UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Andayono, T., *"Kajian Lokasi Pengambilan Sampel Terhadap Penentuan Debit Sedimen Suspensi dengan dan Tanpa Angkutan Bed Load"*, Tesis S-2, Universitas Gadjah Mada, Yogyakarta.

Atmodjo, U.S., dan Kironoto, B.A, 2001, "*Distribusi Sedimen Suspensi Pada Aliran Seragam Saat Awal Gerak Butiran Sedimen Dasar*", Tesis S-2, Universitas Gadjah Mada, Yogyakarta.

Chien, N., and Wan, Z., 1999, *"Mechanics of Sediment Transport"*, American Society of Civil Engineers, Virginia.

Chow, V.T., 1997, *"Hidrolika Saluran-Terbuka"* (terjemahan), Penerbit : Erlangga, Jakarta.

Einstein, H. A., and Chien , N., 1995, "*Effect of Heavy Sediment Concentration Near the Bed on Velocity and Sediment Distribution*", M.R.D. Sediment Series No.8, University of California, Barkeley, California.

Garde, R.J. and Raju, K.G.R., 1997, "*Mechanics of Sediment Transportations and Alluvial Stream Problems*", 2nd Edition, Wiley Eastern limited, New Delhi.

Graf, W.H., 1971, "*Hydraulics of Sediment Transport*", Mc Graw-Hill Book Company, New York.

Kironoto, B.A.,1993,"*Turbulence Characteristics of Uniformand Non-Uniform Rough Open-Channel Flow*", Doctoral Disertation No.1094, Ecole Plytechnique Federale de Lausanne (EPFL), Switzerland.

Kironoto, B.A., and Graf, W.H., 1994, "*Turbulence Characteristics in Rough Uniform Open-Channel Flow*", Water Maritime and Energy-Proceedings of The Institution of Civil Engineers, 106, 33-334.

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kironoto, B.A., 1997, "*Diktat Kuliah Hidraulika Transpor Sedimen*", Program Studi Teknik Sipil Pascasarjana Universitas Gadjah Mada, Yogyakarta.

Lutjito, 2002, *"Sedimen Suspensi Pada Kondisi Aliran Diperlambat dalam Saluran Terbuka"*, Tesis S-2, Universitas Gadjah Mada, Yogyakarta

Nindito, D.A., 2003, "*Kajian Pengambilan Sampel pada Titik Pengukuran 1,2,3*", Tugas Akhir S-1, Universitas Gadjah Mada, Yogyakarta.

Rijn, L.C.V., 1984, *"Sediment Transport, Part II : Suspended Load Transport"* ,Journal of Hydraulic Engineering, Vol.110,No.11, ASCE, pp.1613-1641.

Triatmodjo, B., 1996 *"Hidraulika II"*, Edisi kedua, Beta Offset, Yogyakarta.

Vanoni, V.A, 1977, "*Sedimentation Engineering*", 2nd Edition, The ASCE Task Committee Headquarters of The Society, New York.

White, M., Frank, 1986, *"Fluid Mechanics"*, International Student Edition.

Yang, C.T, 1996, "*Sediment Transport Theory and Practice*", The Mc Graw-Hill Companies, Inc, United Stated of America.

UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Çahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 1

UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

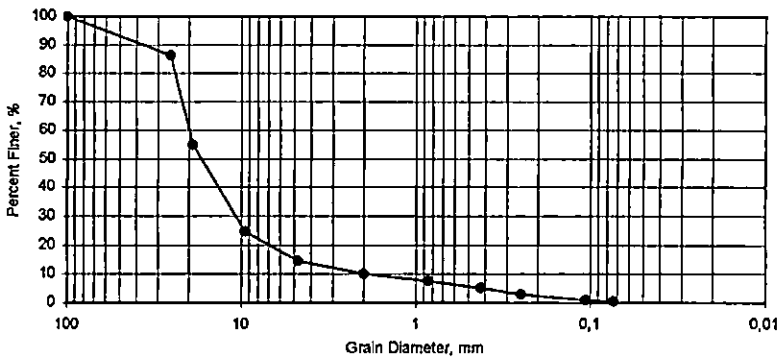
GRAIN SIZE ANALYSIS

Project : *Penelitian Sedimen Suspensi (Bedload)*
Location : Saluran Induk Mataram
No. : -

Depth : -
Date : 5 - 3 - 2005
Made by : Ris

Specific Gravity _____

Description of soil _____



SOIL MECHANICS LABORATORY - CIVIL ENGINEERING DEPT.- GADJAH MADA UNIVERSITY

Bastin

UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 2

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 1

(Dinding pasangan batu kali)

Suhu = 28 C; B =3,5 m; D = 105 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode	Koordinat (cm)		Sw	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q1T1H12		95						5,554	142,81013	45,198658	3,7420582	0,950							
Q1T1H11		90						5,554	145,948	46,189775	3,687991	0,900							
Q1T1H10		75						5,584	141,102	44,655961	3,5056694	0,750							
Q1T1H9		60						5,605	138,661	43,883537	3,2825259	0,600							
Q1T1H8		45						5,677	135,697	42,945594	2,9948438	0,450							
Q1T1H7	175	30	0,0006747	350	105	65,625	28	5,716	131,862	41,731785	2,5893787	0,300	0,4375	20,149	67,086	8,0596	8,3237382	129,03431	6,0195708
Q1T1H6		24						5,758	127,678	40,407629	2,3662351	0,240							
Q1T1H5		20						5,852	113,731	35,993778	2,1839136	0,200							
Q1T1H4		16						5,938	103,794	32,848908	1,96077	0,160							
Q1T1H3		12						6,024	101,005	31,966138	1,6730879	0,120							
Q1T1H2		8						6,109	91,765	29,041962	1,2676228	0,080							
Q1T1H1		4						6,195	79,475	25,152255	0,5744757	0,040							
Q1T2H12		95						5,510	141,067	44,644927	3,7420582	0,950							
Q1T2H11		90						5,508	140,718	44,53458	3,687991	0,900							
Q1T2H10		75						5,538	137,441	43,497325	3,5056694	0,750							
Q1T2H9		60						5,558	133,780	42,338689	3,2825259	0,600							
Q1T2H8		45						5,628	131,165	41,511092	2,9948438	0,450							
Q1T2H7	131	30	0,0006747	350	105	65,625	28	5,662	129,247	40,904188	2,5893787	0,300	0,3275	17,788	63,82	7,1144	8,9705386	124,63676	5,9672314
Q1T2H6		24						5,704	126,283	39,966244	2,3662351	0,240							
Q1T2H5		20						5,798	106,235	33,621332	2,1839136	0,200							
Q1T2H4		16						5,883	96,298	30,476463	1,96077	0,160							
Q1T2H3		12						5,969	93,683	29,648866	1,6730879	0,120							
Q1T2H2		8						6,054	82,700	26,172958	1,2676228	0,080							
Q1T2H1		4						6,141	76,424	24,186725	0,5744757	0,040							
Q1T3H12		95						5,218	134,983	42,719384	3,7420582	0,950							
Q1T3H11		90						5,213	135,680	42,940077	3,687991	0,900							
Q1T3H10		75						5,235	134,041	42,421449	3,5056694	0,750							
Q1T3H9		60						5,257	131,513	41,621438	3,2825259	0,600							
Q1T3H8		45						5,311	128,550	40,683495	2,9948438	0,450							
Q1T3H7	87,5	30	0,0006747	350	105	65,625	28	5,373	125,935	39,855898	2,5893787	0,300	0,21875	16,989	63,054	6,7956	9,2786509	121,47653	5,6328724
Q1T3H6		24						5,374	122,448	38,752435	2,3662351	0,240							
Q1T3H5		20						5,453	104,143	32,959255	2,1839136	0,200							
Q1T3H4		16						5,527	94,206	29,814386	1,96077	0,160							
Q1T3H3		12						5,601	90,545	28,65575	1,6730879	0,120							
Q1T3H2		8						5,675	81,131	25,6764	1,2676228	0,080							
Q1T3H1		4						5,749	75,378	23,855686	0,5744757	0,040							
Q1T4H12		95						5,106	129,247	40,904188	3,7420582	0,950							
Q1T4H11		90						5,105	131,339	41,566265	3,687991	0,900							
Q1T4H10		75						5,140	128,724	40,738668	3,5056694	0,750							
Q1T4H9		60						5,153	127,678	40,407629	3,2825259	0,600							
Q1T4H8		45						5,199	125,063	39,580032	2,9948438	0,450							
Q1T4H7	44	30	0,0006747	350	105	65,625	28	5,236	122,448	38,752435	2,5893787	0,300	0,11	14,015	63,392	5,606	11,307884	117,1716	5,5130077
Q1T4H6		24						5,237	116,172	36,766202	2,3662351	0,240							
Q1T4H5		20						5,322	100,482	31,800619	2,1839136	0,200							
Q1T4H4		16						5,400	87,407	27,662633	1,96077	0,160							
Q1T4H3		12						5,479	83,049	26,283304	1,6730879	0,120							
Q1T4H2		8						5,557	79,039	25,014322	1,2676228	0,080							
Q1T4H1		4						5,635	74,332	23,524647	0,5744757	0,040							
Q1T5H12		95						4,926	128,724	40,738668	3,7420582	0,950							
Q1T5H11		90						4,9351736	129,77	41,069707	3,687991	0,900							
Q1T5H10		75						4,942	127,155	40,24211	3,5056694	0,750							
Q1T5H9		60						4,968	125,586	39,745551	3,2825259	0,600							
Q1T5H8		45						5,009	124,540	39,414513	2,9948438	0,450							
Q1T5H7	22	30	0,0006747	350	105	65,625	28	5,060	119,833	37,924838	2,5893787	0,300	0,055	11,706	64,557	4,6824	13,78716	113,55045	5,1837398
Q1T5H6		24						5,079	112,511	35,607566	2,3662351	0,240							
Q1T5H5		20						5,106	94,729	29,979905	2,1839136	0,200							
Q1T5H4		16						5,132	84,269	26,669516	1,96077	0,160							
Q1T5H3		12						5,186	82,700	26,172958	1,6730879	0,120							
Q1T5H2		8						5,226	77,470	24,517764	1,2676228	0,080							
Q1T5H1		4						5,266	73,286	23,193608	0,5744757	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN Cahyono, Dr.Ir. Bambang Agus Kironoto
UNIVERSITAS GADJAH MADA
Perpustakaan Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 2

(Dinding beton) **Suhu = 28 C; B =2,0 m; D = 107 cm; H = 165 cm; dinding saluran dari plesteran beton**

Kode Running	Koordinat (cm) z/B	Koordinat (cm) y	So (-)	B (cm)	D (cm)	R (cm)	T (0C)	C (gr/lt)	U (cm/d)	Re (10^5)	ln y/ks	y/D	Z/B	A	B	U* (cm/d)	Br	Vyrerata (cm/d)	Cyrerata (gr/l)
Q2T1H12		95						5,104	150,6377	47,87393	3,742058	0,950							
Q2T1H11		90						5,104	153,601	48,81188	3,687991	0,900							
Q2T1H10		75						5,134	152,730	48,33601	3,505669	0,750							
Q2T1H9		60						5,154	146,977	46,5153	3,282526	0,600							
Q2T1H8		45						5,227	142,783	45,19114	2,994844	0,450							
Q2T1H7	100	30	0,00073	200	107	51,69082	28	5,266	132,856	42,04627	2,589379	0,300	0,25	19,97	64,729	7,988	8,10328	134,2078	5,582804
Q2T1H6		24						5,308	131,810	41,71523	2,366235	0,240							
Q2T1H5		20						5,509	112,162	35,49722	2,183914	0,200							
Q2T1H4		16						5,594	102,225	32,35235	1,96077	0,160							
Q2T1H3		12						5,680	96,298	30,47646	1,673088	0,120							
Q2T1H2		8						5,870	87,407	27,66263	1,267623	0,080							
Q2T1H1		4						5,982	78,516	24,8488	0,574476	0,040							
Q2T2H12		95						5,009	147,500	46,68082	3,742058	0,950							
Q2T2H11		90						5,057	152,730	48,33601	3,687991	0,900							
Q2T2H10		75						5,087	148,371	46,95668	3,505669	0,750							
Q2T2H9		60						5,107	142,618	45,13597	3,282526	0,600							
Q2T2H8		45						5,178	138,957	43,97733	2,994844	0,450							
Q2T2H7	75	30	0,00073	200	107	51,69082	28	5,212	131,810	41,71523	2,589379	0,300	0,1875	18,315	65,73	7,326	8,972154	131,5231	5,483704
Q2T2H6		24						5,254	130,764	41,38419	2,366235	0,240							
Q2T2H5		20						5,324	109,373	34,61445	2,183914	0,200							
Q2T2H4		16						5,409	98,913	31,30406	1,96077	0,160							
Q2T2H3		12						5,495	95,775	30,31094	1,673088	0,120							
Q2T2H2		8						5,580	86,884	27,49711	1,267623	0,080							
Q2T2H1		4						5,667	77,993	24,68328	0,574476	0,040							
Q2T3H12		95						4,718	143,316	45,35666	3,742058	0,950							
Q2T3H11		90						4,763	150,638	47,67393	3,687991	0,900							
Q2T3H10		75						4,785	137,040	43,37043	3,505669	0,750							
Q2T3H9		60						4,807	135,994	43,03939	3,282526	0,600							
Q2T3H8		45						4,861	132,333	41,88075	2,994844	0,450							
Q2T3H7	50	30	0,00073	200	107	51,69082	28	4,896	131,810	41,71523	2,589379	0,300	0,125	17,083	64,549	6,8332	9,446379	126,6208	5,146526
Q2T3H6		24						4,923	130,241	41,21867	2,366235	0,240							
Q2T3H5		20						4,979	104,492	33,0696	2,183914	0,200							
Q2T3H4		16						5,053	95,252	30,14542	1,96077	0,160							
Q2T3H3		12						5,127	93,683	29,64887	1,673088	0,120							
Q2T3H2		8						5,201	84,792	26,83504	1,267623	0,080							
Q2T3H1		4						5,275	75,378	23,85569	0,574476	0,040							
Q2T4H12		95						4,564	126,057	39,89452	3,742058	0,950							
Q2T4H11		90						4,655	133,379	42,21179	3,687991	0,900							
Q2T4H10		75						4,690	127,103	40,22556	3,505669	0,750							
Q2T4H9		60						4,702	124,488	39,39786	3,282526	0,600							
Q2T4H8		45						4,749	121,350	38,40484	2,994844	0,450							
Q2T4H7	25	30	0,00073	200	107	51,69082	28	4,754	120,304	38,07381	2,589379	0,300	0,0625	14,58	65,931	5,824	11,32057	116,4267	5,022698
Q2T4H6		24						4,786	117,689	37,24621	2,366235	0,240							
Q2T4H5		20						4,848	101,005	31,96814	2,183914	0,200							
Q2T4H4		16						4,926	93,683	29,64887	1,96077	0,160							
Q2T4H3		12						5,004	87,930	27,82815	1,673088	0,120							
Q2T4H2		8						5,083	82,177	26,00744	1,267623	0,080							
Q2T4H1		4						5,161	76,424	24,18672	0,574476	0,040							
Q2T5H12		95						4,436	116,120	36,74965	3,742058	0,950							
Q2T5H11		90						4,479748	114,0277	36,08757	3,687991	0,900							
Q2T5H10		75						4,492	113,296	35,85584	3,505669	0,750							
Q2T5H9		60						4,518	109,478	34,64755	3,282526	0,600							
Q2T5H8		45						4,558	103,568	32,77718	2,994844	0,450							
Q2T5H7	12,5	30	0,00073	200	107	51,69082	28	4,593	103,045	32,61166	2,589379	0,300	0,03125	14,58	65,931	5,824	11,32057	101,5447	4,826455
Q2T5H6		24						4,611	101,999	32,28063	2,366235	0,240							
Q2T5H5		20						4,657	85,315	27,00056	2,183914	0,200							
Q2T5H4		16						4,724	80,085	25,34536	1,96077	0,160							
Q2T5H3		12						4,790	74,855	23,69017	1,673088	0,120							
Q2T5H2		8						4,856	73,286	23,19361	1,267623	0,080							
Q2T5H1		4						4,922	67,010	21,20738	0,574476	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 3

(Dinding pasangan batu)

Suhu = 28 C; B =4,5 m; D = 100 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode Running	Koordinat (cm) z/B	y	So (-)	B (cm)	D (cm)	R (cm)	T (0C)	C (gr/lt)	U (cm/d)	Re (10^5)	ln y/ks	y/D	Z/B	A	B	U* (cm/d)	Br	Vyrerata (cm/d)	Cyrerata (gr/l)
Q3T1H12		95						3,931	85,7857	27,14952	3,742058	0,950							
Q3T1H11		90						3,932	91,539	28,97024	3,687991	0,900							
Q3T1H10		75						3,938	98,338	31,12199	3,505669	0,750							
Q3T1H9		60						3,959	94,154	29,79783	3,282526	0,600							
Q3T1H8		45						4,031	93,242	29,50917	2,994844	0,450							
Q3T1H7	225	30	0,000343	450	98	68,26625	28	4,070	92,689	29,33438	2,589379	0,300	0,5625	14,812	50,071	5,9248	8,451087	88,43255	4,333868
Q3T1H6		24						4,112	88,908	28,13767	2,366235	0,240							
Q3T1H5		20						4,336	87,041	27,54877	2,183914	0,200							
Q3T1H4		16						4,422	79,195	25,06398	1,96077	0,160							
Q3T1H3		12						4,508	71,351	22,58119	1,673088	0,120							
Q3T1H2		8						4,698	63,506	20,09839	1,267623	0,080							
Q3T1H1		4						4,809	62,721	19,85012	0,574476	0,040							
Q3T2H12		95						3,814	83,694	26,48744	3,742058	0,950							
Q3T2H11		90						3,862	86,309	27,31504	3,687991	0,900							
Q3T2H10		75						3,892	91,539	28,97024	3,505669	0,750							
Q3T2H9		60						3,912	88,401	27,97712	3,282526	0,600							
Q3T2H8		45						3,982	86,966	27,52293	2,994844	0,450							
Q3T2H7	169	30	0,000343	450	98	68,26625	28	4,016	87,459	27,67918	2,589379	0,300	0,4225	12,241	51,708	4,8964	10,56041	83,67848	4,232647
Q3T2H6		24						4,058	84,201	26,648	2,366235	0,240							
Q3T2H5		20						4,191	83,380	26,38813	2,183914	0,200							
Q3T2H4		16						4,250	75,535	23,90534	1,96077	0,160							
Q3T2H3		12						4,309	67,690	21,42255	1,673088	0,120							
Q3T2H2		8						4,421	63,244	20,01564	1,267623	0,080							
Q3T2H1		4						4,495	62,460	19,76738	0,574476	0,040							
Q3T3H12		95						3,522	77,418	24,50121	3,742058	0,950							
Q3T3H11		90						3,567	80,033	25,32881	3,687991	0,900							
Q3T3H10		75						3,589	87,355	27,64608	3,505669	0,750							
Q3T3H9		60						3,611	83,694	26,48744	3,282526	0,600							
Q3T3H8		45						3,665	83,828	26,52982	2,994844	0,450							
Q3T3H7	112,5	30	0,000343	450	98	68,26625	28	3,700	84,844	26,85159	2,589379	0,300	0,28125	11,055	51,539	4,422	11,65513	79,95211	3,936047
Q3T3H6		24						3,728	81,586	25,8204	2,366235	0,240							
Q3T3H5		20						3,937	80,765	25,56054	2,183914	0,200							
Q3T3H4		16						4,011	72,920	23,07774	1,96077	0,160							
Q3T3H3		12						4,085	65,075	20,59495	1,673088	0,120							
Q3T3H2		8						4,264	62,198	19,6846	1,267623	0,080							
Q3T3H1		4						4,364	61,414	19,43632	0,574476	0,040							
Q3T4H12		95						3,368	73,757	23,34258	3,742058	0,950							
Q3T4H11		90						3,459	77,418	24,50121	3,687991	0,900							
Q3T4H10		75						3,494	81,602	25,82537	3,505669	0,750							
Q3T4H9		60						3,506	80,556	25,49433	3,282526	0,600							
Q3T4H8		45						3,553	79,644	25,20566	2,994844	0,450							
Q3T4H7	56	30	0,000343	450	98	68,26625	28	3,558	80,660	25,52743	2,589379	0,300	0,14	9,4629	49,638	3,78516	13,11384	75,82158	3,771641
Q3T4H6		24						3,591	76,356	24,16521	2,366235	0,240							
Q3T4H5		20						3,715	75,535	23,90534	2,183914	0,200							
Q3T4H4		16						3,767	67,690	21,42255	1,96077	0,160							
Q3T4H3		12						3,819	59,845	18,93976	1,673088	0,120							
Q3T4H2		8						3,924	59,402	18,79956	1,267623	0,080							
Q3T4H1		4						3,989	58,198	18,4187	0,574476	0,040							
Q3T5H12		95						3,240	68,527	21,68738	3,742058	0,950							
Q3T5H11		90						3,28395	69,39837	21,96325	3,687991	0,900							
Q3T5H10		75						3,296	75,849	24,00465	3,505669	0,750							
Q3T5H9		60						3,322	76,023	24,05983	3,282526	0,600							
Q3T5H8		45						3,362	72,845	23,05391	2,994844	0,450							
Q3T5H7	28	30	0,000343	450	98	68,26625	28	3,398	70,549	22,32739	2,589379	0,300	0,07	8,8892	48,685	3,55568	13,69218	70,34623	3,575398
Q3T5H6		24						3,415	71,379	22,59001	2,366235	0,240							
Q3T5H5		20						3,524	70,192	22,21445	2,183914	0,200							
Q3T5H4		16						3,564	68,623	21,71789	1,96077	0,160							
Q3T5H3		12						3,605	58,512	18,51785	1,673088	0,120							
Q3T5H2		8						3,697	58,069	18,37765	1,267623	0,080							
Q3T5H1		4						3,750	56,117	17,76002	0,574476	0,040							

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 4

(Dinding beton) Suhu = 28 C; B =4,0 m; D = 95 cm; H = 165 cm; dinding saluran dari plesteran beton

Kode Running	Koordinat (cm) z/B	y	Sw (-)	B (cm)	D (cm)	R (cm)	T (0C)	C (gr/lt)	U (cm/d)	Re (10^5)	ln y/ks	y/D	Z/B	A	B	U* (cm/d)	Br	Vyrerata (cm/d)	Cyrerata (gr/l)
Q4T1H12		95						2,264	87,8777	27,8116	3,742058	0,950							
Q4T1H11		90						2,343	92,933	29,41162	3,687991	0,900							
Q4T1H10		75						2,373	97,117	30,73578	3,505669	0,750							
Q4T1H9		60						2,394	93,605	29,68749	3,282526	0,600							
Q4T1H8		45						2,466	92,719	29,34365	2,994844	0,450							
Q4T1H7	200	30	0,000343	400	95	64,40678	28	2,505	91,410	28,92941	2,589379	0,300	0,5	14,812	50,594	5,9248	8,53936	88,39085	2,779316
Q4T1H6		24						2,808	88,809	28,10622	2,366235	0,240							
Q4T1H5		20						3,203	87,564	27,71229	2,183914	0,200							
Q4T1H4		16						3,237	79,719	25,2295	1,96077	0,160							
Q4T1H3		12						3,349	71,874	22,74671	1,673088	0,120							
Q4T1H2		8						3,510	64,029	20,26391	1,267623	0,080							
Q4T1H1		4						3,598	63,244	20,01564	0,574476	0,040							
Q4T2H12		95						2,249	85,611	27,09435	3,742058	0,950							
Q4T2H11		90						2,251	90,144	28,52885	3,687991	0,900							
Q4T2H10		75						2,272	95,200	30,12887	3,505669	0,750							
Q4T2H9		60						2,368	90,667	28,69437	3,282526	0,600							
Q4T2H8		45						2,417	89,755	28,4057	2,994844	0,450							
Q4T2H7	150	30	0,000343	400	95	64,40678	28	2,451	88,620	28,04664	2,589379	0,300	0,375	13,493	48,605	5,3972	9,005595	85,52481	2,621311
Q4T2H6		24						2,493	87,763	27,77519	2,366235	0,240							
Q4T2H5		20						2,744	80,939	25,61571	2,183914	0,200							
Q4T2H4		16						2,935	76,363	24,16741	1,96077	0,160							
Q4T2H3		12						2,968	68,518	21,68462	1,673088	0,120							
Q4T2H2		8						3,041	60,673	19,20183	1,267623	0,080							
Q4T2H1		4						3,139	59,888	18,95355	0,574476	0,040							
Q4T3H12		95						1,893	86,309	27,31504	3,742058	0,950							
Q4T3H11		90						1,906	91,364	28,91506	3,687991	0,900							
Q4T3H10		75						1,921	92,062	29,13576	3,505669	0,750							
Q4T3H9		60						1,988	87,878	27,8116	3,282526	0,600							
Q4T3H8		45						2,100	88,012	27,85397	2,994844	0,450							
Q4T3H7	100	30	0,000343	400	95	64,40678	28	2,136	87,051	27,55008	2,589379	0,300	0,25	11,108	52,713	4,4432	11,86375	84,40219	2,253452
Q4T3H6		24						2,163	85,671	27,11311	2,366235	0,240							
Q4T3H5		20						2,400	79,196	25,06398	2,183914	0,200							
Q4T3H4		16						2,579	74,620	23,61568	1,96077	0,160							
Q4T3H3		12						2,600	70,174	22,20877	1,673088	0,120							
Q4T3H2		8						2,662	63,153	19,98667	1,267623	0,080							
Q4T3H1		4						2,747	61,505	19,46528	0,574476	0,040							
Q4T4H12		95						1,804	83,694	26,48744	3,742058	0,950							
Q4T4H11		90						1,894	89,970	28,47368	3,687991	0,900							
Q4T4H10		75						1,930	89,970	28,47368	3,505669	0,750							
Q4T4H9		60						1,942	86,832	27,48056	3,282526	0,600							
Q4T4H8		45						1,989	86,966	27,52293	2,994844	0,450							
Q4T4H7	50	30	0,000343	400	95	64,40678	28	1,993	84,959	26,888	2,589379	0,300	0,125	10,596	52,1	4,2384	12,29237	82,84749	2,168716
Q4T4H6		24						2,026	84,102	26,61655	2,366235	0,240							
Q4T4H5		20						2,229	77,627	24,56742	2,183914	0,200							
Q4T4H4		16						2,451	73,051	23,11912	1,96077	0,160							
Q4T4H3		12						2,478	68,605	21,71221	1,673088	0,120							
Q4T4H2		8						2,543	61,584	19,49011	1,267623	0,080							
Q4T4H1		4						2,633	60,799	19,24183	0,574476	0,040							
Q4T5H12		95						1,719	83,171	26,32193	3,742058	0,950							
Q4T5H11		90						1,719192	88,9237	28,14264	3,687991	0,900							
Q4T5H10		75						1,731	88,401	27,97712	3,505669	0,750							
Q4T5H9		60						1,757	85,263	26,984	3,282526	0,600							
Q4T5H8		45						1,798	85,920	27,1919	2,994844	0,450							
Q4T5H7	25	30	0,000343	400	95	64,40678	28	1,833	83,913	26,55696	2,589379	0,300	0,0625	9,6759	52,25	3,87036	13,50004	81,57011	1,997131
Q4T5H6		24						1,981	81,487	25,78895	2,366235	0,240							
Q4T5H5		20						2,235	75,535	23,90534	2,183914	0,200							
Q4T5H4		16						2,249	70,959	22,45705	1,96077	0,160							
Q4T5H3		12						2,302	67,933	21,49952	1,673088	0,120							
Q4T5H2		8						2,380	60,873	19,265	1,267623	0,080							
Q4T5H1		4						2,422	60,088	19,01673	0,574476	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 5

(Dinding pasangan batu kali)

Suhu = 28 C; B =4,0 m; D = 100 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode Running	Koordinat (cm) z/B	y	Sw (-)	B (cm)	D (cm)	R (cm)	T (0C)	C (gr/lt)	U (cm/d)	Re (10^5)	ln y/ks	y/D	Z/B	A	B	U* (cm/d)	Br	Vyrerata (cm/d)	Cyrerata (gr/l)
Q5T1H12		95						3,093	96,5072	30,54267	3,742058	0,950							
Q5T1H11		90						3,093	97,501	30,85716	3,687991	0,900							
Q5T1H10		75						3,123	97,292	30,79095	3,505669	0,750							
Q5T1H9		60						3,144	95,043	30,07922	3,282526	0,600							
Q5T1H8		45						3,216	93,108	29,46579	2,994844	0,450							
Q5T1H7	200	30	0,000343	400	95	64,40678	28	3,255	91,561	28,97719	2,589379	0,300	0,5	14,812	46,933	5,9248	7,921449	88,98252	3,439355
Q5T1H6		24						3,297	88,950	28,15108	2,366235	0,240							
Q5T1H5		20						3,419	83,903	26,55365	2,183914	0,200							
Q5T1H4		16						3,456	76,058	24,07086	1,96077	0,160							
Q5T1H3		12						3,571	68,213	21,58807	1,673088	0,120							
Q5T1H2		8						3,736	60,368	19,10528	1,267623	0,080							
Q5T1H1		4						3,827	59,583	18,857	0,574476	0,040							
Q5T2H12		95						3,049	93,291	29,52473	3,742058	0,950							
Q5T2H11		90						3,047	95,409	30,19508	3,687991	0,900							
Q5T2H10		75						3,077	94,154	29,79783	3,505669	0,750							
Q5T2H9		60						3,097	93,474	29,58266	3,282526	0,600							
Q5T2H8		45						3,167	91,016	28,80472	2,994844	0,450							
Q5T2H7	150	30	0,000343	400	95	64,40678	28	3,202	88,423	27,98407	2,589379	0,300	0,375	13,736	49,147	5,4944	8,944926	87,18693	3,338554
Q5T2H6		24						3,243	86,335	27,32348	2,366235	0,240							
Q5T2H5		20						3,285	82,334	26,05709	2,183914	0,200							
Q5T2H4		16						3,318	77,156	24,41845	1,96077	0,160							
Q5T2H3		12						3,352	69,311	21,93566	1,673088	0,120							
Q5T2H2		8						3,385	61,466	19,45287	1,267623	0,080							
Q5T2H1		4						3,420	60,682	19,20459	0,574476	0,040							
Q5T3H12		95						2,751	92,768	29,35921	3,742058	0,950							
Q5T3H11		90						2,753	94,383	29,86404	3,687991	0,900							
Q5T3H10		75						2,775	90,493	28,6392	3,505669	0,750							
Q5T3H9		60						2,795	87,198	27,59643	3,282526	0,600							
Q5T3H8		45						2,850	86,832	27,48056	2,994844	0,450							
Q5T3H7	100	30	0,000343	400	95	64,40678	28	2,886	85,285	26,99096	2,589379	0,300	0,25	13,143	47,75	5,2572	9,082782	83,95915	3,024242
Q5T3H6		24						2,913	83,546	26,44071	2,366235	0,240							
Q5T3H5		20						2,980	79,719	25,2295	2,183914	0,200							
Q5T3H4		16						3,002	74,541	23,59085	1,96077	0,160							
Q5T3H3		12						3,063	66,696	21,10806	1,673088	0,120							
Q5T3H2		8						3,149	59,636	18,87355	1,267623	0,080							
Q5T3H1		4						3,198	58,851	18,62527	0,574476	0,040							
Q5T4H12		95						2,629	87,886	27,81436	3,742058	0,950							
Q5T4H11		90						2,645	90,702	28,70541	3,687991	0,900							
Q5T4H10		75						2,680	88,401	27,97712	3,505669	0,750							
Q5T4H9		60						2,692	90,336	28,58954	3,282526	0,600							
Q5T4H8		45						2,739	89,447	28,30816	2,994844	0,450							
Q5T4H7	50	30	0,000343	400	95	64,40678	28	2,743	87,900	27,81855	2,589379	0,300	0,125	12,234	49,13	4,8936	10,03964	84,22709	2,902923
Q5T4H6		24						2,776	86,858	27,489	2,366235	0,240							
Q5T4H5		20						2,849	79,222	25,07225	2,183914	0,200							
Q5T4H4		16						2,875	74,044	23,43361	1,96077	0,160							
Q5T4H3		12						2,940	66,199	20,95082	1,673088	0,120							
Q5T4H2		8						3,030	60,340	19,09642	1,267623	0,080							
Q5T4H1		4						3,084	59,555	18,84814	0,574476	0,040							
Q5T5H12		95						2,465	83,877	26,54538	3,742058	0,950							
Q5T5H11		90						2,469336	85,4719	27,05021	3,687991	0,900							
Q5T5H10		75						2,481	85,786	27,14952	3,505669	0,750							
Q5T5H9		60						2,507	84,060	26,60331	3,282526	0,600							
Q5T5H8		45						2,548	84,217	26,65296	2,994844	0,450							
Q5T5H7	25	30	0,000343	400	95	64,40678	28	2,583	82,670	26,16336	2,589379	0,300	0,0625	9,6635	48,602	3,8654	12,5736	79,50196	2,703852
Q5T5H6		24						2,601	81,105	25,66829	2,366235	0,240							
Q5T5H5		20						2,658	72,946	23,08602	2,183914	0,200							
Q5T5H4		16						2,672	67,768	21,44738	1,96077	0,160							
Q5T5H3		12						2,726	61,754	19,5439	1,673088	0,120							
Q5T5H2		8						2,804	57,674	18,25285	1,267623	0,080							
Q5T5H1		4						2,845	56,890	18,00457	0,574476	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Perpustakaan Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 6

(Dinding pasangan batu kali) Suhu = 28 C; B =2,5 m; D = 103 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode	Koordinat (cm)		Sw	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q6T1H12		95						5,667	134,4247	42,64283	3,742058	0,950							
Q6T1H11		90						5,669	142,793	45,19114	3,687991	0,900							
Q6T1H10		75						5,698	142,584	45,12493	3,505669	0,750							
Q6T1H9		60						5,719	136,046	43,05594	3,282526	0,600							
Q6T1H8		45						5,791	132,385	41,8973	2,994844	0,450							
Q6T1H7	125	30	0,000657	250	103	56,4693	28	5,830	129,770	41,06971	2,589379	0,300	0,3125	20,394	73,352	8,1576	8,99186	128,4586	6,154612
Q8T1H6		24						5,925	122,971	38,91795	2,366235	0,240							
Q6T1H5		20						6,019	121,925	38,58692	2,183914	0,200							
Q6T1H4		16						6,105	110,942	35,11101	1,96077	0,160							
Q6T1H3		12						6,190	106,758	33,78685	1,673088	0,120							
Q6T1H2		8						6,276	95,775	30,31094	1,267623	0,080							
Q6T1H1		4						6,362	87,581	27,71781	0,574476	0,040							
Q6T2H12		95						5,618	130,241	41,21867	3,742058	0,950							
Q6T2H11		90						5,622	139,132	44,0325	3,687991	0,900							
Q6T2H10		75						5,652	137,354	43,46974	3,505669	0,750							
Q6T2H9		60						5,672	131,862	41,73178	3,282526	0,600							
Q6T2H8		45						5,742	129,770	41,06971	2,994844	0,450							
Q6T2H7	94	30	0,000657	250	103	56,4693	28	5,777	125,586	39,74555	2,589379	0,300	0,235	17,823	74,676	7,1292	10,47467	124,7714	6,075339
Q6T2H6		24						5,844	118,787	37,5938	2,366235	0,240							
Q6T2H5		20						5,912	117,218	37,09724	2,183914	0,200							
Q6T2H4		16						5,971	106,758	33,78685	1,96077	0,160							
Q6T2H3		12						6,031	103,097	32,62822	1,673088	0,120							
Q6T2H2		8						6,090	96,821	30,64198	1,267623	0,080							
Q6T2H1		4						6,151	86,012	27,22125	0,574476	0,040							
Q6T3H12		95						5,327	125,011	39,56348	3,742058	0,950							
Q6T3H11		90						5,328	133,379	42,21179	3,687991	0,900							
Q6T3H10		75						5,350	131,601	41,64902	3,505669	0,750							
Q6T3H9		60						5,371	125,063	39,58003	3,282526	0,600							
Q6T3H8		45						5,425	122,971	38,91795	2,994844	0,450							
Q6T3H7	62	30	0,000657	250	103	56,4693	28	5,461	120,879	38,25588	2,589379	0,300	0,155	16,159	72,627	6,4636	11,23631	119,186	5,738119
Q6T3H6		24						5,514	113,731	35,99378	2,366235	0,240							
Q6T3H5		20						5,568	111,988	35,44205	2,183914	0,200							
Q6T3H4		16						5,615	101,354	32,07648	1,96077	0,160							
Q6T3H3		12						5,663	98,390	31,13854	1,673088	0,120							
Q6T3H2		8						5,712	91,591	28,98679	1,267623	0,080							
Q6T3H1		4						5,759	83,589	26,45434	0,574476	0,040							
Q6T4H12		95						5,205	119,258	37,74277	3,742058	0,950							
Q6T4H11		90						5,220	128,149	40,5566	3,687991	0,900							
Q6T4H10		75						5,255	127,940	40,49039	3,505669	0,750							
Q6T4H9		60						5,267	121,925	38,58692	3,282526	0,600							
Q6T4H8		45						5,314	118,787	37,5938	2,994844	0,450							
Q6T4H7	31	30	0,000657	250	103	56,4693	28	5,318	115,649	36,60068	2,589379	0,300	0,0775	13,802	71,736	5,5208	12,99377	114,8484	5,616821
Q6T4H6		24						5,377	108,850	34,44893	2,366235	0,240							
Q6T4H5		20						5,436	107,281	33,95237	2,183914	0,200							
Q6T4H4		16						5,488	95,775	30,31094	1,96077	0,160							
Q6T4H3		12						5,541	90,894	28,7661	1,673088	0,120							
Q6T4H2		8						5,593	88,976	28,15919	1,267623	0,080							
Q6T4H1		4						5,645	81,480	25,78675	0,574476	0,040							
Q6T5H12		95						5,043	110,367	34,92894	3,742058	0,950							
Q6T5H11		90						5,044465	119,2577	37,74277	3,687991	0,900							
Q6T5H10		75						5,057	117,480	37,18	3,505669	0,750							
Q6T5H9		60						5,083	111,465	35,27653	3,282526	0,600							
Q6T5H8		45						5,123	109,373	34,61445	2,994844	0,450							
Q6T5H7	15,5	30	0,000657	250	103	56,4693	28	5,158	105,712	33,45581	2,589379	0,300	0,03875	11,384	68,053	4,5536	14,94488	105,631	5,417935
Q6T5H6		24						5,202	99,087	31,35923	2,366235	0,240							
Q6T5H5		20						5,246	97,344	30,8075	2,183914	0,200							
Q6T5H4		16						5,286	88,871	28,12609	1,96077	0,160							
Q6T5H3		12						5,326	82,700	26,17296	1,673088	0,120							
Q6T5H2		8						5,366	82,177	26,00744	1,267623	0,080							
Q6T5H1		4						5,407	76,372	24,17017	0,574476	0,040							

UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 7

(Dinding plesteran beton) **Suhu = 28 C; B =3,0 m; D = 100 cm; H = 165 cm; dinding saluran dari plesteran betoni**

Kode	Koordinat (cm)		Sw	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q7T1H12		95						2,910	76,3717	24,17017	3,742058	0,950							
Q7T1H11		90						2,910	80,556	25,49433	3,687991	0,900							
Q7T1H10		75						2,940	85,786	27,14952	3,505669	0,750							
Q7T1H9		60						2,960	81,602	25,82537	3,282526	0,600							
Q7T1H8		45						3,032	79,121	25,04014	2,994844	0,450							
Q7T1H7	150	30	0,000268	300	100	60	28	3,071	78,568	24,86535	2,589379	0,300	0,375	12,581	43,752	5,0324	8,694062	76,31196	3,282554
Q7T1H6		24						3,188	73,218	23,17209	2,366235	0,240							
Q7T1H5		20						3,312	72,397	22,91223	2,183914	0,200							
Q7T1H4		16						3,427	68,893	21,80325	1,96077	0,160							
Q7T1H3		12						3,542	62,791	19,87218	1,673088	0,120							
Q7T1H2		8						3,709	59,235	18,74665	1,267623	0,080							
Q7T1H1		4						3,798	51,819	16,39959	0,574476	0,040							
Q7T2H12		95						2,862	72,711	23,01154	3,742058	0,950							
Q7T2H11		90						2,863	76,372	24,17017	3,687991	0,900							
Q7T2H10		75						2,893	80,556	25,49433	3,505669	0,750							
Q7T2H9		60						2,913	76,895	24,33569	3,282526	0,600							
Q7T2H8		45						2,983	75,983	24,04703	2,994844	0,450							
Q7T2H7	112,5	30	0,000268	300	100	60	28	3,018	75,430	23,87224	2,589379	0,300	0,28125	11,512	42,021	4,6048	9,125478	72,44559	3,186657
Q7T2H6		24						3,098	70,080	22,17897	2,366235	0,240							
Q7T2H5		20						3,179	68,736	21,75359	2,183914	0,200							
Q7T2H4		16						3,252	64,081	20,28047	1,96077	0,160							
Q7T2H3		12						3,324	59,610	18,86528	1,673088	0,120							
Q7T2H2		8						3,423	56,639	17,92512	1,267623	0,080							
Q7T2H1		4						3,483	49,223	15,57806	0,574476	0,040							
Q7T3H12		95						2,568	65,912	20,85978	3,742058	0,950							
Q7T3H11		90						2,569	73,234	23,17706	3,687991	0,900							
Q7T3H10		75						2,591	75,326	23,83913	3,505669	0,750							
Q7T3H9		60						2,612	73,234	23,17706	3,282526	0,600							
Q7T3H8		45						2,667	72,845	23,05391	2,994844	0,450							
Q7T3H7	75	30	0,000268	300	100	60	28	2,702	72,292	22,87912	2,589379	0,300	0,1875	10,512	40,686	4,2048	9,676084	68,78344	2,856961
Q7T3H6		24						2,690	67,988	21,5169	2,366235	0,240							
Q7T3H5		20						2,794	65,598	20,76047	2,183914	0,200							
Q7T3H4		16						2,893	60,943	19,28735	1,96077	0,160							
Q7T3H3		12						2,992	56,472	17,87216	1,673088	0,120							
Q7T3H2		8						3,144	53,036	16,78503	1,267623	0,080							
Q7T3H1		4						3,217	47,901	15,15963	0,574476	0,040							
Q7T4H12		95						2,454	63,820	20,19771	3,742058	0,950							
Q7T4H11		90						2,461	70,619	22,34946	3,687991	0,900							
Q7T4H10		75						2,496	73,234	23,17706	3,505669	0,750							
Q7T4H9		60						2,508	71,665	22,6805	3,282526	0,600							
Q7T4H8		45						2,555	71,799	22,72287	2,994844	0,450							
Q7T4H7	37,5	30	0,000268	300	100	60	28	2,559	69,154	21,886	2,589379	0,300	0,09375	8,7693	41,852	3,50772	11,9314	66,91492	2,728613
Q7T4H6		24						2,631	65,373	20,6893	2,366235	0,240							
Q7T4H5		20						2,703	63,506	20,09839	2,183914	0,200							
Q7T4H4		16						2,768	58,851	18,62527	1,96077	0,160							
Q7T4H3		12						2,834	54,380	17,21008	1,673088	0,120							
Q7T4H2		8						2,925	50,944	16,12295	1,267623	0,080							
Q7T4H1		4						2,978	48,749	15,42807	0,574476	0,040							
Q7T5H12		95						2,284	62,774	19,86667	3,742058	0,950							
Q7T5H11		90						2,285576	66,9577	21,19082	3,687991	0,900							
Q7T5H10		75						2,298	69,573	22,01842	3,505669	0,750							
Q7T5H9		60						2,324	66,958	21,19082	3,282526	0,600							
Q7T5H8		45						2,364	66,046	20,90216	2,994844	0,450							
Q7T5H7	19	30	0,000268	300	100	60	28	2,399	66,888	21,16875	2,589379	0,300	0,0475	8,3711	41,55	3,34844	12,40876	63,81985	2,529058
Q7T5H6		24						2,456	63,281	20,02722	2,366235	0,240							
Q7T5H5		20						2,513	62,460	19,76736	2,183914	0,200							
Q7T5H4		16						2,566	57,805	18,29423	1,96077	0,160							
Q7T5H3		12						2,619	53,334	16,87904	1,673088	0,120							
Q7T5H2		8						2,699	49,898	15,79191	1,267623	0,080							
Q7T5H1		4						2,739	48,375	15,30968	0,574476	0,040							

UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 8

(Dinding beton) **Suhu = 28 C; B =1,5 m; D = 104 cm; H = 165 cm; dinding saluran dari plesteran beton**

Kode	Koordinat (cm)		Sw	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q8T1H12		95						5,278	128,5671	40,68901	3,742058	0,950							
Q8T1H11		90						5,281	141,224	44,69458	3,687991	0,900							
Q8T1H10		75						5,308	139,969	44,29734	3,505669	0,750							
Q8T1H9		60						5,325	134,477	42,55938	3,282526	0,600							
Q8T1H8		45						5,396	129,467	40,97371	2,994844	0,450							
Q8T1H7	75	30	0,000608	150	104	43,57542	28	5,445	127,678	40,40763	2,589379	0,300	0,1875	19,068	64,855	7,6272	8,50312	124,2029	5,767666
Q8T1H6		24						5,561	120,879	38,25588	2,366235	0,240							
Q8T1H5		20						5,678	110,942	35,11101	2,183914	0,200							
Q8T1H4		16						5,786	102,051	32,29718	1,96077	0,160							
Q8T1H3		12						5,895	93,160	29,48335	1,673088	0,120							
Q8T1H2		8						6,003	84,792	26,83504	1,267623	0,080							
Q8T1H1		4						6,112	79,388	25,12467	0,574476	0,040							
Q8T2H12		95						5,181	126,475	40,02693	3,742058	0,950							
Q8T2H11		90						5,198	137,040	43,37043	3,687991	0,900							
Q8T2H10		75						5,226	136,831	43,30422	3,505669	0,750							
Q8T2H9		60						5,241	131,339	41,56627	3,282526	0,600							
Q8T2H8		45						5,309	126,329	39,98059	2,994844	0,450							
Q8T2H7	56	30	0,000608	150	104	43,57542	28	5,349	123,494	39,08347	2,589379	0,300	0,14	17,173	65,019	6,8692	9,465294	121,0254	5,633281
Q8T2H6		24						5,426	117,218	37,09724	2,366235	0,240							
Q8T2H5		20						5,502	107,281	33,95237	2,183914	0,200							
Q8T2H4		16						5,571	98,390	31,13854	1,96077	0,160							
Q8T2H3		12						5,640	89,499	28,32471	1,673088	0,120							
Q8T2H2		8						5,710	83,084	26,29434	1,267623	0,080							
Q8T2H1		4						5,781	78,385	24,80742	0,574476	0,040							
Q8T3H12		95						5,063	124,383	39,36486	3,742058	0,950							
Q8T3H11		90						5,045	135,994	43,03939	3,687991	0,900							
Q8T3H10		75						5,070	132,647	41,98006	3,505669	0,750							
Q8T3H9		60						5,086	126,458	40,02142	3,282526	0,600							
Q8T3H8		45						5,146	121,099	38,32539	2,994844	0,450							
Q8T3H7	37,5	30	0,000608	150	104	43,57542	28	5,184	121,576	38,47657	2,589379	0,300	0,09375	15,222	67,501	6,0888	11,08609	118,2486	5,459254
Q8T3H6		24						5,252	115,126	36,43516	2,366235	0,240							
Q8T3H5		20						5,319	106,061	33,56616	2,183914	0,200							
Q8T3H4		16						5,381	96,821	30,64198	1,96077	0,160							
Q8T3H3		12						5,443	88,627	28,04884	1,673088	0,120							
Q8T3H2		8						5,505	82,386	26,07365	1,267623	0,080							
Q8T3H1		4						5,567	80,207	25,38398	0,574476	0,040							
Q8T4H12		95						4,736	121,245	38,37174	3,742058	0,950							
Q8T4H11		90						4,826	132,858	42,04627	3,687991	0,900							
Q8T4H10		75						4,863	130,555	41,31799	3,505669	0,750							
Q8T4H9		60						4,871	122,448	38,75243	3,282526	0,600							
Q8T4H8		45						4,921	116,915	37,00124	2,994844	0,450							
Q8T4H7	19	30	0,000608	150	104	43,57542	28	4,925	114,254	36,1593	2,589379	0,300	0,0475	13,178	65,948	5,2712	12,511	113,978	5,207828
Q8T4H6		24						4,995	107,107	33,8972	2,366235	0,240							
Q8T4H5		20						5,064	96,995	30,69716	2,183914	0,200							
Q8T4H4		16						5,127	93,003	29,43369	1,96077	0,160							
Q8T4H3		12						5,191	86,062	27,23697	1,673088	0,120							
Q8T4H2		8						5,254	78,028	24,69432	1,267623	0,080							
Q8T4H1		4						5,318	76,598	24,2419	0,574476	0,040							
Q8T5H12		95						4,649	118,630	37,54414	3,742058	0,950							
Q8T5H11		90						4,652698	123,9647	39,23244	3,687991	0,900							
Q8T5H10		75						4,663	123,756	39,16623	3,505669	0,750							
Q8T5H9		60						4,688	134,128	42,44904	3,282526	0,600							
Q8T5H8		45						4,729	110,116	34,84949	2,994844	0,450							
Q8T5H7	9	30	0,000608	150	104	43,57542	28	4,765	107,804	34,11789	2,589379	0,300	0,0225	11,757	63,656	4,7028	13,53577	110,6277	5,016597
Q8T5H6		24						4,821	101,005	31,96614	2,366235	0,240							
Q8T5H5		20						4,878	90,894	28,7661	2,183914	0,200							
Q8T5H4		16						4,931	86,727	27,44746	1,96077	0,160							
Q8T5H3		12						4,983	81,704	25,85764	1,673088	0,120							
Q8T5H2		8						5,036	77,470	24,51776	1,267623	0,080							
Q8T5H1		4						5,089	71,543	22,64188	0,574476	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 9

(Dinding pasangan batu kali) Suhu = 28 C; B =3,0 m; D = 97 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode	Koordinat (cm)		So	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q9T1H12	150	95	0,000189	300	97	58,90688	28	2,541	80,085	25,34536	3,742058	0,950	0,375	11,112	39,243	4,4448	8,828969	70,68749	2,983525
Q9T1H11		90						2,541	81,131	25,6764	3,687991	0,900							
Q9T1H10		75						2,571	75,901	24,02121	3,505669	0,750							
Q9T1H9		60						2,591	74,855	23,69017	3,282526	0,600							
Q9T1H8		45						2,663	73,809	23,35913	2,994844	0,450							
Q9T1H7		30						2,898	70,148	22,20049	2,589379	0,300							
Q9T1H6		24						3,132	65,964	20,87634	2,366235	0,240							
Q9T1H5		20						3,230	66,557	21,06392	2,183914	0,200							
Q9T1H4		16						3,266	61,902	19,5908	1,96077	0,160							
Q9T1H3		12						3,381	54,057	17,10801	1,673088	0,120							
Q9T1H2		8						3,546	50,501	15,98248	1,267623	0,080							
Q9T1H1		4						3,637	48,314	15,29061	0,574476	0,040							
Q9T2H12	112,5	95	0,000189	300	97	58,90688	28	2,446	78,516	24,8488	3,742058	0,950	0,28125	9,7757	38,549	3,91028	9,858373	67,68515	2,849994
Q9T2H11		90						2,494	79,562	25,17984	3,687991	0,900							
Q9T2H10		75						2,524	74,855	23,69017	3,505669	0,750							
Q9T2H9		60						2,544	71,194	22,53153	3,282526	0,600							
Q9T2H8		45						2,614	68,056	21,53841	2,994844	0,450							
Q9T2H7		30						2,844	65,964	20,87634	2,589379	0,300							
Q9T2H6		24						2,886	63,349	20,04874	2,366235	0,240							
Q9T2H5		20						2,953	61,728	19,53563	2,183914	0,200							
Q9T2H4		16						2,987	57,073	18,06251	1,96077	0,160							
Q9T2H3		12						3,059	55,504	17,56595	1,673088	0,120							
Q9T2H2		8						3,156	47,031	14,88453	1,267623	0,080							
Q9T2H1		4						3,218	46,290	14,64983	0,574476	0,040							
Q9T3H12	75	95	0,000189	300	97	58,90688	28	2,155	78,464	24,83225	3,742058	0,950	0,1875	9,2615	38,04	3,7046	10,26832	66,87581	2,512816
Q9T3H11		90						2,200	76,895	24,33569	3,687991	0,900							
Q9T3H10		75						2,222	73,809	23,35913	3,505669	0,750							
Q9T3H9		60						2,243	71,194	22,53153	3,282526	0,600							
Q9T3H8		45						2,297	68,056	21,53841	2,994844	0,450							
Q9T3H7		30						2,528	65,964	20,87634	2,589379	0,300							
Q9T3H6		24						2,556	61,257	19,38666	2,366235	0,240							
Q9T3H5		20						2,609	60,159	19,03907	2,183914	0,200							
Q9T3H4		16						2,631	55,504	17,56595	1,96077	0,160							
Q9T3H3		12						2,692	53,935	17,06939	1,673088	0,120							
Q9T3H2		8						2,778	46,142	14,60315	1,267623	0,080							
Q9T3H1		4						2,827	45,401	14,36844	0,574476	0,040							
Q9T4H12	37,5	95	0,000189	300	97	58,90688	28	2,001	75,007	23,73817	3,742058	0,950	0,09375	7,758	38,522	3,1032	12,41364	64,86971	2,388988
Q9T4H11		90						2,092	76,424	24,18672	3,687991	0,900							
Q9T4H10		75						2,127	71,717	22,69705	3,505669	0,750							
Q9T4H9		60						2,139	69,102	21,86945	3,282526	0,600							
Q9T4H8		45						2,186	66,487	21,04186	2,994844	0,450							
Q9T4H7		30						2,386	62,826	19,88322	2,589379	0,300							
Q9T4H6		24						2,419	58,642	18,55906	2,366235	0,240							
Q9T4H5		20						2,477	57,544	18,21147	2,183914	0,200							
Q9T4H4		16						2,503	52,889	16,73835	1,96077	0,160							
Q9T4H3		12						2,569	51,320	16,24179	1,673088	0,120							
Q9T4H2		8						2,659	45,515	14,40453	1,267623	0,080							
Q9T4H1		4						2,713	44,773	14,16982	0,574476	0,040							
Q9T5H12	19	95	0,000189	300	97	58,90688	28	1,872	70,096	22,18394	3,742058	0,950	0,0475	6,47	39,012	2,588	15,07419	62,23411	2,159775
Q9T5H11		90						1,916495	74,15767	23,46947	3,687991	0,900							
Q9T5H10		75						1,929	68,056	21,53841	3,505669	0,750							
Q9T5H9		60						1,955	65,964	20,87634	3,282526	0,600							
Q9T5H8		45						1,995	64,395	20,37978	2,994844	0,450							
Q9T5H7		30						2,030	60,211	19,05562	2,589379	0,300							
Q9T5H6		24						2,048	56,027	17,73147	2,366235	0,240							
Q9T5H5		20						2,261	55,452	17,5494	2,183914	0,200							
Q9T5H4		16						2,301	50,797	16,07627	1,96077	0,160							
Q9T5H3		12						2,354	49,228	15,57971	1,673088	0,120							
Q9T5H2		8						2,432	44,626	14,12314	1,267623	0,080							
Q9T5H1		4						2,474	44,522	14,09037	0,574476	0,040							

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Pembacaan Hasil Pengukuran dan Analisis Tampang 10

(Dinding batu kali) **Suhu = 28 C; B =3,0 m; D = 96 cm; H = 165 cm; dinding saluran dari pas batu kali**

Kode	Koordinat (cm)		So	B	D	R	T	C	U	Re	ln y/ks	y/D	Z/B	A	B	U*	Br	Vyrerata	Cyrerata
Running	z/B	y	(-)	(cm)	(cm)	(cm)	(0C)	(gr/lt)	(cm/d)	(10^5)						(cm/d)		(cm/d)	(gr/l)
Q10T1H12		95						3,322	100,9527	31,94959	3,742058	0,950							
Q10T1H11		90						3,322	102,522	32,44614	3,687991	0,900							
Q10T1H10		75						3,352	101,999	32,28063	3,505669	0,750							
Q10T1H9		60						3,373	101,382	32,08531	3,282526	0,600							
Q10T1H8		45						3,445	100,129	31,68899	2,994844	0,450							
Q10T1H7	150	30	0,000456	300	96	58,53659	28	3,484	98,767	31,25771	2,589379	0,300	0,375	16,975	58,486	6,79	8,613549	96,88238	3,643451
Q10T1H6		24						3,526	97,559	30,87867	2,366235	0,240							
Q10T1H5		20						3,490	98,978	30,69164	2,183914	0,200							
Q10T1H4		16						3,527	92,323	29,21852	1,96077	0,160							
Q10T1H3		12						3,642	84,478	26,73572	1,673088	0,120							
Q10T1H2		8						3,806	79,416	25,1335	1,267623	0,080							
Q10T1H1		4						3,898	69,260	21,91944	0,574476	0,040							
Q10T2H12		95						3,280	99,907	31,61855	3,742058	0,950							
Q10T2H11		90						3,275	99,907	31,61855	3,687991	0,900							
Q10T2H10		75						3,306	100,953	31,94959	3,505669	0,750							
Q10T2H9		60						3,325	98,023	31,02251	3,282526	0,600							
Q10T2H8		45						3,396	96,706	30,60572	2,994844	0,450							
Q10T2H7	112,5	30	0,000456	300	96	58,53659	28	3,430	97,000	30,69859	2,589379	0,300	0,28125	15,636	58,386	6,2544	9,335188	94,64141	3,584482
Q10T2H6		24						3,472	95,477	30,21659	2,366235	0,240							
Q10T2H5		20						3,474	94,376	29,86828	2,183914	0,200							
Q10T2H4		16						3,508	89,722	28,39516	1,96077	0,160							
Q10T2H3		12						3,560	81,877	25,91236	1,673088	0,120							
Q10T2H2		8						3,677	76,814	24,31014	1,267623	0,080							
Q10T2H1		4						3,739	68,917	21,81079	0,574476	0,040							
Q10T3H12		95						2,954	98,338	31,12199	3,742058	0,950							
Q10T3H11		90						2,981	98,861	31,28751	3,687991	0,900							
Q10T3H10		75						3,003	99,384	31,45303	3,505669	0,750							
Q10T3H9		60						3,025	96,977	30,69147	3,282526	0,600							
Q10T3H8		45						3,079	93,743	29,66778	2,994844	0,450							
Q10T3H7	75	30	0,000456	300	96	58,53659	28	3,114	94,385	29,87099	2,589379	0,300	0,1875	14,83	58,324	5,932	9,832097	92,93957	3,24459
Q10T3H6		24						3,142	93,385	29,55452	2,366235	0,240							
Q10T3H5		20						3,130	92,807	29,37172	2,183914	0,200							
Q10T3H4		16						3,152	88,153	27,8986	1,96077	0,160							
Q10T3H3		12						3,213	80,308	25,41581	1,673088	0,120							
Q10T3H2		8						3,299	75,245	23,81358	1,267623	0,080							
Q10T3H1		4						3,348	68,707	21,74458	0,574476	0,040							
Q10T4H12		95						2,782	93,108	29,46679	3,742058	0,950							
Q10T4H11		90						2,873	95,723	30,29439	3,687991	0,900							
Q10T4H10		75						2,908	92,585	29,30128	3,505669	0,750							
Q10T4H9		60						2,920	91,224	28,87076	3,282526	0,600							
Q10T4H8		45						2,967	89,036	28,1781	2,994844	0,450							
Q10T4H7	37,5	30	0,000456	300	96	58,53659	28	2,972	88,632	28,05028	2,589379	0,300	0,09375	11,607	58,075	4,6428	12,50862	87,67244	3,114169
Q10T4H6		24						3,005	87,109	27,56828	2,366235	0,240							
Q10T4H5		20						3,037	86,531	27,38549	2,183914	0,200							
Q10T4H4		16						3,063	81,877	25,91236	1,96077	0,160							
Q10T4H3		12						3,090	74,032	23,42957	1,673088	0,120							
Q10T4H2		8						3,116	68,969	21,82734	1,267623	0,080							
Q10T4H1		4						3,143	67,871	21,47975	0,574476	0,040							
Q10T5H12		95						2,654	90,493	28,6392	3,742058	0,950							
Q10T5H11		90						2,697895	92,5847	29,30128	3,687991	0,900							
Q10T5H10		75						2,710	89,970	28,47368	3,505669	0,750							
Q10T5H9		60						2,736	87,040	27,5466	3,282526	0,600							
Q10T5H8		45						2,776	85,898	27,18499	2,994844	0,450							
Q10T5H7	19	30	0,000456	300	96	58,53659	28	2,812	85,494	27,05716	2,589379	0,300	0,0475	9,0434	59,696	3,61736	16,50264	84,71906	2,923079
Q10T5H6		24						2,829	83,971	26,57517	2,366235	0,240							
Q10T5H5		20						2,808	82,870	26,22685	2,183914	0,200							
Q10T5H4		16						2,822	78,216	24,75373	1,96077	0,160							
Q10T5H3		12						2,875	70,371	22,27094	1,673088	0,120							
Q10T5H2		8						2,953	68,697	21,74127	1,267623	0,080							
Q10T5H1		4						2,995	67,599	21,39368	0,574476	0,040							

UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 3

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KECEPATAN TAMPANG 1

Suhu = 28 C; B =3,5 m; D = 100 cm; H = 185 cm; dinding saluran dari pas batu kali

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q1T1H12	175	95	27,29	1,470	27,59	1,485	24,60	1,329	1,43
Q1T1H11		90	27,39	1,475	27,89	1,501	26,00	1,402	1,46
Q1T1H10		75	27,05	1,457	26,95	1,452	24,50	1,324	1,41
Q1T1H9		60	26,10	1,406	26,30	1,418	24,70	1,334	1,39
Q1T1H8		45	25,40	1,371	25,70	1,387	24,30	1,313	1,36
Q1T1H7		30	25,10	1,355	24,60	1,329	23,50	1,272	1,32
Q1T1H6		24	23,60	1,277	23,60	1,277	23,60	1,277	1,28
Q1T1H5		20	20,80	1,130	20,80	1,130	21,20	1,151	1,14
Q1T1H4		16	18,90	1,031	19,50	1,062	18,70	1,021	1,04
Q1T1H3		12	18,50	1,010	19,00	1,036	18,00	0,984	1,01
Q1T1H2		8	16,60	0,911	16,60	0,911	17,00	0,932	0,92
Q1T1H1		4	14,25	0,788	14,85	0,819	14,05	0,777	0,79
Q1T2H12	131	95	27,09	1,459	27,19	1,465	24,20	1,308	1,41
Q1T2H11		90	26,79	1,444	26,69	1,438	24,80	1,340	1,41
Q1T2H10		75	26,75	1,442	26,05	1,405	23,60	1,277	1,37
Q1T2H9		60	25,50	1,376	25,20	1,360	23,60	1,277	1,34
Q1T2H8		45	25,00	1,350	24,60	1,329	23,20	1,256	1,31
Q1T2H7		30	24,60	1,329	24,10	1,303	23,00	1,245	1,29
Q1T2H6		24	23,60	1,277	23,60	1,277	22,80	1,235	1,26
Q1T2H5		20	19,50	1,062	19,00	1,036	20,00	1,089	1,06
Q1T2H4		16	17,60	0,963	17,50	0,958	17,70	0,968	0,96
Q1T2H3		12	17,10	0,937	16,70	0,916	17,50	0,958	0,94
Q1T2H2		8	15,00	0,827	15,30	0,843	14,70	0,811	0,83
Q1T2H1		4	13,80	0,764	14,00	0,775	13,60	0,754	0,76
Q1T3H12	87,5	95	26,99	1,454	25,00	1,350	23,00	1,245	1,35
Q1T3H11		90	26,39	1,423	25,00	1,350	24,00	1,298	1,36
Q1T3H10		75	26,45	1,426	24,20	1,308	23,80	1,287	1,34
Q1T3H9		60	25,40	1,371	24,00	1,298	23,60	1,277	1,32
Q1T3H8		45	24,70	1 334	23,00	1,245	23,60	1,277	1,29
Q1T3H7		30	24,00	1,298	23,00	1,245	22,80	1,235	1,26
Q1T3H6		24	23,60	1,277	22,00	1,193	22,20	1,204	1,22
Q1T3H5		20	19,10	1,041	18,70	1,021	19,50	1,062	1,04
Q1T3H4		16	17,20	0,942	16,70	0,916	17,70	0,968	0,94
Q1T3H3		12	16,50	0,905	16,30	0,895	16,70	0,916	0,91
Q1T3H2		8	14,70	0,811	14,40	0,796	15,00	0,827	0,81
Q1T3H1		4	13,60	0,754	13,10	0,728	14,10	0,780	0,75
Q1T4H12	44	95	23,90	1,292	24,00	1,298	23,80	1,287	1,29
Q1T4H11		90	24,30	1,313	25,00	1,350	23,60	1,277	1,31
Q1T4H10		75	23,80	1,287	24,20	1,308	23,40	1,266	1,28
Q1T4H9		60	23,60	1,277	24,00	1,298	23,20	1,256	1,28
Q1T4H8		45	23,10	1,251	23,00	1,245	23,20	1,256	1,25
Q1T4H7		30	22,60	1,224	23,00	1,245	22,20	1,204	1,22
Q1T4H6		24	21,40	1,162	22,00	1,193	20,80	1,130	1,16
Q1T4H5		20	18,40	1,005	18,30	1,000	18,50	1,010	1,00
Q1T4H4		16	15,90	0,874	15,90	0,874	15,90	0,874	0,87
Q1T4H3		12	15,40	0,848	14,30	0,790	15,50	0,853	0,83
Q1T4H2		8	14,30	0,790	13,80	0,764	15,00	0,827	0,79
Q1T4H1		4	13,40	0,743	13,30	0,738	13,50	0,749	0,74
Q1T5H12	22	95	23,80	1,287	24,00	1,298	23,60	1,277	1,29
Q1T5H11		90	24,00	1,298	23,80	1,287	24,20	1,308	1,30
Q1T5H10		75	23,50	1,272	23,70	1,282	23,30	1,261	1,27
Q1T5H9		60	23,20	1,256	23,00	1,245	23,40	1,266	1,26
Q1T5H8		45	23,00	1,245	22,50	1,219	23,50	1,272	1,25
Q1T5H7		30	22,10	1,198	22,40	1,214	21,80	1,183	1,20
Q1T5H6		24	20,70	1,125	21,00	1,141	20,40	1,109	1,13
Q1T5H5		20	17,30	0,947	17,10	0,937	17,50	0,958	0,95
Q1T5H4		16	15,30	0,843	14,90	0,822	15,70	0,864	0,84
Q1T5H3		12	15,00	0,827	14,60	0,806	15,40	0,848	0,83
Q1T5H2		8	14,00	0,775	13,90	0,769	14,10	0,780	0,77
Q1T5H1		4	13,20	0,733	13,00	0,722	13,40	0,743	0,73

PEMBACAAN KECEPATAN TAMPANG 2

Suhu = 28 C; B = 2,0 m; **Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta**

UNIVERSITAS GADJAH MADA
IKHSAN, Cahyono, Dr.Ir. Rambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kode Titik	Koordinat (cm)	Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q2T1H12	100	95	27,99	1,506	27,59	1,485	28,39	1,527	1,51
Q2T1H11		90	28,89	1,553	29,39	1,580	27,39	1,475	1,54
Q2T1H10		75	28,39	1,527	28,39	1,527	28,39	1,527	1,53
Q2T1H9		60	27,29	1,470	27,49	1,480	27,09	1,459	1,47
Q2T1H8		45	26,49	1,428	26,99	1,454	25,99	1,402	1,43
Q2T1H7		30	24,59	1,329	24,79	1,339	24,39	1,318	1,33
Q2T1H6		24	24,39	1,318	24,49	1,323	24,29	1,313	1,32
Q2T1H5		20	20,30	1,104	20,50	1,115	21,10	1,146	1,12
Q2T1H4		16	18,30	1,000	18,20	0,994	19,70	1,073	1,02
Q2T1H3		12	17,60	0,963	17,70	0,968	17,50	0,958	0,96
Q2T1H2		8	15,90	0,874	16,00	0,879	15,80	0,869	0,87
Q2T1H1		4	14,20	0,785	14,30	0,790	14,10	0,780	0,79
Q2T2H12	75	95	27,39	1,475	27,59	1,485	27,19	1,465	1,47
Q2T2H11		90	28,39	1,527	28,49	1,533	28,29	1,522	1,53
Q2T2H10		75	28,09	1,512	27,99	1,506	26,59	1,433	1,48
Q2T2H9		60	26,99	1,454	27,19	1,465	25,19	1,360	1,43
Q2T2H8		45	26,29	1,417	26,49	1,428	24,49	1,323	1,39
Q2T2H7		30	24,39	1,318	24,39	1,318	24,39	1,318	1,32
Q2T2H6		24	24,19	1,308	24,39	1,318	23,99	1,297	1,31
Q2T2H5		20	20,10	1,094	20,00	1,089	20,20	1,099	1,09
Q2T2H4		16	18,10	0,989	18,10	0,989	18,10	0,989	0,99
Q2T2H3		12	17,50	0,958	17,60	0,963	17,40	0,953	0,96
Q2T2H2		8	15,80	0,869	16,00	0,879	15,60	0,858	0,87
Q2T2H1		4	14,10	0,780	14,20	0,785	14,00	0,775	0,78
Q2T3H12	50	95	26,49	1,428	26,39	1,423	26,89	1,449	1,43
Q2T3H11		90	27,99	1,506	28,09	1,512	27,89	1,501	1,51
Q2T3H10		75	25,39	1,370	25,89	1,397	24,89	1,344	1,37
Q2T3H9		60	25,19	1,359937	25,39	1,370397	24,99	1,349477	1,36
Q2T3H8		45	24,49	1,323	24,89	1,344	24,09	1,302	1,32
Q2T3H7		30	24,39	1,318	24,49	1,323	24,29	1,313	1,32
Q2T3H6		24	24,09	1,302	24,39	1,318	23,79	1,287	1,30
Q2T3H5		20	19,50	1,06235	19,00	1,0362	19,00	1,0362	1,04
Q2T3H4		16	17,40	0,953	17,70	0,968	17,10	0,937	0,95
Q2T3H3		12	17,10	0,937	17,00	0,932	17,20	0,942	0,94
Q2T3H2		8	15,40	0,848	15,50	0,853	15,30	0,843	0,85
Q2T3H1		4	13,60	0,754	13,50	0,749	13,70	0,759	0,75
Q2T4H12	25	95	23,29	1,261	24,39	1,318	22,19	1,203	1,26
Q2T4H11		90	24,69	1,334	24,39	1,318	24,99	1,349	1,33
Q2T4H10		75	23,49	1,271	23,89	1,292	23,09	1,250	1,27
Q2T4H9		60	22,99	1,245	23,39	1,266	22,59	1,224	1,24
Q2T4H8		45	22,39	1,213	22,89	1,240	21,89	1,187	1,21
Q2T4H7		30	22,19	1,203	22,39	1,213	21,99	1,193	1,20
Q2T4H6		24	21,69	1,177	21,79	1,182	21,59	1,172	1,18
Q2T4H5		20	18,50	1,010	18,70	1,021	18,30	1,000	1,01
Q2T4H4		16	17,10	0,937	17,70	0,968	16,50	0,905	0,94
Q2T4H3		12	16,00	0,879	16,10	0,885	15,90	0,874	0,88
Q2T4H2		8	14,90	0,822	15,40	0,848	14,40	0,796	0,82
Q2T4H1		4	13,80	0,764	14,00	0,775	13,60	0,754	0,76
Q2T5H12	12,5	95	21,39	1,161	21,19	1,151	21,59	1,172	1,16
Q2T5H11		90	20,99	1,140	21,19	1,151	20,79	1,130	1,14
Q2T5H10		75	20,85	1,133	20,95	1,138	20,75	1,128	1,13
Q2T5H9		60	20,12	1,095	20,32	1,105	19,92	1,084	1,09
Q2T5H8		45	18,99	1,036	18,99	1,036	18,99	1,036	1,04
Q2T5H7		30	18,89	1,030	18,99	1,036	18,79	1,025	1,03
Q2T5H6		24	18,69	1,020	18,59	1,015	18,79	1,025	1,02
Q2T5H5		20	15,50	0,853	15,60	0,858	15,40	0,848	0,85
Q2T5H4		16	14,50	0,801	14,70	0,811	14,30	0,790	0,80
Q2T5H3		12	13,50	0,749	13,60	0,754	13,40	0,743	0,75
Q2T5H2		8	13,20	0,733	13,20	0,733	13,20	0,733	0,73
Q2T5H1		4	12,00	0,670	12,10	0,675	11,90	0,665	0,67

UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KECEPAT

Suhu = 28 C; B = 4,5 m; D = 95 cm; H = 185 cm; dinding saluran dari pasangan batu

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q3T1H12	225	95	15,59	0,858	15,39	0,847	15,79	0,868	0,86
Q3T1H11		90	16,69	0,915	16,59	0,910	16,79	0,921	0,92
Q3T1H10		75	17,99	0,983	18,19	0,994	17,79	0,973	0,98
Q3T1H9		60	17,19	0,942	16,99	0,931	17,39	0,952	0,94
Q3T1H8		45	17,02	0,932	17,12	0,938	16,92	0,927	0,93
Q3T1H7		30	16,91	0,927	16,91	0,927	16,91	0,927	0,93
Q3T1H6		24	16,19	0,889	16,29	0,894	16,09	0,884	0,89
Q3T1H5		20	15,83	0,870	15,93	0,876	15,73	0,865	0,87
Q3T1H4		16	14,33	0,792	14,43	0,797	14,23	0,787	0,79
Q3T1H3		12	12,83	0,714	12,93	0,719	12,73	0,708	0,71
Q3T1H2		8	11,33	0,635	11,43	0,640	11,23	0,630	0,64
Q3T1H1		4	11,18	0,627	11,28	0,632	11,08	0,622	0,63
Q3T2H12	169	95	15,19	0,837	15,29	0,842	15,09	0,832	0,84
Q3T2H11		90	15,69	0,863	15,69	0,863	15,69	0,863	0,86
Q3T2H10		75	16,69	0,915	16,79	0,921	16,59	0,910	0,92
Q3T2H9		60	16,09	0,884	15,99	0,879	16,19	0,889	0,88
Q3T2H8		45	15,82	0,870	15,92	0,875	15,72	0,864	0,87
Q3T2H7		30	15,91	0,875	15,81	0,869	16,01	0,880	0,87
Q3T2H6		24	15,29	0,842	15,29	0,842	15,29	0,842	0,84
Q3T2H5		20	15,13	0,834	15,03	0,829	15,23	0,839	0,83
Q3T2H4		16	13,63	0,755	13,53	0,750	13,73	0,761	0,76
Q3T2H3		12	12,13	0,677	12,03	0,672	12,23	0,682	0,68
Q3T2H2		8	11,28	0,632	11,18	0,627	11,38	0,638	0,63
Q3T2H1		4	11,13	0,625	11,03	0,619	11,23	0,630	0,62
Q3T3H12	112,5	95	13,99	0,774	14,19	0,785	13,79	0,764	0,77
Q3T3H11		90	14,49	0,800	14,39	0,795	14,59	0,806	0,80
Q3T3H10		75	15,09	0,874	16,29	0,894	15,49	0,853	0,87
Q3T3H9		60	15,19	0,836937	15,49	0,852627	14,89	0,821247	0,84
Q3T3H8		45	15,22	0,838	15,42	0,849	15,02	0,828	0,84
Q3T3H7		30	15,41	0,848	15,31	0,843	15,51	0,854	0,85
Q3T3H6		24	14,79	0,816	14,99	0,826	14,59	0,805	0,82
Q3T3H5		20	14,63	0,807649	14,63	0,807649	14,63	0,807649	0,81
Q3T3H4		16	13,13	0,729	13,13	0,729	13,13	0,729	0,73
Q3T3H3		12	11,63	0,651	11,63	0,651	11,63	0,651	0,65
Q3T3H2		8	11,08	0,622	11,08	0,622	11,08	0,622	0,62
Q3T3H1		4	10,93	0,614	10,93	0,614	10,93	0,614	0,61
Q3T4H12	56	95	13,29	0,738	13,39	0,743	13,19	0,732	0,74
Q3T4H11		90	13,99	0,774	13,89	0,769	14,09	0,779	0,77
Q3T4H10		75	14,79	0,816	14,99	0,826	14,59	0,806	0,82
Q3T4H9		60	14,59	0,806	14,69	0,811	14,49	0,800	0,81
Q3T4H8		45	14,42	0,796	14,32	0,791	14,52	0,802	0,80
Q3T4H7		30	14,61	0,807	14,51	0,801	14,71	0,812	0,81
Q3T4H6		24	13,79	0,764	13,89	0,769	13,69	0,758	0,76
Q3T4H5		20	13,63	0,755	13,43	0,745	13,83	0,766	0,76
Q3T4H4		16	12,13	0,677	11,93	0,666	12,33	0,687	0,68
Q3T4H3		12	10,63	0,598	10,43	0,588	10,83	0,609	0,60
Q3T4H2		8	10,55	0,594	10,35	0,584	10,75	0,604	0,59
Q3T4H1		4	10,14	0,573	10,21	0,576	10,60	0,597	0,58
Q3T5H12	28	95	12,79	0,711	12,19	0,680	11,89	0,664	0,69
Q3T5H11		90	13,29	0,738	11,99	0,670	12,09	0,675	0,69
Q3T5H10		75	13,99	0,774	13,49	0,748	13,59	0,753	0,76
Q3T5H9		60	13,79	0,764	13,89	0,769	13,49	0,748	0,76
Q3T5H8		45	13,52	0,749	12,82	0,713	13,02	0,723	0,73
Q3T5H7		30	13,41	0,744	12,41	0,692	12,21	0,681	0,71
Q3T5H6		24	13,30	0,738	12,70	0,707	12,50	0,696	0,71
Q3T5H5		20	13,18	0,732	12,28	0,684	12,38	0,690	0,70
Q3T5H4		16	12,88	0,716	11,98	0,669	12,08	0,674	0,69
Q3T5H3		12	10,08	0,569	10,48	0,590	10,58	0,596	0,59
Q3T5H2		8	9,99	0,565	10,39	0,586	10,49	0,591	0,58
Q3T5H1		4	9,62	0,545	10,02	0,566	10,12	0,572	0,56

Universitas Gadjah Mada, 2009 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KECEPAT **Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta**

Suhu = 28 C; B = 4.0 m; D = 1.0 m; Bahan dasar saluran = beton

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q4T1H12	200	95	16,19	0,889	15,69	0,863	16,09	0,884	0,88
Q4T1H11		90	17,19	0,942	17,19	0,942	16,49	0,905	0,93
Q4T1H10		75	17,59	0,962	17,99	0,983	17,69	0,968	0,97
Q4T1H9		60	17,29	0,947	17,49	0,957	16,59	0,910	0,94
Q4T1H8		45	17,02	0,932	16,82	0,922	16,92	0,927	0,93
Q4T1H7		30	16,93	0,928	16,43	0,902	16,63	0,912	0,91
Q4T1H6		24	16,37	0,899	15,97	0,878	16,17	0,888	0,89
Q4T1H5		20	16,03	0,881	15,73	0,865	16,03	0,881	0,88
Q4T1H4		16	14,53	0,802	14,23	0,787	14,53	0,802	0,80
Q4T1H3		12	13,03	0,724	12,73	0,708	13,03	0,724	0,72
Q4T1H2		8	11,53	0,646	11,23	0,630	11,53	0,646	0,64
Q4T1H1		4	11,38	0,638	11,08	0,622	11,38	0,638	0,63
Q4T2H12	150	95	15,89	0,874	15,59	0,858	15,19	0,837	0,86
Q4T2H11		90	16,69	0,915	16,59	0,910	15,99	0,879	0,90
Q4T2H10		75	17,29	0,947	17,39	0,952	17,49	0,957	0,95
Q4T2H9		60	16,69	0,915	16,49	0,905	16,39	0,900	0,91
Q4T2H8		45	16,12	0,885	16,32	0,896	16,62	0,911	0,90
Q4T2H7		30	15,93	0,876	16,03	0,881	16,43	0,902	0,89
Q4T2H6		24	15,57	0,857	15,97	0,878	16,37	0,899	0,88
Q4T2H5		20	15,33	0,844	14,73	0,813	13,93	0,771	0,81
Q4T2H4		16	14,46	0,798	13,86	0,767	13,06	0,725	0,76
Q4T2H3		12	12,96	0,720	12,36	0,689	11,56	0,647	0,69
Q4T2H2		8	11,46	0,642	10,86	0,610	10,06	0,568	0,61
Q4T2H1		4	11,31	0,634	10,71	0,602	9,91	0,561	0,60
Q4T3H12	100	95	15,69	0,863	15,69	0,863	15,69	0,863	0,86
Q4T3H11		90	16,49	0,905	16,89	0,926	16,59	0,910	0,91
Q4T3H10		75	16,79	0,921	16,49	0,905	17,09	0,936	0,92
Q4T3H9		60	15,99	0,878777	15,99	0,878777	15,99	0,878777	0,88
Q4T3H8		45	16,02	0,880	15,92	0,875	16,12	0,885	0,88
Q4T3H7		30	15,83	0,871	15,73	0,865	15,93	0,876	0,87
Q4T3H6		24	15,57	0,857	15,47	0,851	15,67	0,862	0,86
Q4T3H5		20	14,33	0,791959	14,43	0,797189	14,23	0,786729	0,79
Q4T3H4		16	13,46	0,746	13,56	0,751	13,36	0,741	0,75
Q4T3H3		12	12,61	0,702	12,71	0,707	12,51	0,697	0,70
Q4T3H2		8	11,26	0,632	11,36	0,637	11,16	0,626	0,63
Q4T3H1		4	10,95	0,615	11,05	0,620	10,85	0,610	0,62
Q4T4H12	50	95	15,19	0,837	15,39	0,847	14,99	0,826	0,84
Q4T4H11		90	16,39	0,900	16,29	0,894	16,49	0,905	0,90
Q4T4H10		75	16,39	0,900	16,49	0,905	16,29	0,894	0,90
Q4T4H9		60	15,79	0,868	15,99	0,879	15,59	0,858	0,87
Q4T4H8		45	15,82	0,870	15,92	0,875	15,72	0,864	0,87
Q4T4H7		30	15,43	0,850	15,53	0,855	15,33	0,844	0,85
Q4T4H6		24	15,27	0,841	15,47	0,851	15,07	0,831	0,84
Q4T4H5		20	14,03	0,776	14,13	0,781	13,93	0,771	0,78
Q4T4H4		16	13,16	0,731	13,26	0,736	13,06	0,725	0,73
Q4T4H3		12	12,31	0,686	12,41	0,691	12,21	0,681	0,69
Q4T4H2		8	10,96	0,616	11,06	0,621	10,86	0,611	0,62
Q4T4H1		4	10,81	0,608	10,91	0,613	10,71	0,603	0,61
Q4T5H12	25	95	15,09	0,832	14,99	0,826	15,19	0,837	0,83
Q4T5H11		90	16,19	0,889	16,09	0,884	16,29	0,894	0,89
Q4T5H10		75	16,09	0,884	15,99	0,879	16,19	0,889	0,88
Q4T5H9		60	15,49	0,853	15,59	0,858	15,39	0,847	0,85
Q4T5H8		45	15,62	0,859	15,62	0,859	15,62	0,859	0,86
Q4T5H7		30	15,23	0,839	15,43	0,850	15,03	0,829	0,84
Q4T5H6		24	14,77	0,815	14,47	0,799	15,07	0,831	0,81
Q4T5H5		20	13,63	0,755	13,63	0,755	13,63	0,755	0,76
Q4T5H4		16	12,76	0,710	12,76	0,710	12,76	0,710	0,71
Q4T5H3		12	12,18	0,679	12,18	0,679	12,18	0,679	0,68
Q4T5H2		8	10,83	0,609	10,83	0,609	10,83	0,609	0,61
Q4T5H1		4	10,68	0,601	10,68	0,601	10,68	0,601	0,60

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KECEPATAN TAMPANG 5

Suhu = 28 C; B =4,0 m; D = 100 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q5T1H12	200	95	17,64	0,965	17,34	0,949	17,94	0,981	0,97
Q5T1H11		90	17,83	0,975	18,13	0,991	17,53	0,959	0,98
Q5T1H10		75	17,79	0,973	17,89	0,978	17,69	0,968	0,97
Q5T1H9		60	17,36	0,950	17,46	0,956	17,26	0,945	0,95
Q5T1H8		45	16,99	0,931	17,09	0,936	16,89	0,926	0,93
Q5T1H7		30	16,69	0,916	16,49	0,905	16,89	0,926	0,92
Q5T1H6		24	16,20	0,890	16,10	0,884	16,30	0,895	0,89
Q5T1H5		20	15,23	0,839	15,43	0,849	15,03	0,829	0,84
Q5T1H4		16	13,73	0,761	13,93	0,771	13,53	0,750	0,76
Q5T1H3		12	12,23	0,682	12,43	0,693	12,03	0,672	0,68
Q5T1H2		8	10,73	0,604	10,93	0,614	10,53	0,593	0,60
Q5T1H1		4	10,58	0,596	10,78	0,606	10,38	0,585	0,60
Q5T2H12	150	95	17,03	0,933	17,23	0,943	16,83	0,922	0,93
Q5T2H11		90	17,43	0,954	17,63	0,965	17,23	0,944	0,95
Q5T2H10		75	17,19	0,942	16,99	0,931	17,39	0,952	0,94
Q5T2H9		60	17,06	0,935	16,86	0,924	17,26	0,945	0,93
Q5T2H8		45	16,59	0,910	16,89	0,926	16,29	0,894	0,91
Q5T2H7		30	16,09	0,884	16,19	0,889	15,99	0,879	0,88
Q5T2H6		24	15,70	0,863	15,90	0,874	15,50	0,853	0,86
Q5T2H5		20	14,93	0,823	14,93	0,823	14,93	0,823	0,82
Q5T2H4		16	13,94	0,772	13,94	0,772	13,94	0,772	0,77
Q5T2H3		12	12,44	0,693	12,44	0,693	12,44	0,693	0,69
Q5T2H2		8	10,94	0,615	10,94	0,615	10,94	0,615	0,61
Q5T2H1		4	10,79	0,607	10,79	0,607	10,79	0,607	0,61
Q5T3H12	100	95	17,03	0,933	16,93	0,928	16,83	0,922	0,93
Q5T3H11		90	17,43	0,954	17,23	0,944	17,03	0,933	0,94
Q5T3H10		75	16,59	0,910	16,49	0,905	16,39	0,900	0,90
Q5T3H9		60	16,06	0,882438	15,86	0,871978	15,66	0,861518	0,87
Q5T3H8		45	15,90	0,879	15,79	0,868	15,59	0,858	0,87
Q5T3H7		30	15,19	0,837	15,49	0,853	15,79	0,869	0,85
Q5T3H6		24	14,90	0,822	15,10	0,832	15,50	0,853	0,84
Q5T3H5		20	14,63	0,807649	14,43	0,797189	14,23	0,786729	0,80
Q5T3H4		16	13,64	0,756	13,44	0,745	13,24	0,735	0,75
Q5T3H3		12	12,14	0,677	11,94	0,667	11,74	0,657	0,67
Q5T3H2		8	10,79	0,607	10,59	0,596	10,39	0,586	0,60
Q5T3H1		4	10,64	0,599	10,44	0,589	10,24	0,578	0,59
Q5T4H12	50	95	16,03	0,881	16,13	0,886	15,83	0,870	0,88
Q5T4H11		90	16,53	0,907	16,43	0,902	16,63	0,912	0,91
Q5T4H10		75	16,09	0,884	16,59	0,910	15,59	0,858	0,88
Q5T4H9		60	16,46	0,903	16,66	0,914	16,26	0,893	0,90
Q5T4H8		45	16,29	0,894	16,49	0,905	16,09	0,884	0,89
Q5T4H7		30	15,99	0,879	16,19	0,889	15,79	0,869	0,88
Q5T4H6		24	15,80	0,869	16,00	0,879	15,60	0,858	0,87
Q5T4H5		20	14,34	0,792	14,24	0,787	14,44	0,797	0,79
Q5T4H4		16	13,35	0,740	13,25	0,735	13,45	0,746	0,74
Q5T4H3		12	11,85	0,662	11,75	0,657	11,95	0,667	0,66
Q5T4H2		8	10,72	0,603	10,62	0,598	10,82	0,609	0,60
Q5T4H1		4	10,57	0,596	10,47	0,590	10,67	0,601	0,60
Q5T5H12	25	95	15,23	0,839	15,33	0,844	15,13	0,834	0,84
Q5T5H11		90	15,53	0,855	15,43	0,849	15,63	0,860	0,85
Q5T5H10		75	15,59	0,858	15,49	0,853	15,69	0,863	0,86
Q5T5H9		60	15,26	0,841	15,36	0,846	15,16	0,835	0,84
Q5T5H8		45	15,29	0,842	15,29	0,842	15,29	0,842	0,84
Q5T5H7		30	14,99	0,827	14,89	0,821	15,09	0,832	0,83
Q5T5H6		24	14,70	0,811	15,10	0,832	14,30	0,790	0,81
Q5T5H5		20	13,14	0,729	12,94	0,719	13,34	0,740	0,73
Q5T5H4		16	12,15	0,678	11,95	0,667	12,35	0,688	0,68
Q5T5H3		12	11,00	0,618	10,80	0,607	11,20	0,628	0,62
Q5T5H2		8	10,22	0,577	10,02	0,566	10,42	0,587	0,58
Q5T5H1		4	10,07	0,569	9,87	0,558	10,27	0,579	0,57

PEMBACAAN KECEPATA Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

Suhu = 28 C; B = 2,5 m; D =

IKHSAN; Cahyono; Dr.Ir. Bambang Agus Kironoto ...
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/
UNIVERSITAS GADJAH MADA

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q6T1H12	125	95	24,89	1,344	24,99	1,349	24,79	1,339	1,34
Q6T1H11		90	26,49	1,428	26,39	1,423	26,59	1,433	1,43
Q6T1H10		75	26,45	1,426	26,75	1,442	26,15	1,410	1,43
Q6T1H9		60	25,20	1,360	25,40	1,371	25,00	1,350	1,36
Q6T1H8		45	24,50	1,324	24,40	1,319	24,60	1,329	1,32
Q6T1H7		30	24,00	1,298	24,30	1,313	23,70	1,282	1,30
Q6T1H6		24	22,70	1,230	23,00	1,245	22,40	1,214	1,23
Q6T1H5		20	22,50	1,219	22,40	1,214	22,60	1,224	1,22
Q6T1H4		16	20,40	1,109	20,30	1,104	20,50	1,115	1,11
Q6T1H3		12	19,60	1,068	19,50	1,062	19,70	1,073	1,07
Q6T1H2		8	17,50	0,958	17,60	0,963	17,40	0,953	0,96
Q6T1H1		4	16,60	0,911	15,80	0,869	15,40	0,848	0,88
Q6T2H12	94	95	24,09	1,302	24,29	1,313	23,89	1,292	1,30
Q6T2H11		90	25,79	1,391	25,89	1,397	25,69	1,386	1,39
Q6T2H10		75	25,45	1,374	25,75	1,389	25,15	1,358	1,37
Q6T2H9		60	24,40	1,319	24,50	1,324	24,30	1,313	1,32
Q6T2H8		45	24,00	1,298	24,10	1,303	23,90	1,292	1,30
Q6T2H7		30	23,20	1,256	23,10	1,251	23,30	1,261	1,26
Q6T2H6		24	21,90	1,186	22,00	1,193	21,80	1,183	1,19
Q6T2H5		20	21,60	1,172	21,70	1,177	21,50	1,167	1,17
Q6T2H4		16	19,60	1,068	19,50	1,062	19,70	1,073	1,07
Q6T2H3		12	18,90	1,031	19,30	1,052	18,50	1,010	1,03
Q6T2H2		8	17,70	0,968	17,50	0,958	17,90	0,979	0,97
Q6T2H1		4	15,80	0,868	15,20	0,837	15,90	0,874	0,86
Q6T3H12	62	95	23,09	1,250	23,49	1,271	22,69	1,229	1,25
Q6T3H11		90	24,69	1,334	24,89	1,344	24,49	1,323	1,33
Q6T3H10		75	24,35	1,316	24,45	1,321	24,25	1,311	1,32
Q6T3H9		60	23,10	1,25063	23,20	1,25586	23,00	1,2454	1,25
Q6T3H8		45	22,40	1,214	23,00	1,245	22,70	1,230	1,23
Q6T3H7		30	22,00	1,193	22,20	1,204	22,70	1,230	1,21
Q6T3H6		24	20,80	1,130	21,00	1,141	21,00	1,141	1,14
Q6T3H5		20	20,60	1,11988	20,80	1,13034	20,40	1,10942	1,12
Q6T3H4		16	18,50	1,010	18,80	1,026	18,40	1,005	1,01
Q6T3H3		12	17,80	0,973	17,90	0,979	18,30	1,000	0,98
Q6T3H2		8	16,70	0,916	16,80	0,921	16,60	0,911	0,92
Q6T3H1		4	15,17	0,836	15,47	0,852	14,87	0,820	0,84
Q6T4H12	31	95	21,99	1,193	22,09	1,198	21,89	1,187	1,19
Q6T4H11		90	23,49	1,271	23,69	1,281	23,89	1,292	1,28
Q6T4H10		75	23,45	1,269	23,65	1,279	23,85	1,290	1,28
Q6T4H9		60	22,60	1,224	22,50	1,219	22,40	1,214	1,22
Q6T4H8		45	21,50	1,167	21,90	1,188	22,30	1,209	1,19
Q6T4H7		30	21,60	1,172	21,30	1,156	21,00	1,141	1,16
Q6T4H6		24	20,20	1,099	20,00	1,089	19,80	1,078	1,09
Q6T4H5		20	19,90	1,083	19,70	1,073	19,50	1,062	1,07
Q6T4H4		16	18,00	0,984	17,50	0,958	17,00	0,932	0,96
Q6T4H3		12	17,00	0,932	16,60	0,911	16,10	0,885	0,91
Q6T4H2		8	16,10	0,885	16,20	0,890	16,30	0,895	0,89
Q6T4H1		4	14,80	0,817	14,80	0,817	14,70	0,811	0,81
Q6T5H12	15,5	95	20,29	1,104	19,99	1,088	20,59	1,119	1,10
Q6T5H11		90	21,99	1,193	22,19	1,203	21,79	1,182	1,19
Q6T5H10		75	21,65	1,175	21,95	1,190	21,35	1,159	1,17
Q6T5H9		60	20,50	1,115	20,60	1,120	20,40	1,109	1,11
Q6T5H8		45	20,10	1,094	20,00	1,089	20,20	1,099	1,09
Q6T5H7		30	19,40	1,057	19,10	1,041	19,70	1,073	1,06
Q6T5H6		24	18,00	0,984	18,10	0,989	18,30	1,000	0,99
Q6T5H5		20	17,80	0,973	17,70	0,968	17,90	0,979	0,97
Q6T5H4		16	16,18	0,889	16,08	0,883	16,28	0,894	0,89
Q6T5H3		12	15,00	0,827	15,10	0,832	14,90	0,822	0,83
Q6T5H2		8	14,90	0,822	14,80	0,817	15,00	0,827	0,82
Q6T5H1		4	13,79	0,764	13,69	0,758	13,89	0,769	0,76

UNIVERSITAS GADJAH MADA

PEMBACAAN KECEPAT **Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta**

Suhu = 28 C; B = 3,0 m; D

IKHSAN; Cahyono, Dr.Ir. Bambang Agus Kironoto

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kode Titik	Koordinat (cm)	Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q7T1H12	150	95	13,79	0,764	13,89	0,769	13,69	0,758	0,76
Q7T1H11		90	14,59	0,806	14,39	0,795	14,79	0,816	0,81
Q7T1H10		75	15,59	0,858	15,69	0,863	15,49	0,853	0,86
Q7T1H9		60	14,79	0,816	14,99	0,826	14,59	0,806	0,82
Q7T1H8		45	14,32	0,791	14,42	0,796	14,22	0,786	0,79
Q7T1H7		30	14,21	0,786	14,31	0,791	14,11	0,780	0,79
Q7T1H6		24	13,19	0,732	13,29	0,737	13,09	0,727	0,73
Q7T1H5		20	13,03	0,724	13,13	0,729	12,93	0,719	0,72
Q7T1H4		16	12,14	0,677	12,57	0,700	12,37	0,689	0,69
Q7T1H3		12	10,64	0,599	11,57	0,648	11,37	0,637	0,63
Q7T1H2		8	9,96	0,563	10,89	0,612	10,69	0,602	0,59
Q7T1H1		4	8,54	0,489	9,47	0,538	9,27	0,527	0,52
Q7T2H12	112,5	95	13,19	0,732	13,09	0,727	12,99	0,722	0,73
Q7T2H11		90	13,69	0,758	13,79	0,764	13,89	0,769	0,76
Q7T2H10		75	14,89	0,821	14,59	0,806	14,29	0,790	0,81
Q7T2H9		60	13,79	0,764	13,89	0,769	13,99	0,774	0,77
Q7T2H8		45	13,92	0,770	13,72	0,760	13,52	0,749	0,76
Q7T2H7		30	13,41	0,744	13,61	0,754	13,81	0,765	0,75
Q7T2H6		24	12,79	0,711	12,59	0,701	12,39	0,690	0,70
Q7T2H5		20	12,23	0,682	12,33	0,687	12,43	0,693	0,69
Q7T2H4		16	11,34	0,636	11,44	0,641	11,54	0,646	0,64
Q7T2H3		12	10,49	0,591	10,59	0,596	10,69	0,601	0,60
Q7T2H2		8	9,92	0,561	10,02	0,566	10,12	0,572	0,57
Q7T2H1		4	8,50	0,487	8,60	0,492	8,70	0,497	0,49
Q7T3H12	75	95	11,79	0,659	11,89	0,664	11,69	0,654	0,66
Q7T3H11		90	13,19	0,732	13,39	0,743	12,99	0,722	0,73
Q7T3H10		75	13,59	0,753	13,39	0,743	13,79	0,764	0,75
Q7T3H9		60	13,19	0,732337	12,99	0,721877	13,39	0,742797	0,73
Q7T3H8		45	13,12	0,728	13,22	0,734	13,02	0,723	0,73
Q7T3H7		30	13,01	0,723	12,81	0,712	13,21	0,733	0,72
Q7T3H6		24	12,19	0,680	12,29	0,685	12,09	0,675	0,68
Q7T3H5		20	11,73	0,655979	11,83	0,661209	11,63	0,650749	0,66
Q7T3H4		16	10,84	0,609	10,94	0,615	10,74	0,604	0,61
Q7T3H3		12	9,99	0,565	10,09	0,570	9,89	0,559	0,56
Q7T3H2		8	9,33	0,530	9,43	0,536	9,23	0,525	0,53
Q7T3H1		4	8,35	0,479	8,45	0,484	8,25	0,474	0,48
Q7T4H12	37,5	95	11,39	0,638	11,59	0,649	11,19	0,628	0,64
Q7T4H11		90	12,69	0,706	12,39	0,690	12,99	0,722	0,71
Q7T4H10		75	13,19	0,732	13,39	0,743	12,99	0,722	0,73
Q7T4H9		60	12,89	0,717	12,99	0,722	12,79	0,711	0,72
Q7T4H8		45	12,92	0,718	13,02	0,723	12,82	0,713	0,72
Q7T4H7		30	12,41	0,692	12,61	0,702	12,21	0,681	0,69
Q7T4H6		24	11,69	0,654	11,79	0,659	11,59	0,649	0,65
Q7T4H5		20	11,33	0,635	11,43	0,640	11,23	0,630	0,64
Q7T4H4		16	10,44	0,589	10,54	0,594	10,34	0,583	0,59
Q7T4H3		12	9,59	0,544	9,69	0,549	9,49	0,539	0,54
Q7T4H2		8	8,93	0,509	9,03	0,515	8,83	0,504	0,51
Q7T4H1		4	8,51	0,487	8,61	0,493	8,41	0,482	0,49
Q7T5H12	19	95	11,19	0,628	11,39	0,638	10,99	0,617	0,63
Q7T5H11		90	11,99	0,670	12,09	0,675	11,89	0,664	0,67
Q7T5H10		75	12,49	0,696	12,69	0,706	12,29	0,685	0,70
Q7T5H9		60	11,99	0,670	12,19	0,680	11,79	0,659	0,67
Q7T5H8		45	11,82	0,660	11,92	0,666	11,72	0,655	0,66
Q7T5H7		30	11,81	0,660	12,01	0,671	12,11	0,676	0,67
Q7T5H6		24	11,19	0,628	11,39	0,638	11,29	0,633	0,63
Q7T5H5		20	11,13	0,625	11,23	0,630	11,03	0,619	0,62
Q7T5H4		16	10,24	0,578	10,34	0,583	10,14	0,573	0,58
Q7T5H3		12	9,39	0,533	9,49	0,539	9,29	0,528	0,53
Q7T5H2		8	8,73	0,499	8,83	0,504	8,63	0,494	0,50
Q7T5H1		4	8,44	0,484	8,54	0,489	8,34	0,479	0,48

UNIVERSITAS GADJAH MADA

PEMBACAAN KECEPATAN Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang
Suhu = 28 C; B = 1,5 m; D segiempat :: Di Saluran Induk Mataram, Yogyakarta

IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q8T1H12	75	95	23,77	1,286	23,37	1,265	24,17	1,307	1,29
Q8T1H11		90	26,19	1,412	25,99	1,402	26,39	1,423	1,41
Q8T1H10		75	25,95	1,400	26,05	1,405	25,85	1,394	1,40
Q8T1H9		60	24,90	1,345	24,70	1,334	25,10	1,355	1,34
Q8T1H8		45	23,94	1,295	23,84	1,289	24,04	1,300	1,29
Q8T1H7		30	23,60	1,277	23,70	1,282	23,50	1,272	1,28
Q8T1H6		24	22,30	1,209	22,20	1,204	22,40	1,214	1,21
Q8T1H5		20	20,40	1,109	20,50	1,115	20,30	1,104	1,11
Q8T1H4		16	18,70	1,021	18,90	1,031	18,50	1,010	1,02
Q8T1H3		12	17,00	0,932	16,80	0,921	17,20	0,942	0,93
Q8T1H2		8	15,40	0,848	15,20	0,837	15,60	0,858	0,85
Q8T1H1		4	14,70	0,811	14,60	0,806	13,80	0,764	0,79
Q8T2H12	56	95	23,37	1,265	23,27	1,260	23,47	1,270	1,26
Q8T2H11		90	25,39	1,370	25,49	1,376	25,29	1,365	1,37
Q8T2H10		75	25,35	1,368	25,45	1,374	25,25	1,363	1,37
Q8T2H9		60	24,30	1,313	24,20	1,308	24,40	1,319	1,31
Q8T2H8		45	23,34	1,263	23,24	1,258	23,44	1,269	1,26
Q8T2H7		30	22,80	1,235	22,90	1,240	22,70	1,230	1,23
Q8T2H6		24	21,60	1,172	21,70	1,177	21,50	1,167	1,17
Q8T2H5		20	19,70	1,073	19,60	1,068	19,80	1,078	1,07
Q8T2H4		16	18,00	0,984	18,20	0,994	17,80	0,973	0,98
Q8T2H3		12	16,30	0,895	16,20	0,890	16,40	0,900	0,89
Q8T2H2		8	15,24	0,840	15,04	0,829	14,94	0,824	0,83
Q8T2H1		4	14,18	0,784	14,28	0,789	14,08	0,779	0,78
Q8T3H12	37,5	95	22,97	1,244	23,17	1,254	22,77	1,233	1,24
Q8T3H11		90	25,19	1,360	24,89	1,344	25,49	1,376	1,36
Q8T3H10		75	24,55	1,326	24,45	1,321	24,65	1,332	1,33
Q8T3H9		60	23,20	1,25586	23,10	1,25063	23,80	1,28724	1,26
Q8T3H8		45	22,24	1,206	22,34	1,211	22,44	1,216	1,21
Q8T3H7		30	22,00	1,193	22,20	1,204	23,10	1,251	1,22
Q8T3H6		24	20,90	1,136	20,80	1,130	21,90	1,188	1,15
Q8T3H5		20	19,30	1,05189	19,40	1,05712	19,70	1,07281	1,06
Q8T3H4		16	17,70	0,968	17,60	0,963	17,80	0,973	0,97
Q8T3H3		12	16,00	0,879	15,50	0,853	16,90	0,926	0,89
Q8T3H2		8	14,94	0,824	14,74	0,813	15,14	0,834	0,82
Q8T3H1		4	14,39	0,795	14,39	0,795	14,79	0,816	0,80
Q8T4H12	19	95	22,37	1,212	22,07	1,197	22,67	1,228	1,21
Q8T4H11		90	24,59	1,329	24,89	1,344	24,29	1,313	1,33
Q8T4H10		75	24,15	1,306	24,45	1,321	23,85	1,290	1,31
Q8T4H9		60	22,60	1,224	22,80	1,235	22,40	1,214	1,22
Q8T4H8		45	21,44	1,164	21,54	1,169	21,64	1,174	1,17
Q8T4H7		30	20,80	1,130	21,00	1,141	21,30	1,156	1,14
Q8T4H6		24	19,50	1,062	19,70	1,073	19,80	1,078	1,07
Q8T4H5		20	17,80	0,973	17,60	0,963	17,80	0,973	0,97
Q8T4H4		16	16,67	0,914	16,87	0,925	17,37	0,951	0,93
Q8T4H3		12	15,71	0,864	15,61	0,859	15,61	0,859	0,86
Q8T4H2		8	14,04	0,777	13,94	0,772	14,34	0,792	0,78
Q8T4H1		4	13,90	0,769	14,00	0,775	13,60	0,754	0,77
Q8T5H12	9	95	21,87	1,186	21,97	1,192	21,77	1,181	1,19
Q8T5H11		90	22,89	1,240	22,69	1,229	23,09	1,250	1,24
Q8T5H10		75	22,85	1,238	23,05	1,248	22,65	1,227	1,24
Q8T5H9		60	21,50	1,167	21,60	1,172	31,40	1,685	1,34
Q8T5H8		45	20,24	1,101	20,44	1,112	20,04	1,091	1,10
Q8T5H7		30	19,80	1,078	19,90	1,083	19,70	1,073	1,08
Q8T5H6		24	18,50	1,010	18,90	1,031	18,10	0,989	1,01
Q8T5H5		20	16,80	0,921	16,90	0,926	16,00	0,879	0,91
Q8T5H4		16	15,77	0,867	15,87	0,873	15,67	0,862	0,87
Q8T5H3		12	14,81	0,817	14,71	0,812	14,91	0,822	0,82
Q8T5H2		8	14,00	0,775	13,90	0,769	14,10	0,780	0,77
Q8T5H1		4	13,00	0,722	13,10	0,728	12,50	0,696	0,72

UNIVERSITAS GADJAH MADA

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ad.id/

PEMBACAAN KECEPATAN LAMANA 9

Suhu = 28 C; B =3,0 m; D = 100 cm; H = 165 cm; dinding saluran dari pasangan batu kali

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	z	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q9T1H12	150	95	14,50	0,801	14,60	0,806	14,40	0,796	0,80
Q9T1H11		90	14,70	0,811	14,80	0,817	14,60	0,806	0,81
Q9T1H10		75	13,70	0,759	13,50	0,749	13,90	0,769	0,76
Q9T1H9		60	13,50	0,749	13,30	0,738	13,70	0,759	0,75
Q9T1H8		45	13,30	0,738	13,20	0,733	13,40	0,743	0,74
Q9T1H7		30	12,60	0,701	12,80	0,712	12,40	0,691	0,70
Q9T1H6		24	11,80	0,660	12,00	0,670	11,60	0,649	0,66
Q9T1H5		20	11,58	0,648	12,08	0,674	12,08	0,674	0,67
Q9T1H4		16	10,69	0,602	11,19	0,628	11,19	0,628	0,62
Q9T1H3		12	9,19	0,523	9,69	0,549	9,69	0,549	0,54
Q9T1H2		8	8,51	0,488	9,01	0,514	9,01	0,514	0,51
Q9T1H1		4	8,09	0,466	8,59	0,492	8,59	0,492	0,48
Q9T2H12	112,5	95	14,20	0,785	14,30	0,790	14,10	0,780	0,79
Q9T2H11		90	14,40	0,796	14,30	0,790	14,50	0,801	0,80
Q9T2H10		75	13,50	0,749	13,60	0,754	13,40	0,743	0,75
Q9T2H9		60	12,80	0,712	12,90	0,717	12,70	0,707	0,71
Q9T2H8		45	12,20	0,681	12,30	0,686	12,10	0,675	0,68
Q9T2H7		30	11,80	0,660	11,90	0,665	11,70	0,654	0,66
Q9T2H6		24	11,30	0,633	11,40	0,639	11,20	0,628	0,63
Q9T2H5		20	10,99	0,617	10,99	0,617	10,99	0,617	0,62
Q9T2H4		16	10,10	0,571	10,10	0,571	10,10	0,571	0,57
Q9T2H3		12	9,80	0,555	9,80	0,555	9,80	0,555	0,56
Q9T2H2		8	8,18	0,470	8,18	0,470	8,18	0,470	0,47
Q9T2H1		4	8,04	0,463	8,04	0,463	8,04	0,463	0,46
Q9T3H12	75	95	14,19	0,785	14,29	0,790	14,09	0,779	0,78
Q9T3H11		90	13,89	0,769	13,79	0,764	13,99	0,774	0,77
Q9T3H10		75	13,30	0,738	13,20	0,733	13,40	0,743	0,74
Q9T3H9		60	12,80	0,71194	12,80	0,71194	12,80	0,71194	0,71
Q9T3H8		45	12,20	0,681	12,40	0,691	12,00	0,670	0,68
Q9T3H7		30	11,80	0,660	11,90	0,665	11,70	0,654	0,66
Q9T3H6		24	10,90	0,613	10,70	0,602	11,10	0,623	0,61
Q9T3H5		20	10,69	0,601587	10,79	0,606817	10,59	0,596357	0,60
Q9T3H4		16	9,80	0,555	9,90	0,560	9,70	0,550	0,56
Q9T3H3		12	9,50	0,539	9,60	0,545	9,40	0,534	0,54
Q9T3H2		8	8,01	0,461	8,11	0,467	7,91	0,456	0,46
Q9T3H1		4	7,87	0,454	7,97	0,459	7,77	0,449	0,45
Q9T4H12	37,5	95	13,53	0,750	13,33	0,740	13,73	0,761	0,75
Q9T4H11		90	13,80	0,764	13,90	0,769	13,70	0,759	0,76
Q9T4H10		75	12,90	0,717	13,20	0,733	12,60	0,701	0,72
Q9T4H9		60	12,40	0,691	12,30	0,686	12,50	0,696	0,69
Q9T4H8		45	11,90	0,665	11,80	0,660	12,00	0,670	0,66
Q9T4H7		30	11,20	0,628	11,30	0,633	11,10	0,623	0,63
Q9T4H6		24	10,40	0,586	10,50	0,592	10,30	0,581	0,59
Q9T4H5		20	10,19	0,575	10,29	0,581	10,09	0,570	0,58
Q9T4H4		16	9,30	0,529	9,40	0,534	9,20	0,524	0,53
Q9T4H3		12	9,00	0,513	9,10	0,518	8,90	0,508	0,51
Q9T4H2		8	7,89	0,455	7,99	0,460	7,79	0,450	0,46
Q9T4H1		4	7,75	0,448	7,85	0,453	7,65	0,443	0,45
Q9T5H12	19	95	12,59	0,701	12,79	0,711	12,39	0,690	0,70
Q9T5H11		90	12,70	0,707	13,90	0,769	13,50	0,749	0,74
Q9T5H10		75	12,20	0,681	11,90	0,665	12,50	0,696	0,68
Q9T5H9		60	11,80	0,660	11,70	0,654	11,90	0,665	0,66
Q9T5H8		45	11,50	0,644	11,20	0,628	11,80	0,660	0,64
Q9T5H7		30	10,70	0,602	10,90	0,613	10,50	0,592	0,60
Q9T5H6		24	9,90	0,560	9,40	0,534	10,40	0,586	0,56
Q9T5H5		20	9,79	0,555	9,69	0,549	9,89	0,560	0,55
Q9T5H4		16	8,90	0,508	8,80	0,503	9,00	0,513	0,51
Q9T5H3		12	8,60	0,492	8,50	0,487	8,70	0,498	0,49
Q9T5H2		8	7,72	0,446	7,62	0,441	7,82	0,451	0,45
Q9T5H1		4	7,70	0,445	7,60	0,440	7,80	0,450	0,45

PEMBACAAN KECEPATAN Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

Suhu = 28 C; B =3,0 m; D = "KESAN: Cantyanti, Dr. Ir. Bambang Agus Kironoto"

UNIVERSITAS GADJAH MADA
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kode Titik	Koordinat (cm)		Pembacaan Kecepatan sedimen suspensi						Vrerata (m/det)
	x	y	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	Vc(n/det)	Vr(m/det)	
Q10T1H12	150	95	18,49	1,010	18,39	1,004	18,59	1,015	1,01
Q10T1H11		90	18,79	1,025	18,59	1,015	18,99	1,036	1,03
Q10T1H10		75	18,69	1,020	18,89	1,030	18,49	1,010	1,02
Q10T1H9		60	18,57	1,014	18,47	1,009	18,67	1,019	1,01
Q10T1H8		45	18,33	1,001	18,13	0,991	18,53	1,012	1,00
Q10T1H7		30	18,07	0,988	18,17	0,993	17,97	0,982	0,99
Q10T1H6		24	17,84	0,976	18,04	0,986	17,64	0,965	0,98
Q10T1H5		20	17,73	0,970	17,63	0,965	17,83	0,975	0,97
Q10T1H4		16	16,84	0,923	16,74	0,918	16,94	0,928	0,92
Q10T1H3		12	15,34	0,845	15,24	0,840	15,44	0,850	0,84
Q10T1H2		8	14,37	0,794	14,27	0,789	14,47	0,799	0,79
Q10T1H1		4	12,43	0,693	12,33	0,687	12,53	0,698	0,69
Q10T2H12	112,5	95	18,29	0,999	18,19	0,994	18,39	1,004	1,00
Q10T2H11		90	18,29	0,999	18,39	1,004	18,19	0,994	1,00
Q10T2H10		75	18,49	1,010	18,59	1,015	18,39	1,004	1,01
Q10T2H9		60	17,93	0,980	17,83	0,975	18,03	0,985	0,98
Q10T2H8		45	17,81	0,974	17,71	0,969	17,51	0,958	0,97
Q10T2H7		30	17,73	0,970	17,53	0,960	17,93	0,980	0,97
Q10T2H6		24	17,44	0,955	17,14	0,939	17,74	0,970	0,95
Q10T2H5		20	17,23	0,944	17,13	0,939	17,33	0,949	0,94
Q10T2H4		16	16,34	0,897	16,24	0,892	16,44	0,902	0,90
Q10T2H3		12	14,84	0,819	14,74	0,814	14,94	0,824	0,82
Q10T2H2		8	13,87	0,768	13,77	0,763	13,97	0,773	0,77
Q10T2H1		4	12,36	0,689	12,26	0,684	12,46	0,694	0,69
Q10T3H12	75	95	17,99	0,983	18,19	0,994	17,79	0,973	0,98
Q10T3H11		90	18,09	0,989	17,99	0,983	18,19	0,994	0,99
Q10T3H10		75	18,19	0,994	18,39	1,004	17,99	0,983	0,99
Q10T3H9		60	17,73	0,96977377	17,83	0,97500377	17,63	0,96454377	0,97
Q10T3H8		45	17,11	0,937	17,01	0,932	17,21	0,943	0,94
Q10T3H7		30	17,23	0,944	17,13	0,939	17,33	0,949	0,94
Q10T3H6		24	17,04	0,934	16,94	0,929	17,14	0,939	0,93
Q10T3H5		20	16,93	0,92807289	16,83	0,92284289	17,03	0,93330289	0,93
Q10T3H4		16	16,04	0,882	15,94	0,876	16,14	0,887	0,88
Q10T3H3		12	14,54	0,803	14,44	0,798	14,64	0,808	0,80
Q10T3H2		8	13,57	0,752	13,47	0,747	13,67	0,758	0,75
Q10T3H1		4	12,32	0,687	12,22	0,682	12,42	0,692	0,69
Q10T4H12	37,5	95	16,99	0,931	16,89	0,926	17,09	0,936	0,93
Q10T4H11		90	17,49	0,957	17,59	0,962	17,39	0,952	0,96
Q10T4H10		75	16,89	0,926	16,69	0,915	17,09	0,936	0,93
Q10T4H9		60	16,63	0,912	16,43	0,902	16,83	0,923	0,91
Q10T4H8		45	16,21	0,890	16,01	0,880	16,41	0,901	0,89
Q10T4H7		30	16,13	0,886	16,23	0,892	16,03	0,881	0,89
Q10T4H6		24	15,84	0,871	15,74	0,866	15,94	0,876	0,87
Q10T4H5		20	15,73	0,865	15,63	0,860	15,83	0,871	0,87
Q10T4H4		16	14,84	0,819	14,74	0,814	14,94	0,824	0,82
Q10T4H3		12	13,34	0,740	13,24	0,735	13,44	0,746	0,74
Q10T4H2		8	12,37	0,690	12,27	0,684	12,47	0,695	0,69
Q10T4H1		4	12,16	0,679	12,06	0,673	12,26	0,684	0,68
Q10T5H12	19	95	16,49	0,905	16,39	0,900	16,59	0,910	0,90
Q10T5H11		90	16,89	0,926	16,99	0,931	16,79	0,921	0,93
Q10T5H10		75	16,39	0,900	16,49	0,905	16,29	0,894	0,90
Q10T5H9		60	15,83	0,870	16,03	0,881	15,63	0,860	0,87
Q10T5H8		45	15,61	0,859	15,51	0,854	15,71	0,864	0,86
Q10T5H7		30	15,53	0,855	15,53	0,855	15,53	0,855	0,85
Q10T5H6		24	15,24	0,840	15,14	0,834	15,34	0,845	0,84
Q10T5H5		20	15,03	0,829	14,83	0,818	15,23	0,839	0,83
Q10T5H4		16	14,14	0,782	13,94	0,772	14,34	0,793	0,78
Q10T5H3		12	12,64	0,704	12,44	0,693	12,84	0,714	0,70
Q10T5H2		8	12,32	0,687	12,12	0,677	12,52	0,697	0,69
Q10T5H1		4	12,11	0,676	11,91	0,666	12,31	0,686	0,68

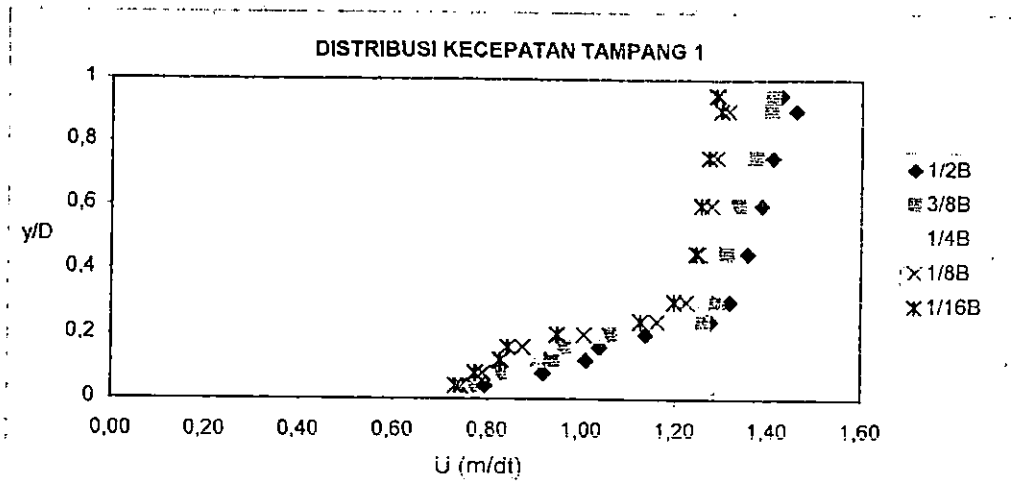
UNIVERSITAS
GADJAH MADA

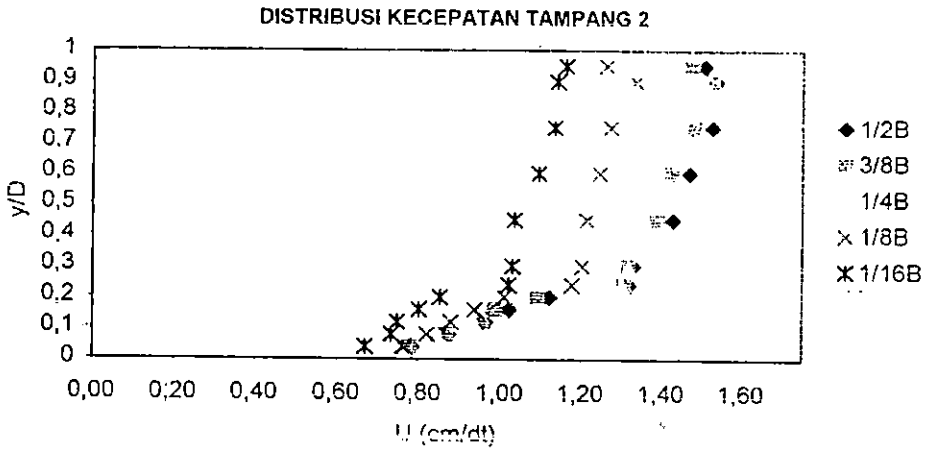
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

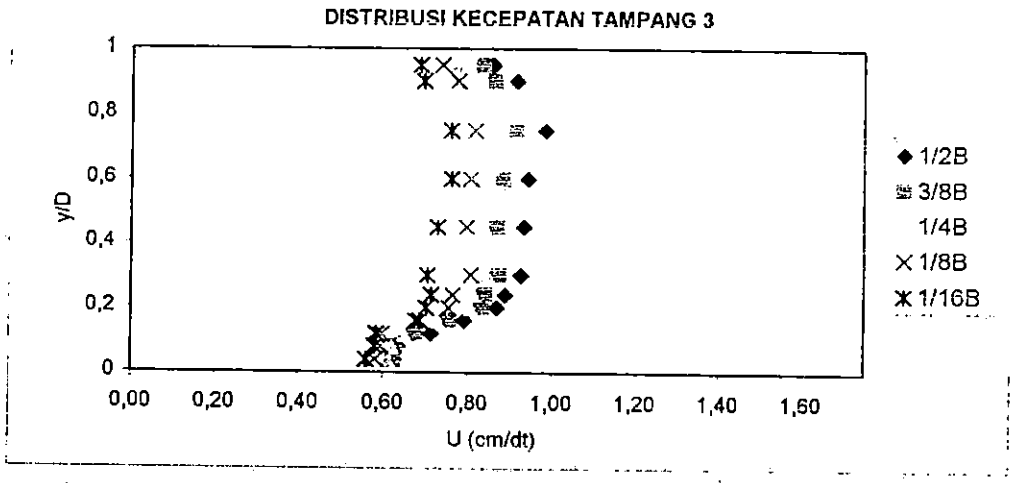
LAMPIRAN 4

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

DISTRIBUSI KECEPATAN SELURUH TAMPANG

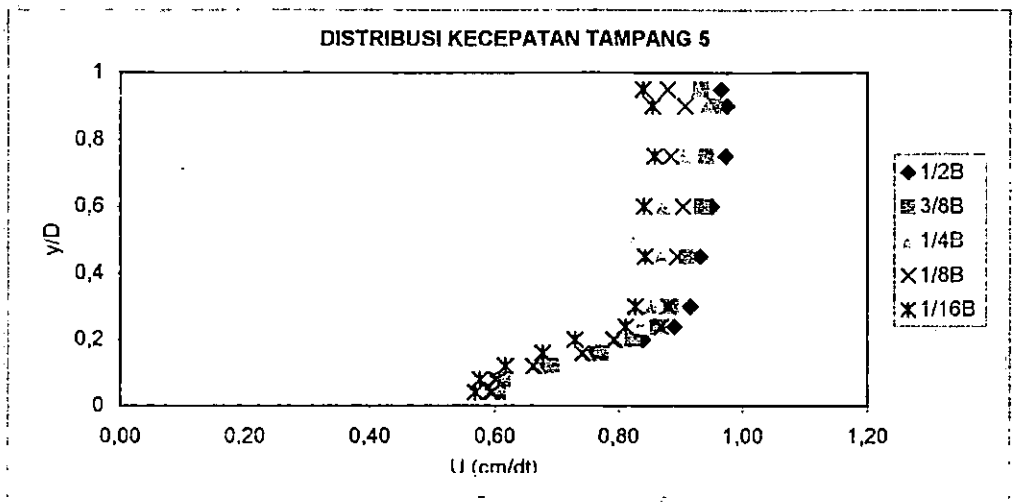


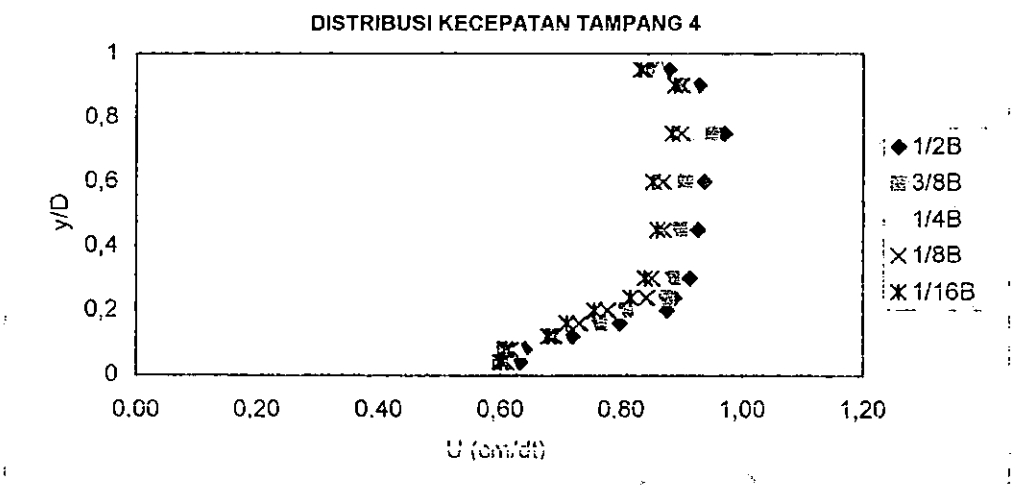


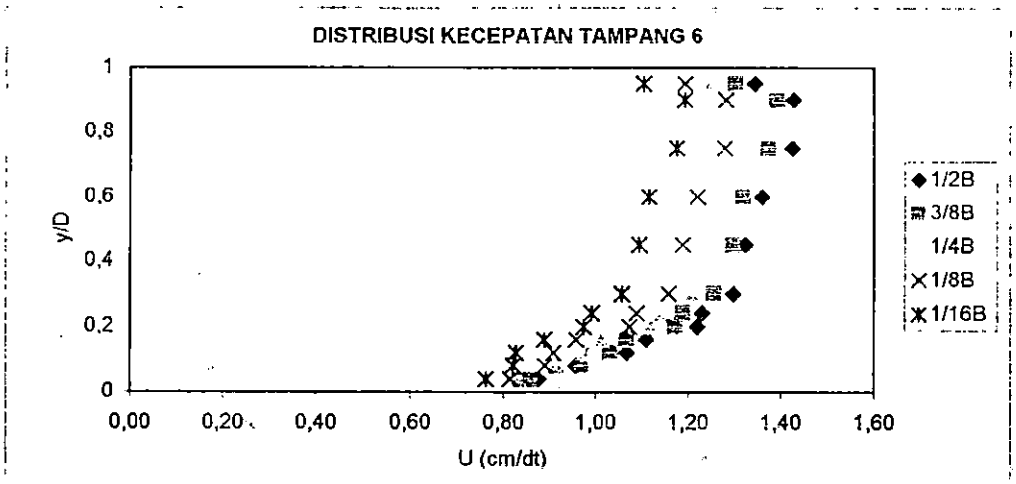


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

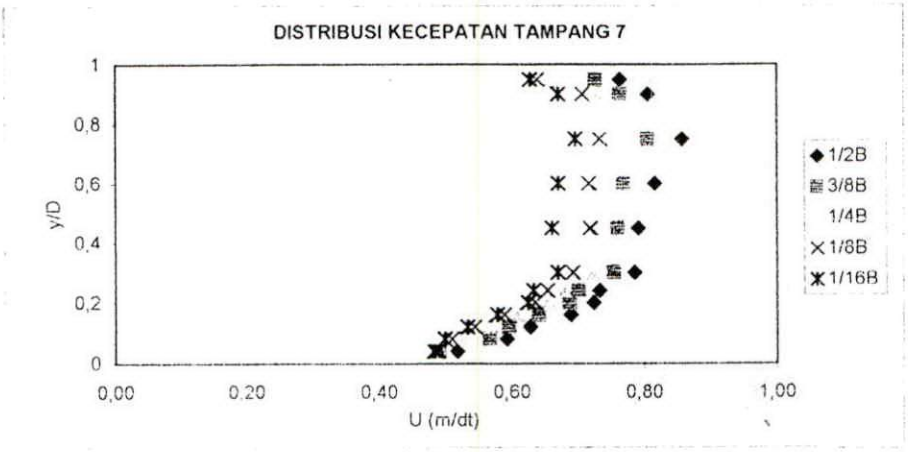
DISTRIBUSI KECEPATAN SELURUH TAMPANG

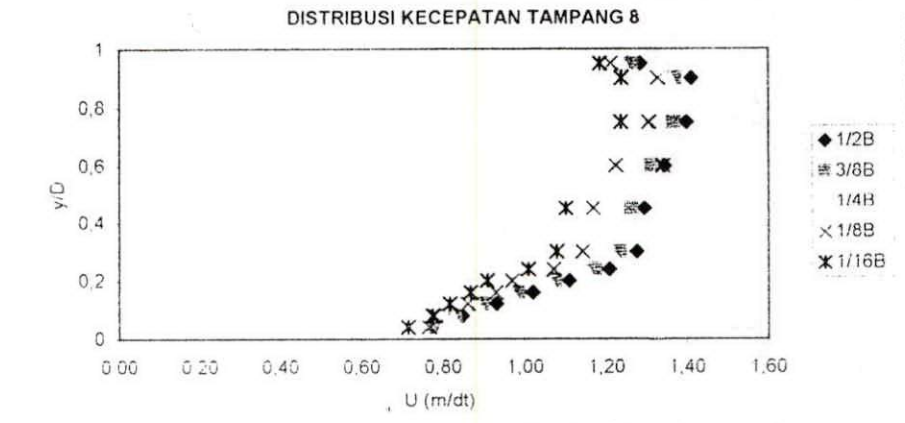


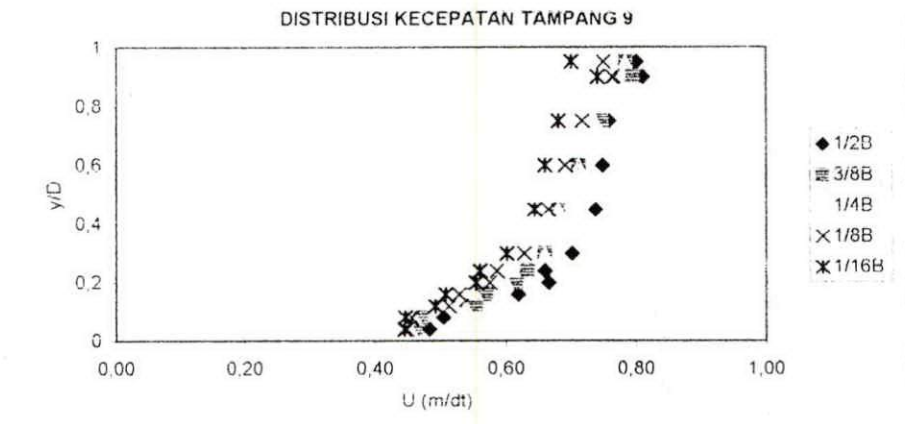


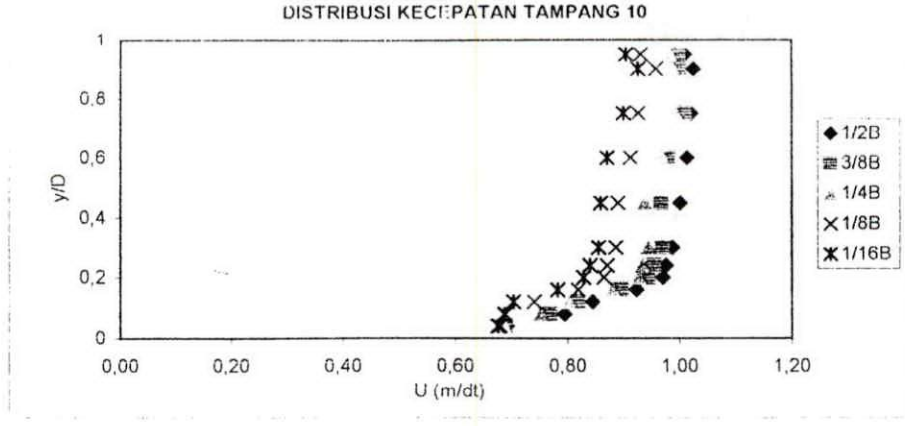


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/









UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 5

UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTRASI SEDIMEN TAMPANG 1

Suhu = 28 C; B = 3,50 m; D = 100 cm; H = 165 cm; dinding saluran dari pasangan batu kali

Kode Titik	ordinat (z	y (cm)	Pembacaan Opcon						Cr (g/l)
			C1	Cr1	C2	Cr2	C3	Cr3	
Q1T1H12	175	95	14,201	5,536	14,169	5,524	14,370	5,602	5,554
Q1T1H11		90	14,201	5,536	14,169	5,524	14,370	5,602	5,554
Q1T1H10		75	14,254	5,557	14,268	5,563	14,448	5,633	5,584
Q1T1H9		60	14,306	5,577	14,335	5,589	14,487	5,648	5,605
Q1T1H8		45	14,493	5,650	14,524	5,663	14,666	5,718	5,677
Q1T1H7		30	14,608	5,695	14,578	5,684	14,796	5,769	5,716
Q1T1H6		25	14,746	5,749	14,686	5,726	14,874	5,799	5,758
Q1T1H5		20	15,084	5,881	14,994	5,846	14,952	5,830	5,852
Q1T1H4		16	15,394	6,002	15,280	5,958	15,014	5,854	5,938
Q1T1H3		12	15,704	6,124	15,566	6,070	15,076	5,878	6,024
Q1T1H2		8	16,014	6,245	15,852	6,181	15,138	5,902	6,109
Q1T1H1		4	16,324	6,366	16,138	6,293	15,200	5,927	6,195
Q1T2H12	131	95	14,180	5,528	14,110	5,501	14,113	5,502	5,510
Q1T2H11		90	14,174	5,526	14,143	5,514	14,066	5,484	5,508
Q1T2H10		75	14,228	5,547	14,241	5,552	14,145	5,514	5,538
Q1T2H9		60	14,279	5,567	14,308	5,578	14,180	5,528	5,558
Q1T2H8		45	14,465	5,639	14,495	5,651	14,346	5,593	5,628
Q1T2H7		30	14,578	5,684	14,548	5,672	14,444	5,631	5,662
Q1T2H6		25	14,715	5,737	14,656	5,714	14,519	5,661	5,704
Q1T2H5		20	15,052	5,869	14,963	5,834	14,595	5,690	5,798
Q1T2H4		16	15,362	5,990	15,249	5,946	14,655	5,714	5,883
Q1T2H3		12	15,672	6,111	15,535	6,058	14,715	5,737	5,969
Q1T2H2		8	15,982	6,232	15,821	6,169	14,776	5,761	6,054
Q1T2H1		4	16,292	6,353	16,107	6,281	14,846	5,788	6,141
Q1T3H12	87,5	95	13,054	5,088	13,031	5,079	14,071	5,486	5,218
Q1T3H11		90	13,054	5,088	13,031	5,079	14,039	5,473	5,213
Q1T3H10		75	13,084	5,100	13,090	5,102	14,118	5,504	5,235
Q1T3H9		60	13,142	5,123	13,162	5,130	14,153	5,518	5,257
Q1T3H8		45	13,267	5,171	13,288	5,180	14,318	5,582	5,311
Q1T3H7		30	13,441	5,239	13,427	5,234	14,480	5,645	5,373
Q1T3H6		25	13,440	5,239	13,427	5,234	14,488	5,648	5,374
Q1T3H5		20	13,709	5,344	13,693	5,338	14,563	5,678	5,453
Q1T3H4		16	13,964	5,444	13,945	5,436	14,623	5,701	5,527
Q1T3H3		12	14,219	5,543	14,198	5,535	14,683	5,725	5,601
Q1T3H2		8	14,475	5,643	14,452	5,634	14,744	5,748	5,675
Q1T3H1		4	14,730	5,743	14,704	5,733	14,804	5,772	5,749
Q1T4H12	44	95	13,025	5,077	13,058	5,090	13,212	5,150	5,106
Q1T4H11		90	13,025	5,077	13,059	5,090	13,210	5,149	5,105
Q1T4H10		75	13,149	5,125	13,122	5,115	13,292	5,181	5,140
Q1T4H9		60	13,159	5,129	13,180	5,137	13,317	5,191	5,153
Q1T4H8		45	13,286	5,179	13,283	5,178	13,447	5,242	5,199
Q1T4H7		30	13,394	5,221	13,383	5,217	13,523	5,271	5,236
Q1T4H6		25	13,395	5,221	13,384	5,217	13,524	5,272	5,237
Q1T4H5		20	13,693	5,338	13,670	5,329	13,592	5,298	5,322
Q1T4H4		16	13,971	5,446	13,938	5,434	13,646	5,319	5,400
Q1T4H3		12	14,250	5,555	14,208	5,539	13,701	5,341	5,479
Q1T4H2		8	14,528	5,664	14,476	5,644	13,755	5,362	5,557
Q1T4H1		4	14,807	5,773	14,746	5,749	13,810	5,384	5,635
Q1T5H12	22	95	12,605	4,913	12,560	4,895	12,752	4,970	4,926
Q1T5H11		90	12,606	4,913	12,625	4,921	12,756	4,972	4,935
Q1T5H10		75	12,626	4,921	12,629	4,922	12,786	4,983	4,942
Q1T5H9		60	12,687	4,945	12,704	4,951	12,850	5,008	4,968
Q1T5H8		45	12,788	4,984	12,805	4,991	12,958	5,051	5,009
Q1T5H7		30	12,911	5,032	12,955	5,050	13,076	5,097	5,060
Q1T5H6		25	12,970	5,055	12,983	5,060	13,136	5,120	5,079
Q1T5H5		20	13,181	5,138	12,980	5,059	13,135	5,120	5,106
Q1T5H4		16	13,383	5,217	12,981	5,060	13,135	5,120	5,132
Q1T5H3		12	13,639	5,317	13,062	5,091	13,209	5,149	5,186
Q1T5H2		8	13,873	5,408	13,102	5,107	13,245	5,163	5,226
Q1T5H1		4	14,106	5,499	13,141	5,122	13,281	5,177	5,266

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTRASI SEDIMEN TAMPANG 2

Sudut = 28 C; B = 2,0 m; D

Kode Titik	Ordinat (z)	y (cm)	Pembacaan Opcon C1	C1	O2	C2	C3	Cr3	Cr (gr/l)
Q2T1H12	100	95	13,132	5,119	13,100	5,106	13,050	5,087	5,104
Q2T1H11		90	13,132	5,119	13,100	5,106	13,050	5,087	5,104
Q2T1H10		75	13,185	5,139	13,199	5,145	13,128	5,117	5,134
Q2T1H9		60	13,237	5,160	13,266	5,171	13,167	5,132	5,154
Q2T1H8		45	13,424	5,233	13,455	5,245	13,346	5,202	5,227
Q2T1H7		30	13,539	5,278	13,509	5,266	13,476	5,253	5,266
Q2T1H6		25	13,677	5,332	13,617	5,308	13,554	5,284	5,308
Q2T1H5		20	14,424	5,623	14,334	5,588	13,632	5,314	5,509
Q2T1H4		16	14,734	5,745	14,620	5,700	13,694	5,338	5,594
Q2T1H3		12	15,044	5,866	14,906	5,812	13,756	5,382	5,680
Q2T1H2		8	15,754	6,143	15,592	6,080	13,818	5,387	5,870
Q2T1H1		4	16,164	6,303	15,978	6,231	13,880	5,411	5,982
Q2T2H12	75	95	12,883	5,021	12,881	5,021	12,793	4,986	5,009
Q2T2H11		90	13,105	5,108	13,074	5,096	12,746	4,968	5,057
Q2T2H10		75	13,159	5,129	13,172	5,134	12,825	4,999	5,087
Q2T2H9		60	13,210	5,149	13,239	5,160	12,860	5,012	5,107
Q2T2H8		45	13,396	5,222	13,426	5,234	13,026	5,077	5,178
Q2T2H7		30	13,509	5,266	13,479	5,254	13,124	5,116	5,212
Q2T2H6		25	13,646	5,319	13,587	5,296	13,199	5,145	5,254
Q2T2H5		20	13,892	5,416	13,803	5,381	13,275	5,175	5,324
Q2T2H4		16	14,202	5,537	14,089	5,493	13,335	5,198	5,409
Q2T2H3		12	14,512	5,658	14,375	5,604	13,395	5,221	5,495
Q2T2H2		8	14,822	5,779	14,661	5,716	13,456	5,245	5,580
Q2T2H1		4	15,132	5,900	14,947	5,828	13,526	5,273	5,667
Q2T3H12	50	95	11,841	4,614	11,991	4,673	12,488	4,867	4,718
Q2T3H11		90	11,985	4,671	11,962	4,662	12,719	4,957	4,763
Q2T3H10		75	12,015	4,682	12,021	4,685	12,798	4,988	4,785
Q2T3H9		60	12,073	4,705	12,093	4,713	12,833	5,002	4,807
Q2T3H8		45	12,198	4,754	12,219	4,762	12,998	5,066	4,861
Q2T3H7		30	12,302	4,794	12,292	4,790	13,093	5,103	4,896
Q2T3H6		25	12,371	4,821	12,358	4,816	13,168	5,133	4,923
Q2T3H5		20	12,549	4,891	12,533	4,885	13,243	5,162	4,979
Q2T3H4		16	12,804	4,991	12,785	4,963	13,303	5,185	5,053
Q2T3H3		12	13,059	5,090	13,038	5,082	13,363	5,209	5,127
Q2T3H2		8	13,315	5,190	13,292	5,181	13,424	5,233	5,201
Q2T3H1		4	13,570	5,290	13,544	5,280	13,484	5,256	5,275
Q2T4H12	25	95	11,743	4,576	11,742	4,576	11,653	4,541	4,564
Q2T4H11		90	11,956	4,659	11,990	4,672	11,890	4,633	4,655
Q2T4H10		75	12,080	4,708	12,053	4,697	11,972	4,665	4,690
Q2T4H9		60	12,090	4,712	12,111	4,720	11,997	4,675	4,702
Q2T4H8		45	12,217	4,761	12,214	4,760	12,127	4,726	4,749
Q2T4H7		30	12,228	4,765	12,229	4,766	12,136	4,730	4,754
Q2T4H6		25	12,326	4,804	12,315	4,799	12,204	4,756	4,786
Q2T4H5		20	12,533	4,885	12,510	4,876	12,272	4,783	4,848
Q2T4H4		16	12,811	4,993	12,778	4,980	12,326	4,804	4,926
Q2T4H3		12	13,090	5,102	13,048	5,086	12,381	4,825	5,004
Q2T4H2		8	13,368	5,211	13,316	5,191	12,435	4,846	5,083
Q2T4H1		4	13,647	5,320	13,586	5,296	12,490	4,868	5,161
Q2T5H12	12,5	95	11,416	4,448	11,412	4,447	11,324	4,412	4,436
Q2T5H11		90	11,537	4,496	11,517	4,488	11,436	4,456	4,480
Q2T5H10		75	11,557	4,503	11,560	4,504	11,466	4,468	4,492
Q2T5H9		60	11,618	4,527	11,635	4,534	11,530	4,493	4,518
Q2T5H8		45	11,719	4,567	11,736	4,573	11,638	4,535	4,558
Q2T5H7		30	11,819	4,606	11,817	4,605	11,727	4,570	4,593
Q2T5H6		25	11,861	4,622	11,866	4,624	11,772	4,587	4,611
Q2T5H5		20	12,012	4,681	12,024	4,686	11,817	4,605	4,657
Q2T5H4		16	12,246	4,773	12,263	4,779	11,853	4,619	4,724
Q2T5H3		12	12,479	4,864	12,502	4,873	11,889	4,633	4,790
Q2T5H2		8	12,713	4,955	12,742	4,966	11,925	4,647	4,856
Q2T5H1		4	12,946	5,046	12,981	5,060	11,961	4,661	4,922

UNIVERSITAS GADJAH MADA
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTRASI Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang
Suhu = 28 C; B = 0,5 m; D segiempat :: Di Saluran Induk Mataram, Yogyakarta

Kode Titik	Koordinat (cm)		Pembacaan Opcon						Cr
	z	(cm)	C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	225	92	10,09	3,929	10,10	3,932	10,09	3,930	3,93
MQ1S2AH11		90	10,09	3,930	10,10	3,933	10,10	3,933	3,93
MQ1S2AH10		75	10,09	3,932	10,11	3,937	10,13	3,945	3,94
MQ1S2AH9		60	10,15	3,952	10,18	3,963	10,17	3,960	3,96
MQ1S2AH8		45	10,33	4,025	10,36	4,037	10,35	4,030	4,03
MQ1S2AH7		30	10,45	4,070	10,42	4,058	10,48	4,081	4,07
MQ1S2AH6		25	10,59	4,124	10,53	4,101	10,55	4,111	4,11
MQ1S2AH5		20	11,42	4,451	11,33	4,416	10,63	4,142	4,34
MQ1S2AH4		16	11,73	4,572	11,62	4,528	10,69	4,166	4,42
MQ1S2AH3		12	12,04	4,694	11,91	4,640	10,76	4,190	4,51
MQ1S2AH2		8	12,75	4,971	12,59	4,908	10,82	4,215	4,70
MQ1S2AH1		4	13,16	5,131	12,98	5,059	10,86	4,239	4,81
MQ1S2BH12	169	92	9,79	3,814	9,79	3,813	9,79	3,814	3,81
MQ1S2BH11		90	10,01	3,900	9,98	3,888	9,75	3,796	3,86
MQ1S2BH10		75	10,07	3,922	10,08	3,927	9,83	3,827	3,89
MQ1S2BH9		60	10,12	3,941	10,15	3,953	9,86	3,840	3,91
MQ1S2BH6		45	10,31	4,014	10,34	4,026	10,03	3,905	3,98
MQ1S2BH7		30	10,42	4,058	10,39	4,047	10,12	3,943	4,02
MQ1S2BH6		25	10,56	4,112	10,50	4,089	10,20	3,973	4,06
MQ1S2BH5		20	11,39	4,439	10,60	4,131	10,28	4,002	4,19
MQ1S2BH4		16	11,70	4,560	10,69	4,164	10,34	4,026	4,25
MQ1S2BH3		12	12,01	4,681	10,78	4,198	10,40	4,049	4,31
MQ1S2BH2		8	12,72	4,958	10,86	4,231	10,46	4,073	4,42
MQ1S2BH1		4	13,13	5,119	10,95	4,265	10,53	4,101	4,49
MQ1S2CH12	112,5	92	8,75	3,407	8,90	3,465	9,49	3,695	3,52
MQ1S2CH11		90	8,89	3,463	8,87	3,454	9,72	3,785	3,57
MQ1S2CH10		75	8,92	3,475	8,93	3,477	9,80	3,816	3,59
MQ1S2CH9		60	8,98	3.4972674	9,00	3.5050814	9,83	3.8297531	3,61
MQ1S2CH8		45	9,11	3,546	9,13	3,554	10,00	3,894	3,66
MQ1S2CH7		30	9,21	3,587	9,20	3,583	10,09	3,931	3,70
MQ1S2CH6		25	9,26	3,614	9,27	3,609	10,17	3,961	3,73
MQ1S2CH5		20	10,05	3,9141443	10,03	3,9078931	10,24	3,9899401	3,94
MQ1S2CH4		16	10,30	4,014	10,29	4,006	10,30	4,013	4,01
MQ1S2CH3		12	10,56	4,113	10,54	4,105	10,36	4,037	4,09
MQ1S2CH2		8	11,22	4,370	11,19	4,361	10,42	4,061	4,26
MQ1S2CH1		4	11,57	4,508	11,54	4,498	10,48	4,084	4,36
MQ1S2DH12	56	92	8,65	3,368	8,65	3,368	8,65	3,369	3,37
MQ1S2DH11		90	8,87	3,452	8,90	3,465	8,89	3,461	3,46
MQ1S2DH10		75	8,99	3,500	8,96	3,489	8,97	3,493	3,49
MQ1S2DH9		60	9,00	3,504	9,02	3,512	9,00	3,503	3,51
MQ1S2DH8		45	9,13	3,554	9,12	3,552	9,13	3,554	3,55
MQ1S2DH7		30	9,14	3,558	9,14	3,558	9,14	3,557	3,56
MQ1S2DH6		25	9,24	3,596	9,22	3,592	9,20	3,584	3,59
MQ1S2DH5		20	10,03	3,908	9,31	3,625	9,27	3,611	3,71
MQ1S2DH4		16	10,31	4,017	9,36	3,652	9,33	3,632	3,77
MQ1S2DH3		12	10,59	4,126	9,45	3,679	9,38	3,653	3,82
MQ1S2DH2		8	11,27	4,390	9,52	3,706	9,44	3,674	3,92
MQ1S2DH1		4	11,65	4,538	9,59	3,733	9,49	3,696	3,99
MQ1S2EH12	28	92	8,33	3,241	8,32	3,239	8,32	3,240	3,24
MQ1S2EH11		90	8,45	3,288	8,43	3,280	8,44	3,284	3,28
MQ1S2EH10		75	8,47	3,296	8,47	3,297	8,47	3,296	3,30
MQ1S2EH9		60	8,53	3,319	8,54	3,326	8,53	3,321	3,32
MQ1S2EH8		45	8,63	3,359	8,65	3,366	8,64	3,363	3,36
MQ1S2EH7		30	8,73	3,398	8,73	3,397	8,73	3,398	3,40
MQ1S2EH6		25	8,77	3,414	8,78	3,416	8,77	3,415	3,42
MQ1S2EH5		20	9,51	3,704	8,82	3,436	8,82	3,433	3,52
MQ1S2EH4		16	9,75	3,796	8,86	3,451	8,85	3,447	3,56
MQ1S2EH3		12	9,98	3,887	8,90	3,466	8,89	3,461	3,60
MQ1S2EH2		8	10,61	4,134	8,94	3,482	8,93	3,475	3,70
MQ1S2EH1		4	10,95	4,265	8,98	3,497	8,96	3,489	3,75

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTRASI SEDIMEN TAMPANG 5

Suhu = 28 C; B =4,0 m; D = 100 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode Titik	Koordinat (cm)		Pembacaan Opcon						Cr
	z	(cm)	C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	200	92	7,94	3,089	7,95	3,092	7,96	3,100	3,09
MQ1S2AH11		90	7,94	3,089	7,95	3,092	7,96	3,100	3,09
MQ1S2AH10		75	7,99	3,109	8,02	3,123	8,06	3,138	3,12
MQ1S2AH9		60	8,04	3,130	8,06	3,138	8,13	3,164	3,14
MQ1S2AH8		45	8,23	3,203	8,24	3,208	8,32	3,238	3,22
MQ1S2AH7		30	8,34	3,248	8,37	3,259	8,37	3,259	3,26
MQ1S2AH6		25	8,48	3,302	8,45	3,289	8,48	3,302	3,30
MQ1S2AH5		20	8,92	3,475	8,63	3,439	8,59	3,344	3,42
MQ1S2AH4		16	9,03	3,518	8,92	3,473	8,68	3,377	3,46
MQ1S2AH3		12	9,44	3,678	9,31	3,624	8,76	3,411	3,57
MQ1S2AH2		8	10,04	3,912	9,88	3,849	8,85	3,445	3,74
MQ1S2AH1		4	10,36	4,037	10,18	3,965	8,93	3,478	3,83
MQ1S2BH12	150	92	7,91	3,078	7,69	2,992	7,91	3,078	3,05
MQ1S2BH11		90	7,91	3,078	7,64	2,973	7,94	3,089	3,05
MQ1S2BH10		75	7,96	3,099	7,72	3,004	8,04	3,128	3,08
MQ1S2BH9		60	8,01	3,119	7,76	3,018	8,10	3,154	3,10
MQ1S2BH8		45	8,20	3,192	7,92	3,083	8,29	3,227	3,17
MQ1S2BH7		30	8,31	3,236	8,02	3,121	8,34	3,248	3,20
MQ1S2BH6		25	8,45	3,289	8,09	3,150	8,45	3,290	3,24
MQ1S2BH5		20	8,59	3,343	8,17	3,180	8,56	3,332	3,28
MQ1S2BH4		16	8,70	3,386	8,23	3,203	8,64	3,365	3,32
MQ1S2BH3		12	8,81	3,429	8,29	3,227	8,73	3,399	3,35
MQ1S2BH2		8	8,92	3,472	8,35	3,251	8,82	3,432	3,39
MQ1S2BH1		4	9,03	3,515	8,42	3,278	8,90	3,466	3,42
MQ1S2CH12	100	92	6,79	2,640	7,61	2,959	6,83	2,655	2,75
MQ1S2CH11		90	6,79	2,640	7,61	2,963	6,83	2,655	2,75
MQ1S2CH10		75	6,82	2,652	7,69	2,994	6,89	2,678	2,77
MQ1S2CH9		60	6,88	2,6748439	7,73	3,0073296	6,96	2,7060999	2,80
MQ1S2CH8		45	7,00	2,724	7,89	3,072	7,08	2,755	2,85
MQ1S2CH7		30	7,11	2,764	7,99	3,109	7,16	2,784	2,89
MQ1S2CH6		25	7,18	2,791	8,06	3,138	7,22	2,810	2,91
MQ1S2CH5		20	7,55	2,9373943	8,14	3,1675166	7,29	2,8354216	2,98
MQ1S2CH4		16	7,60	2,959	8,20	3,191	7,34	2,856	3,00
MQ1S2CH3		12	7,96	3,098	8,26	3,214	7,39	2,876	3,06
MQ1S2CH2		8	8,51	3,311	8,32	3,238	7,45	2,898	3,15
MQ1S2CH1		4	8,77	3,414	8,38	3,262	7,50	2,918	3,20
MQ1S2DH12	50	92	6,75	2,624	6,73	2,616	6,81	2,647	2,63
MQ1S2DH11		90	6,76	2,629	6,79	2,639	6,85	2,666	2,64
MQ1S2DH10		75	6,88	2,678	6,87	2,671	6,92	2,690	2,68
MQ1S2DH9		60	6,89	2,681	6,89	2,681	6,98	2,713	2,69
MQ1S2DH8		45	7,02	2,731	7,02	2,731	7,08	2,753	2,74
MQ1S2DH7		30	7,03	2,735	7,03	2,735	7,09	2,759	2,74
MQ1S2DH6		25	7,13	2,774	7,10	2,762	7,18	2,793	2,78
MQ1S2DH5		20	7,53	2,931	7,17	2,788	7,27	2,826	2,85
MQ1S2DH4		16	7,61	2,962	7,22	2,809	7,33	2,853	2,87
MQ1S2DH3		12	7,99	3,110	7,28	2,831	7,40	2,880	2,94
MQ1S2DH2		8	8,56	3,332	7,33	2,852	7,47	2,907	3,03
MQ1S2DH1		4	8,85	3,445	7,39	2,873	7,54	2,934	3,08
MQ1S2EH12	25	92	6,33	2,460	6,32	2,456	6,38	2,479	2,46
MQ1S2EH11		90	6,34	2,465	6,33	2,462	6,38	2,481	2,47
MQ1S2EH10		75	6,36	2,473	6,36	2,473	6,42	2,498	2,48
MQ1S2EH9		60	6,42	2,497	6,43	2,498	6,50	2,527	2,51
MQ1S2EH8		45	6,52	2,537	6,53	2,540	6,60	2,567	2,55
MQ1S2EH7		30	6,62	2,576	6,62	2,575	6,68	2,598	2,58
MQ1S2EH6		25	6,67	2,592	6,67	2,593	6,73	2,617	2,60
MQ1S2EH5		20	7,01	2,728	6,71	2,610	6,78	2,637	2,66
MQ1S2EH4		16	7,05	2,741	6,75	2,624	6,82	2,652	2,67
MQ1S2EH3		12	7,38	2,871	6,78	2,639	6,86	2,667	2,73
MQ1S2EH2		8	7,90	3,076	6,82	2,653	6,90	2,683	2,80
MQ1S2EH1		4	8,15	3,171	6,86	2,667	6,94	2,698	2,85

UNIVERSITAS GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

Oleh : Dr. Ir. Bambang Agus Kironoto

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSEN *Suhu = 28 C; B = 2,5 m; DK = 100 cm; H = 100 cm; dinding saluran dari pas batu kali*

Kode Titik	Koordinat (cm)	Pembacaan Optik						Cr
	Z (cm)	C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	125	95	14,55	5,671	14,51	5,658	14,55	5,671	5,67
MQ1S2AH11		90	14,55	5,673	14,52	5,660	14,55	5,673	5,67
MQ1S2AH10		75	14,60	5,693	14,62	5,699	14,63	5,703	5,70
MQ1S2AH9		60	14,66	5,714	14,68	5,725	14,67	5,718	5,72
MQ1S2AH8		45	14,84	5,787	14,87	5,799	14,85	5,788	5,79
MQ1S2AH7		30	14,96	5,832	14,93	5,820	14,98	5,839	5,83
MQ1S2AH6		25	15,30	5,964	15,24	5,940	15,05	5,870	5,92
MQ1S2AH5		20	15,63	6,096	15,54	6,061	15,13	5,900	6,02
MQ1S2AH4		16	15,94	6,217	15,83	6,172	15,19	5,924	6,10
MQ1S2AH3		12	16,25	6,338	16,12	6,284	15,26	5,949	6,19
MQ1S2AH2		8	16,56	6,459	16,40	6,396	15,32	5,973	6,28
MQ1S2AH1		4	16,87	6,580	16,69	6,508	15,38	5,997	6,36
MQ1S2BH12	94	95	14,52	5,661	14,42	5,622	14,29	5,572	5,62
MQ1S2BH11		90	14,52	5,662	14,43	5,650	14,25	5,554	5,62
MQ1S2BH10		75	14,58	5,683	14,59	5,688	14,33	5,585	5,65
MQ1S2BH9		60	14,63	5,703	14,66	5,715	14,36	5,598	5,67
MQ1S2BH8		45	14,81	5,776	14,84	5,788	14,53	5,663	5,74
MQ1S2BH7		30	14,93	5,820	14,90	5,808	14,62	5,702	5,78
MQ1S2BH6		25	15,26	5,952	15,01	5,850	14,70	5,731	5,84
MQ1S2BH5		20	15,60	6,083	15,11	5,892	14,78	5,761	5,91
MQ1S2BH4		16	15,91	6,204	15,20	5,926	14,84	5,784	5,97
MQ1S2BH3		12	16,22	6,326	15,28	5,959	14,90	5,807	6,03
MQ1S2BH2		8	16,53	6,447	15,37	5,993	14,96	5,831	6,09
MQ1S2BH1		4	16,84	6,568	15,46	6,027	15,03	5,859	6,15
MQ1S2CH12	62	95	13,40	5,224	13,38	5,216	14,21	5,540	5,33
MQ1S2CH11		90	13,40	5,225	13,38	5,216	14,22	5,543	5,33
MQ1S2CH10		75	13,43	5,236	13,44	5,239	14,30	5,574	5,35
MQ1S2CH9		60	13,49	5,25897277	13,51	5,26678677	14,33	5,5879031	5,37
MQ1S2CH8		45	13,62	5,308	13,64	5,316	14,50	5,652	5,43
MQ1S2CH7		30	13,72	5,348	13,71	5,345	14,59	5,689	5,46
MQ1S2CH6		25	13,99	5,454	13,78	5,370	14,67	5,719	5,51
MQ1S2CH5		20	14,26	5,55863967	13,84	5,39610847	14,74	5,7480901	5,57
MQ1S2CH4		16	14,51	5,658	13,89	5,416	14,80	5,772	5,62
MQ1S2CH3		12	14,77	5,758	13,95	5,437	14,86	5,795	5,66
MQ1S2CH2		8	15,02	5,858	14,00	5,458	14,92	5,819	5,71
MQ1S2CH1		4	15,28	5,958	14,05	5,479	14,98	5,842	5,76
MQ1S2DH12	31	95	13,37	5,212	13,36	5,208	13,33	5,194	5,20
MQ1S2DH11		90	13,37	5,213	13,41	5,227	13,39	5,219	5,22
MQ1S2DH10		75	13,50	5,262	13,47	5,251	13,47	5,252	5,25
MQ1S2DH9		60	13,51	5,266	13,53	5,274	13,50	5,261	5,27
MQ1S2DH8		45	13,64	5,315	13,63	5,314	13,63	5,312	5,31
MQ1S2DH7		30	13,65	5,320	13,65	5,320	13,64	5,316	5,32
MQ1S2DH6		25	13,94	5,436	13,73	5,354	13,70	5,342	5,38
MQ1S2DH5		20	14,24	5,552	13,82	5,387	13,77	5,369	5,44
MQ1S2DH4		16	14,52	5,661	13,89	5,414	13,83	5,390	5,49
MQ1S2DH3		12	14,80	5,770	13,96	5,441	13,88	5,411	5,54
MQ1S2DH2		8	15,08	5,879	14,03	5,468	13,94	5,432	5,59
MQ1S2DH1		4	15,36	5,988	14,10	5,495	13,99	5,454	5,65
MQ1S2EH12	15,5	95	12,95	5,048	12,93	5,040	12,93	5,041	5,04
MQ1S2EH11		90	12,96	5,050	12,94	5,042	12,94	5,042	5,04
MQ1S2EH10		75	12,98	5,057	12,98	5,059	12,97	5,054	5,06
MQ1S2EH9		60	13,04	5,081	13,05	5,088	13,03	5,079	5,08
MQ1S2EH8		45	13,14	5,121	13,15	5,127	13,14	5,121	5,12
MQ1S2EH7		30	13,24	5,160	13,24	5,159	13,23	5,156	5,16
MQ1S2EH6		25	13,48	5,254	13,28	5,178	13,27	5,173	5,20
MQ1S2EH5		20	13,72	5,349	13,33	5,197	13,32	5,191	5,25
MQ1S2EH4		16	13,96	5,440	13,37	5,212	13,35	5,205	5,29
MQ1S2EH3		12	14,19	5,531	13,41	5,228	13,39	5,219	5,33
MQ1S2EH2		8	14,42	5,623	13,45	5,243	13,43	5,233	5,37
MQ1S2EH1		4	14,66	5,714	13,49	5,259	13,46	5,247	5,41

UNIVERSITAS GADJAH MADA

PEMBACAAN KONSENTRASI Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

Suhu = 28 C; B =3,0 m; D IKHSAN; Cahyono, Dr.Ir. Bambang Agus Kironoto

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

Kode Titik	Koordnt (cm) z	Pembacaan Opcon (cm)						Cr
			C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	150	95	7,49	2,913	7,50	2,916	7,45	2,900	2,91
MQ1S2AH11		90	7,49	2,913	7,50	2,916	7,45	2,900	2,91
MQ1S2AH10		75	7,54	2,933	7,57	2,947	7,55	2,939	2,94
MQ1S2AH9		60	7,59	2,954	7,61	2,962	7,62	2,965	2,96
MQ1S2AH8		45	7,78	3,027	7,79	3,032	7,81	3,039	3,03
MQ1S2AH7		30	7,89	3,072	7,92	3,083	7,86	3,060	3,07
MQ1S2AH6		25	8,33	3,243	8,27	3,219	7,97	3,102	3,19
MQ1S2AH5		20	8,77	3,414	8,68	3,379	8,08	3,144	3,31
MQ1S2AH4		16	9,18	3,574	9,07	3,530	8,16	3,178	3,43
MQ1S2AH3		12	9,59	3,734	9,45	3,681	8,25	3,211	3,54
MQ1S2AH2		8	10,20	3,973	10,04	3,909	8,34	3,245	3,71
MQ1S2AH1		4	10,51	4,094	10,32	4,021	8,42	3,278	3,80
MQ1S2BH12	112,5	92	7,46	2,901	7,19	2,795	7,43	2,889	2,86
MQ1S2BH11		90	7,46	2,902	7,19	2,798	7,43	2,890	2,86
MQ1S2BH10		75	7,51	2,923	7,27	2,828	7,53	2,928	2,89
MQ1S2BH9		60	7,56	2,943	7,31	2,842	7,59	2,954	2,91
MQ1S2BH8		45	7,75	3,016	7,47	2,907	7,78	3,027	2,98
MQ1S2BH7		30	7,86	3,060	7,57	2,945	7,83	3,048	3,02
MQ1S2BH6		25	8,30	3,231	7,64	2,975	7,94	3,090	3,10
MQ1S2BH5		20	8,74	3,402	7,72	3,004	8,05	3,132	3,18
MQ1S2BH4		16	9,15	3,562	7,78	3,028	8,13	3,166	3,25
MQ1S2BH3		12	9,56	3,722	7,84	3,051	8,22	3,199	3,32
MQ1S2BH2		8	10,17	3,960	7,90	3,075	8,31	3,233	3,42
MQ1S2BH1		4	10,48	4,081	7,97	3,102	8,39	3,266	3,48
MQ1S2CH12	75	92	6,34	2,464	7,16	2,785	6,31	2,454	2,57
MQ1S2CH11		90	6,34	2,465	7,16	2,787	6,32	2,455	2,57
MQ1S2CH10		75	6,37	2,476	7,24	2,818	6,37	2,478	2,59
MQ1S2CH9		60	6,43	2,4990289	7,28	2,8315146	6,45	2,5064522	2,61
MQ1S2CH8		45	6,55	2,548	7,44	2,896	6,57	2,556	2,67
MQ1S2CH7		30	6,66	2,588	7,54	2,933	6,65	2,584	2,70
MQ1S2CH6		25	7,03	2,733	7,01	2,728	6,71	2,610	2,69
MQ1S2CH5		20	7,39	2,8768358	7,38	2,8705846	6,78	2,6357739	2,79
MQ1S2CH4		16	7,75	3,016	7,73	3,008	6,83	2,656	2,89
MQ1S2CH3		12	8,10	3,154	8,08	3,146	6,88	2,677	2,99
MQ1S2CH2		8	8,66	3,371	8,64	3,362	6,94	2,698	3,14
MQ1S2CH1		4	8,92	3,471	8,89	3,461	6,99	2,718	3,22
MQ1S2DH12	37,5	92	6,31	2,451	6,33	2,463	6,30	2,449	2,45
MQ1S2DH11		90	6,31	2,453	6,34	2,463	6,34	2,466	2,46
MQ1S2DH10		75	6,43	2,502	6,42	2,495	6,41	2,491	2,50
MQ1S2DH9		60	6,44	2,506	6,44	2,505	6,46	2,513	2,51
MQ1S2DH8		45	6,57	2,555	6,57	2,556	6,57	2,554	2,55
MQ1S2DH7		30	6,58	2,560	6,58	2,559	6,58	2,560	2,56
MQ1S2DH6		25	6,98	2,715	6,65	2,586	6,67	2,593	2,63
MQ1S2DH5		20	7,38	2,871	6,72	2,612	6,75	2,627	2,70
MQ1S2DH4		16	7,76	3,018	6,77	2,633	6,82	2,653	2,77
MQ1S2DH3		12	8,14	3,166	6,83	2,655	6,89	2,681	2,83
MQ1S2DH2		8	8,71	3,392	6,88	2,676	6,96	2,707	2,93
MQ1S2DH1		4	8,99	3,501	6,94	2,698	7,03	2,735	2,98
MQ1S2EH12	19	92	5,89	2,289	5,88	2,283	5,86	2,279	2,28
MQ1S2EH11		90	5,89	2,290	5,88	2,286	5,87	2,281	2,29
MQ1S2EH10		75	5,91	2,297	5,91	2,297	5,91	2,298	2,30
MQ1S2EH9		60	5,97	2,321	5,98	2,322	5,99	2,328	2,32
MQ1S2EH8		45	6,07	2,361	6,08	2,365	6,09	2,367	2,36
MQ1S2EH7		30	6,17	2,400	6,17	2,399	6,17	2,399	2,40
MQ1S2EH6		25	6,52	2,533	6,22	2,417	6,22	2,418	2,46
MQ1S2EH5		20	6,86	2,667	6,26	2,435	6,27	2,437	2,51
MQ1S2EH4		16	7,19	2,798	6,30	2,449	6,31	2,452	2,57
MQ1S2EH3		12	7,52	2,928	6,33	2,463	6,35	2,467	2,62
MQ1S2EH2		8	8,06	3,136	6,37	2,477	6,39	2,483	2,70
MQ1S2EH1		4	8,29	3,227	6,41	2,491	6,43	2,498	2,74

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTRASI

Suhu = 28 C; B = 1,5 m; D = 100 cm; H = 165 cm; dinding saluran dari plesteran beton

Kode Titik	Koordnt (cm) z	(cm)	Pembacaan Opcon C1	Cr1	C2	Cr2	C3	Cr3	Cr
MQ1S2AH12	75	95	13,54	5,279	13,54	5,278	13,54	5,279	5,28
MQ1S2AH11		90	13,54	5,278	13,55	5,282	13,55	5,282	5,28
MQ1S2AH10		75	13,59	5,299	13,63	5,312	13,63	5,312	5,31
MQ1S2AH9		60	13,65	5,319	13,67	5,328	13,67	5,328	5,32
MQ1S2AH8		45	13,83	5,393	13,85	5,398	13,85	5,398	5,40
MQ1S2AH7		30	13,95	5,437	13,98	5,448	13,98	5,448	5,44
MQ1S2AH6		25	14,39	5,609	14,35	5,596	14,05	5,479	5,56
MQ1S2AH5		20	14,82	5,780	14,73	5,744	14,13	5,509	5,68
MQ1S2AH4		16	15,23	5,940	15,09	5,885	14,19	5,534	5,79
MQ1S2AH3		12	15,64	6,100	15,46	6,027	14,26	5,558	5,89
MQ1S2AH2		8	16,05	6,260	15,82	6,168	14,32	5,582	6,00
MQ1S2AH1		4	16,46	6,420	16,18	6,310	14,38	5,606	6,11
MQ1S2BH12	56	95	13,29	5,181	13,29	5,182	13,29	5,182	5,18
MQ1S2BH11		90	13,51	5,268	13,25	5,163	13,25	5,163	5,20
MQ1S2BH10		75	13,57	5,289	13,33	5,194	13,33	5,194	5,23
MQ1S2BH9		60	13,62	5,309	13,36	5,208	13,36	5,208	5,24
MQ1S2BH8		45	13,81	5,382	13,53	5,273	13,53	5,273	5,31
MQ1S2BH7		30	13,92	5,426	13,62	5,311	13,62	5,311	5,35
MQ1S2BH6		25	14,36	5,596	13,70	5,340	13,70	5,340	5,43
MQ1S2BH5		20	14,79	5,767	13,78	5,370	13,78	5,370	5,50
MQ1S2BH4		16	15,20	5,927	13,84	5,393	13,84	5,393	5,57
MQ1S2BH3		12	15,61	6,088	13,90	5,417	13,90	5,417	5,64
MQ1S2BH2		8	16,02	6,248	13,96	5,441	13,96	5,441	5,71
MQ1S2BH1		4	16,43	6,408	14,03	5,468	14,03	5,468	5,78
MQ1S2CH12	37,5	95	12,99	5,063	12,99	5,062	12,99	5,062	5,06
MQ1S2CH11		90	12,39	4,830	13,22	5,153	13,22	5,153	5,05
MQ1S2CH10		75	12,42	4,842	13,30	5,184	13,30	5,184	5,07
MQ1S2CH9		60	12,48	4,8647174	13,33	5,1972031	13,33	5,1972031	5,09
MQ1S2CH8		45	12,61	4,914	13,50	5,262	13,50	5,262	5,15
MQ1S2CH7		30	12,71	4,954	13,59	5,299	13,59	5,299	5,18
MQ1S2CH6		25	13,08	5,098	13,67	5,328	13,67	5,328	5,25
MQ1S2CH5		20	13,45	5,2425243	13,74	5,3573901	13,74	5,3573901	5,32
MQ1S2CH4		16	13,80	5,381	13,80	5,381	13,80	5,381	5,38
MQ1S2CH3		12	14,16	5,520	13,86	5,404	13,86	5,404	5,44
MQ1S2CH2		8	14,52	5,659	13,92	5,428	13,92	5,428	5,51
MQ1S2CH1		4	14,87	5,798	13,98	5,452	13,98	5,452	5,57
MQ1S2DH12	19	95	12,15	4,736	12,15	4,736	12,15	4,736	4,74
MQ1S2DH11		90	12,37	4,819	12,39	4,829	12,39	4,829	4,83
MQ1S2DH10		75	12,49	4,867	12,47	4,861	12,47	4,861	4,86
MQ1S2DH9		60	12,50	4,871	12,50	4,871	12,50	4,871	4,87
MQ1S2DH8		45	12,63	4,921	12,63	4,921	12,63	4,921	4,92
MQ1S2DH7		30	12,64	4,925	12,64	4,925	12,64	4,925	4,93
MQ1S2DH6		25	13,04	5,081	12,70	4,951	12,70	4,951	4,99
MQ1S2DH5		20	13,43	5,236	12,77	4,978	12,77	4,978	5,06
MQ1S2DH4		16	13,81	5,384	12,83	4,999	12,83	4,999	5,13
MQ1S2DH3		12	14,19	5,532	12,88	5,021	12,88	5,021	5,19
MQ1S2DH2		8	14,57	5,680	12,94	5,042	12,94	5,042	5,25
MQ1S2DH1		4	14,95	5,828	12,99	5,063	12,99	5,063	5,32
MQ1S2EH12	9	95	11,94	4,653	11,92	4,646	11,92	4,646	4,65
MQ1S2EH11		90	11,95	4,655	11,94	4,651	11,94	4,651	4,65
MQ1S2EH10		75	11,97	4,663	11,97	4,663	11,97	4,663	4,66
MQ1S2EH9		60	12,03	4,687	12,03	4,688	12,03	4,688	4,69
MQ1S2EH8		45	12,13	4,726	12,14	4,730	12,14	4,730	4,73
MQ1S2EH7		30	12,23	4,765	12,23	4,765	12,23	4,765	4,77
MQ1S2EH6		25	12,57	4,899	12,27	4,783	12,27	4,783	4,82
MQ1S2EH5		20	12,91	5,033	12,32	4,800	12,32	4,800	4,88
MQ1S2EH4		16	13,25	5,163	12,35	4,814	12,35	4,814	4,93
MQ1S2EH3		12	13,58	5,293	12,39	4,828	12,39	4,828	4,98
MQ1S2EH2		8	13,91	5,424	12,43	4,842	12,43	4,842	5,04
MQ1S2EH1		4	14,25	5,554	12,46	4,857	12,46	4,857	5,09

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono; Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSEN

Suhu = 28 C; B = 3,0 m; D = 100 cm; H = 165 cm; dinding saluran dari pas batu kali

Kode Titik	Koordt (cm) z		Pembacaan Opcon						Cr
		(cm)	C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	150	92	6,54	2,544	6,55	2,547	6,51	2,531	2,54
MQ1S2AH11		90	6,54	2,544	6,55	2,547	6,51	2,531	2,54
MQ1S2AH10		75	6,59	2,564	6,63	2,578	6,61	2,570	2,57
MQ1S2AH9		60	6,65	2,585	6,67	2,593	6,68	2,596	2,59
MQ1S2AH8		45	6,83	2,658	6,85	2,663	6,86	2,670	2,66
MQ1S2AH7		30	8,45	3,289	6,98	2,714	6,92	2,691	2,90
MQ1S2AH6		25	8,59	3,343	8,53	3,319	7,03	2,733	3,13
MQ1S2AH5		20	8,92	3,475	8,83	3,439	7,13	2,775	3,23
MQ1S2AH4		16	9,03	3,518	8,92	3,473	7,22	2,809	3,27
MQ1S2AH3		12	9,44	3,678	9,31	3,624	7,31	2,842	3,38
MQ1S2AH2		8	10,04	3,912	9,88	3,849	7,39	2,876	3,55
MQ1S2AH1		4	10,36	4,037	10,18	3,965	7,48	2,910	3,64
MQ1S2BH12	112,5	92	6,29	2,446	6,29	2,447	6,29	2,446	2,45
MQ1S2BH11		90	6,51	2,533	6,25	2,428	6,48	2,521	2,49
MQ1S2BH10		75	6,57	2,554	6,33	2,459	6,58	2,559	2,52
MQ1S2BH9		60	6,62	2,574	6,36	2,473	6,65	2,585	2,54
MQ1S2BH8		45	6,81	2,647	6,53	2,538	6,84	2,658	2,61
MQ1S2BH7		30	8,42	3,277	6,62	2,576	6,89	2,679	2,84
MQ1S2BH6		25	8,56	3,330	6,70	2,605	7,00	2,721	2,89
MQ1S2BH5		20	8,89	3,462	6,78	2,635	7,10	2,763	2,95
MQ1S2BH4		16	9,00	3,505	6,84	2,658	7,19	2,797	2,99
MQ1S2BH3		12	9,41	3,665	6,90	2,682	7,28	2,830	3,06
MQ1S2BH2		8	10,01	3,900	6,96	2,706	7,36	2,864	3,16
MQ1S2BH1		4	10,33	4,025	7,03	2,733	7,45	2,898	3,22
MQ1S2CH12	75	92	5,25	2,039	5,99	2,328	5,40	2,098	2,15
MQ1S2CH11		90	5,39	2,095	6,22	2,418	5,37	2,086	2,20
MQ1S2CH10		75	5,42	2,107	6,30	2,449	5,43	2,110	2,22
MQ1S2CH9		60	5,48	2,1298174	6,33	2,4623031	5,50	2,1376314	2,24
MQ1S2CH8		45	5,61	2,179	6,50	2,527	5,63	2,187	2,30
MQ1S2CH7		30	7,21	2,805	6,59	2,564	5,70	2,215	2,53
MQ1S2CH6		25	7,28	2,832	6,67	2,593	5,77	2,241	2,56
MQ1S2CH5		20	7,55	2,9373943	6,74	2,6224901	5,83	2,2669531	2,61
MQ1S2CH4		16	7,60	2,959	6,80	2,646	5,89	2,287	2,63
MQ1S2CH3		12	7,96	3,098	6,86	2,669	5,94	2,308	2,69
MQ1S2CH2		8	8,51	3,311	6,92	2,693	5,99	2,329	2,78
MQ1S2CH1		4	8,77	3,414	6,98	2,717	6,04	2,349	2,83
MQ1S2DH12	37,5	92	5,15	2,001	5,15	2,001	5,15	2,000	2,00
MQ1S2DH11		90	5,37	2,084	5,39	2,094	5,40	2,097	2,09
MQ1S2DH10		75	5,49	2,133	5,47	2,126	5,46	2,122	2,13
MQ1S2DH9		60	5,50	2,136	5,50	2,136	5,52	2,145	2,14
MQ1S2DH8		45	5,63	2,186	5,63	2,186	5,62	2,185	2,19
MQ1S2DH7		30	7,14	2,776	5,64	2,190	5,64	2,191	2,39
MQ1S2DH6		25	7,24	2,815	5,70	2,217	5,72	2,224	2,42
MQ1S2DH5		20	7,53	2,931	5,77	2,243	5,81	2,258	2,48
MQ1S2DH4		16	7,61	2,962	5,83	2,264	5,88	2,285	2,50
MQ1S2DH3		12	7,99	3,110	5,88	2,286	5,95	2,312	2,57
MQ1S2DH2		8	8,56	3,332	5,94	2,307	6,02	2,338	2,66
MQ1S2DH1		4	8,85	3,445	5,99	2,328	6,09	2,366	2,71
MQ1S2EH12	19	92	4,83	1,873	4,82	1,873	4,82	1,872	1,87
MQ1S2EH11		90	4,95	1,920	4,94	1,916	4,93	1,913	1,92
MQ1S2EH10		75	4,97	1,928	4,97	1,928	4,97	1,929	1,93
MQ1S2EH9		60	5,03	1,952	5,03	1,953	5,04	1,959	1,95
MQ1S2EH8		45	5,13	1,992	5,14	1,995	5,15	1,998	2,00
MQ1S2EH7		30	5,23	2,031	5,23	2,030	5,23	2,030	2,03
MQ1S2EH6		25	5,27	2,047	5,27	2,048	5,28	2,049	2,05
MQ1S2EH5		20	6,81	2,649	5,32	2,065	5,32	2,068	2,26
MQ1S2EH4		16	7,05	2,741	5,35	2,079	5,36	2,083	2,30
MQ1S2EH3		12	7,38	2,871	5,39	2,093	5,40	2,099	2,35
MQ1S2EH2		8	7,90	3,076	5,43	2,108	5,44	2,114	2,43
MQ1S2EH1		4	8,15	3,171	5,46	2,122	5,48	2,129	2,47

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

PEMBACAAN KONSENTR **Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta**

Suhu = 28 C; B =3,0 m; D = [illegible] *cm; Pengamatan di saluran dan pas bagi kali*

IKHSAN, Cahyono. Dr.Ir. Pembimbing I; Pengamat Operasi

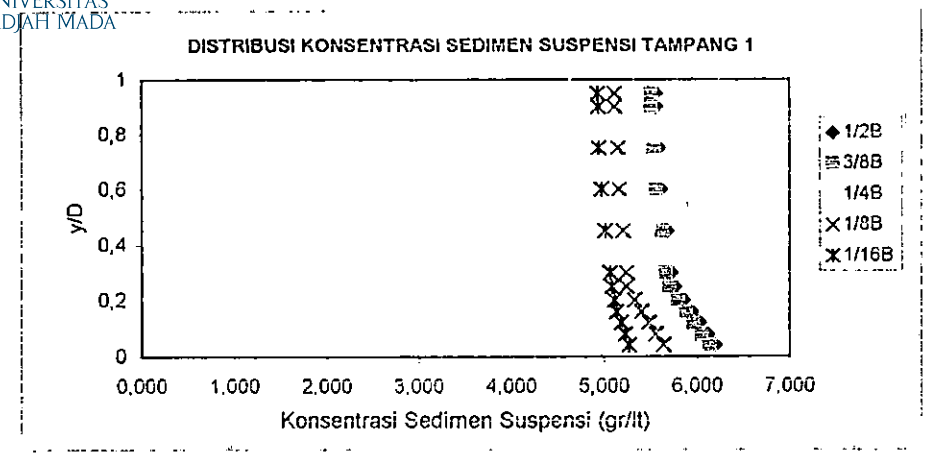
Kode Titik	Koordt (cm)								Cr
	Z	(cm)	C1	Cr1	C2	Cr2	C3	Cr3	
MQ1S2AH12	150	92	8,54	3,325	8,55	3,328	8,51	3,312	3,32
MQ1S2AH11		90	8,54	3,325	8,55	3,328	8,51	3,312	3,32
MQ1S2AH10		75	8,59	3,346	8,63	3,359	8,61	3,351	3,35
MQ1S2AH9		60	8,65	3,366	8,67	3,374	8,66	3,377	3,37
MQ1S2AH8		45	8,83	3,439	8,85	3,444	8,86	3,451	3,44
MQ1S2AH7		30	8,95	3,484	8,98	3,495	8,92	3,472	3,48
MQ1S2AH6		25	9,09	3,538	9,05	3,525	9,03	3,514	3,53
MQ1S2AH5		20	8,92	3,475	8,83	3,439	9,13	3,557	3,49
MQ1S2AH4		16	9,03	3,518	8,92	3,473	9,22	3,590	3,53
MQ1S2AH3		12	9,44	3,678	9,31	3,624	9,31	3,624	3,64
MQ1S2AH2		8	10,04	3,912	9,88	3,849	9,39	3,657	3,81
MQ1S2AH1		4	10,36	4,037	10,18	3,965	9,48	3,691	3,90
MQ1S2BH12	112,5	92	8,51	3,314	8,29	3,228	8,47	3,299	3,28
MQ1S2BH11		90	8,51	3,314	8,25	3,210	8,48	3,302	3,28
MQ1S2BH10		75	8,57	3,336	8,33	3,241	8,58	3,341	3,31
MQ1S2BH9		60	8,62	3,355	8,36	3,254	8,65	3,367	3,33
MQ1S2BH8		45	8,81	3,428	8,53	3,319	8,84	3,440	3,40
MQ1S2BH7		30	8,92	3,472	8,62	3,357	8,89	3,461	3,43
MQ1S2BH6		25	9,06	3,526	8,70	3,387	9,00	3,503	3,47
MQ1S2BH5		20	8,89	3,462	8,78	3,416	9,10	3,545	3,47
MQ1S2BH4		16	9,00	3,505	8,84	3,440	9,19	3,578	3,51
MQ1S2BH3		12	9,41	3,665	8,90	3,463	9,28	3,612	3,58
MQ1S2BH2		8	10,01	3,900	8,96	3,487	9,36	3,645	3,68
MQ1S2BH1		4	10,33	4,025	9,03	3,514	9,45	3,679	3,74
MQ1S2CH12	75	92	7,39	2,875	7,99	3,109	7,40	2,879	2,95
MQ1S2CH11		90	7,39	2,877	8,22	3,199	7,37	2,868	2,98
MQ1S2CH10		75	7,42	2,889	8,30	3,230	7,43	2,891	3,00
MQ1S2CH9		60	7,48	2,9112174	8,33	3,2437031	7,50	2,9190314	3,02
MQ1S2CH8		45	7,61	2,960	8,50	3,308	7,63	2,968	3,08
MQ1S2CH7		30	7,71	3,001	8,59	3,345	7,70	2,997	3,11
MQ1S2CH6		25	7,78	3,028	8,67	3,375	7,77	3,023	3,14
MQ1S2CH5		20	7,55	2,9373943	8,74	3,4038901	7,83	3,0483531	3,13
MQ1S2CH4		16	7,60	2,959	8,80	3,427	7,89	3,069	3,15
MQ1S2CH3		12	7,96	3,098	8,86	3,451	7,94	3,089	3,21
MQ1S2CH2		8	8,51	3,311	8,92	3,475	7,99	3,110	3,30
MQ1S2CH1		4	8,77	3,414	8,98	3,498	8,04	3,131	3,35
MQ1S2DH12	37,5	92	7,15	2,782	7,15	2,783	7,15	2,782	2,78
MQ1S2DH11		90	7,37	2,866	7,39	2,875	7,40	2,879	2,87
MQ1S2DH10		75	7,49	2,914	7,47	2,907	7,46	2,903	2,91
MQ1S2DH9		60	7,50	2,918	7,50	2,917	7,52	2,926	2,92
MQ1S2DH8		45	7,63	2,967	7,63	2,968	7,62	2,966	2,97
MQ1S2DH7		30	7,64	2,972	7,64	2,971	7,64	2,972	2,97
MQ1S2DH6		25	7,74	3,010	7,70	2,998	7,72	3,006	3,00
MQ1S2DH5		20	7,83	3,048	7,77	3,025	7,81	3,039	3,04
MQ1S2DH4		16	7,91	3,079	7,83	3,046	7,88	3,066	3,06
MQ1S2DH3		12	7,99	3,110	7,88	3,067	7,95	3,093	3,09
MQ1S2DH2		8	8,07	3,140	7,94	3,088	8,02	3,120	3,12
MQ1S2DH1		4	8,15	3,171	7,99	3,110	8,09	3,147	3,14
MQ1S2EH12	19	92	6,83	2,655	6,82	2,654	6,82	2,653	2,65
MQ1S2EH11		90	6,95	2,702	6,94	2,698	6,93	2,694	2,70
MQ1S2EH10		75	6,97	2,710	6,97	2,710	6,97	2,711	2,71
MQ1S2EH9		60	7,03	2,733	7,03	2,735	7,04	2,740	2,74
MQ1S2EH8		45	7,13	2,773	7,14	2,777	7,15	2,780	2,78
MQ1S2EH7		30	7,23	2,812	7,23	2,812	7,23	2,811	2,81
MQ1S2EH6		25	7,27	2,828	7,27	2,829	7,28	2,830	2,83
MQ1S2EH5		20	7,01	2,728	7,32	2,847	7,32	2,849	2,81
MQ1S2EH4		16	7,05	2,741	7,35	2,861	7,36	2,865	2,82
MQ1S2EH3		12	7,38	2,871	7,39	2,875	7,40	2,880	2,88
MQ1S2EH2		8	7,90	3,076	7,43	2,889	7,44	2,896	2,95
MQ1S2EH1		4	8,15	3,171	7,46	2,903	7,48	2,911	2,99

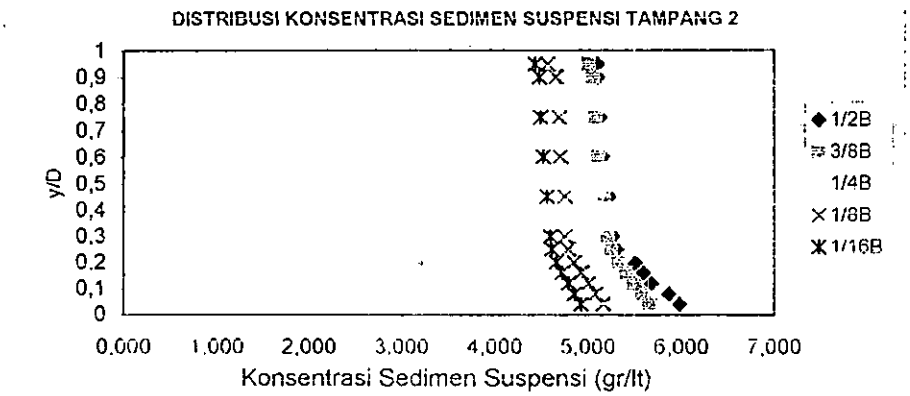
UNIVERSITAS
GADJAH MADA

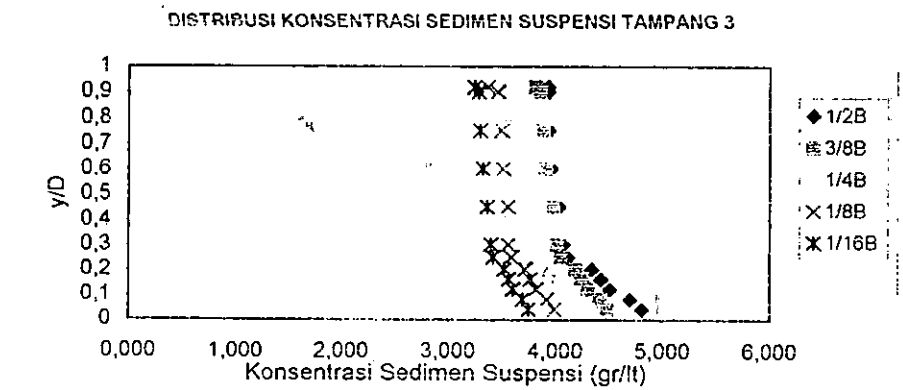
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 6

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

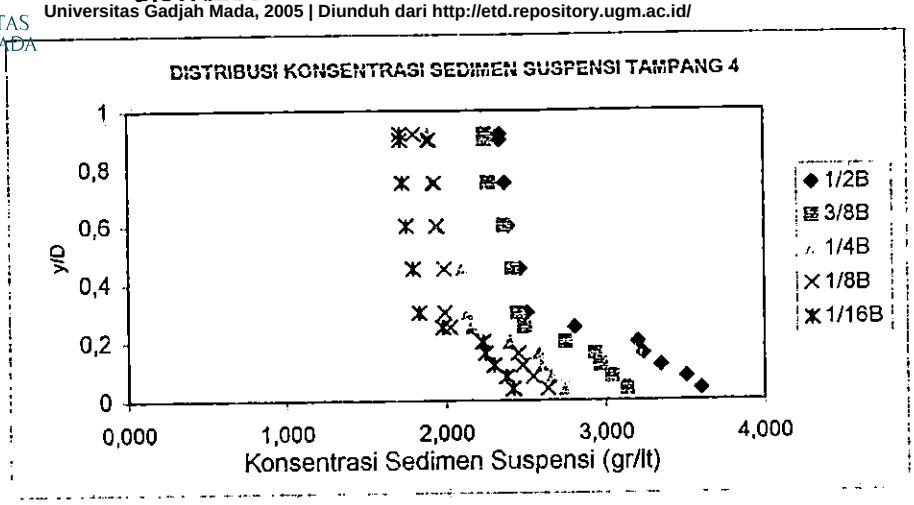


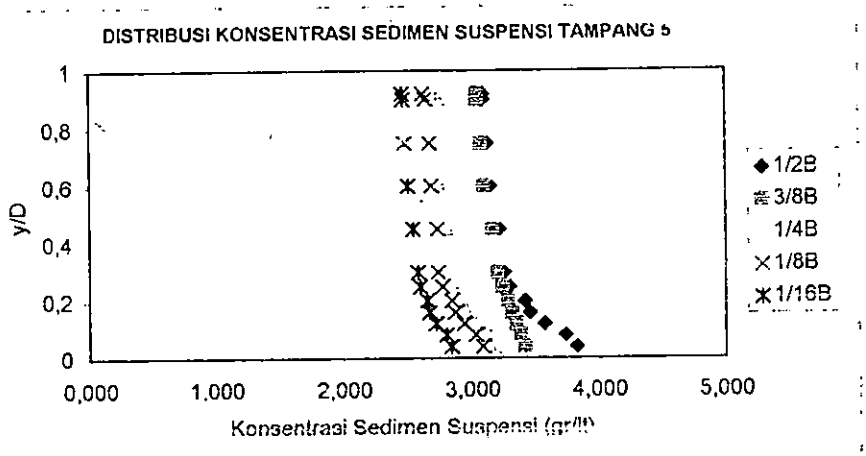


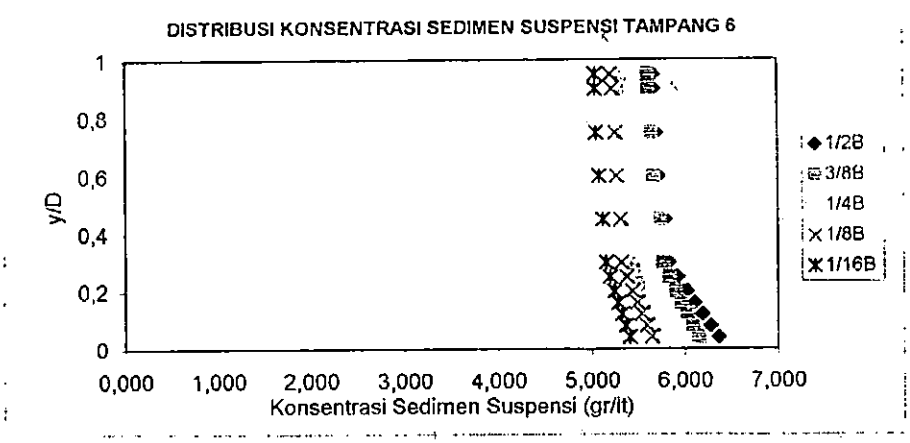


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Calvyono, Dr. Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

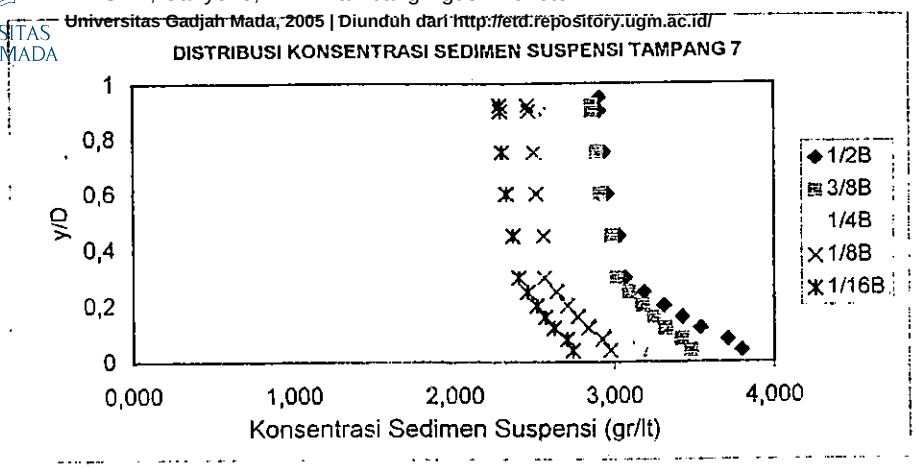
DISTRIBUSI SEDIMEN SUSPENSI SELURUH TAMPANG

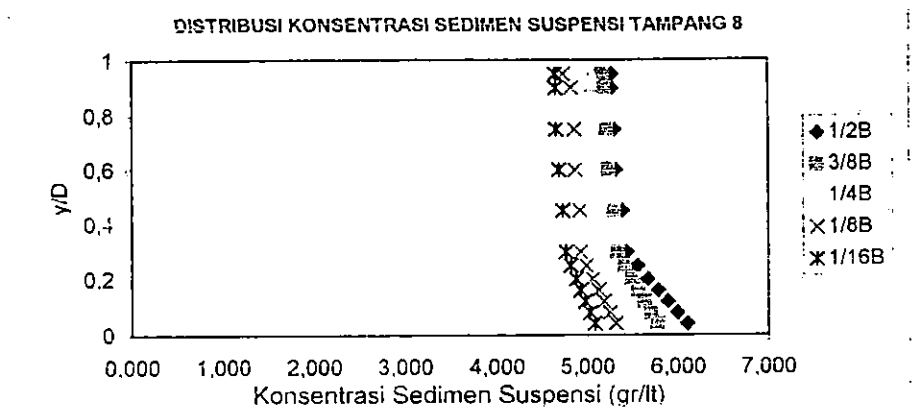


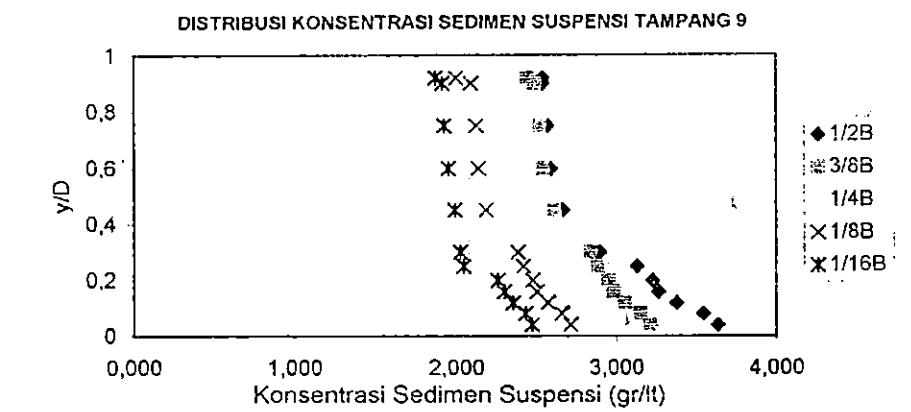


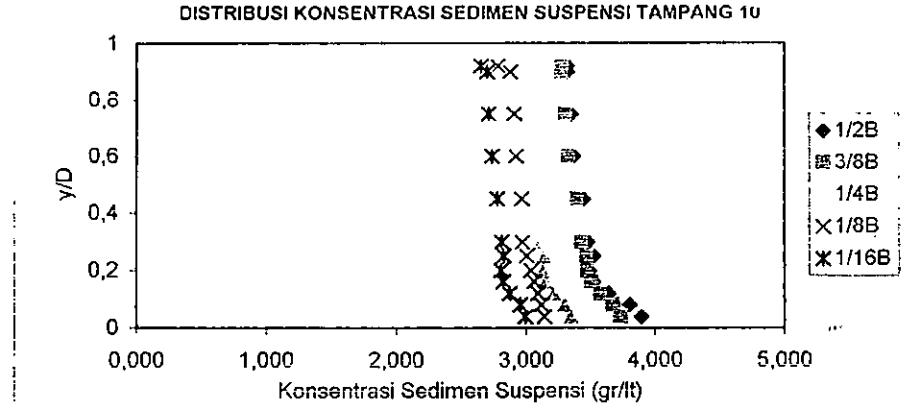


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/







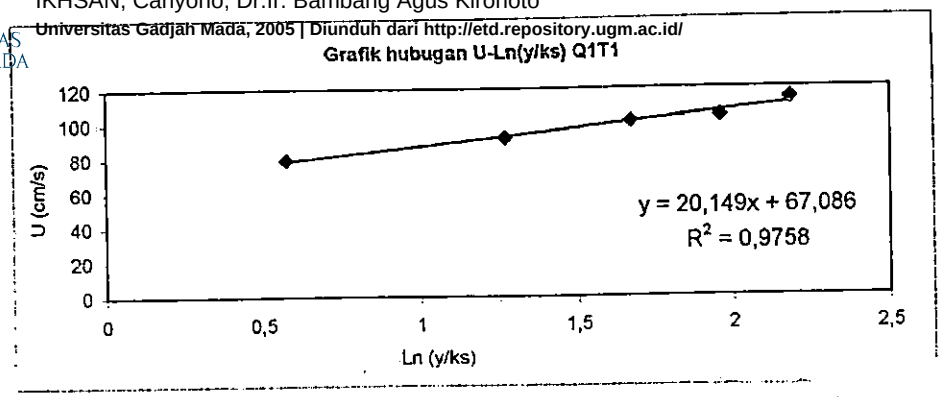


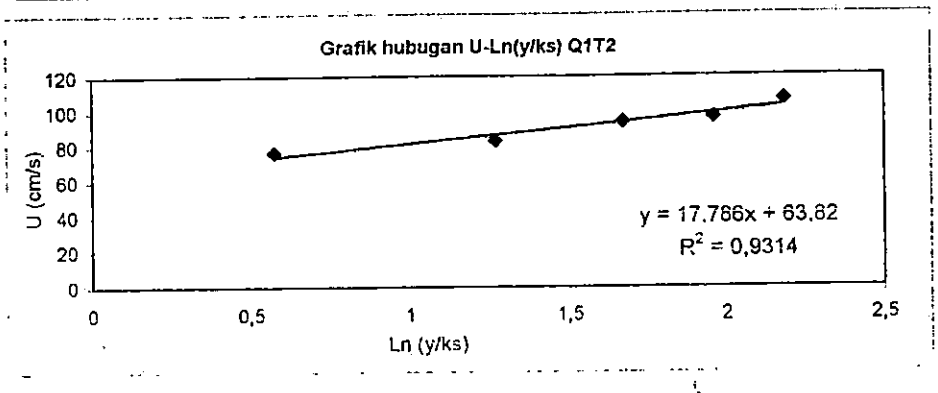
UNIVERSITAS
GADJAH MADA

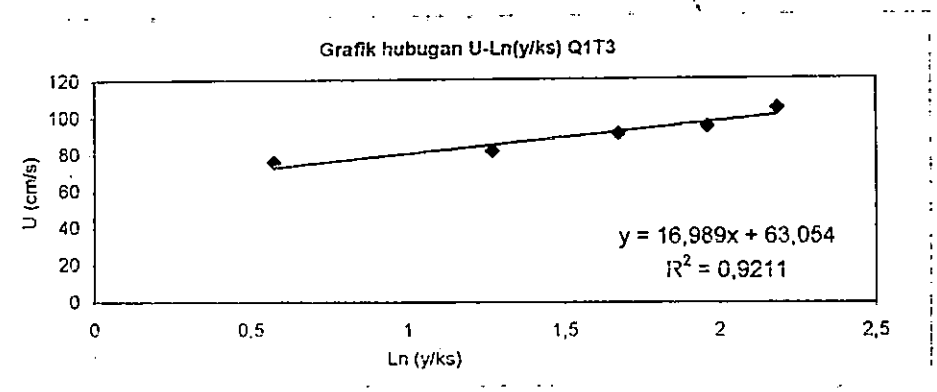
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

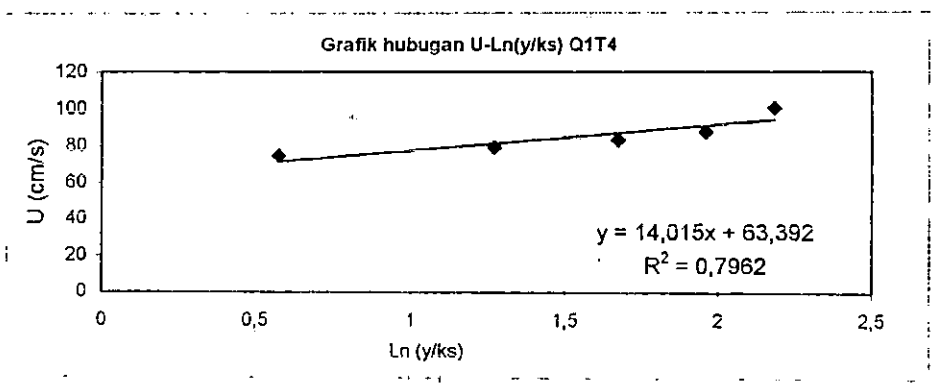
LAMPIRAN 7

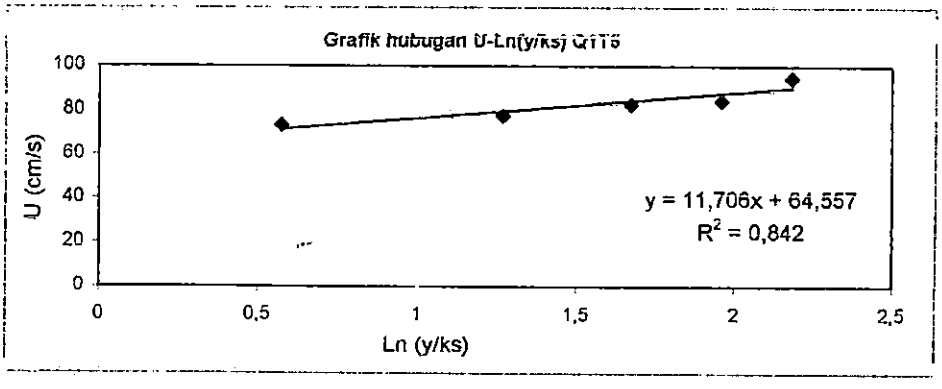
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/





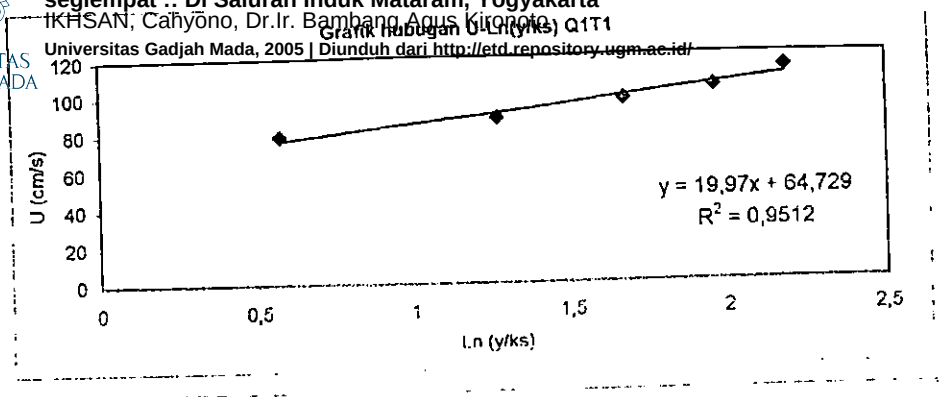


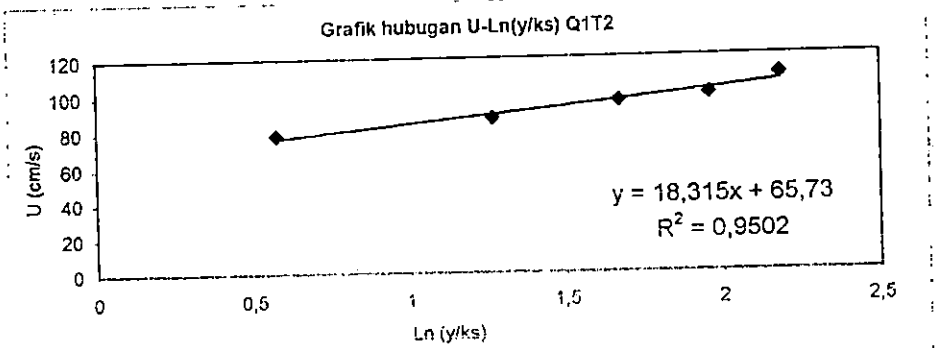


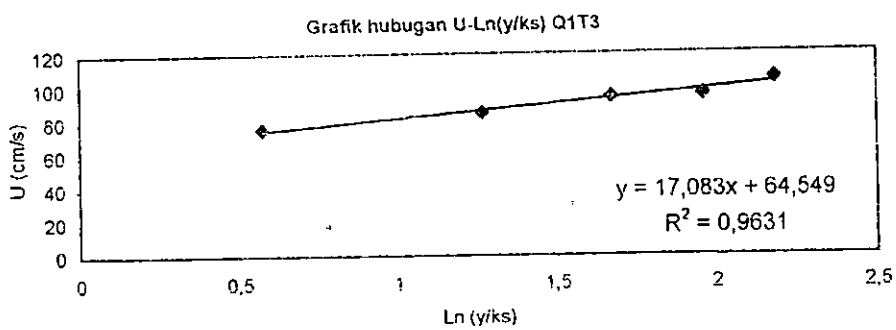


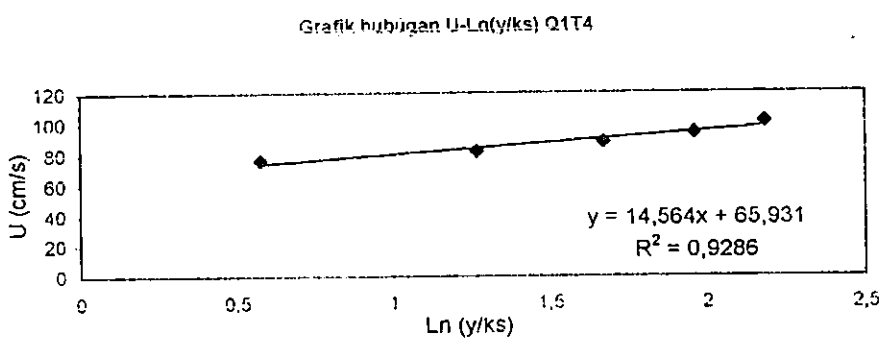
UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

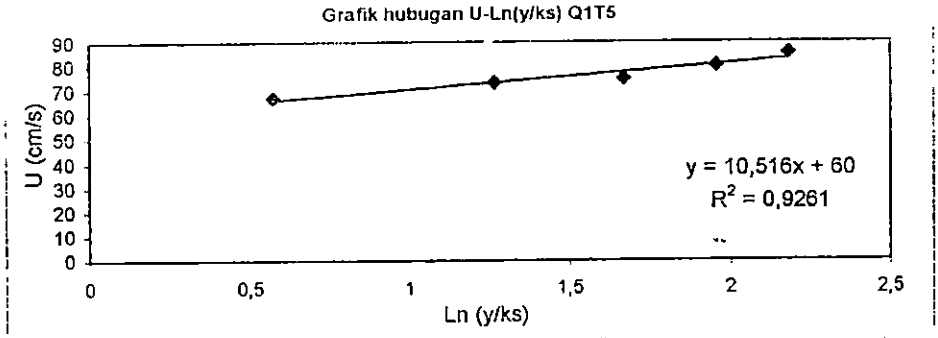
GRAFIK HASIL PERHITUNGAN KECEPATAN GESEK DAN NILAI BR PADA TAMPANG 2







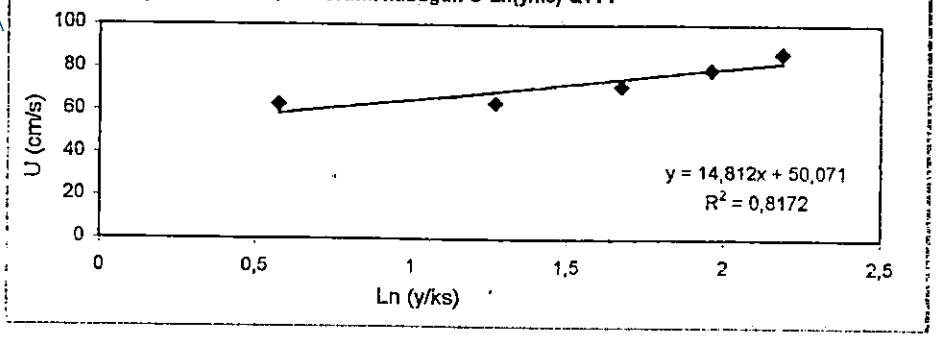




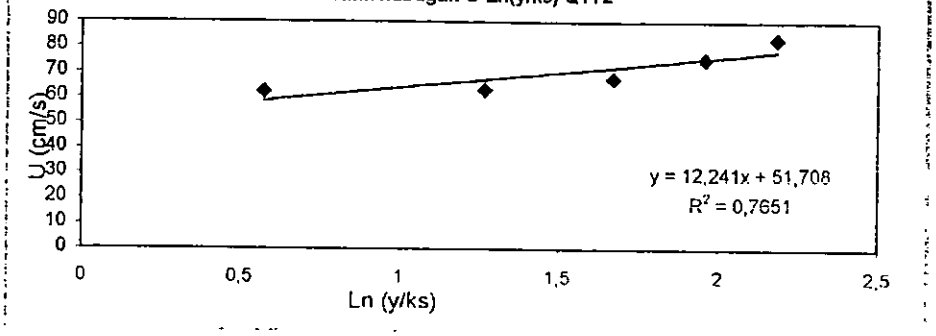
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERHITUNGAN KECEPATAN GESEK DAN [illegible] PADA [illegible]

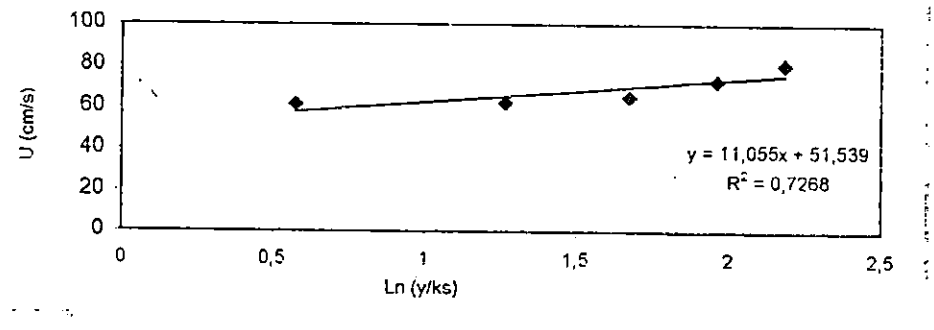
Grafik hubugan U-Ln(y/ks) Q1T1



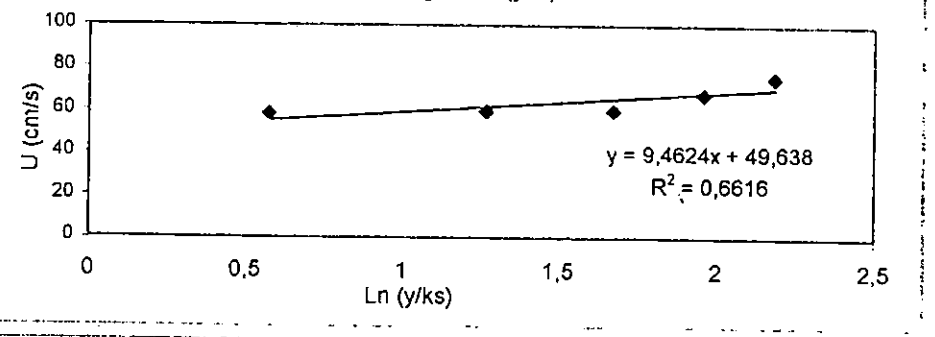
Grafik hubugan U-Ln(y/ks) Q1T2



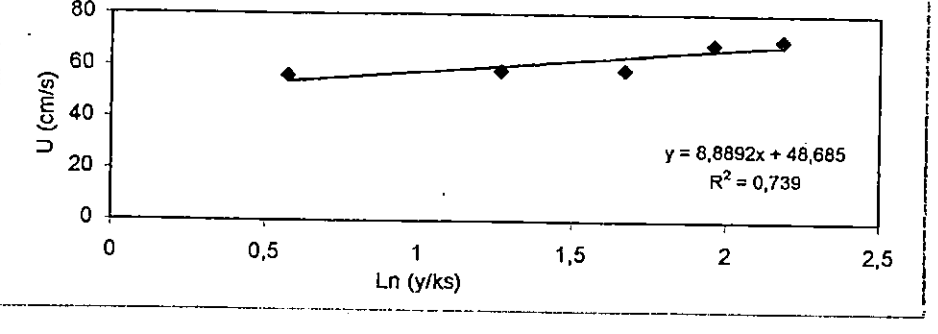
Grafik hubugan U-Ln(y/ks) Q1T3



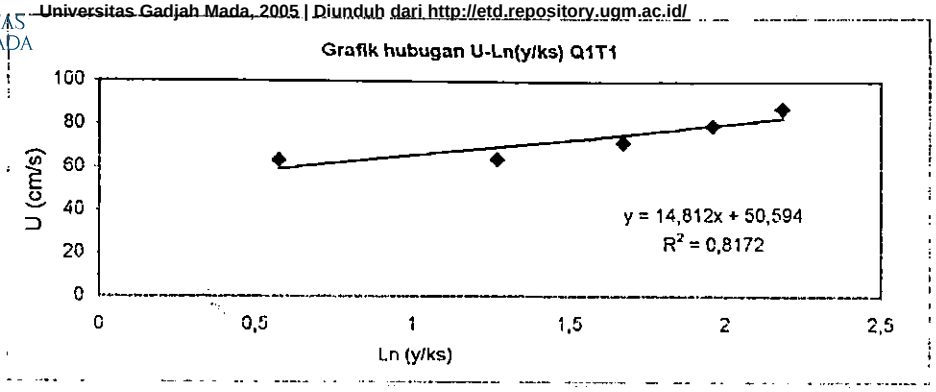
Grafik hubugan U-Ln(y/ks) Q1T4

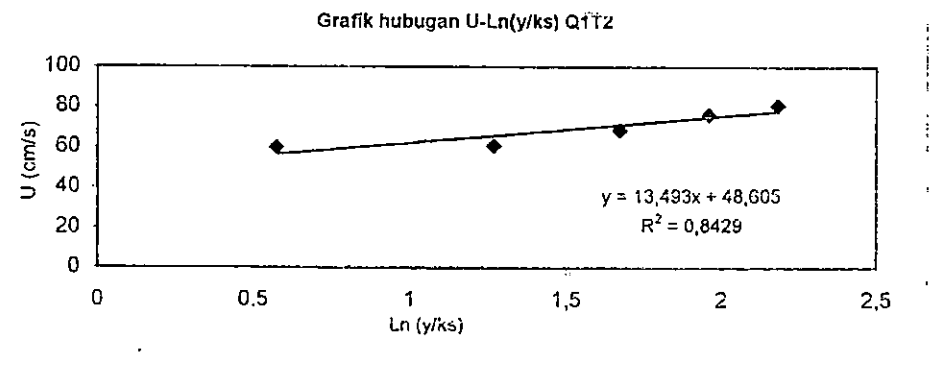


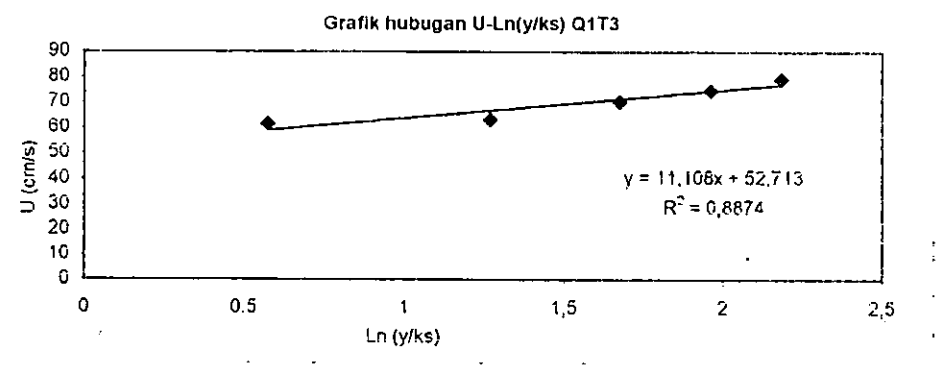
Grafik hubugan U-Ln(y/ks) Q1T5

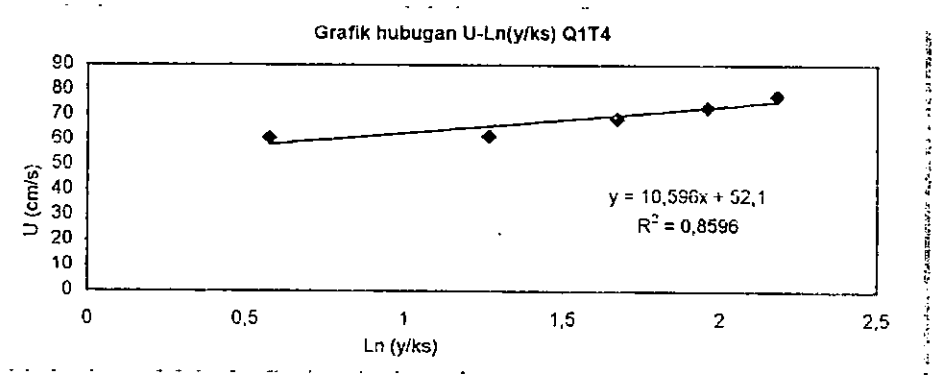


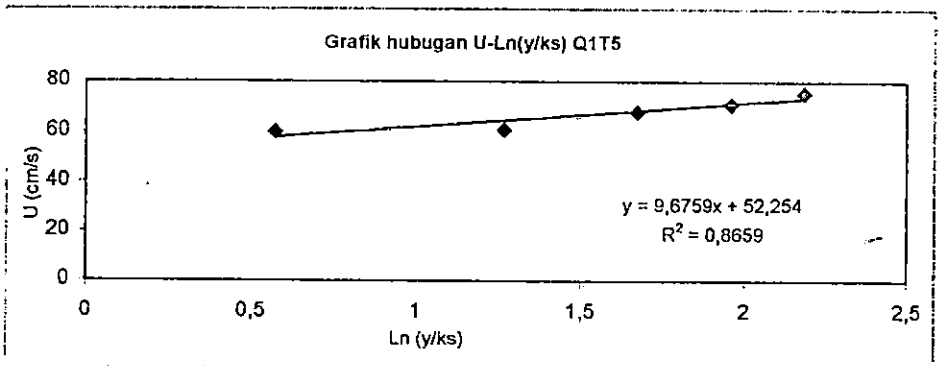
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/





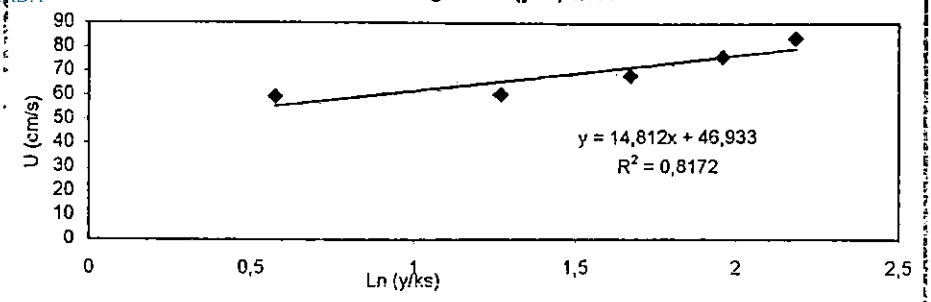




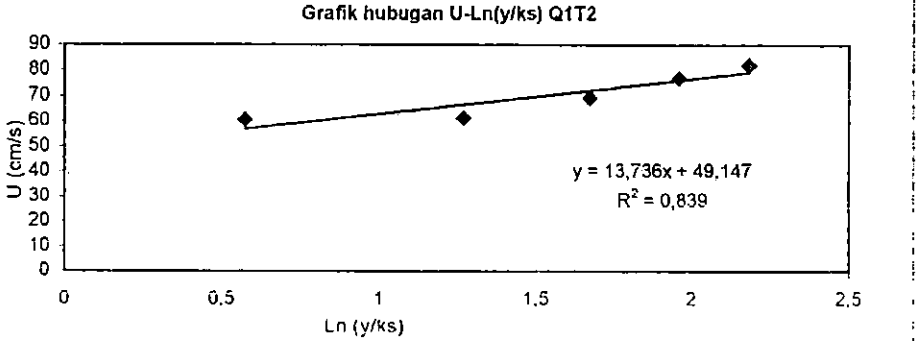


UNIVERSITAS GADJAH MADA
GRAFI
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

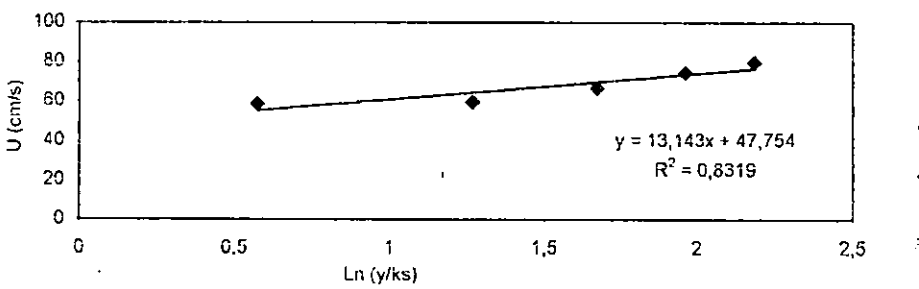
Grafik hubugan U-Ln(y/ks) Q1T1



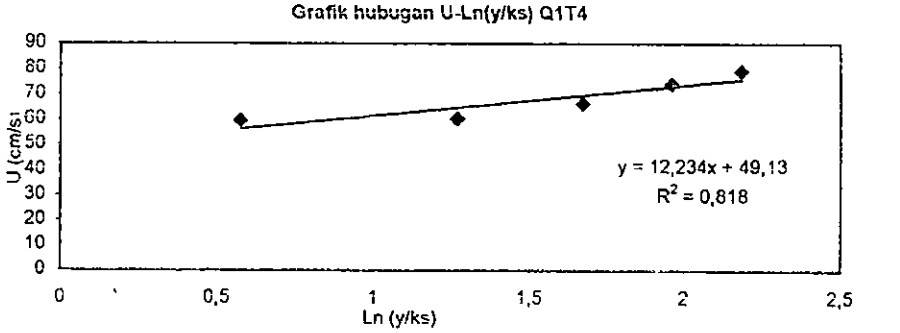
Grafik hubugan U-Ln(y/ks) Q1T2



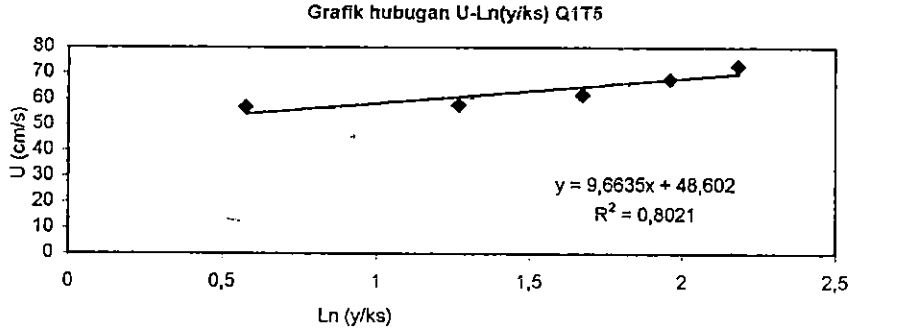
Grafik hubugan U-Ln(y/ks) Q1T3



Grafik hubugan U-Ln(y/ks) Q1T4

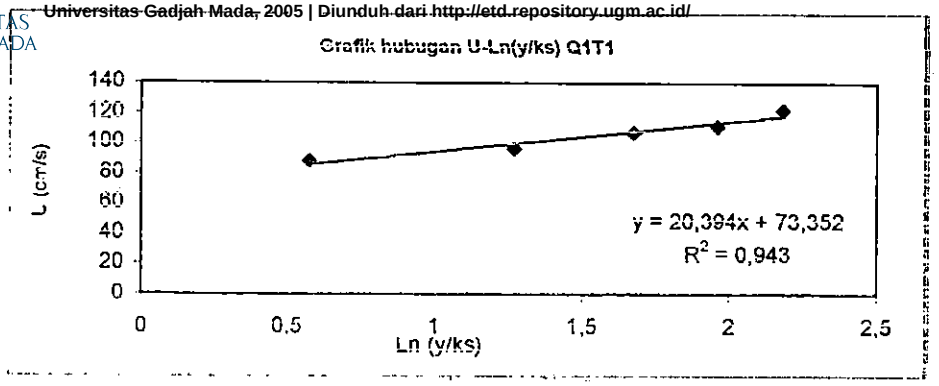


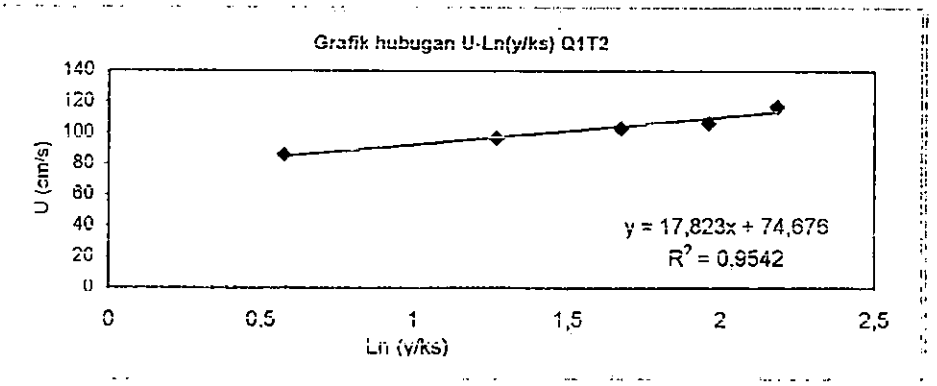
Grafik hubugan U-Ln(y/ks) Q1T5

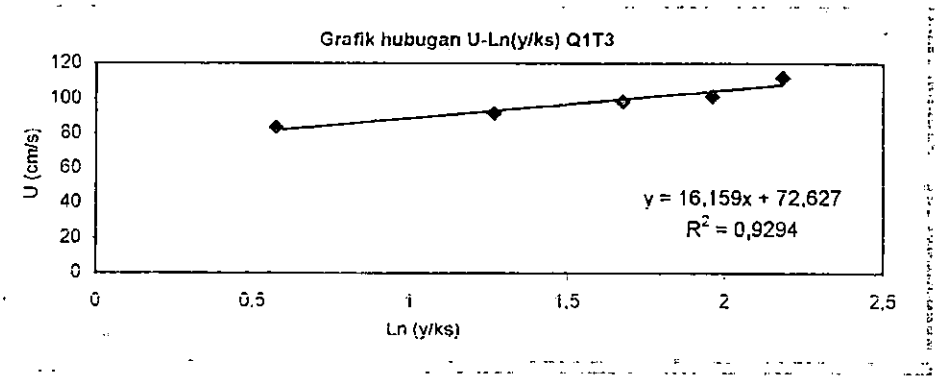


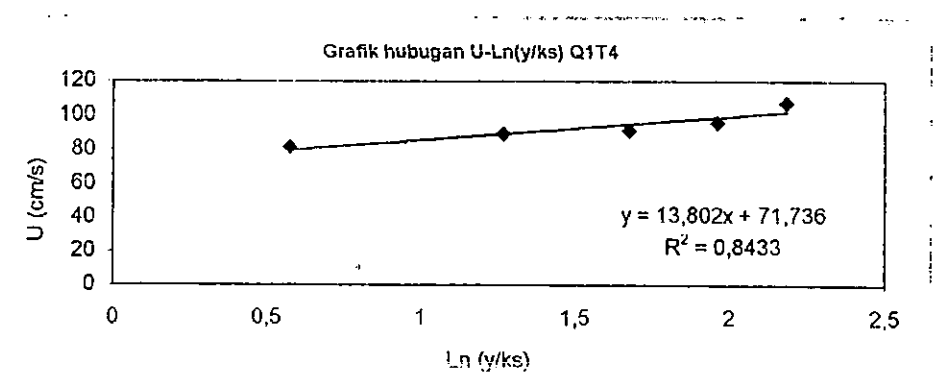
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

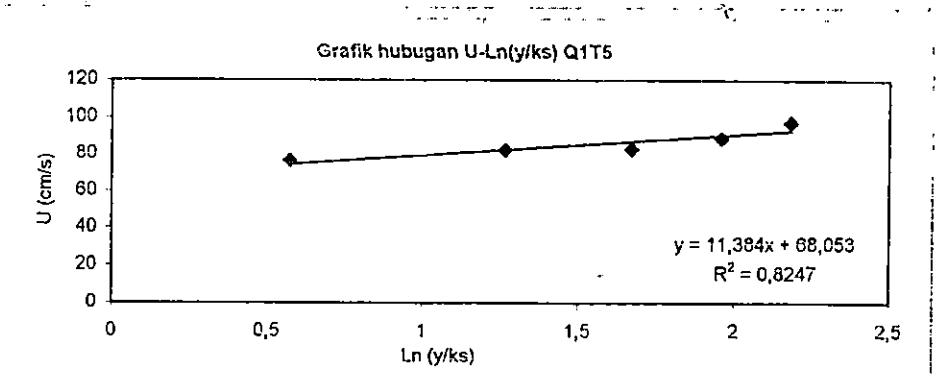
GRAF



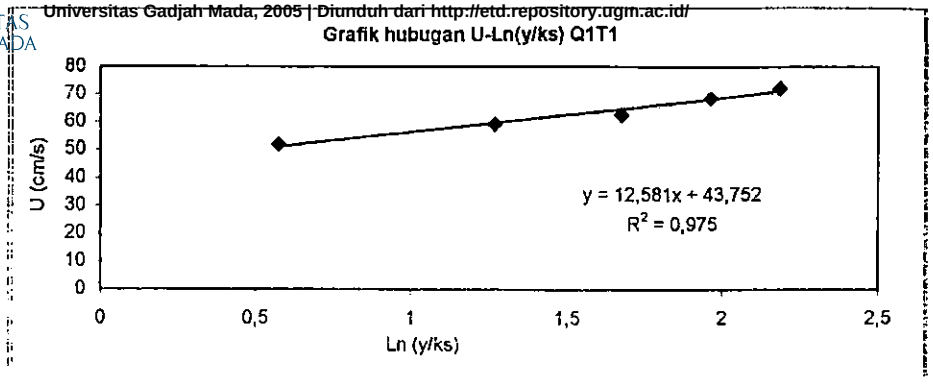


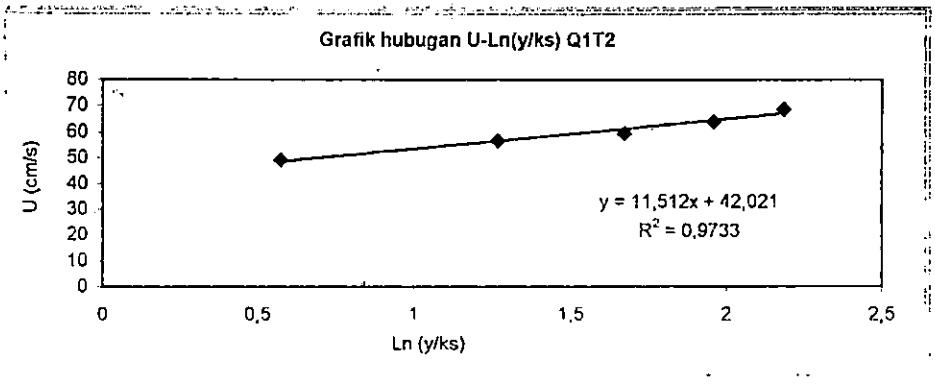


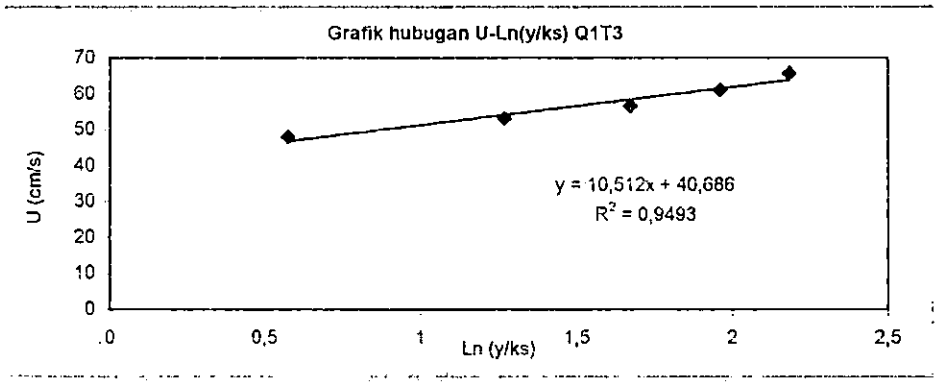


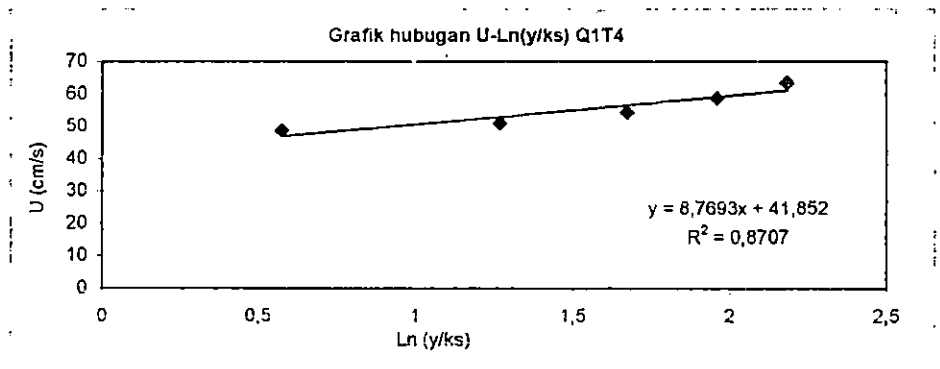


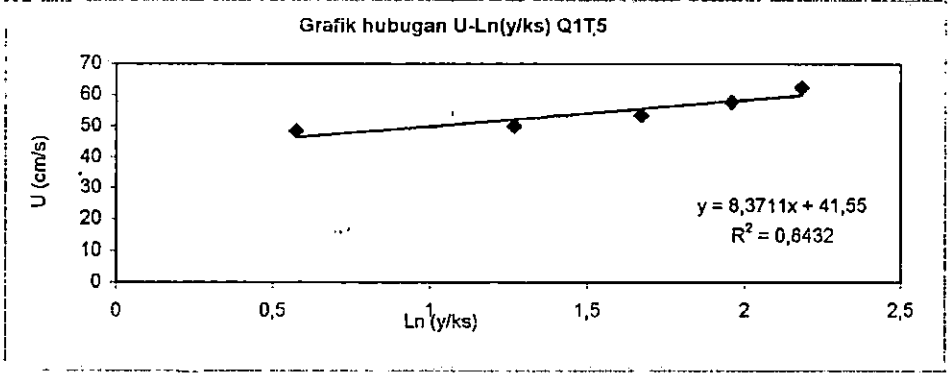
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/



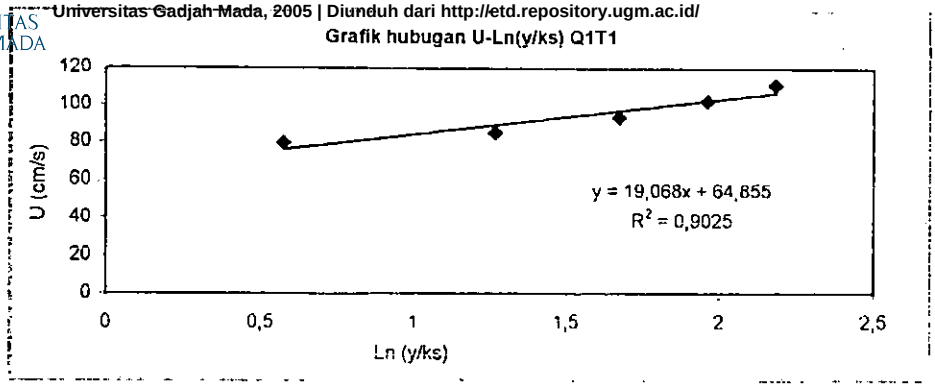


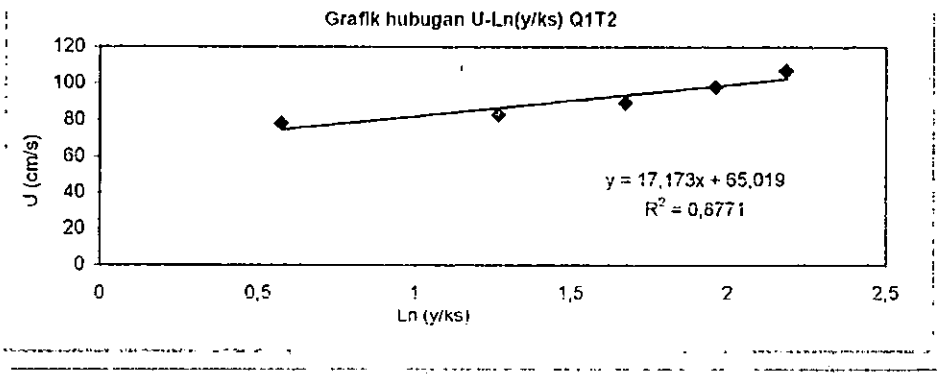


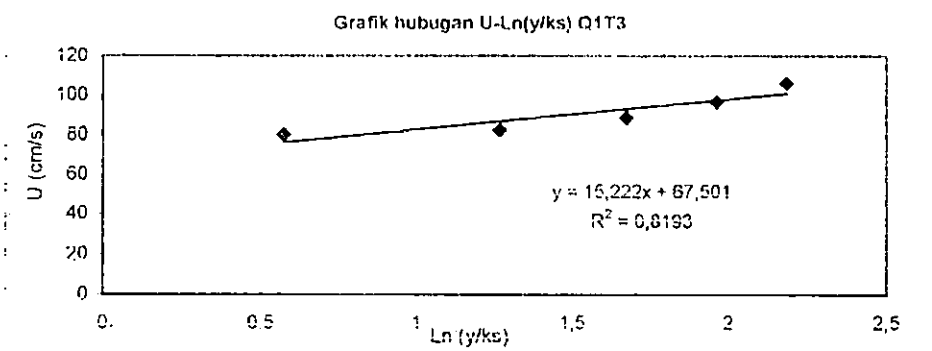


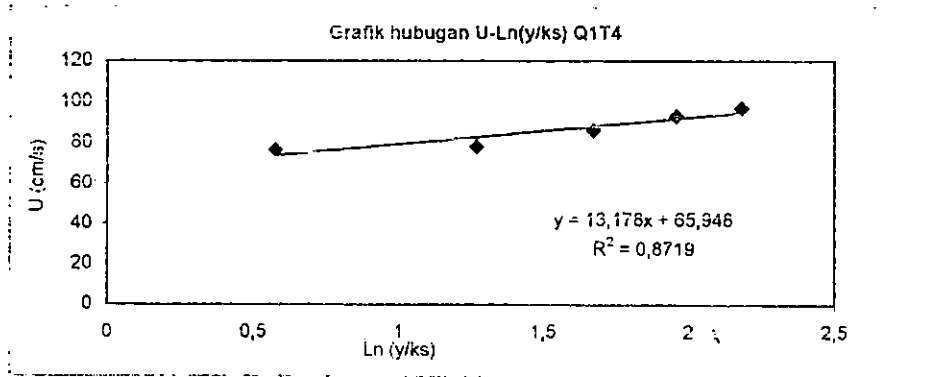


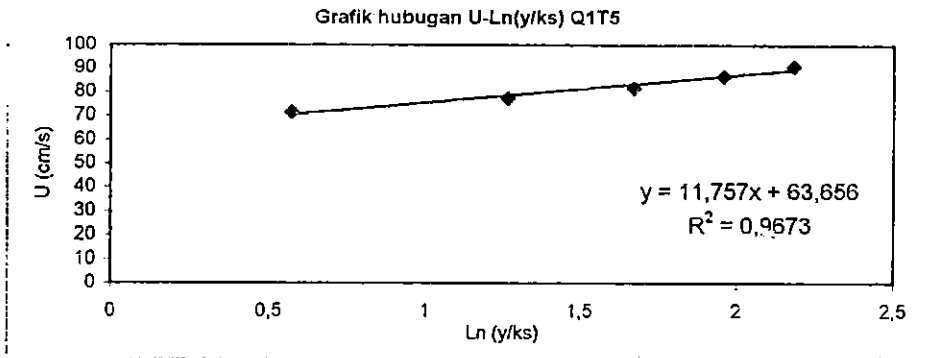
UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/



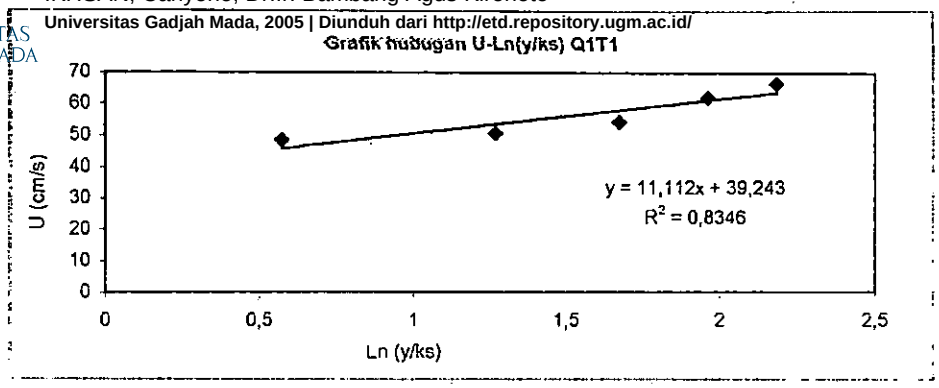


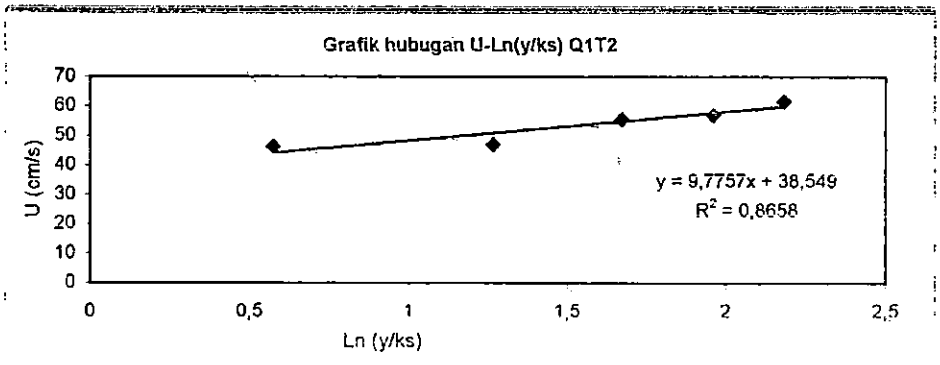


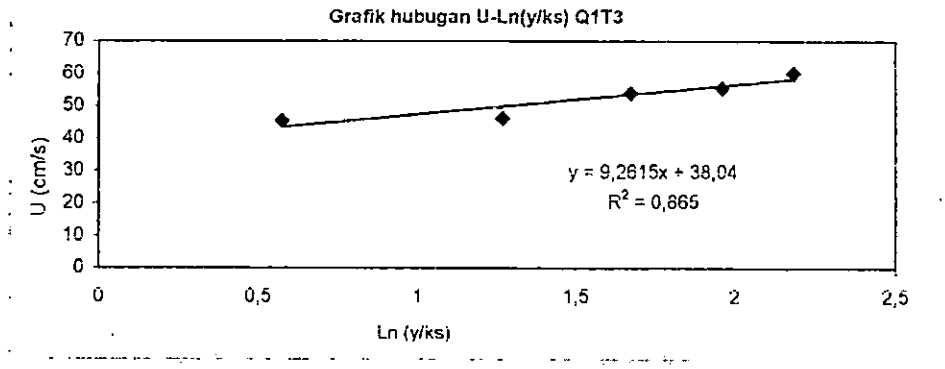


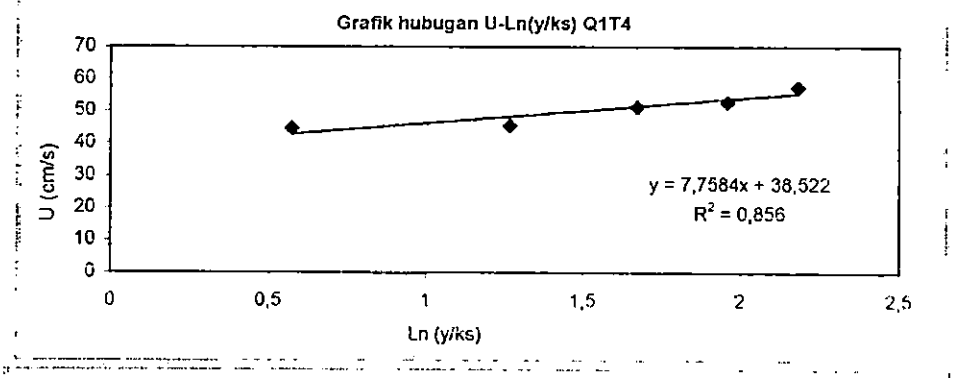


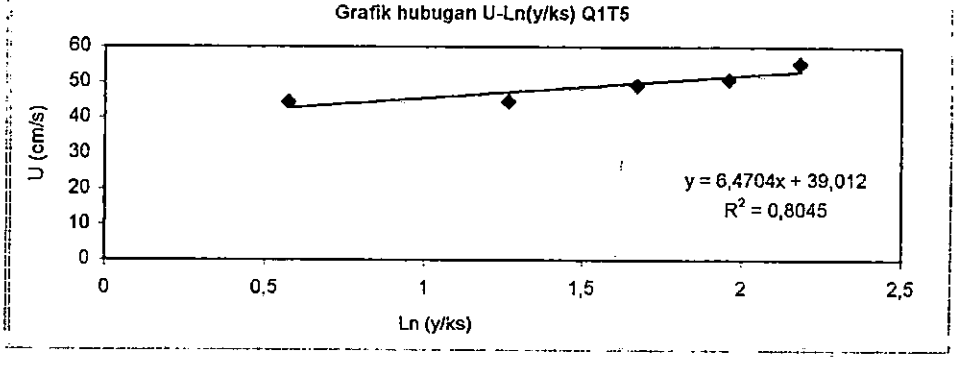
UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/



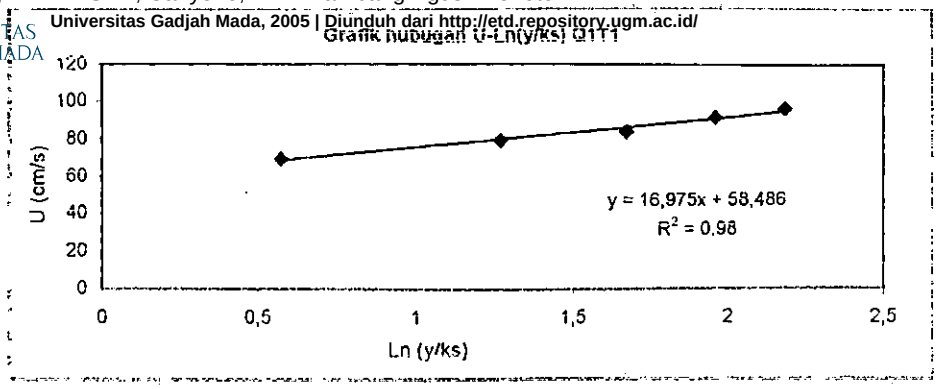


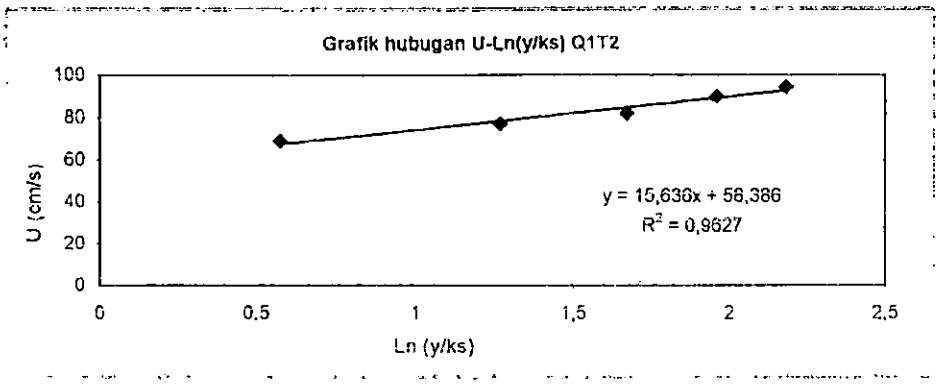


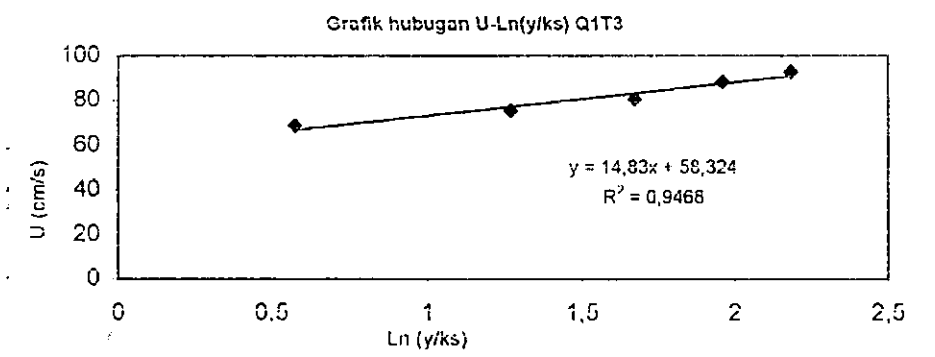


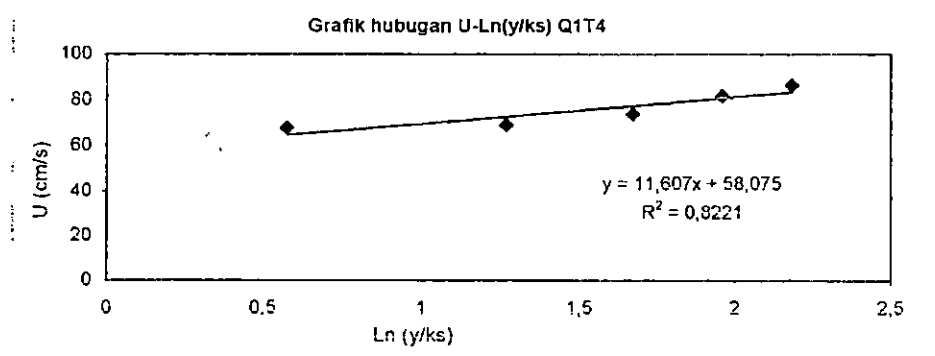


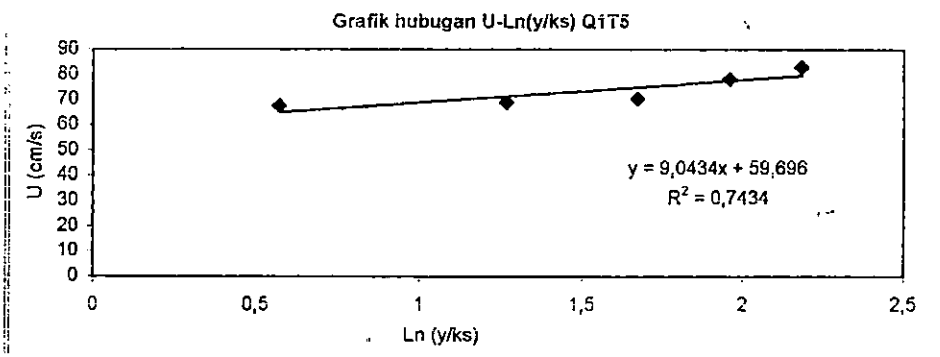
UNIVERSITAS GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/











UNIVERSITAS
GADJAH MADA

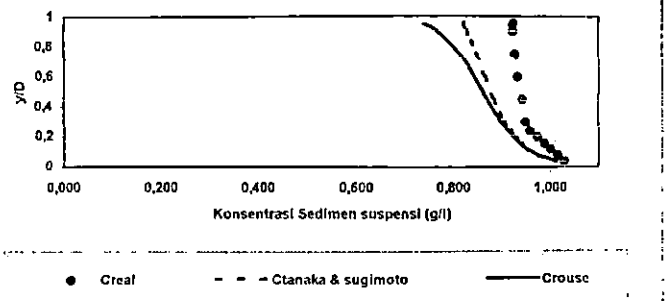
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 8

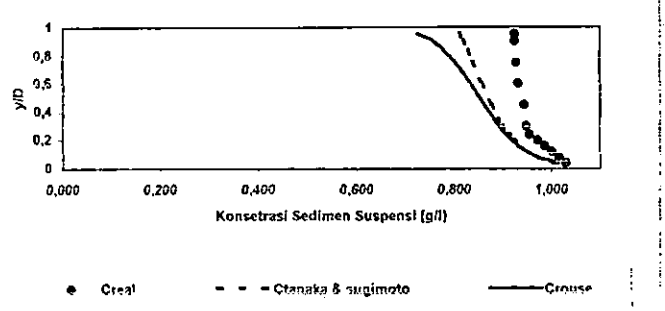
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono Dr.Ir. Rambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 1

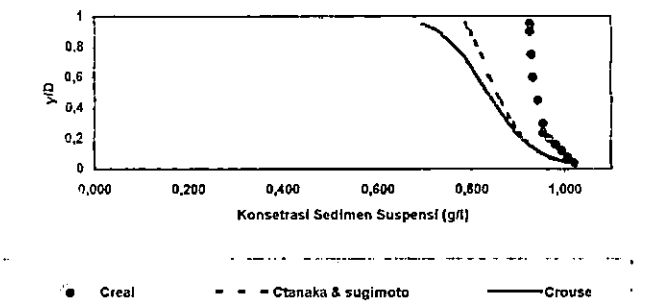
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q1T1)



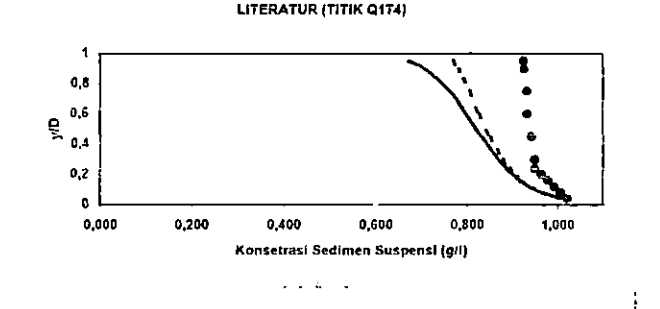
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q1T2)



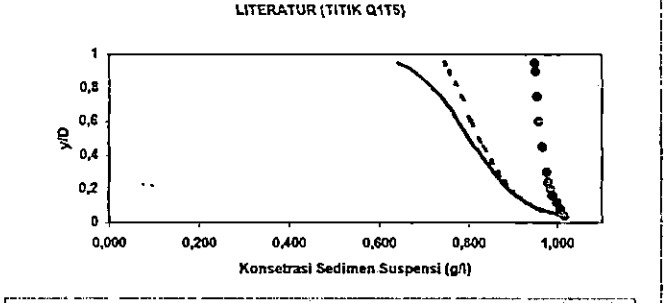
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q1T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q1T4)



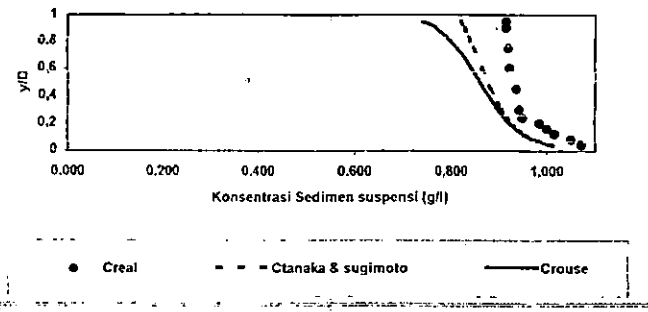
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q1T5)



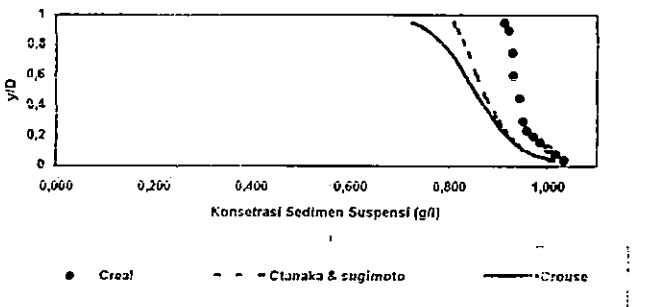
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

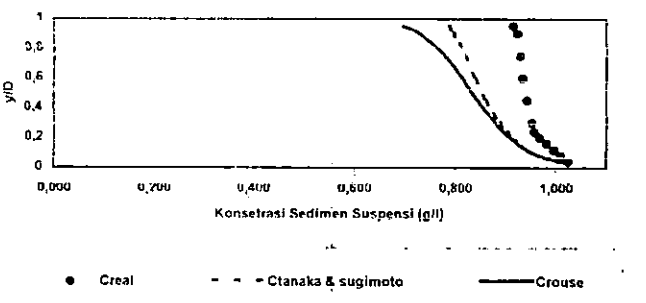
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T1)



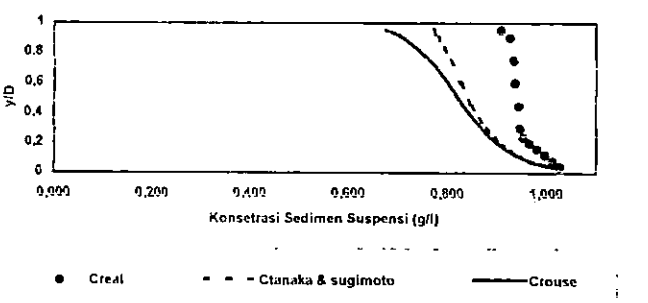
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T2)



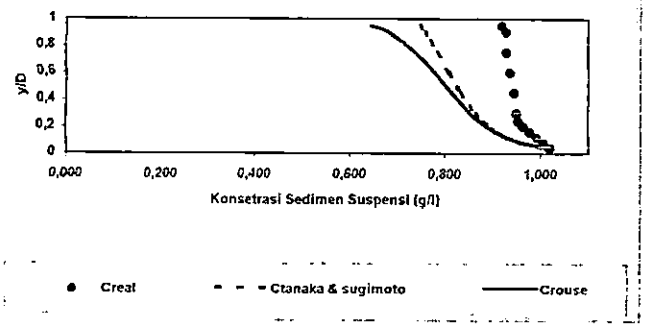
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T4)



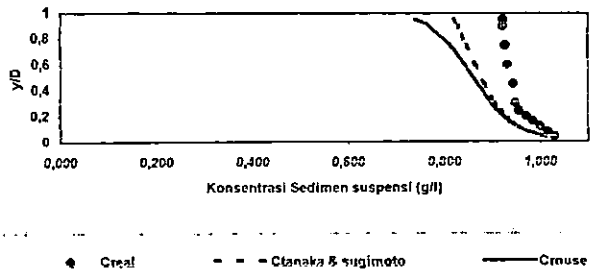
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T5)



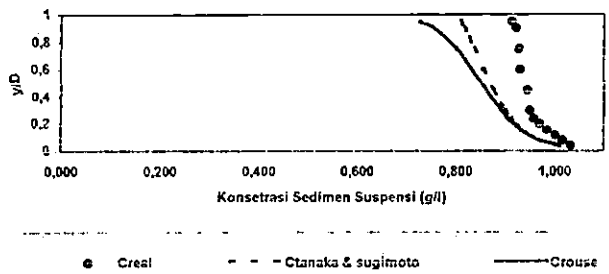
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

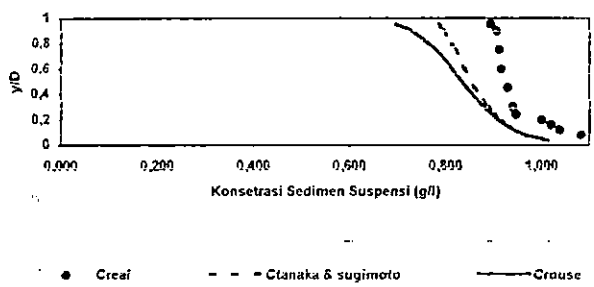
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q3T1)



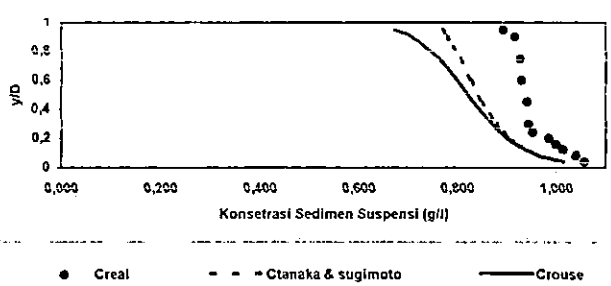
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q3T2)



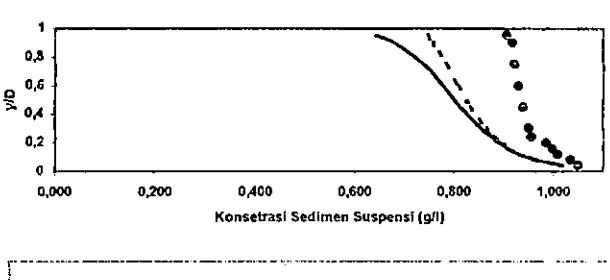
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q3T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q3T4)

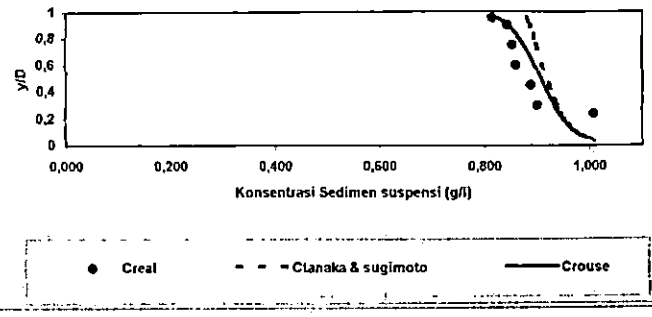


PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIKQ3T5)

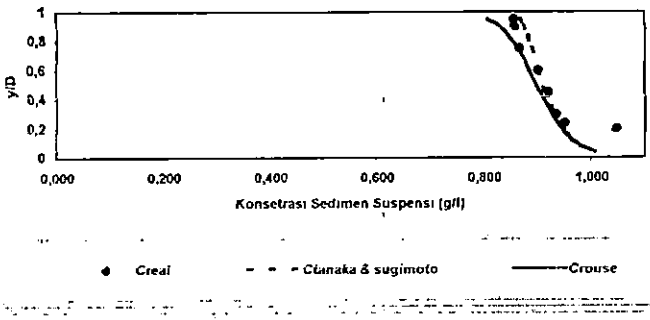


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

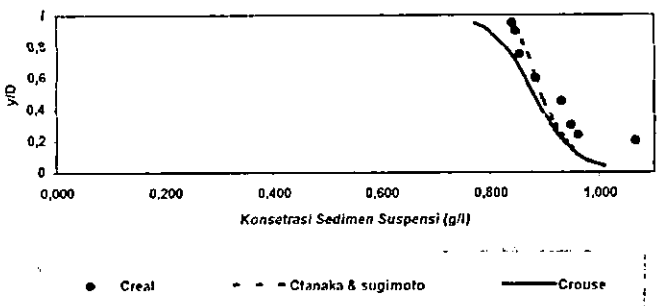
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q4T1)



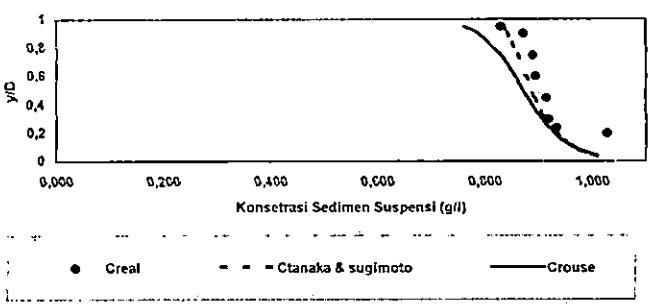
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q4T2)



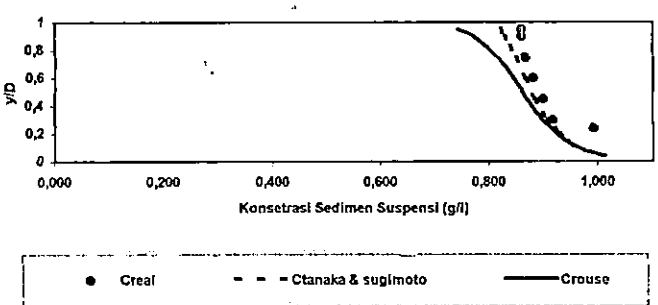
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q4T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q4T4)

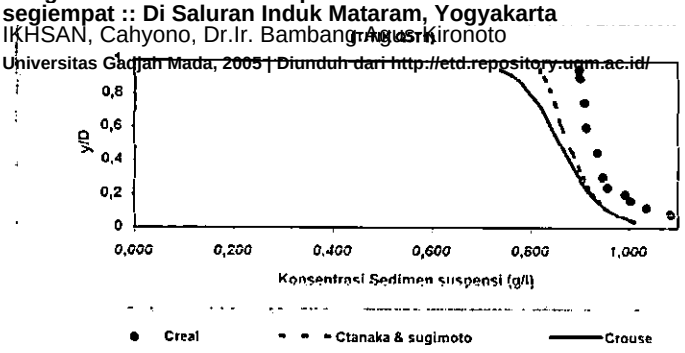


PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q4T5)

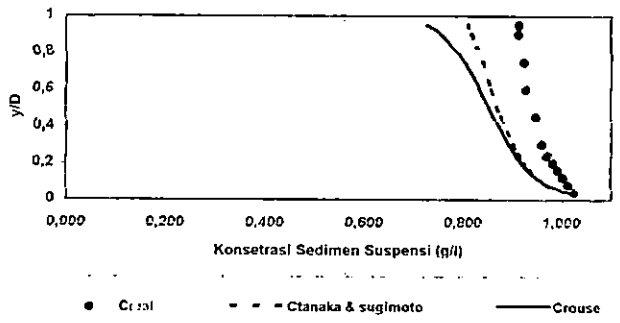


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

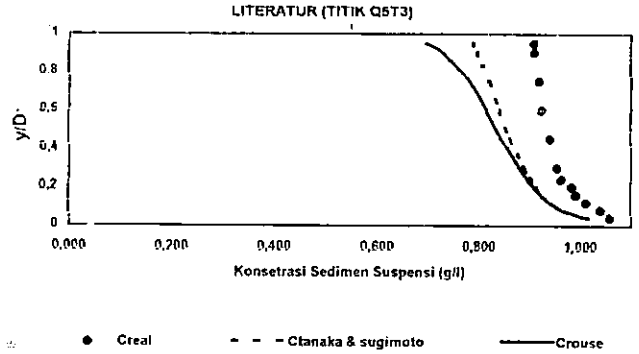
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 5



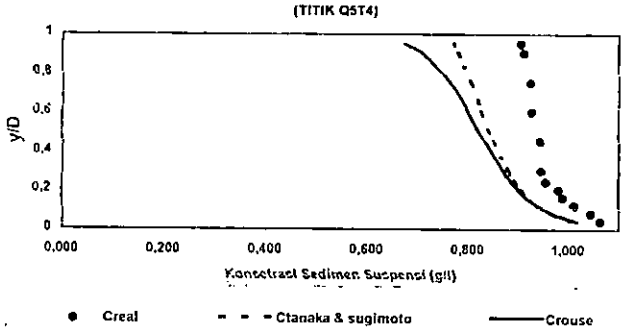
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T2)



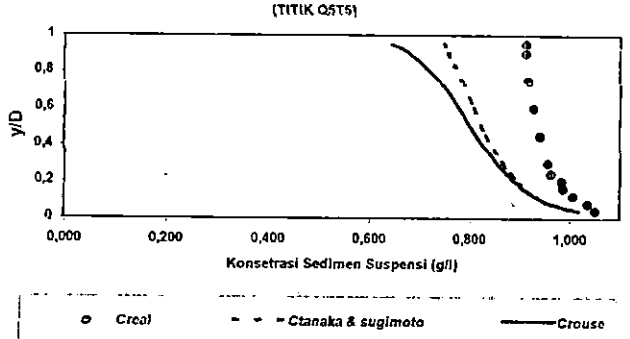
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T4)



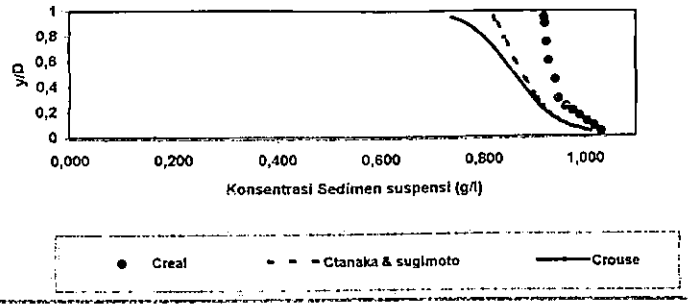
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T5)



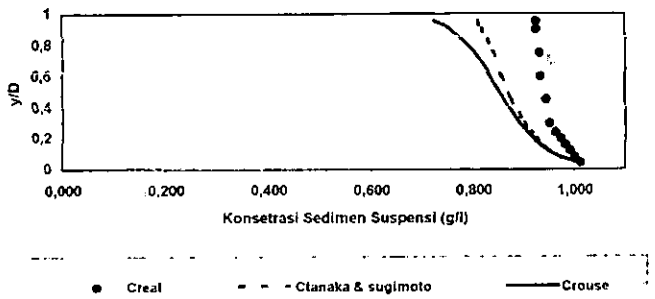
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr. Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

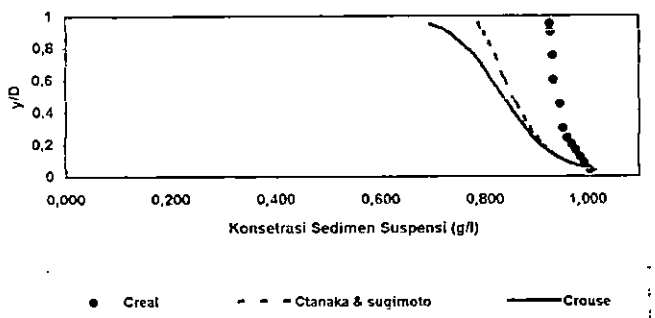
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q6T1)



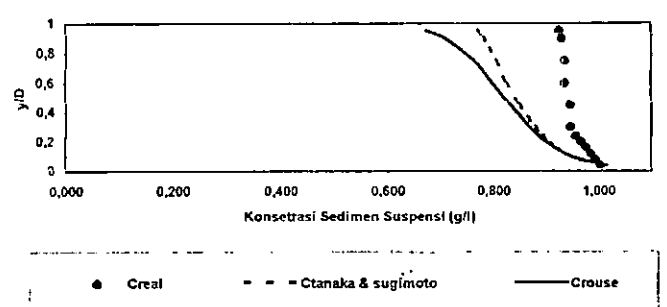
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q6T2)



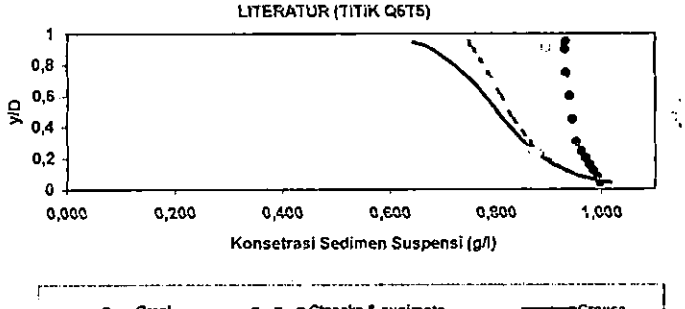
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q6T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q6T4)



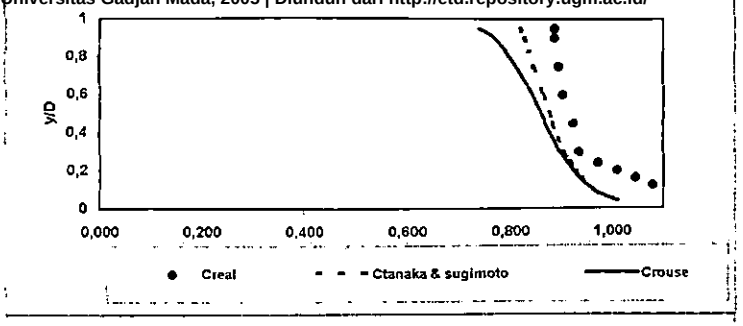
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q6T5)



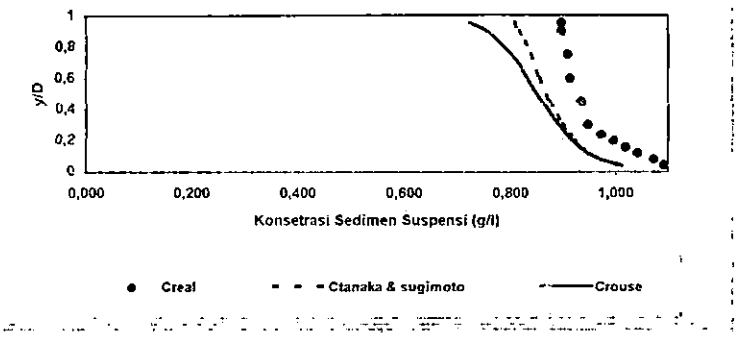
UNIVERSITAS
GADJAH MADA

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI
DENGAN LITERATUR PADA TAMPANG 7

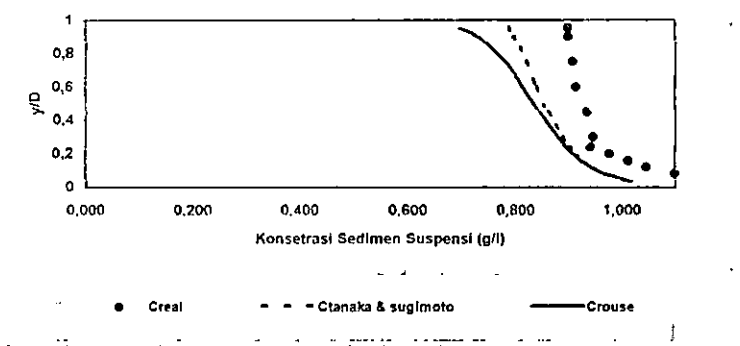
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/



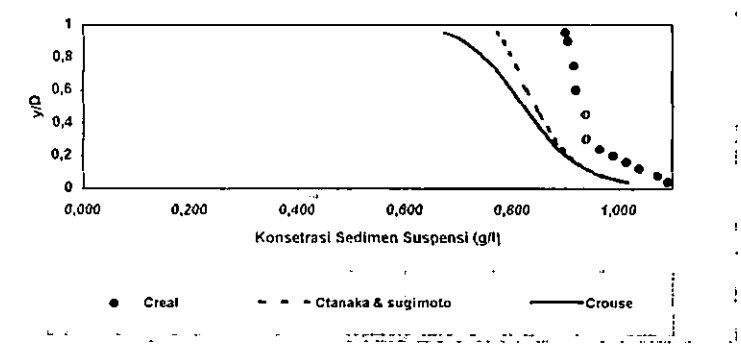
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T2)



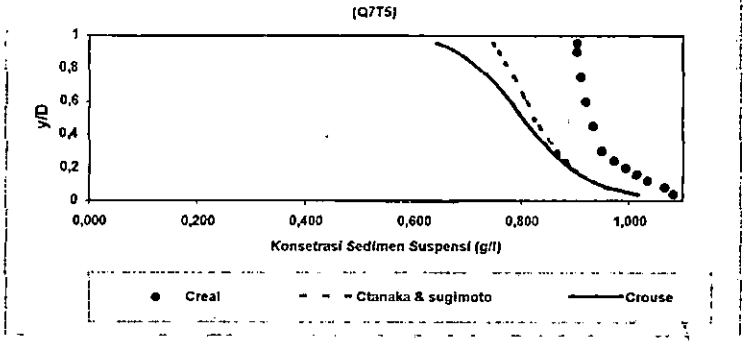
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T4)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (Q7T5)



UNIVERSITAS
GADJAH MADA

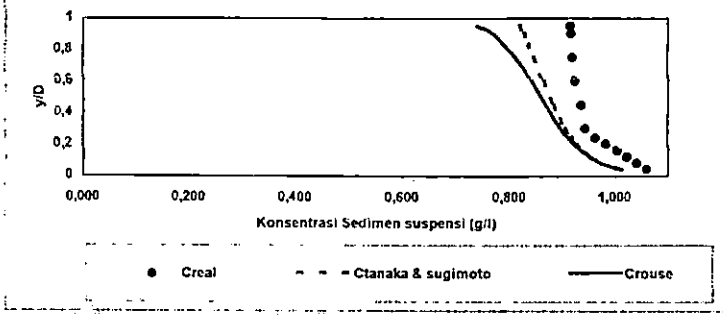
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

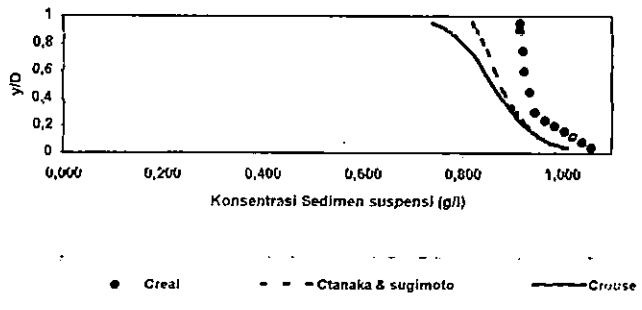
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

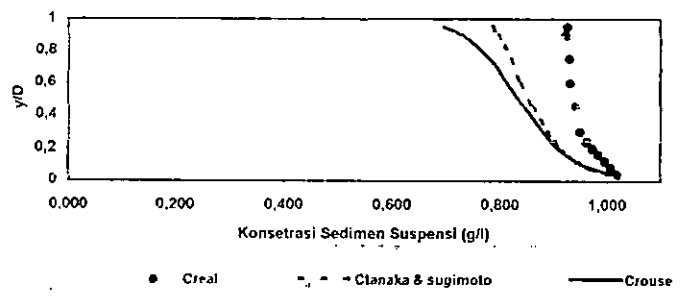
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q8T1)



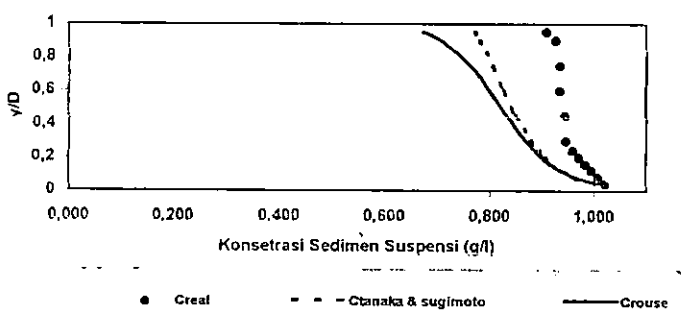
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q8T2)



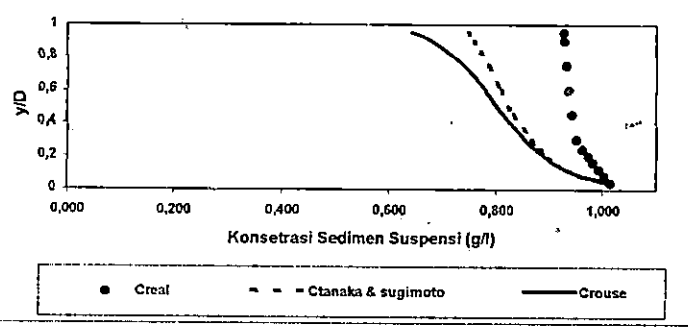
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q8T3C)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q8T4)

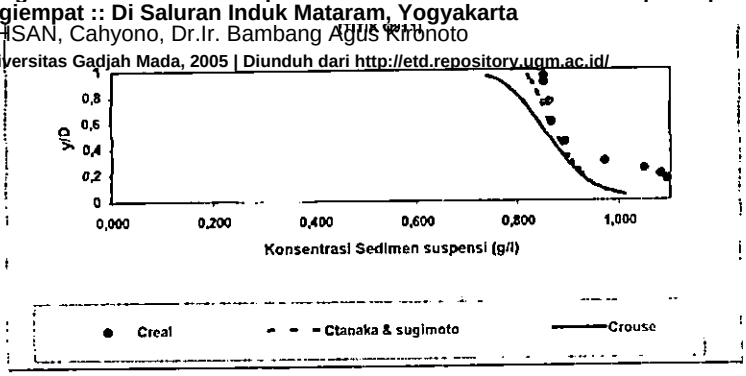


PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q8T5)

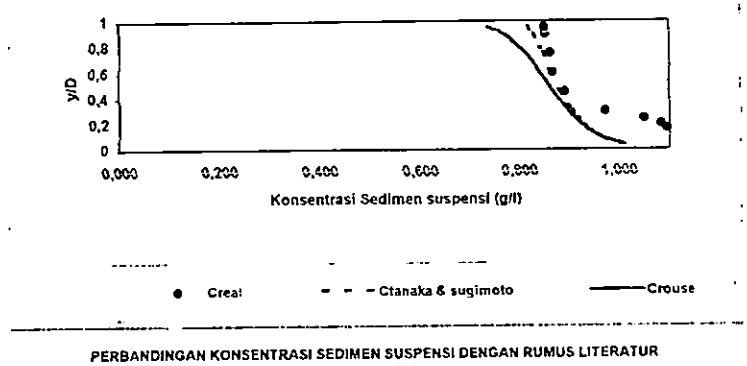


UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

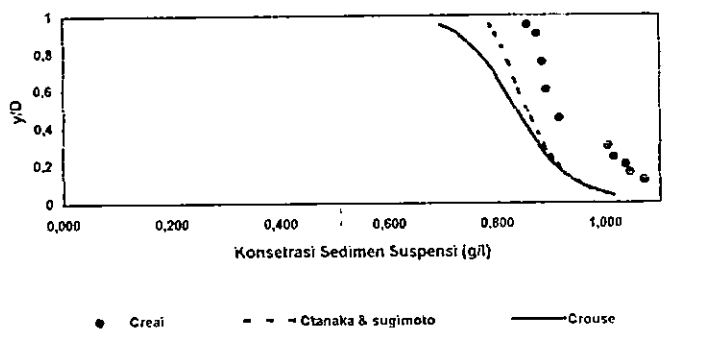
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 9



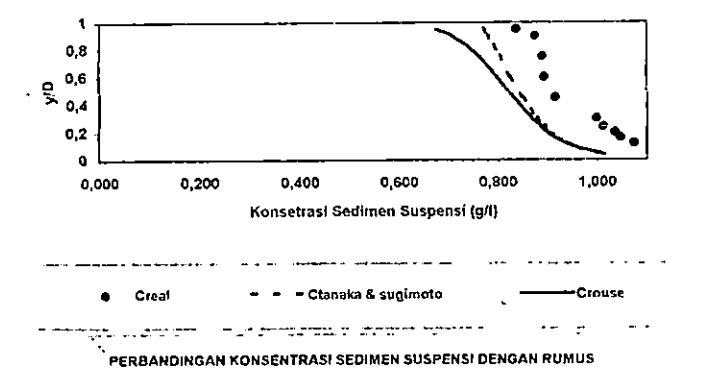
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q9T2A)



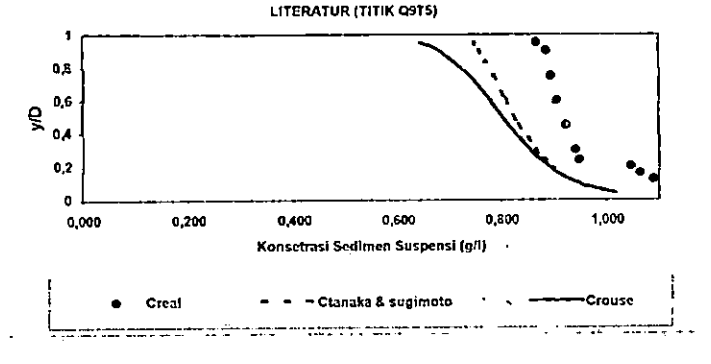
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q9T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q9T4)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q9T5)



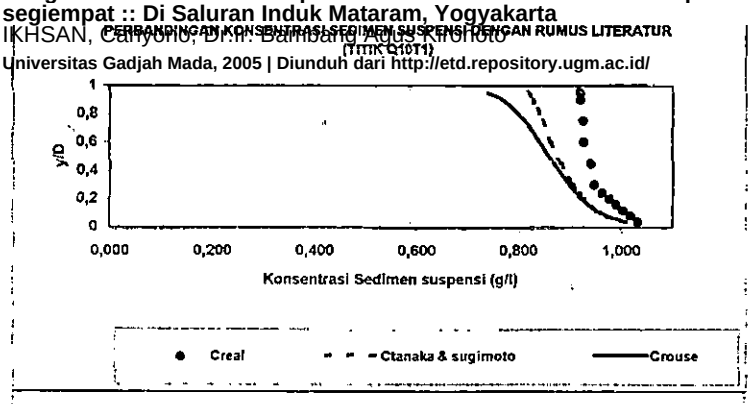
UNIVERSITAS
GADJAH MADA

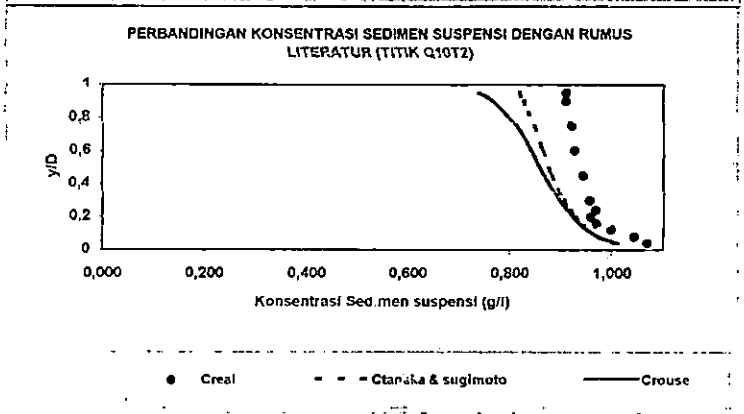
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

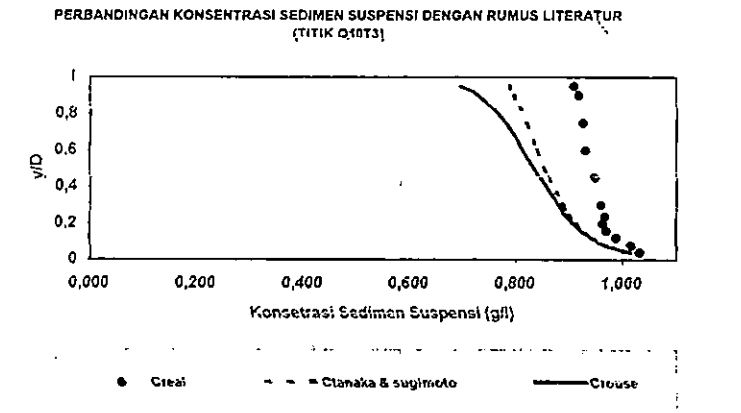
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

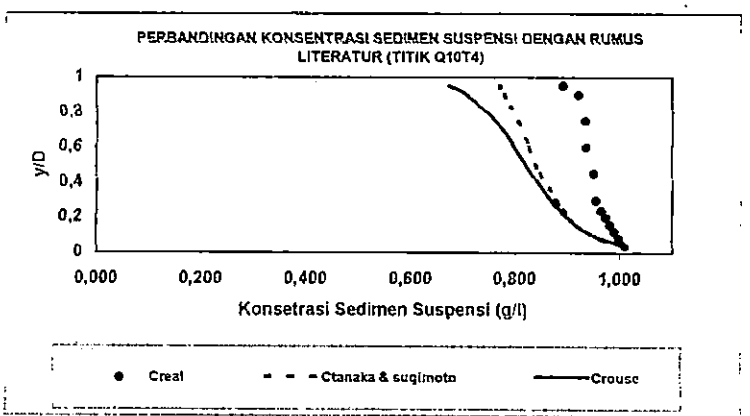
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto

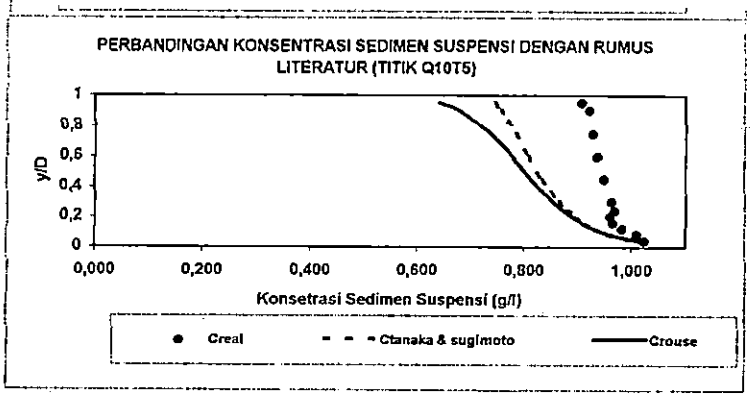
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/











UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 9

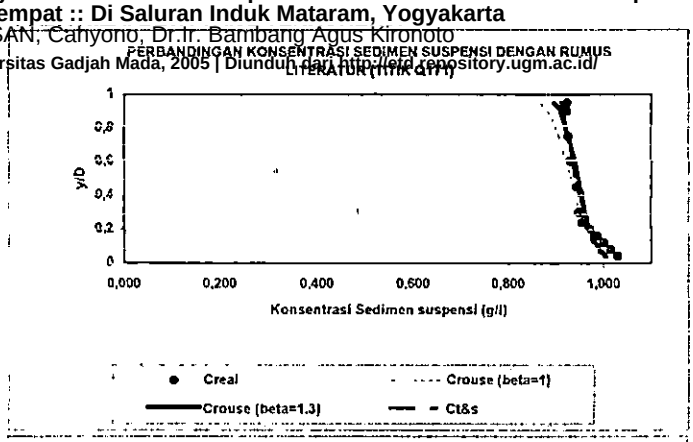
UNIVERSITAS
GADJAH MADA

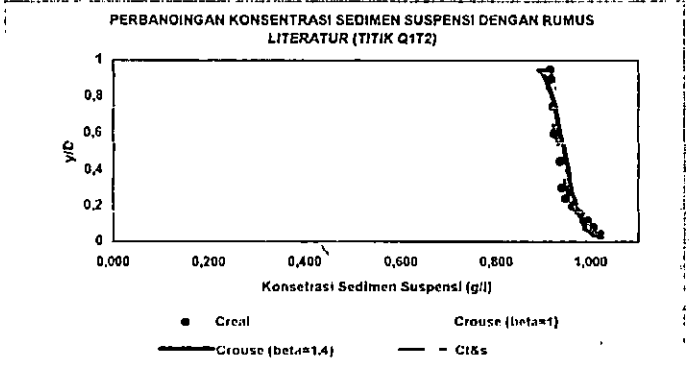
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

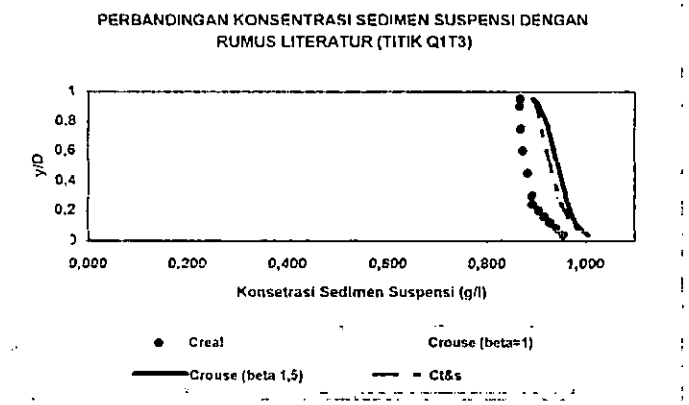
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

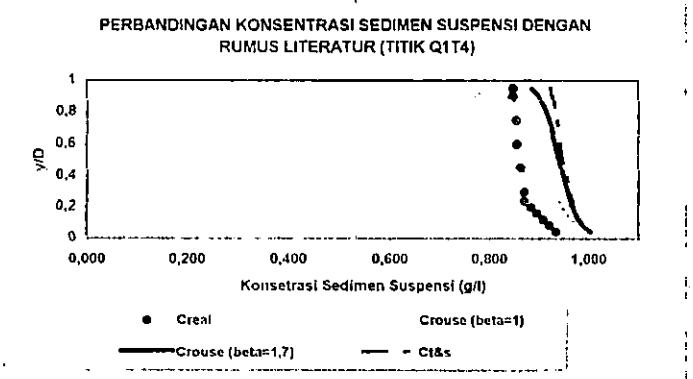
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto

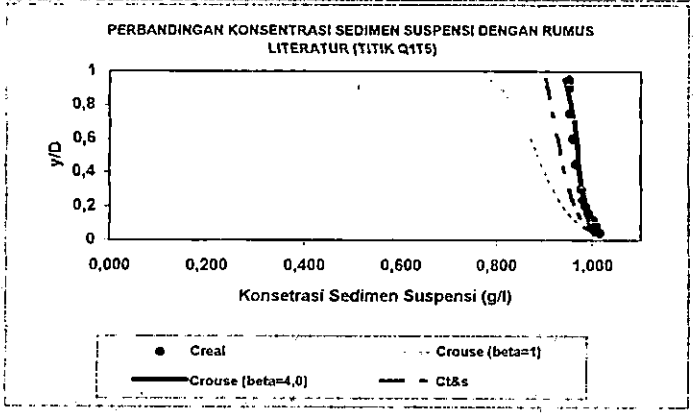
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/









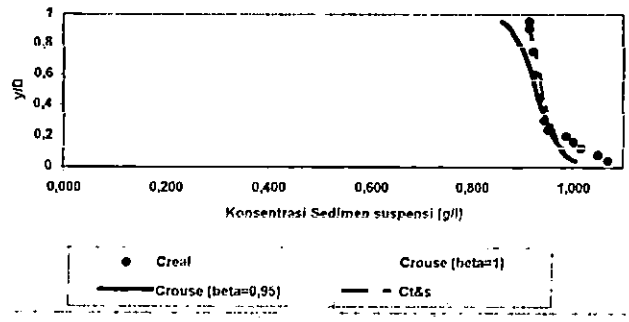


UNIVERSITAS
GADJAH MADA
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

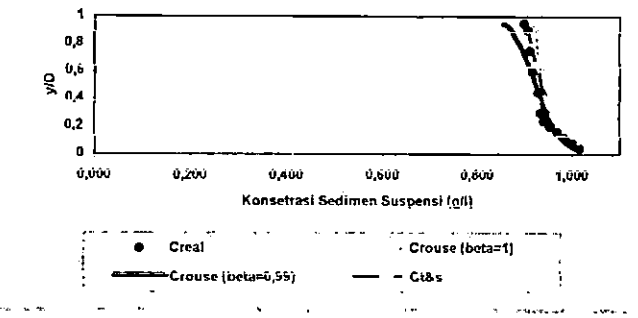
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

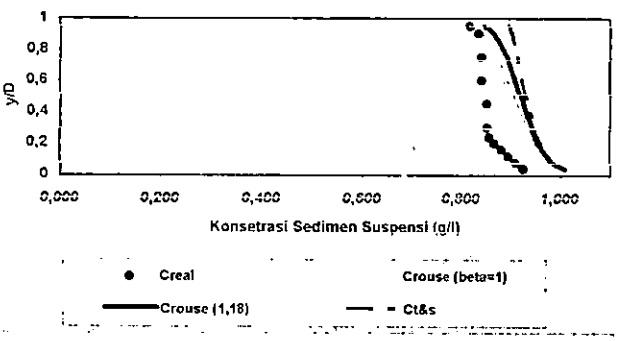
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T1)



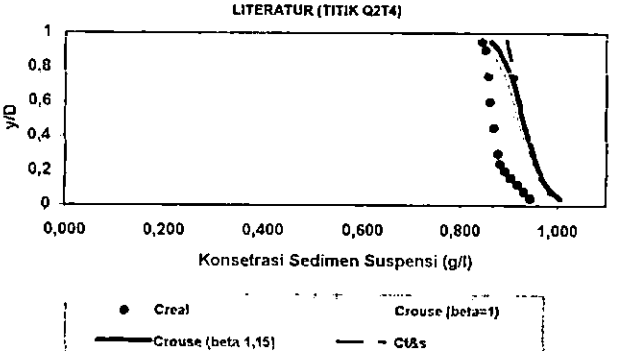
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T2)



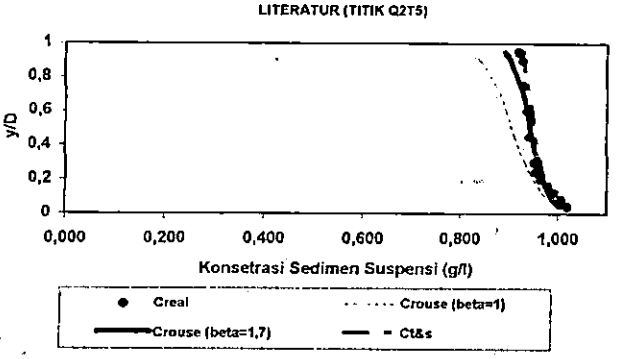
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T4)



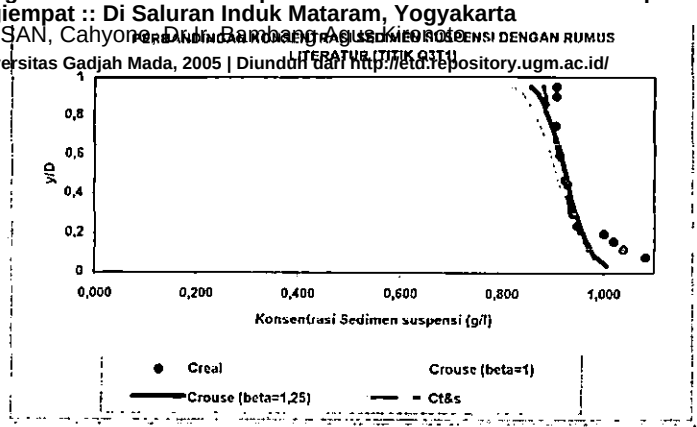
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q2T5)

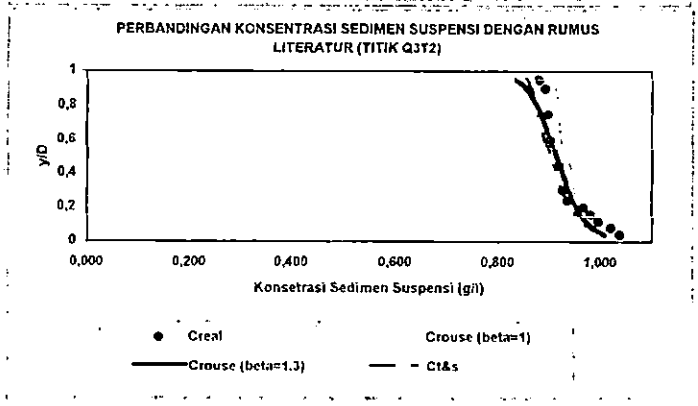


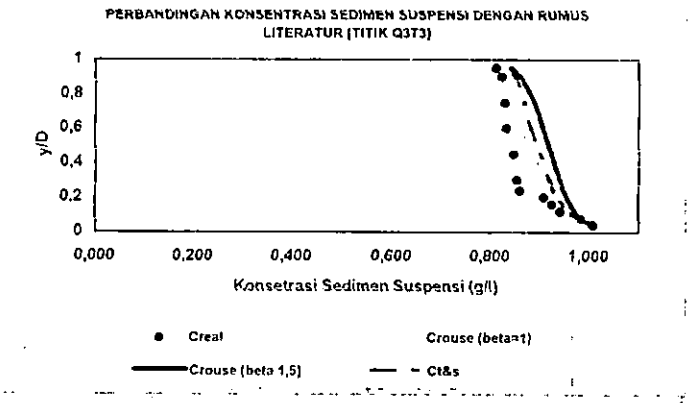
UNIVERSITAS
GADJAH MADA

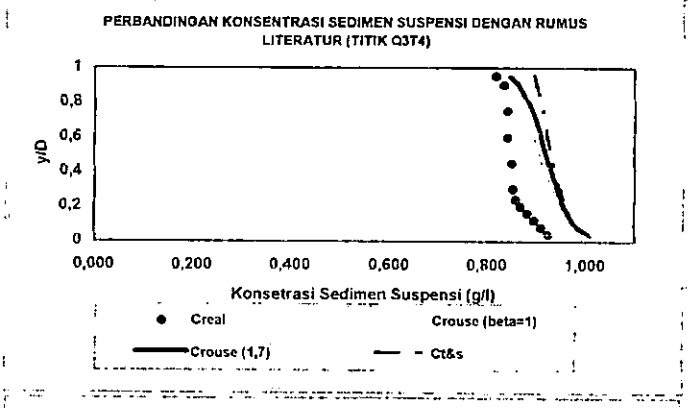
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI
DENGAN LITERATUR PADA TAMPANG 3

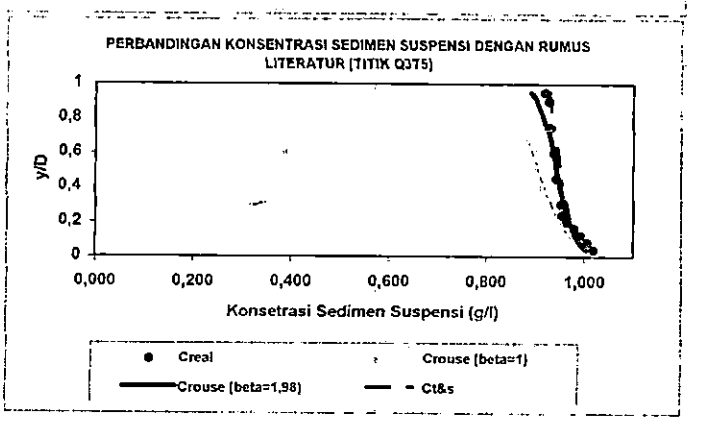
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/







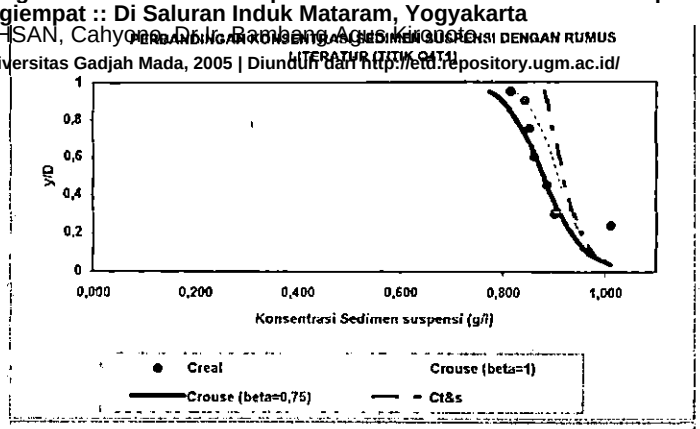


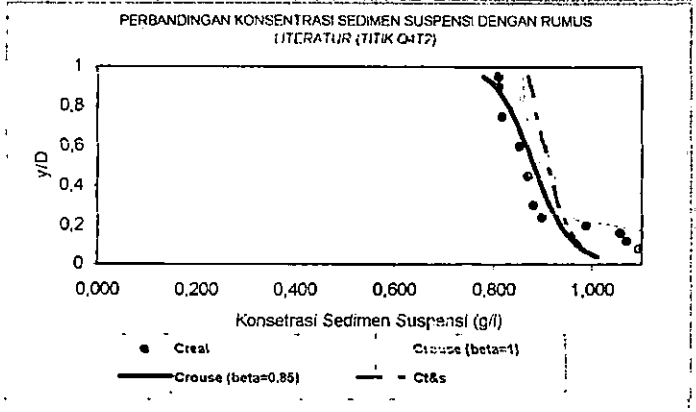


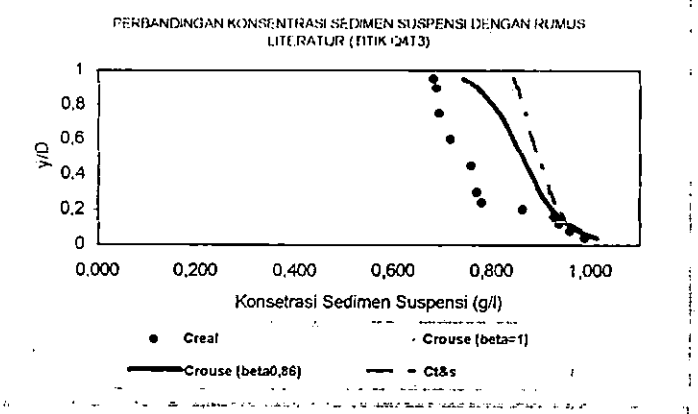
UNIVERSITAS
GADJAH MADA

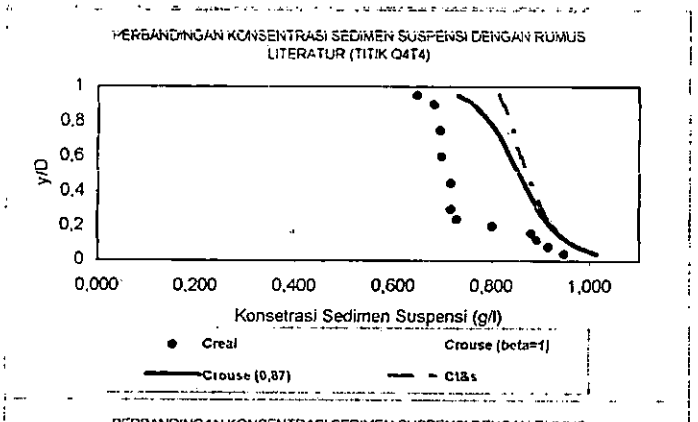
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 4

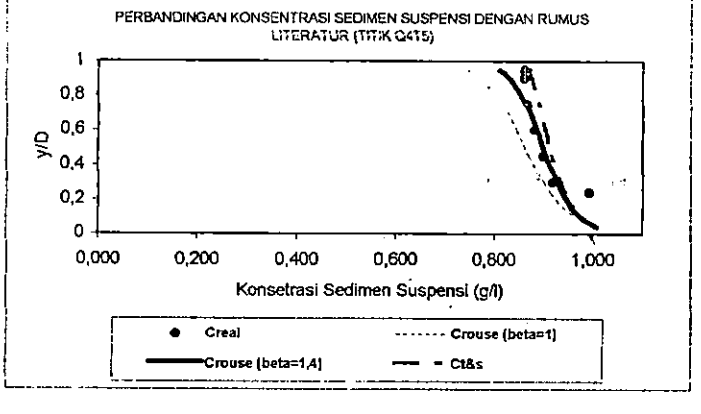
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr. Ir., Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/







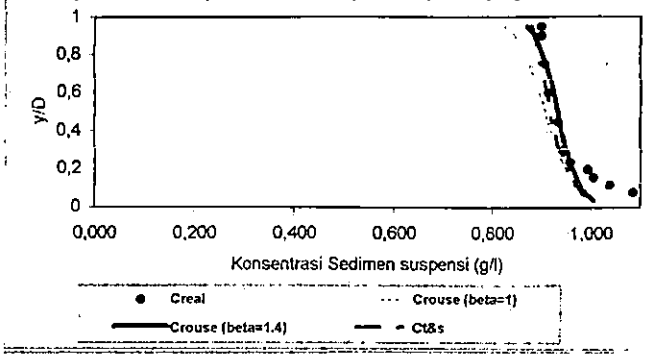




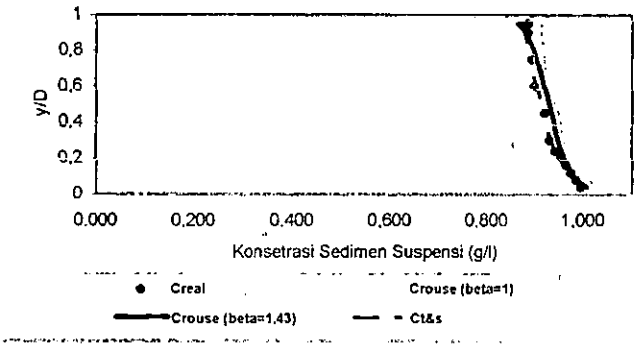
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 5

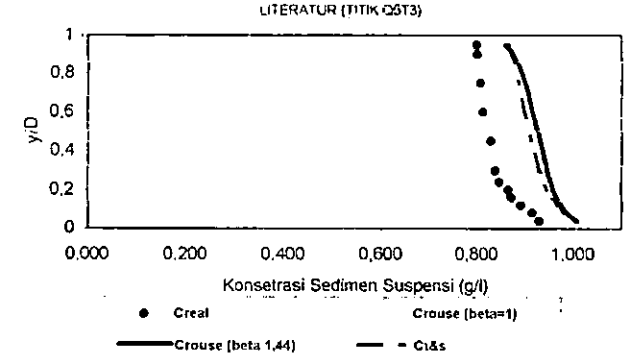
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T1)



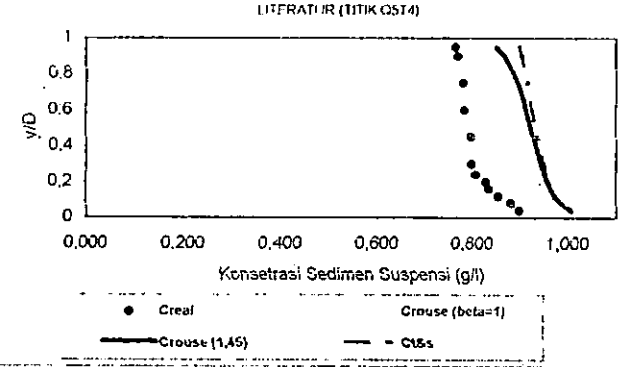
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T2)



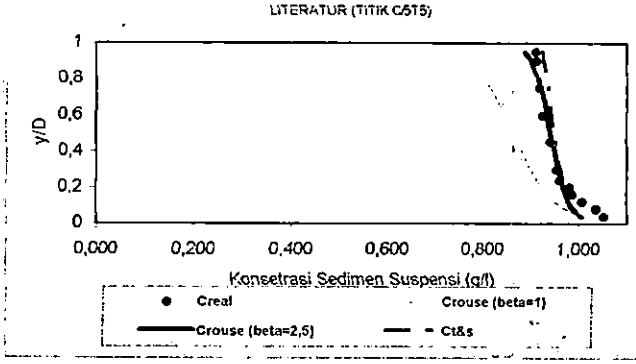
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T3)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T4)



PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q5T5)



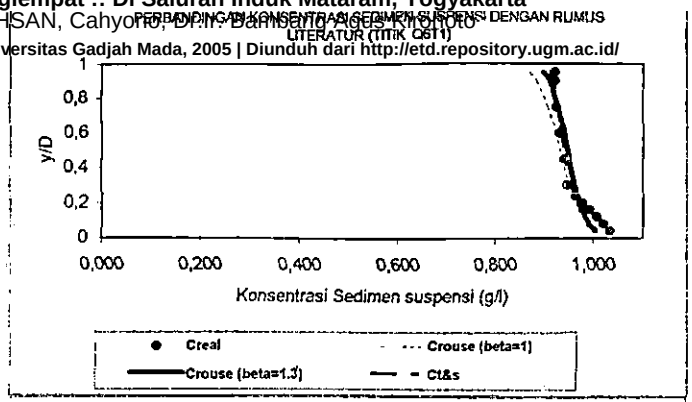
UNIVERSITAS
GADJAH MADA

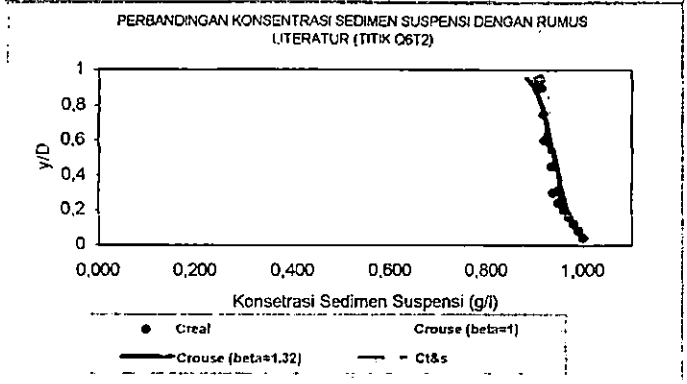
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 6

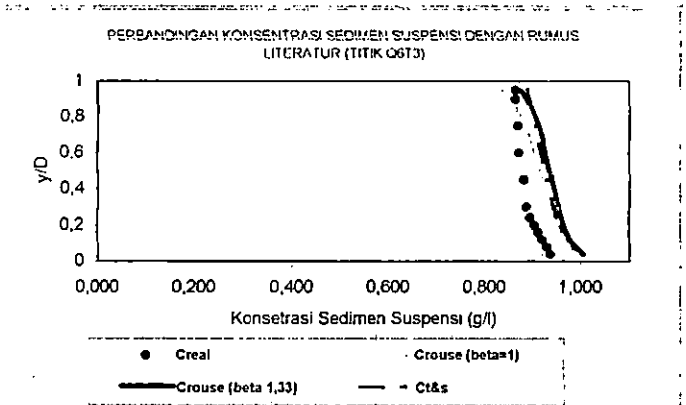
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

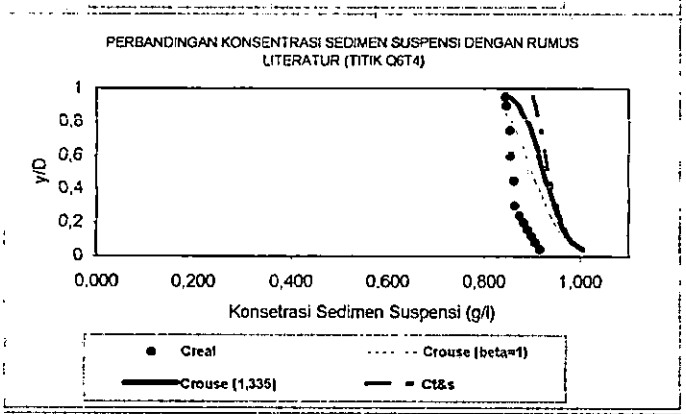
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto

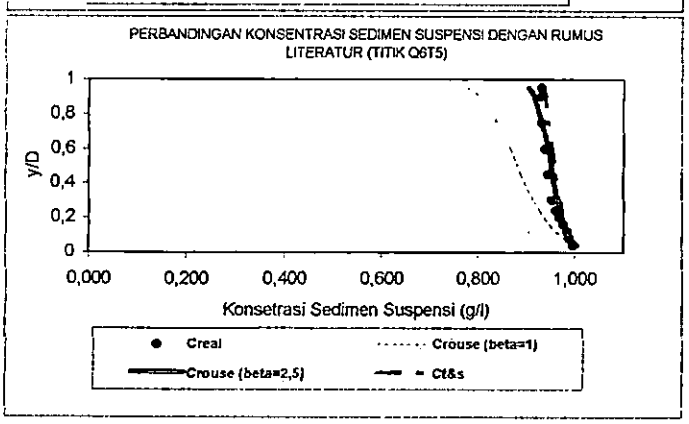
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/







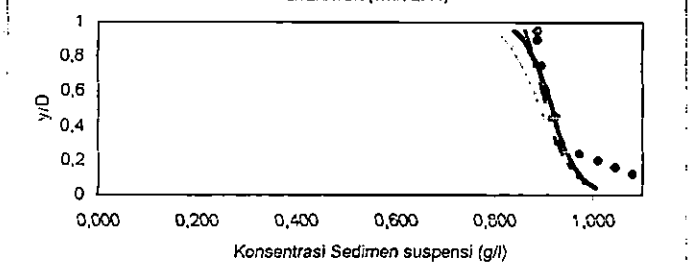


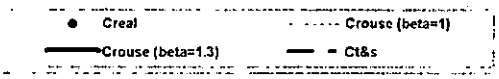


UNIVERSITAS
GADJAH MADA

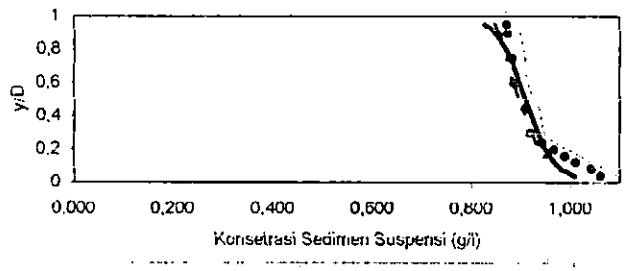
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir., Bambang Agus Kironoto
Universitas Gadjah Mada, 2006 | Diunduh dari http://etd.repository.ugm.ac.id/

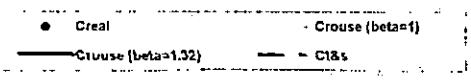
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T1)



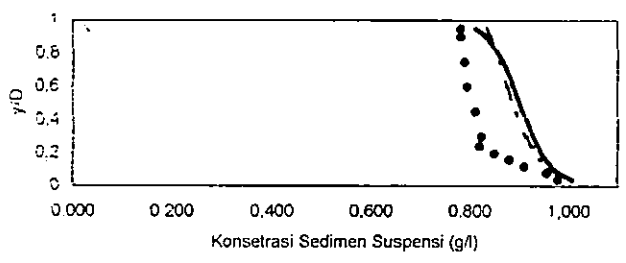


PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T2)



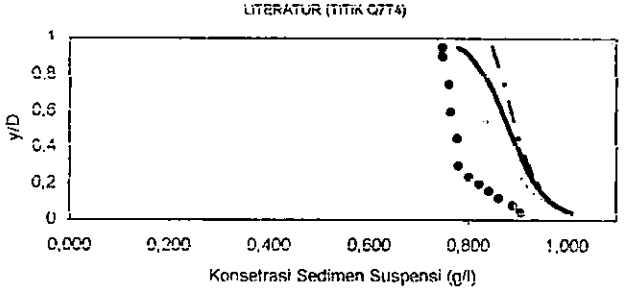


PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T3)



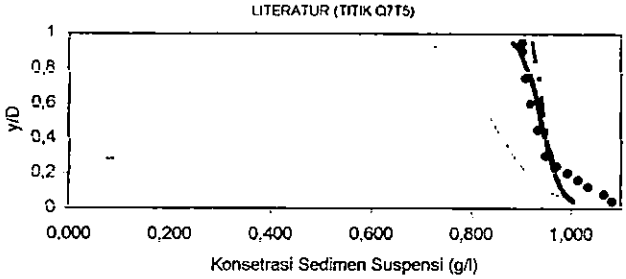


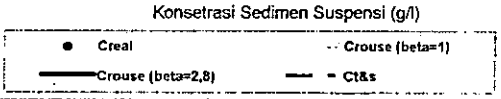
PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T4)





PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN RUMUS LITERATUR (TITIK Q7T5)





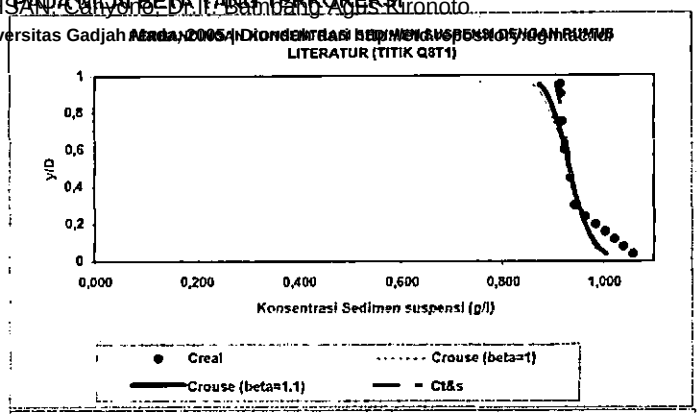
UNIVERSITAS
GADJAH MADA

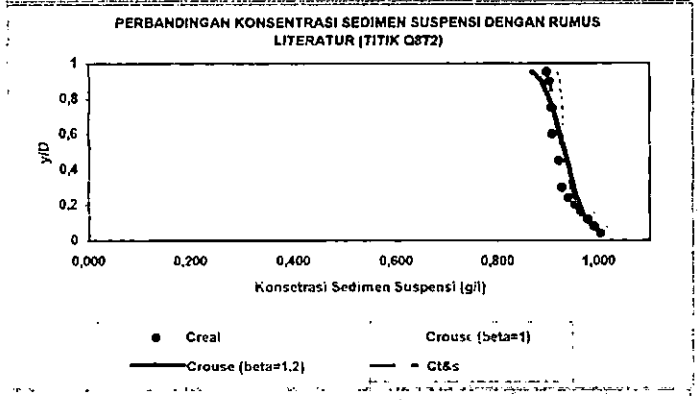
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

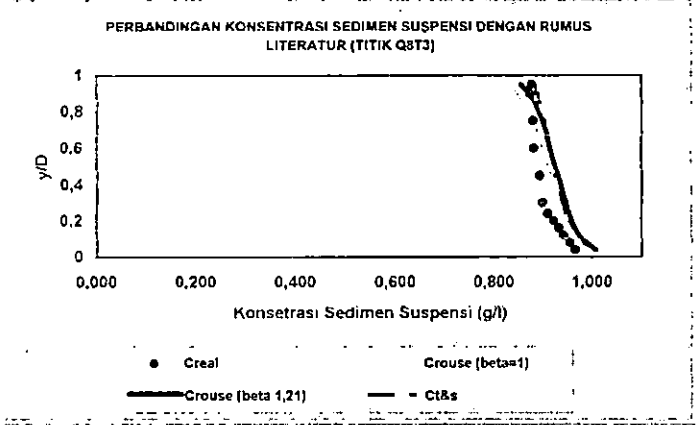
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

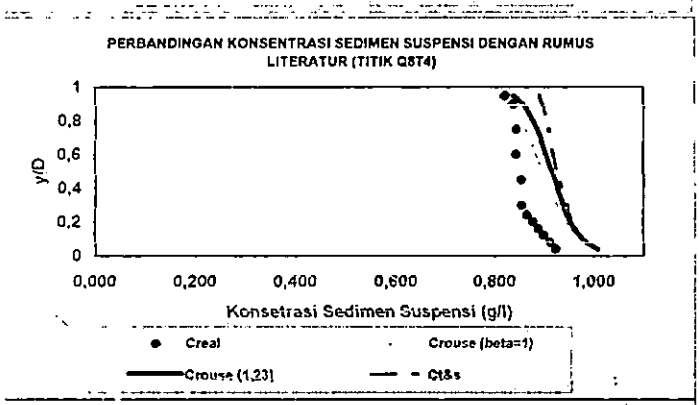
IKHSAN, Sanyoto, Dr. Ir. Bambang Agus Kironoto

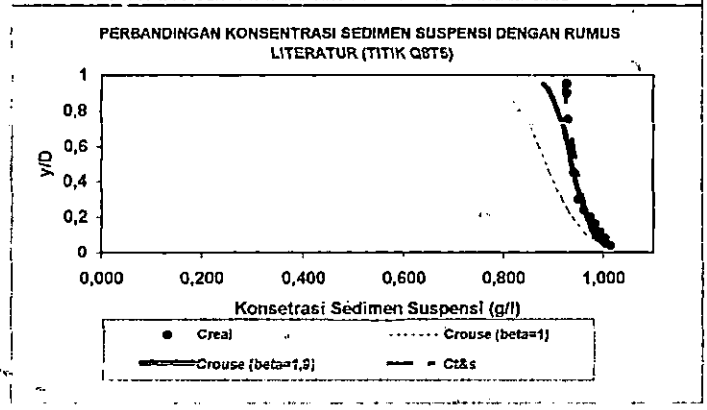
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/





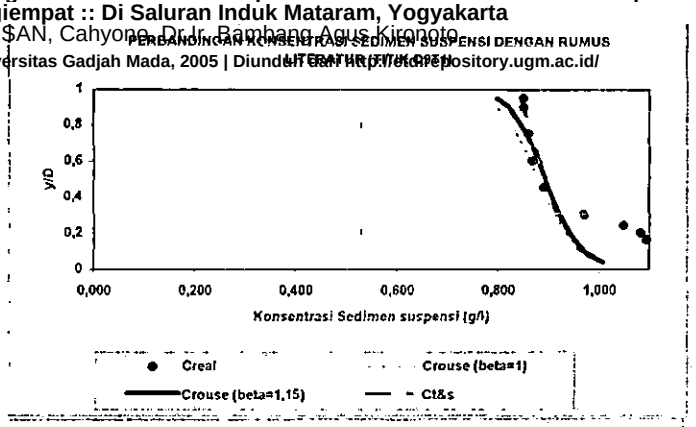


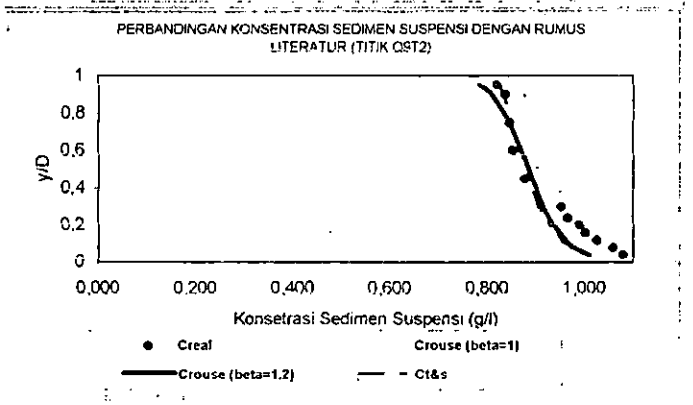


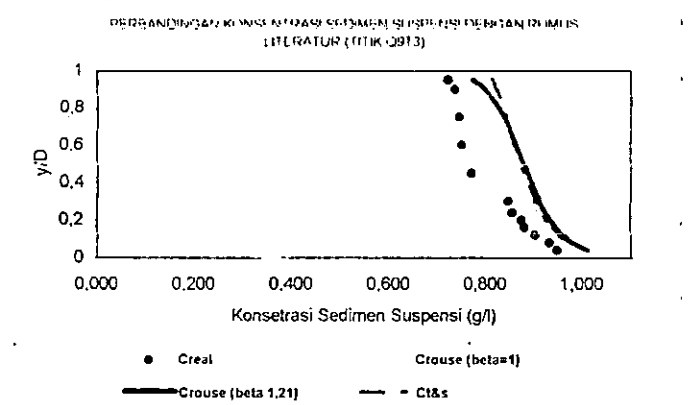


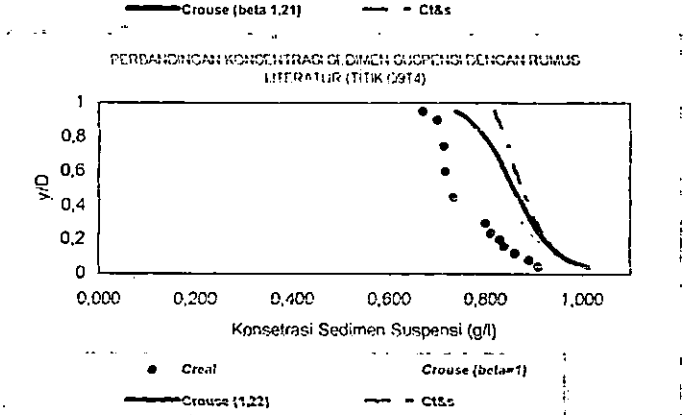
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

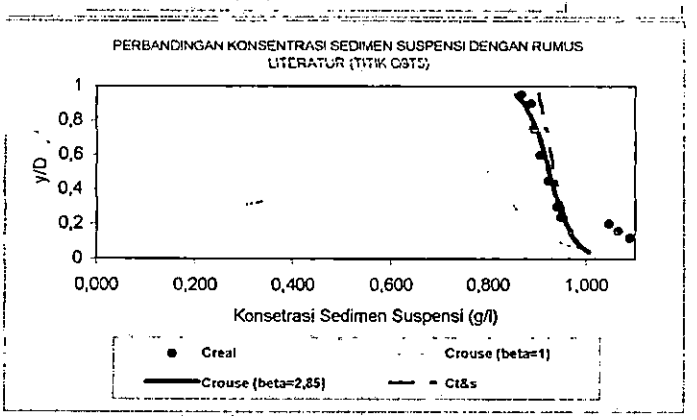
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI DENGAN LITERATUR PADA TAMPANG 8











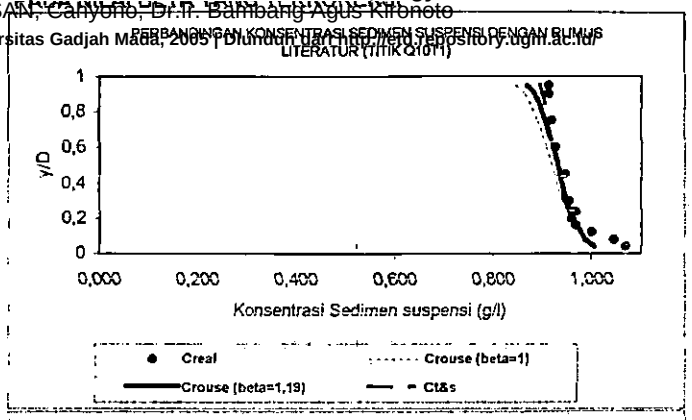
UNIVERSITAS
GADJAH MADA

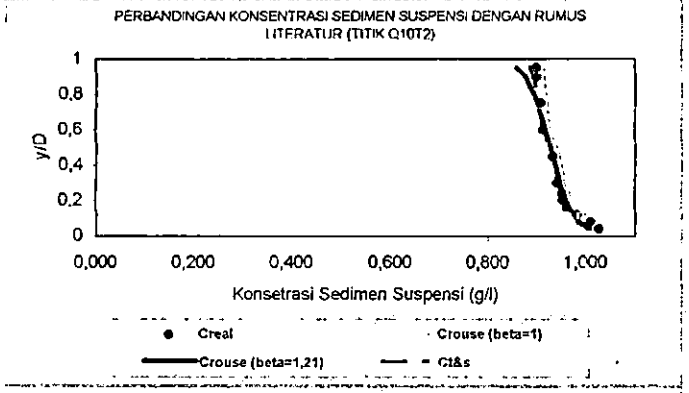
GRAFIK HASIL PERBANDINGAN KONSENTRASI SEDIMEN SUSPENSI

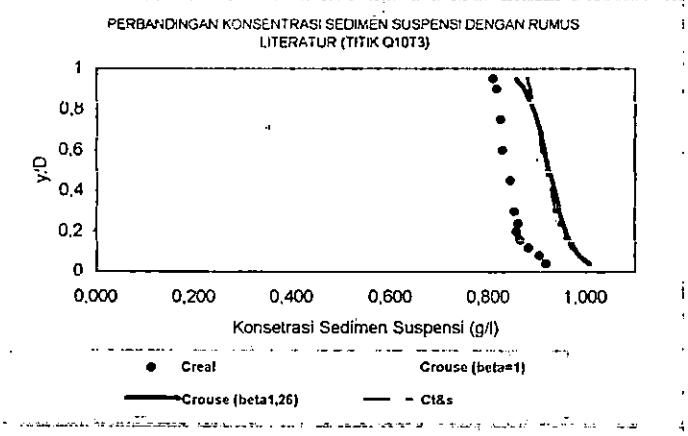
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta

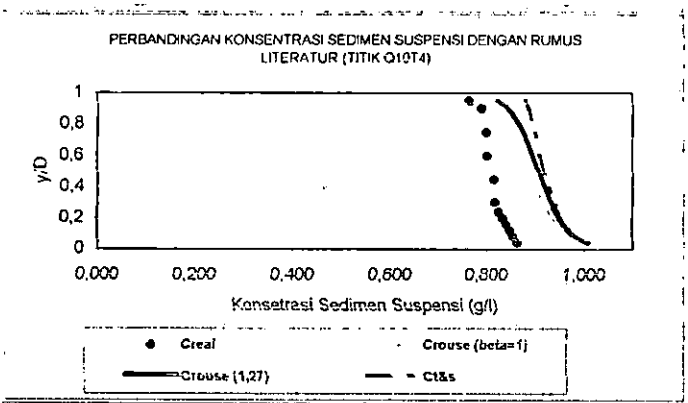
IKHSAN, Cahyono, Dr. Ir. Bambang Agus Kironoto

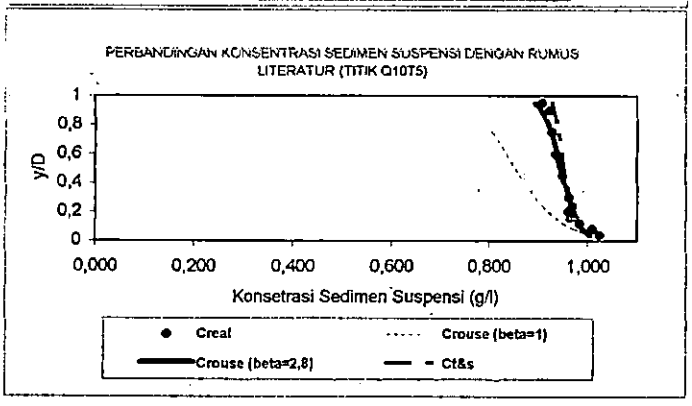
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/











UNIVERSITAS
GADJAH MADA

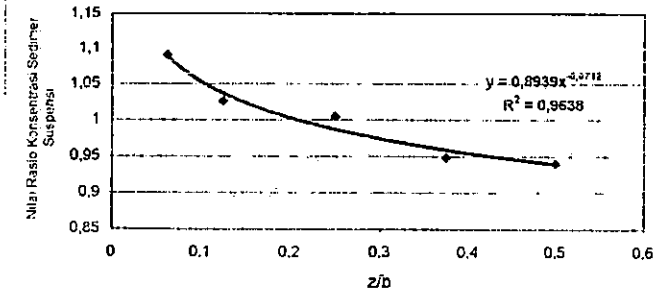
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 10

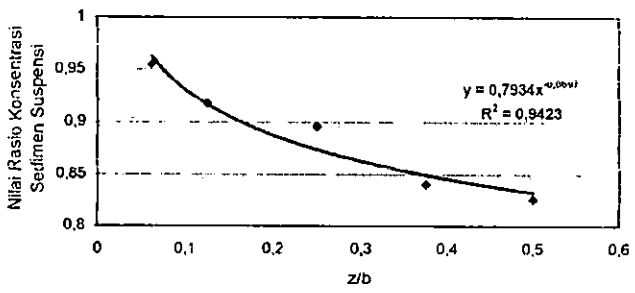
UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

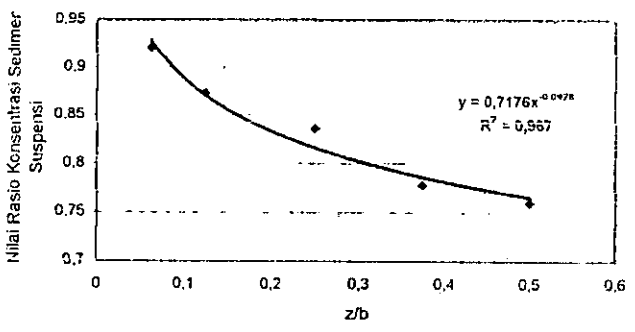
HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI
PENGUKURAN ARAH TRANSVERSAL (TAMPANG 1)



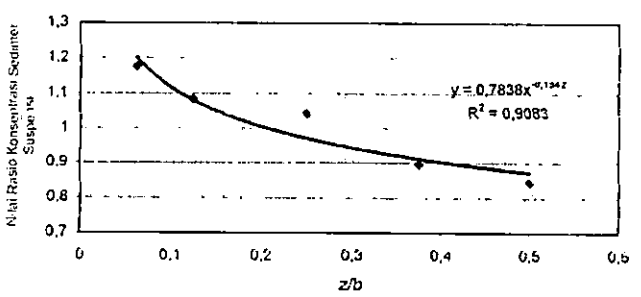
HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI TERHADAP JARAK
PENGUKURAN ARAH TRANSVERSAL (TAMPANG 2)



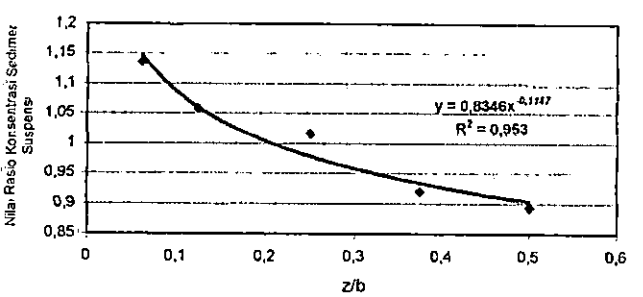
HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI TERHADAP JARAK
PENGUKURAN ARAH TRANSVERSAL (TAMPANG 3)



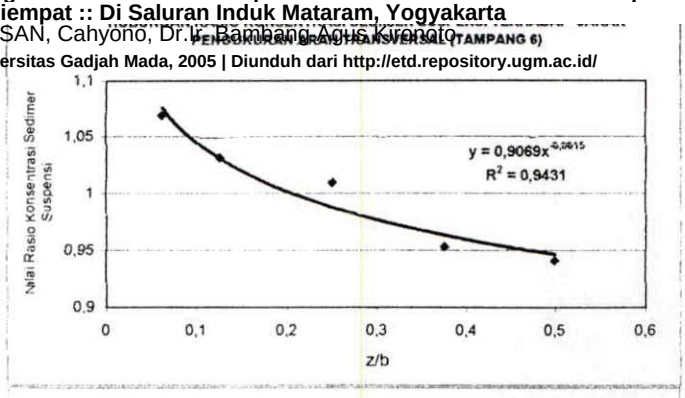
HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI TERHADAP JARAK
PENGUKURAN ARAH TRANSVERSAL (TAMPANG 4)

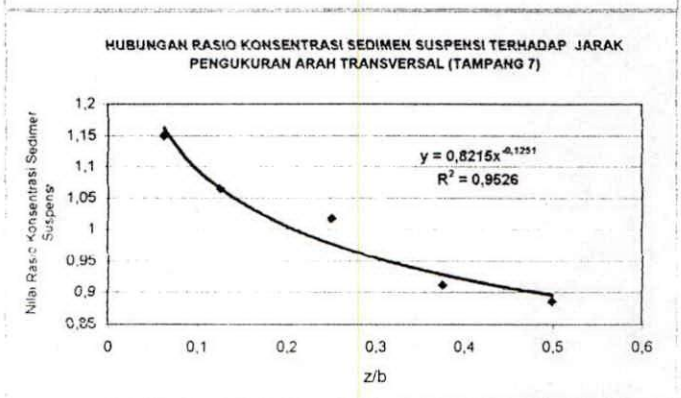


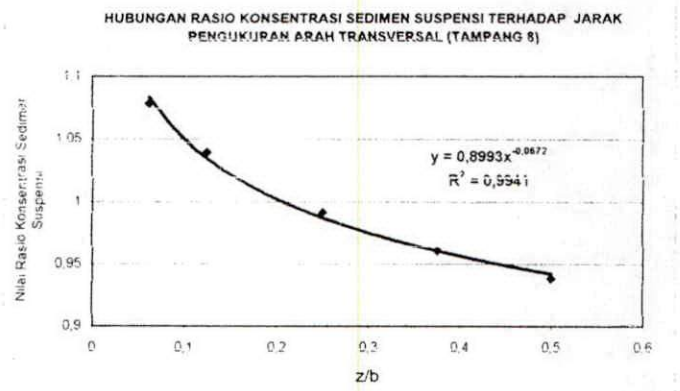
HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI TERHADAP JARAK
PENGUKURAN ARAH TRANSVERSAL (TAMPANG 5)

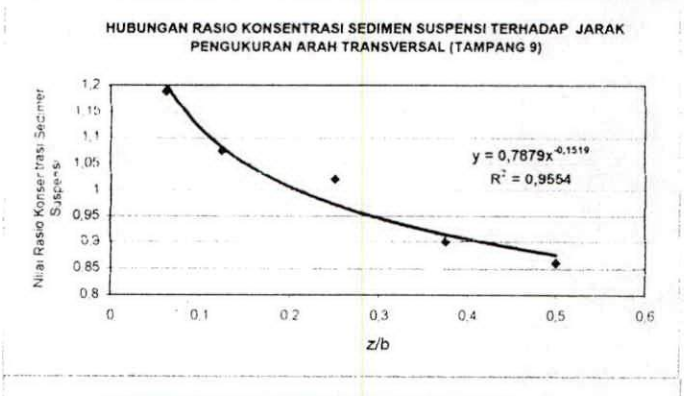


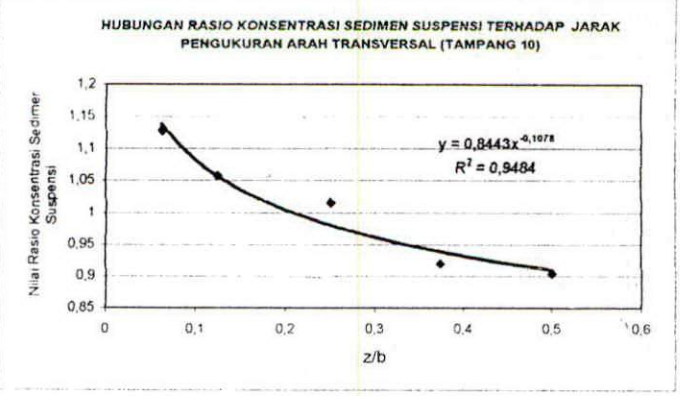
UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/







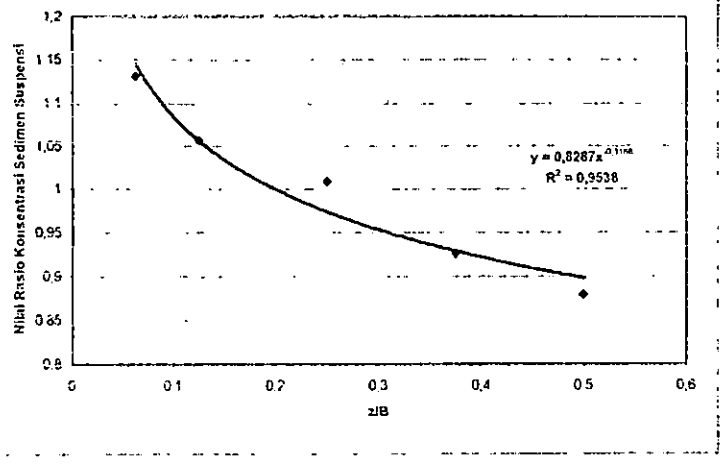




UNIVERSITAS
GADJAH MADA

Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

HUBUNGAN RASIO KONSENTRASI SEDIMEN SUSPENSI TERHADAP JARAK
PENGUKURAN ARAH TRANSVERSAL

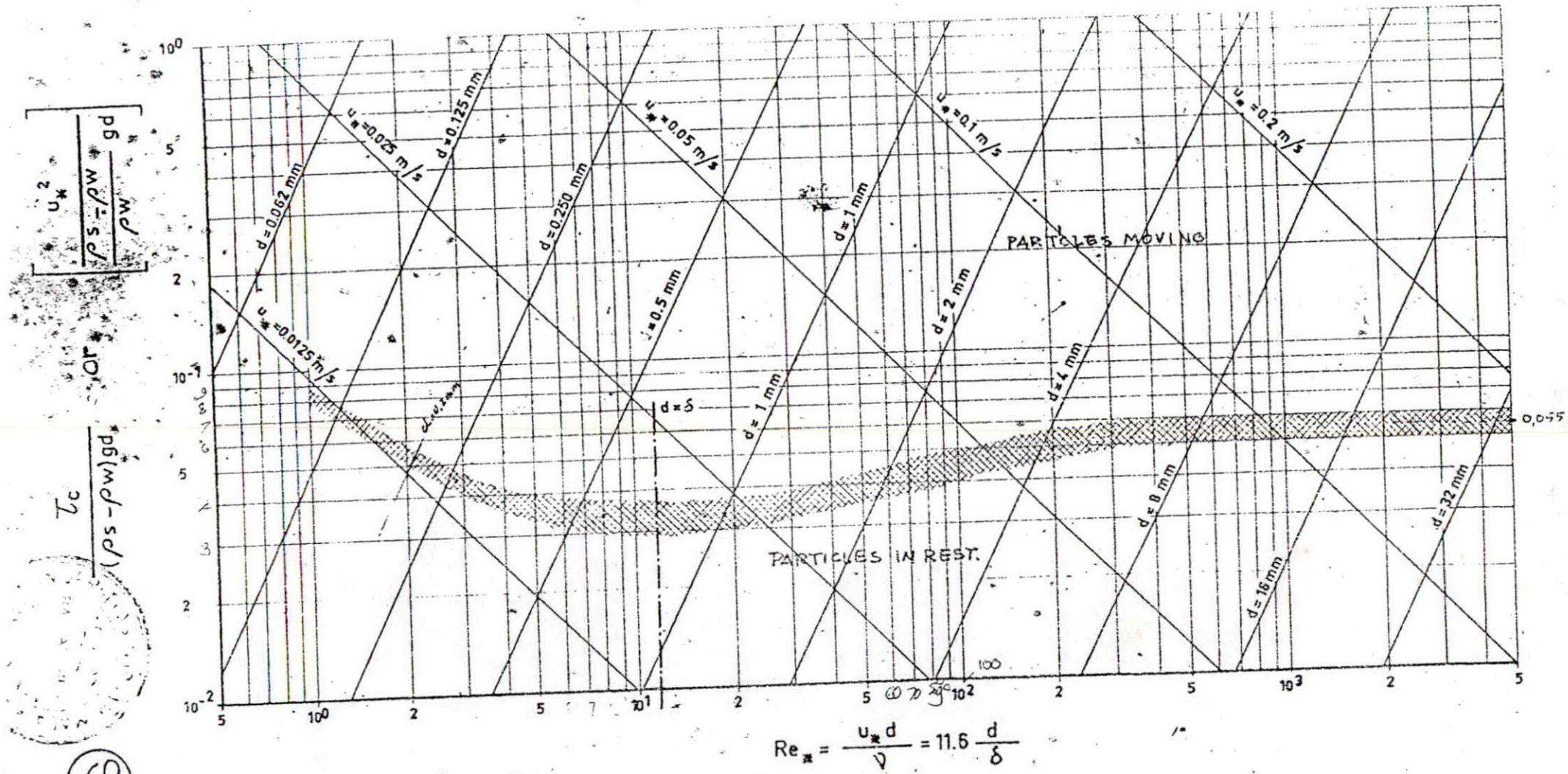


UNIVERSITAS
GADJAH MADA

Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/

LAMPIRAN 11

UNIVERSITAS
GADJAH MADA
Pengukuran distribusi kecepatan dan konsentrasi sedimen suspensi pada aliran seragam tampang segiempat :: Di Saluran Induk Mataram, Yogyakarta
IKHSAN, Cahyono, Dr.Ir. Bambang Agus Kironoto
Universitas Gadjah Mada, 2005 | Diunduh dari http://etd.repository.ugm.ac.id/



LINES OF EQUAL u_* AND d BASED ON $\rho_s = 2650\ kg/m^3$ AND $\nu = 1.25 \times 10^{-6}\ m^2/s$ (12 °C)

RELATIONSHIP OF CRITICAL SHEAR STRESS AND DIAMETER FOR A BED OF UNIFORM GRAINS. ACC. TO SHIELDS (1936)