

Station: XEKATMI.

30/5/1991 (No. 8)

V = 0.698 N + 0.016

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow						Notes (time, gauge reading etc.)				
	Depth of point (g-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)						
					in the point	mean in the vertical "V"	average between verticals								
1	2	3	4	5	6	7	8	9=6(P.1)	10	11					
0.30	20-		0	—	—						13.420				
	60-										11.200				
	80-		0	—	—										
0.55	20-	5	112'	0.119	0.099	0.081	0.0110	0.1125	0.017	11.200	11.200				
	60-														
	80-	3	113'	0.069	0.064										
0.63	20-	9	111'	0.201	0.158	0.127	0.1011	0.59	0.061	11.200	11.200				
	60-														
	80-	5	113'	0.116	0.096										
0.65	20-	11	113'	0.325	0.212	0.236	0.181	0.64	0.115	11.200	11.200				
	60-														
	80-	13	112'	0.309	0.237										
0.81	20-	17	113'	0.395	0.291	0.271	0.255	0.68	0.173	11.200	11.200				
	60-														
	80-	15	113'	0.348	0.258										
0.69	20-	26	113'	0.601	0.437	0.351	0.312	0.7	0.218	11.200	11.200				
	60-														
	80-	15	112'	0.357	0.265										
0.56	20-	28	113'	0.651	0.470	0.359	0.355	0.625	0.221	11.200	11.200				
	60-														
	80-	14	112'	0.333	0.218										
0.65	20-	25	113'	0.581	0.421	0.315	0.337	0.605	0.203	11.200	11.200				
	60-														
	80-	12	113'	0.279	0.210										
0.59	20-	27	112'	0.642	0.461	0.377	0.346	0.62	0.214	11.200	11.200				
	60-														
	80-	17	113'	0.395	0.291										
0.60	20-	11	112'	0.333	0.248	0.229	0.303	0.595	0.180	11.200	11.200				
	60-														
	80-	12	113'	0.279	0.210										
0.61	20-	10	112'	0.238	0.182	0.163	0.196	0.62	0.121	11.200	11.200				
	60-														
	80-	8	113'	0.186	0.145										
0.110	20-	22	112'	0.523	0.381	0.311	0.238	0.52	0.123	11.200	11.200				
	60-														
	80-	11	112'	0.333	0.248										
0.118	20-	7	114'	0.159	0.126	0.110	0.202	0.435	0.092	11.200	11.200				
	60-														
	80-	5	114'	0.113	0.094										
0.110	20-	1	118'	0.020	0.029	0.029	0.069	0.435	0.030	11.200	11.200				
	60-														
	80-														
0.21	20-					0.094	0.061	0.61	0.037	11.200	11.200				
	60-	5	114'	0.113	0.094										
	80-														

$\sum VP = \sum Q \cdot \sum F$ $\sum F$ $\sum Q$
 0.222 8.102 1.805

Station: XEKATAM 5/6/1991 (No. 9)

$V = 0,698N + 0,016$

CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (% - m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1,5	20-								0,173		H-end = 0,11 m T-end = 1,4 m
	60-		0	0							
	80-										
1	20-	1	112'	0,023	0,032	0,011	0,021	0,355	0,006		
	60-										
	80-	2	112'	0,018	0,019						
1	20-	2	112'	0,164	0,133	0,116	0,079	0,580	0,016		
	60-										
	80-	5	112'	0,119	0,099						
1	20-	11	112'	0,262	0,199	0,191	0,151	0,530	0,082		
	60-										
	80-	10	112'	0,238	0,182						
1	20-	11	111'	0,311	0,251	0,210	0,211	0,525	0,106		
	60-										
	80-	9	112'	0,211	0,165						
1	20-	21	112'	0,511	0,415	0,307	0,259	0,705	0,183		
	60-										
	80-	11	112'	0,262	0,199						
1	20-	22	113'	0,512	0,323	0,236	0,272	0,711	0,201		
	60-										
	80-	5	112'	0,119	0,099						
1	20-	21	112'	0,511	0,415	0,332	0,281	0,65	0,185		
	60-										
	80-	11	112'	0,333	0,248						
1	20-	22	112'	0,521	0,382	0,282	0,307	0,51	0,157		
	60-										
	80-	10	112'	0,238	0,182						
1	20-	18	111'	0,409	0,301	0,295	0,289	0,711	0,127		
	60-										
	80-	16	111'	0,390	0,288						
1	20-	15	117'	0,319	0,239	0,169	0,222	0,511	0,125		
	60-										
	80-	5	112'	0,119	0,099						
1	20-	18	117'	0,439	0,322	0,191	0,182	0,615	0,112		
	60-										
	80-	3	112'	0,071	0,066						
1	20-	11	113'	0,256	0,195	0,189	0,192	0,53	0,102		
	60-										
	80-	10	112'	0,238	0,182						
1	20-							0,111			
	60-	0									
	80-										
1	20-					0,182	0,186	0,285	0,065		
	60-	10	112'	0,238	0,182						
	80-										

$VP = \sum Q \cdot \sum P$ $\sum P$ $\sum Q$
 $0,197 \frac{m^3}{s}$ $1,588 \frac{m^2}{s}$ $1,193 \frac{m^3}{s}$

Station SEKATAM 13/6/1991 (No. 10) $V = 0,698 \text{ m}^3/\text{s}$

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)		
	Vertical (Max. depth in m)	Depth of point (%-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10) ³ =(8) ³ (9) (m ³ .s ⁻¹)			
						in the point	mean in the vertical "V"	average between verticals					
1	2	3	4	5	6	7	8	9=6(P.1)	10	11			
0,16	20-										H head = 0,55 m		
	60-	0,2	0,2						0,08				
	80-												
0,18	20-										H head = 0,55 m		
	60-	0,2	0,2						0,17				
	80-												
0,42	20-										H head = 0,55 m		
	60-	0,2	0,2						0,2				
	80-												
0,42	20-	8	113"	0,186	0,116	0,110	0,107	0,107	0,42	0,089	H head = 0,55 m		
	60-	7	112"	0,167	0,133								
	80-	10	111"	0,227	0,171								
0,66	20-	9	114"	0,205	0,159	0,167	0,151	0,151	0,51	0,083	H head = 0,55 m		
	60-	10	115"	0,222	0,171								
	80-	9	114"	0,205	0,159								
0,83	20-	10	115"	0,222	0,171	0,165	0,166	0,166	0,745	0,121	H head = 0,55 m		
	60-	9	111"	0,205	0,159								
	80-	37	113"	0,860	0,616								
0,80	20-	31	113"	0,790	0,567	0,592	0,379	0,379	0,765	0,290	H head = 0,55 m		
	60-	17	113"	1,023	0,779								
	80-	23	113"	0,767	0,551								
0,77	20-	38	114"	0,863	0,618	0,665	0,629	0,629	0,72	0,453	H head = 0,55 m		
	60-	31	114"	0,705	0,508								
	80-	22	113"	0,511	0,373								
0,91	20-	44	114"	1,00	0,714	0,511	0,551	0,551	0,96	0,532	H head = 0,55 m		
	60-	29	113"	0,511	0,373								
	80-	29	113"	0,535	0,389								
0,77	20-	20	114"	0,455	0,331	0,362	0,153	0,153	0,81	0,381	H head = 0,55 m		
	60-	25	114"	0,568	0,413								
	80-	23	114"	0,523	0,381								
0,84	20-	15	113"	0,219	0,160	0,221	0,267	0,267	0,5	0,181	H head = 0,55 m		
	60-	20	114"	0,455	0,331								
	80-	15	112"	0,257	0,165								
1,00	20-	30	113"	0,697	0,502	0,220	0,276	0,276	0,92	0,251	H head = 0,55 m		
	60-	25	113"	0,581	0,422								
	80-	25	113"	0,581	0,422								

VP = Σ Q · Σ F Σ F Σ Q

(No. 10-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

Vertical (Max. depth in m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (8-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10)=(8)(9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1	20-	18	112"	0.1129	0.315	0.2117	0.355	0.265	0.272		
	60-										
1	80-	10	113"	0.233	0.179						
	20-							0.125			
1	60-	00									
	80-										
1	20-	22	112"	0.521	0.382	0.271	0.261	0.25	0.095		
	60-										
1	80-	9	112"	0.211	0.165						
	20-										
1	60-	5	113"	0.116	0.097	0.097	0.186	0.265	0.019		
	80-										
1	20-										
	60-	17	112"	0.1105	0.299	0.299	0.198	0.33	0.057		
1,110	80-										
	20-	00	00	0				0.21			
	60-										
	80-										
	20-										
	60-										
	80-										
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	60-										
	80-										
	20-										
	60-										
	80-										

VP=ΣQ:ΣF ΣP ΣQ

Station XEKATAM 18/6/1991 (No. 11)
 V = 0.698N + 0.016
 CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)			
	Vertical (Max. depth in m)	Depth of point (x-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)				
						in the point	mean in the vertical "y"	average between verticals						
1	2	3	4	5	6	7	8	9=6(P.1)	10	11				
0.50	20-		11	113"	0.093	0.1080	0.071	0.009	1.00	0.009	H end = 0.148m Time start = 11:40 Time end = 11:45			
	60-													
	80-		3	115"	0.067	0.069								
0.63	20-		5	114"	0.114	0.096	0.096	0.084	0.565	0.084				
	60-													
	80-		5	114"	0.114	0.096								
0.70	20-		6	112"	0.143	0.116	0.124	0.11	0.605	0.073				
	60-													
	80-		7	112"	0.167	0.132								
0.70	20-		31	113"	0.720	0.518	0.1101	0.263	0.70	0.184				
	60-													
	80-		17	114"	0.386	0.285								
0.81	20-		31	113"	0.720	0.518	0.133	0.117	0.77	0.321				
	60-													
	80-		20	112"	0.476	0.348								
0.77	20-		21	113"	0.488	0.357	0.271	0.252	0.805	0.283				
	60-													
	80-		11	115"	0.244	0.186								
0.82	20-		28	112"	0.667	0.481	0.337	0.304	0.795	0.242				
	60-													
	80-		12	117"	0.255	0.194								
0.85	20-		21	113"	0.488	0.357	0.287	0.209	0.835	0.258				
	60-													
	80-		12	111"	0.273	0.206								
0.34	20-		10	111"	0.227	0.174	0.174	0.256	0.505	0.152				
	60-													
	80-		21	112"	0.477	0.349								
0.83	20-		11	112"	0.362	0.199	0.271	0.224	0.585	0.131				
	60-													
	80-		16	114"	0.364	0.270								
0.91	20-		8	116"	0.171	0.137	0.203	0.239	0.87	0.208				
	60-													
	80-		24	113"	0.558	0.405								
0.66	20-		5	113"	0.116	0.097	0.251	0.227	0.785	0.178				
	60-													
	80-		3	114"	0.068	0.063								
0.54	20-		11	114"	0.25	0.190	0.126	0.189	0.6	0.113				
	60-													
	80-		10	113"	0.233	0.179								
0.37	20-						0.153	0.155	0.070					
	60-													
	80-		11	112"	0.262	0.199								
0.20	20-						0.189	0.57	0.108					
	60-													
	80-		11	112"	0.262	0.199								
0.34	20-		8	114"	0.182	0.143	0.147	0.54	0.092					
	60-													
	80-		8	114"	0.182	0.143								

VP = 20.2F
 0.222 * 11.125 = 2.469

Distance between verticals (m)

Vertical (Max. depth in m)	Results of current metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (x-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8) ³ ×(9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
0.00	20-	9	114"	0.205	0.159						
	60-					0.114					
3.15	0.26	80-	7	113"	0.163	0.129					
		20-	18	113"	0.119	0.208					
2	0.88	60-				0.278		0.211	1.24	0.262	
		80-	15	115"	0.323	0.248					
2		20-	60	111"	1.364	0.968		0.528	2.00	1.056	
		60-					0.778				
2	1.12	80-	36	111"	0.318	0.587					
		20-	51	112"	1.227	0.872		0.689	1.94	1.337	
2	0.85	60-					0.599				
		80-	20	115"	0.114	0.226					
2		20-	36	111"	0.818	0.587		0.544	1.77	0.963	
		60-					0.488				
2	0.92	80-	13	113"	0.535	0.389					
		20-	25	111"	0.568	0.412		0.427	1.82	0.777	
2	0.90	60-					0.265				
		80-	19	114"	0.122	0.277					
2		20-	23	113"	0.385	0.289		0.386	1.54	0.594	
		60-					0.106				
2	0.54	80-	25	113"	0.581	0.122					
		20-	32	111"	0.727	0.523		0.121	1.14	0.180	
2		60-					0.136				
		80-	21	111"	0.177	0.319					
2	0.50	20-	27	111"	0.614	0.144		0.105	1.06	0.129	
		60-					0.273				
2	0.56	80-	18	114"	0.109	0.201					
		20-						0.280	0.105	0.113	
1	0.25	60-	11	115"	0.244	0.186		0.186			
		80-									
3	0.22	20-	7	116"	0.152	0.122		0.154	0.375	0.058	
		60-									
		80-									
		20-									
		60-									
		80-									
		20-									
		60-									
		80-									

$0.1110 m^3$
 $13.95 m^3$
 $6.124 m^3$
 $VP = \sum Q \cdot \sum F$

H staff = 0.68 m
 H end = 0.68 m
 H time staff = 1.4 20
 H time end = 1.4 15

Station XEKAM 4/2/1991 (No. 13) $V = 0.698 N + 0.016$
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance
between
verticals
(m)

	Results of current-metering					Calculation of velocities and of flow				Notes (time, gauge reading etc.)	
	Vertical (Max. depth in m)	Depth of point (m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)		Flow "Q" (10) = (8) x (9) (m ³ .s ⁻¹)
						In the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9 = 6(P.1)	10	11	
4	0.60	20-	11	112'	0.333	0.248	0.223	0.112	1.2	0.131	H end = 0.77 m Time start = 12.450' Time end = 13.450' 912 = $\frac{62+13}{2} \times 12$
		60-									
2	1.04	20-	57	112'	1.353	0.863	0.788	0.506	1.64	0.830	
		60-									
2	1.23	20-	35	11'	0.854	0.612	0.905	0.814	2.27	1.923	
		60-	57	10'	1.125	1.011					
2	1.02	20-	46	11'	1.422	0.799	0.739	0.822	2.23	1.833	
		60-	50	11'	1.219	0.867					
2	0.88	20-	35	11'	0.854	0.612	0.758	0.719	1.88	1.408	
		60-	62	11'	1.512	1.071					
2	1.02	20-	27	11'	0.614	0.445	0.587	0.673	1.90	1.279	
		60-	36	11'	0.878	0.629					
2	0.62	20-	31	11'	0.756	0.544	0.714	0.657	1.64	1.068	
		60-	113	11'	1.019	0.748					
2	0.56	20-	39	11'	0.951	0.679	0.784	0.719	1.78	0.881	
		60-	46	10'	1.15	0.819					
1	0.42	20-	113	11'	1.049	0.748	0.734	0.609	0.49	0.298	
		60-	27	11'	0.659	0.476					
1	0.54	20-	22	11'	0.537	0.391	0.426	0.413	0.48	0.206	
		60-	30	11'	0.732	0.527					
1	0.37	20-	19	13'	0.142	0.325	0.271	0.319	0.155	0.159	
		60-	15	11'	0.366	0.271					
1	0.30	20-	8	11'	0.145	0.152	0.152	0.212	0.335	0.065	
		60-	8	11'	0.145	0.152					
2	0.18	20-	00	00	-	-	-	-	0.118	-	
		60-	00	00	-	-					
0.50	0.22	20-	-	-	-	-	-	-	0.015	-	
		60-	-	-	-	-					
		20-									
		60-									
		80-									

B = 24.50 m

$0.622 \frac{m}{s}$ $16.225 \frac{m^2}{s}$ $10.087 \frac{m^3}{s}$
 $VP = \sum Q \cdot \sum P$ $\sum P$ $\sum Q$

Station SEKATAM 2/7/1991 (No. 14) V = 0.698m + 0.016

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (x-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8) ² (9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
2	20-										H read = 0.69m Time read = 6h 30 9.0 = $\frac{11.205^2}{2}$ Time end = 9h 50
	60-	5	112"	0.119	0.099	0.099	0.050	0.36	0.08		
	80-										
2	20-	15	113"	1.044	0.711	0.511	0.32	1.21	0.281		
	60-	20	111"	0.115	0.321						
	80-	50	112"	1.061	0.359						
2	20-										
	60-										
	80-	10	112"	0.823	0.591	0.678	0.609	1.95	1.188		
2	20-	60	115"	1.233	0.916						
	60-										
	80-	15	118"	0.313	0.231	0.59	0.631	2.01	1.211		
2	20-	20	112"	0.711	0.511						
	60-										
	80-	25	113"	0.581	0.422	0.468	0.529	1.87	0.989		
2	20-	30	116"	0.652	0.411						
	60-										
	80-	15	115"	0.268	0.203	0.337	0.403	2.01	0.810		
2	20-	35	113"	0.811	0.581						
	60-										
	80-	30	111"	0.682	0.492	0.538	0.438	1.71	0.919		
2	20-	20	116"	0.835	0.319						
	60-										
	80-	10	118"	0.208	0.161	0.211	0.389	1.16	0.151		
2	20-										
	60-	25	115"	0.855	0.403	0.1103	0.322	0.87	0.280		
	80-										
2	20-										
	60-	10	112"	0.238	0.182	0.182	0.293	0.76	0.151		
	80-										
1.50	20-										
	60-	00	00					0.293			
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0.111111 11.205² 6.3 m³/s
VP=ΣQ:ΣP ΣP 1 ΣQ

Station: Xe Katam (8 Honglin) 24/7/91 (No. 16)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (8-m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "A" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)		
					In the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
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							m/s	m ²	m ³ /s	m	
							1.178	28.05	33.000	1.12	

cf) Note on sheet of measurement No. 15.

VP=20:2F 2F 1 2Q 64

Station: Xe Katan (B. Honghina) 31/9/91 (No. 17)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauging reading etc.)	
	Depth of point (% - m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V _v "	average between verticals				
1	2	3	4	5	6	7	8	9 = 6 (P.1)	10	11	
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							m/s	m ²	m ³ /s		
							0.865	22.95	19.322	0.96	

c) Note on sheet of measurement No. 15.

$V_F = \Sigma Q \cdot \Sigma F$ ΣF ΣQ ΣV

Station: Xe Katan (B. Hinghin) 27/8/91 (No. 22)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow				Notes (time, gauge reading etc.)	
	Depth of point (% - p)	Number of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)		Flow "Q" (10) = (8) x (9) (m ³ .s-1)
					In the point	mean in the vertical "v"	average between verticals			
1	2	3	4	5	6	7	8	9 = 6 (P.1)	10	11
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Station: Xo Katan (B. Manglin) 29/8/91 (No. 23)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)	Flow "Q" (10) ³ =(8)×(9) (m ³ .s-1)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
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Station : Xe Katan (B Hongh.) 3/9/91 (No. 24)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (% - m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s. ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s. ⁻¹)		
					In the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
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							m/s	m ²	m ³ /s	m	
							0.934	20.15	18.847	0.96	

(1) Note on sheet of measurement No. 15.

VP=ΣQ:ΣP ΣP ΣQ 9.4

Station: Xe Katan (B. Kishin) 15/9/71 (No. 25)
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (% - w)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9 = 6 (P.1)	10	11	
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Station Xe Katam (B. Nanghin) 18/9/91 (No 26)

CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (% - m)	Number of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "P" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s-1)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9 = 6 (P.1)	10	11	
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Station: XEKATAM 25.9.91 (No. 27) V = 0.698N + 0.016
CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (8-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (tps)	Velocity (m.s-1)			Flow area "P" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s-1)	
					in the point	mean in the vertical "vv"	average between verticals			
1	2	3	4	5	6	7	8	9 = 6(P.1)	10	11
2.5	20-	50	40"	1.25	0.833	0.735	0.373	0.625	2.241	Hand: 0.94 m Time: 1.04 m Time: 1.25 m
	60-									
	80-	60	42"	0.752	0.650	0.995	0.59	1.60	1.474	
	60-									
	20-	25	40"	1.375	1.325	1.557	1.291	2.40	3.098	
	60-									
80-	40	43"	0.930	0.665	1.135	1.386	2.20	3.742		
60-										
2	20-	95	40"	2.375	1.674	1.063	1.124	2.20	3.035	
	60-									
	80-	85	40"	2.175	1.499	0.99	0.75	2.55	1.913	
	60-									
	20-	90	40"	2.25	1.582	0.738	0.864	2.10	1.814	
	60-									
80-	45	41"	1.059	0.782	0.819	1.40	1.107			
60-										
2	20-	65	40"	1.625	1.150	0.54	0.720	1.38	0.994	
	60-									
	80-	55	40"	1.375	0.976	0.27	1.59	0.321		
	60-									
	20-	30	40"	0.75	0.540					
	60-									
80-	90	40"	0.455	0.334						
60-										
20-	70	43"	1.623	1.152						
60-										
2	80-	50	43"	1.163	0.828					
	60-									
	20-	65	40"	1.625	1.150					
	60-									
	80-	20	45"	0.444	0.321					
	60-									
20-	55	43"	1.277	0.909						
60-										
2	80-	50	40"	1.25	0.833					
	60-									
	20-	30	40"	0.75	0.540					
	60-									
	80-	30	40"	0.75	0.540					
	60-									
20-										
60-										
3.05	80-									
	60-									
	20-									
	60-									
	80-									
	60-									
20-										
60-										
80-										
60-										
20-										
60-										
80-										
60-										

b = 23.55 m

VP = 20.2F ΣF = 1 ΣQ

Station: XEKHATIM 4.10.91 (No 28) V=0.658N+0.016
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (%-p)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)	
					In the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11
3	20-	95	03'	2.829	1.558	1.803	0.602	1.82	0.963	Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m - Time used = 1.13 m -
	60-									
	80-	50	02"	1.290	0.802					
3	20-	120	02"	2.525	2.023	1.870	1.637	2.525	5.019	
	60-									
	80-	100	01'	2.059	1.278					
3	20-	120	04"	2.927	2.657	1.827	1.809	4.65	2.598	
	60-									
	80-	95	02"	2.262	1.555					
3	20-	115	04"	2.525	1.974	1.761	1.794	4.525	2.828	
	60-									
	80-	90	01'	2.155	1.508					
3	20-	55	04'	1.309	0.930	0.781	1.814	4.08	0.095	
	60-									
	80-	35	01'	1.854	0.612					
3	20-	75	02'	1.756	1.263	1.114	0.893	3.90	3.453	
	60-									
	80-	45	02'	1.171	0.764					
3	20-	50	00'	1.135	0.889	0.845	1.929	2.325	3.155	
	60-									
	80-	45	00'	1.185	0.801					
3.5 ¹¹	20-						0.023	1.825	0.277	
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 20.5 m

VP = ΣQ · ΣF
 ΣF = 1
 ΣQ

Station: XEKATAN 9/10/91 (No. 29) $V = 0.698N + 0.016$
 CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10) = (8) * (9) (m ³ .s ⁻¹)	
					in the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9 = 6(P.1)	10	11
2.50	20-	55	40"	1.375	0.976	0.9545	0.423	1.00	0.423	H. Max: 1.02 m Time Max: 11' 30" Tide end: 12' 00"
	60-									
	80-	40	40"	1.00	0.714					
2	20-	80	40"	2.00	1.412	0.932	0.889	2.00	1.878	
	60-									
	80-	25	40"	0.625	0.452					
2	20-	115	42"	2.738	1.927	1.61	1.271	2.55	3.241	
	60-									
	80-	75	41"	1.829	1.293					
2	20-	100	42"	2.381	1.678	1.042	1.526	2.65	4.044	
	60-									
	80-	70	41"	1.207	1.207					
2	20-	85	40"	2.152	1.499	1.380	1.411	2.70	3.81	
	60-									
	80-	75	42"	1.786	1.262					
2	20-	40	42"	0.952	0.680	0.551	0.966	2.70	2.608	
	60-									
	80-	25	43"	0.581	0.422					
2	20-	75	40"	1.825	1.325	1.054	0.803	2.78	2.208	
	60-									
	80-	45	41"	1.097	0.782					
2	20-	70	40"	1.75	1.232	1.019	1.037	2.25	2.333	
	60-									
	80-	65	40"	1.125	0.801					
2	20-	55	40"	1.375	0.976	0.804	0.712	1.58	1.414	
	60-									
	80-	35	42"	0.833	0.632					
2	20-	45	40"	1.125	0.801	0.758	0.281	1.40	1.093	
	60-									
	80-	40	40"	1.00	0.714					
3.40	20-						0.379	1.105	0.419	
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 23,90 m

1.037 m/s
 22.655 m²
 23.371 m³/s
 VP = ΣQ · ΣF ΣF ΣQ

Station *XEMATH* 16.10.51 (No. 30) V: 0.698M + 0.016
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

1	Results of current-metering				Calculation of velocities and of flow					11
	2	3	4	5	Velocity (m.s ⁻¹)			9 = 6(P.1)	10	
					6	7	8			
Depth of point (8'-10')	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	in the point	mean in the vertical "V"	average between verticals	Flow area "F" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s ⁻¹)	Notes (time, gauge reading etc.)	
2.40	20-	110	48"	0.952	0.680	0.673	0.6	0.902	Head: 0.90m Tide end: 0.90m	
	60-									
	80-	110	43"	0.930	0.665					
2	20-	80	43"	1.850	1.344	1.014	1.5	1.960		
	60-									
	80-	40	40"	1.100	0.714					
2	20-	85	40"	2.125	1.499	1.325	2.95	2.322		
	60-									
	80-	65	40"	1.625	1.150					
2	20-	90	49"	2.143	1.542	1.154	2.55	3.165	Tide end 11' 4" 45"	
	60-									
	80-	45	40"	1.125	0.801					
2	20-	70	40"	1.75	1.298	1.043	2.55	2.805		
	60-									
	80-	50	42"	1.150	0.842					
2	20-	20	40"	0.75	0.510	0.444	2.45	1.828		
	60-									
	80-	20	42"	0.476	0.348					
2	20-	65	42"	1.508	1.092	1.037	2.05	1.519		
	60-									
	80-	55	40"	1.375	0.976					
2	20-	55	40"	1.375	0.976	0.671	1.6	1.361		
	60-									
	80-	20	40"	0.5	0.365					
2	20-	45	40"	1.125	0.801	0.714	1.3	0.911		
	60-									
	80-	35	40"	0.925	0.671					
2	20-	30	40"	0.75	0.539	0.539	0.80	0.844		
	60-									
	80-	30	40"	0.75	0.539					
2.90	20-						0.58	0.157		
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 23.30 m

VP = ΣQ:ΣF ΣF | ΣQ

Station **YEKATOH** 23.10.91 (No. 31) V = 0.699 m/s P. 0.016
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

1	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	2	3	4	5	Velocity (m.s ⁻¹)			9 = 6(P.1)	10	
					6	7	8			
	20-	14	42"	0.233	0.205	0.215	0.103	0.975	0.65	H shaft: 0.76m Tide end: 0.20m Tide end: 13.04'
	60-									
2.45	80-	10	42"	0.238	0.152					
	20-	56	42"	1.333	0.946	0.779	0.498	1.16	0.525	
	60-									
2	80-	35	41"	0.354	0.612					
	20-	57	40"	1.425	1.010	0.938	0.558	1.24	1.07	
	60-									
2	80-	50	41"	1.219	0.867					
	20-	62	41"	1.502	1.097	0.820	0.589	1.24	1.24	
	60-									
2	80-	35	40"	0.525	0.697					
	20-	36	44"	0.518	0.582	0.529	0.696	1.24	1.21	
	60-	9								
2	80-	27	41"	0.658	0.425					
	20-	43	41"	1.009	0.748	0.646	0.589	1.24	1.145	
	60-									
2	80-	31	41"	0.256	0.504					
	20-	46	41"	1.122	0.797	0.748	0.697	1.05	1.129	
	60-									
2	80-	39	40"	0.925	0.696					
	20-	43	41"	1.009	0.748	0.612	0.68	1.40	0.952	
	60-									
2	80-	27	41"	0.659	0.426					
	20-	30	40"	0.75	0.500	0.466	0.529	1.04	0.520	
	60-									
2	80-	22	41"	0.537	0.391					
	20-	19	42"	0.442	0.325	0.298	0.382	0.92	0.357	
	60-									
2	80-	15	41"	0.316	0.221					
	20-						0.149	0.25	0.042	
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 21.55m

VP = ΣQ:ΣP
 ΣP = 15.135 m²
 ΣQ = 9.814 m³/s

Station ~~REKATA~~ 30.10.1997 (No 32) V = 0.698 m/s + 0.016
CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance
between
verticals
(m)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (% - m)	Number of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s-1)		
					in the point	mean in the vertical "V.V"	average between- verticals				
1	2	3	4	5	6	7	8	9 = 6(P.1)	10	11	
1.05	20-										Hend. 0.67 m fine dist: 10" 25"
	60-	12	40"	0.30	0.23	0.23	0.115	0.189	0.122		
	80-										
1.059	20-	8	40"	0.20	0.16					0.102	0.166	0.175	0.119
	60-										
	80-	2	45"	0.05	0.04						
1.052	20-	36	40"	0.90	0.64	0.428	0.265	0.555	0.147		
	60-										
	80-	11	40"	0.28	0.21						
1.082	20-	24	40"	0.60	0.485	0.341	0.385	0.67	0.258		
	60-										
	80-	13	40"	0.33	0.246						
1.086	20-	42	40"	1.05	0.749	0.714	0.528	1.30	0.444		
	60-										
	80-	38	40"	0.95	0.679						
1.106	20-	68	40"	1.70	1.203	0.906	0.81	0.96	0.778		
	60-										
	80-	34	40"	0.85	0.609						
1.096	20-	47	40"	1.35	1.307	0.759	0.833	1.01	0.841		
	60-										
	80-	12	43"	0.28	0.21						
1.100	20-	55	40"	1.38	0.929	0.658	0.709	0.98	0.695		
	60-										
	80-	19	41"	0.46	0.337						
1.092	20-	30	41"	0.73	0.526	0.376	0.517	1.00	0.517		
	60-										
	80-	13	43"	0.30	0.225						
1.081	20-	33	40"	0.83	0.595	0.567	0.472	0.905	0.487		
	60-										
	80-	30	40"	0.75	0.539						
1.092	20-	25	40"	0.63	0.456	0.376	0.472	0.865	0.408		
	60-										
	80-	18	45"	0.40	0.295						
1.113	20-	23	40"	0.58	0.421	0.303	0.339	1.025	0.347		
	60-										
	80-	10	42"	0.24	0.184						
1.091	20-	35	40"	0.88	0.62	0.543	0.423	1.02	0.431		
	60-										
	80-	26	41"	0.63	0.456						
1.038	20-					0.351	0.489	0.605	0.277		
	60-	19	40"	0.48	0.351						
	80-										
1.036	20-					0.274	0.313	0.37	0.16		
	60-	15	41"	0.37	0.274						
	80-										

VP = 2Q.2P 2P 1 2Q

(No. 32-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (8-m)	Number of rotations	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "ap" between verticals (m ²)	Flow "Q" (10)-(8)x(9) (m ³ .s-1)	
					to the point	mean in the vertical "vv"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.i)	10	11
1.59	20-	22	16 ⁰	0.80	0.574	0.455	0.355	0.475	0.469	
	60-									
	80-	16	40 ⁰	0.40	0.295					
1.946	20-					0.428	0.282	0.525	0.469	
	60-	7	11 ⁰	0.16	0.128					
	80-		4 ⁰							
1.50	20-	26	40 ⁰	0.65	0.469	0.393	0.261	0.48	0.425	
	60-									
	80-	18	42 ⁰	0.43	0.326					
1.45	20-					0.386	0.239	0.475	0.414	
	60-	11	39 ⁰	0.40	0.286					
	80-									
1.30	20-					0.407	0.297	0.275	0.236	
	60-	6	48 ⁰	0.13	0.107					
	80-									
1.25	20-						0.254	0.458	0.010	
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 21.30 m

VP=ΣQ:ΣP ΣP 1 ΣQ

Station **XEKATAN** (2: 11-91 (No. 33)) V: 0,698N + 0,016
CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD) Page 2

Distance between verticals (m)

	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Vertical (Max. depth in m)	Depth of point (s-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8)·(9) (m ³ .s ⁻¹)	
						in the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1.4	C,20	20-							0,132		H Head: 0,60 m H end: 0,60 m
		60-	0	0							
		80-									
1	C,54	20-							0,078	0,40	Kend: 10' 15' H end: 11' 05'
		60-	8	40"	0,90	0,156	0,156				
		80-									
1	C,104	20-	28	40"	0,70	0,505		0,306	0,51	0,156	Kend: 10' 15' H end: 11' 05'
		60-					0,452				
		80-	23	41"	0,561	0,407					
1	C,75	20-	13	43"	0,302	0,222		0,30	0,605	0,206	Kend: 10' 15' H end: 11' 05'
		60-					0,224				
		80-	12	41"	0,298	0,221					
1	C,94	20-	49	40"	1,225	0,871		0,469	0,845	0,296	Kend: 10' 15' H end: 11' 05'
		60-					0,714				
		80-	31	40"	0,275	0,557					
1	C,70	20-	46	40"	1,15	0,819		0,732	0,94	0,688	Kend: 10' 15' H end: 11' 05'
		60-					0,749				
		80-	38	40"	0,95	0,679					
1	C,82	20-	37	40"	0,925	0,696		0,608	0,88	0,576	Kend: 10' 15' H end: 11' 05'
		60-					0,548				
		80-	22	40"	0,55	0,40					
1	C,86	20-	37	40"	0,925	0,662		0,571	0,84	0,472	Kend: 10' 15' H end: 11' 05'
		60-					0,594				
		80-	30	41"	0,732	0,527					
1	C,86	20-	27	40"	0,675	0,487		0,481	0,86	0,414	Kend: 10' 15' H end: 11' 05'
		60-					0,367				
		80-	14	42"	0,333	0,248					
1	C,74	20-	27	40"	0,925	0,662		0,51	0,81	0,413	Kend: 10' 15' H end: 11' 05'
		60-					0,653				
		80-	26	40"	0,90	0,644					
1	C,86	20-	21	41"	0,512	0,372		0,511	0,81	0,414	Kend: 10' 15' H end: 11' 05'
		60-					0,369				
		80-	20	40"	0,50	0,265					
1	C,65	20-	23	41"	0,561	0,407		0,363	0,955	0,342	Kend: 10' 15' H end: 11' 05'
		60-					0,357				
		80-	17	40"	0,415	0,306					
1	C,60	20-	32	40"	0,82	0,574		0,476	0,825	0,351	Kend: 10' 15' H end: 11' 05'
		60-					0,495				
		80-	23	40"	0,575	0,412					
1	C,35	20-	12	41"	0,293	0,220		0,357	0,49	0,175	Kend: 10' 15' H end: 11' 05'
		60-					0,220				
		80-									
1	C,33	20-	0	0				0,227	0,355	0,154	Kend: 10' 15' H end: 11' 05'
		60-					0,220				
		80-									

$V_P = \sum Q_i \cdot Z_i$ $\sum P$ $\sum Q$

(No. 33-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow						Notes (time, gauge reading etc.)
	Depth of point (% - m)	Num- ber of rota- tions,	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area between verticals (m ²)	Flow "Q" (10) ³ =(8)×(9) (m ³ .s-1)		
					to the point	mean in the vertical "VV"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
0.55	20-	23	40"	0.575	0.477	0.291	0.273	0.144	0.120		
	60-										
	80-	9	42"	0.214	0.165						
0.36	20-					0.084	0.128	0.155	0.186		
	60-	4	44"	0.097	0.084						
	80-										
0.32	20-					0.313	0.198	0.34	0.067		
	60-	17	40"	0.1485	0.313						
	80-										
0.30	20-					0.199	0.256	0.31	0.079		
	60-	11	42"	0.262	0.199						
	80-										
	20-					0.10	0.30	0.00			
	60-										
	80-										
	20-										
	60-										
	80-										
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	60-										
	80-										
	20-										
	60-										
	80-										

B = 21, 10 m

$\sum V = 12.102$
 $\sum F = 5.096$
 $\sum Q = 17.102$

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (times, gaugo reading etc.)	
	Depth of point (% of D)	Nun- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s ⁻¹)		
					in the point	mean in the vertical "V _v "	average between verticals				
1	2	3	4	5	6	7	8	9 = 6(P.1)	10	11	
0,45	20-										H read: 0,50 m. DSDM Time read: 12h 40'
	60-	5	41"	0,122	0,101	0,101	0,051	0,332	0,020		
	80-										
0,51	20-	12	40"	0,30	0,225		0,151	0,48	0,072		
	60-					0,201					
	80-	9	39"	0,231	0,177						
0,69	20-	7	40"	0,175	0,138	0,121	0,161	0,60	0,097		
	60-										
	80-	5	40"	0,125	0,103						
0,61	20-	36	40"	0,90	0,644	0,627	0,374	0,65	0,243		
	60-										
	80-	34	40"	0,85	0,609						
0,72	20-	43	40"	1,075	0,766	0,653	0,64	0,666	0,416		
	60-										
	80-	30	40"	0,75	0,539						
0,65	20-	29	40"	0,725	0,522	0,329	0,491	0,635	0,336		
	60-										
	80-	7	41"	0,171	0,135						
0,82	20-	29	45"	0,644	0,466	0,294	0,312	0,735	0,229		
	60-										
	80-	6	40"	0,15	0,121						
0,77	20-	23	40"	0,575	0,413	0,286	0,29	0,795	0,231		
	60-										
	80-	8	39"	0,205	0,159						
0,58	20-	29	40"	0,725	0,522	0,479	0,383	0,675	0,259		
	60-										
	80-	24	40"	0,60	0,435						
0,79	20-	21	40"	0,525	0,382	0,418	0,449	0,695	0,308		
	60-										
	80-	27	43"	0,628	0,454						
0,95	20-	20	40"	0,50	0,365	0,304	0,361	0,87	0,314		
	60-										
	80-	13	40"	0,325	0,243						
0,48	20-	20	38"	0,526	0,383	0,298	0,301	0,715	0,215		
	60-										
	80-	11	39"	0,282	0,213						
0,26	20-						0,192	0,37	0,071		
	60-	4	40"	0,10	0,086	0,086					
	80-										
0,22	20-						0,052	0,24	0,020		
	60-	4	45"	0,089	0,078	0,078					
	80-										
0,36	20-						0,125	0,29	0,039		
	60-	10	40"	0,25	0,191	0,191					
	80-										

VP = ΣQ.XF ΣF ΣQ

(No. 34-2)

CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (#-m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)	Flow "Q" (10) ⁶ =(8) ² (9) (m ³ .s-1)		
					in the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
C. 28	20-										
	60-	7	42	0.167	0.133	0.133	0.162	0.32	0.032		
	80-										
C. 30	20-										
	60-	8	39	0.205	0.159	0.159	0.146	0.29	0.142		
	80-										
C. 24	20-										
	60-	2	40	0.05	0.051	0.051	0.105	0.27	0.028		
	80-										
1.5	20-							0.026	0.18	0.005	
	60-										
	80-										
	20-										
	60-										
	80-										
	20-										
	60-										
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	80-										

B = 20.3"

0.514^{m/s} 0.879^{m/s} 3.027^{m/s}
 VP = ΣQ · ΣF ΣF ΣQ

Station *XERKATON, 04.12.51 (No. 35)* $V = 0.698N + 0.016$
CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD) Page 2

Distance between verticals (m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Vertical (Max. depth in m)	Depth of point (x-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8)·(9) (m ³ .s ⁻¹)	
						to the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P·1)	10	11	
1.72	0.42	20-									H Mast: 0.46 m. Time Mast: 10 ^h 15' H Mast: 0.46 m. Time Mast: 10 ^h 53'
		60-	3	40"	0.075	0.068	0.068	0.034	0.361	0.012	
		80-									
1	0.32	20-									
		60-	5	42"	0.119	0.099	0.099	0.084	0.37	0.091	
		80-									
1	0.64	20-									
		60-	6	45"	0.133	0.109	0.104	0.102	0.48	0.049	
		80-	8	40"	0.119	0.099					
1	0.80	20-									
		60-	30	40"	0.75	0.539	0.531	0.318	0.72	0.229	
		80-	29	40"	0.775	0.522					
1	0.70	20-									
		60-	40	40"	1.22	0.714	0.531	0.531	0.75	0.398	
		80-	19	40"	0.475	0.307					
1	0.71	20-									
		60-	25	42"	0.595	0.431	0.307	0.419	0.705	0.295	
		80-	10	42"	0.233	0.182					
1	0.68	20-									
		60-	26	40"	0.65	0.469	0.317	0.312	0.695	0.217	
		80-	9	42"	0.214	0.165					
1	0.72	20-									
		60-	19	40"	0.475	0.348	0.276	0.297	0.70	0.203	
		80-	11	41"	0.268	0.203					
1	0.68	20-									
		60-	24	41"	0.585	0.424	0.360	0.318	0.70	0.223	
		80-	16	40"	0.40	0.293					
1	0.82	20-									
		60-	18	40"	0.45	0.330	0.306	0.333	0.75	0.250	
		80-	16	42"	0.330	0.281					
1	0.62	20-									
		60-	16	40"	0.40	0.295	0.287	0.297	0.72	0.214	
		80-	15	40"	0.375	0.278					
1	0.44	20-									
		60-	17	40"	0.425	0.323	0.313	0.30	0.53	0.159	
		80-									
2	0.26	20-									
		60-	4	40"	0.10	0.086	0.086	0.20	0.70	0.14	
		80-									
1	0.26	20-									
		60-	13	40"	0.325	0.243	0.243	0.165	0.26	0.043	
		80-									
1	0.26	20-									
		60-	1	40"	0.025	0.033	0.033	0.138	0.26	0.036	
		80-									

VP=ΣQ·ZF ΣF ΣQ

(No. 35-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8)×(9) (m ³ .s ⁻¹)		
					in the point	mean th the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1.27	20-										
	60-	4	40"	0.10	0.086	0.086	0.060	0.285	0.017		
	80-										
2.45	20-										
	60-						0.043	0.380	0.016		
	80-										
	20-										
	60-										
	80-										
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	20-										
	60-										
	80-										

B = 20, 17 m

0.970⁹ m/s 0.366¹¹ 2.537³ m/s³
 VP=ΣQ:ΣP ΣP ΣQ

Station: XEKATHH 11. 12. 91 (No. 36) V = 0, 698 m + 0, 010
CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between vertical (m)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)	
	Depth of point (8-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s-1)			Flow area "P" between verticals (m ²)	Flow "Q" (10)-(8)-(9) (m ³ .s-1)		
					to the point	mean in the vertical "V"	average between verticals				
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1.58 C.40	20-										H read: 0.04 m Time read: 11.00 Junk end: 11.55
	60-	5	40"	0.725	0.103	0.103	0.051	0.316	0.016		
	80-										
C.46	20-										
	60-	4	45"	0.089	0.078	0.078	0.070	0.43	0.039		
	80-										
C.62	20-	5	40"	0.725	0.103						
	60-					0.108	0.093	0.54	0.05		
	80-	6	43"	0.729	0.113						
C.70	20-	29	40"	0.725	0.522						
	60-					0.522	0.275	0.68	0.214		
	80-	29	40"	0.725	0.522						
C.76	20-	24	40"	0.85	0.609						
	60-					0.530	0.376	0.75	0.39		
	80-	25	40"	0.625	0.452						
C.77	20-	20	42"	0.476	0.302						
	60-					0.249	0.289	0.765	0.20		
	80-	8	42"	0.490	0.109						
C.77	20-	24	41"	0.555	0.404						
	60-					0.372	0.381	0.75	0.21		
	80-	11	42"	0.362	0.199						
C.73	20-	20	40"	0.5	0.365						
	60-					0.293	0.303	0.775	0.22		
	80-	12	41"	0.293	0.220						
C.72	20-	26	40"	0.65	0.469						
	60-					0.371	0.281	0.665	0.25		
	80-	26	40"	0.65	0.469						
C.61	20-	20	44"	0.455	0.333						
	60-					0.332	0.400	0.655	0.26		
	80-	18	40"	0.45	0.330						
C.70	20-	16	42"	0.281	0.282						
	60-					0.268	0.30	0.505	0.24		
	80-	14	41"	0.281	0.254						
C.91	20-	22	40"	0.55	0.397						
	60-					0.353	0.281	0.795	0.24		
	80-	17	41"	0.415	0.366						
C.18	20-										
	60-	6	45"	0.522	0.109	0.109	0.231	0.41	0.11		
	80-										
C.24	20-										
	60-	8	43"	0.481	0.146	0.146	0.228	0.64	0.18		
	80-										
C.40	20-										
	60-	3	45"	0.113	0.113	0.113	0.105	0.32	0.03		
	80-										

VP = ΣQ ÷ ΣF ΣF ΣQ

(No. 36-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Verti- cal. (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (%m)	Num- ber of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)x(9) (m ³ .s ⁻¹)	
					to the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11
0.26	20-									
	60-	4	40"	0.17	0.036	0.086	0.075	0.25	0.02	
	80-									
0.20	20-									
	60-	3	50"	0.16	0.058	0.058	0.072	0.23	0.02	
	80-									
1.70	20-									
	60-						0.029	0.12	0.005	
	80-									
	20-									
	60-									
	80-									
	20-									
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	20-									
	60-									
	80-									

B: 20, 28

0.27 m/s 9.946 m² 0.654 m³/s
 $\sum VP = \sum Q \cdot \sum F$ $\sum F$ $\sum Q$

Station *XEKOTHI* 18.12.91 (No. 37) $V = 0.698N + 0.016$
CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance
between
vertical
(m)

	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Vertical (Max. depth in m)	Depth of point ($\frac{1}{8}$ -m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ³ =(8) ² (9) (m ³ .s ⁻¹)	
						In the point	mean in the vertical "VV"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1.60	20-										Handed 0.43 m
	60-	6	42"	0.143	0.116	0.116	0.058	0.304	0.013		
	80-										
1	20-										Handed 0.43 m
	60-	4	41"	0.091	0.084	0.084	0.1	0.405	0.044		
	80-										
1	20-	9	46"	0.196	0.153		0.11	0.49	0.054		Handed 0.43 m
	60-					0.137					
	80-	6	40"	0.15	0.120						
1	20-	26	40"	0.65	0.469						Handed 0.43 m
	60-					0.478	0.307	0.505	0.155		
	80-	27	40"	0.675	0.487						
1	20-	32	42"	0.762	0.548						Handed 0.43 m
	60-					0.477	0.455	0.56	0.255		
	80-	18	42"	0.428	0.315						
1	20-	18	42"	0.428	0.315						Handed 0.43 m
	60-					0.232	0.332	0.63	0.209		
	80-	9	42"	0.191	0.149						
1	20-	24	40"	0.6	0.435						Handed 0.43 m
	60-					0.309	0.27	0.38	0.157		
	80-	10	42"	0.298	0.182						
1	20-	18	40"	0.45	0.157						Handed 0.43 m
	60-					0.101	0.205	0.57	0.117		
	80-	2	48"	0.042	0.005						
1	20-	96	42"	0.634	0.459						Handed 0.43 m
	60-					0.362	0.232	0.55	0.128		
	80-	15	40"	0.357	0.265						
1	20-	18	40"	0.45	0.330						Handed 0.43 m
	60-					0.26	0.341	0.595	0.185		
	80-	10	40"	0.25	0.191						
1	20-	14	41"	0.344	0.254						Handed 0.43 m
	60-					0.214	0.237	0.775	0.184		
	80-	10	46"	0.227	0.174						
1	20-	19	41"	0.463	0.339						Handed 0.43 m
	60-					0.195	0.205	0.765	0.157		
	80-	2	40"	0.05	0.05						
1	20-										Handed 0.43 m
	60-	5	42"	0.096	0.082	0.083	0.139	0.435	0.06		
	80-										
2	20-										Handed 0.43 m
	60-	8	40"	0.2	0.156	0.156	0.119	0.42	0.05		
	80-										
1	20-										Handed 0.43 m
	60-	0	-	-	-	0.119	0.136	0.19	0.026		
	80-										

$VP = \sum Q \cdot \sum F \quad \sum F \quad \sum Q$

(No. 37-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)x(9) (m ³ .s ⁻¹)	
					to the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11
4 2,50"	20-									
	60-	14	44"	0.09	0.079	0.079	0.048	0.215	0.021	
	80-									
	20-						0.04	0.213	0.013	
	60-									
	80-									
	20-									
	60-									
	80-									
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	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 20, 10 m

VP=20.2F 2F 1 2Q
 0.22 m/s 8.302 m/s 1.929 m/s

Station: XEKATAM 25-12-91 (No. 38)

V = 0,698 m + 0,016

CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

	Results of current-metering					Calculation of velocities and of flow				Notes (time, gauge reading etc.)	
	Vertical (Max. depth in m)	Depth of point (s-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)		Flow "Q" (10)=(8)×(9) (m ³ .s-1)
						in the point	mean in the vertical "V _v "	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
1,58	20-										Hand: 0,100 m Tide level: 0,100 m Time level: 10 4 55 Time end: 11 4 18
	60-	2	43"		0,163	0,13	0,13	0,065	0,292	0,019	
	80-										
1	20-	3	40"		0,075	0,068	0,068	0,099	0,395	0,039	
	60-										
	80-	3	40"		0,075	0,068	0,068	0,099	0,395	0,039	
1	20-	8	40"		0,2	0,156	0,139	0,104	0,5	0,052	
	60-										
	80-	6	40"		0,15	0,121	0,139	0,104	0,5	0,052	
1	20-	26	42"		0,679	0,448	0,453	0,297	0,495	0,147	
	60-										
	80-	26	41"		0,624	0,458	0,453	0,297	0,495	0,147	
1	20-	27	40"		0,675	0,487	0,422	0,498	0,565	0,247	
	60-										
	80-	20	41"		0,488	0,356	0,422	0,498	0,565	0,247	
1	20-	13	40"		0,325	0,242	0,18	0,302	0,715	0,216	
	60-										
	80-	6	41"		0,446	0,117	0,18	0,302	0,715	0,216	
1	20-	13	40"		0,325	0,203	0,191	0,186	0,625	0,116	
	60-										
	80-	7	40"		0,175	0,138	0,191	0,186	0,625	0,116	
1	20-	18	42"		0,429	0,315	0,255	0,223	0,56	0,125	
	60-										
	80-	11	43"		0,256	0,194	0,255	0,223	0,56	0,125	
1	20-	28	42"		0,667	0,481	0,423	0,329	0,56	0,19	
	60-										
	80-	20	40"		0,5	0,365	0,423	0,329	0,56	0,19	
1	20-	20	40"		0,5	0,365	0,327	0,376	0,585	0,22	
	60-										
	80-	16	41"		0,39	0,283	0,327	0,376	0,585	0,22	
1	20-	12	40"		0,30	0,225	0,212	0,27	0,73	0,191	
	60-										
	80-	11	42"		0,262	0,198	0,212	0,27	0,73	0,191	
1	20-	19	41"		0,463	0,339	0,221	0,217	0,655	0,142	
	60-										
	80-	5	40"		0,125	0,103	0,221	0,217	0,655	0,142	
1	20-										
	60-	14	42"		0,095	0,082	0,082	0,152	0,39	0,059	
	80-										
2	20-										
	60-	11	43"		0,083	0,074	0,074	0,078	0,43	0,034	
	80-										
1	20-										
	60-										
	80-							0,079	0,20	0,016	
1	20-										
	60-										
	80-										

VP = ΣQ · ΣF ΣF ΣQ

(No. 38-2)

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Vertical (Max. depth in m)	Results of current-metering				Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of point (8-m)	Number of rota- tions	Time: partial and total (seconds)	Rota- tions per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s ⁻¹)	
					to the point	mean to the vertical "V _v "	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11
1 0.23	20-									
	60-	5	116'	0.109	0.092	0.092	0.088	0.19	0.017	
	80-									
2.48	20-									
	60-						0.046	0.285	0.013	
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									
	20-									
	60-									
	80-									

B = 20.06 m

0.126 m/s 8.172 m² 1.809 m³/s
 VP=ΣQ.VP ΣF ΣQ

Station XEKATON. 2.1.92 (No. 39)

V=0.698N+0.016

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance between verticals (m)

1	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Depth of Max. depth (m)	Depth of float (m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "P" between verticals (m ²)	Flow "Q" (10) ⁻⁶ =(8)·(9) (m ³ .s ⁻¹)	
						In the point	mean in the vertical "V"	average between verticals			
2	3	4	5	6	7	8	9=6(P.1)	10	11		
1.58	0.22	20-									Hand: 0.38 m Time about 8" 30"
		60-	5	42"	0.119	0.099	0.099	0.049	0.253	0.012	
		80-									
1	0.40	20-									
		60-	2	42"	0.049	0.049	0.049	0.074	0.36	0.027	
		80-									
1	0.56	20-	13	45"	0.289	0.217					
		60-					0.165				
		80-	6	43"	0.139	0.113					
1	0.66	20-	18	43"	0.419	0.308					
		60-					0.328				
		80-	20	42"	0.476	0.348					
1	0.57	20-	26	40"	0.65	0.469					
		60-					0.364				
		80-	15	43"	0.349	0.259					
1	0.53	20-	20	40"	0.5	0.365					
		60-					0.222				
		80-	4	44"	0.894	0.079					
1	0.63	20-	16	43"	0.372	0.276					
		60-					0.186				
		80-	5	43"	0.116	0.097					
1	0.64	20-	13	40"	0.325	0.243					
		60-					0.215				
		80-	10	41"	0.344	0.186					
1	0.54	20-	22	43"	0.628	0.454					
		60-					0.34				
		80-	13	43"	0.302	0.227					
1	0.75	20-	14	42"	0.333	0.248					
		60-					0.224				
		80-	11	42"	0.262	0.199					
1	0.81	20-	16	42"	0.381	0.282					
		60-					0.232				
		80-	10	42"	0.238	0.182					
1	0.58	20-	13	44"	0.295	0.222					
		60-					0.169				
		80-	6	42"	0.143	0.116					
3	0.25	20-	6	40"	0.15	0.12					
		60-					0.12				
		80-									
2	0.21	20-	1	41"	0.24	0.183					
		60-					0.183				
		80-									
1		20-									
		60-									
		80-									

B = 18.58 m

$\sum V = 0.57$ $\sum P = 3.607 \text{ m}^2$ $\sum Q = 1.78 \text{ m}^3/\text{s}$

Station ΧΕΚΑΙΩΗ. 8. 1.92 (No. 40) $v = 0,698 \text{ m} + 0,016$

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

Distance
between
verticals
(m)

1	Results of current-metering					Calculation of velocities and of flow				Notes (time, gauge reading etc.)
	Depth of point (m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s-1)			Flow area "P" between verticals (m ²)	Flow "Q" (10) = (8) x (9) (m ³ .s-1)	
					to the point	mean in the vertical "V"	average between verticals			
2	3	4	5	6	7	8	9 = 6(P.1)	10	11	
1.58	20-									+1 Max 0,38 m A. and 0,38 m Lower Max 0,24 m Time end 14" 35"
	60-	7	42"	0,167	0,133	0,133	0,066	0,268	0,017	
	80-									
1	20-									
	60-	7	48"	0,146	0,148	0,118	0,126	0,38	0,048	
	80-									
1	20-	18	43"	0,419	0,308		0,19	0,49	0,093	
	60-					0,262				
	80-	12	42"	0,286	0,216					
1	20-	20	42"	0,476	0,308		0,317	0,61	0,193	
	60-					0,373				
	80-	23	42"	0,547	0,398					
1	20-	27	41"	0,658	0,475		0,388	0,64	0,248	
	60-					0,403				
	80-	19	42"	0,452	0,331					
1	20-	14	42"	0,333	0,248		0,292	0,56	0,175	
	60-					0,182				
	80-	6	42"	0,143	0,115					
1	20-	14	44"	0,341	0,254		0,178	0,61	0,108	
	60-					0,174				
	80-	5	44"	0,114	0,095					
1	20-	17	43"	0,395	0,291		0,209	0,625	0,13	
	60-					0,245				
	80-	11	42"	0,262	0,199					
1	20-	26	42"	0,619	0,448		0,316	0,62	0,196	
	60-					0,387				
	80-	19	43"	0,442	0,326					
1	20-	19	42"	0,452	0,331		0,318	0,675	0,215	
	60-					0,248				
	80-	9	42"	0,214	0,165					
1	20-	12	42"	0,286	0,215		0,223	0,8	0,178	
	60-					0,198				
	80-	10	42"	0,238	0,182					
1	20-	18	42"	0,429	0,315		0,207	0,685	0,142	
	60-					0,216				
	80-	6	41"	0,146	0,118					
3	20-	8	42"	0,19	0,148		0,182	1,185	0,215	
	60-					0,148				
	80-	2	47"	0,212	0,045		0,096	0,52	0,05	
2	20-									
	60-						0,022	0,14	0,003	
	80-									
1	20-									
	60-									
	80-									

13 = 18,58 m

0,227
VP = 20,2F
ΣP 1 ΣQ
8,848 m²
2,011 m³/s

Station XEKOTAN 15. 1. 92 (No. 41) V = 0,698 m + 0,016

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD) Page 2

Distance between verticals (m)

1	2	Results of current-metering				Calculation of velocities and of flow					11	
		3	4	5	Velocity (m.s-1)			9 = 6(P.1)	10			
					6	7	8					
12	13	14	15	16	17	18	19	20	21	22		
1,58	20-											Hand - 0,98 m
	60-	5	42"	0,104	0,088	0,088	0,044	0,26	0,011			
	80-											
0,37	20-										Hand - 0,98 m	
	60-	2	40"	0,105	0,105	0,105	0,069	0,35	0,024			
	80-											
0,58	20-	10	41"	0,244	0,186		0,094	0,475	0,045		Hand - 0,98 m	
	60-					0,139						
	80-	5	45"	0,111	0,093							
0,69	20-	15	40"	0,235	0,278		0,222	0,635	0,141		Hand - 0,98 m	
	60-					0,304						
	80-	18	40"	0,145	0,33							
0,60	20-	23	41"	0,361	0,408		0,318	0,645	0,205		Hand - 0,98 m	
	60-					0,331						
	80-	14	41"	0,341	0,254							
0,54	20-	15	40"	0,275	0,278		0,208	0,57	0,141		Hand - 0,98 m	
	60-					0,164						
	80-	2	41"	0,049	0,05							
0,65	20-	14	41"	0,341	0,254		0,170	0,595	0,101		Hand - 0,98 m	
	60-					0,177						
	80-	5	42"	0,119	0,099							
0,62	20-	14	41"	0,341	0,254		0,183	0,635	0,116		Hand - 0,98 m	
	60-					0,188						
	80-	6	40"	0,15	0,121							
0,52	20-	27	40"	0,675	0,487		0,286	0,57	0,163		Hand - 0,98 m	
	60-					0,283						
	80-	15	40"	0,275	0,278							
0,72	20-	16	45"	0,255	0,263		0,223	0,62	0,2		Hand - 0,98 m	
	60-					0,262						
	80-	14	40"	0,25	0,260							
0,79	20-	11	41"	0,268	0,203		0,215	0,735	0,162		Hand - 0,98 m	
	60-					0,168						
	80-	7	42"	0,167	0,133							
0,57	20-	15	42"	0,266	0,271		0,164	0,68	0,111		Hand - 0,98 m	
	60-					0,161						
	80-	2	40"	0,05	0,05							
3	20-	7	41"	0,171	0,135		0,148	1,185	0,175		Hand - 0,98 m	
	60-					0,175						
	80-											
2	20-	1	45"	0,022	0,031		0,083	0,42	0,135		Hand - 0,98 m	
	60-					0,071						
	80-											
1	20-						0,015	0,10	0,002		Hand - 0,98 m	
	60-											
	80-											

B = 18,58 m.

VP = ΣQ: ΣF ΣF ΣQ

Daily Gauge Height Records at Ban Nonghin
(Jan.1991 to Dec.1991)

WATER LEVEL

RIVER : XEKATAM

HYDROLOGIC YEAR 1991

STATION : BAN NONGHIN

SHEET1.....

Observed by : Mr.Khamphet

MONTH ..JANUARY

Approved by : Mr.Somsack PHRASONTHI

FEBRUARY

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1				1	0,32	0,32	
2				2	0,32	0,32	
3				3	0,32	0,32	
4				4	0,32	0,32	
5				5	0,32	0,32	
6				6	0,32	0,32	
7				7	0,32	0,32	
8				8	0,31	0,31	
9				9	0,31	0,30	
10				10	0,30	0,30	
11				11	0,30	0,31	
12				12	0,30	0,30	
13				13	0,30	0,30	
14				14	0,30	0,30	
15				15	0,30	0,30	
16				16	0,30	0,30	
17				17	0,29	0,28	
18				18	0,28	0,28	
19				19	0,28	0,28	
20				20	0,28	0,28	
21				21	0,27	0,27	
22				22	0,27	0,27	
23				23	0,27	0,27	
24	0,33	0,33		24	0,27	0,27	
25	0,33	0,33		25	0,27	0,24	
26	0,33	0,33		26	0,28	0,21	
27	0,32	0,32		27	0,28	0,28	
28	0,32	0,32		28	0,28	0,28	
29	0,32	0,32		29			
30	0,32	0,32		30			
31	0,33	0,33		31			

WATER LEVEL

RIVER : XEKATAM
 STATION : BAN NONGHIN

HYDROLOGIC YEAR 199 A
 SHEET ... 2

Observed by : Mr. Khamphet
 Approved by : Mr. Somsack PHRASONTHI

MONTH ... MARCH ...
 ... APRIL

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1	0,28	0,28		1	0,26	0,28	
2	0,28	0,29		2	0,28	0,27	
3	0,30	0,30		3	0,27	0,27	
4	0,33	0,30		4	0,26	0,29	
5	0,33	0,30		5	0,29	0,28	
6	0,34	0,35		6	0,27	0,27	
7	0,30	0,31		7	0,27	0,31	
8	0,29	0,31		8	0,31	0,38	
9	0,28	0,29		9	0,33	0,32	
10	0,28	0,28		10	0,32	0,30	
11	0,28	0,28		11	0,29	0,28	
12	0,28	0,28		12	0,28	0,29	
13	0,28	0,28		13	0,29	0,28	
14	0,27	0,27		14	0,27	0,27	
15	0,26	0,27		15	0,27	0,26	
16	0,26	0,26		16	0,26	0,26	
17	0,26	0,26		17	0,26	0,26	
18	0,26	0,27		18	0,26	0,26	
19	0,27	0,29		19	0,27	0,26	
20	0,31	0,29		20	0,27	0,29	
21	0,28	0,27		21	0,30	0,29	
22	0,28	0,28		22	0,29	0,27	
23	0,29	0,30		23	0,27	0,27	
24	0,29	0,29		24	0,27	0,26	
25	0,27	0,27		25	0,26	0,27	
26	0,27	0,27		26	0,29	0,29	
27	0,27	0,26		27	0,31	0,31	
28	0,27	0,27		28	0,29	0,28	
29	0,26	0,26		29	0,29	0,30	
30	0,26	0,26		30	0,30	0,28	
31	0,26	0,26		31			

WATER LEVEL

RIVER : XEKATAM
STATION : BAN NONGHIN

HYDROLOGIC YEAR 1994
SHEET3.....

Observed by : Mr. Khamphet
Approved by : Mr. Somsack PHRASONTHI

MONTH May
June

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1	0.40	0.38		1	0.38	0.38	
2	0.44	0.39		2	0.37	0.40	
3	0.35	0.34		3	0.39	0.40	
4	0.34	0.36		4	0.40	0.40	
5	0.34	0.33		5	0.40	0.39	
6	0.35	0.33		6	0.44	0.50	
7	0.31	0.32		7	0.45	0.46	
8	0.37	0.34		8	0.45	0.45	
9	0.32	0.31		9	0.44	0.46	
10	0.31	0.34		10	0.46	0.45	
11	0.32	0.32		11	0.47	0.46	
12	0.32	0.34		12	0.46	0.48	
13	0.33	0.38		13	0.51	0.57	
14	0.45	0.42		14	0.56	0.53	
15	0.45	0.42		15	0.51	0.50	
16	0.45	0.46		16	0.48	0.47	
17	0.51	0.52		17	0.46	0.48	
18	0.50	0.52		18	0.48	0.48	
19	0.53	0.53		19	0.47	0.46	
20	0.58	0.56		20	0.46	0.46	
21	0.54	0.53		21	0.45	0.44	
22	0.50	0.49		22	0.48	0.46	
23	0.48	0.47		23	0.62	0.58	
24	0.44	0.45		24	0.62	0.63	
25	0.44	0.44		25	0.72	0.72	
26	0.43	0.44		26	0.68	0.66	
27	0.43	0.42		27	0.64	0.60	
28	0.42	0.42		28	0.58	0.50	
29	0.41	0.43		29	0.52	0.53	
30	0.43	0.40		30	0.58	0.59	
31	0.40	0.39		31			

WATER LEVEL

RIVER : XEKATAM

HYDROLOGIC YEAR 1991

STATION : BAN NONGHIN

SHEET ... 4

Observed by : Mr. Khamphet

MONTH JULY

Approved by : Mr. Somsack PHRASONTHI

August

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1	0,76	0,69		1	1,00	1,06	
2	0,80	0,81		2	0,98	0,96	
3	0,81	0,81		3	0,92	0,92	
4	0,78	0,76		4	0,89	0,90	
5	0,72	0,69		5	0,89	0,86	
6	0,67	0,68		6	0,90	0,92	
7	0,70	0,68		7	0,94	0,95	
8	0,65	0,64		8	0,94	0,93	
9	0,80	0,96		9	0,90	0,88	
10	0,88	0,82		10	0,89	0,85	
11	0,82	0,80		11	0,86	0,84	
12	0,76	0,74		12	0,82	0,81	
13	0,72	0,72		13	0,79	0,78	
14	0,94	0,94		14	0,78	0,82	
15	0,96	0,90		15	0,82	0,86	
16	0,86	0,84		16	0,94	1,05	
17	0,82	0,79		17	1,21	1,24	
18	0,77	0,75		18	1,37	1,35	
19	0,79	0,78		19	1,35	1,32	
20	0,79	0,95		20	1,30	1,22	
21	1,14	1,16		21	1,18	1,17	
22	1,30	1,28		22	1,10	1,11	
23	1,16	1,12		23	1,14	1,14	
24	1,10	1,16		24	1,18	1,22	
25	1,16	1,14		25	1,22	1,18	
26	1,12	1,10		26	1,22	1,18	
27	1,08	1,06		27	1,15	1,17	
28	1,09	1,06		28	1,16	1,18	
29	1,04	1,00		29	1,17	1,15	
30	0,98	0,96		30	1,10	1,09	
31	0,94	0,94		31	1,09	1,08	

WATER LEVEL

RIVER : XEKATAM
STATION : BAN NONGHIN

HYDROLOGIC YEAR 1991
SHEET 5

Observed by : Mr. Khamphet
Approved by : Mr. Somsack PHRASONTHI

MONTH .. September
October

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1	1,02	1,01		1	1,10	1,18	
2	1,00	0,98		2	1,36	1,48	
3	0,96	0,98		3	1,36	1,26	
4	1,01	1,12		4	1,14	1,10	
5	1,18	1,20		5	1,04	1,02	
6	1,20	1,16		6	1,04	1,04	
7	1,10	1,10		7	1,02	1,06	
8	1,06	1,08		8	1,10	1,06	
9	1,12	1,19		9	1,02	1,00	
10	1,16	1,17		10	0,98	0,96	
11	1,20	1,14		11	0,94	0,96	
12	1,08	1,04		12	1,17	1,02	
13	1,08	1,04		13	0,97	0,94	
14	1,00	0,96		14	0,94	0,94	
15	0,94	0,92		15	0,96	0,94	
16	0,90	0,90		16	0,90	0,90	
17	0,88	0,88		17	0,88	0,88	
18	0,86	0,84		18	0,85	0,84	
19	0,83	0,82		19	0,82	0,82	
20	1,10	1,10		20	0,80	0,80	
21	0,94	0,94		21	0,78	0,78	
22	0,92	0,90		22	0,76	0,76	
23	0,94	0,92		23	0,76	0,75	
24	0,96	0,94		24	0,74	0,75	
25	0,92	0,92		25	0,74	0,73	
26	1,06	0,98		26	0,72	0,72	
27	0,98	0,94		27	0,70	0,70	
28	1,00	0,98		28	0,69	0,68	
29	1,00	1,00		29	0,67	0,67	
30	0,96	0,99		30	0,66	0,66	
31				31	0,66	0,65	

WATER LEVEL

RIVER : XEKATAM

HYDROLOGIC YEAR 199 A

STATION : BAN NONGHIN

SHEET 6

Observed by : Mr. Khamphet

MONTH . November .

Approved by : Mr. Somsack PHRASONTHI

December..

DAY	MORNING	EVENING	REMARKS	DAY	MORNING	EVENING	REMARKS
1	0,64	0,64		1	0,48	0,48	
2	0,60	0,63		2	0,47	0,47	
3	0,62	0,62		3	0,47	0,47	
4	0,62	0,62		4	0,46	0,46	
5	0,61	0,61		5	0,46	0,46	
6	0,60	0,60		6	0,46	0,46	
7	0,60	0,60		7	0,45	0,45	
8	0,59	0,59		8	0,45	0,45	
9	0,58	0,58		9	0,45	0,45	
10	0,58	0,57		10	0,44	0,44	
11	0,57	0,57		11	0,44	0,44	
12	0,56	0,56		12	0,44	0,44	
13	0,56	0,56		13	0,43	0,43	
14	0,56	0,55		14	0,43	0,43	
15	0,55	0,54		15	0,43	0,43	
16	0,54	0,54		16	0,42	0,42	
17	0,54	0,54		17	0,42	0,42	
18	0,54	0,54		18	0,42	0,42	
19	0,53	0,53		19	0,41	0,41	
20	0,53	0,52		20	0,41	0,41	
21	0,52	0,52		21	0,41	0,41	
22	0,52	0,51		22	0,41	0,41	
23	0,51	0,51		23	0,40	0,40	
24	0,50	0,50		24	0,39	0,39	
25	0,50	0,50		25	0,39	0,39	
26	0,50	0,50		26	0,39	0,39	
27	0,50	0,49		27	0,39	0,39	
28	0,49	0,49		28	0,39	0,39	
29	0,49	0,49		29	0,39	0,39	
30	0,48	0,48		30	0,39	0,39	
31				31	0,39	0,39	

Current-Metering and Calculation of Flow

(Measurement No.1 to No.5)

Station: *XENAHNŌI* *17/5/1991*

CURRENT - METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

(m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauge reading etc.)
	Vertical (Max. depth in m)	Depth of point (S-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s ⁻¹)			Flow area "F" between verticals (m ²)	Flow "Q" (10) ³ =(8)×(9) (m ³ .s ⁻¹)	
						in the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.1)	10	11	
3	0,50	20-				0,282	0,477	0,087	0,175	0,065	H: 9430 R: 10430
		60-									
		80-				0,066					
3	0,25	20-					0,13	1,275	0,165	H: 10200 R: 10200	
		60-				0,086					
		80-									
2	0,27	20-				0,094	0,094	0,09	0,62	0,055	
		60-									
		80-				0,229					
2	0,80	20-				0,312	0,218	1,07	0,233		
		60-				0,255					
		80-				0,057					
2	0,52	20-				0,062	0,202	1,32	0,266		
		60-				0,067					
		80-				0,091					
2	0,86	20-				0,091	0,091	1,38	0,091		
		60-				0,052					
		80-				0,147					
2	0,60	20-				0,517	0,309	1,16	0,151		
		60-				0,620					
		80-				0,139					
2	0,55	20-				0,163	0,505	1,15	0,580		
		60-				0,188					
		80-				0,389					
2	0,50	20-				0,331	0,298	1,05	0,117		
		60-				0,279					
		80-				0,033					
2	0,68	20-				0,025	0,179	1,18	0,211		
		60-				0,018					
		80-				0,121					
2	0,80	20-				0,268	0,116	1,18	0,216		
		60-				0,103					
		80-				0,168					
2	0,50	20-				0,275	0,321	1,3	0,145		
		60-				0,283					
		80-				0,209					
2	0,60	20-				0,237	0,306	1,1	0,336		
		60-				0,266					
		80-				0,013					
2	0,13	20-				0,021	0,131	1,03	0,138		
		60-				0,020					
		80-				0,035					
2,8	0,18	20-				0,05	0,010	1,211	0,050		
		60-				0,065					
		80-									
						0,210 ^{m/s}	ΣF	1	ΣQ		

Vanua Phay - Xayavath

Station: XENAMNOI 23/5/1991

CURRENT-METERING AND CALCULATION OF FLOW (1-2-3 POINTS METHOD)

(m)	Results of current-metering					Calculation of velocities and of flow					Notes (time, gauging etc.)
	Vertical (Max. depth in m)	Depth of point (8-m)	Number of rotations	Time: partial and total (seconds)	Rotations per second (rps)	Velocity (m.s-1)			Flow area "F" between verticals (m ²)	Flow "Q" (10)=(8)×(9) (m ³ .s-1)	
						in the point	mean in the vertical "V"	average between verticals			
1	2	3	4	5	6	7	8	9=6(P.I)	10	11	
2	0,118	20-				0,211	0,230	0,115	0,0118	0,055	T-end: 10,45' H-end: 0,96m
		60-				0,111					
		80-				0,052					
6	0,20	20-				0,019	0,035	0,132	0,231	0,208	
		60-				0,065					
		80-				0,060					
2	0,60	20-				0,042	0,062	0,048	0,9	0,043	
		60-				0,042					
		80-				0,042					
21	0,88	20-				0,042	0,096	0,079	1,18	0,116	
		60-				0,151					
		80-				0,151					
2	0,62	20-				0,629	0,694	0,395	1,5	0,592	
		60-				0,160					
		80-				0,392					
2	0,66	20-				0,392	0,376	0,535	1,28	0,681	
		60-				0,361					
		80-				0,1104					
2	0,51	20-				0,1104	0,334	0,355	1,2	0,426	
		60-				0,261					
		80-				0,261					
2	0,70	20-				0,237	0,028	0,181	1,21	0,274	
		60-				0,020					
		80-				0,020					
2	0,89	20-				0,711	0,388	0,208	1,59	0,330	
		60-				0,065					
		80-				0,345					
2	0,68	20-				0,345	0,245	0,316	1,57	0,496	
		60-				0,145					
		80-				0,145					
2	0,35	20-				0,138	0,150	0,197	1,03	0,202	
		60-				0,163					
		80-				0,163					
2	0,42	20-				0,036	0,034	0,092	0,77	0,270	
		60-				0,032					
		80-				0,032					
2,5	0,10	20-				0,054	0,054	0,0114	0,65	0,028	
		60-									
		80-									
		20-					0,222 ^{m/s}	16,03 ^{m²}	3,574 ^{m³}		
		60-									
		80-									

VP=ΣQ:ΣF ΣF 1 ΣQ

CURRENT-METERING REPORT Page 1

Measured:

Noted-drawn:

River: XENANNOI

Computed:

Place: LAXXINE

Approved:

Time and conditions	Date: <u>30/5/1991</u>	Time (start/end): <u>10^h 15' - 10^h 10'</u>	Temperature (°C): <u>>25, 15-25, <15</u>
	Weather: <u>sunshine, cloudy, overcast, slight-strong rain, other:</u>		
Wind	Strength: <u>strong, medium, slight, no wind</u>		Direction of wind in relation to the flow direction "FD" → <u>FD</u>
	Character: <u>stable, changing in strength-in direction</u>		
Mode of measuring	By wading	From a bridge: <u>temporary - permanent</u>	From a boat: <u>front -side -between</u>
		From a cable-way: <u>temporary - permanent</u>	Other: <u>see sketch and description</u>
Current-meter	Type: <u>on a rod - suspended</u>		Manufacturer:
	N ^o	Rotations per signal:	diameter: cm
	Date of last calibration:	Calibration formula: <u>V = + rps</u>	Vane - pitch: cm struct. height from bottom: cm
Measured profile (drawing on reverse side)	Width "ED": <u>32</u> m	Max. depth: <u>0,97</u> m	Flow area: <u>19,11</u> m ²
	Water-level gauge: <u>temporary - permanent</u>	Reading - start of gauge:	Reading - end of gauge: cm
	Number of measured verticals: <u>depth/velocity:</u>	Mean profile velocity "VP": <u>0,298</u> m.s ⁻¹	Max. number of points measured in a vertical:
	water level: <u>Smooth-rough-unstable</u>	Flow through the profile: <u>"ΣQ" 5,783</u> m ³ s ⁻¹	Quality of profile: <u>suitable - less suit. - unsuitable</u>
Comments	River-bed material:		

CALCULATION OF THE FLOW AREA AND OF THE FLOW

Vertical	Distance from initial point (m)	Max. depth "H" (m)		Distance between verticals "D" (m)	Flow area "F" (m ²) (6)=(4)x(5)	Mean velocity (m.s ⁻¹)		Flow "Q" (m ³ .s ⁻¹) (9)=(6)x(8)
		in the vertical	average between verticals			"VV" in the vertical	average between verticals	
1	2	3	4	5	6	7	8	9
1		0,311	0,17	2	0,211	0,211	0,122	0,041
2		0,1611	0,119	1	0,119	0,311	0,278	0,136
3		0,180	0,721	5	3,6	0,683	0,1197	1,789
4		0,110	0,60	2	1,2	0,270	0,277	0,1452
5		0,113	0,115	2	0,83	0,107	0,1889	0,0711
6		0,55	0,119	2	0,98	0,700	0,1104	0,396
7		0,80	0,675	2	1,25	0,336	0,518	0,699
8		0,69	0,715	2	1,19	0,262	0,329	0,520
9		0,50	0,595	2	1,19	0,232	0,197	0,2311
10		0,80	0,65	2	1,3	0,115	0,224	0,291
11		0,91	0,855	2	1,71	0,258	0,337	0,576
12		0,63	0,77	2	1,511	0,168	0,213	0,328
13		0,65	0,64	2	1,28	0,053	0,111	0,142
14		0,110	0,525	4	2,1	0,017	0,105	0,105
					<u>19,11 m²</u>		<u>0,298 m/s</u>	<u>5,783 m³ s⁻¹</u>

CURRENT-METERING REPORT Page 1

Measured: _____
 Noted-drawn: _____
 Computed: _____
 Approved: _____

River: XENAMNOI
 Place: LAXAXINE

Time	Date: <u>5/6/1991</u>	Time (start/end): <u>6^h10' 19^h00'</u>	Temperature (°C): <u>>25, 15-25, <15</u>
and	Weather: <u>sunshine, cloudy, overcast, slight-strong rain, other:</u>		
condi- tions	Wind	Strength: <u>strong, medium, slight, no wind</u>	Direction of wind in relation to the flow direction "FD" → <u>FD</u>
	Charakter:	<u>stable, changing in strength-in direction</u>	
Mode of measuring	By wading	From temporary bridge: <u>-permanent</u>	From front side boat: <u>-between</u>
Current-meter	Type: <u>on a rod -suspended</u>	Manufacturer: _____	
	N° _____	Rotations per signal: _____	- diameter: _____ cm
	Date of last calibration: _____	Calibration formula: $V = \dots + \dots$ rps	Vane - pitch: _____ cm - struct. height from bottom: _____ cm
Measured profile (drawing on reverse side)	Width "ΣD" <u>34,5</u> m	Max. depth: <u>1,06</u> m	Flow area: <u>19,24</u> m²
	Water-level gauge: <u>temporary - permanent</u>	Reading - start of gauge: _____ cm	Reading - end of gauge: _____ cm
	Number of measured verticals: <u>depth/velocity: 1</u>	Max. number of points measured in a vertical: _____	
	water level: <u>Smooth-rough-unstable</u>	mean profile velocity "Vp": <u>0,473</u> m.s ⁻¹	Flow through the profile "ΣQ": <u>9,097</u> m³ s ⁻¹
Quality of profile: <u>suitable - less suit. - unsuitable</u>	River-bed material: _____		
Comments	$F_{M1} = \frac{F_{M1} + F_{M2} \times V_{M1}}{2} = 0,057 \text{ m}^3$		

CALCULATION OF THE FLOW AREA AND OF THE FLOW

Vertical	Distance from initial point (m)	Max. depth "H" (m)		Distance between verticals "D" (m)	Flow area "F" (m²) (6)=(4)x(5)	Mean velocity (m.s ⁻¹)		Flow "Q" (m³.s ⁻¹) (9)=(6)x(8)
		in the vertical	average between verticals			"VV" in the vertical	average between verticals	
1								
1		0,10	0,20	3	0,6	0,121	0,061	0,037
2		0,20	0,30	2	0,6	0,266	0,133	0,116
3		0,30	0,45	1,1	1,8	0,350	0,208	0,554
4		0,90	0,80	1,1	3,2	0,639	0,425	1,584
5		0,65	0,775	1,1	3,1	0,522	0,581	1,801
6		0,88	0,765	1,1	3,06	0,525	0,524	1,603
7		0,60	0,74	1,1	2,96	0,683	0,604	1,788
8		0,50	0,55	2	1,1	0,526	0,605	0,666
9		0,20	0,35	2	0,70	0,208	0,447	0,292
10		0,23	0,215	2	0,43	0,092	0,2	0,086
11		0,62	0,425	2	0,85	0,043	0,068	0,257
12		0,50	0,56	1,5	0,84	0	0	
					<u>19,24 m²</u>		<u>0,473 m/s</u>	<u>9,097 m³/s</u>

CURRENT-METERING REPORT Page 1

River: XENAMNOI
Place: LAXAXINE

Measured:
Noted-drawn:
Computed:
Approved:

Time and conditions	Date: <u>2/6/1991</u>	Time (start/end): <u>11h15' - 12h00'</u>	Temperature (°C): <u>>25, 15-25, <15</u>
Wind	Strength: strong, medium, slight, no wind		Direction of wind in relation to the flow direction "FD" → FD
	Character: <u>stable, changing in strength-in direction</u>		
Mode of measuring	By wading	From a bridge: -temporary -permanent	From a boat: -front -side -between
Current-meter	Type: on a rod - suspended	Manufacturer:	
	N° <u>83M3H</u>	Rotations per signal:	- diameter cm
	Date of last calibration:	Calibration formula: $V = \dots + \dots$ rps	Vane - pitch cm - struct. height from bottom: cm
Measured profile (drawing on reverse side)	Width "ΣD" <u>32,5</u> m	Max. depth: <u>1,03</u> m	Flow area: <u>21,675</u> m ²
	Water-level gauge: temporary - permanent	Reading - start of gauge: - end	mean: cm
Quality of profile:	water Smooth-rough-unstable level: <u>smooth</u>		Mean profile velocity "Vp" <u>0,396</u> m.s. ⁻¹
	Quality of profile: <u>suitable - less suit. - unsuitable</u>		Flow through the profile "ΣQ" <u>8,571</u> m ³ .s. ⁻¹
Comments	River-bed material:		

CALCULATION OF THE FLOW AREA AND OF THE FLOW

Vertical	Distance from initial point (m)	Max. depth "H" (m)		Distance between verticals "D" (m)	Flow area "F" (m ²) (6)=(4)x(5)	Mean velocity (m.s. ⁻¹)		Flow "Q" (m ³ .s. ⁻¹) (9)=(6)x(8)
		in the vertical	average between verticals			"Vv" in the vertical	average between verticals	
1	2	3	4	5	6	7	8	9
1		0,22	0,16	2	0,22	0,582	0,264	0,081
2		0,62	0,47	1	1,88	0,264	0,123	0,185
3		0,40	0,66	3	1,98	0,825	0,515	1,079
4		1,00	0,85	3	2,55	0,237	0,531	1,354
5		0,75	0,275	3	2,625	0,129	0,258	0,910
6		1,25	1,00	3	3,000	0,227	0,253	1,059
7		0,92	0,085	3	3,255	0,292	0,260	0,816
8		0,47	0,695	3	2,085	0,674	0,183	1,007
9		0,50	0,185	3	1,155	0,525	0,600	0,873
10		0,185	0,185	3	1,125	0,119	0,322	0,158
11		0,13	0,11	2,5	1,1	0,024	0,072	0,079
				32,5 m	21,675 m ²	0,396 m/s		8,571 m ³ /s

Daily Gauge Height Records at Ban Latsasin

(Feb. 1991 to Jan. 1992)

WATER LEVEL

RIVER : XENAMNOY
STATION : BAN LATSASIN

HYDROLOGIC YEAR 1991
SHEET .. 1

Observed by : Mr. Souphanh

MONTH .. FEBRUARY

Approved by : Mr. Somsack PHRASANTHI

.. MARCH ..

DATE	MORNING	EVENING	REMARKS	DATE	MORNING	EVENING	REMARKS
1	0,83	0,82		1	0,69	0,69	
2	0,82	0,82		2	0,69	0,69	
3	0,81	0,81		3	0,69	0,69	
4	0,81	0,81		4	0,72	0,75	
5	0,80	0,80		5	0,73	0,78	
6	0,80	0,80		6	0,73	0,78	
7	0,79	0,79		7	0,77	0,76	
8	0,79	0,79		8	0,75	0,74	
9	0,78	0,78		9	0,69	0,69	
10	0,78	0,77		10	0,68	0,68	
11	0,77	0,77		11	0,68	0,68	
12	0,77	0,77		12	0,67	0,67	
13	0,77	0,77		13	0,67	0,67	
14	0,77	0,77		14	0,66	0,66	
15	0,76	0,76		15	0,65	0,65	
16	0,76	0,76		16	0,65	0,64	
17	0,76	0,76		17	0,64	0,63	
18	0,75	0,75		18	0,63	0,63	
19	0,75	0,75		19	0,62	0,62	
20	0,75	0,74		20	0,62	0,62	
21	0,74	0,74		21	0,63	0,63	
22	0,73	0,73		22	0,63	0,63	
23	0,73	0,72		23	0,63	0,63	
24	0,72	0,72		24	0,63	0,63	
25	0,71	0,71		25	0,62	0,62	
26	0,70	0,70		26	0,61	0,61	
27	0,70	0,70		27	0,60	0,60	
28	0,70	0,70		28	0,59	0,59	
29				29	0,58	0,57	
30				30	0,56	0,56	
31				31	0,56	0,56	

WATER LEVEL

RIVER : XENAMNOY
STATION : BAN LATSASIN

HYDROLOGIC YEAR 1994

SHEET 2

Observed by : Mr. Souphanh

MONTH APRIL

Approved by : Mr. Somsack PHRASANTHI

MAY

DATE	MORNING	EVENING	REMARKS	DATE	MORNING	EVENING	REMARKS
1	0,56	0,56		1	0,76	1,30	
2	0,55	0,54		2	1,37	1,25	
3	0,54	0,54		3	1,12	1,12	
4	0,53	0,53		4	1,02	0,98	
5	0,53	0,53		5	0,94	0,92	
6	0,53	0,53		6	0,90	1,30	
7	0,54	0,54		7	0,95	0,90	
8	0,55	0,55		8	0,88	0,89	
9	0,55	0,55		9	0,86	0,85	
10	0,54	0,54		10	0,81	0,84	
11	0,54	0,54		11	0,86	0,85	
12	0,54	0,53		12	0,80	0,81	
13	0,53	0,53		13	0,79	0,77	
14	0,53	0,52		14	0,77	0,85	
15	0,51	0,51		15	0,94	0,94	
16	0,50	0,49		16	0,88	1,02	
17	0,49	0,48		17	1,02	0,97	
18	0,48	0,47		18	0,98	0,94	
19	0,46	0,46		19	0,93	0,94	
20	0,46	0,46		20	0,97	1,01	
21	0,46	0,46		21	0,98	0,93	
22	0,46	0,46		22	0,91	0,91	
23	0,46	0,49		23	0,96	1,11	
24	0,59	0,59		24	1,03	0,98	
25	0,59	0,59		25	0,95	0,94	
26	0,59	0,59		26	0,93	0,92	
27	0,58	0,57		27	0,92	0,90	
28	0,56	0,56		28	0,90	0,90	
29	0,55	0,54		29	0,88	0,88	
30	0,54	0,54		30	0,97	0,94	
31				31	0,93	0,92	

WATER LEVEL

RIVER : XENAMNOY
STATION : BAN LATSASIN

HYDROLOGIC YEAR 1994
SHEET ...3.....

Observed by : Mr. Souphanh
Approved by : Mr. Somsack PHRASONTHI

MONTH ...June.....
...July.....

DATE	MORNING	EVENING	REMARKS	DATE	MORNING	EVENING	REMARKS
1	0,91	0,92		1	2,08	2,00	
2	0,96	0,95		2	3,15	2,42	
3	0,98	0,98		3	2,38	2,35	
4	1,02	1,06		4	2,25	2,22	
5	1,06	1,03		5	2,16	2,14	
6	1,10	1,30		6	2,09	2,08	
7	1,31	1,23		7	2,07	2,03	
8	1,15	1,13		8	2,01	2,00	
9	1,13	1,18		9	1,98	2,00	
10	1,17	1,16		10	1,91	1,91	
11	1,14	1,17		11	1,92	1,91	
12	1,22	1,47		12	2,08	2,00	
13	1,46	1,45		13	2,03	3,47	
14	1,44	1,48		14	2,59	2,75	
15	1,48	1,47		15	2,72	2,58	
16	1,45	1,43		16	2,59	2,50	
17	3,25	2,96		17	2,44	2,41	
18	2,30	2,15		18	2,25	2,21	
19	2,05	2,02		19	2,30	2,32	
20	1,97	2,08		20	2,29	3,00	
21	2,07	2,37		21	2,90	3,35	
22	2,23	2,28		22	2,94	2,88	
23	2,34	2,64		23	3,35	3,16	
24	2,54	2,27		24	3,36	3,20	
25	2,21	2,20		25	3,19	3,11	
26	2,10	2,34		26	3,39	3,61	
27	2,07	2,05		27	3,62	3,33	
28	2,04	2,03		28	3,29	3,22	
29	2,02	2,02		29	3,33	3,22	
30	2,02	2,06		30	3,31	2,98	
31				31	3,31	3,00	

WATER LEVEL

RIVER : XENAMNOY
STATION : BAN LATSASIN

HYDROLOGIC YEAR 1991
SHEET ... 4 ...

Observed by : Mr. Souphanh
Approved by : Mr. Somsack PHRASANTHI

MONTH ... August ...
... September

DATE	MORNING	EVENING	REMARKS	DATE	MORNING	EVENING	REMARKS
1	3,31	2,29		1	2,87	2,83	
2	2,29	2,28		2	2,14	2,71	
3	2,28	2,27		3	2,92	3,91	
4	2,69	2,66		4	2,84	3,71	
5	2,57	2,51		5	3,53	3,30	
6	2,57	2,61		6	3,21	3,15	
7	2,51	2,55		7	3,59	3,41	
8	2,52	2,57		8	3,91	3,45	
9	2,50	2,47		9	3,25	3,26	
10	2,43	2,42		10	3,91	3,92	
11	2,42	2,42		11	3,90	2,80	
12	2,39	2,36		12	2,28	2,34	
13	2,35	2,47		13	2,26	2,37	
14	2,57	2,54		14	2,46	2,50	
15	2,74	2,66		15	2,54	2,40	
16	3,11	3,60		16	2,59	2,66	
17	3,75	3,00		17	2,44	2,42	
18	4,15	4,60		18	2,77	2,19	
19	3,37	4,90		19	2,20	2,19	
20	3,34	3,31		20	2,33	2,46	
21	3,38	3,62		21	2,67	2,63	
22	3,47	3,00		22	2,59	2,56	
23	3,26	3,15		23	2,69	2,49	
24	3,09	3,13		24	2,61	2,50	
25	3,41	3,28		25	2,47	2,43	
26	3,45	3,85		26	2,41	2,41	
27	3,94	3,83		27	2,42	2,43	
28	3,98	3,94		28	2,46	2,33	
29	3,35	3,20		29	2,25	2,43	
30	3,86	3,11		30	2,37	2,49	
31	3,05	3,00		31			

WATER LEVEL

RIVER : XENAMNDY
STATION : BAN LATSASIN

HYDROLOGIC YEAR 1994
SHEET ... 5

Observed by : Mr. Souphanh
Approved by : Mr. Somsack PHRASONTHI

MONTH .. October ..
.. November ..

DATE	MORNING	EVENING	REMARKS	DATE	MORNING	EVENING	REMARKS
1	2.51	2.45		1	1.66	1.63	
2	2.40	2.46		2	1.62	1.60	
3	2.42	2.50		3	1.59	1.58	
4	2.40	2.38		4	1.56	1.55	
5	2.33	2.31		5	1.54	1.53	
6	2.32	2.30		6	1.52	1.51	
7	2.48	2.51	14 ³⁰ 3.37	7	1.50	1.49	
8	2.48	2.46		8	1.47	1.47	
9	2.48	2.45		9	1.46	1.45	
10	2.51	2.39		10	1.45	1.45	
11	2.98	2.56	9 ⁰⁰ 3.10	11	1.43	1.42	
12	2.43	2.46		12	1.39	1.38	
13	2.43	2.43		13	1.37	1.36	
14	2.39	2.40		14	1.35	1.34	
15	2.36	2.33		15	1.33	1.32	
16	2.29	2.27		16	1.31	1.31	
17	2.24	2.22		17	1.30	1.30	
18	2.19	2.16		18	1.30	1.30	
19	2.13	2.11		19	1.29	1.29	
20	2.08	2.05		20	1.28	1.28	
21	2.04	2.02		21	1.27	1.26	
22	2.01	1.98		22	1.25	1.24	
23	1.96	1.95		23	1.24	1.23	
24	1.96	1.95		24	1.23	1.22	
25	1.87	1.86		25	1.22	1.21	
26	1.84	1.83		26	1.20	1.20	
27	1.82	1.79		27	1.19	1.19	
28	1.77	1.75		28	1.19	1.19	
29	1.73	1.71		29	1.18	1.18	
30	1.70	1.69		30	1.17	1.17	
31	1.67	1.66		31			

A3.3 Rainfall Records in the Bolaven Plateau

**A3.3.1 Daily Rainfall Records at newly installed Stations
in the Xe Namnoy River Basin**

DAILY PRECIPITATION

in Millimetres and tenths "

Station : Ban Xekatom.....

Year : 1991.....

Observed by : Mr. Bourmy.....

Approved by : SOMSAK PHRASOUTH

Days	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	REMARKS
1		-	-	0,5	-	12,0	23,5	2,5	1,5	21,0	.	.	
2		-	5,0	-	3,0	5,5	16,0	.	7,5	13,5	.	.	
3		-	64,5	19,5	0,5	21,0	1,5	7,5	26,5	3,5	.	.	
4		-	12,0	-	-	7,5	-	5,5	27,5	0,5	.	.	
5		-	0,5	2,0	2,5	38,0	-	27,5	14,5	9,5	.	.	
6		-	-	22,0	0,5	-	1,0	25,0	4,0	13,5	.	.	
7		-	0,5	24,5	-	2,5	.	8,0	11,5	9,5	.	.	
8		-	1,5	1,5	-	15,0	57,0	.	25,0	1,5	.	.	
9		-	-	-	-	3,5	.	.	37,5	2,5	.	.	
10		-	-	-	9,0	5,5	21,0	4,5	22,5	.	.	.	
11		-	-	-	2,5	7,0	1,5	2,5	7,0	43,0	.	.	
12		-	-	-	38,0	12,5	13,0	0,5	7,0	4,0	.	.	
13		-	-	-	7,5	-	51,0	19,0	.	9,0	.	.	
14	n.a.	.	-	-	23,5	0,5	6,5	11,5	.	9,0	.	.	
15		-	-	-	16,5	4,0	.	41,5	.	.	.	.
16		-	-	0,5	26,5	12,0	.	54,5	0,5	1,0	.	.	
17		-	-	-	1,5	6,5	0,5	39,5	.	.	.	.
18		1,0	8,0	0,5	6,0	1,5	23,0	23,0	.	.	.	.
19		-	6,5	-	17,0	-	26,5	13,5	37,0	.	.	.	
20		-	-	53,0	11,0	2,5	76,0	15,0	0,5	1,0	.	.	
21		-	-	3,0	3,5	20,0	18,0	5,5	9,0	.	.	.	
22		-	-	0,5	-	7,5	17,0	17,0	4,5	.	.	.	
23		-	-	-	-	26,0	34,0	44,5	13,0	9,0	.	.	
24		-	-	-	-	16,5	17,5	4,0	12,5	.	.	.	
25		-	-	6,0	-	2,5	13,0	21,0	33,5	.	.	.	
26		-	-	-	2,0	-	31,5	7,5	9,5	.	.	.	
27		-	-	-	-	-	1,5	25,5	.	.	.	0,5	
28		7,0	-	1,0	7,5	15,5	13,5	12,0	42,0	.	.	.	
29		/	-	7,0	-	-	6,0	4,0	8,5	.	0,5	.	
30		/	-	29,0	-	25,0	19,5	18,0	32,5	.	.	2,0	
31		/	17,0	/	-	/	34,5	/	/	/	/	.	
TOTAL	n.a. (0)	8,0	112,5	238,5	28,5	220,0	531,0	449	412,5	151,0	0,5	2,5	Σ 2374

DAILY PRECIPITATION

in Millimetres and tenths

Station : Ban Thong Vay.....
 Observed by : Boun Lieng....

Year : 1991.....
 Approved by : Somsack PHRASANTH

Days	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	REMARKS
1	↑	-	-	-	-	-	11,0	11,0	·	0,5	·	·	
2	↑	-	17,0	-	-	13,0	16,5	-	14,5	53,0	·	·	
3	↑	-	10,0	-	1,0	44,5	4,0	3,5	21,5	·	·	·	
4	↑	-	-	-	0,5	-	-	9,0	37,0	·	·	·	
5	↑	-	8,0	-	2,5	24,0	-	16,5	9,5	11,0	·	·	
6	↑	-	-	2,5	-	0,5	14,0	1,0	2,5	9,0	·	·	
7	↑	-	4,5	1,0	-	11,5	0	9,5	5,0	17,5	·	·	
8	↑	-	-	1,5	-	20,0	19,0	-	24,0	2,0	·	·	
9	↑	-	-	-	-	1,5	-	-	29,0	1,0	·	·	
10	n.a.	-	-	-	-	15,5	3,5	0,5	9,0	2,0	·	·	
11	↑	-	-	-	1,5	10,0	1,5	2,5	2,0	38,0	·	·	
12	↑	-	-	-	48,5	25,0	6,5	-	24,5	3,0	·	·	
13	↑	-	-	-	-	-	84,5	32,5	·	·	·	·	
14	↑	-	-	-	34,5	-	14,0	9	·	·	·	·	
15	↑	-	-	-	0,5	-	0,5	45,5	4,5	·	·	·	
16	↑	-	-	-	-	11,0	6,0	35,0	0,5	7,0	·	·	
17	↑	-	-	-	-	2,5	-	62,5	·	·	·	·	
18	↑	-	0,5	-	18,5	0,5	18,0	31,5	·	·	·	·	
19	↑	-	22,0	10,0	0,5	1,0	26,0	13,5	45,0	·	·	·	
20	↑	-	-	3,5	8,5	1,5	69,0	10,5	6,5	1,0	·	·	
21	↑	-	-	-	4,0	24,0	15,5	3,5	29,5	·	·	·	
22	↑	-	-	-	-	12,5	20,0	13,0	5,0	·	·	·	
23	↓	-	-	-	-	33,0	21,5	22,5	18,0	5,5	·	·	
24	↑	-	-	-	-	14,0	24,0	3,0	7,0	·	·	·	
25	↑	-	-	21,0	-	3,0	17,0	38,0	·	·	·	·	
26	↑	-	-	7,5	17,5	-	39,5	20,5	4,5	·	·	·	
27	↑	-	-	-	3,0	-	-	15,0	4,5	·	·	·	
28	↑	-	-	4,0	0,5	25,5	9,0	45,0	17,5	·	·	·	
29	↑	-	-	-	-	14,0	1,0	3,5	21,5	·	·	·	
30	↑	-	-	73,0	-	39,0	12,5	24,5	35,5	·	·	·	
31	↑	-	4,0	-	-	-	28,0	·	-	-	-	-	
TOTAL	n.a. (0)	0	66,0	124,0	144,5	343,5	482,0	483,0	378,0	150,5	0	0	Σ 2168

DAILY PRECIPITATION

in Millimetres and tenths

Station : Ban. Huay Kong.....

Year :1991.....

Observed by : Mr. Somnuk...

Approved by : Somsack Phrasonthi

Days	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	REMARKS
1	↑	-	-	-	2,0	-	8,5	↑	7,5	-	1,5	-	
2	↑	-	10,0	-	2,0	6,0	19,5	↑	-	-	13,0	-	
3	↑	-	23,0	-	32,0	5,5	8,5	↑	28,5	11,0	-	-	
4	↑	-	-	13,0	-	-	-	↑	5,5	17,5	0,5	-	
5	↑	-	-	11,5	0,5	51,5	-	↑	17,5	11,5	6,0	-	
6	↑	-	-	0,5	-	-	5,5	↑	0,5	12,0	14,5	-	
7	↑	-	-	0,5	-	16,0	-	↑	4,5	66,5	6,5	-	
8	↑	-	0,5	13,0	-	29,0	6,5	↑	-	8,5	9,0	-	
9	↑	-	-	-	1,5	4,0	1,0	↑	-	8,5	-	-	
10	↑	-	-	-	0,5	8,0	2,0	↑	0,5	20,5	10,5	-	
11	↑	5,5	-	-	24,0	11,0	7,0	↑	3,5	39,0	3,0	-	
12	n.a.	-	-	-	-	23,0	16,0	↑	9,5	1,0	-	-	
13	↑	-	-	-	-	-	92,0	↑	14,0	11,0	2,5	-	
14	↑	-	-	-	29,5	-	37,5	n.a.	16,0	-	11,0	-	
15	↑	-	-	-	2,0	-	4,5	↑	11,0	2,5	2,0	-	
16	↑	-	-	-	0,5	8,5	14,5	↑	38,5	0,0	1,5	-	
17	↑	-	-	-	-	22,5	1,0	↑	61,5	1,0	-	-	
18	↑	-	2,0	-	2,0	-	9,0	↑	44,0	9,0	-	-	
19	↑	-	-	-	-	3,0	8,0	↑	34,0	1,0	0,5	-	
20	↑	-	-	0,5	14,5	2,5	94,5	↑	16,5	59,5	-	-	
21	↑	-	-	8,5	7,0	26,0	24,0	↑	0,5	16,0	-	-	
22	↑	-	-	10,5	-	113,5	36,0	↑	17,0	12,0	5,5	-	
23	↑	-	-	-	-	24,0	44,5	↑	25,0	10,0	-	-	
24	↑	-	-	-	-	18,0	44,5	↑	32,5	0,5	-	-	
25	↑	-	-	0,5	-	26,5	55,0	↑	41,5	5,0	-	-	
26	↑	-	-	-	4,0	0,5	48,0	↑	11,0	49,5	-	-	
27	↑	-	-	-	-	-	32,5	↑	23,5	6,0	-	-	
28	↑	-	-	0,5	2,5	13,5	31,5	↑	79,0	20,0	-	-	
29	↑	-	-	-	-	-	0,5	↑	13,5	0,5	-	-	
30	↑	-	-	13,5	-	32,5	4,0	↑	31,5	24,0	-	0,5	
31	↑	-	11,5	-	-	-	35,0	↓	-	35,5	-	-	
TOTAL	n.a. (0)	5,5	47,0	134,5	124,5	445,0	691,0	n.a.	648,0	499,0	80,5	0,5	Σ 2732 (excluding n.a. periods)

DAILY PRECIPITATION

in Millimetres and tenths

Station : Ban. Latsasin.....

Year : ... 1991.....

Observed by : ... Boun Ann.....

Approved by : SomSak PHRASONTHI

Days	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	REMARKS
1	↑	-	-	-	-	2,5	10,0	-	0,5	0,5	-	-	
2	↑	-	-	-	-	3,0	10,5	12,0	3,0	6,5	-	-	
3	↑	-	-	0,5	33,5	5,5	15,0	-	17,5	1,5	-	-	
4	↑	-	-	1,0	-	-	-	21,0	9,5	-	-	-	
5	↑	-	-	-	-	25,5	-	10,0	13,5	5,0	-	-	
6	↑	-	-	-	-	-	-	9,5	50,0	12,5	-	-	
7	↑	-	-	-	-	12,5	-	14,5	8,0	7,5	-	-	
8	↑	-	-	-	0,5	37,0	13,5	1,0	6,0	14,5	-	-	
9	↑	-	-	-	-	3,5	7,5	-	0,5	-	-	-	
10	↑	-	-	1,0	6,5	8,0	9,0	0,5	25,0	18,0	0	-	
11	↑	1,0	-	-	-	18,5	8,0	3,0	-	4,0	-	-	
12	n.a.	-	-	-	-	20,5	34,5	24,0	8,5	6,5	-	-	
13	↑	-	-	-	-	1,5	14,0	60,0	-	-	-	-	
14	↑	-	-	-	30,0	8,5	-	16,0	1,0	-	-	-	
15	↑	-	-	-	-	2,5	15,0	60,0	0,0	-	-	-	
16	↑	-	-	-	28,5	92,0	-	43,0	1,0	28,5	-	-	
17	↑	-	-	-	-	52,0	19,0	2,0	-	-	-	-	
18	↑	-	-	-	1,5	1,5	9,0	1,0	-	-	-	-	
19	↑	-	-	-	-	6,0	100,0	49,0	49,0	-	-	-	
20	↑	-	-	-	18,0	16,0	22,0	28,0	30,0	0,5	-	-	
21	↑	-	-	-	1,5	45,5	90,5	2,5	-	-	-	-	
22	↑	-	-	2,0	-	43,0	49,0	3,5	9,0	-	-	-	
23	↑	-	-	-	-	51,5	39,5	11,0	15,5	5,0	-	-	
24	↑	-	-	-	-	4,5	69,5	109,0	6,5	0,5	-	-	24/8 (10 hr)
25	↑	-	-	0,5	-	10,5	60,0	32,0	1,0	-	-	-	
26	↑	-	-	-	4,5	-	13,5	10,0	47,5	-	-	-	
27	↑	-	-	5,0	1,0	-	18,5	34,0	23,5	-	-	-	
28	↑	-	-	0,5	4,0	9,5	7,5	84,0	14,5	-	-	-	
29	↑	-	-	2,0	-	3,5	7,0	8,5	1,0	-	0,5	-	
30	↑	-	-	63,0	-	22,0	43,0	6,5	17,0	-	-	-	
31	↑	-	2,0	-	1,0	-	8,5	-	-	-	-	-	
TOTAL	n.a. (0)	1,0	2,0	75,5	130,5	586,5	690,5	658,5	521,5	108	0,5	0	Σ 2774,5

DAILY PRECIPITATION

in Millimetres and tenths

Station : Ban..Nam Kong.....

Year : ... 1991.....

Observed by : Pa Ty.....

Approved by : SOMSAK PHRASANTHI

Days	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	REMARKS
1	↑	↑	↑	-	3,5	13,0	21,0	1,5	0,5	11,0	.	.	
2	↑	↑	↑	-	1,0	12,0	-	-	0,5	0,5	.	.	
3	↑	↑	↑	2,5	5,5	14,5	-	2,0	27,5	4,0	.	.	
4	↑	↑	↑	-	-	-	-	21,0	97,5	24,0	.	.	
5	↑	↑	↑	-	2,0	66,5	-	17,0	25	1,0	.	.	
6	↑	↑	↑	-	1,0	-	5,5	8,0	11	11,0	.	.	
7	↑	↑	↑	-	-	11,5	-	17,5	82	5,0	.	.	
8	↑	↑	↑	-	-	19,5	12,5	50	.	11,0	.	.	
9	↑	↑	↑	-	-	4,5	7,5	0	.	.	.	.
10	↑	↑	↑	-	7,5	19,5	1,5	13,0	41,5	23,5	.	.	
11	↑	↑	↑	-	1,0	22,0	39,0	31,0	.	.	.	.
12	n.a.	n.a.	n.a.	-	-	20,5	12,5	.	12,5	26,5	.	.	
13	↑	↑	↑	-	-	41,5	71,5	27,5	.	.	.	.
14	↑	↑	↑	-	22,0	10,5	27,0	62,5	.	3,5	.	.	
15	↑	↑	↑	-	-	1,0	2,0	63,0	6,5	4,5	.	.	
16	↑	↑	↑	-	11,0	62,0	1,0	99,5	0,5	1,0	.	.	
17	↑	↑	↑	-	6,0	74,5	-	106,0	.	.	.	.
18	↑	↑	↑	-	1,5	10,0	14,5	77,0	.	.	.	.
19	↑	↑	↑	2,5	-	4,0	24,0	50,0	13,0	.	.	.	
20	↑	↑	↑	-	13,0	11,5	102,5	26,0	11,0	0,5	.	.	
21	↑	↑	↑	-	10,0	70,0	19,5	85,5	1,0	.	.	.	
22	↑	↑	↑	9,0	0,5	66,5	34,5	49,5	32,5	.	.	.	
23	↑	↑	↑	-	-	54,5	14,5	5,0	67,5	5,5	.	.	200-300 915-920 42,5 mm 50 mm
24	↑	↑	↑	-	-	9,0	40,5	25,0	52,5	.	6,0	.	
25	↑	↑	↓	0,5	0,5	17,5	42,5	85,5	5,5	.	.	.	
26	↑	↑	↑	1,0	5,0	8,0	60,0	8,0	45,0	.	.	.	
27	↑	↑	↑	3,5	-	-	11,0	93,0	14,0	.	.	.	
28	↑	↓	↑	-	3,5	5,0	55,5	15,0	3,0	.	.	.	
29	↑	↑	↑	-	3,0	-	8,5	19,0	71,0	11,0	.	22,0	
30	↑	↑	↑	-	56,0	25,0	15,5	50,5	12,0	49,0	.	.	
31	↓	↑	↑	2,0	-	-	45,5	13,0	-	-	-	7,5	
TOTAL	n.a.	n.a.	n.a. (2,0)	78,0	119,5	672,5	735,0	1090,0	583,0	132,5	6,0	29,5	Σ 3448 (excluding n.a. period)