

**FAP24**

Government of  
the People's  
Republic of  
Bangladesh

Water Resources  
Planning  
Organization

European  
Commission

Delft  
Hydraulics



Danish  
Hydraulic  
Institute



Hydroland  
Approtech  
Osiris

*Call*  
*Call - 941*  
*FAP-24*  
*CD*

# RIVER SURVEY PROJECT

**Special  
Report  
No.22**

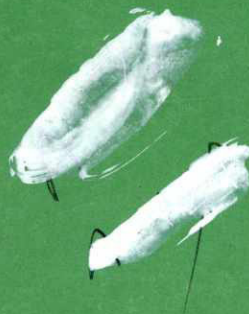
**River Data Book  
January 1993 - March 1995**

**Part B.8: Tilly**

**October 1996**



*BN - 790*  
*A - 941*



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**Special Report 22**

**River Data Book**  
**January 1993 - March 1995**

**Part B.8: Tilly**

**October 1996**



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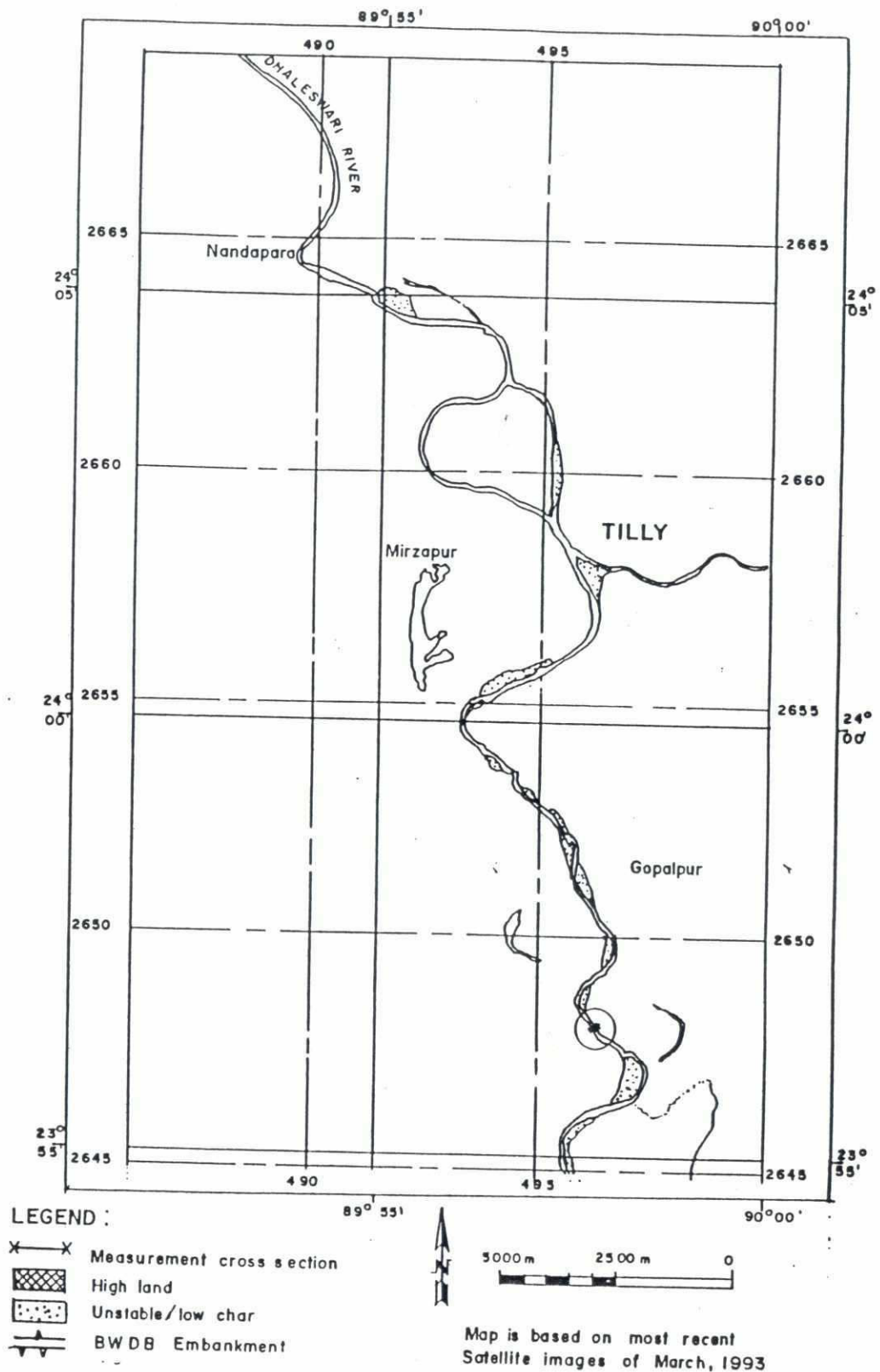
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C6

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# RIVER SURVEY PROJECT

Delft Hydraulics/Danish Hydraulic Institute  
in association with Osiris/Approtech/Hydroland

Survey Bulletin No. 21 - Oct. , 1993

Location No. 8 : Dhaleshwari River at Tilly

File:

Date:

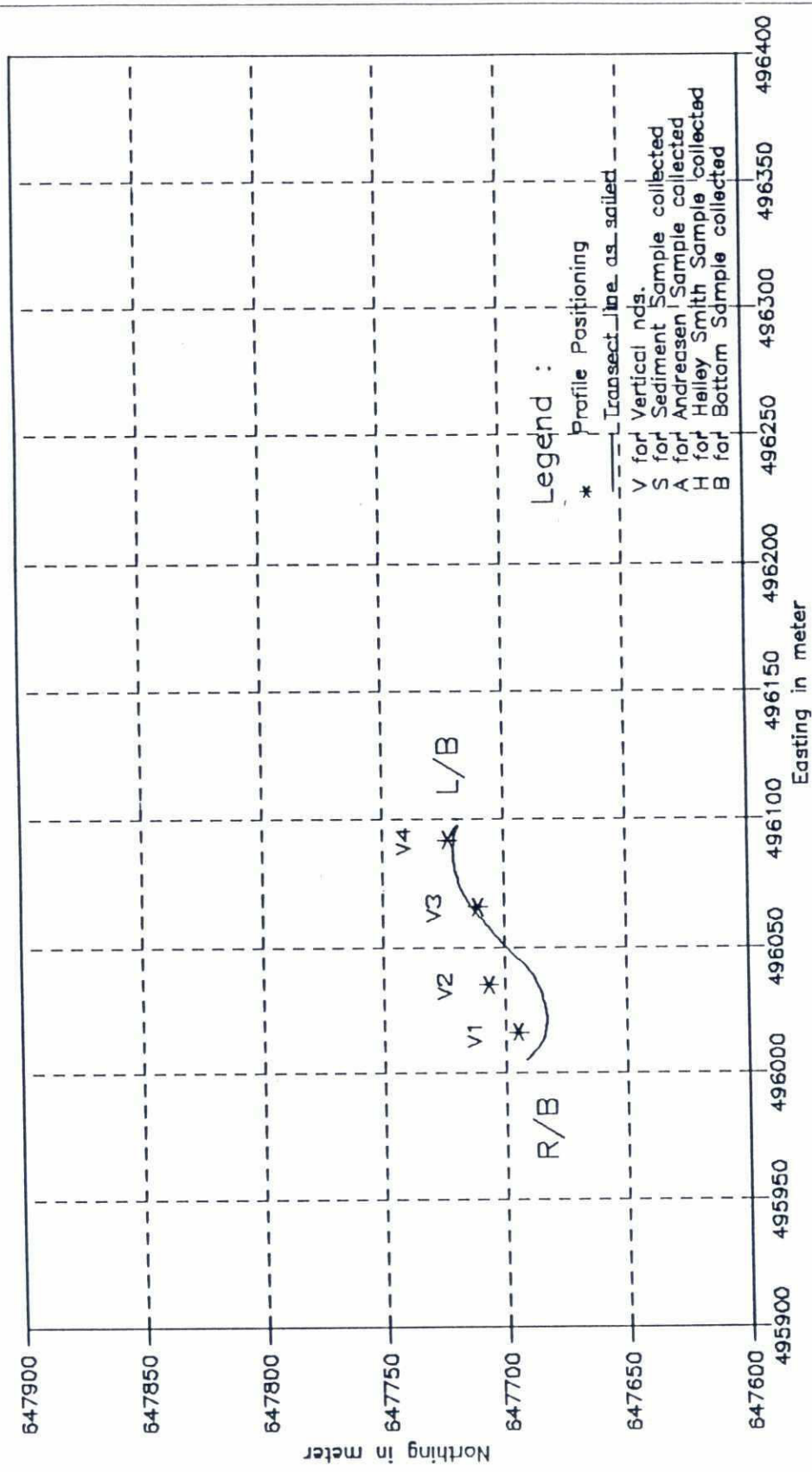
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KEY PLAN

Fig.

4



Date :

Init :

**Location of Measurments**

River : Dhaleswari  
ADCP/EMF Discharge

Date of Survey : 16 October 1993  
Location : Dhaleswari River at Tilly  
Station No. 8

Date	Transect	Bank		Water Level	Total Width	Area	Discharge
		From	To	(m+PWD)	(m)	(sq.m)	(cumec)
16/10/93	T3AG1T03	Right	Left	7.50	93	773	503
16/10/93	T3AG1T04	Left	Right	7.50	111	839	441
16/10/93	T3AG1T05	Left	Right	7.50	102	788	466
16/10/93	T3AG1T08	Left	Right	7.49	103	811	405
16/10/93	T3AG1T09	Left	Right	7.49	103	817	440

Table 3.1 SUMMARY OF RESULTS (ADCP/EMF-discharge)



River : Dhaleswari  
S4 velocity

Date of Survey : 16 October 1993  
Location : Dhaleswari River at Tilly  
Station No. 8

Vertical 1		Vertical 2		Vertical 3		Vertical 4	
Total depth = 10.00		Total depth = 9.60		Total depth = 8.50		Total depth = 4.90	
Depth	Velocity	Depth	Velocity	Depth	Velocity	Depth	Velocity
[m]	[m/s]	[m]	[m/s]	[m]	[m/s]	[m]	[m/s]
2.01	0.62	1.93	0.57	0.50	0.52	0.50	0.33
6.03	0.64	5.77	0.64	1.57	0.38	0.80	0.21
8.00	0.46	7.68	0.55	4.64	0.57	2.40	0.40
		9.25	0.53	6.20	0.56	3.20	0.41
				8.04	0.45	4.40	0.30

$Q_w = 417 \text{ (m}^3\text{/s)}$

Table 3.2 SUMMARY of RESULTS ( S4 Current )

Type	Time		File Name	Ver. No.	Easting (meter)	Northing (meter)	DISCHARGE GAUGING					SEDIMENT TRANSPORT GAUGING				
	From	To					ADCP	HYDRO	EMF	S4	MEX	Suspended Sediment Samples	Andreasen Tube Samples	Helley Smith Samples	Integrated Sediment Samples	Bottom Samples
Transect	08:04:35	08:06:33	T3AG1T03*				T	T	T							
Transect	08:10:14	08:12:29	T3AG1T04				T	T	T							
Transect	08:29:21	08:31:08	T3AG1T05				T	T	T							
Transect	08:33:06	08:35:04	T3AG1T06													
Profile	09:58:03	10:25:54	T3AG2P01	1	496016	647695	P	P	P	P		4	-	-	-	1
Profile	10:50:37	11:11:42	T3AG2P02	2	496035	647707	P	P	P	P		5	1	-	-	1
Profile	11:38:28	12:29:22	T3AG1P02	3	496066	647711	P	P	P	P	P	5	1	-	-	1
Profile	10:11:27	10:46:29	T3AG1P01	4	496092	647723	P	P	P	P	P	5	1	-	-	1
Profile	14:06:50	14:10:40	T3AG1T08				T	T	T							
Profile	14:13:59	14:15:40	T3AG1T09				T	T	T							

\* transect in PSD 24 data base

Date of Survey : 16 October 1993  
Location : Dhaleswarl River at Tilly  
Station No. 8

Table 2.1 SURVEY PROGRAMME AS MADE

Type Of Samples	Sample Nos.	Total Sample Nos.	Vertical No.
Point Integrated Samples	A757,A753,A749,A751	4	1
	A754,A758,A759,A755,A756	5	2
	A185,A443,A197,A213,A201	5	3
	A239,A845,A189,A181,A179	5	4
Andreasen Tube Samples	A854	1	2
	A731	1	3
	A467	1	4
Vanveen Samples	DHC-1	1	1
	DHC-2	1	2
	DHA-2	1	3
	DHA-1	1	4

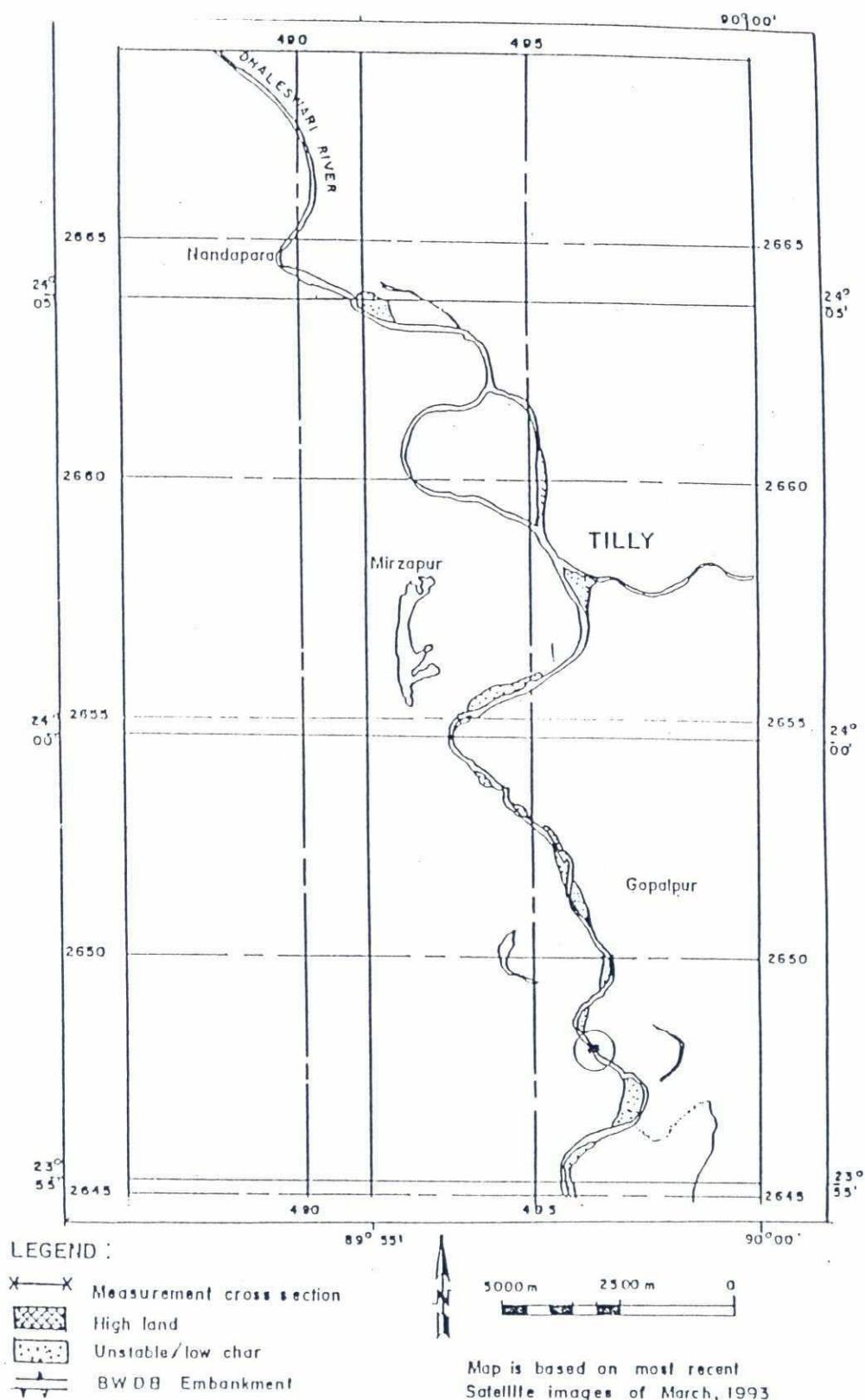
Date of Survey : 16 October 1993  
 Location : Dhaleswari River at Tilly  
 Station No. 8


Table 2.2 List of Sediment Samples

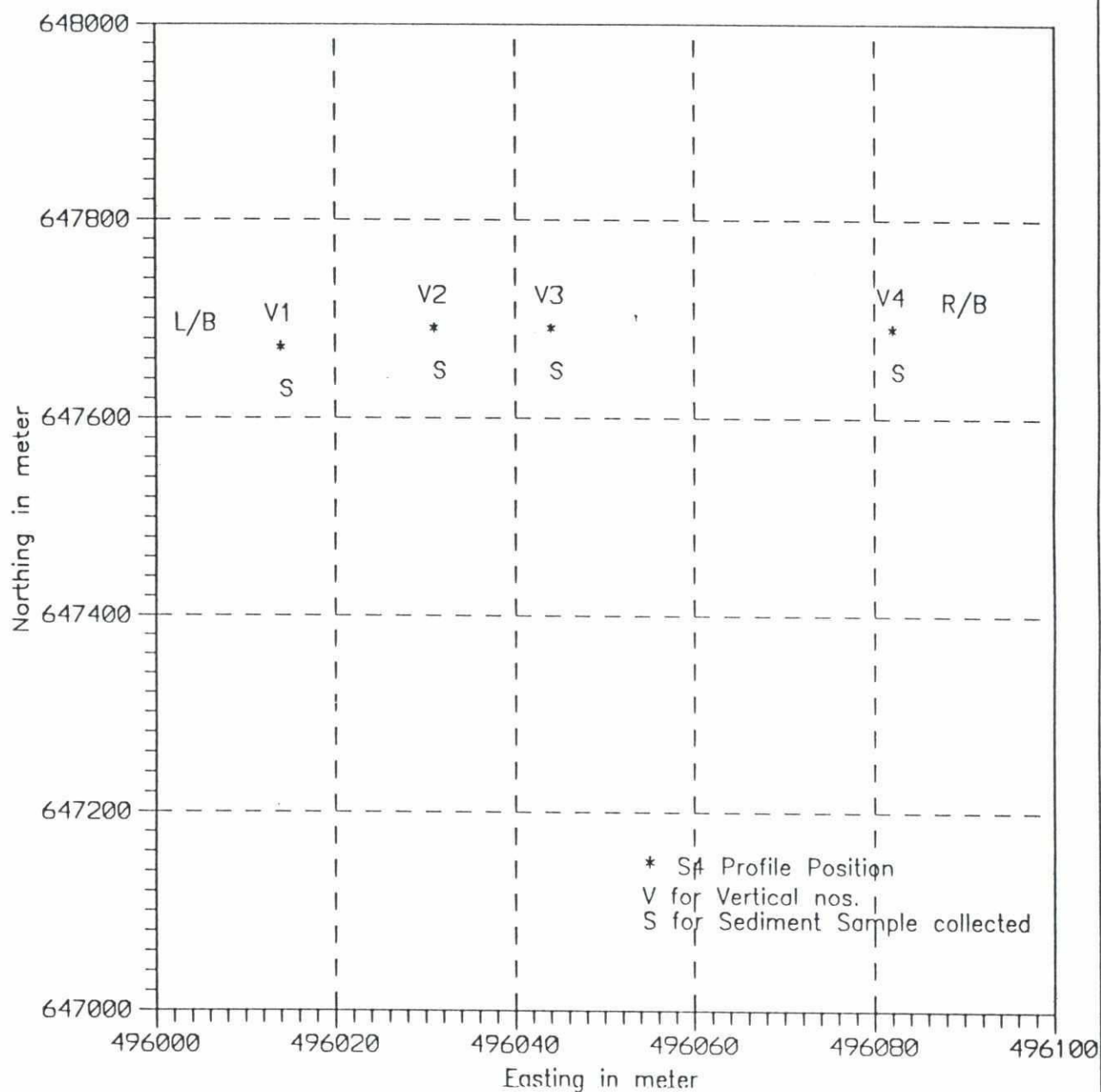



Types of Data	Channel	Format	Filename
ADCP/S4/EMF	1	QUATTRO	T3AG1T03 .ase
Echosounder	1	QUATTRO	T3AG1T03 .ech
Sediment transport data	1	QUATTRO	T3AG1T03 .sed
Bed load sediment analysis	1	QUATTRO	T3AG1T03 .bdl
Suspended sed. conc. analysis	1	QUATTRO	T3AG1T03 .ssc
Transect plot data	1	QUATTRO	T3AG1T03 .trs
Iso-velocity plot data	1	MIKE 21	T3AG1T03 .ct2 T3AG1T03 .dt2
Table 5.1 PSD 24 Database file description			

2



<b>FAP 24</b>  <b>DELFT-DHI</b>		<b>RIVER SURVEY PROJECT</b> <small>Delft Hydraulics/Danish Hydraulic Institute in association with Chure/Agrotech/Hydroland</small>		<b>Survey Bulletin No. 32 - Feb , 1994</b>	
				<b>Location No. 8 : Dhaleshwari River at Tilly</b>	
File:	Date:	<b>KEY PLAN</b>			<b>Fig.</b>
Scale:	Init:				



<b>FAP 24</b>  DELFT - DHI		<b>RIVER SURVEY PROJECT</b> <small>Flood Plan Coordination Organization</small> <small>Commission of the European Communities</small>		<b>Survey Bulletin 32 : February 1994</b>	
		<b>Location 8 : Dhaleswari River, Tilly</b>			
		Date :		<b>Location of Measurments</b>	
		Init :			



29  
River : Dhaleswari  
S4 Discharge

Date of Survey : 07 February 1994  
Location : Dhaleswari River at Tilly  
Location No : 8

Date	Profile	Level	Width	Area	Discharge	Sediment
		(m+PWD)	(m)	(sq.m)	(cumec)	Transport (Kg/s)
07-02-94	T4270P01	3.56	95	354	17	0.137
07-02-94	T4270P02	3.56				
07-02-94	T4270P03	3.56				
07-02-94	T4270P04	3.56				

Table 3.1 SUMMARY OF RESULTS (S4-discharge)

River : Dhaleswari  
S4 Velocity

Date of Survey : 07 February 1994  
Location : Dhaleswari River at Tilly  
Location No : 8

Vertical		Vertical 2		Vertical 3		Vertical 4	
Total depth = 5.70 m		Total depth = 5.80 m		Total depth = 4.00 m		Total depth = 3.30m	
Depth	Velocity	Depth	Velocity	Depth	Velocity	Depth	Velocity
[m]	[m/s]	[m]	[m/s]	[m]	[m/s]	[m]	[m/s]
1.14	0.05	1.16	0.05	0.80	0.10	0.66	0.08
3.42	0.07	3.48	0.05	2.24	0.05	1.98	0.04
4.56	0.03	4.44	0.03	3.20	0.02	2.64	0.03

$$Q_w = 17 \text{ (m}^3/\text{s)}$$

Table 3.2 SUMMARY OF RESULTS (S4 Current)

River : Dhaleswari  
Concentration

Date of Survey : 07 February 1994  
Location : Dhaleswari River at Tilly  
Location No : 8

Vertical		Vertical 2		Vertical 3		Vertical 4	
Total depth = 5.70 m		Total depth = 5.80 m		Total depth = 4.00 m		Total depth = 3.30m	
Depth	Conc.	Depth	Conc.	Depth	Conc.	Depth	Conc.
[m]	[mg/l]	[m]	[mg/l]	[m]	[mg/l]	[m]	[mg/l]
1.14	4.84	1.16	8.56	0.80	7.84	0.66	6.22
3.42	6.13	3.48	11.55	2.24	8.03	1.98	9.57
4.56	7.73	4.44	11.57	3.20	9.23	2.64	10.28

$$Q_s = 0.137 \text{ (Kg/s)}$$

Table 3.3 SUMMARY OF RESULTS (Suspended Sediment Concentration)

Type	Time		File Name	Ver. No	Easting (meter)	Northing (meter)	DISCHARGE GAUGING				SEDIMENT TRANSPORT GAUGING					
	From	To					ADCP	HYDRO	EMF	S4	MEX	Suspended Sediment Samples	Andreasen Tube Samples	Helley Smith Samples	Integrated Sediment Samples	Bottom Samples
Profile	14:52:00	15:14:00	T4270P01	1	496006	647691			P		P		3	-	-	-
Profile	15:30:00	15:46:00	T4270P02	2	496031	647710			P		P		3	-	-	-
Profile	16:00:00	16:10:00	T4270P03	3	496065	647691			P		P		3	-	-	-
Profile	16:24:00	16:37:00	T4270P04	4	496082	647690			P		P		3	-	-	-

Date of Survey : 07 February 1994  
Location : Dhaleswari River at Tilly  
Location No : 8

Table 2.1 SURVEY PROGRAMME AS MADE



Type Of Samples	Sample Nos.	Total Sample Nos.	Vertical No.
Point Integrated Samples	A1267,A1275,A1273	3	1
	A1266,A1220,A1329	3	2
	A1244,A1250,A1278	3	3
	A1291,A1290,A1263	3	4

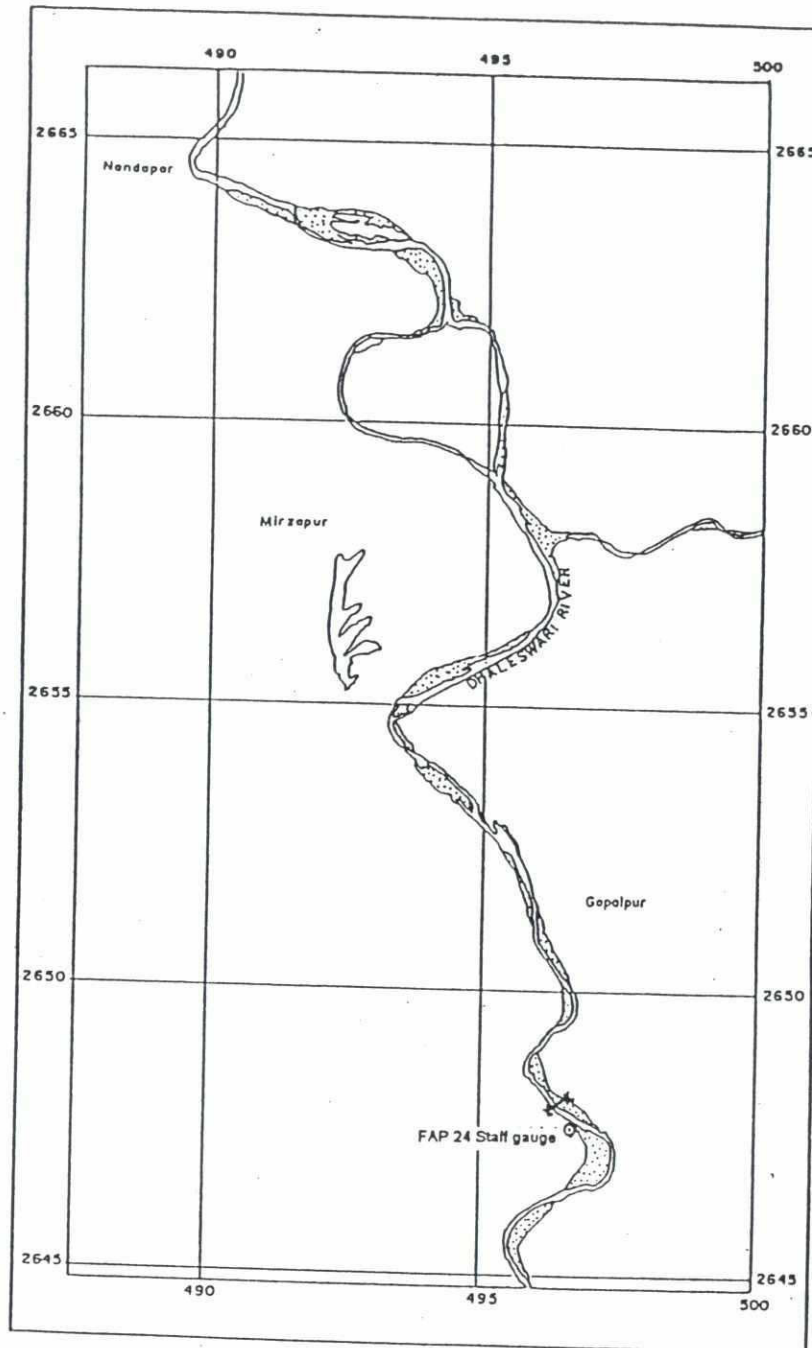
Date of Survey : 07 February 1994  
 Location : Dhaleswari River at Tilly  
 Location No : 8

Table 2.2 List of Sediment Samples


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Types of Data	Channel	Format	Filename
ADCP/S4/EMF	1	QUATTRO	T4270T01 .ase
Echosounder	1	QUATTRO	T4270T01 .ech
Sediment transport data	1	QUATTRO	T4270T01 .sed
Bed load sediment analysis	1	QUATTRO	T4270T01 .bdl
Suspended sed. conc. analysis	1	QUATTRO	T4270T01 .ssc
Transect plot data	1	QUATTRO	T4270T01 .trs
Iso-velocity plot data	1	MIKE 21	T4270T01 .ct2 T4270T01 .dt2

Table 5.1 PSD 24 Database file description



LEGEND:-

-  High land
-  Unstable/low char
-  FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite  
images of March 1994



**RIVER SURVEY PROJECT**

Delft Hydraulics/Danish Hydraulic Institute  
in association with Osiris/Approtech/Hydroland

**Survey Bulletin No.44 - March, 1994**

**Location No.8 : Dhaleshwari River at Tilly**

File:

Date:

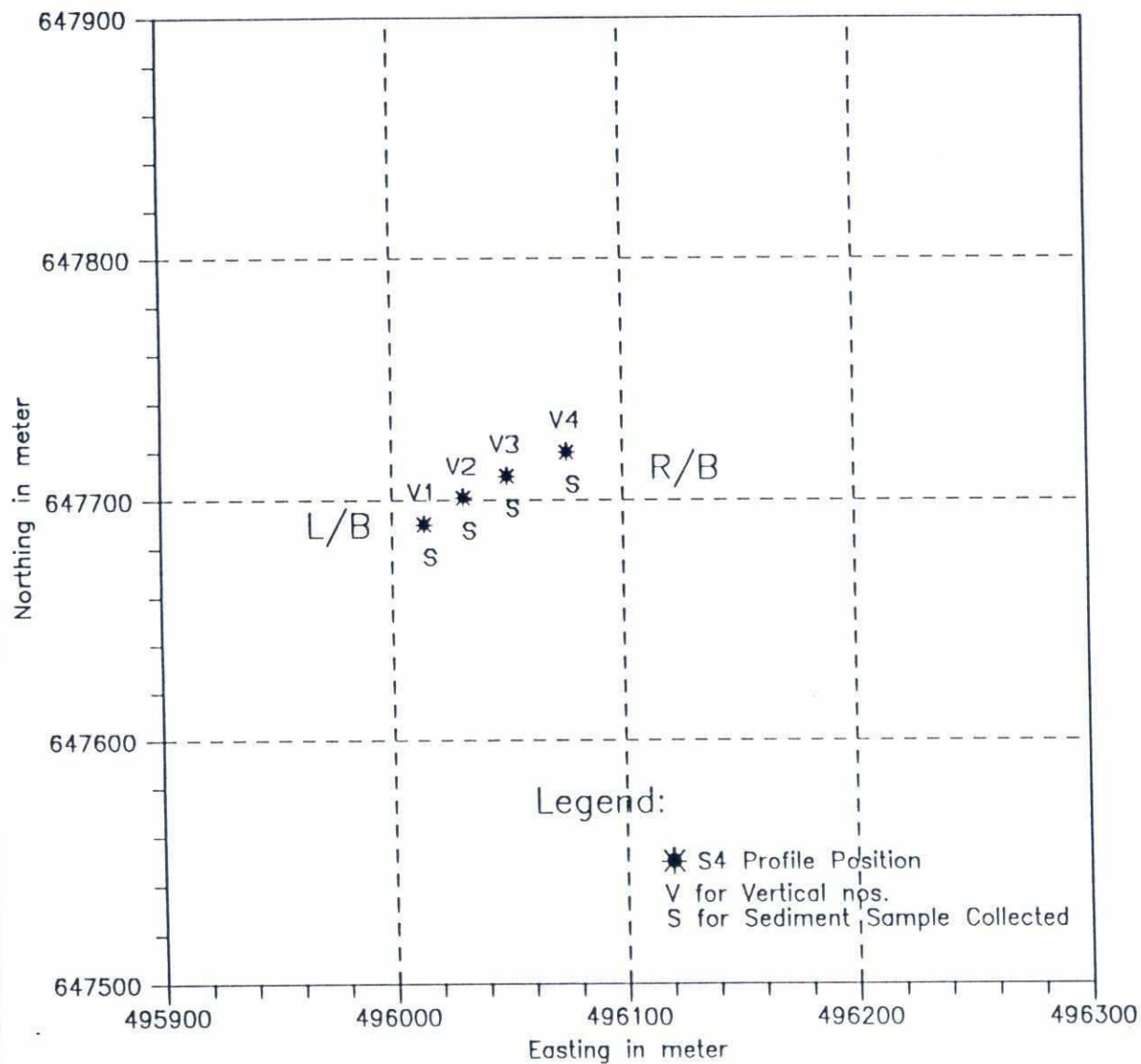
Scale:

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**KEY PLAN**

Fig.

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FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 44 : March 1994

Location 8 : Dhaleswari River, Tilly

Location of Measurements

Date :

Init :



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River : Dhaleswari  
S4 Discharge

Date of Survey : 22 March 1994  
Location : Dhaleswari River, Tilly  
Station No. 8

Date	Profile	Level	Width	Area	Discharge	Sediment
		(m+PWD)	(m)	(sq.m)	(cumec)	Transport (Kg/s)
22-03-94	T43M0P01	3.38	85	381	17	0.246
22-03-94	T43M0P02	3.38				
22-03-94	T43M0P03	3.38				
22-03-94	T43M0P04	3.38				

Table 3.1 SUMMARY OF RESULTS (S4-discharge)

2  
River : Dhaleswari

S4 Velocity

Date of Survey : 22 March 1994

Location : Dhaleswari River, Tilly

Station No. 8

Vertical 1		Vertical 2		Vertical 3		Vertical 4	
Total depth = 5.30 m		Total depth = 6.00 m		Total depth = 4.90 m		Total depth = 2.20m	
Depth	Velocity	Depth	Velocity	Depth	Velocity	Depth	Velocity
[m]	[m/s]	[m]	[m/s]	[m]	[m/s]	[m]	[m/s]
0.50	0.04	0.50	0.05	0.50	0.01	0.44	0.07
1.07	0.06	1.20	0.06	0.98	0.03	1.32	0.05
2.12	0.02	2.40	0.01	1.96	0.05	1.69	0.07
3.18	0.03	3.60	0.08	2.94	0.07		
4.24	0.02	4.80	0.03	3.92	0.02		
4.80	0.05	5.50	0.04	4.36	0.07		

Table 3.2 SUMMARY OF RESULTS (S4 Current)

Concentration

Date of Survey : 22 March 1994

Location : Dhaleswari River, Tilly

Vertical 1		Vertical 2		Vertical 3		Vertical 4	
Total depth = 5.30 m		Total depth = 6.00 m		Total depth = 4.90 m		Total depth = 2.20m	
Depth	Conc.	Depth	Conc.	Depth	Conc.	Depth	Conc.
[m]	[mg/l]	[m]	[mg/l]	[m]	[mg/l]	[m]	[mg/l]
0.50	5.86	0.50	12.91	0.50	5.13	0.44	4.30
1.06	3.80	1.20	16.34	0.98	7.59	1.32	9.83
2.12	7.46	2.40	20.55	1.96	8.06	1.69	23.19
3.18	9.54	3.60	26.10	2.94	8.73		
4.24	13.55	4.80	31.29	3.92	9.63		
4.80	16.98	5.30	42.70	4.36	11.54		

Table 3.3 SUMMARY OF RESULTS (Suspended Sediment Concentration)

Type	Time		File Name	Ver. No	Easting (meter)	Northing (meter)	DISCHARGE GAUGING					SEDIMENT TRANSPORT GAUGING				
	From	To					ADCP	HYDRO	EMF	S4	MEX	Suspended Sediment Samples	Andreasen Tube Samples	Helley Smith Samples	Integrated Sediment Samples	Bottom Samples
Echo-sounding	13:03:00	13:05:00	T43M0T01*					B								
Profile	13:11:00	14:04:00	T43M0P01	1	496014	647691		P		P		6	-	-	-	-
Profile	15:40:00	16:06:00	T43M0P02	2	496031	647701		P		P		6	-	-	-	-
Profile	15:01:00	15:25:00	T43M0P03	3	496050	647691		P		P		6	-	-	-	-
Profile	16:25:00	16:35:00	T43M0P04	4	496065	647669		P		P		3	-	-	-	-

\* echo-sounding in PSD 24 data base

Date of Survey : 22 March 1994  
Location : Dhaleswari River, Tilly  
Station No. 8

Table 2.1 (SURVEY PROGRAMME AS MADE)

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Type Of Samples	Sample	Total	Vertical
	Nos.	Sample Nos.	No.
Point Integrated Samples	A1480,A1459,A1486,A1484,A1430,A1460	6	1
	A1478,A1421,A1399,A1433,A1405,A1417	6	2
	AA1422,A1473,A1487,A1465,A1472,A143	6	3
	A1409,A1429,A365	3	4

Date of Survey : 22 March 1994  
Location : Dhaleswari River, Tilly  
Station No. 8

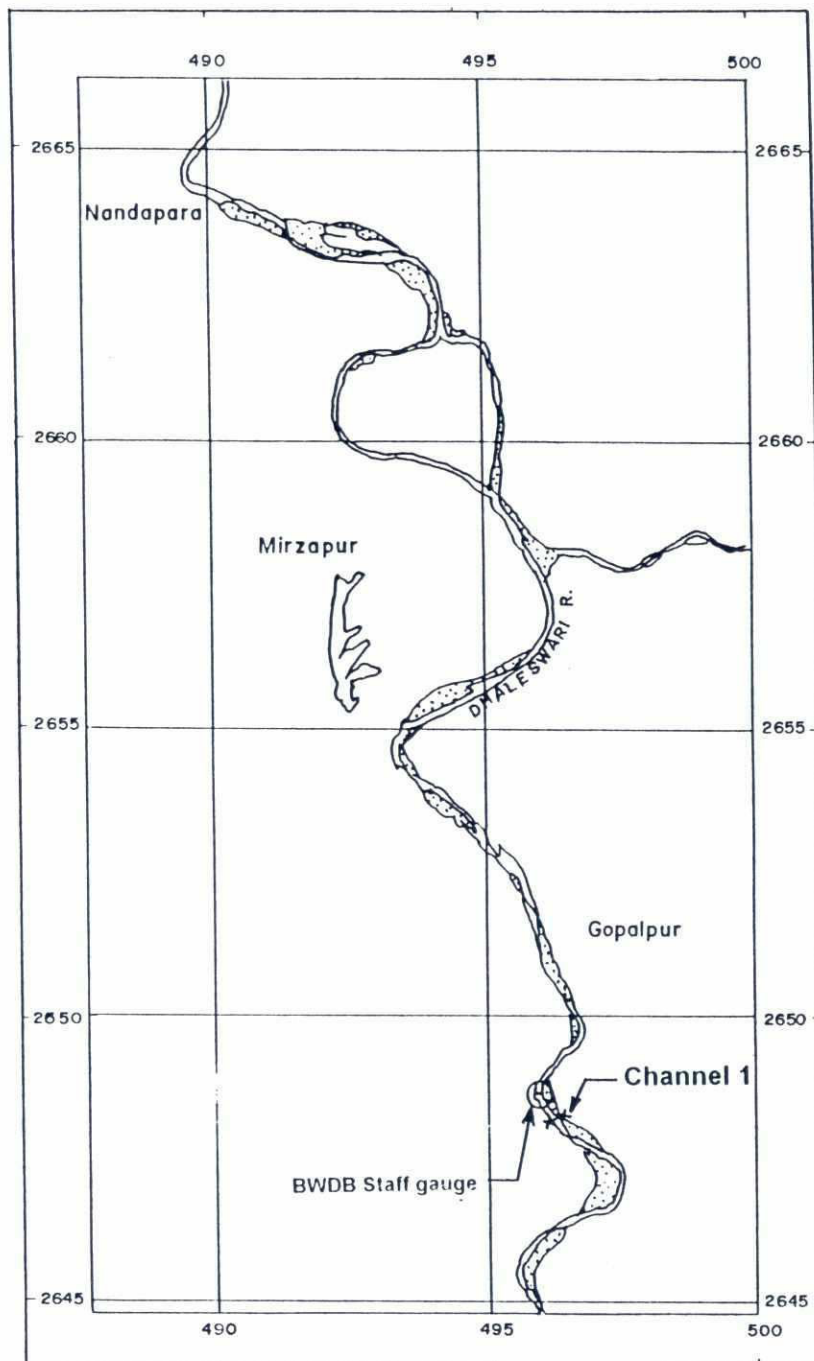
Table 2.2 List of Sediment Samples



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Types of Data	Channel	Format	Filename
ADCP/S4/EMF	1	QUATTRO	T43M0T01 .ase
Echosounder	1	QUATTRO	T43M0T01 .ech
Sediment transport data	1	QUATTRO	T43M0T01 .sed
Bed load sediment analysis	1	QUATTRO	T43M0T01 .bdl
Suspended sed. conc. analysis	1	QUATTRO	T43M0T01 .ssc
Transect plot data	1	QUATTRO	T43M0T01 .trs
Iso-velocity plot data	1	MIKE 21	T43M0T01 .ct2 T43M0T01 .dt2
Table 5.1 PSD 24 Database file description			

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**LEGEND :**

-  Unstable / low char
-  BWDB Staff gauge



Map is based on satellite  
images of March 1994



**FAP 24**



DELFT - DHI

**RIVER SURVEY PROJECT**  
Flood Plan Coordination Organization

Commission of the European Communities

**Survey Bulletin 59 : 15 May, 1994**

**Location 8 : Dhaleswari River, Tilly**

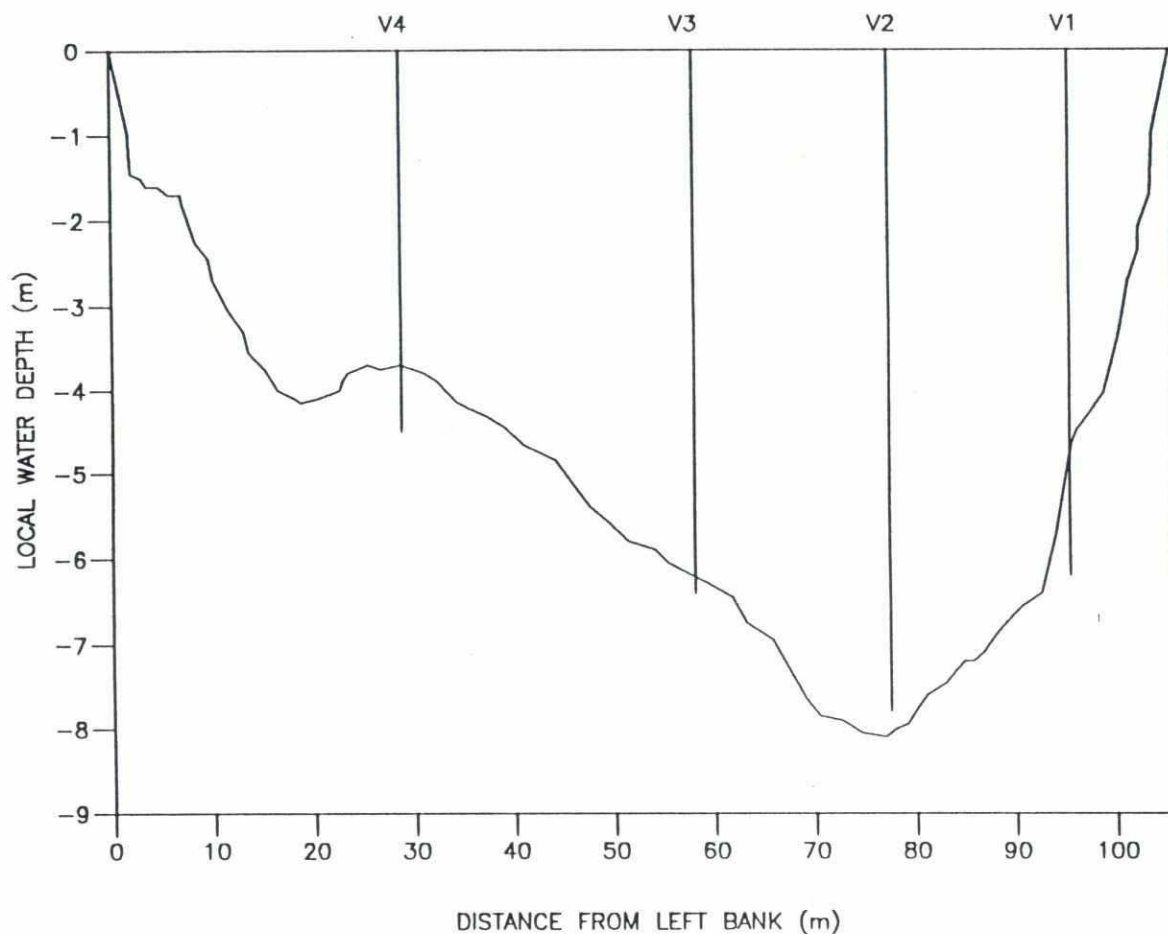
Date : 22 Aug 1994

Init : sjr


**Location map**

page

1.1



Water level : 5.41 m + PWD measured at the station indicated on page 1.1

<b>FAP 24</b>  DELFT - DHI		<b>Survey Bulletin 59 : 15 May, 1994</b>	
<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities		<b>Location 8 : Dhaleswari River, Tilly</b>	
File : T45F9T02	Date : 22 Aug 1994	<b>Cross-sections and measured verticals Channel 1</b>	page
	Init : sjr		1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	24	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	-	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	106	541	5.41	98	-	62.38

Table 2.2: Key figures

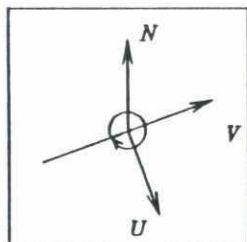
Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Tilly	Channel 1	15 May 94	5.41	BWDB

Table 2.3: Water-levels

 <b>FAP 24</b> RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 59 : 15 May, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T45F9T02	Date : 22 Aug 1994	Survey programme as made and key figures	page
	Init : sjr		2.1



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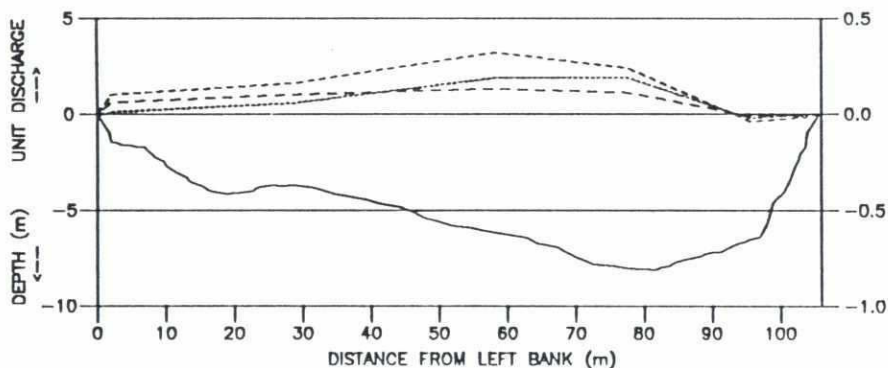


TRANSECT AZIMUTH = 250°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



LEGEND :

— WATER DEPTH (m below STAGE)

- - - UNIT DISCHARGE (m³/s.m)

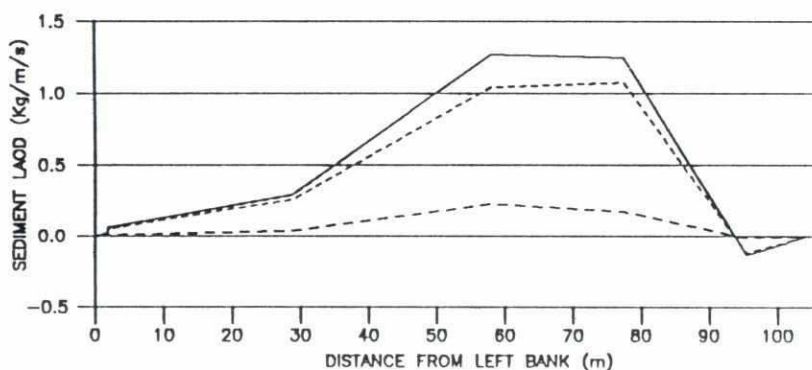
... U (m/s)

- . - V (m/s)

STAGE = 5.41 (m+PWD)

A = 541 (m³)

Q = 98 (m³/s)



LEGEND :

— S<sub>TOTAL</sub> 62.38 (kg/s)

- - - S<sub>WASH LOAD</sub> 52.62 (kg/s)

... S<sub>SUSP. RED</sub> 9.76 (kg/s)

- . - S<sub>RED LOAD</sub> - (kg/s)

Sample not collected

GRAIN SIZE



FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 59 : 15 May, 1994

Location 8 : Dhaleswari River, Tilly

File : T45F9T02

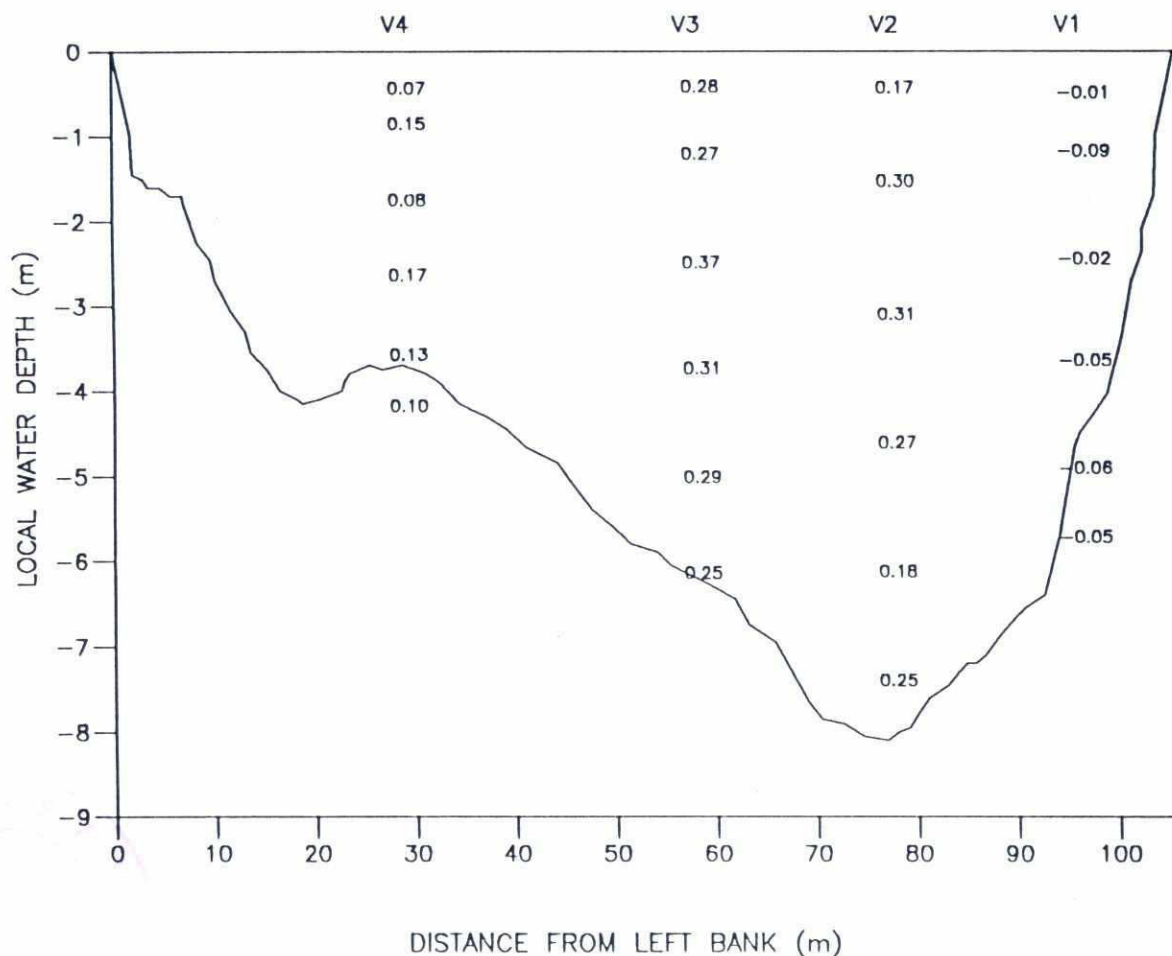
Date : 22 Aug 1994

Init : sjr

Horizontal distribution of flow and sediments  
Channel 1

page

3.1



Water level : 5.41 m + PWD measured at the station indicated on page 1.1

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT  
Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 59 : 15 May, 1994

Location 8 : Dhaleswari River, Tilly

File : T45F9T02

Date : 22 Aug 1994

Init : sjr

Cross-sectional distribution of flow velocity  
Channel 1

page

4.1

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo-sounding	1	9405151136-1138 9405151140-1142	T45F9T01 T45F9T02 *


Table 6.1: Echo-sounding \* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9405151428-1454	496001	647699	6.20	T45F9P01 *
		2	9405151319-1344	496024	647695	7.80	T45F9P02 *
		3	9405151508-1535	496044	647695	6.40	T45F9P03 *
		4	9405151551-1652	496073	647700	4.50	T45F9P04 *


Table 6.2: Vertical profiles \* ADCP & MEX not available

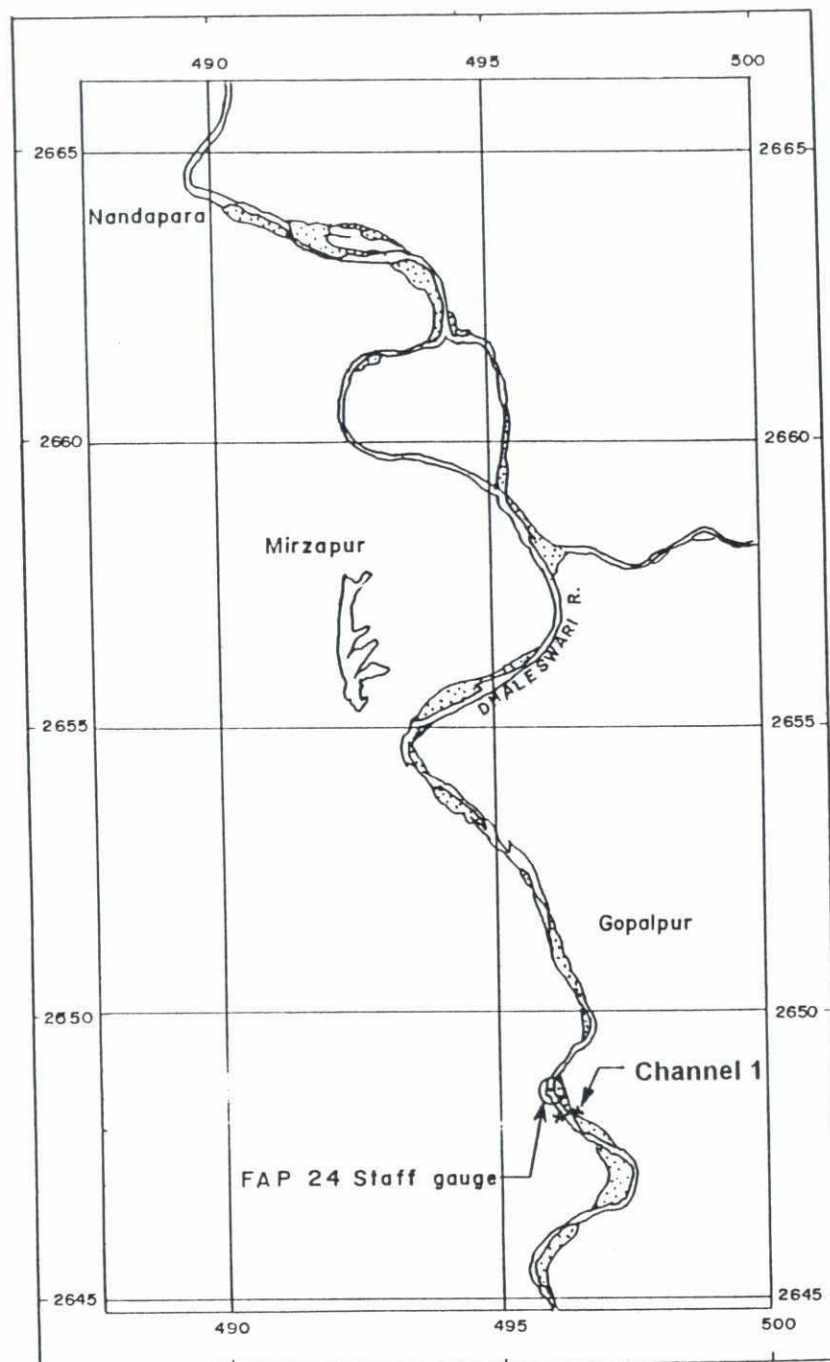
Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	6	9405151428-1454	496001	647699	6.20
		2	6	9405151319-1344	496024	647695	7.80
		3	6	9405151508-1535	496044	647695	6.40
		4	6	9405151551-1652	496073	647700	4.50

Table 6.3: Suspended sediment - point sampled

 <b>FAP 24</b> RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 59 : 15 May, 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 22 Aug 1994	Collected data and their storage (1)	page 6.1
	Init : sjr		

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T45F9T02 .ase
Echosounder data	1	QUATTRO	T45F9T02 .ech
Sediment transport data	1	QUATTRO	T45F9T02 .sed
Bed load sediment analysis	1	QUATTRO	T45F9T02 .bdl
Susp.sed. conc. analysis	1	QUATTRO	T45F9T02 .ssc
Transect plot data	1	QUATTRO	T45F9T02 .trs
Table 7.1 PSD 24 Database file description			

<b>FAP 24</b>  DELFT - DHI		<b>Survey Bulletin 59 : 15 May, 1994</b>	
<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities		<b>Location 8 : Dhaleswari River, Tilly</b>	
	Date : 22 Aug 1994	<b>PSD 24 Database file description</b>	page 7.1
	Init : sjr		



**LEGEND:**

-  Unstable / low char
-  FAP 24 Staff gauge

Map is based on satellite  
images of March 1994

5000 m 2500 m 0

**FAP 24**



DELFT - DHI

**RIVER SURVEY PROJECT**

Flood Plan Coordination Organization

Commission of the European Communities

**Survey Bulletin 65 : 16 June, 1994**

**Location 8 : Dhaleswari River, Tilly**

Date : 07 Aug 1994

Init : mzh

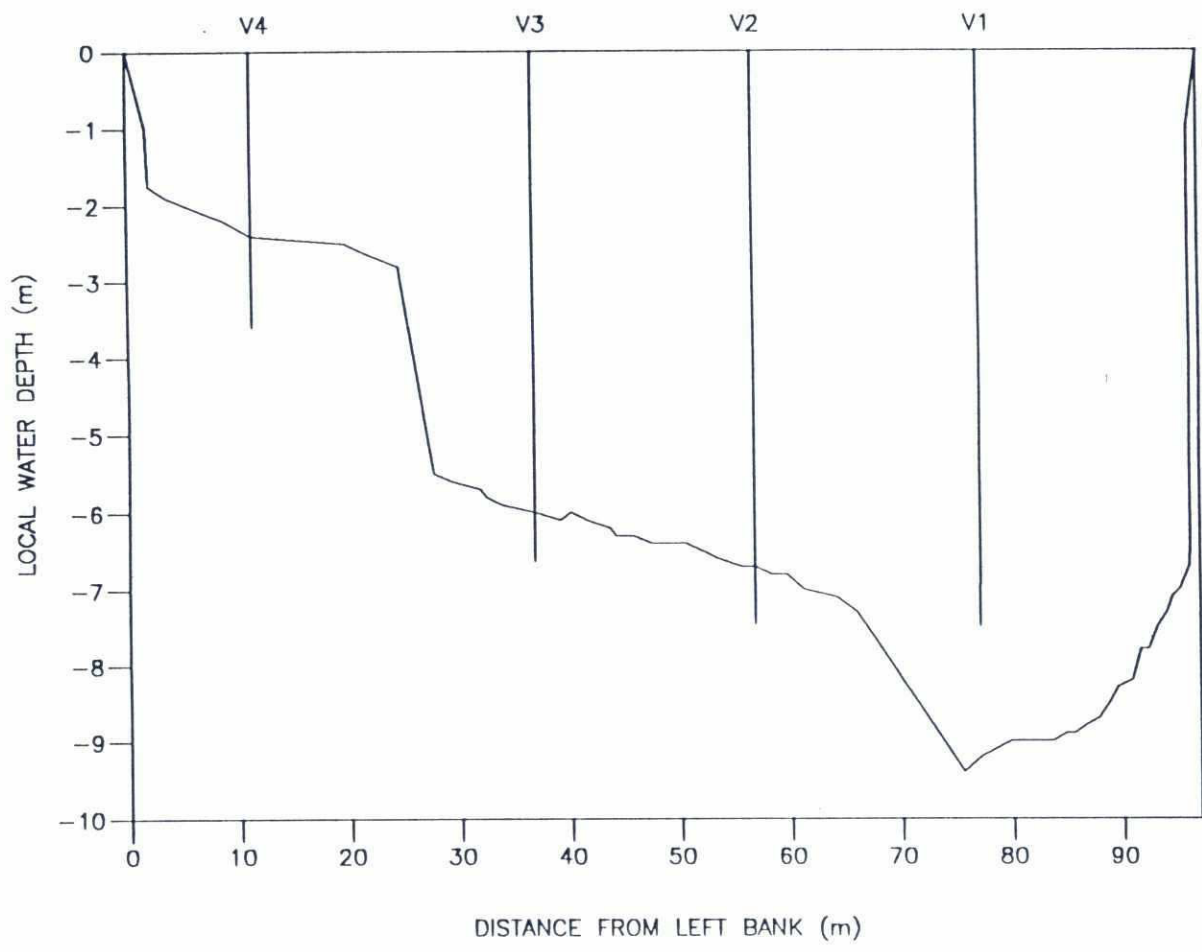
**Location map**

page


1.1



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Water level : 6.66 m + PWD measured at the station indicated on page 1.1

<div> <div> FAP 24  DELFT - DHI </div> <div> RIVER SURVEY PROJECT  Flood Plan Coordination Organization  Commission of the European Communities </div> </div>		Survey Bulletin 65 : 16 June, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T46G0T03	Date : 07 Aug 1994	Cross-sections and measured verticals Channel 1	page
	Init : mzh		1.2

07

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	24	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	4	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

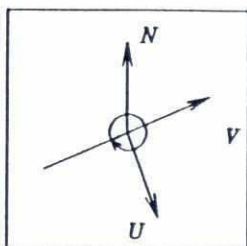
	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	97	567	6.66	248	0.40	132.05

Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Tilly	Channel 1	16 June 94	6.66	FAP 24

Table 2.3: Water-levels

<b>FAP 24</b>  DELFT - DHI		<b>Survey Bulletin 65 : 16 June, 1994</b>	
<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities		<b>Location 8 : Dhaleswari River, Tilly</b>	
File : T46G0T03	Date : 07 Aug 1994 Init : mzh	<b>Survey programme as made and key figures</b>	page 2.1

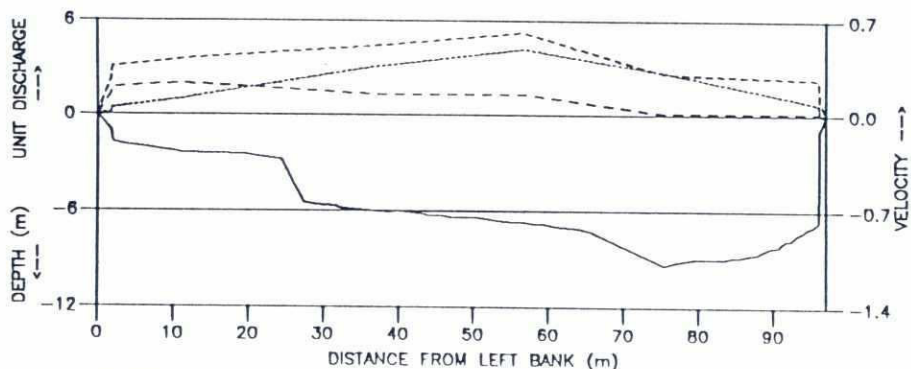


TRANSECT AZIMUTH =  $246^\circ$

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



LEGEND :

— WATER DEPTH (m below STAGE)

..... UNIT DISCHARGE ( $\text{m}^3/\text{s.m}$ )

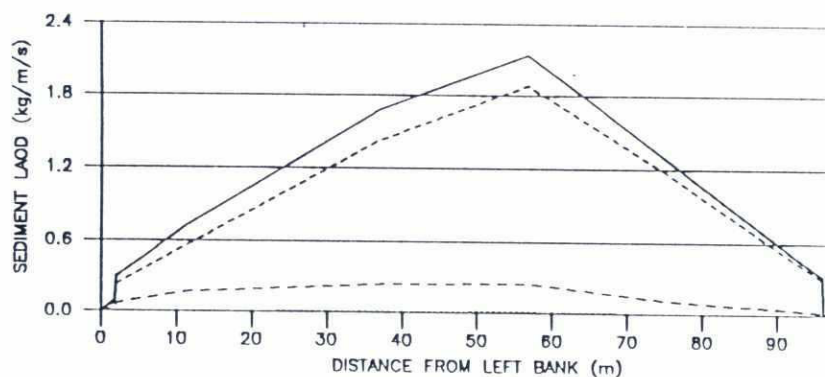
--- U ( $\text{m/s}$ )

-.- V ( $\text{m/s}$ )

STAGE = 6.66 (m+PND)

A = 567 ( $\text{m}^2$ )

Q = 248 ( $\text{m}^3/\text{s}$ )



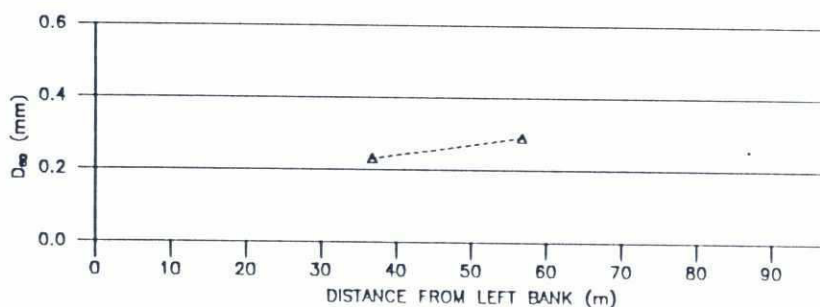
LEGEND :

—  $S_{TOTAL}$  132.46 (kg/s)

---  $S_{WASH LOAD}$  114.88 (kg/s)

-.-  $S_{SUSP. BED}$  17.17 (kg/s)

.....  $S_{BED LOAD}$  0.40 (kg/s)



LEGEND :

◇◇◇◇◇  $D_{50 SUSP.}$  (mm)

△△△△△  $D_{50 BED LOAD}$  (mm)

□□□□□  $D_{50 BED MAT.}$  (mm)

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 65 : 16 June, 1994

Location 8 : Dhaleswari River, Tilly

File : T46G0T03

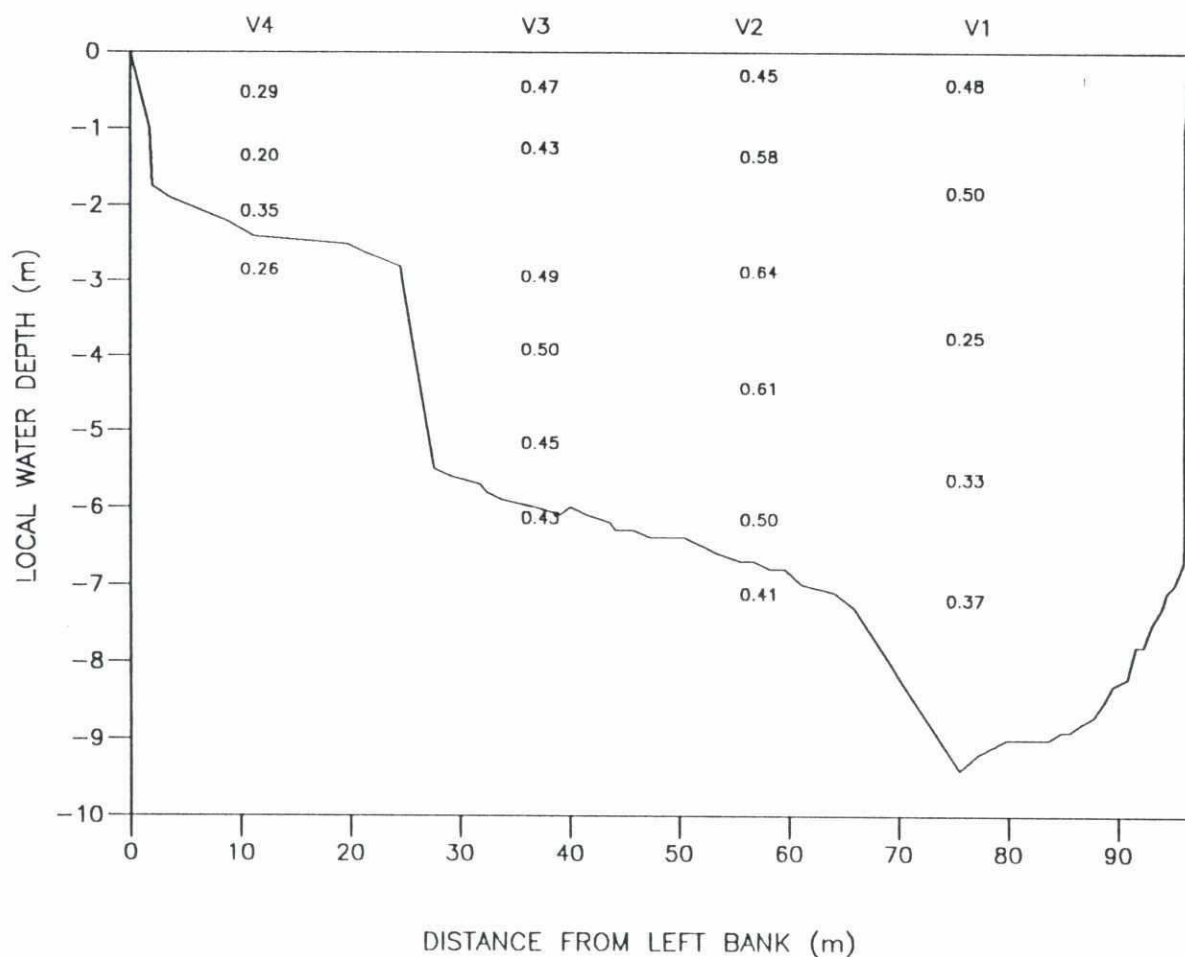
Date : 07 Aug 1994

Init : mzh

Horizontal distribution of flow and sediments  
Channel 1

page

3.1



Water level : 6.66 m + PWD measured at the station indicated on page 1.1

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 65 : 16 June, 1994

Location 8 : Dhaleswari River, Tilly

File : T46G0T03

Date : 07 Aug 1994

Init : mzh

Cross-sectional distribution of flow velocity  
Channel 1

page


4.1

Andreasen settling tube							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							

Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)

Helley-Smith								
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm		D10 (mm)	D50 (mm)	D90 (mm)
1	2	9406161418-1442	7.46	-	-	0.232	0.284	0.339
	3	9406161529-1600	6.62	-	-	0.211	0.264	0.321
	2	9406161418-1442	7.46	-	-	0.255	0.299	0.352
	3	9406161529-1600	6.62	-	-	0.174	0.206	0.244
Table 5.2 : Grain size of bed load								

US BM-54 bed samples							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							
Table 5.3 : Grain size of bed material							

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 65 : 16 June, 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 07 Aug 1994	Grain size distributions	page 5.1
	Init : mzh		



Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo-sounding	1	9406161059-1101 9406161109-1112	T46G0T02 T46G0T03 *

Table 6.1: Echo-sounding

\* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9406161321-1347	496019	647689	7.50	T46G0P01 *
		2	9406161418-1442	496038	647696	7.46	T46G0P02 *
		3	9406161529-1600	496055	647705	6.62	T46G0P03 *
		4	9406161622-1644	496076	647710	3.60	T46G0P04 *

Table 6.2: Vertical profiles


\* ADCP & MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	6	9406161321-1347	496019	647689	7.50
		2	6	9406161418-1442	496038	647696	7.46
		3	6	9406161529-1600	496055	647705	6.62
		4	6	9406161622-1644	496076	647710	3.60


Table 6.3: Suspended sediment - point sampled

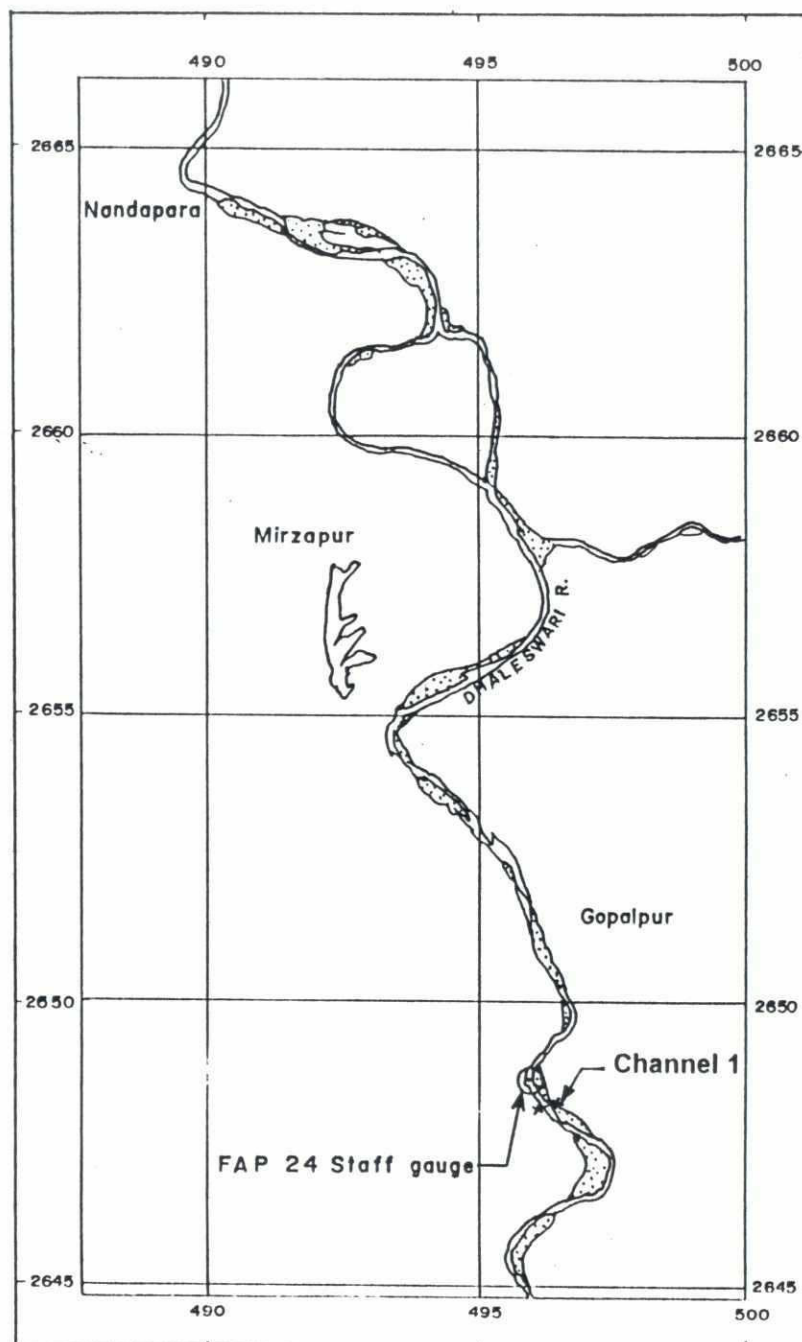
Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley-Smith Sample	1	2	9406161418-1442	496038	647696	7.46	A1661
		3	9406161529-1600	496055	647705	6.62	A105
		2	9406161418-1442	496038	647696	7.46	A913
		3	9406161529-1600	496055	647705	6.62	A1638

Table 6.4: Bed load

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 65 : 16 June, 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 07 Aug 1994	Collected data and their storage (1)	page 6.1
	Init : mzh		

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T46G0T03 .ase
Echosounder data	1	QUATTRO	T46G0T03 .ech
Sediment transport data	1	QUATTRO	T46G0T03 .sed
Bed load sediment analysis	1	QUATTRO	T46G0T03 .bdl
Susp.sed. conc. analysis	1	QUATTRO	T46G0T03 .ssc
Transect plot data	1	QUATTRO	T46G0T03 .trs
Table 7.1 PSD 24 Database file description			

 <p><b>FAP 24</b> DELFT - DHI</p>		Survey Bulletin 65 : 16 June, 1994	
<p><b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities</p>		Location 8 : Dhaleswari River, Tilly	
	Date : 07 Aug 1994	PSD 24 Database file description	page 7.1
	Init : mzh		



**LEGEND:**

-  Unstable / low char
-  FAP 24 Staff gauge

Map is based on satellite  
images of March 1994



**FAP 24**



DELFT - DHI

**RIVER SURVEY PROJECT**

Flood Plan Coordination Organization

Commission of the European Communities

**Survey Bulletin 85 : 25 July, 1994**

**Location 8 : Dhaleswari River, Tilly**

Date : 23 Oct 1994

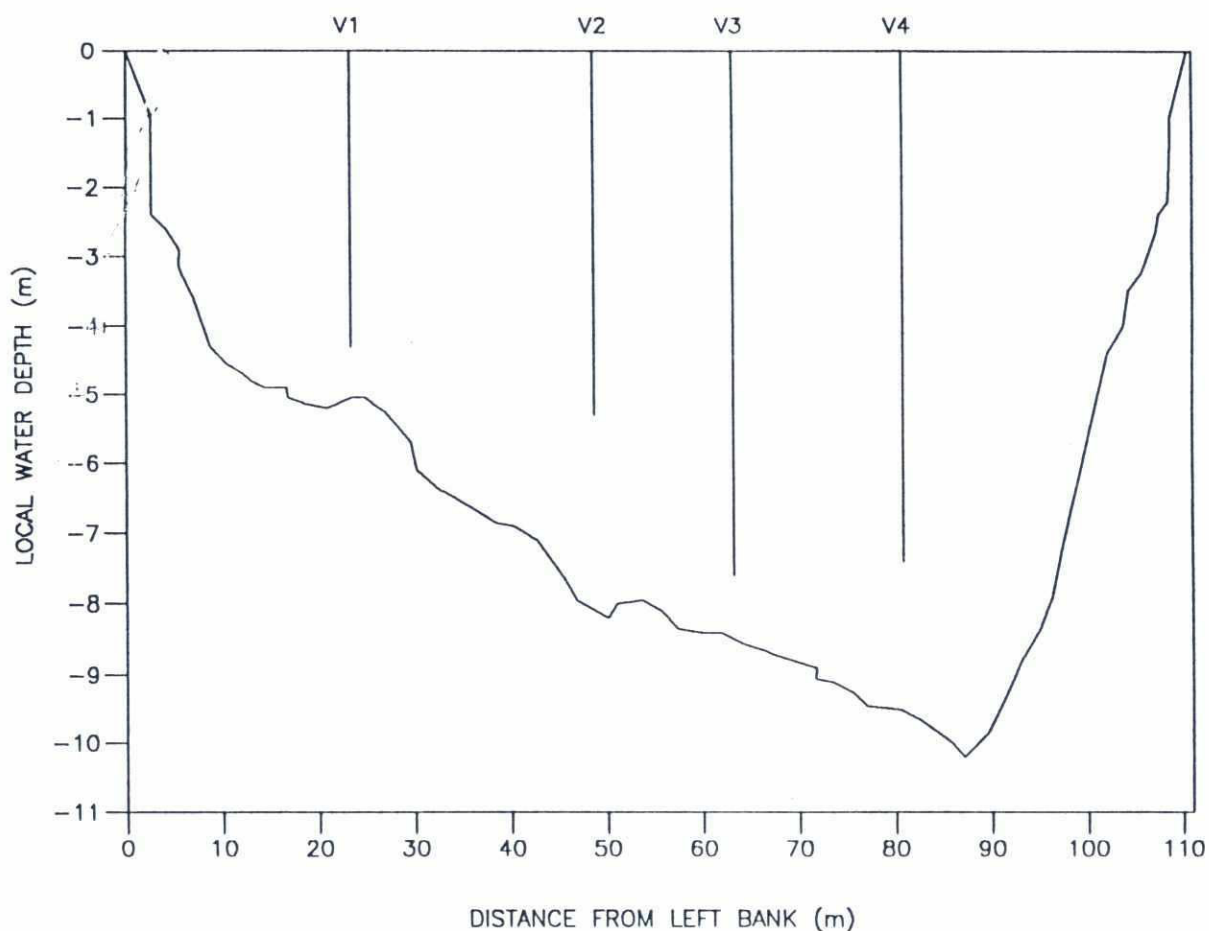
Init : sjr

**Location map**

page

1.1

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Water level : 6.91 m + PWD measured at the station indicated on page 1.1

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT  
Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 85 : 25 July , 1994

Location 8 : Dhaleswari River, Tilly

File : T47P0T01

Date : 23 Oct 1994

Init : sjr

Cross-sections and measured verticals  
Channel 1

page

1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	24	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	8	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	111	737	6.91	258	3.98	121.84

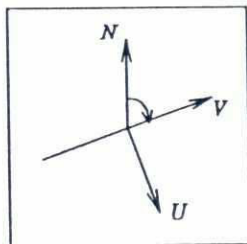
Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Tilly	Channel 1	25 Jul 94	6.91	FAP 24

Table 2.3: Water-levels

<div><div><div><div>FAP 24</div><div>DELFT - DHI</div></div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 85 : 25 July , 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T47POT01	Date : 23 Oct 1994	Survey programme as made and key figures	page 2.1
	Init : sjr		



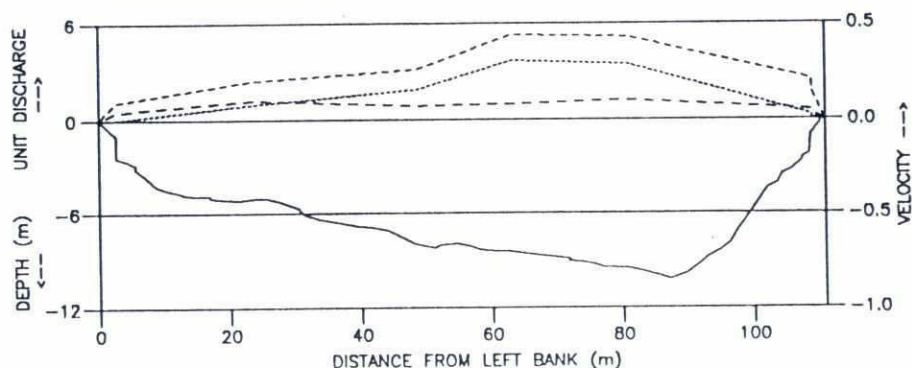


TRANSECT AZIMUTH =  $70^\circ$

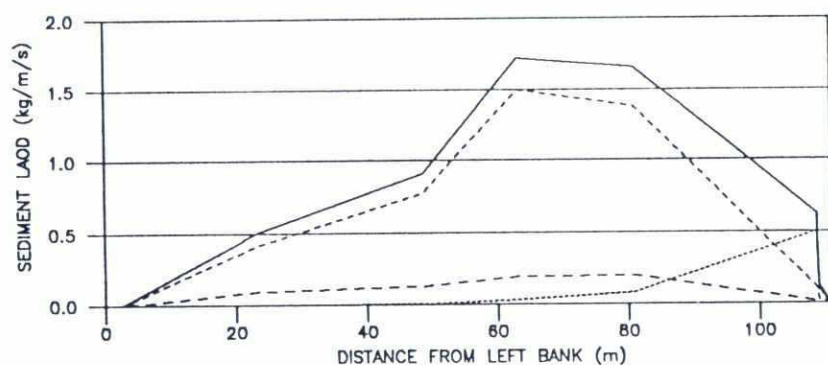
U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

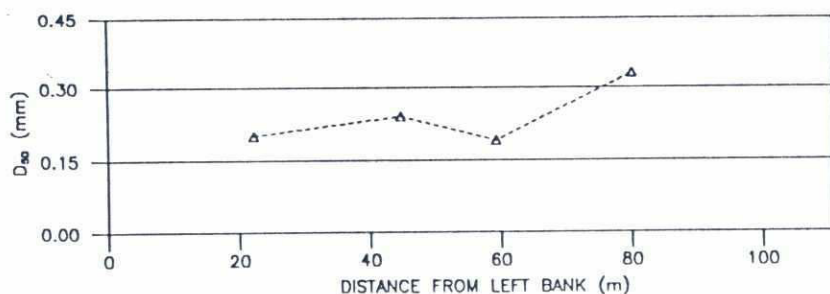
N - MAGNETIC NORTH



FLOW



SEDIMENT TRANSPORT



GRAIN SIZE

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT  
Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 85 : 25 July , 1994

Location 8 : Dhaleswari River, Tilly

File : T47P0T01

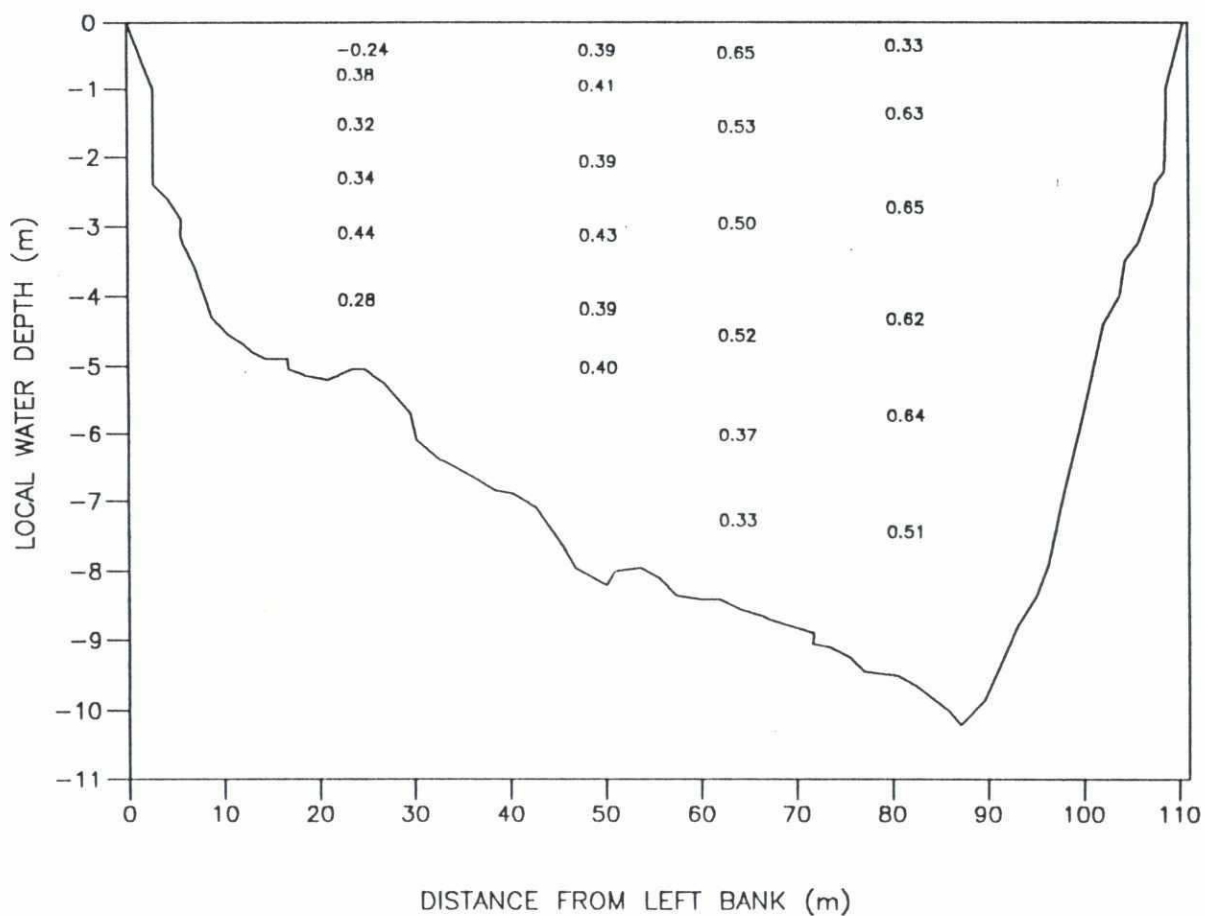
Date : 23 Oct 1994

Init : sjr


Horizontal distribution of flow and sediments  
Channel 1

page

3.1




Water level : 6.91 m + PWD measured at the station indicated on page 1.1

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 85 : 25 July , 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T47POT01	Date : 23 Oct 1994	Cross-sectional distribution of flow velocity  Channel 1	page  4.1
	Init : sjr		

Andreasen settling tube							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							
Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)							

US BM-54 bed samples							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							
Table 5.2 : Grain size of bed material							

Helley - Smith								
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm > 0.06 mm		D35 (mm)	D50 (mm)	D65 (mm)
1	1	9407251256-1326	4.30	13.428	86.572	0.170	0.218	0.280
	2	9407251412-1437	5.30	1.270	98.730	0.224	0.279	0.335
	3	9407251502-1529	7.60	0.669	99.331	0.174	0.208	0.248
	4	9407251618-1645	7.40	0.949	99.051	0.285	0.327	0.376
	1	9407251256-1326	4.30	7.794	92.206	0.146	0.188	0.240
	2	9407251412-1437	5.30	0.968	99.032	0.173	0.205	0.243
	3	9407251502-1529	7.60	0.542	99.458	0.154	0.175	0.200
	4	9407251618-1645	7.40	0.450	99.550	0.289	0.329	0.374
Table 5.3 : Grain sizes of bed load								

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>	Survey Bulletin 85 : 25 July , 1994	
	Location 8 : Dhaleswari River, Tilly	
Date : 23 Oct 1994	Grain size distributions	page 5.1
Init : sjr		

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Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo - sounding	1	9407251114-1115 9407251117-1118	T47P0T01 * T47P0T02

Table 6.1: Echo sounding \* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9407251256-1326	496079	647720	4.30	T47P0P01 *
		2	9407251412-1437	496058	647705	5.30	T47P0P02 *
		3	9407251502-1529	496046	647695	7.60	T47P0P03 *
		4	9407251618-1645	496024	647695	7.40	T47P0P04 *

Table 6.2: Vertical profiles \* ADCP & MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	6	9407251256-1326	496079	647720	4.30
		2	6	9407251412-1437	496058	647705	5.30
		3	6	9407251502-1529	496046	647695	7.60
		4	6	9407251618-1645	496024	647695	7.40


Table 6.3: Suspended sediment - point sampled

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Sample not collected							

Table 6.4: Suspended sediment - depth integrated


Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley-Smith Sample	1	1	9407251256-1326	496079	647720	4.30	A711
		2	9407251412-1437	496058	647705	5.30	A1364
		3	9407251502-1529	496046	647695	7.60	A703
		4	9407251618-1645	496024	647695	7.40	A461
		1	9407251256-1326	496079	647720	4.30	A354
		2	9407251412-1437	496058	647705	5.30	A356
		3	9407251502-1529	496046	647695	7.60	A691
		4	9407251618-1645	496024	647695	7.40	A340

Table 6.5: Bed load

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 85 : 25 July , 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 23 Oct 1994	Collected data and their storage (1)	page 6.1
	Init : sjr		

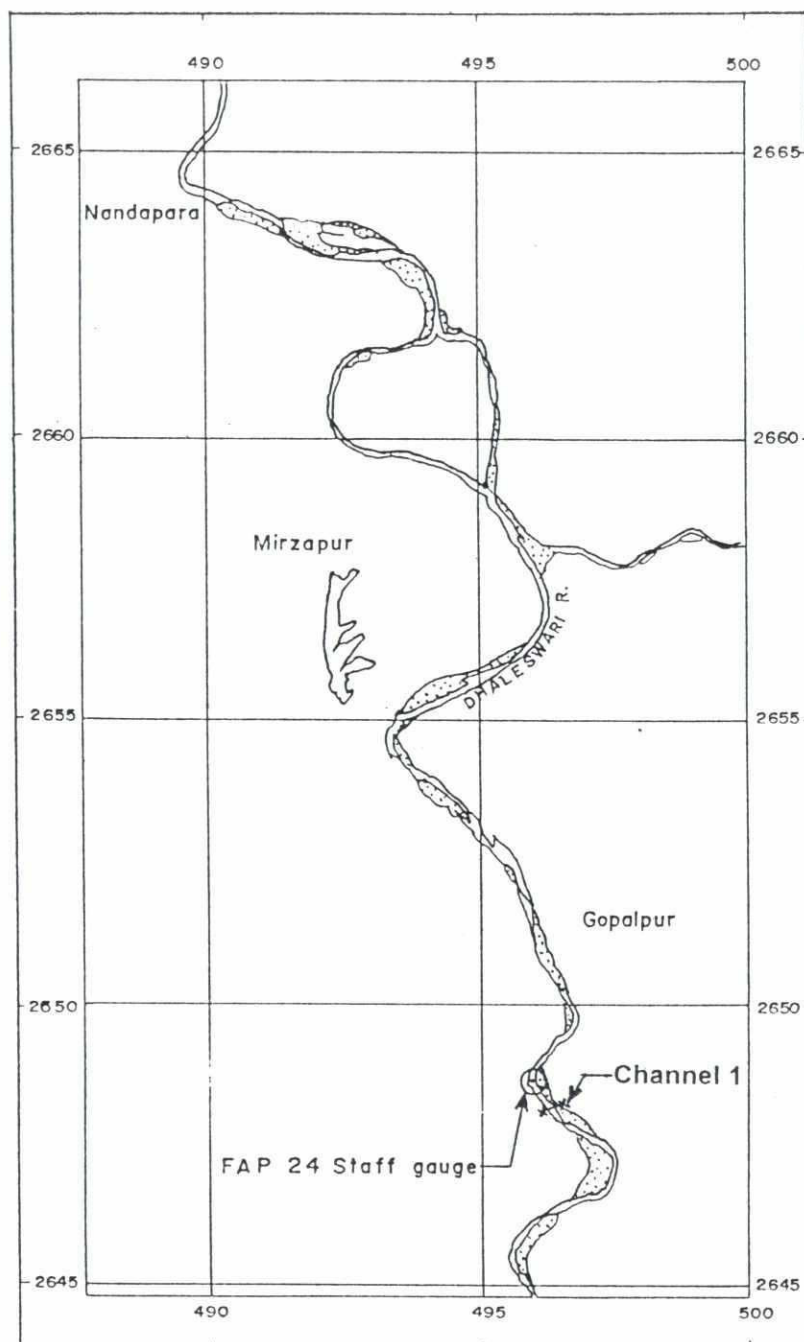


Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T47P0T01.ase
Echosounder data	1	QUATTRO	T47P0T01.ech
Sediment transport data	1	QUATTRO	T47P0T01.sed
Bed load sediment analysis	1	QUATTRO	T47P0T01.bdl
Susp. sed. conc. analysis	1	QUATTRO	T47P0T01.ssc
Transect plot data	1	QUATTRO	T47P0T01.trs
Table 7.1 PSD 24 Database file description			

<b>FAP 24</b>  DELFT - DHI		<b>Survey Bulletin 85 : 25 July , 1994</b>	
<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities		<b>Location 8 : Dhaleswari River, Tilly</b>	
	Date : 23 Oct 1994 Init : sjr	<b>PSD 24 Database file description</b>	page 7.1



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**LEGEND:**

-  Unstable / low char
-  FAP 24 Staff gauge



Map is based on satellite  
images of March 1994



**FAP 24**  
  
DELFT - DHI

**RIVER SURVEY PROJECT**  
Flood Plan Coordination Organization  
Commission of the European Communities

**Survey Bulletin 105 : 13 October, 1994**

**Location 8 : Dhaleswari River, Tilly**

Date : 11 Jan 1995

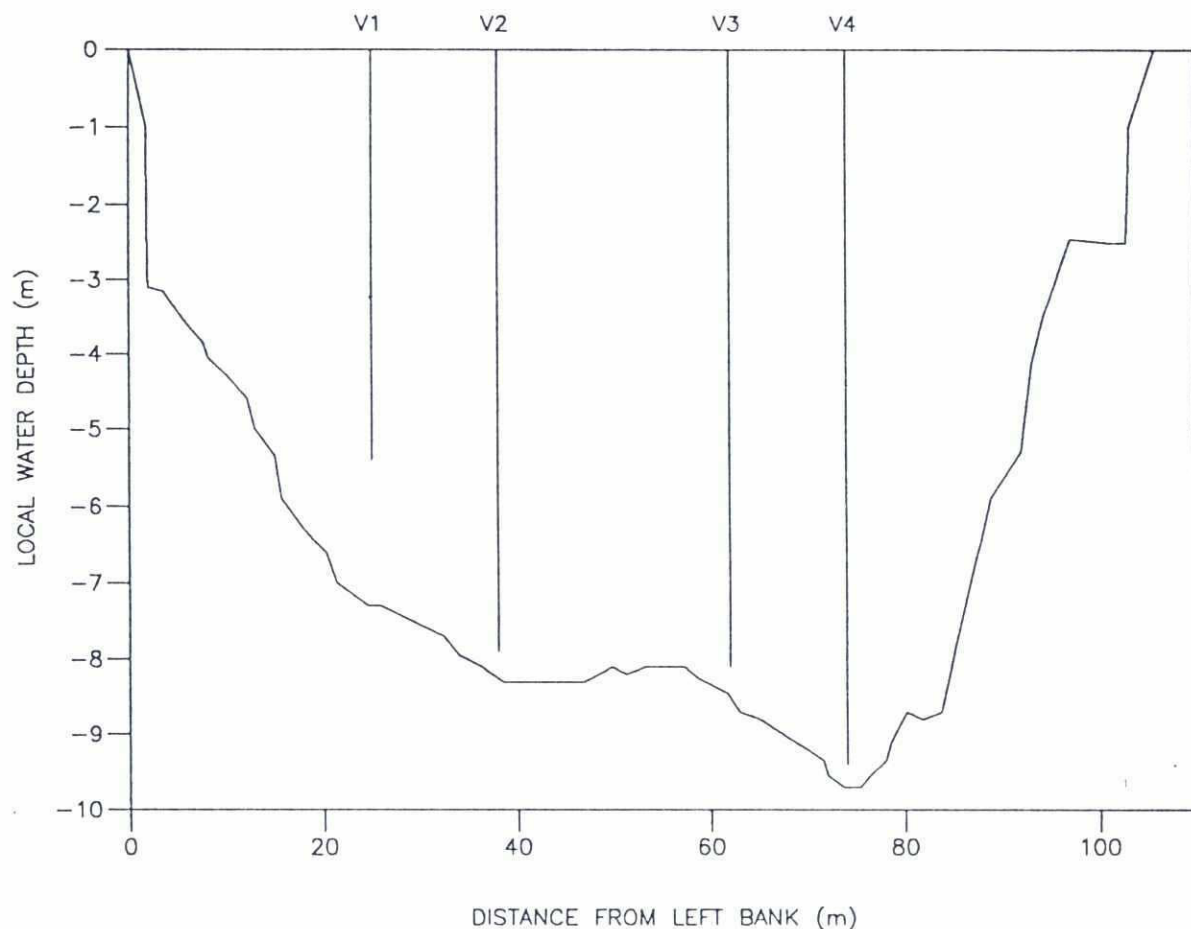
Init : mk/tr

**Location map**


page

1.1

20



Water- level : 6.72 m + PWD measured at the station indicated on page 1.1

<b>FAP 24</b>  <b>DELFT - DHI</b>		Survey Bulletin 105 : 13 October , 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4AD0T01	Date : 11 Jan,1995	Cross-sections and measured verticals Channel 1	page 1.2
	Init : mk / tr		

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Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	24	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	8	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

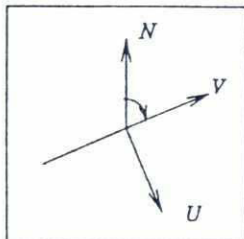
Channel	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	106	733	6.72	320	0.2	123.7

Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m + PWD)	Gauge
Tilly	Channel 1	13 Oct 94	6.72	FAP 24

Table 2.3: Water-levels

<div><div><div><div>FAP 24</div><div>DELFT - DHI</div></div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 105 : 13 October , 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4AD0T01	Date : 11 Jan,1995	Survey programme as made and key figures	page
	Init : mk / tr		2.1

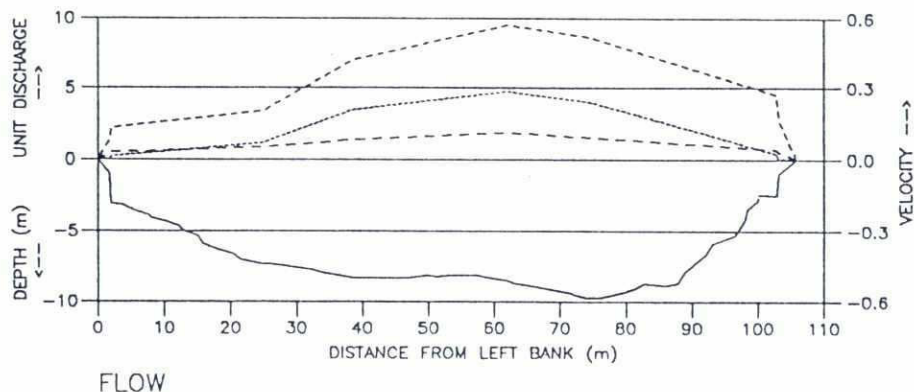


TRANSECT AZIMUTH =  $67^\circ$

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



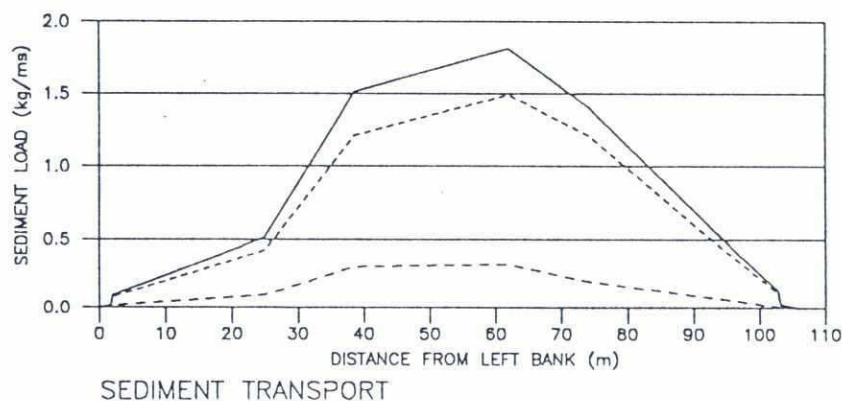
LEGEND :

— WATER DEPTH (m below STAGE)  
 ..... UNIT DISCHARGE ( $\text{m}^3/\text{s.m}$ )  
 --- U - (m/s)  
 -.- V - (m/s)

STAGE = 6.72 (m+PWD)

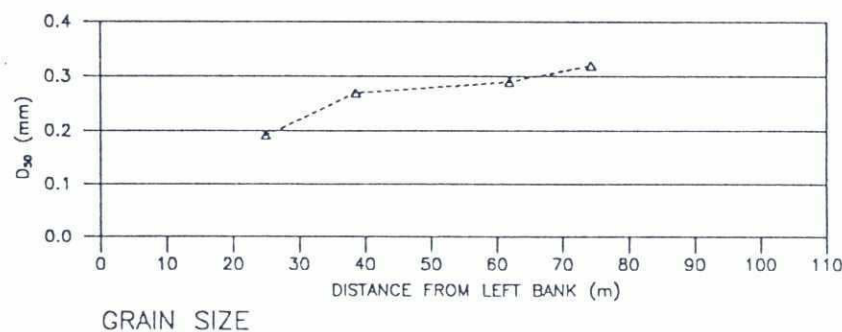
A = 733 ( $\text{m}^2$ )

Q = 320 ( $\text{m}^3/\text{s}$ )



LEGEND :

—  $S_{\text{TOTAL}}$  123.7 (kg/s)  
 ---  $S_{\text{WASH LOAD}}$  103.0 (kg/s)  
 -.-  $S_{\text{SUSP. BED}}$  20.5 (kg/s)  
 .....  $S_{\text{BED LOAD}}$  0.2 (kg/s)



LEGEND :

◇◇◇◇◇  $D_{50}$  SUSP. (mm)  
 △△△△△  $D_{50}$  BED LOAD (mm)  
 □□□□□  $D_{50}$  BED MAT. (mm)

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT  
 Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 105 : 13 October, 1994

Location 8 : Dhaleswari River, Tilly

File : T4AD0T01

Date : 11 Jan, 1995

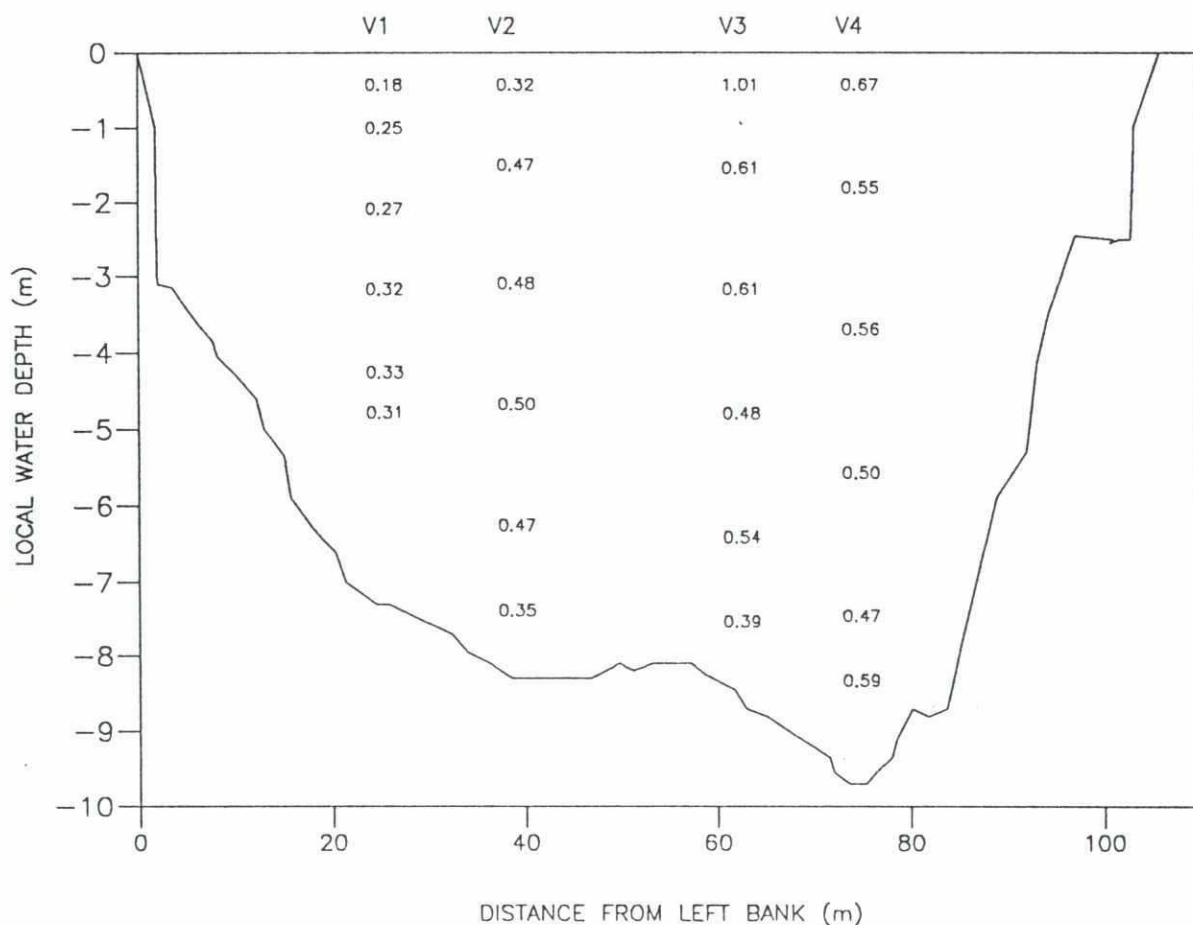
Init : mk / tr

Horizontal distribution of flow and sediments  
 Channel 1


page

3.1

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Water-level : 6.72 m + PWD measured at the station indicated on page 1.1

<b>FAP 24</b>  <b>DELFT - DHI</b>	<b>RIVER SURVEY PROJECT</b> <small>Flood Plan Coordination Organization</small> <small>Commission of the European Communities</small>	<b>Survey Bulletin 105 : 13 October, 1994</b>	
		<b>Location 8 : Dhaleswari River, Tilly</b>	
File : T4AD0T01	Date : 11 Jan, 1995	<b>Cross-sectional distribution of flow velocity</b> <b>Channel 1</b>	page
	Init : mk/tr		4.1




CS

Andreasen settling tube							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							
Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)							

US BM-54 bed samples							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth	Weight percent < 0.06 mm > 0.06 mm	D10 (mm)	D50 (mm)	D90 (mm)
Sample not collected							
Table 5.2 : Grain size of bed material							

Helley-Smith								
Channel	Vertical	Time (YYMMDDHHMM)	Depth (m)	Weight percent < 0.06 mm > 0.06 mm		D35 (mm)	D50 (mm)	D65 (mm)
1	1	9410131218-1255	5.40	7.440	92.560	0.147	0.179	0.219
	2	9410131301-1327	7.90	1.762	98.238	0.211	0.266	0.328
	3	9410131402-1426	8.10	1.862	98.138	0.232	0.287	0.344
	4	9410131451-1513	9.40	0.208	99.792	0.273	0.315	0.364
	1	9410131218-1255	5.40	14.944	85.056	0.147	0.193	0.256
	2	9410131301-1327	7.90	5.124	94.876	0.207	0.269	0.329
	3	9410131402-1426	8.10	1.509	98.491	0.234	0.288	0.345
	4	9410131451-1513	9.40	0.290	99.710	0.282	0.322	0.368
Table 5.3 : Grain sizes of bed load								

<div>FAP 24</div> <div></div> <div>DELFT - DHI</div>		<div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div>	<div>Survey Bulletin 105 : 13 October , 1994</div>	
		<div>Location 8 : Dhaleswari River, Tilly</div>		
	<div>Date : 11 Jan, 1995</div>	<div>Grain size distributions</div>		<div>page</div>
	<div>Init : mk / tr</div>			<div>5.1</div>

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Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo sounding	1	9410131135-1136 9410131139-1140	T4AD0T01 * T4AD0T02

Table 6.1: Echo sounding \* transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9410131218-1255	496070	647708	5.40	T4AD0P01 *
		2	9410131301-1327	496053	647706	7.90	T4AD0P02 *
		3	9410131402-1426	496031	647697	8.10	T4AD0P03 *
		4	9410131451-1513	496015	647694	9.40	T4AD0P04 *


Table 6.2: Vertical profiles \* ADCP and MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	6	9410131218-1255	496070	647708	5.40
		2	6	9410131301-1327	496053	647706	7.90
		3	6	9410131402-1426	496031	647697	8.10
		4	6	9410131451-1513	496015	647694	9.40


Table 6.3: Suspended sediment - point sampled

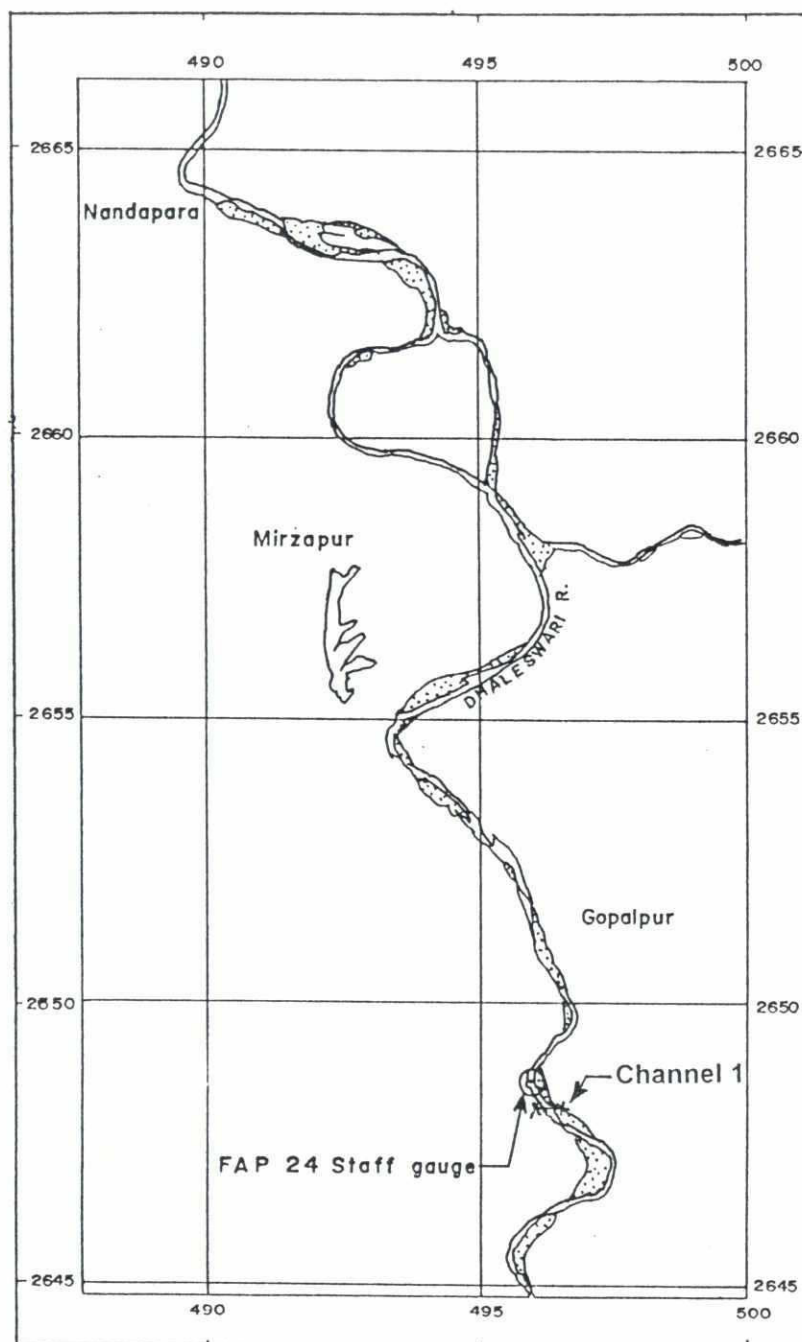
Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No
Helley-Smith Sample	1	1	9410131218-1255	496070	647708	5.40	A76
		2	9410131301-1327	496053	647706	7.90	A1899
		3	9410131402-1426	496031	647697	8.10	A889
		4	9410131451-1513	496015	647694	9.40	A1973
		1	9410131218-1255	496070	647708	5.40	A1607
		2	9410131301-1327	496053	647706	7.90	A116
		3	9410131402-1426	496031	647697	8.10	A1617
		4	9410131451-1513	496015	647694	9.40	A1635

Table 6.5: Bed load

<div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div>	<div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div>	Survey Bulletin 105 : 13 October , 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 11 Jan,1995	Collected data and their storage (1)	page 6.1
	Init : mk / tr		

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T4AD0T01 .ase
Echosounder data	1	QUATTRO	T4AD0T01 .ech
Sediment transport data	1	QUATTRO	T4AD0T01 .sed
Bed load sed. analysis	1	QUATTRO	T4AD0T01 .bdl
Sus. sed. conc. analysis	1	QUATRO	T4AD0T01 .ssc
Transect plot data	1	QUATTRO	T4AD0T01 .trs
Table 7.1 PSD 24 Database file description			

<div><div><p>FAP 24</p><p>DELFT - DHI</p></div><div><p>RIVER SURVEY PROJECT</p><p>Flood Plan Coordination Organization</p><p>Commission of the European Communities</p></div></div>		Survey Bulletin 105 : 13 October , 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 11 Jan,1995	PSD 24 Database file description	page
	Init : mk / tr		7.1



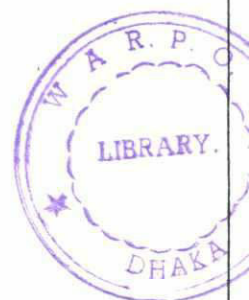
**LEGEND:**

- Unstable / low char
- FAP 24 Staff gauge



Map is based on satellite  
images of March 1994

5000 m 2500 m 0



**FAP 24**



DELFT - DHI

**RIVER SURVEY PROJECT**  
Flood Plan Coordination Organization

Commission of the European Communities

**Survey Bulletin 113 : 28 October, 1994**

**Location 8 : Dhaleswari River, Tilly**

Date : 24 Jan 1995

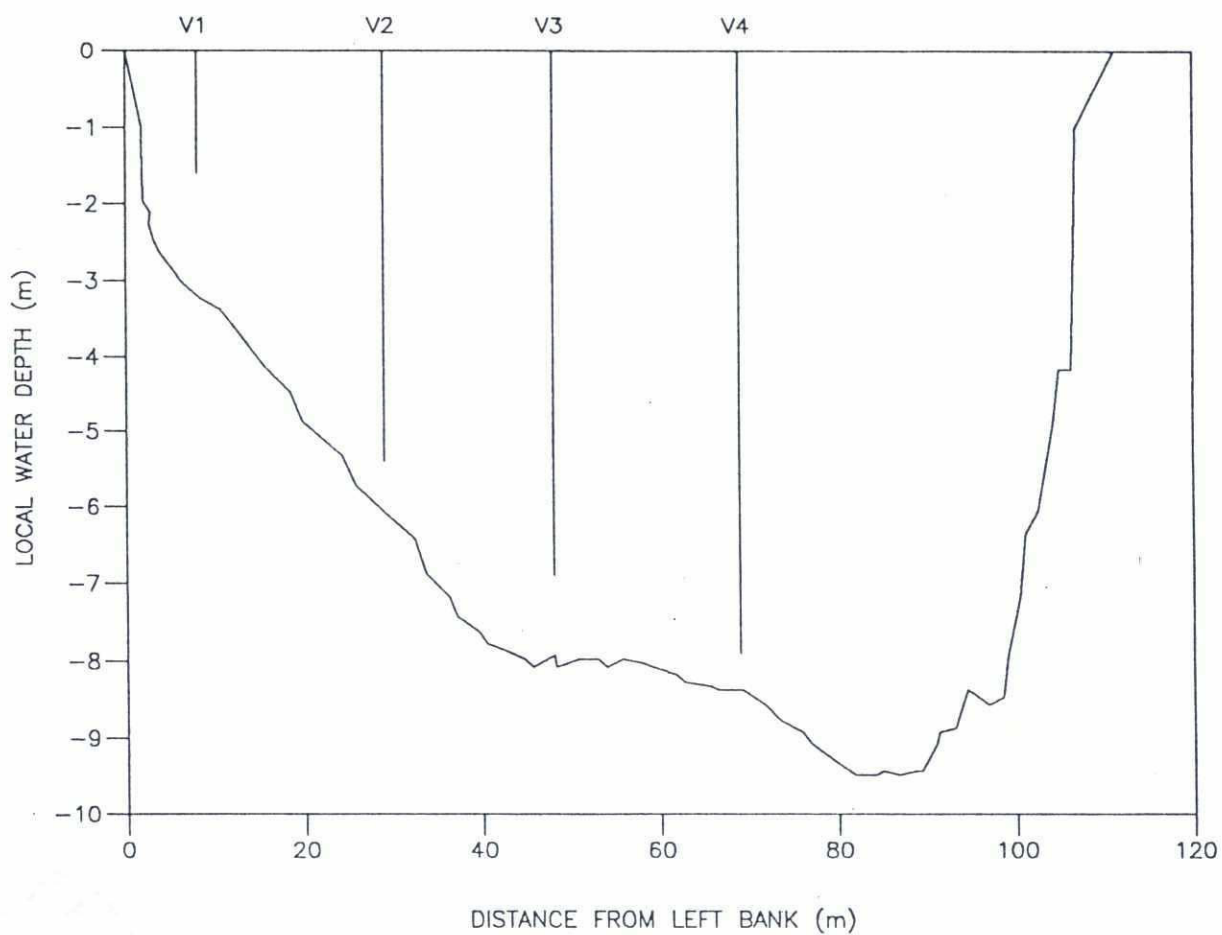
Init : mk/tr

**Location map**


page

1.1





Water-level : 5.66 m + PWD measured at the station indicated on page 1.1

<b>FAP 24</b>  <b>DELFT - DHI</b>		Survey Bulletin 113 : 28 October, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4AS0T01	Date : 24 Jan 1995	Cross-sections and measured verticals Channel 1	page
	Init : mk / tr		1.2




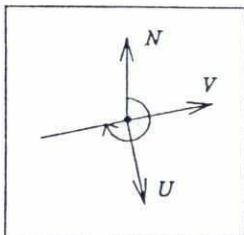
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Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	19	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	-	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-
Table 2.1: Survey programme as made					

	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	111	741	5.66	174	0	43.4
Table 2.2: Key figures						

Gauge Location	Channel	Date	Water level (Daily average) (m + PWD)	Gauge
Tilly	Channel 1	28 Oct 94	5.66	FAP 24
Table 2.2: Water-levels				

 <b>FAP 24</b> DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 113 : 28 October, 1994	
	Location 8 : Dhaleswari River, Tilly		
File : T4AS0T01	Date : 24 Jan 1995	Survey programme as made and key figures	page 2.1
	Init : mk / tr		

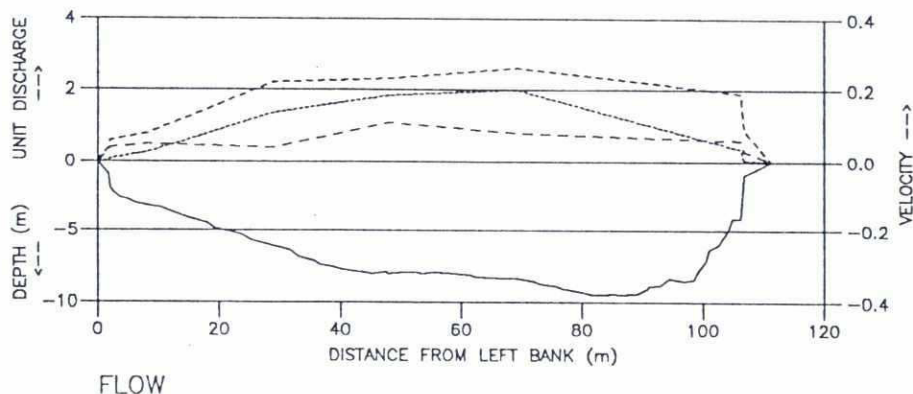


TRANSECT AZIMUTH =  $256^\circ$

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



LEGEND :

— WATER DEPTH (m below STAGE)

--- UNIT DISCHARGE ( $m^3/s.m$ )

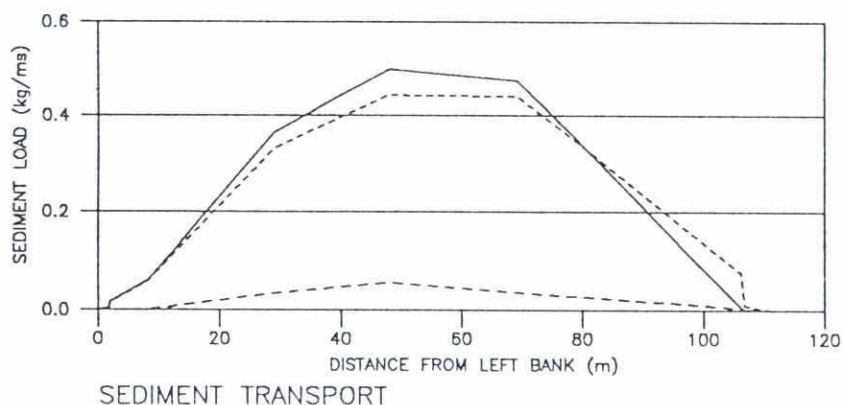
--- U - (m/s)

--- V - (m/s)

STAGE = 5.66 (m+PWD)

A = 741 ( $m^2$ )

Q = 174 ( $m^3/s$ )



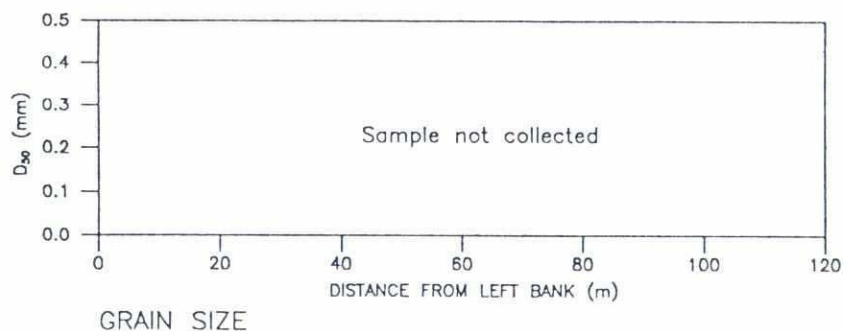
LEGEND :

—  $S_{TOTAL}$  43.4 (kg/s)

---  $S_{WASH LOAD}$  39.7 (kg/s)

---  $S_{SUSP. BED}$  3.7 (kg/s)

---  $S_{BED LOAD}$  0 (kg/s)



LEGEND :

◇◇◇◇◇  $D_{50} SUSP.$  (mm)

△△△△△  $D_{50} BED LOAD$  (mm)

□□□□□  $D_{50} BED MAT.$  (mm)

FAP 24



RIVER SURVEY PROJECT  
Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 113 : 28 October, 1994

Location 8 : Dhaleswari River, Tilly

File : T4AS0T01

Date : 24 Jan, 1995

Init : mk/tr

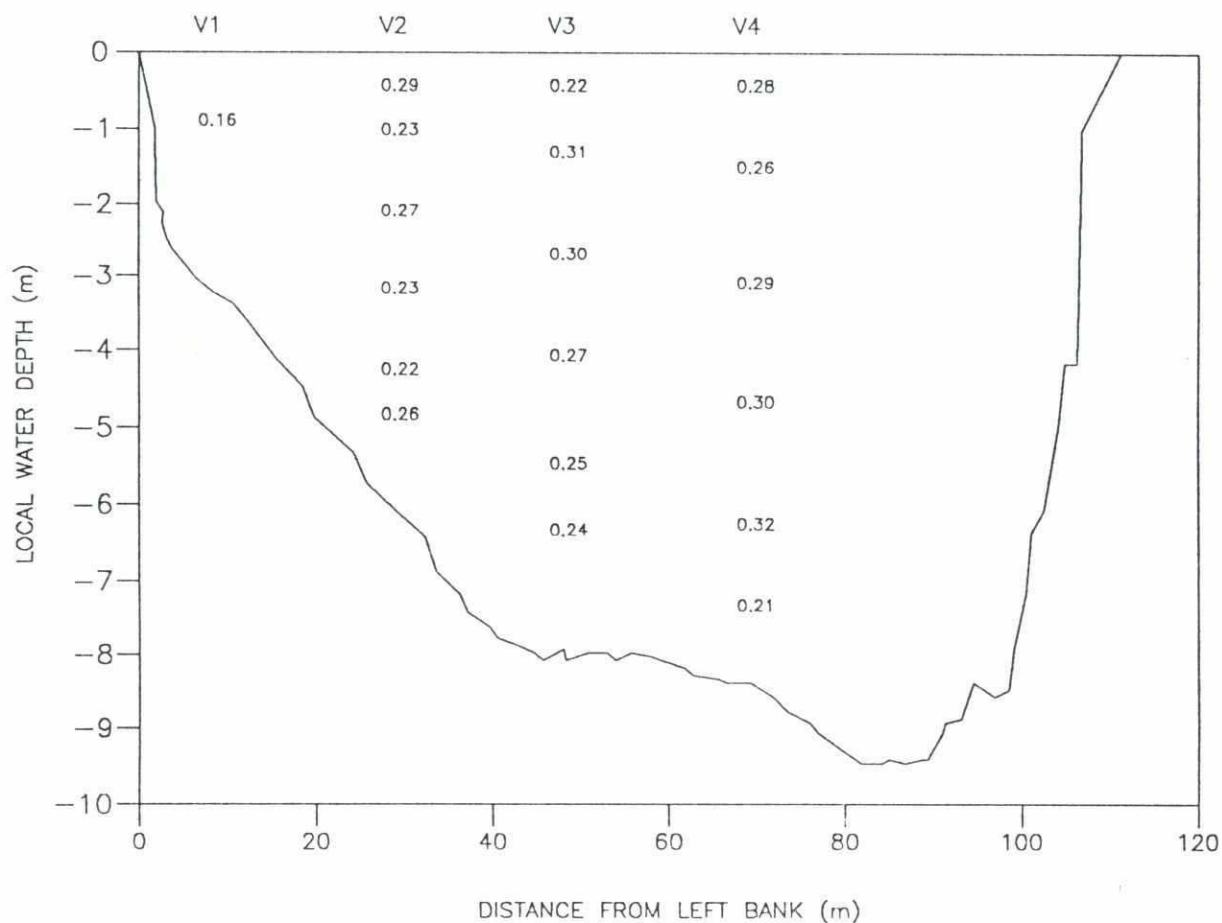
Horizontal distribution of flow and sediments

Channel 1


page

3.1

40



Water-level : 5.66 m + PWD measured at the station indicated on page 1.1

<b>FAP 24</b>  <b>DELFT - DHI</b>		Survey Bulletin 113 : 28 October, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4ASOT01	Date : 24 Jan, 1995	Cross-sectional distribution of flow velocity Channel 1	page 4.1
	Init : mk/tr		

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo-sounding	1	9410281137-1139 9410281140-1142	T4AS0T01 * T4AS0T02

Table 6.1: Echo-sounding

\* : transect in PSD 24 data base and presented in Sections 3 and 4


Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9410281429-1432	496087	647709	1.60	T4AS0P01 *
		2	9410281358-1421	496066	647709	5.40	T4AS0P02 *
		3	9410281328-1352	496049	647701	6.90	T4AS0P03 *
		4	9410281242-1325	496029	647694	7.90	T4AS0P04 *

Table 6.2: Vertical profiles


\* ADCP and MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	1	9410281429-1432	496087	647709	1.60
		2	6	9410281358-1421	496066	647709	5.40
		3	6	9410281328-1352	496049	647701	6.90
		4	6	9410281242-1325	496029	647694	7.90

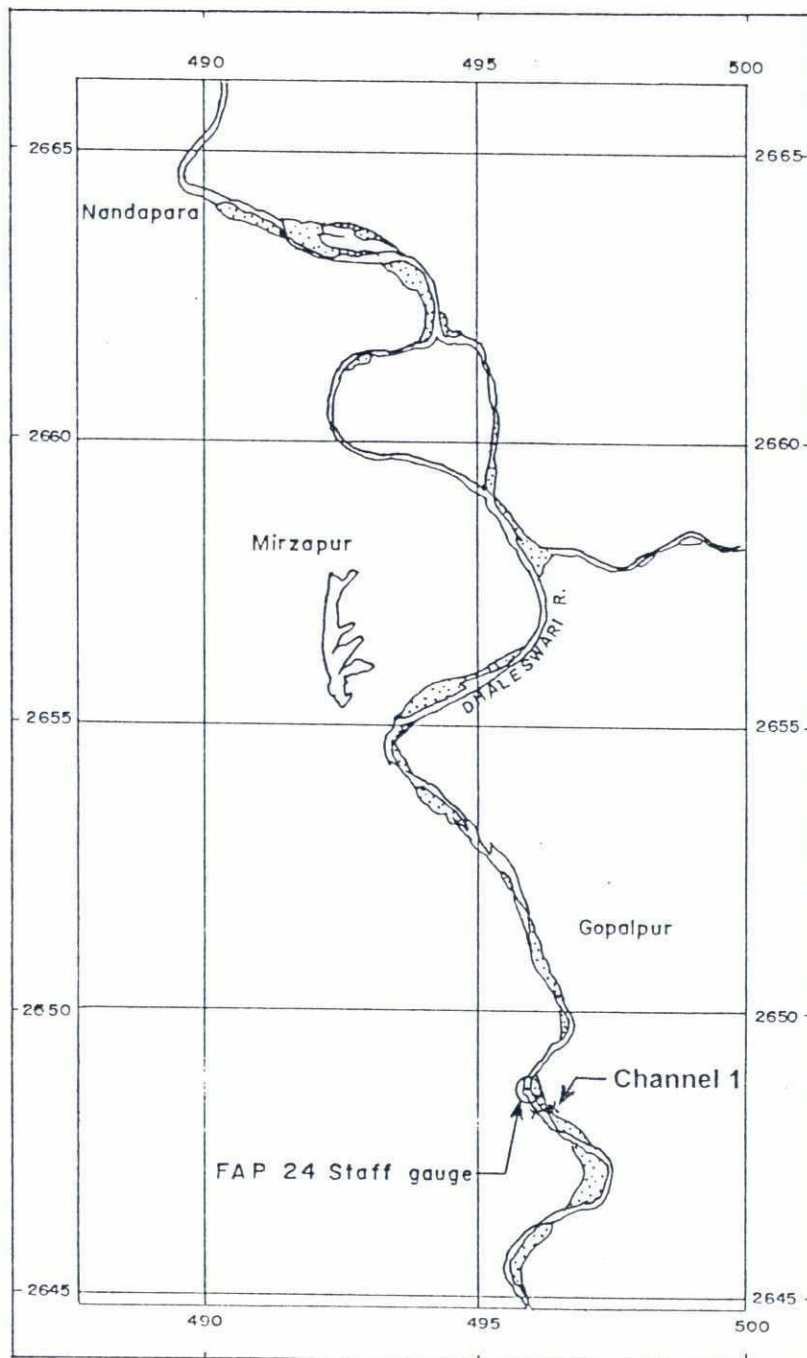
Table 6.3: Suspended sediment - point sampled

 <b>FAP 24</b> DELFT - DHI	<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 113 : 28 October, 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 24 Jan 1995	Collected data and their storage (1)	page 6.1
	Init : mk / tr		

Types of Data	Channel	Format	Filename <span style="float: right;">JC</span>
ADCP/S4/EMF data	1	QUATTRO	T4AS0T01 .ase
Echosounder data	1	QUATTRO	T4AS0T01 .ech
Sediment transport data	1	QUATTRO	T4AS0T01 .sed
Susp. sed. conc. analysis	1	QUATTRO	T4AS0T01 .ssc
Transect plot data	1	QUATTRO	T4AS0T01 .trs
Table7.1 PSD 24 Database file description			

 <p><b>FAP 24</b> DELFT - DHI</p>		Survey Bulletin 113 : 28 October, 1994	
<p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p>		Location 8 : Dhaleswari River, Tilly	
	Date : 24 Jan 1995	PSD 24 Database file description	page
	Init : mk / tr		7.1





LEGEND:

-  Unstable/low char
-  FAP 24 Staff gauge

Map is based on satellite  
images of March 1994

5000m 2500m 0

**FAP 24**  
  
DELFT - DHI

RIVER SURVEY PROJECT  
Flood Plan Coordination Organization  
Commission of the European Communities

Survey Bulletin 123 : 28 November, 1994

Location 8 : Dhaleswari River, Tilly

Date : 30 Jan 1995

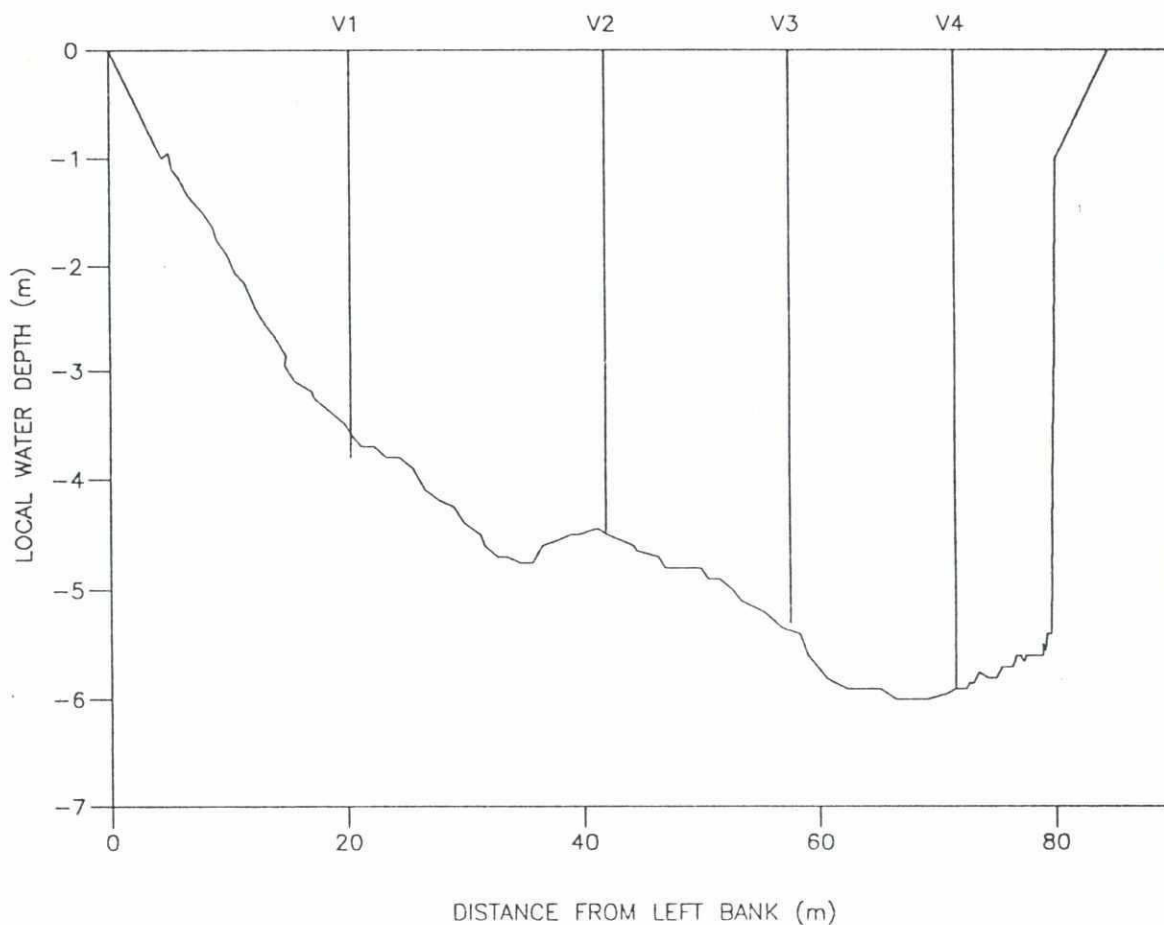
Init : mk/tr

Location map


page

1.1

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Water- level : 3.81 m + PWD measured at the station indicated on page 1.1

<div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div>		Survey Bulletin 123 : 28 November, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4BS9T22	Date : 30 Jan 1995	Cross-sections and measured verticals  Channel 1	page
	Init : mk / tr		1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	21	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	-	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

Channel	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	85	340	3.81	20	0	0.92

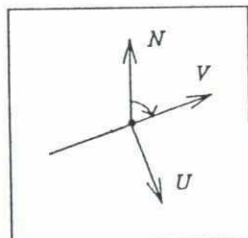
Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m + PWD)	Gauge
Tilly	Channel 1	28 Nov 94	3.81	FAP 24

Table 2.3: Water-levels

 <b>FAP 24</b> RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 123 : 28 November, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4BS9T22	Date : 30 Jan 1995	Survey programme as made and key figures	page
	Init : mk / tr		2.1

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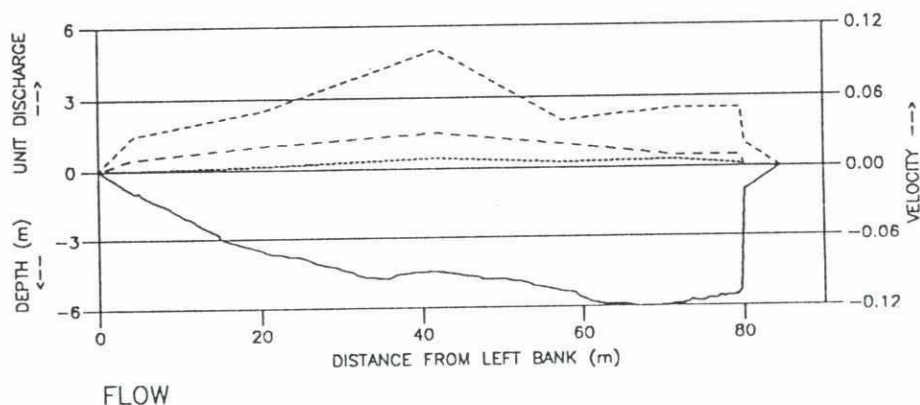


TRANSECT AZIMUTH = 70°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



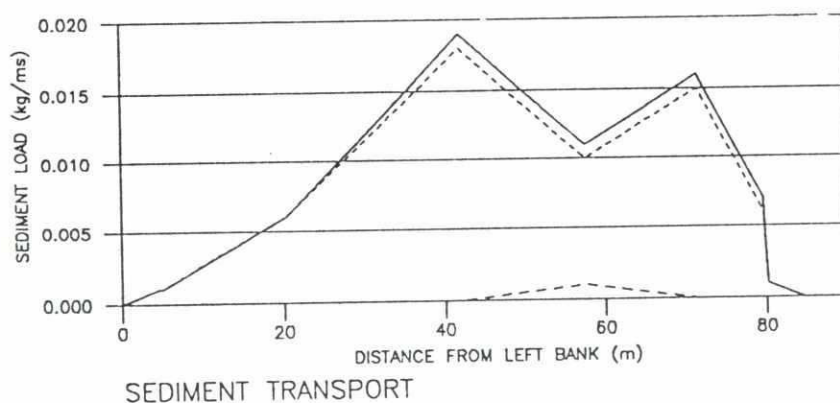
LEGEND :

— WATER DEPTH (m below STAGE)  
 ..... UNIT DISCHARGE (m<sup>3</sup>/s.m)  
 --- U - (m/s)  
 -.- V - (m/s)

STAGE = 3.81 (m+PWD)

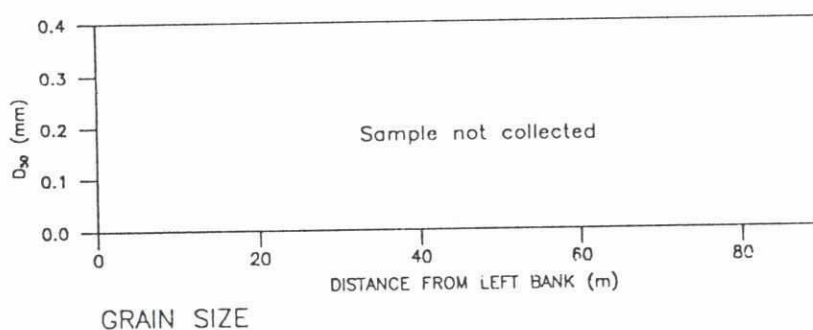
A = 340 (m<sup>2</sup>)

Q = 20 (m<sup>3</sup>/s)



LEGEND :

— S<sub>TOTAL</sub> 0.92 (kg/s)  
 --- S<sub>WASH LOAD</sub> 0.89 (kg/s)  
 -.- S<sub>SUSP. LOAD</sub> 0.03 (kg/s)  
 ..... S<sub>BED LOAD</sub> 0 (kg/s)



LEGEND :

◊◊◊◊◊ D<sub>50</sub> SUSP. (mm)  
 △△△△△ D<sub>50</sub> BED LOAD (mm)  
 □□□□□ D<sub>50</sub> BED MAT. (mm)

FAP 24



RIVER SURVEY PROJECT  
 Flood Plan Coordination Organization  
 Commission of the European Communities

Survey Bulletin 123 : 28 November, 1994

Location 8 : Dhaleswari River, Tilly

File : T4BS9T22

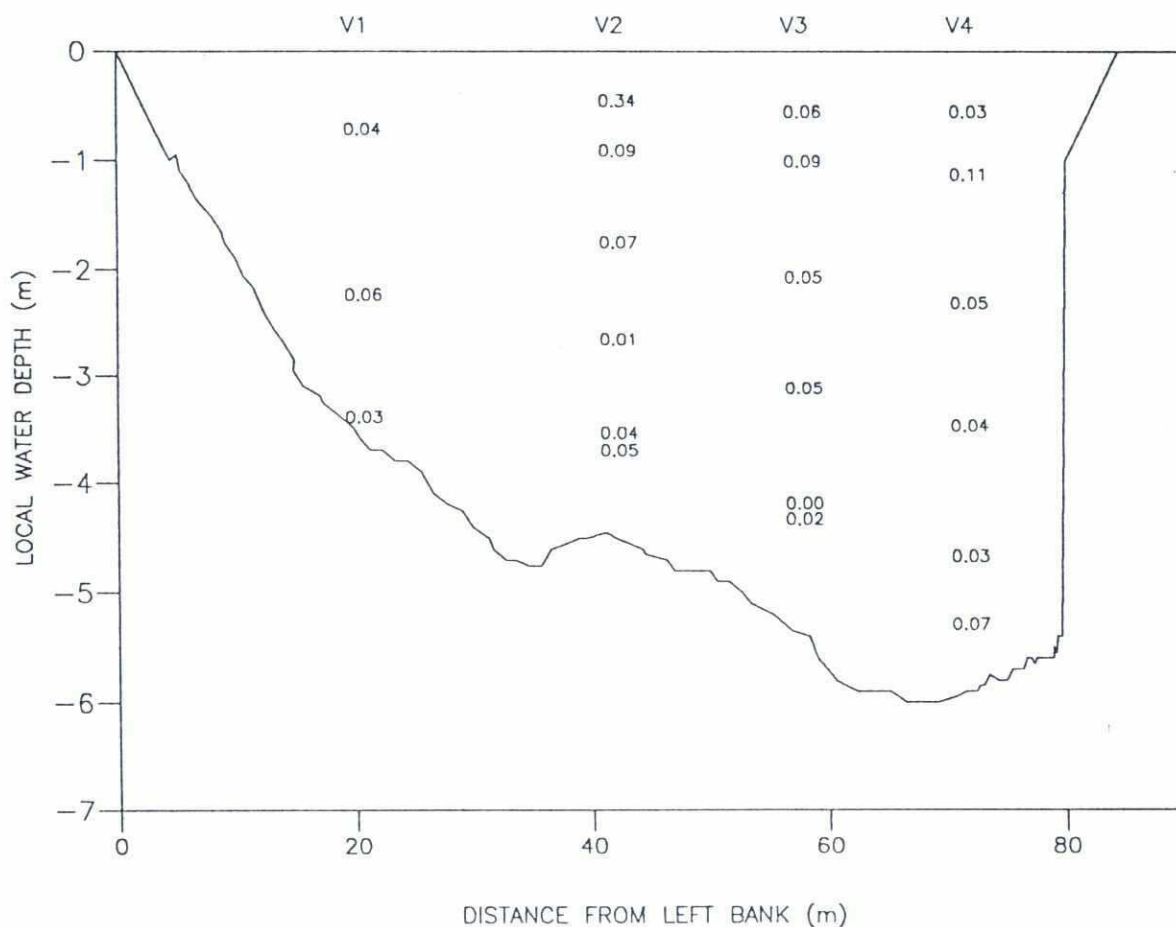
Date : 30 Jan 1995

Init : mk / tr



Horizontal distribution of flow and sediments  
 Channel 1

page

3.1



Water-level : 3.81 m + PWD measured at the station indicated on page 1.1

<div> <div>FAP 24</div> <div>   </div> <div>DELFT - DHI</div> </div> <div> <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> </div>		Survey Bulletin 123 : 28 November, 1994	
		Location 8 : Dhaleswari River, Tilly	
File : T4BS9T22	Date : 30 Jan 1995	Cross-sectional distribution of flow velocity Channel 1	page 4.1
	Init : mk / tr		



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Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo-sounding	1	9411281135-1137 9411281143-1145	T4BS9T21 T4BS9T22 *


Table 6.1: Echo-sounding \* transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9411281247-1306	496065	647693	3.80	T4BS9P01 *
		2	9411281325-1348	496041	647705	4.50	T4BS9P02 *
		3	9411281357-1420	496027	647698	5.30	T4BS9P03 *
		4	9411281430-1453	496015	647690	5.90	T4BS9P04 *


Table 6.2: Vertical profiles \* ADCP and MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	3	9411281247-1306	496065	647693	3.80
		2	6	9411281325-1348	496041	647705	4.50
		3	6	9411281357-1420	496027	647698	5.30
		4	6	9411281430-1453	496015	647690	5.90

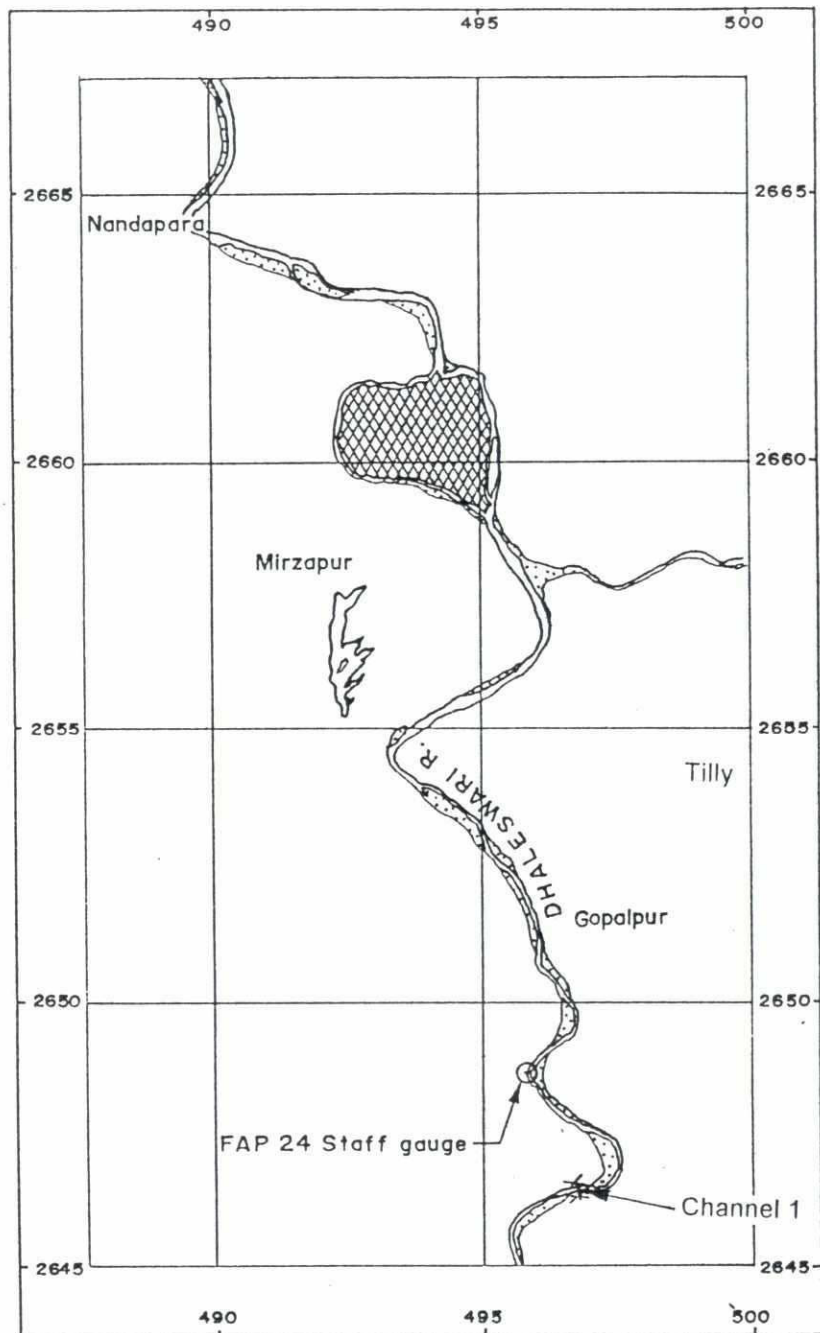
Table 6.3: Suspended sediment - point sampled

 <p><b>FAP 24</b> DELFT - DHI</p>	<p><b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities</p>	Survey Bulletin 123 : 28 November, 1994	
		Location 8 : Dhaleswari River, Tilly	
	Date : 30 Jan 1995	Collected data and their storage (1)	page 6.1
	Init : mk / tr		

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T4BS9T22 .ase
Echosounder data	1	QUATTRO	T4BS9T22 .ech
Sediment transport data	1	QUATTRO	T4BS9T22 .sed
Sus. sed. conc. analysis	1	QUATTRO	T4BS9T22 .ssc
Transect plot data	1	QUATTRO	T4BS9T22 .trs
Table 7.1 PSD 24 Database file description			

<b>FAP 24</b>  DELFT - DHI		<b>Survey Bulletin 123 : 28 November, 1994</b>	
<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities		<b>Location 8 : Dhaleswari River, Tilly</b>	
Date : 30 Jan 1995 Init : mk / tr		PSD 24 Database file description	page 7.1

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**LEGEND:**

-  High land
-  Unstable/low char
-  FAP 24 Staff gauge



Map is based on satellite images of March 1995



RIVER SURVEY PROJECT  
Flood Plan Coordination Organization  
Commission of the European Communities

Survey Bulletin 141 : 24 March, 1995

Location 8 : Dhaleswari River, Tilly

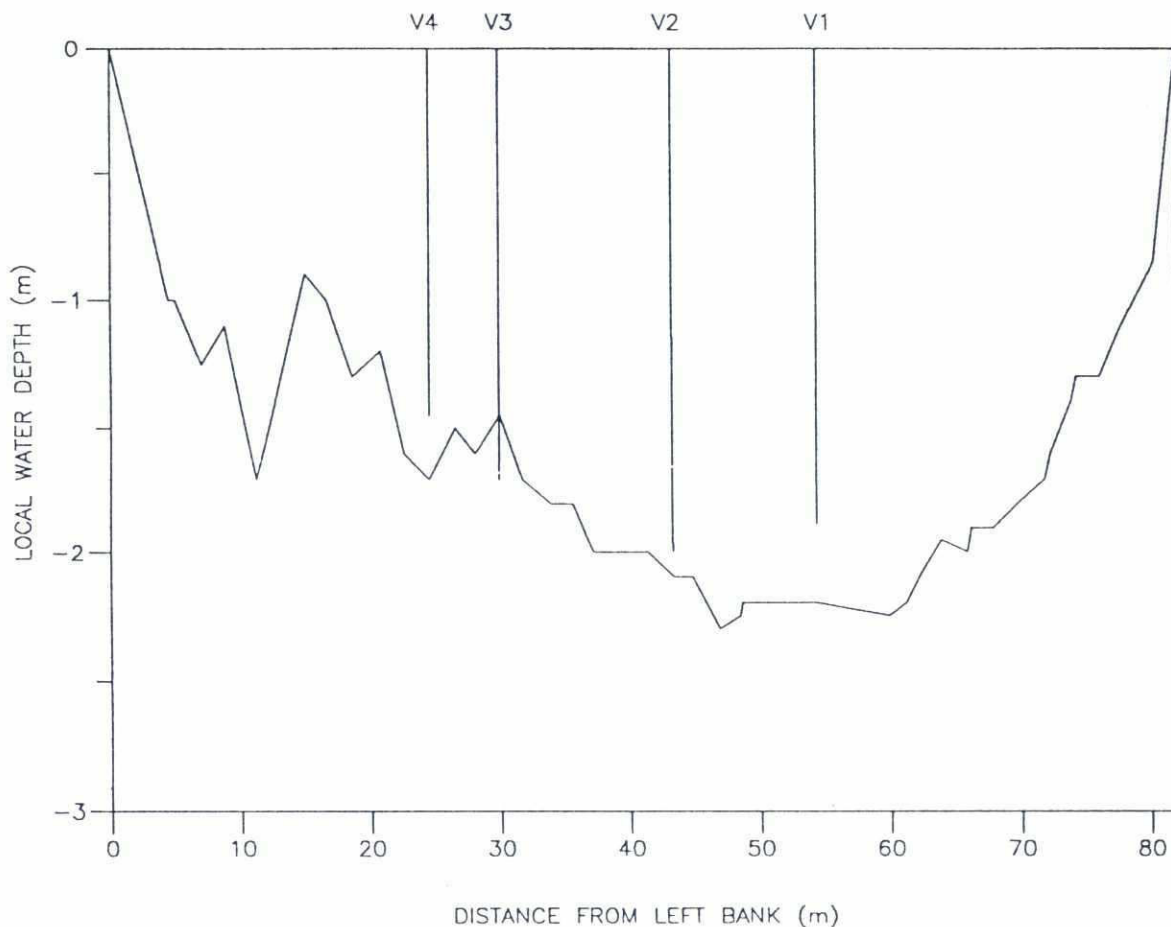
Date : 10 Sep 1995

Location map


Init : ss

page

1.1



Water level : 3.18 m + PWD measured at the station indicated on page 1.1

<div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div> <div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div>		Survey Bulletin 141 : 24 March, 1995	
		Location 8 : Dhaleswari River, Tilly	
File : T53O9T02	Date : 10 Sep 1995	Cross-sections and measured verticals Channel 1	page
	Init : ss		1.2

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Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	-	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	2	-	-	-
Vertical current profile	No. of verticals in channel	4	-	-	-
	ADCP	-	-	-	-
	S4 current meter	4	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	12	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	-	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-


Table 2.1: Survey programme as made

Channel	Width (m)	Area (m <sup>2</sup> )	Stage h (m+PWD)	Discharge Q (m <sup>3</sup> /s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	81	132	3.18	2.2	-	0

Table 2.2: Key figures

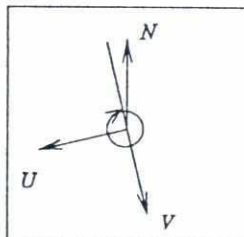
Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Tilly	Channel 1	24 Mar 95	3.18	FAP 24

Table 2.3: Water-Levels

 <b>FAP 24</b> DELFT - DHI		Survey Bulletin 141 : 24 March, 1995	
		RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	
File : T53O9T02	Date : 10 Sep 1995	Survey programme as made and key figures	page
	Init : ss		2.1



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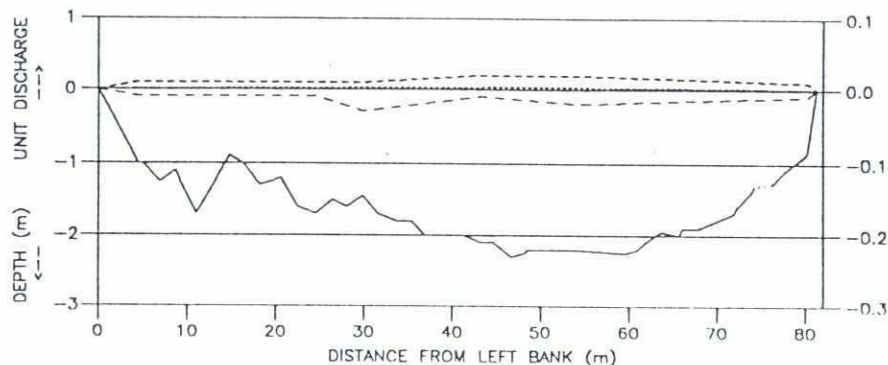


TRANSECT AZIMUTH =  $347^\circ$

$U$  - VELOCITY NORMAL TO TRANSECT ( $m/s$ )

$V$  - VELOCITY PARALLEL TO TRANSECT ( $m/s$ )

$N$  - MAGNETIC NORTH



LEGEND :

— WATER DEPTH ( $m$  below STAGE)

- - - UNIT DISCHARGE ( $m^3/s.m$ )

...  $U$  - ( $m/s$ )

- . -  $V$  - ( $m/s$ )

STAGE =  $3.18 (m+PWD)$

$A$  =  $132 (m^2)$

$Q$  =  $2.2 (m^3/s)$

Concentration is too low

LEGEND :

—  $S_{TOTAL}$   $0.0 (kg/s)$

- - -  $S_{WASH LOAD}$   $0.0 (kg/s)$

...  $S_{SUSP. BED}$   $0.0 (kg/s)$

- . -  $S_{BED LOAD}$   $0.0 (kg/s)$

SEDIMENT TRANSPORT

Sample not collected

LEGEND :

◇◇◇◇◇  $D_{50 SUSP.} (mm)$

△△△△△  $D_{50 BED LOAD} (mm)$

□□□□□  $D_{50 BED MAT.} (mm)$

GRAIN SIZE

FAP 24



RIVER SURVEY PROJECT  
Flood Plan Coordination Organization  
Commission of the European Communities

Survey Bulletin 141 : 24 March, 1995

Location 8 : Dhaleswari River, Tilly

File : T5309T02

Date : 10 Sep 1995

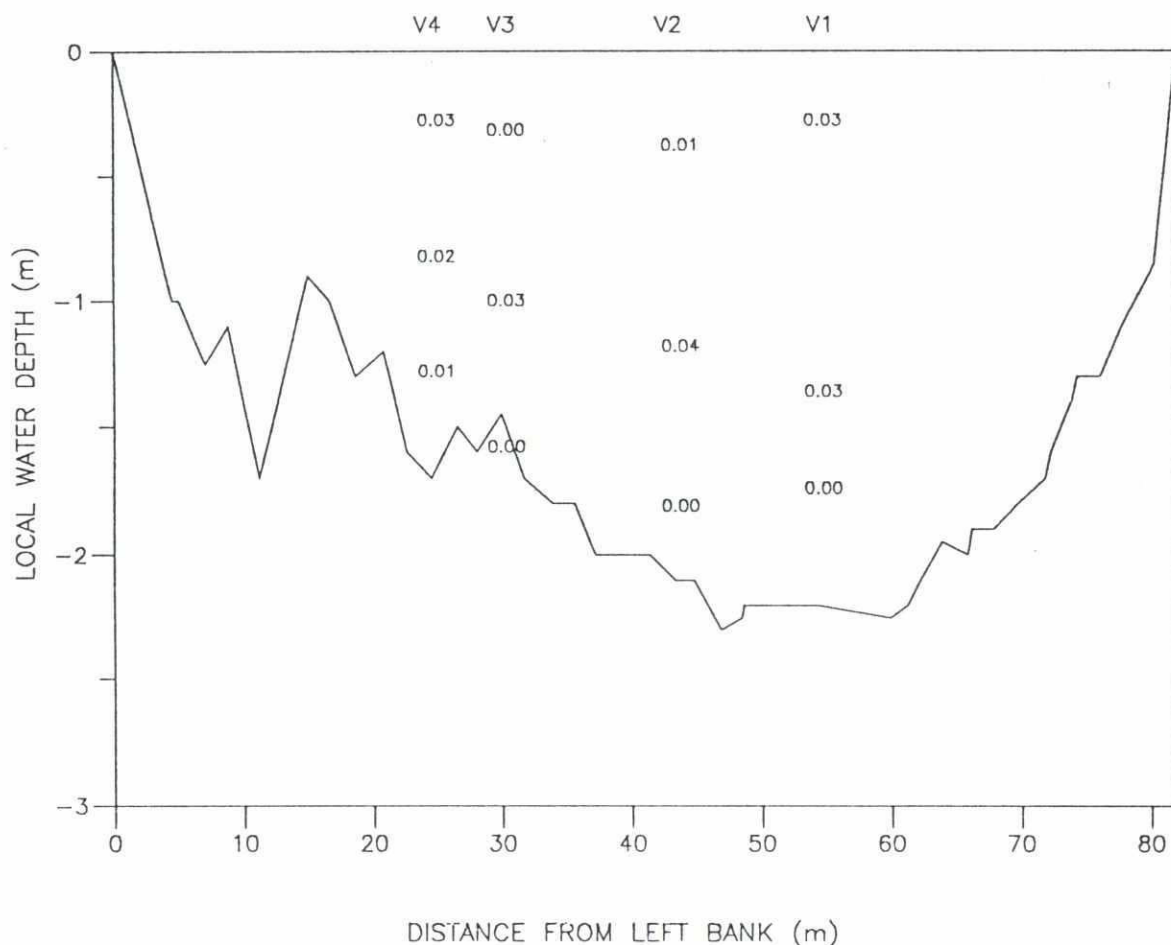
Init : ss

Horizontal distribution of flow and sediments  
Channel 1


page

3.1

9.8




Water level : 3.18 m + PWD measured at the station indicated on page 1.1

<div> <div>FAP 24</div> <div>  </div> <div>DELFT - DHI</div> </div> <div> <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> </div>		Survey Bulletin 141 : 24 March, 1995	
		Location 8 : Dhaleswari River, Tilly	
File : T53O9T02	Date : 10 Sep 1995	Cross-sectional distribution of flow velocity Channel 1	page 4.1
	Init : ss		

Andreasen settling tube							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
Sample not collected							
Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)							

US BM-54 bed samples							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
Sample not collected							
Table 5.2 : Grain size of bed material							

Helley-Smith							
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
Sample not collected							
Table 5.3 : Grain sizes of bed load							

 <b>FAP 24</b> DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 141 : 24 March, 1995	
	Location 8 : Dhaleswari River, Tilly		
	Date : 10 Sep 1995  Init : ss	Grain size distributions	page  5.1

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
Echo-sounding	1	9503241214-1216 9503241218-1221	T53O9T01 T53O9T02 *

Table 6.1: Echo-sounding

\* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4


Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9503241248-1303	496670	645915	1.88	T53O9P01 *
		2	9503241314-1325	496661	645904	2.00	T53O9P02 *
		3	9503241334-1346	496664	645891	1.70	T53O9P03 *
		4	9503241352-1408	496671	645886	1.45	T53O9P04 *

Table 6.2: Vertical profiles


\* ADCP &amp; MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	3	9503241248-1303	496670	645915	1.88
		2	3	9503241314-1325	496661	645904	2.00
		3	3	9503241334-1346	496664	645891	1.70
		4	3	9503241352-1408	496671	645886	1.45

Table 6.3: Suspended sediment - point sampled

 <b>FAP 24</b> DELFT - DHI	<b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 141 : 24 March, 1995	
		Location 8 : Dhaleswari River, Tilly	
	Date : 10 Sep 1995	Collected data and their storage (1)	page 6.1
	Init : ss		

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	T53O9T02 .ase
Echosounder data	1	QUATTRO	T53O9T02 .ech
Sediment transport data	1	QUATTRO	T53O9T02 .sed
Susp. sed. conc. analysis	1	QUATTRO	T53O9T02 .ssc
Transect plot data	1	QUATTRO	T53O9T02 .trs
Table 7.1 PSD 24 Database file description			

 <p><b>FAP 24</b> DELFT - DHI</p>	<p><b>RIVER SURVEY PROJECT</b> Flood Plan Coordination Organization Commission of the European Communities</p>	Survey Bulletin 141 : 24 March, 1995	
		Location 8 : Dhaleswari River, Tilly	
	Date : 10 Sep 1995	PSD 24 Database file description	page 7.1
	Init : ss		



