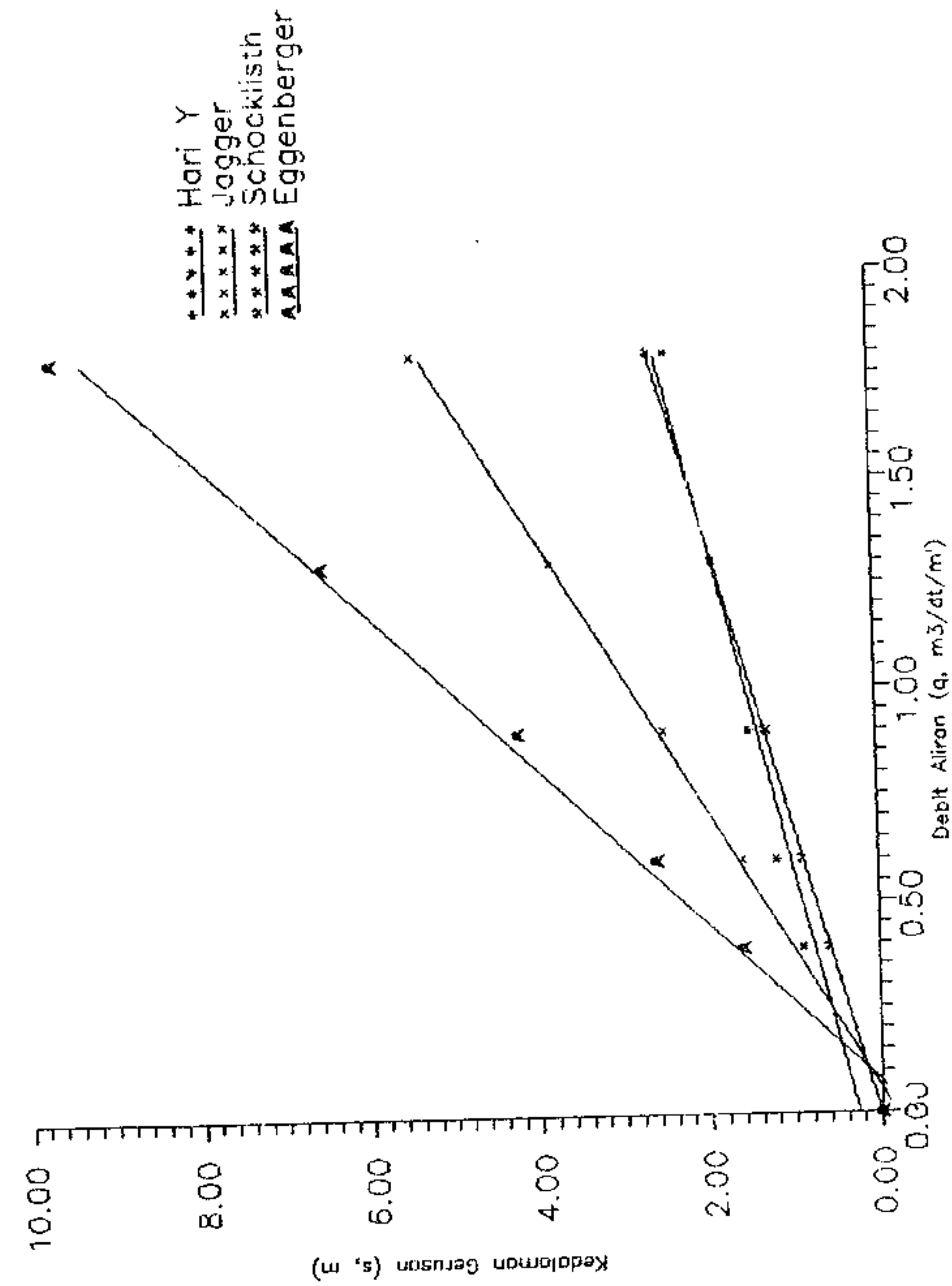
Hari Y
Jagger
Schocklisth
Eggenberger
Kedalaman Gerusan (s, m)
10.00
8.00
6.00
4.00
2.00
0.00
0.00
0.50
1.00
1.50
2.00
Debit Aliran (q, m3/dt/m')
Kedalaman Gerusan Kasus Seri R Kel. Gradasi

Lampiran 6.b.2

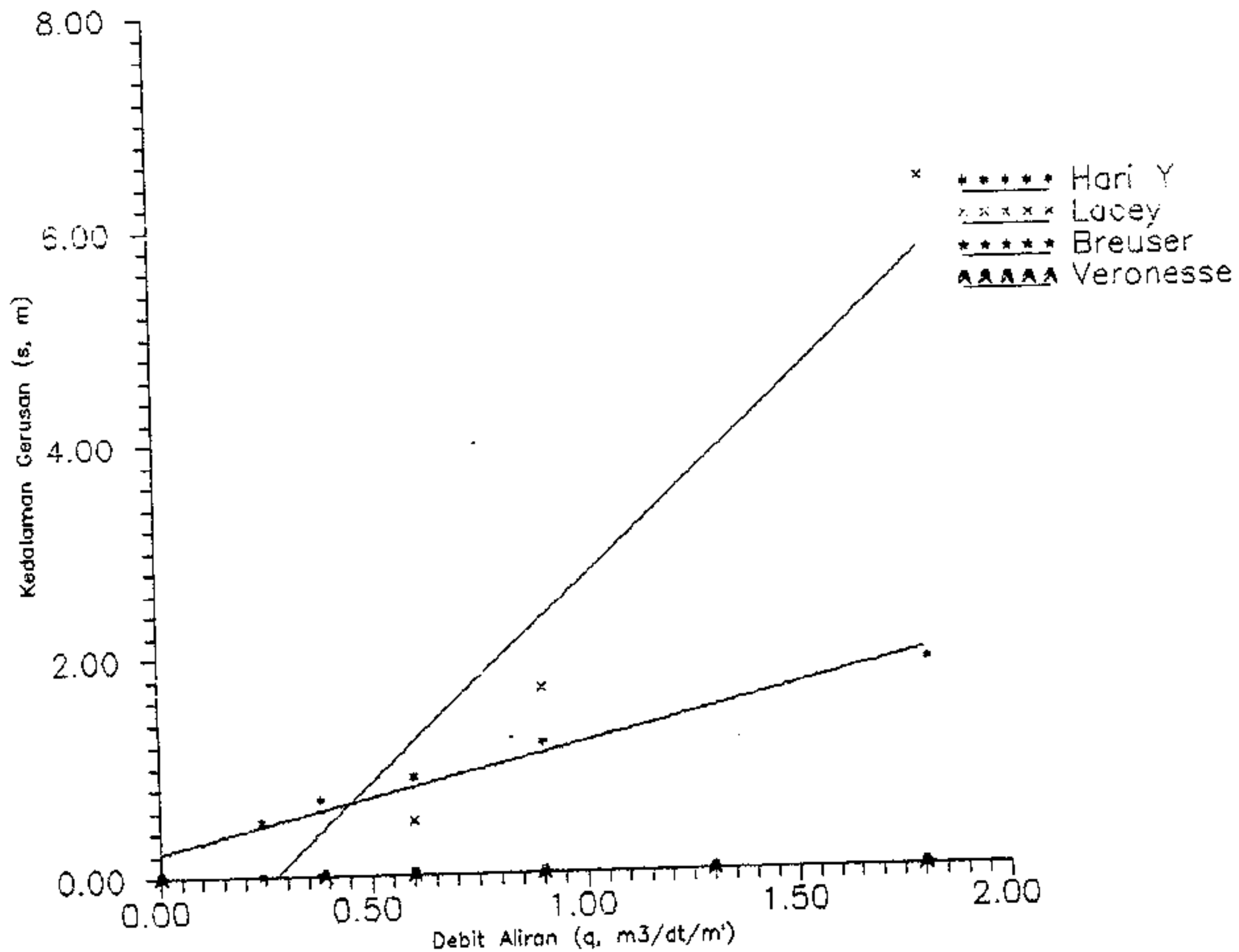


Kedalaman Gerusan Kasus Seri B Kel. Debit

Lampiran 6.c.1

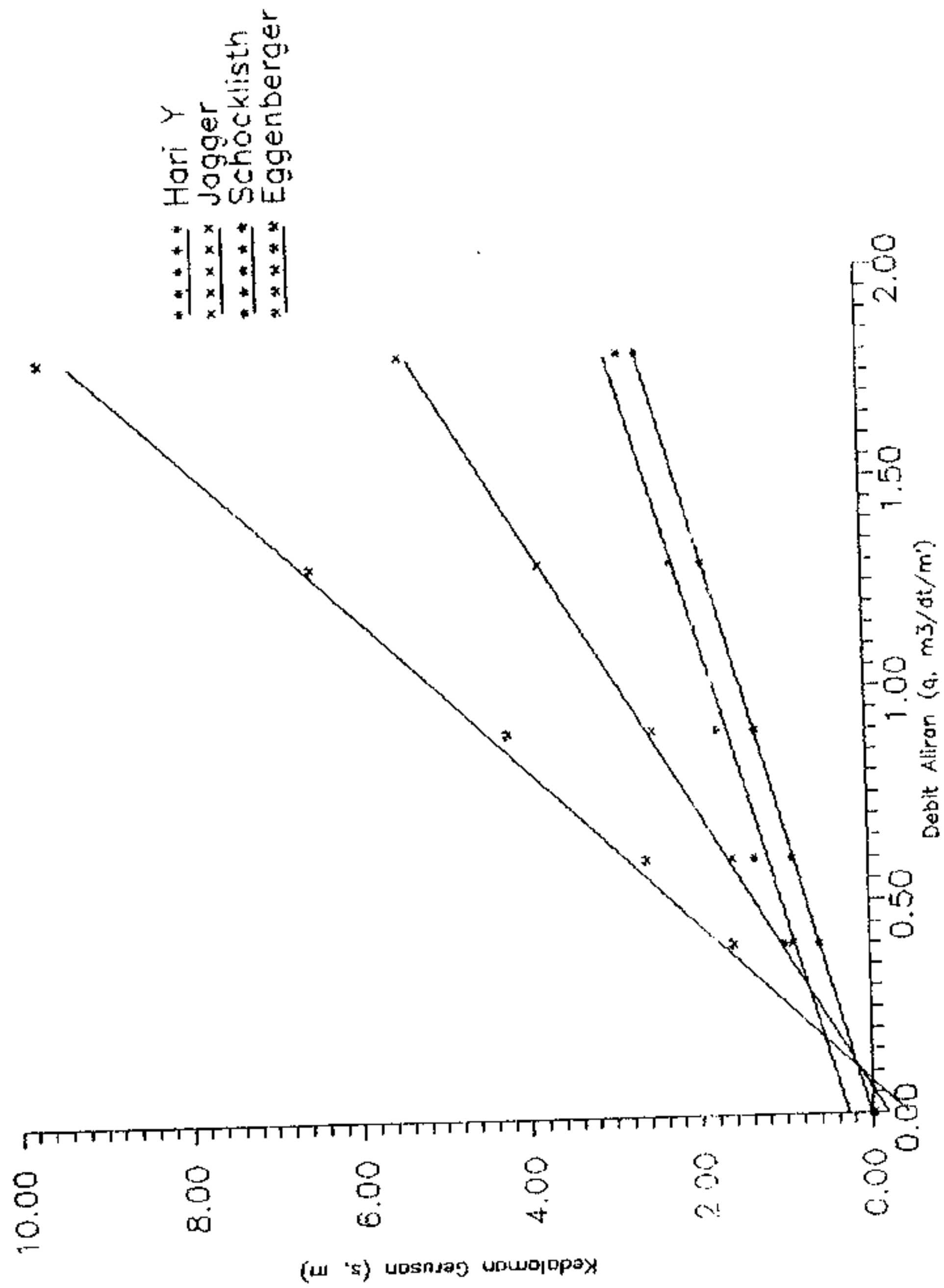


Kedalaman Gerusan Kasus Seri C Kel. Gradasi



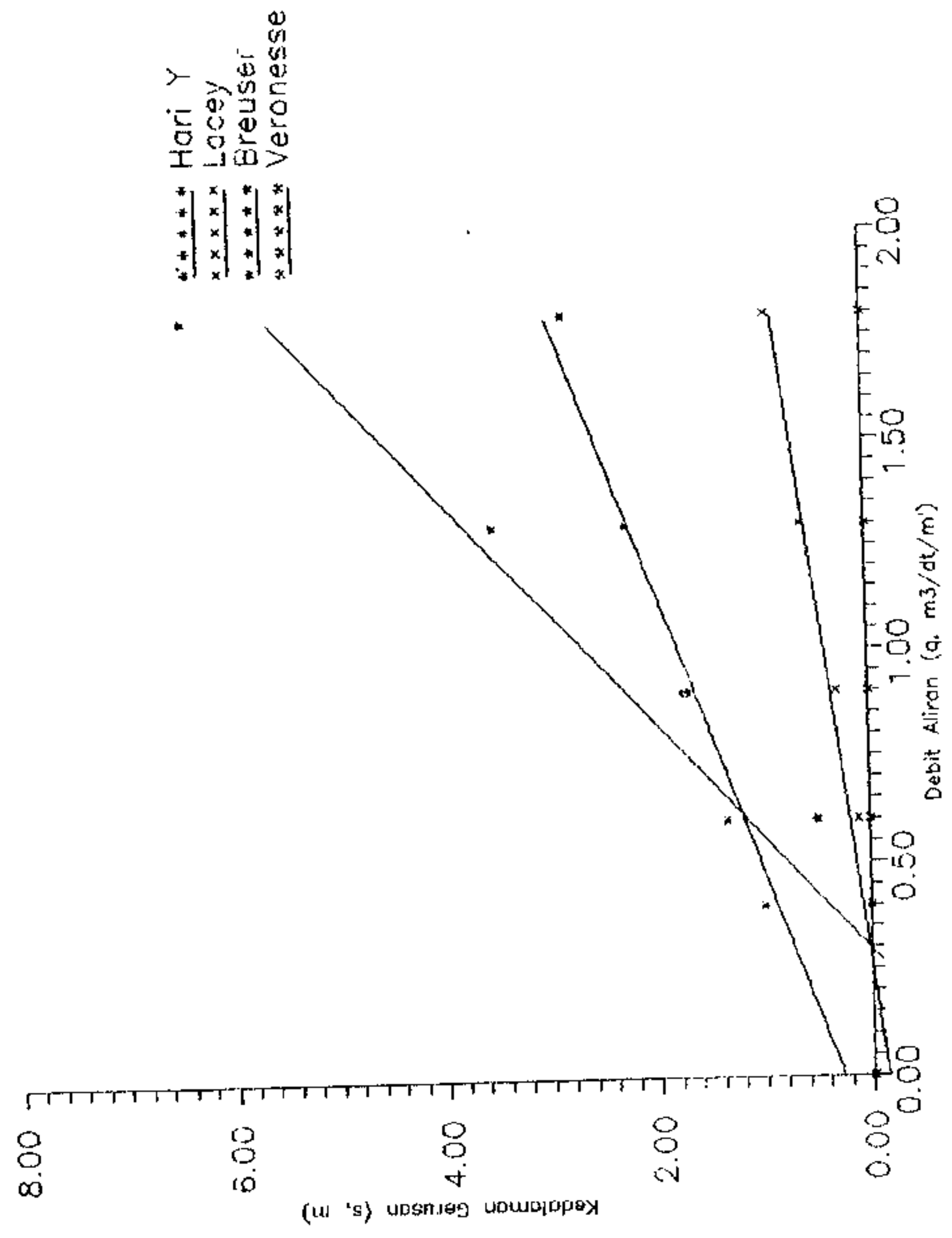
Kedalaman Gerusan Kasus Seri C Kel. Debit

Lampiran 6.d.1



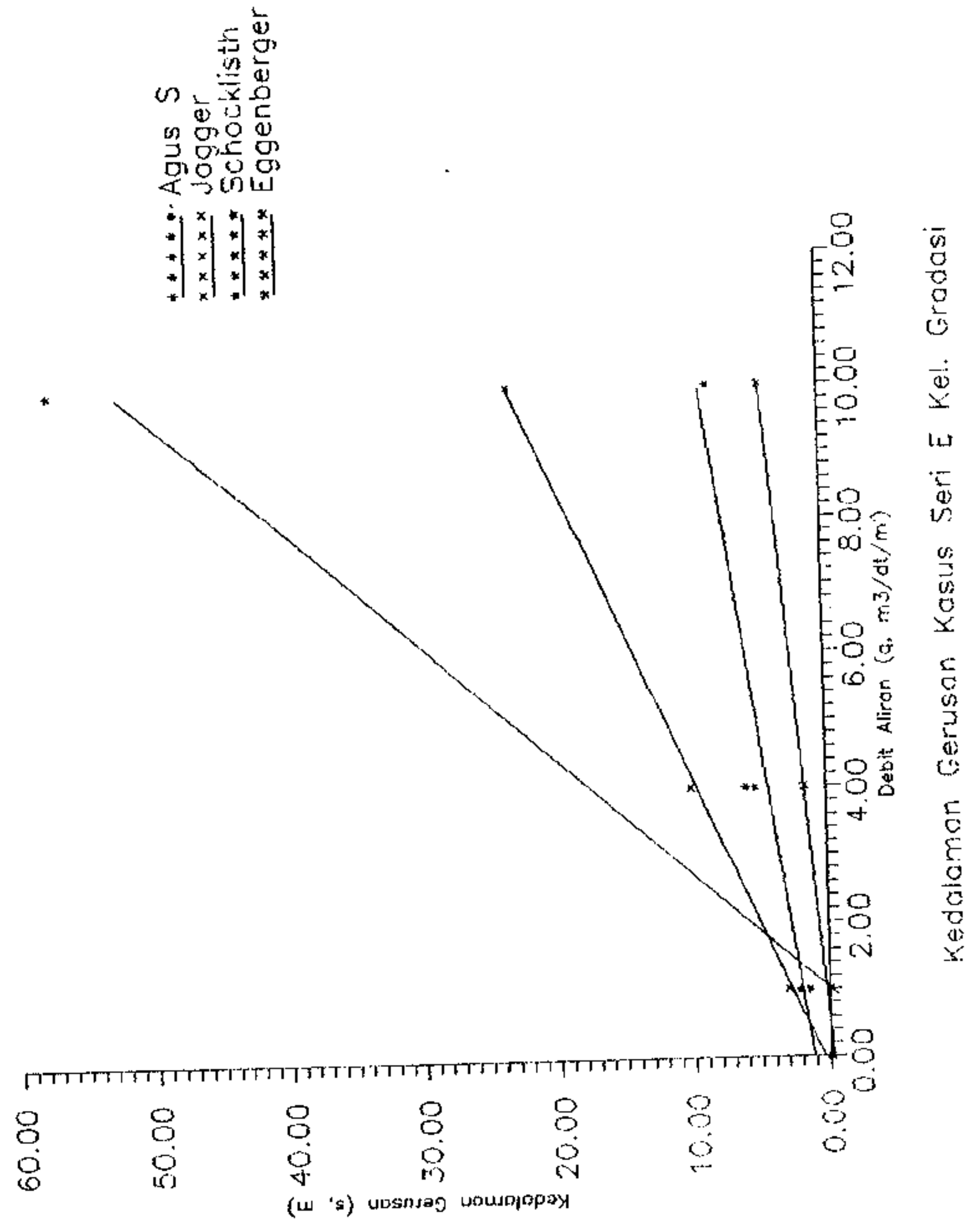
Kedalaman Gerusan Kasus Seri D Kel. Gradasi

Lampiran 6.d.2

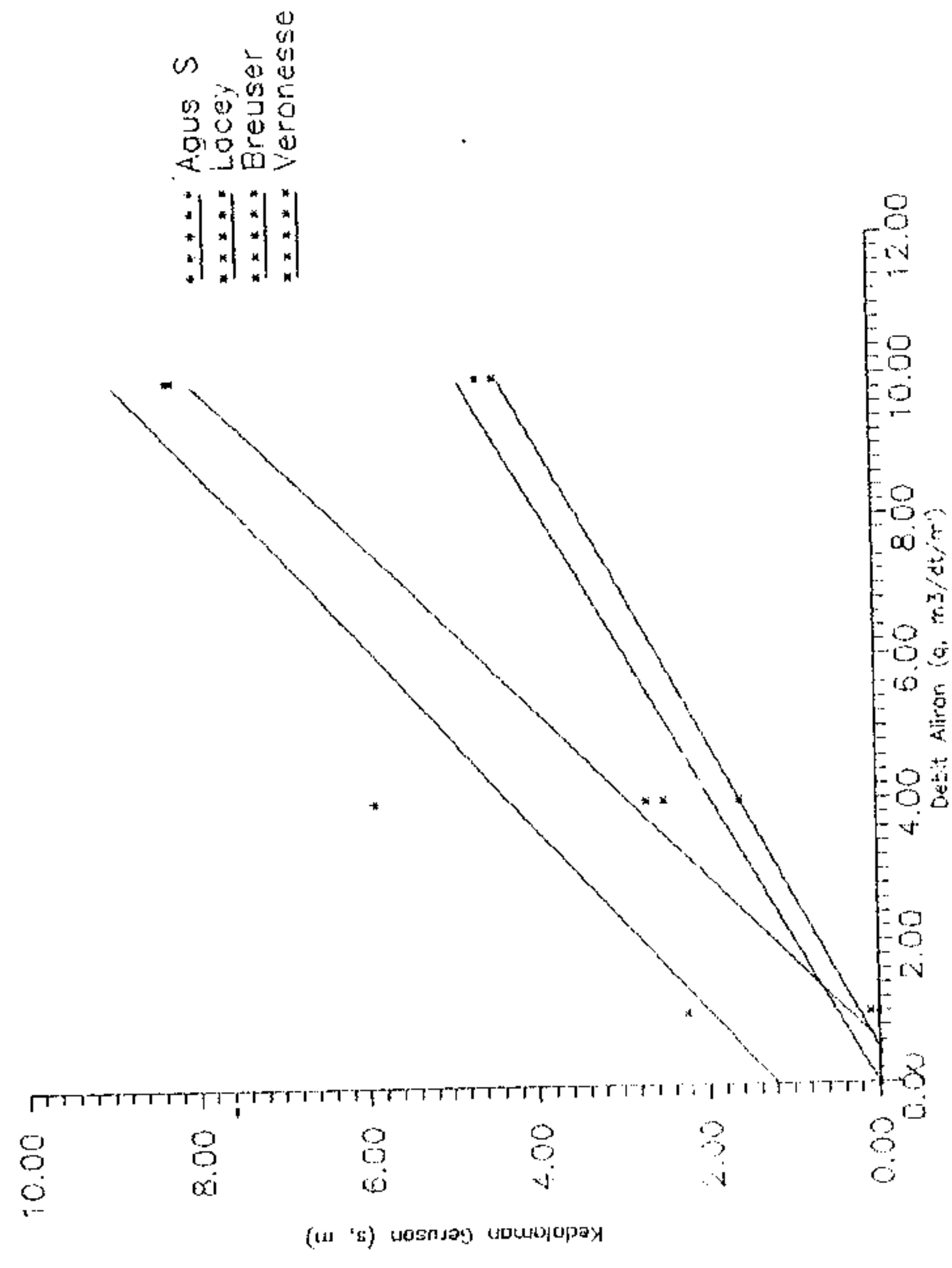


Kedalaman Gerusan Kasus Seri D Kel. Debit

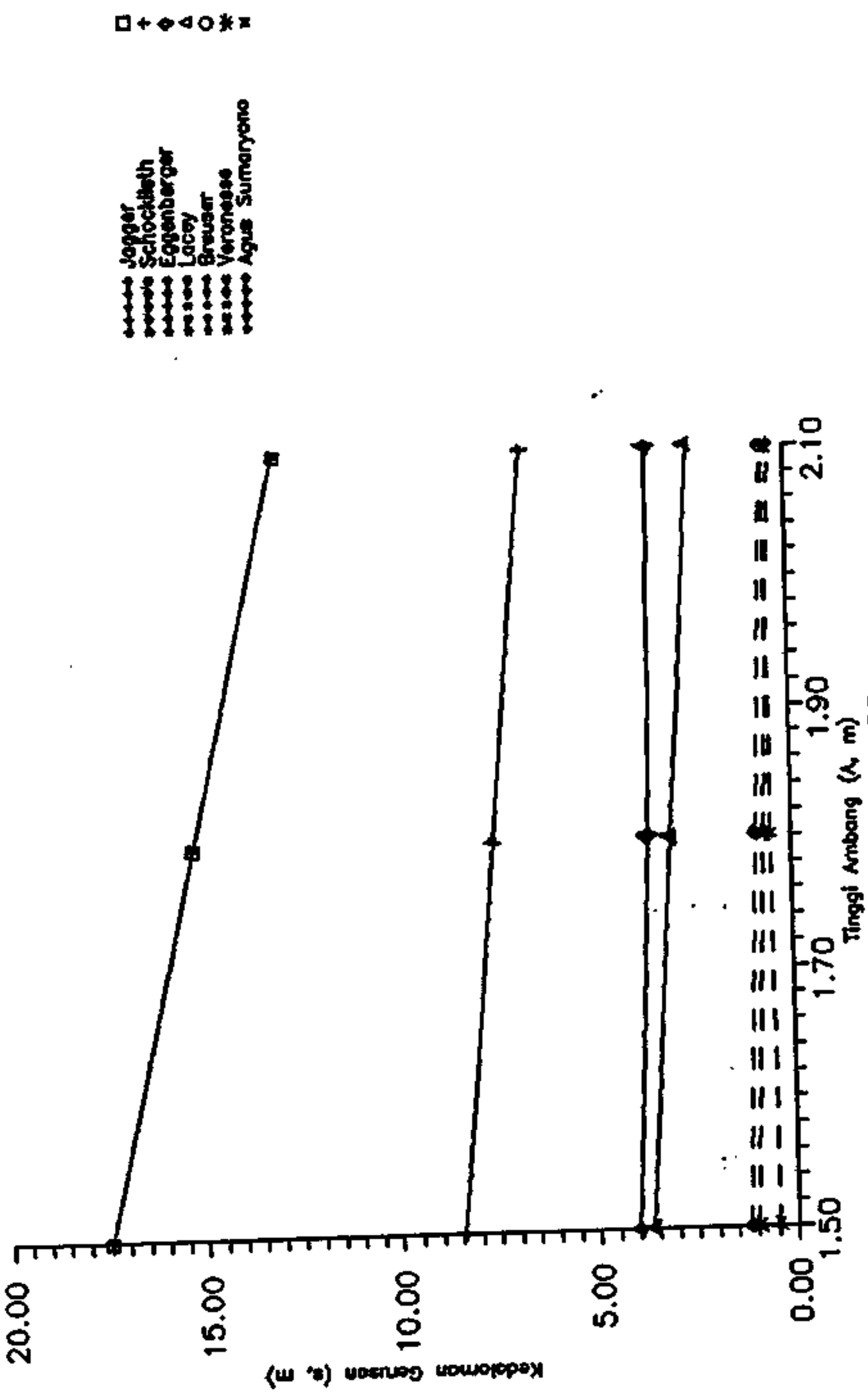
Lampiran 6.e.2



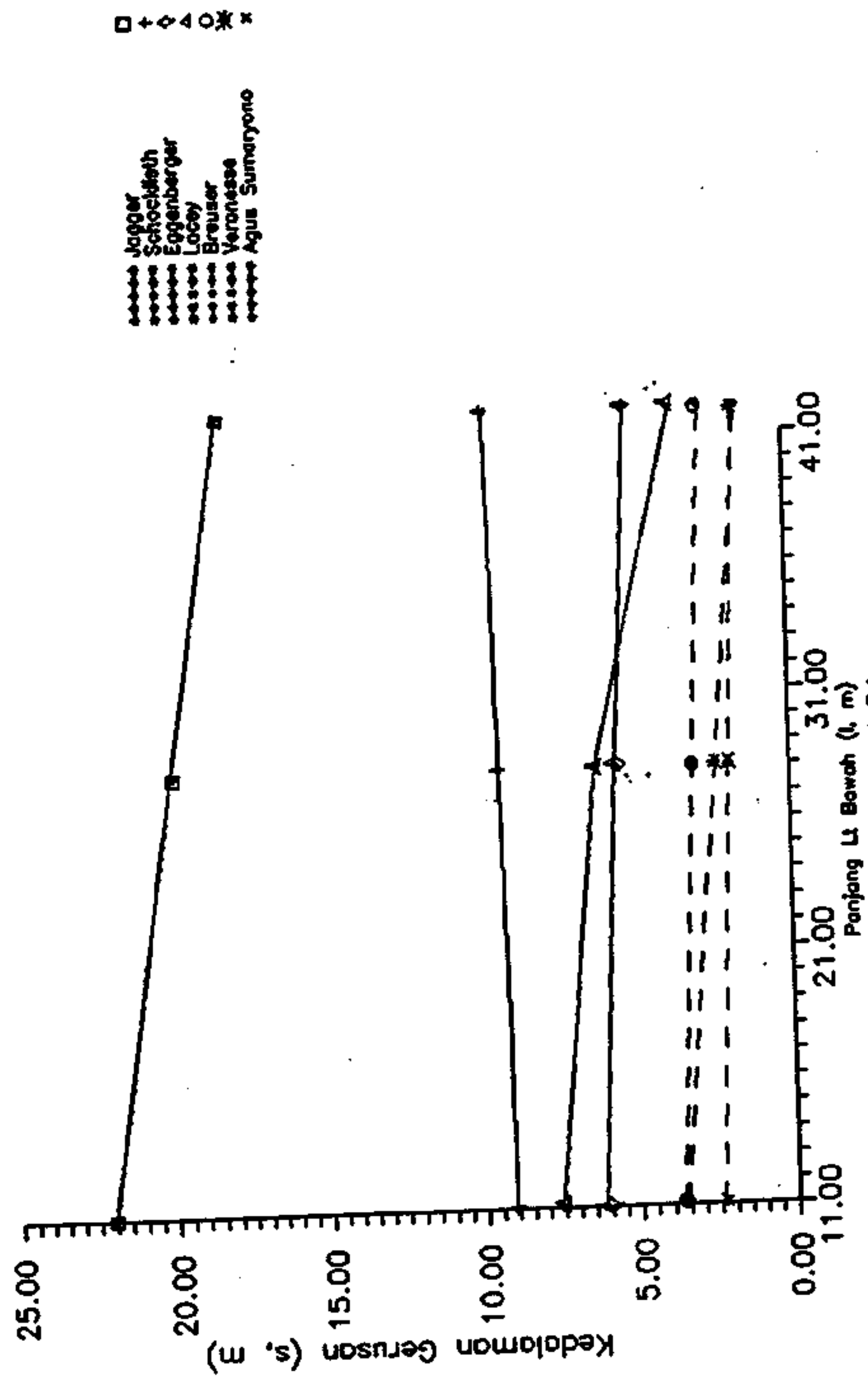
Lampiran 6.e.2



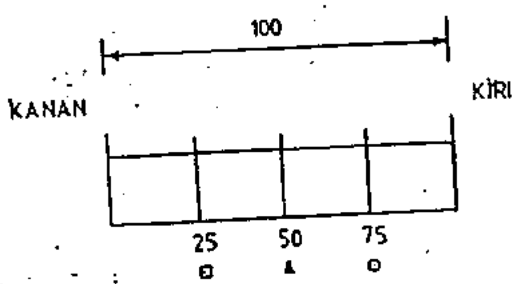
Kedalaman Gerusan Kasus Seri E Kel. Debit



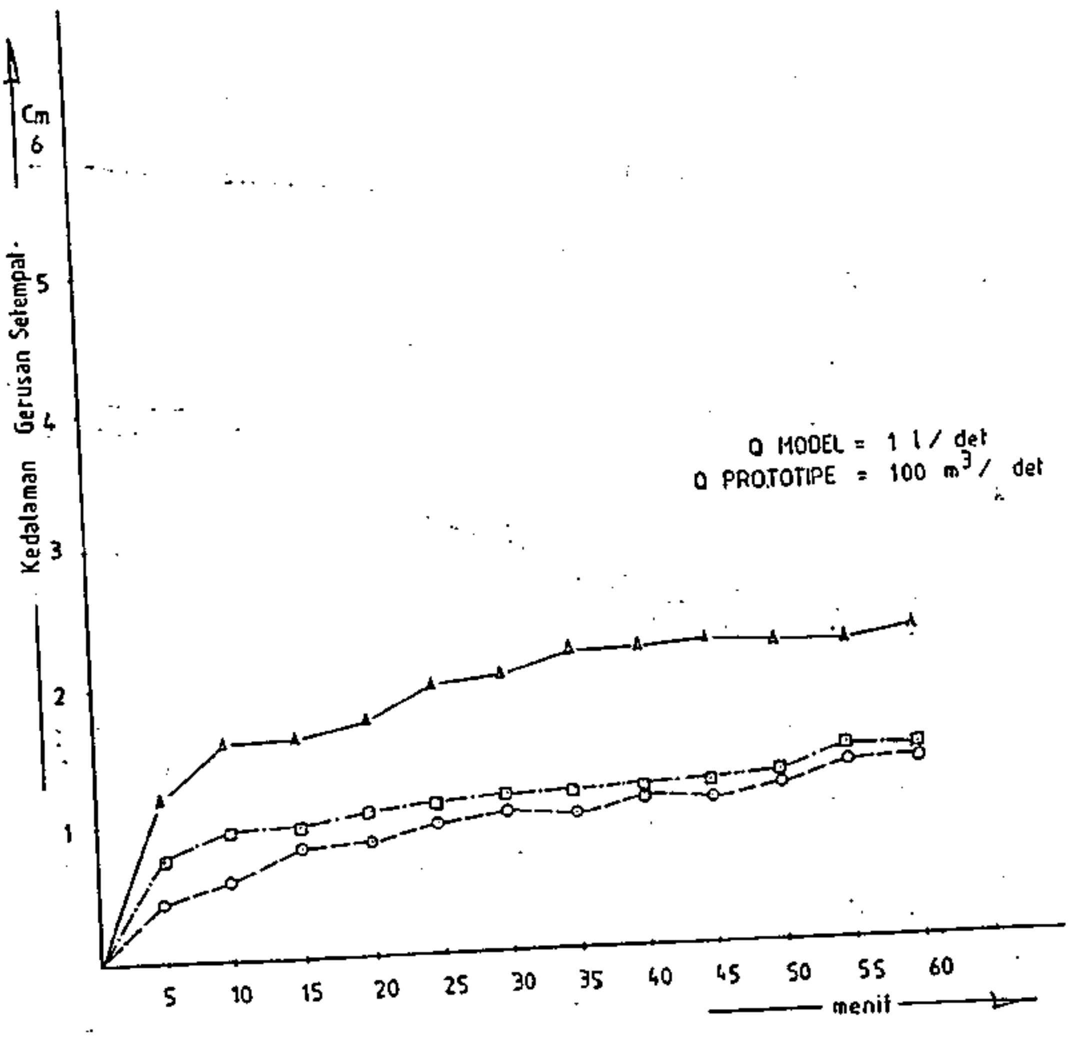
Gambar 4.20
Kedalaman Gerusan dalam Persamaan Linier Kasus Seri F



Gambar 4.21
Kedalaman Gerusan dalam Persamaan Linier Kasus Seri G

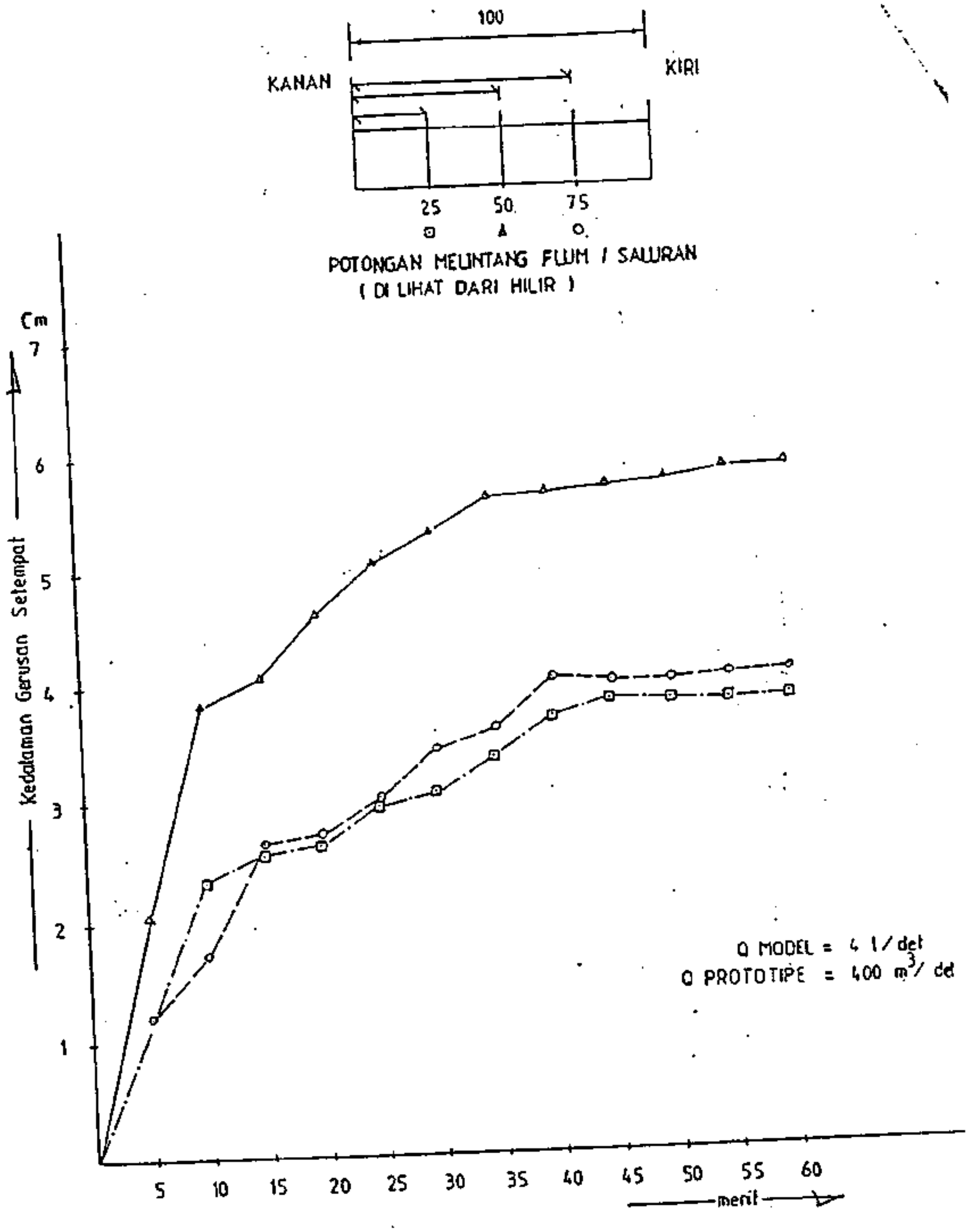


POTONGAN MELINTANG FLUM / SALURAN
(DI LIHAT DARI HILIR)

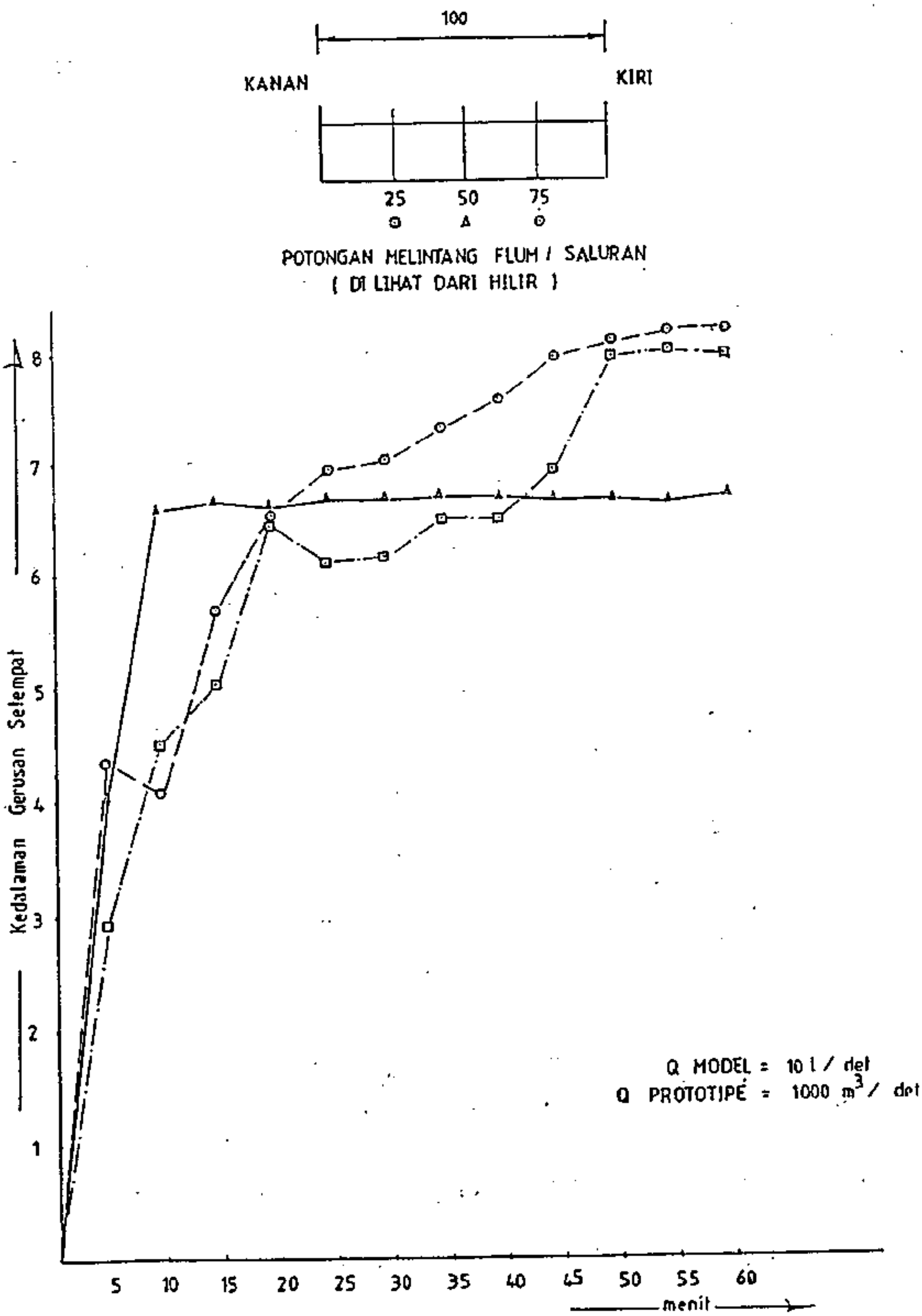


. GERUSAN SETEMPAT DI HILIR SUB DAM

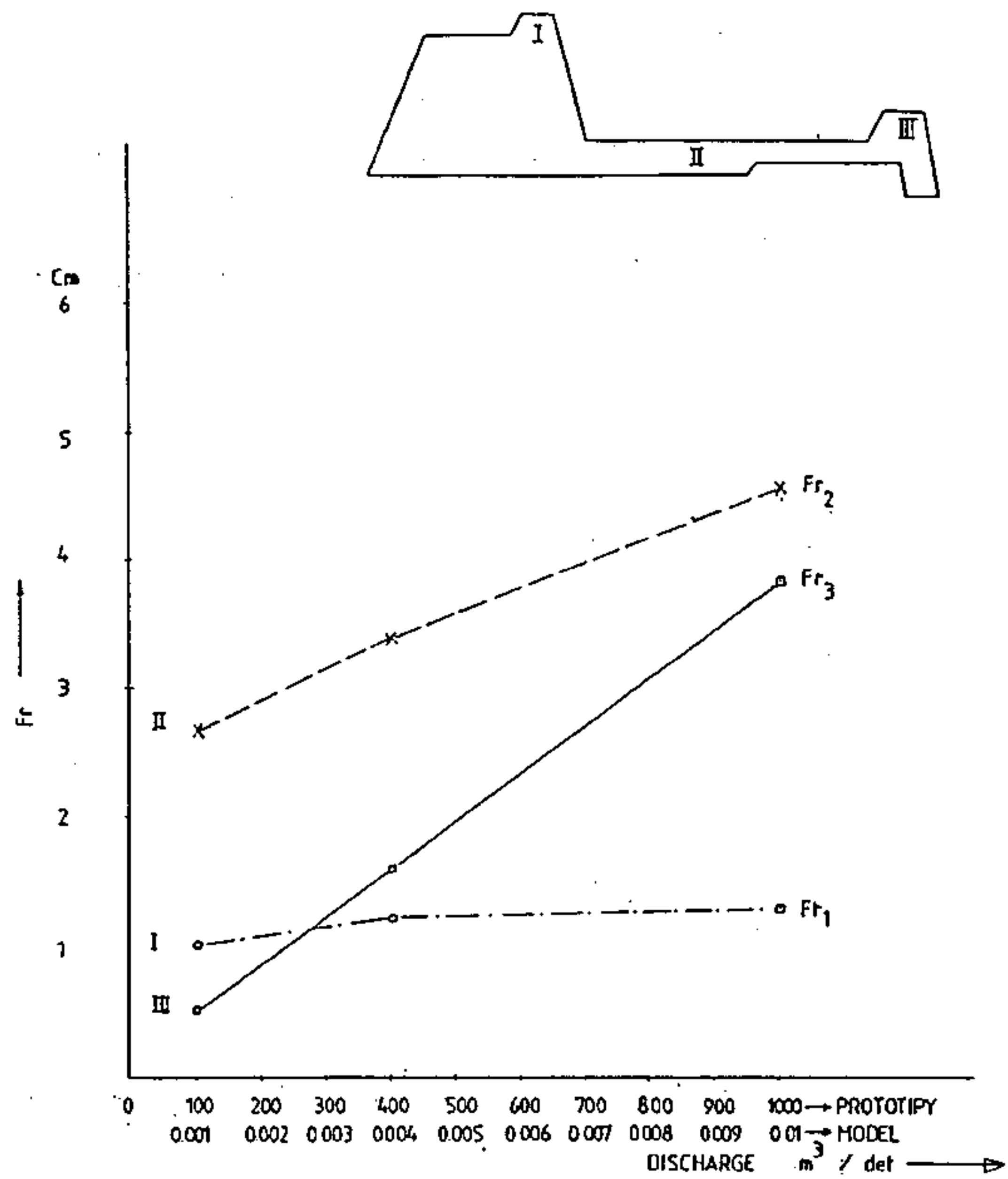
Lampiran 7.b



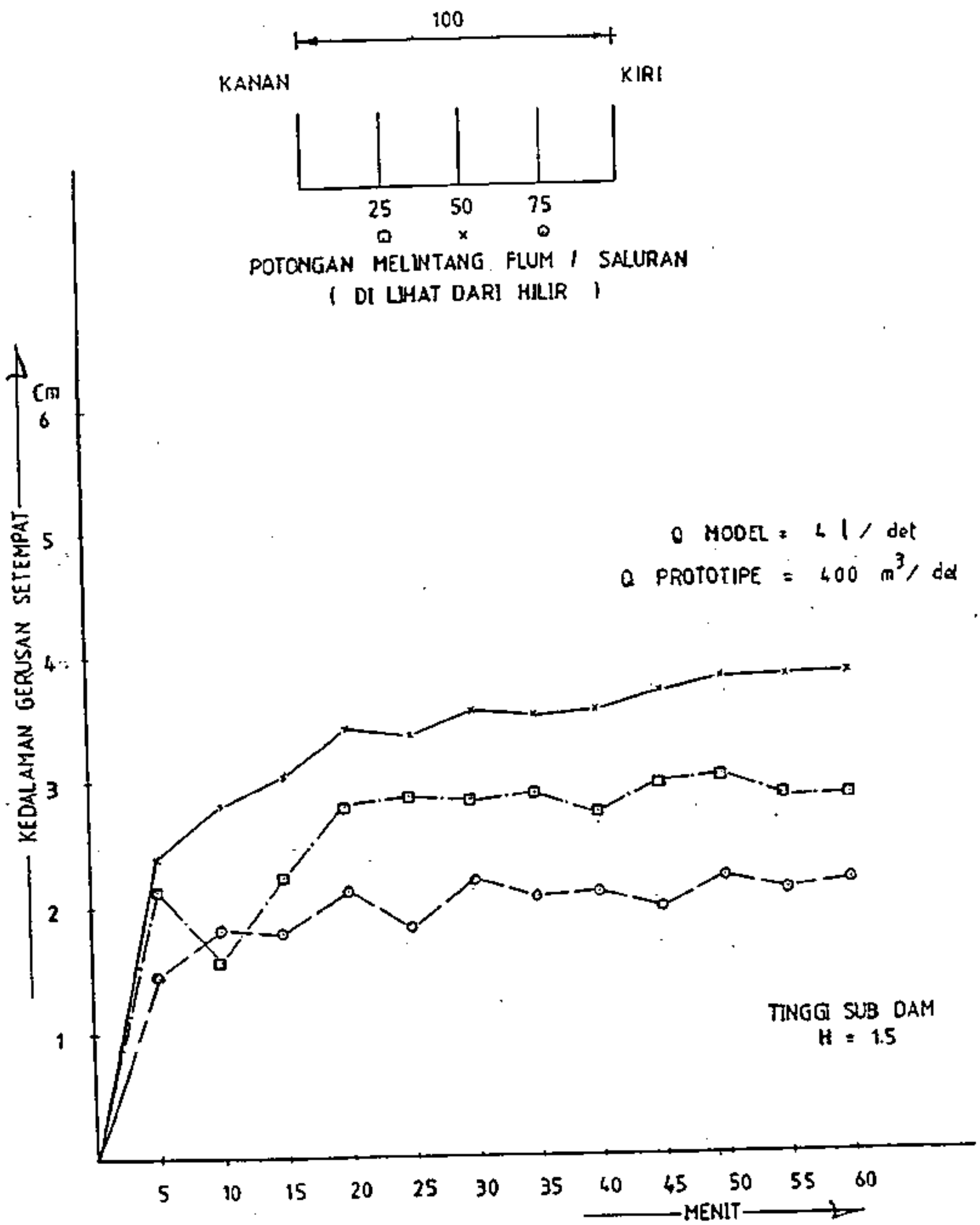
GERUSAN SETEMPAT DI HILIR SUB DAM



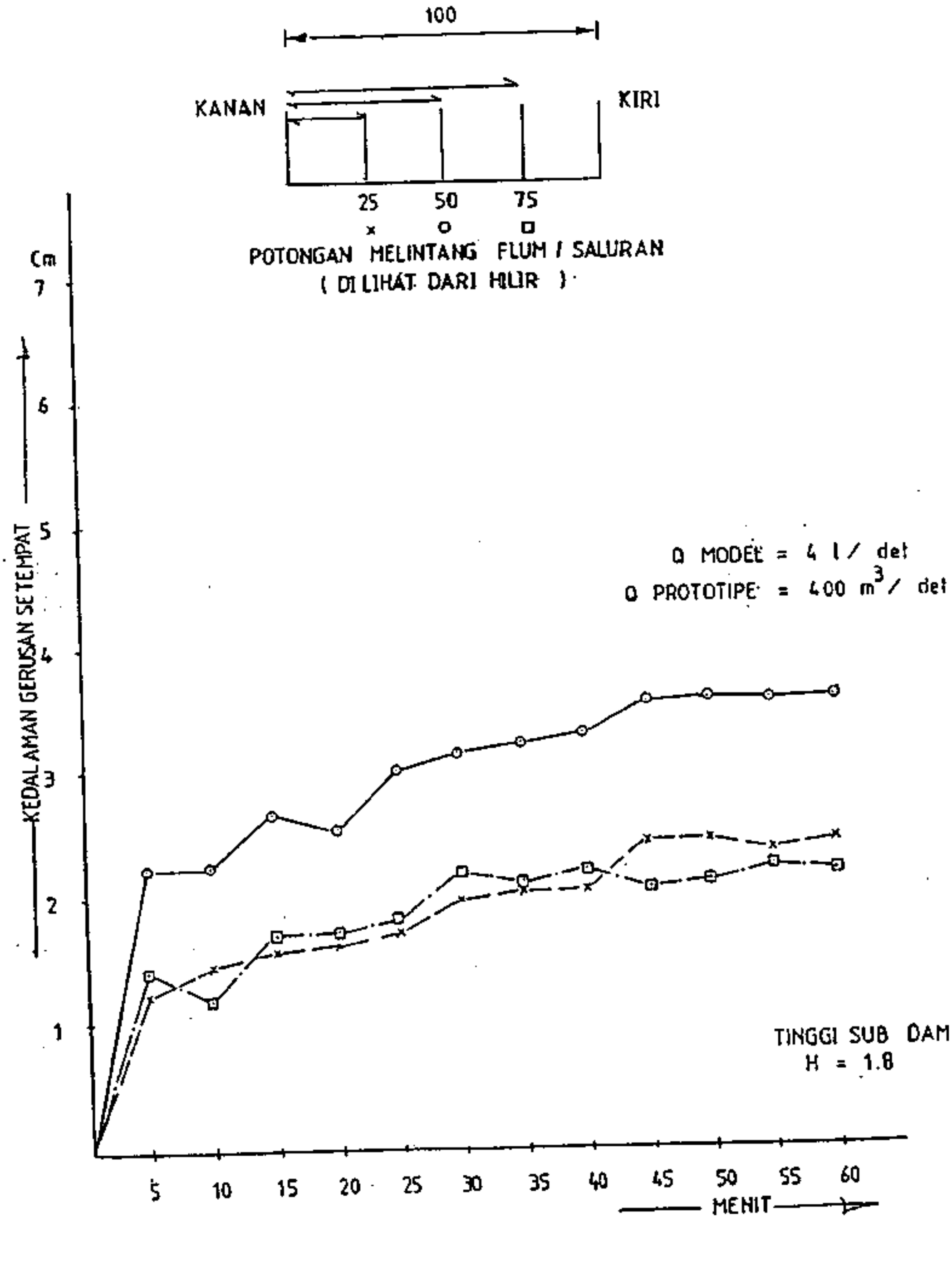
. GERUSAN DI HILIR SUB DAM



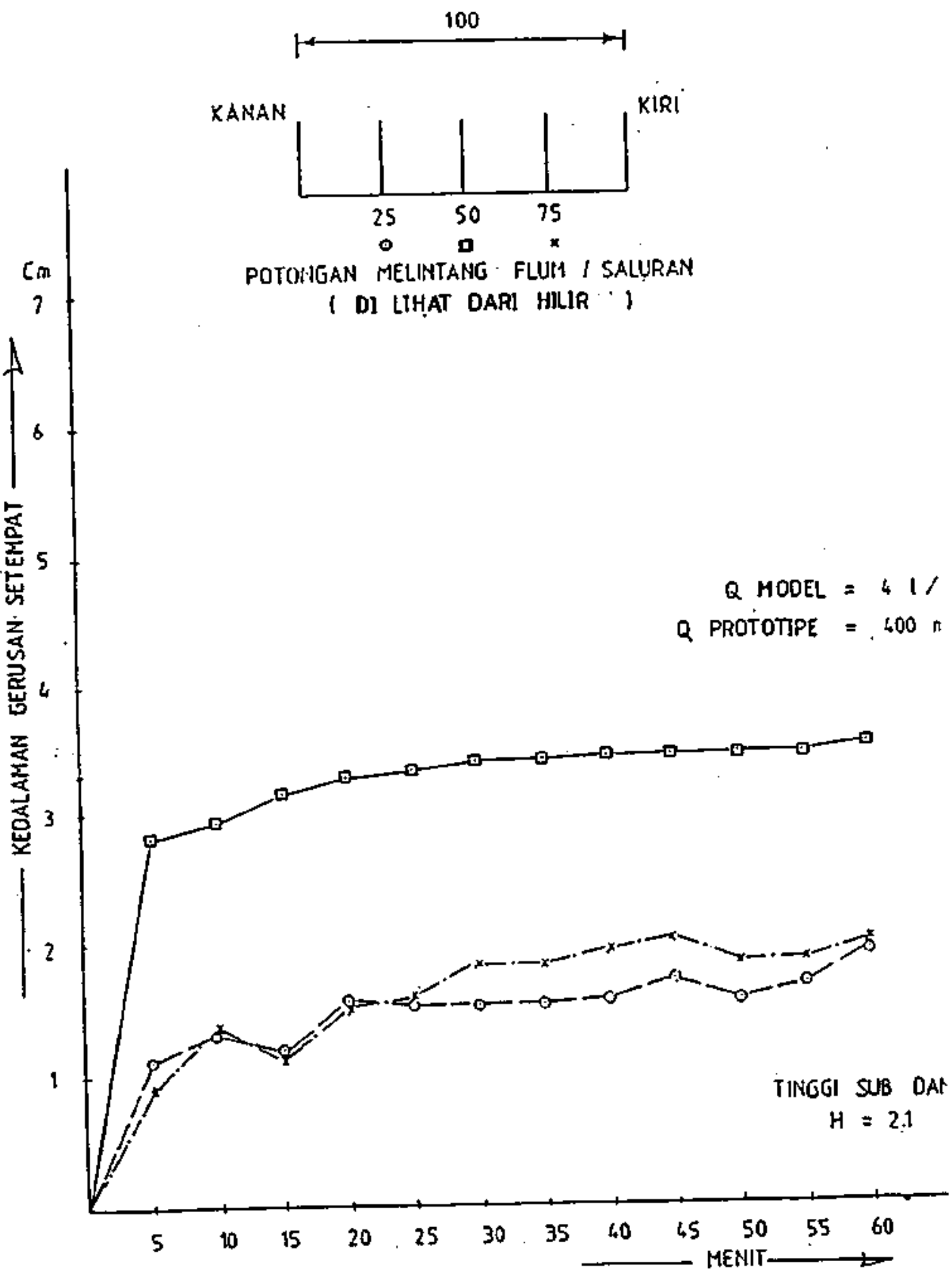
HUBUNGAN ANGKA FROUD NUMBER DENGAN DEBIT



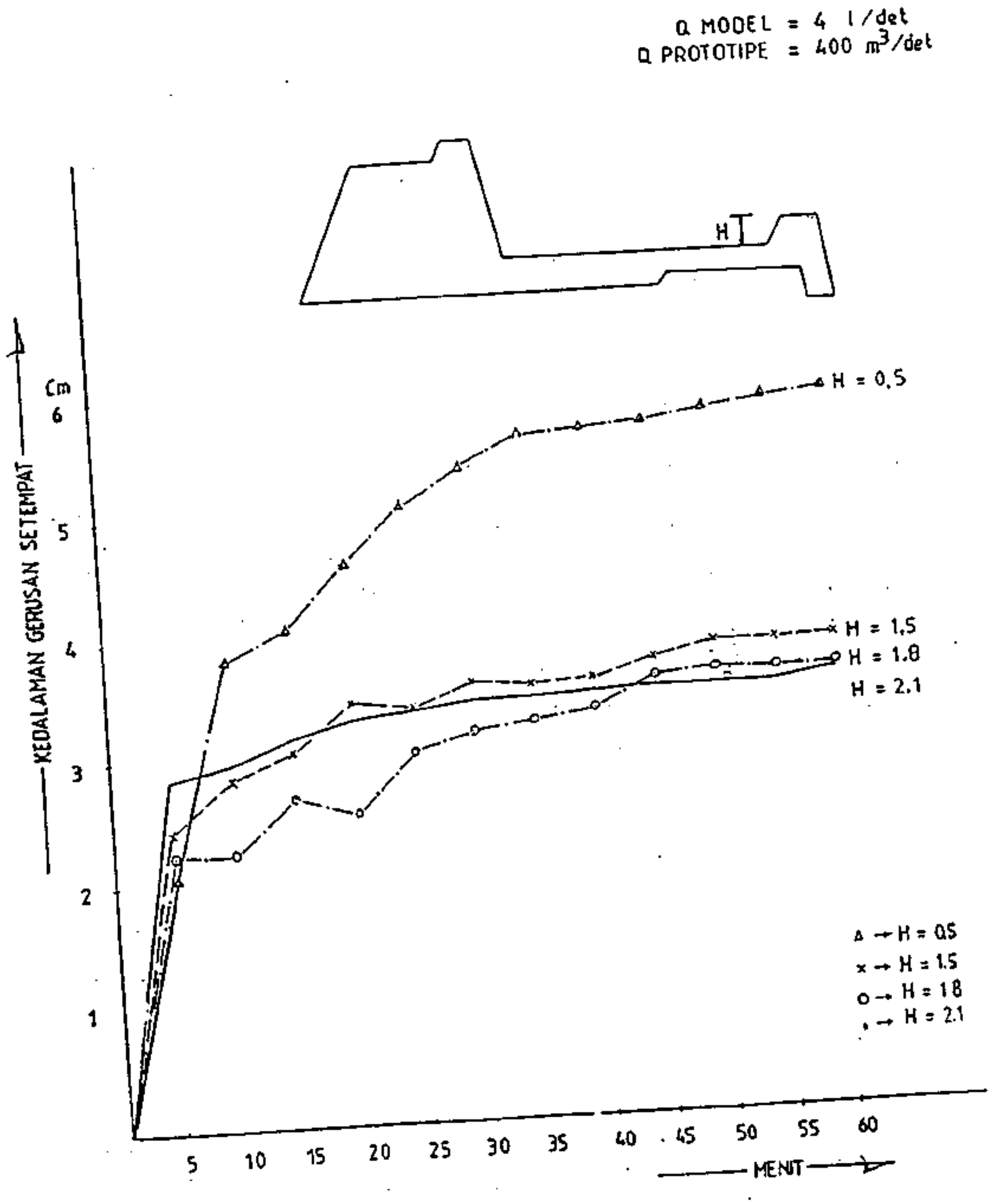
GERUSAN SETEMPAT DI HILIR SUB DAM



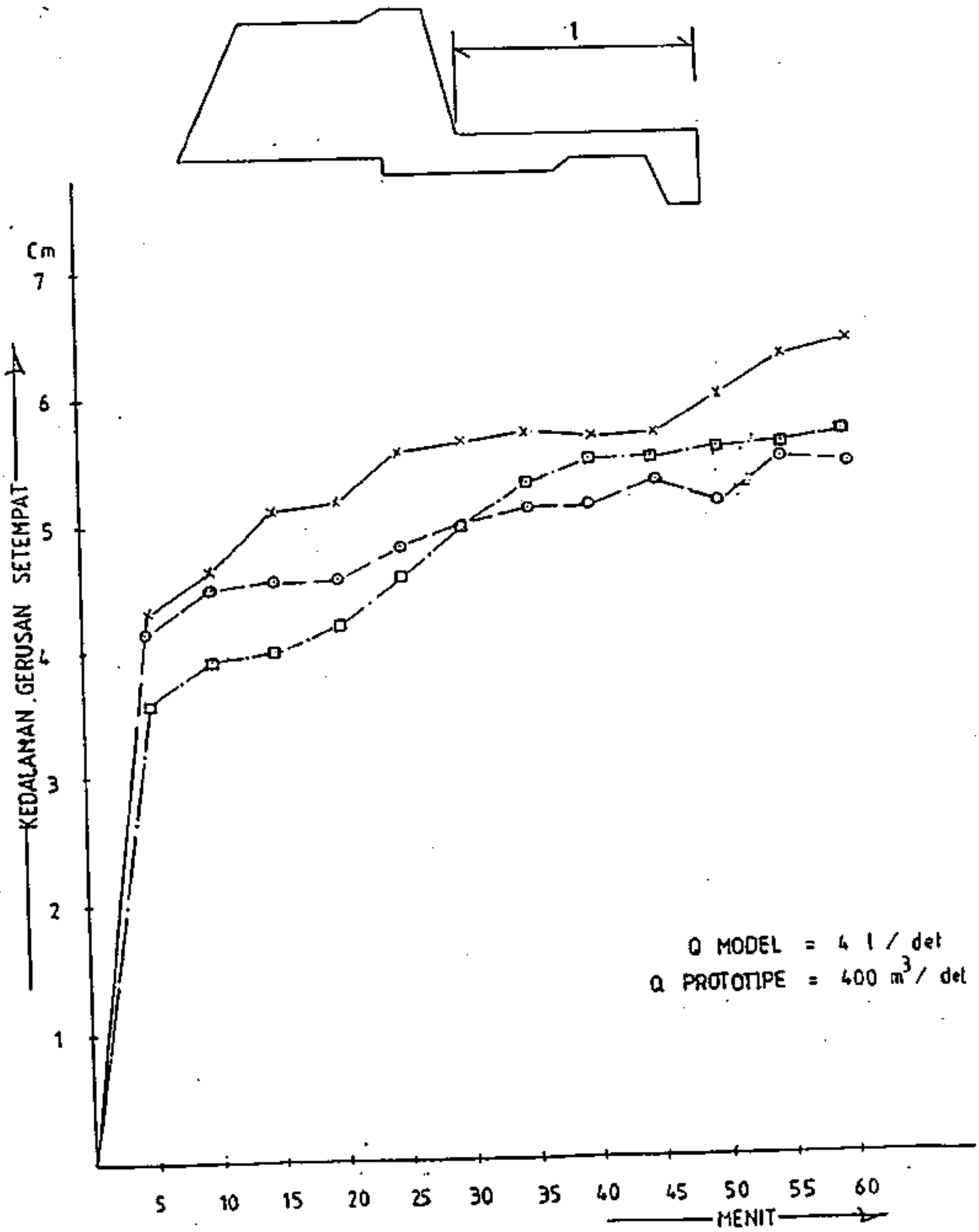
GERUSAN SETEMPAT DI HILIR SUB DAM



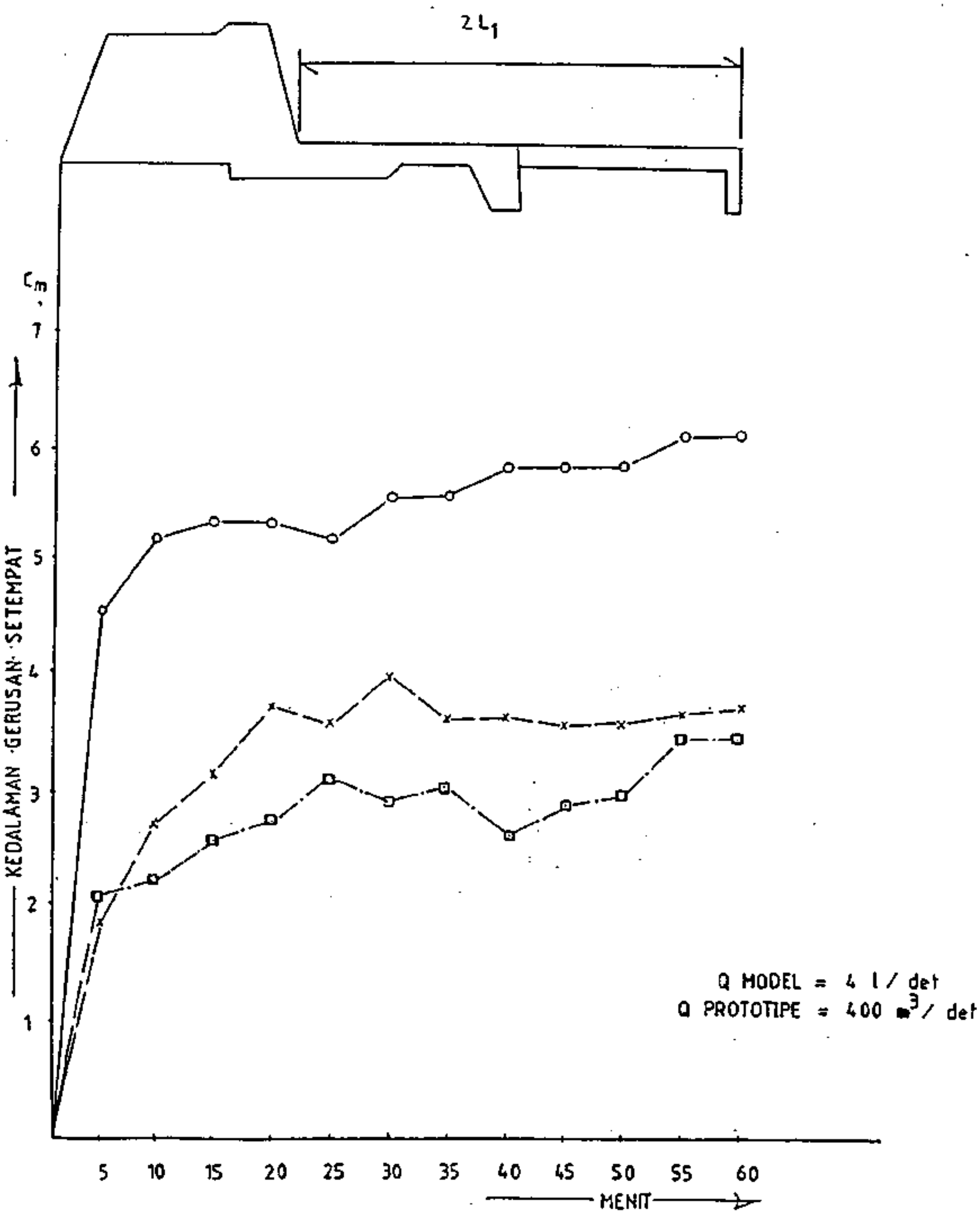
GERUSAN SETEMPAT DI HILIR SUB DAM



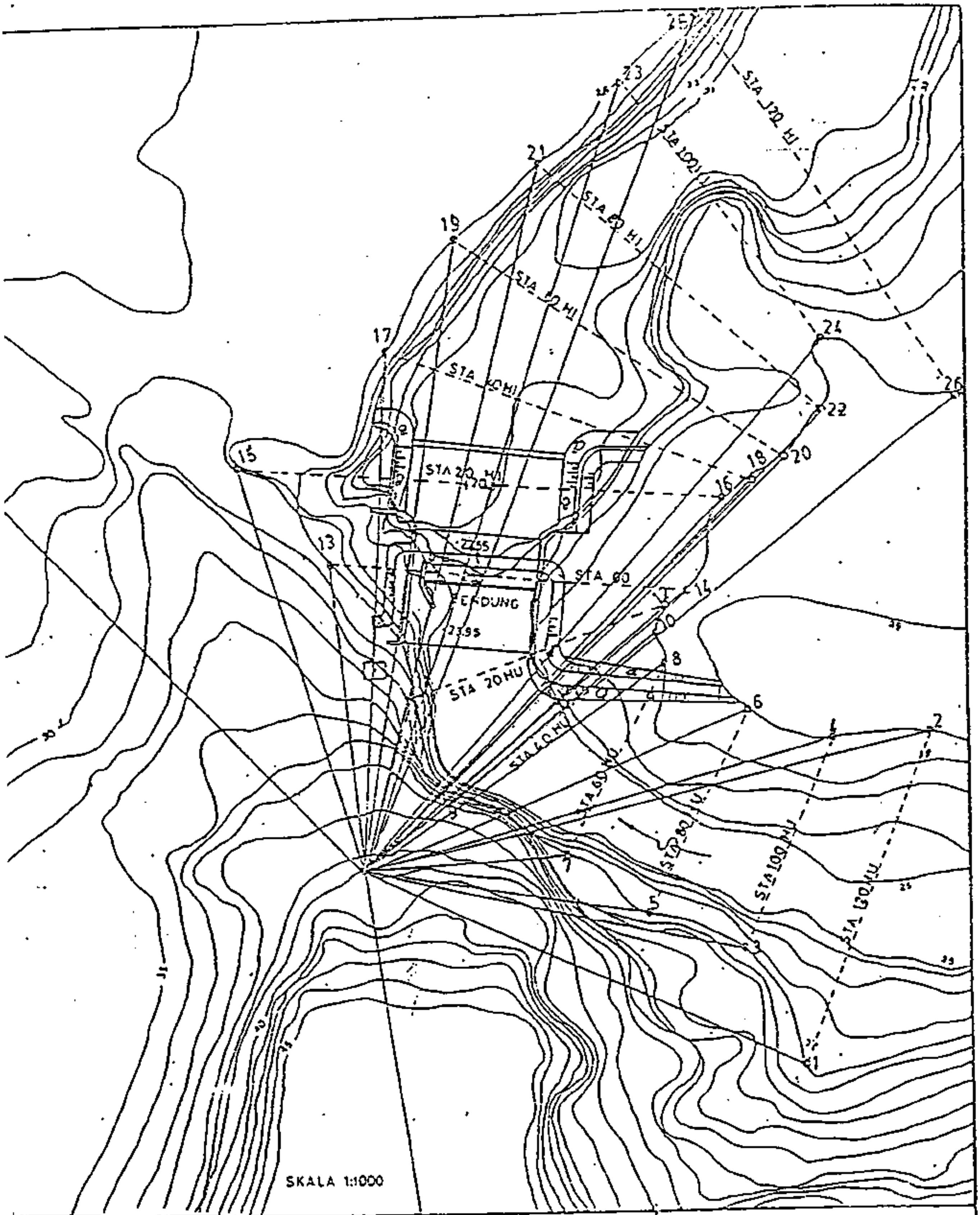
HUBUNGAN ANTARA KEDALAMAN GERUSAN SETEMPAT DI HILIR SUB DAM DENGAN SETIAP PERUBAHAN TINGGI SUB DAM



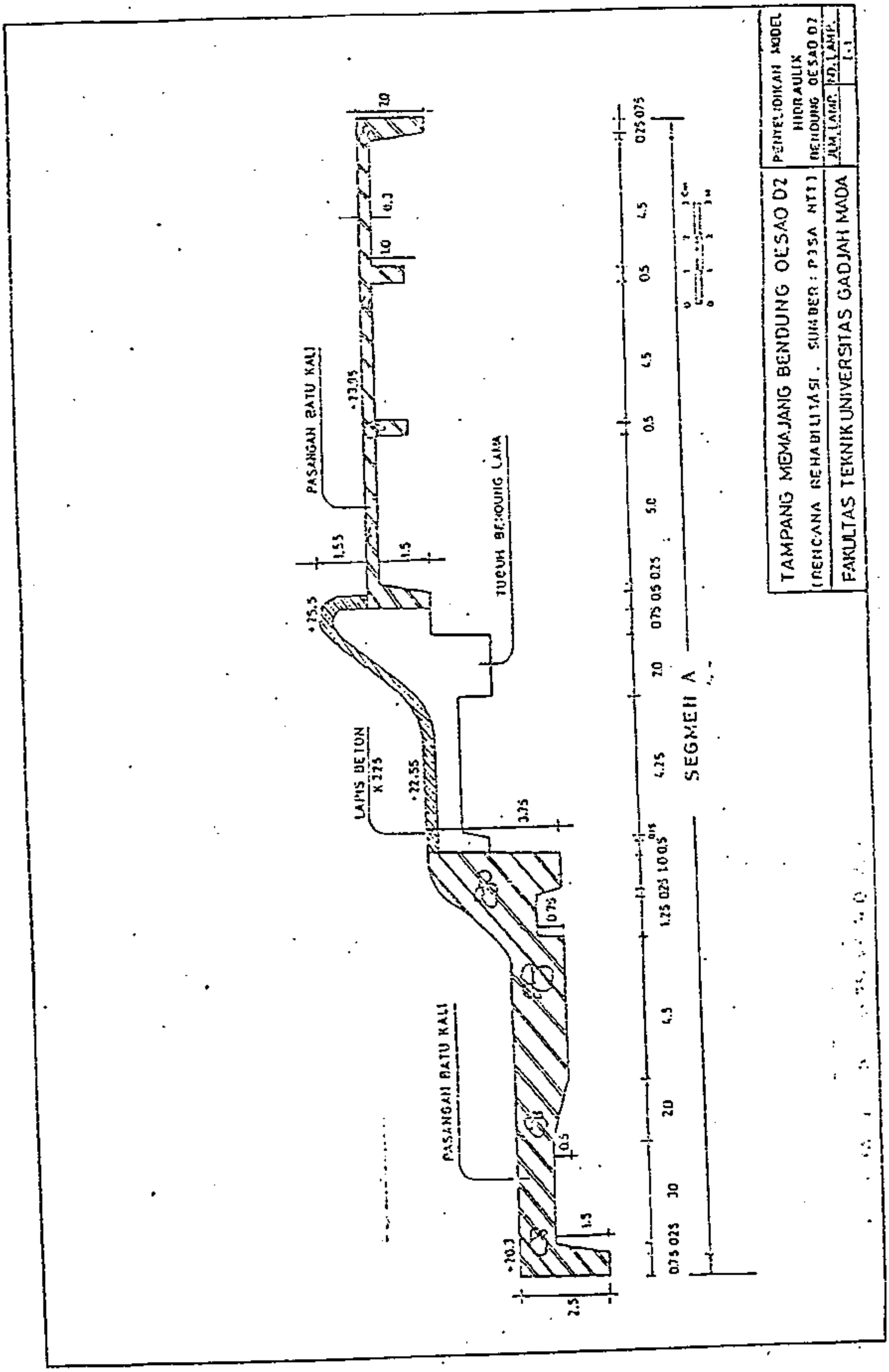
GERUSAN SETEMPAT DI HILIR APRON



GERUSAN SETEMPAT DI HILIR APRON

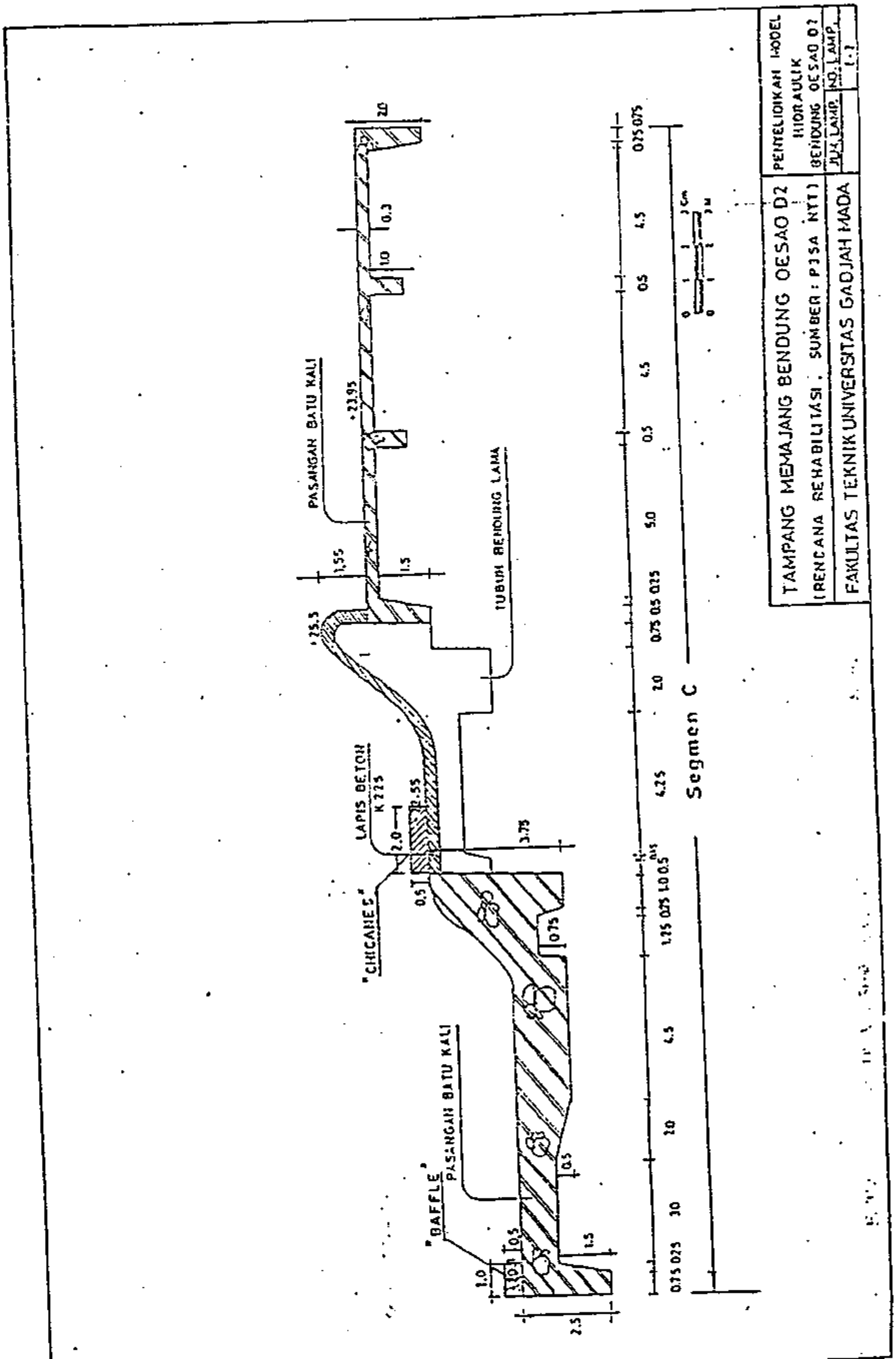


DENAH BENDUNG OESAO D 2 (SUMBER : P3SA NTT)	PENYELIDIKAN MODEL HIDRAULIK BENDUNG OESAO D 2	
	JML. LAMP.	NO. LAMP.



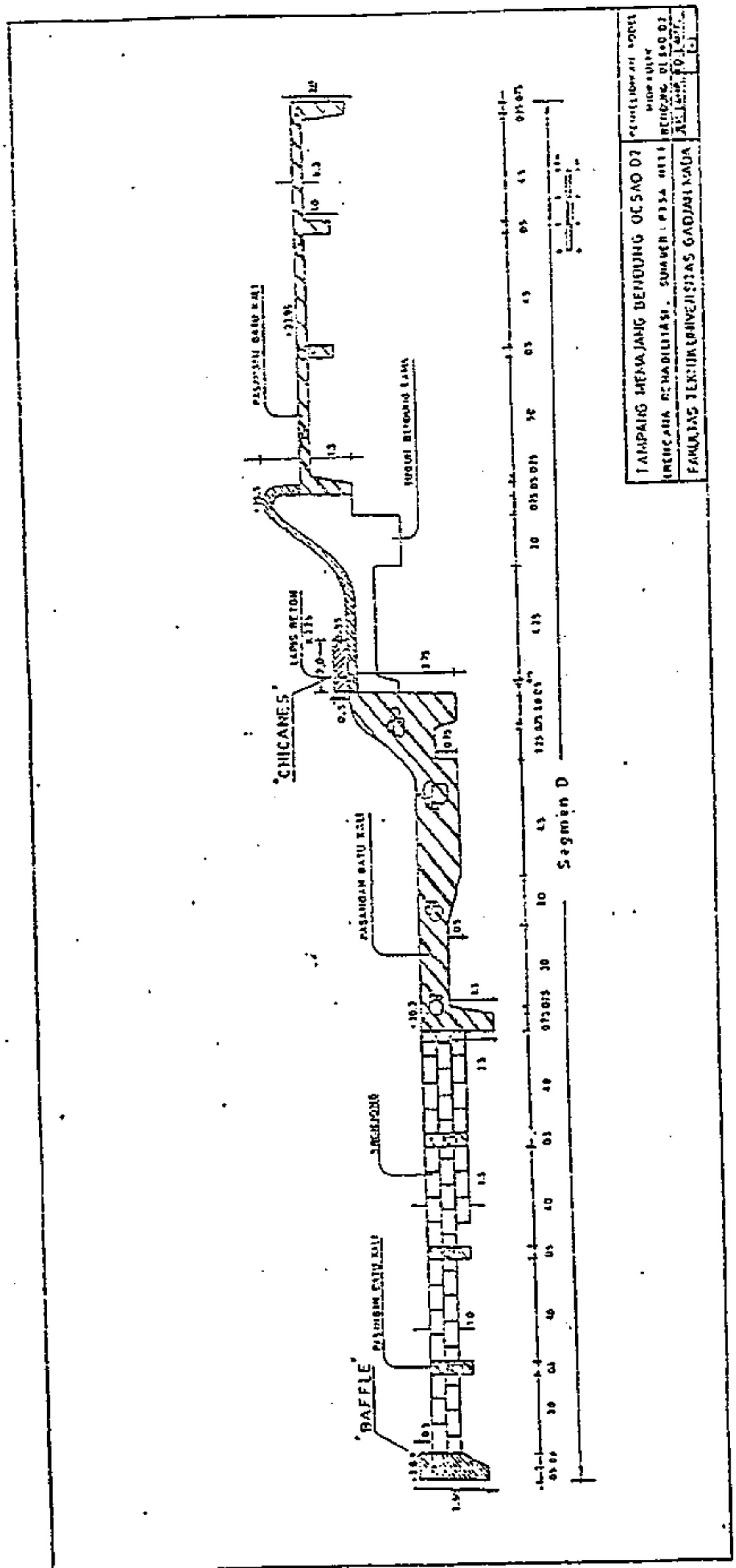
PASANGAN BATU KALI
LAPIS BETON K 225
+22.55
+25.5
1.55
1.5
+23.05
1.0
0.3
2.0
+20.3
2.5
1.5
0.5
0.75
3.75
TUBUH BENDUNG LAMA
0.75 0.25 3.0 2.0 4.5 1.25 0.25 1.0 0.5 0.75 4.25 2.0 0.75 0.5 0.25 5.0 0.5 4.5 0.5 4.5 0.75 0.75
SEGMEN A
TAMPANG MEMAJANG BENDUNG OESAO D2
(RENCANA REHABILITASI . SUMBER : P3SA NTT)
FAKULTAS TEKNIK UNIVERSITAS GADJAH MADA
PENYELIDIKAN MODEL HIDRAULIK BENDUNG OESAO D2
JUM. LAMP.
NO. LAMP.

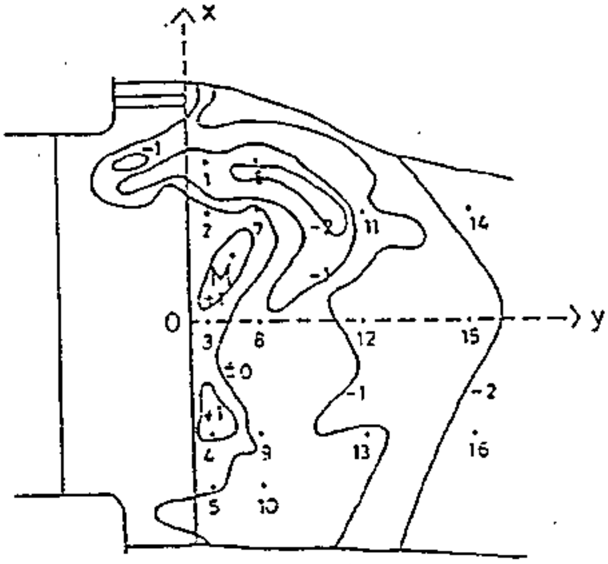
Lampiran 8.c



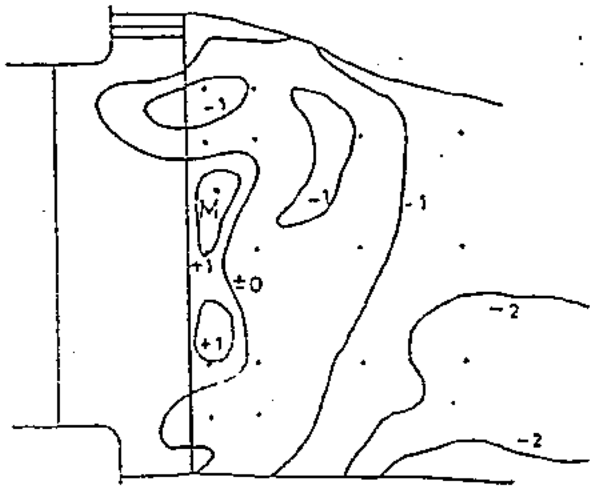
"BAFFLE"
PASANGAN BATU KALI
"CHICANES"
LAPIS BETON
K 225
TUBUH BENDUNG LAMA
PASANGAN BATU KALI
+23.95
+25.5
Segmen C
TAMPANG MEMAJANG BENDUNG OESAO D2
(RENCANA REHABILITASI, SUMBER : P3SA NTT)
FAKULTAS TEKNIK UNIVERSITAS GADJAH MADA
PENYELIDIKAN MODEL HIDRAULIK BENDUNG OESAO D2

Lampiran 8.d

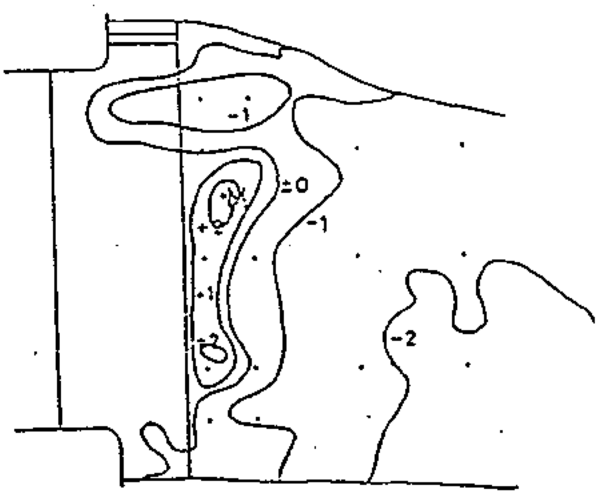




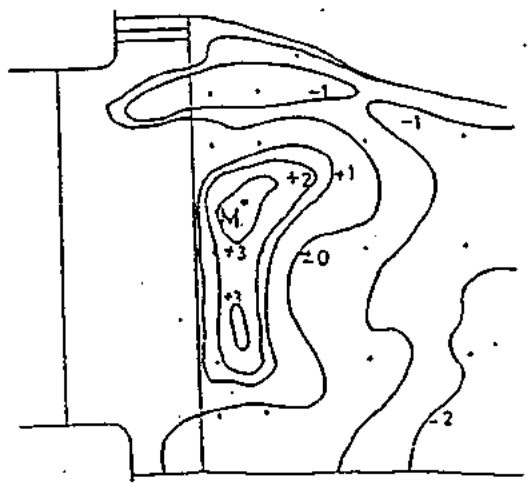
A1_1



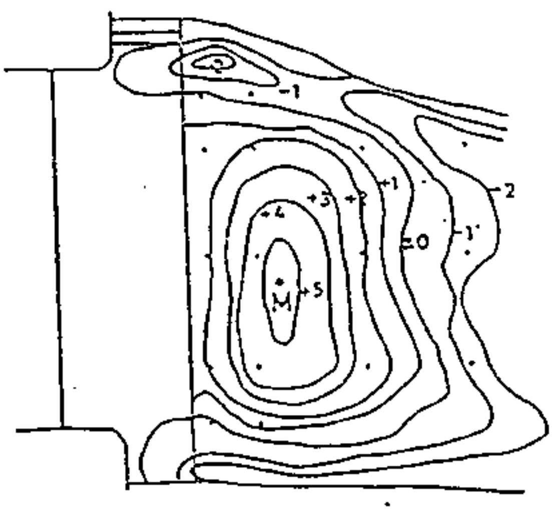
A1_2



A1_3



A1_4

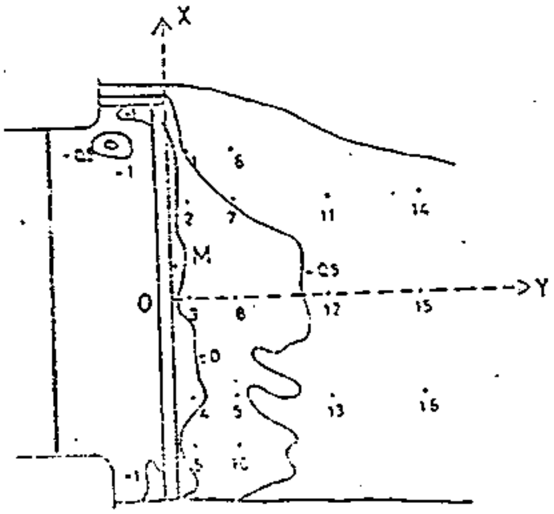


A1_5

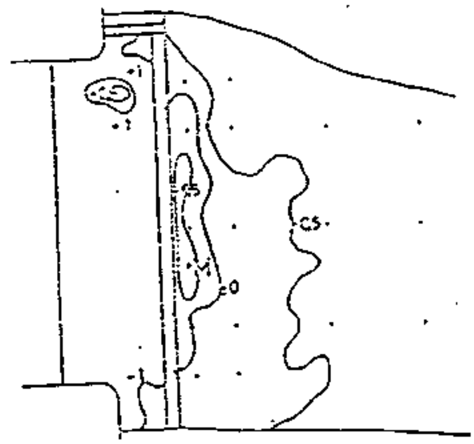
Keterangan:

garis kontur dalam cm (terhadap lantai bawah), tanda + menunjukkan gerusan, tanda – menunjukkan deposisi

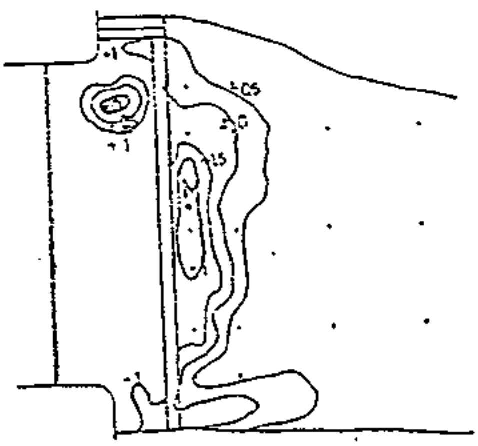
Lampiran 8.f



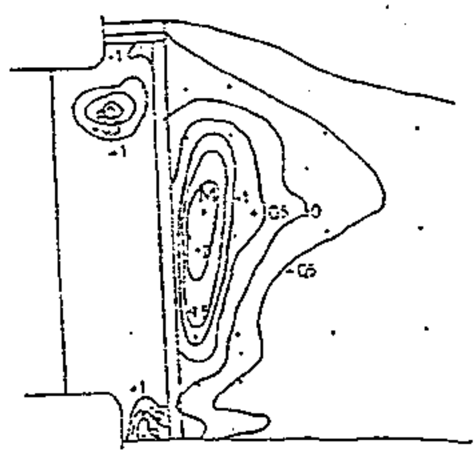
C1$_1$



C1$_2$



C1$_3$



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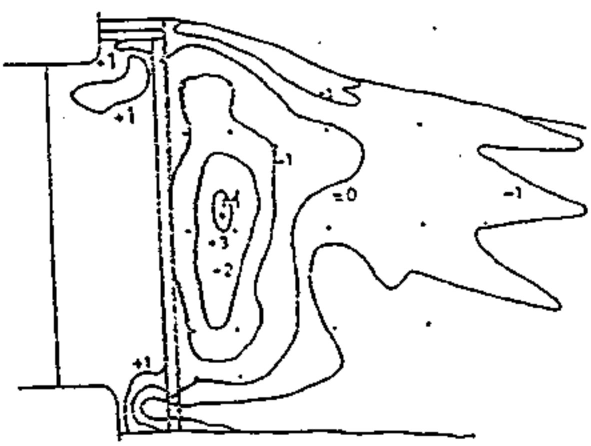
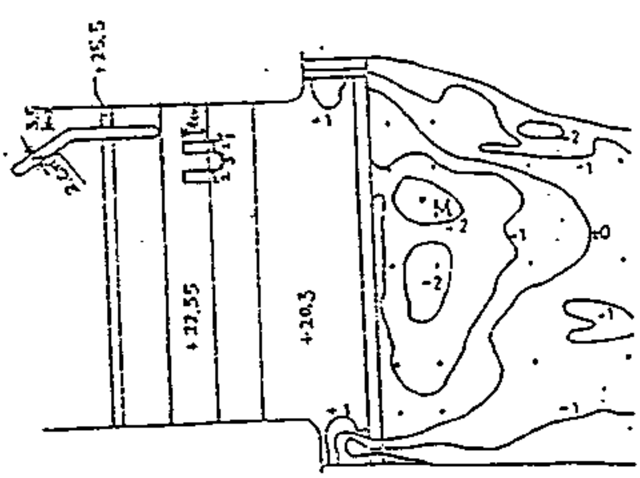


C1$_5$

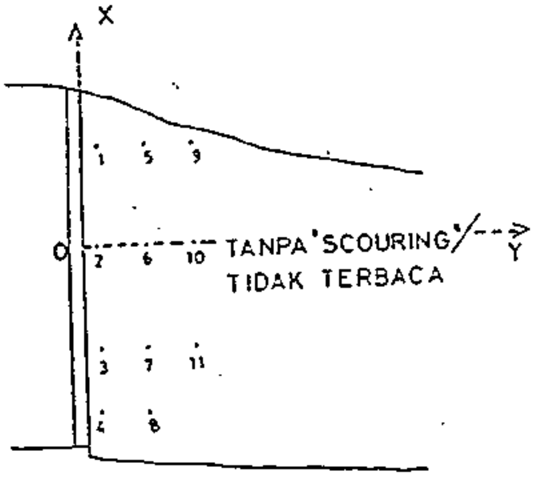


C1$_{5a}$

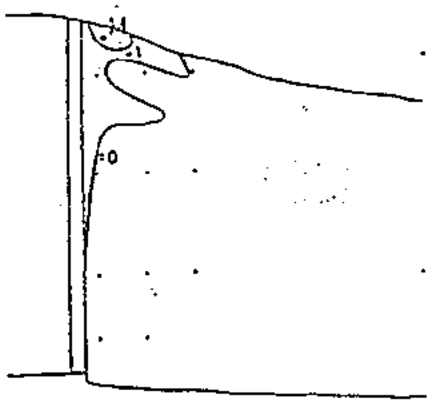
Keterangan :

Garis kontur dalam cm (terhadap "baffle")

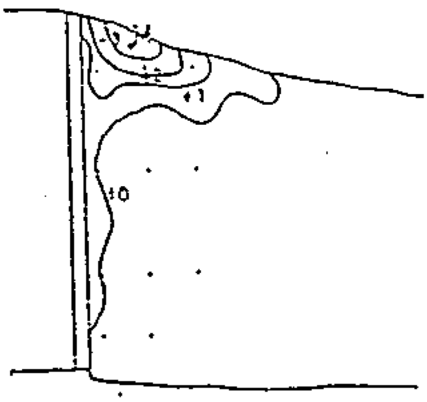
tanda + menunjukan gerusan



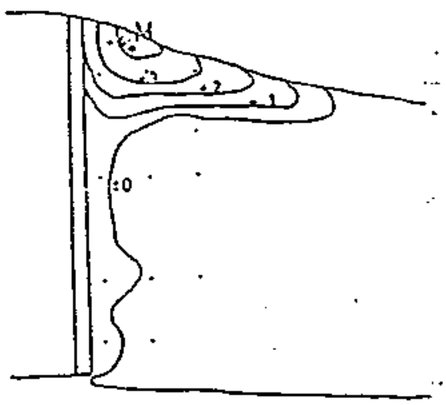
D1$_1$



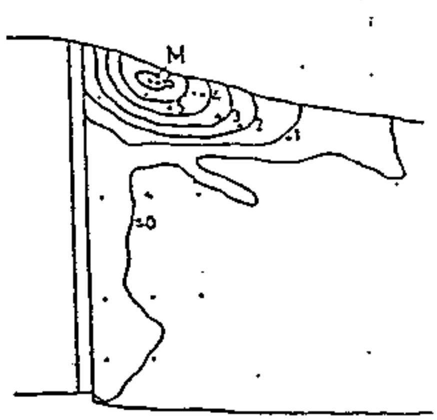
D1$_2$



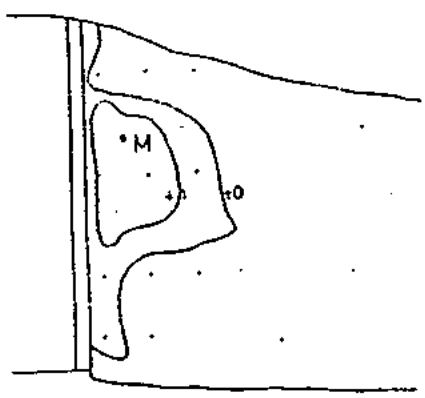
D1$_3$



D1$_4$



D1$_5$



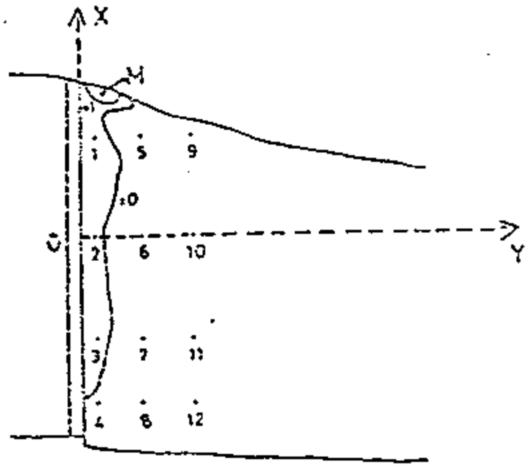
D1$_{5a}$

Keterangan

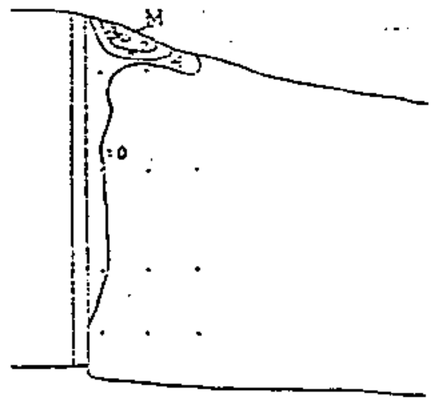
Garis kontur dalam cm (terhadap "baffle")

tanda + menunjukan gerusan

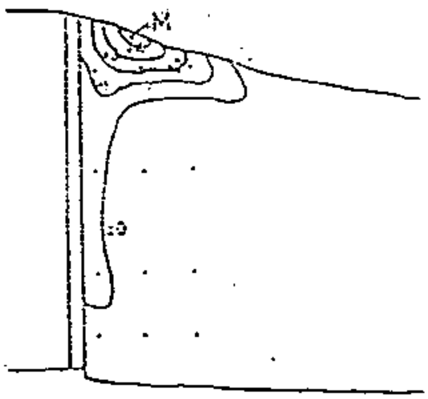
Lampiran 8.h



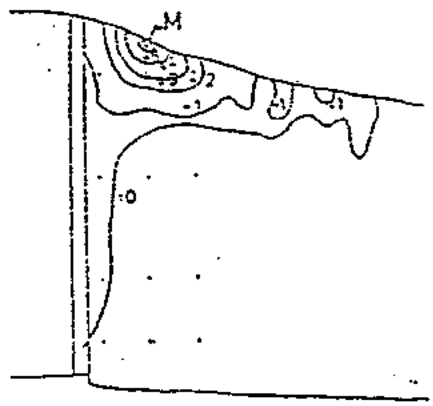
D 2$_1$



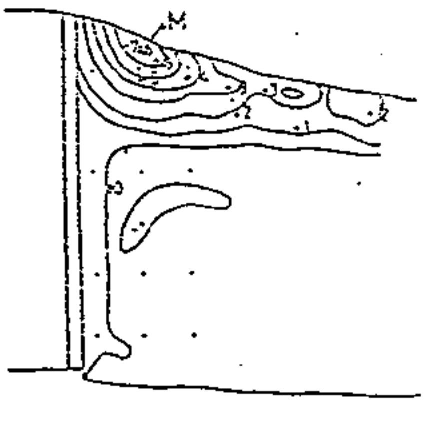
D 2$_2$



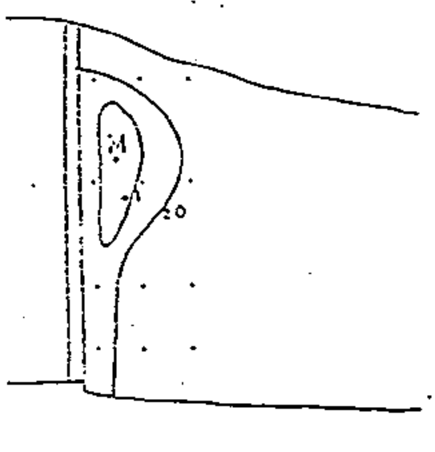
D 2$_3$



D 2$_4$



D 2$_5$



D 2$_{5a}$

Keterangan :

garis kontur dalam cm (terhadap "baffle")
tanda + menunjukkan gerusan, tanda – menunjukkan deposisi

GRAIN SIZE ANALYSIS

Project GENDUNG KUPANG Location PANTAI SAMAS

Test/Boring No. ______ Date 4 MEI 1990

Depth ______ Made by ______

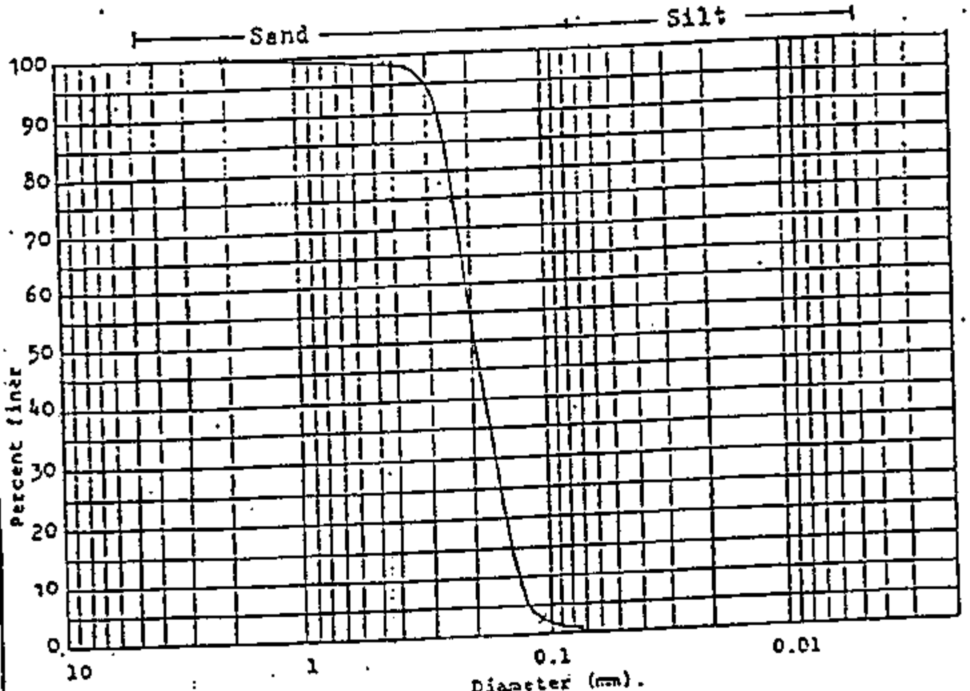
Description of sample Poorly-graded sand

Wt. of sample 302.46 gr.

N o t e ______

Sieve No.	Opening (mm)	Wt. retained (g)	Wt. passing (g)	% finer by weight e/W x 100 %
10	2.0	d1 = 0	e1 = 302.46	100
20	0.65	d2 = 0.15	e2 = 302.31	99.9
40	0.425	d3 = 0.32	e3 = 301.99	99.8
60	0.25	d4 = 72.84	e4 = 229.15	75.8
140	0.106	d5 = 219.45	e5 = 9.7	3.2
200	0.075	d6 = 5.02	e6 = 0.65	0.2
PAN		Σd = 301.78		

% lost = ______



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MEKANIKA TANAH
FT UGM

GRAIN SIZE ANALYSIS

Project BENDUNG KUPANG Location KALI KRASAK

Test/Boring No. DESAD. D.2. Date 4 MEI 1990

Depth Made by

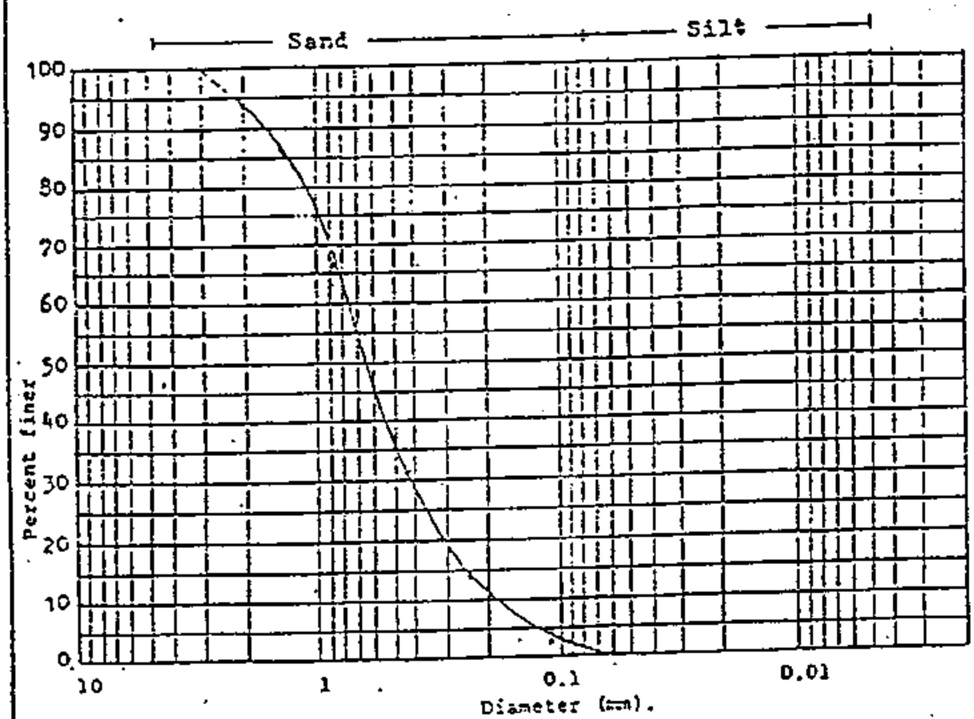
Description of sample Poorly-graded sand

Wt. of sample 301.35 TC

N o t e

Sieve No.	Opening (mm)	Wt. retained (g)	Wt. passing (g)	% finer by weight e/W x 100 %
10	2.0	d1 = 17.18	e1 = 284.17	94.3
20	0.85	d2 = 82.65	e2 = 201.52	66.9
40	0.425	d3 = 108.50	e3 = 93.02	30.9
60	0.25	d4 = 49.44	e4 = 43.58	14.5
140	0.106	d5 = 35.83	e5 = 7.75	2.6
200	0.075	d6 = 4.24	e5 = 3.51	1.2
PAN		Σd = 297.84		

% lost =



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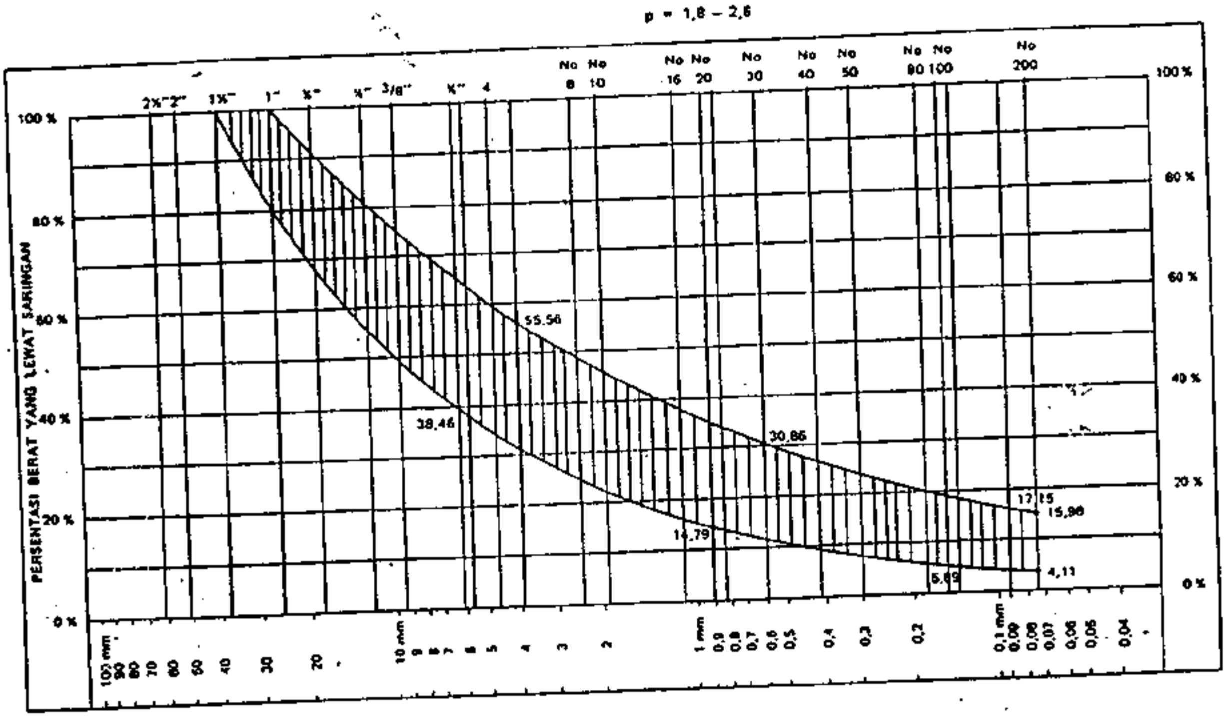
FT UGM

Lampiran 9.c

BATAS – BATAS TOLERANSI GRADASI TANAH SIRTU II

UKURAN BUTIR MAX D = 1" – 1½"

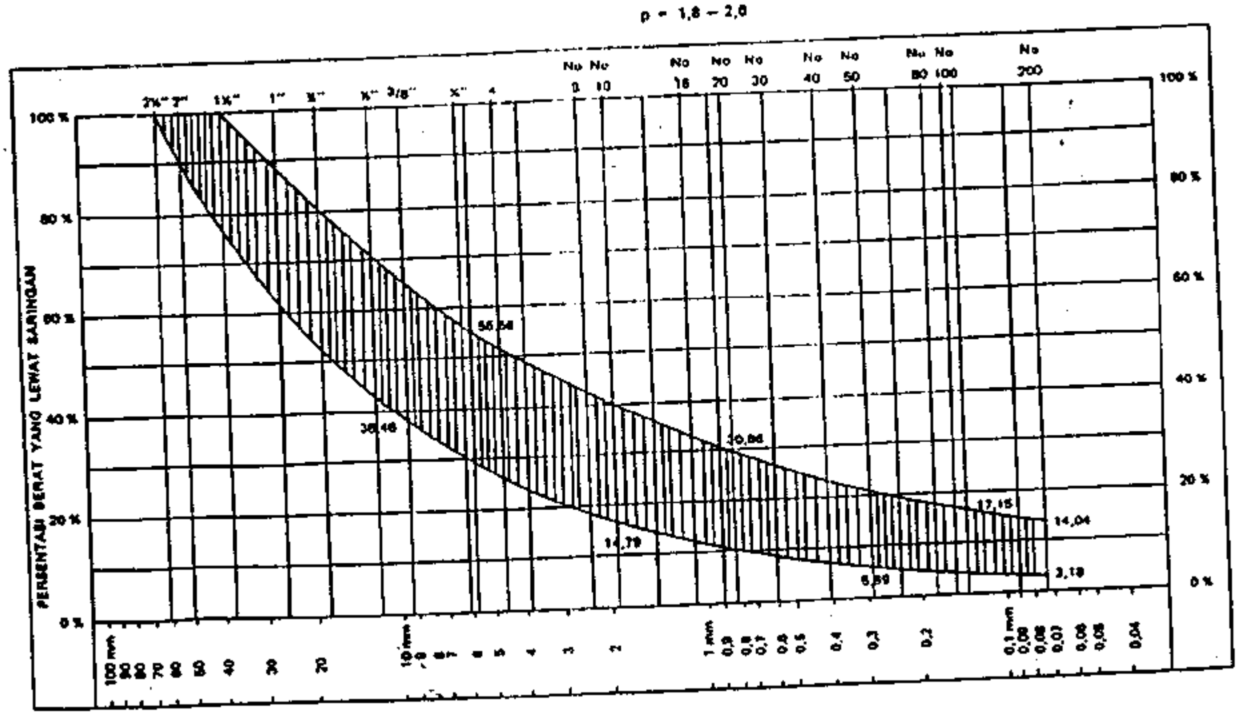
p = 1,8 – 2,6



BATAS – BATAS TOLERANSI GRADASI TANAH SIRTU I

UKURAN BUTIR MAX D = 1½" – 2½"

p = 1,8 – 2,6



UNIVERSITAS ISLAM INDONESIA
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
JURUSAN TEKNIK SIPIL
Jl. Kaliurang Km. 14,4 Telp. 95330 Yogyakarta

KARTU PESERTA TUGAS AKHIR

No.	N a m a	No. Mhs.	N.I.R.M.	Bidang Studi

Dosen Pembimbing I :
Dosen Pembimbing II :

1

2

Yogyakarta,
D e k a n,

CATATAN - KONSULTASI

No.	Tanggal	Konsultasi ke:	KETERANGAN	Paraf
—				
—				
3	01-06-95	ke 3	- Dapat di teruskan - Tabel dan gbr di perjelas - Penggunaan istilah asing harus ...	
4	24-06-95	ke 4	- Setting mesin yang lain harus diteruskan. - Rumusan pembahasan	
5	29-06-95	ke 5	- Lanjutkan	
6	20-07-95	ke 6	- Metodologi penelitian - tampilkan grafik / program - lanjutkan ke pembahasan.	
7	03-08-95	ke 7	- posisi tabel harus diberi nomor - Jadikan satu grafik lab ...	
8	15-08-95	ke 8	- lanjutkan dengan kesimpulan. — Saran yg valid dan sistematis — ajukan uji (lampiran)	
9	14-09-95	ke 9	— program lebih baik flow chart siap ujian dari ini.	

hal 6-8 ... (x) — lihat pembahasan hasil hal 33 →

(1) hal 18 ... ACC — ... ke P. Hary (2) ~~hal 21~~? (3) hal 26 & 27 B25? (Rumus